

On January 20, 2025, President Trump signed Executive Order (E.O.) 14148 --Initial Rescissions of Harmful Executive Orders and Actions and E.O. 14154 – Unleashing American Energy. The E.O.s revoked E.O. 13990 – Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and E.O. 14008 – Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations – Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender. On February 25, 2025, the Council on Environmental Quality (CEQ) published an Interim Final Rule removing the CEQ’s National Environmental Policy Act (NEPA) implementing regulations, effective April 11, 2025 (90 Fed. Reg. 10610). As a result of these actions, FHWA will not include greenhouse gas emissions and climate change analyses in the federal environmental review process. Any purported greenhouse gas emissions and climate change impacts were not considered in the federal decision. Accordingly, no greenhouse gas emissions or climate change analyses are included in this FONSI.

Also on January 20, 2025, President Trump signed Executive Order (E.O.) 14148 --Initial Rescissions of Harmful Executive Orders and Actions and E.O. 14154 – Unleashing American Energy. The E.O.s revoked E.O. 14096 – Revitalizing Our Nation’s Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed E.O. 14173 – Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This E.O. revoked E.O. 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). On February 25, 2025, the Council on Environmental Quality (CEQ) published an Interim Final Rule removing the CEQ’s National Environmental Policy Act (NEPA) implementing regulations, effective April 11, 2025 (90 Fed. Reg. 10610).

As a result of these actions, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA’s Joint NEPA regulations (23 CFR part 771) and the agencies Interim Final Guidance on “Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decision-making and One Federal Decision” (12/17/2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this FONSI. Any purported environmental justice impacts were not considered in the federal decision. Social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR 771.

As a result of E.O. 14148, E.O. 14154, E.O. 14173, and the removal of the Council on Environmental Quality’s regulations, all federal environmental justice requirements are revoked and no longer applicable to the federal environmental review process. Accordingly, this FONSI does not consider public comments regarding environmental justice.

I-24 Corridor Study Screening Summary (2015)

Resource	Description	No-Build	Capacity Projects: Add 2 General Purpose Lanes				Operational Projects: New and Modified Accesses and ramp, ITS, and bridge improvements						
			SR-155/Briley Parkway (Exit 54) to Haywood Lane	Haywood Lane (Exit 57) to SR-171/Old Hickory Boulevard (Exit 62)	SR-171/Old Hickory Boulevard (Exit 62) to SR-102/Nissan Drive (Exit 70)	SR-102/Nissan Drive (Exit 70) to SR-840	Modify Access at I-24/Hickory Hollow Parkway Interchange	I-24 at Bell Road Interchange Modification	Exit 74 Interchange Modifications - New Collect-Distributor Roads	New Interchange in SE Nashville at Old Franklin Road (MP 61)	Lengthen/redesign ramps at Exits 35, 57, 59, and 60	Lengthen/redesign ramps at Exits 66, 70, 81, 84, and 89*	Install ramp metering from Exit 66-Exit 56
Cost (Millions; FY 2013)¹	Planning-level Estimated Costs	N/A	\$46.47	\$73.81	\$92.95	\$65.61	\$13.50	\$33.75	\$15.20	\$46.00	\$25.27	\$22.12	\$1.00
Benefit-cost Rating**	2013-2020 BCA Ratio	N/A	0.4	0.4	0.4	0.1	3.2	N/A	0	0.4	N/A	N/A	N/A
	2013-2030 BCA Ratio	N/A	2.0	2.4	2.3	0.6	17.3	N/A	0.2	2.2	N/A	N/A	N/A
	2013-2040 BCA Ratio	N/A	5.0	6.0	5.6	1.4	42.7	N/A	0.6	5.5	N/A	N/A	N/A
Environmental Impact Rating	Total sites and Wetland and Stream Impacts (acres and linear feet)	N/A	Low	Moderate	Moderate	Low	Moderate	Low	Low	Low	N/A	N/A	N/A
Recommended?			Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

*Ratings and cost include improvements beyond the corridor study area.

**BCA was only conducted for improvements that had benefits significant enough to be detected by travel demand models

¹The 2013 Planning-level cost estimates shown in this table were prepared as part of the 2015 Multimodal study and do not reflect or impact the cost estimates produced for this project.

Level 1 Screening*							
Category	Criterion	Performance Measure	No-Build	Two General Purpose Lanes Each Direction	Two Choice Lanes Each Direction	Single Choice Lane Each Direction	Reversible Choice Lanes
Purpose & Need	Increase Capacity	Throughput and modeled volumes (vph)	No	Yes	Yes	Yes	Yes
	Improve travel time	Modeled average travel time (minutes) through the Corridor	No	No	Yes	No	No
	Address limited funding and accelerate project delivery by leveraging funding and delivery mechanisms provided in the TMA	Utilize alternative delivery to accelerate project development	No	No	Yes	Yes	No
Carried forward for further consideration?			Yes	No	Yes	No	No

*For Level 1 screening, if preliminary alternatives did not meet the purpose and need of the Project they were considered fatally flawed and unreasonable alternatives. Further justification for the "No" findings are provided below.

Legend:

Favorable performance

Unfavorable performance

Alternative:

Justification for findings:

No-Build	<ul style="list-style-type: none"> * No new capacity improvements in the corridor. * No improvement in travel times as a result of TDOT action. * Not consistent with TMA's desire to generate revenue and accelerate project delivery.
Two General Purpose Lanes Each Direction	<ul style="list-style-type: none"> * Adds physical capacity through widening. * Throughput and travel times are improved in short term * As capacity is unmanaged, throughput and travel time degrades in peak periods due to travel growth in medium to long term * Additional general-purpose lanes would need to be entirely publicly funded * Not consistent with the TMA's desire to generate revenue. * Unattractive to private sector participants, due to the lack of revenue generation
Single Choice Lane Each Direction	<ul style="list-style-type: none"> * Adds physical capacity through widening, but does not meet anticipated travel demand * Throughput and travel times are somewhat improved in short term, but quickly degrade * Requires high user-fee rates and customer displacement to avoid degradation due to travel growth * Overall corridor throughput and travel times degrade substantially over medium to long term
Two Reversible Choice Lanes	<ul style="list-style-type: none"> * Adds physical capacity through widening * Accommodates peak demand in peak direction * Does not meet anticipated travel demand in off-peak direction over medium to long term * Does not resolve bi-directional congestion distribution at I-440 * Throughput and travel times are improved in peak direction; no improvement in throughput or travel times in off-peak direction * Reduced revenue generation due to single direction and off-line status for reversing facility * Increased operations and maintenance costs for safety systems, which decreases net revenue for private sector participants * No decrease in right of way requirements, due to concrete barrier and shoulder requirements within and on both sides of the reversible lanes * Consequently, unattractive to private sector participants for sufficient revenue generation to meet long term operations obligations

Level 2A Screening: Mainline Preliminary Alternatives				
Category	Performance Measure	No-Build	Two Choice Lanes on Outside	Two Choice Lanes on Inside
Interchange Modifications	Does the alternative minimize interchange modifications or improvements needed, which reduces likelihood of additional environmental and social impacts beyond the mainline road?	Yes	Yes	No
Right of Way	Potential Land Acquisition Required (nearest acre)	0	79 acres	58 acres
	Number of Parcels Intersected	0	367	321
Historic Properties	Number of Historic Properties Intersected	0	5	3
Section 4(f) Resources	Number of Section 4(f) Resources Intersected	0	8	5
Section 6(f) Resources	Number of Section 6(f) Properties Intersected	0	0	0
Wetland & Streams	Potential Wetlands & Open Water Impacts (nearest acre)	0	4 acres	4 acres
	Linear Feet of Stream Intersected (nearest 100 LF)*	0	16,600 feet	15,400 feet
	Does the alternative provide flexibility to reduce direct stream impacts through the incorporation of bridges?	N/A	Yes	No
Floodplains	Potential Regulatory Floodway impacts (nearest acre)	0	20 acres	20 acres
Carried forward for further consideration?		Yes	No, but design options within the alternative were carried forward for refinement and development of a reasonable alternative.	No, but design options within the alternative were carried forward for refinement and development of a reasonable alternative.

Note: the impact calculations with these mainline alternatives do not include impacts associated with interchange improvements. Interchange concepts were incorporated following Level 2B screening. *Stream impacts are high level length of streams or creeks classified as jurisdictional within the proposed alternative construction footprint. The total includes both potential direct impacts (i.e., cut and fill) and indirect impacts (i.e., shading from bridges). Additional minimization will occur during the refinement of the recommended preferred alternative. This planning level estimation should not be used to determine potential mitigation needs as more refined impact sketches based on more detailed design are required to understand the actual impacts that should be permitted.

Level 2B Screening: Access Point Complementary Concepts

Mainline Description	Tier Level	Potential Access Point Location	Type of Access	Mile Marker	Description of Potential Access Point	Pros	Cons	Traffic Data	Bridge Information	Geometric Restrictions	Environmental Constraints	Conclusions
I-24	Tier 4	At Grade, between I-840 and Almadillo Road	At grade merge - Tier 4	73.2	At grade access point, between I-840 and Almadillo Road to initiate the Choice Lanes	Available space to accommodate merge and provides a good initiation point of the Choice Lanes option	May have relatively low traffic counts early in the project life cycle	AADT 140,000VPD, not a lot of congestion in this segment in AM or PM	N/A	None	None	Provides a logical initiation and termination of choice lanes at east end of alignment - space in the median to start CL and enough spacing between I-840 and Almadillo to start CL on the left side - no weaving or merging distance issues.
I-24	Tier 2	Almadillo Road	Access at existing interchange - Tier 2	70	Directional access to and from the West.	Provides a connection to/from downtown with easy access from densely populated area	Stream runs through the interchange, access to choice lanes south may not be useful at this location.	118,000 vpd AADT on I-24 and 30,000 vpd on SR102. Equal volume coming from north and south 60% vehicles going towards downtown Fatal injury at the interchange in the last 5yrs	75I00240009 - 1969, Fair, 4 lanes 75I00240010 - 1969, Fair, 4 lanes	Stream parallels Almadillo Rd through interchange. Existing commercial properties tight to ROW. Existing access to Almadillo from adjacent neighborhoods within 300' of existing ramps. Increased footprint may result in relocations.	Olive Branch jurisdictional stream flows through the interchange parallel with Almadillo Road. This area also includes floodplains within the interchange. EJ populations on the Southeastern quadrant of the interchange.	Access to West only. Exit eastbound to Almadillo, and continue CL eastbound. Since there is not going to be demand to the east (with choice lanes ending right after Almadillo) uni-directional access is recommended
I-24	Tier 3	Rocky Fork Rd/Enon Springs Rd	Access at arterial overpass/ Underpass with no current GP interchange - Tier 3		Opportunity for dedicated access to Choice Lanes/or new interchange. Smyrna would like access at this location	This location is a desired access point by Smyrna. relatively open area adjacent to crossing provides room for a new interchange	The nearest major surface street is approximately 2 miles to the north, mostly residential side streets to the south	Low volume based on current usage - 2,500 vpd current volume. If Rocky Form to McEwen Dr extension happens, then volumes and usage may increase	75I00240007 - 1968, Fair, 2 lanes	Favorable location for an interchange. May require significant improvements to the existing roadway to accommodate an interchange.	Ephemeral Stream flows parallel to the interstate in the Northeast quadrant of the potential interchange area. 2 schools adjacent on NE quadrant.	Eliminated from further consideration. Not required for the current demand. Could be a candidate for future Choice Lane exclusive interchange. If so, it would be westbound access only, eastbound exit and continue east.
I-24	Tier 2	Sam Ridley Parkway	Access at existing interchange - Tier 2	66	Full Access in each direction	Provides a connection to/from downtown with easy access from the main Smyrna connection to I-24, current interchange takes up a large footprint, redesign may be able to fit within ROW	Will require major reconstruction of interchange	126,000vpd AADT on I-24 and 50,000vpd on Sam Ridley Pkwy. Fatalities on Sam Ridley and along I-24 in the last 5 yrs Almost equal distribution of vehicles going towards downtown and I-840	75I00240055 - 1976, Good, 2 lanes 75I00240056 - 1976, Good, 2 lanes	This interchange has available real estate allowing for tightening ramps, minimizing the impacts of the adjacent development at all 4 quadrants	Streams run through the interchanges and there are low lying water storage in all 4 quadrants of the interchange along several ramps. There is a major hospital in the Southeastern quadrant of the interchange. Minority populations surrounding the interchange.	Looks like space is sufficient for CL ramps. Access and exit both eastbound and westbound as the volume demand to EB and WB I-24 is equal from GP ramps. Commercial and residential development in the area = good location for providing full access
I-24	Tier 2	Waldron Road	Access at existing interchange - Tier 2	64	Full Access in each direction	Provides a connection to/from downtown with easy access from commercial and urban area	One quadrant of interchange is inaccessible.	33,000 ADT between ramps, heavy volume from north (45,000vpd) more traffic towards downtown (13,000vpd) compared to I-24E (10,000vpd)	75I00240003 - 1968, good, 6 lanes	Close proximity to Hurricane Creek and Overhead utilities. South west quadrant will be difficult to utilize in design.	East Branch Hurricane Creek flows through the interchange and includes floodways throughout interchange footprint. Small graveyard in the Northwest quadrant of interchange.	Difficult to utilize SW quadrant with several limitations - however, volume demand is substantial to consider access point if needed.
I-24	Tier 2	Old Hickory Blvd	Access at existing interchange - Tier 2	62	Full Access in each direction	Provides a connection to/from downtown with easy access from commercial and urban area	Will be difficult to reconfigure interchange to accommodate access without ROW impacts/relocations	140,000 vpd AADT on I-24, 30,000vpd on Old Hickory Blvd. More volume coming to interstate from north. 60% volume heading to downtown. 3 Fatalities on Old Hicokey on the north side and 2 fatalities on I-24 south of the interchange in the last 5yrs	19I00240047 - 2000, Good, 5 lanes	Existing interchange holds small footprint, will need to be expanded substantially. The northeast quadrant has a cemetery adjacent to ROW. Access to Old Hickory from adjacent developments in close proximity to interchange. Commercial developments in 3 of 4 quadrants close to ROW	Streams run parallel to the interstate on the Northwestern and Southwestern ramps. Cemetery located adjacent to ramp behind the Mexican restaurant. Mill Ridge Park property (included cemeteries) located nearby in the Northeastern quadrant. Minority populations surround the interchange.	Eliminated from further consideration. Old Hickory is a severely constrained interchange. Consider an 'at grade merge' prior to Old Franklin if Old Franklin is not viable for a CL dedicated interchange.
I-24	Tier 4	At Grade, Between Old Hickory Blvd and Old Franklin Road	At grade merge - Tier 4	61.4	At grade access point, between Old Hickory Blvd and Old Franklin Road	Provides access to Choice Lanes without major reconstruction of existing interchanges	At grade access typically results in a wider footprint with potential ROW impacts	160,000 AADT in this segment, segment long enough to provide a left-side entry into choice lane without causing weave condition.	N/A	None	Undeveloped properties adjacent, transmission line crossing. Minority populations surrounding this section of interstate. Mill Ridge Park property to the North of interstate with planned park construction under development.	Cannot provide access at Old Hickory or Old Franklin Road. Due to high residential and commercial development in the area - there is a need to provide access to CL at this point. Hence an at grade merge is recommended. If this access is not provided there would be no CL access for over 5 miles. The location selected was such that the entrance to CL is spaced far enough from upstream and downstream interchange ramps in I-24 with minimal interference to operations.
I-24	Tier 3	Old Franklin Road	Access at arterial overpass/ Underpass with no current GP interchange - Tier 3	60.8	Opportunity for dedicated access to Choice Lanes	Great location for dedicated access to and from new large commercial development	Cemetery and other existing businesses will make interchange geometry difficult, proximity to Hickory Hollow precludes this location from providing general purpose lane access	Low volume based on current usage: 7,300 vpd AADT.	19I00240045 - 2000, Good, 2 lanes	Close proximity to Tanger outlets, most likely precludes a ramp addition in Northwest quadrant. On west side of I-24 a road to a new development exists, on east side appears to have a utility access road adjacent to ROW	Transmission line crosses over this area, Tanger Outlets development in Southwestern quadrant. Cemetery in the Southeastern quadrant.	Eliminated from further consideration. Accommodating Choice Lane access at the overpass location is a challenge because of cemetery and proximity to Hickory Hollow interchange. Exclusive Choice Lane interchange is not feasible. At-grade merge between Old Hickory and Old Franklin can provide Choice Lane access.
I-24	Tier 2	Bell Road	Access at existing interchange - Tier 2	59	Full Access in each direction	Provides a connection to/from a surface street with very high traffic counts. Also provides the opportunity to reconfigure an old and below standard interchange.	Right of Way is very tight in this area, a stream runs along the NW ramp and a railroad is parallel to the east.	ADT west of Waldron Rd on I-24 is 150,000vpd. 13,500vpd towards downtown. 10,000vpd ADT eastwards on the ramps. Waldron Rd volume 22,000vpd	19I00240041 - 1958, Fair, 8 Lanes	surface streets are nearby and a railroad to the NE side	Collins creek runs parallel to Interstate through interchange on South side of interstate. Extensive floodway through and around interchange. EJ community surrounding this interchange but most of the development surrounding interchange is commercial businesses.	One of the highest ADT along the corridor. Look at reconstructing the interchange to accommodate Choice Lanes. Transit Center is proposed at this interchange in the old mall property at intersection of Bell Road and Hickory Hollow Road. Existing flooding issues could be addressed with interchange reconstruction.
I-24	Tier 2	Haywood Lane	Access at existing interchange - Tier 2	57	Full Access in each direction with full build, potentially westbound ingress and eastbound egress initially.	Provides a connection to/from downtown with easy access from densely populated area	Will be difficult to reconfigure interchange to accommodate access without ROW impacts/relocations	30,000vpd AADT on Haywood lane. More volume coming to interchange from south. 70% volume heading to downtown. Heavy crashes along I-24 near this interchange and crashes on the southside of the interchange. Including 3 fatalities on Haywood.	19I00240033 - 1958, Fair, 10 lanes	Existing partial cloverleaf provides an opportunity to tighten the interchange. 3 of the 4 quadrants have commercial development adjacent to ROW.	Mill creek (and floodway) adjacent in the Southeastern quadrant. Heavy residential community developments in the Southwestern Quadrant. Park property in Southeastern quadrant and parallels interstate to Blue Hole Road overpass.	Anticipate some ROW needs but if a solution can be developed that allows exits this makes sense. Access and Exit both directions. If constraints, eastbound may be eliminated.
I-24	Tier 4	East of Harding Place	At grade merge - Tier 4		At-Grade Access in both directions	Minimizes potential for redesign of adjacent interchanges	May not have adequate length to provide access between Haywood Ln and Harding Pl interchanges.	Heavy crash site - might be because of some weave going on with loop ramp aux lanes. Several fatalities in the last 5 yrs	N/A	N/A	Stream runs parallel to interstate and heavy residential developments along this section of the corridor	Eliminated from further consideration. Constraints within the existing system are significant. At grade merge doesn't make sense.
I-24	Tier 2	Harding Place Interchange	Access at existing interchange - Tier 2	56	Full Access in each direction	Provides direct access to a primary connecting route east/west. Existing Diamond Interchange may provide opportunity to tie to and improve existing ramps.	Sorghum Branch runs through this interchange and adjacent improvements could limit room to provide adequate connections.	42,000vpd AADT on Harding Place, equal volume from both north and south of the interchange. Equal distribution of vehicles heading to downtown and to I-840. Heavy crash site - mostly due to heavy volume. More crashes on the southern side of the interchange	19I00240031 - 1958, Fair 19I00240027 - 2003, Fair 19004430003 - 1968 (2003), Good	Driveways on either side of interstate less than 500 feet away. Limit space due to Sorghum Branch	Sorghum Branch Creek (and floodway) flows through the interchange from the Southwestern quadrant through the Northeastern quadrant. Dense residential development on the Northwestern quadrant.	Eliminated from further consideration. Adding Choice Lanes will require major expansion of the existing interchange.
I-24	Tier 3	Antioch Pike	Access at arterial overpass/ Underpass with no current GP interchange - Tier 3		Full Access in each direction	Would provide access at a new interchange and may limit direct impacts to residential structures.	Would require overhaul to a lengthy portion of Antioch Pike and would require ROW Acquisition. Adjacent RR overpass may limit what improvements can be completed without impacting the RR bridge as well.	Low volume based on current usage: 7,300 vpd AADT. No connection to SR 155 - especially on the northside, so there may not be a lot of demand	19I00240023-1958, Fair	Driveways on either side of bridge less than 450 feet away	RR crossing in close proximity to this location would make adding ramps challenging. Residential developments in close proximity. Mill creek and floodway in close proximity to this location just to the North of this overpass.	Eliminated from further consideration. Not enough traffic to develop a new interchange for Choice Lanes exclusively. Vehicular traffic has to reroute substantially to be able to get to the new interchange. RR bridge close proximity to the Antioch Pike bridge would make adding Choice Lane ramps very challenging.
I-24	Tier 2	Briley Parkway Interchange	Access at existing interchange - Tier 2	54	Full Access in each direction	Provides direct access to a principle arterial connecting route east/west	Would require a major interchange redesign. May not generate adequate volumes in all directions. On Ramp access might not generate adequate volume until the inner loop is completed.	39,000vpd AADT on Briley Pkwy - both north and south of interchange have similar traffic patterns. Most volume at the interchange heading east on I-24 away from downtown. Potentially could be serving traffic from airport and I-65	19I00240017 - 2002, Good 19SR1550049 - 1992, N/A	Averitt Express interchange very closely intertwined on East side. E Thompson Lane less than 900 feet North.	EJ residential communities along Briley Pkwy and E Thompson to the North. EJ Residential community also located in the Southwestern quadrant. Historic church on the Northeastern quadrant.	ROW restrictions and geometric restrictions make it very challenging to create Choice Lane access at Briley Pkwy. However, Briley Parkway is a critical connecting route that circles the city and provides an alternative controlled access route to make connections to other interstates and the airport and was carried forward for additional consideration with refinements.
I-24	Tier 4	At grade near / under Briley Parkway	At grade merge - Tier 4	54	At grade ingress eastbound and egress westbound	Provides access to choice lanes for those that enter choice lanes from Murfreesboro Pike or those that did not access while on I-40 or I-440	Additional entrance / exit points within the Thompson / Briley area	Very congested area with multiple ramp entry and exits, AADT on I-24 179,000 vpd	N/A		Residential EJ communities in close proximity to the interstate on both sides.	Heavy traffic along Briley Pkwy. If adding Choice Lane ramps at this location they have to form a separate interchange and cannot be added in the middle of GP ramps in a plaza style interchange like other locations. Access at Briley or E Thompson Lane suggested - both access locations are not needed.

Level 2B Screening: Access Point Complementary Concepts

Mainline Description	Tier Level	Potential Access Point Location	Type of Access	Mile Marker	Description of Potential Access Point	Pros	Cons	Traffic Data	Bridge Information	Geometric Restrictions	Environmental Constraints	Conclusions
I-24	Tier 3	East Thompson Ln	Access at arterial overpass/ Underpass with no current GP interchange - Tier 3		Full Access in each direction	Provides a connection without completely redoing the adjacent Briley Parkway Interchange.	Residences adjacent to I-24 could easily be impacted by a new access point. Could be difficult to get ramps tied in.	13,000vpd - connection to Briley Pkwy so good candidate	19I00240015 - 2002, Good	Intersects with Briley Parkway less than a quarter mile West. Driveways on either side of interstate roughly 500 feet away.	Residential EJ communities in close proximity to the interstate on both sides. Historic Church on the Southeastern quadrant. Community previously impacted by original interstate construction. Nashville DOT has plans to improve East Thompson to accommodate bikes and pedestrians.	When considered as part of a Briley Pkwy Interchange it has potential. Due to challenges with Briley Pkwy, Thompson Lane was considered and a concept advanced for further consideration. Nashville DOT noted that this proposed interchange conflicts with their plans to make this a preferred bike and ped route.
I-24	Tier 1	I-440 Interchange	System to System direct connect ramps - Tier 1	53	I-24 & I-440 (System to System). One lane in each direction to I-440 with flyovers/ramps to provide connections	Provides access to/from I-440. Large existing footprint to work within.	Will require major bridges to avoid additional ROW. May be difficult to adequately provide connections in all directions.	Direct access ramps	19I00240093- 1982 (1998), Fair 19I00240095- 1985, Fair 19I00240097- 1985, Fair	South Lyle bridges over I-440 immediately west of the interchange and could make tie- ins to I-440 difficult. South/East of the interchange is a pinch point with Mill Creek (Floodway) on the east side and a cemetery property adjacent to the I-24 on the west.	EJ residential communities in all 4 quadrants. Mill Creek in close proximity to the interchange on the Southeastern quadrant. Historic property in the Northeastern quadrant. Stream between homes and interstate in the Southwestern quadrant.	Recommended single lane direct access to and from I-24
I-24	Tier 2	Murfreesboro Road Interchange	Access at existing interchange - Tier 2	52	Connections to existing ramps or complete overhaul of existing interchange	May provide a good connection for BRT.	Being adjacent to and/or within the I- 24/40/440 interchange area may make it difficult to provide adequate connections.	provide access here to airport and direct connection to downtown via 41. About 30,000vpd AADT	19I00240005- 1960 (2006), Fair 19I00240006- 1960 (1994), Fair 19I00240003- 2003, Good	Closely intertwined with I-40 and I-24 system to system ramps.	Stream crossing to the South of this interchange.	Eliminated from further consideration. Relative location to I-440 and I-40 makes providing access here extremely difficult.
I-440	Tier 4	West of I-24	At grade merge - Tier 4		I-24 & I-440 (System to System). One lane in each direction with flyovers/ramps to provide connections	Provides access to/from I-440	May be difficult to provide connection without additional ROW. To function well these will require significant bridges.	113,000 ADT. Low volumes coming from west	19I04400055- 1985 (2013), Good	Vertical profile with existing bridges and railroads may be challenging	EJ residential communities on South side of the interstate, RR crossing.	Providing access to an additional east/west corridor would be beneficial.
I-440	Tier 4	At grade access, West of the I-24 / I- 440 interchange	At grade merge - Tier 4	7.1	At grade access from the I-440 GP lanes to the I- 24 Choice Lanes and egress from the Choice Lanes into the I440 GP lanes	Direct access to the choice lane system from a connecting interstate system	I-440 is relatively constrained by development, multiple railroad crossings and other land uses that restrict additional lanes	113,000 vpd AADT	N/A	No major restrictions beyond the replacement of multiple bridges	EJ residential communities on South side of the interstate, RR crossing.	Access required from I-440 to I-24.
I-40	Tier 2	Donelson Pike Interchange	Access at existing interchange - Tier 2	216	Full Access in each direction	Provides direct access to a primary connecting route east/west. Is near the airport and could be alternative access	This is a new diverging diamond interchange being currently constructed and may not easily support additional connections.	N/A	19I00400127- 2002, Good	The interchange being constructed currently does not allow for new connections/intersections to be added for the Choice Lanes. Combined with vertical restrictions to the west due to airport runways, this could be a difficult place to add access to choice lanes.	BNA airport on the South side of this interchange. Minority populations to the North of this interchange.	Eliminated from further consideration. Limitations of moving past Briley Pkwy & I-40 due to vertical restrictions and restrictions related to the new interchange configuration currently under construction.
I-40	Tier 2	Briley Parkway Interchange	Access at existing interchange - Tier 2	215	Full Access in each direction	Provides direct access to a principle arterial connecting route east/west. Is near the airport and could be alternative access.	Height restrictions due to adjacent airport may make it difficult to provide all access. Could potentially require a major interchange redesign	Heavy ramp movements with volume heading west	19SR1550069- 2003, Good 19I00400121- 2008, Good 19I00400331- 2008, Good	Height restrictions are the biggest issue with making a viable connection directly to Briley Parkway.	EJ residential community on Southwestern quadrant. Mill Creek and other stream crossings on the Western side of the interchange.	Eliminated from further consideration. Choice Lanes will terminate just west of the Briley Pkwy Interchange.
I-40/I-24	Tier 1	System to System interchange	System to System direct connect ramps - Tier 1	52	System to System interchange, One lane each direction through the system	Provides access through the Interstate System	May result in tall structures and multi layered bridges	equal traffic on I-24 and I-40 - about 150,000 vpd on each freeway. Each system to system ramp carries about 38-40k vpd	19I00240305 - 1960 (1996), Fair 19I00240003 - 2003, Fair 19I00240067 - 1960, Poor 19I004000309 - 2003, Good	Vertical constraints surrounding the existing railroad bridges to the west of the interchange create challenges.	Mill Creek crossing to the East of this interchange, heavy industrial development with 5 historic properties adjacent to I-40/I-24 through this area.	Connection is needed to help I-24 traffic transition through the system-to-system interchange.
I-40	Tier 4	At grade, between I-24 and Briley Pkwy	At grade merge - Tier 4	214.2	I-40 and I-24 (System to System). One lane in each direction with a connection provided by 'At- Grade' access	Appears to be adequate room to tie in At Grade. Could provide slip access prior to Briley Pkwy.	Does not provide direct access all the way to the Airport or beyond	I-40 west of Briley Pkwy has 160,000vpd AADT	19I00400119- 1963 (2003), Fair 19I00400117- 1963 (2008), Good	Noise wall and adjacent neighborhood to the south could make it difficult to add any width.	Mill Creek and stream crossing, EJ residential community to the South side of interstate.	Provides logical eastbound terminus considering constraints associated with the Briley Pkwy interchange (runway constraints horizontal and vertical, EJ community to the south of I-40)
I-40	Tier 4	At grade Near Fesslers Lane, egress westbound and ingress eastbound	Access at arterial overpass/ Underpass with no current GP interchange - Tier 3	212	I-40 to I-24 (System to System). One lane in each direction with a connection provided by 'At- Grade' access on I-40 or upgraded interchange at Fesslers Lane	Provides a connection to/from downtown	May be difficult to provide adequate connection with various existing general purpose access points in the vicinity.	AAADT - 180,000 vpd west of Fesslers Ln interchange	19I00400101- 1961, Fair 19I00400111- 1965 (2018), Fair 19I00400112- 1965, Fair	Vertical issues due to clearance over/under the various overpasses along this stretch could be an issue.	Cemeteries on both the Northeastern and Southwestern quadrants, historic property on Fesslers Lane in Southwestern corner.	At grade access provides a logical access point to the Choice Lanes along the I-40 alignment coming from downtown as well as a logical exit heading towards downtown. Interchange is an existing partial interchange so adding CL access ramps would be challenging to get approved by FHWA.
I-40	Tier 3	Elm Hill Pike	Access at arterial overpass/ Underpass with no current GP interchange - Tier 3	212.3	Choice Lane exclusive egress westbound and ingress eastbound	Provides an opportunity to exit Choice Lane to surface streets near downtown without merging into general purpose lanes.	Elm Hill Pike is not within the traditional downtown core area and users must travel Murfreesboro Pike or Lebanon Pike to finish trip to downtown.	No general purpose ramps. 150,000vpd AADT on I-24 under Elm Hill Pike Bridge. Elm Hill Pike AADT of 12,000vpd	19I00400103 - 1963 (2001), Fair	Elm Hill Pike is significantly skewed from I-40 and will result in ROW acquisitions. Adjacent RR bridges make the grades challenging at this location.	Historic properties to the East of this overpass, with rock formations along I-24/I- 40.	Reducing the Choice Lanes by one lane onto Elm Hill Pike with the at grade merge near Fesslers lane by reducing the width of the alignment.

Level 3 Screening: Detailed Analysis				
Category	Performance Measure	No-Build	Reasonable Alternative 1	Reasonable Alternative 2
Right of Way	Acreage of Land Acquisition Required for Project	0	25.8 acres	44.8 acres
	Parcels (Number of Tracts)	0	111	116
Relocations	Total Number of Potential Relocations	0	45	62
	Total Number of Residential Relocations*	0	29	44
	Total Number of Business Relocations	0	16	18
	Number of Institutions/School/Church Relocations	0	0	0
Historic Properties	Number of historic properties in the Area of Potential Effects	N/A	15	15
	Number of historic properties potentially adversely affected	0	3	3
Section 4(f) Properties	Total number of Section 4(f) property encroachments (potential use)	0	2	3
	Total acres of encroachment (nearest 0.1 acre)	0	0.7	0.6
	Do all the enroachments meet exception, temporary occupancy, <i>de minimis</i> , or programmatic criteria?	N/A	Yes	No
Section 6(f) Properties	Section 6(f) resources impacted	0	0	0
Hazardous Waste Sites	Hazardous waste sites encountered	0	7 high risk, 7 low risk	3 high risk, 14 low risk
Wetlands and Streams	Freshwater Wetlands (nearest 0.1 acre)	0	8.28	6.2
	Open Water / Pond Impacts (nearest 0.1 acre)	0	0	0
	Stream Impacts** (linear feet; includes direct impacts and indirect shading impacts)	0	19,635	12,656
Floodplains	Regulatory Floodway impacts (nearest 0.1 acre)	0	16.8	11.2
	100 Year Floodplain impacts (nearest 0.1 acres)	0	39.4	35.4
Threatened & Endangered Species	Potential to adversely affect species that may occur in the study area?	No	Yes	Yes
	Can potential adverse effects be avoided through pre-construction surveys or construction timing restrictions?	N/A	Yes	Yes
Preliminary Cost Estimate	Total Project Costs (Including ROW & Utilities)	N/A; standard O&M costs	\$3.49 Billion	\$4.03 Billion
	Right of Way Acquisition and Relocations Costs	N/A	\$117.4 Million	\$135.3 Million
Carried forward for further consideration?		Yes	Yes, with refinements.	No, except the I-24 Interchange at SR 155 (Briley Parkway) design option and the mainline option between Fesslers Lane (MP 212.0) to I-24/I-40 Interchange (MP 213.0) were retained for further analysis.

*Note that new townhomes were constructed on one tract since the initial project impact analysis that added 20 additional residential relocations.

**Stream impacts are high level length of streams or creeks classified as jurisdictional within the proposed alternative construction footprint. The total includes both potential direct impacts (i.e., cut and fill) and indirect impacts (i.e., shading from bridges). Additional minimization will occur during the refinement of the recommended preferred alternative. This planning level estimation should not be used to determine potential mitigation needs as more refined impact sketches based on more detailed design are required to understand the actual impacts that should be permitted.

No-Build vs Recommended Build Alternative			
Category	Performance Measure	No-Build	Recommended Build Alternative 1A
Right of Way	Acreage of Land Acquisition Required for Project	0	34.9 acres
	Parcels (Number of Tracts)	0	166
Relocations	Total Number of Potential Relocations	0	51
	Total Number of Residential Relocations*	0	33
	Total Number of Business Relocations	0	18
	Number of Institutions/School/Church Relocations	0	0
Historic Properties	Number of historic properties in the Area of Potential Effects	N/A	17
	Number of historic properties potentially adversely affected	0	2
Section 4(f) Properties	Total number of Section 4(f) property encroachments (potential use)	0	0
	Total acres of encroachment (nearest 0.1 acre)	0	0
	Do all the encroachments meet exception, temporary occupancy, <i>de minimis</i> , or programmatic criteria?	N/A	N/A
Section 6(f) Properties	Section 6(f) resources impacted	0	0
Hazardous Waste Sites	Hazardous waste sites encountered	0	7 high risk, 17 low risk
Wetlands and Streams	Freshwater Wetlands (nearest 0.1 acre)	0	4.1
	Open Water / Pond Impacts (nearest 0.1 acre)	0	0
	Stream Impacts** (linear feet; includes direct impacts and indirect shading impacts)	0	12,282
Floodplains	Regulatory Floodway impacts (nearest 0.1 acre)	0	Subject to final hydrologic study results
	100 Year Floodplain impacts (nearest 0.1 acres)	0	
Threatened & Endangered Species	Potential to adversely affect species that may occur in the study area?	No	Yes
	Number of "likely to adversely affect" determinations for federally protected species	N/A	1
Preliminary Cost Estimate	Total Project Costs (Including ROW & Utilities)	N/A; standard O&M costs	\$4.5 Billion
	Right of Way Acquisition and Relocations Costs	N/A	\$245 Million
Carried forward for further consideration?		Yes	Yes

*Note that new townhomes were constructed on one tract since the initial project impact analysis that added 20 additional residential relocations.

**Stream impacts are high level length of streams or creeks classified as jurisdictional within the proposed alternative construction footprint. The total includes potential direct impacts (i.e., cut and fill) and indirect impacts (i.e., shading from bridges). Additional minimization will occur during the refinement of the recommended preferred alternative. This planning level estimation should not be used to determine potential mitigation needs as more refined impact sketches based on more design are required to understand the actual impacts that should be permitted.