Attachment A
Transportation Planning

1. Knoxville TPO TIP 2014-2017—Project Sheet
2. *Regional Mobility Plan 2040*—Project Page
3. Summary of Changes in the 2013 Regional Travel Demand Model, June 9, 2014
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1. Knoxville TPO TIP 2014-2017—Project Sheet

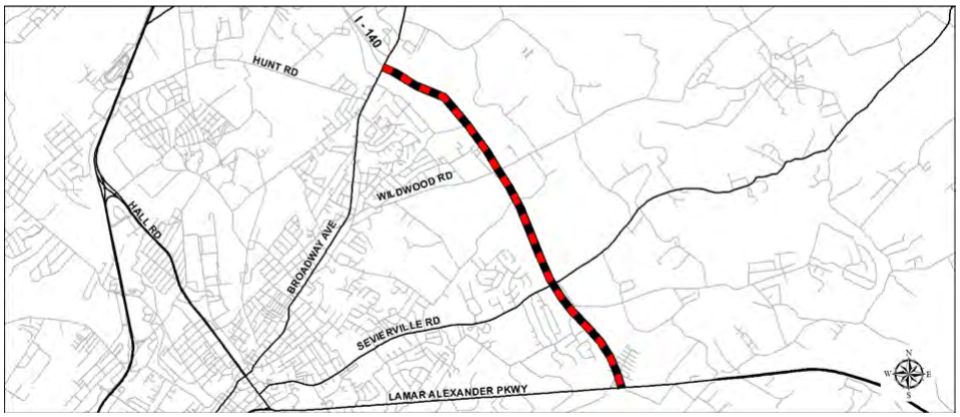
Knoxville Regional Transportation Planning Organization
TRANSPORTATION IMPROVEMENT PROGRAM FY 2014-2017

TIP No.	2014-025	Revision No.	0
TDOT PIN	101423.00	Mobility Plan No.	09-232
Project Name	Pellissippi Pkwy. (SR-162) Extension		
Lead Agency	TDOT		
Total Project Cost	$49,440,200		
Project Description	HPP #TN053 (Section 1602-TEA21). Construct new 4 lane.		
Termini/Intersection	Old Knoxville Hwy (SR-33) to SR-73 (US-321)		
Counties	Blount		
City/Agency	Alcoa		
Length	4.4 (miles)	Conformity Status	Non-Exempt
Additional Details			

Programmed Funds

FY	Type of Work	Funding Type	Total Funds	Federal	State	Local	Other
2014	PE-D	HPP	$2,500,000	$2,000,000	$500,000	$0	$0
2016	ROW	HPP	$7,590,163	$6,072,130	$1,518,033	$0	$0
2016	ROW	NHPP	$1,700,000	$1,360,000	$340,000	$0	$0
		Total	$11,790,163	$9,432,130	$2,358,033	$0	$0

Revision Date	
Revision Details	
Previous TIP No.	2002-030, 2004-020, 2006-017, 2008-039, 2011-025



Knoxville Regional TPO 90

2. Regional Mobility Plan 2040—Project Page

TPO'S LONG RANGE REGIONAL MOBILITY PLAN 2040

Chapter 8

RMP#	Jurisdiction	Project Name	Termini	Length (mi.)	Project Description	Priority	Horizon Year	Total Horizon Year Cost	Funding Source	Federal Share (%)	State Share (%)	Local Share (%)
13-103	Oak Ridge	New Signalized Intersection at Lafayette Dr	Half way between Midway Rd and Midland Rd	0.0	Construction would include right-of-way acquisition of private property from Midway across the CSX railroad to Lafayette.	5	2019	$372,429	Local	0%	0%	100%
09-208	Maryville	Maryville Streetscaping	Various locations	0.0	Street-scaping and "Complete Street" types of projects throughout Maryville	4	2019	$319,225	TA	80%	0%	20%
09-209	Blount Co	Ellejoy Rd Reconstruction	River Ford Rd to Jeffries Hollow Rd	3.7	Reconstruct 2-lane section with shoulders	4	2019	$12,894,015	HSIP	80%	0%	20%
09-211	Blount Co	Morganton Rd Reconstruction, Phase 1	Foothills Mall Dr to William Blount Dr (SR 335)	2.2	Reconstruct 2-lane section with shoulders	1	2019	$10,095,479	HSIP	80%	0%	20%
09-213	Blount Co	Old Niles Ferry Rd Reconstruction	Maryville City Limit (Willis Rd) to Calderwood Hwy (US 129 / SR 115)	3.3	Reconstruct 2-lane section with shoulders	4	2019	$15,143,219	HSIP	80%	0%	20%
09-214	Maryville	Sevierville Rd (US 411 / SR 35) Widening and Bridge Replacement	Washington St (SR 35) to Walnut St	0.4	Widen 2-lane to 3-lane with curb and gutters, sidewalks, new bridge over Browns Creek, 2 business relocations, and new entrance for Blount Memorial Hospital	1	2019	$6,070,589	NHPP	80%	20%	0%
09-216	Blount Co / Alcoa	Alcoa Hwy (US 129 / SR 115) Widening	Pellissippi Pkwy (SR 162) to Knox / Blount Co Line	2.4	Widen 4-lane to 6-lane with 2 auxiliary lanes between Singleton Station Rd and Topside Rd (SR 333)	2	2019	$50,650,311	NHPP	80%	20%	0%
09-218	Alcoa	Alcoa Hwy Parkway (US 129 / SR 115) New Road Construction	From south of Airport Rd to proposed Interchange serving McGhee Tyson Airport	1.3	Construct new 8-lane highway	3	2019	$53,204,108	NHPP	80%	20%	0%
09-221	Blount Co	Burnett Station Rd Reconstruction	Sevierville Rd (US 411 / SR 35) to Chapman Hwy (US 441 / SR 71)	4.4	Reconstruct 2-lane section with shoulders	4	2019	$15,333,424	HSIP	80%	0%	20%
09-232	Blount Co	Pellissippi Pkwy (SR 162) Extension / New Road Construction	Old Knoxville Hwy (SR 33) to Lamar Alexander Pkwy (US 321 / SR 73)	4.4	Construct new 4-lane freeway	2	2019	$52,608,434	NHPP	80%	20%	0%
09-237	Maryville	E Broadway Ave (SR 33) / Eagleton Rd / Brown School Rd Intersection Improvements	From south of Brown School Rd to north of Eagleton Rd		Re-align Eagleton Rd with Brown School Rd to remove offset and create 4-leg, signalized intersection. Widening to include left-turn lanes at all approaches with curb & gutter and sidewalk.	1	2019	$2,427,171	STP	80%	20%	0%
09-257	Alcoa	Alcoa Hwy Parkway (US 129 / SR 115) New Road Construction	From Proposed Interchange serving McGhee Tyson Airport to Pellissippi Pkwy (SR 162)	2.4	Construct new 8-lane highway	2	2019	$53,736,149	NHPP	80%	20%	0%
09-258	Alcoa	Alcoa Hwy Parkway (US 129 / SR 115) New Road Construction	From Pellissippi Pkwy (SR 162) to Existing Alcoa Hwy near Singleton Station Rd	1.4	Construct new 8-lane highway	2	2019	$53,204,108	NHPP	80%	20%	0%
09-262	Maryville	Montvale Rd (SR 336) Widening	Montvale Station Rd to Lamar Alexander Pkwy (SR 73 / US 321)	0.6	Widen from 2-lane to 3-lane	1	2019	$13,620,252	STP	80%	20%	0%
13-207	Alcoa	Louisville Rd (SR 334) Reconstruction	W Hunt Rd to Alcoa city limits (Liberty St)	1.3	Reconstruct existing 2-lane facility with shoulders	3	2019	$6,149,065	STP	80%	20%	0%

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3. **Summary of Changes in the 2013 Regional Travel Demand Model**

Pellissippi Parkway Extension
Summary of Changes in the 2013 Approved Travel Demand Model
Prepared by Becky White, Sain Associates and Mike Conger, Knoxville TPO
6/9/14

The Knoxville Transportation Planning Organization (TPO) adopted an updated travel demand model for horizon year 2034 in June 2013. The new model included several process improvements that have resulted in more accurate calibration. The validated model was approved by the Knoxville TPO as a reasonable approximation of current and future conditions on the Knoxville region's transportation system.

This memorandum explains differences in the prior Knoxville travel demand model (Base Year 2009 / Horizon Year 2030) and the new model (Base Year 2010 / Horizon Year 2034). The new model projects less traffic on the Pellissippi Parkway Extension than the prior travel demand model. The following paragraphs provide a summary of changes that were made during the update process for the Knoxville model that are connected to the reduction in forecasted traffic for the Pellissippi Parkway Extension.

New Socio Economic Forecasts
The updated model includes new socio economic forecasts for Blount County that have a direct influence on traffic projections in the area roadway network. One of the changes in the socio economic forecasts was directly related to the traffic analysis zone (TAZ) containing the Pellissippi Place Research Park development. In the former model, a large amount of the employment growth for Blount County was concentrated in that TAZ. Recently, other development areas in Blount County have been identified, such as the Alcoa West Plant Redevelopment that necessitated a spreading of the employment growth projections over a wider number of TAZs. Reducing the concentration of new jobs in the Pellissippi Place Research Park resulted in lower traffic volumes on State Route 33 and the Pellissippi Parkway Extension.

In addition to changes in the employment projections for the Pellissippi Place Research Park TAZ, the population and employment projections were lowered in the updated model for all of Blount Count and especially for a subarea that is influenced by the Pellissippi Parkway Extension. The table below shows population and employment projections for the year 2030 in the prior model and the updated new model. Since the new model is for horizon year 2034, a linear interpolation between the new model forecast years of 2024 and 2034 was used to define a year 2030 TAZ layer to compare with the 2030 TAZ layer used in the original model. The table shows the comparison for Blount County as a whole as well as a sub-area that is shown in Figure 1 that will generally be most directly impacted by the Pellissippi Parkway Extension.

Socio-Economic Assumptions for Blount County

	Prior Model	New Model	% Change
2030 Population	171,907	161,959	-5.8%
2030 Employment	81,035	75,593	-6.7%

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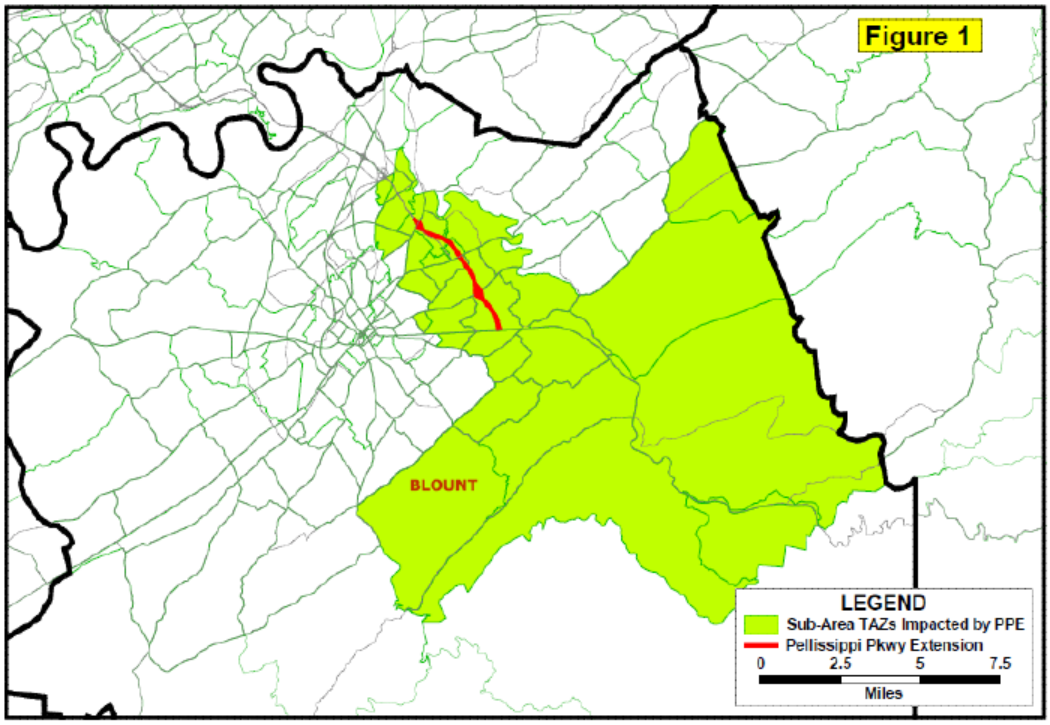
Socio-Economic Assumptions for Pellissippi Parkway Extension Subarea

	Prior Model	New Model	% Change
2030 Population	40,201	31,960	-20.5%
2030 Employment	17,184	11,263	-34.5%

As shown in the above table, the reduction of population and employment at the county level is somewhat modest at less than 10%, but the reduction in the area most impacted by the Pellissippi Parkway Extension is much greater at more than 20% and 30% for population and employment respectively.



The socioeconomic forecasts used in the Knoxville travel demand model are typically updated as part of each major Long Range Transportation plan effort, which is on a 4-year cycle. The prior model's population and employment forecasts were derived from Woods & Poole, a company that does national-level forecasts which can be purchased at a county-level. For the updated model, a consultant working for the Knoxville TPO developed socioeconomic forecasts that were reviewed with individual jurisdictions.

Employment forecasts in the updated model were affected by the economic recession. Job losses in the model's study area resulted in a lowering of baseline year 2010 estimates of employment. Even with little change in the overall growth rate, a lower baseline year as a starting point results in lower horizon year employment forecasts.

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Improved Calibration

The prior travel demand model was not well calibrated on local routes in the vicinity of the Pellissippi Parkway Extension alignment located east of State Route 33. A comparison of 2009 base year outputs with actual ground count data revealed that the model was overloading certain routes. With that model, manual adjustments had to be made in the traffic forecasting effort for Pellissippi Parkway Extension to resolve the calibration issues.

The new travel demand model has much better calibration of local routes as determined by a comparison of 2010 base year volumes with actual ground counts. With this improved calibration, very few manual adjustments were needed in the forecasting effort.

Overall, there have been several major improvements to the overall modeling structure and process since the original Pellissippi Parkway Extension forecasts were made. The number of TAZ's in Blount County has been increased from 117 in the prior model up to 165 in the new model. The additional TAZ detail generally improves the ability to model roadway network changes and additions of new routes in terms of how the network is being loaded.

The new model includes a new "Hybrid" activity/trip based model platform that allows the model to better reflect realistic trip-making. The new platform's disaggregate design and improved destination-choice trip distribution framework eliminates the use of "K-factors" for adjusting distribution of trips as were used in the previous model.

Alignment Shift

In the updated travel demand model, the Pellissippi Parkway Extension was shifted slightly eastward as shown in Figure 2 to better match the most current alignments as documented in the DEIS, dated May 2010. The shift in alignment lengthened the route by approximately 0.2 miles and in turn reduced the volumes from the original alignment by roughly 2,000 vehicles per day. This reduction in volume assignment is likely due to the effects of a longer travel time on the longer route. Also, the adjusted alignment is further away from downtown Maryville which might influence its attractiveness as a route choice.

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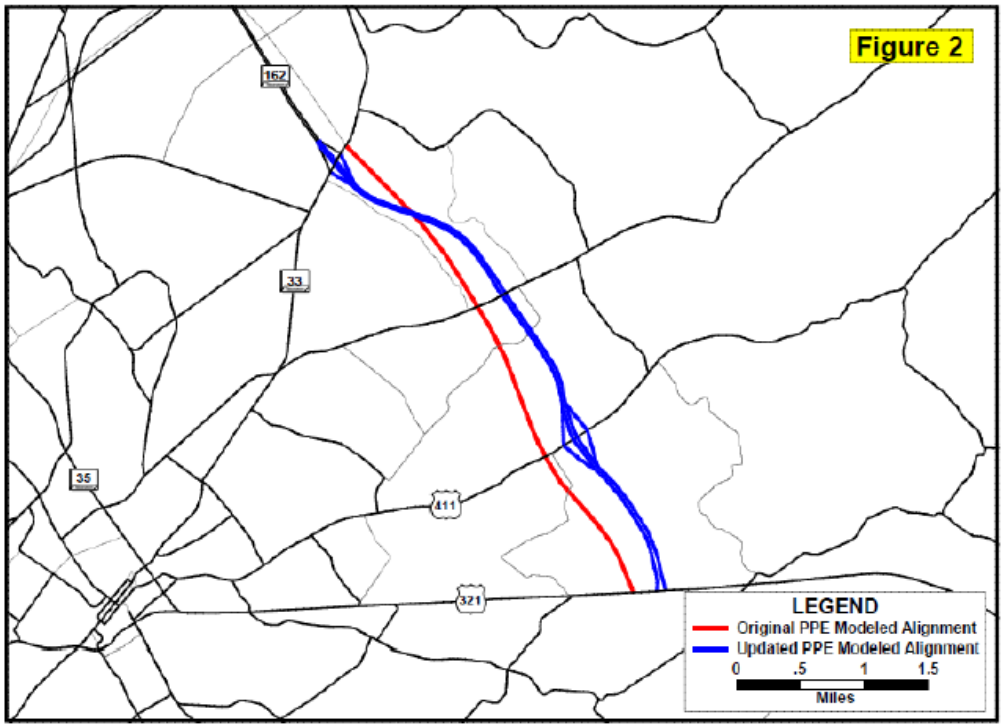

Network Changes

The new model includes a new access road (Pellissippi Place Access Road) for trips associated with the Pellissippi Place Research Park development. The access road, which will ultimately connect the research park to State Route 33 and Wildwood Road, was not included in the prior model. It produces some effect on traffic patterns by dispersing research park traffic between State Route 33 and Wildwood Road. In the prior model, the research park was modeled with access only via State Route 33.

Conclusions

- The Knoxville travel demand model update that was approved in 2013 included significant revisions to the model's structure, network, socio-economic assumptions, and calibration. The changes were enhancements aimed at improving the accuracy of the model's forecasts.
- Combined, the changes in the model have resulted in lower forecasted traffic volumes for the Pellissippi Parkway Extension but those forecasts are based on a sound modeling process that was reviewed and approved by the Knoxville MPO.
- As previously documented, the change in forecasted traffic on the Pellissippi Parkway Extension does not alter the need for the project, the selection of the Preferred Alternative with West Shift, or the conclusion that Alternative D performs poorly and needs no further evaluation.

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4. Blount County Projects in *Regional Mobility Plan 2040*

LRMP #	Project	Location	Description	Horizon Year
Horizon Year 2016-2019				
09-208	Maryville Streetscaping	Various	Streetscaping and "Complete Streets" types of projects throughout Maryville	2019
09-209	Ellejoy Road Reconstruction	River Ford Road to Jefferies Hollow Road	Reconstruct 2-lane section with shoulders	2019
09-211	Morganton Road Reconstruction, Phase I	Foothills Mall Drive to William Blount Drive (SR 335)	Reconstruct 2-lane section with shoulders	2019
09-213	Old Niles Ferry Road Reconstruction	Maryville City Limits (Wills Road) to Calderwood Highway (US 129/SR 115)	Reconstruct 2-lane section with shoulders	2019
09-214	Sevierville Road (US 411/SR 35) Widening and Bridge Replacement	Washington Street (SR 35) to Walnut Street	Widen 2-lanes to 3-lanes with curb and gutters, sidewalks, new bridge over Browns Creek, 2 business relocations and new entrance for Blount Memorial Hospital	2019
09-216	Alcoa Highway (US 129/SR 115) Widening	Pellissippi Parkway (SR 162) to Knox/Blount County Line	Widen 4-lanes to 6-lanes with 2 auxiliary lanes between Singleton Station Road and Topside Road (SR 333)	2019
09-218	Alcoa Highway Parkway (US 129/SR 115) New Road Construction	From south of Airport Road to proposed interchange serving McGhee Tyson Airport	Construct new 8-lane highway	2019
09-221	Burnett Station Road Reconstruction	Sevierville Road (US 411/SR 35) to Chapman Highway (US 441/SR 71)	Reconstruct 2-lane section with shoulders	2019
09-232	Pellissippi Parkway (SR 162)/New Road Construction	Old Knoxville Highway (SR 33) to Lamar Alexander Parkway (US 321/SR 73)	Construct new 4-lane freeway	2019
09-237	E Broadway Avenue (SR 33) /Eagleton Road /Brown School Road intersection improvements	From south of Brown School Road to north of Eagleton Road	Realign Eagleton Road with Brown School Road to remove offset and create 4-leg signalized intersection. Widening to include left-turn lanes at all approaches with curb & gutter and sidewalks	2019
09-257	Alcoa Highway Parkway (US 129/SR 115) New Road Construction	From proposed interchange serving McGhee Tyson Airport to Pellissippi Parkway (SR 162)	Construct new 8-lane highway	2019
09-258	Alcoa Highway Parkway (US 129/SR 115) New Road Construction	From Pellissippi Parkway (SR 162) to existing Alcoa Highway near Singleton Station Road	Construct new 8-lane highway	2019
09-262	Montvale Road (SR 336) Widening	Montvale Station Road to Lamar Alexander Parkway (US 321/SR 73)	Widening from 2-lanes to 3-lanes	2019
13-207	Louisville Road (SR 334) Reconstruction	W Hunt Road to Alcoa city limits (Liberty Street)	Reconstruct 2-lane section with shoulders	2019
13-208	Harvest Lane Extension/New Road Construction	Harvest Lane (cul-de-sac) to Louisville Road	Extend existing 2-lane road to connect to Louisville Road	2019

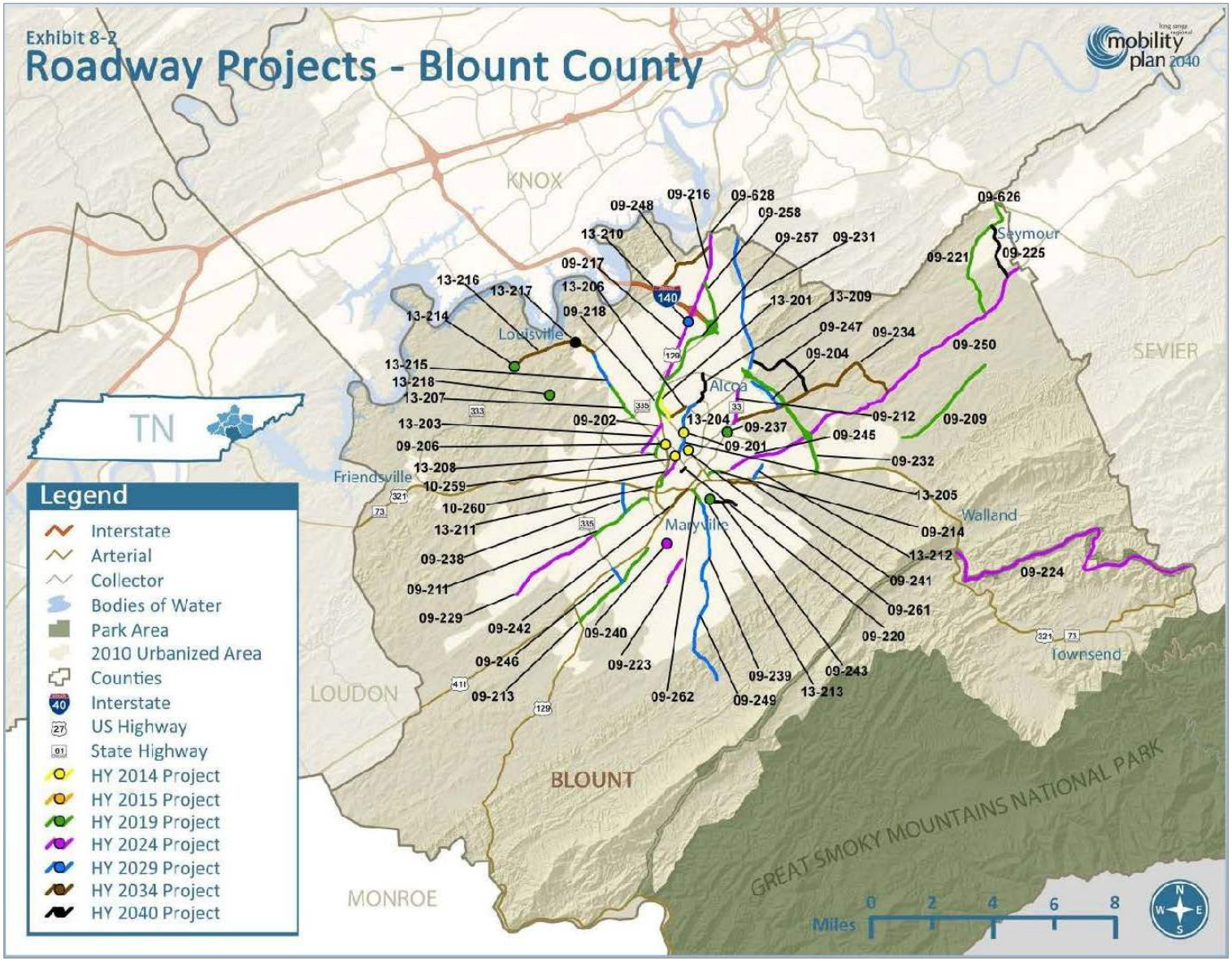
LRMP #	Project	Location	Description	Horizon Year
13-211	Foothills Mall Drive Extension/New Road Construction	US 129 Bypass (SR 115) to Foch Street	Extend Foothills Mall Drive across US 129 Bypass on new alignment to Foch Street modification of existing traffic signal to accommodate 4th leg and additional left and right turn lanes	2019
13-213	Court Street at Boardman Avenue intersection improvements	Intersection at Boardman Avenue	Widen Court Street to accommodate left turn lane onto Boardman Avenue and install signal	2019
13-214	Old Lowes Ferry Road at Louisville Road (SR 333) intersection improvements	Intersection at Old Lowes Ferry Road (SR 333)	Realignment of intersection	2019
13-218	Middlesettlements Road at Miser Station Road intersection	Intersection at Middlesettlements Road	Realignment of intersection	2019
Horizon Year 2020-2024				
09-202	Robert C. Jackson Drive Extension / New Roadway Construction	Middlesettlements Road to Louisville Road (SR 334)	New 4-lane road with center turn lane and/or median	2024
09-212	Old Knoxville Highway (SR 33) Reconstruction	Wildwood Road to McArthur Road	Reconstruct 2-lane section with shoulders	2024
09-217	Alcoa Highway (US 129/SR 115) intersection improvements	Singleton Station Road to Hunt Road (SR 335)	Improve intersections including signals, turn lanes, pedestrian infrastructure upon completion of Alcoa Parkway	2024
09-223	Carpenters Grad Road Reconstruction and Intersection Improvements	Raulston Road to Kirkland Estates Boulevard	Widen 2-lane to 2-2' lanes with curb and gutter, sidewalk, and auxiliary turn lanes where needed. Reconstruct intersection with Peterson Lane, Cochran Road, Raulston Road to roundabout	2024
09-229	Morganton Road Reconstruction, Phase 2	William Blount Drive (SR 335) to Walker Road	Reconstruct 2-lane section with shoulders	2024
09-240	Sandy Springs Road at Montgomery Lane Intersection Improvements	Intersection at Montgomery Lane	Sandy Springs Road: add left turn lane and NB right turn lane. Montgomery Lane: add left turn and right turn approaches. Install new traffic signal.	2024
09-245	Sevierville Road (US 411/SR 35) Widening	Everett High Road to Swanee Drive (Maryville City Limits)	Widen 2 lanes to 3 lanes with curb and gutter, and sidewalks to section recently widened by the City of Maryville	2024
09-250	Sevierville Road (US 411/SR 35) Reconstruction	Swanee Drive (Maryville City Limits) to Chapman Highway (US 441/SR 71)	Reconstruct 2-lane section with shoulders	2024
10-260	McCammon Avenue Extension / New Road Construction	Foch Street to existing McCammon Avenue	Construction of 2-3 lanes of new roadway on new alignment. This roadway would complete a new corridor parallel to the US 129 Bypass and support new commercial development along the City of Maryville's high intensity retail zone.	2024

LRMP #	Project	Location	Description	Horizon Year
13-203	Robert C. Jackson Drive Extension / New Roadway Construction, Phase 2	Louisville Road (SR 334) to US 129 Bypass	Extension of Robert C. Jackson Drive, Phase 1. Construct new 4-lane section and grade-separated interchange connecting US 129 and Associates Boulevard	2024
Horizon Year 2025-2029				
09-204	Pellissippi Place Access Road Extension/New Road Construction	Pellissippi Place existing termini to Wildwood Road	Extend 2-lane and 4-lane road with center median lane	2029
09-231	Old Knoxville Highway (SR 33) Reconstruction and Bridge Replacement	Pellissippi Parkway (SR 162) to Knox County Line (Co Op Road)	Reconstruct 2-lane section with shoulders	2029
09-238	Robert C. Jackson Drive Extension / New Roadway Construction	Lamar Alexander Parkway (US 321/SR 73) to Morganton Road	Construct new 2-lane road	2029
09-239	Montvale Road (SR 336) Widening	Montvale Station Road to Maryville South City Limits (south of Southview Drive)	Add center turn lane	2029
09-246	William Blount Drive (SR 335) Extension /New Construction	US 411 (SR 33) to Old Niles Ferry Road	Construct new 2-lane road with auxiliary turn lanes where needed	2029
09-249	Montvale Road (SR 336) Reconstruction	Maryville South City Limits (Southview Drive) to Six Mile Road	Reconstruct 2-lane section with shoulders	2029
13-304	Bessemer Boulevard Widening, Phase I	Hall Road (SR 35) to N Wright Road	Widen 2-lanes to 4-lanes with raised median	2029
13-205	Bessemer Boulevard Widening, Phase 2	Hamilton Crossing Road/McCammon Avenue to Hall Road (SR 35)	Widen 2-lanes to 4-lanes with raised median or center turn lane	2029
13-210	N Park Boulevard at Airbase Road Intersection Improvements	Intersection at Airbase Road	Realign N Park Boulevard to Airbase Road	2029
13-212	Merritt Road Reconstruction	Lamar Alexander Parkway (US 321/SR 73) to Fielding Road	Widen existing 2-lane to 2-2' lanes with curb and gutter, sidewalk, and auxiliary turn lanes where needed.	2029
13-215	Louisville Road (SR 334) Reconstruction, Phase I	Alcoa city limits (Liberty Street) to Topside Road	Reconstruct 2-lane section with shoulders	2029
Horizon Year 2030-2034				
09-215	I-140 Interchange Ramps at McGhee Tyson Airport	Airport Terminus to Pellissippi Parkway (I-140/SR 162)	Add new interchange ramps for direct access to future terminal and cargo area	2034
09-234	Wildwood Road Reconstruction and Bridge Replacement	Maryville City Limit (Brown School Rd) to Sevierville Road (US 411/SR 35)	Reconstruct 2-lane section with shoulders, reconstruct Wildwood Bridge over the Little River	2034
09-421	Tuckaleechee Pike Reconstruction	Lamar Alexander Parkway (US 321/SR 73) to Grandview Drive	Reconstruct 2-lane to 2-2' lanes with curb and gutter, sidewalk, and auxiliary turn lanes where needed.	2034
09-242	W Broadway Avenue (US 411/SR 33) Widening	Old Niles Ferry Road to Lamar Alexander Parkway (US 321/SR 73)	Widen 2 lanes to 3 lanes with curb and gutter, auxiliary turn lanes where needed, modify signal at Magnolia Avenue	2034

LRMP #	Project	Location	Description	Horizon Year
09-248	Topside Road (SR 333) Widening	Alcoa Highway (US 129/SR 115) to Wrights Ferry Road	Reconstruct 2 lanes to 5 lanes	2034
13-206	Associates Boulevard Extension/New Road	Associates LIC Project to Springbrook Road	4-lane section with median	2034
13-216	Louisville Road (SR 334) Reconstruction, Phase 2	Topside Road (SR 333) to Lowes Ferry Road	Reconstruct 2-lane section with shoulders	2034
Horizon Year 2035-2040				
09-220	Home Avenue Extension/New Road Construction	McCammon Avenue to Calderwood Street	Extend 3-lane Home Avenue through existing shopping center to line up with Lindsay Street at Calderwood Street. Replace bridge crossing at Pistol Creek	2040
09-225	Hinkle Road Reconstruction	Sevierville Road (US 411/SR 35) to Burnet Station Road	Reconstruct 2-lane section with shoulders	2040
09-243	Wilkinson Pike Widening	Court Street to Maryville city limits (Old Whites Mill Road)	Widen 2-lane to 3-lane with curb and gutter, auxiliary turn lanes where needed	2040
09-247	Sam Houston School Road Widening	Old Knoxville Highway (SR 33) to Wildwood Road	Add center turn lane, bike lane, and shoulder	2040
13-209	Bessemer Boulevard Widening, Phase 3	N Wright Road to E Hunt Road (SR 335)	Widen 2-lanes to 4-lanes with raised median or center turn lane (0.22 mi). Extension with raised median or center turn lane (0.87 mi)	2040
13-217	Louisville Road (SR 333) Lackey Creek Bridge	Lackey Creek Bridge	Reconstruction of	

Source: Regional Mobility Plan 2040

Exhibit 8-2 – Roadway Projects, Blount County



Source: Regional Mobility Plan 2040

5. Update to 2009 Travel Trends Evaluation between Blount and Knox County Update, February 25, 2015

Parsons Brinckerhoff

Project Memorandum

TO: Project File

FROM: Lindsay Walker, PE, PTOE, AICP

DATE: February 25, 2015

SUBJECT: Pellissippi Parkway Extension: Update to 2009 Travel Trends Evaluation between Blount and Knox County Update

Purpose of Updated Evaluation

For the Draft Environmental Impact Statement (DEIS), in 2009 Parsons Brinckerhoff prepared an evaluation of the travel trends between the Maryville/Alcoa area and Knoxville/Oak Ridge, Tennessee. Of particular interest was whether there were substantial travel volumes between eastern Blount County to Knox County that would demonstrate a user base for the extension of Pellissippi Parkway. The results were reported in a memorandum dated May 14, 2009. Based on the age of the data used in the 2009 evaluation and the recently updated Knoxville Regional Travel Demand Model (TDM) (2013), an update to the travel trend analysis has been conducted and the results will be reported in the Final Environmental Impact Statement (FEIS).

Background

The 2009 analysis used a license plate survey conducted in 2006 to assist in the calibration of the original traffic forecast for this study. The results of the 2006 license plate survey indicated that of the traffic originating in eastern Blount County, approximately 4 to 6 percent used US 129 / SR 115 and approximately 2 percent used SR 33 to reach Knox County.

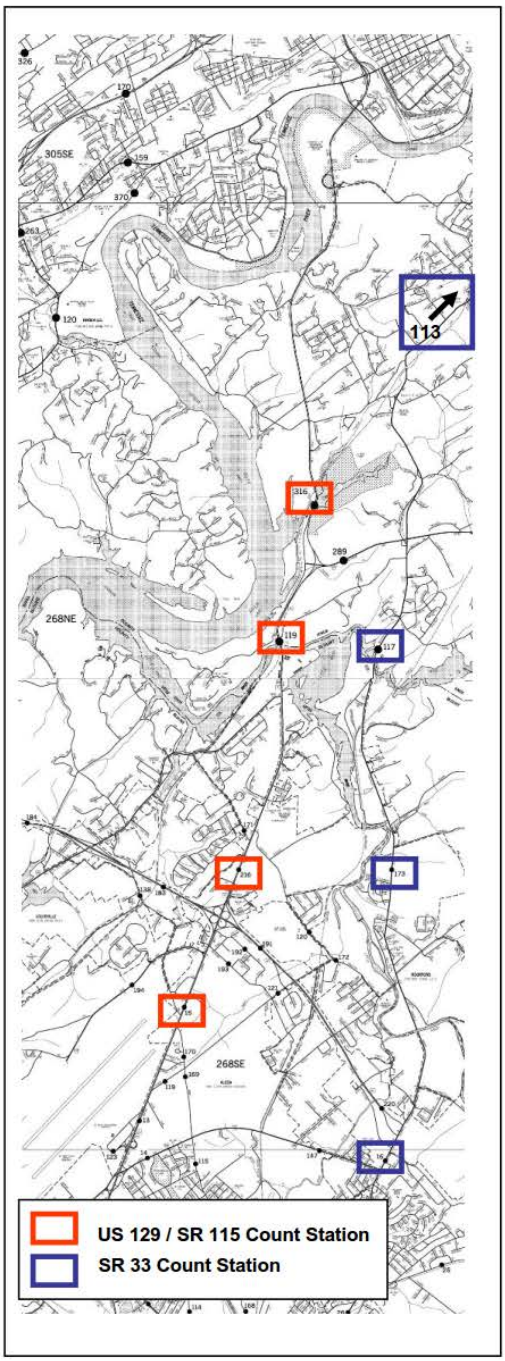
To determine the actual traffic volumes on roadways connecting the Maryville / Alcoa and the Knoxville area, a review was conducted historic traffic counts for the period 1998 to 2008. Traffic counts were obtained through the Tennessee Department of Transportation (TDOT) Project Planning Division.

Since US 129 / SR 115 and SR 33 are the major north / south routes that connect these two areas, the evaluation focused on these two routes. Traffic volumes were obtained for four count stations along US 129 / SR 115 and SR 33:

- Just south of the intersection of both roadways with Pellissippi Parkway
- Between Pellissippi Parkway and the Blount / Knox County Line
- Just north of the Blount / Knox County Line
- Closer to the Knoxville area

Figure 1 shows the specific count station locations.

Figure 1: Count Station Locations



Current Analysis

The current update adds the most recent years available (2009 – 2012) for the traffic count review. Counts for the years 1998 through 2012 were plotted by year and count station to determine the relative changes in traffic volume traveling between Maryville / Alcoa and Knoxville as well as the average volume of traffic. **Figures 2** and **3** illustrate the data for US 129 / SR 115 and SR 33 respectively.

As shown in Figures 2 and 3, there has generally been little fluctuation year-to-year for traffic volumes at each count station (i.e. no major increases or decreases). The overall range of traffic volumes based on the most recent count (2012) for US 129 / SR 115 is 41,100 to 58,900 ADT. In general, volumes level off to around 50,000 vehicles per day between Maryville / Alcoa and the Knoxville region. The peak volume years appear to be 2004 to 2006, with slightly lower volumes in the more recent years.

Along SR 33, the overall range of traffic volumes based on the most recent count (2012) is 5,400 to 15,400 ADT. The station between Pellissippi Parkway (I-140) and Hunt Road (SR 335) reports the highest volume along this route of the stations evaluated. Volumes have generally been increasing at this station while the other stations have seen some volume reductions between 2005 and 2011.

Select Link Analysis

Another method to analyze the extent of travel between the eastern portion of Blount County and Knox County / Oak Ridge is to use the Knoxville Regional TDM developed by the Knoxville Regional Transportation Planning Organization (Knoxville Regional TPO). Information derived from the TDM provides a relative reference range of travel patterns but does not replace data that would be obtained for a true origin - destination study.

The latest version of the Knoxville Regional TDM has a base year of 2010 and future years of 2034 and 2040. As the latest update to the traffic operations in the FEIS is based on the future year of 2040, that is the analysis year considered for the model output for this analysis as well. To provide travel patterns, the Knoxville Regional TPO was asked to conduct a select link analysis that considered specific links along the routes in consideration (US 129 / SR 115 and SR 33). A select link analysis shows where the traffic is coming from and where it is going to along a specific roadway link.

Select link analyses were conducted along SR 33 and US 129 / SR 115 for the 2040 existing plus committed projects network. This includes projects in the Long Range *Regional Mobility Plan 2040* minus the Pellissippi Parkway Extension. Based on the output of the new travel demand model, the following interpretations are made relative to identifying the origins and destinations of the trips (or users) that use the current road network:

- Approximately 5 percent of trips have an origin / destination between Knox County and Wildwood Road via SR 33.
- Approximately 4 percent of trips have an origin / destination between Knox County and US 411 via SR 33.

Figure 2: US 129 / SR 115 Traffic Volume Count Comparisons (1998 – 2012)

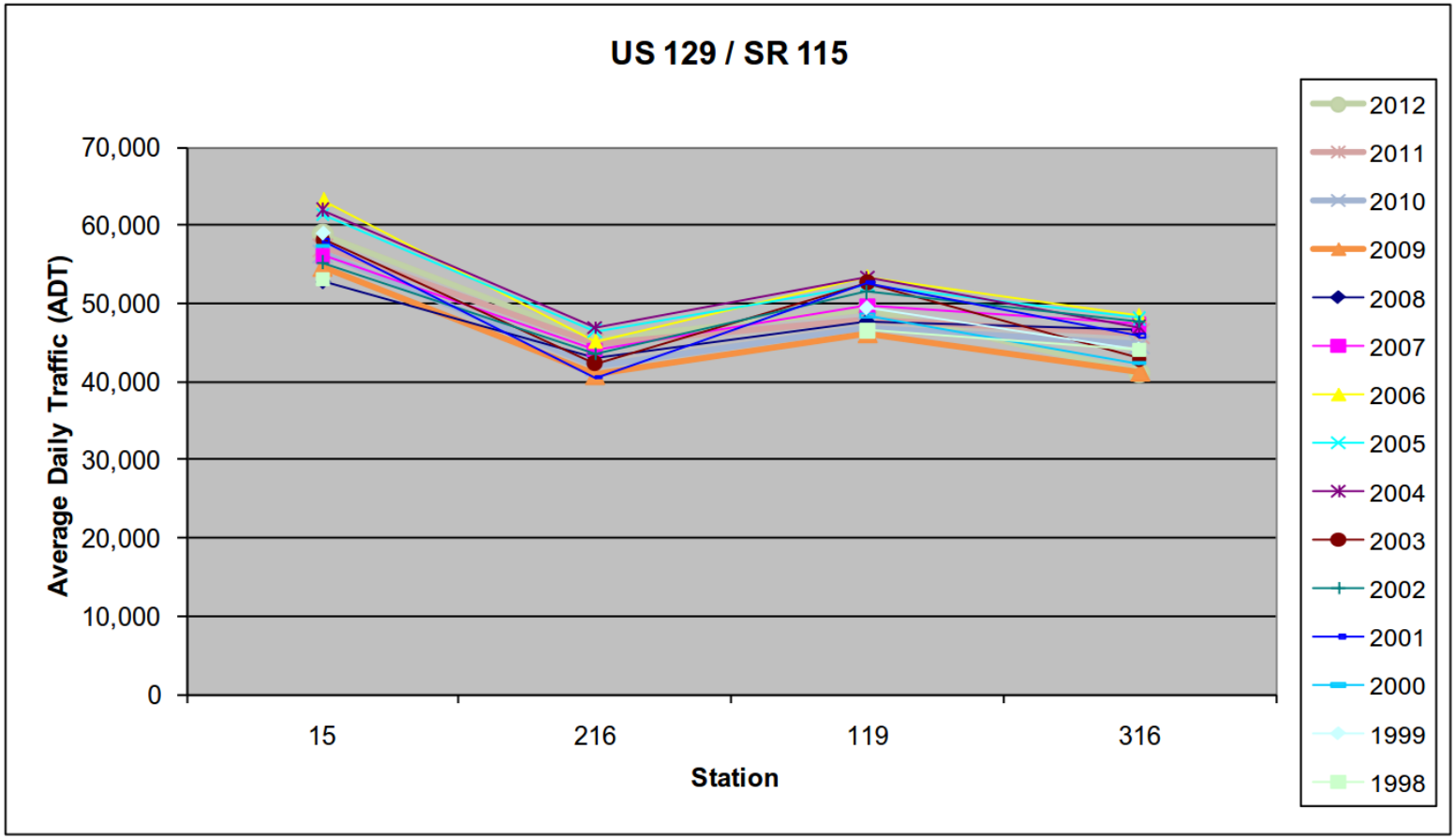
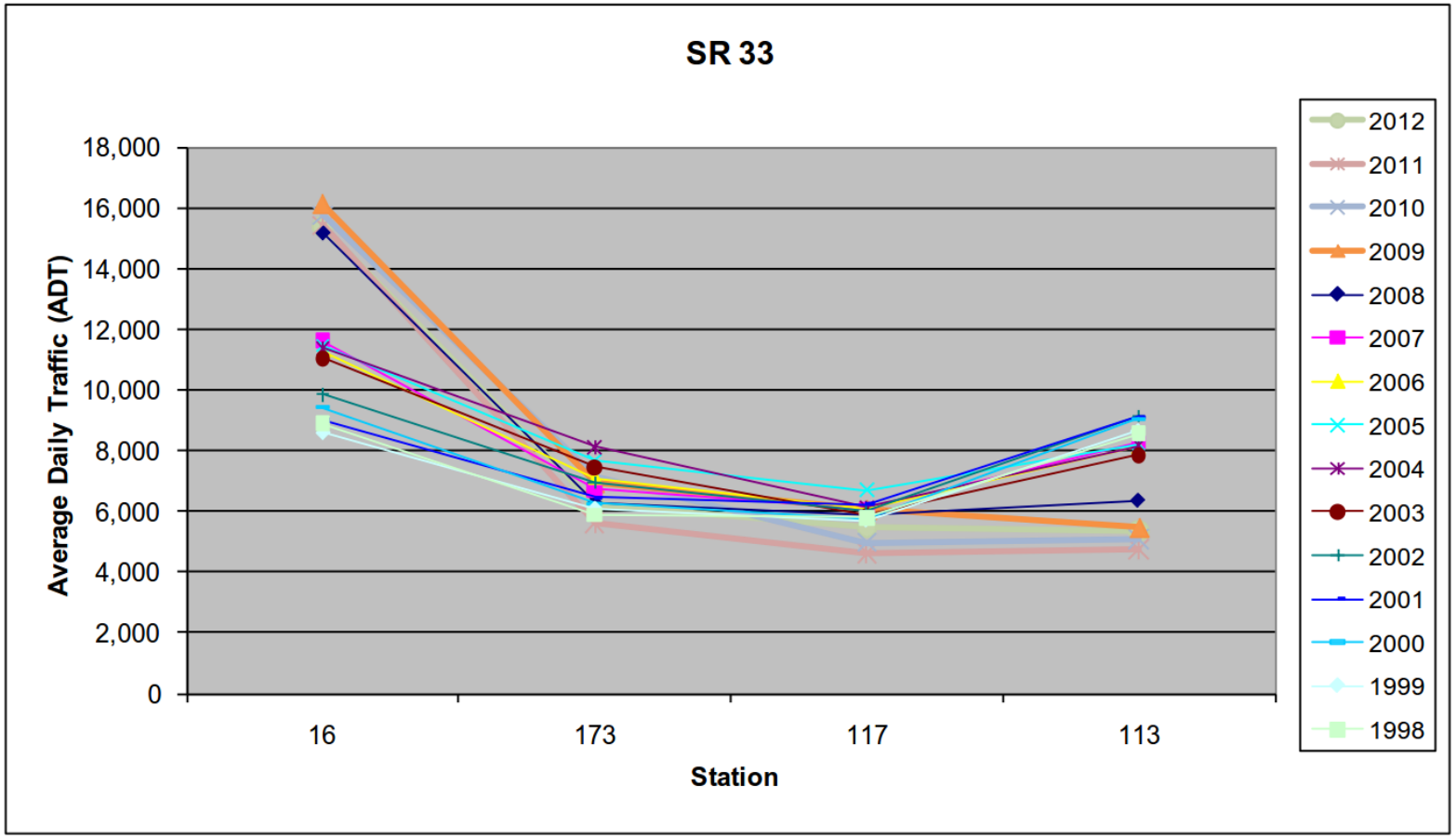


Figure 3: SR 33 Traffic Volume Count Comparisons (1998 – 2012)



- Approximately 3 percent of trips have an origin / destination between Knox County and US 321 via SR 33.
- Very little traffic (less than 1 percent) utilizes US 129 / SR 115 to travel between Knox County and areas east of Maryville and Alcoa.

These percentages are shown in **Table 1** below.

Table 1: Select Link Analysis

	US 129 / SR 115		SR 33	
	Total ADT	%	Total ADT	%
Select Link	82,769	--	10,955	--
Wildwood	163	0.3%	276	4.7%
US 411	271	0.6%	213	3.6%
US 321	395	0.8%	176	3.0%

Summary

The actual traffic count volumes indicate a substantial amount of traffic traveling between Maryville / Alcoa and the Knoxville region on US 129 / SR 115 (58,900 ADT in 2012) and SR 33 (15,400 ADT in 2012) which is the base of traffic volume that could be served be a new roadway to the east. The previous license plate survey indicated that approximately up to 6 percent of the traffic on US 129 / SR 115 comes from the east; therefore applying this percentage to the average daily traffic on US 129 / SR 115 (approximately 50,000 vehicles per day) would indicate that 3,000 vehicles may travel from the east to the Knoxville region. With up to 2 percent traveling from the east to SR 33, this would translate into 120 vehicles for a total of just over 3,000 vehicles per day.

The select link analysis notes very little traffic flow along US 129 / SR 115 to areas east of Maryville and Alcoa. There is slightly more demand from Knox County to Wildwood Road, US 411, and US 321.

As a final note as provided in the previous memorandum, this evaluation should be taken as approximate since a formal origin – destination study was not conducted to evaluate this travel pattern; rather the information was determined by approximation through available sources.

Attachment B

Blount County Residential Development Trends

Blount County Residential Development Trends 1950-2009

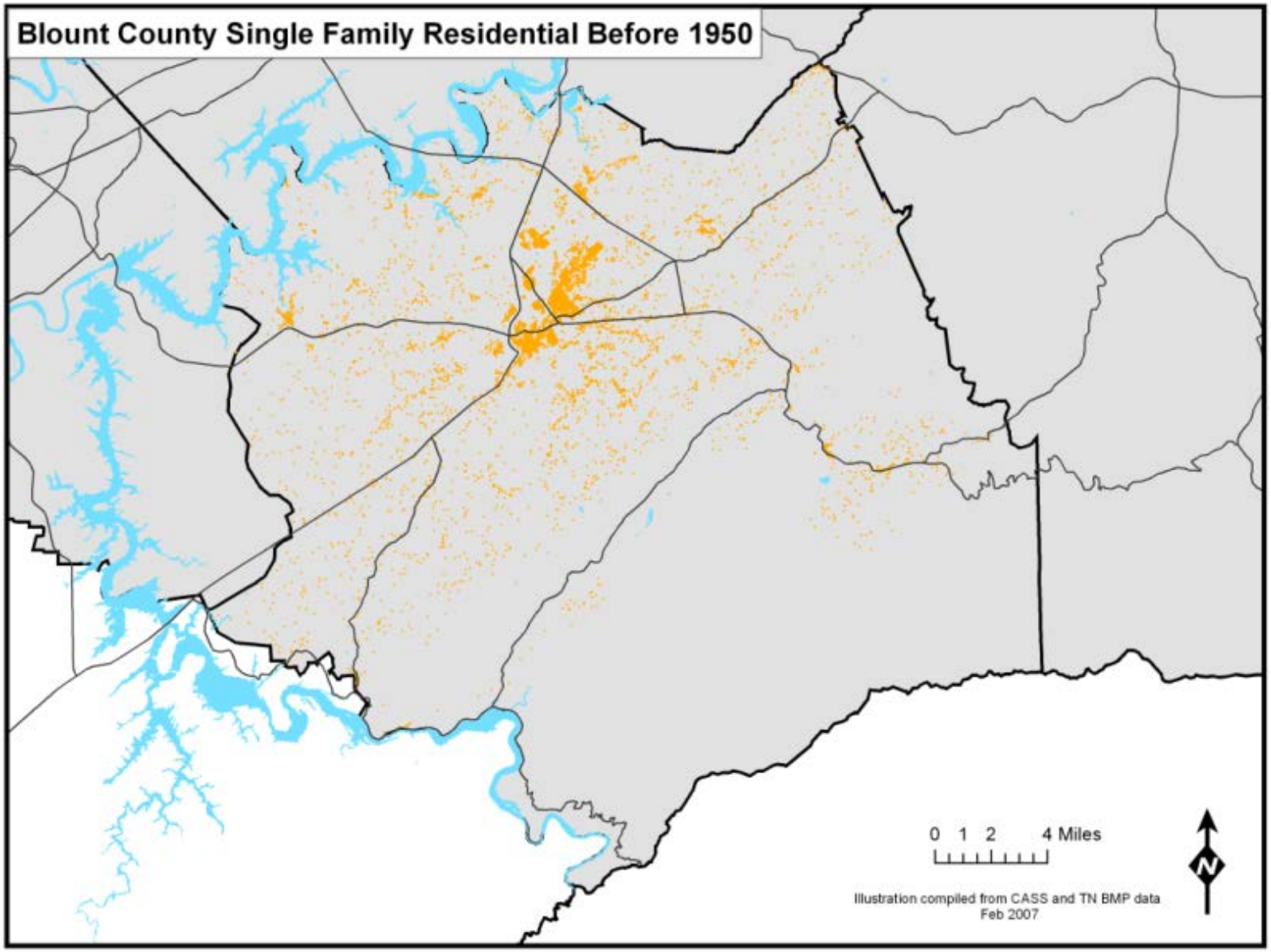
Blount County's Planning Department has tracked residential development in the County since the 1950's. The Planning Department has prepared graphical representations of the residential development between 1950 and 2009, which are provided in Figures B-1 through B-8. This series of maps captures about 85 percent of current housing units (multiple units in a structure and mobile home parks were not included – older housing units from the past could have been destroyed and thus not of current record). The maps portray first the pattern of residential structures at the end of 1949, and progress by highlighting additional residential structures by decade in red from 1950 to 2009. The dots for each residential structure are exaggerated to highlight pattern.

Each dot on the figures represents a residential structure. For each decade represented by the individual maps, yellow dots represent homes that already existed, while the red dots represent new residential structures that were constructed during the decade. While growth is occurring throughout the counties, the majority of the growth is within the urban areas (i.e. cities of Alcoa and Maryville).

The following highlights the major growth locations during the last 60 years:

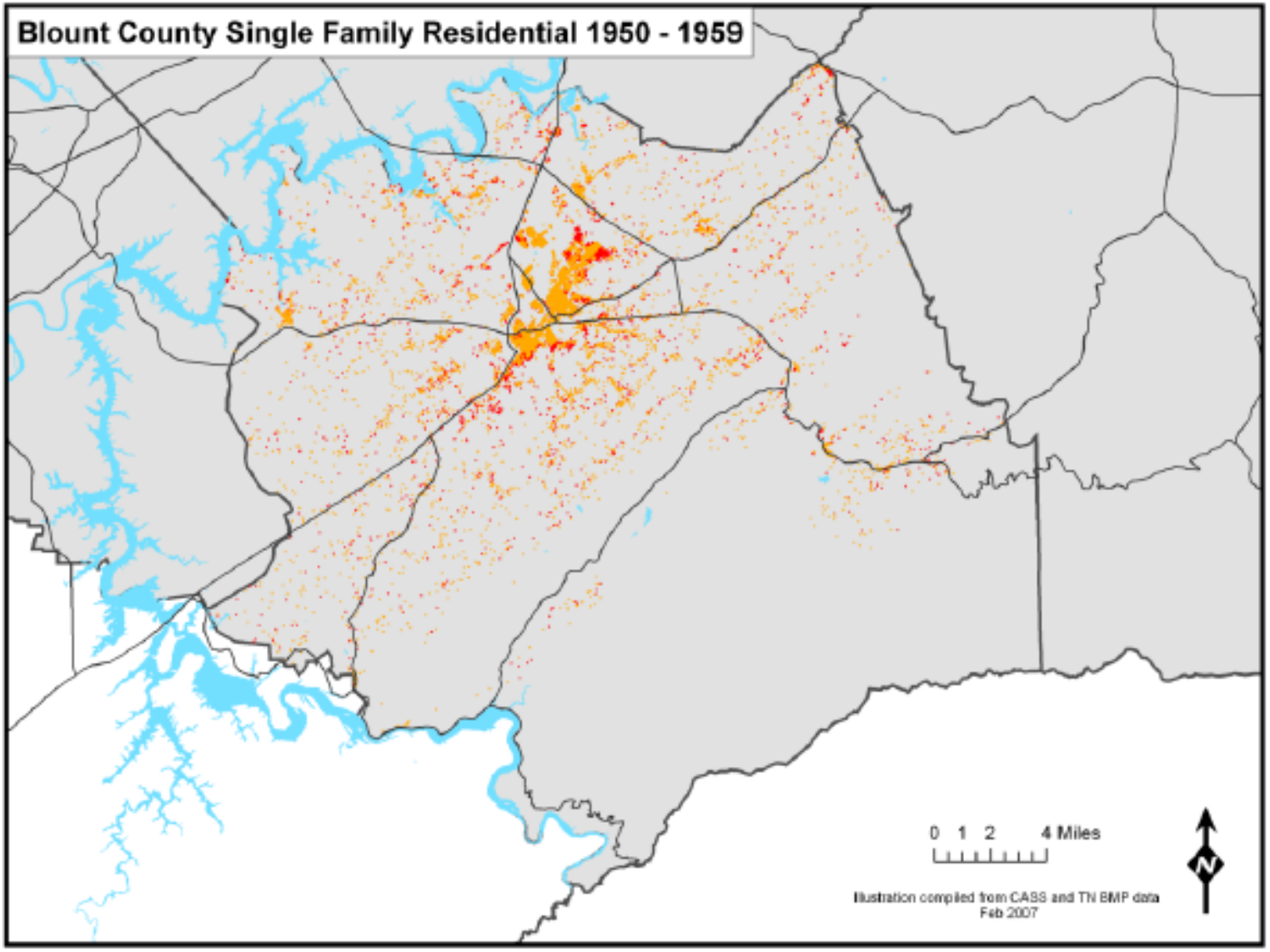
- Prior to 1950 (Figure B-1) - Before 1950, the pattern of residential structures was concentrated in the cities of Alcoa and Maryville, and such pattern was characterized by grid street layout, small lots and higher density. Scattered and low density development was present in the rural areas, much of it related to agriculture
- 1950s (Figure B-2)—Residential growth is seen along the western side of SR 33/Old Knoxville Highway and along the eastern side of SR 33 towards Sevierville Road in Eagleton Village. Homes are also developing along the eastern side of Broadway/US 411 in Maryville.
- 1960s (Figure B-3)—Residential growth continues along the eastern side of SR 33 and north and south of Sevierville Road. Growth also continues south of Lamar Alexander Parkway along the eastern edge of Broadway and US 411 in Maryville.
- 1970s (Figure B-4)—Residential growth continues to move in an easterly direction from SR 33 along the north and south sides of Sevierville Road. Strong growth can also be seen continuing south along US 411. A pocket of homes are developed to the west of US 411, just south of the Alcoa Bypass and homes continue to develop east of US 411 moving farther east towards Montvale Road. During this time, a pocket of homes also begins to appear towards the Knox County border between I-140 and US 129.
- 1980s (Figure B-5)—Residences continue to be constructed east of SR 33, primarily between Sevierville Road and Lamar Alexander Parkway. Homes also continue to develop in Maryville east along US 411. During this decade, a cluster of homes is built near Montvale Station Road and Montvale Road.
- 1990s (Figure B-6)—Residential growth continues east along Sevierville Road and south along US 411.
- 2000 to 2005 (Figure B-7)—Residential growth continues to extend along major corridors.
- By end of 2009 (Figure B-8)—The area between SR 33 and US 321/SR 73 east of downtown Maryville continues to infill and extend eastward.

Figure B-1: Single-Family Residential Structures Built Before 1950



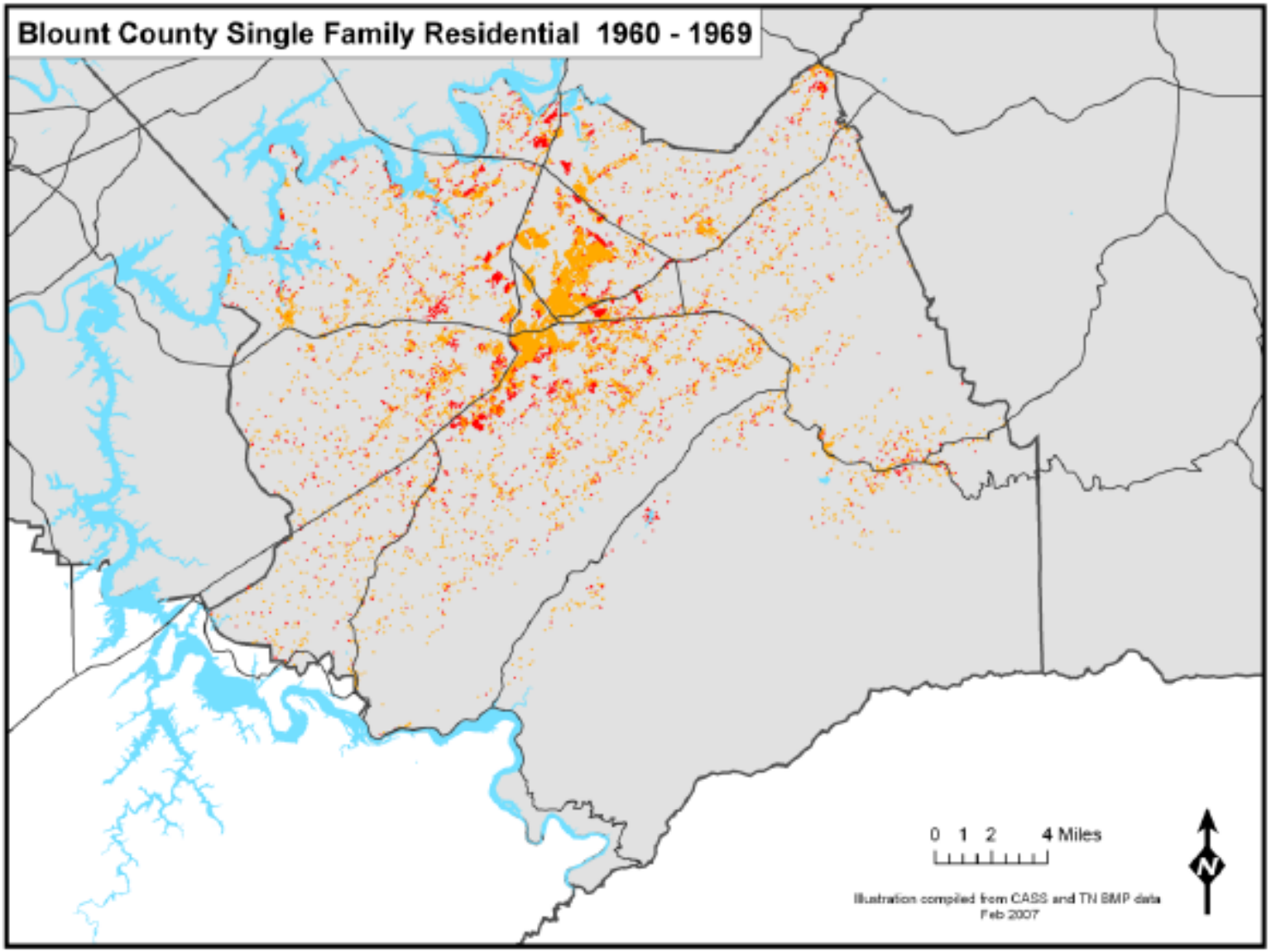
Note: Orange dots represent homes that already existed prior to 1950.

Figure B-2: Single-Family Residential Structures Added in 1950s



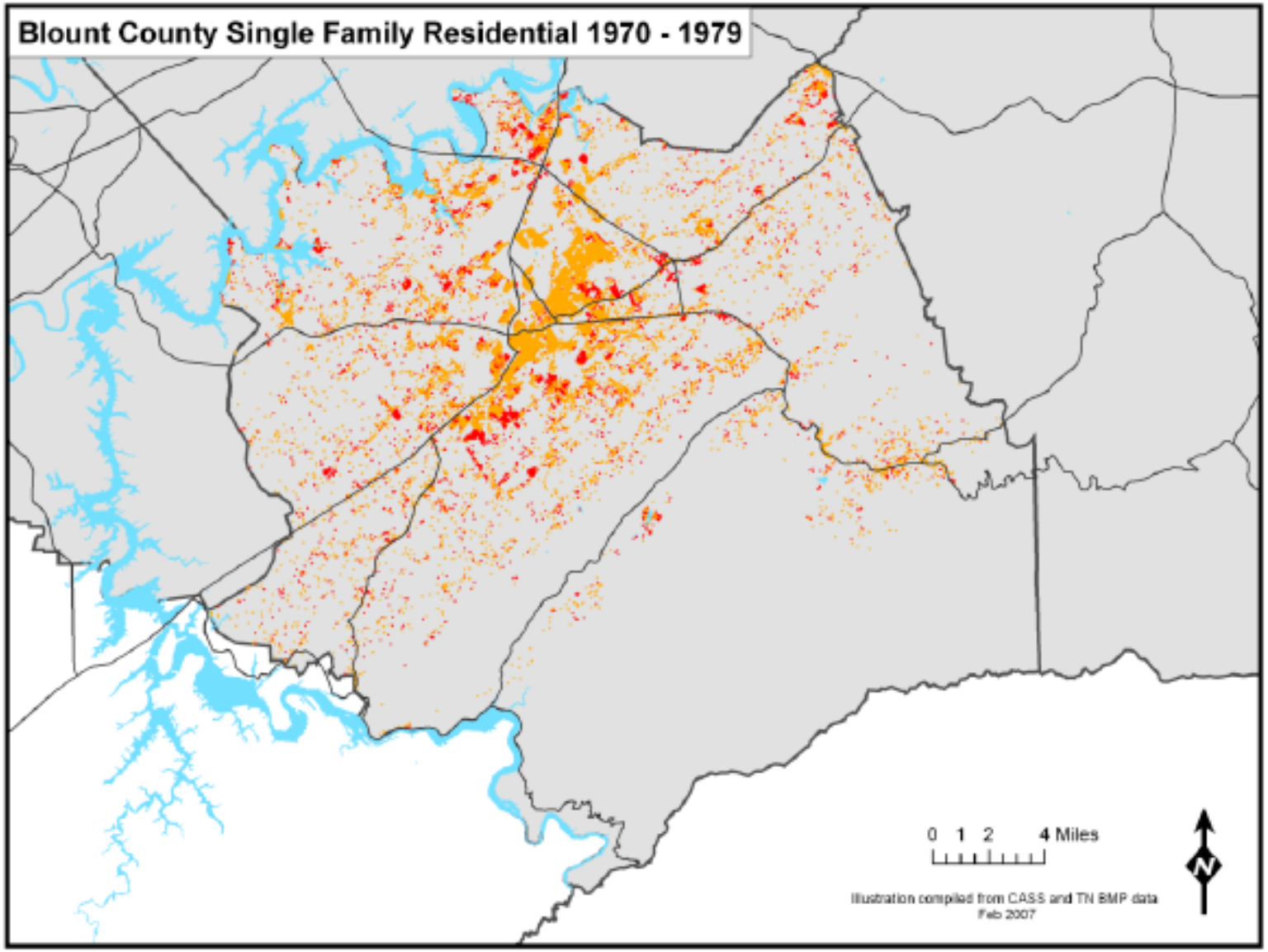
Note: Orange dots represent homes that already existed, while the red dots represent new residential structures that were constructed during the decade.

Figure B-3: Single-Family Residential Structures Added in 1960s



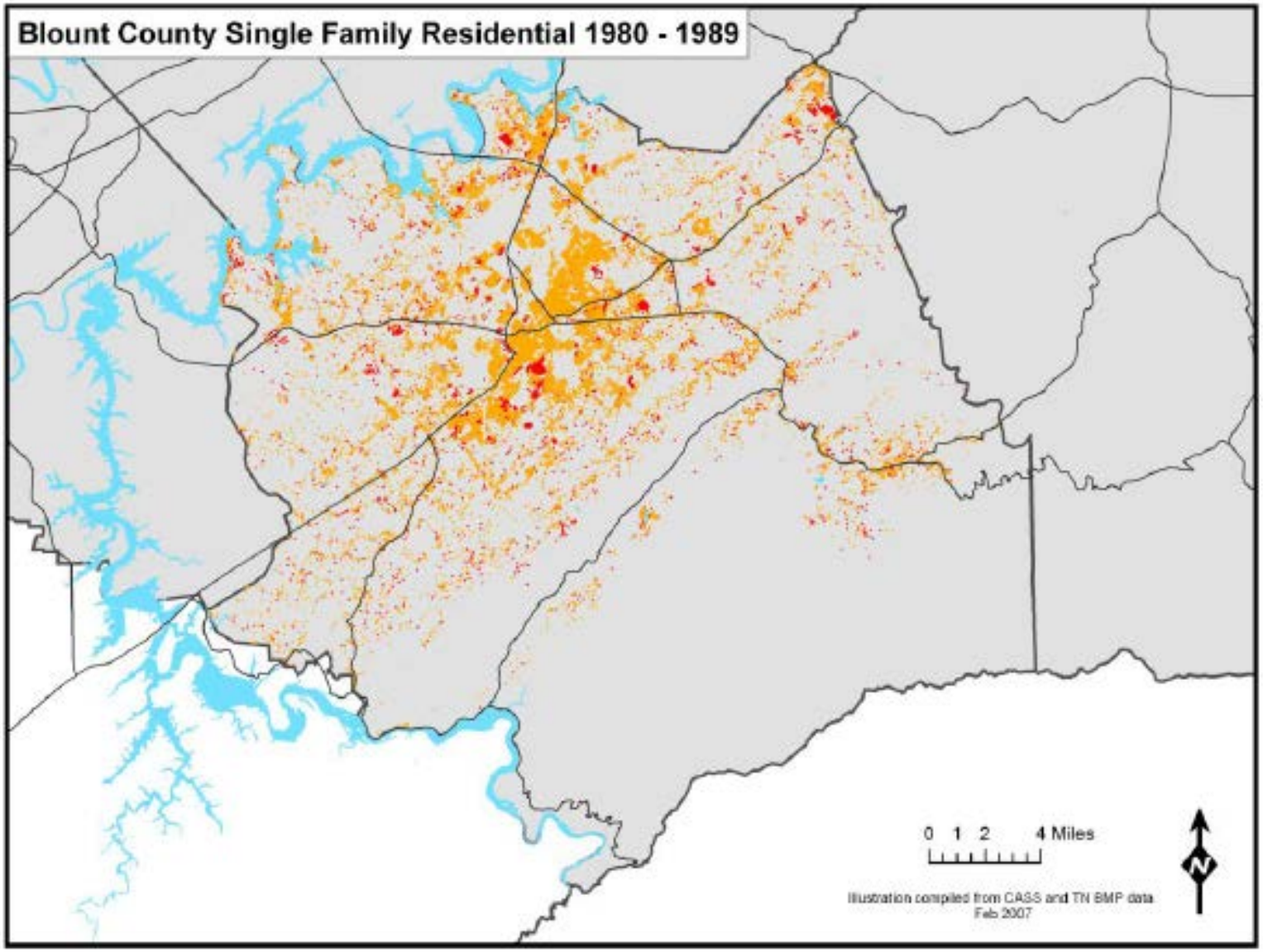
Note: Orange dots represent homes that already existed, while the red dots represent new residential structures that were constructed during the decade.

Figure B-4: Single-Family Residential Structures Added in 1970s



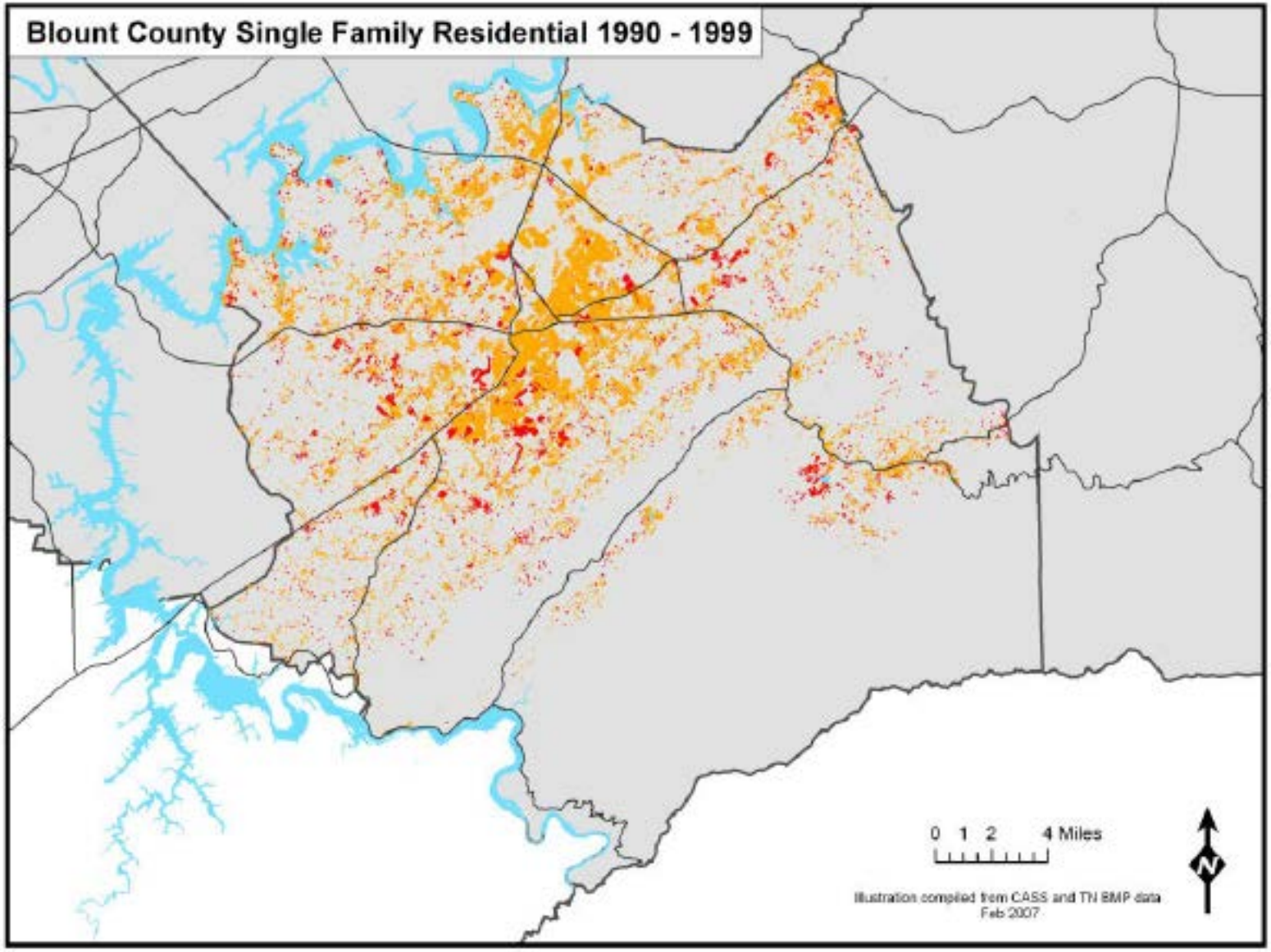
Note: Orange dots represent homes that already existed, while the red dots represent new residential structures that were constructed during the decade.

Figure B-5: Single-Family Residential Structures Added in 1980s



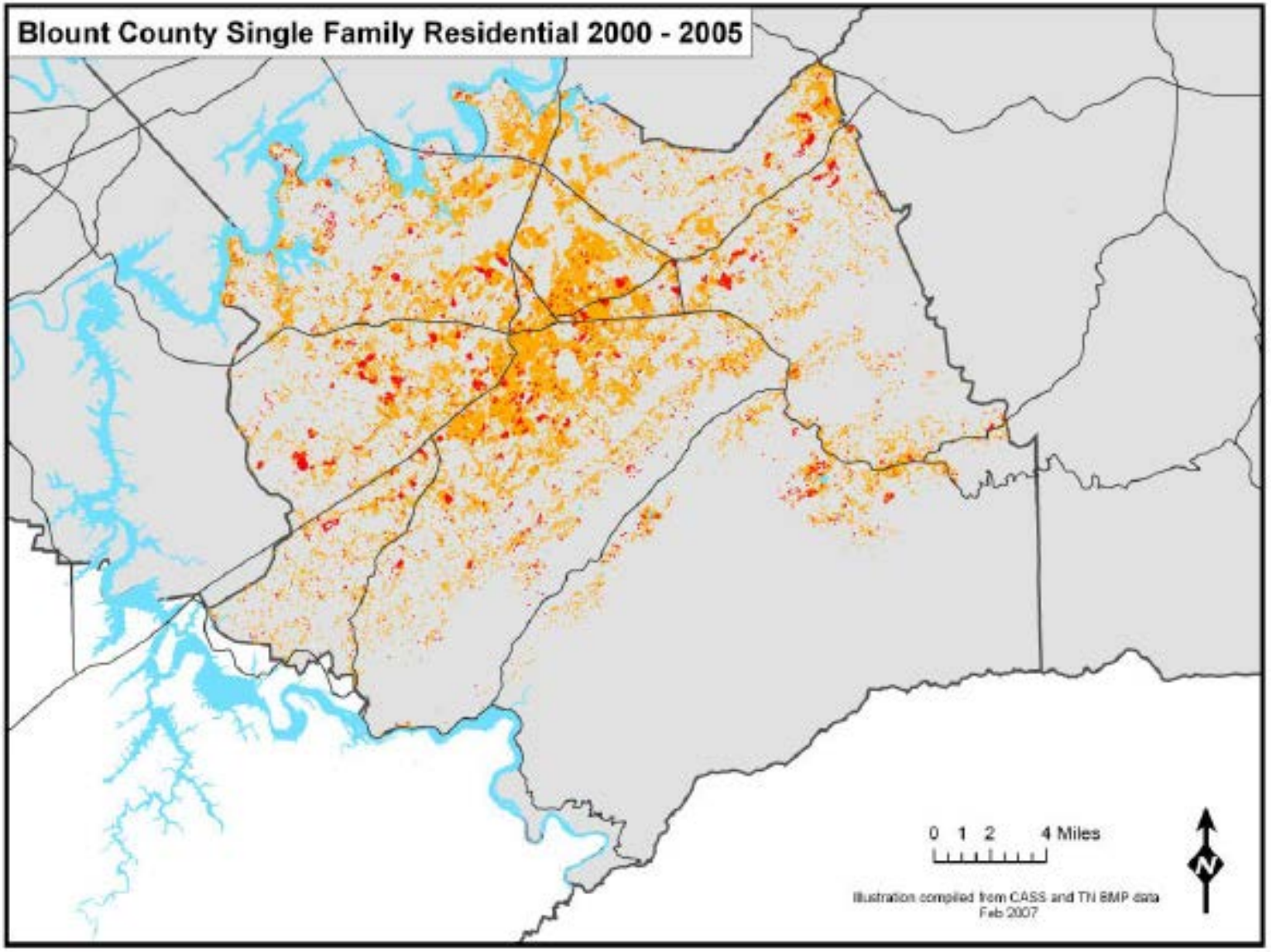
Note: Orange dots represent homes that already existed, while the red dots represent new residential structures that were constructed during the decade.

Figure B-6: Single-Family Residential Structures Added in 1990s



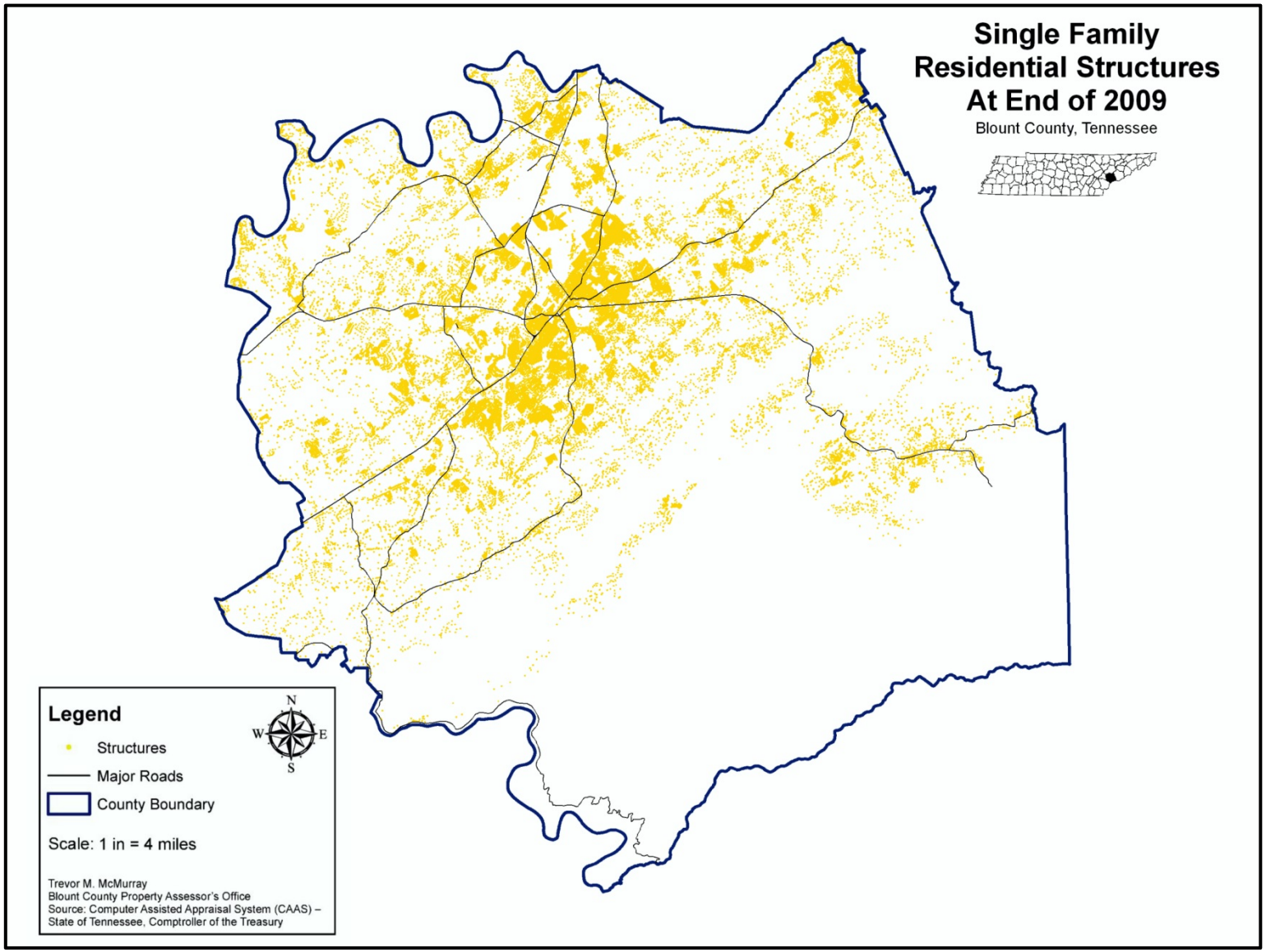
Note: Orange dots represent homes that already existed, while the red dots represent new residential structures that were constructed during the decade.

Figure B-7: Single-Family Residential Structures Added Between 2000 and 2005



Note: Orange dots represent homes that already existed, while the red dots represent new residential structures that were constructed during the decade.

Figure B-8: Blount County Single-Family Residential Structures at the end of 2009



Note: Yellow dots show the concentrations of residential development in Blount County.

Attachment C
Agency Coordination Since DEIS

Attachment C-1—Agency Comments on DEIS

Attachment C-2—Other Agency Correspondence Since the DEIS

Attachment C-3—Interagency Coordination

Attachment C-1

Agency Comments on the DEIS

Agency Comments on DEIS

Summary of Agency Comments on DEIS and TDOT/FHWA Responses

United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, TN 38501

July 30, 2010

Mr. Tom Love
Tennessee Department of Transportation
Environmental Planning and Permits Division
Suite 900, James K. Polk Building
505 Deaderick Street
Nashville, Tennessee 37243-0334

Subject: Request for comments on the Draft Environmental Impact Statement for the Pellissippi Parkway Extension from State Route 33 to State Route 73 in Blount County, Tennessee.

Dear Mr. Love:

The Tennessee Department of Transportation (TDOT) has prepared a *Draft Environmental Impact Statement* (DEIS) for the extension of Pellissippi Parkway from State Route 33 to State Route 73 in Blount County, Tennessee. The DEIS was developed by TDOT to document the impacts of the subject project in accordance with the National Environmental Policy Act and the Tennessee Environmental Streamlining Agreement (TESA). In accordance with TESA, TDOT has requested that the U.S. Fish and Wildlife Service review this document and provide any additional comments.

In previous concurrence points, our office mentioned four federally listed species that occur within the study area and may be impacted by this project. These species include the Indiana bat (*Myotis sodalis*), snail darter (*Percina tanasi*), duskytail darter (*Etheostoma percnurum*), and fine-rayed pigtoe (*Fusconaia cuneolus*). In sections 3.14.3.2 and 3.14.3.3 of the *Draft Environmental Impact Statement*, TDOT addressed the potential for harm to these species and provided measures to avoid impacting them. Tree removal would be limited to the time period of October 15 to March 31 to avoid active Indiana bat roost and maternal trees. In addition, stringent best management practices, including erosion and siltation control measures, would be implemented during construction to minimize potential for harm to aquatic species.

Upon review of this document, we believe that impacts to the snail darter, duskytail darter, and fine-rayed pigtoe have been adequately addressed. Therefore, based on the best information available at this time, we believe that the requirements of section 7 of the Endangered Species Act of 1973, as amended, are fulfilled for these species. Obligations under section 7 of the Act must be reconsidered if (1) new information reveals impacts of the proposed action that may

affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.

The potential to adversely affect the Indiana bat (*Myotis sodalis*) was addressed in the DEIS by proposing to restrict tree clearing to the period of October 15 through March 31. In a letter to TDOT dated December 1, 2009, we concurred with your determination of "not likely to adversely affect" for the Indiana bat. However, our office no longer believes that a timeframe restriction on tree cutting properly addresses indirect and cumulative impacts to the Indiana bat. Therefore, our concurrence is no longer in effect and further coordination with our office would be required under Section 7 of the Endangered Species Act, as amended, prior to removal of trees for this project.

If you have any questions regarding our comments, please contact John Griffith of my staff at 931/528-6481 (ext. 228) or by email at john_griffith@fws.gov.

Sincerely,

Mary E. Jennings

Mary E. Jennings
Field Supervisor

DEPARTMENT OF THE ARMY
NASHVILLE DISTRICT, CORPS OF ENGINEERS
3701 Bell Road
NASHVILLE, TENNESSEE 37214

July 8, 2010

REPLY TO
ATTENTION OF:

Regulatory Branch

SUBJECT: File No. 990003730; Proposed Pellissippi Parkway Extension (SR-162) from SR-33 (Old Knoxville Highway) to SR-73 (US-321/Lamar Alexander Parkway), in Blount County, TN [TDOT PIN #101423.00, Project #05097-1226-04]

Mr. Tom Love
Tennessee Department of Transportation
Environmental Planning and Permits Division
Suite 900 – James K. Polk Building
505 Deaderick Sreet
Nashville, Tennessee 37243-0334

Dear Mr. Love:

This is in response to your request for Corps of Engineers comments on the Draft Environmental Impact Statement (DEIS) prepared for the Pellissippi Parkway (SR-162) Extension project in Blount County, Tennessee. The DEIS was approved by the Federal Highway Administration (FHWA) on April 14, 2010. Please refer to File No. 990003730 in any future correspondence to this office concerning the subject project.

The DEIS evaluated four alternatives to the proposed project. These are no-build alternative, Alignment A, Alignment C, and Alignment D. The three alignment alternatives would impact jurisdictional waters of the United States; thus, a Department of the Army (DA) permit would be required for any discharge of fill material into jurisdictional waters, including wetlands, pursuant to Section 404 of the Clean Water Act (CWA).

Our review of the DEIS reveals that the document covers all areas of interest and/or programs administered by our agency. However, if possible, please incorporate any stream and/or wetland environmental commitments discussed in the DEIS in the Summary section (on Page S-7). Also, this could include any stream and/or wetland mitigation commitments.

Typically, the Corps of Engineers usually recommends practicable alternatives based on the alignment that would impact and/or minimize the amount of impacts on aquatic resources.

Your letter indicated that a Public Hearing would be held for public comments to the DEIS on July 20, 2010. The Corps of Engineers plans to attend this public hearing. If additional comments are revealed during the public hearing process, the Corps of Engineers would provide

an additional letter addressing these concerns at that time.

In addition, since DA permits would be required for the proposed work, you should submit applications, plans of the work, locations of the crossings, stream and wetland impacts, proposed mitigation, and any additional supporting environmental documentation in a timely manner to obtain the necessary permits for the work.

I am available to participate in any onsite inspections of the construction corridor in an effort to identify waters of the United States that would be subject to Corps regulatory authority. We are also available to attend preapplication meetings to discuss aquatic resource impact avoidance and minimization.

Thank you for coordinating the DEIS with this office for our comments. If we can be of further assistance or if you have any questions regarding DA permit requirements, please contact me at the above address, telephone number 615-369-7509, or email at amy.m.robinson@usace.army.mil.

Sincerely,

Amy M. Robinson
Project Manager
Operations Division

TENNESSEE WILDLIFE RESOURCES AGENCY

ELLINGTON AGRICULTURAL CENTER
P. O. BOX 40747
NASHVILLE, TENNESSEE 37204

August 9, 2010

Tom Love
State of Tennessee
Department of Transportation
Environmental Division
Suite 900, James K. Polk Building
505 Deaderick Street
Nashville, TN 37243-0334

Re: Request for Comments, Draft Environmental Impact Statement, Pellissippi Parkway Extension (SR 162) from SR 33 (Old Knoxville Highway) to US 321/SR 73/Lamar Alexander Parkway
Blount County, Tennessee

Dear Mr. Love:

The Tennessee Wildlife Resource Agency (TWRA) has received and reviewed the information your office provided to us regarding the proposed project listed above. We understand that the U.S. Fish and Wildlife Service no longer believes that a timeframe restriction on tree cutting properly addresses indirect and cumulative impacts to the state and federally endangered Indiana bat (*Myotis sodalist*). We suggest further coordination with the U.S. Fish and Wildlife Service and our agency on methods to further minimize impacts to the Indiana bat due to this proposed project. We look forward to working with the Tennessee Department of Transportation to further avoid, minimize, and mitigate for potential impacts to streams, wetlands, and floodplains once a preferred alternative is selected.

We thank you for the opportunity to participate during the coordination process for this proposed project.

Sincerely,

Robert M. Todd

Robert M. Todd
Fish and Wildlife Environmentalist

cc: Rob Lindbom, Region IV Habitat Biologist
John Gregory, Region IV Manager
Vincent Pontello, East Tennessee Transportation Biologist

TDE (Eductation) no comment on DEIS.txt

From: Tom Love [Tom.Love@tn.gov]
Sent: Thursday, July 15, 2010 9:19 AM
To: Skinner, Nancy T.
Subject: Fwd: Environmental Impact Statement Project

fyi
>>> Edward Beyman 7/15/2010 7:35 AM >>>
Mr. Love,

The Department of Education does not intend to submit comments, on the Draft Environmental Impact Statement Project pertaining to Pellissippi Parkway Extension (SR162) from SR33 to US321/SR73/Lamar Alexander Parkway, Blount County TN.

Regards,
Edward Beyman
Office of Operations
Department of Education
710 James Robertson PKWY
6th Floor
Nashville TN 37243
(615) 253-4647

Page 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

June 17, 2010

Ms. Suzanne B. Herron, P.E., CPESC
Director
Environmental Division
Tennessee Department of Transportation
505 Deaderick Street, Suite 900
Nashville, TN 37243

SUBJECT: Pellissippi Parkway Extension (SR162), from SR 33 (Old Knoxville Highway to US 321/SR73/Lamar Alexander Parkway, Blount County, Tennessee

Ms. Herron:

The U.S. Environmental Protection Agency (EPA) has reviewed the referenced Draft Environmental Impact Statement (DEIS) in accordance with its responsibilities under Section 309 of the Clean Air Act and Section 102(2) (C) of the National Environmental Policy Act (NEPA). The U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA) and Tennessee Department of Transportation (TDOT) proposes to extend and construct the Pellissippi Parkway (SR 162) from the current terminus of Pellissippi Parkway/Interstate 140 at SR 33 (Old Knoxville Highway) to US 321/SR 73 (Lamar Alexander Parkway) in Blount County. The new parkway would extend the existing eastern terminus to Lamar Alexander Parkway 4.38 miles to 5.77 miles (depending on the selected alternative).

The current action was evaluated as an Environmental Assessment (EA) in January 1999. The FHWA approved the EA in October 2001 and signed the Finding of No Significant Impact (FONSI) in April 2002. In June 2002, the Citizens Against the Pellissippi Parkway Extension (CAPPE) filed suit against USDOT, FHWA and TDOT in the US District Court for the Middle District of Tennessee. CAPPE alleged that TDOT did not properly comply with NEPA and should have prepared an EIS than an EA. In July 2002, the District Court filed an injunction on planning, financing, contracting, land acquisition and construction of the project. FHWA withdrew the FONSI and sought voluntary remand to allow the agency to reconsider its decision, but the District Court denied that motion. Following an appeal by the FHWA, the District Court issued an order modifying its previous injunction in August 2004. This order allowed FHWA and TDOT to reconsider and reissue the relevant environmental documents. In September of 2004, TDOT announced its decision to begin preparation of an EIS.

The alternatives considered include one No Build Alternative and three Build Alternatives (Alternatives A, C and D). Under the No-Build Alternative, the current Pellissippi Parkway would not be extended east beyond its current terminus of SR 33. Both Build Alternatives A and C would extend Pellissippi Parkway as a new four-lane divided roadway, with interchanges at SR 33, SR 35/US411/SR35 and SR 73/US321. Alternatives A and C would share a common alignment from SR 33 to the vicinity of Brown School Road south of Wildwood Road. At this point, Alternative C would diverge to the east of Alternative A. Alternative A would be approximately 4.38 miles while Alternative C would be approximately 4.68 miles. Build Alternative D would use portions of existing roads (Sam Houston School Road, Peppermint Road, Hitch Rod and Helton Road). Under Alternative D, an improved two lane roadway would be constructed using existing roadway alignment when possible. The length of this corridor would be approximately 5.77 miles.

Based on our review of the DEIS, EPA's primary environmental concerns are related to the project purpose and need, farmland impacts, noise and mobile source air toxics (MSATs). EPA is concerned that TDOT hasn't adequately documented the purpose and need for this project especially given its contentious and controversial background and the level of impacts to the local rural, farmland nature of the community. TDOT readily admits within the DEIS, "…this analysis does not demonstrate that any of the Build Alternatives would substantially improve the level of service for the existing highway network." Additionally, the vehicle miles traveled (VMT), safety and travel time savings data all seem insufficient to support the justification for constructing the build alternatives.

EPA is also concerned with the project's impact to the rural farming community. TDOT recognizes the cumulative impacts to the local farming community, but doesn't offer any project specific remedies to lesson these impacts. EPA recommends that TDOT identify mitigation measures to lessen impacts to the farming community and conduct an aggressive outreach effort to the farming community to solicit their input. EPA is equally concerned with the noise impacts to the community and requests that TDOT commit to provide noise abatement measures within the environmental comments section of the Executive Summary (commonly referred to as the "green pages").

The discussion of mobile source air toxics (MSATs) in the Draft EIS and in the air quality technical report presents information that is not consistent with the findings of many air quality studies. In general, air toxics impacts for highway projects should be evaluated based on emissions, dispersion modeling, and screening level risk assessment in locations where people work and reside. A discussion should be included regarding the near-roadway health impacts and the potential for such impacts during and following completion of this project. EPA recommends TDOT more thoroughly consider air toxics in their alternative analysis, quantify construction and operational emissions of MSATs, discuss dispersion emissions and exposure levels and identify appropriate avoidance, minimization, and/or mitigation opportunities.

We rate this document EC-2 (Environmental Concerns-with additional information requested for the above and below comments). Enclosed is a summary of definitions for EPA ratings and the detailed comments.

We appreciate the opportunity to review the proposed action. Please contact Jamie Higgins at (404) 562-9681 if you want to discuss our comments.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosures

cc: Tom Love – Tennessee Department of Transportation

SUMMARY OF RATING DEFINITIONS AND FOLLOW UP ACTION [1]

Environmental Impact of the Action

LO-Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impacts. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS sate, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1-Adequate
The EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alterative and those of the alternatives reasonably available to the project or action. No further analysis or data collecting is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information
The draft EIS does not contain sufficient information for the EPA to fully assess the environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant

[1] From EPA Manual 1640 Policy and Procedures for the Review of the Federal Actions Impacting the Environment.

Pellissippi Parkway Extension (SR 162) From SR 33 (Old Knoxville Highway) to US 321/SR 73/Lamar Alexander Parkway, Blount County, TN

U.S. Environmental Protection Agency Detailed Comments:

NEPA Office Comments:

1. Purpose and Need: Overall, EPA is concerned regarding the purpose and need for this project. TDOT states on page 3-3 (Corridor Level of Service (LOS)), "Overall, this analysis does not demonstrate that any of the Build Alternatives would substantially improve the level of service for the existing highway network." TDOT goes on to state, "It should be noted that while the LOS ratings alone may not justify this project from a traffic flow perspective, other analyses support the need and purpose for this project, including travel time savings, reductions in crash exposure, regional linkages and system enhancements…". LOS analyses are usually the backbone of most transportation studies and EPA is concerned that the level of analyses doesn't support the stated project purpose and need. Below are specific concerns regarding the purpose and need:

a. LOS Analysis: TDOT has not conducted LOS analysis for several roads in the Maryville/Alcoa area. These roads should be better analyzed to determine the "Purpose and Need" for the project. Overall, TDOT has not provided convincing data to fulfill the project objective (Page S-2 and re-stated in Section 1.3 Purpose of the Project, page 1-6) of "Assist in achieving acceptable traffic flows (LOS) on transportation network or not adversely affect traffic flows on the existing transportation network." In fact, in the Corridor LOS section on page 3-4, TDOT states, "Overall, this analysis does not demonstrate that any of the Build Alternatives would substantially improve the level of service for the existing highway network." Below are specific concerns regarding the LOS analysis as relating to the project purpose.

1. In Table 1-1: Traffic Level of Service (2006, 2015, 2035 cont.), page 1-13, TDOT lists existing and projected LOS for various stretches of roads in the vicinity of the proposed Pellissippi Parkway. Several roads (Washington Street, US 411, E. Broadway/Old Knoxville Highway, Sam Houston School Road, Peppermint Road, Hitch Road and Helton Road) did not display projected LOS. The LOS ties back into the Purpose and Need of the project as stated on Page S-2, "Achieve acceptable traffic flows (level of service) on the local transportation network…". This data is vital in justifying the need to build Pellissippi Parkway. It seems that the proposed project would not relieve traffic volume of workday commuters traveling to their workplaces North of Maryville/Alcoa to Knoxville. EPA recommends that 1) TDOT further evaluate the Northbound weekday (toward Knoxville) commuter LOS trends to determine if the Pellissippi Parkway will in fact improve LOS along these commuter corridors and 2) EPA recommends that TDOT evaluate the traffic East/West bound traffic patterns (toward Oak Ridge National Laboratory) and 3) Compare the two analysis (East/West bound to ORNL and North/South to Knoxville) to determine if the Pellissippi Parkway will improve the existing roads LOS.

1

2. Looking at Figure 1-7: Existing Levels of Service, page 1-15, the poor LOS corridors (US 129/SR 115, SR 33, Sam Houston School Road, Peppermint Road, SR 35/US 411/Sevierville Rd) are North-South corridors that run through or adjacent to subdivisions. It would seem more practicable to improve these roads since these are the roads with poor LOS. What is the LOS for Old Knoxville Highway? Without LOS data for Old Knoxville Road, it is hard to determine the traffic patterns. EPA recommends TDOT evaluate the LOS for the Broadway/Old Knoxville Highway corridor to better understand traffic patterns and LOS.

3. In Figure 1-8 and Figure 1-9, page 1-15 and 1-6, the LOS for US 129/115 improves. As stated on page 1-14, "The section of Alcoa Highway between Hunt Road and Pellissippi Parkway would increase from LOS E to LOS C, likely because of Relocated Alcoa Highway". This would indicate that the higher volumes of traffic are North and South not East and West. How would the proposed Pellissippi Parkway improve the North/South roads LOS and relieve the weekday volume of traffic along the North/South corridors? Also, what is the projected LOS for all the vicinity roads with the Build Alternatives? EPA recommends that TDOT conduct similar analysis and depiction of the LOS for all the Build Alternatives to determine the traffic flow.

4. On page 3-4, Intersection LOS, TDOT's analysis states that only two intersections would benefit from the Build Alternatives (A or C). Could these intersections be improved by other less environmentally impacting and expensive improvements?

5. In comparing Figure 1-7: Existing Level of Service (page 1-16) and Figure 3-1: 2015 Build Alternatives Corridor Level of Service, it seems that there isn't much difference between the current LOS and the future Build alternatives LOS. The only LOS that would be improved is US 129/SR 115, but this LOS will most likely be improved because of the building of the Relocated Alcoa Highway or Alcoa Bypass. EPA recommends that TDOT better describe the relationship between the existing LOS, No Build Alternative and the Build Alternatives.

6. Several LOS forecasts (Washington St and E. Broadway/Old Knoxville Hwy) in Section 1-1: Traffic Level of Service (2006, 2015, 2035) (page 1-12-1-13) were not calculated. A LOS analysis along these roads is important in determining if workday commuters would utilize the proposed project if built. EPA requests TDOT forecast the LOS for these roads to better understand the traffic flow and traffic volume of the Alcoa/Maryville community.

7. In Table 1-1: Traffic Level of Service (2006, 2015 and 2035) on page 1-13, there are several roads that were not evaluated for LOS. On page 1-7, 5th paragraph, TDOT states, "Special traffic counts were conducted to determine current volumes on several two-lane local roadways in the eastern portion of the study area (Sam Houston School Road, Peppermint Road, Hitch Road, and Helton Road) since they are not part of the state-maintained system. No build volumes were forecasted to the base year and design year." It is vital that TDOT determine the LOS and volume forecasts for these roads to better compare the No Build Alternative to the Build Alternatives. EPA recommends TDOT

conduct LOS and volume forecasts for these roads especially considering Alternative D is the improvement of Sam Houston School Road.

b. Vehicle Miles Travel (VMT): In Section 1.4.1.2 Note on Recent Trends in Vehicle Miles Traveled, page 1-10, EPA disagrees with TDOT's assumption that VMT trends will increase despite data that proves otherwise. EPA recommends TDOT provide further analysis that substantiates the claim that VMT will increase. TDOT also asserts that recreational traffic near the Great Smokey Mountain National Park (GSMNP) will increase and states, "…despite the recent national decline in VMT, based on localized trends and the possibility of increased local travel to nearby vacation destinations, trip demand may well increase in and around the Maryville/Alcoa area." TDOT does statistically project an overall increase in VMT in the Region (Table 1-1); however, there is no data to substantiate their claim that VMT will increase because of recreational traffic to GSMNP.

c. Travel Between Study Area: There is good information in Section 1.4.1.1 Travel between Study Area and Knox County on page 1-10, but TDOT doesn't draw any conclusions. This discussion and Figure 1-5: Travel Volume between Knox and Blount County seem to indicate that the predominant flow of traffic is North/South along US 129 and SR 33. What are the volumes of traffic along the East/West routes toward Oak Ridge and I-40? EPA recommends TDOT better describe the conclusions from Section 1.4.1.1 and Figure 1-5. EPA would also like to see more data and discussion regarding the East/West volumes of traffic toward I-40.

d. Travel Time Savings. In Table 3-3 and Table 3-4, TDOT determines the travel time savings. Even in the best case scenario, Build Alternative A and C would only decrease travel time by 11 minutes and the worse case scenario (Alternative D) would only decrease travel time by 7 minutes. Wouldn't other less contentious and less environmentally and socially impacting alternatives accomplish the same travel time savings as the proposed Build Alternatives? EPA requests that TDOT consider and further analyze the worthiness of the proposed build alternatives.

e. Safety: TDOT states that, "Safety issues on roadways in the area, including roads in the Maryville core that through travelers between north and western portions of the county and the eastern portions of the county must pass." Safety is listed as a project purposes; however, none of the studied roadway sections have a critical crash rate ratio (A/C) that exceeds the TDOT threshold of 3.5 (reference Section 1.4.3, page 1-19). Four roadway sections have critical crash rate that exceeds 2.0. TDOT states, "…that while these routes do not have a statistical certainty of being high crash rate locations, they may still have some safety issues." How will the Build Alternatives improve these four roadway sections? Can other less environmentally impacting improvements be made to these specific roadways to improve roadway safety without building Pellissippi Parkway? EPA recommends TDOT provide further information to support the project's safety purpose and need.

3. Farmland Impacts: The Natural Resources Conservation Service (NRCS) has determined that each of the build alternatives would impact prime farmlands (page 3-40). Depending on the alternatives, 120-187 farm acres (reference Table 3-14, page 3-41) would be directly impacted. Additionally, TDOT recognizes the cumulative impacts of this project combined with other industrial and residential developments in the community and states, "Cumulative impacts on farmland could be substantial, particularly if the local growth polices are not enforced." Considering that TDOT recognizes the "substantial" cumulative impacts to farmland, EPA requests that a more thorough analyses be completed to determine these direct, indirect and cumulative impacts. Additionally, EPA requests that TDOT outreach to farmers and the NRCS to determine the least impacting alternative to farmlands. EPA also requests that farmer and NRCS input should be solicited and more thoroughly discussed in the Final EIS.

4. Noise: EPA is concerned about the noise impacts to residences. Depending on the build alternative selected, 64-110 residences will be impacted by noise and 25-86 residences will have substantial increases in noise impacts (since residences would have resultant levels elevated above the TDOT threshold of greater than 10 dBA). In the Noise Abatement section page 3-66, there is a discussion regarding the noise abatement measures. TDOT has determined that constructing of noise barriers is not feasible and states, "Final decisions regarding the construction of noise barriers will be made during final project design and following the public involvement process." EPA understands that final decisions will be made during the design phase, but we would like to be assured that noise abatement measures would be carried out. TDOT Policy 520-1 defines 'reasonableness' as "one of two criteria (also see "feasibility") used to evaluate a noise abatement measure" and that it "generally pertains to the cost effectiveness of noise abatement measures and the views/desires of the public."

Additionally, FHWA noise regulations under 23 CFR 772.11(f) requires "the views of the impacted residents will be a major consideration in reaching a decision on the reasonableness of abatement measures to be provided." EPA agrees with such public outreach; however, no analysis or discussion regarding the views of the impacted residences or general public is found in the Draft EIS. Further, 23 CFR 722.13 discusses more than just noise barriers as noise abatement measures that should be considered in the noise abatement analysis. As cited in 772.11(d), "When noise abatement measures are being considered, every reasonable effort shall be made to obtain substantial noise reductions."

Also, 722.13(d) states:

> "There may be situations where (1) severe traffic noise impacts exist or are expected, and (2) the abatement measures listed above are physically infeasible or economically unreasonable. In these instances, noise abatement measures other than those listed in 722.13(c) of this chapter may be proposed for Types I and II projects by the highway agency and approved by the Regional Federal Highway Administrator on a case-by-case basis when the conditions of 772.13(a) of this chapter have been met."

EPA recommends that TDOT commit to provide noise abatement measures (as practicable and within authorities of TDOT) within the Environmental Comments Section of the Executive Summary or commonly referred to as the "green pages".

5. Inclusion of Mitigation Measures in Environmental Commitments Section (Green Pages): TDOT has proposed several reasonable mitigation measures throughout the EIS; however, many of these mitigation measures have not been included within the Green Pages. EPA recommends that these mitigation measures be included within the Green Pages to further strengthen TDOT's commitment to lessen social and environmental impacts. Specifically, EPA requests the inclusion of the following mitigation measures within the Green Pages:

a. Farmland Impacts: On page 3-41, Section 3.6.2 Potential Mitigation Measures, TDOT states, "During design of the selected alternative, TDOT will work with farm owners to reduce the impact on farmlands as much as possible based on available design solutions." EPA recommends that TDOT describe possible mitigation measures within this section and include a farmland impact mitigation statement within the Green Pages.

b. Floodplain Impacts: On Page 3-71, Section 3.13.2 Floodplains and Hydrology, TDOT states, "Because the proposed alignments run generally perpendicular to the floodplains, avoidance of all floodplains is not possible." TDOT further describes potential mitigation measures; however, these mitigation measures have been omitted from the Green Pages. Floodplains are vital to the health of the aquatic and terrestrial ecosystem. Given the environmental importance of the floodplains to the health of the ecosystem, EPA recommends that TDOT included floodplain mitigation measures within the Green Pages.

c. In a memo dated, May 15, 2006 (Appendix A, Page A-7), the Tennessee Department of Environment and Conservation (TDEC) discusses special measures to be taken to protect sinkholes. Although TDOT has included a Karst Topography commitment statement within the Green Pages, it is unclear as to whether this will include the mitigation measures outlined in this TDEC letter. EPA requests that TDOT clarify and either include a specific environmental commitment to address sinkhole mitigation or revise the Karst Topography commitment statement to reflect sinkhole mitigation.

Water Protection Division Comments:

1. On page 2.18-19, The Public Transit, Fixed Route Local Bus Service and Bus RapidTransit Institute for Transportation Engineers (ITE) Toolbox should be evaluated with the projected population numbers that were provided earlier, 2015 & 2025.

2. On page 2.20, fixed-route public transit should be considered in conjunction with Alternative D or road improvements.

3. On page 3.15, the map is mislabeled. Alt. B should be Alt C in Figure 3.4

could be increased levels of drinking water treatment for public water supplies and private well owners in an area with grazing cattle are major concerns. The impacts on underground sources of drinking water need to be discussed and analyzed.

14. On Page 3.88, (mitigation cont'd from previous page) – there should be much more detail on the mitigation measures.

15. On page 3.98, (cont'd from previous page 3.15.7 Water Quality & Erosion Control) – Construction activities could have an impact on underground sources of drinking water. See earlier comment on pg 3.87.

16. On page 3.99, 3.16.1.1 - Indirect Effects – It is not clear if commercial developments are being considered among these bullets???

17. In the last paragraph (3.16.1.1-Indirect Effects): A project could have a small effect and resulting development a very large effect. For instance, building a road may have a very small effect, but commercial development (or even residential) that may follow (often happens) could mean a large impact that would not have occurred without the roadway. This should be acknowledged and included in the EIS study.

18. On page 3.100, 3.16.2 Methodology- Indirect Effects: This should be discussed by Alternative, especially since Alt D would be expected to have a much smaller indirect effect due to much of the roadway is already in place.

19. On page 3.112, Water Quality, 2nd sentence- at the end of the sentence …….other surface waters, **add** or groundwater in karst geology. **Also, add another sentence**, i.e., Decreased recharge of groundwater would also result from increased amounts of impervious surfaces.

20. On page 3.118, Water Quality, 2nd sentence, at the end of the sentence …….other surface waters, **add** including groundwater.

21. On page 3.120, Table 3.35 Summary of Effects, consideration of effects based upon earlier comments need to be added to this table. See above comment on page 3.87

22. On page 3.123, Table 3.35 Summary of Effects - See above comment on page 3.79 - ** Wet Weather Conveyances (linear feet affected), Alt D – 1,424 and Ponds (Acres), Alt D – 2.

23. On page 4.7, Table 4.1: Agency Responses to Initial Coordination (Cont'd), 2nd row, TDEC – Division of Water Supply (Groundwater management section, Responses on BMPs). TDOT needs to identify and discuss what BMPS will be required.

Air Toxics Assessment and Implementation Section Comments

1. Page 3-4 (Figures 3-1 and 3-2, Table 3-1) The Intersection LOS section addresses the level of service that is anticipated in 2015 and 2035. While the LOS for alternatives A and C seems to range between LOS A and LOS D for the year 2015 (the year following the anticipated opening of the road), by the design year of 2035, alternatives A and C are operating at an unacceptable LOS E ("…operations are unstable because there are virtually no gaps in the traffic stream…" page 1-12) and LOS F ("The number of vehicles entering the highway section exceeded the capacity." Page 1-12). Is there a broader plan into which this highway extension fits, such that the purpose of the proposed action (page S-2: "assist in achieving acceptable traffic flows (LOS) on the transportation network or nor adversely affect traffic flows on existing transportation network") will be realized?

2. Page 3-96 Section 3.15.3 focuses on dust suppression as a mitigation measure for air quality impacts during construction. There are many more mitigation measures that should be carried out. During construction and for the final project design, every effort should be made to avoid air quality impacts, including, but not limited to:

- A ban on open burning – all materials that would normally be burned should be recycled to the extent feasible to avoid health and visibility impacts.
- Minimizing dust and debris generated during construction.
- Construction limited to the smallest footprint feasible to avoid environmental degradation and reduce the amount of dust generated during construction.
- Maintenance of the maximum amount of trees feasible within the project right-of-way during construction to reduce footprint, noise and dust dispersion during construction.
- Installation of the latest air pollution control devices on all construction equipment (see EPA's Verified Technologies List for diesel engines at http://www.epa.gov/otaq/retrofit/verif-list.htm).
- Use of ultra low sulfur fuel exclusively for construction equipment.
- Restriction on the time that engines involved in construction may be left to idle.

3. Page 3-111 Air Quality: This section notes that the parkway extension would result in some induced residential and commercial development. This is in an area that is already experiencing rapid growth.

> Page 1-21 notes, "Since the 1970s, Blount County has been one of the fastest growing counties in the Knoxville Region (Figure 1-10). The county has experienced double-digit population growth over each 10-year Census period, and its growth rates have exceeded those of the overall Knoxville region and te state as a whole."
>
> Page 3-116 notes, "Mobile Source Air Toxics (MSAT) emissions are expected to be lower than present levels by 2035 as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by 72 percent from 1999 to 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA- projected reductions is so great … that

> MSAT emissions in the study area are likely to be lower in the future in virtually all locations regardless of whether the No-Build or Build alternatives are implemented." The February 2010 Air Quality Technical Report makes a similar argument.

Projected emission reductions resulting from EPA rules do not absolve the FHWA and the project sponsor from their responsibility to protect public health from emissions associated with this project by using appropriate mitigation measures. Furthermore, the future reductions in emissions resulting from EPA rules do not inform the decision concerning which alternative to select. The purpose of the DEIS is to compare the impacts of the alternatives being considered against one another at some point in the future, not to evaluate the impact of the EPA regulations between today and some point in the future.

4. The February 2010 Air Quality Technical Report states (page 2-21)

> Under each alternative there may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emissions would likely be most pronounced along the new roadway sections for the proposed Pellissippi Parkway between SR 33 and US 321/SR 73. There are several residential areas adjacent to this new roadway corridor, both on the east and west sides of the project area. However, even if increases do occur at these locations, they are expected to be substantially reduced in the future due to implementation of EPA's vehicle and fuel regulations.

Given that this project is likely to be built in a populated area, the potential impact of locally elevated levels of MSAT should be evaluated. The DEIS has appropriately identified several locations of sensitive populations. It would be helpful to estimate the concentrations of MSATs at these locations, to estimate the locations where higher concentrations of MSATs resulting from construction and operation of the different alternatives are likely to occur, and to identify these locations, concentrations, and potential health effects in the FEIS. Many reports published in peer reviewed journals have linked proximity to high volume traffic with health effects. This literature should also be discussed in the FEIS.

5. Pages G-1 and G-2 and the February 2010 Air Quality Technical Report state that there are technical shortcomings that prevent reliable comparisons of MSAT emissions and potential effects at the project level. Page 2-25 of the Air Quality Technical Report states, " …available technical tools do not enable prediction of the project-specific health impacts of the emission changes associated with the detailed study alternatives." While it is correct that these tools do not predict health impacts, they do allow a comparison of potential impacts among alternatives. The thrust of the text in the report is at variance with the common practice of air quality and environmental health professionals, as reflected in the body of peer-reviewed literature employing these various models. The Pellissippi Parkway Extension appears to be a project in which there is considerable community interest. The FEIS should provide the public with a more complete analysis

of the potential impacts of air toxics associated with the construction and operation of this extension project.

U.S. Department
of Transportation
Federal Aviation Administration

Memphis Airports District Office
2862 Business Park Dr, Bldg G
Memphis, TN 38118-1555
Phone: 901-322-8180

June 2, 2010

Mr. Tom Love
State of Tennessee
Department of Transportation
Environmental Planning and Permits Division
Suite 900, James K. Polk Building
505 Deaderick Street
Nashville, TN 37243

Re: Pellissippi Parkway (SR 162) Extension
Blount County, TN

Dear Mr. Love:

The Federal Aviation Administration (FAA) was identified as an agency that may have an interest in reviewing the Draft Environmental Impact Statement (DEIS) for the above proposal. We have reviewed the information provided by your office for the Pellissippi Parkway Extension planned in Blount County, TN.

Our office reviewed the proposal for possible impacts to airports surrounding the project site. The closest airport facility to the project site would be McGhee-Tyson Airport located approximately 2 miles west of the proposed project site.

This office originally responded to the project in a letter dated July 30, 2008. The original response requested submittal of detailed layout drawings and elevations if the chosen project alternative is within 6 miles of the nearest airport facility. As the project moves forward please submit available drawings for our review.

Thank you for the opportunity to comment on this project.

Sincerely,

Stephen Wilson, Environmental Specialist
Memphis Airports District Office

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

TAKE PRIDE IN AMERICA

ER10/449

DEC - 3 2010

RECEIVED
DEC 08 2010
Environmental Division

Ms. Suanne Herron
Director, Environmental Division
Tennessee Department of Transportation
505 Deaderick Street, Suite 900
Nashville, Tennessee 37243

Dear Ms. Herron:

As requested, the Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (EIS) for **Pellissippi Parkway Extension (SR 162) From SR 33 (Old Knoxville Highway) to US 321/SR73/Lamar Alexander Parkway in Blount County, Tennessee.** The Department offers the following comments and recommendations for your consideration.

General Comments

The Department welcomes this opportunity to cooperate with the Tennessee Department of Transportation (TDOT). The purpose of the proposed project is to enhance regional transportation system linkages, improve circumferential mobility, enhance roadway safety and assist in achieving acceptable traffic flows in the northern portion of Blount County. Three alternatives are evaluated in the Draft EIS: Alternative A with an estimated 172 acres of new right-of-way. Alternative C with estimated 187 acres of new right-of-way, and Alternative D with 120 acres of new right-of-way. A Preferred Alternative was not identified in the Draft EIS.

Endangered Species

Four federally-listed species occur within the study area and may be impacted by this project. These species include the Indiana bat (*Myotis sodalist*), snail darter (Percina tanasi), dusky-tail darter (*Etheostoma percnurum*), and fine-rayed pigtoe (*Fusconaia cuneolus*). TDOT sent out the Preliminary Draft EIS on November 6, 2009, which addressed potential impact to these species. TDOT proposed to cut trees from October 15 to March 31, to avoid active Indiana bat roosts. They provided assurance of stringent best management practices to include erosion and siltation control measures to avoid impacting aquatic species. In a letter to TDOT dated December 7, 2009, the Fish and Wildlife Service (FWS) responded that concerns had been adequately

addressed and that TDOT should proceed to the development of the Tennessee Environmental Streamlining Agreement Concurrence Point 4, Preferred Alternative and Preliminary Mitigation Package. With regard to protective measures for the Indiana bat, FWS no longer believes that the timeframe restriction on tree cutting properly addresses indirect and cumulative impacts. Therefore, further coordination with FWS will be required under Section 7 of the Endangered Species Act, as amended, prior to removal of trees for this project. Please contact John C. Griffith, Transportation Biologist, with the FWS, Tennessee Field Office at 931-528-6481 ext. 228.

Section 4(f) Comments

A Section 4(f) Evaluation was not prepared for this project, but because of the project's potential involvement with several historic and archaeological resources in the area, the project has been processed as a Section 4(f) case. Build Alternatives A and C would each affect five archaeological sites that are potentially eligible for the National Register of Historic Places (NRHP), while Alternative D would affect one potentially eligible archaeological site. According to the Draft EIS more detailed archaeological and engineering studies will be conducted after a Preferred Alternative is selected.

There are nine archaeological sites within the area of potential effect that are recommended as potentially eligible for the NRHP: 40BT202, 40BT203, 40BT205, 40BT207, 40BT208, 40BT 209, 40BT100, 40BT122, 40BT125. According to the Draft EIS in Alternative A, it may be possible to avoid intrusion into Site 40BT100 by a design shift to the west. However, it is not likely that Sites 40BT122, 125, 202, and 203 could be avoided since the corridor bisects the sites and the sites extend beyond the boundaries of this alternative. In Alternative C, Sites 40BT209, 40BT205, 40BT100, 40BT207 may be avoidable by design shifts. However, sites 40BT208 would not be avoidable since the corridor bisects the site and the site extends beyond the boundaries of this alternative. In Alternative D, Site 40BT209 is on the western edge of Alternative D, and it may be possible to avoid this site by shifting the alignment slightly eastward. Current alignments avoid Site 40BT214 (a cemetery), which is situated between Alternative C and D north of Centennial Church Road and should be avoided during realignment shifts.

In a 2000 Historic Architectural Resource report, two historic properties were determined to be in the area of potential effect: Sam Houston Schoolhouse and Mack Hitch Farm. In a letter dated May 4, 2009, the State Historic Protection Officer (SHPO) concurred that the proposed project would not adversely affect the Sam Houston Schoolhouse. Since 2000, TDOT has revised the locations for the project alternatives, resulting in the area of potential effect evaluated in the 2008 Historical Architectural Survey and Assessment of Effect under 36 CFR 800. Due to these revisions, the Mack Hitch Farm, which is eligible for listing in the National Register, is located more than one-half mile from the project's area of potential effect.

At this time, the Department cannot concur that there is *no* feasible and prudent alternative to the proposed use and that all possible planning has been done to

minimize harm to the Section 4(f) lands/archeological sites. Phase II testing must be completed and a report or avoidance strategy must be submitted to the SHPO for review. Section 106 consultation of the National Historic Preservation Act has begun but is not yet complete.

Summary Comments

The Department recommends further analysis of design shifts to avoid, minimize, and mitigate potential impacts to archeological sites and continued coordination with the SHPO to develop a Memorandum of Agreement for sites that cannot be avoided.

The Department has a continuing interest in working with the FHWA and TDOT to ensure that impacts to resources of concern to the Department are adequately addressed. For matters related to Section 4(f) resources, please contact Anita Barnett with the National Park Service, Southeast Regional Office; Atlanta Federal Center, 1924 Building; 100 Alabama Street, SW; Atlanta, Georgia, 30303; telephone 404-507-5706.

We appreciate the opportunity to provide these comments.

Sincerely,

Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

CITY OF ALCOA

ASSISTANT CITY MANAGER
G. William Hammon, Jr.

223 Associates Boulevard, Alcoa, Tennessee 37701-1948

Office: (865) 380-4795 Fax: (865) 380-4797
E-mail: bhammon@cityofalcoa-tn.gov

August 27, 2010

Mr. Michael W. Russell
TDOT Region 1
7345 Region Lane
Knoxville, TN 37914

Re: Comments, Pellissippi Parkway Extension
The City of Alcoa, Tennessee

Dear Mr. Russell:

The City of Alcoa would like to reinforce its affirmative position on the extension of the Pellissippi Parkway extension, from Highway 33 to Highway 321. The City feels it is in the best interest of the regional transportation system to connect this vital link of Interstate I - 140. The extension of the Pellissippi Parkway will not only assist in reliving existing local congestion but set the stage for addressing future demands as the traffic continues to grow in the region.

We have prepared the following comments on the Draft Environmental Impact Statement (DEIS) for the proposed project. Should we need to provide additional information or clarification, please do not hesitate to call.

Comments on the DEIS
Pellissippi Parkway Extension

1. Page 1-8, in the last paragraph the 2035 AADT on SR 33 is listed at 65,860 while on the illustration on page 1-9, it is listed at 68,850.

2. Page 1-4, under paragraph 1.2.1 **Initial Planning for Pellissippi Parkway**, the second paragraph indicates that the section of the Pellissippi Parkway between US 129 and Cusick Road opened in 2003. That section was actually opened in the same era as the section to 129 and was the result of negotiations between TDOT and the City of Alcoa in an effort to relieve the anticipated influx of traffic being forced to exit onto the already over-crowded US 129 (Alcoa Highway). Therefore, 1993 would be a more likely date for the opening of this section rather than 2003.

3. Page 3-13, in the fourth paragraph, it is stated that Alcoa's 1997 Subdivision Regulations do not mention sidewalks. The 1997 Regulations do require sidewalks and that is mentioned in both the section describing street construction and the section addressing the site plan approval process.

4. Page 3-21, in the section **Parks and Recreation,** the first reference to "John Sevier Park" should be changed to "Eagleton Park".

5. Page 3-20, **Figure 3-7** incorrectly labels Alternate "C" as Alternate "B".

6. General Traffic Projection Comments:

   a. Traffic is projected to increase on the Alcoa Highway from Pellissippi Parkway to the Hall Road split ranging from 31,570 - 56,100 in 2015 to 40,280 – 61,120 in

b. 2035. Also it is stated that the heavier traffic will occur South of Hunt Road. At the same time, there is no projected increase for Hall Road or the By-Pass South of the Hall Road split in 2035. Since those are the only two roadway sections connecting to the Alcoa Highway between the Hall Road split and the Hunt Road interchange, the question becomes; "where did that increase on traffic on US 129 come from or go to?"

c. Hall Road and Washington Street are basically the same corridor running through Alcoa and then Maryville. Hall Road is projected to have no increase in traffic while at the same time Washington Street is projected by over 13,000 cars per day which is an increase of almost 54%. It is difficult to understand how one section of the Hall Road/Washington corridor can be assigned a substantial growth in projected traffic volumes while another section remains stagnant. The study attempt to address that by stating the reason traffic is not projected to increase on Hall Road is "because of the built-out nature of development along the road." However, there are several undeveloped or redeveloping areas along Hall Road in addition to the 350 acre former Aluminum Company West Plant site which is nearing the final stages of planning that will transform it into a mixed use development.

Thank you for the opportunity to comment on the DEIS. Again, the extension of the Pellissippi Parkway from Hwy 33 to Highway 321 is integral to the basic operation of the overall regional transportation system. Knox, Blount and Sevier counties will need this critical addition to service the growing demand for improved access to the region.

Sincerely,

G. William Hammon, Jr.
Assistant City Manager

C: Mark Johnson, City Manager, City of Alcoa
Mayor, Don Mull, City of Alcoa
Ms. Nancy Skinner
Electronic, Mr. Michael W. Russell, TDOT, Region 1
Project Meeting Comments, TDOT

CITY of MARYVILLE
PEOPLE are the KEY

Office of the City Manager
404 West Broadway
Maryville, TN 37801
(865) 273-3401 phone
(865) 273-3424 fax
www.ci.maryville.tn.us

September 15, 2010

Mike Russell
TDOT Region 1
7345 Region Lane
Knoxville, TN 37914

Re: State Route 162 (Pellissippi Parkway Extension)

Dear Mr. Russell:

By this letter, the City of Maryville would like to express continued support of the completion of the Pellissippi Parkway Extension. From the inception of this project, the City of Maryville City Council representing 28,000 citizens have supported this extension with numerous resolutions. The City Council and City Staff have also participated in many public and private discussions with TDOT and the community regarding the need for this project to improve the traffic flow in and around our city.

The City of Maryville appreciates TDOT's deliberate processes to determine the viability of each project. Our City Councilmen attended the public presentation of the Draft Environmental Impact Statement and were pleased with the report. Based on all studies, workshops, and findings, the City of Maryville believes Alternate A is the preferred route. Per TDOT's Project Timeline, we are looking forward to the selection of the preferred alternative route which is scheduled to occur this Fall.

The City of Maryville is excited to move forward with the next phases of this project.

If you would like to discuss this further, do not hesitate to call me at (865) 273-3401.

Sincerely,

Greg McClain
City Manager

BLOUNT COUNTY MAYOR
Ed Mitchell
341 Court Street, Maryville, TN 37804-5906
Phone: (865) 273-5700
Fax: (865) 273-5705
Email: emitchell@blounttn.org

September 17, 2010

Mr. Mike Russell
TDOT Region 1
7345 Region Lane
Knoxville, TN 37914

RE: State Route 162 (Pellissippi Parkway Extension)

Dear Mr. Russell:

As Mayor of Blount County, I would like to express continued support of the completion of the Pellissippi Parkway Extension. From this project's inception, Blount County Government has supported this extension with numerous resolutions. We have also participated in many public and private discussions with TDOT and the community regarding the need for this project to improve the traffic flow in and around Blount County.

The Blount County Mayor's Office appreciated TDOT's deliberate processes to determine the viability of each project. I attended the public presentation of the Draft Environmental Impact Statement and was pleased with the report. Based on all the studies, workshops, and findings, we look forward to the selection of the preferred alternative route, scheduled to occur this Fall.

Blount County is excited to move forward with the next phases of this project.

If I can be of any assistance to you, please do not hesitate to contact me.

Sincerely,

Ed Mitchell
Blount County Mayor

pj

Chamber of Commerce
Blount Partnership

201 S. Washington St., Maryville, Tennessee 37804-5728
Ph: 865-983-2241 • Fax: 865-984-1386
http://blountchamber.com
E-Mail: info@BlountChamber.com

25 years accredited Chamber of Commerce

July 15, 2010

Mr. Mike Russell
TN Department of Transportation
7345 Region Lane
Knoxville, TN 37914

Dear Mr. Russell:

On behalf of the Blount County Chamber of Commerce representing over 1350 businesses in East Tennessee, please find enclosed a Resolution in support of the completion of the Pellissippi Parkway transportation project located in Blount County, Tennessee. Public support for the project began as early as the 1970's when local public officials and community leaders began their efforts to encourage the state to extend Pellissippi Parkway from west Knox County to what is now U.S. 321. This effort has been universally and consistently supported by the legislative bodies of Blount County, City of Maryville and the City of Alcoa.

Not only has the Pellissippi Parkway extension received the unflagging support of the legislative bodies in Blount County; it has also received the strong support of the business community. We have adopted numerous resolutions in support of the project, as has the Blount County Industrial Board and Metropolitan Knoxville Airport Authority. Not only does the project have government and business support, the local newspaper has endorsed the project for over a quarter of a century.

In summary, we request the Tennessee Department of Transportation to move forward on the completion of the Pellissippi Parkway extension to Highway 321 in Blount County. Please contact my office at 983-2241 should you need further assistance.

Respectfully,

Kathy DeLozier

Kathy DeLozier
Executive Vice President

Enclosure

Chamber of Commerce
Blount Partnership

Resolution of the Board of Directors
Of
The Blount County Chamber of Commerce

WHEREAS, the completion of the Pellissippi Parkway(S.R. 162) from I-40 in west Knox County to U.S. Highway 321 in Blount County, was included in Tennessee's 1986 Highway Program, and

WHEREAS, Pellissippi Parkway is complete from north I-40/75 Interchange to S.R. 33, and

WHEREAS, the current proposal was identified in 1995 Regional Long Range Transportation Plan and included in the 1998 Transportation Equity Act for the 21st Century (TEA-21) as a high priority project, and

WHEREAS, the completion of Pellissippi Parkway between S.R. 33 and U.S. Highway 321 is considered necessary to improve regional and local mobility for the public as well as emergency vehicles, improve traffic capacity and safety conditions on the existing road system, and to provide system linkage for the regional transportation system, and

WHEREAS, the Blount County Chamber of Commerce constitutes a central forum for the business interests throughout the region and has been on record in support of the Pellissippi Parkway completion since March of 1977, and

WHEREAS, the Blount County Chamber of Commerce has cooperated with the cities of Alcoa and Maryville, Blount County Government, Knoxville Region Transportation Planning Organization, and the Metropolitan Knoxville Airport Authority in an effort to develop consensus and thoughtfully prioritize a transportation plan that will yield continued economic vitality with consideration of those aesthetic features on which the tourism industry depends, and

WHEREAS, the completion of the Parkway has received widespread support throughout the entire regional economic trading area with endorsements from the following: Knoxville Area Chamber Partnership, Oak Ridge Chamber, Roane Alliance, Loudon County Chamber, Anderson County Chamber, Farragut/West Knox Chamber of Commerce, Monroe County Chamber, Jefferson County Chamber, Gatlinburg Chamber and Union County Chamber, and

WHEREAS, it is in the interest of the business community and the community at large to provide a transportation infrastructure that saves lives, boosts the local economy, creates jobs, lowers user costs, and reduces air pollution, and

NOW, THEREFORE, BE IT RESOLVED, The Blount County Chamber of Commerce supports the completion of the Pellissippi Parkway (S.R. 162) from S.R. 33 to U.S. Highway 321 in Blount County.

ADOPTED BY THE BOARD, THIS the 12th day of July, 2010.

James D. Horn

James D. Horn, Chairman

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
Federal Aviation Administration June 2, 2010	FAA-1	Requests that TDOT submit available drawings for review as the project moves forward.	TDOT will submit detailed design plans for the Preferred Alternative to FAA, following the issuance of the Record of Decision and the initiation of final design.
U.S. Environmental Protection Agency June 17, 2010			
EPA—Letter	EPA-L-1	TDOT had not adequately documented the purpose and need for the project, given its contentious and controversial background and the level of impacts to the local rural, farmland nature of the community. TDOT readily admits within the DEIS that "… this analysis does not demonstrate that any of the Build Alternatives would substantially improve the level of service for the highway network." Additionally vehicle miles traveled (VMT), safety, and travel time savings data all seem insufficient to support the justification for constructing the build alternatives.	Improving traffic flow is one of several transportation purposes for the project as documented in Section 1.3, Purpose of the Project, in this FEIS document. This project has been considered in the regional planning process since the 1980s and is consistent with local plans. Enhancing regional transportation system linkages, improving mobility around Maryville and Alcoa and enhancing roadway safety are other transportation purposes. The statements quoted from the DEIS are representative of the results of the corridor level of service (LOS) analysis, which is one measure of traffic operations. It is often the most cited measure; however, the statements are not reflective of the results of the intersection levels of service. Intersection delay and travel time savings are other valid measures of traffic operations. The 2011 intersection delay analysis conducted for this project demonstrated improvement for the Preferred Alternative and the other four-lane alternatives over the No-Build Alternative for several key intersections. The 2011 analysis revealed that under Alternative D, most of the intersections in the Maryville core experience would increase increased delay. The updated traffic analysis in the 2014 *Addendum to t*he *Traffic Technical Report* supports the conclusions for the four-lane alternatives. No intersection LOS was conducted in 2014 for Alternative D since this alternative would exceed the carrying capacity of a two-lane road. Additional discussion is included in Chapter 3 of this FEIS to more fully describe the intersection levels of improvement that are expected, and levels of improvement in traffic volumes.
EPA—Letter	EPA-L-2	Concerned with impacts to the rural farming community. TDOT needs to offer mitigation measure to lessen the	During the final design of the project, TDOT will meet with the farming community, either through individual meetings or community meetings, to determine how best to minimize the impacts on existing farmlands in the

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		cumulative impacts on the local farming community and conduct an aggressive outreach program to the farming to solicit their input.	corridor.
EPA—Letter	EPA-L-3	EPA is concerned about noise impacts to the community, and requests that TDOT commit to provide noise abatement measures within the green pages section of the FEIS summary.	An updated noise abatement analysis in compliance with TDOT's new Noise Policy has been conducted and is included in this FEIS. Once final design details are developed, the noise analysis and associated feasibility and reasonableness determinations will be updated again. Final decisions regarding the construction of noise barriers will be made during final project design. TDOT will continue a public involvement process during design and construction that will encourage input from affected property owners. TDOT has committed to build a noise wall in the Kensington Place mobile home community to mitigate noise and visual impacts for that community. This commitment is included in the Environmental Commitments sheet.
EPA—Letter	EPA-L-4	Air toxics impacts for highway projects should be evaluated based on emissions, dispersion modeling, and screening level risk assessments in locations where people work and reside. A discussion should be included regarding the near-roadway health impacts and the potential for such impacts during and following completion of the project. EPA recommends TDOT more thoroughly consider air toxics in their alternative analysis, quantify construction and operation emissions of MSATs, discuss dispersion emissions and exposure levels and identify appropriate avoidance, minimization and/or mitigation opportunities.	In FHWA's view, information is incomplete or unavailable to predict in any creditable way the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. FHWA has standard guidance concerning MSATs, which TDOT has been using since February 2006. This guidance provides prototype language, which TDOT has been including in its documentation. EPA disagrees with parts of the FHWA guidance, and discussions between the agencies have taken place to attempt to resolve the differences.
EPA—Letter	EPA-L-5	Document is rated EC-2 (Environmental concerns with additional information	Comment noted.

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		requested—to be included in FEIS.)	
EPA Detailed Comments—NEPA Office Comments			
EPA—NEPA office	EPA-NEPA-1	**Purpose & Need**—EPA is concerned regarding the purpose and need for the project. TDOT states on page 3-3 (Corridor Level of Service) "Overall, this level of service does not demonstrate that any of the Build Alternatives would substantially improve the level of service for the existing highway network." TDOT also states "It should be noted that while the LOS ratings along may not justify this project from a traffic flow perspective, other analyses support the need and purpose for this project, including travel time savings, reduction in crash exposure, regional linkages and system enhancements…" LOS analyses are usually the backbone of most transportation studies and EPA is concerned that the level of analyses does not support the stated project purpose and need.	The first statement EPA refers to is representative of the results of the LOS corridor analysis prepared for the project. However, the statement does not reflect the results of the intersection levels of service that were also prepared. Additional discussion has been added to Chapter 3 in the FEIS to more fully describe the intersection levels of improvement that are expected, and levels of improvement in traffic volumes. While the level of service rating does not change substantially among alternatives, it should be noted that the LOS rating is only one means for categorizing traffic operations. Additional measures are used to quantify traffic congestion, including delay, and are described in Chapter 3 of this FEIS. As EPA mention, this project has several purposes, one of which is to "Assist in achieving acceptable traffic flows (LOS) on the transportation network or not adversely affect traffic flows on existing transportation network." The other stated purposes have also been evaluated. The Preferred Alternative and other four-lane alternatives would substantially meet the purpose and need for the project, while Alternative D would partially address the purpose and need. The No-Build Alternative would not meet the purpose and need for the project. The Purpose and Need statement was reviewed with the agencies participating in the TESA process. The TESA agencies concurred with the Concurrence Point 1, 2, 3 and 4 Packages (Purpose and Need, Alternatives Considered, and Draft Environmental Document, and Preferred Alternative and Preliminary Mitigation Measures). Each of these Concurrence Point packages discussed the purpose and need for the project. In addition the public, organizations and local officials were provided several opportunities to comment on the purpose and need statement.
EPA—NEPA office	EPA-NEPA-1.a	**LOS Analysis—**TDOT has not conducted LOS analysis for several roads in the Maryville/Alcoa area. These roads should	Based on the public and agency comments received on the DEIS, TDOT determined that an LOS analysis should be conducted for Alternative D (enhanced two-lane) to provide a comparable level of analysis with the

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		be better analyzed to determine the Purpose and Need for the project. Overall TDOT has not provided convincing data to fulfill the project objective of "Assist in achieving acceptable traffic flows (LOS) on [the] transportation network or not adversely affect traffic flows on existing transportation network." In fact, the in Corridor LOS section on page 3-4, TDOT states, "Overall, this analysis does not demonstrate that any of the Build Alternatives would substantially improve the level of service for the existing roadway network."	Alternatives A and C. This additional analysis was conducted in 2011, prior to the selection of the Preferred Alternative. This additional analysis demonstrated that the Preferred Alternative (A) and Alternative C would result in substantial improvements in delay at five key intersection on the existing network, which Alternative D would have a moderate increase in delay at most of the intersections by 2035. This finding was upheld in the updated traffic analysis performed in 2013-2014 based on the updated regional travel demand model. While some of the existing road segments would remain at LOS E or F with the additional infrastructure projects, LOS is only one indicator of traffic operations and provides a relative rating scale. For two-lane highway analysis, LOS is based on percent time-spent following and average travel speed. For a multilane highway, LOS is based on speed-flow and density-flow relationships. For intersections, LOS is determined by control delay per vehicle. Improvements in these additional measures related to the Build Alternatives can be identified by reviewing the more detailed tables in the 2011 *Addendum to the Traffic Operations Technical Report*. The 2014 *Addendum to* the *Traffic Technical Report* contains updated information on LOS for the roadway segments and intersections (including delay) based on the 2013 updated regional travel demand model. Chapter 3 of this FEIS present the major changes in improvement (such as the reduction of multiple minutes in delay) have for clarification on the full impact of an alternative. An additional measure for evaluating traffic flow is travel times savings. It has been documented from a travel times savings analysis in Section 3.1.1.2 in the DEIS that travel time savings are in the range of 43% to 65%; the updated analysis for the FEIS (Section 3.1.4) finds that travel times savings would be between 56% and 65% for the four-lane alternatives, and 33% and 43% for Alternative D. Additional discussion of traffic and other measures of analysis have been included in the FEIS.
EPA—NEPA office	EPA-NEPA-1.a.1	**Table 1-[2]**: Traffic Level of service (2006, 2015, and 2035) does not display projected LOS for several roads (Washington Street, US 411, E Broadway/Old Knoxville Highway,	Sections of Washington Street, US 411, E. Broadway / Old Knoxville Highway, Sam Houston School Road, Peppermint Road, Hitch Road and Helton Road operate as urban streets as opposed to a two-lane or multilane highway. On an interrupted flow facility such as urban streets, the intersection signals

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		Sam Houston School Road, Peppermint Road, Hitch Road and Helton Road). This data is vital in justifying the need to build Pellissippi Parkway.	govern traffic operations and as such it is not possible to calculate a general free-flow LOS. In addition, the HCS+ software will only evaluate traffic operations on a highway segment with a minimum free flow speed of 45 mph. As part of the June 30, 2011 *Addendum to the Traffic Operations Technical Report*, TDOT prepared forecasts (2015 and 2035) and calculated levels of service for the roadway segments of Sam Houston School Road, Peppermint Road, Hitch Road, and Helton Road. Based on the 2013 updated travel demand model, updated traffic volume forecast and traffic operations have been prepared. The updated traffic analysis looks at 2010, 2020 and 2040. The LOS for the roadway segments listed above has been provided. The results of this analysis have been included in the FEIS.
EPA—NEPA office	EPA-NEPA-1.a.1 (cont)	**Table 1-[2]—**It seems the proposed project would not relieve traffic volumes of workday commuters traveling to their workplaces north of Maryville/Alcoa to Knoxville. EPA recommends that 1) TDOT further evaluate the northbound weekday (toward Knoxville) commuter LOS trends to determine if the Pellissippi Parkway will in fact improve LOS along these commuter routes, 2) TDOT evaluate the east/west bound traffic patterns toward Oak Ridge National Labs; and 3) Compare the two analyses to determine if the Pellissippi Parkway will improve the existing roads' LOS.	The traffic operations analyses conducted for this project identified both corridor and intersection level of service evaluations. While the corridor LOS does not appear to show substantial improvements in LOS, the analysis does indicate reductions in the amount of delay experienced at key existing intersections along the north/south corridors. This includes reducing the delay at the following intersections: SR 33/Wildwood Road, SR 33/E. Broadway Avenue, Washington Street/High Street, Washington Street/US 73 & US 321, and US 129/US 321. The reductions in delay are documented in more detail in the 2014 *Traffic Technical Report,* and are discussed in this FEIS.
EPA—NEPA office	EPA-NEPA-	Looking at Figure 1-7: Existing Levels of	The roads cited by EPA are part of the existing radial roadway network

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	1.a.2	Service, the poor LOS corridors (US 129/SR 115), SR 33, Sam Houston School Road, Peppermint Road, SR 35/US 411/Sevierville Road) are North/South corridors that run through or adjacent to subdivisions. It seems more practicable to improve these roads since they have a poor LOS.	extending from the central portion of Maryville. FEIS Section 1.4, *Purpose of the Project*, notes that the county's primarily radial road network limits mobility options, and notes the lack of a non-radial connection to the east of Maryville and Alcoa. Improving the north/south corridors would be beneficial to traffic using those routes but would not provide an alternative connection for traffic moving between Alcoa and points east of Maryville.
EPA—NEPA office	EPA-NEPA-1.a.3	Figure 1-8 and Figure 1-9 show the LOS for US 129/SR 115 improving. Page 1-14 states that "The section of Alcoa Highway between Hunt Road and Pellissippi Parkway would increase from LOS E to LOS C likely because of Relocated Alcoa Highway." This would indicate higher volumes of traffic are north and south, not east and west. How would the proposed Pellissippi Parkway improve the north/south roads' LOS and relieve the weekday volumes of traffic along the north/south corridors?	The proposed Relocated Alcoa Highway (referred to the *Regional Mobility Plan 2040* as the Alcoa Highway Parkway) is intended to relieve traffic using the US 129 corridor where the current roadway has extensive curb cuts that result in safety concerns. This project is included in the current *Regional Mobility Plan 2040* for Year 2019. This proposed project would provide more traffic relief on this section of Alcoa Highway (US 129) than would the PPE project. The PPE project is not expected to affect weekday traffic on US 129 between Hunt Road and Pellissippi Parkway The proposed PPE would reduce the amount of delay experienced at several intersections along the North/South corridors. This includes reducing the delay at the SR 33/Wildwood Road intersection and the SR 33/E. Broadway Avenue intersection. The reduction in delay has been documented in more detail in this FEIS.
EPA—NEPA office	EPA-NEPA-1.a.3 (cont)	Also, what is the projected LOS for all of the vicinity roads with the Build Alternatives? EPA recommends TDOT forecast the LOS for roads such as Washington Street, East Broadway/Old Knoxville Highway, and others, to better understand the traffic flow and traffic volumes.	As discussed above, TDOT has conducted a detailed traffic analysis for Alternative D and the study area network that would be served by Alternative D, including the Broadway/Old Knoxville road. For the roadways that operate as urban streets (such as Washington Street, East Broadway / Old Knoxville Highway) an LOS is not provided as the HCS+ software will only evaluate traffic operations on a highway segment with a minimum free flow speed of 45 mph. The intersection LOS will continue to govern as the indication of traffic flow on these roadways for the build alternatives.
EPA—NEPA office	EPA-NEPA-1.a.4	On page 3-4 Intersection LOS, TDOT states that only two intersections would benefit from the Build Alternatives (A or C). Could these intersections be improved by other	The updated traffic analysis using input from the 2013 regional travel demand model shows that operations at eight intersections would be improved by the proposed project (see Table 3-2 in the FEIS). In addition, the Preferred Alternative has substantial improvement in delay at most of the intersections

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		less environmentally impacting & extensive improvements?	in the Alcoa/Maryville core. The improvements range from 8 to 50 percent reduction in delay (compared to the No-Build Alternative). In actual terms of seconds of delay, these improvements correspond to a reduction in delay of between 1 and 163 seconds over the No-Build Alternative (see Table 3-4 in the FEIS).
EPA—NEPA office	EPA-NEPA-1.a.5	In comparing Figure 1-7 Existing level of service and 2015 Build Alternative Corridor Level of Service, it seems there is not much difference between the current LOS and the future Build LOS. EPA recommends that TDOT better describe the relationship between the existing, No-Build and Build Alternatives	While the level of service rating does not change substantially between alternatives, additional measures are used to quantify traffic congestion, including delay. It has been shown that under the Preferred Alternative or Alternative C substantial reductions in delay are achieved through study area intersections. Given that the level of service analysis indicates that the forecast volumes for Alternative D would exceed the carrying capacity of a two-lane road, an intersection-level analysis is expected to yield poor results similar to the corridor LOS analysis. Even if some intersection movements would be acceptable with Alternative D, the overall corridor would provide poor traffic operations as demonstrated by the corridor LOS. Thus, an intersection level of service analysis is unnecessary to demonstrate that Alternative D is not a viable alternative from a traffic operations perspective.
EPA—NEPA office	EPA-NEPA-1.a.6	Several LOS forecasts (Washington St and E. Broadway/Old Knox Hwy) in [Table] 1.1 Traffic Level of Service (2006, 2015, and 2035) were not calculated. EPA requests that TDOT forecasts the LOS for these roads to better understand the traffic flow and volumes of the Alcoa/Maryville area.	As discussed above, for the roadways that operate as urban streets (such as Washington Street, East Broadway / Old Knoxville Highway) an LOS is not provided as the HCS+ software will only evaluate traffic operations on a highway segment with a minimum free flow speed of 45 mph. The intersection LOS will continue to govern as the indication of traffic flow on these roadways for the Preferred Alternative and Build Alternatives.
EPA—NEPA office	EPA-NEPA-1.a.7	In Table 1-1 Traffic Level of Service, on page 1-13, several roads (Sam Houston School Road, Peppermint Road, Hitch Road, and Helton Road) that are not part of the state-maintained system were not evaluated for	As discussed above, TDOT prepared traffic volume forecasts for Alternative D comparable to those prepared for the Preferred Alternative and Alternative C. A LOS analysis was prepared and is included in FEIS. The 2014 *Traffic Technical Report* documents the results of the additional analysis.

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		LOS. EPA recommends TDOT conduct LOS and volume forecasts for these roads to better compare the No-Build to the Build Alternatives and especially considering that Alternative D is the improvement of Sam Houston School Road.	
EPA—NEPA office	EPA-NEPA-1.b	Vehicle Miles Traveled (VMT): Section 1.4.1.2 Note on Recent Trend in VMT—EPA disagrees with TDOT's assumption that VMT trends will increase despite data that proves otherwise and that the recreational traffic near the Great Smoky Mountains National Park will increase. TDOT projects an overall increase in VMT in the region (Table 1-1); however there is not data to substantiate the claim that VMT will increase because of recreational traffic to the GSMNP.	The latest Knoxville Regional Travel Demand Model is the source of the projected VMT increases for the region. The model is based on US Census data as well as household travel surveys conducted in the region. While this output may be in contrast to national trends, the region-specific data is viewed as a more accurate representation of future trends as it is based on regional trends and data. Additional descriptions related to the Travel Demand Model and the output is included in this FEIS.
EPA—NEPA office	EPA-NEPA-1.c	Travel Between Study Area: Section 1.4.1.1 Travel Between Study Area and Knox County—Good information but TDOT does not draw any conclusions. The discussion and Figure 1-5 seems to indicate that the predominant flow of traffic is north/south along US 129 and SR 33. What are the volumes of traffic along the East/West Routes toward Oak Ridge and I-40? EPA recommends TDOT better describe the conclusions from Section 1.4.1 and Figure 1-5. EPA would like see more data and discussion regarding East/West volumes of traffic toward I-40.	The analysis presented in Section 1.4.1.1 was not intended to draw conclusions regarding dominant traffic flow. This information was used solely to estimate the traffic flow from the eastern part of the study area to the northern part of the study area or rather towards Knoxville. Updated text has been included in the FEIS to provide a summary assessment of the volume of traffic travelling between the study area and Knox County.

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EPA—NEPA office	EPA-NEPA-1.d	Travel Time Savings—In Tables 3-3 and 3-4, TDOT determines the travel time savings. Even in the best case scenario, Alts A & C would only decrease travel time by 11 minutes and Alt D by only 7 minutes. Wouldn't other less contentious and less disrupting alternatives accomplish the same travel time savings? EPA requests that TDOT consider and further analyze the worthiness of the proposed build alternatives.	The travel time savings for the proposed Build Alternatives presented in the DEIS are substantial savings when compared to the current travel time for the existing network (19 minutes). Each of the Build Alternatives would reduce the travel time generally by half. The travel time savings are based on decreasing intersection delay and increasing travel speed. By providing a path that has fewer intersections and a higher speed, the travel time savings listed in the DEIS would be achievable. Spot improvements at the existing intersections alone would not provide the same reduction in travel time since they would only address one of the functions of travel time savings (increase intersection capacity and therefore reduce intersection delay). Widening projects along the arterials would allow for an increase in travel speed but would cause major impacts to residences along these routes due to limited room to widen them and the fact that homes are immediately adjacent to these roads.
EPA—NEPA office	EPA-NEPA-1.e	Safety—Safety is listed as a project purpose; however, none of the studied roadways have a critical crash rate ratio (A/C) that exceeds the TDOT threshold of 3.5. Four sections have critical crash rates that exceed 2.0. How will the Build Alts improve these four roadway sections? Can other less environmentally impacting alternatives be made to these specific roadways to improve safety without building the extension? EPA recommends TDOT provide further information to support the project's safety purpose and need.	An updated crash analysis, for years 2010 through 2012, has been conducted and is documented in the 2014 *Crash Analysis Report*. None of the A/C ratios exceed TDOT threshold of 3.5 to receive Hazard Elimination Safety Program (HESP) funding. Ten roadway sections have a higher than average number of crashes (critical crash rate factors greater than 1). The existing transportation system requires travelers between the northwestern and eastern portions of Blount County to use a route that includes portions of US 321/SR 73, Hall Road and Washington Street, and US 129 or SR 33. As evidenced by the crash analysis, a transportation option that would divert some through travelers away from these roadways in the Maryville core could help to reduce the number of crashes
EPA—NEPA office	EPA-NEPA-3	**Farmland Impacts**—Natural Resource Conservation Service (NCRS) has determined that each of the Build Alternatives would impact prime farmlands (page 3-40). TDOT recognizes the	Acknowledging that farmlands are an important issue in the study area, TDOT has addressed potential direct, indirect and cumulative impacts to farmlands in Chapter 3 of the DEIS and the FEIS, and had coordinated with the NRCS on the project on several occasions. The project is within the designated Urban Growth Boundary for Maryville and Alcoa, and it is anticipated that future

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		cumulative impacts of the project on farmlands. EPA requests that a more thorough analysis to be completed to determine direct, indirect and cumulative impacts. Also, TDOT should reach out to farmers and the NCRS to determine the least impacting alternative to farmlands. Farmer and NRCS input should be solicited and more thorough discussed in the Final EIS.	developments (private and public) are likely to convert much of the existing agricultural lands between the existing city boundaries and the Little River to residential and/or commercial use, which is consistent with the Blount County Conceptual Land Use Plan. The Preferred Alternative and other project alternatives would result in the conversion of farmland to a transportation use, and indirectly/cumulatively to other uses. TDOT has committed to work with farmers during the final design to reduce the impacts on farmlands as much as possible based on available design solutions (this is included in the Environmental Commitments Sheet).
EPA—NEPA office	EPA-NEPA-4	Noise—EPA is concerned about noise impacts to residents; between 64 and 110 residences will be impacted by noise, and 25-86 residences will have substantial increased in noise. EPA understands that the final decision on noise barriers will be made during the design phase, but would like to be assured that noise abatement measures would be carried out.	In 2014 an updated Noise Analysis was conducted, based on model output from the new regional travel demand model. Based on that analysis one noise barrier has been preliminarily identified as feasible and reasonable. TDOT has committed to construct that noise barrier as mitigation for the Kensington Place mobile home community, provided that the majority of benefited residents and property owners give their approval. TDOT is required to update the noise analysis and associated feasibility and reasonableness determinations for the project during final design. Final decisions regarding the use of noise abatement measures will be made following the public involvement process (including a design public hearing). TDOT is following its Noise Policy.
EPA—NEPA office	EPA-NEPA-4 (cont)	Additionally, FHWA noise regulations (23 CFR 772.11(f) require "the views of the impacted residents will be a major consideration in reaching a decision on the reasonableness of abatement measures to be provided." EPA notes that no analysis of discussion of the views of the impacted residents or general public is found in the DEIS.	TDOT will conduct outreach with the affected residents during final design. A design public hearing will be held at which residents and the general public will be encouraged to provide input. This commitment has been added to the Environmental Commitments Sheet.

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EPA—NEPA office	EPA-NEPA-4 (cont)	Further, 23 CFR 722.13 discusses more than just noise barriers as noise abatement measures that should be considered. 23 CFR 772.11(d) states "When noise abatement measures are being considered, every reasonable effort shall be made to obtain substantial noise reductions." Also, 722.13(d) refers to instances in which noise abatement measures other than those listed in 722.13(c) may be proposed for Types I and II projects by the highway agency and approved by the Regional FHWA Administrator on a case by case basis.	The DEIS *Noise Technical Report* (July 2009) included a preliminary consideration of the applicability of the following strategies for noise abatement: alteration of roadway horizontal or vertical alignments; traffic management measures; acquisition of property rights (either for fee or lesser interest) for construction of noise barriers; sound insulation of public use or non-profit institutional structures; and construction of noise barriers (noise walls). As part of this FEIS, TDOT has updated the noise abatement analysis to conform to it 2011 Noise Policy. TDOT is required to update the noise analysis and associated feasibility and reasonableness determinations during final design. Final decisions regarding the use of noise abatement measures will be made following the public involvement process (including a design public hearing). The commitment to follow a public involvement process will be added to the Environmental Commitments Sheet.
EPA—NEPA office	EPA-NEPA-4 (cont)	EPA recommends that TDOT commit to provide noise abatement measures (as practicable and within authorities of TDOT) in the Green Sheet (Environmental Commitment Section)	TDOT is required to provide noise abatement measures (as practicable and within TDOT's authority) by its noise policy; this applies to all projects, and is not a project-specific commitment.
EPA—NEPA office	EPA-NEPA-5	Inclusion of Mitigation Measures in Environmental Commitments Section—TDOT has proposed several reasonable mitigation measures throughout the EIS; however, many of these measures have not been included within the Green Sheet. EPA recommends that the measures be included in the Green Sheets.	The preliminary mitigation measures have been incorporated in this FEIS, and listed in the Environmental Commitments Sheet. See responses to specific impacts below.
EPA—NEPA office	EPA-NEPA-5.a	Farmland Impacts—In Section 3.6.2, TDOT states that it will work with farm owners to reduce the impacts on farmlands as much as possible based on available design	TDOT has added to the Environmental Commitments the statement, "During final design, TDOT will work with farm owners to reduce the impacts on farmlands as much as possible based on available design solutions." In Section 3.6.4, potential mitigation measures are mentioned, including

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		solutions. EPA recommends TDOT describe potential mitigation measures within this section, and include a farmlands mitigation statement within the Green Sheet.	minimizing the amount of division of farms to ensure that farm remnants are viable.
EPA—NEPA office	EPA-NEPA-5.b	Floodplain impacts—In Section 3.13.2 Floodplains and Hydrology, TDOT states that because the proposed alignments run generally perpendicular to the floodplains, avoidance of all floodplains is not possible. Potential mitigation measures were described but were omitted from the Green Sheets. EPA recommends the floodplain mitigation measures addressed in this section be included in the Green Pages.	During the preparation of this FEIS, TDOT has confirmed floodplain mitigation measures that would be appropriate for this project. These are standard procedures and as such are not included separately in the Environmental Commitments.
EPA—NEPA office	EPA-NEPA-5.c	Karst Topography. In a memo dated May 15, 2006, TDEC discussed special measures to be taken to protect sinkholes. Although TDOT has included a Karst Topography commitment statement in the Green Pages, it is unclear whether this commitment includes the mitigation measures outlined in the TDEC letter. TDOT should clarify, and either include a specific environmental commitment to address sinkhole mitigation or revise the Karst topography commitment statement to reflect sinkhole mitigation.	TDOT has expanded the list of potential mitigation measures in Section 3.13.1. The Environmental Commitment has been revised to read: "During final design and during construction, TDOT will take special care to minimize unnecessary impacts to the habitat of the numerous karst features (specifically sinkholes) in the study area. TDOT will abide by all permit terms, including those through the UIC program."
EPA Detailed Comments—Water Protection Division			
EPA—Water Protection	EPA—WPD- 1	Pg 2.18-19—public transit, fixed route local bus service and bus rapid transit Institute	Since the Preferred Alternative has been selected, detailed discussion of the alternatives previously considered and dismissed from evaluation in the DEIS

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		for Transportation Engineers Tool Box should be evaluated with the 2015 and 2025 population projections that were provided earlier in the chapter.	has been eliminated in the FEIS.
EPA—Water Protection	EPA—WPD- 2	Pg 2.20 –fixed route public transit service should be considered in conjunction with Alternative D or road improvements.	The concept of fixed route public transit service was not advanced for further study for the reasons listed on page 2-20 of the DEIS. While local bus service is a desirable transportation alternative, it would not resolve the needs identified for this project.
EPA—Water Protection	EPA—WPD- 3	Pg 3.15—Figure 3.4—Alternative B should be correctly labeled as Alternative C.	This error has been corrected in the FEIS – the figure is now 3.5.
EPA—Water Protection	EPA—WPD- 4	Pg 3.20—Figure 3.7—Alternative B should be correctly labeled as Alt C. Doesn't part of the cemetery being built over essentially eliminate Alternative C from consideration? Also Sam Houston Schoolhouse is not indicated on the map.	This Alt C label error and the missing Sam Houston Schoolhouse location has been added to Figure 3-8, Community Facilities, in the FEIS. Alternative C does not encroach into either cemetery shown on the map—the scale of the map makes detailed boundaries difficult to see.
EPA—Water Protection	EPA—WPD- 5	Pg 3.70—Potential Mitigation measures [for soils and geology]—the last sentence needs more detail regarding the design for protecting groundwater and aquatic species during and after construction.	Based on coordination from TDEC Division of Water Supply in 2006 and 2010, the requirements for erosion control in the vicinity of sinkholes are basically the same as the erosion control plan around streams required by the Division of Water Resources. In the FEIS, TDOT has expanded the Section 3.13.1, Soils and Geology, Potential Mitigation Measures, to include TDEC's Division of Water Supply's requirements as listed in the Mary 15, 2006, coordination letter and confirmed in the January 6, 2010, TDEC response to the Concurrence Point 3 package.
EPA—Water Protection	EPA—WPD- 6	Pg 3-79, Impacts to Streams, Springs, Seeps, etc. Doesn't Alternative D already cross these streams (2 in Table 3.26) because of existing roadway? Are there any new crossings that would be created with Alternative D?	An updated Ecology Study for Alternative D was conducted in 2014. During the 2014 field surveys some of the non-wetland waters that had been identified as wet weather conveyances (WWC) in 2008 field surveys were now determined to be more representative of a wetland, intermittent stream, or a perennial stream. Additional wet weather conveyances were identified where there were previously none. These changes are most likely due to the fact that in

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
			2008 precipitation was well below average for the region resulting in no water flow in watercourses that, under normal conditions, may have intermittent to continuous water flow. Alternative D would cause a new impact to Stream 7 (formerly 5) due to the extension of the existing culvert to accommodate the road widening. Alternative D would cross Stream 10 (formerly 7) in a new location, east of the existing roadway. The existing roads along Alternative D cross two 303(d) listed streams.
EPA—Water Protection	EPA—WPD- 7	Pg 3-79, Table 3.26—Wet Weather Conveyances (WWC) (linear feet affected), Alternative D—1424. This is unclear. Is this increase because of the old ditches along side or existing roadways affected? Needs further discussion in the Impacts to Streams, Springs, Seeps and Other Waterbodies section [Section 3.14.2.1].	Based on the 2014 field surveys, the impact of Alternative D on WWCs is 650 feet rather than the 1,424 feet reported in the DEIS. The reported impact is due to the widening of the existing roadway, which would cause impacts to WWCs that are currently not impacted by the existing roadway. These WWCs either run parallel to the existing roadway or they begin/end beyond the current toe of slope of the existing roadway.
EPA—Water Protection	EPA—WPD- 8	Pg 3.80-81, Tables 3.27 & 3.28, Summary of Alternatives A and C impacts to aquatic resources. In the Potential Impacts—Type of Impacts—Entire column. Any these that have construction activities, including culverts, would likely have sediment runoff.	Updated Ecology Reports were prepared in 2013 and 2014. The updates detailed tables summarizing impacts to the Preferred Alternatives and other alternatives considered are now presented in Attachment I. These tables present the "known" amount of impacts from structures and/or fill material. The actual linear footage impact from sediment run-off is difficult to predict and may also vary, depending on the conditions of the site. However, TDOT has accounted for the potential impact to streams from sediment run-off, which is discussed in Section 3.14.2 *Aquatic Resources and Water Quality*. The potential impacts from sediment run-off will be avoided and/or minimized by the implementation of best management practices, which are discussed in the mitigation section.
EPA—Water Protection	EPA—WPD- 9	Pg 3.82, Table 3.29 Summary of Alternative D Impacts to Aquatic Resources, WWC 1-4, Legal Designation column. Is this an existing roadside ditch? If so, wouldn't this be considered natural aquatic resources	DEIS WWC-2 is the only existing roadside ditch; the 2013 ecology study determined that this resource is an intermittent stream (STR-3). Impacts to Alternative D's water resources are now described in Table I-3 in Attachment I.

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
		that should be counted among the impacts?	
EPA—Water Protection	EPA—WPD- 10	Pg 3.85 Measures to Avoid or Minimize Impacts to Aquatic Resources. 2nd paragraph—what specific measures will be taken and how will they minimize the impacts. 3rd [4th] paragraph—who will conduct the inspections? 4th [5th] paragraph—provide more specific detail regarding erosion and control failures and standards; in particular the standards that will be followed for erosion and control should be included.	Additional details regarding mitigation have been added to the *Preliminary Mitigation Measure for Aquatic Resources* subsection of Section 3.14.2: Long-term impacts to aquatic organisms can occur through the loss of natural streambed by culvert construction, bank clearing, the placement of rip-rap, and the removal of trees lining the channel. TDOT will make every effort to avoid or minimize impacts to perennial streams at highway crossings. Construction of culverts will be staged during the drier portions of the year, where and when possible, typically late summer and fall, when stream flows are reduced. If bridges are constructed, they will be designed to span the entire stream channel, where possible. The fording of streams by construction equipment at bridge locations will be prohibited. Stream channels requiring relocation or channelization will be replaced on-site to the practical extent possible, using techniques that will maintain existing stream characteristics such as channel profile, elevation, gradient, and tree canopy. Use of "Natural Channel Design" may be required if the portion of affected stream is generally greater than 200 feet long. Stream or water body impacts that cannot be mitigated on-site—such as impacts of culverts greater than 200 feet or impacts to springs or seeps that require rock fill to allow for movement of water underneath the roadway—will be mitigated off-site by either improving a degraded system or by making a comparable payment to an in-lieu-fee program or mitigation bank. The particular program or bank used will perform the required off-site mitigation under the direction of state and federal regulatory and resource agencies. TDOT will provide the USACE with a copy of the Environmental Boundaries Study and Mitigation Memorandum prior to submitting the permit application. Prior to submitting a permit application, TDOT will invite the USACE to participate in a field review to make jurisdictional determinations for any of the streams and/or wetlands that will be impacted by the project, at the USACE's discretion. TDOT will carry out any required mitigation for

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
			jurisdictional stream and wetland impacts as per condition of the permit.
EPA—Water Protection	EPA—WPD- 11	Pg 3.86—2nd para. TDOT should look at the measures that would be required by alternative [to avoid impacts to streams], the unavoidable impacts by alternative and the effectiveness of measures by alternative.	A comparison by alternative of measures to avoid impacts, unavoidable impacts and effectiveness of measures would not likely assist in determining the selection of the Preferred Alternative. During final design, TDOT will confirm and evaluate measures to avoid, minimize or mitigate impacts of the project on aquatic resources.
EPA—Water Protection	EPA—WPD- 12	Pg 3.87, Impacts to Water Quality, 1st para., 1st sentence needs clarification since Peppermint Branch and Gravelly Creek are already crossed by roads that comprise part of Alt D.	The level of detail in the first paragraph has been reduced, so no specific mention of Alternative D is contained in this paragraph. The additional language suggested has not been added.
EPA—Water Protection	EPA—WPD- 13	Pg 3.87, Impacts to Water Quality, 2nd paragraph. These land disturbing activities can also contribute to degradation of groundwater quality by the disturbance author and removal of the overburden that would otherwise protect the underground sources of water; this is especially true in the case of karst geology. The impacts on underground sources of drinking water need to be discussed and analyzed.	The following paragraph has been added to this subsection: "The land disturbing activities can also contribute to degradation of groundwater quality by the activities and removal of overburden that would otherwise protect the underground sources of water, particularly in the case of karst geology. The result could be increased levels of drinking water treatment for public water supplies and could be a major concern for private well owners in an area with grazing cattle."

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
EPA—Water Protection	EPA—WPD- 14	Pg 3.88—mitigation for water quality—there should be much more detail on the mitigation measures.	Some of the BMPs that would be implemented to avoid and minimize impacts to water quality may include: installing silt fencing, biodegradable mats/blankets, straw bales, applying temporary grass seed in disturbed areas, covering soil piles during rain events and at the end of each work day, fueling of equipment away from aquatic resources, installing check dams, where appropriate, installing retention/detention basins, where appropriate, and preserving riparian vegetation, when possible. Mitigation would also be achieved by restoring the impacted streams and wetlands on-site and/or by purchasing stream and wetland mitigation credits within the watershed. This additional discussion has been added to the *Preliminary Mitigation Measures for Water Quality* subsection in Section 3.14.2.
EPA—Water Protection	EPA—WPD- 15	Pg 3.98—(in Section 3.15.7 Water Quality & Erosion Control) -Construction activities could have any impact on underground sources of drinking water (see comment 13 above)	A sentence has been added to Section 3.15.7 to acknowledge that construction activities can have an impact on surface and underground sources of drinking water.
EPA—Water Protection	EPA—WPD- 16	Pg 3.99 Section 3.16.1.1. Indirect Effects—It is not clear if commercial developments are considered among the bulleted items.	The bulleted list in Section 3.16.1.1 was not intended to list specific projects. Planned commercial developments are included among the types of reasonably foreseeable actions or projects.
EPA—Water Protection	EPA—WPD- 17	Pg 3.99, Section 3.16.1.1 Indirect Effects. Last paragraph. A project could have a small effect and the resulting development (such as commercial or residential) could have a very large effect…that could mean a large impact that would not have occurred without the roadway. This should be acknowledged and included in the EIS.	New or expanded development coming in after a road project could have its own direct and indirect effects on various resources. The 2009 *Economic and Fiscal Impact Analysis* and the 2015 *Addendum to the 2009 Economic and Fiscal Impact Analysis* for this project determined that the amount of additional development as a result of this project would be small.
EPA—Water Protection	EPA—WPD- 18	Pg 3-100, Section 3.16.2 Methodology—Indirect Effects, This should be discussed by	The methodology used to conduct the indirect impact assessment is consistent across all alternatives. The analysis in Section 3.16.5.2 subsection, *Potential*

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
		alternative since Alternative D would be expected to have a much smaller indirect effect due to much of the roadway already being in place.	*Indirect Impacts*, identifies when the anticipated indirect effects of Alternative D are different from those the Preferred Alternative and the other four-lane alternatives considered.
EPA—Water Protection	EPA—WPD- 19	Pg 3-112. Water Quality, to end of 2nd sentence—add "or groundwater in karst geology." Also add another sentence—"Decreased recharge of groundwater may also result from increased amounts of impervious surfaces.	The text has been revised as requested.
EPA—Water Protection	EPA—WPD- 20	Pg 3-118—Water Quality, to end of 2nd sentence, add "including groundwater."	The text has been revised as requested.
EPA—Water Protection	EPA—WPD- 21	Pg 3.120, Table 3.35 Summary of Effects—consideration of effects based on earlier comments (groundwater) need to be added to this table. (See comment 13 above.)	Table 3-37 (formerly 3-35) has been revised to include a line item for Water Quality that addresses this comment.
EPA—Water Protection	EPA—WPD- 22	Pg 3,123, Table 3.35 Summary of Effects—see above comments on page 3.79 related to wet weather conveyances and ponds (EPA WP comments 7 & 8 above)	Table 3-37 (formerly 3-35) has been revised to include the results of the 2013 and 2014 ecological studies including the impacts to WWCs and ponds.
EPA—Water Protection	EPA—WPD- 23	Pg 4.7 Table 4-1 Agency Responses to Initial Coordination, 2nd row, TDEC, Division of Water Supply. TDOT needs to identify and discuss what BMPs will be required.	The letter from TDEC was sent in 2006, during project scoping. Based in part on the TDEC scoping comments BMPs for water quality during construction were discussed in DEIS Section 3.15.7, Water Quality and Erosion Control.
EPA Detailed Comments—Air Toxics Assessment and Implementation Section			
EPA-Air Toxics	EPA-AT-1	Page 3-4 (Figures 3-1 and 3-2), Table 3-1). The Intersection LOS section addresses LOS in 2015 and 2035. While the LOS for Alternatives A and C seem to range	The Knoxville *Regional Mobility Plan* includes an array of transportation improvements in Blount County that together with the proposed Pellissippi Parkway Extension, are intended to address the transportation needs of the county. Those projects are part of the regional model that has been used to

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
		between LOS A and D for 2015, by the design year of 2035, Alternatives A and C are operating at an unacceptable LOS E and LOS F. Is there a broader plan into which this highway extension fits such that the purpose of the proposed action ("assist in achieving acceptable traffic flows (LOS) of the transportation network or not adversely affect traffic flows on existing transportation network") will be realized?	evaluate the Build Alternatives in the DEIS. However, the proposed project is being evaluated as a standalone project. As discussed in earlier responses, the proposed project has a number of purposes, of which the goal of "assist in achieving acceptable traffic flows" is one but not the only one. The updated traffic forecasts (2013) and traffic operations (2014), based on the 2013 approved regional travel demand model, show the Preferred Alternative and the other four-lane alternatives considered (including Alternative C) will operate at acceptable LOS through 2040.
EPA-Air Toxics	EPA-AT-2	Page 3-96, Section 3.15.3 [Construction Impacts, Air Quality] focuses on dust suppression as a mitigation measure but there are many more mitigation measures that should be carried out.	This section has been revised to read: "This project will result in the temporary generation of construction-related pollutant emissions and dust that could result in short-term air quality impacts. These construction-related impacts will be mitigated through the implementation of Best Management Practices, which are included in TDOT's *Standard Specifications for Road and Bridge Construction*. All construction equipment shall be maintained, repaired and adjusted to keep it in full satisfactory condition to minimize pollutant emissions." This language reflects TDOT's commitment to follow its Standard Specifications.
EPA-Air Toxics	EPA-AT-3	Pg 3-111, Air Quality. This section notes that the parkway extension would result in some induced residential and commercial development. This is an area that is already experiencing rapid growth (see page 1-21). The discussion of MSAT emissions on page 3-116 notes that the magnitude of EPA-projected reductions is so great…that MSAT emissions in the study area are likely to be lower in the future in virtually all locations regardless of whether the No-Build or Build alternatives are implemented.	The FHWA acknowledges that the project may result in increased exposure to MSAT emissions in certain locations. The FHWA also acknowledges the concentrations and duration of exposures are uncertain, and because of this uncertainty, the health effects from these emissions cannot be credibly determined. There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by Health Effects Institute (HEI). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel particulate matter. The EPA and the HEI have not established a basis for quantitative risk assessment of diesel particulate matter in ambient settings.

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
		Projected emission reductions resulting from EPA rules do not absolve the FHWA and the project sponsor from their responsibility to protect public health from emissions associated with this project by using appropriate mitigation measures. Furthermore, the future reductions in emissions resulting from EPA rules do not inform the decision concerning which alternative to select. The purpose of the DEIS is to compare the impacts of the alternatives being considered against one another at some point in the future, not to evaluate the impact of the EPA regulations between today and some point in the future.	There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires the EPA to determine a "safe" or "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step. The goal here is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million. In some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the US Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two-step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than safe or acceptable. Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers. Decision makers would need to weigh the information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.
EPA-Air Toxics	EPA-AT-4	Feb 2010 Air Quality Technical Report (page 2-21). The report states that under each alternative there may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore it is possible that localized	As discussed above in the response to Air Toxics Assessment Comment # 3, there are limitations in forecasting health impacts and considerable uncertainties associated with the existing estimates of toxicity of the various MSATs. There is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel particulate matter. The EPA and the HEI have not

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
		increases and decreases in MSAT emissions may occur…However, even if increases do occur at these locations, they are expected to be substantially reduced in the future due to implementation of EPA's vehicle and fuel regulations. Given that this project is likely to be built in a populated area, the potential impact of locally elevated levels of MSAT should be evaluated. The DEIS has appropriately identified several locations of sensitive populations. It would be helpful to estimate the concentrations of MSATS at these locations, to estimate the locations where higher concentrations of MSATS resulting from construction and operation of the different alternatives are likely to occur, and to identify their locations, concentrations and potential health effects in the FEIS. Many reports published in peer reviewed journals have linked proximity to high volume traffic with health effects. This literature should also be discussed in the FEIS.	established a basis for quantitative risk assessment of diesel particulate matter in ambient settings. There is also the lack of a national consensus on an acceptable level of risk.
EPA-Air Toxics	EPA-AT-5	Pg G-1 and G-2 and Feb 2010 Air Quality Technical Report (page 2-25). These pages state that there are technical shortcomings that prevent reliable comparisons of MSAT emissions and potential effects at the project level. EPA states that while it is correct that available technical tools do not predict health impacts, they do allow a comparison of the potential impacts among	As discussed above in the response to Air Toxics Assessment comment #3, because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers or the public. The decision makers would need to weigh the information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
		alternatives. The thrust of the text in the report is at variance with the common practice of air quality and environmental health professionals, as reflected in the body of peer-reviewed literature employing these various models. The Pellissippi Parkway Extension appears to be a project in which there is considerable community interest. The FEIS should provide the public with a more complete analysis of the potential impacts of air toxics associated with the construction and operation of this extension project.	
US Department of the Interior—Fish and Wildlife Service July 30, 2010	FWS-1	Section 7 Endangered Species Act requirements fulfilled for three species (snail darter, duskytail darter and fine-rayed pigtoe), Obligations under Section 7 may be reconsidered if 1) new information reveals impacts of the project that may affect listed species or critical habitat in a manner not previously considered, 2) the proposed action is subsequently modified to included activities that were not considered during this consultation, or 3) new species are listed or critical habitat designated that might be affected by the proposed action.	Comment noted.
	FWS-2	The potential to adversely affect the Indiana bat was addressed in the DEIS by proposing to restrict tree cutting to the period of October 15 through March 31. In a letter to TDOT dated December 1, 2009, we concurred with your determination of	In response to the USFWS's concerns about the Indiana bat, during the 2012 summer season TDOT conducted a mist net and acoustical survey in the project area. No Indiana bats were captured or acoustically detected during the survey. The results are documented in the 2012 *Indiana Bat Mist Net and Acoustical Survey Report*. The USFWS concurred with the findings of the report in a letter dated October 11, 2012. Thus the proposed project is "not likely to

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
		"not likely to adversely affect for the Indiana bat." However, our office no longer believes that a timeframe restriction on tree cutting properly addresses indirect and cumulative impacts to Indiana bat. Therefore our concurrence is no longer in effect and further coordination with our office would be required under Section 7, prior to removal of trees for this project.	adversely affect" the Indiana bat. In 2013, TDOT updated its Biological Assessment for the project. The USFWS concurred with TDOT's species determination calls of "Not Likely to Adversely Affect" for all of the federally listed species in a letter dated July 26, 2013. In addition, the USFWS stated that in light of TDOT's commitments to improved water quality measurers and negative surveys for Indiana bats in the project area, that the requirements under the Section 7 of the ESA of 1973, as amended, are fulfilled.
US Army Corps of Engineers (USACE) July 9, 2010	USACE-1	The 3 alternative alignments would impact jurisdictional waters of the US; therefore a Department of the Army (DA) permit would be required for any discharge of fill material into jurisdictional waters, including wetlands, pursuant to Section 404 of the Clean Water Act.	Comment noted.
	USACE-2	Our review of the DEIS reveals that the document covers all areas of interest and/or programs administered by our agency. However, if possible, please incorporate any stream and/or wetland environmental or mitigation commitments discussed in the DEIS in the Summary section (page S-7).	The following has been added to the Environmental Commitments sheet. **Wetlands and Streams** - TDOT will provide USACE with copies of the Environmental Boundaries Study and Mitigation Memorandum prior to submitting the permit application. TDOT will invite USACE to participate in a field review to make a jurisdiction determination for any of the streams and wetlands that will be impacted by the project, at USACE's discretion. TDOT will carry out any required mitigation for jurisdictional stream and wetland impacts, which is a condition of the permit.
	USACE-3	Typically, the COE usually recommends practicable alternatives based on the alignment that would impact and/or minimize the amount of impacts on aquatic resources.	Comment noted.
	USACE-4	In addition, since DA permits would be required for the proposed work, you should	Comment noted. Permits will be applied for during the early stages of the

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
		submit applications, plans of the work, locations of crossings, stream and wetland impacts, proposed mitigation, and any additional supporting environmental documentation in a timely manner to obtain the necessary permits for the work.	design process.
USDOI, Office of the Secretary December 3, 2010	DOI-1	Endangered Species—With regard to protective measures for the Indiana bat, the USFWS no longer believes that a timeframe restriction on tree cutting properly addresses indirect and cumulative impacts to Indiana bat. Further coordination with USFWS is required under Section 7 prior to removal of trees for this project. Contact John C. Griffin, Transportation Biologist with the USFWS Tennessee Field Office.	See response to USFWS July 30, 2010—comment # 2. The requirements under the Section 7 of the ESA of 1973, as amended, are fulfilled.
	DOI-2	Section 4(f) Comments—A Section 4(f) Evaluation was not prepared for this project, but because of the project's potential involvement with several historic and archaeological resources in the area, the project has been processed as a Section 4(f) case. At this time the Department (US DOI) cannot concur that there is no feasible and prudent alternative to the proposed use and that all possible planning has been done to minimize harm to the Section 4(f) lands/ archaeological sites. Phase II testing must be completed and a report or avoidance strategy must be submitted to	For the Preferred Alternative, TDOT has conducted a Phase II archaeological testing program on five potentially eligible sites and submitted a report of the Section 106 findings to the SHPO; the report recommended one site as National Register eligible. The SHPO concurrence with that eligibility recommendation for site 40T122 in a letter dated December 17, 2012 and stated that the project as currently configured may adversely affect the site. TDOT subsequently considered two minor alignments shifts (East and West Shifts) between Davis Ford Road and US 321/SR 73 to avoid the National Register-eligible site. TDOT determined that the Preferred Alternative was best modified by the West Shift. Thus the eligible site has been avoided and there is not taking of a Section 4(f) resource. No Section 4(f) Evaluation is necessary.

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
		the SHPO for review. Section 106 consultation of the NHPA has begun but is not yet complete.	
	DOI-3	Summary Comments—DOI recommends further analysis of design shifts to avoid, minimize and mitigate potential impacts to archaeological sites and continued coordination with the SHPO to develop and MOA for sites that cannot be avoided.	See response to DOI-2 above.
Tennessee Wildlife Resources Agency August 9, 2010	TWRA-1	We understand that the FWS no longer believes that a timeframe restriction on tree-cutting properly addresses indirect and cumulative impacts to the Indiana bat. We suggest further coordination with the FWS on methods to further minimize impacts to Indiana Bat due to this project. We look forward to working with TDOT on further avoid, minimize and mitigate for potential impacts to streams, wetlands and floodplains once a preferred alternative is selected.	See response to USFWS July 30, 2010—comment # 2. The requirements under the Section 7 of the ESA of 1973, as amended, are fulfilled.
City of Alcoa, TN August 27, 2010	A-1	Reaffirmed its support for the extension of Pellissippi Parkway.	Comment noted.
	A-2	The city pointed out several errors in label and place names, and provided corrected information on the section of PPE between US 129 and Cusick Road, and on the 1997 Alcoa Subdivision Regulations related to sidewalks	The corrections identified have been in this FEIS.

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
	A-3	General Traffic Projection comments: 6a. Traffic is projected to increase on Alcoa Highway from Pellissippi Parkway to the Hall Road split, ranging from 31,570—56,100 in 2015 to 40,280—61,120 in 2035. It is also stated that the heavier traffic will occur south of Hunt Road. At the same time there is no projected increase for Hall Road or the By-Pass South of the Hall Road split in 2035. Since those are the only two roadway sections connecting to the Alcoa Hwy between the Hall Road split and the Hunt Road interchange, the question becomes: "where did that increase on traffic on US 129 come from or go to?	These corrections were incorporated in the June 30, 2011 *Addendum to the Traffic Operations Technical Report.* However, in response to the adoption of the 2013 regional travel demand model, new traffic forecasts and traffic operational analysis were prepared and are described in Chapters 1 and 3 of the FEIS.
	A-4	6c. Hall Road and Washington Street are basically the same corridor running through Alcoa and then Maryville. Hall Road is projected to have no increase in traffic while at the same time Washington Street is projected by over 13,000 cars per day, which is an increase of almost 54%. It is difficult to understand how one section of the Hall Road—Washington corridor can be assigned a substantial growth in projected traffic volumes while another section remains stagnant. The study attempt[s] to address that by stating the reason traffic is not projected to increase on Hall Road "because of the built-out nature of development along the road." However, there are several undeveloped or redeveloping areas along Hall Road in	See response to A-3 above.

Table C-1: Agency Comments on DEIS and TDOT Responses

Agency Date of Comment	Number	Summary of Agency Comments	Responses
		addition to the 350 acre former Aluminum Company West Plant site which is nearing the final stages of planning that will transform it into a mixed use development.	
City of Maryville, TN September 14, 2010	M-1	Reiterated its continued support of the completion of the Pellissippi Parkway Extension. Indicated preference for Alternative A.	Comment noted.
Blount County Mayor , Ed Mitchell September 17, 2010	BC-1	Reiterated continued support from the Mayor's Office of the completion of the Pellissippi Parkway Extension.	Comment noted.

Attachment C-2

Other Agency Correspondence since the DEIS

CERTIFICATION

STATE OF TENNESSEE)
)ss
COUNTY OF BLOUNT)

I, RAY E. RICHESIN, do hereby certify that I am the Recorder of the City of Alcoa and that the attached document is a true, correct and exact copy of Resolution number R11-199, adopted by the Alcoa Board of Commissioners on October 11, 2011.

WITNESS my hand and the seal of said City on this the 12th day of October, 2011.

Ray E. Richesin
City Recorder

KIMBERLY J. WADE
STATE OF TENNESSEE
NOTARY PUBLIC
COUNTY OF BLOUNT

Subscribed and sworn to before me this the 12th day of October, 2011.

Kimberly J. Wade
Notary Public

My Commission Expires: August 14, 2013

RESOLUTION NO. R11-199

A RESOLUTION SELECTING THE PREFERRED ALTERNATE FOR THE PELLISSIPPI PARKWAY EXTENSION

WHEREAS, the Tennessee Department of Transportation has issued a Draft Environmental Impact Statement for the extension of the Pellissippi Parkway from its current terminus at SR 33, the Old Knoxville Highway, to US 321, Lamar Alexander Parkway; and

WHEREAS, the Draft Environmental Impact Statement examined numerous options which have been narrowed down to four alternates, including:

1. No build
2. Alternate A, new four-lane controlled-access highway
3. Alternate C, new four-lane controlled-access highway
4. Alternate D, geometric and width improvements to existing two-lane roadways; and

WHEREAS, the Commissioner has determined that a build alternative is necessary to meet the needs of the citizens of Blount County and the state of Tennessee and that a preferred route must be determined prior to expending additional funds for completing the archeological and other environmental studies; and

WHEREAS, the Commissioner has indicated that the apparent preferred route is Alternate A; however, he has requested input into this decision from the governments of Blount County and the cities of Alcoa and Maryville prior to making a final determination.

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the City of Alcoa, Tennessee, as follows:

SECTION 1. That Build Alternative A as depicted in the Draft Environmental Impact Statement is the preferred alternate of the City of Alcoa, Tennessee.

SECTION 2. That this resolution shall take effect from and after its adoption, the public welfare requiring it.

Adopted this 11th day of October, 2011.

Mayor

ATTEST:

Recorder

APPROVED AS TO FORM:

City Attorney

BLOUNT COUNTY MAYOR
Ed Mitchell
341 Court Street, Maryville, TN 37804-5906
Phone: (865) 273-5700
Fax: (865) 273-5705
Email: emitchell@blounttn.org

November 7, 2011

Mr. John Schroer
TDOT Commissioner
James K. Polk Building
505 Deaderick St., Suite 700
Nashville, TN 37243

Re: Pellissippi Parkway Extension (SR 162)
Blount County, PIN 101423.00

Dear Mr. Schroer:

Please be advised that the Blount County Board of Commissioners passed a Resolution at their October 20, 2011, meeting endorsing Route A relative to the above referenced project. I have attached a copy of that Resolution hereto for your records.

Please feel free to contact me if you have any questions or need further information. My office number is (865) 273-5700. My e-mail address is emitchell@blounttn.org. I look forward to receiving updates or further instruction on the status of this matter from your office.

Thank you for your assistance in this matter.

With kindest regards,

Ed Mitchell
Blount County Mayor

/amc
cc: Nancy Skinner (via email)

IN RE: RESOLUTION RECOMMENDING ALTERNATIVE "A" CONCERNING PELLISSIPPI PARKWAY EXTENSION (SR 162) BLOUNT COUNTY, PIN 101423.00.

Commissioner Farmer made a motion to approve the resolution. Commissioner Lambert seconded the motion.

Commissioner Murrell made a motion to postpone until representatives from the Tennessee Department of Transportation can answer questions. Commissioner French seconded the motion.

A vote was taken on the motion to postpone:

Burchfield – absent	French – yes	Kirby – no	Murrell – yes
Burkhalter - yes	Gamble – no	Lail – no	Samples – yes
Carver – yes	Greene – yes	Lambert – yes	Wright – no
Caylor – no	Harrison – no	Lewis – no	
Farmer – no	Hasty – yes	Melton – no	
Folts – no	Helton – no	Moon – no	

There were 8 voting yes, 12 voting no, and 1 absent. Chairman Moon declared the motion to postpone to have failed.

Commissioner Folts made a motion to lay the resolution on the table. Commissioner Murrell seconded the motion.

A vote was taken on the motion to table:

Burchfield – absent	French – yes	Kirby – no	Murrell – yes

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County Commission October 20, 2011

Burkhalter - no	Gamble – no	Lail – no	Samples – no
Carver – no	Greene – yes	Lambert – no	Wright – no
Caylor – no	Harrison – no	Lewis – no	
Farmer – no	Hasty – no	Melton – no	
Folts – yes	Helton – no	Moon – no	

There were 4 voting yes, 16 voting no, and 1 absent. Chairman Moon declared the motion to table to have failed.

Commissioner Farmer called for the previous question. Commissioner Wright seconded.

A vote was taken on the call for the previous question:

Burchfield – absent	French – no	Kirby – yes	Murrell – no
Burkhalter - yes	Gamble – yes	Lail – yes	Samples – no
Carver – yes	Greene – yes	Lambert – yes	Wright – yes
Caylor – yes	Harrison – yes	Lewis – yes	
Farmer – yes	Hasty – yes	Melton – yes	
Folts – no	Helton – yes	Moon – yes	

There were 16 voting yes, 4 voting no, and 1 absent. Chairman Moon declared the motion to have passed.

A vote was taken on the call for the original motion:

Burchfield – absent	French – no	Kirby – yes	Murrell – no
Burkhalter - yes	Gamble – no	Lail – yes	Samples – yes
Carver – yes	Greene – no	Lambert – yes	Wright – yes
Caylor – yes	Harrison – yes	Lewis – yes	
Farmer – yes	Hasty – yes	Melton – yes	
Folts – no	Helton – yes	Moon – yes	

There were 15 voting yes, 5 voting no, and 1 absent. Chairman Moon declared the motion to have passed.

RESOLUTION NO. 11-10-009

SPONSORED BY COMMISSIONERS JEROME MOON, GARY FARMER, GERALD KIRBY, AND GORDON WRIGHT

A RESOLUTION RECOMMENDING ALTERNATIVE "A" CONCERNING PELLISSIPPI PARKWAY EXTENSION (SR 162) BLOUNT COUNTY, PIN 101423.00.

WHEREAS, John C. Schroer, Commissioner of the State of Tennessee Department of Transportation, has made a request to the Blount County Mayor and other local officials, for input and opinions regarding the preferred alternative of one of four alternatives concerning the Pellissippi Parkway Extension (SR 162) Blount County, PIN 101423.00; and

WHEREAS, the Blount County Mayor has forwarded to the Blount County Legislative Body a recommendation of Alternative "A" as the preferred alternative; and

WHEREAS, the officials of the City of Alcoa, Tennessee, and the City of Maryville, Tennessee, in Blount County, Tennessee, have given support and recommendations of Alternative "A".

NOW, THEREFORE, BE IT RESOLVED by the Blount County Board of Commissioners, meeting in regular session on this the 20th day of October, 2011, that the recommendation of Alternative "A", concerning the Pellissippi Parkway Extension (SR 162) Blount County, PIN 101423.00, is hereby endorsed.

Duly authorized and approved the 20th day of October, 2011.

CERTIFICATION OF ACTION: **ATTEST:**

Commission Chairman County Clerk

Approved: ✓
Vetoed: _____

County Mayor Date 10-24-11

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RESOLUTION NO. 2011-11

A RESOULTION IN REGARD TO THE PREFERRED PELLISSIPPI PARKWAY EXTENSION ROUTE

WHEREAS, the construction and completion of the Pellissippi Parkway is a priority for the State of Tennessee and the City of Maryville, and;

WHEREAS, the completion of the Parkway will provide economic growth for Blount County and the surrounding region, and;

WHEREAS, The Tennessee Department of Transportation has put in place a process to expedite environmental and regulatory review of the proposed extension, and;

WHEREAS, said process does not preempt or ignore any identification, evaluation, and resolution of any environmental and regulatory issue associated with the project, and;

WHEREAS, federal, state and local agencies have been invited to provide input on the development of the purpose and need statement and alternatives considered in the Draft Environmental Impact Statement, and;

WHEREAS, the City of Maryville has been requested to declare it's preference as to which alternative route it supports, as part of this process.

NOW, THEREFORE BE IT RESOLVED BY THE COUNCIL OF THE CITY OF MARYVILLE, TENNESSEE, the following;

SECTION 1. That the City Council of the City of Maryville, Tennessee supports and recommends the construction of the Pellissippi Parkway Extension's Alternative "A".

SECTION 2. That this resolution take effect immediately upon it's passage, the public welfare requiring it.

ADOPTED this 4th day of Oct., 2011.

Thomas W. Taylor
Mayor

Attest:

City Recorder

Approved as to form:

City Attorney

From: Slabaugh, Doug - NRCS, Nashville, TN
To: Skinner, Nancy T.
Subject: RE: Pellissippi Parkway Extension (SR 162) Blount County TN - Request for Updated CPA-106
Date: Wednesday, December 10, 2014 11:34:59 AM
Attachments: Blount LESA Groups with RV & muname12-10-14.pdf

Nancy;

Attached is the current LESA worksheet for Blount Co. At the end of the list are Soil Survey Area totals for farmable land, prime farmland (including farmland of local & Statewide importance), and total land acres. Note that the Blount County Soil Survey Area does not include acres in the Great Smoky Mtns. National Park.

I hope this helps.

Doug Slabaugh
State Soil Scientist
USDA – Natural Resources Conservation Service
801 Broadway; RM 675
Nashville, TN 37203

(615) 277-2550

From: Skinner, Nancy T. [mailto:SkinnerN@pbworld.com]
Sent: Wednesday, December 10, 2014 10:07 AM
To: Slabaugh, Doug - NRCS, Nashville, TN
Subject: RE: Pellissippi Parkway Extension (SR 162) Blount County TN - Request for Updated CPA-106

Hi Doug,

Thanks for all of your help on this project.

I am trying to finalize the FEIS for the project, and need to update a statement from the 2010 DEIS on farmlands in Blount County and am wondering if you can help me by providing the information or pointing me in the right direction. Below is the paragraph I am trying to update:

Approximately 54,050 acres of land in Blount County meet the soil requirements for prime farmland designation by NRCS. This is about 15 percent of the total land acreage in the county. The county has no farmland designated as statewide or locally significant for the production of food, feed, fiber, forage, or oil-seed crops

In the 2013 updates for farmland coordination, NRCS provided information on the number of acres of statewide and local important farmlands that would be affected by each alternative. Can you provide the acres of prime farmland and the acres of statewide or locally significant farms in the county?

Thank you so much!!

areasymbol	musym	muname	slope	nirrcapclass	farmclass	muacres	Group No.	Group RV	% of SSA
TN609	**Blount County Area, Tennessee**								
	Aa	Alcoa loam, eroded gently sloping phase	2-5	2e	All areas are prime farmland	249	4	80	0.09%
	Ab	Alcoa loam, eroded sloping phase	5-12	3e	Farmland of local importance	1578	6	70	0.60%
	Ac	Alcoa loam, eroded moderately steep phase	12-20	4e	Not prime farmland	339	7	65	0.13%
	Ae	Allen clay loam, severely eroded moderately steep phase	12-25	6e	Not prime farmland	131	7	65	0.05%
	Ah	Allen cobbly fine sandy loam, moderately steep phase (nella)	12-25	6e	Not prime farmland	721	12	40	0.27%
	AIRPT	Airport			Not prime farmland	1306	NR	0	0.49%
	Al	Allen cobbly silt loam, moderately steep phase (nella)	12-25	6e	Not prime farmland	356	13	35	0.13%
	An	Allen fine sandy loam, eroded sloping phase	5-12	3e	Farmland of local importance	293	5	75	0.11%
	Ao	Allen fine sandy loam, moderately steep phase	12-25	4e	Not prime farmland	283	8	60	0.11%
	Ap	Allen silt loam, eroded sloping phase	5-12	3e	Farmland of local importance	763	6	70	0.29%
	Ar	Allen silt loam, moderately steep phase	15-25	6e	Not prime farmland	1005	8	60	0.38%
	At	Allen silty clay loam, severely eroded moderately steep phase	15-25	6e	Not prime farmland	463	8	60	0.17%
	Ba	Barbourville fine sandy loam, gently sloping phase	2-5	2e	All areas are prime farmland	2169	5	75	0.82%
	Bb	Barbourville silt loam, gently sloping phase	2-5	2e	All areas are prime farmland	2835	5	75	1.07%
	Bc	Barbourville silt loam, sloping phase	5-12	3e	Farmland of local importance	260	6	70	0.10%
	Bd	Bland silt loam, sloping phase	5-12	4e	Not prime farmland	464	10	50	0.18%
	Be	Bland silt loam, steep phase	25-50	7e	Not prime farmland	1148	15	25	0.43%

areasymbol	musym	muname	slope	nirrcapclass	farmclass	muacres	Group No.	Group RV	% of SSA
	Bf	Bland silty clay loam, eroded steep phase	25-50	7e	Not prime farmland	418	16	20	0.16%
	Bg	Bruno loamy fine sand	0-3	5w	Not prime farmland	366	15	25	0.14%
	Ca	Christian clay loam, severely eroded sloping phase	5-12	4e	Not prime farmland	515	8	60	0.19%
	Cb	Christian clay loam, severely eroded moderately steep phase	12-25	6e	Not prime farmland	1439	10	50	0.54%
	Cc	Christian loam, eroded gently sloping phase	2-5	2e	Not prime farmland	198	6	70	0.07%
	Cd	Christian loam, eroded sloping phase	5-12	3e	Not prime farmland	1368	7	65	0.52%
	Ce	Christian loam, moderately steep phase	15-25	6e	Not prime farmland	339	10	50	0.13%
	Cf	Christian loam, eroded moderately steep phase	12-25	6e	Not prime farmland	744	10	50	0.28%
	Cg	Colbert silty clay loam, eroded sloping phase (carbo)	5-12	3e	Not prime farmland	164	11	45	0.06%
	Ch	Cumberland silty clay, severely eroded sloping phase	5-12	4e	Not prime farmland	379	4	80	0.14%
	Ck	Cumberland silty clay, severely eroded moderately steep phase	12-25	6e	Not prime farmland	1021	6	70	0.39%
	Cl	Cumberland silty clay loam, eroded gently sloping phase	2-5	2e	All areas are prime farmland	362	3	85	0.14%
	Cm	Cumberland silty clay loam, eroded sloping phase	5-12	3e	Farmland of local importance	1862	4	80	0.70%
	Cn	Cumberland silty clay loam, eroded moderately steep phase	12-25	4e	Not prime farmland	751	6	70	0.28%
	Da	Dandridge shaly silt loam, very steep phase	50-70	7e	Not prime farmland	976	20	0	0.37%
	Daa	Dunmore silty clay loam, eroded gently sloping phase	2-5	2e	All areas are prime farmland	1288	5	75	0.49%

Wednesday, December 10, 2014

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areasymbol	musym	muname	slope	nirrcapclass	farmclass	muacres	Group No.	Group RV	% of SSA
	Dab	Dunmore silty clay loam, eroded sloping phase	5-12	3e	Farmland of local importance	7569	6	70	2.86%
	Dac	Dunmore silty clay loam, eroded moderately steep phase	12-25	4e	Not prime farmland	4124	8	60	1.56%
	Dad	Dunmore silty clay loam, eroded steep phase	25-50	7e	Not prime farmland	251	12	40	0.09%
	DAM	Dam			Not prime farmland	16	NR	0	0.01%
	Db	Dandridge shaly silty clay loam, eroded moderately steep phase	12-25	6e	Not prime farmland	1206	20	0	0.45%
	Dc	Dandridge shaly silty clay loam, eroded steep phase	25-50	7e	Not prime farmland	1020	20	0	0.38%
	Dd	Dandridge silt loam, sloping phase	5-12	6s	Not prime farmland	2444	18	0	0.92%
	De	Dandridge silt loam, moderately steep phase	12-25	6e	Not prime farmland	2872	18	0	1.08%
	Df	Dandridge silt loam, steep phase	25-50	7e	Not prime farmland	8389	18	0	3.16%
	Dg	Decatur silty clay, severely eroded sloping phase	5-12	4e	Not prime farmland	446	6	70	0.17%
	Dh	Decatur silty clay, severely eroded moderately steep phase	12-25	6e	Not prime farmland	1843	8	60	0.70%
	Dk	Decatur silty clay loam, eroded gently sloping phase	2-5	3e	All areas are prime farmland	1276	5	75	0.48%
	Dl	Decatur silty clay loam, eroded sloping phase	5-12	4e	Farmland of local importance	7069	6	70	2.67%
	Dm	Decatur silty clay loam, eroded moderately steep phase	12-15	6e	Not prime farmland	1519	7	65	0.57%
	Dn	Dewey silt loam, 6 to 15 percent slopes	6-15	3e	Farmland of local importance	1171	5	75	0.44%
	Do	Dewey silt loam, moderately steep phase	12-25	4e	Not prime farmland	568	8	60	0.21%
	Dp	Dewey silty clay, severely eroded sloping phase	5-12	4e	Not prime farmland	1168	6	70	0.44%

areasymbol	musym	muname	slope	nirrcapclass	farmclass	muacres	Group No.	Group RV	% of SSA
	Dr	Dewey silty clay, severely eroded moderately steep phase	12-25	6e	Not prime farmland	4608	9	55	1.74%
	Ds	Dewey silty clay loam, 2 to 6 percent slopes, eroded	2-6	2e	All areas are prime farmland	1690	5	75	0.64%
	Dt	Dewey silty clay loam, 6 to 15 percent slopes, eroded	6-15	3e	Farmland of local importance	12837	6	70	4.84%
	Du	Dewey silty clay loam, 15 to 25 percent slopes, eroded	15-25	4e	Not prime farmland	3316	8	60	1.25%
	Dv	Dunmore silt loam, sloping phase	5-12	3e	Farmland of local importance	1904	6	70	0.72%
	Dw	Dunmore silt loam, moderately steep phase	12-25	4e	Not prime farmland	2004	8	60	0.76%
	Dx	Dunmore silt loam, steep phase	25-50	7e	Not prime farmland	146	12	40	0.06%
	Dy	Dunmore silty clay, severely eroded sloping phase	5-12	4e	Not prime farmland	324	6	70	0.12%
	Dz	Dunmore silty clay, severely eroded moderately steep phase	12-25	6e	Not prime farmland	2430	8	60	0.92%
	Ea	Emory silt loam, 0 to 4 percent slopes, occasionally flooded	0-4	1	All areas are prime farmland	351	1	100	0.13%
	Eb	Emory silt loam, gently sloping phase	2-5	2e	All areas are prime farmland	8761	2	90	3.30%
	Ec	Emory silty clay loam, gently sloping phase	2-5	2e	All areas are prime farmland	1028	1	100	0.39%
	Ed	Etowah silt loam, eroded gently sloping phase	2-5	2e	All areas are prime farmland	420	3	85	0.16%
	Ee	Etowah silt loam, 5 to 12 percent slopes, eroded	5-12	3e	Farmland of local importance	611	5	75	0.23%
	Fa	Farragut silty clay, severely eroded sloping phase	5-12	4e	Not prime farmland	756	9	55	0.29%
	Fb	Farragut silty clay loam, eroded gently sloping phase	2-5	2e	All areas are prime farmland	1095	7	65	0.41%
	Fc	Farragut silty clay loam, eroded sloping phase	5-12	3e	Farmland of local importance	1729	8	60	0.65%

areasymbol	musym	muname	slope	nirrcapclass	farmclass	muacres	Group No.	Group RV	% of SSA
	Fd	Fullerton cherty silt loam, moderately steep phase	12-25	4e	Not prime farmland	371	12	40	0.14%
	Fe	Fullerton cherty silt loam, eroded moderately steep phase	12-25	4e	Not prime farmland	340	12	40	0.13%
	Ff	Fullerton cherty silt loam, steep phase	25-45	7e	Not prime farmland	358	15	25	0.14%
	Fg	Fullerton cherty silt loam, eroded steep phase	25-45	7e	Not prime farmland	288	15	25	0.11%
	Ga	Greendale silt loam, 0 to 6 percent slopes, occasionally flooded	0-6	2w	All areas are prime farmland	2278	4	80	0.86%
	Gb	Gullied land, limestone material			Not prime farmland	1040	NR	0	0.39%
	Gc	Gullied land, shale or sandstone material			Not prime farmland	2122	NR	0	0.80%
	Ha	Hamblen loam	0-2	2w	All areas are prime farmland	1077	2	90	0.41%
	Hb	Hamblen silt loam	0-2	2w	All areas are prime farmland	2374	2	90	0.90%
	Hc	Hamblen silt loam, local alluvium phase	0-2	2w	All areas are prime farmland	3620	2	90	1.37%
	Hd	Hayter silt loam, gently sloping phase	2-5	2e	All areas are prime farmland	336	7	65	0.13%
	He	Hayter silt loam, sloping phase	5-12	3e	Farmland of local importance	589	8	60	0.22%
	Hf	Hayter stony silt loam, gently sloping phase	2-5	2e	Not prime farmland	7	8	60	0.00%
	Hg	Hayter stony silt loam, sloping phase	5-12	6s	Not prime farmland	364	9	55	0.14%
	Hh	Hermitage silt loam, gently sloping phase (etowah)	2-5	2e	All areas are prime farmland	726	3	85	0.27%
	Hk	Hermitage silt loam, eroded gently sloping phase (etowah)	2-5	2e	All areas are prime farmland	1363	3	85	0.51%
	Hl	Hermitage silt loam, eroded sloping phase (etowah)	5-12	3e	Farmland of local importance	2251	4	80	0.85%

areasymbol	musym	muname	slope	nirrcapclass	farmclass	muacres	Group No.	Group RV	% of SSA
	Hn	Holston fine sandy loam, eroded sloping phase	5-12	3e	Farmland of local importance	423	7	65	0.16%
	Jc	Jefferson cobbly fine sandy loam, sloping phase	5-12	4e	Not prime farmland	1111	8	60	0.42%
	Jd	Jefferson cobbly fine sandy loam, moderately steep phase	12-25	6e	Not prime farmland	2048	10	50	0.77%
	Je	Jefferson fine sandy loam, gently sloping phase	2-5	2e	All areas are prime farmland	317	6	70	0.12%
	Jf	Jefferson fine sandy loam, eroded sloping phase	5-12	3e	Farmland of local importance	1185	8	60	0.45%
	Jg	Jefferson fine sandy loam, moderately steep phase	12-25	4e	Not prime farmland	487	9	55	0.18%
	Jh	Jefferson fine sandy loam, steep phase	25-50	7e	Not prime farmland	443	14	30	0.17%
	La	Leadvale silt loam, gently sloping phase	2-5	2e	All areas are prime farmland	605	5	75	0.23%
	Lb	Leadvale silt loam, eroded gently sloping phase	2-5	2e	All areas are prime farmland	345	6	70	0.13%
	Lc	Leadvale silt loam, eroded sloping phase	5-12	3e	Farmland of local importance	258	7	65	0.10%
	Ld	Lehew very fine sandy loam, very steep phase	45-70	7e	Not prime farmland	2079	19	0	0.78%
	Le	Lindside silt loam	0-2	2w	All areas are prime farmland	2011	1	100	0.76%
	Lf	Litz shaly silty clay loam, eroded sloping phase (armuchee)	5-12	4e	Not prime farmland	653	12	40	0.25%
	Lg	Litz shaly silty clay loam, eroded moderately steep phase (armuchee)	12-25	6e	Not prime farmland	1333	15	25	0.50%
	Lh	Litz silt loam, gently sloping phase	2-5	2e	Not prime farmland	334	10	50	0.13%
	Lk	Litz silt loam, sloping phase	5-12	3e	Not prime farmland	3170	11	45	1.20%

areasymbol	musym	muname	slope	nirrcapclass	farmclass	muacres	Group No.	Group RV	% of SSA
	Ll	Litz silt loam, moderately steep phase	12-25	4e	Not prime farmland	2423	14	30	0.91%
	Ma	Melvin silt loam	0-2	3w	Not prime farmland	497	10	50	0.19%
	Mb	Minvale silt loam, eroded gently sloping phase	2-5	2e	All areas are prime farmland	286	5	75	0.11%
	Mc	Minvale silt loam, eroded sloping phase	5-12	3e	Farmland of local importance	782	6	70	0.29%
	Md	Montevallo shaly silt loam, moderately steep phase	12-25	7e	Not prime farmland	705	20	0	0.27%
	Me	Montevallo shaly silt loam, steep phase	25-45	7e	Not prime farmland	2674	20	0	1.01%
	Mg	Muse silt loam, eroded moderately steep phase	12-25	4e	Not prime farmland	1	13	35	0.00%
	Mh	Muse silt loam, eroded gently sloping phase	2-5	2e	All areas are prime farmland	470	8	60	0.18%
	Mk	Muse silt loam, eroded sloping phase	5-12	3e	Farmland of local importance	1115	9	55	0.42%
	Ml	Muse silt loam, eroded moderately steep phase	12-25	4e	Not prime farmland	130	13	35	0.05%
	Na	Neubert loam	2-5	2e	All areas are prime farmland	2383	2	90	0.90%
	Pa	Pace silt loam, gently sloping phase (tasso)	2-5	2e	All areas are prime farmland	603	5	75	0.23%
	Pb	Pace silt loam, eroded sloping phase (tasso)	5-12	3e	Farmland of local importance	257	6	70	0.10%
	Pc	Prader silt loam (melvin)	0-2	3w	Not prime farmland	1609	10	50	0.61%
	QUARRY	Quarry			Not prime farmland	23	NR	0	0.01%
	Ra	Ramsey slaty silt loam, steep	25-50	7s	Not prime farmland	6770	20	0	2.55%
	Rb	Ramsey slaty silt loam, very steep phase	50-70	7s	Not prime farmland	20104	20	0	7.58%
	Rc	Ramsey stony fine sandy loam, very steep phase	50-70	7s	Not prime farmland	22513	20	0	8.49%

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areasymbol	musym	muname	slope	nirrcapclass	farmclass	muacres	Group No.	Group RV	% of SSA
	Rd	Rockland, limestone, sloping	5-12		Not prime farmland	652	NR	0	0.25%
	Re	Rockland limestone, moderately steep	12-50		Not prime farmland	4085	NR	0	1.54%
	Rf	Rockland slate or quartzite, steep	40-75		Not prime farmland	36	NR	0	0.01%
	Sb	Sequatchie fine sandy loam	1-3	2e	All areas are prime farmland	393	3	85	0.15%
	Sc	Sequatchie loam	1-3	2e	All areas are prime farmland	569	3	85	0.21%
	Sd	Sequatchie silt loam	1-3	2e	All areas are prime farmland	961	3	85	0.36%
	Se	Sequoia silty clay, severely eroded sloping phase	5-12	6e	Not prime farmland	2212	10	50	0.83%
	Sf	Sequoia silty clay loam, eroded gently sloping phase	2-5	3e	Not prime farmland	3313	9	55	1.25%
	Sg	Sequoia silty clay loam, eroded sloping phase	5-12	4e	Not prime farmland	6709	10	50	2.53%
	Sh	Staser fine sandy loam	0-2	2w	All areas are prime farmland	1008	1	100	0.38%
	Sk	Staser loam	0-2	2w	All areas are prime farmland	881	1	100	0.33%
	Sl	Staser silt loam	0-2	2w	All areas are prime farmland	767	1	100	0.29%
	Sm	Stony colluvial land (tusquitee)	2-25	4s	Not prime farmland	1104	9	55	0.42%
	Ta	Talbott silt loam, moderately steep phase	12-25	6e	Not prime farmland	214	11	45	0.08%
	Tb	Talbott silty clay, severely eroded sloping phase	5-12	6e	Not prime farmland	541	9	55	0.20%
	Tc	Talbott silty clay, severely eroded moderately steep phase	12-25	6e	Not prime farmland	747	12	40	0.28%
	Td	Talbott silty clay loam, eroded sloping phase	5-12	4e	Not prime farmland	1239	9	55	0.47%
	Te	Talbott silty clay loam, eroded moderately steep phase	12-25	6e	Not prime farmland	257	12	40	0.10%
	Tf	Talbott-Colbert very rocky silty clay loams, eroded sloping phases	4-12	4e	Not prime farmland	1309	9	55	0.49%

areasymbol	musym	muname	slope	nirrcapclass	farmclass	muacres	Group No.	Group RV	% of SSA
	Tg	Talbott-Colbert very rocky silty clay loams, eroded moderately steep phases	12-25	6e	Not prime farmland	1719	12	40	0.65%
	Th	Teas loam, steep phase (calvin)	20-45	6e	Not prime farmland	476	16	20	0.18%
	Tl	Tellico clay loam, severely eroded moderately steep phase	12-25	6e	Not prime farmland	2181	13	35	0.82%
	Tm	Tellico clay loam, severely eroded steep phase	25-50	7e	Not prime farmland	1541	16	20	0.58%
	Tn	Tellico loam, eroded sloping phase	5-12	3e	Farmland of local importance	2684	10	50	1.01%
	To	Tellico loam, eroded moderately steep phase	12-25	4e	Not prime farmland	1655	12	40	0.62%
	Tp	Tellico loam, steep phase	25-50	7e	Not prime farmland	1409	16	20	0.53%
	Tr	Tellico loam, eroded steep phase	25-50	7e	Not prime farmland	2919	16	20	1.10%
	Ts	Tellico loam, very steep phase	50-90	7e	Not prime farmland	1468	15	25	0.55%
	W	Water			Not prime farmland	5500	NR	0	2.07%
	Wa	Waynesboro loam, eroded gently sloping phase	2-5	2e	All areas are prime farmland	219	4	80	0.08%
	Wb	Waynesboro loam, eroded sloping phase	5-12	3e	Farmland of local importance	1111	5	75	0.42%
	Wc	Waynesboro loam, eroded moderately steep phase	12-25	4e	Not prime farmland	521	8	60	0.20%
	Wd	Whitesburg silt loam, gently sloping phase	1-5	2w	All areas are prime farmland	1155	3	85	0.44%
	We	Whitwell loam	0-2	2w	All areas are prime farmland	380	2	90	0.14%

Average Farm Size (from Ag Census)				Farmable Acres and %		Prime Farmland Acres and %		Total Survey Area Acres
County 1-	85	County 2-	0	139102	52.47%	94952	35.82%	265100

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
9737 Cogdill Road; Suite 152C
Knoxville, TN 37932
Phone 865-671-3830 x. 112
rick.livingston@tn.usda.gov

May 30, 2013

Ms. JonnaLeigh Stack
Tennessee Department of Transportation
Suite 900, James K. Polk Bldg.
505 Deaderick Street
Nashville, TN 37243-0334

Project: Pellissippi Parkway Extension (SR 162) from SR 33 to US 321(SR 73)
Blount County, TN: (PIN 10774.00)

Dear Ms. Stack,

Please find the attached form NRCS-CPA-106 for this project. As a courtesy, polygon files were created from the line files that were sent on May 24. Areas of the project which are within the city limits of Alcoa and within the census designated area of Eagleton Village were excluded from the area and acreage totals. If you do not agree the acreage estimates or any part of this assessment, please furnish polygon files which only include areas where the Farmland Protection Policy Act applies and a new assessment will be completed using the data furnish by your office. No site visit was made in the completion of the requested information.

Corridor A (preferred route) will convert about 30.6 acres of Prime Farmland and 48.5 acres of Farmland of Local importance to non-farmland use. Additionally, approximately 1.8 acres of Hydric Soils will be impacted. For Corridor B (east shift), about 30.4 acres of Prime Farmland and 49.9 acres of Farmland of Local importance will be converted to non-farmland use. Corridor B will also impact about 3.3 acres of Hydric Soils. Corridor C (west shift) will convert an estimated 33.6 acres of Prime Farmland and 48.4 acres of Farmland of Local Importance to non-farmland use. This corridor will also impact about 3.1 acres of Hydric Soils.

Much of our soils information is available on-line at http://websoilsurvey.nrcs.usda.gov/app/
Additional information on Prime Farmland may be obtained at our websites
www.tn.nrcs.usda.gov/technical/soils/fppa.html or www.nrcs.usda.gov/programs/fppa/ .

Feel free to contact me if I may be of further assistance.

Sincerely,

Richard L. Livingston
Resource Soil Scientist

Attachment

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U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **6/4/13**	4. Sheet 1 of **1**
1. Name of Project **Pellissippi Parkway Extension EIS**	5. Federal Agency Involved **Federal Highway Administration**	
2. Type of Project **Roadway**	6. County and State **Blount County, Tennessee**	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form **Richard Livingston**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated **NA** / Average Farm Size **81**
5. Major Crop(s) **Corn (indicator Crop)**	6. Farmable Land in Government Jurisdiction Acres: **152,600** % **42**	7. Amount of Farmland As Defined in FPPA Acres: **54,050** % **15**
8. Name Of Land Evaluation System Used **LESA**	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS 5/30/2013

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Preferred Alt	East Shift	West Shift	Corridor D
A. Total Acres To Be Converted Directly	107	107	110	
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0	0	0	
C. Total Acres In Corridor	107	107	110	0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	31	30	34	
B. Total Acres Statewide And Local Important Farmland	49	50	48	
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0	0	0	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	20	20	20	
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	67	67	68	

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15	0	0	0	
2. Perimeter in Nonurban Use	10	5	5	5	
3. Percent Of Corridor Being Farmed	20	15	14	14	
4. Protection Provided By State And Local Government	20	0	0	0	
5. Size of Present Farm Unit Compared To Average	10	6	6	6	
6. Creation Of Nonfarmable Farmland	25	25	25	25	
7. Availablility Of Farm Support Services	5	3	3	3	
8. On-Farm Investments	20	10	10	10	
9. Effects Of Conversion On Farm Support Services	25	0	0	0	
10. Compatibility With Existing Agricultural Use	10	10	10	10	
TOTAL CORRIDOR ASSESSMENT POINTS	160	74	73	73	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	67	67	68	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	74	73	73	0
TOTAL POINTS *(Total of above 2 lines)*	260	141	140	141	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Notes:
Corridor A = Preferred
Corridor B = East Shift
Corridor C = West Shift

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

From: Slabaugh, Doug - NRCS, Nashville, TN
To: Skinner, Nancy T.
Cc: Adkins, Jenny - NRCS, Cookeville, TN; Margaret Slater; Hartz, Mary E. (Emery); Livingston, Rick - NRCS, Knoxville, TN
Subject: RE: Pellissippi Parkway Extension (SR 162) Blount County TN - Request for Updated CPA-106
Date: Wednesday, May 21, 2014 6:54:33 AM
Attachments: Pell_ext_correspondence_1-9-09_5-30-13.pdf

Nancy;

Please see reply below and attachment from Rick Livingston, which indicates that there are no changes to the FPPA evaluation that he provided to TDOT for this project in 2009.

Please let me know if you need more information about this evaluation.

Thanks.

Doug Slabaugh
State Soil Scientist
USDA – Natural Resources Conservation Service
801 Broadway; RM 675
Nashville, TN 37203

(615) 277-2550

From: Livingston, Rick - NRCS, Knoxville, TN
Sent: Friday, May 16, 2014 6:06 AM
To: Slabaugh, Doug - NRCS, Nashville, TN
Cc: Adkins, Jenny - NRCS, Cookeville, TN
Subject: RE: Pellissippi Parkway Extension (SR 162) Blount County TN - Request for Updated CPA-106

Doug,
Please find the attached scans of correspondence to TDOT concerning the subject project.
It appears the spatial data included with this recent request is identical to the data used for the 01/09/2009 evaluation.
There should be no need to update any of the information for this project.
Sincerely,
Rick Livingston

From: Slabaugh, Doug - NRCS, Nashville, TN
Sent: Tuesday, May 13, 2014 8:42 AM
To: Livingston, Rick - NRCS, Knoxville, TN
Cc: Adkins, Jenny - NRCS, Cookeville, TN
Subject: FW: Pellissippi Parkway Extension (SR 162) Blount County TN - Request for Updated CPA-106

Rick;

The TDOT contractor has requested through Kevin that we update the FPPA assessment for their

Pellissippi Parkway extension project (again - I think this is the third time now!).

Please look over their new changes (attached) and let them know if there are any significant differences to the FPPA assessment.

Thanks.

Doug

(615) 277-2550

From: "Skinner, Nancy T." <SkinnerN@pbworld.com>
To: "Brown, Kevin - NRCS, Nashville, TN" <kevin.brown@tn.usda.gov>
Cc: "Margaret Slater" <Margaret.Slater@tn.gov>
Subject: Pellissippi Parkway Extension (SR 162) Blount County TN - Request for Updated CPA-106

Hello,

On behalf of TDOT, I am submitting this request for an updated NRCS CPA-106 review for two previously considered Build Alternatives, C and D for the Pellissippi Parkway Extension project in Blount County (from SR 33 to US 321). In December 2008 TDOT sent a CPA-106 request for the three Build Alternatives (A, C and D) in the Draft Environmental Impact Statement (DEIS). Following the circulation of the DEIS in 2010, TDOT selected a Preferred Alternative (DEIS Alternative A). In 2013, TDOT identified two alignment shifts to avoid impacts to a National Register eligible archaeological site within the Preferred Alternative. In response to TDOT's request for additional coordination, the NRCS responded on May 30, 2013 with an updated CPA-106 for the two alignment shifts.

Now, TDOT is preparing a written reevaluation of the DEIS prior to the preparation of the Final EIS and the FHWA has requested that TDOT also update technical studies for the two previous considered and dismissed DEIS Alternatives, C and D. We request your assistance in updating the farmland impacts for these two previously considered alternatives.

Once you and your staff have reviewed the attached material, please let us know if there is any additional information that you require.

Thank you!

Nancy T. Skinner, AICP
Technical Director, Environment (Americas) / Senior Planning Manager
Parsons Brinckerhoff
1900 Church Street, Suite 400

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
9737 Cogdill Road, Suite 152C
Knoxville, TN 37932
Phone 865-671-3830 x 112

Mailed Reply on Jan 9, 2009 RLL

January 9, 2009

Mr. Tom Love
Tennessee Department of Transportation
Suite 900, James K. Polk Building
505 Deaderick Street
Nashville, TN 37243-0334

Project: Pellissippi Parkway Extension (SR 162) from SR 33 to US 321 (SR 73) Blount County, TN

Dear Mr. Love,

The request for soils information that was sent to Mr. Kevin Brown forwarded to me. I will be addressing the portion of the request concerning the Farmland Protection Policy and hydric soils

This project will result in the conversion of about 39 acres of prime farmland for Alternative A, 44 acres of prime farmland for Alternative B, and 23 acres of prime farmland for Alternative C as defined in the Farmland Protection Policy Act. Form NRCS-CPA-106 is attached to this letter to document this determination. Prime farmland is land that has the best combination of physical and chemical characteristics, growing season, and moisture supply for producing agricultural crops. Generally, land may be pasture, forestland, or cropland but may not be urban built-up land or waterways. Additionally, construction within an existing right-of-way purchased on or before August 4, 1984 is not subject to the Farmland Protection Policy Act.

Concerning Hydric Soils, Alternative A crosses one map unit of Ma-Melvin silt loam, on the south end of the corridor and Alternative B crosses the same map unit of Melvin silt loam in the same area. Alternative C crosses one map unit of Pc-Prader silt loam in the north portion of the corridor on an unnamed tributary of the Little Tennessee River near Singleton Bend and one map unit of Ma-Melvin silt loam in the southern portion of the corridor. Hydric soil criteria is only one of the 3 factors used in determining a wetland. Areas of hydric soils may or may not meet all of the requirements of a wetland.

Much of our soils information is available on-line at http://websoilsurvey.nrcs.usda.gov/app/
Additional information on Prime Farmland may be obtained at our websites
www.tn.nrcs.usda.gov/technical/soils/fppa.html or www.nrcs.usda.gov/programs/fppa/ .

Feel free to contact me if I may be of further assistance.
Sincerely,

Eb Cop

Richard Livingston
Resource Soil Scientist

Enclosure

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U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 12/3/08	4. Sheet 1 of 1
1. Name of Project **Pellissippi Parkway Extension EIS**	5. Federal Agency Involved **Federal Highway Administration**	
2. Type of Project **Roadway**	6. County and State **Blount County, Tennessee**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS **12/22/08**	2. Person Completing Form **Richard Livingston**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated / Average Farm Size **81 Acres**
5. Major Crop(s) **Corn (Indicator Crop)**	6. Farmable Land in Government Jurisdiction Acres: **152,600** % **42**	7. Amount of Farmland As Defined in FPPA Acres: **54050** % **15**
8. Name Of Land Evaluation System Used **LESA**	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS **1/9/09**

PART III *(To be completed by Federal Agency)*		Alternative Site Ranking ALT A	ALT C	ALT D	
A. Total Acres To Be Converted Directly		160	171	104	
B. Total Acres To Be Converted Indirectly, Or To Receive Services					
C. Total Acres In Corridor		160	171	104	0
PART IV *(To be completed by NRCS) Land Evaluation Information*					
A. Total Acres Prime And Unique Farmland		39	44	23	
B. Total Acres Statewide And Local Important Farmland		0	0	0	
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		0.01	0.01	0.01	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		38	37	35	
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*		59	61	65	
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15	0	0	0	
2. Perimeter in Nonurban Use	10	5	3	2	
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20	0	0	0	
5. Size of Present Farm Unit Compared To Average	10	4	1	1	
6. Creation Of Nonfarmable Farmland	25	25	25	25	
7. Availability Of Farm Support Services	5	3	3	3	
8. On-Farm Investments	20	10	10	10	
9. Effects Of Conversion On Farm Support Services	25	12	12	12	
10. Compatibility With Existing Agricultural Use	10	10	10	10	
TOTAL CORRIDOR ASSESSMENT POINTS	160	69	64	63	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	59	61	65	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	69	64	63	0
TOTAL POINTS *(Total of above 2 lines)*	260				0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
9737 Cogdill Road; Suite 152C
Knoxville, TN 37932
Phone 865-671-3830 x. 112
rick.livingston@tn.usda.gov

May 30, 2013

Ms. JonnaLeigh Stack
Tennessee Department of Transportation
Suite 900, James K. Polk Bldg.
505 Deaderick Street
Nashville, TN 37243-0334

Project: Pellissippi Parkway Extension (SR 162) from SR 33 to US 321(SR 73)
Blount County, TN: (PIN 10774.00)

Dear Ms. Stack,

Please find the attached form NRCS-CPA-106 for this project. As a courtesy, polygon files were created from the line files that were sent on May 24. Areas of the project which are within the city limits of Alcoa and within the census designated area of Eagleton Village were excluded from the area and acreage totals. If you do not agree the acreage estimates or any part of this assessment, please furnish polygon files which only include areas where the Farmland Protection Policy Act applies and a new assessment will be completed using the data furnish by your office. No site visit was made in the completion of the requested information.

Corridor A (preferred route) will convert about 30.6 acres of Prime Farmland and 48.5 acres of Farmland of Local importance to non-farmland use. Additionally, approximately 1.8 acres of Hydric Soils will be impacted. For Corridor B (east shift), about 30.4 acres of Prime Farmland and 49.9 acres of Farmland of Local importance will be converted to non-farmland use. Corridor B will also impact about 3.3 acres of Hydric Soils. Corridor C (west shift) will convert an estimated 33.6 acres of Prime Farmland and 48.4 acres of Farmland of Local Importance to non-farmland use. This corridor will also impact about 3.1 acres of Hydric Soils.

Much of our soils information is available on-line at http://websoilsurvey.nrcs.usda.gov/app/
Additional information on Prime Farmland may be obtained at our websites
www.tn.nrcs.usda.gov/technical/soils/fppa.html or www.nrcs.usda.gov/programs/fppa/ .

Feel free to contact me if I may be of further assistance.

Sincerely,

Richard L. Livingston
Resource Soil Scientist

Attachment

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File copy

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 5/15/13	4. Sheet 1 of 1
1. Name of Project Pellissippi Parkway Extension EIS	5. Federal Agency Involved Federal Highway Administration	
2. Type of Project Roadway	6. County and State Blount, TN	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form Richard Livingston
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated N/A / Average Farm Size 81
5. Major Crop(s) Corn (indicator crop)	6. Farmable Land in Government Jurisdiction Acres: 152,600 % 42	7. Amount of Farmland As Defined in FPPA Acres: 54,050 % 15
8. Name Of Land Evaluation System Used LESA	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS 5/30/13

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	107	107	110	
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0	0	0	
C. Total Acres In Corridor	107	107	110	
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	30.6	30.4	33.6	
B. Total Acres Statewide And Local Important Farmland	48.5	49.9	48.4	
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.1	<0.1	<0.1	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	20	20	20	
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	67	67	68	
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points			
1. Area in Nonurban Use	15			
2. Perimeter in Nonurban Use	10			
3. Percent Of Corridor Being Farmed	20			
4. Protection Provided By State And Local Government	20			
5. Size of Present Farm Unit Compared To Average	10			
6. Creation Of Nonfarmable Farmland	25			
7. Availablility Of Farm Support Services	5			
8. On-Farm Investments	20			
9. Effects Of Conversion On Farm Support Services	25			
10. Compatibility With Existing Agricultural Use	10			
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	67	67	68	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	67	67	68	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Notes:
Corridor A = Preferred
Corridor B = East shift
Corridor C = West shift

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, TN 38501

October 11, 2012

Mr. Keven Brown
Tennessee Department of Transportation
Environmental Planning and Permits
James K. Polk Building, Suite 900
505 Deaderick Street
Nashville, Tennessee 37243-0334

Subject: FWS #12-CPA-0855. Proposed construction of the State Route 162 Extension (Pellissippi Parkway) from State Route 33 to State Route 73; P.E. 05097-0229-14, PIN #101423.00, Blount County, Tennessee.

Dear Mr. Brown:

Thank you for your letter dated September 24, 2012, transmitting acoustic and mist netting survey results for the proposed construction of the State Route 162 Extension (Pellissippi Parkway) from State Route 33 to State Route 73 in Blount County, Tennessee. Surveys were conducted along the proposed corridor to determine if the area is being utilized as summer roosting habitat by the federally endangered Indiana bat (*Myotis sodalis*). Personnel of the U.S. Fish and Wildlife Service have reviewed the information provided and offer the following comments.

Joint mist netting and acoustical studies were performed from July 30 through August 1, 2012, at three sites determined to contain suitable habitat for the Indiana bat. The acoustical study resulted in the recording of 2,021 bat calls, of which none were identified as Indiana bats. The mist netting efforts resulted in the capture of three bats, representing two non-listed species. The Tennessee Department of Transportation (TDOT) has concluded that the project is "not likely to adversely affect" the Indiana bat because the no Indiana bats were recorded during the surveys.

Due to negative survey results for the Indiana bat, we concur with TDOT's finding of "not likely to adversely affect" for this species. Unless new information otherwise indicates Indiana bat use of the area, this survey will be valid until April 1, 2015. Although it is likely that this project would have an insignificant effect on the Indiana bat, we would appreciate consideration given to the removal of trees with a DBH (diameter at breast height) of five inches or greater from October 15 through March 31 to further minimize potential for harm to the Indiana bat. Based on the best information available at this time, we believe that the requirements of section 7 of the Endangered Species Act of 1973, as amended, are fulfilled. Obligations under the Act must be reconsidered if (1) new

information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.

If you have any questions regarding our comments, please contact John Griffith of my staff at 931/525-4995 or by email at *john_griffith@fws.gov*.

Sincerely,

Mary E. Jennings
Field Supervisor

STATE OF TENNESSEE

DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Natural Areas
Natural Heritage Program
7th Floor L&C Tower
401 Church Street
Nashville, Tennessee 37243
Phone 615/532-0431 Fax 615/532-0046

March 1, 2013

Meridith Krebs
Lead Environmental Planner, Project Manager
Parsons Brinckerhoff
1900 Church Street, Suite 400
Nashville, Tennessee 37203

Subject: Pellissippi Parkway Extension (SR-162)
From SR-33 to SR-73, TDOT PIN 101423.00
Blount County, Tennessee
Rare Species Database Review

Dear Ms. Krebs:

Thank you for your correspondence requesting a rare species database review for the Pellissippi Parkway Extension (SR-162) project, located in Blount County, Tennessee (TDOT PIN 101423.00). Given the time since the 2009 review, we feel it is appropriate to provide a current list extracted from the natural heritage database.

On reviewing the database with regard to the project boundaries, we find that the following rare species have been observed previously within one mile of the project:

Type	Scientific Name	Common Name	Global Rank	St. Rank	Fed. Prot.	St. Prot.	Habitat
Invertebrate Animal	Fusconaia cuneolus	Finerayed Pigtoe	G1	S1	LE	E	Riffles of fords and shoals of mod gradient streams in firm cobble and gravel substrates; middle & upper Tennessee River watershed.
Vertebrate Animal	Cryptobranchus alleganiensis	Hellbender	G3G4	S3	No Status	D	Rocky, clear creeks and rivers with large shelter rocks.
Vertebrate Animal	Etheostoma cinereum	Ashy Darter	G2G3	S2S3	--	T	Small to medium upland rivers with bedrock or gravel substrate and boulders.

TNNHP_2013-17, TDOT PIN 101423.00, Pellissippi Parkway Extension (SR-162), Blount County, TN
March 1, 2013
Page 2

Type	Scientific Name	Common Name	Global Rank	St. Rank	Fed. Prot.	St. Prot.	Habitat
Vertebrate Animal	Etheostoma marmorpinnum	Marbled Darter	G1	S1	LE	E	Pools and moderate runs with clean pebbles, cobble, & small boulders; lower Little River (Tennessee River drainage).
Vertebrate Animal	Percina aurantiaca	Tangerine Darter	G4	S3	--	D	Large-moderate size headwater tribs to Tennessee River, in clear, fairly deep, rocky pools, usually below riffles.
Vertebrate Animal	Percina burtoni	Blotchside Logperch	G2G3	S2	--	D	Large creeks and small-medium rivers with low turbidity and gravel-cobble substrates; Tennessee & Cumberland river watersheds.
Vertebrate Animal	Percina macrocephala	Longhead Darter	G3	S2	--	T	Clear, larger upland creeks and small-med rivers, usually in rocky flowing pools upst/dnst rubble riffles; Tenn & Cumb river watersheds.
Vertebrate Animal	Percina tanasi	Snail Darter	G2G3	S2S3	LT	T	Sand and gravel shoals of moderately flowing, vegetated, large creeks; upper Tennessee River watershed.

Within four miles of the project the following additional rare species have been reported:

Type	Scientific Name	Common Name	Global Rank	St. Rank	Fed. Prot.	St. Prot.	Habitat
Invertebrate Animal	Epioblasma capsaeformis	Oyster Mussel	G1	S1	LE	E	Shallow riffles in mod-swift current of small-medium rivers with coarse sand and gravel; Tennessee & Cumberland river systems.
Invertebrate Animal	Lasmigona holstonia	Tennessee Heelsplitter	G3	S2	--	Rare, Not State Listed	Spring runs, creeks, & small rivers, in subst of sand & mud; upper Tenn & Conasauga river watersheds; Blue Ridge & Ridge & Valley.
Nonvascular Plant	Radula voluta	A Liverwort	G3	S2	--	S	Shady Moist Boulders By Waterfalls Or Streams
Vascular Plant	Draba ramosissima	Branching Whitlow-grass	G4	S2	--	S	Calcareous Bluffs
Vascular Plant	Panax quinquefolius	American Ginseng	G3G4	S3S4	--	S-CE	Rich Woods
Vascular Plant	Pycnanthemum torrei	Torrey's Mountain-mint	G2	S1	--	S	Barrens

Type	Scientific Name	Common Name	Global Rank	St. Rank	Fed. Prot.	St. Prot.	Habitat
Vertebrate Animal	Hemitremia flammea	Flame Chub	G3	S3	--	D	Springs and spring-fed streams with lush aquatic vegetation; Tennessee & middle Cumberland river watersheds.
Vertebrate Animal	Ixobrychus exilis	Least Bittern	G5	S2B	--	D	Marshes with scattered bushes or other woody growth; readily uses artificial wetland habitats.
Vertebrate Animal	Rallus elegans	King Rail	G4	S2	--	D	Marshes, upland-wetland marsh edges, flooded farmlands, shrub swamps.
Vertebrate Animal	Tyto alba	Barn Owl	G5	S3	--	D	Open and partly open country, often around human habitation; farms.

Note that at least one name change is now in effect (*Etheostoma marmorpinnum*, formerly *E. percnurum*), but that protections remain the same. Should suitable habitat exist on or immediately downstream of the selected route, we ask that project plans provide for the protection of these species. We ask that you coordinate this project with the Tennessee Wildlife Resources Agency (Rob Todd, rob.todd@tn.gov , 615-781-6577) to ensure that legal requirements for protection of state listed rare animals are addressed. Additionally, we ask that you contact the U.S. Fish and Wildlife Service Field Office, Cookeville, Tennessee (931-525-4970) for comments regarding federally listed species. Based on the numerous proposed stream crossings, we anticipate that directed surveys for some of the above aquatic species may be necessary.

For stabilization of disturbed areas, the Tennessee Natural Heritage Program advocates the use of native trees, shrubs, and warm season grasses, where practicable. Care should be taken to prevent re-vegetation of disturbed areas with plants listed by the Tennessee Exotic Pest Plant Council as harmful exotic plants: http://www.tneppc.org/

Please keep in mind that not all of Tennessee has been surveyed and that a lack of records for any particular area should not be construed to mean that rare species necessarily are absent. For information regarding species protection status and ranks, please visit http://www.tn.gov/environment/na/pdf/Status&Ranks.pdf.

To assist in determining whether rare species are located at a given site, the Tennessee Natural Heritage Program has implemented a publicly accessible website where rare species data lists by county, quadrangle, watershed, and MS4 boundaries can be obtained: http://environment-online.state.tn.us:8080/pls/enf_reports/f?p=9014:3:3875605994273657.

Thank you for considering Tennessee's rare species throughout the planning of this project. Should you have any questions, please do not hesitate to contact David at (615) 532-0441 or david.withers@tn.gov .

Sincerely,

Chelsea L. Broach
Interim Data Manager

David Ian Withers
Natural Heritage Zoologist

TENNESSEE WILDLIFE RESOURCES AGENCY

ELLINGTON AGRICULTURAL CENTER
P. O. BOX 40747
NASHVILLE, TENNESSEE 37204

June 6, 2013

JonnaLeigh Stack
State of Tennessee
Department of Transportation
Environmental Division
Suite 900, James K. Polk Building
505 Deaderick Street
Nashville, TN 37243-0334

Re: Preferred Alternative and Alignment Shifts
Pellissippi Parkway Extension (SR 162) from SR 33 to US 321 (SR 73), Blount County, TN
PIN 101423.00, Project # 05097-1226-04

Dear Ms. Stack:

The Tennessee Wildlife Resource Agency has reviewed the information that you provided regarding the proposed alignment shifts for the Pellissippi Parkway Extension project that would address the issue of a National Register eligible archaeological site that has been identified within the proposed right-of-way of the Preferred Alternative near the southern terminus of the project. The Preferred Alternative was identified in the Concurrence Point 4 Package. It appears from the illustration in Figure 1 of the information packet that all the proposed avoidance alignments would impact the same streams; therefore would affect the same species but the habitat impacts would differ. Based upon the information that I requested and that you provided, it appears that the East Avoidance Alternative (1,541 linear feet of stream impacts and 6.40 acres of wetland impacts) would have less impacts to stream and wetland resources than would the West Avoidance Alternative (2,315 linear feet of stream impacts and 7.96 acres of wetland impacts); therefore we recommend that the East Avoidance Alternative be chosen as the new Preferred Alternative since the current Preferred Alternative (which has the least stream and wetland impacts of all the alternatives) may be eliminated in order to avoid the National Register eligible archaeological site.

Thank you for the opportunity to review and comment on the modification of this proposed project.

Sincerely,

Robert M. Todd

Robert M. Todd
Fish and Wildlife Environmentalist

The State of Tennessee

IS AN EQUAL OPPORTUNITY, EQUAL ACCESS, AFFIRMATIVE ACTION EMPLOYER

United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, TN 38501

June 10, 2013

Ms. JonnaLeigh Stack
Tennessee Department of Transportation
Environmental Planning and Permits Division
Suite 900, James K. Polk Building
505 Deaderick Street
Nashville, Tennessee 37243-0334

Subject: FWS# 12-I-0454. Proposed alignment shift for the State Route 162 (Pellissippi Parkway Extension) from State Route 33 (Old Knoxville Highway) to State Route 73 (U.S. Highway 321/Lamar Alexander Parkway), Blount County, Tennessee.

Dear Ms. Stack:

The Tennessee Department of Transportation (TDOT) prepared a Draft Environmental Impact Statement (DEIS) for the extension of State Route (SR) 162 (Pellissippi Parkway) from SR 33 (Old Knoxville Highway) to SR 73 (U.S. Highway 321/Lamar Alexander Parkway) in Blount County, Tennessee. This project has completed Tennessee Environmental Streamlining Agreement review and was most recently coordinated with our office for potential impacts to the federally endangered Indiana bat (*Myotis sodalis*). Personnel of the U.S. Fish and Wildlife Service have reviewed the subject proposal and offer the following comments.

In previous correspondence, our office provided four federally listed species that may be impacted by this project. These species include the federally endangered Indiana bat, duskytail darter (*Etheostoma percnurum*), fine-rayed pigtoe (*Fusconaia cuneolus*), and the federally threatened snail darter (*Percina tanasi*). In sections 3.14.3.2 and 3.14.3.3 of the *Preliminary Draft Environmental Impact Statement*, TDOT committed to implementation of a winter tree cutting timeframe restriction to avoid direct impacts to the Indiana bat. For aquatic species protection, TDOT would implement stringent best management practices (BMPs), including erosion and siltation control measures.

Joint mist netting and acoustical studies were performed from July 30 through August 1, 2012, at three sites determined to contain suitable habitat for the Indiana bat. The acoustical study resulted in the recording of 2,021 bat calls, of which none were identified as Indiana bats. The mist netting efforts resulted in the capture of three bats, representing two non-listed species. We

concurred with TDOT's finding of "not likely to adversely affect" for this species at that time based on probable absence from the project area. Unless new information otherwise indicates Indiana bat use of the area, this survey will be valid until April 1, 2015.

The Preferred Alternative is proposed to be shifted near the southern terminus due to the presence of an environmentally sensitive site. Upon review of the ecological resource survey results, we prefer the East Avoidance Alternative because it would have fewer stream and wetland impacts (1,541 linear feet of stream impacts and 6.40 acres of wetland impacts) when compared to the West Avoidance Alternative (2,315 linear feet of stream impacts and 7.96 acres of wetland impacts).

It is our understanding that BMPs for Exceptional Tennessee Waters (ETWs) are designed to withstand a five-year rain event and that streams without this designation normally receive protection for up to a two-year rain event. While the Little River is designated as an ETW, the tributaries that would be impacted by the project are not. Construction would likely take years to complete and would almost certainly experience a two-year rain event or greater during that time period. Due to proximity of the stream crossings to listed species occurrences in the Little River, we request that TDOT commit to implementing a 5-year design for water quality BMPs on all project area stream crossings.

If you have any questions regarding our comments, please contact John Griffith of my staff at 931/528-6481 (ext. 228) or by email at *john_griffith@fws.gov*.

Sincerely,

Brad Bingham

Acting for Mary E. Jennings
Field Supervisor

United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, TN 38501

July 26, 2013

Ms. Leigh Ann Tribble
Federal Highway Administration
404 BNA Drive, Suite 508
Nashville, Tennessee 37217

Subject: FWS #13-I-0454. Biological Assessment Addendum for the proposed construction of the State Route 162 Extension (Pellissippi Parkway) from State Route 33 to State Route 73; P.E. 05097-0229-14, PIN #101423.00, Blount County, Tennessee.

Dear Ms. Tribble:

Thank you for your letter dated June 27, 2013, transmitting a Biological Assessment (BA) Addendum for the proposed construction of the State Route (SR) 162 Extension from SR 33 to SR 73 in Blount County, Tennessee. The Tennessee Division Office agrees with the Tennessee Department of Transportation's (TDOT) findings of "not likely to adversely affect" for the federally endangered Indiana bat (*Myotis sodalis*), marbled darter (*Etheostoma marmorpinnum*), fine-rayed pigtoe (*Fusconaia cuneolus*), and the federally threatened snail darter (*Percina tanasi*) and requests our concurrence. Personnel of the U.S. Fish and Wildlife Service have reviewed the information provided and offer the following comments.

Bat surveys were conducted along the proposed corridor in the summer of 2012 to establish whether the area is being utilized as roosting habitat by the Indiana bat. Due to negative survey results for this species, we concurred with TDOT's determination of "not likely to adversely affect" in a letter dated October 11, 2012. Unless new information otherwise indicates Indiana bat use of the area, this survey will be valid until April 1, 2015. TDOT has committed, where possible, to removal of trees with a DBH (diameter at breast height) of five inches or greater from October 15 through March 31 to further minimize potential for impacts to the Indiana bat.

Stringent best management practices (BMPs), including erosion and sediment control measures, would be implemented to protect aquatic systems. Because the proposed crossings are all tributaries to the Little River, an Exceptional Tennessee Water, TDOT has departed from the standard two-year BMP design requirement and committed to BMPs designed for a five-year storm event. Because of this commitment to stringent water quality measures, we concur with the determination of "not likely to adversely affect" for federally listed aquatic species.

The document indicates that four wetlands could be impacted by the proposed project. The Corps of Engineers and Tennessee Department of Environment and Conservation (TDEC) should be contacted regarding the presence of regulatory wetlands and the requirements of wetlands protection statutes.

In light of TDOT's commitments to improved water quality measures and negative surveys for Indiana bats within the project area, we believe that the requirements of section 7 of the Endangered Species Act of 1973, as amended, are fulfilled for all species that currently receive federal protection under the Act. Obligations under the Act must be reconsidered if (1) new information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.

If you have any questions regarding our comments, please contact John Griffith of my staff at 931/525-4995 or by email at *john_griffith@fws.gov*.

Sincerely,

Acting for Mary E. Jennings
Field Supervisor

xc: Keven Brown, TDOT, Nashville, TN

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

JOHN C. SCHROER
COMMISSIONER

BILL HASLAM
GOVERNOR

May 5, 2015

Ms. Mary Jennings
US Dept. of Interior
Fish and Wildlife Service
446 Neal St.
Cookeville, TN 38501

Subject: SR-162 EXT (Pellissippi Pkwy) from SR-33 to SR-73
Blount County, TN
PIN: 101423.00 PE #05097-0229-14

Dear Ms. Jennings:

The Tennessee Department of Transportation (TDOT) performed joint mist netting and acoustical surveys on the subject project from July 30 to August 1, 2012. A total of three (3) bats representing two (2) non-listed species were captured at the three sample sites. Just over 2,000 bat calls were recorded at the three sample sites, none of which were identified as Indiana bats. Based on the survey results, TDOT determinted the project was "not likely to adversely affect" the Indiana bat (*Myotis sodalis*). The U.S. Fish and Wildlife Service (USFWS) concurred with this finding in a letter dated October 11, 2012.

In addition, no northern long-eared bats (*Myotis septentrionalis*) were captured during this survey. Based on the negative survey results, it is the opinion of TDOT that the northern long-eared bat is "not likely to adversely affected" by the subject project.

In compliance with the U.S. Fish and Wildlife Coordination Act of 1958, and the Endangered Species Act of 1973, as amended, TDOT would like to request a project update and suggest that the finding of "not likely to adversely affect" be continued until the signing of the NEPA document by the Federal Highway Administration. Thank you for your assistance with this project. If you have any questions or need additional information, please do not hesitate to contact me at Keven.Brown@tn.gov or (865) 594-2437.

Sincerely,

Keven A. Brown

Digitally signed by Keven A. Brown
DN: cn=Keven A. Brown, o=TDOT, ou=Ecology Section, Region 1, email=Keven.Brown@tn.gov, c=US
Date: 2015.05.05 11:23:03 -04'00'

Keven Brown
Biologist, TDOT Region 1
Ecology Section

Xc: Mr. John Hewitt – TDOT Ecology/Permits, w/attach.
Ms. Carma Smith – TDOT Planning, w/attach.
Mr. Rob Todd – TWRA, w/attach.
Mr. Vince Pontello – TWRA w/attach.
ED Project File - FileNet

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Tennessee ES Office
446 Neal Street
Cookeville, Tennessee 38501

May 28, 2015

Mr. Keven Brown
Tennessee Department of Transportation
Environmental Planning and Permits
James K. Polk Building, Suite 900
505 Deaderick Street
Nashville, Tennessee 37243-0349

Subject: FWS #12-I-0454. Proposal to construct the State Route 162 Extension (Pellissippi Parkway) from State Route 33 to State Route 73; P.E. 05097-0229-14, PIN #101423.00, Blount County, Tennessee.

Dear Mr. Brown:

Thank you for your letter dated May 5, 2015, requesting a project update for the proposed construction of the State Route (SR) 162 Extension from SR 33 to SR 73 in Blount County, Tennessee. The Tennessee Department of Transportation (TDOT) is requesting a continuation of our "not likely to adversely affect" concurrence for the federally endangered Indiana bat (*Myotis sodalis*) and concurrence of "not likely to adversely affect" for the threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*) until the signing of the National Environmental Policy Act document. Personnel of the U.S. Fish and Wildlife Service have reviewed the information provided and offer the following comments.

Bat surveys were conducted along the proposed corridor in the summer of 2012 to establish whether the area is being utilized as roosting habitat by the Indiana bat. The acoustical study resulted in the recording of over 2,000 bat calls, of which none were identified as Indiana bats. The mist netting efforts resulted in the capture of three individuals, representing two non-listed species. In a letter dated October 11, 2012, we concurred with TDOT's determination of "not likely to adversely affect" the Indiana bat. Based on negative survey results for the NLEB, we additionally concur with the finding of "not likely to adversely affect" for this species.

Upon review of our records, we have no new information indicating presence of the Indiana bat or NLEB within the project area. TDOT has committed to recoordinating with our office for potential impacts to listed or proposed species prior to construction of the project. Therefore, based on the best information available at this time, we believe that the requirements of section 7 of the Endangered Species Act (Act) of 1973, as amended, are fulfilled for all species that currently receive

protection under the Act. Obligations under section 7 of the Act must be reconsidered if (1) new information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.

If you have any questions regarding our comments, please contact John Griffith of my staff at 931/525-4995 or by email at *john_griffith@fws.gov*.

Sincerely,

Mary E. Jennings
Field Supervisor

CITY of MARYVILLE
PEOPLE are the KEY

June 10, 2013

Office of the City Manager
404 West Broadway
Maryville, TN 37801
(865) 273-3401 phone
(865) 273-3424 fax
www.maryvillegov.com

Commissioner John Schroer
State of Tennessee
Department of Transportation
7th Floor, James K. Polk Building
505 Deaderick Street
Nashville, TN 37243

Re: Pellissippi Parkway Extension

Dear Commissioner Schroer:

This letter is in response to TDOT's request for input on the EIS being prepared for the Pellissippi Parkway Extension. The Maryville City Council met on June 4th council meeting and discussed the two options presented to shift the alignment of the Pellissippi Parkway. The opinion was unanimous that the **East Shift** appears to be the best option. The Maryville City Council appreciates TDOT's effort to minimize the impacts to the environment and at the same time be sensitive to the citizens living in the path of this proposed route.

If you would like to discuss this further, do not hesitate to call me at (865) 273-3401.

Sincerely,

Greg McClain
City Manager

Cc: Tom Taylor, Mayor
Andy White, Vice-Mayor
Joe Swann, Councilman
Tommy Hunt, Councilman
Fred Metz, Councilman

Attachment C-3
Interagency Coordination

May 14, 2015 TESA Meeting

- **Presentation Slides**

August 4, 2015 TESA Meeting

- **Presentation Slides**
- **Map of Alignment Shifts, 2013**
- **Summary of Impacts from 2014 Reevaluation of DEIS**

Environmental Impact Statement (FEIS)
SR 162/PELLISSIPPI PARKWAY EXTENSION
BLOUNT COUNTY, TENNESSEE

Past | Present | Future

Presented to the TESA Agency Meeting
May 14, 2015

SR-162 / Pellissippi Parkway Extension

Project Description

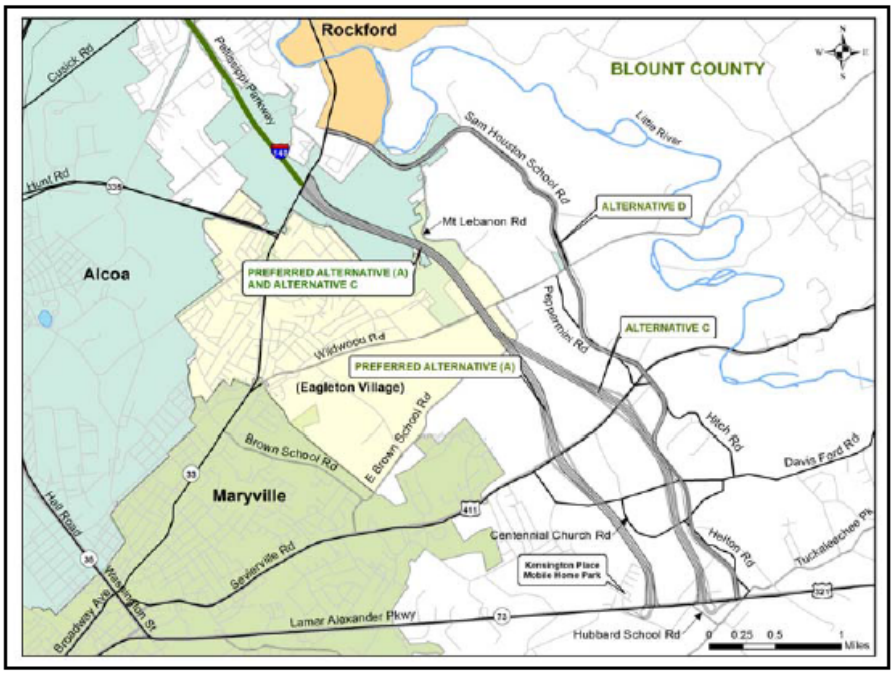
- Extend Pellissippi Parkway (SR 162) from terminus at SR 33 (Old Knoxville Hwy) to SR 73/US 321 (Lamar Alexander Pkwy)

1

SR-162 / Pellissippi Parkway Extension

TESA Concurrences

- CP 1 – Purpose and Need and Study Area - *February 2008*
- CP 2 – Alternatives to be Considered in DEIS - *July 2008*
- CP 3 – Preliminary DEIS - *January 2010*
- CP 4 – Preferred Alternative & Preliminary Mitigation – *May 2012*

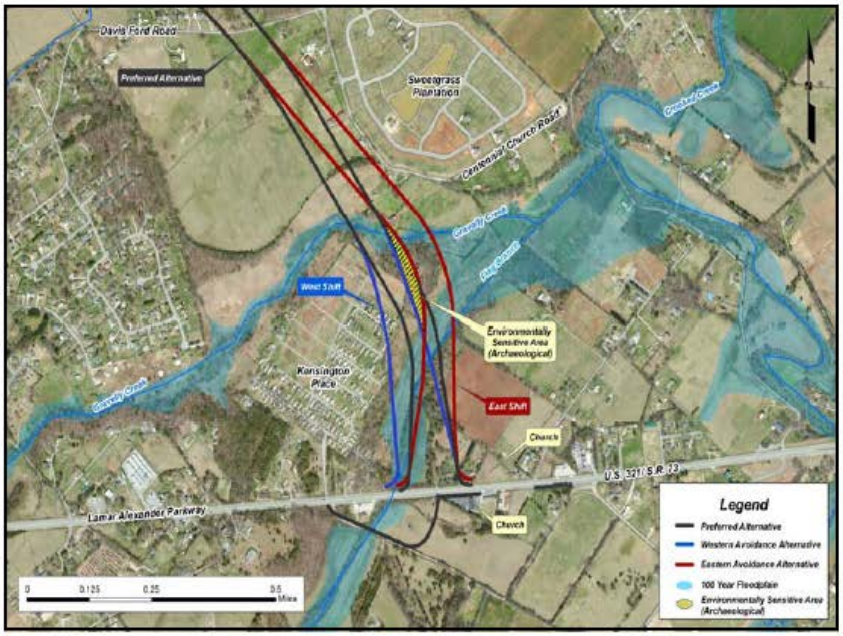


2

SR-162 / Pellissippi Parkway Extension

Changes to Preferred Alternative

- **2013** – NRHP-eligible archaeological site identified within project footprint
  - Two alignment shifts proposed (300' east or 150' west)
  - Community Briefing held to present shifts (May 30, 2013)
  - West Shift selected to modify Preferred Alternative



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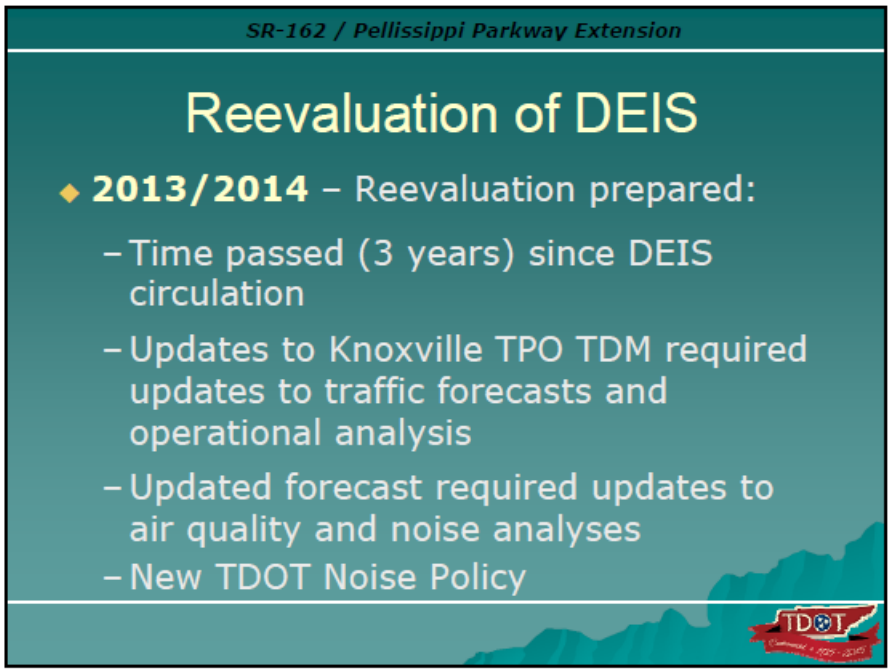
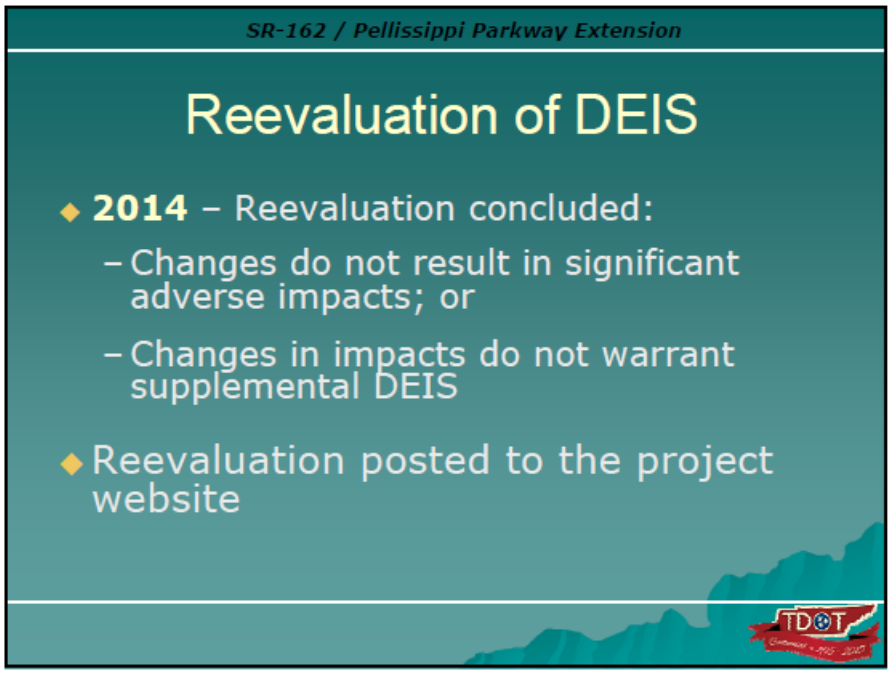

SR-162 / Pellissippi Parkway Extension
Reevaluation of DEIS
2013/2014 – Reevaluation prepared:
– Time passed (3 years) since DEIS circulation
– Updates to Knoxville TPO TDM required updates to traffic forecasts and operational analysis
– Updated forecast required updates to air quality and noise analyses
– New TDOT Noise Policy


SR-162 / Pellissippi Parkway Extension
Reevaluation of DEIS
2014 – Reevaluation concluded:
– Changes do not result in significant adverse impacts; or
– Changes in impacts do not warrant supplemental DEIS
Reevaluation posted to the project website

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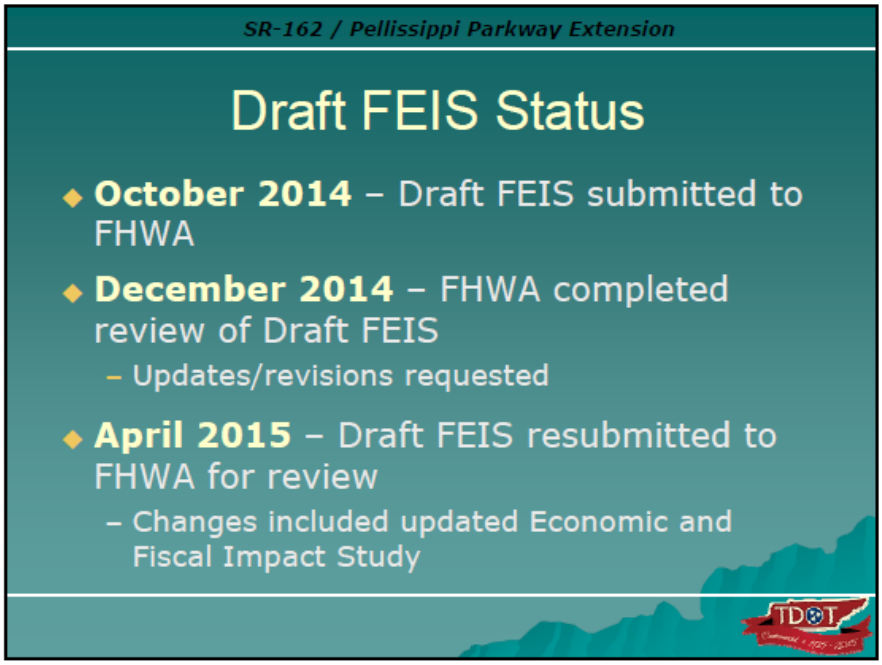
SR-162 / Pellissippi Parkway Extension
Draft FEIS Status
October 2014 – Draft FEIS submitted to FHWA
December 2014 – FHWA completed review of Draft FEIS
– Updates/revisions requested
April 2015 – Draft FEIS resubmitted to FHWA for review
– Changes included updated Economic and Fiscal Impact Study
TDOT


SR-162 / Pellissippi Parkway Extension
Next Steps
May to July 2015– Reviews and revisions
– Timeframe includes legal sufficiency review
– FEIS submittal to FHWA for approval
Summer 2015 – Anticipated approval of FEIS
End of 2015 – Anticipated ROD
TDOT

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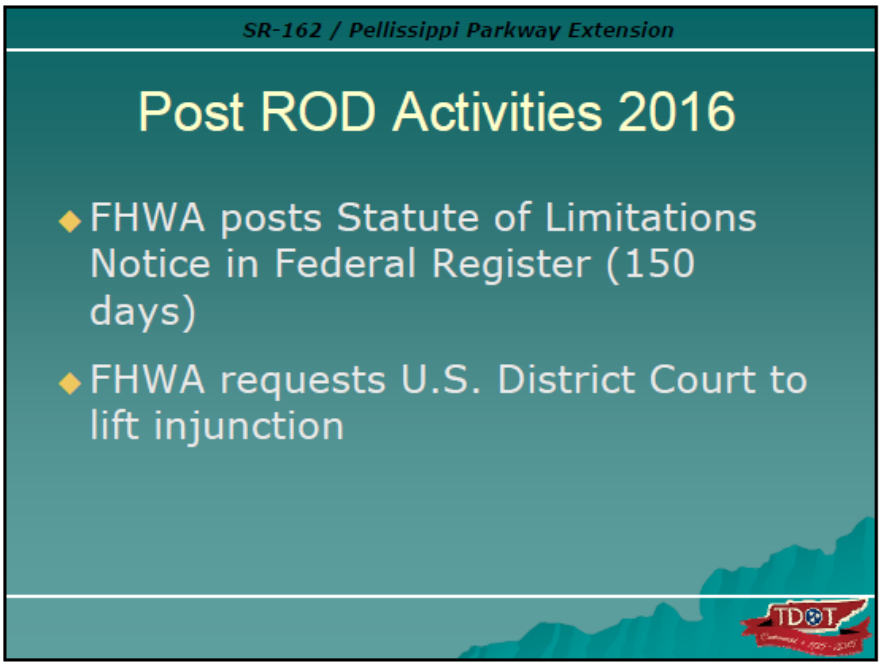
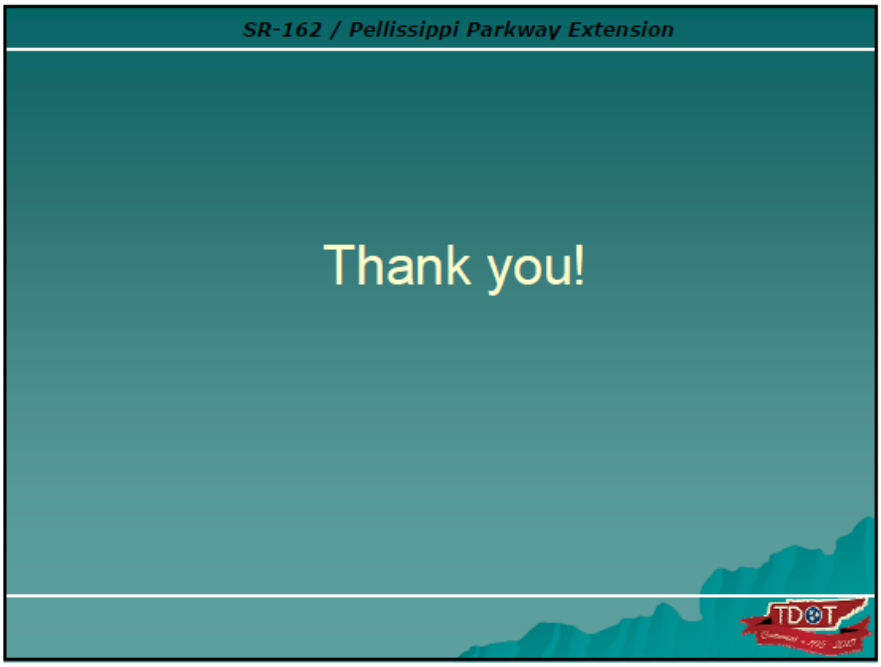

SR-162 / Pellissippi Parkway Extension
Post ROD Activities 2016
FHWA posts Statute of Limitations Notice in Federal Register (150 days)
FHWA requests U.S. District Court to lift injunction
TDOT


SR-162 / Pellissippi Parkway Extension
Thank you!
TDOT

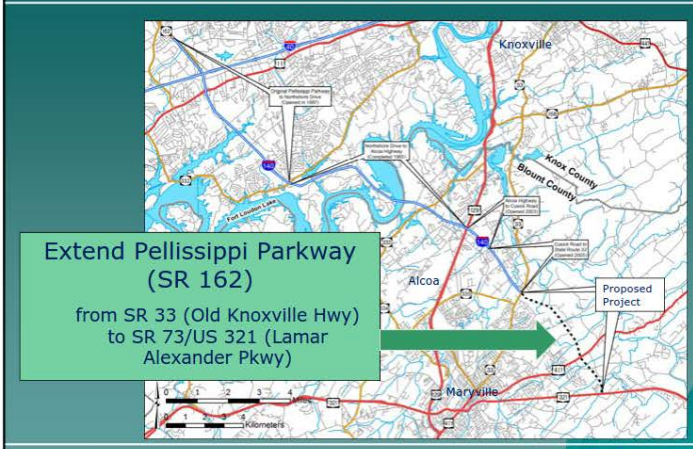
6

Environmental Impact Statement (FEIS)
SR 162/PELLISSIPPI PARKWAY EXTENSION
BLOUNT COUNTY, TENNESSEE

Summary of Environmental Evaluation since Concurrence Point 4

Presented to the TESA Agency Meeting
August 4, 2015

SR-162 / Pellissippi Parkway Extension



Extend Pellissippi Parkway (SR 162)

from SR 33 (Old Knoxville Hwy) to SR 73/US 321 (Lamar Alexander Pkwy)

1

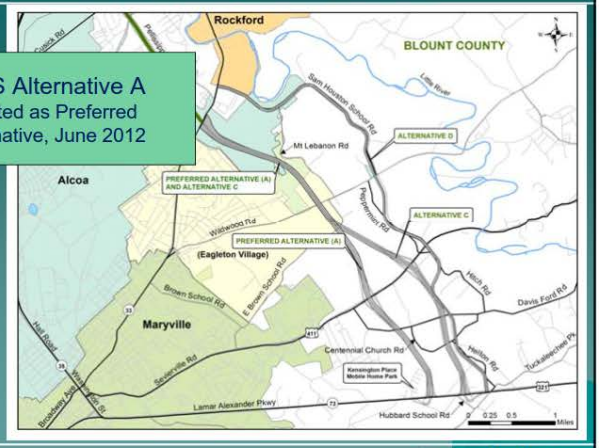
SR-162 / Pellissippi Parkway Extension

TESA Concurrences

- CP 1 – Purpose and Need and Study Area - *February 2008*
- CP 2 – Alternatives to be Considered in DEIS - *July 2008*
- CP 3 – Preliminary DEIS - *January 2010*
- CP 4 – Preferred Alternative & Preliminary Mitigation – *May 2012*

SR-162 / Pellissippi Parkway Extension

DEIS Alternative A selected as Preferred Alternative, June 2012



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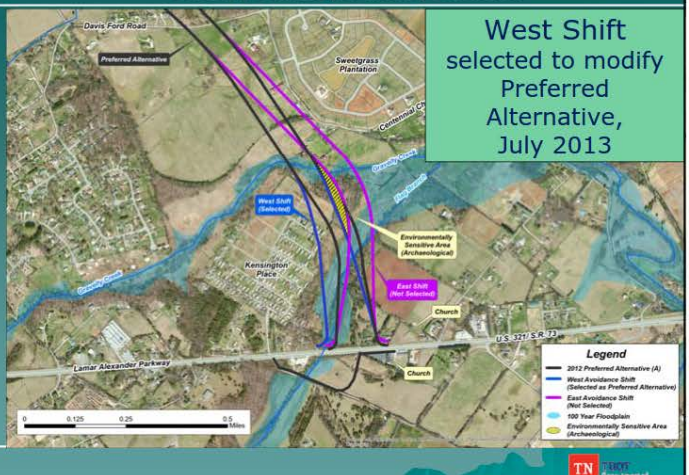
SR-162 / Pellissippi Parkway Extension

Changes to Preferred Alternative

- **2013** – To avoid National Register-eligible archaeological site in Project footprint
  - Two minor alignment shifts identified between Davis Ford Road and SR 73/US 321 (300' east or 150' west of proposed alignment)
  - Technical studies conducted
  - Coordination with resource agencies
  - Community Briefing held May 30, 2013

SR-162 / Pellissippi Parkway Extension



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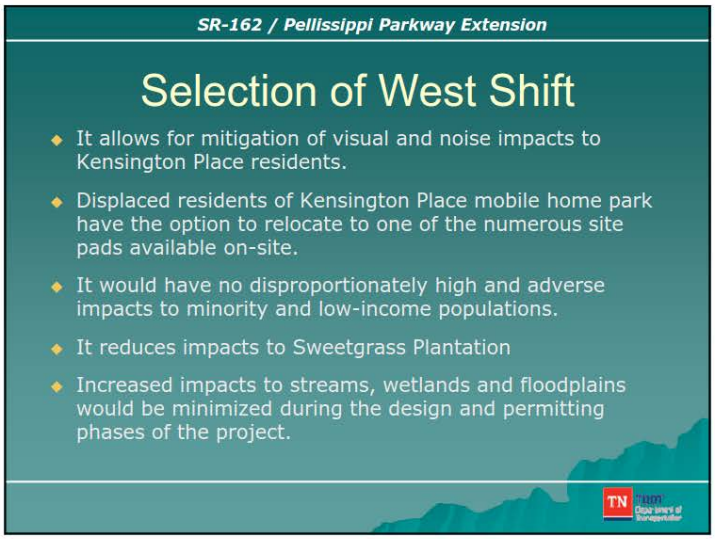
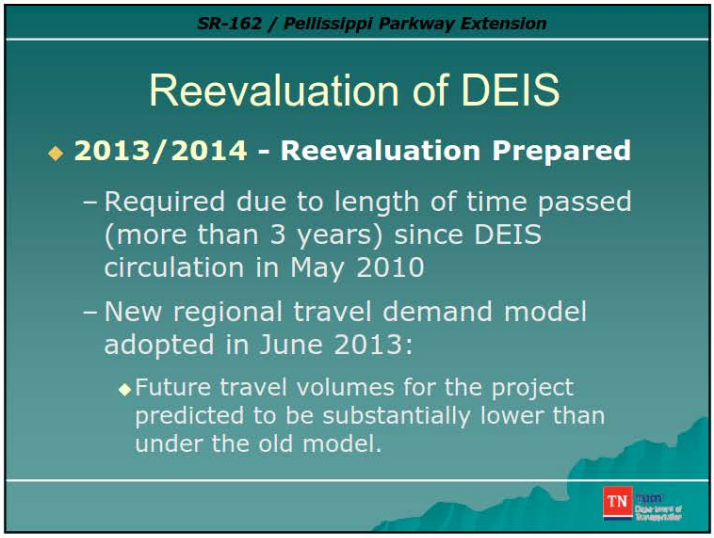
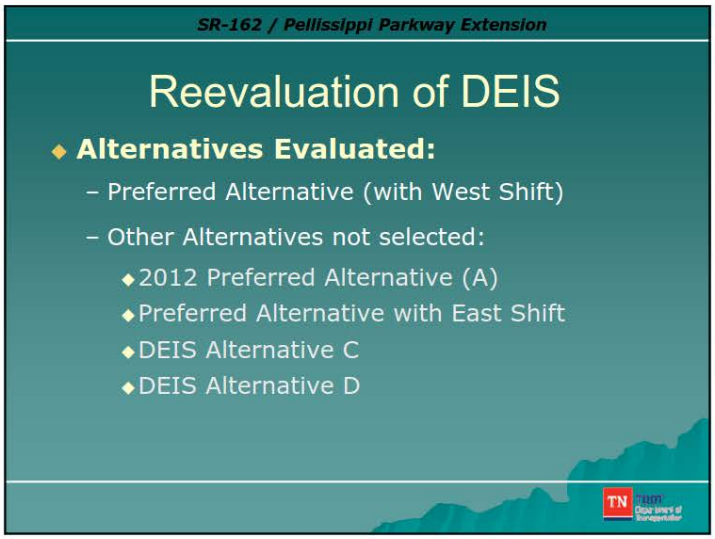
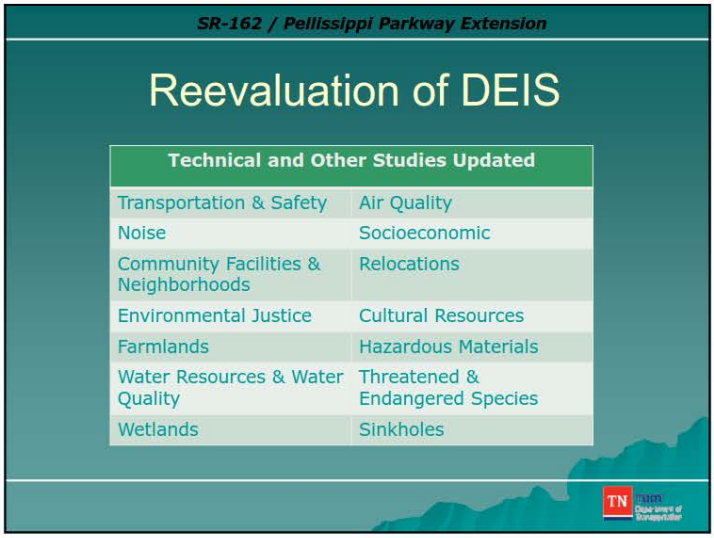

SR-162 / Pellissippi Parkway Extension
Selection of West Shift
It allows for mitigation of visual and noise impacts to Kensington Place residents.
Displaced residents of Kensington Place mobile home park have the option to relocate to one of the numerous site pads available on-site.
It would have no disproportionately high and adverse impacts to minority and low-income populations.
It reduces impacts to Sweetgrass Plantation
Increased impacts to streams, wetlands and floodplains would be minimized during the design and permitting phases of the project.

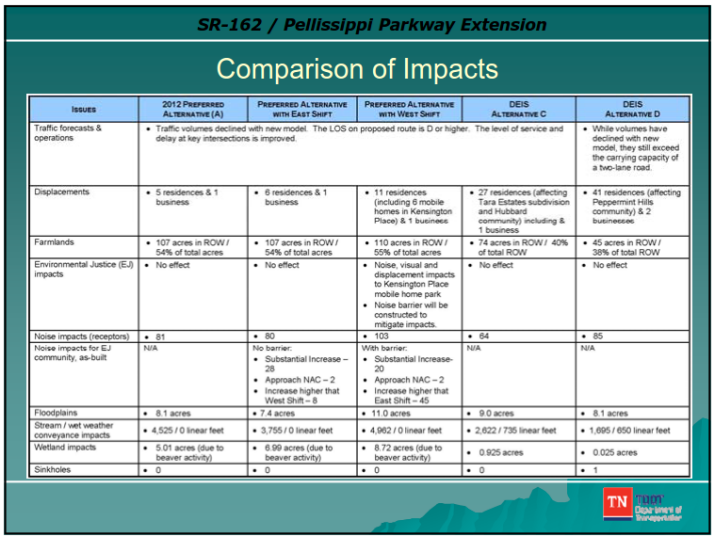

SR-162 / Pellissippi Parkway Extension
Reevaluation of DEIS
2013/2014 - Reevaluation Prepared
Required due to length of time passed (more than 3 years) since DEIS circulation in May 2010
New regional travel demand model adopted in June 2013:
Future travel volumes for the project predicted to be substantially lower than under the old model.

4

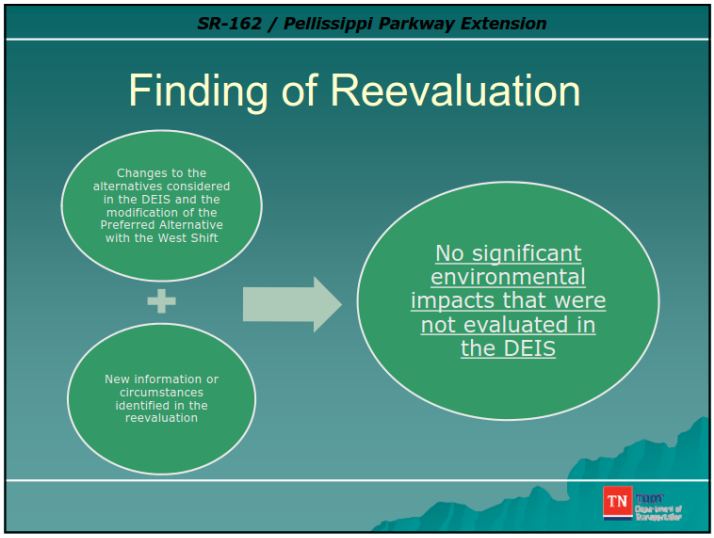

SR-162 / Pellissippi Parkway Extension
Reevaluation of DEIS
Alternatives Evaluated:
– Preferred Alternative (with West Shift)
– Other Alternatives not selected:
2012 Preferred Alternative (A)
Preferred Alternative with East Shift
DEIS Alternative C
DEIS Alternative D


SR-162 / Pellissippi Parkway Extension
Reevaluation of DEIS
Technical and Other Studies Updated
Transportation & Safety
Air Quality
Noise
Socioeconomic
Community Facilities & Neighborhoods
Relocations
Environmental Justice
Cultural Resources
Farmlands
Hazardous Materials
Water Resources & Water Quality
Threatened & Endangered Species
Wetlands
Sinkholes

5



Issues	2012 Preferred Alternative (A)	Preferred Alternative with East Shift	Preferred Alternative with West Shift	DEIS Alternative C	DEIS Alternative D
Traffic forecasts & operations	• Traffic volumes declined with new model. The LOS on proposed route is D or higher. The level of service and delay at key intersections is improved.				• While volumes have declined with new model, they still exceed the carrying capacity of a two-lane road.
Displacements	• 5 residences & 1 business	• 6 residences & 1 business	• 11 residences (including 6 mobile homes in Kensington Place) & 1 business	• 27 residences (affecting Tara Estates subdivision and Hubbard community) including & 1 business	• 41 residences (affecting Peppermint Hills community) & 2 businesses
Farmlands	• 107 acres in ROW / 54% of total acres	• 107 acres in ROW / 54% of total acres	• 110 acres in ROW / 55% of total acres	• 74 acres in ROW / 40% of total ROW	• 45 acres in ROW / 38% of total ROW
Environmental Justice (EJ) impacts	• No effect	• No effect	• Noise, visual and displacement impacts to Kensington Place mobile home park • Noise barrier will be constructed to mitigate impacts.	• No effect	• No effect
Noise impacts (receptors)	• 81	• 80	• 103	• 64	• 85
Noise impacts for EJ community, as-built	N/A	No barrier: • Substantial Increase – 28 • Approach NAC – 2 • Increase higher that West Shift – 8	With barrier: • Substantial Increase- 20 • Approach NAC – 2 • Increase higher that East Shift – 45	N/A	N/A
Floodplains	• 8.1 acres	• 7.4 acres	• 11.0 acres	• 9.0 acres	• 8.1 acres
Stream / wet weather conveyance impacts	• 4,525 / 0 linear feet	• 3,755 / 0 linear feet	• 4,962 / 0 linear feet	• 2,622 / 735 linear feet	• 1,695 / 650 linear feet
Wetland impacts	• 5.01 acres (due to beaver activity)	• 6.99 acres (due to beaver activity)	• 8.72 acres (due to beaver activity)	• 0.925 acres	• 0.025 acres
Sinkholes	• 0	• 0	• 0	• 0	• 1



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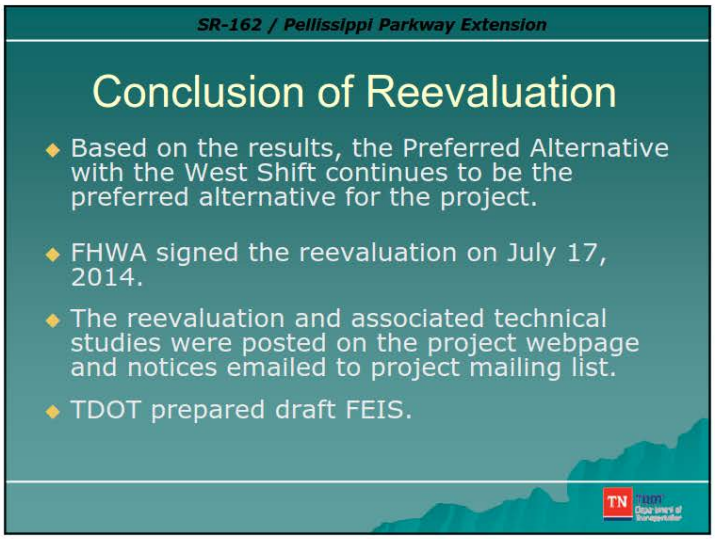
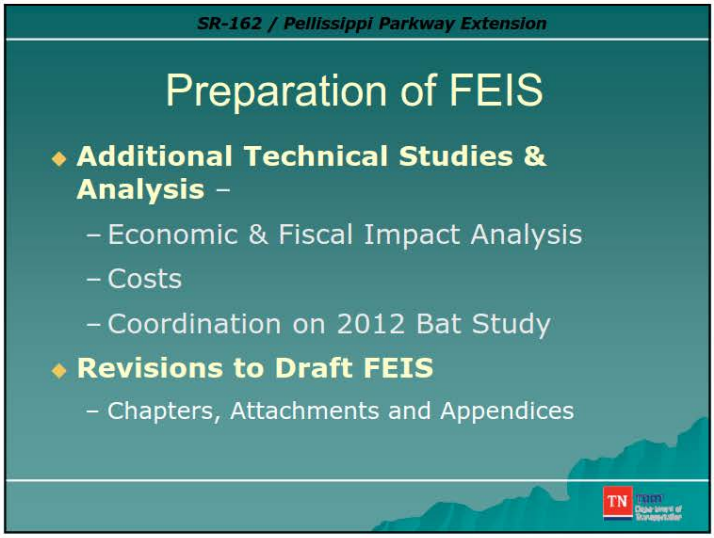
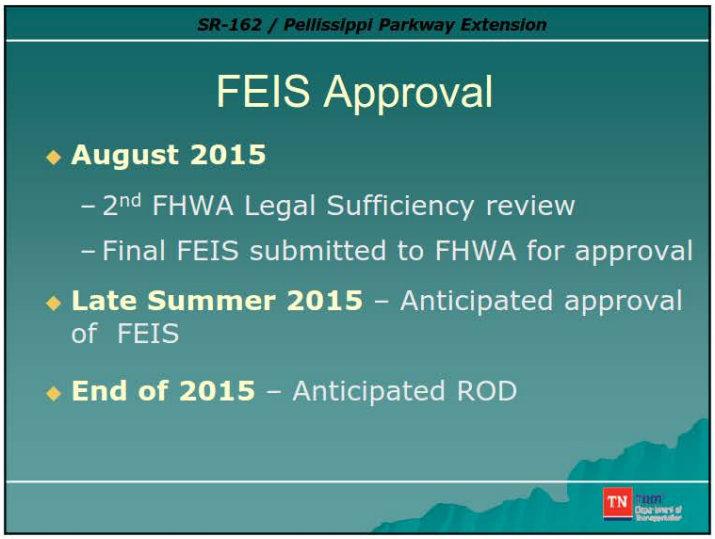
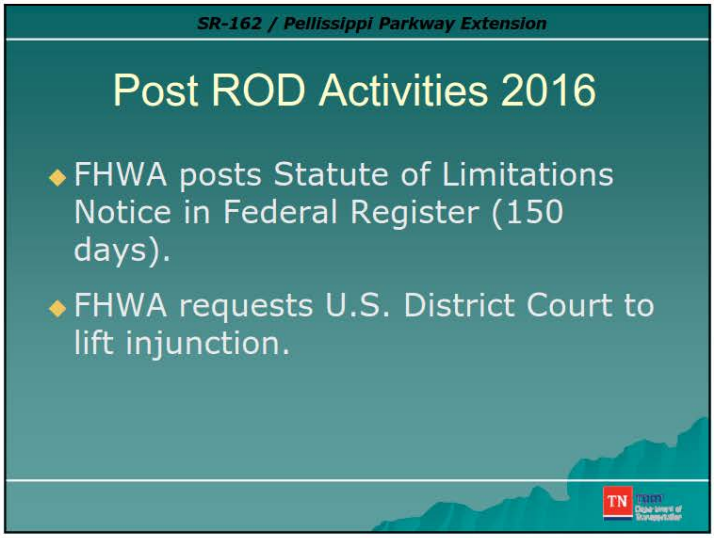

SR-162 / Pellissippi Parkway Extension
Conclusion of Reevaluation
Based on the results, the Preferred Alternative with the West Shift continues to be the preferred alternative for the project.
FHWA signed the reevaluation on July 17, 2014.
The reevaluation and associated technical studies were posted on the project webpage and notices emailed to project mailing list.
TDOT prepared draft FEIS.

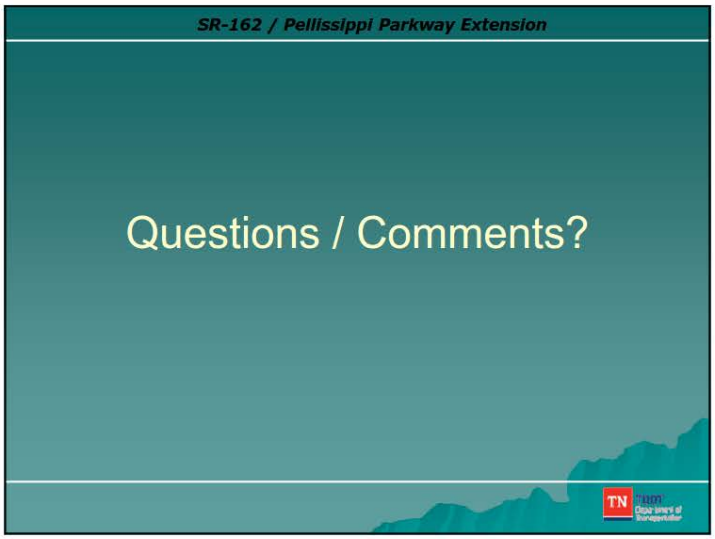

SR-162 / Pellissippi Parkway Extension
Preparation of FEIS
Additional Technical Studies & Analysis –
– Economic & Fiscal Impact Analysis
– Costs
– Coordination on 2012 Bat Study
Revisions to Draft FEIS
– Chapters, Attachments and Appendices

7


SR-162 / Pellissippi Parkway Extension
FEIS Approval
August 2015
– 2nd FHWA Legal Sufficiency review
– Final FEIS submitted to FHWA for approval
Late Summer 2015 – Anticipated approval of FEIS
End of 2015 – Anticipated ROD

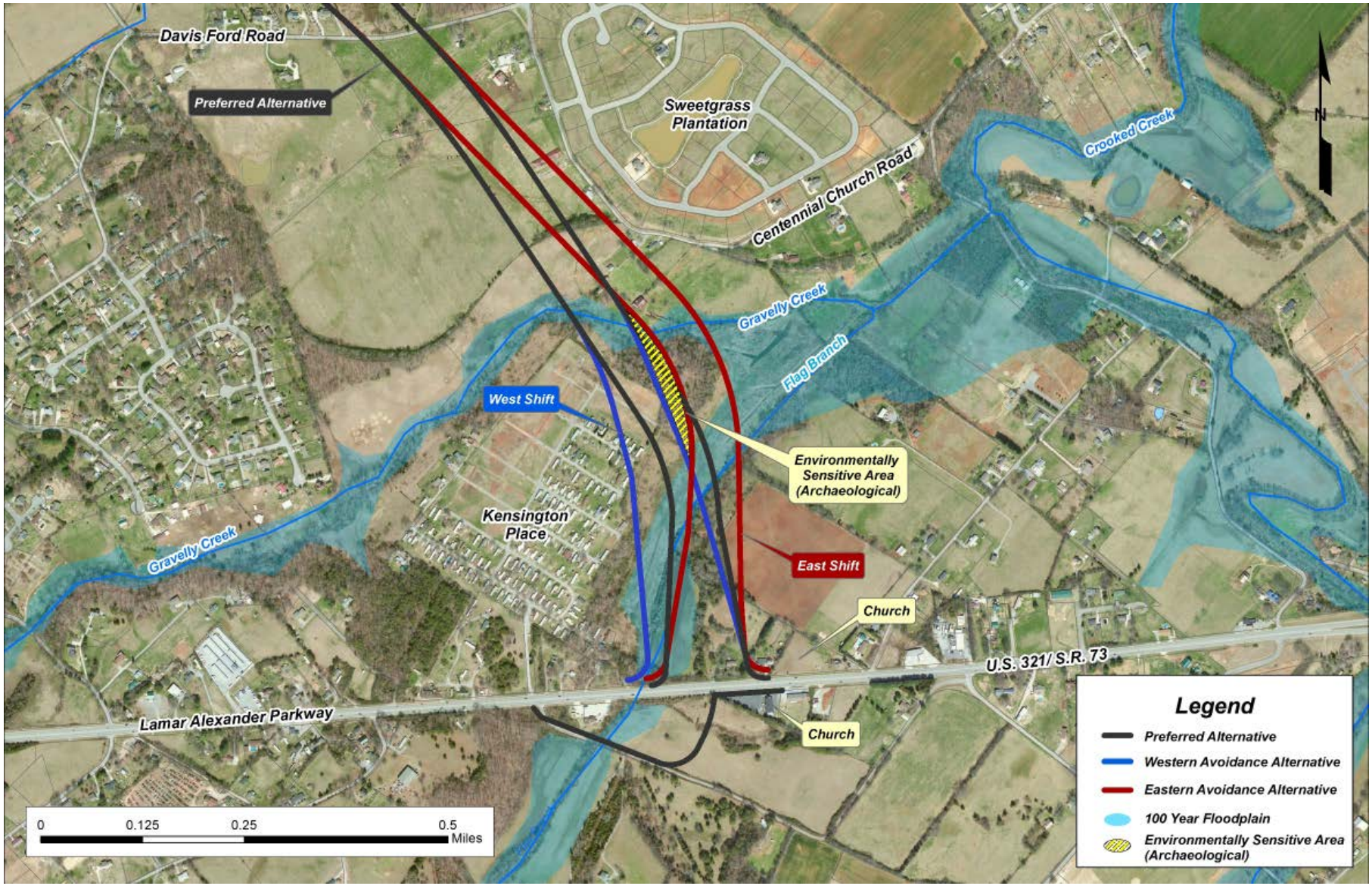

SR-162 / Pellissippi Parkway Extension
Post ROD Activities 2016
FHWA posts Statute of Limitations Notice in Federal Register (150 days).
FHWA requests U.S. District Court to lift injunction.

8


SR-162 / Pellissippi Parkway Extension
Questions / Comments?
TN

9

Pellissippi Parkway Extension Alignment Shifts, 2013



PELLISSIPPI PARKWAY EXTENSION DEIS REEVALUATION, JULY 2014
COMPARISON OF ALTERNATIVES

ISSUES	2012 PREFERRED ALTERNATIVE (A)	PREFERRED ALTERNATIVE WITH EAST SHIFT	PREFERRED ALTERNATIVE WITH WEST SHIFT	DEIS ALTERNATIVE C	DEIS ALTERNATIVE D
Traffic forecasts & operations	• Traffic volumes declined with new model. The LOS on proposed route is D or higher. The level of service and delay at key intersections is improved.				• While volumes have declined with new model, they still exceed the carrying capacity of a two-lane road.
Displacements	• 5 residences & 1 business	• 6 residences & 1 business	• 11 residences (including 6 mobile homes in Kensington Place) & 1 business	• 27 residences (affecting Tara Estates subdivision and Hubbard community) including & 1 business	• 41 residences (affecting Peppermint Hills community) & 2 businesses
Farmlands	• 107 acres in ROW / 54% of total acres	• 107 acres in ROW / 54% of total acres	• 110 acres in ROW / 55% of total acres	• 74 acres in ROW / 40% of total ROW	• 45 acres in ROW / 38% of total ROW
Environmental Justice (EJ) impacts	• No effect	• No effect	• Noise, visual and displacement impacts to Kensington Place mobile home park • Noise barrier will be constructed to mitigate impacts.	• No effect	• No effect
Noise impacts (receptors)	• 81	• 80	• 103	• 64	• 85
Noise impacts for EJ community, as-built	N/A	No barrier: • Substantial Increase – 28 • Approach NAC – 2 • Increase higher that West Shift – 8	With barrier: • Substantial Increase- 20 • Approach NAC – 2 • Increase higher that East Shift – 45	N/A	N/A
Floodplains	• 8.1 acres	• 7.4 acres	• 11.0 acres	• 9.0 acres	• 8.1 acres
Stream / wet weather conveyance impacts	• 4,525 / 0 linear feet	• 3,755 / 0 linear feet	• 4,962 / 0 linear feet	• 2,622 / 735 linear feet	• 1,695 / 650 linear feet
Wetland impacts	• 5.01 acres (due to beaver activity)	• 6.99 acres (due to beaver activity)	• 8.72 acres (due to beaver activity)	• 0.925 acres	• 0.025 acres
Sinkholes	• 0	• 0	• 0	• 0	• 1

Attachment D

Conceptual Stage Relocation Plan 2014

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DIVISION
SUITE 600, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
(615) 741-3196

JOHN C. SCHROER
COMMISSIONER

BILL HASLAM
GOVERNOR

CONCEPTUAL STAGE RELOCATION PLAN

County: **Blount**
Route: **SR-162**
PIN: **101423.00**
State Project No. **PE-D 05097-1226-04**
Federal Project No. **HPP/NH-162(7)**

SR-162 (Pellissippi Parkway) from SR-33 to SR-73 (US 321)

Alternate "A" with West Alignment Shift
Alternate "A" with East Alignment Shift
Alternate "AC"
Alternate "D"

PROJECT INFORMATION: The Tennessee Department of Transportation (**TDOT**) is proposing to extend SR-162 (Pellissippi Parkway) in order to improve safety, relieve traffic congestion, and promote economic growth. SR-162 is a major connector between the city of Maryville and I-40 and I-75 12.5± miles to the northwest.

Altogether, four alternate routes are under consideration. The first three routes call for the extension of SR-162. The fourth route (Alternate "D"), calls for the upgrade of an existing network of two lane roads. Location maps of the proposed project showing each of the four alternate routes are shown on Pages 7 and 8 of this report.

Due to the preliminary nature of the submitted functional road plans, typical sections were not included.

Based on the submitted plans, it appears that the proposed right-of-way will vary according to construction requirements.

AREA INFORMATION: The subject area is located in the northern portion of Blount County and northeast of Maryville, the County Seat. Current land use in the project area includes a mixture of residential and agricultural, transitioning to residential.

According to the U. S. Census Bureau, the estimated population for Blount County in 2013 was 125,099. This reflects a 1.7% increase since the 2010 census. The population of Maryville in 2012 was estimated to be 27,914 and reflects a 1.1% increase since the 2010 census.

DISPLACEMENTS:

ANTICIPATED RELOCATIONS	ALTERNATE "A"		ALTERNATE "AC"	ALTERNATE "D"
	WEST ALIGNMENT SHIFT	EAST ALIGNMENT SHIFT		
SINGLE FAMILY RES.	5	5	25	39
MOBILE HOMES	6	1	2	2
BUSINESSES	1	1	1	2

DISPLACEMENT EFFECTS AND ANALYSIS

Single Family Residences

Alternate "A" with West Alignment Shift

Construction of this project is expected to result in the displacement of 5 (five) single family residences. Based on field observation, these single family residences appear to be typical for the area in terms of size and style. A majority of the single family displacees are expected to be owner occupants.

Alternate "A" with East Alignment Shift

Construction of this project is expected to result in the displacement of 5 (five) single family residences. Based on field observation, these single family residences appear to be typical for the area in terms of size and style. A majority of the single family displacees are expected to be owner occupants.

Alternate "AC"

Construction of this project is expected to result in the displacement of 25 (twenty-five) single family residences. Based on field observation, these single family residences appear to be typical for the area in terms of size and style. A majority of the single family displacees are expected to be owner occupants.

Alternate "D"

Construction of this project is expected to result in the displacement of 39 (thirty-nine) single family residences. Based on field observation, these single family residences appear to be typical for the area in terms of size and style. A majority of the single family displacees are expected to be owner occupants.

Mobile Homes

Alternate "A" with West Alignment Shift

Construction is expected to displace 6 (six) mobile home residences. Based on field observation, these mobile homes appear to be typical for the area in terms of size and style. The number of owner/tenant occupants of the mobile homes is unknown.

Alternate "A" with East Alignment Shift

Construction is expected to displace 1 (one) mobile home residence. Based on field observation, this mobile home appears to be typical for the area in terms of size and style. The number of owner/tenant occupants of this mobile home is unknown.

Alternate "AC"

Construction is expected to displace 2 (two) mobile home residences. Based on field observation, these mobile homes appear to be typical for the area in terms of size and style. The number of owner/tenant occupants of the mobile homes is unknown.

Alternate "D"

Construction is expected to displace 2 (two) mobile home residences. Based on field observation, these mobile homes appear to be typical for the area in terms of size and style. The number of owner/tenant occupants of the mobile homes is unknown.

Businesses

Alternate "A" with West Alignment Shift

Construction is expected to displace 1 (one) small business consisting of a thrift store occupying a building formerly used as a service station/convenience market. Based on field observation, it is estimated that this business has fewer than 10 employees.

Alternate "A" with East Alignment Shift

Construction is expected to displace 1 (one) small business consisting of a thrift store occupying a building formerly used as a service station/convenience market. Based on field observation, it is estimated that this business has fewer than 10 employees.

Alternate "AC"

Construction is expected to displace 1 (one) small business consisting of a golf driving range. Based on field observation, it is estimated that this business has fewer than 10 employees.

Alternate "D"

Construction is expected to displace 2 (two) small businesses consisting of a Dollar General Store and a service station/convenience market. Based on field observation, it is estimated that both businesses have fewer than 10 employees.

Other Relocation Types

No multi-family, farm, or non-profit displacements are located on any of the four proposed alternates.

Availability of Replacement Housing

A survey of the Blount County real estate market in the immediate project area was conducted to determine the availability of residential and commercial real estate for either sale or lease.

Results of the survey indicate that the supply of available property in the project area appears to be adequate to satisfy the relocation requirements of the six to eleven households and single business affected by the **Alternate "A" with West Alignment Shift** and **Alternate "A" with East Alignment Shift.**

Alternate "AC" and **Alternate "D"** will both have significantly greater impact with between 27 and 41 households requiring relocation. While research indicates that the supply of available housing should be adequate to meet the residential relocation requirements, Alternate "D" with the greatest number of families to relocate will take longer to absorb due to the anticipated surge in demand. No problems are anticipated with relocation of the single affected business on each of these alternate routes.

CONCURRENT PROJECTS: As shown on Sheet 2 of Alternate "A" with West Alignment Shift, Sheet 1 of Alternate "A" with East Alignment Shift, and Sheet C1 of Alternate "AC" of the CSRP Marked Plans, there is an active SIA project underway in Blount County to provide an industrial access road to serve ProNova Solutions, LLC in Alcoa, Tennessee. The PIN Number is 118665.00. State Project 05LPLM-S3-028. While this project does not involve any relocation activities, the plans do show potential conflict between the proposed rights-of-way.

ENVIRONMENTAL: As shown in the table on Page 2 of this report, **Alternate "A" with West Alignment Shift** and **Alternate "A" with East Alignment Shift** will potentially result in the displacement of between six and eleven families and one business each. As such, the immediate area should experience only minor impact. No neighborhoods will be disrupted nor will access from areas northeast of the roadway to areas southwest of the roadway be significantly affected.

Alternate "AC" and **Alternate "D"** will both have significantly greater impact with between 27 and 41 households requiring relocation.

As shown on Sheets C6 & 7 and C10 of Alternate "AC", two clusters of homes will be impacted by construction of the proposed improvement. Of the twenty-seven total anticipated residential

relocations, 23 are shown on these three sheets. For Alternate "D", 17 of the 41 anticipated residential relocations are shown on Sheet D8.

Potential Hazardous Waste Sites:

Alternate "A" with West Alignment Shift

As shown on Sheet 10 of the CSRP Marked Plans, the single business being displaced occupies a building formerly used as a service station/convenience market where underground fuel storage tanks may be present.

Alternate "A" with East Alignment Shift

As shown on Sheet 10A of the CSRP Marked Plans, the single business being displaced occupies a building formerly used as a service station/convenience market where underground fuel storage tanks may be present.

Alternate "AC"

No apparent environmentally hazardous locations observed.

Alternate "D"

As shown on Sheet D12 of the CSRP Marked Plans, the single business being displaced currently operates as a service station/convenience market.

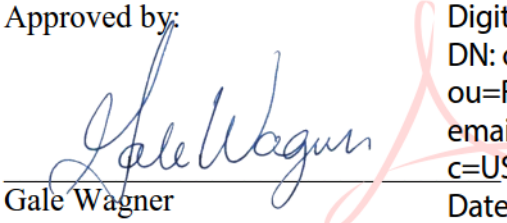
ASSURANCES: The Tennessee Department of Transportation will make relocation assistance available to all eligible persons impacted by this project, including residences, businesses, farm operations, non-profit organizations, and those requiring special services or assistance. The Regional Relocation Staff will administer the relocation program under the rules, policies, and procedures set forth in the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended, the Uniform Relocation Assistance Act of 1972, implementing federal regulations, TCA 13-11-101 through 119, The State of Tennessee Relocation Assistance Brochure and Chapter IX of the State of Tennessee Department of Transportation Right-of-Way Manual. TDOT's relocation program is practical and will allow for the efficient relocation of all eligible displaced persons in accordance with State and Federal Guidelines.

Prepared By:

David S. Goodman
Transportation Specialist 1

Digitally signed by David S. Goodman
DN: cn=David S. Goodman, o=Tennessee Department of Transportation, ou=Right-of-Way Office, email=David.S.Goodman@tn.gov, c=US
Date: 2014.05.05 13:08:20 -05'00'

Approved by:



Gale Wagner
Transportation Manager 1

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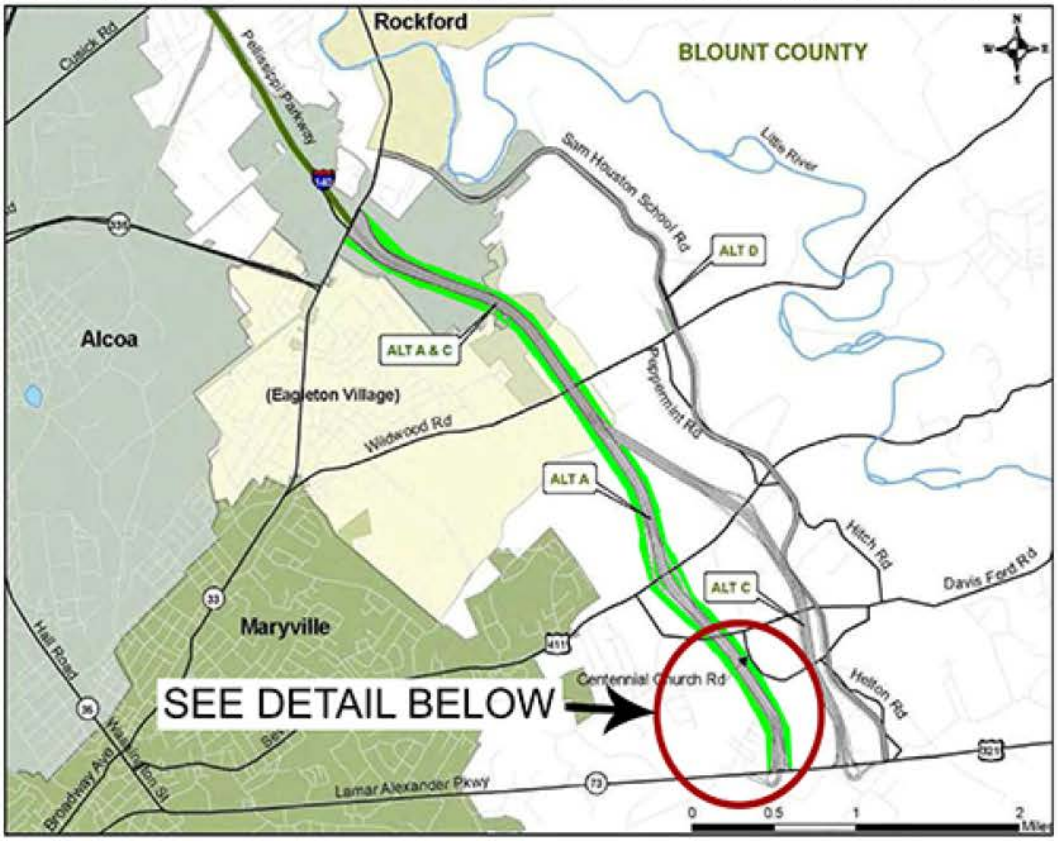
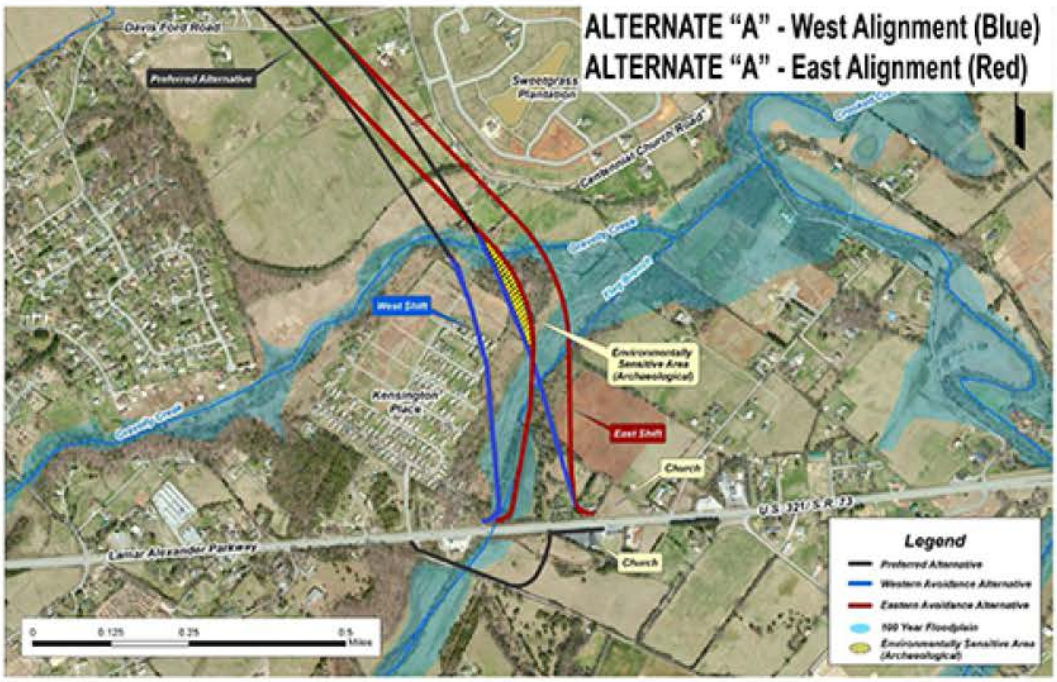
LOCATION MAPS

(For Illustration Only)

ALTERNATE "A" WITH EAST AND WEST ALIGNMENTS



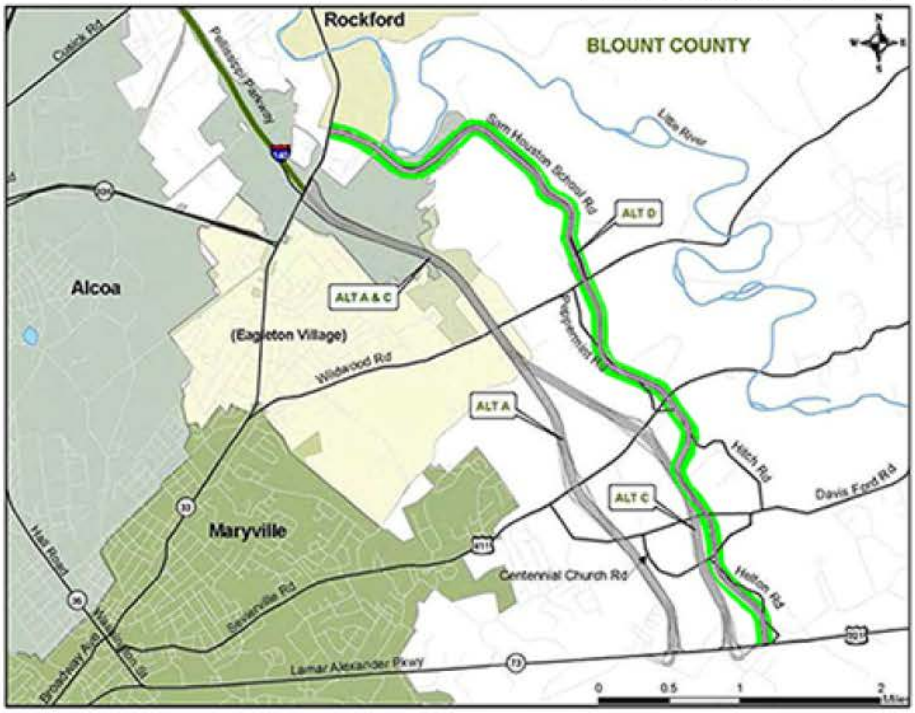


LOCATION MAPS

(For Illustration Only)

ALTERNATE "AC"

ALTERNATE "D"



Attachment E

Environmental Justice Analysis June 2014, with minor correction March 3, 2015

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL DIVISION
SUITE 900, JAMES K. POLK BUILDING
505 DEADERICK STREET

MEMORANDUM

Date: **June 10, 2014**

Project: **Pellissippi Parkway Extension (SR-162), Blount County, Tennessee**

Subject: **Updated Environmental Justice Analysis as Part of the Reevaluation of the Draft Environmental Impact Statement (DEIS)**

The focus of this memorandum is to update the Environmental Justice analyses previously prepared for the DEIS alternatives (No-Build, A, C and D) and for the Preferred Alternative (DEIS Alternative A) avoidance options (West Shift and East Shift).

Legislative and Regulatory Background

Executive Order (EO) 12898 on Environmental Justice (issued February 11, 1994) requires that each federal agency, to the greatest extent permitted by law, administer and implement its programs, policies, and activities that affect human health or the environment so as to identify and avoid "disproportionately high and adverse" effects on minority and low-income populations. There are three basic principles of environmental justice:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations;
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

In 1997, the US Department of Transportation (USDOT) issued DOT Order 5610.2, *DOT Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, establishing procedures to be used by DOT agencies to comply with EO 12898. In 2012, the

Department issued DOT Order 5610.2(a) to update and clarify its Environmental Justice procedures.

In December 1998, the FHWA issued Order 6640.23 *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* to establish specific policies and procedures for the application of EO 12898 Environmental Justice principals to FHWA actions. The original FHWA Order was superseded in June 2012 by Order 6640.23A, *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.*

Background

The DEIS for the subject project evaluated the No-Build Alternative and three Build Alternatives (two four-lane alternatives – Alternatives A and C; and an improved two-lane alternative – Alternative D). TDOT held a Public Hearing on the DEIS in July 2010. Following consideration of the environmental evaluation and comments provided by the public and agencies, in May 2012 TDOT announced its selection of Alternative A as the Preferred Alternative for the project. Figure 1 shows the location of the DEIS alternatives and the Preferred Alternative.

To prepare the FEIS, TDOT updated several technical studies for the Preferred Alternative, including the Phase II archaeology for five sites identified as potentially eligible during the DEIS. As a result of these Phase II investigations, one site was determined eligible for the National Register of Historic Places. TDOT investigated ways to avoid or minimize adverse effect to the site, focusing on identifying potential avoidance options via minor alignment shifts in the vicinity of the sensitive portion of the eligible archaeology site, rather than major shifts of the alignment of the Preferred Alternative.

TDOT identified two potential shifts of the alignment to avoid impacts to the eligible archaeology site, both requiring additional archaeology, noise, ecology, geotechnical and Environmental Justice studies to determine if the potential shifts were prudent and feasible. The two minor alignment shifts (also referred to as “avoidance options”) are described below and illustrated in Figure 2.

- **East alignment shift** would shift the right-of-way (ROW) about 300 feet eastward in the vicinity of the Kensington Place Mobile Home Park (referred to in this memo as the mobile home community) near the southern terminus of the project.

- **West alignment shift** would shift the ROW about 150 feet to the west into the Kensington Place mobile home community.

Figure 1 – 2012 Preferred Alternative and DEIS Alternatives

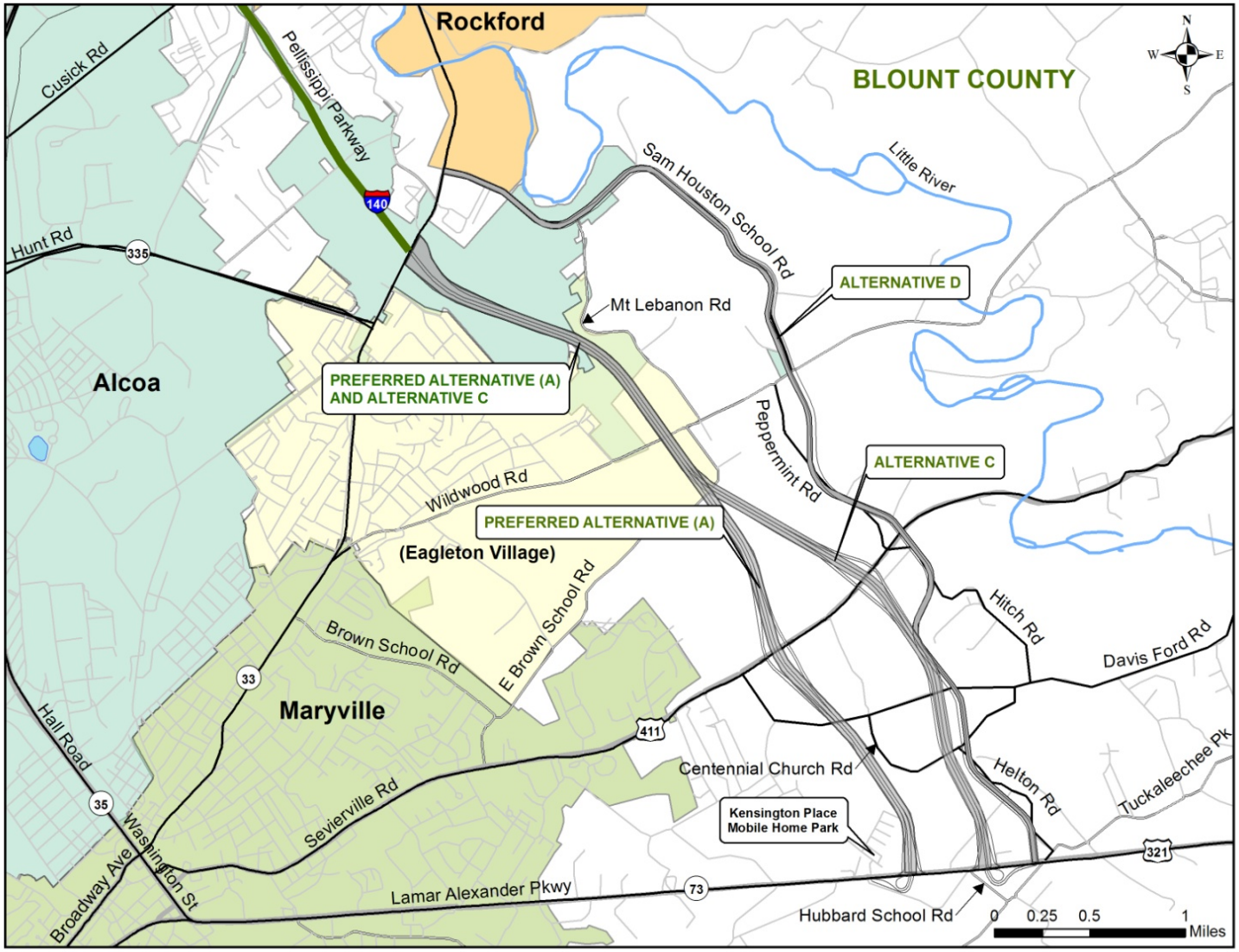
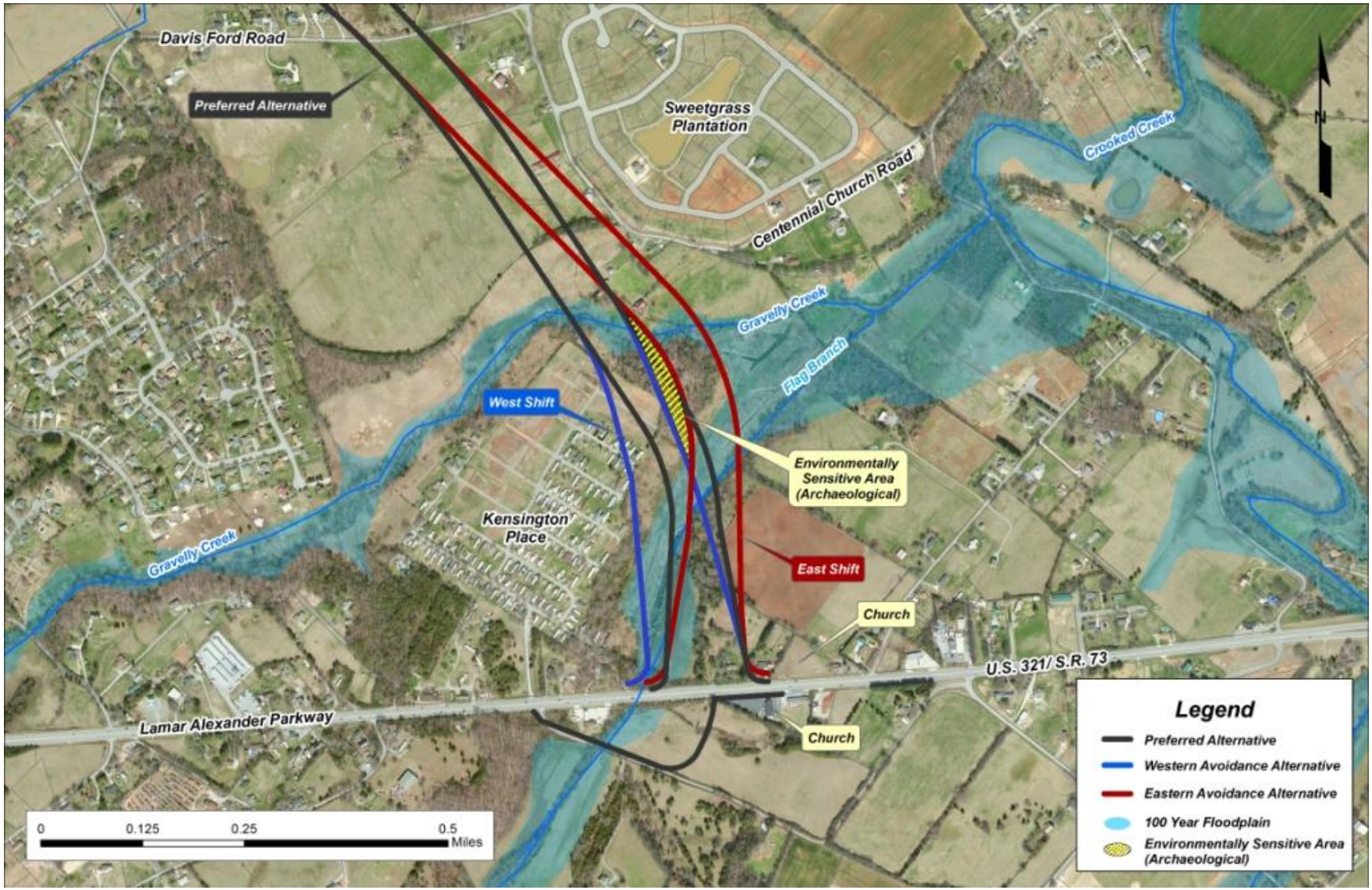


Figure 2 – 2012 Preferred Alternative and Avoidance Shifts



TDOT held a community briefing on Thursday, May 30, 2013 to engage those persons and businesses potentially affected by the proposed minor alignment shifts.

TDOT prepared an Environmental Justice Analysis Memorandum, dated June 21, 2013, to assess whether there is a disproportionately high and adverse impact to the low-income and minority residents in the mobile home community that would be affected by the two minor alignment shifts. The analysis concluded that low-income and minority residents will experience adverse impacts, likely due to increased noise, changes in the views, and displacements. To minimize the predicted noise impacts to the community, TDOT committed to construction of a noise barrier for the community. TDOT also committed to seek input from community residents regarding the landscaping and color/pattern of the barrier in order to minimize possible visual impacts to the community as a result of the barrier and the new roadway.

Following careful review of the public input from the community briefing, and consideration of the amount and type of impacts of each shift and the potential to mitigate adverse effects, TDOT selected the west shift to modify the Preferred Alternative. TDOT made a public announcement that the Preferred Alternative had been modified by the west alignment shift with a media advisory issued on July 29, 2013.

Due to the time that has elapsed (more than three years) since the approval and circulation of the DEIS (May 2010), in July 2013 TDOT initiated a reevaluation of the DEIS to determine whether a supplement to the DEIS or a new DEIS is necessary prior to approval of the FEIS.

This updated Environmental Justice Analysis Memorandum evaluates the DEIS alternatives as well as the Preferred Alternative with West Shift and the considered and dismissed Preferred Alternative with East Shift. This memo:

- Identifies potential low-income and minority populations in the project area defined in the DEIS;
- Describes potential impacts to identified Environmental Justice communities as well as mitigation measures to minimize impacts to those communities;
- Describes coordination activities to achieve public participation and input from low-income and minority persons; and
- Addresses alternatives considered to avoid or minimize impacts to the protected populations.

Identification of Potential Environmental Justice Communities in the Project Area

The legal and regulatory framework for Environmental Justice concerns focuses specifically on impacts to low-income populations and minority populations in the United States. Low-income persons are those whose median household income is at or below the Department of Health and Human Services poverty guidelines. Minority populations are specifically identified as persons who are:

1. Black: a person having origins in any of the black racial groups of Africa;
2. Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;

3. Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia or the Indian subcontinent;
4. American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
5. Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa or other Pacific Islands.

To identify concentrations of low-income and/or minority populations that would be affected by any of the project alternatives, TDOT reviewed the most recently available US Census data (2010) and the most recent data from the American Community Survey (2012). The secondary data review was supplemented by visual inspections of the project area and interviews with local planners conducted during the DEIS evaluation.

Blount County's population as a whole is primarily white (92 percent). Hispanic persons constitute about 2.8 percent of the population and Black persons are about 2.7 percent of the population. About 11.7 percent of the county's population is considered low-income.

Based on the review of available data, visual reconnaissance and past conversations with area planners, there is one substantial concentration of low-income and minority populations in the project area; this concentration of protected populations is the Kensington Place mobile home community. This community is on the north side of US-321/SR-73, to the east of the Maryville city limits, at the southern end of the proposed project. This development, owned by the Kensington Place MHP, LLC, in Royal Oaks, Illinois, has 163 mobile home site pads with electric hook-ups. Over 70 percent of the site pads have a mobile home on the pad. Most of the mobile homes are occupied, and most are owner occupied, according to the mobile home park manager in a May 30, 2014 telephone conversation. Figure 3 illustrates the layout of the mobile home community.

The following sections present the data for low-income and minority persons in the project area. Also included in this analysis is information on Limited English Proficiency (LEP) populations; while LEP is not included as a protected category of persons covered by EO 12898, this information helps in understanding the ethnic composition of the minority communities, and in determining how best to communicate information about the project.

Figure 3 - Kensington Place Mobile Home Community

Low-Income Population

The 2010 Census of Population includes persons below the poverty level at the Census tract geography, but for reasons of privacy does not provide more detailed data at the block group or lower level. For a better idea of where low-income persons reside, this analysis uses information from the 2012 American Community Survey for the block group level. Table 1 and Figure 4 illustrate by block group the percent of persons living below the poverty level in the area of the DEIS and Preferred Alternatives.

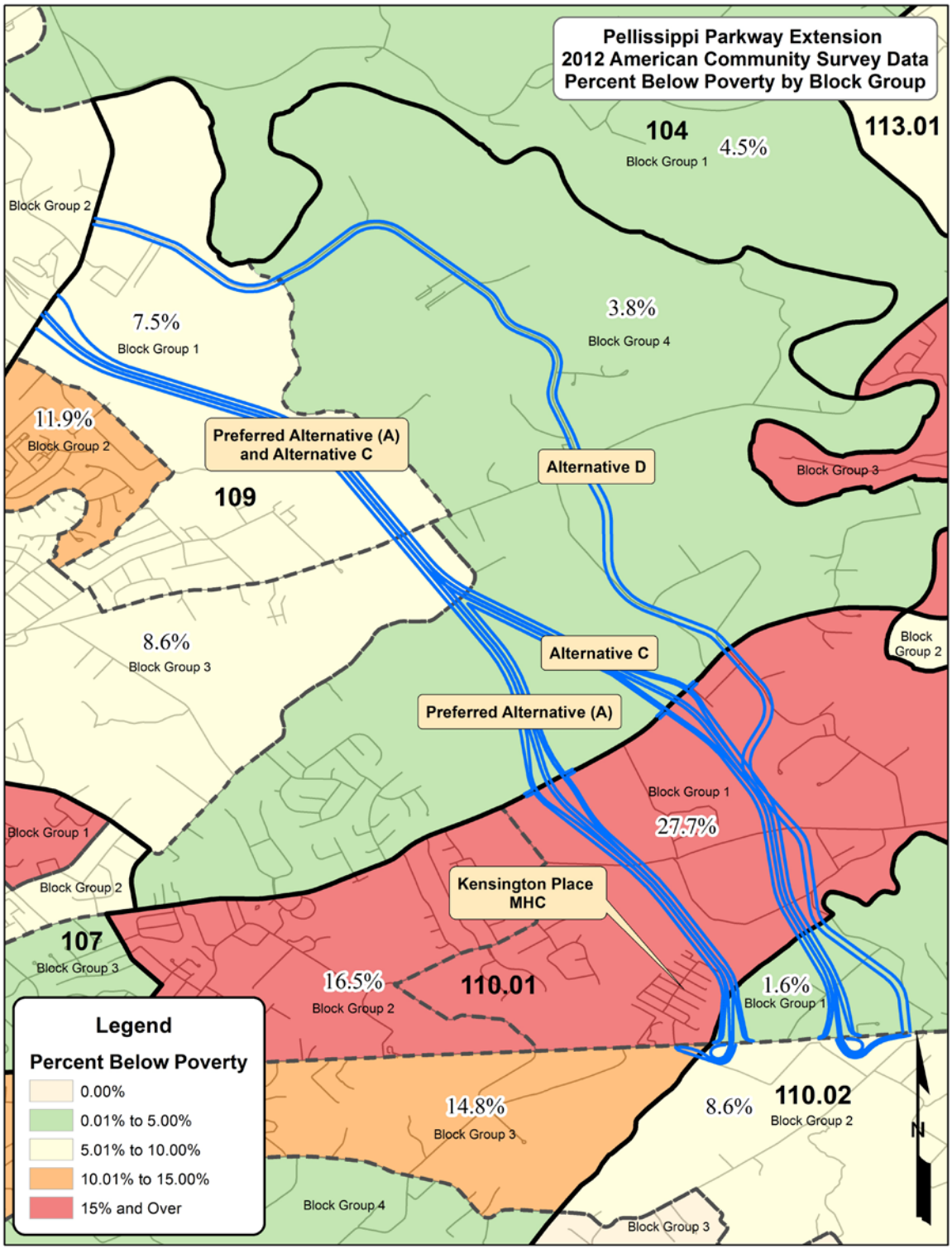
The southern end of the project area (where the Kensington Place mobile home community is located) has the higher concentration of persons below the poverty level compared with the rest of the project area and Blount County. The Census Block Group (CT 110.01, BG 1), which encompasses the mobile home community, has a substantially higher percentage of population below the poverty level (27.7 percent) compared with the county and most of the other block groups.

Table 1 – Persons below the Poverty Level, 2012

	Blount County	CT 109	CT 109 BG 1	CT 109 BG 2	CT 109 BG 3	CT 109 BG 4	CT 110.01	CT 110.01 BG 1	CT 110.01 BG 2	CT 110.01 BG 3	CT 110.02	CT 110.02 BG 1	CT 110.02 BG 2	CT 104 BG 1
Percent persons below poverty level	11.7%	5.4%	7.5%	11.9%	8.6%	3.8%	15.7%	27.7%	16.5%	14.8%	4.7%	1.6%	8.6%	4.5%

Source: 2012 American Community Survey

Figure 4 – Percent of Persons below the Poverty Level, 2012



Minority Populations

The 2010 US Census data provides block group level data for minority persons. Table 2 and Figure 5 illustrate the percentages of minority persons in the census tracts and block groups that comprise the general area of the DEIS and Preferred Alternative.

Census Tract 110.01, Block Group 2, which is not crossed by any of the project alternatives, has the highest percent of minority persons (10 percent). The next highest minority population (9.2 percent) is in Census Tract 109, Block Group 3, within the city of Maryville; this block group is crossed by the combined alignment of the Preferred Alternative and DEIS Alternative C. Census Tract 110.01, Block Group 1, which includes the Kensington Place mobile home community and is crossed by all project alternatives, has the third highest minority population (8.2 percent).

Figure 5 – Minority Population by Census Block Groups

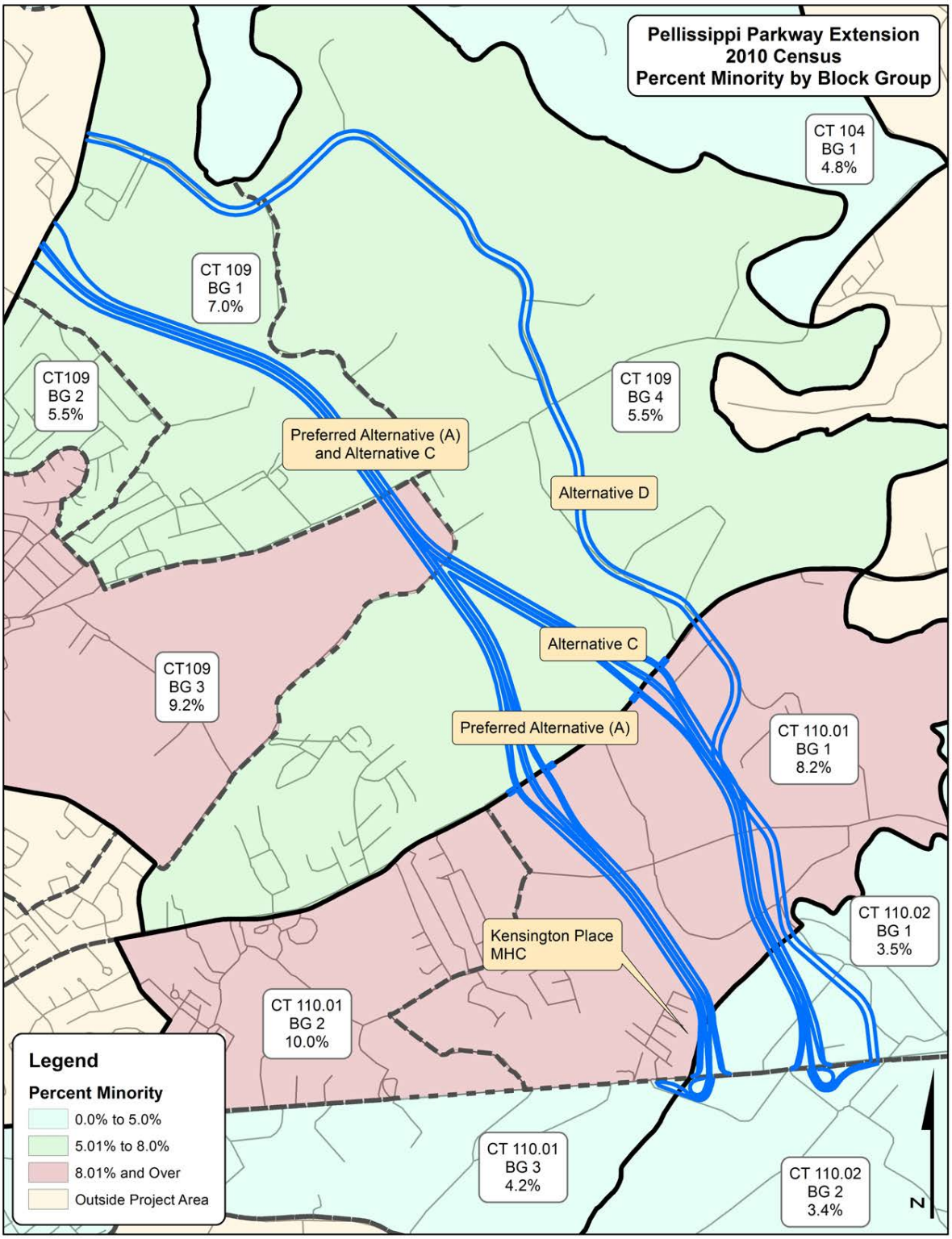


Table 2 - Minority Population, 2010

		Blount County	CT 104	CT 104 BG 1	CT 109	CT 109 BG 1	CT 109 BG 2	CT 109 BG 3	CT 109 BG 4	CT 110.01	CT 110.01 BG 1	CT 110.01 BG 2	CT 110.01 BG 3	CT 110.02	CT 110.02 BG 1	CT 110.02 BG 2
Total Population		123,010	3,217	1,781	5,812	1,018	1,031	1,829	1,934	5,524	1,410	1,829	1,431	3,986	1,450	1,232
Hispanic	#	3,441	74	26	170	32	30	82	26	160	84	42	22	53	17	12
	% of total	2.80%	2.30%	1.46%	2.92%	3.14%	2.91%	4.48%	1.34%	2.90%	5.96%	2.30%	1.54%	1.33%	1.17%	0.97%
White	#	113,240	2,987	1,695	5,410	947	974	1,661	1,828	5,131	1,295	1,646	1,371	3,847	1,399	1,190
	% of total	92.06%	92.85%	95.17%	93.08%	93.03%	94.47%	90.81%	94.52%	92.89%	91.84%	89.99%	95.81%	96.51%	96.48%	96.59%
Black	#	3,314	86	17	94	25	11	43	15	94	2	71	14	18	11	6
	% of total	2.69%	2.67%	0.95%	1.62%	2.46%	1.07%	2.35%	0.78%	1.70%	0.14%	3.88%	0.98%	0.45%	0.76%	0.49%
American Indian and Alaska Native	#	365	6	5	19	0	1	3	15	18	7	4	2	18	6	7
	% of total	0.30%	0.19%	0.28%	0.33%	0.00%	0.10%	0.16%	0.78%	0.33%	0.50%	0.22%	0.14%	0.45%	0.41%	0.57%
Asian	#	863	12	11	51	1	6	6	38	55	5	44	3	11	5	2
	% of total	0.70%	0.37%	0.62%	0.88%	0.10%	0.58%	0.33%	1.96%	1.00%	0.35%	2.41%	0.21%	0.28%	0.34%	0.16%
Native Hawaiian and Other Pacific Islanders	#	25	0	0	0	0	0	0	0	1	0	0	0	2	0	0
	% of total	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.00%	0.00%	0.00%	0.05%	0.00%	0.00%
Some Other Race Alone	#	109	3	2	4	1	0	3	0	3	1	0	0	1	1	0
	% of total	0.09%	0.09%	0.11%	0.07%	0.10%	0.00%	0.16%	0.00%	0.05%	0.07%	0.00%	0.00%	0.03%	0.07%	0.00%
Two or More Races	#	1,653	49	25	64	12	9	31	12	62	16	22	19	36	11	15
	% of total	1.34%	1.52%	1.40%	1.10%	1.18%	0.87%	1.69%	0.62%	1.12%	1.13%	1.20%	1.33%	0.90%	0.76%	1.22%
Total Minority	#	9,770	230	86	402	71	57	168	106	393	115	183	60	139	51	42
	% of total	7.94%	7.15%	4.83%	6.92%	6.97%	5.53%	9.19%	5.48%	7.11%	8.16%	10.01%	4.19%	3.49%	3.52%	3.41%

Source: 2010 Census of Population.

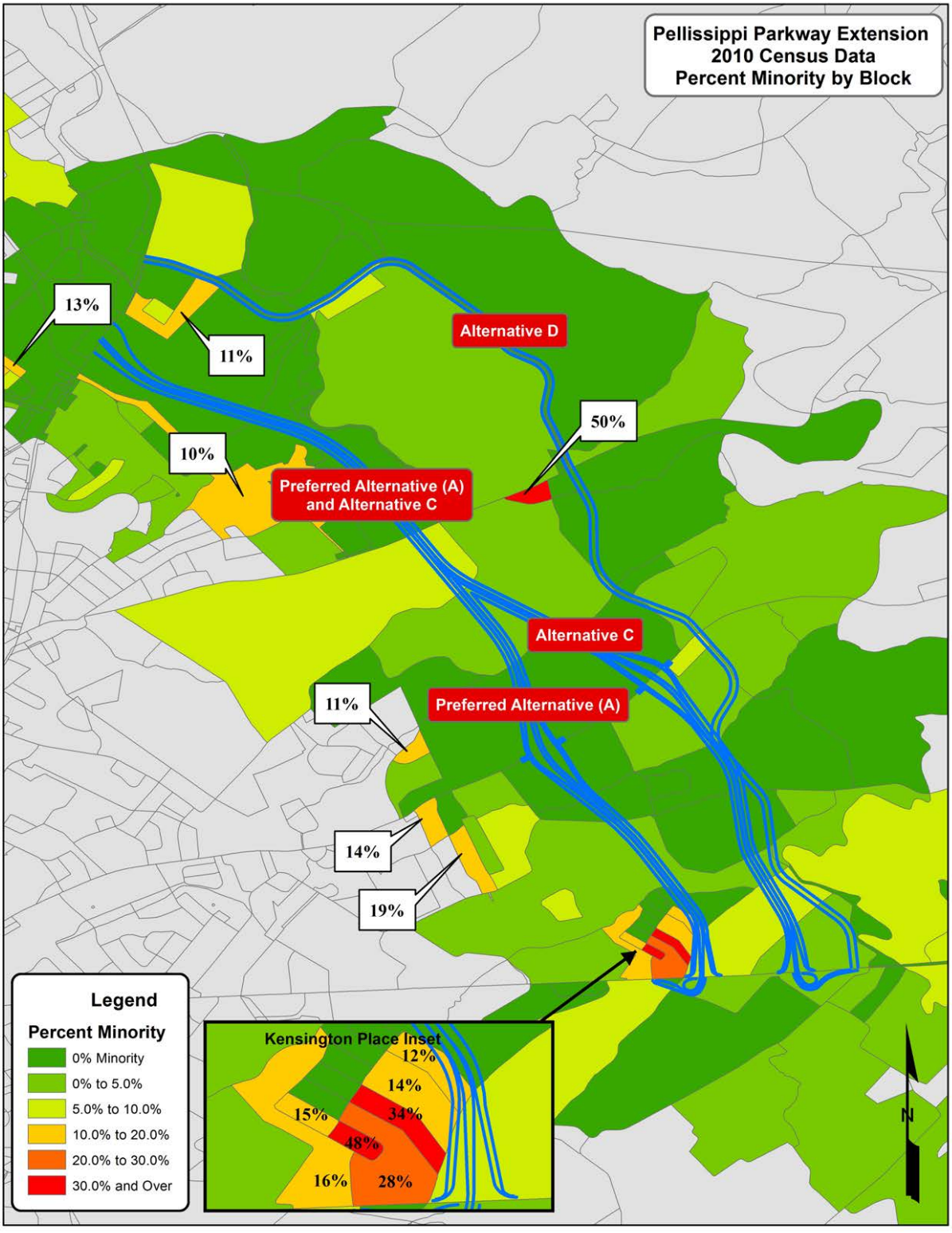
Figure 6 illustrates the minority composition of individual census blocks in the project area. There are scattered individual blocks with greater than 10 percent minority concentrations, and one block along Wildwood Road comprised of 50 percent minority residents. The blocks that comprise the Kensington Place mobile home community have a concentration of minority persons. As shown in Table 3, this community has a much larger share of minority residents (23.7 percent) compared with the vast majority of the surrounding area. Most of the minority population within the community is Hispanic. Overall Hispanic persons comprise about 20 percent of the total population of the community.

Table 3 – Minority Population for Kensington Place Mobile Home Community, 2010

		Blount County	CT 110.01	CT 110.01, BG 1	Blocks in mobile home park
Total Population		123,010	5,524	1,410	352
White	#	113,240	5,131	1,295	270
	% of total	92.1%	92.9%	91.8%	76.7%
Total Minority	#	9,770	393	115	82
	% of total	7.9%	7.1%	8.2%	23.3%
Total Hispanic	#	3,441	160	84	70
	% of total	2.8%	2.9%	6.0%	19.9%
Black	#	3,314	94	2	0
	% of total	2.7%	1.7%	0.1%	0.0%
Asian	#	863	55	5	3
	% of total	0.7%	1.0%	0.4%	0.85%
American Indian & Alaska Native	#	365	18	7	3
	% of total	0.3%	0.3%	0.5%	0.85%
Other Races	#	1,787	66	17	6
	% of total	1.5%	1.2%	1.2%	1.7%

Source: 2010 Census of Population.

Figure 6 – Percent Minority by Census Blocks, 2010



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Limited English Proficiency

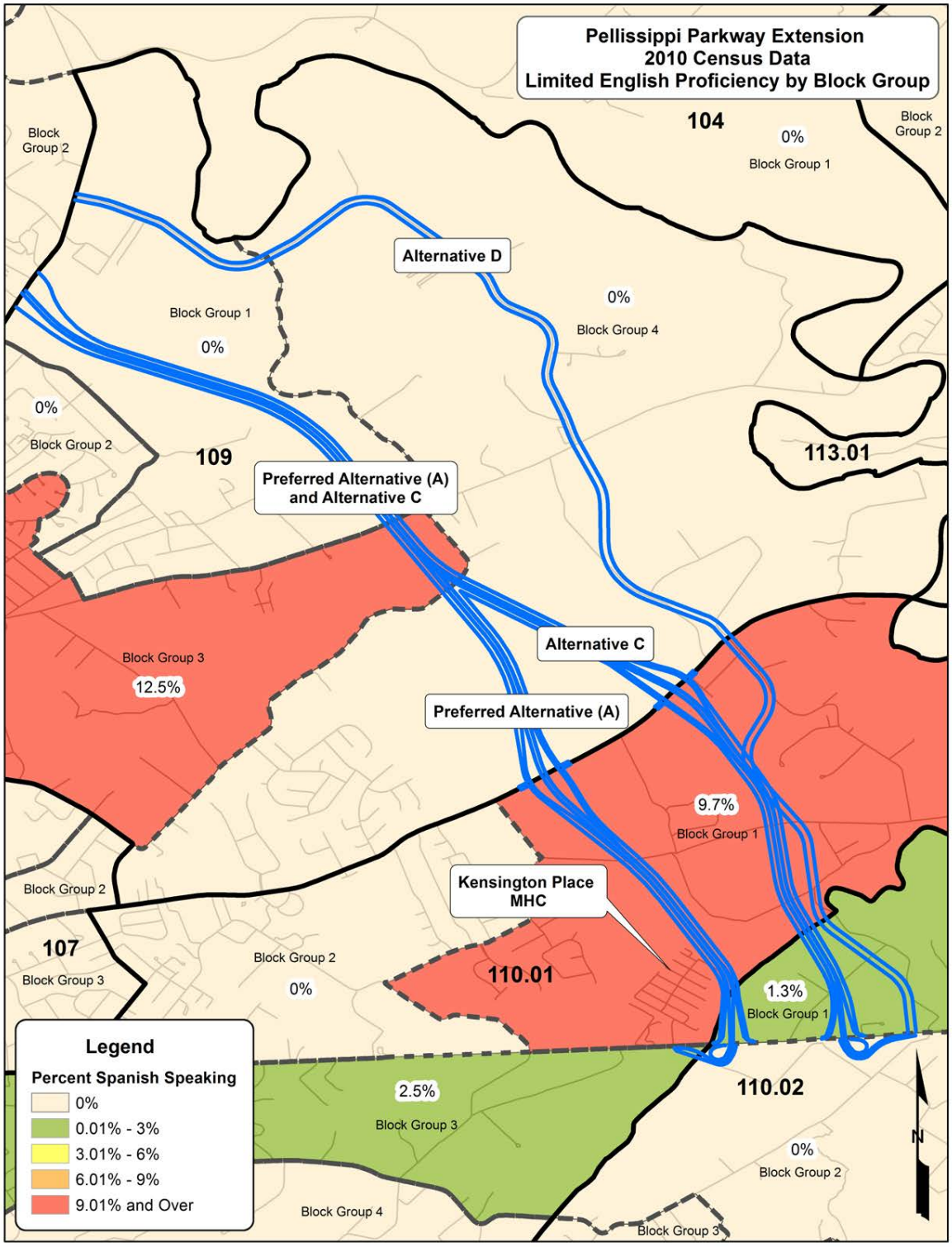
EO 12898 does not include persons with limited English proficiency (persons for whom English is not their primarily language) in the definition of minority persons. However, with the higher ethnicity reported in the southern portion of the project area, another indicator to consider is that of limited English proficiency. The 2010 Census data shows the number and percent of persons consider linguistically isolated by block groups. Table 4 and Figure 7 indicate that there are concentrations of Spanish speakers in two of the Census block groups in the vicinity of the Preferred Alternative. In the Census block group encompassing the Kensington Place mobile home community (CT 110.01, BG 1), 9.7 percent of people speak Spanish or Spanish Creole as their primary language. However, another Block Group in the project area (CT 109, BG 3) has a higher portion of persons speaking Spanish or Spanish Creole (12.5 percent) as their primary language. This block group also has the highest concentration of minority residents in the project area. While Census Tract 109, Block Group 3 is crossed by the combined alignment of the Preferred Alternative (DEIS Alternative A) and DEIS Alternative C, there are only scattered individual homes in the immediate vicinity of the combined alignment. The concentrations of limited English proficiency population of this block group are farther west, closer into Maryville.

Table 4 – Limited English Proficiency, 2010

	Blount County	CT 109	CT 109 BG 1	CT 109 BG 2	CT 109 BG 3	CT 109 BG 4	CT 110.01	CT 110.01 BG 1	CT 110.01 BG 2	CT 110.01 BG 3	CT 110.02	CT 110.02 BG 1	CT 110.02 BG 2	CT 104	CT 104 BG 1
Speaks only English	96.50%	95.0%	100%	100.0%	85%	100.0%	93.6%	87.6%	100.0%	97.5%	99.1%	98.7%	100.0%	99.2%	100.0%
Speaks Spanish or Spanish Creole	2.60%	4.2%	0.0%	0.0%	12.5%	0.0%	6.3%	9.7%	0.0%	2.5%	0.6%	1.3%	0.0%	0.7%	0.0%
Asian and Pacific Island languages	0.40%	0.5%	0.0%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%
Other languages	0.20%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: 2010 Census of Population.

Figure 7 – Limited English Proficiency, 2010



Potential Impacts to Environmental Justice Communities

Within the project area there are scattered locations of low-income and/or minority persons. Only one area, however, has a concentration of the protected populations that would be directly affected by the project. The Environmental Justice community is the Kensington Place mobile home community.

This section describes the potential impacts of the No-Build, DEIS Alternatives C and D, the Preferred Alternative with East Shift and the Preferred Alternative with West Shift on the Kensington Place residents.

No-Build Alternative

The No-Build Alternative would not have a disproportionately high and adverse impact to low-income and/or minority persons residing in the Kensington Place mobile home community. There would be no changes in conditions within this community as a result of this alternative.

DEIS Alternatives C and D

The DEIS Alternatives C and D would not have a disproportionately high and adverse impact to low-income and/or minority persons residing in the Kensington Place mobile home community. There would be no changes in conditions within this community as a result of this alternative.

Preferred Alternative With West or East Shift

As analyzed in the DEIS, Alternative A (now Preferred Alternative) would have an effect on the low-income and minority mobile home community, taking about 1.5 acres of land from the northeastern edge of the community, but not acquiring any of the mobile homes. With the avoidance shifts proposed in 2013, the impact of the project on the mobile home community would be slightly different depending upon which avoidance alignment was selected. The West Shift would move the right-of-way of the Preferred Alternative farther into the mobile home community, taking about 4.8 total acres. This alternative would acquire six occupied mobile homes and result in substantial noise impacts for the community. The East Shift would move the right-of-way of the Preferred Alternative outside the community boundary but would continue to have a noise impact on the mobile home community.

The impacts associated with the Preferred Alternative with West Shift and the Preferred Alternative with East Shift to the Kensington Place mobile home community are primarily displacements, visual and noise.

Displacement – The Preferred Alternative with West Shift would take six homes in the mobile home community, about five percent of the occupied homes in the community. The residences to be relocated are in the rear (northwestern) portion of the community. There are numerous available lots within Kensington Place where displaced residents can relocate if they so choose. Refer to Figure 3 on page 7.

The Preferred Alternative with East Shift would not take any mobile homes within the Kensington Place community.

Table 5 summarizes the findings of the May 2014 Conceptual Stage Relocation Plan prepared by TDOT.

Table 5 – Displacements

	Preferred Alternative (A)	Preferred Alternative with East Shift	Preferred Alternative with West Shift
Entire Alternative			
Single Family Homes	5	5	5
Mobile Homes	0	1	6
Businesses	1	1	1
Within Kensington Place			
Single Family Homes	0	0	0
Mobile Homes	0	0	6
Businesses	0	0	0

Source: TDOT, Conceptual Stage Relocation Plan, May 2014.

Visual – The Preferred Alternative with West Shift would place a major new transportation facility within the northwestern corner of the Kensington Place community property. Some of the residents, primarily those in the northeastern portion of the mobile home community, would experience a substantial change in their existing view, from natural vegetation and agricultural activities to a new major roadway. The new edge of right-of-way would be within 10 to 50 feet of several mobile homes.

With the Preferred Alternative with East Shift, the new roadway would be outside of the community, and would be farther away both physically (about 400 feet) and visually from the mobile homes.

Noise – Both alternatives would result in noise impacts to the Kensington Place community. The East Shift would result in noise impacts to 28 residences in the Kensington Place community while the West Shift would impact 45 residences in the community, assuming a noise barrier would not be built.

Noise barriers were evaluated to mitigate the predicted noise impacts in the Kensington Place community. In order for noise barriers to be included in a project, they must be determined to be both feasible and reasonable in accordance with TDOT's 2011 Noise Policy. Noise Analysis Area 4, which includes the mobile home community, was evaluated for feasibility and reasonableness. Noise barriers under either shift are feasible since there are no cross streets or frequent driveway access points that would significantly decrease a sound barrier's acoustical effectiveness. Feasibility also includes a majority of impacted first row receptors receiving a 5 dB noise reduction (acoustic feasibility). Noise barriers for this area are acoustically feasible for both the East and West shifts.

Potential noise barriers must also pass a "reasonableness" test. For a noise barrier to be considered reasonable, the first test is that the noise barrier must provide at least a 7 dB noise reduction at 60 percent or more of the first-row benefited receptors (the noise reduction design goal). Table 6 illustrates that either alternative would meet the noise reduction design goal.

Table 6 - Noise Reduction Design Goal Analysis for Noise Analysis Area 4

Noise Analysis Area	First-Row Benefited Receptors			Noise Reduction Design Goal Met?
	Total	Receiving 7 dB IL	Percent	
Preferred Alternative (A)	1	3	33.3%	No
Preferred Alternative with East Shift	4	3	75%	Yes
Preferred Alternative with West Shift	4	4	100%	Yes

Source: Bowlby and Associates, *Noise Technical Report*, June 2014.

The noise analysis area was then tested to determine whether the noise barrier area per benefited residence is less than or equal to the allowable noise barrier area per benefited residence in each noise analysis area. Table 7 shows the results of the barrier design and reasonableness analysis. With the East Shift, the area per benefited residence is greater than the allowable area per benefited residence for Area 4; therefore, a noise barrier is not reasonable with the East Shift. With the West Shift, a noise barrier is reasonable.

Table 7 – Barrier Reasonableness Analysis

Area	Length (ft)	Average Height (ft)	Barrier Area (sf)	Benefitted Residences	Area Per Benefitted Residence (sf)	Allowable Area Per Benefitted Residence (sq)	Reasonable ?
Pref Alt with East Shift	1,870	22	41,628	11	3,784	1,900	No
Pref Alt with West Shift	1,268	16	19,646	11	1,747	1,900	Yes

Source: Bowlby and Associates, *Noise Technical Report*, June 2014.

In compliance with TDOT's 2011 Noise Policy, noise barriers were evaluated to mitigate the predicted noise impacts in the Kensington Place community. The results of this preliminary analysis indicate that a noise barrier would be feasible and reasonable at this community under the Preferred Alternative with West Shift. To minimize adverse impacts to the mobile home community, TDOT is committed to build a noise barrier for the community with the Preferred Alternative with West Shift, provided that benefited residences and property owners give their approval. TDOT will conclude that a community desires the construction

of a noise barrier unless a majority (at least 51 percent) of the benefited property owners and residents indicate that they do not want the proposed noise barrier.

Table 8 summarizes the as-built impacts expected to occur in the Kensington Place community with the East Shift (with no noise barrier) and the West Shift (with a barrier). Attachment A to this memo presents the detailed preliminary results of the analysis of the two alternatives, prepared by Bowlby and Associates, May 28, 2014. Included in Attachment A is a figure showing the location of noise receivers in Area 4. [Following the approval of the reevaluation in July 2014, minor revisions/corrections were made to the noise study. The revised as-built noise impacts to Kensington Place are presented in Table 8, and discussed in Attachment D of this report.]

Table 8 –As Built Noise Impacts

Alternative	Substantial Increase	Approach or Exceed NAC	Increases Higher than the Other Shift
West Shift (with barrier)	21	0	47
East Shift (no barrier)	25		8

Source: Bowlby and Associates, *Memorandum: Noise Effects on Kensington Place for Environmental Justice Evaluation,* March 3, 2015.

Under the West Shift with a noise barrier, 20 residences would experience a substantial increase in noise. With the East Shift, 28 homes within the community would experience a substantial noise increase without the benefit of a noise wall. Under either alternative, two homes would approach or exceed the Noise Abatement Criteria (NAC) of 67 dBA; that is, noise levels would be 66 dBA or higher. These two homes are along Lamar Alexander Parkway, not technically a part of the mobile home park, and their current noise levels are 62 to 63 dBA due to the existing noise on Lamar Alexander Parkway. Noise levels with either shift would be between 66 and 68 dBA.

Both alternatives would result in increased noise for residents of the mobile home community. Sound levels would be higher with the West shift with a barrier for 45 residences; under the East shift without a barrier sound levels would be higher for eight residences. The differences in noise level increases between the two alternatives is primarily 3 dBA or less; 3dBA is usually the smallest change in traffic noise levels that people can detect without specifically listening for the change. The West Shift would cause a higher increase (4 to 5 dBA) at three residences while the East Shift would cause a 4 to 5 dBA increase at four residences. Twelve of the residences would have the same level of increase for either alternative. Based on this assessment, the differences in the as-built noise impacts of the East and West Shifts do not appear to be significant.

Coordination, Access to Information and Participation

Throughout the EIS process there have been substantial efforts to achieve public participation along the proposed corridor and in the project area. These efforts include two public scoping meetings in 2006 and two public informational meetings (October 2007 and

February 2008) held to solicit public input into the purpose and need statement and the alternatives to be evaluated. The meetings were held at public schools within a mile of the corridor. A newsletter was prepared and circulated in October 2008, describing the alternatives to be evaluated in the DEIS and the next steps in the process; a second newsletter was circulated in June 2012 announcing the selection of the Preferred Alternative. Following the approval of the DEIS in April 2010, an announcement of the availability of the DEIS and the upcoming public hearing was published in the local newspaper and mailed to a broad list of property owners, residents, public officials and organizations. Presentations and handouts from the public meetings and the public hearing have been posted on the project website as well as in the Blount County Public Library and Blount County Chamber of Commerce office. A database of names from the public meetings and comments received has been prepared and used for distribution of public notices including the two project newsletters and announcement of the public hearing/meetings.

In 2010, copies of the announcement of the availability of the DEIS and the public hearing were hand delivered by TDOT's consultants to the Kensington Place mobile home community manager for distribution. Residents from the mobile home community attended the public hearing and three comments were received. Two people opposed the project and one person was in favor.

TDOT held a community briefing on Thursday, May 30, 2013 to engage those persons and businesses potentially affected by the proposed minor alignment shifts. The briefing was held from 5:00 to 7:00 p.m. at the Rio Revolution Church on US 321/SR 73 in the vicinity of the mobile home community. More than 1,000 notices, in English and Spanish, were mailed to persons and organizations on the project database, to property owners in the area, and to addresses in the potentially affected Kensington Place mobile home community. A total of 136 people signed in at the briefing.

TDOT representatives, including ROW representatives, were present to answer questions and explain project displays. Meeting materials and the slideshow presentation were available in both English and Spanish. A looped slideshow presentation was shown in both English and Spanish. A Spanish translator was available for those with limited English proficiency to sign in for the meeting and understand the concepts presented. The translator assisted several families and individuals during the meeting.

TDOT received more than 150 comments during the meeting and the comment period.. Attachment B contains the summary of the Community Briefing comments and TDOT responses.

[Note: Translators were not available at previous meetings, and mailings and handouts were only printed in English.]

Summary

Consistent with Executive Order 12898 on Environmental Justice and the Final DOT Environmental Justice Order 5610.2(a), FHWA must ensure that any of their respective programs, policies, or activities that may have a disproportionately high and adverse effect on populations protected by Title VI ("protected populations") will only be carried out if:

(1) A substantial need for the program, policy, or activity exists, based on the overall public interest; and

(2) Alternatives that would have less adverse effects on protected populations (and that still satisfy the need identified in part (1)), either

   a. Would have other adverse social, economic, environmental or human health impacts that are severe; or

   b. Would involve increased costs of extraordinary magnitude.

The analysis presented in the previous section of this memo demonstrates that the Preferred Alternative with West Shift would result in adverse impacts to the low-income and minority residents in the Kensington Place mobile home community. Residents of Kensington Place would experience adverse impacts due to increased noise, changes in the views, and displacements.

TDOT considered an alignment shift to avoid or minimize impacts to the protected population. TDOT determined that shifting the alignment to the east (Preferred Alternative with East Shift) to avoid the Environmental Justice community would result in other adverse social, economic, environmental or human health impacts that would be severe. These impacts include:

- Operations of two active farms. The East Shift would take five farm buildings and reduce access to agricultural fields in active production;
- A recently constructed church is on the north side of US 321 immediately east of the proposed on-ramp for the East Shift. The alignment would reduce access to the church by members during heavy traffic times and may result in increased visual and noise impacts to external activities of the church; and
- With either alignment shift, Kensington Place residents would experience increased noise levels. With the eastern shift, the mobile home community would not be eligible for a noise barrier.

The No-Build Alternative would avoid direct impacts to the protected populations in Kensington Place, but it would not meet the Purpose and Need for the project. The No-Build Alternative does not address:

- Travel options for motorists who utilize the existing road network;
- The need for a northwest/east connection east of Alcoa and Maryville;
- Safety concerns along the existing roadway network within the study area; and
- The traffic congestion and poor level of service (LOS) for some of the major arterial roads in the study area. (The LOS along major roads in the study area will deteriorate to LOS E/F in the year 2040 under the No-Build Alternative.)

DEIS Alternative C would avoid direct impacts to the protected populations in Kensington Place, but it would result in other impacts that would be severe if the Environmental Justice community were avoided. Adverse impacts include:

- Displacing 25 single family homes and two mobile homes (total of 27 residences). Twenty-three of the 27 residences to be displaced are in two clusters. One cluster is in the footprint of the proposed interchange with Sevierville Road (US-411) in which 11 homes would be displaced. The second cluster is in the footprint of the proposed interchange with US 321, in which 12 residences would be displaced.
- Affecting more downstream reaches of larger tributaries of Little River than the Preferred Alternative with West Shift.

DEIS Alternative D would avoid direct impacts to the protected populations in Kensington Place, but it would result in other impacts that would be severe if the Environmental Justice community were avoided. Adverse impacts include:

- Displacing 39 single family residences and two mobile homes (total of 41 residences). The displaced residences are scattered along the alignment, but 17 of the 41 are clustered in the vicinity of the Peppermint Hills Drive community.
- The forecasted traffic volumes for Alternative D exceed the carrying capacity of a two-lane road; thus this alternative would not serve the traffic demands that are anticipated in future years.
- Proximity to the Little River, a designated Exceptional Tennessee Water that is Blount County's primary source for drinking water.

As the overall need for the project remains in the public interest and the Preferred Alternative with East Shift and the DEIS Alternatives C and D would result in other severe impacts, TDOT recommends carrying out the Preferred Alternative with West Shift for the proposed project. To mitigate for the adverse impacts to the protected population, TDOT commits to construction of a noise barrier for the Kensington Place mobile home community to mitigate the predicted noise impacts. TDOT also will seek input from community residents regarding the landscaping and color/pattern of the barrier in order to minimize possible visual impacts to the community as a result of the barrier and the new roadway.

The TDOT Civil Rights Office has reviewed this memo and found that the assessment and methodology used is in keeping with the laws that govern projects that are federally funded, specifically Title VI of the 1964 Civil Rights Act (letter dated June 10, 2014 in Attachment C).

Attachment A

Noise Analysis Results for West and East Shift

Noise Analysis Results of West Shift and East Shift by Receiver

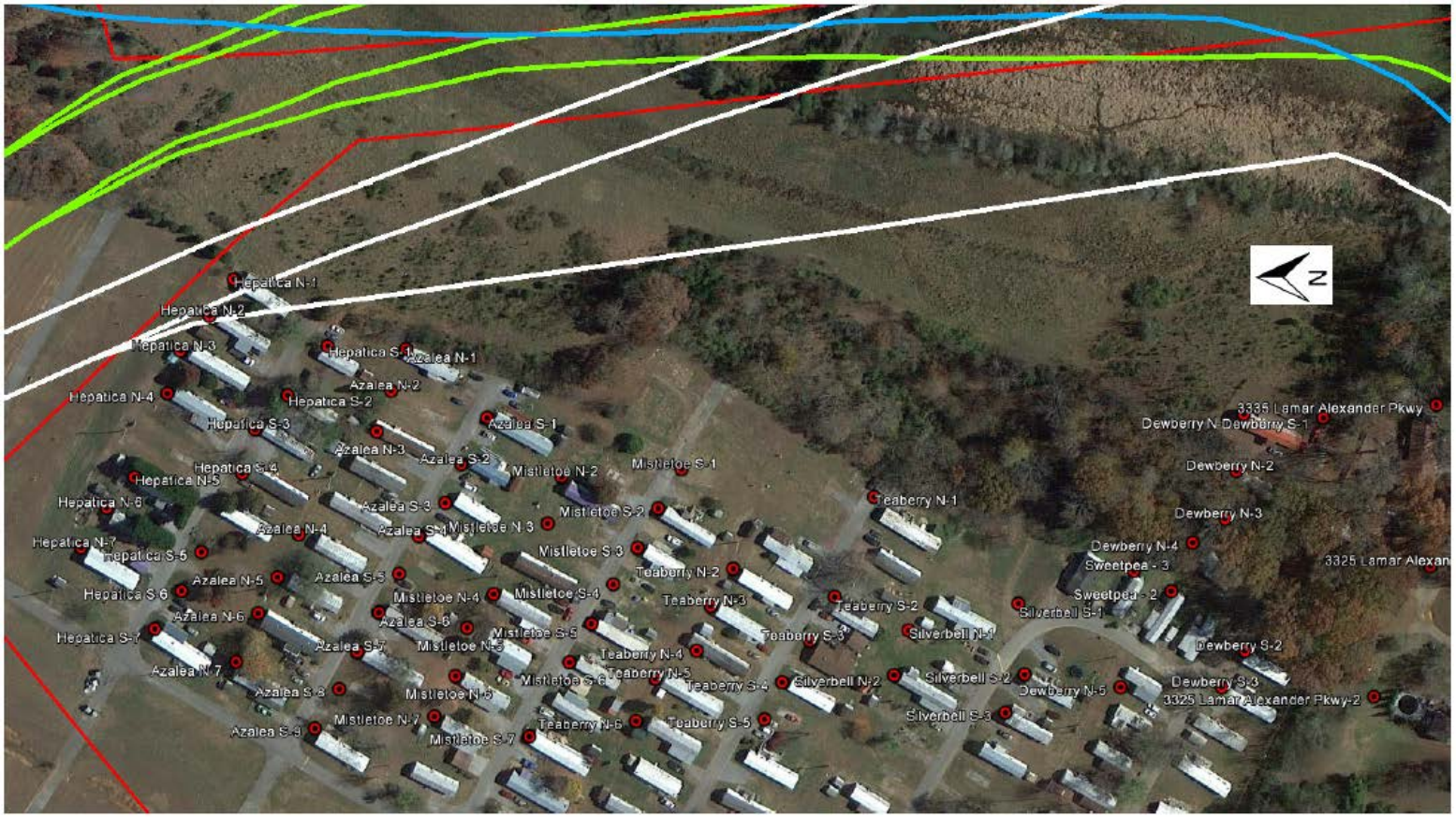
Project:	**Pellissippi Parkway Extension**
Noise Analysis Area:	**4**
Description:	**Kensington Place mobile home community and single-family residences on Lamar Alexander Parkway.**
Background Sound Level	**40**

ALTERNATIVE A

Receiver	Number of Residences	Existing Sound Level (dBA)		Design Year West Shift Sound Level With Barrier (dBA)		Design Year Build East Shift Sound Level (dBA)		West Shift Increases over Existing With Barrier (dBA)		East Shift Increases over Existing (dBA)		Difference in increase between west and east (positive is west is higher) (dBA)	
		PM	PM with background	PM	PM with background	PM	PM with background	PM	PM with background	PM	PM with background	PM	PM with background
Hepatica N-1	1	44	45	Take	Take	63	63	Take	Take	19	17	Take	Take
Hepatica N-2	1	43	45	Take	Take	61	61	Take	Take	18	16	Take	Take
Hepatica N-3	1	43	45	Take	Take	61	61	Take	Take	17	16	Take	Take
Hepatica N-4	1	43	45	Take	Take	60	60	Take	Take	17	15	Take	Take
Hepatica N-5	1	43	45	59	59	58	58	16	14	15	13	1	1
Hepatica N-6	1	43	45	60	60	57	57	17	15	15	13	2	2
Hepatica N-7	1	42	44	60	60	56	56	18	16	13	11	5	5
Hepatica S-1	1	44	45	Take	Take	61	61	Take	Take	17	16	Take	Take
Hepatica S-2	1	44	45	55	55	59	59	12	10	16	14	-4	-4
Hepatica S-3	1	43	45	57	57	59	59	13	12	15	14	-2	-2
Hepatica S-4	1	43	45	57	57	57	57	14	12	14	12	0	0
Hepatica S-5	1	43	45	58	58	56	56	15	13	13	11	2	2
Hepatica S-6	1	43	44	59	59	55	55	16	14	12	11	4	3
Hepatica S-7	1	42	44	59	59	54	55	17	15	12	10	5	4
Azalea N-1	1	45	46	Take	Take	61	61	Take	Take	16	15	Take	Take
Azalea N-2	1	45	46	57	57	60	60	13	11	15	14	-3	-3
Azalea N-3	1	45	46	56	56	58	58	11	10	14	13	-2	-2
Azalea N-4	1	44	45	57	57	56	56	13	11	12	11	1	1
Azalea N-5	1	44	45	57	57	55	55	13	12	11	10	2	2
Azalea N-6	1	43	45	57	57	54	54	14	12	11	9	3	3
Azalea N-7	1	43	45	57	57	53	53	14	13	10	8	4	4
Azalea S-1	1	46	47	57	57	60	60	11	11	14	13	-2	-2
Azalea S-2	1	45	46	56	56	58	58	11	10	13	12	-2	-2
Azalea S-3	1	45	46	55	56	57	57	11	10	12	11	-1	-1
Azalea S-4	1	44	46	55	55	55	55	10	9	11	10	-1	-1
Azalea S-5	1	44	46	55	55	54	54	10	9	10	9	0	0
Azalea S-6	1	44	46	55	55	54	54	11	10	10	8	1	1
Azalea S-7	1	44	45	55	55	53	53	11	10	9	8	2	2
Azalea S-8	1	44	45	56	56	53	53	12	11	9	8	3	3
Azalea S-9	1	43	45	56	56	53	53	12	11	9	8	3	3
Mistletoe N-2	1	47	48	58	58	59	59	11	10	11	11	0	0
Mistletoe N-3	1	47	48	57	57	57	57	10	10	10	10	0	0
Mistletoe N-4	1	46	47	56	56	55	55	10	9	9	9	1	1
Mistletoe N-5	1	46	47	56	56	55	55	10	9	9	8	1	1
Mistletoe N-6	1	45	46	55	55	54	54	10	9	9	8	1	1
Mistletoe N-7	1	45	46	55	55	53	53	10	9	8	7	2	2
Mistletoe S-1	1	48	49	60	60	59	59	11	11	11	10	1	0
Mistletoe S-2	1	48	49	59	59	58	58	11	10	10	10	1	1
Mistletoe S-3	1	48	48	58	58	58	58	10	10	10	9	1	1
Mistletoe S-4	1	47	48	57	57	56	56	10	9	9	8	1	1
Mistletoe S-5	1	47	48	57	57	56	56	10	9	9	8	1	1
Mistletoe S-6	1	47	47	56	56	55	55	9	8	8	7	1	1
Mistletoe S-7	1	46	47	55	55	53	53	9	8	7	7	2	2
Teaberry N-1	2	49	49	60	60	59	59	11	11	10	10	1	1
Teaberry N-2	2	49	50	59	59	58	58	10	9	9	8	1	1
Teaberry N-3	1	48	49	58	58	57	57	9	9	9	8	1	1
Teaberry N-4	1	48	48	57	57	56	56	9	9	8	8	1	1
Teaberry N-5	1	48	48	56	56	55	55	9	8	8	7	1	1
Teaberry N-6	1	47	48	56	56	55	55	9	8	7	7	1	1
Teaberry S-2	1	49	49	59	59	57	57	10	9	8	8	1	1
Teaberry S-3	1	49	49	58	58	57	57	9	9	8	7	1	1
Teaberry S-4	1	48	49	57	57	55	56	9	8	7	7	2	2
Teaberry S-5	1	48	48	56	56	55	55	8	8	7	6	2	2
Silverbell N-1	1	50	50	59	59	58	58	9	9	8	8	1	1
Silverbell N-2	1	49	50	58	58	57	57	9	8	8	7	1	1
Silverbell S-1	1	50	51	59	59	58	58	9	8	8	7	1	1
Silverbell S-2	1	51	52	59	59	58	58	7	7	7	7	1	1
Silverbell S-3	1	51	52	59	59	58	58	7	7	7	6	1	1
Dewberry N-1	1	56	56	64	64	63	63	7	7	7	7	1	1
Dewberry N-2	1	56	56	63	63	62	62	7	7	6	6	1	1
Dewberry N-3	1	55	55	62	62	62	62	7	7	6	6	0	0
Dewberry N-4	1	53	54	61	61	60	60	7	7	7	7	0	0
Dewberry N-5	1	51	52	59	59	58	58	7	7	6	6	1	1
Dewberry S-2	1	54	54	59	59	60	60	6	5	6	6	0	0
Dewberry S-3	1	52	53	59	59	58	58	7	6	5	5	1	1
Sweetpea - 2	1	52	53	60	60	59	59	7	7	7	7	1	1
Sweetpea - 3	1	52	52	60	60	59	59	8	8	7	7	1	1
Dewberry S-1	1	59	59	65	65	64	64	6	6	6	6	0	0
3335 Lamar Alexander Pkwy	1	63	63	68	68	68	68	4	4	4	4	0	0
3325 Lamar Alexander Pkwy-1	1	62	62	67	67	66	66	4	4	4	4	0	0
3325 Lamar Alexander Pkwy-2	1	59	59	63	63	63	63	4	4	4	4	0	0

Condition	Number
Increase Higher with West Shift	45
Increase Higher with East Shift	8
Same Increase	12
Difference of 1 dB	32
Difference of 2 dB	12
Difference of 3 dB	5

Noise Receivers in Area 4



Alternative A
Alternative A (West Shift)
Alternative A (East Shift)
Alternative C
Alternative D

Area 4

Note: Red line represents Noise Analysis Area boundaries. White line represents West Shift. Medium blue line represents East Shift.

Attachment B

May 30, 2013 Community Briefing Summary

Community Briefing Meeting Summary
Pellissippi Parkway Extension (SR 162)
Thursday May 30, 2013

Meeting Participants

The Community Briefing was attended by approximately 136 people. Each person attending the community briefing was asked to sign-in for purposes of counting those in attendance. Thirteen Tennessee Department of Transportation (TDOT) representatives along with four Parsons Brinckerhoff employees were also in attendance.

Meeting Purpose

The purpose of the Community Briefing was for TDOT to provide the opportunity to discuss with the public two potential minor shifts in the route of the Preferred Alternative and the possible impacts of those shifts. In addition to providing updated project information, TDOT was interested in obtaining comments, interests, and concerns from those potentially affected by the shifts.

Meeting

The briefing was held from 5:00 to 7:00 pm EST at the Rio Revolution Church, in Maryville, TN. Prior to the Community Briefing, approximately 1,000 flyers were mailed out to residents making them aware of the meeting. In addition to the mailings, John Barrett (TDOT) stated that 97 handouts were distributed to residents located in the Kensington Place Mobile Home Community.

On site at the Rio Revolution Church, information tables were set at the main entrance lobby. Signs were placed at secondary entrances directing visitors to the front entrance. On the tables a community briefing handout, comment card, and facts sheet were available in both English and Spanish. Members of the public attending the meeting were also greeted and given a concise description of what to expect at the meeting and where information was located. No formal presentation was given, however a looped slideshow was provided to give the community information about the project. This presentation presented in both English and Spanish.

When people were finished watching the slideshow, signs directed them to breakout rooms where project location maps and TDOT representatives were available to answer questions. In total, three rooms were set up for this purpose. Each room contained a minimum of two project display maps and several ROW representatives, to answer questions.

For non-English speaking attendees, TDOT provided a Spanish translator to ensure full understanding of the concepts presented. It was noted at the meeting that the translator was utilized by two families in attendance.

Meeting Comments

The deadline for comments to be received by TDOT was originally set to be June 10, 2013. To provide the public additional time to respond to the information presented at the Community Briefing, TDOT extended the deadline to June 15, 2013. To make people aware of the comment period extension, TDOT posted a notice on the project website, mailed post cards to everyone who signed in to the briefing, and sent emails to person who had provided their email addresses to make people them aware of the extension.

As of June 17, 2013, TDOT has received 157 comments by mail (letter or comment card), e-mail, or comment cards submitted at briefing. All comments were noted in the project database. Several people submitted comments in various formats. A summary of the comments received is included in the following table.

Summary of Public Comments by Topic

Topic	Representative Comment	Response
Support for Extension	The county can use the extension. It serves the greater good with minimal impact to environment or persons displaced and/ or affected.	Comments noted.
Opposed to Project	This road project is not beneficial for Blount County and the East TN region. It will not solve problems, will lead to additional traffic issues, increased sprawl, and will harm long term resources of productive farmland, wildlife habitat, and watershed protection. We need other solutions that do not degrade the quality of life for a minimum of driving time saved.	Comments noted.
Prefer West Shift	The western shift will be more pleasing visually to property owners in Sweetgrass Plantation. The western shift will reduce the noise potential to property owners in Sweetgrass Plantation.	Comments noted.
Prefer East Shift	The east shift seems preferable in this situation and would have the least environmental impact on the surrounding community.	Comments noted.
Improve Current Roads	TDOT should maintain and improve existing roads.	Comments noted.
Traffic	The extension will not address the fundamental traffic challenges we face in Blount County and will in fact make some of them worse, especially on US 411 N. There have been too many fatal traffic accidents here lately and none of them would have been prevented if the project had existed. We have many dangerous highways and the project will not divert traffic from any of them or make it enough quicker to get anywhere to justify this expensive and destructive highway.	Comments noted.
Archaeology	What is the environmentally sensitive area? Is it an Indian burial ground?	The site is an archaeology site that has been determined eligible for the National Register. It does not contain human remains or burial sites. Based on the identification, testing, and coordination with the SHPO, it has been determined that the site contains information that has yielded or may be likely to yield information important in prehistory or history.

Summary of Public Comments by Topic, continued

Topic	Representative Comment	Disposition
Archaeology	What steps has TDOT taken to inform Native American Tribes and the SHPO of the identified site?	The Phase II Archaeological Report (2012), which documented one archaeological site as eligible for listing on the National Register, has been coordinated with the SHPO. The SHPO concurred with TDOT's eligibility recommendation. Additional investigations of proposed avoidance shifts to avoid the site have been conducted and documented in two addenda to the 2012 Phase II report. The addenda are being coordinated with the SHPO, and the Native American tribes that have expressed an interest in the project. TDOT is following procedures defined in its own policies, as well as the requirements of Section 106 of the National Historic Preservation Act as amended.
Impacts to Mobile Home Community	I am one of the owners of the six mobile homes in Kensington Place. I am opposed to the west shift. This would create a financial worry and burden. I have no desire to have to be uprooted and pay for another home. Never heard back from an appraiser in 2002. I should have been informed prior to buying this house.	Owners of the mobile homes that would be relocated by the proposed project will receive relocation assistance, including assistance to secure a comparable residence that meets current standards for safe and decent housing. While mobile home owners will be able to chose where they want to live, there are numerous vacant parcels in this mobile home community,
	Everyone on my street is willing to sell their homes. People would like to be bought out. A lot of drugs and other activity that we don't want our children around. We are asking you to choose the west route.	Comment noted.

Summary of Public Comments by Topic, continued

Topic	Representative Comment	Disposition
Impacts to Sweetgrass Plantation	Homes in Sweetgrass Plantation are high value ($400,000-$600,000) and if these homes lose value due to visual and noise impact, that will result in a negative impact on tax revenue for Blount County. We were informed that sound barrier walls will not be constructed by Sweetgrass due to low population density. As the map is not up to date, we challenge this point and ask at what density levels does the noise mitigation wall become a requirement? The subdivision has 96 lots for homes with approximately. 40 owners. These owners maintain the upkeep of this subdivision, it is not a subdivision owned by one or two developers. As of today there are ten homes in Sweetgrass Plantation. The map presented is not up to date [doesn't show all of the new homes in the Subdivision—now 9].	The preliminary noise analysis conducted for the two avoidance shifts was prepared in compliance with the requirements of FHWA guidance for the identification of highway traffic noise impacts and the TDOT Policy on Highway Traffic Noise Abatement. The results of the barrier analysis for the eastern shift demonstrated that the area does not qualify for a noise barrier based on the information currently available. The conclusions derived from the current noise analysis are preliminary, and final decisions regarding noise abatement measures will be based on a subsequent noise study that will be completed using the design plans for the project. The public will have the opportunity to comment on the results of that analysis at the design public hearing.
Request extension for comments	Because the links on the webpage were not updated to allow the public to gain access materials from the May 30, 2013 meeting as of June 1, we request that the comment deadline a minimum of two weeks after all the links are corrected and after we are notified that all the links are correct. How and when will you be informing people potentially affected by the two possible realignments about the extension and the new deadline?	The link to the website has been corrected and the deadline for comments was extended 5 days to June 15, 2013. A notice was placed on the website and postcards were mailed to persons who attended the community briefing. Emails were also sent to those persons who had provided email addresses.
Release of Technical Studies	More straight forward and detailed information about TDOT's updated technical studies, especially those pertaining to ecology and archaeology, might have enabled citizens to offer more useful answers when we were asked for input. Please release the technical studies and evaluation so that the decision is as transparent as possible.	The technical study updates for the Preferred Alternative and the proposed alignment shift are being finalized and most will be made available when the FEIS is circulated for public comment. TDOT is prohibited by the provisions of the National Historic Preservation Act of 1966 (16 U.S.C. 470), as amended, from releasing the archaeology reports to the public in order to protect the resource.
Explain selection criteria	What criteria will TDOT use to consider the results of the environmental screening and the comments provided in selecting the alignment shift?	As stated in the community briefing handout, TDOT will determine which minor alignment shift to incorporate into the previously selected Preferred Alternative based on the assessment of the environmental screening conducted for the east and the west shifts, and taking into consideration input received from the Community Briefing.

Summary of Public Comments by Topic, continued

Topic	Representative Comment	Disposition
Need for Supplemental EIS	Since the DEIS was circulated in 2010, TDOT has taken a number of actions that affect analysis of the impacts of the proposed PPE. In view of the actions and changes listed below, we believe a Supplemental Environmental Impact Statement is necessary: a. Revised traffic forecasting, as evident in the Sept. 2011 Addendum to Traffic Operations Technical Report. b. Shift in emphasis from improvements in Level of Service to intersection delay. c. Community briefing on the possible change in alignment to avoid an environmentally sensitive area. d. Updated technical studies and evaluations as stated in the materials distributed at the May 30, 2013 community briefing: "Hazardous Materials, Noise, Ecology, Safety, Archaeology" and evaluations of the two 'avoidance' shifts:	TDOT is currently preparing a reevaluation to determine whether a supplement to the DEIS is necessary. It is TDOT's opinion that there are no major changes in the project and significant impacts not previously disclosed
Need for a Written Reevaluation	Before TDOT can decide not to prepare Supplement DEIS, a written reevaluation must be prepared due to the passage of time since the DEIS was circulated.	TDOT is currently preparing a reevaluation to determine whether a supplement to the DEIS is necessary. It is TDOT's opinion that there are no major changes in the project and significant impacts not previously disclosed

In addition to the comments noted on comment cards turned in at the meeting, in emails or by mail, general comments and questions were made to TDOT representatives during the meeting. As with the comments submitted in written form, the questions and areas of interest encompassed a wide range of topics. Representatives answered numerous questions from those in attendance. Some of the topics included:

- How should I let my comments be known to TDOT?
- I live at this location, how will the project impact me?
- When will the project be built?
- What type of archaeological site did TDOT find?
- If my house is in the proposed right-of-way should I make improvements to it?
- How does the right-of-way purchasing process work and what is the timeline for purchasing?
- When will I know how far the road is going to be from my house (when will right-of-way and design plans be complete)?
- What are the next steps in the environmental and design process?
- Why did right-of-way acquisition stop?

- Why is TDOT looking at Alternative D again?

Questions and comments to TDOT representatives came both from citizens in favor or the project and those against the project. Some comments and questions were answered by explaining the processes TDOT uses in project development since the design and right of way stages of the project are not complete.

Media

Following the meeting, both the *Knoxville News Sentinel* and *The Daily Times* ran articles discussing the meeting. Prior to the briefing, an article was also published in *The Daily Times* discussing the upcoming meeting. The author of the article incorrectly stated that previous alignments were now being considered and included information from prior meetings not related to the purpose of the scheduled community briefing. TDOT was made aware of this after the conclusion of the community briefing. This information better explained why some citizens had renewed concerns about locations outside the current study area.

Conclusion

The Community Briefing gave citizens an opportunity to discuss potential shifts to the Pellissippi Parkway extension project, to ask questions, to have questions/concerns answered, and to have local opinions of the project heard by TDOT. The briefing also gave citizens the opportunity to have factual, up-to-date information presented in a setting that allowed discussion by everyone in attendance.

Attachment C

Coordination with TDOT Civil Rights, 2014

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
Civil Rights Office
Suite 1800, James K. Polk Building
505 Deaderick Street, Nashville, Tennessee 37243
Telephone No. 615-741-3681, Fax No. 615-741-3169

June 10, 2014

Environmental Divisions
ATTN: Margaret Slater
James K. Polk Building, Suite 900
505 Deaderick Street
Nashville, Tennessee 37243-0384

Subject: Pellissippi Parkway Extension EIS: TDOT Project Number 05097-1226-04/Agreement E0132

Thank you for including the Tennessee Department of Transportation's (TDOT) Civil Rights Office (CRO) in the review the Pellissippi Parkway Extension DEIS. Regarding the June 9, 2014, Environmental Justice Memorandum that addresses the DEIS alternatives (A, C, and D) and the East West shifts of the Preferred Alternative (A), the TDOT CRO found the assessment and methodology used to be in keeping with the spirit of the laws that govern programs/projects that are federally funded, specifically, Title VI of the 1964 Civil Rights Act.

Thank you for the opportunity to review and comment on the Environmental Justice Memorandum for this project. Should you have questions or comments, please do not hesitate to contact Cynthia Howard, Title VI Program Director, at 615-253-1066.

Sincerely,

Deborah H. Luter
Director

Attachment D

Noise Effects on Kensington Place for Environmental Justice Evaluation, Memo by Bowlby & Associates, March 3, 2015

Bowlby & Associates, Inc.

504 Autumn Springs Court, #11
Franklin, Tennessee 37067-8278
(615) 771-3006, Fax (615) 771-3406
dreiter@bowlbyassociates.com

MEMORANDUM

To: Parsons Brinckerhoff
Project File

From: Darlene Reiter and Geoff Pratt

Date: March 3, 2015

Re: Noise Effects on Kensington Place for Environmental Justice Evaluation

This memo summarizes the results of the noise effects on the Kensington Place community of the Preferred and East Shift Alternatives.

The noise report for the project[1] predicted the total number of impacts for 18 noise analysis areas along the various alternatives. The Kensington Place community is included in Noise Analysis Area 4 that also includes some residences on Lamar Alexander Parkway. Table 1 summarizes the number of impacts in Area 4 and Kensington Place. Note that some of the residences experience both a substantial increase in sound levels and sound levels approaching or exceeding the NAC.

Table 1: Noise Impact Summary for Noise Analysis Area 4

Noise Analysis Area	Number of Impacts		
	Substantial Increase	Approach or Exceed the NAC	Total
Preferred Alternative			
Area 4 (includes residences on Lamar Alexander Pkwy)	48	8	50
Kensington Place Only	48	6	48
East Shift			
Area 4 (includes residences on Lamar Alexander Pkwy)	26	2	28
Kensington Place Only	26	0	26

[1] *Noise Technical Report for Pellissippi Parkway Extension*, Bowlby & Associates, June 2014.

As shown, the East Shift would result in noise impacts to 26 residences in Kensington Place while the Preferred Alternative would impact 48 residences.

A noise barrier for Kensington Place was evaluated to mitigate the predicted impacts for both the Preferred and East Shift Alternatives in accordance with TDOT's noise policy.

The results of the analysis indicated that a noise barrier would be feasible and reasonable for Kensington Place under the Preferred Alternative but not under the East Shift Alternative.

Impacts are generally not compared between alternatives with the abatement measures included. However, this information was desired for the Environmental Justice evaluation for Kensington Place. Table 2 compares the number of impacts under the East Shift (no barrier) and the Preferred Alternative with the proposed noise barrier.

Table 2: Kensington Place Noise Impacts under Preferred and East Shift Alternatives

Alternative	Number of Impacted Residences			
	Substantial Increase	**Approach or Exceed the NAC**	**Total**	**Sound Level Increases Higher than Other Shift**
Preferred Alternative				
Preferred Alternative (With Barrier)	21 (1)	0	21 (1)	47
East Shift				
East Shift (No Barrier)	26	0	26	8

(1) 20 receptors were affected and receptor "Teaberry N-1" represents two residences so the total number of residences is 21.

As indicated, 21 residences would still experience substantial increases in sound levels under the Preferred Alternative with the proposed noise barrier; however, this number is slightly lower than the 26 residences that would experience substantial noise levels increases under the East Shift with no barrier. Sound levels would be higher with the Preferred Alternative with a barrier for 47 residences, while under the East Shift without a barrier, sound levels would be higher for 8 residences. The differences in noise level increases between the two alternatives are generally 3 dBA or less; 3 dBA is usually the smallest change in traffic noise levels that people can detect without specifically listening for the change. Nine residences in Kensington Place as well as the three residences on Lamar Alexander Parkway would have the same level of increase for either alternative. Finally, six residences would be relocated under the Preferred Alternative. Based on this assessment, the differences in the as-built noise impacts of the Preferred Alternative and the East Shift do not appear to be significant.

Attachment F

Section 106 Consultation and Coordination

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
THE ENVIRONMENTAL DIVISION
SUITE 900, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-0334
(615) 741-5257
Fax (615) 741-1098

June 1, 2006

SUBJECT: Section 106 Initial Coordination for Proposed Pellissippi Parkway Extension, State Route 162 from State Route 33 to State Route 73 (U.S. 321), Blount County, Tennessee

To Whom It May Concern:

The Tennessee Department of Transportation (TDOT) in cooperation with the Federal Highway Administration is in the planning stages of evaluating the above-referenced project for possible implementation. The location of the proposed project is shown on the enclosed map.

The 2001 Advisory Council on Historic Preservation regulations, 36 CFR 800, stipulate that Indian tribes that attach religious and cultural significance to properties that may be affected by an undertaking be invited to participate in the project review process as consulting parties. TDOT would like to invite you to participate as a consulting party for the proposed project. This letter is also TDOT's request for comments on the identification of properties in the project's area of potential effect that may be of religious and cultural significance to your tribe.

If you choose to participate as a consulting party on the above-referenced project, you will receive copies of cultural assessment reports that identify Native American related properties. You will also be invited to attend project-related meetings with FHWA, TDOT and the Tennessee State Historic Preservation Office (TN-SHPO), if any are held. We respectfully request written responses to project reports and other materials within thirty (30) days of receipt.

If you would like to participate as a consulting party, please respond to me via letter, telephone (615-741-5257), fax (615-741-1098) or E-mail (Gerald.Kline@state.tn.us). To facilitate our planning process, please respond within 30 days of receipt of this letter. If you do not respond, you will not receive reports related to this project unless you specifically request them at a later date. Thank you for your assistance.

Sincerely,

Gerald Kline

Gerald Kline
Transportation Specialist I
Archaeology Program Manager

Enclosure

cc. Dr. Richard Allen, The Cherokee Nation
Tyler Howe, Eastern Band of Cherokee Indians
Charles D. Enyart, Eastern Shawnee Tribe of Oklahoma
Rebecca Hawkins, Shawnee Tribe
Lisa Stopp, United Keetoowah Band of Cherokee Indians

From: Dorothy McCormick <dmccormick_esto@yahoo.com>
To: <gerald.kline@state.tn.us>
Date: 6/1/2006 2:08:59 PM
Subject: Section 106 Initial Coordination for Proposed Pellissippi Parkway Extension, State Route 162 from State Route 33 to State Route 73 (U.S. 321), Blount County, TN

June 1, 2006

To Whom It May Concern:

Thank you for notice of the referenced project(s). The Eastern Shawnee Tribe of Oklahoma is currently unaware of any documentation directly linking Indian Religious Sites to the proposed construction. In the event any items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during construction, the Eastern Shawnee Tribe request notification and further consultation.

The Eastern Shawnee Tribe has no objection to the proposed construction. At present, the Eastern Shawnee Tribe does not wish to participate as a consulting party on the above referenced project(s). However, if any human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, the construction should stop immediately, and the appropriate persons, including state and tribal NAGPRA representatives contacted.

Sincerely,

Dorothy W. McCormick, Administrative Assistant
Eastern Shawnee Tribe of Oklahoma
127 West Oneida
P.O. Box 350
Seneca, MO 64865
918-666-2435 Phone
918-666-2186 Fax

From: "Richard Allen" <Richard-Allen@cherokee.org>
To: "Kristen Broussard" <Kristen.Broussard@state.tn.us>
Date: 6/19/2006 3:40:58 PM
Subject: RE: Section 106 Coordination

Dear Ms. Broussard:

The Cherokee Nation appreciates being kept apprised of the proposed project but has no immediate concerns. We have no knowledge of any historic, sacred or cultural sites in the area of potential impact. However, as always, should human remains or artifacts be discovered, we ask that all activity in the affected area cease and that all appropriate agencies including the Cherokee Nation be notified. I appreciate being kept informed.

Thank you,

Dr. Richard L. Allen
Policy Analyst
Cherokee Nation
P.O. Box 948
Tahlequah, Oklahoma 74465
(918) 453-5466

-----Original Message-----
From: Kristen Broussard [mailto:Kristen.Broussard@state.tn.us]
Sent: Thursday, June 01, 2006 7:46 AM
To: Richard Allen; estochief@hotmail.com; tylehowe@nc-cherokee.com; shawneethpo@neok.com; lstopp@unitedkeetoowahband.org
Subject: Section 106 Coordination

Pellissippi Parkway Extension, State Route 162 from State Route 33 to State Route 73 (U.S. 321), Blount County

See attached letter & map.

Eastern Band of Cherokee Indians
Tribal Historic Preservation Office
P.O. Box 455
Cherokee, NC 28719
Ph: 828-488-0237 Fax 828-488-2462

DATE: 7 - June - 06

TO: FHWA, Tennessee Division
Bobby Blackmon, Division Administrator
640 Grassmere Park Road
Suite 112
Nashville, TN 37211

PROJECT(S): **Proposed Pellissippi Parkway extension, St. Rt. 162 from St. Rt. 33 to St. Rt. 73 (U.S. 321), Blount County, Tennessee.**

The Tribal Historic Preservation Office of the Eastern Band of Cherokee Indians is in receipt of the above-referenced project information and would like to thank you for the opportunity to comment on this proposed NHPA Section 106 activity.

The project's location is within the aboriginal territory of the Cherokee people. This area may have cultural, archaeological, or religious significance to the Eastern Band of Cherokee Indians. Potential cultural resources are subject to damage or destruction from land disturbing activities requiring new ground disturbance, or vegetation manipulation. Additionally, adverse effects to ethnographic sites, such as traditional Native American campsites or burials, can reduce the interpretative or spiritual significance of a site to Tribal and United States culture and history. The EBCI THPO requests any cultural resource data, including phase I archeological reports, topo maps, historical research, or archives research, forwarded to the Tennessee Historical Commission for comment also be to this office in accordance with Section 106 of the NHPA. The EBCI THPO looks forward to participating in the project review process as a consulting party as stipulated in Section 106 of the National Historic Preservation Act of 1966.

If we can be of further service, or if you have any comments or questions, please feel free to contact me at (828) 488-0237 ext 2.

Sincerely,

Tyler B. Howe
Tribal Historical Preservation Specialist
Eastern Band of Cherokee Indians

Cc: Gerald Kline

TENNESSEE HISTORICAL COMMISSION
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
2941 LEBANON ROAD
NASHVILLE, TN 37243-0442
(615) 532-1550

May 4, 2009

Ms. Martha Carver
Tennessee Department of Transportation
505 Deaderick St/900
Nashville, Tennessee, 37243-0349

RE: FHWA, EFFECT DETERMINATION, SR-162 – PELLISSIPPI PARKWAY/SR-33 TO SR-73, UNINCORPORATED, BLOUNT COUNTY

Dear Ms. Carver:

Pursuant to your request, received on Tuesday, April 28, 2009, this office has reviewed documentation concerning the above-referenced undertaking. This review is a requirement of Section 106 of the National Historic Preservation Act for compliance by the participating federal agency or applicant for federal assistance. Procedures for implementing Section 106 of the Act are codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739)

Based on the information provided, we find that the project area contains a cultural resource eligible for listing in the National Register of Historic Places: the Sam Houston School. We further find that the project as currently proposed will not adversely affect this resource.

Unless project plans change, this office has no objection to the implementation of this project. Should project plans change, please contact this office to determine what additional action, if any, is necessary. Questions and comments may be directed to Joe Garrison (615) 532-1550-103. Your cooperation is appreciated.

Sincerely,

E. Patrick McIntyre, Jr.
Executive Director and
State Historic Preservation Officer

EPM/jyg

TENNESSEE HISTORICAL COMMISSION
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
2941 LEBANON ROAD
NASHVILLE, TN 37243-0442
(615) 532-1550

May 20, 2009

Mr. Gerald Kline
Tennessee Department of Transportation
Environmental Division
Suite 900, James K. Polk Building
505 Deaderick Street
Nashville, Tennessee 37243-0334

RE: FHWA, PHASE I ARCHAEOLOGICAL ASSESSMENT, SR-162/PELLISSIPPI PKWY/ALTS A,C,D, UNINCORPORATED, BLOUNT COUNTY,

Dear Mr. Gerald Kline:

At your request, our office has reviewed the above-referenced archaeological survey report in accordance with regulations codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739). Based on the information provided, we concur that the project area contains archaeological resources potentially eligible for listing in the National Register of Historic Places. Sites 40BT100, 40BT122, 40BT125, 40BT202, 40BT203, 40BT205, 40BT207, and 40BT209 should be avoided by all ground-disturbing activities or subjected to Phase II archaeological evaluation. In addition, site 40BT214, a historic cemetery, should also be avoided by ground-disturbing activities.

Upon receipt of the Phase II testing report or avoidance strategy, we will complete our review of this undertaking as expeditiously as possible. Please submit a minimum of two copies of each final report to this office in accordance with the Tennessee Historical Commission Review and Compliance Section Reporting Standards and Guidelines. Complete and/or updated Tennessee Site Survey Forms should be submitted to the Tennessee Division of Archaeology. Until such time as this office has rendered a final comment on this project, your Section 106 obligation under federal law has not been met. Please inform this office if this project is canceled or not funded by the federal agency. Questions and comments may be directed to Jennifer M. Barnett (615) 741-1588, ext. 105.

Your cooperation is appreciated.

Sincerely,

E. Patrick McIntyre, Jr.
Executive Director and
State Historic Preservation Officer

EPM/jmb

From: Tom Love [Tom.Love@state.tn.us]
Sent: Thursday, March 05, 2009 9:08 AM
To: Skinner, Nancy T.
Cc: Martha Carver
Subject: Fwd: Pellissippi Parkway - State Route 162 - Pershing marker
Nancy
Add this to the Environmental Commitments. Thanks
Tom

>>> Martha Carver 3/5/2009 8:51 AM >>>
The SHPO has requested that this historical marker be preserved during this road project. While it is not eligible for the National Register, it is of local interest and should not be demolished. If the project involves relocating the marker, I would also suggest that it be re-erected in a pull-off (instead of just by the road), which is safer and makes the marker more accessible to the public.

Please add this information to your commitments tracking.

Martha Carver
TDOT Environmental Division
Historic Preservation Section
Suite 900 Polk Building
505 Deaderick Street
Nashville, TN 37243-0334
(phone) 615-253-2461
(fax) 615-741-1098

>>> Claudette Stager 3/5/2009 7:49 AM >>>
The THC requests that the Anne Elizabeth Thompson Pershing historic marker (BT.2361), erected in 1922 by the THC and located along Buchanan Road outside Maryville, be protected during any construction related to the Pellissippi Parkway Extension project at US 321 (Lamar Alexander Parkway). If the proposed highway project may impact the historic marker, the THC requests that it be removed and stored safely offsite during construction and then reinstalled after construction, perhaps in a more visible location along US 321. Please work with the property owner in this potential undertaking.

Claudette Stager
National Register
Tennessee Historical Commission
2941 Lebanon Road
Nashville TN 37214
615/532-1550, ext. 105
www.TDEC.net/hist

TENNESSEE HISTORICAL COMMISSION
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
2941 LEBANON ROAD
NASHVILLE, TN 37243-0442
(615) 532-1550

December 17, 2012

Mr. Gerald Kline
TDOT – Environmental Division
Suite 900, James K. Polk Building
505 Deaderick Street
Nashville, Tennessee 37243-1402

RE: FHWA, SR-162/SR-33 TO SR-73/5 SITES, UNINCORPORATED, BLOUNT COUNTY

Dear Mr. Kline:

Pursuant to your request, this office has reviewed documentation received Friday, December 7, 2012 concerning the above-referenced undertaking. This review is a requirement of Section 106 of the National Historic Preservation Act for compliance by the participating federal agency or applicant for federal assistance. Procedures for implementing Section 106 of the Act are codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739).

Considering available information, we find concur that sites 40BT100, 40BT125, 40BT202, and 40BT203 do not contain resources eligible for inclusion in the National Register of Historic Places. We further concur that site 40BT122 is National Register eligible and that the project as currently proposed may adversely affect this eligible site. Please direct questions and comments to Jennifer M. Barnett (615 741-1588 ext. 105). We appreciate your cooperation.

Sincerely,

E. Patrick McIntyre, Jr.
Executive Director and
State Historic Preservation Officer

EPM/jmb

TENNESSEE HISTORICAL COMMISSION
2941 LEBANON ROAD
NASHVILLE, TENNESSEE 37243-0442
OFFICE: (615) 532-1550
www.tnhistoricalcommission.org

July 8, 2013

Mr. Gerald Kline
TDOT – Environmental Division
Suite 900, James K. Polk Building
505 Deaderick Street
Nashville, Tennessee 37243-1402

RE: FWHA, SR-162/AVOIDANCE 40BT122/ADDENDUMS, UNINCORPORATED, BLOUNT COUNTY

Dear Mr. Kline:

Pursuant to your request, this office has reviewed documentation concerning the above-referenced undertaking received Thursday, June 27, 2013. This is a requirement of Section 106 of the National Historic Preservation Act for compliance by the participating federal agency or applicant for federal assistance. Procedures for implementing Section 106 of the Act are codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739).

Considering available information, we find that the western and eastern alternatives for avoiding site 40BT122 the project as currently proposed will not adversely affect any property that is eligible for listing in the National Register of Historic Places. Therefore, this office has no objection to the implementation of this project. Please direct questions and comments to Jennifer M. Barnett (615) 741-1588, ext. 105. We appreciate your cooperation.

Sincerely,

E. Patrick McIntyre, Jr.
Executive Director and
State Historic Preservation Officer

EPM/jmb

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

JOHN C. SCHROER
COMMISSIONER

BILL HASLAM
GOVERNOR

August 9, 2013

Muscogee (Creek) Nation
P.O. Box 580
Okmulgee, OK 74447
Attn: Mr. Emman Spain and Mr. Terry Cole, Tribal Historic Preservation Office

RE: State Route 162EXT (Pellissippi Parkway), From State Route 33 to State Route 73 (US-321), Blount County, Tennessee, 101423.00

Dear Mr. Spain and Mr. Cole,

Enclosed is a CD containing final reports of all archaeological investigations conducted on the Pellissippi Parkway Extension project in Blount County. The Tennessee State Historic Preservation Office's review letters are also included. By making adjustments in the project alignment, TDOT has avoided impacts to all archaeological sites. Please review the contents of the CD. I am interested in any comments you may have and will be happy to answer any questions or respond to any concerns that occur to you about the archaeology studies or the project. You may contact me at (615) 741-5257 or via email at Gerald.kline@tn.gov. You may also contact Alan Longmire at (423) 282-0651 ext. 114 or at alan.longmire@tn.gov.

You are receiving this documentation somewhat late in the process because Blount County was not until very recently included in the Muscogee (Creek) Nation's area of interest in Tennessee. Nonetheless I wanted you to be aware of the project and have the opportunity to comment on it.

I appreciate your participation.

Sincerely,

Gerald W. Kline

Gerald W. Kline
Archaeology Program Manager

GWK/kl

cc: Mr. Tyler Howe, Eastern Band of Cherokee Indians, w/enclosure
Archaeology File: 2006049

Attachment G
Air Quality Coordination

$PM_{2.5}$ Interagency Consultation

MSATS Background Information

From:	Darlene Reiter
To:	Margaret Slater; Skinner, Nancy T.
Subject:	FW: Updated Traffic Projections, Pellissippi Parkway Extension, Blount County
Date:	Thursday, January 30, 2014 1:26:48 PM
Attachments:	IAC-PM2.5-Determination-PellissippiPrkwy-101423.00-010709.pdf Current and Previous Traffic Projections for Pellissippi Parkway Extension.pdf

FYI.

From: Darlene Reiter
Sent: Thursday, January 30, 2014 1:26 PM
To: Alan Jones; Angela Midgett; Cantrell, Teresa; Conger, Mike; Davis, Corbin; Jim Ozment; Lynne Liddington; Marc Corrigan; Martin, Elizabeth; Renfro, Jim; Rich DesGroseilliers ; Robert Rock; Ronnie Porter; scott.allen@dot.gov; Sheckler, Kelly; Smith, Dianna; Steve McDaniel; Theresa Claxton ; Welch, Jeff
Subject: Updated Traffic Projections, Pellissippi Parkway Extension, Blount County

Good Afternoon Knoxville IAC –

Per the discussion at the end of our call on Monday, I have attached the updated traffic projections for the Pellissippi Parkway (SR 162) Extension in Blount County for your records. As discussed, a $PM_{2.5}$ Hot-Spot Determination was prepared for the project in January 2009, and the IAC concurred that the project was "Not of Air Quality Concern." The Determination and concurrence responses are attached.

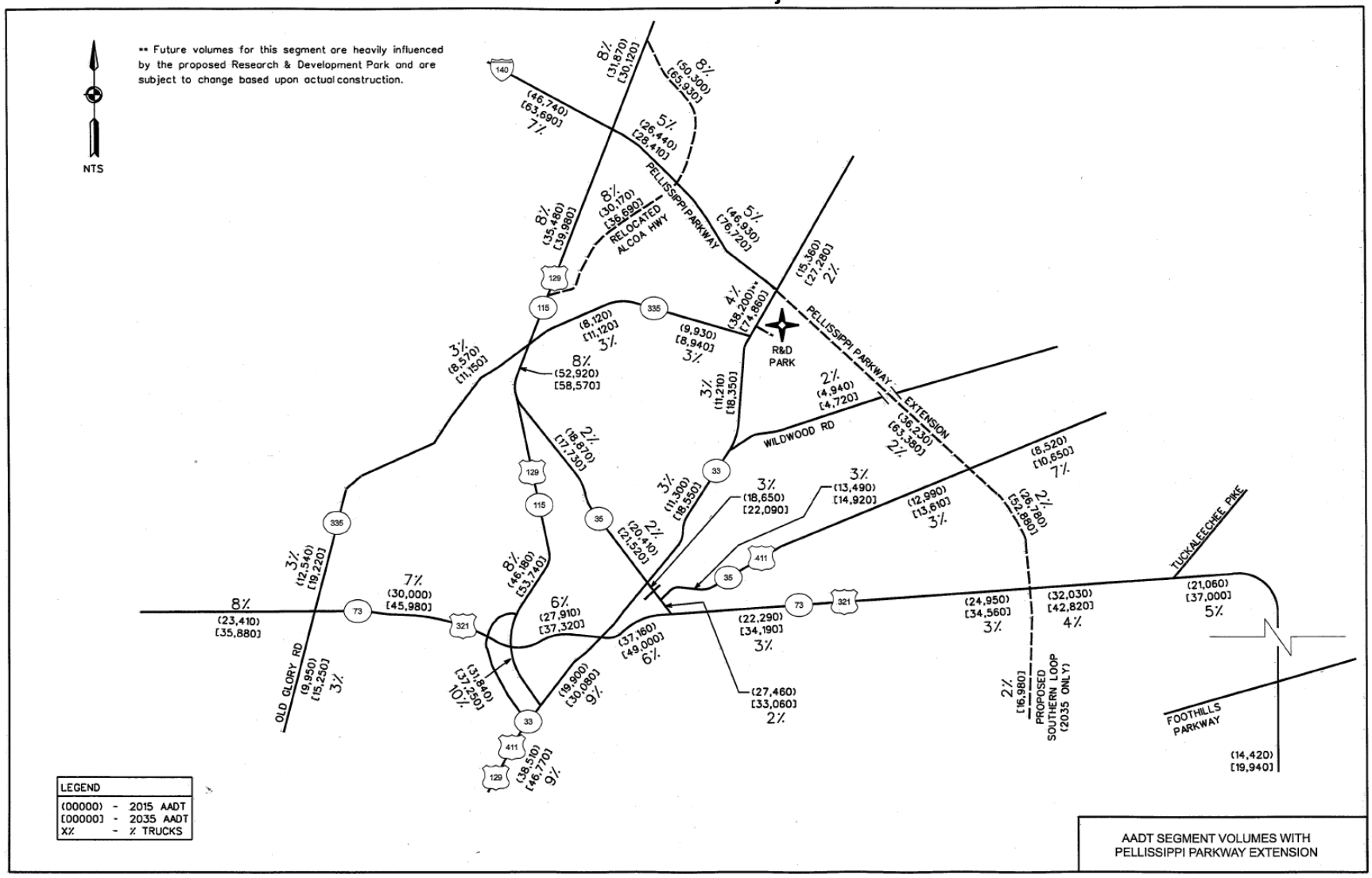
As shown, the updated Design Year 2040 projections are much lower than the previous Design Year 2035 projections used for the $PM_{2.5}$ Hot-Spot Determination. The projected percentage of trucks remains the same. As a result, the IAC agreed that the previous Determination remains valid.

Thank you for your guidance on this matter.

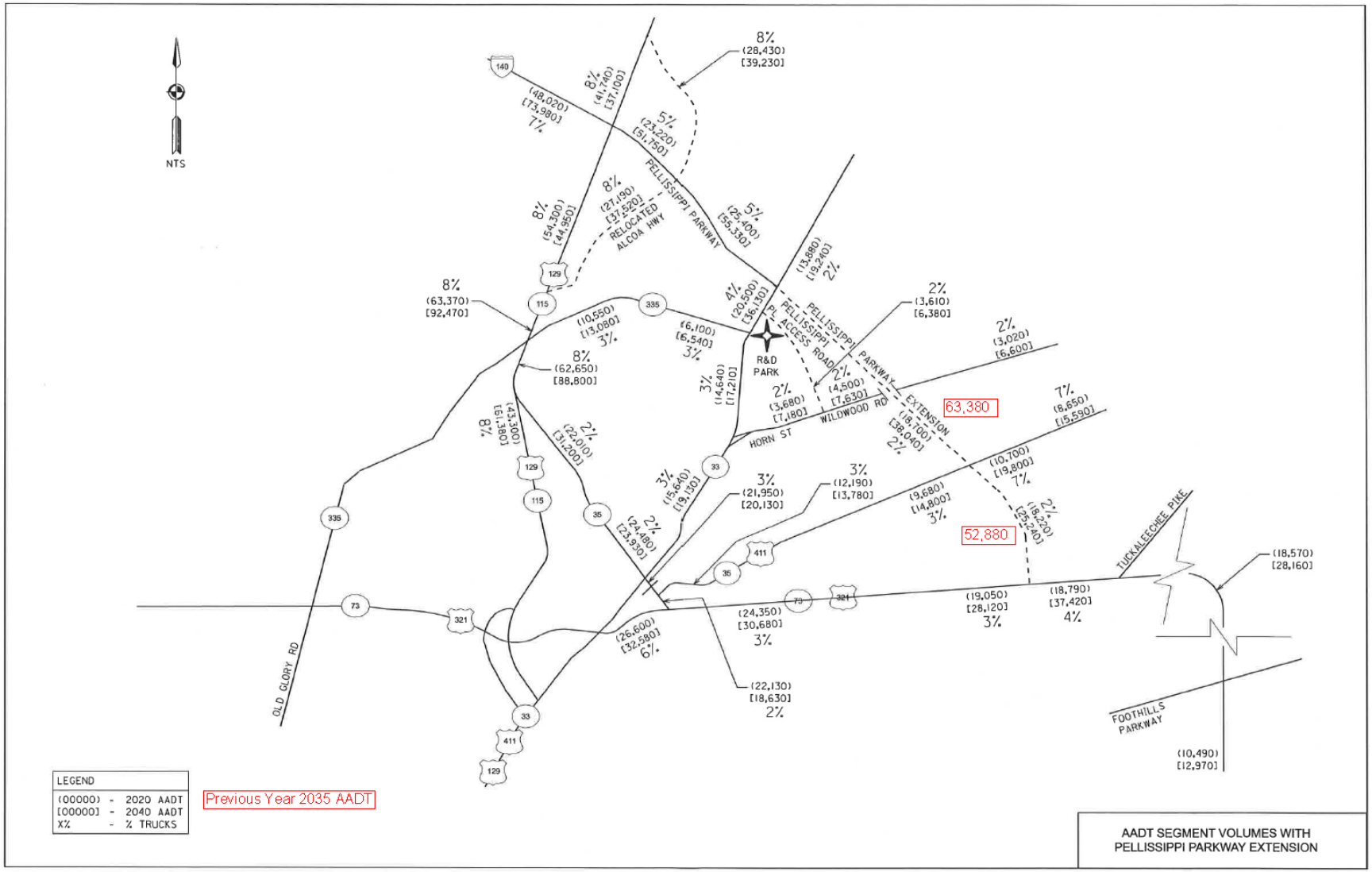
Darlene

Darlene Reiter, Ph.D., P.E.
TDOT Environmental Division Consultant
(615) 574-8102

Previous 2035 Traffic Projections



Current 2040 Traffic Projections



From: Marc Corrigan
To: McAdoo, Mark
Date: 1/9/2009 10:51 AM
Subject: Re: PM 2.5 Determination for Pellissippi Parkway Project (PIN# 101423.00)

Mark,

Based on the information provided, and no new information is provided from other IAC participants, I concur with TDOT's determination.

Marc

>>> Mark McAdoo 12:17 PM 1/8/09 >>>
Marc -
In response to your question, our consultant informs me "the rows in the table were shaded just to make the truck changes in volume stand out from the no-build to the build scenario. We thought that this important with regard to impacts as it shows that most of the volumes decrease in the build scenario."

TDOT requests your concurrence with our recommendation that this project be classified as NOT OF AIR QUALITY CONCERN. Please respond no later than close of business (4:30 central time) on**January 20, 2009**. If TDOT does not receive a response to the contrary within 10 business days of this email then TDOT will assume that you concur with our recommended determination.

Thanks,

Mark

TDOT - Environmental Division
615-741-6834

If you want your budget in the black - think green!

>>> Marc Corrigan 1/8/2009 8:28 AM >>>
Mark,

What is the significance of the of the shaded rows in the tables?

Marc

>>> Mark McAdoo 8:53 AM 1/7/09 >>>
Knoxville Area IAC -
This project was previously submitted to the IAC for concurrence. However, on December 19, 2008, Kelly Sheckler (EPA) left a voice message with me requesting us to revise the determination and resubmit. EPA requested truck numbers (not percentages) for the build and no build in the design year.

Our consultant for this project has made those revisions and TDOT is now resubmitting the determination that this project be classified as NOT OF AIR QUALITY CONCERN to the IAC for concurrence. Details are provided in the attached document.

TDOT requests your concurrence with our recommendation that this project be classified as NOT OF AIR QUALITY CONCERN. Please respond no later than close of business (4:30 central time) on January 20, 2009. If TDOT does not receive a response to the contrary within 10 business days of this email then TDOT will assume that you concur with our recommended determination.

Happy New Year,

Mark

TDOT - Environmental Division
615-741-6834

If you want your budget in the black - think green!

From: <Sheckler.Kelly@epamail.epa.gov>
To: "Mark McAdoo" <Mark.McAdoo@state.tn.us>
Date: 1/13/2009 11:48 AM
Subject: Re: PM 2.5 Determination for Pellissippi Parkway Project (PIN# 101423.00)- (1 project)
Attachments: PM2 5HotSpotDeterminationQA-Pellissippi- 1-6-08 final.doc

CC: <Smith.Dianna@epamail.epa.gov>

Mark- thank you for providing the updated material. Based upon what you have provided in the write-up, EPA concurs that this projects is not of air quality concern per the Transportation conformity provisions.

Kelly Sheckler
US Environmental Protection Agency- Region 4
Diesel Collaborative and Transportation Outreach Liaison
61 Foryths Street
Atlanta, Georgia 30303
(404) 562-9222
Sheckler.Kelly@epa.gov

"Mark McAdoo" <Mark.McAdoo@state.tn.us> 01/07/2009 09:53 AM

To <asmcdaniel@aqm.co.knox.tn.us>, <laliddington@aqm.co.knox.tn.us>, "Abigail Rivera" <Abigail.Rivera@dot.gov>, "Jeffery Anoka" <Jeffery.Anoka@dot.gov>, Lynorae Benjamin/R4/USEPA/US@EPA, Kelly Sheckler/R4/USEPA/US@EPA, Dianna Smith/R4/USEPA/US@EPA, Amanetta Wood/R4/USEPA/US@EPA, <Cecilia.Crenshaw@fhwa.dot.gov>, "Charles Oneill" <Charles.Oneill@fhwa.dot.gov>, <LeighAnn.Tribble@fhwa.dot.gov>, <Michael.Roberts@fhwa.dot.gov>, "Tameka Macon" <Tameka.Macon@fhwa.dot.gov>, "Vic Otero" <Victor.Otero@fhwa.dot.gov>, <Jeff.Welch@knoxtrans.org>, <Mike.Conger@knoxtrans.org>, <Shannon.Tolliver@knoxtrans.org>, <richd@mymorristown.com>, <jim_renfro@nps.gov>, <liana_reilly@nps.gov>, <teresa_cantrell@nps.gov>, "Alan Jones" <Alan.Jones@state.tn.us>, "Angela Midgett" <Angela.Midgett@state.tn.us>, "Marc Corrigan"

<Marc.Corrigan@state.tn.us>,
"Mark McAdoo"
<Mark.McAdoo@state.tn.us>,
"Robert Rock"
<Robert.Rock@state.tn.us>,
"Ronnie Porter"
<Ronnie.Porter@state.tn.us>
cc
"Nancy T. Skinner"
<SkinnerN@pbworld.com>, "Jim
Ozment" <Jim.Ozment@state.tn.us>,
"Tom Love" <Tom.Love@state.tn.us>
Subject
PM 2.5 Determination for
Pellissippi Parkway Project (PIN#
101423.00)

Knoxville Area IAC -
This project was previously submitted to the IAC for concurrence. However, on December 19, 2008, Kelly Sheckler (EPA) left a voice message with me requesting us to revise the determination and resubmit. EPA requested truck numbers (not percentages) for the build and no build in the design year.

Our consultant for this project has made those revisions and TDOT is now resubmitting the determination that this project be classified as NOT OF AIR QUALITY CONCERN to the IAC for concurrence. Details are provided in the attached document.

TDOT requests your concurrence with our recommendation that this project be classified as NOT OF AIR QUALITY CONCERN. Please respond no later than close of business (4:30 central time) on January 20, 2009. If TDOT does not receive a response to the contrary within 10 business days of this email then TDOT will assume that you concur with our recommended determination.

Happy New Year,

Mark

TDOT - Environmental Division
615-741-6834

If you want your budget in the black - think green!

From: <Victor.Otero@dot.gov>
To: <Mark.McAdoo@state.tn.us>, <asmcdaniel@aqm.co.knox.tn.us>, <laliddington...
Date: 1/13/2009 12:58 PM
Subject: RE: PM 2.5 Determination for Pellissippi Parkway Project (PIN#101423.00)- (1 project)

CC: <SkinnerN@pbworld.com>, <Jim.Ozment@state.tn.us>, <Tom.Love@state.tn.us>
FHWA concurs that the Pellissippi Parkway Project (PIN#101423.00)- (1 project is not of air quality concern. Should you require additional information, please contact me at 615.781.5761

Thank you

Victor Otero
FHWA TN DIVISION

-----Original Message-----
From: Mark McAdoo [mailto:Mark.McAdoo@state.tn.us]
Sent: Tuesday, January 13, 2009 12:11 PM
To: asmcdaniel@aqm.co.knox.tn.us; laliddington@aqm.co.knox.tn.us; Rivera, Abigail <FTA>; Anoka, Jeffery <FTA>; Benjamin.Lynorae@epa.gov; Sheckler.Kelly@epa.gov; smith.dianna@epa.gov; Wood.Amanetta@epa.gov; Crenshaw, Cecilia <FHWA>; Oneill, Charles <FHWA>; Tribble, Leigh Ann <FHWA>; Roberts, Michael <FHWA>; Macon, Tameka <FHWA>; Otero, Victor <FHWA>; Jeff.Welch@knoxtrans.org; Mike.Conger@knoxtrans.org; Shannon.Tolliver@knoxtrans.org; richd@mymorristown.com; jim_renfro@nps.gov; liana_reilly@nps.gov; teresa_cantrell@nps.gov; Alan Jones; Angela Midgett; Marc Corrigan; Mark McAdoo; Robert Rock; Ronnie Porter
Cc: Nancy T. Skinner; Jim Ozment; Tom Love
Subject: Re: PM 2.5 Determination for Pellissippi Parkway Project (PIN#101423.00)- (1 project)

Kelly -
Thank you for providing concurrence from EPA. I hope FHWA and the other IAC members can provide concurrence by January 20th.

Mark

TDOT - Environmental Division
615-741-6834

If you want your budget in the black - think green!

>>> <Sheckler.Kelly@epamail.epa.gov> 1/13/2009 11:48 AM >>>
Mark- thank you for providing the updated material. Based upon what you have provided in the write-up, EPA concurs that this projects is not of air quality concern per the Transportation conformity provisions.

Kelly Sheckler
US Environmental Protection Agency- Region 4

From: Mark McAdoo [Mark.McAdoo@state.tn.us]
Sent: Monday, December 01, 2008 10:22 AM
To: asmcdaniel@aqm.co.knox.tn.us; laliddington@aqm.co.knox.tn.us; Abigail Rivera; Jeffery Anoka; Benjamin.Lynorae@epa.gov; Sheckler.Kelly@epa.gov; smith.dianna@epa.gov; Wood.Amanetta@epa.gov; Cecilia.Crenshaw@fhwa.dot.gov; LeighAnn.Tribble@fhwa.dot.gov; Michael.Roberts@fhwa.dot.gov; Tameka Macon; tony.dittmeier@fta.dot.gov; Jeff.Welch@knoxtrans.org; Mike.Conger@knoxtrans.org; Shannon.Tolliver@knoxtrans.org; richd@mymorristown.com; jim_renfro@nps.gov; liana_reilly@nps.gov; teresa_cantrell@nps.gov; Alan Jones; Angela Midgett; Marc Corrigan; Robert Rock; Ronnie Porter
Cc: Skinner, Nancy T.; Tom Love
Subject: Pellissippi Parkway (PIN# 101423.00)

Attachments: PM2 5HotSpotDeterminationQA-Pellissippi-R.doc

Knoxville Area IAC -

TDOT recommends that the following project be classified as NOT OF AIR QUALITY CONCERN for PM 2.5 Transportation Conformity:

PIN# 101423.00 - Knox County Pellissippi Parkway

More details are provided in the attached document.

TDOT requests your concurrence with our recommendation that this project is NOT OF AIR QUALITY CONCERN. Please respond to this e-mail no later than close of business (4:30 central time) on December 15, 2008. If TDOT does not receive a response to the contrary by December 15, 2008 then TDOT will assume that you concur with our recommended determination.

Mark

TDOT - Environmental Division
615-741-6834

If you want your budget in the black - think green!

Mobile Source Air Toxics (MSATs)
From: FHWA's "*Interim Guidance Update on Air Toxic Analysis in NEPA Documents*," December 6, 2012.

Background

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. Environmental Protection Agency (EPA) regulate 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007), and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS) (http://www.epa.gov/iris/). In addition, EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment (NATA) (http://www.epa.gov/ttn/atw/nata1999/). These are acrolein, benzene, 1,3-butidiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter. While FHWA considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules. The 2007 EPA rule mentioned above requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines. According to an FHWA analysis using EPA's MOBILE6.2 model, even if vehicle activity (vehicle-miles travelled, VMT) increases by 145 percent as assumed, a combined reduction of 72 percent in the total annual emission rate for the priority MSAT is projected from 1999 to 2050, as shown in Figure 1.

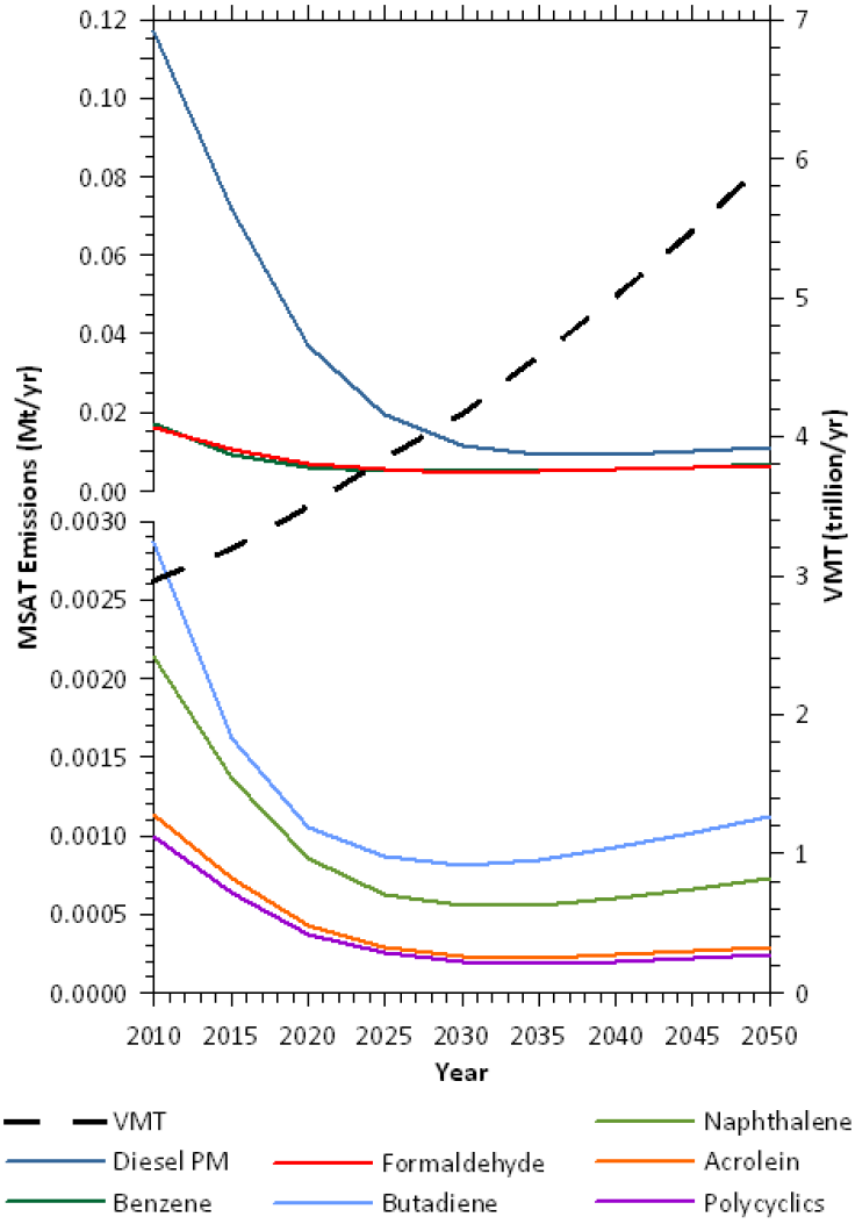
Motor Vehicle Emissions Simulator (MOVES)

According to EPA, MOVES improves upon the previous MOBILE model in several key aspects: MOVES is based on a vast amount of in-use vehicle data collected and analyzed since the latest release of MOBILE, including millions of emissions measurements from light-duty vehicles. Analysis of this data enhanced EPA's understanding of how mobile sources contribute to emissions inventories and the relative effectiveness of various control strategies. In addition, MOVES accounts for the significant effects that vehicle speed and temperature have on PM emissions estimates, whereas MOBILE did not. MOVES2010b includes all air toxic pollutants in NATA that are emitted by mobile sources. EPA has incorporated more recent data into MOVES2010b to update and enhance the quality of MSAT emission estimates. These data reflect advanced emission control technology and modern fuels, plus additional data for older technology vehicles.

Based on an FHWA analysis using EPA's MOVES2010b model, as shown in Figure 1, even if vehicle-miles travelled (VMT) increases by 102 percent as assumed from 2010 to 2050, a combined reduction of 83 percent in the total annual emissions for the priority MSAT is projected for the same time period.

The implications of MOVES on MSAT emissions estimates compared to MOBILE are: lower estimates of total MSAT emissions; significantly lower benzene emissions; significantly higher diesel PM emissions, especially for lower speeds. Consequently, diesel PM is projected to be the dominant component of the emissions total.

Figure 1: NATIONAL MSAT EMISSION TRENDS 1999 – 2050 FOR VEHICLES OPERATING ON ROADWAYS USING EPA's MOVES2010b MODEL



Note: Trends for specific locations may be different, depending on locally derived information representing vehicle-miles travelled, vehicle speeds, vehicle mix, fuels, emission control programs, meteorology, and other factors

Source: EPA MOVES2010b model runs conducted during May - June 2012 by FHWA.

MSAT Research

Air toxics analysis is a continuing area of research. While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health outcomes as a result of lifetime MSAT exposure remain limited. These limitations impede the ability to evaluate how potential public health risks posed by MSAT exposure should be factored into project-level decision-making within the context of NEPA.

Nonetheless, air toxics concerns continue to be raised on highway projects during the NEPA process. Even as the science emerges, we are duly expected by the public and other agencies to address MSAT impacts in our environmental documents. The FHWA, EPA, the Health Effects Institute, and others have funded and conducted research studies to try to more clearly define potential risks from MSAT emissions associated with highway projects. The FHWA will continue to monitor the developing research in this field.

NEPA Context

The NEPA requires, to the fullest extent possible, that the policies, regulations, and laws of the Federal Government be interpreted and administered in accordance with its environmental protection goals. The NEPA also requires Federal agencies to use an interdisciplinary approach in planning and decision-making for any action that adversely impacts the environment. The NEPA requires and FHWA is committed to the examination and avoidance of potential impacts to the natural and human environment when considering approval of proposed transportation projects. In addition to evaluating the potential environmental effects, we must also take into account the need for safe and efficient transportation in reaching a decision that is in the best overall public interest. The FHWA policies and procedures for implementing NEPA are contained in regulation at 23 CFR Part 771.

Incomplete or Unavailable Information for Project-Specific MSAT Health Impacts Analysis

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The U.S. Environmental Protection Agency (EPA) is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, http://www.epa.gov/iris/). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). Two HEI studies are summarized in Appendix D of FHWA's Interim Guidance Update on Mobile source Air Toxic Analysis in NEPA Documents. Among the adverse health effects linked to MSAT compounds at high exposures are; cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI, http://pubs.healtheffects.org/view.php?id=282) or in the future as vehicle emissions substantially decrease (HEI, http://pubs.healtheffects.org/view.php?id=306).

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts - each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable.
It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (http://pubs.healtheffects.org/view.php?id=282). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA (http://www.epa.gov/risk/basicinformation.htm#g) and the HEI (http://pubs.healtheffects.org/getfile.php?u=395) have not established a basis for quantitative risk assessment of diesel PM in ambient settings.

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable.

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

Due to the limitations cited, a discussion such as the example provided in this Appendix (reflecting any local and project-specific circumstances), should be included regarding incomplete or unavailable information in accordance with Council on Environmental Quality (CEQ) regulations [40 CFR 1502.22(b)]. The FHWA Headquarters and Resource Center staff Victoria Martinez (787) 766-5600 X231, Bruce Bender (202) 366-2851, and Michael Claggett (505) 820-2047, are available to provide guidance and technical assistance and support.

Attachment H
Noise Tables and Figures

Table H-1: Description of Noise Analysis Areas

Noise Analysis Area	Alternative(s)	Description	Activity Category	NAC (dBA)
1	Preferred, 2012 Preferred (A), C	Residences on Jackson Hills Drive, October Lane, and Luther Hills Drive.	B	67
2	Preferred, 2012 Preferred (A), C	Residences on Mt. Lebanon Road, Melody Lane and Wildwood Road.	B	67
3	Preferred, East Shift, 2012 Preferred (A), C, D	Residences on Centennial Church Road and in the Sweetgrass Plantation subdivision.	B	67
4	Preferred, East Shift, 2012 Preferred (A)	Kensington Place mobile home community and single-family residences on Lamar Alexander Parkway.	B	67
5	Preferred, 2012 Preferred (A), C	Residences on East Brown School Road, Wildwood Road, Martha Neoma Street, and Talbott Lane.	B	67
6	Preferred, 2012 Preferred (A), C	Residences on Western Springs Drive and Old Knoxville Highway.	B	67
7	Preferred, 2012 Preferred (A), C	Residences on Saratoga Drive, the south side of Wildwood Road and East Brown School Road.	B	67
8	Preferred, 2012 Preferred (A)	Residences on Sevierville Road (SR 35).	B	67
9	Preferred, 2012 Preferred (A)	Residences on Sevierville Road and Davis Ford Road.	B	67
10	Preferred, East Shift, 2012 Preferred (A), C	Residences, the Morning Star Baptist Church, and the Rio Revolution Church on Lamar Alexander Parkway.	B, D	67, 52*
11	D	Residences on Sam Houston School Road and intersecting local roadways between SR 33 and Wildwood Road.	B	67
12	D	Residences on Wildwood Road, Peppermint Road, and Peppermint Hills Drive and the Mt. Lebanon Baptist Church baseball field and playground.	B, C	67
13	D	Residences on Peppermint Road, Peppermint Hills Drive, and Sevierville Road.	B	67
14	D	Residences on Hitch Road, Scarlet Drive, and Sevierville Road.	B	67
15	C	Residences Sevierville and Butler Roads.	B	67
16	C, D	Residences on Melanie Drive, Davis Ford Road, Clayton Court, Misty View Drive and Helton Road and the Full Gospel Church.	B, D	67, 52*
17	D	Residences Helton and John Helton Roads.	B	67
18	C, D	Residences John Helton Road, Hubbard Drive, Tuckaleechee Pike, and E Lamar Alexander Parkway and the Misty Meadow Driving Range.	B, E	67

Table H-2: Noise Analysis Areas Affected by Alternatives

Alternative	Affected Noise Analysis Areas
Preferred, East Shift, 2012 Preferred (A)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
C	1, 2, 3, 5, 6, 7, 10, 15, 16, 18
D	3, 11, 12, 13, 14, 16, 17, 18

Table H-3: Existing Sound Levels in Noise Analysis Areas

Noise Analysis Area	Predicted Existing Sound Levels (dB)
1	41—54
2	41 – 52
3	42 – 48
4	42 – 64
5	41 – 52
6	45 – 59
7	41 – 55
8	61 – 65
9	43 – 61
10	45 – 68
11	43 – 66
12	46 – 63
13	46 – 62
14	45 – 63
15	44 – 60
16	41 – 50
17	43 – 63
18	44 – 65

Table H-4: Impact Determination Analysis, 2040 (1)

	2012 Preferred Alternative (A)			Preferred Alternative with East Shift			Preferred Alternative			Alternative C			Alternative D		
	Resi-dences	Cat. C/E	Total	Resi-dences	Cat. C/E	Total	Resi-dences	Cat. C/E	Total	Resi-dences	Cat. C/E	Total	Resi-dences	Cat. C/E	Total
Area 1	9	0	9	9	0	9	9	0	9	9	0	9	n/a	n/a	n/a
Area 2	5	0	5	5	0	5	5	0	5	5	0	5	n/a	n/a	n/a
Area 3	6	0	6	6	0	6	7	0	7	2	0	2	0	0	0
Area 4	29	0	29	28	0	28	50	0	50	n/a	n/a	n/a	n/a	n/a	n/a
Area 5	11	0	11	11	0	11	11	0	11	11	0	11	n/a	n/a	n/a
Area 6	0	0	0	0	0	0	0	0	0	0	0	0	n/a	n/a	n/a
Area 7	7	0	7	7	0	7	7	0	7	6	0	6	n/a	n/a	n/a
Area 8	2	0	2	2	0	2	2	0	2	n/a	n/a	n/a	n/a	n/a	n/a
Area 9	6	0	6	6	0	6	6	0	6	n/a	n/a	n/a	n/a	n/a	n/a
Area 10	6	0	6	6	0	6	6	0	6	10	0	10	n/a	n/a	n/a
Area 11	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32	0	32
Area 12	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	2	11
Area 13	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8	0	8
Area 14	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	0	9
Area 15	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7	0	7	n/a	n/a	n/a
Area 16	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	0	5	12	0	12
Area 17	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8	0	8
Area 18	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8	1	9	5	0	5
Totals	***81***	***0***	***81***	***80***	***0***	***80***	***103***	***0***	***103***	***63***	***1***	***64***	***83***	***2***	***85***

(1) An "n/a" indicates that a Noise Analysis Area is not affected by that Alternative.

Figure H-1: Noise Analysis Areas

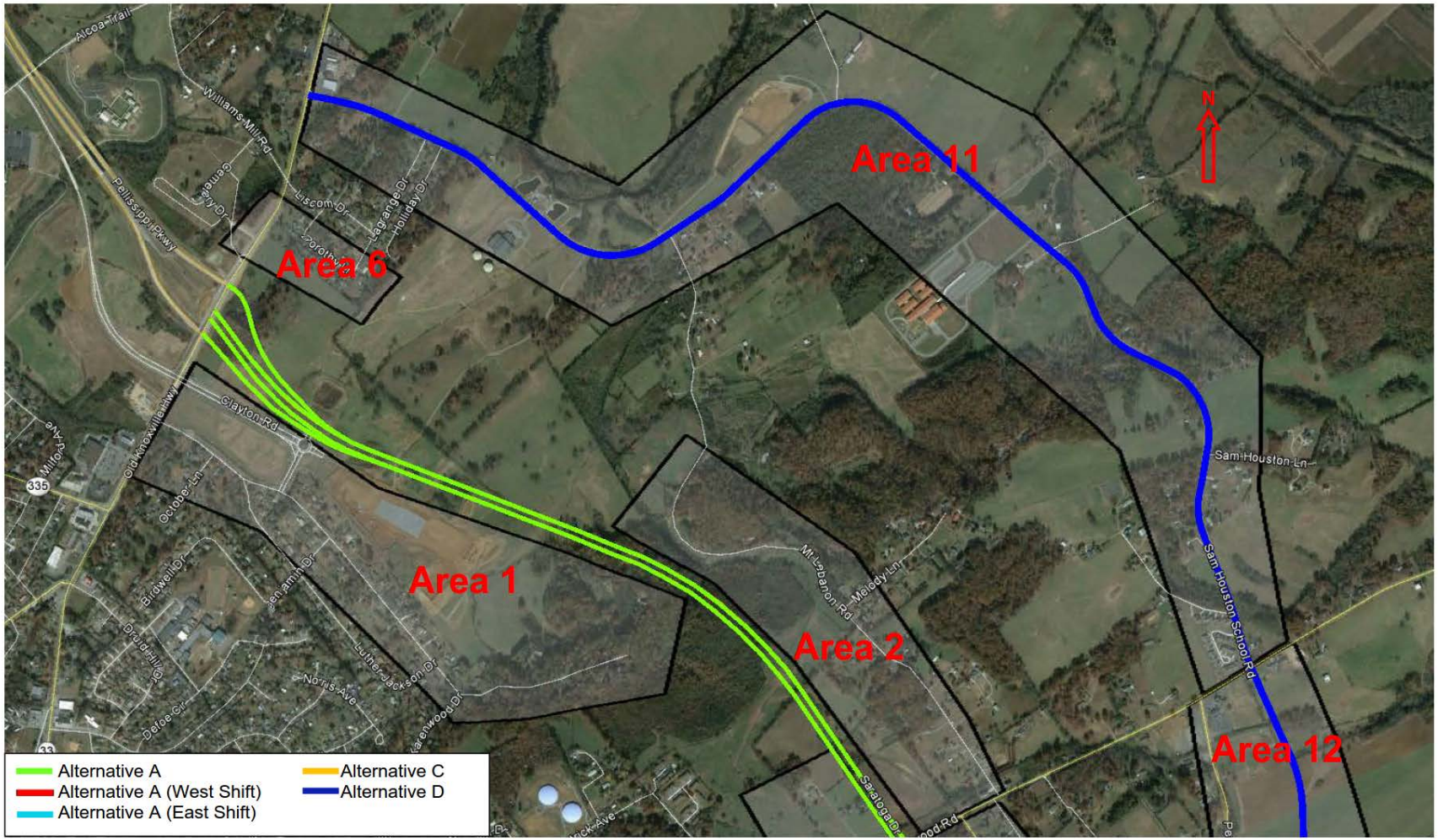


Figure H-1: Noise Analysis Areas (con't.)

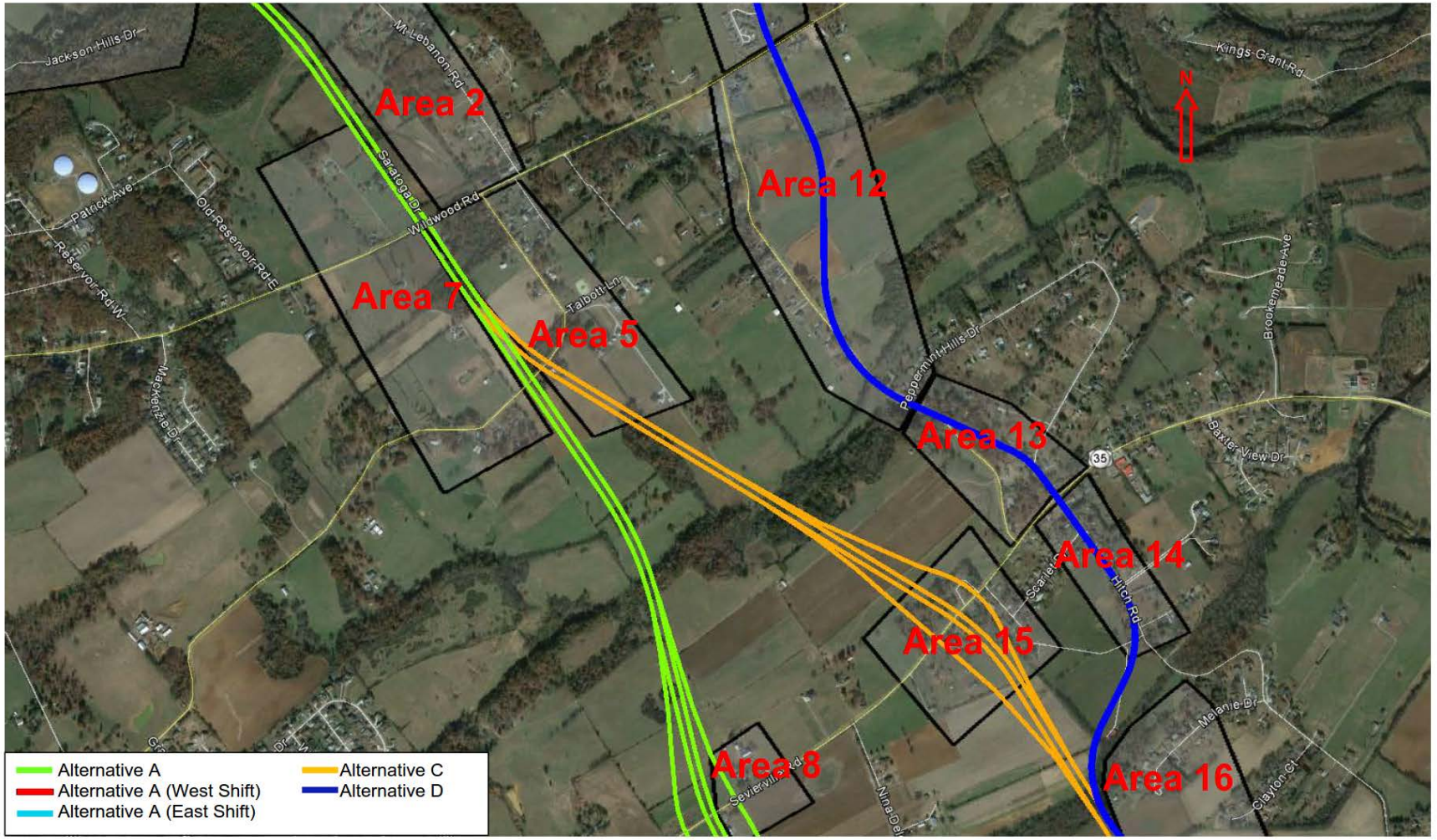
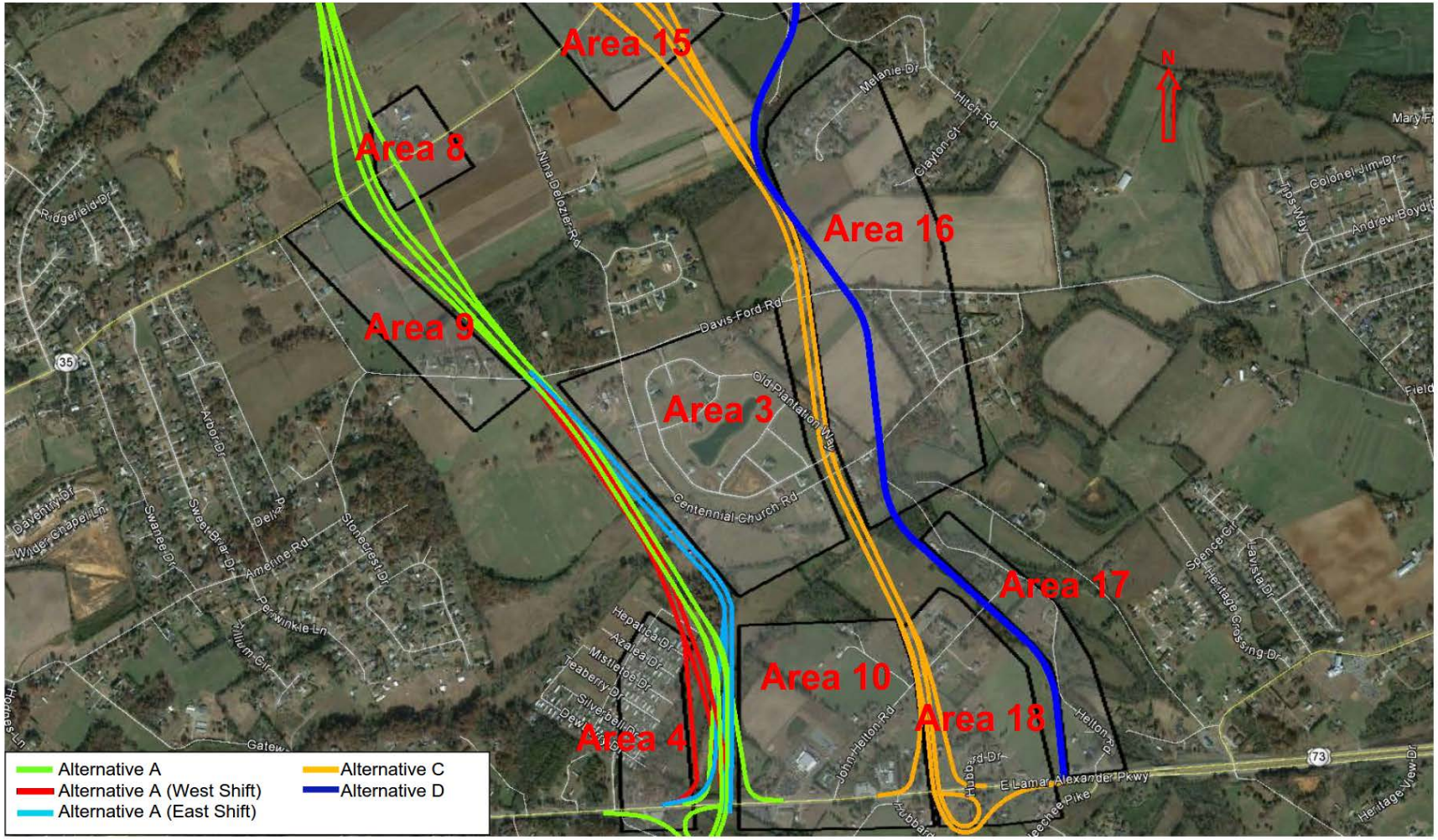


Figure H-1: Noise Analysis Areas (con't.)



Attachment I

Ecology Resource Tables, Biological Assessment, and Agency Coordination

Table I-1: Preferred Alternative, Preferred Alternative with East Shift, and 2012 Preferred Alternative (A)—Ecological Features

Table I-2: Alternative C—Ecological Features

Table I-3: Alternative D—Ecological Features

2013 Biological Assessment

Agency Coordination

Table I-1: Preferred Alternative, Preferred Alternative with East Shift, and 2012 Preferred Alternative (A) - Ecological Features

Map Label/ Feature Name	Lat/Long	Feature Designation	Potential Impacts	Estimated Impact Quantity			ETW or ONRW (Y/N)	303d Listed (Y/N) Reason for Listing
				Preferred Alt	East Shift	2012 Pref Alt(A)		
WTL-1 (ALT A & C)	N35.804843 W83.940205	Scrub/Shrub Wetland	Fill	~0.1 acre	~0.1 acre	~0.1 acre	N	N
PND-1A (ALT A & C)	N35.803302 W83.936642	Man-made Retention Basin	Fill	~0.02 acre	~0.02 acre	~0.02 acre	N	N
WWC-1 (ALT A & C)	N35.802263 W83.937081	Wet Weather Conveyance	No Impact, WWC has been eliminated	0.0	0.0	0.0	N	N
STR-1 (ALT A & C)	N35.78467971 W83.90951683	Intermittent Stream	Crossing/ Encapsulation/ Fill	~1,015'	~1,015'	~1,015'	N	N - Threatened
WTL-2 (ALT A & C)	N35.799413 W83.929155	Emergent Wetland	Fill	~0.2 acre	~0.2 acre	~0.2 acre	N	N
STR-2 (ALT A & C)	N35.78391114 W83.90829976	Intermittent Stream	Crossing/ Encapsulation/ Fill	~147'	~147'	~147'	N	N
STR-3 (ALT A & C)	N35.78303418 W83.90595703	Perennial stream	Crossing/ Encapsulation/ Fill	~640'	~640'	~640'	N	N
WTL-3 (ALT A & C)	N35.79974 W83.927329	Emergent Wetland	Fill	~0.3 acre	~0.3 acre	~0.3 acre	N	N
PND-1 (ALT A & C)	N35.799351 W83.9249	Pond	No Impact, Outside ROW	0.0	0.0	0.0	N	N
WTL-4 (ALT A & C)	N35.79858 W83.923544	Scrub/Shrub Wetland	No Impact, Outside ROW	0.0	0.0	0.0	N	N

STR = stream; WTL = wetlands; PND = pond.

Table I-1: Preferred Alternative, Preferred Alternative with East Shift, and 2012 Preferred Alternative (A) - Ecological Features

Map Label/ Feature Name	Lat/Long	Feature Designation	Potential Impacts	Estimated Impact Quantity			ETW or ONRW (Y/N)	303d Listed (Y/N) Reason for Listing
				Preferred Alt	East Shift	2012 Pref Alt(A)		
STR-4 (ALT A & C)	N35.78283476 W83.90584282	Perennial stream	Runoff/No Direct Impact	0.0	0.0	0.0	N	N
PND-2 (ALT A & C)	N35.79395 W83.919537	Pond	Fill	0.4 acre	0.4 acre	0.4 acre	N	N
STR-5 (ALT A & C)	N35.77526235 W83.89413778	Intermittent stream	Crossing/ Encapsulation/ Fill	300'	300'	300'	N	N
STR-6 Peppermint Branch (ALT A)	N35.76485954 W83.89032228	Perennial stream	Crossing/ Encapsulation/ Fill	315 ft	315 ft	315 ft	N	Y - Siltation
STR-7 (ALT A)	N35.76411882 W83.89121303	Intermittent stream	Crossing/ Encapsulation/ Fill	378 ft	378 ft	378 ft	N	N
STR-7A (2012 ALT A, West Shift, & East Shift)	N35.76359396 W83.89139799	Intermittent stream	Crossing/ Encapsulation/ Fill	1,015 ft	767 ft	1,015 ft	N	N
STR-7B (2012 ALT A, West Shift, & East Shift)	N35.76334256 W83.89088476	Perennial stream	Crossing/ Encapsulation/ Fill	139 ft	N/A	139 ft	N	N
WTL-5 (2012 ALT A, West Shift, & East Shift)	N35.764114 W83.897799	Emergent Wetland	Fill	0.1 acre	N/A	0.1 acre	N	N
WTL-5A (2012 ALT A, West Shift, & East Shift)	N35.764337 W83.898287	Emergent Wetland	Fill	0.06 acre	N/A	0.06 acre	N	N
WTL-5B (2012 ALT A, West Shift, & East	N35.764023 W83.899153	Emergent Wetland	No Impact, Outside ROW	0.0	0.0	0.0	N	N

STR = stream; WTL = wetlands; PND = pond.

Table I-1: Preferred Alternative, Preferred Alternative with East Shift, and 2012 Preferred Alternative (A) - Ecological Features

Map Label/ Feature Name	Lat/Long	Feature Designation	Potential Impacts	Estimated Impact Quantity			ETW or ONRW (Y/N)	303d Listed (Y/N) Reason for Listing
				Preferred Alt	East Shift	2012 Pref Alt(A)		
Shift)								
STR-8 Gravelly Creek (2012 ALT A, West Shift, & East Shift)	N35.76245878 W83.88980234	Perennial stream	Crossing/ Encapsulation/ Fill	545 ft	323 ft	628 ft	N	Y – Siltation
WTL-6 (2012 ALT A, West Shift, & East Shift)	N35.759601 W83.895904	Scrub/Shrub Wetland	Fill	7.96 acres	6.39 acres	4.25 acres	N	N
STR-9 Flag Branch (2012 ALT A, West Shift, & East Shift)	N35.759533 W83.895981	Perennial stream	Crossing/ Encapsulation/ Fill	1,143 ft	545 ft	623 ft	N	Y - Siltation
Total Stream Impacts				**5,637 linear feet**	**4,430 linear feet**	**5,200 linear feet**		
Total Wet Weather Conveyance Impacts				**0.0**	**0.0**	**0.0**		
Total Wetland Impacts				**8.72 acres**	**6.99 acres**	**5.01 acres**		
Total Pond Impacts				**0.42 acre**	**0.42 acre**	**0.42 acre**		

STR = stream; WTL = wetlands; PND = pond.

Table I-2: Alternative C - Ecological Features

Map Label/ Feature Name	Lat/Long	Feature Designation	Potential Impact	Estimated Impact Quantity	ETW or ONRW (Y/N)	303d Listed (Y/N) Reason for Listing
WTL-1 (A & C)	N35.804843 W83.940205	Scrub/Shrub Wetland	Fill	0.1 acre	N	N
PND-1A (A & C)	N35.803302 W83.936642	Man-made Retention Basin	Fill	0.02 acre	N	N
WWC-1 (A & C)	N35.802263 W83.937081	Wet Weather Conveyance	No Impact, WWC has been eliminated	0.0	N	N
STR-1 (A & C)	N35.78467971 W83.90951683	Intermittent Stream	Crossing/ Encapsulation/ Fill	1,015 ft	N	N - Threatened
WTL-2 (A & C)	N35.799413 W83.929155	Emergent Wetland	Fill	0.2 acre	N	N
STR-2 (A & C)	N35.78391114 W83.90829976	Intermittent Stream	Crossing/ Encapsulation/ Fill	147 ft	N	N
STR-3 (A & C)	N35.78303418 W83.90595703	Perennial stream	Crossing/ Encapsulation/ Fill	640 ft	N	N
WTL-3 (A & C)	N35.79974 W83.927329	Emergent Wetland	Fill	0.3 acre	N	N
PND-1 (A & C)	N35.799351 W83.9249	Pond	No Impact, Outside ROW	0.0	N	N
WTL-4 (A & C)	N35.79858 W83.923544	Scrub/Shrub Wetland	No Impact, Outside ROW	0.0	N	N
STR-4 (A & C)	N35.78283476 W83.90584282	Perennial stream	Runoff/No Direct Impact	0.0	N	N
PND-2 (A & C)	N35.79395 W83.919537	Pond	Fill	0.4 acre	N	N
STR-5 (A & C)	N35.77526235 W83.89413778	Intermittent stream	Crossing/ Encapsulation/	300 ft	N	N

STR = stream; WTL = wetlands; PND = pond.

Table I-2: Alternative C - Ecological Features

Map Label/ Feature Name	Lat/Long	Feature Designation	Potential Impact	Estimated Impact Quantity	ETW or ONRW (Y/N)	303d Listed (Y/N) Reason for Listing
			Fill			
WWC-1 (C)	N35.78467971 W83.90951683	Wet weather conveyance	Fill/runoff	420 ft	N	N
WWC-2 (C)	N35.78391114 W83.90829976	Wet weather conveyance	Runoff/No Direct Impact	0.0	N	N
STR-1 C (Peppermint Branch)	N35.78303418 W83.90595703	Perennial stream	Crossing/ encapsulation/ fill	450 ft	N	Y - Siltation
STR-2 (C)	N35.78283476 W83.90584282	Perennial stream	Fill/runoff	100 ft	N	N
STR-3 (C)	N35.77526235 W83.89413778	Intermittent stream	Crossing/ Encapsulation/ Fill	320' ft	N	N
STR-4 C (Gravelly Creek)	N35.76485954 W83.89032228	Perennial stream	Crossing/ Encapsulation/ Fill	325 ft	N	Y - Siltation
STR-5 C (Flag Branch)	N35.76411882 W83.89121303	Perennial stream	Runoff/No Direct Impact	0.0	N	Y - Siltation
WWC-3 (C)	N35.76359396 W83.89139799	Wet weather conveyance	Runoff/No Direct Impact	0.0	N	N
WTL-1 (C)	N35.76334256 W83.89088476	Wetland	Fill/runoff	0.002 acres	N	N
WWC-4 (C)	N35.76245878 W83.88980234	Wet weather conveyance	Fill/runoff	315 ft	N	N
Total Stream Impacts				**3,297 linear ft**		
Total Wet Weather Conveyance Impacts				**735 linear ft**		
Total Wetland Impacts				**0.602 acre**		
Total Pond Impacts				**0.42 acre**		

STR = stream; WTL = wetlands; PND = pond.

Table I-3: Alternative D - Ecological Features

Map Label/ Feature Name	Lat/Long	Feature Designation	Potential Impact	Estimated Impact Quantity	ETW or ONRW (Y/N)	303d Listed (Y/N) Reason for Listing
STR-1	N35.80762608 W83.92830559	Intermittent stream	Crossing/ Encapsulation/ Fill	175 ft	N	N
WTL-1	N35.80722969 W83.92868707	Wetland	Fill/runoff	0.025 acres	N	N
STR-2	N35.80706121 W83.92533599	Perennial stream	Crossing/ encapsulation/ fill	170 ft	N	N - Threatened
WWC-1	N35.80855964 W83.91403423	Wet weather conveyance	Crossing/ encapsulation/ fill	80 ft	N	N
PND-1	N35.80895413 W83.91258378	Pond	Runoff/No Direct Impact	0.0	N	N
STR-3	N35.80492083 W83.91040158	Intermittent stream	Crossing/ encapsulation/ fill	400 ft	N	N
STR-4	N35.80587239 W83.91018933	Intermittent stream	Runoff	0.0	N	N
PND-2	N35.79845301 W83.90808658	Pond	Runoff	0.0	N	N
STR-5	N35.79770508 W83.90670539	Intermittent stream	Crossing/ encapsulation/ fill	200 ft	N	N - Threatened
WWC-2	N35.79706418 W83.90560153	Wet weather conveyance	Runoff/No Direct Impact	0.0	N	N
STR-6	N35.7941347 W83.90447451	Intermittent stream	Crossing/ encapsulation/ fill	190 ft	N	N

STR = stream; WTL = wetlands; PND = pond.

Table I-3: Alternative D - Ecological Features

Map Label/ Feature Name	Lat/Long	Feature Designation	Potential Impact	Estimated Impact Quantity	ETW or ONRW (Y/N)	303d Listed (Y/N) Reason for Listing
STR-7 (Peppermint Branch)	N35.786738 W83.90187304	Perennial stream	Crossing/ encapsulation/ fill	185 ft	N	Y – Siltation
WWC-3	N35.78633755 W83.90163037	Wet weather conveyance	Crossing/ encapsulation/ fill	290 ft	N	N
SNK-1	N35.78000076 W83.89388115	Sinkhole	Fill/runoff	0.10 acres	N	N
WWC-4	N35.78049426 W83.89330938	Wet weather conveyance	Fill/runoff	130 ft	N	N
WWC-5	N35.7759043 W83.89376801	Wet weather conveyance	Runoff/No Direct Impact	0.0	N	N
STR-8	N35.77526799 W83.89408752	Intermittent stream	Crossing/ encapsulation/ fill	190 ft	N	N
WWC-6	N35.77186967 W83.8914195	Wet weather conveyance	Crossing/ encapsulation/ fill	150 ft	N	N
WWC-7	N35.7661253 W83.88932574	Wet weather conveyance	Runoff/No Direct Impact	0.0	N	N
STR-9 (Gravelly Creek)	N35.76586658 W83.88879956	Perennial stream	Crossing/ encapsulation/ fill	185 ft	N	Y – Siltation
STR-10 (Crooked Creek)	N35.76599191 W83.88874282	Perennial stream	Runoff	0.0	N	Y – Habitat
PND-3	N35.76218208 W83.88518202	Pond	Fill/runoff	0.02 acres	N	N
WWC-8	N35.76143277 W83.88376632	Wet weather conveyance	Runoff/No Direct Impact	0.0	N	N

STR = stream; WTL = wetlands; PND = pond.

Table I-3: Alternative D - Ecological Features

Map Label/ Feature Name	Lat/Long	Feature Designation	Potential Impact	Estimated Impact Quantity	ETW or ONRW (Y/N)	303d Listed (Y/N) Reason for Listing
Total Stream Impacts				1,505 linear feet		
Total Wet Weather Conveyance Impacts				650 linear feet		
Total Wetland Impacts				0.025 acre		
Total Pond Impacts				0.02 acre		

STR = stream; WTL = wetlands; PND = pond.

BLOUNT COUNTY, TN
STATE ROUTE 162 (PELLISSIPPI PARKWAY) EXTENSION
FROM SR-33 TO SR-73 (US 321)
PIN 101423.00
PE No. 05097-0229-14

BIOLOGICAL ASSESSMENT
FOR:

SNAIL DARTER (*Percina tanasi*)
MARBLED DARTER (*Etheostoma marmorpinnum*)
{formerly the Duskytail darter – *Etheostoma percnurum*}

FINE-RAYED PIGTOE (*Fusconaia cuneolus*)
INDIANA BAT (*Myotis sodalis*)
ASHY DARTER (*Etheostoma cinereum*)
LONGHEAD DARTER (*Percina macrocephala*)

U.S. FISH AND WILDLIFE SERVICE
LOG# 12-I-0454

Prepared Pursuant To
Section 7(c) of the Endangered Species Act of 1973
As Amended

Prepared By:
Keven Brown, TDOT
June 21, 2013

I. INTRODUCTION

The Tennessee Department of Transportation (TDOT) proposes to extend SR-162 (Pellissippi Parkway) from SR-33 to SR-73 (U.S. 321) in Blount County, Tennessee (Fig. 1 & 2). Information received from the Tennessee Department of Environment and Conservation, Division of Natural Heritage (TDEC/DNH) database on September 14, 2001 indicated that the following species could be present in the project impact area:

Species	Status	
	State	Federal
Snail darter – *Percina tanasi*	T	LT
Duskytail darter – *Etheostoma percnurum* {Now known as the marbled darter – *Etheostoma marmorpinnum*}	E	LE
Fine-rayed pigtoe – *Fusconaia cuneolus*	E	LE
Ashy darter – *Etheostoma cinereum*	T	--
Longhead darter – *Percina macrocephala*	T	--

LT – Federally threatened LE – Federally endangered T – State threatened E – State endangered

Response from the U. S. Fish and Wildlife Service (Service) on January 12, 2000 indicated that the federally endangered Indiana bat (*Myotis sodalis*) could possibly be present in the project impact area as well. Information from the Service was updated by email on September 27, 2001 and no changes from the January 12, 2000 coordination were indicated. A biological assessment was submitted addressing the above species on November 14, 2001 with a finding of not likely to adversely affect (NLTAA). Response from the Service dated February 5, 2002 concurred with the NLTAA finding for the Indiana bat, but not the other aquatic species due to their possible presence in three of the tributaries to Little River crossed by the project. TDOT submitted additional information to the Service dated February 27, 2002 addressing their concerns. The Service responded by letter dated April 16, 2002 concurring with the NLTAA finding for the above listed aquatic species.

Since conclusion of the initial project species coordination, legal action by a local citizens group, Citizens Against Pellissippi Parkway Extension (CAPPE), necessitated that TDOT reinitiate the NEPA process. In the summer of 2012, TDOT conducted a survey of the project area to determine the possible presence of the Indiana bat, per request from the Service dated May 17, 2012. Results of this survey did not indicate that the Indiana bat was present within the project impact area. A finding of NLTAA for the Indiana bat was submitted to the Service on September 24, 2012. The USFWS concurred with the finding of NLTAA on October 11, 2012. A request for updated species information was submitted to the Service on May 22, 2013. Information from the Tennessee Department of Environment and Conservation, Division of Natural Heritage (TDEC/DNH) database was reviewed on May 22, 2013. The following federally listed species were recorded from within four miles of the project impact area:

Species	Status	
	State	Federal
Snail darter – *Percina tanasi*	T	LT
Marbled darter – *Etheostoma marmorpinnum* {formerly the duskytail darter - *Etheostoma percnurum*}	E	LE

Fine-rayed pigtoe – *Fusconaia cuneolus*	E	LE
Ashy darter – *Etheostoma cinereum*	T	--
Longhead darter – *Percina macrocephala*	T	--

LT – Federally threatened LE – Federally endangered T – State threatened E – State endangered

Response from the Service dated June 10, 2013 provided the Indiana bat (*Myotis sodalis*) for consideration. Due to the possible presence of the above species in the project impact area, informal consultation was initiated. Results of this coordination indicated that an updated biological assessment would be necessary to evaluate potential project impacts to these species.

II. PROJECT DESCRIPTION

The existing portion of Pellissippi Parkway (SR-162) has a cross-section consisting of 4 @ 12' traffic lanes, 2 @ 12' paved shoulders and a 48' depressed grass median, all within a minimum 250' right-of-way. The cross-section for the proposed SR-162 extension will be similar to that of the existing. The proposed project will be constructed on new alignment and will require acquisition of additional right-of-way. Total length of the proposed project will be 4.4 miles. This will be the final segment of SR-162 connecting I-40 in Knox County, TN to SR-73 (US-321) in Blount County, TN. Construction of the proposed project is expected to take from two and a half to three years to complete, based on projects of comparable scope.

III. ACTION AREA

The proposed project is located in the northeast portion of Blount County, TN. Terrain along the project alignment is mostly rolling, but ranges from nearly level to quite hilly in some areas. Land use is varied within the project area. Agriculture uses for livestock pasture or hay production are the most common, with cultivated fields for corn, tobacco, and soybeans also present. Residential lots of varying size are prevalent throughout the project area. In addition, there are several subdivisions that either have been or are currently being developed in this portion of Blount County. Commercial development in the project area is located mostly along the main roadways and consists primarily of small businesses including gas stations, car lots, auto repair shops, antique stores, and restaurants. The Alcoa water filtration plant is located near the beginning of the project, in close proximity to Little River at approximately Little River Mile (LRM) 9.6. No caves are believed to be present in the project impact area.

Wooded sites are scattered throughout the area, ranging from only a few clustered trees to several acres in size. The wooded sites tend to be located either in upland areas too steep or rocky for cultivation or along stream drainages. The upland sites contain a variety of mixed hardwoods including southern red oak, post oak, white oak, scarlet oak, blackgum, Virginia pine, loblolly pine, red cedar, dogwood, redbud, yellow poplar, red maple, sugar maple, black cherry, American elm, winged elm, American beech, white ash, and persimmon. Wooded sites along area streams are generally less diverse and contain boxelder, green ash, black willow, sycamore, hackberry, and black walnut. The understory in many of these wooded sites is

dominated by a heavy growth of non-native invasive species including Chinese privet, multi-flora rose, or bush honeysuckle.

Several "blue-line" streams will be crossed by the proposed project. These range in size from small, unnamed, first-order trickles to moderately sized, third-order flows. Peppermint Branch, Gravelly Creek and Flag Branch are the only three named streams that will be crossed. All of the streams that will be crossed are direct tributaries to Little River except for Gravelly Creek and Flag Branch, which flow into Crooked Creek approximately two miles upstream of its confluence with Little River. Substrates in these channels consist mainly of sand, gravel, and mud. Most of these streams lack canopy at the proposed crossing sites, as they are located in open hay or pasture fields. Livestock have access to a large percentage of these stream lengths which has resulted in significant impacts to both streamside vegetation and the channel substrates. Where canopy is present, it is sparse for the most part and limited to within a few feet of the top of the streambanks. Five of the drainage features depicted as "blue-lines" on the area topo maps were identified as wet weather conveyances. Most of the proposed crossings will be accomplished as close to perpendicular as possible. The proposed drainage structures that will be constructed will likely be either concrete box culverts or pipes depending on the hydraulic requirements. However, channel changes may be required on some of these streams depending on the skew at the crossing site.

At present, there are six known wetlands in the project area. These wetlands are associated mostly with the stream drainages and have been heavily impacted by livestock. They are generally small in size (< one ac.) and classified as either emergent or scrub-shrub wetland types. Vegetation present in these wetlands includes sedge, rush, cattail, black willow, ironweed, alder, elderberry, jewelweed, boneset, cardinal flower, and beggar ticks. Four of these six wetlands could possibly be impacted by project construction.

IV. SPECIES/CRITICAL HABITAT CONSIDERED

Snail Darter – *Percina tanasi*
Federally Threatened
Species Description – D.A. Etnier and R.A. Stiles discovered the snail darter in the lower Little Tennessee River in 1973 (Etnier 1976). This discovery set in motion an environmental controversy that ascended to the Supreme Court, and is still debated by many today. As a result, the term "snail darter types" has been used to describe "ultra-liberal environmentalists". *Percina tanasi* is generally thought to have inhabited the main channel of the upper Tennessee River and lower reaches of its major tributaries (Starnes and Etnier 1980; Etnier and Starnes 1993). Preferred habitat is described by Starnes and Etnier (1980) as consisting of large free-flowing rivers with extensive areas of clean-swept gravel shoals. Impoundment of the Little Tennessee River by Tellico Dam in 1979 effectively eliminated critical habitat in this area (Starnes and Etnier 1980; Page 1983; Kuehne and Barbour 1983; Etnier and Starnes 1993). However, a transplant population was established in the Hiwassee River in 1976 by TVA biologists, which still persists. Other transplants were attempted in the Nolichucky River (1975), Holston River (1979), and Elk River (1980) but with little success (USFWS 1983). Additional populations of snail darters were discovered in South Chickamauga Creek in Chattanooga (1980) and in Big Sewee Creek in Meigs County, TN (1981) by fisheries biologists (Etnier and Starnes 1993). Several other small populations, represented by

only one or a few specimens of *Percina tanasi*, have been discovered in the Sequatchie River in Marion County, Little River in Blount County, lower French Broad River in Sevier County, and lower Paint Rock River in Madison County, Alabama (Etnier and Starnes 1993). Although the snail darter was listed as federally endangered on October 9, 1975, it was reclassified as federally threatened on July 5, 1984 due to the discovery of additional populations outside the Little Tennessee River (USFWS 1984, 1992). The TDEC/DNH database (2013) listed records for the snail darter from the Little River at LRM 9.4, 15.9 and 17.3 in 2000. The most recent record for the snail darter in Little River was from LRM 8.5 in 2007. These records are all downstream from tributaries that will be crossed by the proposed project.

Marbled Darter – *Etheostoma marmorpinnum*
Federally Endangered
Species Description – The marbled darter (*Etheostoma marmorpinnum)* was initially included as part of the duskytail darter (*Etheostoma percnurum*) species complex which was listed as federally endangered on April 27, 1993 (USFWS 1993). However, Blanton and Jenkins (2008) described *Etheostoma marmorpinnum* as one of four distinct species from this complex. The marbled darter is presently known only from the lower portion of Little River in Blount Co., TN from SR-35 (US 411) downstream to SR-33 (Layman 1991). A single marbled darter was collected in 1947 from South Fork Holston River in Sullivan Co., TN, three years prior to completion of construction of South Holston Dam (Blanton and Jenkins 2008). This species is now believed to be extirpated from the South Fork Holston River (USFWS 1993a; Blanton and Jenkins 2008). The nine mile reach of Little River between LRM 8.5 and LRM 17.5 where *Etheostoma marmorpinnum* occurs is generally characterized by moderate gradient with riffles, runs, and long pools (Blanton and Jenkins 2008). Individuals are usually associated with pools and runs that are one to four feet in depth, have gently flowing currents, and are for the most part silt-free (Layman 1991; Etnier and Starnes 1993). There are several records from the TDEC/DNH database (2013) for the marbled darter from LRM 8.5, 9.5 and 10.0 in 2000, and LRM 17.3 in 2006. These records are all downstream from tributaries that will be crossed by the proposed project.

Fine-rayed Pigtoe – *Fusconaia cuneolus*
Federally Endangered
Species Description – The fine-rayed pigtoe (*Fusconaia cuneolus*) was listed as endangered on June 14, 1976 (USFWS 1976) and a recovery plan approved on September 19, 1984 (USFWS 1984a). The fine-rayed pigtoe is restricted to the Tennessee River drainage except for the Duck River (Bogan and Parmalee 1983). This species occurred in the Clinch River from the mouth upstream to Hancock County; in the Emory River, Roane County and Poplar Creek, Anderson County (both tributaries to the Clinch River); Powell River from Union to Hancock County; and in the Holston River from its mouth in Knox County up to the North Fork Holston River in Sullivan County (Bogan and Parmalee 1983). Bogan and Parmalee (1983) reported that *Fusconaia cuneolus* presently occurs in the upper Clinch, Powell, North Fork Holston and Holston Rivers. Records for this species are also reported from the North Fork Holston, Clinch, Powell, Sequatchie, Elk, and Little rivers in Tennessee by Neves (1991). The fine-rayed pigtoe has also been collected from the mouth of the Nolichucky River, tributary to the French Broad, and from Pistol Creek, a small tributary to Little River in Blount County (Bogan and Parmalee 1983). Information from the TEDC/DNH database (2013)

indicated records for *Fusconaia cuneolus* from LRM 9.7 (2008) and Pistol Creek (1914) approximately 0.5 mile before its confluence with Little River at LRM 8.1. Neves (1991:274) described the fine-rayed pigtoe as being a "lotic, riffle-dwelling species that usually inhabits ford and shoal areas of rivers with moderate gradient". Collection of the fine-rayed pigtoe by Hickman (1937) and Ortmann (1925:330) both were from sandy substrates. The fine-rayed pigtoe has been extirpated throughout most of its former range, with the last remaining viable population in Tennessee occurring in the Clinch (Hancock County) and Powell (Hancock and Claiborne counties) rivers (Parmalee and Bogan 1998).

Indiana Bat – *Myotis sodalis*
Federally Endangered
Species Description – The Indiana bat (*Myotis sodalis*) was placed on the federal endangered species list on March 11, 1967 (32 FR 4001) under the Endangered Species Preservation Act of October 15, 1966 [80 Stat. 926; 16 U.S.C. 668aa(c)]. Critical habitat was designated on September 24, 1976 (41 FR 41914). A recovery plan for the Indiana bat was prepared in March, 1999 (USFWS 1999). This species occurs in the midwest and eastern United States from the western edge of the Ozark region in Oklahoma to southern Wisconsin, east to Vermont, and as far south as northern Florida (USFWS 1991). Typically, two distinct habitat types are utilized through the course of a given year. During the winter months this species hibernates in limestone caves where temperatures average 3-6 °C with relative humidities of 66-95% (Barbour and Davis 1969). Hibernation generally takes place from October to April, depending on climactic conditions (Harvey and Pride 1986). After emerging from hibernation, the bats disperse. Males apparently spend the summer months in the vicinity of the hibernacula with the location of their daytime whereabouts not known (Hall 1962; LaVal et al. 1977). Females form maternity colonies that are typically located under the loose bark or in cavities of trees (Humphrey et al. 1977; Kennedy and Harvey 1980). These trees generally have a diameter at breast height of five (5) inches or greater (USFWS, pers. comm.). Humphreys et al. (1977) found that foraging habitat for this species was confined to air space from 6'-100' near foliage of riparian and floodplain trees. Cope et al. (1978) indicated that Indiana bats would not fly over open country or open water when flying to a foraging area.

There are records for the Indiana bat from the TDEC/DNH database (2013) for Blount County, Tennessee. Coordination with the USFWS also indicated that there are records for this species from Blount County. Barr (1961) and Matthews (1971) recorded numerous caves in Blount County. Harvey and Pride (1986) listed three caves from Blount County that are utilized by *Myotis sodalis* as hibernacula. These are Bull Cave, Kelly Ridge Cave, and White Oak Blowhole Cave and are 9.2, 8.25, and 11.5 miles respectively southeast of the proposed project. All three lie within the Great Smoky Mountains National Park. White Oak Blowhole Cave is one of three caves listed as Critical Habitat for the Indiana bat in the Southeast (USFWS 1991). No known hibernacula for the Indiana bat are present within five (5) miles of the proposed project (Harvey and Pride 1986; Harvey 1992). Acoustical and mist net surveys were conducted in the vicinity of the project corridor in July and August 2012, both with negative results (TDOT 2012).

Ashy Darter – *Etheostoma cinereum*
State Threatened
Species Description – The ashy darter was first described from near Florence, Alabama in 1845, but has not been recorded from that state since (Clay 1975). Distribution for the ashy darter in the Tennessee River drainage includes the Buffalo, Duck, Emory, and Little rivers (Starnes and Etnier 1980). *Etheostoma cinereum* typically inhabits small to medium upland rivers, occurring locally in areas of bedrock or gravel substrate with boulders, water willow, or other cover with minimal silt deposits (Etnier and Starnes 1993). Depths in these areas are generally 0.5 m to 2.0 m and have sluggish currents (Etnier and Starnes 1993). Etnier and Starnes (1993) indicated that the healthiest known population for this species is located in the Little River, Blount County, Tennessee, from Melrose Mill Dam downstream to SR-33 in Rockford. One of the most productive collection locations described is just downstream of the US-411 bridge (Etnier and Starnes 1993) at LRM 17.3. This site is approximately 1.6 miles downstream of where the proposed project will cross a small, unnamed tributary to the Little River. Information from the TDEC/DNH database (2013) indicated records for the ashy darter from LRM 13.3 (1970), 14.2 (1968), 17.3 (2006), 17.6 (1970), 19.5 (2007), and 20.2 (1988). Several of these records are downstream from tributaries that will be crossed by the proposed project.

Longhead Darter – *Percina macrocephala*
State Threatened
Species Description – The longhead darter is widely recorded from the Ohio River drainage but is rare (Clay 1975; Starnes and Etnier 1980; Etnier and Starnes 1993). Starnes and Etnier (1993) indicated that in some years, this species is common in portions of the Little River, Blount County, Tennessee. Habitat for the longhead darter is generally described as larger upland creeks and small to medium sized rivers with good water quality, pools one meter or so deep, and gentle currents that provide silt free bottoms composed of bedrock, boulder, and gravel substrates (Clay 1975; Starnes and Etnier 1980; Etnier and Starnes 1993). Information from the TDEC/DNH database (2013) indicated records for *Percina macrocephala* from the Little River near LRM 8.5 (1985), 14.2 (1993), 16.0 (1974), 17.3 (2006), 19.3 (2009), 20.2 (1970), 21.6 (2008) and 22.0 (1993). Several of these records are downstream of tributaries that will be crossed by the proposed project.

V. EFFECTS ANALYSIS

Clearing, grubbing, and grading activities required for project construction will remove vegetation within most of the project limits, temporarily exposing large areas of bare soil to the elements for varying periods of time. Rain events that occur while the soil is unprotected have the potential to carrying large amounts of sediment off-site into wet-weather conveyances and streams crossed by the project and ultimately into Little River. Although not as prevalent in the project area, sustained high winds associated with storm fronts may also mobilize exposed, loose soils providing an avenue for deposit into area streams. Sediment that is allowed to leave the project has the potential to adversely affect the aquatic species preset in these streams. Excessive siltation can clog the gills of adult fish and aquatic invertebrates. In addition, eggs and larvae of many aquatic species could be smothered. Escape cover, foraging areas, and

crucial spawning habitats can be significantly degraded or destroyed. High amounts of silt in the water column can significantly affect the ability many aquatic species to forage effectively as well by reducing visibility.

Several streams that are tributaries to the Little River will be crossed by the proposed project. There were no records noted for any of the aquatic species discussed in this assessment from these tributary streams. However, the project crossings are only one to two miles upstream from their respective confluences with the Little River, where all of the aquatic species discussed above are known to occur. Construction of the required drainage structures at these stream crossings, along with adjacent earthwork, has the potential to adversely affect the four darters and the mussel of concern. Installation of drainage structures will result in direct disturbance of stream channels and substrates. Although the proposed work will be accomplished “in the dry”, any loose material in the affected channels at the work locations could be released once stream flows are returned to the finished structures. Some of these structures will be long (>200 ft.) which will result in a loss of “day-lighted” stream channel. These encapsulated stream sections will be rendered essentially unusable for most aquatic species. These drainage structures could also act as barriers for movement of aquatic organisms both upstream and downstream. Material used to fill over the installed structures could be lost into a given drainage feature unless protective measures are taken. Although most of the potential impacts would be negative, one positive impact may be realized. On streams where no canopy in currently present, especially in open pastures or hayfields, these long structures could provide a definite cooling effect that would not otherwise be available.

While loose soil materials are of great concern, other materials such as mortar, fresh concrete, or petroleum products used as fuel and lubricants for construction equipment could enter a stream at these locations and create additional problems. These pollutants could not only degrade crucial habitats, but can also be acutely toxic to many aquatic species and their respective forage species.

Construction of the proposed project will connect I-40 to SR-73, providing four-lane access from Oak Ridge and Knoxville to Maryville. Both residential and commercial development have increased in the project area since the initial field studies were conducted in the late 1990’s. Large tracts of what was once farmland have been sold and developed into subdivisions or small shopping centers. This trend is expected to continue as people who work in Knoxville or Oak Ridge may prefer to live in a more scenic, rural-type setting. Development of large tracts of farmland into subdivisions or for businesses has the potential to adversely impact aquatic species in the immediate project impact area. Soil disturbance and exposure during site development and housing construction may provide a source of sediments that could enter areas streams directly affecting the fauna present as discussed above. Development of large farm tracts also removes what was in many cases an effective vegetative buffer for area streams. The amount of impervious surfaces would increase in the form of roofs, driveways, entrance/access roads, parking lots, and the four new traffic lanes from the project itself. This would in turn reduce the run-off time during storm events, possibly causing flashy, more intense, storm runoff into area streams. Pollutants carried from the developed areas, as well as off the roadways, could potentially impact area streams in a negative manner.

There are, however, some positive impacts that may result. Large agricultural fields that may have been significant sources for sediment run-off during storm events would be stabilized. A pollution source for large amounts of fertilizer, herbicides,

insecticides, or other chemicals harmful to aquatic systems would be greatly reduced, if not eliminated. Sections of stream channel that may have been heavily damaged and degraded by livestock or other agricultural practices would be protected and canopy to reestablish.

The primary impact that the proposed project could have on the Indiana bat would be cutting of trees suitable for summer roost habitat. Cutting of roost trees could not only affect adult bats, but also the young bats if any are present. This could lead to loss of vital individuals necessary for bolstering the population of this federally endangered species. There are a few areas that will be affected by project construction where suitable summer roost habitat is present. However, the overall quality is less than optimal. In addition, there are wooded tracts outside the project impact area that are much larger and contain better quality summer roost habitat that could be used by any bats that would possibly be displaced by project construction. Several caves are located in Blount County, three of which are known to be hibernacula for the Indiana bat. However, the closest of these caves is just over eight miles (8.25) from the proposed project, and lies inside the Great Smoky Mountains National Park. No known hibernacula for the Indiana bat are present within five miles of the proposed project (Harvey and Pride 1986; Harvey 1992). Therefore, this habitat type will not be affected by project construction. Recent surveys by TDOT (2012) did not indicate that the Indiana bat was present within the project area. This would greatly reduce, if not eliminate, the likelihood of the proposed project adversely affecting the Indiana bat.

VI. MEASURES TO MINIMIZE HARM

Installation and maintenance of effective erosion control Best Management Practices (BMP's) throughout the duration of the project will be essential to the prevention of adverse impacts to the aquatic species discussed in this assessment. The use of silt fence, hay bales, rock check-dams, detention ponds, slope drains, and erosion control blankets are just a few of the measures that can be used to reduce the amount of sediment that could enter streams in the project limits. However, these measures must be maintained on a regular basis if they become damaged or ineffective, and as work areas shift through the duration of the project. Typical design for these BMP's is based on a two-year storm event. However, the drainage features that will be crossed by this project flow into Little River, which is listed as an Exceptional Tennessee Water (ETW) due to the presence of several state and federally listed aquatic species. Therefore, the Service has requested that the design for BMP's proposed for use on this project be based on a five-year storm event.

Construction of drainage structures will be accomplished "in the dry" so that minimal material is allowed to enter the streams and possibly adversely affect any of the aquatic species present. Streams will be temporarily routed through work areas using pipes or open channels with non-erodible liners until the respective structures are completed. Relocated channel sections will be properly stabilized and any loose materials removed to the practical extent possible prior to turning stream flows back into the constructed channels. Flows will then be returned to these channels with a minimum of sediment disturbance. Where stream crossings are required, these will be accomplished as close to perpendicular as feasible in order to minimize the stream lengths that will be encapsulated.

Equipment staging areas will be located a sufficient distance from streams such that no coolants, lubricants, fuels, or other petroleum products can enter the streams. Waste and borrow areas will be stabilized, seeded, and mulched once they have been completed. Provided these measures for erosion and siltation control are implemented and maintained, no adverse impacts to aquatic species downstream of the project are anticipated.

The most effective measure to avoid adversely impacting the Indiana bat during construction of the proposed project will be to restrict clearing of wooded areas, where possible, to the months that are outside the known summer roosting period. Coordination with the U.S. Fish and Wildlife Service indicated that the time period between October 15 and March 31 is the optimal time to accomplish this activity. Not only would this protect the adult bats, but also any young that might be present. Limiting tree removal to this time period, where possible, should effectively minimize the likelihood of adversely affecting any Indiana bats that might be present in the project area.

The notes listed below addressing each of the above measures to minimize harm will be placed on the project construction plans. Also, any additional recommendations provided by the Service will be placed as notes on the project construction plans as needed.

1. Clearing and grubbing will be limited to the minimum amount necessary to accommodate roadway cut and fill slopes and operation of construction equipment. All disturbed areas will be stabilized, seeded, and mulched as soon as practicable to reduce the potential for soil erosion.

2. Canopy removal along any streams located within the project limits will be kept to the absolute minimum necessary to accommodate project construction.

3. Silt fence with backing will be installed along the toe of all fills and along all streambanks to minimize the potential of sediment from the project entering area streams. A minimum ten (10) foot vegetated buffer or “green belt” will be left between silt fences and the stream edges where possible.

4. Erosion and sediment control measures will be installed concurrent with clearing and grubbing activities, and will be functional prior to commencement of earthmoving activities. Measures may include, but are not limited to, silt fence with backing, clean shot rock checkdams, sandbags, sediment ponds, sediment filter bags, sediment wattles, slope drains, or other suitable methods.

5. Erosion control structures will be inspected regularly and maintained throughout the life of the project so that they are not rendered ineffective. Sediment will be removed from structures as necessary and must be removed when design capacity has been reduced by 50% to insure maximum effectiveness. Material removed from these structures will not be disposed of in any area streams or wetlands.

6. Maintenance needs for erosion and sediment control structures identified during inspections or by other means will be accomplished within twenty-four (24) hours, if possible. If maintenance prior to the next anticipated storm event is impractical, it will be accomplished as soon as practicable.

7. Waste and borrow areas will be developed in accordance with the procedures outlined in the TDOT Statewide Stormwater Management Program for Construction Projects. These sites will be located in non-wetland areas and are to be a sufficient distance from area streams and/or wetlands so that no soil material is allowed to enter them. These areas will be stabilized as soon as practicable. Appropriate erosion and sediment control measures will be used in these areas as needed to minimize soil loss.

8. Stockpiled topsoil or fill material will be treated in such a manner that is not allowed to enter any area streams or wetlands.

9. Equipment staging areas will be located a sufficient distance from streams and wetlands so that no oils, coolants, fuels, or other petroleum products are allowed to enter these features.

10. Drainage structures required at stream crossings will be constructed "in the dry". Stream flows will be diverted through work areas using flexible pipes or berms or channels lined with plastic, clean shot rock, or other non-erodible material. All water from dewatering areas will be pumped into filter bags or sediment ponds prior to release back into a stream.

11. No motorized equipment will be operated in any streams or wetlands in the project limits except as specified in the project water quality permits.

12. Where possible, tree cutting will be accomplished between October 15th and March 31st to minimize potential impacts to the Indiana bat.

13. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared for the proposed project and will contain a detailed erosion and sediment control plan based on a five-year storm event as requested by the USFWS. A copy of the SWPPP will be available on-site.

14. Weekly stormwater inspections will be conducted for the proposed project as per National Pollutant Discharge Elimination System (NPDES) guidelines.

VII. CONCLUSION AND DETERMINATION OF EFFECTS

There are numerous records for the snail darter (*Percina tanasi*), marbled darter (*Etheostoma marmorpinnum*), fine-rayed pigtoe (*Fusconaia cuneolus*), ashy darter (*Etheostoma cinereum*), and longhead darter (*Percina macrocephala*) from the Little River, downstream of the proposed project. Although the project will not cross the Little River, it will cross several small tributary streams one to two miles upstream of their respective confluences with Little River. There are no records for any of the above

listed darter species or the mussel species from these tributary streams. Project construction will result in some temporary stream disturbances to at the proposed crossing locations. However, installation and maintenance of effective erosion and siltation control measures throughout project construction will minimize impacts to these streams, which will in turn minimize potential impacts to Little River and the aquatic fauna present there. Provided the necessary BMP's for erosion and sediment control implemented and maintained throughout project construction, it is the opinion of TDOT that the proposed project is **NOT LIKELY TO ADVERSELY AFFECT** the snail darter (*Percina tanasi*), marbled darter (*Etheostoma marmorpinnum*), fine-rayed pigtoe (*Fusconaia cuneolus*), ashy darter (*Etheostoma cinereum*), or longhead darter (*Percina macrocephala*).

Information from the U.S. Fish and Wildlife Service indicated that the Indiana bat (*Myotis sodalis*) could be present within the project impact area. Review of available information indicated no records for this species from within five miles of the proposed project. In addition, no known hibernacula for the Indiana bat are present within five miles of the proposed project. Although some suitable summer roost habitat does appear to be present in the project area, very little will be affected by project construction. Even if a suitable tree is removed, there are sufficient suitable trees present outside the project limits to accommodate any Indiana bats that might use this area. Recent surveys by TDOT (2012) did not indicate that the Indiana bat was present within the project impact area. In addition, the USFWS concurred with the finding of NLTAA for the Indiana bat for the proposed project on October 11, 2012. Therefore, based on the information provided in this BA it is still the opinion of TDOT that the proposed project is **NOT LIKELY TO ADVERSELY AFFECT** the Indiana bat.

VIII. LITERATURE CITED

Barbour, R. W., and W. H. Davis. 1969. Bats of America. University Press of Kentucky, Lexington. 286 pp.

Barr, T. C., Jr. 1961. Caves of Tennessee. Bulletin 64. State of Tennessee, Department of Conservation and Commerce, Division of Geology. Reprinted 1972. 567 pp.

Blanton, R. E., and R. E. Jenkins. 2008. Three new darter species of the Etheostoma percnurum species complex (Percidae, subgenus Catonotus) from the Tennessee and Cumberland river drainages. *Zootaxa* 1963:1-24.

Bogan, A. E. and P. W. Parmalee. 1983. Tennessee's rare wildlife. Volume II: The Mollusks. Tennessee Wildlife Resources Agency and Tennessee Dept. of Conservation. Nashville, Tennessee. 123 pp.

Cope, J. B., A. R. Richter, and D. A. Seerley. 1978. A survey of the bats in the Big Blue Lake Project Area in Indiana. Unpubl. Rep. to U.S. Army Corps of Engineers.

Clay, W. M. 1975. The fishes of Kentucky. Kentucky Dept. Fish and Wildlife Resources, Frankfort. 416 pp.

Etnier, D. A. 1976. *Percina* (*Imostoma*) *tanasi*, a new percid fish from the Little Tennessee River, Tennessee. *Proc. Biol. Soc. Wash*. 88:469-488.

Etnier, D. A. and W. C. and Starnes. 1993. The fishes of Tennessee. The University of Tennessee Press, Knoxville. 681 pp.

Hall , J. S. 1962. A life history and taxonomic study of the Indiana bat, Myotis sodalis. Reading Public Mus. And Art Gallery, Sci. Publ. 12:1-68.

Harvey, M. J. 1992. Status of summer colonies of the endangered gray bat in Tennessee. Report to the U.S. Fish and Wildlife Service. 47 pp.

Harvey, M. J. and T. E. Pride. 1986. Distribution of and status of endangered bats in Tennessee. Tennessee Wildlife Resources Agency Tech. Rep. 88-3. 81 pp.

Hickman, M. E. 1937. A contribution to mollusca of east Tennessee. Unpublished master's thesis, Dept. of Zoology, University of Tennessee, Knoxville. 165 pp. 104 pl.

Humphrey, S. R., A. R. Richter, and J. B. Cope. 1977. Summer habitat and ecology of the endangered Indiana bat, Myotis sodalis. *J. Mamm.,* 58:334-346.

Kennedy , M. L. and M. J. Harvey. 1980. Mammals. Pages C1-C50 *in* D. C. Eagar and R. M. Hatcher, eds. Tennessee's rare wildlife. Vol. I: The Vertebrates. Tennessee Wildlife Resources Agency and Tennessee Department of Conservation, Nashville.

Kuehne, R. A. and R. W. Barbour. 1983. The American darters. University Press of Kentucky. 177 pp.

LaVal, R. K., R. L. Clawson, M. L. LaVal, and W. Caire. 1977. Foraging behavior and nocturnal activity patterns of Missouri bats, with special emphasis on the endangered species Myotis grisescens and Myotis sodalis. *J. Mamm*., 58:592-599.

Layman, S. R. 1991. Life history of the relict, Duskytail Darter, *Etheostoma* (*Catonotus*) sp., in Little River, Tennessee. *Copeia*, 1991, 471-485.

Matthews, Larry E. 1971. Description of Tennessee Caves. Bulletin 69. State of Tennessee, Department of Conservation, Division of Geology. 150 pp.

Neves, R. J. 1991. Mollusks. Pp. 251-320, *In*: K. Terwilliger, editor. Virginia's Endangered Species. Proceedings of a Symposium. Dept. of Game and Inland Fisheries, Commonwealth of Virginia. 672 pp.

Ortmann, A. E. 1925. The naiad-fauna of the Tennessee River system below Walden Gorge. *Am. Midl. Nat*., 9(7):321-372.

Page, L. M. 1983. Handbook of darters. Illinois Natural History Survey, Champaign. T. F. H. Publications, Inc. Ltd. 271 pp.

Parmalee, P. W. and A. E. Bogan. 1998. The freshwater mussels of Tennessee. The University of Tennessee Press, Knoxville. 328 pp.

Starnes, W. C. and D. A. Etnier. 1980. Fishes. Pages B-1 – B-134 *in* D. C. Eagar and R. M. Hatcher, eds. Tennessee's rare wildlife. Vol. I: The Vertebrates. Tennessee Wildlife Resources Agency and Tennessee Department of Conservation, Nashville.

Tennessee Department of Environment and Conservation, Division of Natural Heritage. 2013. Rare Species Database.

Tennessee Dept. of Transportation. 2012. Unpublished survey report for Indiana bat conducted and prepared by Civil and Environmental Consultants on SR-162EXT (Pellissippi Pkwy.), Blount Co., TN. 36 pp.

U. S. Fish and Wildlife Service. 1967. Listing of species threatened with extinction. Federal Register. 32(48):4001.

_____. 1976. Endangered status for 159 taxa of animals. Federal Register 41(115):24062-24067.

_____. 1976a. Determination of critical habitat for American crocodile, California condor, Indiana bat, and Florida manatee. Federal Register. 41(187):41914-41916.

_____. 1983. Snail darter recovery plan. U. S. Fish and Wildlife Service, Atlanta, Georgia. 46 pp.

_____. 1984. Endangered and threatened wildlife and plants; proposal to reclassify the snail darter (*Percina tanasi*) to a threatened species and rescind critical habitat designation. Federal Register. 49(35):6388-6392.

_____. 1984a. Technical draft recovery plan for the fine-rayed pigtoe pearly mussel; *Fusconaia cuneolus*, U.S. Fish and Wildlife Service, Region 4, Atlanta, Georgia. 60 pp.

_____. 1991. Endangered and Threatened Species of the Southeast United States (The Red Book). Ecological Services, Division of Endangered Species, Southeast Region. Government printing Office, Washington, D.C. 1070 pp.

_____. 1992. Endangered and Threatened Species of the Southeast United States (The Red Book). Ecological Services, Division of Endangered Species, Southeast Region. Government printing Office, Washington, D.C. 1070 pp.

_____. 1993. Determination of endangered status for the duskytail darter, palezone shiner and pygmy madtom. Federal Register. 58(79):25758-25763.

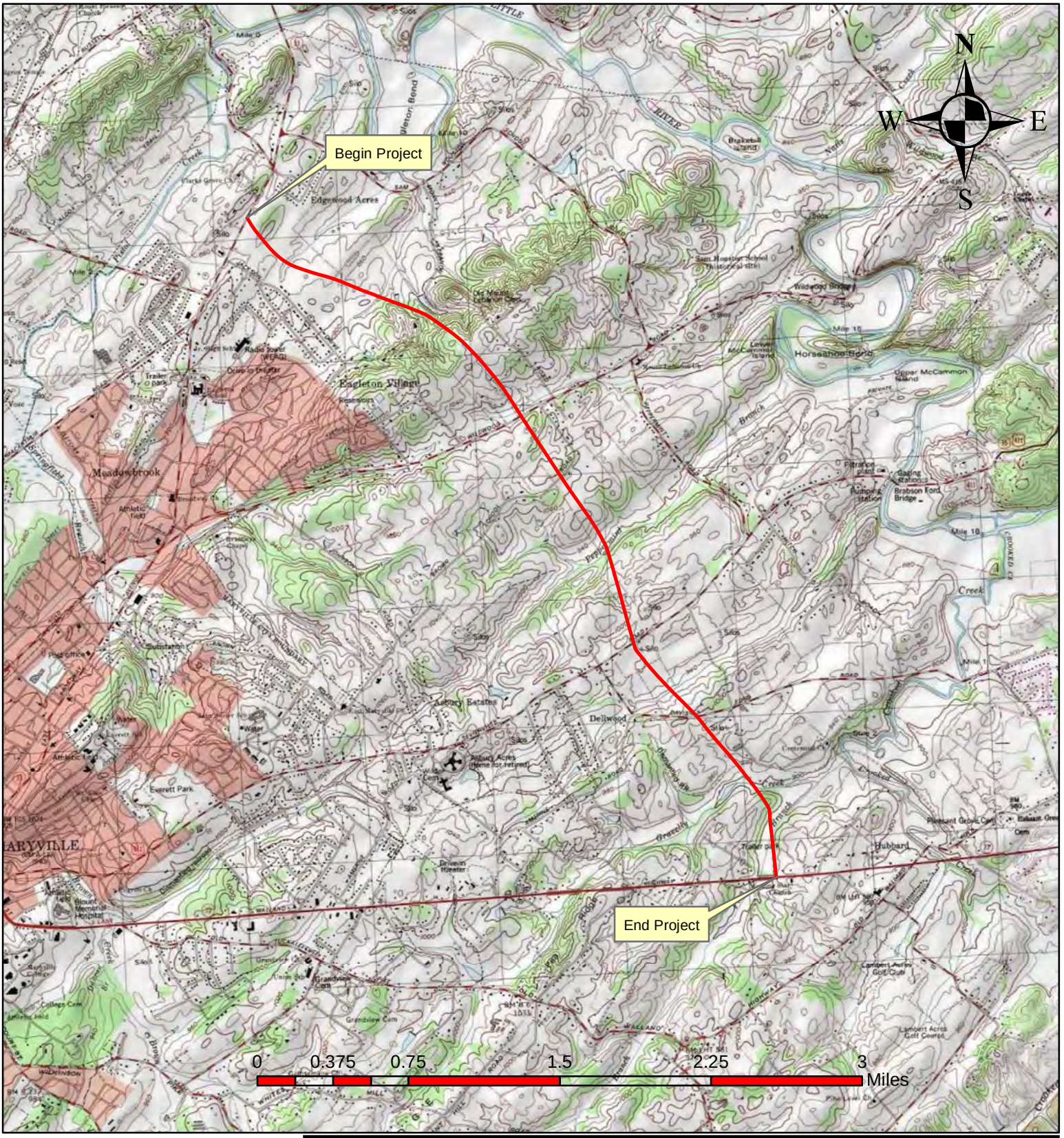
_____. 1993a. Duskytail darter recovery plan. Atlanta, Georgia. 25 pp.

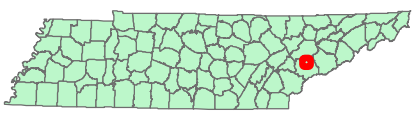
_____. 1999. Agency draft Indiana bat (*Myotis sodalis*) revised recovery plan. Fort Snelling, Minnesota. 53 pp.

_____. 2013. Personal communication. U. S. Fish and Wildlife Service, Cookeville Office. Cookeville, Tennessee 38501.

IX. LIST OF CONTACTS MADE AND PREPARERS

Keven Brown, Biologist
Ecology Section, Region 1
Tennessee Dept. of Transportation
7345 Region Lane
Knoxville, TN, 37914
(865) 594-2437
Keven.Brown@tn.gov



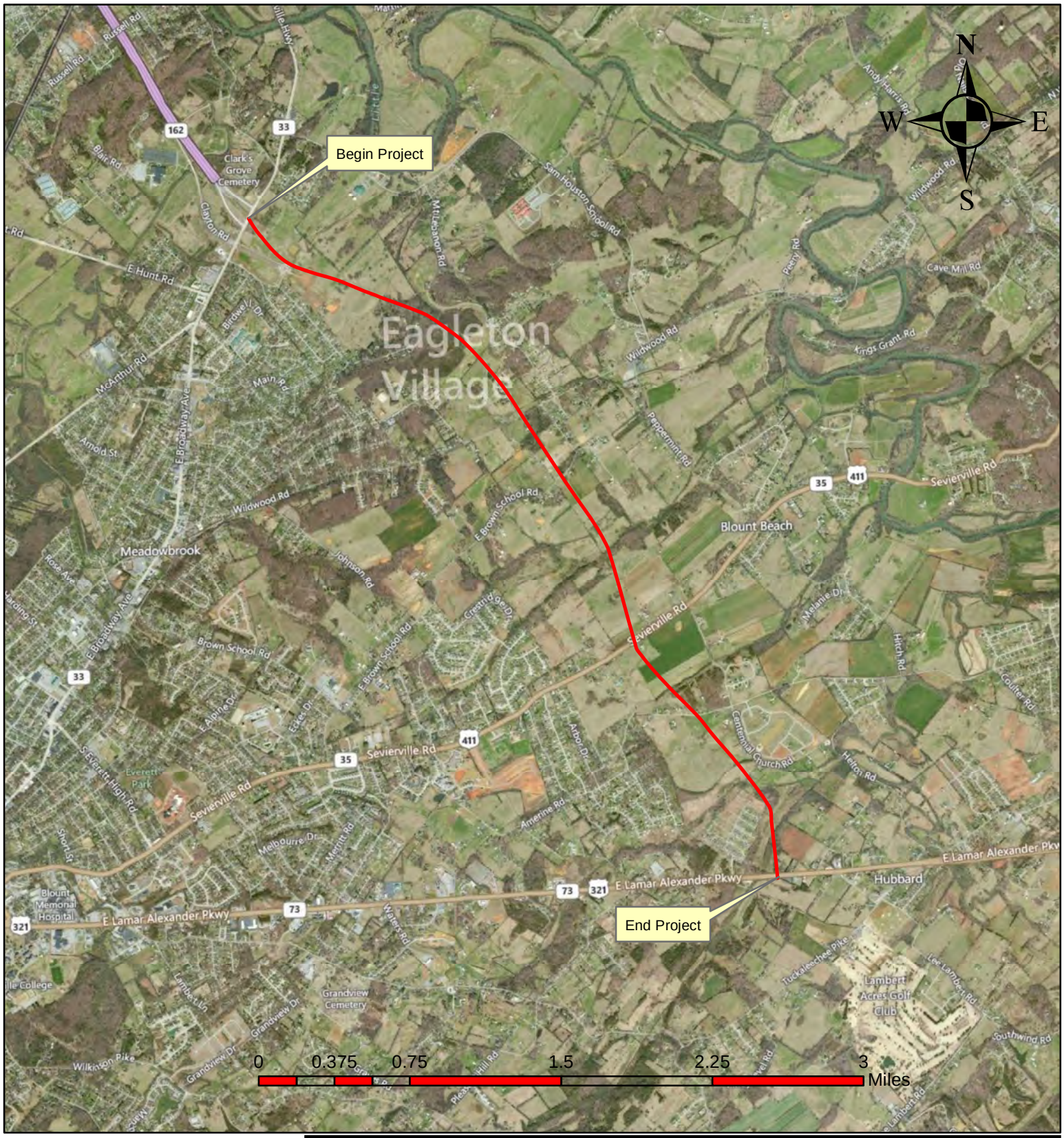


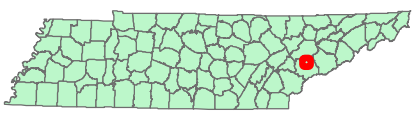
Project Location Map - topo
SR-162EXT, Pellissippi Pkwy, from SR-33 to SR-73
Blount County, TN

Maryville 147-SW and Wildwood 147-SE

6-4-13

PIN 101423.00 PE #05097-0229-14





Project Location Map - aerial
SR-162EXT, Pellissippi Pkwy, from SR-33 to SR-73
Blount County, TN

Maryville 147-SW and Wildwood 147-SE

6-4-13

PIN 101423.00 PE #05097-0229-14

United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, TN 38501

July 26, 2013

Ms. Leigh Ann Tribble
Federal Highway Administration
404 BNA Drive, Suite 508
Nashville, Tennessee 37217

Subject: FWS #13-I-0454. Biological Assessment Addendum for the proposed construction of the State Route 162 Extension (Pellissippi Parkway) from State Route 33 to State Route 73; P.E. 05097-0229-14, PIN #101423.00, Blount County, Tennessee.

Dear Ms. Tribble:

Thank you for your letter dated June 27, 2013, transmitting a Biological Assessment (BA) Addendum for the proposed construction of the State Route (SR) 162 Extension from SR 33 to SR 73 in Blount County, Tennessee. The Tennessee Division Office agrees with the Tennessee Department of Transportation's (TDOT) findings of "not likely to adversely affect" for the federally endangered Indiana bat (*Myotis sodalis*), marbled darter (*Etheostoma marmorpinnum*), fine-rayed pigtoe (*Fusconaia cuneolus*), and the federally threatened snail darter (*Percina tanasi*) and requests our concurrence. Personnel of the U.S. Fish and Wildlife Service have reviewed the information provided and offer the following comments.

Bat surveys were conducted along the proposed corridor in the summer of 2012 to establish whether the area is being utilized as roosting habitat by the Indiana bat. Due to negative survey results for this species, we concurred with TDOT's determination of "not likely to adversely affect" in a letter dated October 11, 2012. Unless new information otherwise indicates Indiana bat use of the area, this survey will be valid until April 1, 2015. TDOT has committed, where possible, to removal of trees with a DBH (diameter at breast height) of five inches or greater from October 15 through March 31 to further minimize potential for impacts to the Indiana bat.

Stringent best management practices (BMPs), including erosion and sediment control measures, would be implemented to protect aquatic systems. Because the proposed crossings are all tributaries to the Little River, an Exceptional Tennessee Water, TDOT has departed from the standard two-year BMP design requirement and committed to BMPs designed for a five-year storm event. Because of this commitment to stringent water quality measures, we concur with the determination of "not likely to adversely affect" for federally listed aquatic species.

The document indicates that four wetlands could be impacted by the proposed project. The Corps of Engineers and Tennessee Department of Environment and Conservation (TDEC) should be contacted regarding the presence of regulatory wetlands and the requirements of wetlands protection statutes.

In light of TDOT's commitments to improved water quality measures and negative surveys for Indiana bats within the project area, we believe that the requirements of section 7 of the Endangered Species Act of 1973, as amended, are fulfilled for all species that currently receive federal protection under the Act. Obligations under the Act must be reconsidered if (1) new information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.

If you have any questions regarding our comments, please contact John Griffith of my staff at 931/525-4995 or by email at *john_griffith@fws.gov.*

Sincerely,

Brad Bingham

Acting for Mary E. Jennings
Field Supervisor

xc: Keven Brown, TDOT, Nashville, TN