

ENVIRONMENTAL IMPACT ASSESSMENT

MUSIC CITY LOOP - AIRPORT AND BROADWAY ALIGNMENTS NASHVILLE, TENNESSEE

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1. Project Description

1.1 Introduction

Davey Resource Group (DRG) has prepared this Environmental Impact Assessment (EIA) to evaluate the potential environmental impacts associated with the construction and operation of The Boring Company's subterranean, zero-emissions, high-speed transportation system known as Music City Loop. This EIA will include a discussion of the proposed project's effects on the existing environment.

1.2 Executive Summary

Music City Loop (Project), as evaluated under current design plans, construction methodology, and operational parameters, results in no meaningful impacts across all resource categories and results in positive impacts in transportation, air quality, greenhouse gas reduction, and economic growth.

The Boring Company (TBC) has actively collaborated with the community, regulatory agencies, and industry professionals throughout design and construction to integrate best management practices and due-diligence measures, ensuring the project minimizes environmental impacts and fully complies with applicable state, federal, and municipal standards. Once fully operational, the privately funded, zero-emission system will reduce traffic congestion, lower regional greenhouse gas emissions, create employment opportunities, provide enhanced mobility for residents and visitors, and deliver long-term benefits to Nashville and Davidson County.

1.3 Location and Setting

Music City Loop is located in Nashville, Davidson County, Tennessee. The proposed Music City Loop Airport Alignment (Airport Alignment) will connect the Tennessee State Capitol to the Nashville International Airport (BNA) along an approximately 9.5-mile alignment. The proposed Airport Alignment will include two parallel tunnels approximately 13.12-feet in diameter that follow the general alignment of and run underneath the public rights-of-way (ROWs) of Donelson Pike, Murfreesboro Pike, Lafayette Street, 8th Avenue South, and Rosa L Parks Boulevard. The proposed Music City Loop Broadway Alignment (Broadway Alignment) will connect to the Airport Alignment at Broadway, will likely extend approximately 2.5 miles from Nissan Stadium to Centennial Park, and will follow the general alignment of state ROWs of Broadway and West End Avenue in downtown Nashville and under the Cumberland River.

The Project is located within a fully developed urban setting. Land use along the Airport Alignment is predominantly commercial but also includes parks, residences, churches, and schools. Land use along the Broadway Alignment includes high density commercial development along Broadway downtown, and the eastern terminus of the Broadway Alignment terminates at the Nissan Stadium parking lot, which includes open space, parks, parking areas, greenways, and an event space. The western portion of the Broadway Alignment includes a university, commercial properties, churches, residential properties, and hotels. **Figures 5-1 through 5-28** show general land use along the Project.

1.4 Project Background and Purpose

TBC was founded with the goal of constructing and operating subterranean transportation solutions. TBC constructs safe, affordable, and express tunnel transportation solutions for congested urban environments.

The purpose of the proposed Project is to help the city's traffic congestion and provide tourists and residents with a transportation alternative that is affordable, safe, and fast. This Project aligns with the city's vision for improvement and innovation of transportation infrastructure while managing the effects of economic growth. The benefits of the subterranean transportation system when compared to other transportation systems include:

- No adverse surface impacts (noise or vibration) during tunnel construction and operations;
- Express transit routes where passengers go directly from where they board to their final destination;
- Controlled and safe transit corridors with direct oversight by an operations control center (OCC), trained vehicle operators, and robust life safety infrastructure;
- Weatherproof;
- Minimal effect to surface aesthetics; and
- Does not divide communities with lanes and barricades.

2. Description of Scope of Study and Impact Analysis

2.1 Scope of Initial Study

This EIA evaluates the Project's effects on the following resource areas:

- Visual Impacts
- Health and Safety
- Infrastructure and Utilities
- Economic Consequences
- Air Quality, Climate and Greenhouse Gas Emissions
- Land Use Planning and Zoning
- Noise
- Vibration
- Transportation and Traffic
- Sensitive Populations
- Formally classified lands
- Geology
- Rare, Threatened and Endangered Species
- Aquatic Resources
- Cultural Resources
- Hazardous and Regulated Materials and Waste

2.2 Impact Analysis

This EIA evaluates potential impacts associated with currently planned phases of the proposed Project as described in Section 2.3. For each resource area, the Project's level of impact is characterized using the following terminology, based on the proposed construction and operations plan:

Potentially Significant Impact. This category is only applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level.

Less than Significant Impact. This category is applicable when the Project would result in impacts below the threshold of significance, and no mitigation measures are required based on the proposed construction and operations plans that will be followed by TBC.

No Impact. This category applies when the Project would not create an impact in the specific environmental issue area. "No Impact" also includes cases where a minor effect may occur but is demonstrably below all applicable thresholds of significance and requires no mitigation.

Positive Impact. This category applies when the Project would create a favorable environmental outcome such as pollution reduction, wildlife protection, or enhanced economic development.

2.3 Project Details

2.3.1 Construction Methodology

The Project is in the design, permitting, and early construction phase. DRG utilized current project plans that were provided by TBC to complete this EIA and impact analyses. Current Project plans and this EIA are based on the following:

- Installation of a launch site at 637 Rosa L. Parks Boulevard (a launch site is the initial point from which the tunnel boring machine [TBM] will begin tunneling underground).
- Construction of three stations proposed at 637 Rosa L. Parks Boulevard, Music City Center, and the Nashville International Airport (BNA), with the understanding that additional stations will be incorporated along the alignment in the future, but are not part of this review
- Rock tunnel boring operations using a TBM along the Airport Alignment and Broadway Alignment.
- Operations of loop vehicles along the Music City Loop Project within the proposed tunnels and at the three stations listed above.

This EIA is not intended to be a National Environmental Policy Act (NEPA) submittal but does include many similar components and analyses. However, the Music City Loop may require NEPA if ongoing state and federal consultations identify a federal action that triggers an analysis under NEPA. We note that the EIA is based on current planning, but geotechnical analysis, utility coordination, and engagement and coordination with state representatives, municipal agencies, and community members may result in changes to the design of the Project.

For the purposes of this EIA, the publicly available properties with planned entry and exit points include the 637 Rosa L. Parks Boulevard TBM Launch Site/Station in downtown Nashville, the Music City Center Station, and BNA Station. TBC has currently established two TBM launch sites, one near the Tennessee Capitol (located at Lot 16, 637 Rosa L Parks Boulevard, Nashville) and the other at 200 Jupiter Drive. However, the proposed launch site at 200 Jupiter Drive is still in the design, permitting, and early construction phase and is not considered in this EIA. TBC is also working to establish additional launch sites throughout the alignment. The 637 Rosa L. Parks Boulevard TBM Launch Site/Station is planned to support two TBMs and is fully equipped with office trailers, a Safety Center, an Operations Control Center, electrical power, lighting, chilled water, compressed air, cameras, security fencing, and other tunneling-critical systems. In

addition to launch sites, the Project will also require construction of emergency egress shafts and stations once locations are finalized.

At each launch site, TBC will use traditional excavations activities to remove the soil overlying the bedrock and will then drill, blast, and/or excavate into rock to allow for the deployment of the TBM. Initial excavation work at each station and launch site will be accomplished by using construction equipment to remove material from the excavation pit and place the excavated material into dump trucks for off-site removal. Once the initial excavation work is complete, the tunnel would be bored using TBM technology, a trenchless mining technology that allows for the creation of the tunnel without disturbing the surface above it. The TBM operates by excavating material forward of its cutterhead. A typical launch shaft is approximately 100 feet long by 50 feet wide, will extend about 20 feet below top of rock. Tunnel boring operations will maintain approximately 6 feet of rock overburden above the tunnel. Each launch shaft design will be tailored to the characteristics of the launch site.

Each tunnel will have a tunnel boring diameter of 13.12-feet. The TBM passes excavated material onto a conveyor system that moves the material to a muck pit at the launch site. The muck is then deposited into a dump truck using an excavator and transported to approved disposal or recycling facilities in compliance with Tennessee regulations or recycled or repurposed in compliance with applicable environmental and regulatory requirements (such as for use as fill for grading or raw material for new concrete and asphalt). It is anticipated that approximately 2 - 3 dump truck loads per hour will be removed from the launch site. A total of approximately 266,000 cubic yards of material is expected to be generated during construction of the Airport Alignment, and a total of approximately 70,000 cubic yards of material is expected to be generated during construction of the Broadway Alignment.

No accelerants will be used during the Project to facilitate drilling and cuttings removal. Rock tunneling will require only water to reduce dust and improve penetration rate. No bentonite mud or commonly-used drilling lubricants will be used during TBM drilling operations. The volume of water used during drilling operations will depend on ground conditions and operating parameters.

The tunnel system will be installed at a target depth of approximately 30 to 60 feet below the ground surface but will vary depending on site-specific sub-surface conditions. Underground infrastructure (e.g. utilities, bridge piles, subterranean pipelines, etc.) and geologic conditions have and will continue to be considered. Tunnel construction methods and stabilization measures, including excavation support, waterproofing, and lining systems, as provided by TBC, have been considered in the EIA analysis. Egress shafts will be constructed along the Project alignment and will serve as tunnel egress points for emergency egress. The spacing of egress

shafts will meet or exceed standards set by the National Fire Protection Association (NFPA-130) and will be spaced less than 2,500 feet apart. The egress shafts will be largely hidden from public view, typically in the ground floor of an existing building or on grade to lessen visual effects to the surrounding community. The egress shaft excavation methods will vary depending on the ground conditions but may require drilling, blasting, pipejacking, sequential excavation method (SEM), or other trenchless mining technology. These localized activities, if required, will be minimized to reduce disturbance to the neighborhood. The volume of material generated from each egress shaft is largely dependent on site-specific conditions. A typical egress shaft design has been provided to DRG by TBC and was reviewed during the preparation of this EIA.

2.3.2 Construction Staging and Limits of Disturbance

More than 20 stations and approximately 5 TBM launch sites are in various stages of design, but the only existing construction staging area is the TBM launch site at 637 Rosa L. Parks Boulevard. At this location, the limits of disturbance are 0.84 acres, and construction staging is limited to this property. TBC will limit disturbance at each proposed station, launch site, and egress shaft to the maximum extent practicable.

2.3.3 Construction Schedule

Site preparation at the 637 Rosa L. Parks Boulevard TBM Launch Site/Station has begun and is ongoing. Tunneling with the TBM at this launch site, pending design completion and permit issuance, will likely begin in late 2025. The additional launch sites are expected to be constructed in 2026, and TBC expects to open the first operational segment of Music City Loop in the first quarter of 2027.

2.3.4 Music City Loop Project Operations

All the Project operations would be owned and managed by TBC. TBC's subterranean transportation system will transport passengers in a fleet of dedicated Tesla vehicles (initially Model Ys and Model Xs) through the completed underground tunnels along the Airport and Broadway Alignments to the final destinations with no intermediate stops.

3. Affected Environment and Environmental Consequences

3.1 Noise and Vibration

3.1.1 Affected Environment

This analysis evaluates the potential acoustic (noise) and vibration impacts associated with the Project launch site for TBC's proposed Music City Loop Project located at 637 Rosa L. Parks Boulevard, Nashville, TN 37208. DRG utilized information provided by TBC in their *Music City Loop Noise and Vibration Analysis* to complete this analysis.

The 637 Rosa L. Parks Boulevard TBM Launch Site/Station (Project launch site) is in an urban setting with substantial ambient noise and vibration from traffic, passing trains, nearby construction, and other adjacent urban activity. Existing land uses immediately around the Project launch site include a multi-lane arterial road, surface parking lots, various commercial and industrial buildings, an active railroad, and a church.

Noise Environment

The typical ambient level of urban noise at this location is influenced by urban traffic and commercial activity including the adjacent multi-lane road and train line. An initial evaluation by The Boring Company found ambient urban noise in this location averages 55-65 A-weighted decibels (dBA) daytime and 45-55 dBA nighttime falling within expected parameters for typical ambient urban noise (**Table 1**). Rosa L. Parks Boulevard is a busy primary artery for traffic within the city of Nashville. It is adjacent to the Project launch site on the east and a dominant contributor of ambient noise to the existing noise environment. Another intermittently dominant source of noise is the CXS rail line which runs approximately 360 ft along the western side of the 637 Rosa L. Parks Boulevard TBM Launch Site/Station. Typical reference noise levels expected in an urban environment are summarized in Table 1, below.

Table 1. Reference Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet flyover at 1,000 feet	- 110 -	Rock band
Gas lawnmower at 3 feet	- 100 -	
Diesel truck at 50 feet at 50 miles per hour	- 90 -	Food blender at 3 feet
Noisy urban area, daytime	- 80 -	Garbage disposal at 3 feet
Gas lawnmower, 100 feet	- 70 -	Vacuum cleaner at 10 feet
Commercial area	- 60 -	Normal speech at 3 feet
Heavy traffic at 300 feet	- 50 -	Large business office
Quiet urban daytime	- 40 -	Dishwasher in next room
Quiet urban nighttime	- 30 -	Theater, large conference room (background)
Quiet suburban nighttime	- 20 -	Library
Quiet rural nighttime	- 10 -	Bedroom at night, concert hall (background)
	- 0 -	Broadcast/recording studio
Lowest threshold of human hearing		Lowest threshold of human hearing

Source: California Department of Transportation, *Technical Noise Supplement to the traffic Noise Analysis Protocol*, September 2013.

Vibration Environment

Background vibration in urban locations such as the Project launch site is generated by urban traffic, nearby railway lines, and building systems. Typical urban vibration levels range from 0.001 to 0.01 inches per second peak particle velocity (PPV). This level of background vibration is generally below the threshold of perception for most people and well below the threshold for structural damage (**Table 2**).

Table 2. Human and Building Response to Groundborne Vibration

Peak Particle Velocity (PPV in/sec)	Human Reaction	Effect on Buildings
0.006-0.019	Range of threshold of perception	Vibration unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level to which ruins and monuments should be subjected
0.1	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Virtually no risk of architectural damage to normal buildings, Threshold for damage to historic sites or other critical locations
0.2	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings
0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Architectural damage and possibly minor structural damage

Source: California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2013.

Noise and Vibration Sensitive Receptors

The nearest sensitive receptor to the 637 Rosa L. Parks Boulevard TBM Launch Site/Station is a church located approximately 120 feet to the south, and the nearest residential receptor is approximately 880 ft away from this Site (**Table 3**). Surrounding neighborhoods, including Germantown, Salemtown, and Hope Gardens, feature a mix of residential, commercial, and institutional uses. These are designated as noise- and vibration-sensitive receptors under local ordinances and federal guidelines.

Table 3. Nearby Noise Sensitive Receptors

Noise Sensitive Receivers	Receptor Type	Approximate Distance and Direction from the Launch Site
First Baptist Church, Capitol Hill	Church	120 feet south
Frankie Pierce Park	Park	423 feet northwest
Tennessee State University - Avon Williams Campus	University, Library	873 feet south
Residences at Capitol View	Multi-family Residential	880 feet west

The TBC analysis identified the following Noise and Vibration Sensitive Receptors within 1-2 miles of the Project launch site:

- Residential: Germantown, Salemtown, Hope Gardens
- Educational: Fisk University, Meharry Medical College, Rose Park Middle School
- Healthcare: Nashville General Hospital, TriStar Centennial Medical Center, Vanderbilt University Medical Center
- Recreational: Bicentennial Capitol Mall State Park, Frankie Pierce Park, Cumberland Park, Riverfront Park

Noise and Vibration Regulations

Noise from construction in Nashville is regulated by Title 9 of the Metropolitan Code of Ordinances, with Chapter 9.30 addressing outdoor activities specifically. Site ordinances will be followed along with approved exemptions and variances in compliance with Chapter 9.30.

Nashville's Metropolitan Code does not specify explicit vibration thresholds for construction, instead, activities are governed by general nuisance provisions under Title 16 (Buildings and Construction). The lowest level of vibrations that humans can perceive is between 0.006 and 0.019 PPV. However, ordinary vibration levels in an urban environment already occur at levels that are perceivable (typical urban vibration range; 0.001 to 0.01 PPV). An average person would find 0.08 PPV of continuous vibration to be readily perceptible, while 0.1 PPV of continuous

vibration would begin to be annoying.^{1,2} Given the existing background vibration and the variability of human perception of vibration, a conservative estimate of vibration levels high enough to be deemed a nuisance is likely to be somewhere between 0.01 and 0.08 PPV.

3.1.2 Impact Analysis

Environmental Consequences of Noise and Vibration

When completed and operational the tunnel system will result in no impact to the ambient acoustic and vibrational environments at the launch site. During the 24-month Project construction phase, surface and subsurface activities are likely to contribute noise and vibration in varying degrees depending on the construction activity. The TBM will operate entirely underground and is unlikely to contribute noticeably to the urban environmental noise or vibration experienced on the surface. Similar tunnel boring construction Projects have found that the acoustic and vibrational energy generated by the TBM typically deteriorates to levels well below the threshold for building damage or human perception as it attenuates through surrounding soil and geologic strata.³

Construction activities at the Project launch site entail continuous 24-hour per day, up to 7 days per week operations over approximately 24 months. The primary construction activities at the Project launch site will include site preparation, vertical shaft excavation, TBM assembly and launch, spoil handling, and associated support operations. Activities at this location will utilize standard surface equipment such as excavators, telehandlers, forklifts, dump trucks, and air compressors (Table 4). The Project launch site serves as an initial model for the potential noise and vibration impacts that other yet to be located surface sites along Music City Loop alignment may experience.

Modeling Noise Impacts

The Boring Company utilized the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) and logarithmic propagation, assuming simultaneous maximum-output operation to conservatively estimate the noise levels from construction equipment that would be experienced 50 feet away (**Table 4**).

¹ Whiffen, A. C. 1971. A survey of traffic-induced vibrations. (Report LR419.) Crowthorne, Berkshire, England: United Kingdom Department of Environment, Road Research Laboratory.

² California Department of Transportation, Transportation and Construction Vibration Guidance Manual, 2013

³ The Boring Company. "Music City Loop Noise and Vibration Analysis"

Table 4. Construction Equipment Noise Levels Predicted by TBC

Equipment	Source	Typical Noise Level from 50 feet
Excavator	FHWA	81
Telehandler	Manufacturer	82
Forklift	ANSI Standards	90
Dump Truck	FHWA RCNM	80
Air Compressor	FHWA RCNM	80

The noise levels calculated in **Tables 5 and 6** show estimated levels of noise at nearby sensitive receptors using the Federal Highway Administration Roadway Construction Noise Model.⁴ These are conservative predictions of noise from the Project launch site and may be an overprediction of the noise levels that surrounding areas would experience from the launch site construction activities, because they do not account for attenuation from existing physical barriers and assume that the loudest construction equipment is operating continuously at maximum load.

Table 5. Predicted Noise at Receptors from The Boring Company Modelling Procedures⁵

Distance (ft)	Example Receptor	Predicted Noise (dBA)
100	Site boundary	86
500	Adjacent residences	72
1,000	Parks/Schools	66
5,280 (1 mile)	Hospitals	54

Table 6. DRG Predicted Noise at Receptors from FHWA Roadway Construction Noise Modelling

Sensitive Receptor Type	Distance (ft)	Predicted Noise (dBA)
Church	72	90
Park	423	75
University/Library	873	68
Muli-family Apartment	880	68

Modeling Vibration Levels

The FTA Transit Noise and Vibration Impact Assessment Manual methodology for predicting construction impacts has identified vibration for commonly used construction equipment from a distance of 25 feet. Table 7 includes the expected equipment that will be most commonly used at the Project launch site including excavators, telehandlers, forklifts, air compressors, and TBM.

⁴ Federal Highway Administration. "Construction Noise Handbook" Roadway Construction Noise Model. https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook06.cfm. Accessed October 21, 2025.

⁵ The Boring Company. "Music City Loop Noise and Vibration Analysis"

Vibration levels from TBM operations are generally low compared to many other types of noise producing construction.

Table 7. Construction vibration levels were predicted by TBC based on methods in FTA's Noise and vibration guidance Manual

Equipment	Source	Vibration Level at 25 feet (in/s PPV)
Excavator	FTA/Caltrans	0.089
Telehandler	FTA/Caltrans	0.076
Forklift	FTA/Caltrans (similar to small equipment)	0.035
Dump Truck	FTA/Caltrans	0.076
Air Compressor	FTA/Caltrans (similar to jackhammer)	0.03
The Boring Machine	FTA/LA Metro ⁶	<0.01

The Boring Company modelled vibration impacts at the launch site using the FTA's guidelines and empirical attenuation data from the FTA Transit Noise and Vibration Impact Assessment Manual 2018⁷ with additional data from California Department of Transportation (Caltrans) Construction Vibration Guidance Manual (2020).⁸ This modeling relies on reference vibration levels (in/s PPV) to model vibration levels 25 feet away from operating construction equipment. This predictive approach assumes peak operation for all equipment and limestone damping properties, while ignoring additional soil damping for an added safety margin.⁹

Table 8. Predicted Vibration at Receptors Modelling from the Federal Transit Administration Noise and Vibration Guidance Manual

Distance (ft)	Predicted Vibration Level (in/sec PPV)	Threshold Vibration Level (in/sec PPV)	Example Receptor
100	0.020	0.2 (damage) /0.01-0.02 (perception)	Adjacent residences (e.g. Germantown)
500	0.003	0.2 (damage) /0.01-0.02 (perception)	Parks/schools (e.g. Bicentennial Park)

⁶ Los Angeles County Metropolitan Transportation Authority (LA Metro), Groundborne Noise and Vibration Impacts for SR 710 North Study. CH2M HILL, 2014.

⁷ Federal Transit Administration, "Transit Noise and Vibration Impact Assessment Manual", Report NO. 0123, September 2018.

⁸ California Department of Transportation. "Transportation and Construction Vibration Guidance Manual. April 2020.

⁹ Boring Company. "Music City Loop Noise and Vibration Analysis"

Distance (ft)	Predicted Vibration Level (in/sec PPV)	Threshold Vibration Level (in/sec PPV)	Example Receptor
1,000	0.001	0.2 (damage) /0.01-0.02 (perception)	Hospitals/universities (e.g. Vanderbilt)
5,280	<0.001	0.2 (damage) /0.01-0.02 (perception)	General receptors

Construction Impacts

Construction noise and vibration typically occur intermittently and vary depending on the nature of the construction activity and equipment in use. Noise generated by construction equipment at the launch site or other surface sites may intermittently reach high levels. During the 24-month construction phase, surface construction activities will produce varying levels of noise and vibration at the Project launch site. This includes noise and vibration from the initial excavation activities prior to TBM launch and the subsequent construction activities in support of the TBM tunneling such as the loading of dump trucks to haul materials away from the Project launch site. The nearest sensitive receptor is a church located approximately 120 ft from Project launch site, the nearest residential receptor is approximately 880 ft away, and Tennessee State University Avon Williams Campus is approximately 873 ft away.

Noise Impacts

TBC will not schedule noisy construction activities during periods of time where the nearest sensitive receptors require quiet for their relevant purpose (i.e., church services). For example, during excavation of the launch shaft, the adjacent church informed TBC of a 6:00 p.m. choir rehearsal and requested a pause in construction activities. TBC halted all construction work for the duration of the hour-long rehearsal to avoid disruption. Additionally, because the impact of noise associated with construction activities only applies to the construction phase of Music City Loop, the impact would be temporary. Given the existing and planned coordination with nearby sensitive receptors, including reasonable scheduling of louder activities, surface construction noise will have a less than significant impact. Additionally, current operational plans for the Project launch site and all surface construction sites will include mitigation measures consisting of barriers, enclosures and equipment muffling. TBC will maintain these practices throughout all future construction. Other nearby sensitive receptors to the Project launch site are greater than 800 feet away and noise levels will attenuate so that noise impacts will be less than significant considering the existing urban noise environment and with mitigation measures incorporated. Additionally, nighttime activity will be limited primarily to underground TBM work, with only essential surface support functions occurring intermittently. Once standard noise-control

measures (barriers, enclosures, equipment muffling, and scheduling) are applied, predicted nighttime levels fall below 70 dBA, which is within the City of Nashville's allowable limits. For context, nighttime noise from passing trains in this area regularly exceeds that level as measure from the Project launch site, meaning the Project's mitigated noise would remain below existing ambient peaks.

Vibration and noise data from the Project launch site serves as a model for potential noise and vibration conditions at future station and launch site locations.

With the historic and planned construction operations, it is likely that additional Project launch site surface construction noise will have a less than significant impact. However, if additional launch sites are determined to be within close proximity to sensitive receptors, appropriate mitigation measures will be implemented.

Vibration Impacts

Vibration from construction equipment operating on the surface at the Project launch site will have a less than significant impact. Operation of construction equipment causes ground-borne vibrations that rapidly diminish in strength with distance. Predicted levels of vibration experienced just outside of the boundaries of the Project launch site may occur sporadically at levels perceivable by people within 100 feet of the Project boundary, but these levels are far below thresholds that would damage sensitive structures. Furthermore, given the existing vibration from nearby traffic and railway activity small, transitory increases in vibration level resulting from surface construction activities are not likely to be perceivable. Additional sites with surface construction could result in impacts to sensitive receptors depending on the distance of these receptors to the construction activity; however, this impact would be temporary and only during the construction phase at these sites.

Vibration due to blasting activities has the potential to impact nearby sensitive structures. The blasting activities associated with the Music City Loop Project for the launch shaft construction at 637 Rosa Parks have been completed. TBC's blast plan was reviewed in advance by a licensed professional geologist who determined that the predicted vibration levels resulting from blasting activities would be within allowable limits and below damage-causing levels. Post-completion monitoring and third-party reviews have confirmed that actual measured vibration levels from the completed blasting operations remained well within allowable limits, below damage-causing thresholds, and resulted in no impacts to nearby sensitive structures. Special precautions, including real-time vibration monitoring, were implemented throughout all blasting operations in full accordance with regulations.

The activities of TBM in the vicinity of the Project launch site will not significantly impact any identified sensitive receptors. The vibrations produced by TBM will attenuate to levels below

those ambient to the existing urban environment before reaching the identified sensitive receptors. These findings are reasonably applicable to the entirety of the Music City Loop path, which extends along predominantly densely urbanized transit corridors. Further, based on the planned depth of the tunnels, which will be at least 30 ft below the ground surface (and deeper in some locations), we anticipate that vibration impacts from the TBM will result in less than significant impacts. However, additional evaluations of TBM depth, expected attenuation of vibration, and sensitive receptors along the alignment, and implementation of appropriate mitigation measures, if necessary, will ensure that the TBM will not result in vibrational impacts to potentially sensitive receptors.

Impact Analysis for Vibration: Less than Significant Impact

Impact Analysis for Noise: Less than Significant Impact

3.2 Hazardous and Regulated Materials and Waste

3.2.1 Affected Environment

Hazardous and regulated materials contain constituents that potentially pose a threat to human health or the environment. Typical wastes that are encountered at construction sites include construction and demolition wastes and solid waste. "Construction and demolition wastes" are defined as wastes, other than special wastes, resulting from construction, remodeling, repair and demolition of structures and from road building; typical wastes include materials like bricks, concrete and other masonry materials, soil, rock and lumber, road spoils, rebar, paving material. "Solid wastes" are defined as garbage, trash, refuse, abandoned material, spent material, byproducts, scrap, ash, sludge, and all discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, and agricultural operations, and from community activities.

"Special Wastes" are solid wastes that are either difficult or dangerous to manage and may include sludges, bulky wastes, pesticide wastes, medical wastes, industrial wastes, hazardous wastes which are not subject to regulations under Tennessee Department of Environment & Conservation Rules 0400-12-01-.03 through 0400-12-01-.07, liquid wastes, friable asbestos wastes, and combustion wastes.

"Hazardous waste" means waste, or combination of wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible illness or incapacitating reversible illness or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

During excavation activities at the proposed stations and launch sites, it is likely that both native soils (clay and silt) and urban fill will be encountered above the top of rock. Urban fill may contain hazardous substances and may need to be managed as special waste. Urban fill is soil mixed with a variety of man-made materials like brick, concrete, glass, and ash; urban fill is associated with past industrial and commercial activities in urbanized areas and will likely to be encountered during surface and subsurface excavation at TBM launch sites, stations, or egress shafts. Excavated materials, especially where urban fill is suspected, will be properly characterized to identify proper disposal in accordance with Tennessee regulations.

Excavated rock is not considered hazardous waste or special waste; limestone, which is the predominant rock anticipated to be encountered during tunnel boring activities, poses little to no risk to human health or the environment. All crushed rock and muck (drilled rock mixed with water) will be conveyed to a muck pit at each launch site and will subsequently be transported to approved disposal or recycling facilities in compliance with Tennessee regulations.

Water generated by the TBM rock cutting activities poses little to no risk to human health or the environment because it is simply a mix of water and limestone dust. Groundwater that is encountered during excavation has the potential to contain petroleum or other contaminants due to potential historic releases from regulated facilities like gas stations or industrial facilities, which are present along the Project alignment. Additionally, surface water runoff from the construction sites could contain petroleum products and/or hazardous substances if a spill or equipment leak were to occur on the construction site. Water testing has been conducted at the 637 Rosa L. Parks Boulevard TBM Launch Site/Station, with test results indicating that the water poses no risk to human health or the environment.

3.2.2 Impact Analysis

Construction and demolition wastes and solid wastes are generated at every construction site and are typically managed by disposal companies in conformance with state, federal, and municipal regulations; these wastes pose little to no risk to human health and the environment when handled properly.

The proposed Project will disturb sub-surface soils, bedrock, and groundwater above and/or within the bedrock.

Any urban fill materials removed during excavation would have a less than significant impact given the implementation of proper characterization and disposal measures that are a part of TBC construction procedures. Identification, testing, and characterization of soils that may contain hazardous substances will limit risks to site workers and confirm that potentially contaminated fill materials are properly disposed of in accordance with state, federal, and municipal regulations. It is possible that urban fill materials will require disposal as special waste.

Management of rock and muck will have a less than significant impact because limestone rock and water used for drilling are not expected to contain hazardous substances or petroleum products based on the equipment maintenance and inspections outlined in TBC's Written Safety Program.

Management of groundwater and surface water runoff will have less than significant impact. TBC received a water discharge permit from Metro Water Services at 637 Rosa Parks Blvd; Temporary Special Discharge Permit 25-296-001 was issued to TBC by the Metropolitan Government of Nashville and Davidson County Department of Water and Sewerage Services on October 20, 2025. TBC will only discharge water where it is allowed by the permit, and no water will be discharged by TBC directly to a stream or surface water. TBC will conduct water sampling and discharges in conformance with the testing and discharge requirements outlined in the Metro Water Services water discharge permit.

Impact Analysis for Hazardous and Regulated Materials and Waste: Less than Significant Impact

3.3 Health and Safety

3.3.1 Affected Environment

Proposed construction activities could present safety risks to construction personnel, TBC personnel and contractors, and the public near the Project areas. Risks to construction-related personnel would result from transporting and operating construction equipment, particularly the specialized TBM, shallow excavation activities, underground operations, and materials and equipment.

The staging and work areas could also present safety risks to TBC personnel/contractors working at the site, and to the public that are in the vicinity of the portal areas while work is ongoing.

Consequently, TBC plans, develops, and provides functional management of policies and procedures for safety and establishes and approves safety procedures for the protection of property and the public. TBC requires that all activities be conducted in accordance with occupational safety and health programs required under Title 29 of the Code of Federal Regulations (CFR), Occupational Safety and Health standards for Construction (i.e., 29 CFR 1926).

Institutional and construction activities conducted at TBC will be performed in accordance with TBC's *Written Safety Program*. The *Written Safety Program* outlines proper safety protocols and emergency response procedures for the safety of personnel, protection of property, and operations of facilities. The *Written Safety Program* outlines occupational health and safety and emergency (i.e., fire, crash, and rescue) planning and operations, safety inspection procedures, trainings, bloodborne pathogen procedures, lockout/tagout procedures, hearing protection,

confined spaces safety and procedures, ladder safety, hot works safety and procedures, fall protection, powered industrial truck safety, respiratory protection, tool safety program, personal protection equipment (PPE), incident investigation procedures, underground construction procedures, TBM safety and procedures, heat illness and injury prevention, heavy equipment safety, and excavation and trenching procedures. Safety controls are established to minimize the potential hazards associated with institutional and workplace activities. Note: The Boring Company's Written Safety Program is a confidential and proprietary document that outlines detailed safety procedures to ensure a fully compliant and safe work environment. Due to its confidential and proprietary nature, TBC is unable to publicly release the full document.

The proposed Music City Loop Project will meet or exceed the National Fire Protection Association (NFPA-130) fire and life safety standards and incorporate advanced safety features such as real-time gas and smoke detection, a wet standpipe system for fire suppression, and a bidirectional, redundant emergency ventilation system to ensure air quality and emergency response capability. Tunnels are equipped with direct communications to a 24/7 staffed Operations Control Center via Blue Light Stations, LTE cell service, and secured WiFi links, as well as an emergency communications system tailored for police and fire departments.

All personnel involved with operational programs at TBC follow appropriate safety protocols, including OSHA regulations and internal training requirements.

Tunnel access points in Music City Loop will feature secure gates, access-controlled station entrances, and 100% camera coverage with no blind spots. In the unlikely event of unauthorized entry, Operations Control Center personnel or automated systems will immediately alert security, trigger red tunnel lighting, and prompt drivers to stop until the person is removed. When the system is closed, a rollup gate secures the tunnel entrances. Emergency responders will then be dispatched to safely remove the individual from the tunnel. Music City Loop tunnels are also designed so the surface drive itself provides over 9 feet of clear space, allowing people to safely and comfortably exit in compliance with NFPA-130 standards.

After the reinforced concrete liner and waterproofing membrane is installed in the tunnel, there are only limited areas where water can enter the system (at the stations). The stations are elevated with barriers and/or drains with pumps to keep water from running into the system to protect the public and workers from flooding while underground. If water does enter the system, the tunnels will have redundant high-power sump pumps to remove any water.

3.3.2 Impact Analysis

TBC will follow TBC's *Written Safety Program*, public signage, and extensive security protocols. To minimize risks to safety and human health, all construction activities would be performed by qualified personnel who are trained to safely operate the appropriate equipment. TBC and its

contractors would conduct all Project activities in accordance with OSHA regulations. Federal contractors would follow regulations defined in Federal Acquisition Regulation 52.236-13 and Accident Prevention. Access to underground operations will be protected from unauthorized entry and properly posted and fenced off. Public signage, as appropriate, would be placed on portal areas to alert the public of Project activities. Security protocols will include perimeter fencing to keep the public from entering active construction sites and monitoring of work sites to verify that only authorized personnel are present.

The absence of an electrified third rail or touch-hazards eliminates electrical risks, and fully illuminated tunnels with redundant lighting systems ensure visibility. Comprehensive camera coverage provides 100% monitoring with no blind spots, including surveillance of passenger entry points to observe boarding activity and detect suspicious behavior, enabling real-time oversight. Loop drivers go through extensive initial and ongoing training, which includes emergency preparedness.

Groundwater intrusion into the tunnel during initial drilling activities is a potential concern, especially when tunneling through karst areas in the Bigby-Cannon Formation. Groundwater intrusion into the tunnel could pose a health and safety risk, especially during heavy rainfall in karst areas and in areas below the Cumberland river. To avoid potentially significant health and safety risks from intrusion of groundwater, a significant amount of subsurface data has been collected to accurately map top of rock throughout the alignment, and TBC will continue to collect geotechnical data during the project planning phase to confirm that the proposed boring tunnel depth is in a suitable zone and to allow for any necessary adjustments in the tunnel depth. Additional mitigation will also be implemented to address water infiltration via a water mitigation plan that will be implemented by TBC; this water mitigation plan will vary depending on the degree of water intrusion but will generally include drilling, grouting, and sealing off any area where groundwater is discharging into the tunnel.

Impact Summary for Health and Safety: Less than Significant Impact

3.4 Land Use Planning and Zoning

3.4.1 Affected Environment

Land use generally refers to human modification of the land, often for residential or economic purposes. It can also refer to use of land for preservation or protection of natural resources such as wildlife habitat, vegetation, or other unique features. Human land uses generally include residential, commercial, industrial, agricultural, or recreational uses.

Land uses along the alignment of the proposed Music City Loop Project consist of mostly existing roadways and CS (Commercial Service) zoning, with some areas of CL (Commercial Limited),

Commercial PUD (Commercial Planned Unit of Development), MUL (Mixed Use Development), IR (Industrial Restrictive), RM40 (High Density Residential), SP (Specific Plan), ORI (Office and Residential Intensive), IWD (Industrial Warehousing/Distribution), CF (Core Frame), MUI (Mixed Use Intensive), MUG (Mixed Use General), and DTC (Downtown Code). **Figures 5-1 through 5-28** show general land-use classifications along the Project alignment.

The Broadway Alignment and Airport Alignment are still under evaluation and more than 20 stations are currently in various stages of design along these alignments. Each station is planned in detail with the property owner and with a focus on safety, ridership, vehicle flow, and pedestrian wayfinding. With the exception of proposed stations at 637 Rosa L. Parks Boulevard, Music City Center, and BNA; TBC is currently engaging with the community to determine the most useful stops based on public feedback. Future expansions could include stations across other Nashville communities, with potential routes to be determined based on the city's growth and transit needs, as well as input from the public and public officials.

3.4.2 Impact Analysis

Stations will be designed to meet varying capacity needs: low-to-medium capacity stations can be 2 vehicle stalls with a footprint of less than 4,000 square feet, making them suitable for less dense areas, while higher capacity stations, such as those at an airport or a convention center, can be larger with 20 vehicle stalls and a footprint of 20,000 square feet. Stations can be either surface or subsurface, based on the property owner's preference.

The Project is compatible with the existing land use zoning along the proposed alignment and will provide a subterranean, zero-emissions, high-speed transportation alternative to public roadways and existing public transportation systems. Consequently, the Project would result in a less than significant impact in existing land use or land use designations in or adjacent to the Project. Temporary closures and/or inability to access the stations and/or launch sites during construction would not result in long-term changes to land use or compatibility with designated land use, and land use within or outside of the Project would not be significantly adversely affected.

Impact Summary for Land Use: Less Than Significant Impact

3.5 Formally Classified Lands

3.5.1 Affected Environment

Formally classified lands include the following categories: US Forest Service lands Wilderness Areas; Wild, Scenic, and Recreational Rivers; National Rivers Inventory; State Parks and State Natural Areas; State Forests; Recreational Areas; Military Installations; and State Fish and Wildlife

Management Areas. There are no formally classified lands in the Project Alignment or the Project area.

3.5.2 Impact Analysis

There are no formally classified lands in the Project area so there would be no impacts.

Impact Summary for Formally Classified Lands: No Impact

3.6 Aquatic Resources

3.6.1 Affected Environment

Aquatic resources include surface waters such as rivers, streams, ponds, and wetlands. DRG completed a desktop analysis and identified aquatic resources along the proposed Music City Loop Project, as shown in **Figure 2**. No aquatic resources were identified at 637 Rosa L. Parks Boulevard TBM Launch Site/Station, Music City Center Station, or Airport Station. Based on a review of hydric soils data, lidar imagery, and National Wetland Inventory (NWI) data, no wetlands were identified along the Project alignment, but the alignment crosses four named streams/rivers: Browns Creek (D-1), Mill Creek (D-4), McCrory Creek (D-12), and the Cumberland River. Nine additional unnamed tributaries (D-2, 3, 5, 6, 7, 8, 9, 10, and 11) and one pond (Pond-1) were identified in DRG's desktop analysis along the Project alignment.

3.6.2 Impact Analysis

Because there are no aquatic resources at the 637 Rosa L. Parks Boulevard TBM Launch Site/Station, Music City Center Station, or Airport Station, the proposed Project will have no impacts to aquatic resources at these locations.

The proposed boring tunnel depths will be approximately 30 feet below Mill Creek and will be approximately 28 feet below Browns Creek. With consistently adequate separation between the tunnel crown and the stream beds, no impacts to these streams are anticipated. Mill Creek and Browns Creek have ample natural overburden between the stream bed and proposed tunnel boring depth, which provides a sufficient geologic buffer to avoid any effect on stream stability or function. At McCrory Creek, the tunnel boring location is below the existing reinforced concrete pipes (RCPs) under Donelson Pike, and the creek itself is fully contained within those structures. Because McCrory Creek is contained within RCPs, the proposed tunnel boring is not expected to result in any loss of stream flow or other stream impacts. Overall, the combination of existing conditions, sufficient overburden and favorable geologic conditions ensures that the proposed boring tunnel will not affect any of the streams along the alignment.

The proposed boring tunnel will maintain substantial overburden beneath the Cumberland River bed; current tunnel boring plans show the proposed boring tunnel crown will be approximately

25-feet below the depth of the Cumberland River bed. At this depth, localized solution-enhanced features may be present within the bedrock, as is typical for the region; however, with the tunnel positioned within competent geologic units and well below the river bed, the potential for groundwater-related impacts is low. TBC will continue to follow standard geotechnical and tunneling best practices, which include refining subsurface characterization as design progresses and selecting a final tunnel depth that avoids unfavorable zones. If any localized groundwater inflow is encountered during construction, TBC will implement appropriate and well-established tunneling measures to effectively manage groundwater intrusion. With these standard engineering practices in place, the Project is expected to result in less than significant impacts on the Cumberland River.

Impact Analysis for Aquatic Resources: No Impact to Less Than Significant Impact

3.7 Rare Threatened and Endangered Species

3.7.1 Affected Environment

DRG utilized the TDEC Natural Heritage Program's Environmental Review Tool (ERT) along with the USFWS Information for Planning and Consultation (IPaC) database to determine if rare, threatened, or endangered (RTE) species are mapped or observed in the vicinity of the proposed Music City Loop Project. The information in the TDEC and IPaC reports is based on documented occurrences in the vicinity of site or associated watersheds; since all areas of the state have not been surveyed for rare species, these reports only serve as guidance as to what rare species could potentially occur in the vicinity of the Project. The ERT and IPaC reports are provided as **Appendix 1**. No habitat or species-specific surveys for RTE have been conducted as part of the proposed Project.

A summary of the RTE species that previously have been observed within 1 and 4 miles of the proposed Project as reported by the Tennessee Natural Heritage Program is summarized in Tables 9 and 10, below.

Table 9. ERT Summary of Species observed within 1 Mile Radius of the Project

<i>Scientific Name</i>	<i>Common Name</i>	<i>State Status</i>	<i>Habitat Description</i>
<i>Astragalus tennesseensis</i>	Tennessee Milk-vetch	Special Concern	Glades
<i>Phemeranthus calcaricus</i>	Limestone Fame-flower	Special Concern	Glades
<i>Stellaria fontinalis</i>	Water stitchwort	Special Concern	Seeps and limestone creek beds.
<i>Vitis rupestris</i>	Sand Grape	Endangered	Sandy, rocky riverbanks.

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<i>Scientific Name</i>	<i>Common Name</i>	<i>State Status</i>	<i>Habitat Description</i>
<i>Epioblasma brevidens</i>	Cumberlandian Combshell	Endangered	Large creeks to large rivers in coarse sand or mixtures of gravel, cobble, or rocks.
<i>Faxonius shoupi</i>	Nashville Crayfish	Endangered	1st-order & larger streams, generally with bedrock bottom, under slabrock; endemic to Mill Creek watershed; Davidson & William. cos
<i>Cycleptus elongatus</i>	Blue Sucker	Threatened	Swift waters over firm substrates in large rivers,
<i>Ophisaurus Attenuatus longicaudus</i>	Eastern Slender Glass Lizard	Deemed in Need of Management	Dry upland areas including brushy, cutover woodlands and grassy fields.
<i>Thryomanes bewickii</i>	Bewick's Wren	Deemed in Need of Management	Brushy areas, thickets, and open scrub in open country, open and riparian woodlands.
<i>Rookery</i>	Heron Rookery	Rare, Not listed	Riparian corridors, lagoons, grain fields.

The proposed route does not cross glade habitats and will not impact suitable upland habitat or brushy areas, therefore, the presence of Tennessee Milk-vetch, Limestone Fame-flower, Eastern Slender Glass Lizard, and Bewick's Wren along the proposed route is highly unlikely. No impacts to these species are anticipated.

The proposed alignments cross under Mill Creek, Browns Creek, McCrory Creek, the Cumberland River and several tributaries to Mill Creek. Species associated with these streams that occur within 1 mile of the proposed route include the Nashville crayfish, Water Stitchwort, Cumberlandian Combshell, Blue Sucker, and a Heron Rookery. The likelihood of RTE species in the vicinity of portions of the above referenced aquatic resources is high, but because the Project activity will be limited to tunnel boring under these streams at a sufficient depth to avoid impacts, the boring activities and tunnel are not likely to adversely impact fish and invertebrates including the Nashville Crayfish, Water Stitchwort, Cumberlandian Combshell, and Blue Sucker. Less than significant impacts to potential Heron rookeries are anticipated from the boring tunnel or at the proposed stations and TBM launch site, as the sites are not likely to contain a heron rookery.

Although the Sand Grape habitat occurs along the banks of the Cumberland River within the proposed Project route, the only Project activity is tunnel boring at least 25-feet under the river bed, no impact to Sand Grape is anticipated.

Table 10. ERT Summary of Species observed within 4 Mile Radius of the Project

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Scientific Name	Common Name	State Status	Habitat Description
<i>Astragalus tennesseensis</i>	Tennessee Milk-vetch	Special Concern	Glades
<i>Ammoselinu m popei</i>	Pope's Sand Parsley	Threatened	Glades
<i>Boechera perstellata</i>	Braun's Rockcress	Endangered	Limestone Bluffs
<i>Vitis rupestris</i>	Sand Grape	Endangered	Sandy, rocky riverbanks.
<i>Epioblasma brevidens</i>	Cumberlandian Combshell	Endangered	Large creeks to large rivers in coarse sand or mixtures of gravel, cobble, or rocks.
<i>Faxonius shoupi</i>	Nashville Crayfish	Endangered	1st-order & larger streams, generally with bedrock bottom, under slabrock; endemic to Mill Creek watershed; Davidson & William. cos
<i>Cycleptus elongatus</i>	Blue Sucker	Threatened	Swift waters over firm substrates in large rivers,
<i>Ophisaurus Attenuatus longicaudus</i>	Eastern Slender Glass Lizard	Deemed in Need of Management	Dry upland areas including brushy, cutover woodlands and grassy fields.
<i>Thryomanes bewickii</i>	Bewick's Wren	Deemed in Need of Management	Brushy areas, thickets, and open scrub in open country, open and riparian woodlands.
<i>Rookery</i>	Heron Rookery	Rare, Not listed	Riparian corridors, lagoons, grain fields.
<i>Carex davisii</i>	Davis' Sedge	Special Concern	Bottomlands, riparian soils.
<i>Dalea foliosa</i>	Leafy Prairie-Clover	Endangered	Rocky washes and glades.
<i>Echinacea tennesseensis</i>	Tennessee Coneflower	Threatened	Ordovician Limestone Glades.
<i>Elymus svensonii</i>	Svenson's Wild-rye	Threatened	Rocky Bluffs

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Scientific Name	Common Name	State Status	Habitat Description
<i>Lithospermum parviflorum</i>	Shaggy False Gromwell	Endangered	Dry woods.
<i>Mirabilis albida</i>	Pale Umbrellawort	Threatened	Glades
<i>Paysonia densipila</i>	Duck River Bladderpod	Special Concern	Cultivated Fields
<i>Perideridia americana</i>	Eastern Yampah	Endangered	Cedar barrens.
<i>Phemeranthus calcaricus</i>	Limestone Fame-flower	Special Concern	Glades
<i>Phlox bifida</i> <i>ssp. stellaria</i>	Glade Cleft Phlox	Threatened	Glades
<i>Schoenolirion croceum</i>	Yellow Sunnybell	Threatened	Wet areas in glades.
<i>Stellaria fontinalis</i>	Water Stitchwort	Special Concern	Seeps and Limestone creek beds.
<i>Symphyotrichum praealtum</i>	Willow Aster	Special Concern	Moist prairies and marshes.
<i>Juglans cinerea</i>	Butternut	Threatened	Rich woods and hollows.
<i>Lampsilis abrupta</i>	Pink Mucket	Endangered	Large rivers with sand-gravel or rocky substrates with moderate to strong currents.
<i>Zanthoxylum americanum</i>	Northern Prickly-ash	Special Concern	Cedar Thickets.
<i>Plethobasus cooperianus</i>	Orangefoot Pimpleback	Endangered	Large rivers in sand-gravel-cobble substrates in riffles and shoals in deep flowing water.
<i>Sphalloplana buchanani</i>	A Cave Obligate Planarian	Rare, Not Listed	Aquatic cave obligate.
<i>Acipenser fulvescens</i>	Lake Sturgeon	Endangered	Bottoms of large, clean rivers and lakes.

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Scientific Name	Common Name	State Status	Habitat Description
<i>Ambystoma barbouri</i>	Streamside Salamander	Endangered	Seasonally flowing karst streams in middle TN.
<i>Etheostoma luteovinctum</i>	Redband Darter	Deemed in Need of Management	Limestone streams in Nashville Basin.
<i>Ixobrychus exilis</i>	Least Bittern	Deemed in Need of Management	Marshes with scattered bushes or other woody growth.
<i>Macrochelys temminckii</i>	Alligator Snapping Turtle	Threatened	Slow moving, deep water of rivers, sloughs, oxbows, swamps, and lakes in Middle TN.
<i>Peucaea aestivalis</i>	Bachman's Sparrow	Endangered	Dry open pine or oak woods.

Species listed in the ERT that occur within 4 miles of the proposed alignment are less likely to be present in the proposed Project areas compared to species whose habitats are within 1 mile of the proposed Project as listed in TDEC's ERT.

Habitat for the following RTE species documented within 4-miles occurs along the proposed route: Davis' Sedge, which inhabits bottomlands and riparian soils; Shaggy False Gromwell, which inhabits dry woods; Pink Mucket, Orangefoot Pimpleback, Lake Sturgeon, and Alligator Snapping Turtle, which inhabit the Cumberland River system; *Sphalloplana buchanani* (a cave obligate planarian), which inhabits aquatic caves; Streamside Salamander, which inhabits seasonally flowing and perennial karst streams; and the Redband Darter, which inhabits limestone streams. All the aforementioned habitats are potentially present along the proposed Project, but the activities at the three proposed stations and sub-surface tunnel boring activities will not result in impacts to these species. All other species listed in the ERT report within a 4 mile radius of the Project (Pope's Sand-parsley, Braun's Rockcress, Leafy Prairie-clover, Tennessee Coneflower, Svenson's Wild-rye, Butternut, Pale Umbrella-wort, Duck River Bladderpod, Eastern Yampah, Glade Cleft Phlox, Yellow Sunnysbell, Willow Aster, Northern Prickly-ash, Least Bittern, and Bachman's Sparrow) are not expected to be present within the proposed alignments since no potential habitats for these species occur along the proposed alignments.

The USFWS Information for Planning and Consultation (IPaC) database reports the following RTE species have been observed within the vicinity of the Project:

Table 11. IPAC Summary Table

Scientific Name	Common Name	Federal Status	Habitat Description
<i>Myotis grisescens</i>	Gray Bat	Endangered	Cave obligate year-round; frequents forested areas; migratory.
<i>Perimyotis subflavus</i>	Tricolored Bat	Proposed Endangered	Generally associated with forested landscapes but may roost near openings.
<i>Grus americana</i>	Whooping Crane	Experimental Population	Uses grain fields, shallow lakes, and lagoons during migration and in winter.
<i>Lampsilis abrupta</i>	Pink Mucket	Endangered	Large rivers with sand-gravel or rocky substrates and moderate to strong currents.
<i>Cumberlandia monodonta</i>	Spectaclecase (mussel)	Endangered	Stable, firm-mud substrates of large river systems in reduced current adjacent to swift water.
<i>Danaus plexippus</i>	Monarch Butterfly	Proposed Threatened	Monarch caterpillars exclusively feed on milkweed.
<i>Orconectes shoupi</i>	Nashville Crayfish	Endangered	Endemic to Mill Creek and tributaries
<i>Arabis perstellata</i>	Braun's Rock-cress	Endangered	Limestone bluffs.
<i>Astragalus bibullatus</i>	Guthrie's (=pyne's) Ground-plum	Endangered	Ordovician limestone glades.
<i>Dalea foliosa</i>	Leafy Prairie-clover	Endangered	Rocky washes in glades.
<i>Apios priceana</i>	Price's Potato-bean	Threatened	Openings In Rich Woods
<i>Physaria globosa</i>	Short's Bladderpod	Endangered	Limestone Talus Slopes And Cliffs

An application for a USACE permit for the Project may require consultation with U.S. Fish and Wildlife Service (USFWS) regarding potential adverse effects to RTE species. The proposed route does not intersect known caves that serve as hibernacula for the Gray Bat or Tricolored Bat. Therefore, no impact to the Gray Bat is anticipated, and no impact to Tricolored bat hibernacula is anticipated.

Potential habitat for the Monarch butterfly is present along the Project; however, the amount of potential habitat is very small and potential impacts to this species would be considered less than a significant impact. DRG did not observe habitat along the route for the Whooping Crane therefore, no impact to the Whooping Crane is anticipated. The Pink Mucket and Spectaclecase mussel are found in large river systems such as the Cumberland River. Limestone bluffs and cliffs, habitat for Braun's Rock-cress and Short's Bladderpod are present within the proposed route. However, since the proposed tunnel boring is subterranean, no impact to these species or their habitat is anticipated. The proposed Project does not traverse glade habitat or rich woods, which are potential habitat for Price's Potato-bean, Leafy Prairie-clover, and Guthrie's Ground Plum; therefore, no impact to these species or their habitat is anticipated.

3.7.2 Impact Analysis

No RTE species or their habitat are likely to be present in the vicinity of the 637 Rosa L. Parks Boulevard TBM Launch Site/Station or the proposed stations at the Music City Center or BNA. Since the remaining activities addressed in this EIA are subterranean, the only potential for impacts to RTE species would be associated with groundwater impacts and/or impacts to streams due to subterranean tunnel boring activities. If groundwater is encountered during initial tunnel boring activities, a water mitigation plan will be implemented; this water mitigation plan will vary depending on the degree of water intrusion but will generally include drilling, grouting, and sealing any area where water is entering into the tunnel. Based on the proposed tunnel boring depth, minimal surficial impacts considered in the EIA, and the proposed water intrusion mitigation, there would be less than significant impacts to RTE species known to inhabit Mill Creek, Browns Creek, McCrory Creek and several tributaries to Mill Creek.

As with any deep tunneling project, routine groundwater encounters within the subsurface may occur; due to the proposed tunnel boring depth below the Cumberland River, these conditions would be isolated from the Cumberland River and would have less than a significant impact on Pink Mucket or Spectaclecase mussels that may be present along the Broadway Alignment.

Impact Analysis for RTE Species: No Impact to Less Than Significant Impact

3.8 Geology

3.8.1 Affected Environment

The proposed Music City Loop Project will penetrate Ordovician-age carbonate rocks comprising portions of the Stones River and Nashville Group, including the Leipers-Catheys, Bigby-Cannon, Hermitage, and the Carters Formations. These units vary in their relative calcareous vs. siliceous content but are classified generally as limestones. The incidence of significant faulting is low, but moderate fracturing is common, in keeping with a stable tectonic setting dominated by the gentle flexure of the Nashville Dome along the larger extent of the Cincinnati Arch. Except for some local variations, the beds are practically flat-lying with dips ranging from zero to less than five degrees. Several well-known scientific literature sources were accessed for this section, its descriptions, and conclusions.^{10, 11, 12 & 13}

Karst development in these formations is controlled by formation and bedding mineralogy, stratigraphic position beneath overlying materials, occurrence of structural discontinuities (faults and fracture zones), and depth below ground surface. Karst development, where present, may occur locally throughout the uppermost stratigraphic column, but may be more pronounced in portions of the Leipers-Catheys (generally limited to thinner, isolated beds between shalier intervals), in the more massively-bedded intervals in the Bigby-Cannon, locally in the uppermost Hermitage, and in the Carters Formation particularly where the Hermitage has been removed by weathering.

Groundwater in the Nashville Basin is generally not relied upon as an important source of water for municipal, domestic, or industrial use, but the Leipers-Catheys, Bigby-Cannon, and Carters Formations are known to have moderate groundwater productivity. The Hermitage Formation is a regional confining layer with little groundwater production except in some locations where the uppermost *Dalmanella* interval may be productive. Variable, but relatively limited occurrences of groundwater are commonly encountered at the soil/bedrock interface, and perched water in soil and residuum above the top of rock also is common. Because the matrix porosity is generally low in the formations that will be intersected by the tunnel boring alignment, groundwater is

¹⁰ Wilson, Jr., C.W. "Pre-Chattanooga Stratigraphy in Central Tennessee", Bulletin 56, Department of Conservation, Division of Geology, Second Edition, 1990.

¹¹ Rima, D.R. and Goddard, P.L., "Ground-water Resources in the Metropolitan Region of Nashville, Tennessee", U.S. Geological Survey, 1979.

¹² Newcome, Jr., R., "Groundwater in the Central Basin of Tennessee: A Progress Report", Report of Investigations No. 4, Tennessee Department of Conservation, Division of Geology, 1958.

¹³ Brahana, J.V. and Bradley, M.W., "Preliminary Delineation and Description of the Regional Aquifers of Tennessee- The Central Basin Aquifer System", Water-Resources Investigations Report 82-4002, U.S. Geological Survey, 1986.

expected to occur as accumulations along the top of rock and within solution-enhanced bedding planes and fractures within the bedrock (secondary and tertiary porosity). Although not widely developed as extensive large-scale networks, karst features in the shallow horizons to be encountered by the Project tunnel boring activities may provide localized pathways for groundwater intrusion into subsurface structures. Groundwater intrusion is regularly encountered in association with excavation and construction in the Bigby-Cannon formation in Nashville.

3.8.2 Impact Analysis

Throughout Music City Loop, anticipated impacts are expected to range from No Impact to Less Than Significant Impact. No Impact is expected throughout the portions of the tunnel boring alignment in which proposed tunnel boring depths will be within the Hermitage Formation. Tunnel boring in this formation, and deeper into the Carters Limestone at locations where it is overlain by the Hermitage, will largely avoid zones of problematic karst development and will avoid the groundwater commonly encountered on top of rock.

Portions of the proposed tunnel boring are within the Bigby-Cannon Limestone and upper Hermitage Formation (potentially along the *Dalmanella* bed), and limited portions are located in areas where the Carters Limestone is exposed as the uppermost bedrock layer. The Bigby-Cannon and Carters Formations are susceptible to karst development and present a higher potential for groundwater intrusion. TBC will attempt to avoid tunnel boring in areas where karst development is identified and will attempt to complete most of the tunnel boring activities within the Hermitage formation whenever practicable. The portion of the proposed tunnel boring that traverses beneath the Cumberland River, the regional base level groundwater discharge, is within the Carters Limestone below the assumed riverbed. The proposed boring tunnel will maintain substantial overburden beneath the Cumberland River bed (more than 25 feet). At this depth, localized solution-enhanced features may be present, as is typical for the region; however, with the tunnel positioned within competent geologic units and well below the river bed, the potential for groundwater-related impacts is low.

TBC will continue to follow standard geotechnical and tunneling best practices, which include refining subsurface characterization as design progresses and selecting a final tunnel depth that avoids unfavorable zones. If any localized groundwater inflow is encountered during construction, TBC will implement appropriate and well-established tunneling measures to manage it effectively. With these standard engineering practices in place, the Project is not expected to result in any significant impacts on the Cumberland River or other identified aquatic resources along the Music City Loop.

This impact analysis is based on proposed tunnel boring depths provided in the TBC plans and from reports and data from PSI, Terracon, Hawkston, and other contractors provided to us by TBC. If additional geotechnical or exploratory borings encounter subsurface conditions that have been identified as potential risks in this summary (e.g. active karst conduits), then additional geological consultation may be warranted and the recommendations and opinions provided herein may change.

Impact Analysis for Geology: No Impact to Less Than Significant Impact

3.9 Cultural Resources

3.9.1 Affected Environment

Midsouth Cultural Resource Consultants (MCRC) completed a desktop cultural resource review of Music City Loop to identify the potential for cultural resources along the Project Alignment (**Appendix 2**). The desktop cultural resource review included the Tennessee Division of Archaeology (TDOA) on-line site files, the Tennessee Historical Commission (THC) on-line viewer, and the National Register of Historic Places (NRHP) listings. The results of these investigations are presented below. The Area of Potential Effect (APE) for archaeological resources is defined as the area of ground disturbance including the soil materials affected by tunneling. The APE for architectural resources is the viewshed along the entire Project alignment.

Sixty-seven archaeological sites have been recorded within the vicinity of the APE, two of which are within the proposed Project alignment (identified by THC as 40DV571 and 40DV401) and 65 of which occur within a 1-mile radius of the archaeological APE. The Northern Route of the Trail of Tears (40DV571) follows the Airport Alignment from the intersection of Donelson Pike and Murfreesboro Pike to 2nd Ave. S. The extent of 40DV571 has been severely disturbed or altered, although areas with intact deposits may be present. Site 40DV401 is listed as medical, mental hospital, rural domestic farmstead, and private cemetery and covers a large area on the west side of the intersection between Donelson Pike and Murfreesboro Pike, encompassing much of BNA and the surrounding area. Site 40DV401 has also been heavily disturbed.

A review of the THC on-line site files (which lists architectural resources) revealed 131 previously recorded properties within a 500-foot radius of the proposed Airport Alignment and 180 previously recorded properties within a 500-foot radius of the Broadway Alignment. Thirty-two properties listed on the NRHP are present within a 500-foot radius of the APE.

Two NHRP-listed structures overlook the 637 Rosa L. Parks Boulevard TBM Launch Site/Station, the Tennessee State Library and Archives (03001154) and Tennessee Supreme Court Building (14000084).

3.9.2 Impact Analysis

There are no previously recorded archaeological resources within the 637 Rosa L. Parks Boulevard TBM Launch Site/Station, the Music City Center Station, or the Airport Station. Therefore, there would be no impacts to archaeological resources at these locations. Additionally, there are no architectural resources listed in the NRHP or by THC at these locations.

Although the proposed boring tunnel will occur underneath known archaeological sites along the Project alignment, the areas where the tunnel boring is in bedrock will not impact previously recorded archaeological sites. In the case of inadvertent discovery of human or ancestral remains and/or cultural resources during any future excavation work within the previously recorded archaeological sites, TBC would immediately halt activities and notify the appropriate Tribal governments; the THC; and, for remains, the coroner and local law enforcement, to ensure that the remains and/or archaeological resources are handled appropriately.

The Project will not result in direct impacts to the two NHRP-listed structures that both have views of the 637 Rosa L. Parks Boulevard TBM Launch Site/Station. Indirect impacts from changes to the viewshed are anticipated to be less than significant due to the existing urban character of the surrounding downtown Nashville area.

The subsurface station at the Music City Center will result in no impacts to archaeological or architectural properties including any sites listed in the NHRP or THC. Neither the subsurface borings along the Airport and Broadway Alignments nor at the Airport Station are anticipated to result in impacts to cultural resources, including NHRP- or THC-listed properties. To ensure that no THC or NHRP listed structures are impacted by the Project, TBC will implement a comprehensive TBM Instrumentation and Monitoring Plan. This TBM Instrumentation and Monitoring Plan will proactively identify and mitigate any settlement issues along the alignments from tunnel boring or underground construction activities.

Impact Analysis for Cultural Resources: No Impact to Less than Significant Impact

3.10 Visual Impacts

3.10.1 Affected Environment

Visual resources refer to the landscape character (i.e., what is seen), visual sensitivity (i.e., human preferences and values regarding what is seen), scenic integrity (i.e., degree of intactness and wholeness in landscape character), and landscape visibility (i.e., relative distances of seen areas) of a geographically defined viewshed. There are no State, Federal, or municipal regulations for aesthetics.

The viewshed of the Music City Center is characteristic of a downtown commercial setting with large buildings, city streets, and businesses. The viewshed surrounding the 637 Rosa L. Parks Boulevard TBM Launch Site/Station is characteristic of a downtown urban setting and includes city streets, parking lots, the First Baptist church, a railroad, two NHRP structures (the Tennessee State Library and Archives and Tennessee Supreme Court Building), and numerous other downtown buildings.

The viewshed along the alignments is primarily urban with commercial and residential development, and the viewshed around BNA is highly developed with the airport, roadways, parking lots, and passenger loading and unloading areas.

3.10.2 Impact Analysis

There would be temporary impacts to the viewshed at any sites where construction and tunnel boring activities would occur above ground.

Any subsurface work and permanent underground infrastructure would have no effect on visual resources. This includes the proposed station at Music City Center that will connect to the tunnel via a subsurface garage. Additionally, the proposed station at BNA will not alter the character of the above ground aesthetics, because the area is already developed with roadways, parking areas, and areas for passenger loading and unloading.

Designs for the 637 Rosa L. Parks Boulevard TBM Launch Site/Station have not been finalized, but the station is not anticipated to obstruct views of any surrounding visual resources and is not expected to alter the visual character of nearby areas. The final design of the station will be consistent with land use and zoning regulations, and final design plans will be submitted to the City of Nashville for review and approval. As needed and if required by the City or through cultural resources coordination with THC, building design aesthetics of this station could be modified to reduce the effect to the viewsheds of the nearby NRHP structures.

Impact Summary for Visual Impacts: No Impact

3.11 Transportation and Traffic

3.11.1 Affected Environment

The Project's effect on traffic will change over the course of the Project. Currently, the 637 Rosa L. Parks Boulevard TBM Launch Site/Station is affecting traffic due to minimal dump truck traffic, equipment and supply deliveries, and additional traffic from onsite workers.

Once tunnel boring operations begin at the 637 Rosa L. Parks Boulevard TBM Launch Site/Station, tunnel excavation will generate approximately 2 to 3 dump truck loads per hour. Occasional

deliveries of materials and equipment are expected to add fewer than one additional truck per day on average during tunnel boring operations. The presence of additional dump trucks on surrounding roadways are minimal when compared to typical city traffic volumes, would be similar to other construction projects around Nashville, and are not expected to cause significant traffic disruptions. Traffic impacts at the proposed Music City Center Station and Airport Station are expected to be similar to the impacts described above at the 637 Rosa L. Parks Boulevard TBM Launch Site/Station.

Once Music City Loop is completed, each trip that someone takes using Music City Loop will reduce the number of cars on the road. Fewer cars on the road will lead to less congestion, faster trips, quicker deliveries, and less parking and road infrastructure that our region needs to build. Based on the current design, none of the Tesla vehicles will exit the tunnels and drive on public roadways, so Music City Loop will add no additional vehicle traffic to above ground roadways or transportation infrastructure.

3.11.2 Impact Analysis

The current and future operations at the 637 Rosa L. Parks Boulevard TBM Launch Site/Station and the Music City Center Station and Airport Station will not result in road closures or significant traffic impacts. Traffic impacts associated with additional TBM launch sites, stations, or egress shafts are not considered in this EIA.

Once Music City Loop is completed, it will have only positive impacts on transportation and traffic, because it will provide an alternative transportation option that can be utilized by the tourists visiting Nashville and by local residents. The Project also aligns with the city's vision for innovative transportation infrastructure and economic growth and will reduce the number of cars on the road and lead to less traffic and congestion.

Impact Summary for Transportation and Traffic: No Impact to Positive Impact

3.12 Infrastructure and Utilities

3.12.1 Affected Environment

Infrastructure and utilities include potable water systems, wastewater treatment systems, electric utilities, communications, and solid waste management.

No utilities or infrastructure have been identified at the proposed depth of the tunnel (generally 30 to 60 feet below the ground surface) based on the plans considered in this EIA. Most public utilities and infrastructure in Nashville are located above the proposed boring tunnels and are generally between 5 and 15 feet below the ground surface.

TBC's utility avoidance procedures involve thorough research and due diligence to identify existing utilities using public records, one-call systems, and geophysical surveys. TBC has coordinated with utility providers at the 637 Rosa L. Parks Boulevard Launch Site/Station and will coordinate with utility providers and municipalities to obtain accurate as-built records along the Project alignment. TBC will then integrate this data into 3D models and Project plans. Critical utility crossings with less than 10 feet of vertical clearance will be flagged by TBC; at any identified critical utility crossing location, TBC will implement mitigation measures, including but not limited to utility and settlement monitoring points, potholing, and ground stabilization to prevent damage to utilities during the Project. Additional mitigation measures include regulatory compliance, crew training, emergency planning, and post-construction documentation to update as-built records, which will minimize risk to infrastructure and public safety. TBC's tunnel alignments also provide large spacing between the tunnels and utilities; if there is ever a close crossing, TBC will add sensors to the utility to detect any impact.

3.12.2 Impact Analysis

Music City Loop has completed extensive utility reviews with appropriate utility providers to minimize potential impacts to infrastructure and utilities. Based on the current Project design plans and the location of the identified major utility crossings, TBC has not identified any utility crossings that would be considered critical utility crossings, where less than 10 feet of vertical clearance is present.

No impacts on utilities or infrastructure have been identified at the 637 Rosa L. Parks Boulevard TBM Launch Site/Station, the Music City Center Station, or the Airport Station.

If any utilities are affected by the Project, TBC will notify the utility provider, mitigate any damage to utilities and/or relocate utilities, and install sensitive monitoring instruments that will notify TBC in the event of any future utility damage and/or replacement needs.

Impact Summary for Infrastructure and Utilities: No Impacts.

3.13 Economic Consequences

3.13.1 Affected Environment

The economic consequences of the Project have the potential to affect local and state governments and the employment, personal income, and housing for the local population in Nashville and Davidson County, Tennessee. Economic consequences from the Project are also likely to affect more localized areas around proposed stations. Data for the State of Tennessee, Nashville, and Davidson County are provided as a general comparison.

The median household income for the City of Nashville in 2023 was \$74,373, and for Davidson County was \$75,664. By comparison, both are higher than the State of Tennessee, which reported a median household income of \$67,097 (DataUSA 2024¹⁴).

In 2023, the three largest industries in Nashville with respect to employment were health care and social assistance (14.2 percent); retail trade (11.0 percent); and manufacturing (9.85 percent). In Davidson County, the largest industries were Management Occupations (13.5 percent), Office & Administrative Support Occupations (10.2 percent), and Business & Financial Operations Occupations (7.46 percent) (DataUSA 2024). By comparison, the three largest industries in The State of Tennessee were Trade, Transportation and Utilities (23.9 percent); Education and Health Services (16.95 percent); and Government Services (15.6 percent) (TNDOLs 2025¹⁵).

3.13.2 Impact Analysis

The Project will not require input from public funds or tax dollars and is privately funded by TBC. Consequently, the Project will not negatively affect the infrastructure budgets for the City of Nashville, Davidson County, or the state of Tennessee. Once Music City Loop is completed, each trip that someone takes using the Music City Loop will reduce the number of cars on the road, which will lead to less parking and road infrastructure requirements. Consequently, the City of Nashville, Davidson County, and the state of Tennessee are likely to spend less on transportation infrastructure once Music City Loop is fully operational, which will have positive economic consequences for the state and local economy.

Project construction and installation activities and future operations are expected to create a comparable number of jobs to the recently completed Las Vegas Loop, which created approximately 280 short-term construction-related jobs and approximately 300 permanent jobs. The 300 permanent jobs created by the Las Vegas Loop included daily operators, maintenance staff, and management personnel. Additional jobs created by the Project will have direct positive effects on employment and personal income for the local population.

During construction of the Project, local stores and businesses will benefit from workers associated with the Project that are purchasing food and goods, staying in hotels and motels, and fueling vehicles and equipment, which will have indirect positive effects on employment and personal income for the local population.

¹⁴ <https://datausa.io/>

¹⁵ TN Department of Labor and Statistics, “Tennessee’s Economy 2024-2045”, 2025, date accessed 10/06/2025. <https://www.tn.gov/content/dam/tn/workforce/documents/majorpublications/reports-02/Tennessee-Economy-2024-2025.pdf>

The Project will allow tourists to quickly be transported to important tourist destinations that drive Nashville's economic growth, including Historic Broadway, the new Nissan Stadium, the area around the capital, the Music City Center, and BNA. Since one of the main economic drivers in Nashville is tourism, the Project will have positive direct and indirect effects on employment and personal income for the local population.

Since the Project will provide a low-cost transportation alternative and quick access to popular tourist destinations, the Project will allow tourists to spend additional money in local businesses and venues, which will also benefit the City of Nashville by providing additional tax revenue.

Areas around the three known stations and potential future stations may also experience increased property values and additional investments in housing and development, which would also have a positive economic effect in these localized areas.

Impact Summary for Economy: Positive effect on the local and regional economy.

3.14 Air Quality, Climate and Greenhouse Gas Emissions

3.14.1 Affected Environment

Air quality in a given location is described by the concentration of various pollutants in the atmosphere. The significance of the pollutant concentration is determined by comparing it to the federal and state ambient air quality standards. The Clean Air Act (CAA), and its subsequent amendments, established the National Ambient Air Quality Standards (NAAQS) for "criteria" pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter less than 10 (PM₁₀) and 2.5 (PM_{2.5}) microns in diameter, and lead (Pb). These standards represent the maximum allowable atmospheric concentrations that may occur while ensuring protection of public health and welfare, with a reasonable margin of safety. Air quality along the route is regulated by the United States Environmental Protection Agency (USEPA), the Tennessee Department of Environment and Conservation (TDEC) Division of Air Pollution Control (APC), and the Metro Nashville Air Pollution Control Program.

In addition to the ambient air quality standards for criteria pollutants, national standards exist for hazardous air pollutants (HAPs). The National Emission Standards for Hazardous Air Pollutants regulates 188 HAPs based on available control technologies. Examples of HAPs regulated by TDEC include benzene, methylene chloride, dioxin, toluene, and metals such as cadmium, mercury, chromium, and Pb compounds. The majority of HAPs are volatile and semi-volatile organic compounds. Unlike the criteria pollutants, toxics do not have NAAQS. HAP impacts are based on exposure concentration and duration.

Greenhouse gases (GHGs) include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone, and several hydro- and chlorofluorocarbons. For simplification, total GHG emissions are often expressed as a CO_2 Equivalent (CO_2e). As GHGs are relatively stable in the atmosphere and are essentially uniformly mixed throughout the troposphere and stratosphere, the climatic impact of GHG emissions does not depend upon the source location. Therefore, regional GHG impacts are likely a function of global emissions.

The region of influence for air quality for this EIA is defined as the Middle Tennessee Intrastate Air Quality Control Region (AQCR) (defined in 40 CFR Part 81.120), which includes Davidson County. The Middle Tennessee Intrastate AQCR is designated in attainment/unclassifiable for all criteria pollutants. Because the proposed Project area is in an attainment area for all criteria pollutants, a General Conformity Review (under Section 176(c) of the CAA) does not apply to this Project.

3.14.2 Impact Analysis

Temporary air quality effects from construction would occur from combustion emissions due to the use of fossil fuel-powered equipment and fugitive dust emissions (PM_{10} and $\text{PM}_{2.5}$) during ground disturbance (such as excavation and the operation of equipment on bare soil). Fugitive dust emissions are expected to be negligible as the amount of above ground disturbance would be limited to isolated stations, launch sites, and egress shafts and the majority of ground disturbing activities along the proposed route would be conducted in a subterranean environment.

Construction equipment would be operated in compliance with applicable USEPA regulations for emissions from vehicles and engines. TBC's construction crews would adhere to the following TDEC air pollution regulations: Chapter 4 (1200-0304) of the Tennessee Air Pollution Control Regulations (TAPCR) dictates that open burning is prohibited (i.e., no open burning of waste would be permitted) and The Division's Visible Emissions Evaluation (VEE) Manual, and Chapter 1200-03-08 Fugitive Dust regulations (e.g., water may be sprayed to lessen impacts from activities that generate dust).

The majority of Project construction equipment such as the TBMs and tunnel support vehicles used to build Music City Loop are zero-emission and all-electric. The isolated use of Project construction vehicles and equipment that would emit minor amounts of criteria pollutants (principally NO_2 , CO, CO_2 , and PM) and HAPs during the short construction period will be limited. The main source of air pollutants would occur in the form of diesel exhaust organic gases and particulates from the combustion of diesel fuel. The operation of proposed diesel-powered construction equipment would be minimized over the construction period and would produce minimal pollutant emissions in a localized area. Therefore, no quantitative assessment of

emissions is warranted. Emissions would be minimized to the extent practicable by implementing Best Management Practices (BMPs) such as restrictions on excessive idling and adherence to equipment maintenance programs for the operation of the fuel burning equipment and vehicles. As a result, total emissions including GHG, from construction vehicles and equipment would result in negligible temporary effects to air quality. Once operational, the Tesla vehicles used for transportation are also zero-emission and all-electric, contributing no emissions from daily operations. Operations regarding HVAC, utilities, and maintenance will create amounts of air pollutants associated with emissions that would be negligible, and operations would have no impact on air quality or contribute GHG to the atmosphere.

Impact Summary for Air Quality, Climate and Greenhouse Gas Emissions: Less than Significant Impact. Positive impact by converting a portion of gas-powered vehicle travel to electric vehicle transportation.

3.15 Sensitive Populations

3.15.1 Affected Environment

The region of influence for sensitive populations is Davidson County, which includes Downtown Nashville and Broadway, a popular tourist destination within Downtown Nashville. This analysis of sensitive populations includes data for Davidson County and the City of Nashville. Data for the State of Tennessee is provided as a general comparison.

Sensitive populations can include: older adults (65+), children (<17), low-income households, people of color, people with disabilities, people living in households with limited English proficiency, and people who walk or use public transit to get to work¹⁶. Protecting sensitive populations ensures that all people are treated fairly and given equal opportunity to participate in community development. The Civil Rights Act of 1964 prohibits the discrimination of people based on race, color, religion, sex, or national origin. The State of Tennessee strives to not only create healthier environments but to meet and enhance basic human needs such as economic quality, health care, housing, human rights, environmental protection and democracy.

The proposed Project alignment traverses a highly vulnerable area of Nashville based on an analysis adapted from methodologies utilized by the Greater Nashville Regional Council where

¹⁶ <https://www.atsdr.cdc.gov/place-health/media/pdfs/2024/10/SVI2022Documentation.pdf>

poverty, carless households, disabled people, and active transportation commuters are some of the leading vulnerabilities^{17,18,19}.

Some of the most sensitive populations of people in Nashville include those in Census Tracts 148, 158.06, 159, and 160 in Davidson County which are along the I-40 corridor within the Project alignment (**Figure 4**). From 2019-2023, approximately 26-88% of people in these Census Tracts were below the Federal poverty line, 71-97% were people of color, and approximately 15-85% of households within these tracts had no vehicle available. Other vulnerable Census Tracts along the proposed route include Census Tracts 165 and 166, near the terminus of the Broadway loop where 23-29% of people were below the Federal poverty line, 31-44% were people of color, and approximately 15% of households lacked access to a vehicle²⁰.

According to The State of Tennessee, communities can provide benefits to sensitive populations by constructing public transportation to connect underserved residents to each other and to provide greater access to jobs and recreation areas²¹.

3.15.2 Impact Analysis

The Project is not expected to harm the environment or result in human health risks with implementation of best management practices. The Project may enhance access to public transportation services for sensitive populations along the proposed route; however, the financial accessibility will depend on the cost associated with the Music City Loop when compared to other public transportation alternatives. The Project is not intended for people to park Downtown and ride to the Airport, it is intended for people visiting Nashville or those that live near the proposed route to have transportation without needing their own vehicle; therefore, there are no traffic congestion issues anticipated. The proposed Project would potentially benefit local transportation by reducing the amount of vehicles on the road.

Since the Project will not be built with public funding or tax dollars due to being privately funded by TBC, no negative impacts to environmental justice programs or tax budgets will occur. Construction activities will also create short-term jobs in the local area along with permanent

¹⁷ <https://experience.arcgis.com/experience/74363e0dbb3e43138bc7d451a90817ef/page/Equity?views=poverty-copy>

¹⁸ https://experience.arcgis.com/experience/d2ea94d98eec4d7980da7b79254706fe/page/Poverty-Status?views=Poverty-Status#data_s=id%3AdataSource_9-17bebad31cb-layer-6%3A36349%2Cid%3AdataSource_7-17ba7c699d4-layer-2%3A36356

¹⁹ https://svi.cdc.gov/Documents/CountyMaps/2022/Tennessee/Tennessee2022_Davidson%20County.pdf

²⁰ https://experience.arcgis.com/experience/d2ea94d98eec4d7980da7b79254706fe/page/Poverty-Status?views=Vehicle-Availability#data_s=id%3AdataSource_9-17bebad31cb-layer-6%3A36354

²¹ <https://www.tn.gov/content/tn/health/cedep/environmental/healthy-places/healthy-places/health-equity/he/environmental-justice.html#CRA>

jobs in the forms of daily operators, maintenance staff, and management personnel. If a station is proposed in areas where sensitive populations are present, then the station would have positive direct and indirect effects on employment and personal income for the local population would likely accrue from increased property values and additional investments in housing and commercial development.

Summary for Sensitive Populations: No Impact to Potentially Positive Impact.

4. Cumulative Effects

4.1 Potential Cumulative Effects Associated with Natural Resources

Based on the current Project design plans and information provided in the Sections above, DRG has determined the cumulative effects to natural resources associated with the tunnel boring activities along Music City Loop, the current and future construction at the 637 Rosa L. Parks Boulevard Launch Site/Station, and the future construction of the Music City Center Station and Airport Station **are less than significant**. TBC has worked with the community and consulted the appropriate industry professionals to ensure that the Project design incorporates the necessary mitigation and due diligence measures to ensure that the Project minimizes environmental impact and complies with State, federal, and municipal standards.

Once Music City Loop is completed, it will have only **positive impacts on transportation and traffic**, because it will provide an alternative transportation option and will lead to less traffic and congestion on Nashville's roadways. Additionally, the City of Nashville, Davidson County, and the state of Tennessee are likely to spend less on transportation infrastructure once Music City Loop is fully operational, which will have positive economic consequences for the state and local economy, and the private investment in the Project will also have positive effects on employment and personal income for the local population.

FIGURES

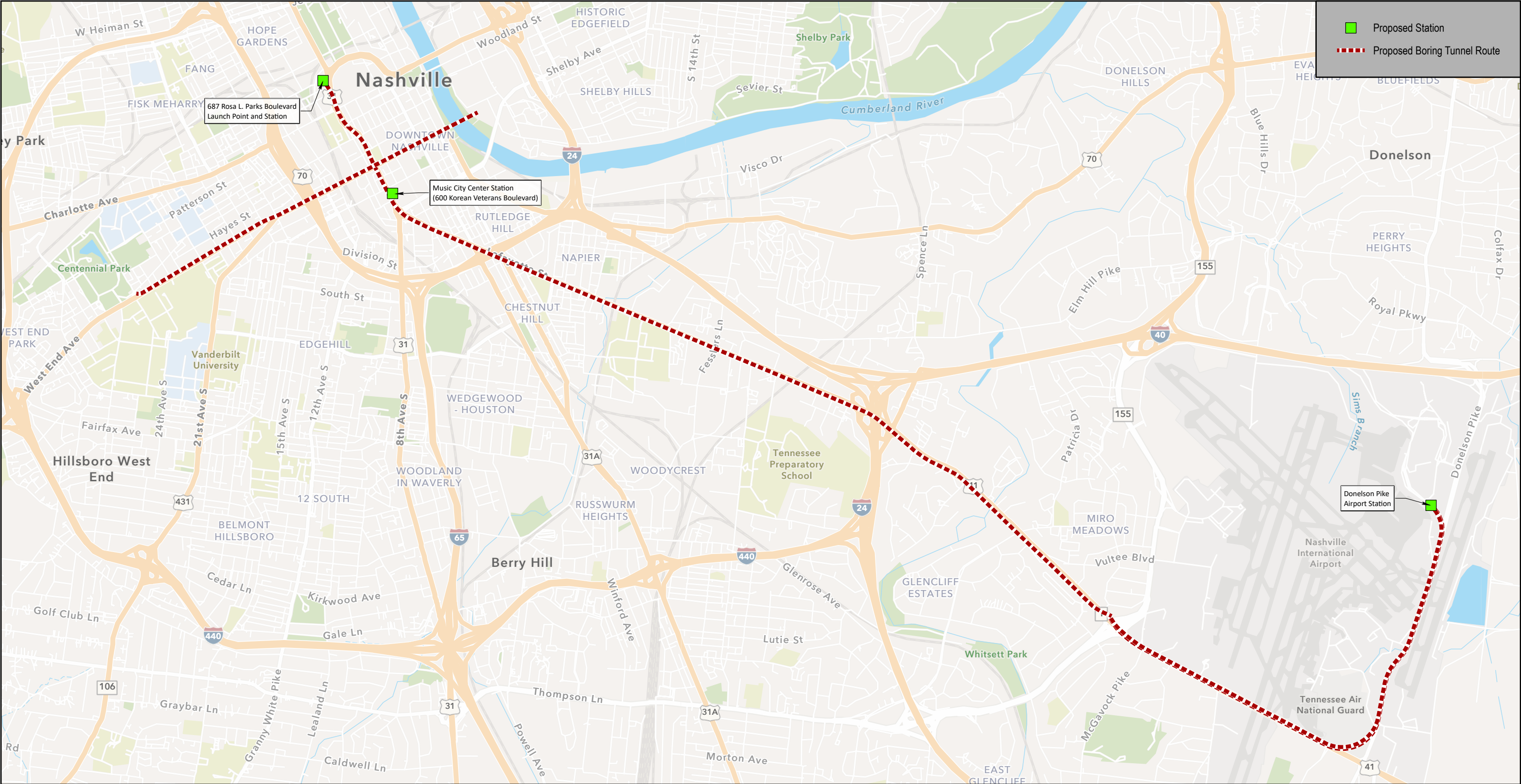
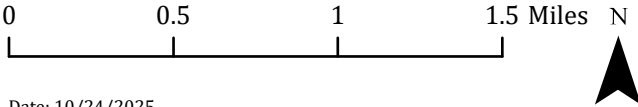
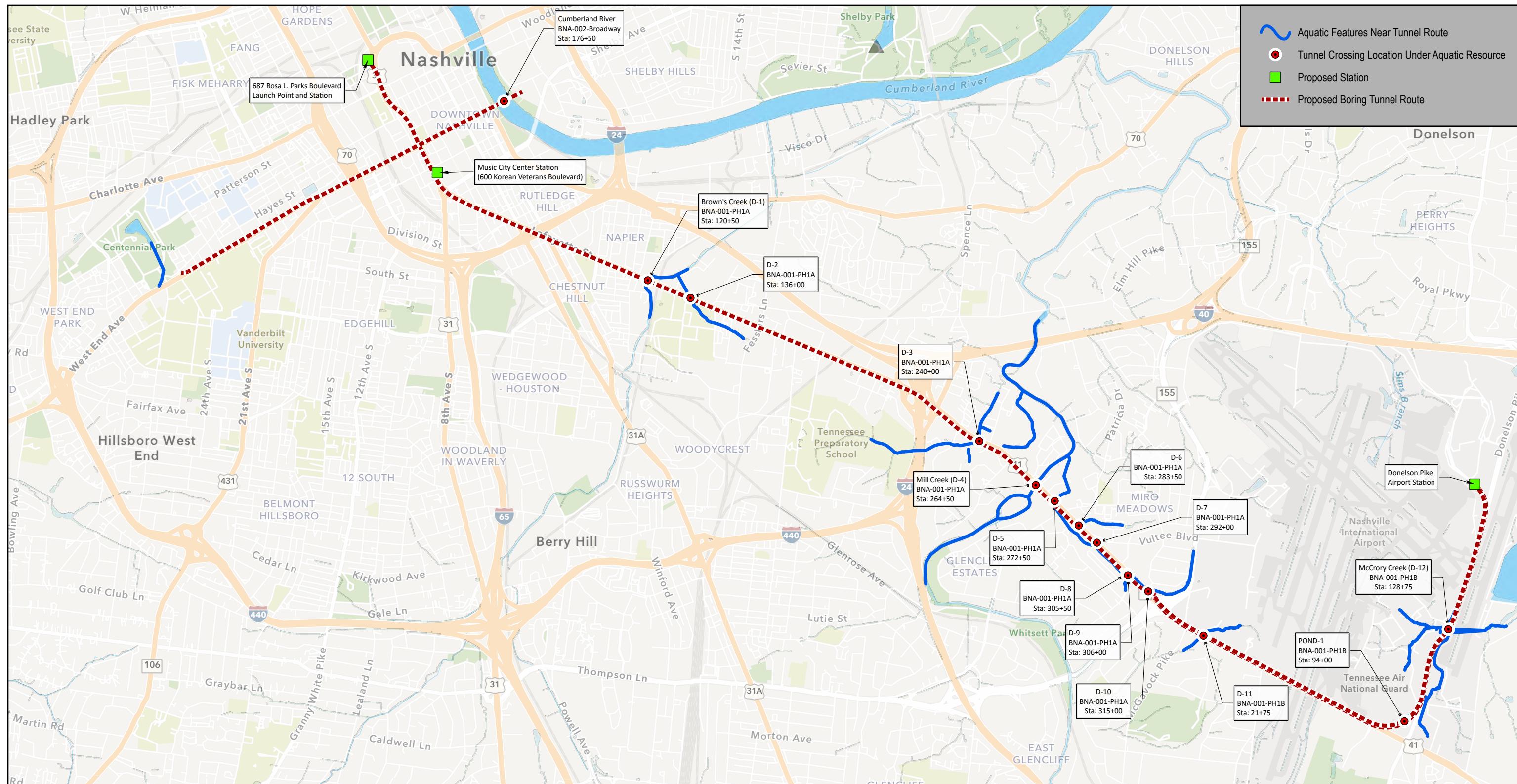
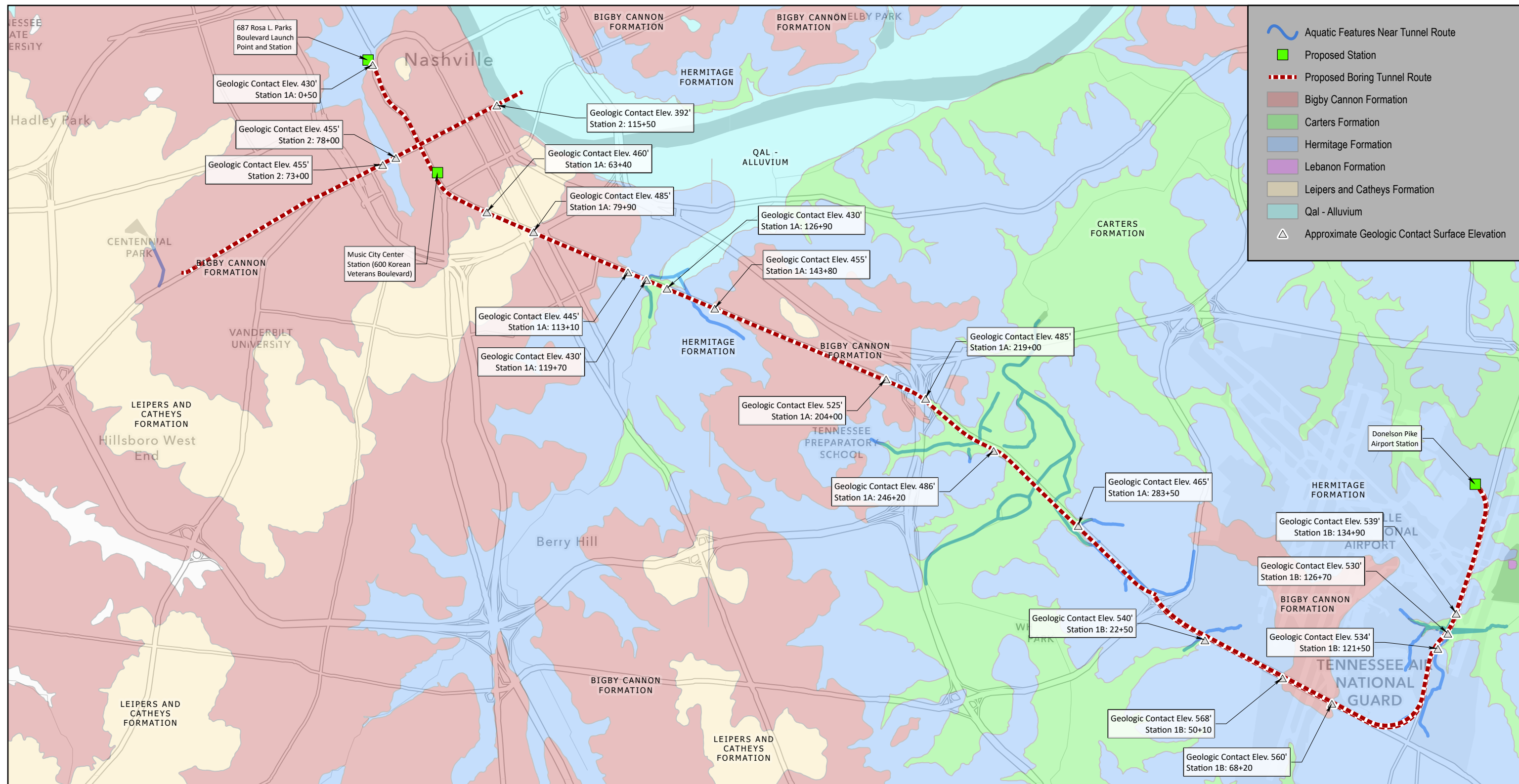


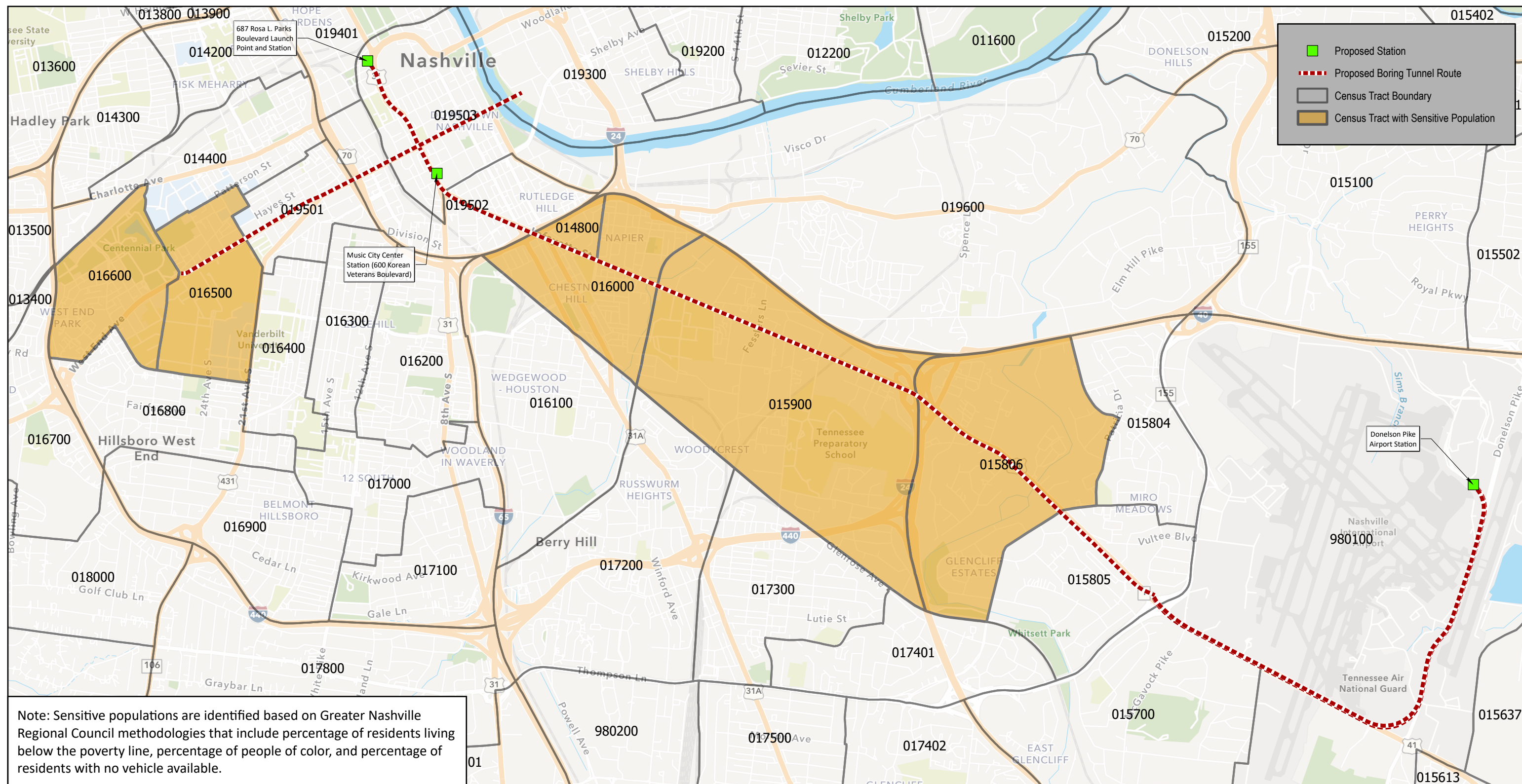
Figure 1. October 2025 Overview of Proposed Music City Loop Project Initial Study Area
Airport Alignment: Rosa Parks Avenue to Nashville International Airport
Broadway Alignment: Centennial Park to Titans Stadium
The Boring Company
Nashville, Davidson County, Tennessee



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.73952°W 36.13892°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: ESRI Community Basemap, The Boring Company Alignment, 10/20/2025





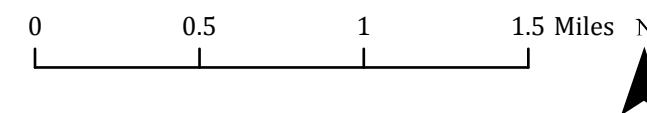


Note: Sensitive populations are identified based on Greater Nashville Regional Council methodologies that include percentage of residents living below the poverty line, percentage of people of color, and percentage of residents with no vehicle available.

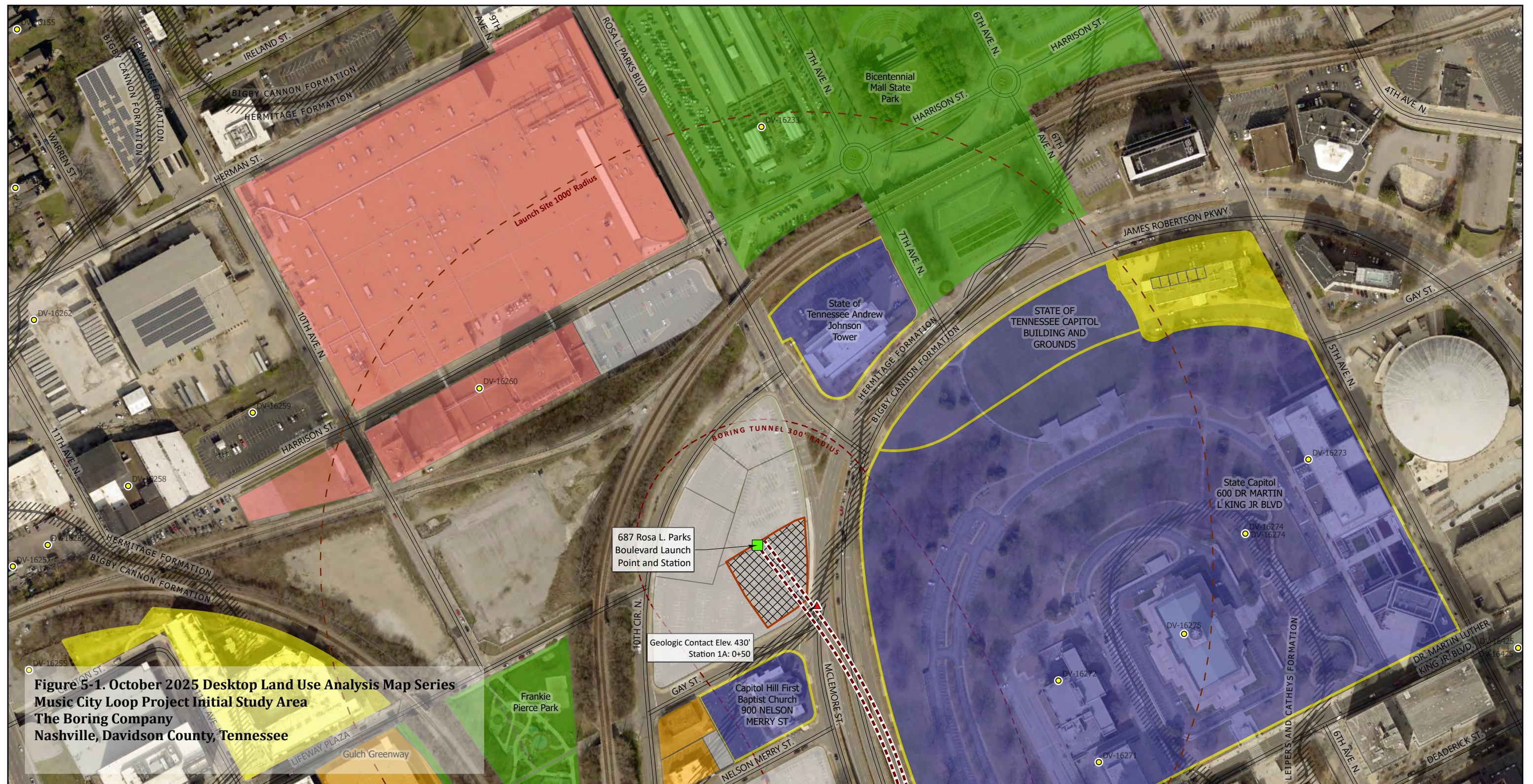


**Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203**

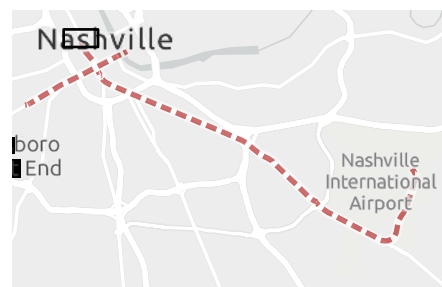
**Figure 4. October 2025 Census Tracts with Sensitive Populations along Proposed Route
Music City Loop Project Initial Study Area
Airport Alignment: Rosa Parks Avenue to Nashville International Airport
Broadway Alignment: Centennial Park to Titans Stadium
The Boring Company
Nashville, Davidson County, Tennessee**



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.74371°W 36.13667°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: ESRI Community Basemap, The Boring Company Alignment 10/20/2025,
Metro Nashville Demographic Atlas 2020,
Metro Nashville Vision Zero Equity Dashboard, US Census Bureau

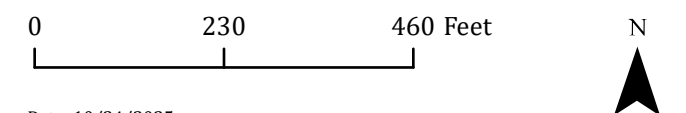


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Nashville, TN 37203



- | | | | | | |
|---|--|---|--------------------------------------|---|---------------------|
|  | Approximate Geologic Contact Surface Elevation |  | State of TN Historic Commission Site |  | Office |
|  | Proposed Station |  | Geologic Contacts |  | Industrial |
|  | Proposed Tunnel Routes October 2025 | Land Use Types | |  | Parking |
|  | Music City Loop 300' Buffer |  | Institutional/Cultural |  | Common Space/Vacant |
|  | Launch Site 1000' Buffer |  | Residential | | |
|  | Launch Site Area |  | Park | | |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.78786°W 36.16746°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land
Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

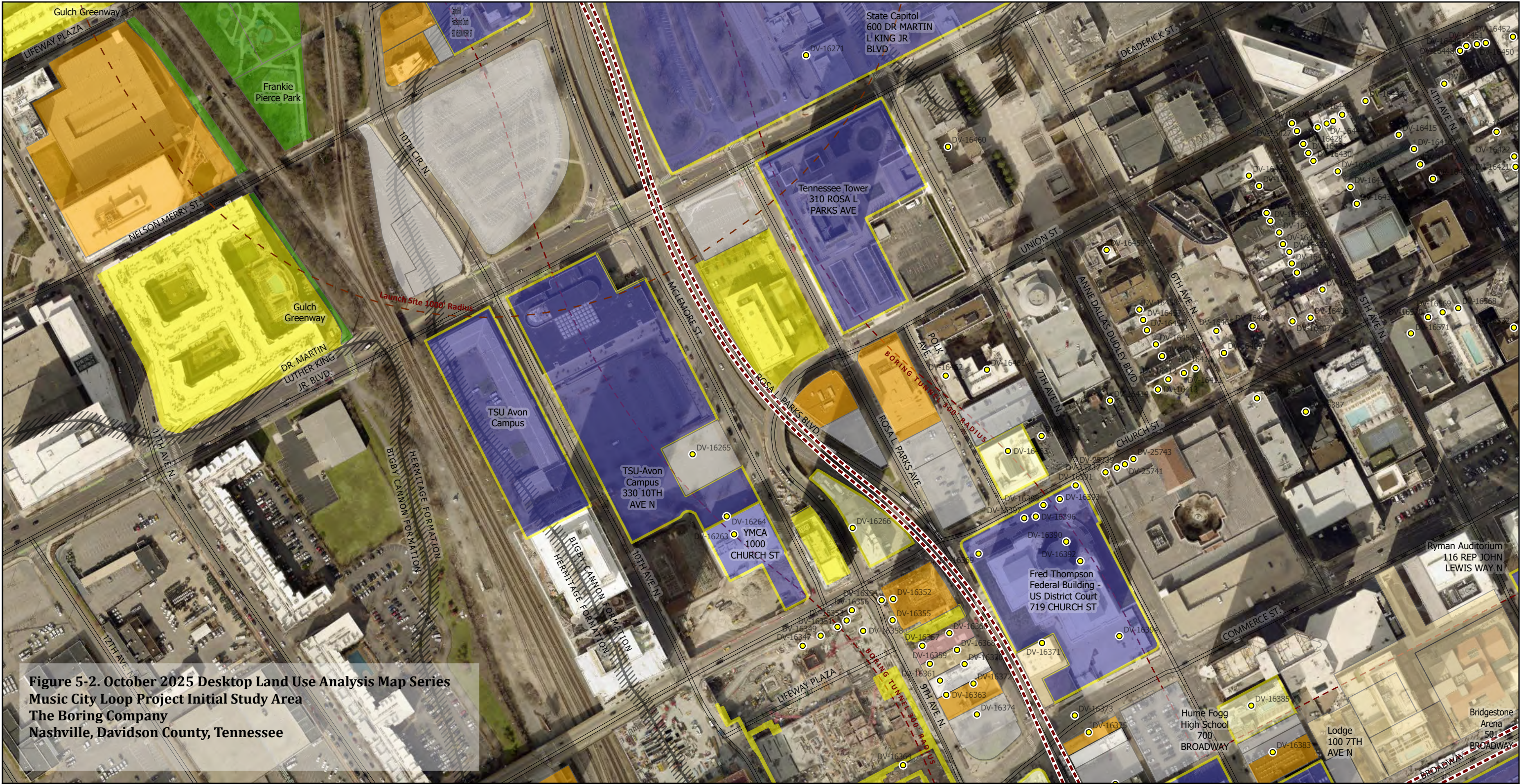
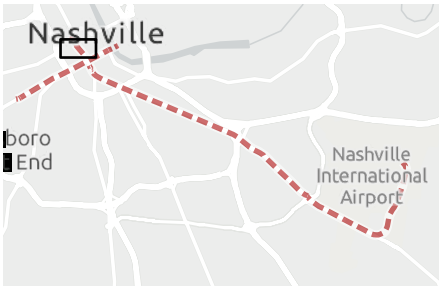


Figure 5-2. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

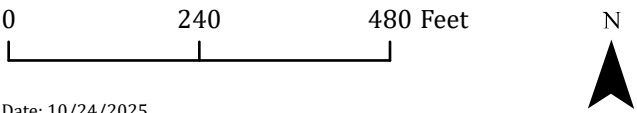
DAVEY
Resource Group

Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- | | | |
|---|--|---|
| <ul style="list-style-type: none">Proposed Tunnel Routes October 2025Music City Loop 300' BufferLaunch Site 1000' BufferState of TN Historic Commission SiteGeologic Contacts | Land Use Types <ul style="list-style-type: none">Institutional/CulturalResidentialHotelParkOffice | <ul style="list-style-type: none">Restaurants/BarsRetailLight Industrial, Storage, AutomotiveParkingCommon Space/Vacant |
|---|--|---|

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.78542°W 36.16263°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

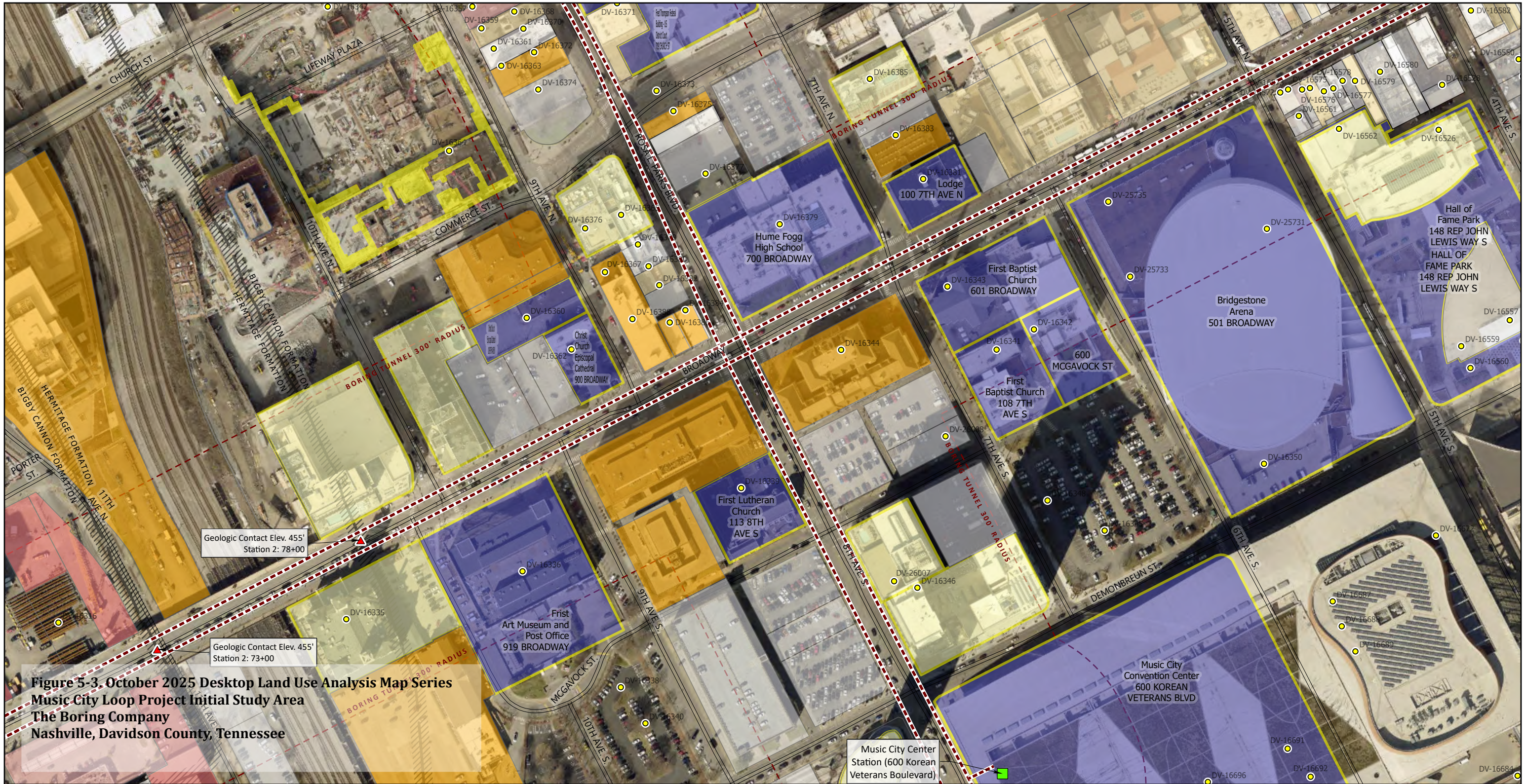
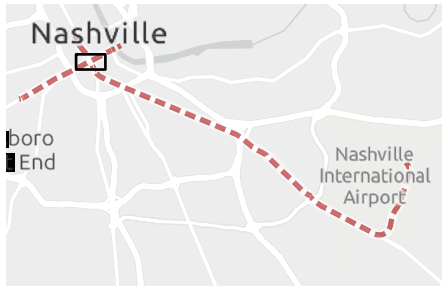


Figure 5-3. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

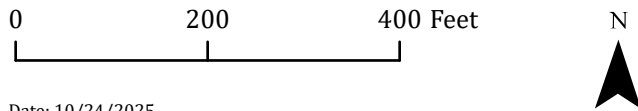
DAVEY
Resource Group

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801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- | | | |
|--|--------------------------|---|
| ▲ Approximate Geologic Contact Surface Elevation | Land Use Types | ■ Retail |
| ■ Proposed Station | ■ Institutional/Cultural | ■ Industrial |
| --- Proposed Tunnel Routes October 2025 | ■ Residential | ■ Light Industrial, Storage, Automotive |
| --- Music City Loop 300' Buffer | ■ Hotel | ■ Parking |
| ● State of TN Historic Commission Site | ■ Office | ■ Common Space/Vacant |
| ▨ Geologic Contacts | ■ Restaurants/Bars | |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.78191°W 36.15864°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

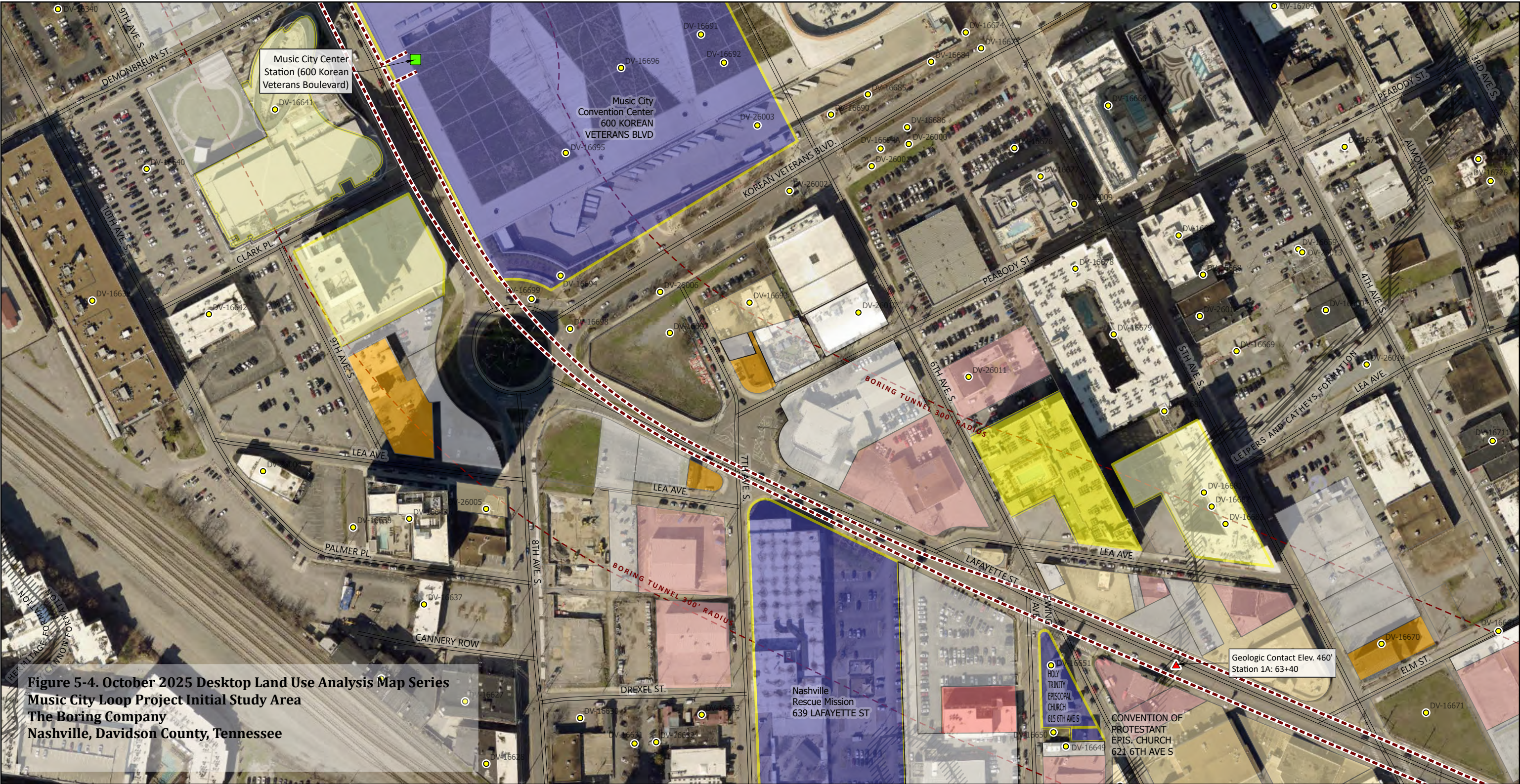
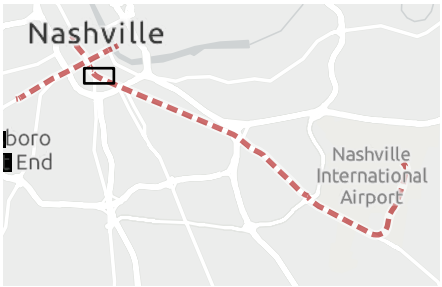


Figure 5-4. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

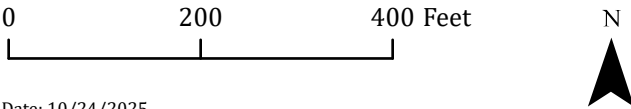
DAVEY
Resource Group

Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- | | | |
|--|--------------------------|---|
| ▲ Approximate Geologic Contact Surface Elevation | Land Use Types | ○ Retail |
| ■ Proposed Station | ■ Institutional/Cultural | ■ Industrial |
| --- Proposed Tunnel Routes October 2025 | ■ Residential | ■ Light Industrial, Storage, Automotive |
| --- Music City Loop 300' Buffer | ■ Hotel | ■ Parking |
| ● State of TN Historic Commission Site | ■ Office | ■ Common Space/Vacant |
| /// Geologic Contacts | ■ Restaurants/Bars | |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.77769°W 36.15453°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

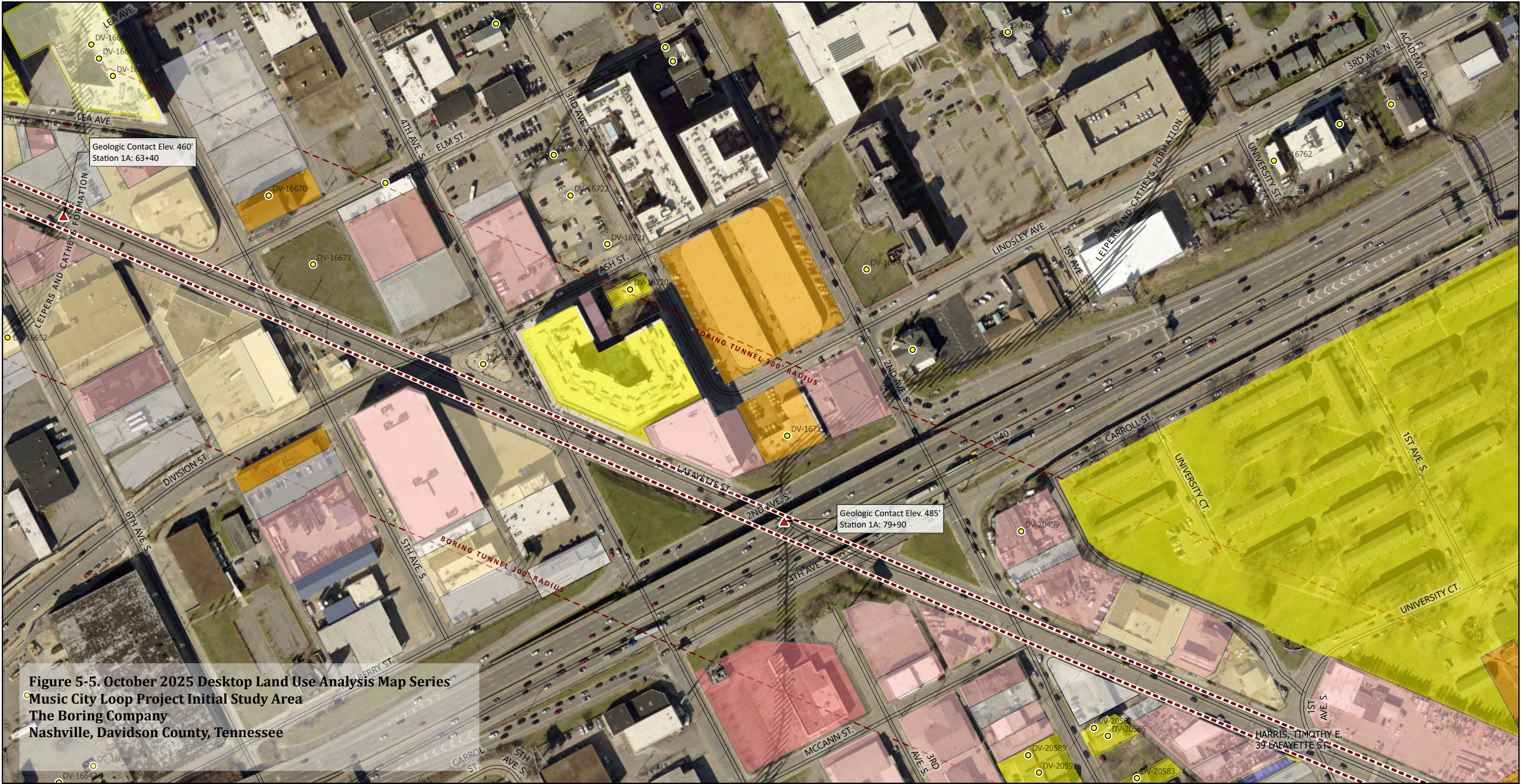
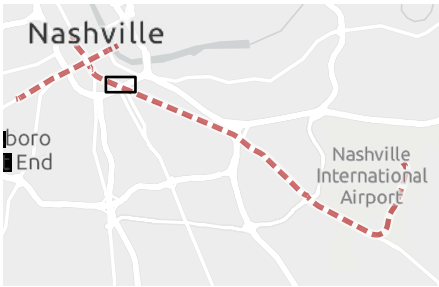


Figure 5-5. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee



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801 Rep. John Lewis Way South
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Nashville, TN 37203



- ▲ Approximate Geologic Contact Surface Elevation

--- Proposed Tunnel Routes October 2025

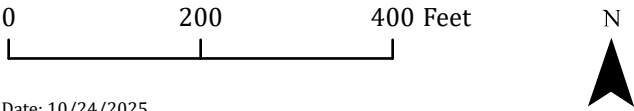
- - - Music City Loop 300' Buffer

● State of TN Historic Commission Site

▨ Geologic Contacts
- Land Use Types

 - Institutional/Cultural
 - Residential
 - Hotel
 - Office
 - Restaurants/Bars
- Retail
 - Industrial
 - Light Industrial, Storage, Automotive
 - Parking
 - Common Space/Vacant

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.76971°W 36.15199°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

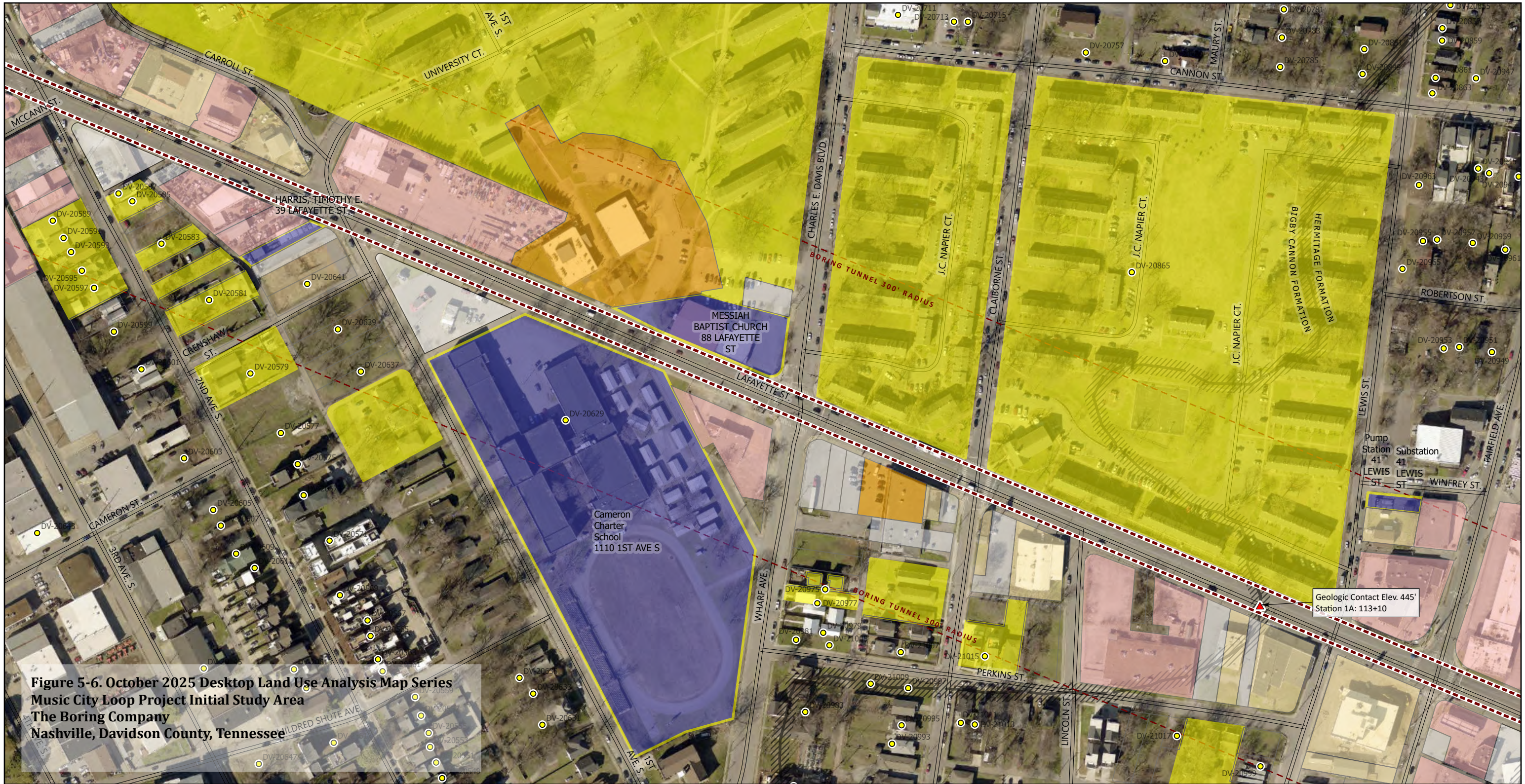
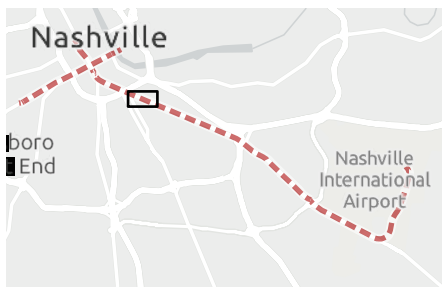


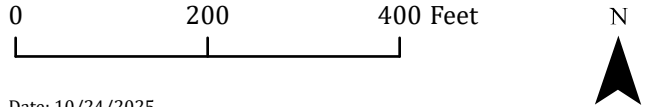
Figure 5-6. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

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 Suite 206
 Nashville, TN 37203



- ▲ Approximate Geologic Contact Surface Elevation
 - Proposed Tunnel Routes October 2025
 - - - Music City Loop 300' Buffer
 - State of TN Historic Commission Site
 - ▨ Geologic Contacts
- | | |
|------------------------|---------------------------------------|
| Land Use Types | |
| Institutional/Cultural | Retail |
| Residential | Light Industrial, Storage, Automotive |
| Office | Parking |
| Restaurants/Bars | Common Space/Vacant |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
 NAD 1983 StatePlane Tennessee FIPS 4100 Feet
 86.7627°W 36.14892°N
 Prepared for: The Boring Company
 Prepared by: DRG
 Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
 The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019, USGS TopoView Historical Map Viewer, TDEC 24K Geologic Quads, TDOT Streets

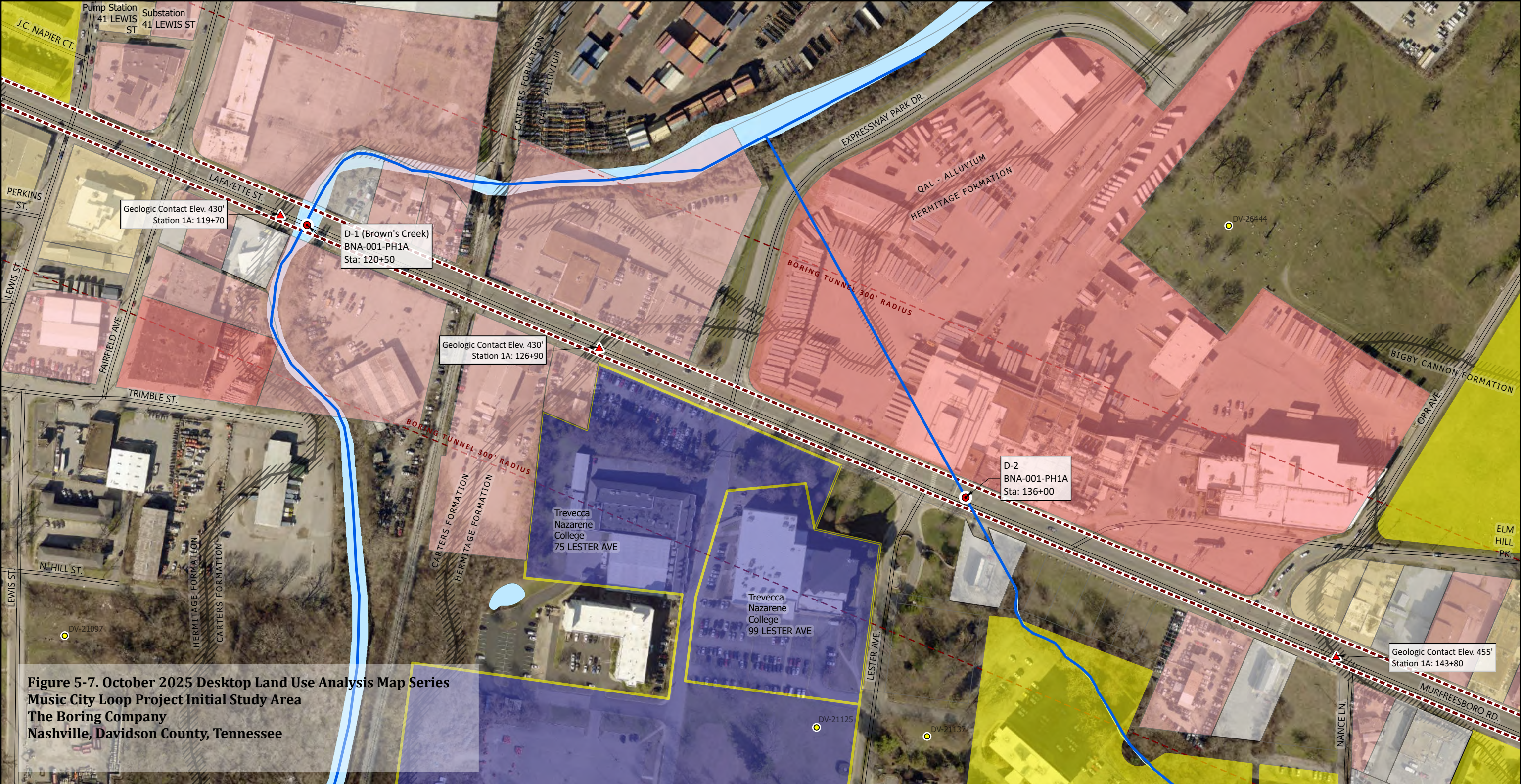
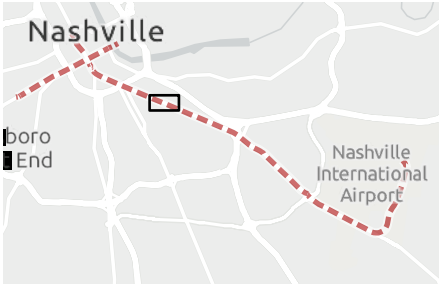


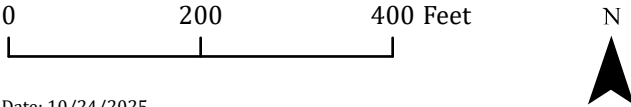
Figure 5-7. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

DAVEY
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Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- Tunnel Crossing Location Under Aquatic Resource
- ▲ Approximate Geologic Contact Surface Elevation
- Proposed Tunnel Routes October 2025
- - - Music City Loop 300' Buffer
- State of TN Historic Commission Site
- Streams Near Route - Desktop Analysis
- ▨ Geologic Contacts
- Land Use Types
 - Institutional/Cultural
 - Residential
 - Restaurants/Bars
 - Retail
- Industrial
- Light Industrial, Storage, Automotive
- Parking
- Common Space/Vacant

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



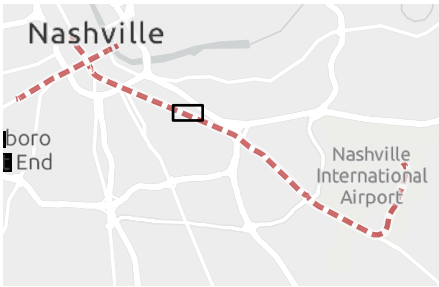
Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.75366°W 36.14603°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer: TDEC 24K Geologic Quads, TDOT Streets



Figure 5-8. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

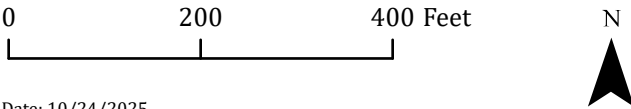
DAVEY
Resource Group

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801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- | | | |
|--|------------------------|---------------------------------------|
| ▲ Approximate Geologic Contact Surface Elevation | Land Use Types | Retail |
| --- Proposed Tunnel Routes October 2025 | Institutional/Cultural | Industrial |
| - - - Music City Loop 300' Buffer | Residential | Light Industrial, Storage, Automotive |
| ● State of TN Historic Commission Site | Hotel | Parking |
| — Streams Near Route - Desktop Analysis | Office | Common Space/Vacant |
| ▨ Geologic Contacts | Restaurants/Bars | |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.74494°W 36.14368°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

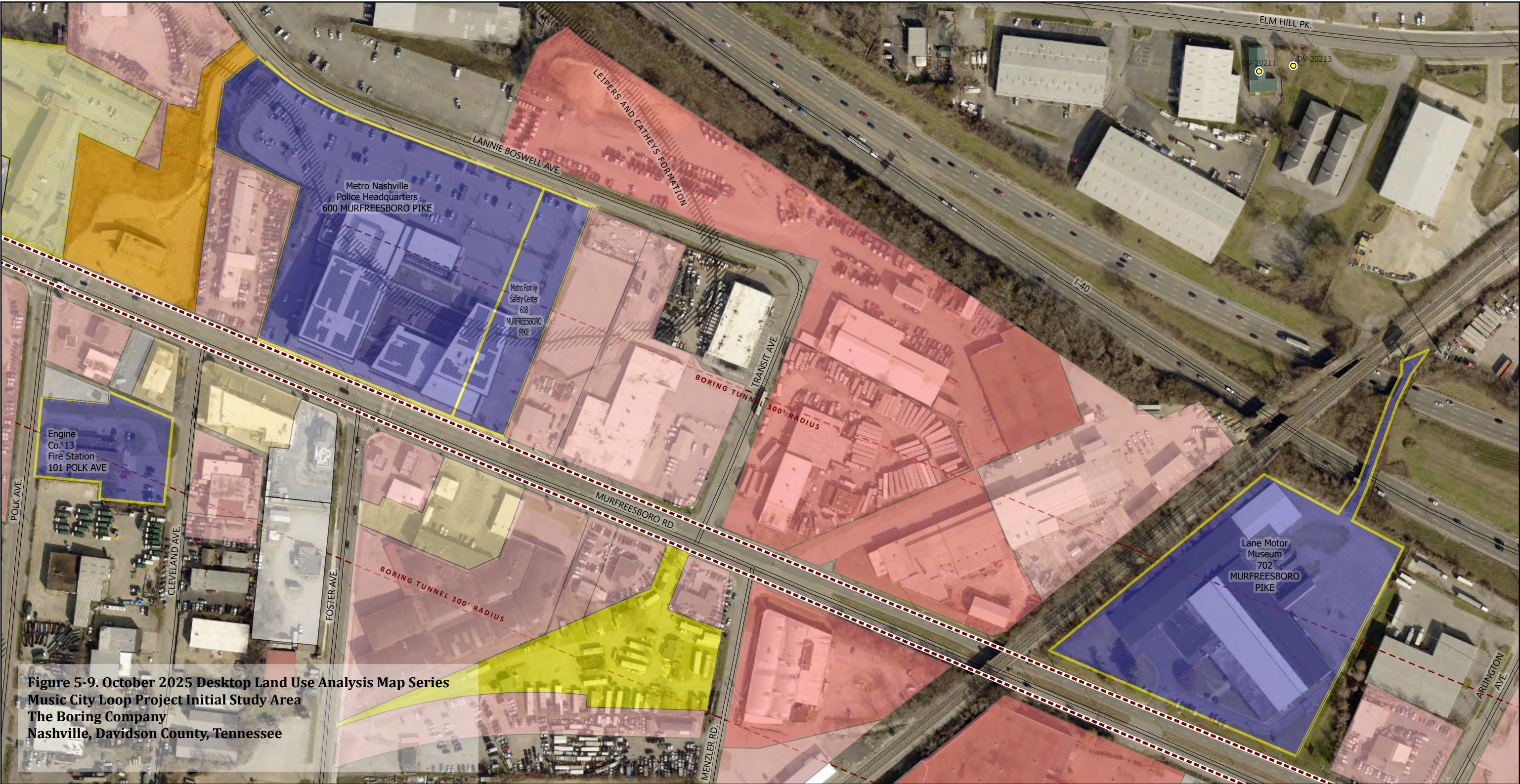


Figure 5-9. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

DAVEY

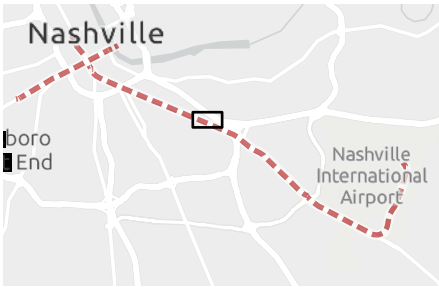
Resource Group

Nashville Office

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Suite 206

Nashville, TN 37203



- Proposed Tunnel Routes October 2025

Music City Loop 300' Buffer

State of TN Historic Commission Site

Geologic Contacts

Land Use Types

Institutional/Cultural

Residential

Hotel

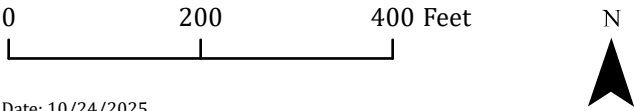
Office

Restaurants/Bars

Retail

Industrial
- Light Industrial, Storage, Automotive
- Parking
- Common Space/Vacant

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



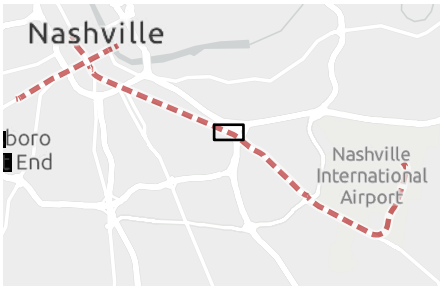
Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.73773°W 36.14164°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets



Figure 5-10. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

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Nashville, TN 37203



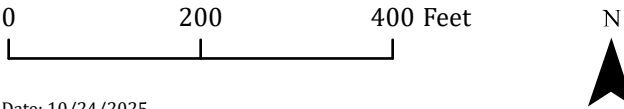
- ▲ Approximate Geologic Contact Surface Elevation
- Proposed Tunnel Routes October 2025
- - - Music City Loop 300' Buffer
- /// Geologic Contacts

Land Use Types

- Institutional/Cultural
- Residential
- Hotel
- Office

- Restaurants/Bars
- Industrial
- Light Industrial, Storage, Automotive
- Parking
- Common Space/Vacant

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.72984°W 36.138°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

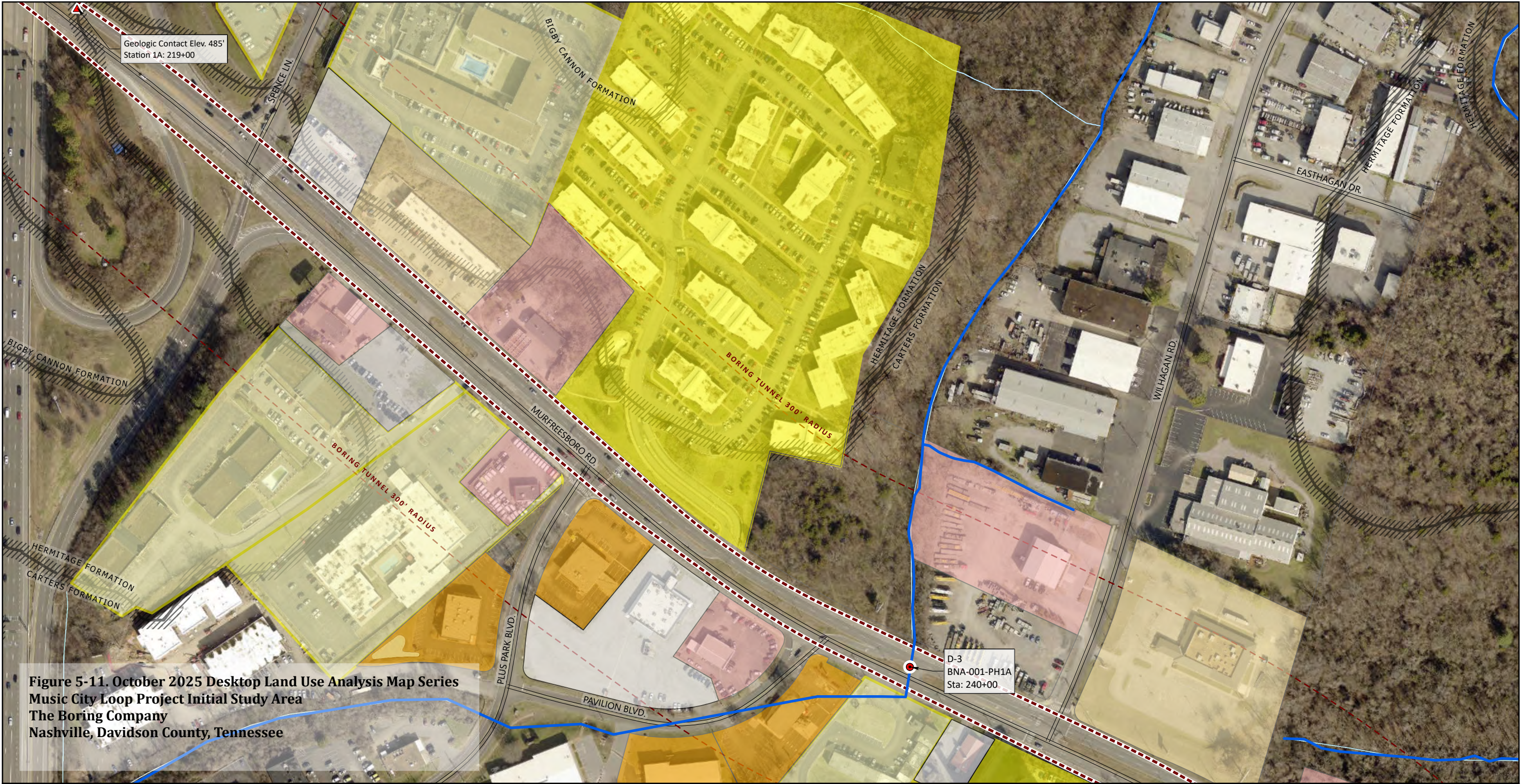
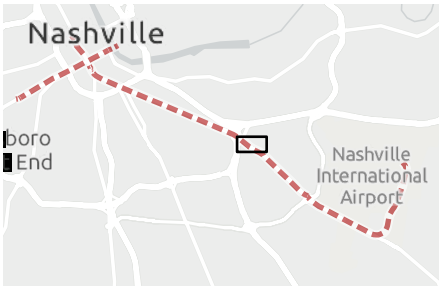


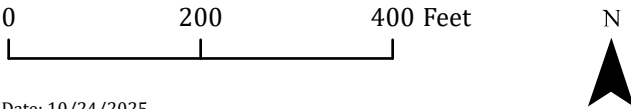
Figure 5-11. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

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Nashville, TN 37203



- | | | |
|---|-------------------|---------------------------------------|
| ● Tunnel Crossing Location Under Aquatic Resource | Geologic Contacts | Restaurants/Bars |
| ▲ Approximate Geologic Contact Surface Elevation | Land Use Types | Retail |
| --- Proposed Tunnel Routes October 2025 | Residential | Light Industrial, Storage, Automotive |
| - - - Music City Loop 300' Buffer | Hotel | Parking |
| — Streams Near Route - Desktop Analysis | Office | Common Space/Vacant |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.72137°W 36.13443°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

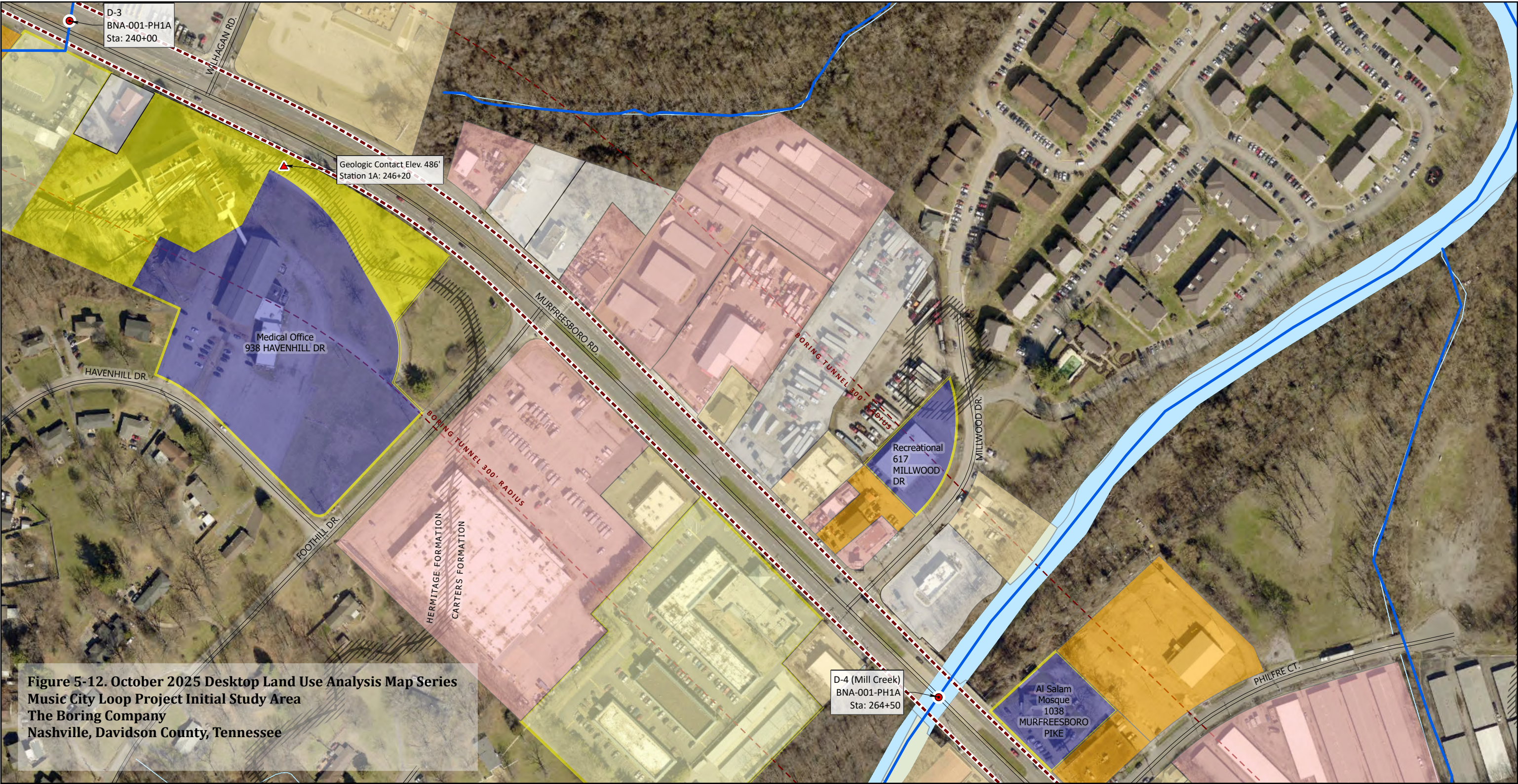
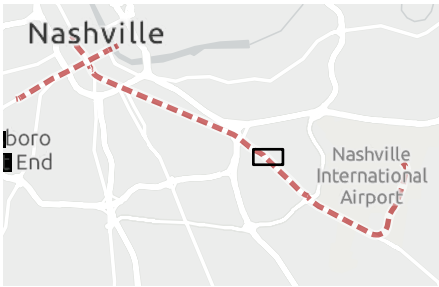


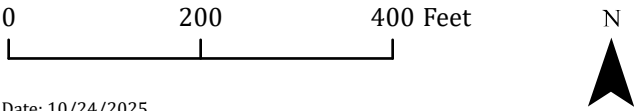
Figure 5-12. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

DAVEY
Resource Group
Nashville Office
801 Rep. John Lewis Way South
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Nashville, TN 37203



- | | | |
|---|--------------------------|---|
| ● Tunnel Crossing Location Under Aquatic Resource | Land Use Types | ● Retail |
| ▲ Approximate Geologic Contact Surface Elevation | ■ Institutional/Cultural | ■ Light Industrial, Storage, Automotive |
| --- Proposed Tunnel Routes October 2025 | ■ Residential | ■ Parking |
| - - - Music City Loop 300' Buffer | ■ Hotel | ■ Common Space/Vacant |
| — Streams Near Route - Desktop Analysis | ■ Office | |
| ▨ Geologic Contacts | ■ Restaurants/Bars | |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.71534°W 36.13072°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019, USGS TopoView Historical Map Viewer, TDEC 24K Geologic Quads, TDOT Streets

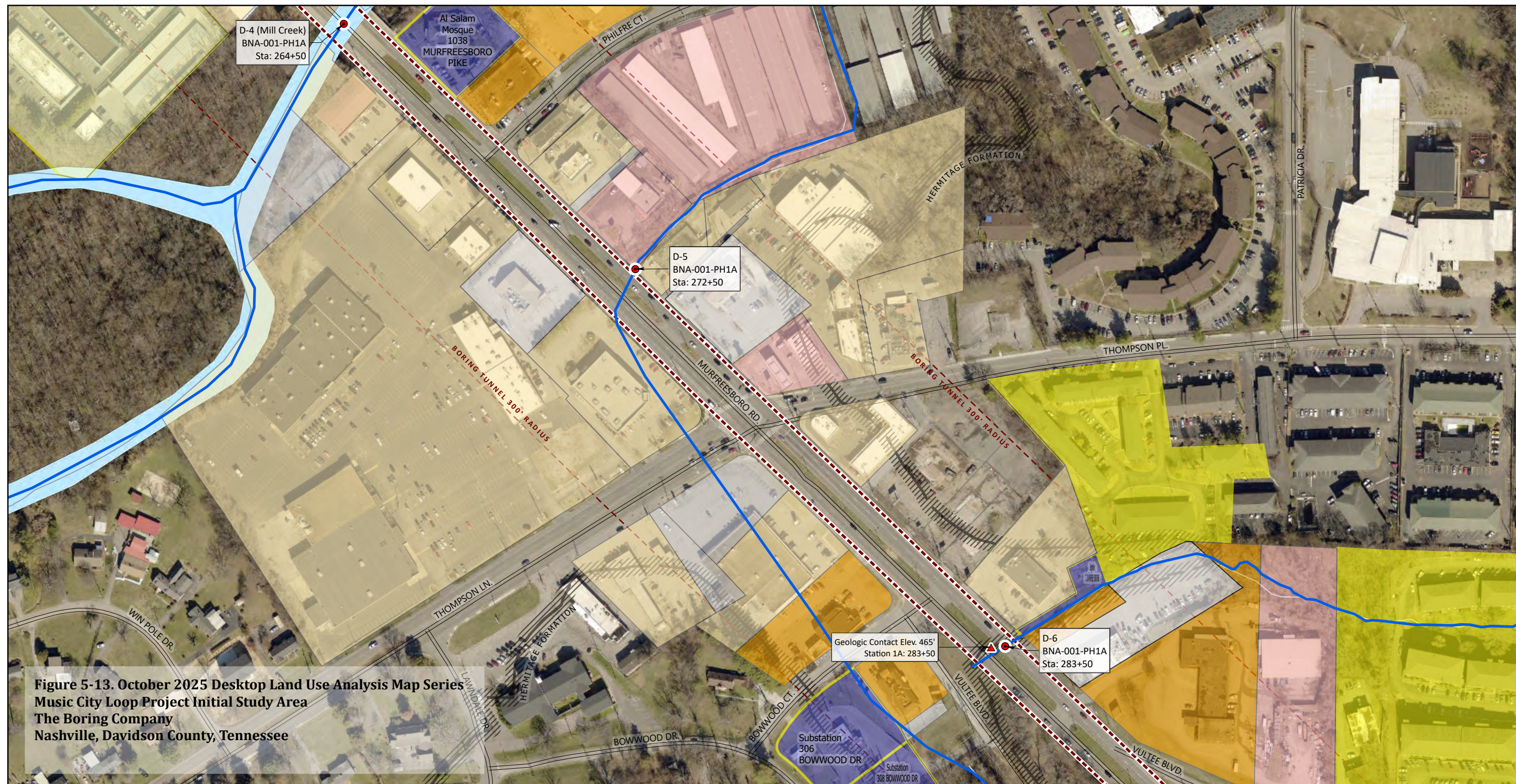
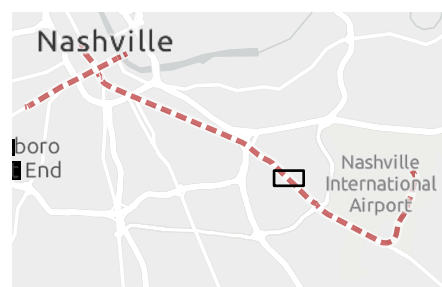


Figure 5-13. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee



Nashville Office
 801 Rep. John Lewis Way South
 Suite 206
 Nashville, TN 37203



- Tunnel Crossing Location Under Aquatic Resource
 - ▲ Approximate Geologic Contact Surface Elevation
 - Proposed Tunnel Routes October 2025
 - Music City Loop 300' Buffer
 - Streams Near Route - Desktop Analysis
 - Geologic Contacts
- | Land Use Types | |
|------------------------|---------------------------------------|
| Institutional/Cultural | Retail |
| Residential | Light Industrial, Storage, Automotive |
| Hotel | Parking |
| Office | Common Space/Vacant |
| Restaurants/Bars | |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.

0 200 400 Feet



Date: 10/24/2025
 NAD 1983 StatePlane Tennessee FIPS 4100 Feet
 86.71101°W 36.12682°N
 Prepared for: The Boring Company
 Prepared by: DRG
 Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
 The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
 Historical Map Viewer: TDEC 24K Geologic Quads, TDOT Streets

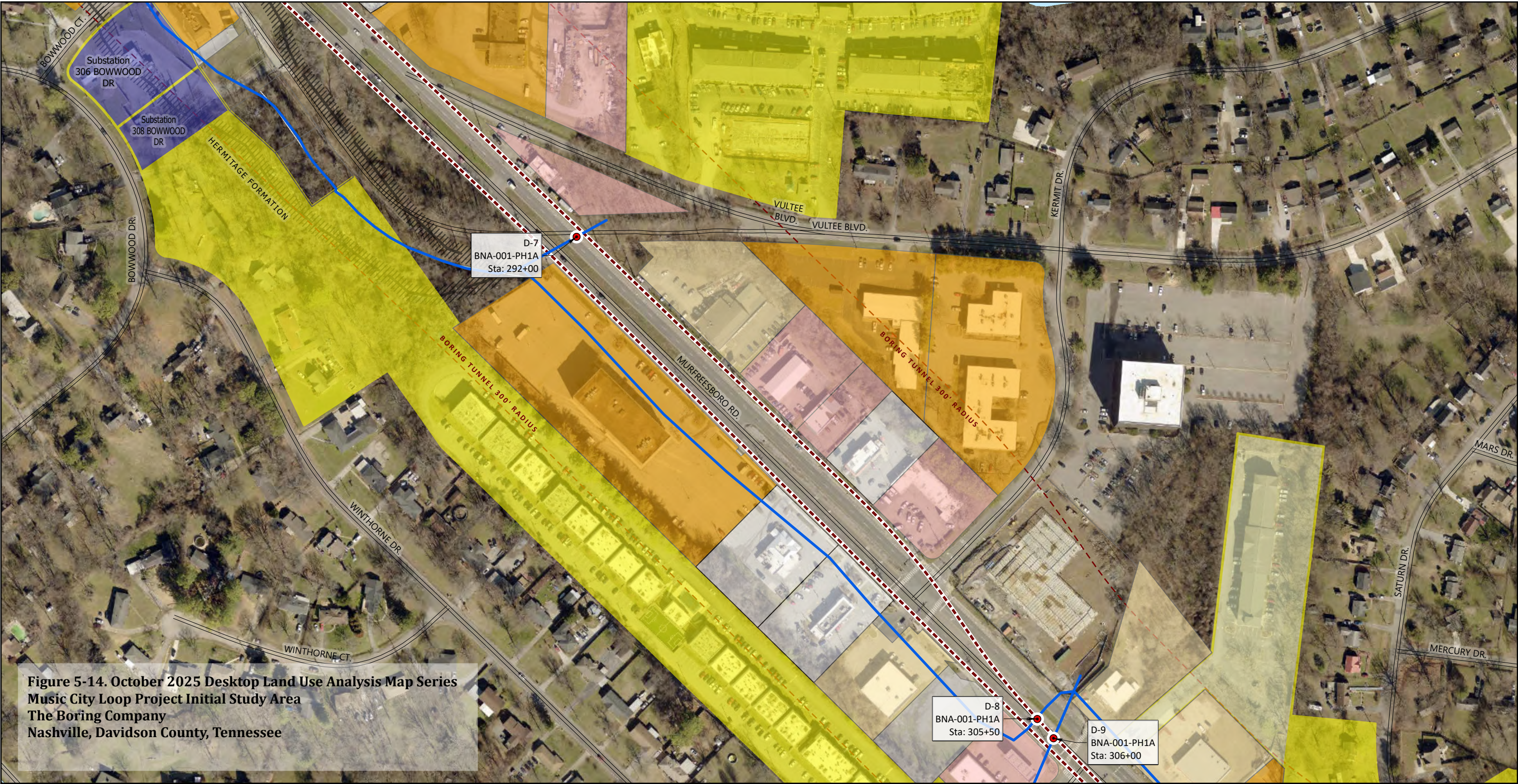
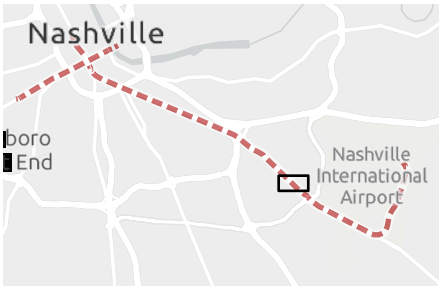


Figure 5-14. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

DAVEY
Resource Group
Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203

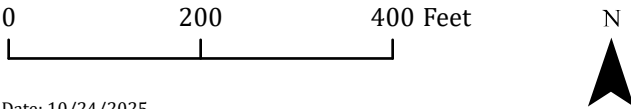


- Tunnel Crossing Location Under Aquatic Resource
- Proposed Tunnel Routes October 2025
- - - Music City Loop 300' Buffer
- Streams Near Route - Desktop Analysis
- ▨ Geologic Contacts

- Land Use Types
- Institutional/Cultural
 - Residential
 - Hotel
 - Office

- Restaurants/Bars
- Retail
- Light Industrial, Storage, Automotive
- Parking
- Common Space/Vacant

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



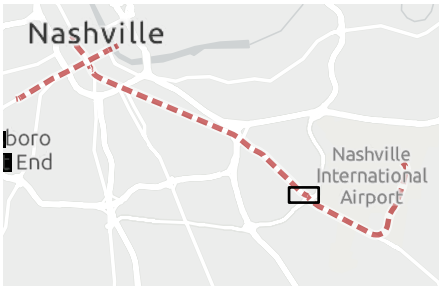
Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.70595°W 36.12295°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019, USGS TopoView
Historical Map Viewer, TDEC 24K Geologic Quads, TDOT Streets



Figure 5-15. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

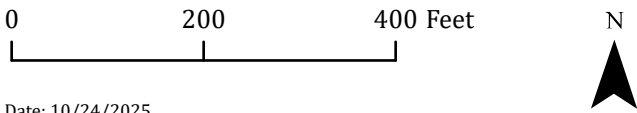
DAVEY
Resource Group

Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- | | | |
|---|--------------------------|---|
| ● Tunnel Crossing Location Under Aquatic Resource | Land Use Types | ■ Retail |
| --- Proposed Tunnel Routes October 2025 | ■ Institutional/Cultural | ■ Industrial |
| - - - Music City Loop 300' Buffer | ■ Residential | ■ Light Industrial, Storage, Automotive |
| — Streams Near Route - Desktop Analysis | ■ Hotel | ■ Parking |
| ▨ Geologic Contacts | ■ Office | ■ Common Space/Vacant |
| | ■ Restaurants/Bars | |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.70213°W 36.1195°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019, USGS TopoView Historical Map Viewer, TDEC 24K Geologic Quads, TDOT Streets

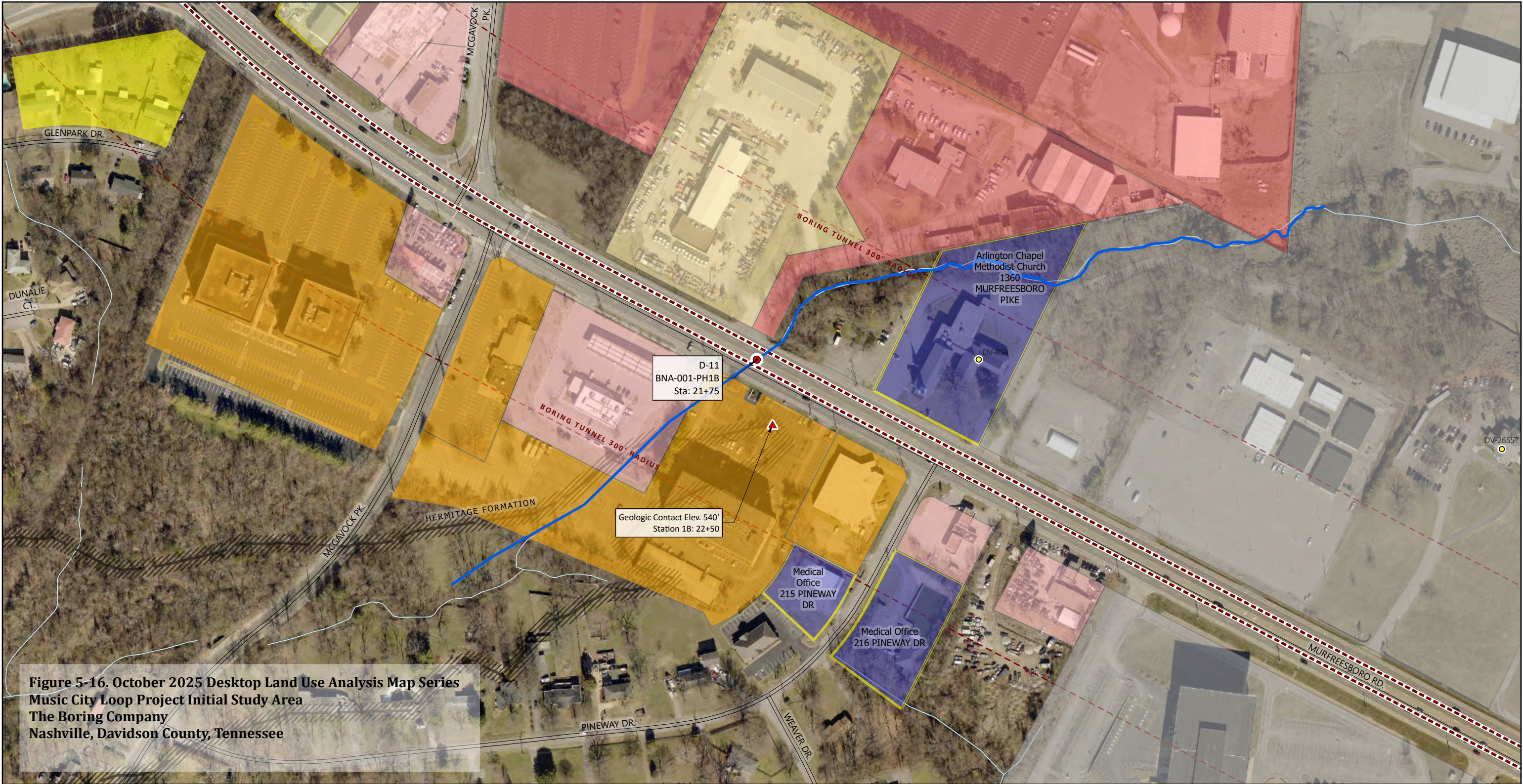
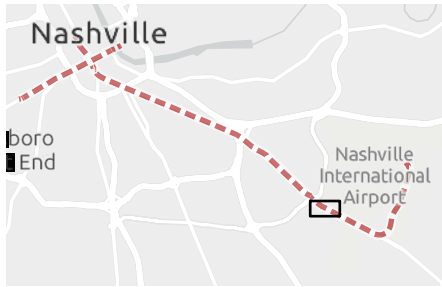


Figure 5-16. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

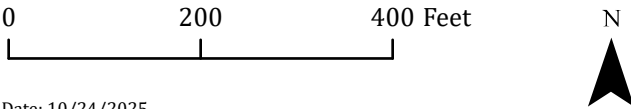
DAVEY
Resource Group

Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- Tunnel Crossing Location Under Aquatic Resource
- ▲ Approximate Geologic Contact Surface Elevation
- Proposed Tunnel Routes October 2025
- - - Music City Loop 300' Buffer
- State of TN Historic Commission Site
- Streams Near Route - Desktop Analysis
- Geologic Contacts
- Land Use Types
 - Institutional/Cultural
 - Residential
 - Hotel
 - Office
 - Retail
 - Airport
 - Industrial
 - Light Industrial, Storage, Automotive
 - Common Space/Vacant

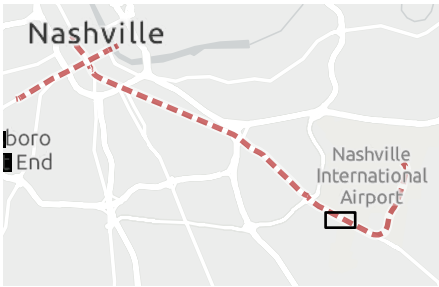
Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



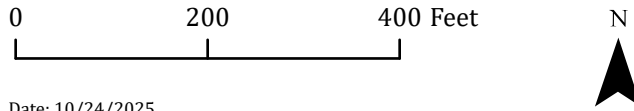
Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.69544°W 36.11542°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets



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Suite 206
Nashville, TN 37203



- | | |
|--|---|
| ▲ Approximate Geologic Contact Surface Elevation | Land Use Types |
| --- Proposed Tunnel Routes October 2025 | ■ Institutional/Cultural |
| - - - Music City Loop 300' Buffer | ■ Airport |
| ▨ Geologic Contacts | ■ Light Industrial, Storage, Automotive |
| | ■ Common Space/Vacant |



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.68862°W 36.1121°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019, USGS TopoView
Historical Map Viewer, TDEC 24K Geologic Quads, TDOT Streets

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.

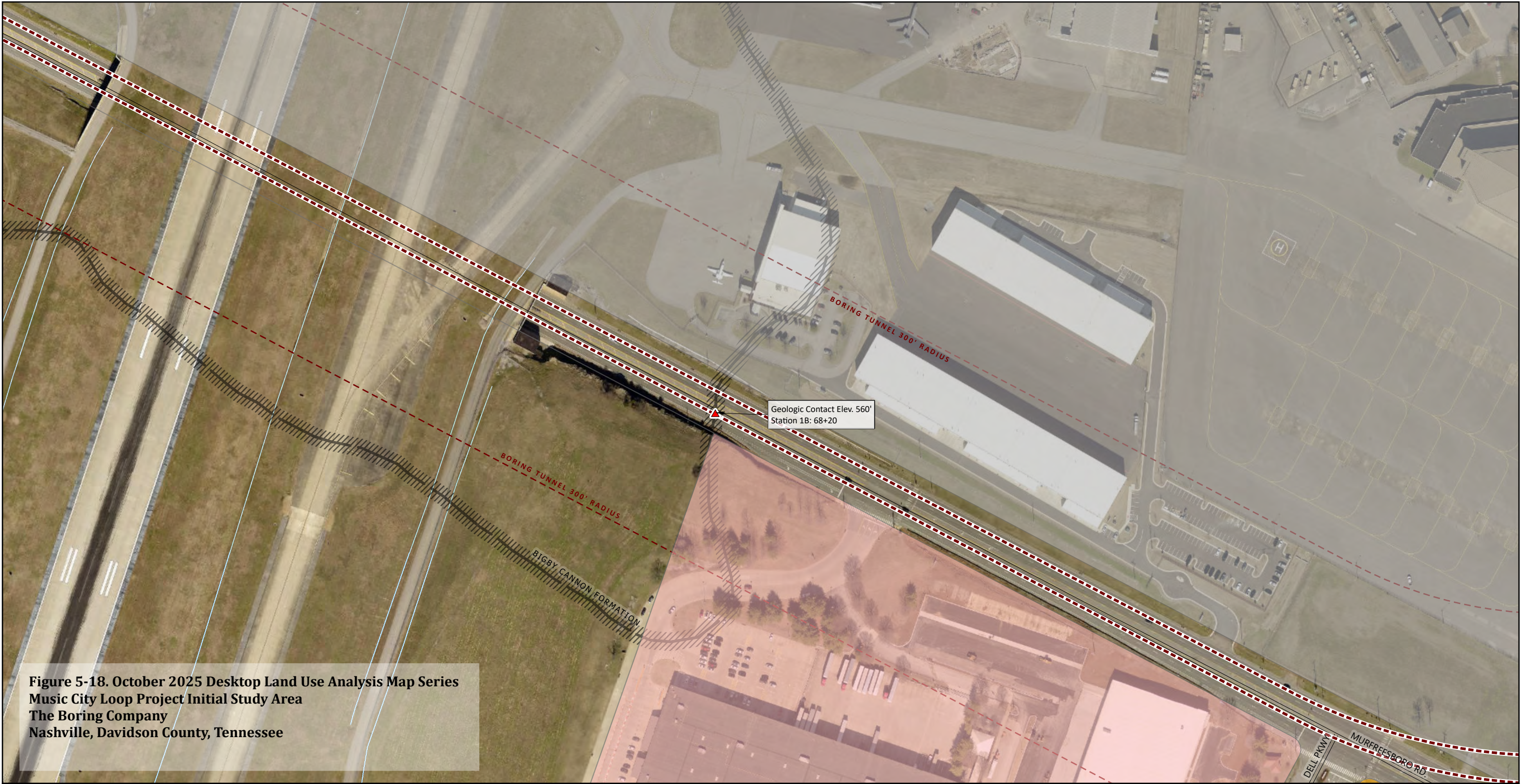


Figure 5-18. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

DAVEY

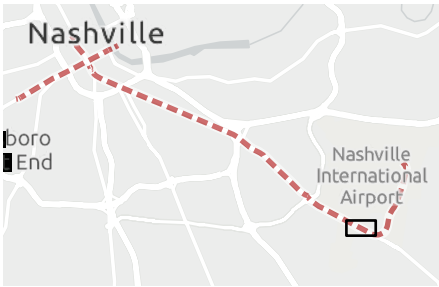
Resource Group

Nashville Office

801 Rep. John Lewis Way South

Suite 206

Nashville, TN 37203



- ▲

Approximate Geologic Contact Surface Elevation

Proposed Tunnel Routes October 2025

Music City Loop 300' Buffer

///

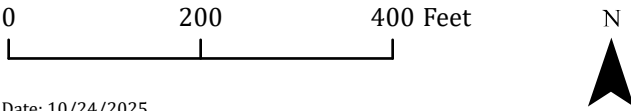
Geologic Contacts
- Office

Airport

Light Industrial, Storage, Automotive

Common Space/Vacant

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.68102°W 36.10977°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019, USGS TopoView Historical Map Viewer, TDEC 24K Geologic Quads, TDOT Streets

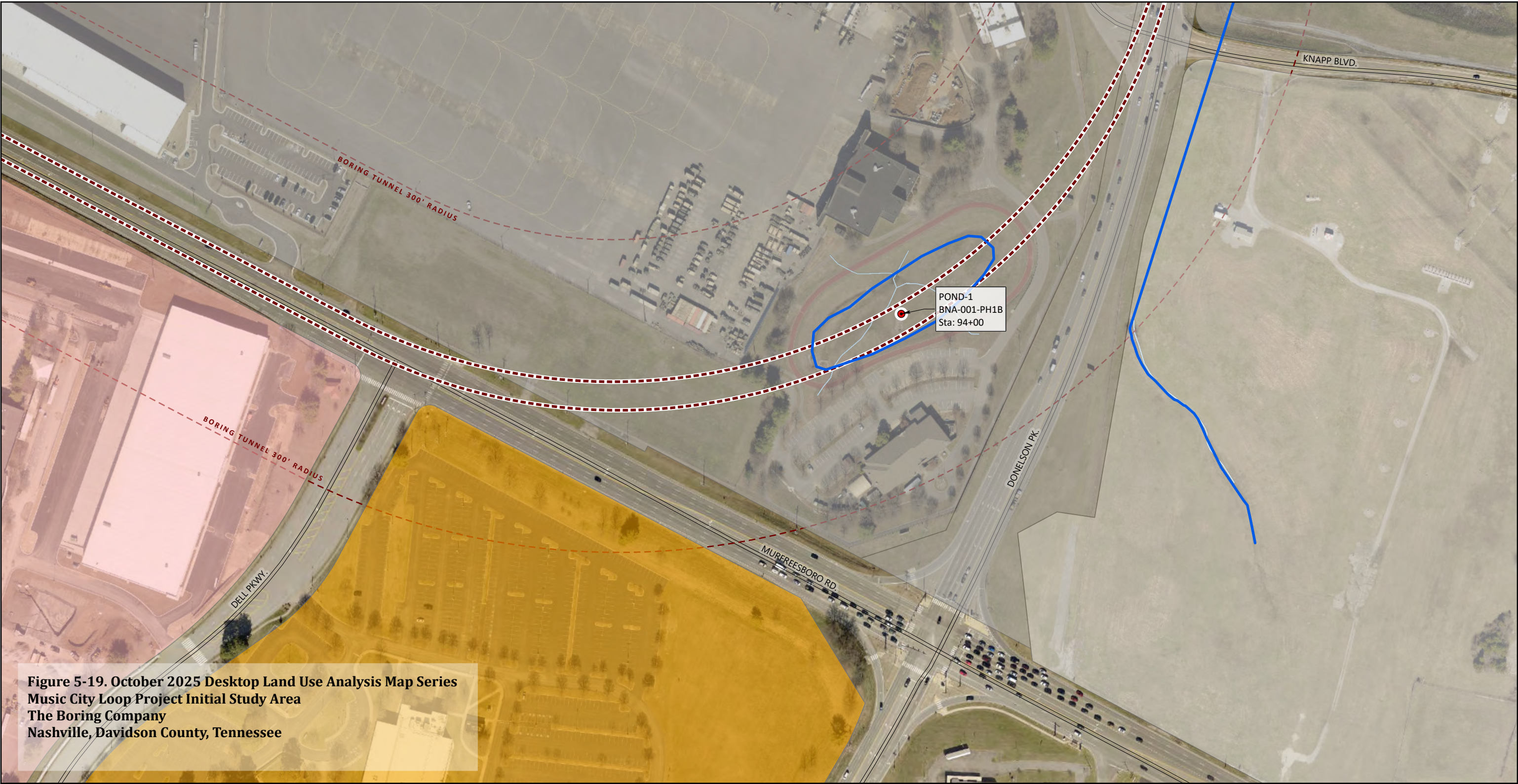
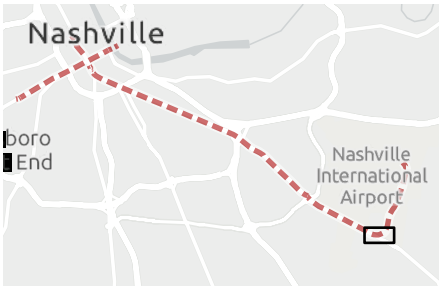


Figure 5-19. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

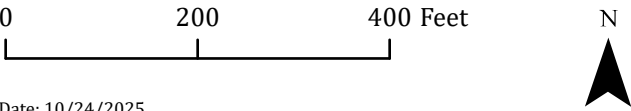
DAVEY
Resource Group

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801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



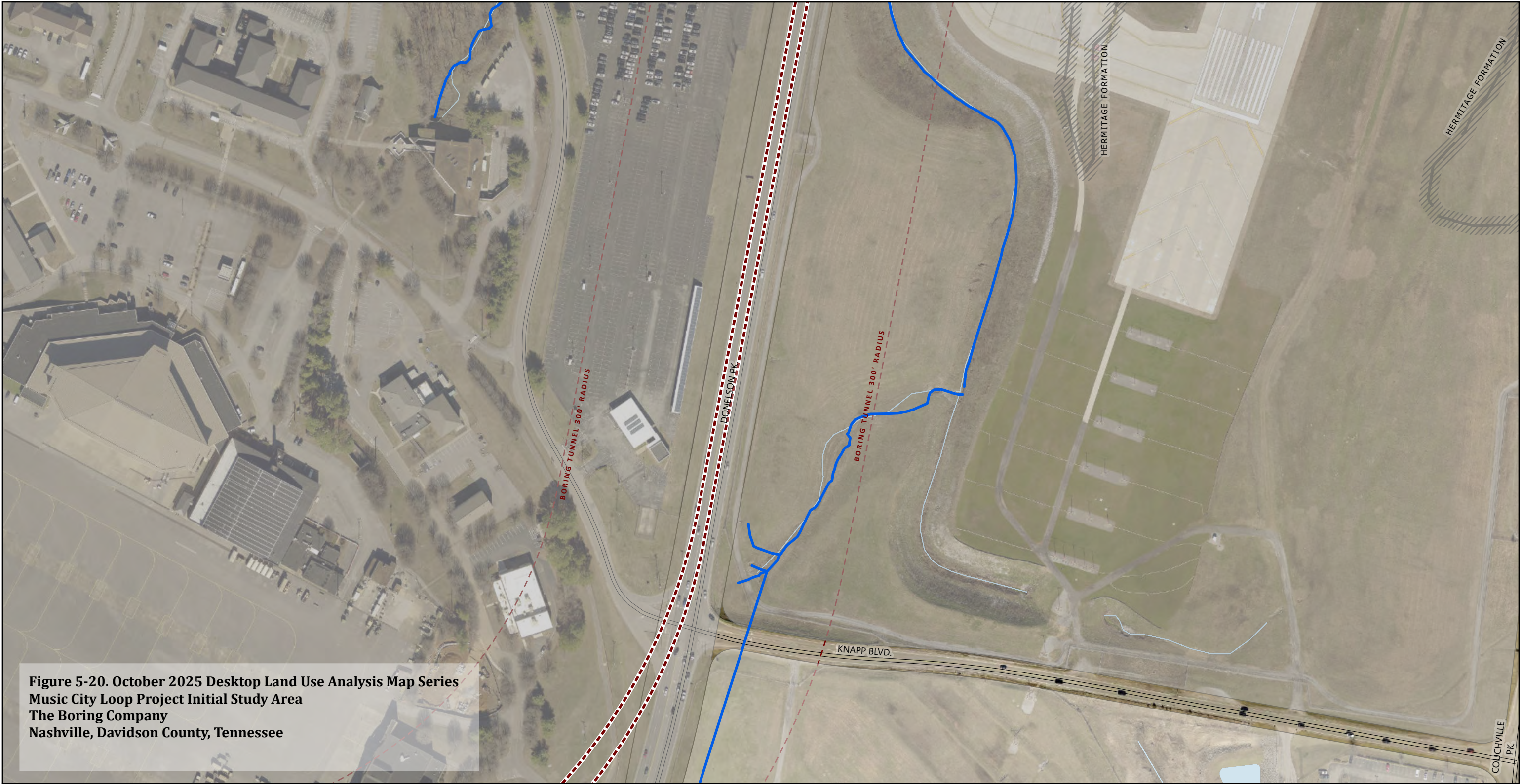
- Tunnel Crossing Location Under Aquatic Resource
- Proposed Tunnel Routes October 2025
- Music City Loop 300' Buffer
- Streams Near Route - Desktop Analysis
- Geologic Contacts

- Land Use Types
- Office
 - Airport
 - Light Industrial, Storage, Automotive
 - Parking



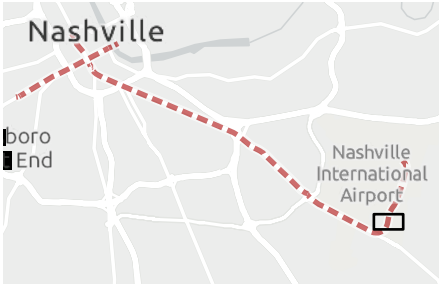
Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.6743°W 36.10764°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019, USGS TopoView
Historical Map Viewer: TDEC 24K Geologic Quads, TDOT Streets

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.

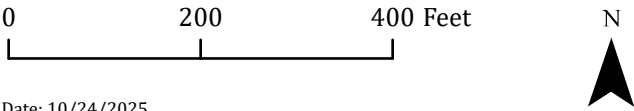


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801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- | | |
|---------------------------------------|-------------------|
| Proposed Tunnel Routes October 2025 | Geologic Contacts |
| Music City Loop 300' Buffer | Land Use Types |
| Streams Near Route - Desktop Analysis | Airport |
| | Parking |



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.67094°W 36.11108°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.

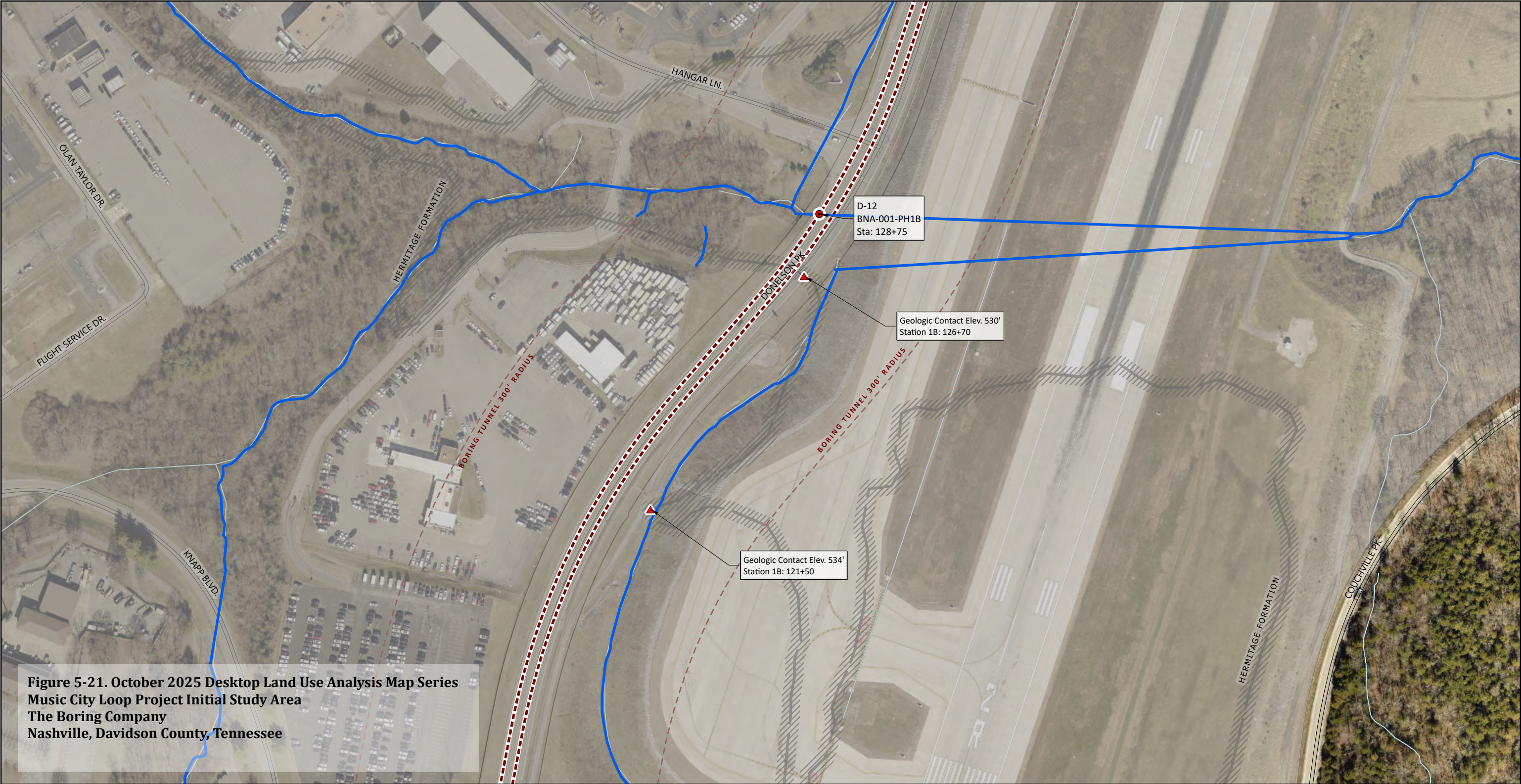
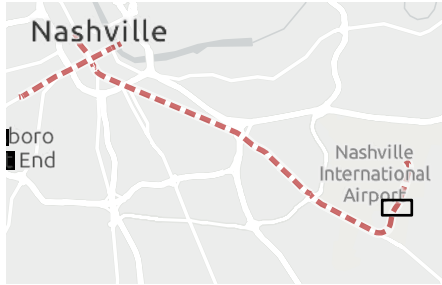


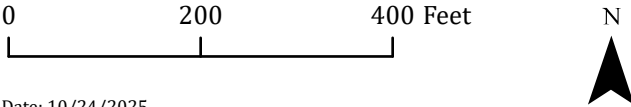
Figure 5-21. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

DAVEY
Resource Group
Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- Tunnel Crossing Location Under Aquatic Resource
- ▲ Approximate Geologic Contact Surface Elevation
- Proposed Tunnel Routes October 2025
- - - Music City Loop 300' Buffer
- Streams Near Route - Desktop Analysis
- ▨ Geologic Contacts
- Land Use Types
- Airport

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.66895°W 36.1153°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019, USGS TopoView Historical Map Viewer, TDEC 24K Geologic Quads, TDOT Streets

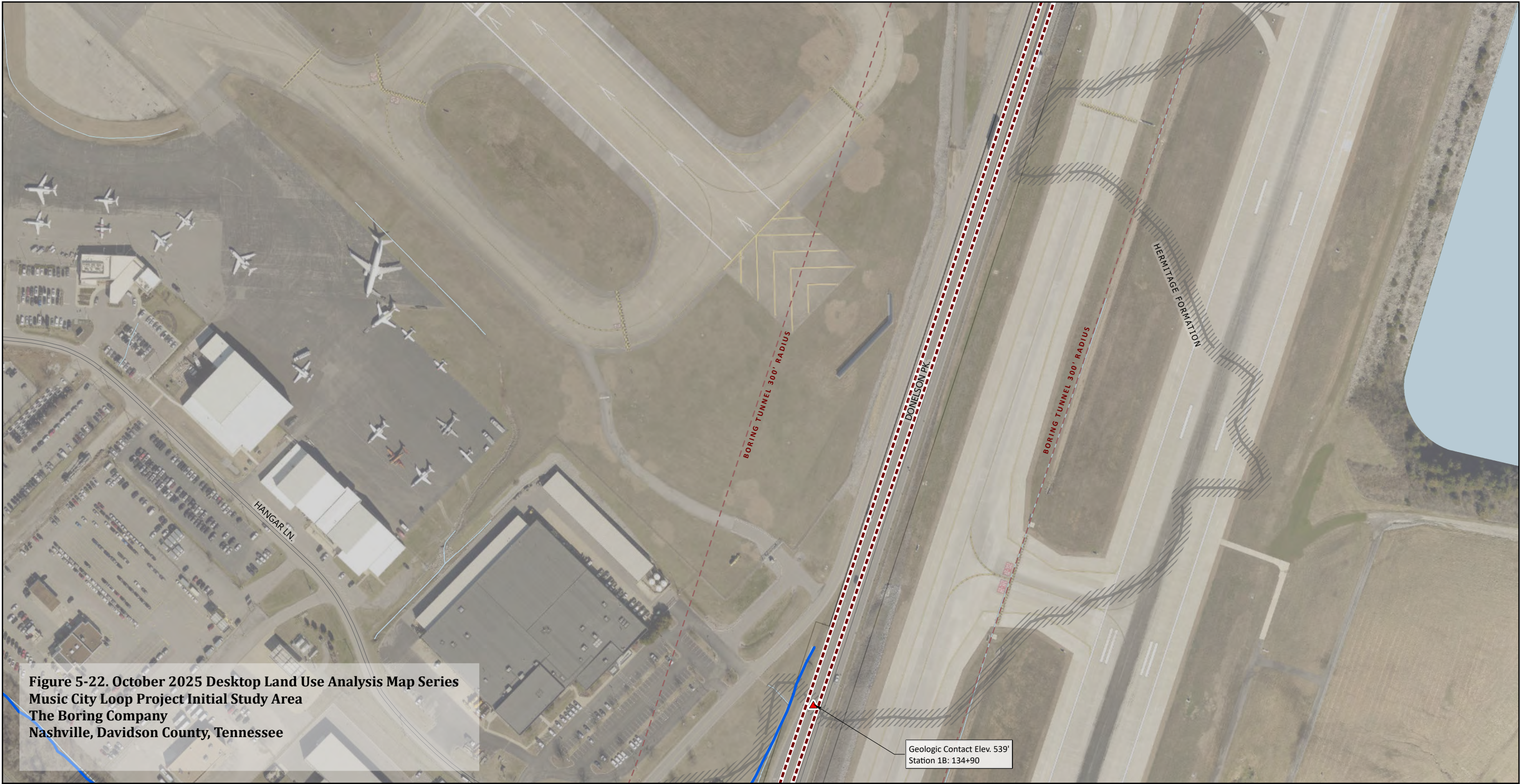
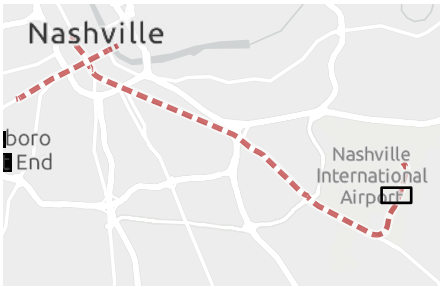


Figure 5-22. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

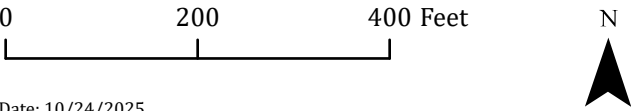
DAVEY
Resource Group

Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- ▲ Approximate Geologic Contact Surface Elevation
- Proposed Tunnel Routes October 2025
- - - Music City Loop 300' Buffer
- Streams Near Route - Desktop Analysis
- Geologic Contacts
- Land Use Types
- Airport

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.66813°W 36.11958°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019, USGS TopoView
Historical Map Viewer, TDEC 24K Geologic Quads, TDOT Streets

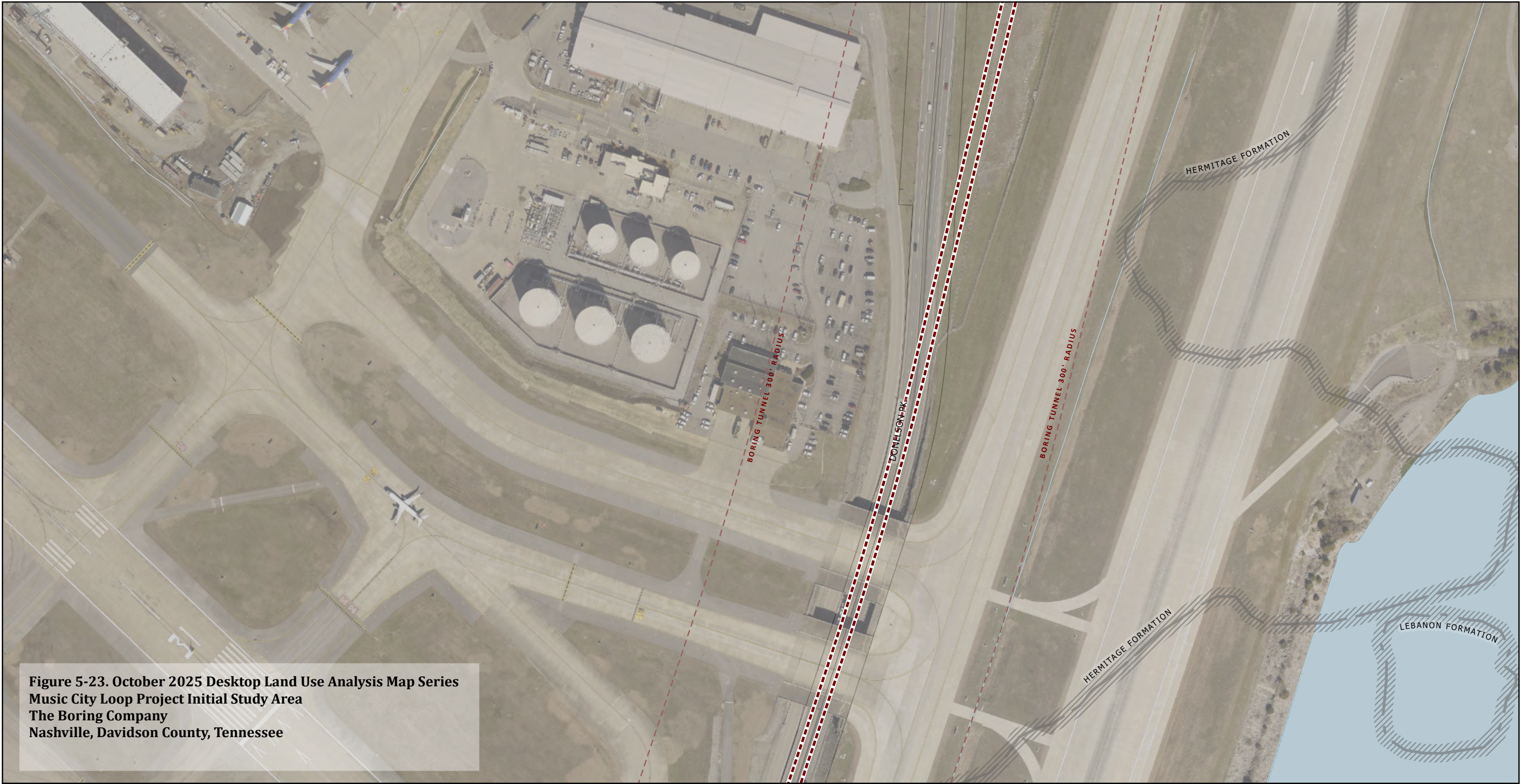


Figure 5-23. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

DAVEY

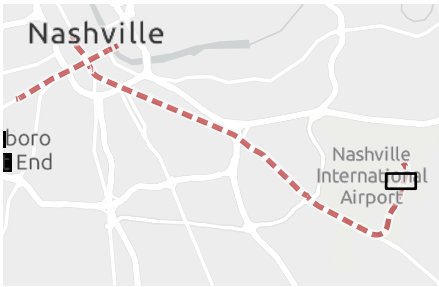
Resource Group

Nashville Office

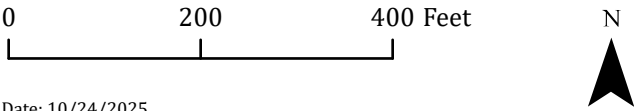
801 Rep. John Lewis Way South

Suite 206

Nashville, TN 37203



- Proposed Tunnel Routes October 2025
- Music City Loop 300' Buffer
- Geologic Contacts
- Land Use Types
- Airport



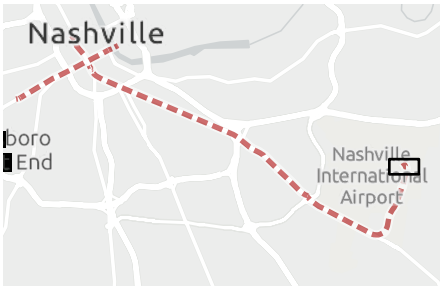
Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.66649°W 36.12381°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.

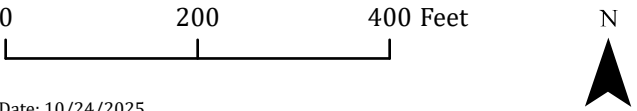


Figure 5-24. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

DAVEY 
Resource Group
 Nashville Office
 801 Rep. John Lewis Way South
 Suite 206
 Nashville, TN 37203



-  Proposed Station
-  Proposed Tunnel Routes October 2025
-  Music City Loop 300' Buffer
-  Geologic Contacts
- Land Use Types**
-  Airport



Date: 10/24/2025
 NAD 1983 StatePlane Tennessee FIPS 4100 Feet
 86.66533°W 36.12814°N
 Prepared for: The Boring Company
 Prepared by: DRG
 Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
 The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land
 Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
 Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.

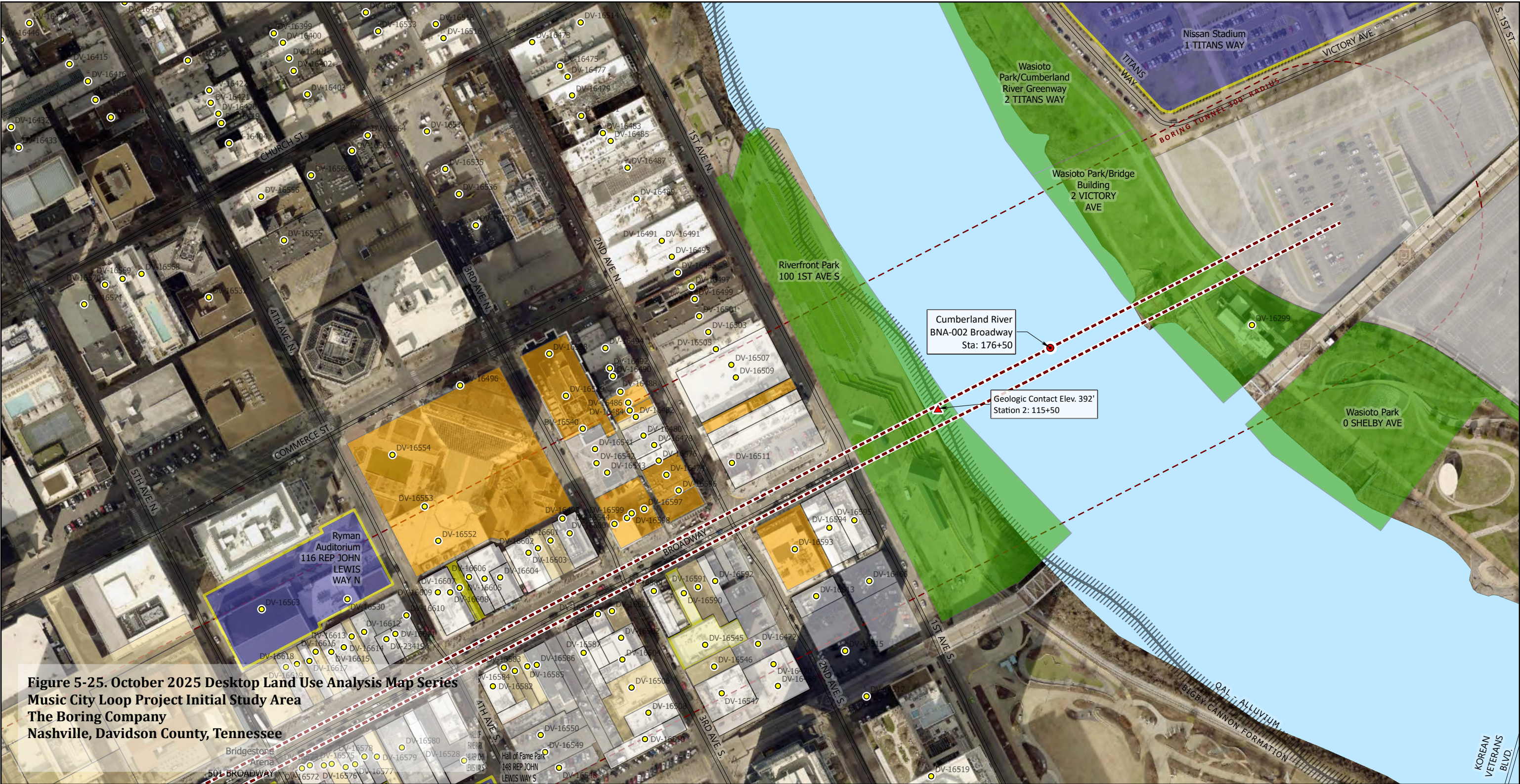
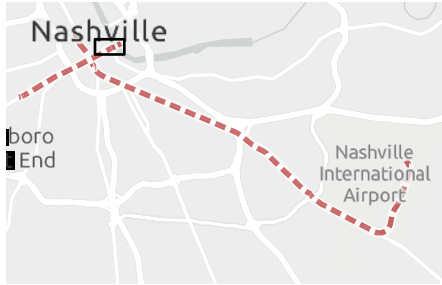


Figure 5-25. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

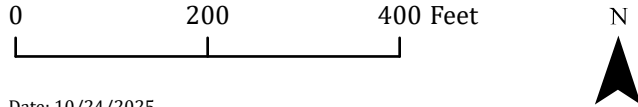
DAVEY
Resource Group

Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- | | | |
|---|------------------------|---------------------|
| Tunnel Crossing Location Under Aquatic Resource | Land Use Types | Restaurants/Bars |
| Approximate Geologic Contact Surface Elevation | Institutional/Cultural | Retail |
| Proposed Tunnel Routes October 2025 | Residential | Parking |
| Music City Loop 300' Buffer | Hotel | Common Space/Vacant |
| State of TN Historic Commission Site | Park | |
| Geologic Contacts | Office | |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.77497°W 36.1626°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

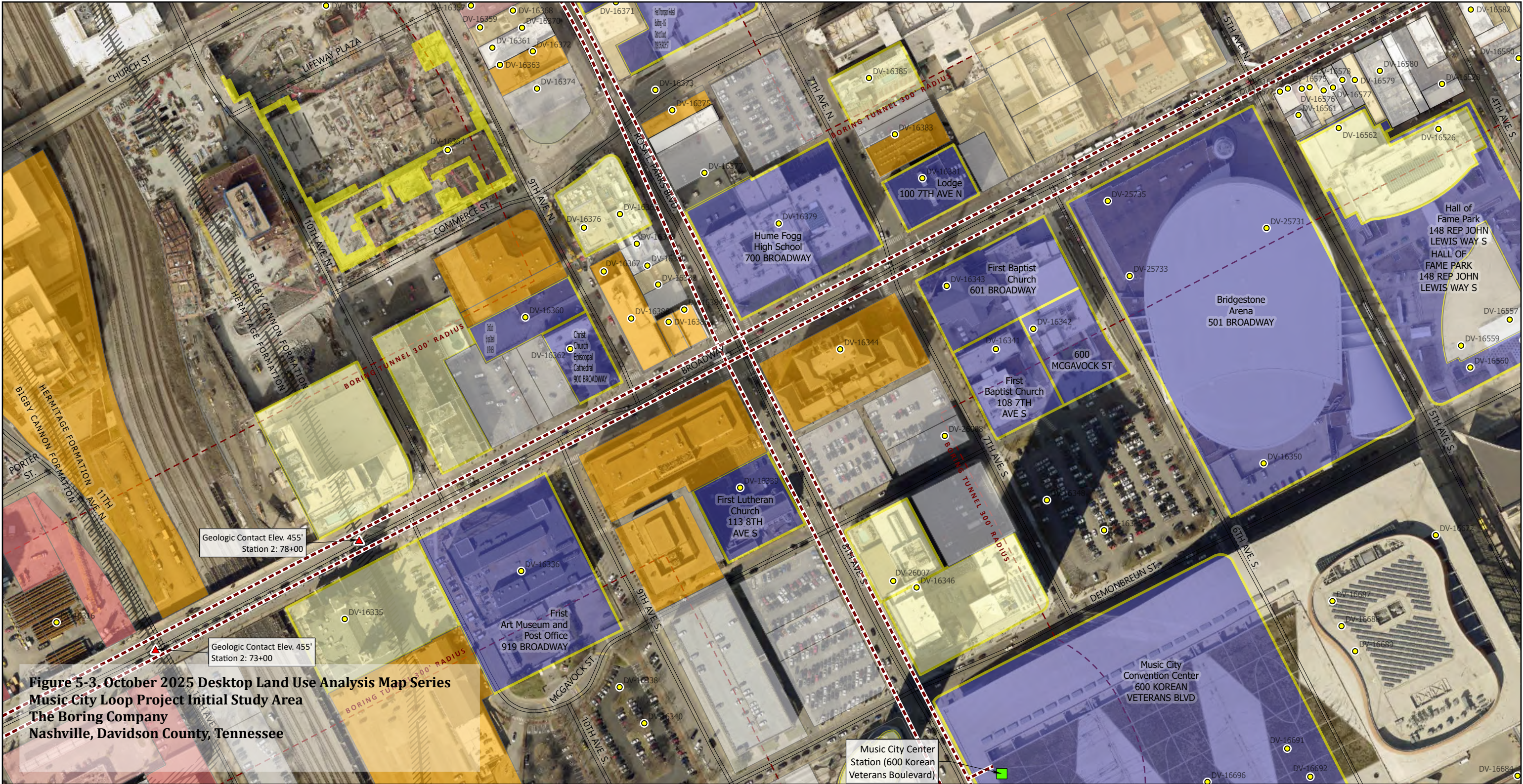
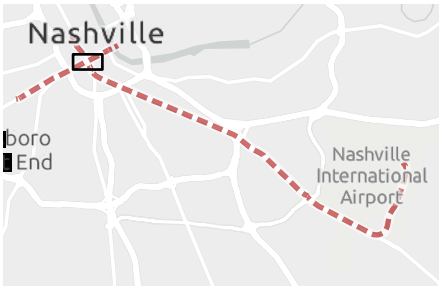


Figure 5-3. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

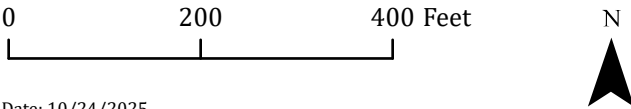
DAVEY
Resource Group

Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- | | | |
|--|--------------------------|---|
| ▲ Approximate Geologic Contact Surface Elevation | Land Use Types | ■ Retail |
| ■ Proposed Station | ■ Institutional/Cultural | ■ Industrial |
| --- Proposed Tunnel Routes October 2025 | ■ Residential | ■ Light Industrial, Storage, Automotive |
| --- Music City Loop 300' Buffer | ■ Hotel | ■ Parking |
| ● State of TN Historic Commission Site | ■ Office | ■ Common Space/Vacant |
| ▨ Geologic Contacts | ■ Restaurants/Bars | |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.78191°W 36.15864°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

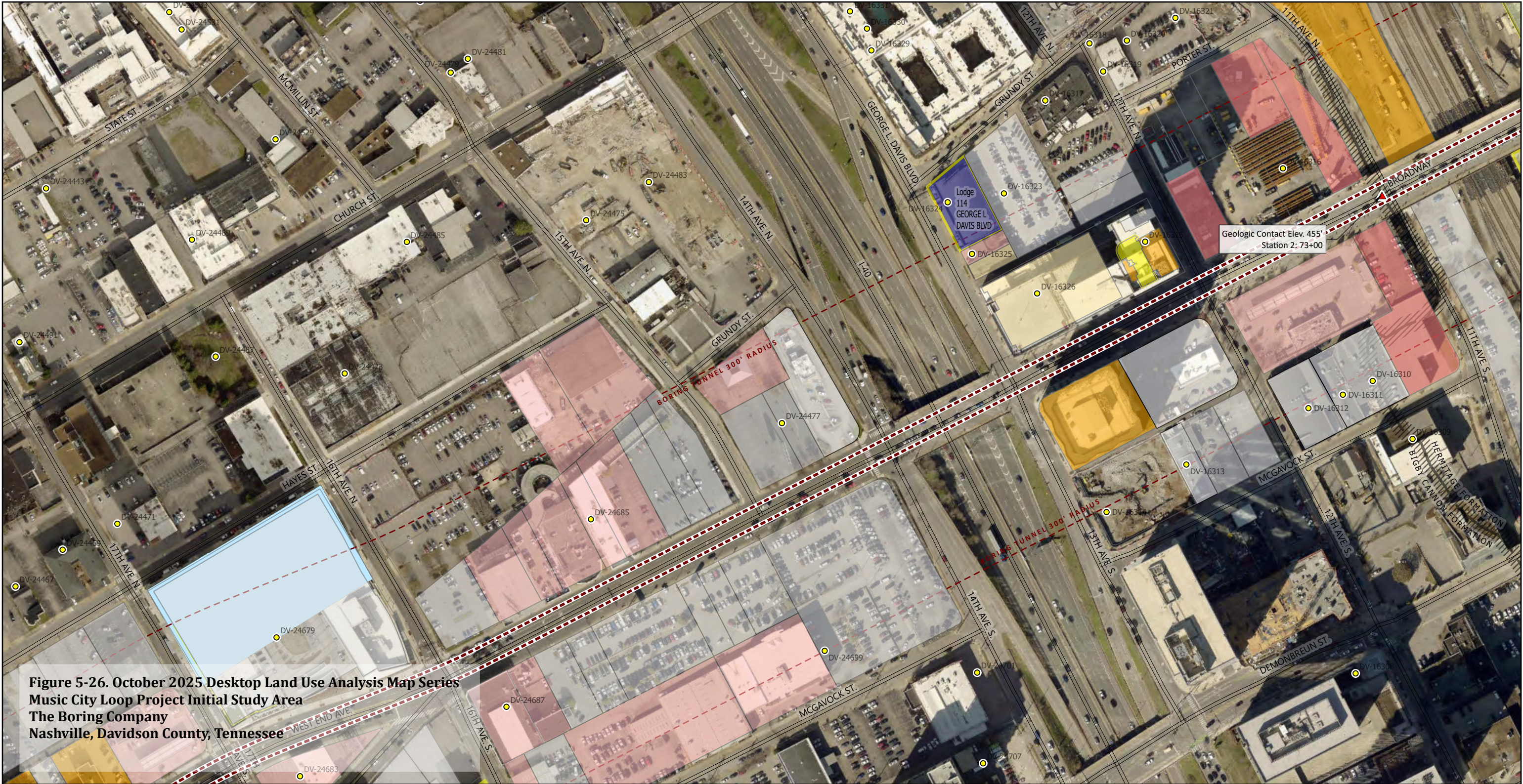
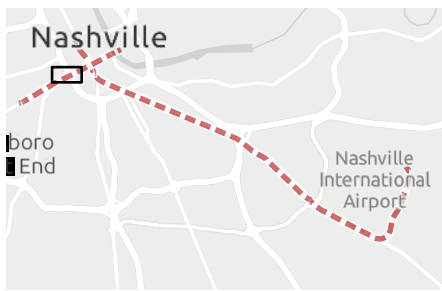


Figure 5-26. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee



DAVEY
Resource Group

Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- ▲ Approximate Geologic Contact Surface Elevation

--- Proposed Tunnel Routes October 2025

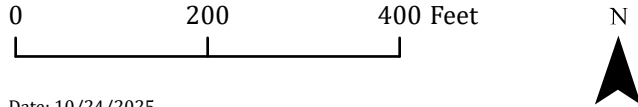
- - - Music City Loop 300' Buffer

● State of TN Historic Commission Site

▨ Geologic Contacts
- Land Use Types

 - Institutional/Cultural
 - Residential
 - Hotel
 - Office
 - Restaurants/Bars
- Retail
 - Industrial
 - Light Industrial, Storage, Automotive
 - Parking
 - Common Space/Vacant

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.

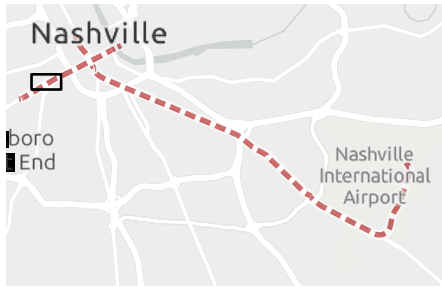


Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.79063°W 36.15595°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets



Figure 5-27. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

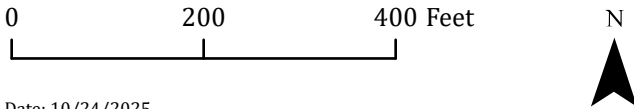
DAVEY 
Resource Group
Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- Proposed Tunnel Routes October 2025
- Music City Loop 300' Buffer
- State of TN Historic Commission Site
- Geologic Contacts

- Land Use Types
- Institutional/Cultural
 - Residential
 - Hotel
 - Office

- Restaurants/Bars
- Retail
- Light Industrial, Storage, Automotive
- Parking
- Common Space/Vacant



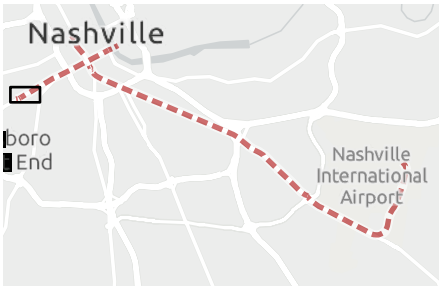
Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.79816°W 36.15256°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019, USGS TopoView
Historical Map Viewer: TDEC 24K Geologic Quads, TDOT Streets

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



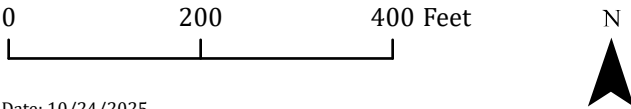
Figure 5-28. October 2025 Desktop Land Use Analysis Map Series
Music City Loop Project Initial Study Area
The Boring Company
Nashville, Davidson County, Tennessee

DAVEY
Resource Group
Nashville Office
801 Rep. John Lewis Way South
Suite 206
Nashville, TN 37203



- | | | |
|---|------------------|---------------------------------------|
| --- Proposed Tunnel Routes October 2025 | Residential | Light Industrial, Storage, Automotive |
| --- Music City Loop 300' Buffer | Hotel | Parking |
| ● State of TN Historic Commission Site | Park | Common Space/Vacant |
| Geologic Contacts | Office | |
| Land Use Types | Restaurants/Bars | |
| Institutional/Cultural | Retail | |

Parcels with land use types that may be considered sensitive receptors are highlighted in yellow.



Date: 10/24/2025
NAD 1983 StatePlane Tennessee FIPS 4100 Feet
86.80477°W 36.14869°N
Prepared for: The Boring Company
Prepared by: DRG
Sources: Metro Nashville Parcels/Land Use and Aerial Imagery 2023
The Boring Company Alignment 10/20/2025, DRG Desktop Aquatic Resources and Land Use Assessment October 2025, USGS 3DEP Lidar Products 2019. USGS TopoView
Historical Map Viewer. TDEC 24K Geologic Quads, TDOT Streets

Appendix 1. TDEC ERT Report and IPaC Report



DIVISION OF NATURAL AREAS
DATA SERVICES
INVOICE

ERT PROJECT ID: TNNHP_ERT_2421

DATE: 10/21/2025 4:44 pm

Davey Resource Group
801 Rep. John Lewis Way S, Ste 206
Nashville, TN 37203

ATTENTION: Sara Samoray
RE: Davey Linear Project 2

The data services fee of **\$275.00** results from Division of Natural Areas staff providing site specific information on rare species, ecological sites, and/or state natural areas to your office. If your company or organization has additional projects with the Division of Natural Areas, the fee for each will be invoiced separately. For this invoice only:

Pay Online (*Recommended*)

1. Go to the online TDEC Division of Natural Areas Environmental Review Payment Form at https://forms.tdec.tn.gov/?FormTag=ERT_Payment, select "Begin Form Entry", and Sign In to an Existing Account, Register a New Account, or Continue as a Guest User.
2. Enter your Contact Information and Project Information. Enter the trailing numbers of the ERT Project ID for this project (**TNNHP_ERT_2421**) into the ERT Project ID field.
3. Enter your payment information and complete your online payment.

Or Pay by Mail

1. Prepare your check in the above amount, making it payable to **"Treasurer, State of Tennessee"** and indicate on it **"For: Division of Natural Areas, ERT Project ID TNNHP_ERT_2421."**
2. Submit a check and a copy of this invoice to TDEC Division of Fiscal Services - Fee Section:

State of Tennessee
Tennessee Department of Environment & Conservation
Division of Fiscal Services – Fee Section
Davy Crockett Tower – 6th Floor
500 James Robertson Parkway
Nashville, TN 37243

Environmental Review Report

Project Information

Report Generation Date: 10/21/2025 4:44 pm
Project Name: Davey Linear Project 2
User-defined Project ID:
ERT Project ID: TNNHP_ERT_2421
Project Size: 198.94 acres
County(s): Davidson
State: TN
TN Physiographic Province: Central Basin
Watershed(s) HUC 8:

- 05130202
- 05130203
- 05130202
- 05130202

Watershed(s) HUC 12:

- 051302020305 (Cumberland River-Browns Creek)
- 051302030309 (Stones River Lower)
- 051302020102 (Mill Creek Lower)
- 051302020304 (Richland Creek)

Latitude, Longitude (Decimal Degrees): 36.142499 / -86.74332

Contact Information

Organization: Davey Resource Group
Name: Sara Samoray
Phone: 6156536940
Email: sara.samoray@davey.com
Address: 801 Rep. John Lewis Way S, Ste 206, Nashville, TN 37203

Project Description

Additional route for Davey Linear Project

This report is based on documented occurrences in the vicinity of your project area. As all areas of the state have not been surveyed for rare species, this report only serves as guidance as to what rare species could occur onsite.

The Tennessee Department of Environment and Conservation - Division of Natural Areas (TDEC-DNA) currently tracks over 1,100 rare and endangered plant and animal species as well as hundreds of conservation sites across the state. The Division and other scientists collect this information through ongoing research and field investigations and from scientific literature, museum collections, and other sources. We continually analyze and update the database. The data are not only important in identifying areas of ecological significance for conservation and restoration activities, but are also useful in the environmental review process.

Additional Information about the TDEC Division of Natural Areas can be found here:

<https://www.tn.gov/environment/program-areas/na-natural-areas.html>

The following report and agency comments are based on a query of the TDEC-DNA rare species database and associated geographic information with regard to the project information you submitted through the Environmental Review Tool.

Please note that although TDEC-DNA manages data for state and federally listed plant and animal species in Tennessee, **the Tennessee Wildlife Resources Agency (TWRA) has legal authority over wildlife** and **the U.S. Fish and Wildlife Service (USFWS) has legal jurisdiction over all federally listed species**. Furthermore, both agencies may possess additional data of which we are unaware or have additional concerns not addressed herein. TDEC Division of Water Resources (TDEC-DWR) is the state authority for all Waters of the State. As such, we ask that you coordinate your project with these entities (where appropriate) and any other relevant federal, state, or local authorities beyond your coordination with TDEC-DNA. We encourage you to share this report from the TDEC-DNA rare species database when coordinating with other agencies.

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 our office at 615-532-4799 or environmental.review@tn.gov.

Managed Areas within 1 Mile of the Project Area

Area Name	Manager
Bicentennial Capitol Mall State Park	
Mill Creek Bottoms Twra Wetland	Twra
Cheatham Lake - Us Army Corps Of Engineers	Us Army Corps Of Engineers

Rare Species Occurrences within 1 Mile of the Project Area

Type	Scientific Name	Common Name	Global Rank	State Rank	Fed. Protection	State Protection	Habitat
Vascular Plant	Astragalus tennesseensis	Tennessee Milk-vetch	G3	S3	--	S	Glades
Vascular Plant	Phemeranthus calcaricus	Limestone Fame-flower	G3	S3	--	S	Glades
Vascular Plant	Stellaria fontinalis	Water Stitchwort	G3	S3	--	S	Seeps And Limestone Creek Beds
Vascular Plant	Vitis rupestris	Sand Grape	G3	S1	--	E	Sandy, Rocky Riverbanks
Invertebrate Animal	Epioblasma brevidens	Cumberlandian Combshell	G1	S1	LE, XN	E	Large creeks to large rivers, in coarse sand or mixtures of gravel, cobble, or rocks; Tennessee & Cumberland river systems.
Invertebrate Animal	Faxonius shoupi	Nashville Crayfish	G1G2	S3	LE, PDL	E	1st-order & larger streams, generally with bedrock bottom, under slabrock; endemic to Mill Creek watershed; Davidson & William. cos.

Vertebrate Animal	Cycleptus elongatus	Blue Sucker	G3G4	S2	--	T	Swift waters over firm substrates in big rivers.
Vertebrate Animal	Ophisaurus attenuatus longicaudus	Eastern Slender Glass Lizard	G5T5	S3	--	D	Dry upland areas including brushy, cut-over woodlands and grassy fields; nearly statewide but obscure; fossorial.
Vertebrate Animal	Thryomanes bewickii	Bewick's Wren	G5	S1	--	D	Brushy areas, thickets and scrub in open country, open and riparian woodland.
Animal Assemblage	Rookery	Heron Rookery	G5	SNR	--	Rare, Not State Listed	

Rare Species Occurrences within 4 Miles of the Project Area

Type	Scientific Name	Common Name	Global Rank	State Rank	Fed. Protection	State Protection	Habitat
Vascular Plant	Ammoselinum popei	Pope's Sand-parsley	G4	S2	--	T	Glades
Vascular Plant	Astragalus tennesseensis	Tennessee Milk-vetch	G3	S3	--	S	Glades
Vascular Plant	Boechera perstellata	Braun's Rockcress	G2	S1	LE	E	Limestone Bluffs
Vascular Plant	Carex davisii	Davis' Sedge	G5	S1	--	S	Bottomlands, Riparian Soils
Vascular Plant	Dalea foliosa	Leafy Prairie-clover	G2G3	S2S3	LE	E	Rocky Washes In Glades
Vascular Plant	Echinacea tennesseensis	Tennessee Coneflower	G2G3	S2	DM	T	Ordovician Limestone Glades
Vascular Plant	Elymus svensonii	Svenson's Wild-rye	G3	S2	--	T	Rocky Bluffs
Vascular Plant	Juglans cinerea	Butternut	G3	S3	--	T	Rich Woods And Hollows

Vascular Plant	<i>Lithospermum parviflorum</i>	Shaggy False Gromwell	G4G5T4	S1	--	E	Dry Woods
Vascular Plant	<i>Mirabilis albida</i>	Pale Umbrella-wort	G5	S2	--	T	Glades
Vascular Plant	<i>Paysonia densipila</i>	Duck River Bladderpod	G3	S3	--	S	Cultivated Fields
Vascular Plant	<i>Perideridia americana</i>	Eastern Yampah	G4	S2	--	E	Cedar Barrens
Vascular Plant	<i>Phemeranthus calcaricus</i>	Limestone Fame-flower	G3	S3	--	S	Glades
Vascular Plant	<i>Phlox bifida</i> ssp. <i>stellaria</i>	Glade Cleft Phlox	G5?T3	S3	--	T	Glades
Vascular Plant	<i>Schoenolirion croceum</i>	Yellow Sunnysbell	G4	S3	--	T	Wet Areas In Glades
Vascular Plant	<i>Stellaria fontinalis</i>	Water Stitchwort	G3	S3	--	S	Seeps And Limestone Creek Beds
Vascular Plant	<i>Symphyotrichum praealtum</i>	Willow Aster	G5	S1	--	S	Moist Prairies And Marshes
Vascular Plant	<i>Vitis rupestris</i>	Sand Grape	G3	S1	--	E	Sandy, Rocky Riverbanks
Vascular Plant	<i>Zanthoxylum americanum</i>	Northern Prickly-ash	G5	S2	--	S	Cedar Thickets
Invertebrate Animal	<i>Epioblasma brevidens</i>	Cumberlandian Combshell	G1	S1	LE, XN	E	Large creeks to large rivers, in coarse sand or mixtures of gravel, cobble, or rocks; Tennessee & Cumberland river systems.

Invertebrate Animal	Faxonius shoupi	Nashville Crayfish	G1G2	S3	LE, PDL	E	1st-order & larger streams, generally with bedrock bottom, under slabrock; endemic to Mill Creek watershed; Davidson & William. cos.
Invertebrate Animal	Lampsilis abrupta	Pink Mucket	G1G2	S2	LE	E	Generally a large river species, preferring sand-gravel or rocky substrates with mod-strong currents; Tennessee & Cumberland river systems.
Invertebrate Animal	Plethobasus cooperianus	Orangefoot Pimpleback	G1	S1	LE, XN	E	Large rivers in sand-gravel-cobble substrates in riffles and shoals in deep flowing water; Cumberland & Tennessee river systems.
Invertebrate Animal	Sphalloplana buchanani	A Cave Obligate Planarian	G1G2	S1	--	Rare, Not State Listed	Aquatic cave obligate; northern Central Basin; Davidson County; taxonomy poorly understood.

Vertebrate Animal	<i>Acipenser fulvescens</i>	Lake Sturgeon	G3G4	S1	UR	E	Bottoms of large, clean rivers and lakes.
Vertebrate Animal	<i>Ambystoma barbouri</i>	Streamside Salamander	G4	S3	UR	E	Seasonally flowing karst streams; middle Tennessee.
Vertebrate Animal	<i>Cycleptus elongatus</i>	Blue Sucker	G3G4	S2	--	T	Swift waters over firm substrates in big rivers.
Vertebrate Animal	<i>Etheostoma luteovinctum</i>	Redband Darter	G4	S4	--	D	Limestone streams; Nashville Basin & portions of Highland Rim.
Vertebrate Animal	<i>Ixobrychus exilis</i>	Least Bittern	G4	S2B	--	D	Marshes with scattered bushes or other woody growth; readily uses artificial wetland habitats.
Vertebrate Animal	<i>Macrochelys temminckii</i>	Alligator Snapping Turtle	G3	S2S3	PT	T	Slow moving, deep water of rivers, sloughs, oxbows, swamps, and lakes; middle and west Tennessee; obscure.
Vertebrate Animal	<i>Ophisaurus attenuatus longicaudus</i>	Eastern Slender Glass Lizard	G5T5	S3	--	D	Dry upland areas including brushy, cut- over woodlands and grassy fields; nearly statewide but obscure; fossorial.

Vertebrate Animal	<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S1B	--	E	Dry open pine or oak woods; nests on the ground in dense cover.
Vertebrate Animal	<i>Thryomanes bewickii</i>	Bewick's Wren	G5	S1	--	D	Brushy areas, thickets and scrub in open country, open and riparian woodland.
Animal Assemblage	Rookery	Heron Rookery	G5	SNR	--	Rare, Not State Listed	

You can consult the TN Rare Plant List and the TN Rare Animal List at the Natural Heritage Inventory Program web page: <https://www.tn.gov/environment/program-areas/na-natural-areas/na-natural-heritage-inventory-program.html>

Additional information regarding rare species can be found in NatureServe Explorer:
<https://explorer.natureserve.org>

Additional information regarding federally listed species can be found at USFWS ECOS:
<https://ecos.fws.gov/ecp>

Full details regarding global/state ranks and fed/state protection can be found here:
https://www.tn.gov/content/dam/tn/environment/natural-areas/documents/na_status-ranks.pdf

User-Submitted Responses

Project Type:	Commercial Development
Will this project require damage to or destruction of native vegetation outside of a maintained right-of-way, manicured/mowed lawn, or garden?:	Uncertain
Will this project impact wetlands or jurisdictional streams as defined by TDEC Division of Water Resources?:	Uncertain
Is any portion of the project area on land owned by the State of Tennessee or the U.S. Federal Government?:	Yes
Will this review be used for certification in the Tennessee Department of Economic and Community Development's Select TN Certified Sites Program?:	No
Is this project publicly-funded or supported by a publicly-funded grant?:	No
Is this environmental review being requested to fulfill requirements of a TDEC permit application?:	Uncertain

COMMENTS REGARDING USER-SUBMITTED RESPONSES

TDEC-DNA does not have any comments regarding the User-Submitted Responses for this project. See comments regarding Managed Areas and Rare Plant Species in the sections below.

COMMENTS REGARDING NEARBY MANAGED AREAS

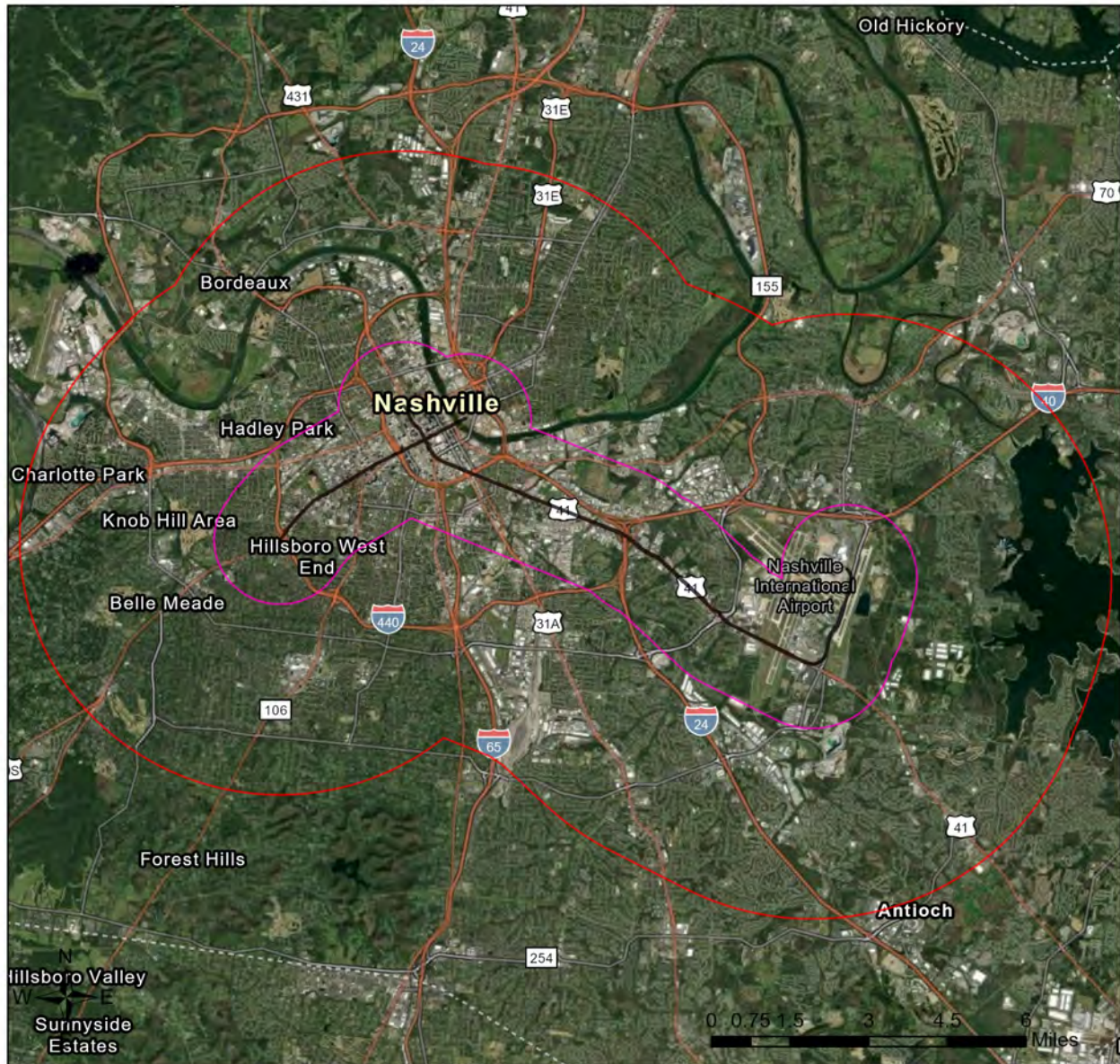
Our query indicates that a managed area is within 1 mile of the project area. Please note that there are frequently increased protections for rare species within publicly owned parks and properties and that jurisdictional considerations beyond those of a typical review are necessary. It is your responsibility to ensure any such areas in your project area are correctly identified and that appropriate coordination is conducted.

COMMENTS REGARDING POTENTIAL IMPACTS TO RARE PLANT SPECIES

Where suitable habitat is present any of the rare plant species known from within four miles of the project area may occur at the site. If suitable habitat is present, an appropriately timed survey by a qualified biologist would be necessary to identify and avoid impacting rare plant species at the site. Appendix A and Appendix B are provided at the end of this report to assist with addressing this comment.

Davey Linear Project 2

Aerial Image Basemap With Locator Map



-  Project Boundary
-  Buffered Project Boundary 4 Mile
-  Buffered Project Boundary 1 Mile

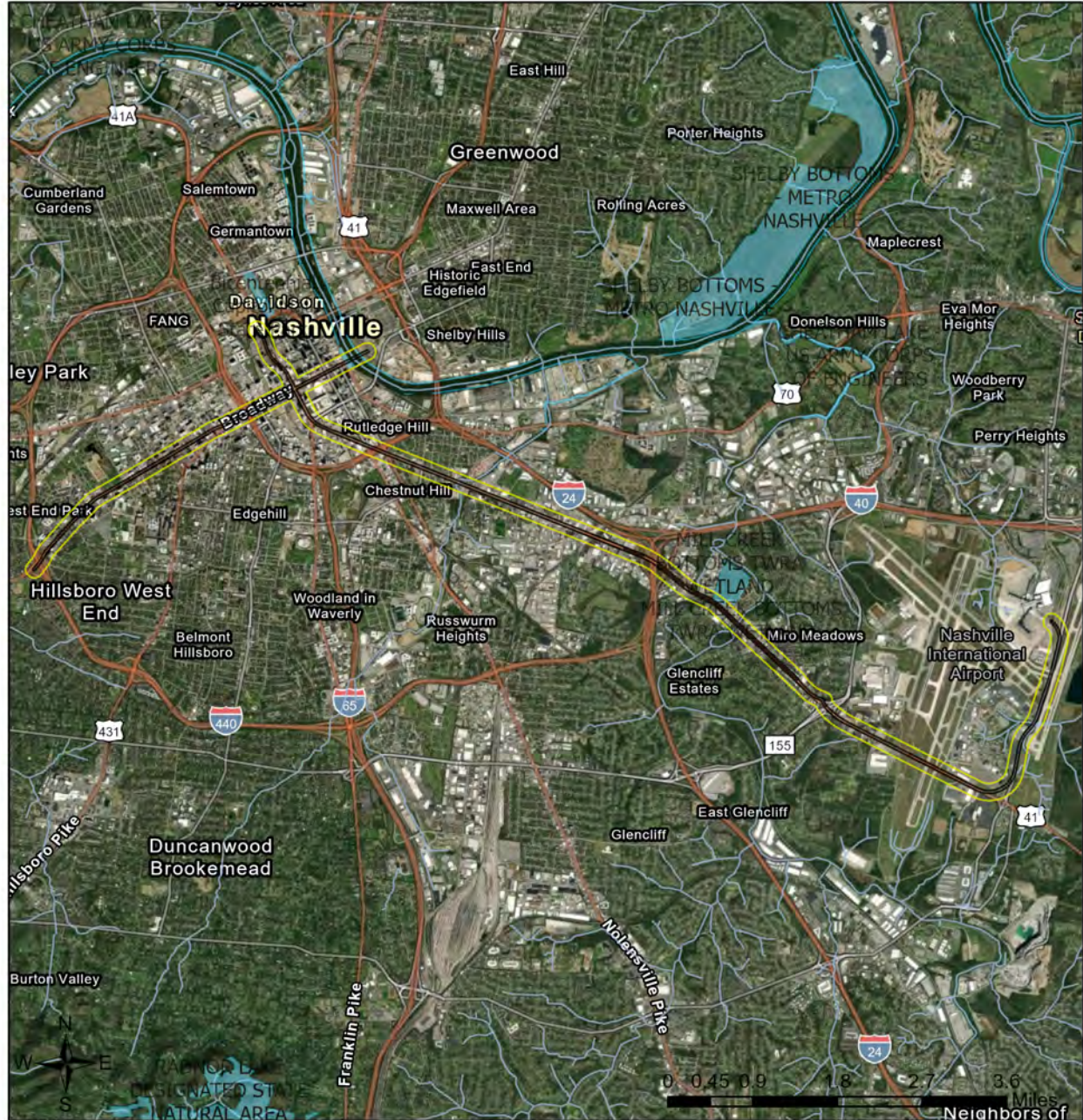


Project Size (acres): 198.94
 Lat/Long (DD): 36.1425 / -86.7433
 Lat/Long (DMS): 36° 8' 32.9979" N / 86° 44' 35.9511" W
 County(s): DAVIDSON
 Watershed (HUC12): 051302020102; 051302020304; 051302020305; 051302030309
 USGS Quad(s): ANTIOCH; NASHVILLE-EAST; NASHVILLE-WEST

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
 Earthstar Geographics
 Esri, USGS

Davey Linear Project 2

Map Image with Special Areas



- Water Lines
- Scenic Rivers (Lines)
- Scenic Rivers (Polygons)
- Managed Areas
- Buffered Project Boundary 100 Meters
- Project Boundary



Contacts

USFWS

If your project review list includes federally listed plant or animal species, and you would like a review from the U.S. Fish and Wildlife Service, please follow the instructions for submitting a review request provided at <https://www.fws.gov/media/tn-es-project-review-requests-guidance>.

TWRA

Environmental reviews are coordinated by TWRA via regional habitat protection biologists. You can request an environmental review from TWRA by using the [TWRA Environmental Review Request Form \(arcgis.com\)](#). If you have additional questions or need to follow up on a request, the appropriate TWRA contact for this project is listed below. When project areas include two TWRA regions, both staff members are listed.

Katie Murphy

TWRA Region for this Project:	Region 2
TWRA Region Contact for this Project:	Katie Murphy
Address:	5105 Edmondson Pike, Nashville, TN 37211
Email Address:	Katie.M.Murphy@tn.gov

TDEC Environmental Field Office

The nearest Environmental Field Office (EFO) should be your starting point for any environmental question. Each EFO is staffed with technical staff who are available to assist with permitting needs, outreach functions, and general guidance. If water resources - including streams, wetlands, or riparian areas - are to be impacted by the project, you can also coordinate with TDEC Division of Water Resources via the appropriate Environmental Field Office or Permitting Unit.

NASHVILLE

TDEC Environmental Field Office for this Project:	NASHVILLE
Address:	711 R.S. Gass Blvd, Nashville, TN 37216
Phone number:	(888) 891-8332

Appendix A: TDEC-DNA ERT Self-Certification (Rare Plant Species)

For individuals or agencies that wish to document their use of the ERT, this self-certification can help with using the ERT Report to evaluate potential impacts to rare plant species. If the ERT Report section Comments Regarding Potential Impacts to Rare Plant Species indicates that “One or more rare plant species or rare ecological communities have been documented within the immediate vicinity of the project boundary...” we suggest contacting TDEC Division of Natural Areas for further consultation via the method described in the ERT Report prior to using this self-certification.

STEP 1

In consultation with TDEC-Division of Natural Areas via the ERT Report, I have reviewed the rare species documented within 1- and 4- miles of the project area and compared their habitat requirements to the habitat present at the project site.

Based on my survey of the project area or a survey by a qualified biologist (SELECT ONE):

☐ Habitat for rare plant species known from within 4-miles of the project area IS present in the project area. (Go to STEP 2)

OR

☐ Habitat for rare plant species known from within 4-miles of the project area IS NOT present in the project area. (Skip to STEP 4)

STEP 2

Where suitable habitat is present for rare plant species known from within 4 miles of the project area, appropriately timed surveys were conducted for the rare plant species known from those habitat types as informed by the ERT Report, the TN Rare Plant list, and/or other botanical resources – (see APPENDIX B for Example Rare Plant Survey Documentation). Following our appropriately timed surveys and documentation of those surveys, we determined (SELECT ONE):

☐ Rare plant species **ARE** present in the project area. (GO TO STEP 3)

OR

☐ Rare plant species **ARE NOT** present in the project area. (SKIP TO STEP 4)

STEP 3

Following observation of rare plant species at the site, we began further consultation with TDEC Division of Natural Areas. [Send survey results and pictures of rare plant species to TDEC-DNA at environmental.review@tn.gov, making sure to include the ERT Project ID in the subject line]. I have attached correspondence with TDEC-DNA regarding additional consultation to this form. (GO TO STEP 4)

STEP 4

Following consultation with TDEC-Division of Natural Areas through the ERT and due diligence in the form of a habitat assessment and/or appropriately timed surveys for rare plant species, I have determined that this project is unlikely to impact rare plant species **OR** after identifying rare plant species at the site, I have notified TDEC-DNA that state or federally listed threatened or endangered species are present.

NAME: _____
COMPANY/ORGANIZATION: _____
SIGNATURE: _____
DATE: _____

Appendix B: Example Rare Plant Survey Documentation

All surveys...

Date of survey

Names of surveyors

Total effort (hours)

Map of total project area (with annotations identifying survey areas within project area)

Representative photos of areas surveyed (with latitude/longitude and direction for each)

When rare plant species are identified (repeat for each species)...

Photos of any rare species identified, along with the following information for each photo (or photo series):

Latitude and longitude of observation(s) (decimal degrees)

Multiple points or the centroid of a large population can be used if individuals are widely dispersed

Notes regarding extent of population

e.g. phenology, number of individuals, quality of habitat, extent of area where species is present

Survey Certification

One or more **appropriately timed** surveys were conducted in a study area where suitable habitat was present for rare plant species known from within four miles. Select the result of your survey(s) below.

____ **Result 1:** The survey results suggest that rare plant species ARE NOT present at the site.

Sign below and use this documentation to support your TDEC-DNA ERT Self-Certification for rare plant species.

NAME: _____

COMPANY/ORGANIZATION: _____

SIGNATURE: _____

DATE: _____

OR

____ **Result 2:** The surveys identified rare plant species at the site (continued on next page).

TDEC-DNA welcomes the opportunity to review the results of rare species surveys where rare species have been previously documented and/or new occurrences of rare species are identified. When a survey identifies rare plant species at a site, you may submit your survey documentation to TDEC Division of Natural Areas via email at environmental.review@tn.gov making sure to include your ERT Project ID in the subject line.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Davidson County, Tennessee



Local office

Tennessee Ecological Services Field Office

☎ (931) 528-6481

📅 (931) 528-7075

446 Neal Street

Cookeville, TN 38501-4027

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
 2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6329	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Birds

NAME	STATUS
Whooping Crane <i>Grus americana</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/758	EXPN

Clams

NAME	STATUS
Pink Mucket (pearlymussel) <i>Lampsilis abrupta</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7829	Endangered
Spectaclecase (mussel) <i>Cumberlandia monodonta</i> Wherever found There is proposed critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7867	Endangered

Insects

NAME	STATUS
------	--------

Monarch Butterfly *Danaus plexippus*

Proposed Threatened

Wherever found

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/9743>

Crustaceans

NAME

STATUS

Nashville Crayfish *Orconectes shoupi*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/7181>

Flowering Plants

NAME

STATUS

Braun's Rock-cress *Arabis perstellata*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/4704>

Guthrie's (=pyne's) Ground-plum *Astragalus bibullatus*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/1739>

Leafy Prairie-clover *Dalea foliosa*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5498>

Price's Potato-bean *Apios priceana*

Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/7422>

Short's Bladderpod *Physaria globosa*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/7206>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The [data](#) in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the [Supplemental Information on Migratory Birds and Eagles document](#) to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Bald and Golden Eagle information is not available at this time

Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior [authorization](#) by the Department of Interior U.S. Fish and Wildlife Service (FWS).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Migratory bird information is not available at this time

Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird

species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Bald and Golden Eagle Protection Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters.

Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Appendix 2. Midsouth Cultural Resource Consultants Archaeological Desktop Review



October 20, 2025

Davey Resource Group
Attn: Mr. Sam Parish
801 Rep. John Lewis Way S., Ste. 206
Nashville, TN 37203

RE: Desktop Review, Music City Loop, Nashville, Davidson County, TN

Mr. Parish:

Per your request, Midsouth Cultural Resource Consultants (MCRC) has conducted a desktop cultural resource review of the proposed Music City Loop. The Music City loop consists of a route extending 15.13 km (9.4 miles) from the Nashville International Airport to its termination at the Nashville, Davidson County, TN Capitol (Figure 1). A second route is proposed from the east bank of the Cumberland River proceeding westward following Broadway/West End St. and terminates near the intersection with Elliston Ave. for 3.78 km (2.35 miles) (Figure 2). The desktop cultural resource review included a review of the Tennessee Division of Archaeology (TDOA) on-line site files, the Tennessee Historical Commission (THC) on-line viewer, and the National Register of Historic Places (NRHP) listings. The results of these investigations are presented below.

Sixty-seven archaeological sites have been recorded within the project area (Table 1; Figures 3-8). The review of the archaeological site files indicate that two previously recorded archaeological sites are present within the proposed route and additional sixty-five (n=66) archaeological sites present within a 1-mile radius of the APE. The Northern Route of the Trail of Tears (40DV571) follows the airport route from the intersection of Donelson Pike and Murfreesboro Pike to 2nd Ave. S. The extent of 40DV571 most likely has been severely disturbed or altered although areas with intact deposits may be present. Site 40DV401 encompasses much of the Nashville International Airport and surrounding area. Much of this site also has been heavily disturbed. The extent to which these previously recorded archaeological sites will be adversely affected by the project is undetermined.

The review of the THC on-line site files revealed that one hundred thirty-one (n=131) previously recorded properties are present within a 500 foot radius of the proposed airport route (Table 2; Figures 9-13). One hundred eighty (n=180) previously recorded properties are present in the Broadway/West End route (Table 3; Figures 14-16). Thirty-two properties listed on the NRHP are present within a 500 foot radius of the APE (Table 4; Figures 17-19).

This review does not constitute compliance with the National Historic Preservation Act (NHPA). The Tennessee State Historic Preservation Office (TNSHPO) or other agency may request a Phase I cultural resource survey.



Sincerely,

A handwritten signature in black ink that reads 'J. Scott Jones'.

J. Scott Jones, PhD., RPA
President, senior archaeologist

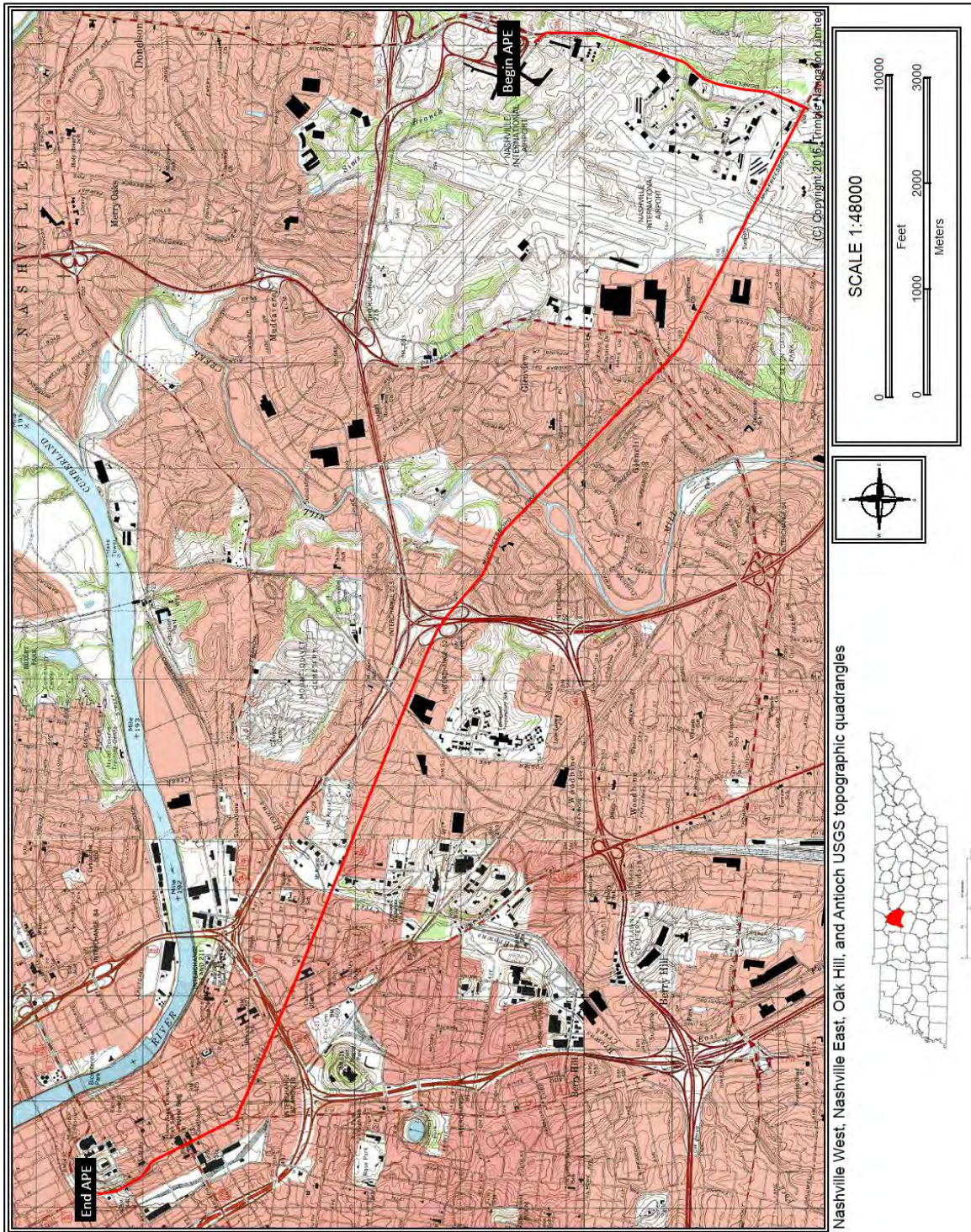


Figure 1. Proposed Airport/8th Ave. Music City Loop route.

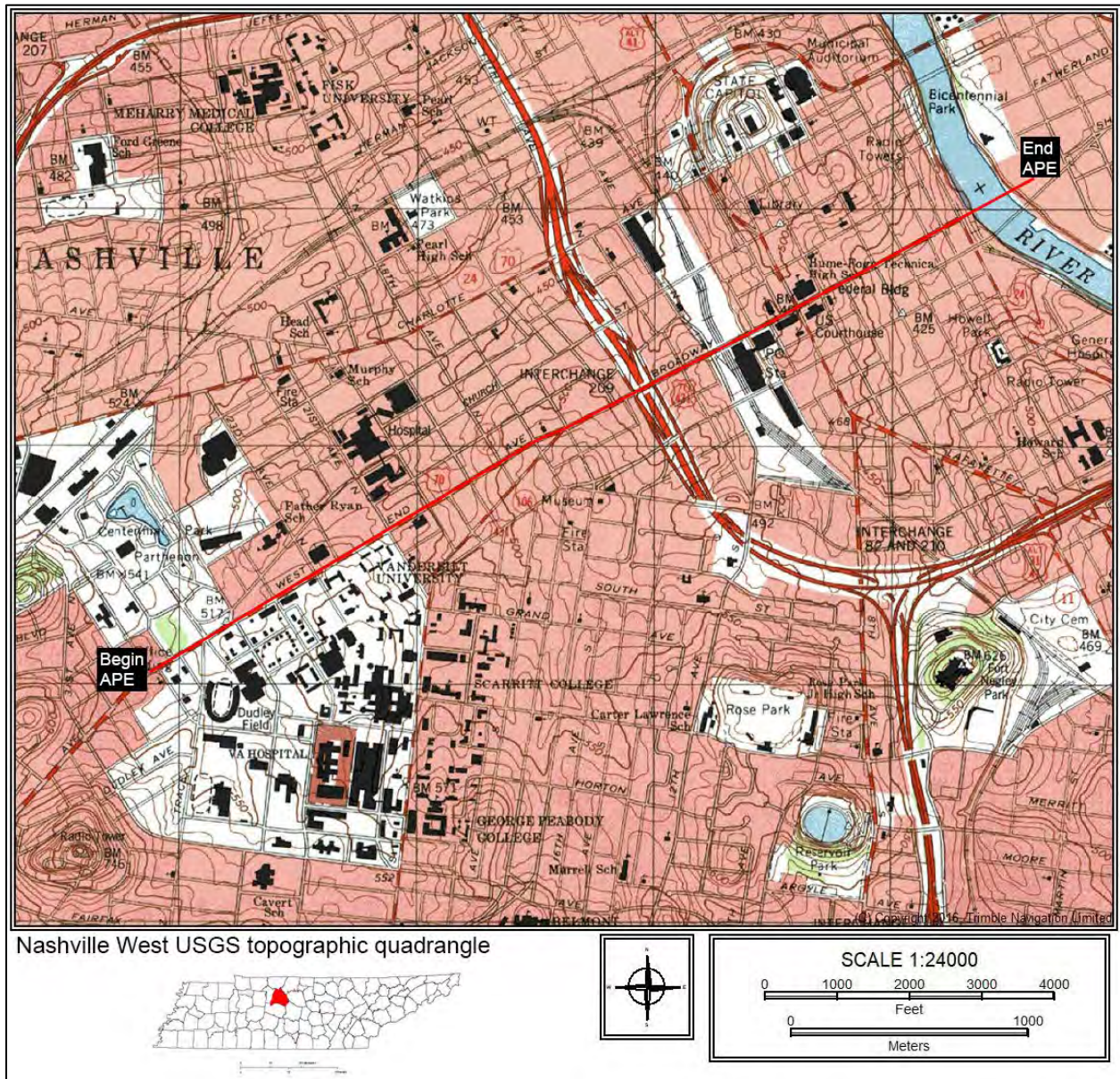


Figure 2. Broadway/West End Ave. Music City Loop route.

Table 1. Summary of previously recorded archaeological sites located within a 1-mile radius of the APE.

Site #	Site Type	Cultural Affiliation	NRHP Status
40DV4	open habitation, mound complex, prehistoric cemetery	Mississippian	No data
40DV5	open habitation, mound complex, prehistoric cemetery	Mississippian	No data
40DV40	Cave, prehistoric cemetery	Pleistocene fauna, Woodland	No data
40DV43	prehistoric cemetery	Mississippian	No data
40DV104	military-frontier station, cemetery	Historic, 1760-1819	No data
40DV105	Military, Frontier station	Historic, 1760-1819	No data
40DV110	Military, Frontier station	Historic, 1760-1819	No data
40DV114	Military, Frontier station	Historic, 1760-1819	No data
40DV117	Military, Frontier station	Historic, 1760-1819	Listed
40DV138	Pottery, transitional stoneware, factory stoneware, or other factory ware	Historic, 1866-1900	No data
40DV142	home industry pottery traditional earthenware/stoneware	Historic 1861-1865	No data
40DV167	Urban domestic	Historic, 1760-1900	No data
40DV182	Urban domestic	Historic, 1760-1932	No data
40DV189	military, fort, encampment, freedmens camp, earthwork, public cemetery, urban domestic house	Historic, 1861-present	Listed
40DV235	Open habitation	Undetermined prehistoric	No data
40DV236	Open habitation	Early, Late Archaic	No data
40DV237	Open habitation	Woodland	No data
40DV238	Open habitation	Late Archaic	No data
40DV239	Open habitation	Undetermined prehistoric	No data
40DV240	rural domestic untyped structure	Historic, 1866-1932	No data
40DV241	cemetery	Historic, 1866-1932	No data
40DV244	dump	Historic, 1861-present	No data
40DV248	Open habitation	Undetermined prehistoric	No data
40DV249	Open habitation	Undetermined prehistoric	No data
40DV250	cemetery	Historic, 1866-1932	No data
40DV369	military, fort, encampment, freedmens camp, earthwork, public cemetery, urban domestic house	Historic, 1820-present	No data
40DV370	military-long term encampment, shipyard	Historic 1861-1865	No data
40DV371	military-multiple features, university	Historic, 1820-present	No data
40DV372	military-rr guard post, bridge	Historic, 1820-present	No data
40DV374	military-entrenchment, long term encampment	Historic, 1861-1865	No data
40DV375	military, long term hospital, commercial	Historic, 1820-present	Listed
40DV375	military, long term hospital, commercial	Historic, 1820-present	Listed
40DV376	military, long term hospital, church	Historic, 1820-present	Listed

40DV377	military, long term hospital, commercial	Historic, 1820-present	Listed
40DV378	military, long term hospital, church	Historic, 1820-present	No data
40DV381	military, industrial foundry	Historic, 1820-1900	No data
40DV390	military-earthwork entrenchment	Historic, 1861-1865	No data
40DV393	military-blockhouse, rr guard post, small battlefield	Historic, 1866-1932	No data
40DV396	military-earthwork entrenchment	Historic, 1861-1865	No data
40DV398	military-stockade, earthwork, redan, state capitol	Historic, 1820-1932	Listed
40DV401	medical, mental hospital, rural domestic farmstead, private cemetery	Historic, 1760-present	No data
40DV402	Open habitation	Archaic, historic	No data
40DV403	Open habitation	Undetermined prehistoric, historic	No data
40DV417	Open habitation	Undetermined prehistoric	No data
40DV418	rural domestic untyped structure	Historic, 1901-present	No data
40DV431	rural domestic springhouse, private cemetery	Historic, 1820-present	No data
40DV433	rural domestic house	Historic, 1820-present	No data
40DV454	industrial, bottling plant	Historic, 1866-1900	No data
40DV469	Pleistocene fauna; store, tavern, warehouse, office, Urban house, rr spur, rr bridge, dump	Historic, 1820-present	No data
40DV491	Church, cemetery	Historic, 1760-1932	No data
40DV521	University, stable	Historic, 1866-1932	No data
40DV540	military-explosive magazine	Historic, 1861-1865	No data
40DV571	road	Historic, 1820-present	
40DV606	Pottery, Transitional stoneware, factory stoneware, or other factory ware	Historic, 1866-1932	No data
40DV607	home industry pottery traditional earthenware/stoneware	Historic, 1760-1860	No data
40DV623	rural domestic house	Historic, 1901-present	No data
40DV636	Open habitation, Mill-saw	Historic, 1866-present	No data
40DV639	Urban domestic house	Historic, 1866-1932	No data
40DV662	bridge	Historic, 1820-1860	No data
40DV670	grist mill	Historic, 1820-1900	No data
40DV671	grist mill	Historic, 1760-1900	No data
40DV682	Rosenwald school	Historic, 1901-present	No data
40DV696	Public cemetery, military- cemetery	Historic, 1820-present	Listed
40DV703	urban domestic, commercial, medical	Historic, 1770-present	Listed
40DV714	Urban domestic	Historic, 1820-present	No data
40DV735	Open habitation	Early, Middle Woodland	No data
40DV744	Urban domestic houses in existing town	Historic, 1901-1949	No data

**This map has been removed at
the request of the State
Archaeologist because the
archaeological information is
protected.**

Figure 3. Location of previously recorded archaeological sites.

**This map has been removed at
the request of the State
Archaeologist because the
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Figure 4. Location of previously recorded archaeological sites.

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Figure 5. Location of previously recorded archaeological sites.

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Figure 6. Location of previously recorded archaeological sites.

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Figure 7. Location of previously recorded archaeological sites.

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Archaeologist because the
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protected.**

Figure 8. Location of previously recorded archaeological sites.

Table 2. Previously recorded THC properties along the Airport/8th Ave. route.

Property ID	Historic/Common Name	Address	Date Constructed	NRHP Status
DV-16263	CASTER KNOTT DRY GOODS CO	MCLEMORE	1890	
DV-16264		MCLEMORE	1930	
DV-16265		MCLEMORE 22	1930	
DV-16266	NASHVILLE GAS BUILDING	CHURCH ST 81	1930	
DV-16271	SUPREME COURT	7 TH AVE N	1937	NR INDIVIDUAL
DV-16272	STATE LIBRARY ARCHIVES	7 TH AVE N	1952	
DV-16339	FIRST LUTHERAN CHURCH	8 th AND MCGAVOCK	1950	
DV-16343	FIRST BAPTIST CHURCH	BROADWAY & 7 TH 108	1884	
DV-16344	CUSTOMS HOUSE	BROADWAY	1905	ON REGISTER
DV-16346	UNION MISSION	8 TH AVE S	1902	
DV-16347		CHURCH ST 915	1925	
DV-16349	B T FAITH PIANO	CHURCH ST 909 913	1925	
DV-16351	MR KABAB	905 CHURCH	1925	
DV-16352	BARBER SHOP	815 CHURCH ST	1900	
DV-16353	CHURCH ST STUDIO	CHURCH 903	1925	
DV-16354	VARALLA'S RESTAURANT	817-19 CHURCH ST	1900	
DV-16355		9 TH AVE N	1925	
DV-16356	LEWIS LASKA ATTORNEY	CHURCH ST 901	1940	
DV-16357		BACK OF BUILDINGS ON 8 TH /FROM 9 TH	1930	
DV-16358		9 TH AVE N	1890	
DV-16359	WALTER NIPPER'S	9 TH AVE N	1935	
DV-16360	SOVRAN BANK	9 TH AVE N 109	1945	
DV-16361		9 TH AVE N	1930	
DV-16362	CHRIST CHURCH EPHISCOPAL	BROADWAY 900	1892	
DV-16363	FROST BUILDING	9 TH AVE N 160	1913	NR
DV-16364	BAPTIST PUBLISHING	9 TH AVE N 127	1935	
DV-16365		9 TH AVE N 128	1945	
DV-16366	GARAGE	8 TH AVE N	1935	
DV-16367	METHODIST-EPHISCOPAL PUBLISHHOUSE	810 BROADWAY	1907	NRE
DV-16368	NASHVILLE SPORTING GOODS	169 8 TH AVE N	1900	
DV-16369	ST OF TN HEALTH & ENVIRONMENT	CHURCH ST 729	1925	
DV-16370	SAVAGEHOUSE/TOWNHS REST/GASLITE	8 TH AVE N 167	1850	
DV-16371	BERGER BUILDING	8 TH AVE N 162-66	1926	NRL
DV-16372	BAPTIST SUNDAY SCHOOL	8 TH AVE N 161	1913	NR
DV-16373	CALVERY RECORDS	8 TH AVE N 142	1930	
DV-16374	ST PIANO CO	8 TH AVE N 159	1950	

DV-16375	VACANT	8 TH AVE N 138	1930	
DV-16376	BOND STORAGE	8 TH AVE N 129	1935	
DV-16377	CLASSIC CAT	8 TH AVE N 126	1930	
DV-16378	L.C. TILLER PIANOS	8 TH AVE N 123	1940	
DV-16379	HUME FOGG HIGH SCHOOL	BROADWAY 700	1912	
DV-16380	JR'S HATTERS	8 TH AVE N 117	1930	
DV-16382	VICTOR VICTORIA'S	8 TH AVE N 111	1930	
DV-16384	TOMMY'S PL MARKET	800 BROADWAY	1930	NR DISTRICT E
DV-16386		808 BROADWAY	1920	NR DIST
DV-16388	SERN METHODIST PUBLISHING	810 BROADWAY	1920	NR LISTED
DV-16390	VACANT	7TH AVE N 149 ½	1945	
DV-16391	REVCO	CHURCH ST	1900	
DV-16392	7 TH AVE GARAGE	7 TH AVE N 149	1935	
DV-16393	BERT'S/WHITLEY'S/WIN'S	CHURCH ST 703/705/711	1900	
DV-16394	HEWGLEY'S MUSIC SHOP	720 COMMERCE ST @77 TH AVE N	1945	
DV-16395	VACANT	713 CHURCH		
DV-16396	FLANNERY'S HAIR SALON	CHURCH 715	1900	
DV-16397	THIRD NATIONAL BANK	717 CHURCH		
DV-16460	WAR MEMORIAL BLDG	CAPITOL BLVD	1925	
DV-16461	JACQUES-MILLER SLIFEHOLDING	7 TH AVE N 211		
DV-16462	HOTEL WATAUGA HOUSE	POLK AVE 22		
DV-16463	DOCTORS BUILDING	CHURCH ST 706	1910	NR
DV-16464	BENNIE DILLON BLDG	CHURCH ST 702	1910	NR
DV-16638	SUPREME ANODIZING CO	812 PALMER PL	1930	
DV-16641	UNITED METHODIST	201 DEMONBREUN	1930	
DV-16643	CENTRAL VAN STORAGE CO	809 LEA AVE	1945	
DV-16649		EWING ST 614	1920	
DV-16650		312 EWING ST	1890	
DV-16651	HOLY TRINITY CHURCH	6 TH AVE S 615	1852	
DV-16652	RUTHERFORD	6 TH AVE 623	1945	
DV-16661	TANKARD CO	4 TH AVE S 701	1880	
DV-16662	HESTER BATTERY LN MFG	LAFAYETTE ST 400	189	
DV-16670	PROFESSIONALLY MANAGED TELEMKT	410 ELM	1910	
DV-16671	HESSEY OFFICE FURNISHERS	402 MURFREESBORO RD	1945	
DV-16680	631	521 5 TH AVE S	1859	
DV-16681	C & F SERVICES	533 AVE S	1920	
DV-16682		5 TH AVE S 535	1905	
DV-16683	TROPICAL DESIGN	537 5 TH AVE S	1905	

DV-16693	FLAMINO LOUNGE	422 7 TH AVE S	1945	
DV-16694	A & E PRINTING COPY & SERVICE CO	SHIRLEY 709	1940	
DV-16695	PETERSON MACHINERY CO	7 TH AVE 309	1940	
DV-16696	BETTER BUSINESS EQUIP	300 7 TH AVE S	1945	
DV-16697		415 7 TH AVE S	1890	DEMOLISHED 1995
DV-16698	THE JOHN AVERY	404-408 8 TH AVE S	1920	
DV-16699	DIGITAL IMAGE & QUICK SIGNS	402 8 TH AVE S	1920	
DV-16719		826 3 RD AVE S	1930	
DV-16720	EQUITY CORP RETAIL LEASING CONPT	801 3 RD AVE S	1880	
DV-16721	GARRISON SERVICE CO	3 RD & ASH 721	1895	
DV-16722	HOLST & CRANE	3 RD AVE S 713	1860	
DV-16742	LINDSEY AVE CHURCH OF CHRIST	LINDSEY AVE 3	1894	
DV-20459		2 ND AVE S		
DV-20577		2 ND AVE S 1044	1900	DISTRICT
DV-20579		2 ND AVE S 1032	1920	
DV-20581		2 ND AVE S 1024	1875	
DV-20583		2 ND AVE S 1016	1910	
DV-20585		2 ND AVE S 1010	1910	
DV-20587				
DV-20589		2 ND AVE S 1007	1910	
DV-20591		2 ND AVE S 1013	1910	
DV-20593		2 ND AVE S 1015	1900	
DV-20595		2 ND AVE S 1017	1900	
DV-20597		2 ND AVE S 1021	1900	
DV-20599		2 ND AVE S 1025	1895	
DV-20601		2 ND AVE S 1031	1900	DISTRICT
DV-20629	CAMERON JUNIOR HIGH SCHOOL	1 ST AVE S	1935	DISTRICT
DV-20637		1 ST AVE S 1019	1900	
DV-20639		1 ST AVE S 1015	1910	
DV-20641		1 ST AVE S 1003	1880	
DV-20975		WHARF 47	1880	
DV-20977		WHARF 45	1900	
DV-20979		WHARF 41	1910	
DV-20981		WHARF 39.5	1920	
DV-20997		CLAIBORNE 16	1880	
DV-20999		LEWIS 12	1930	
DV-21001		LEWIS ST 8	1930	
DV-21003		HUBBARD ST 54	1920	
DV-21005		PERKINS ST 6	1930	
DV-21007		PERKINS ST 8	1920	

DV-21009		PERKINS 7	1935	
DV-21011		PERKINS 13	1935	
DV-21013		PERKINS 17 & 19	1930	
DV-21015		PERKINS 16	1900	
DV-21017		PERKINS 45	1930	
DV-21137		LESTER AVE 88	1935	
DV-21141		NANCE LN 86		
DV-21143		NANCE LN 84	1925	
DV-25737		CHURCH ST 629-31	1860	DEMOLISHED NOV. 1867 FOR CHURCH ST CENTER MALL
DV-25739		CHURCH ST 627	1860	DEMOLISHED NOV. 1987
DV-26005	THE FILMING STATION	8 TH AVENUE SOUTH 501	1950	
DV-26006	ADAMS SIGNS	7 TH AVENUE SOUTH 405	1955	
DV-26007	GOODYEAR AMERICAN TIRE	8 TH AVENUE SOUTH 118-126	1940	1958 ADDITIONS MADE
DV-26008	FIRST BAPTIST CHURCH RECREATION CENTER	7 TH AVENUE SOUTH 113	1929	NW CORNER OF 7 TH AVENUE SOUTH OF AND MCGAVOCK STREET
DV-26010	SLAUGHTER HOUSE	6 TH AVENUE SOUTH 423	1944	
DV-26011		6 TH AVENUE SOUTH 504	1949	

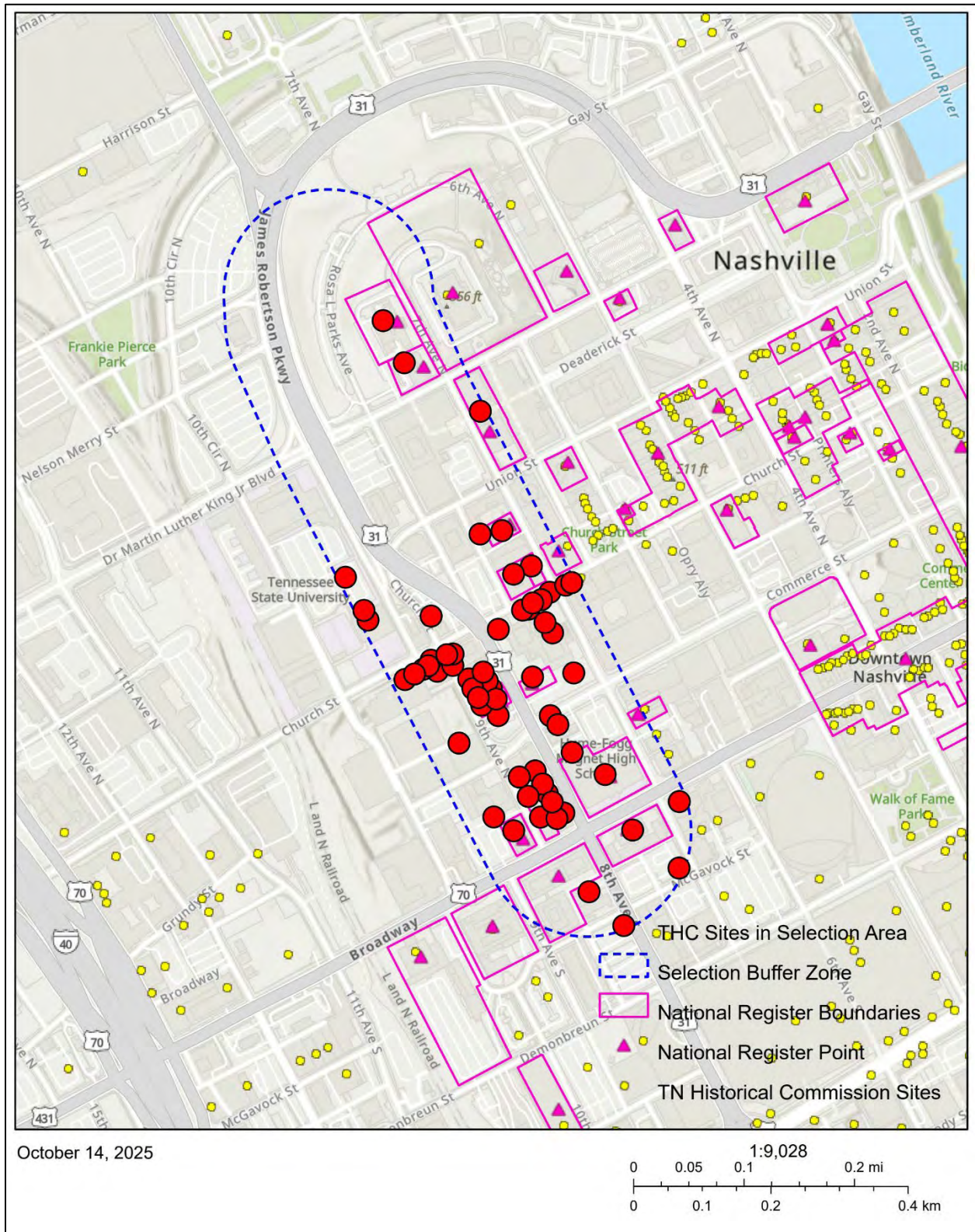


Figure 9. Previously recorded properties in the Airport/8th Ave. route.

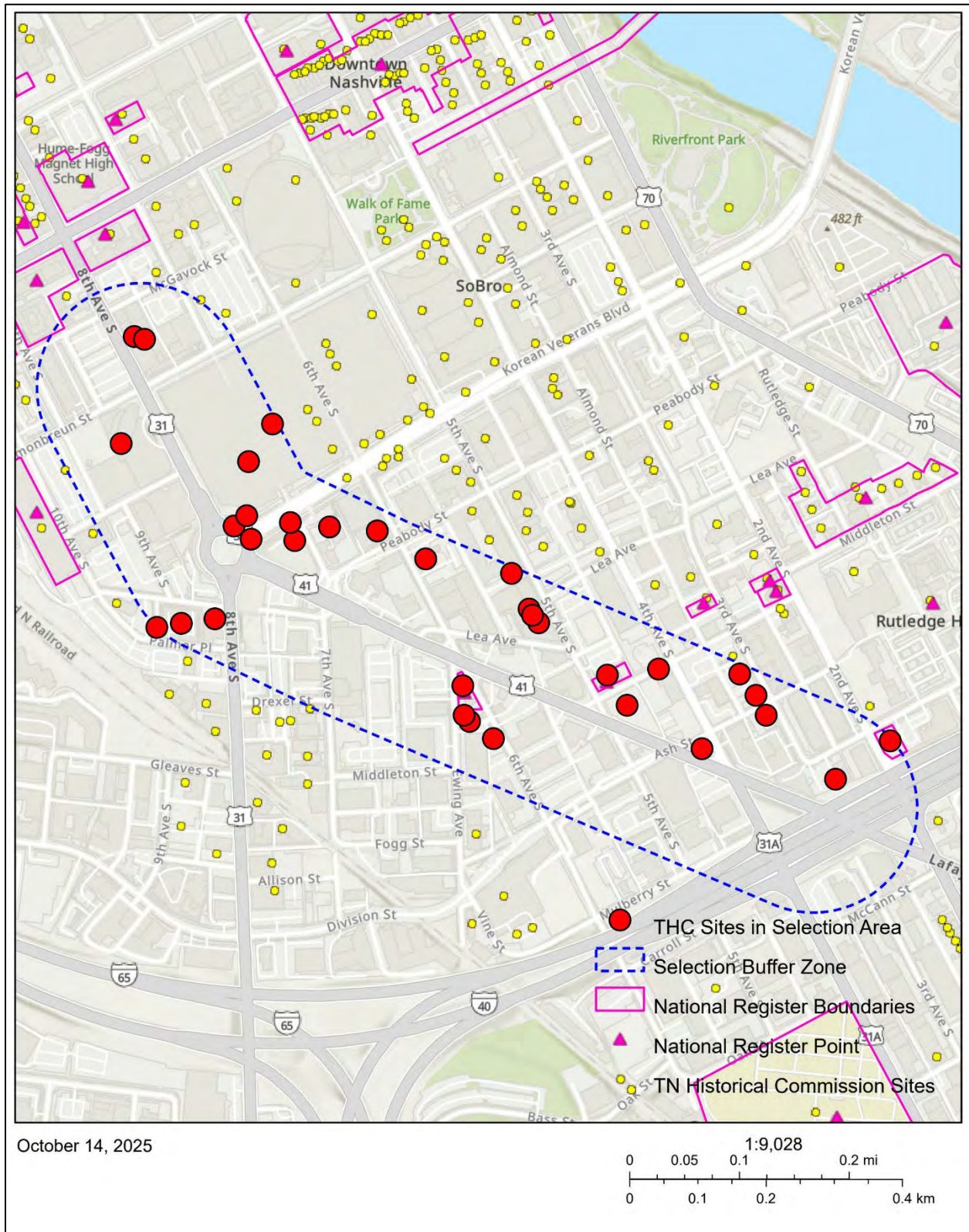


Figure 10. Previously recorded properties in the Airport/8th Ave. route.

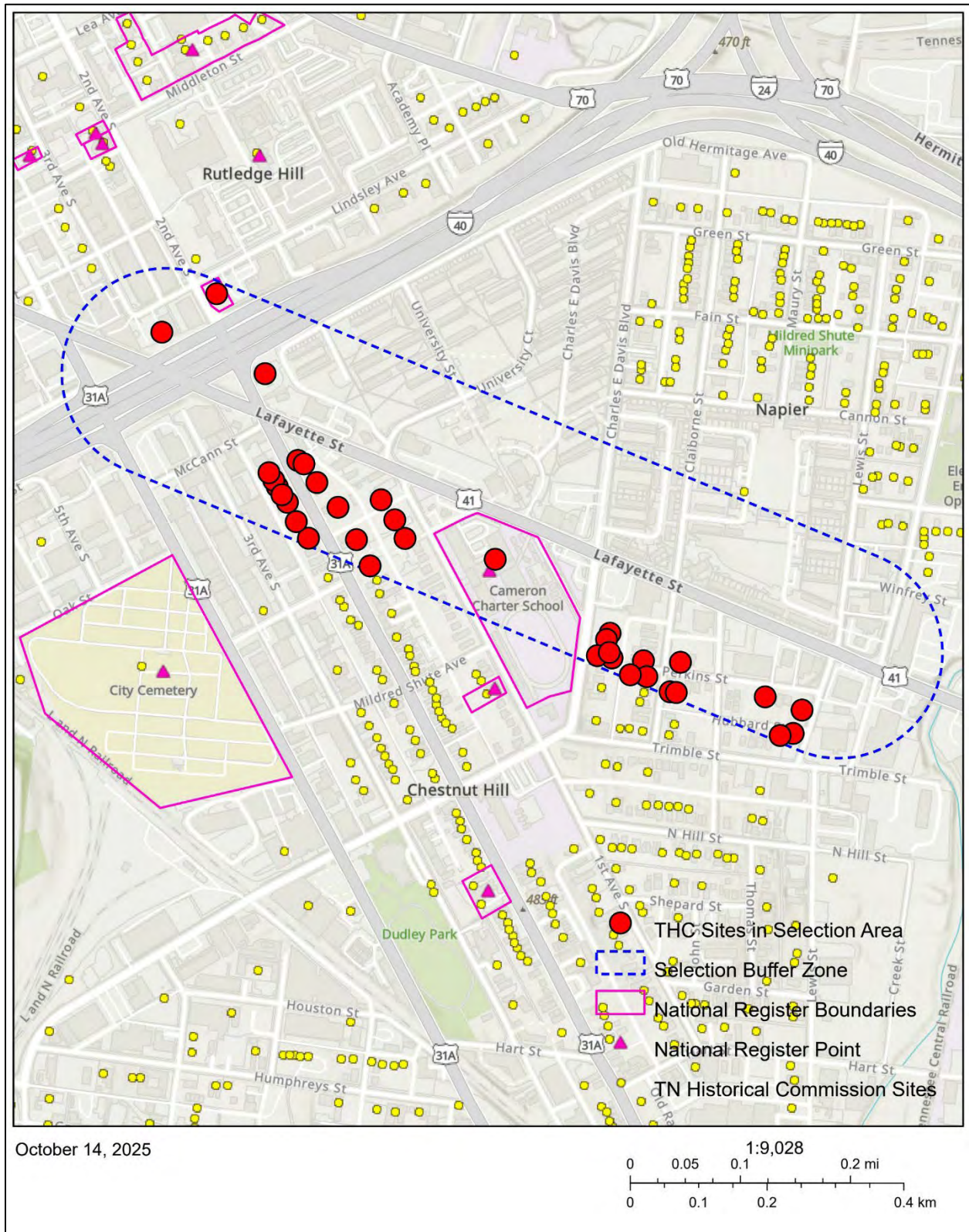


Figure 11. Previously recorded properties in the Airport/8th Ave. route.

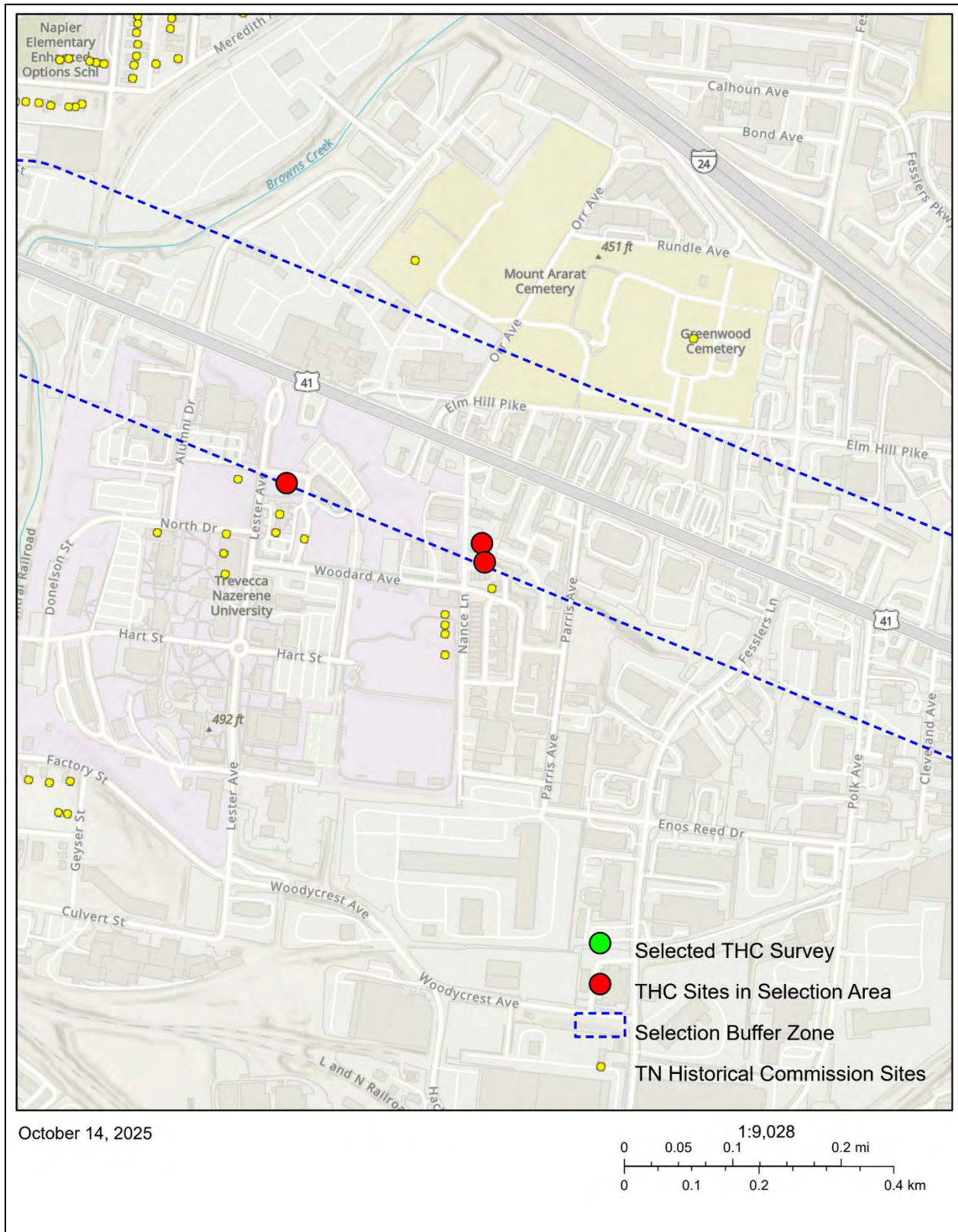


Figure 12. Previously recorded properties in the Airport/8th Ave. route.

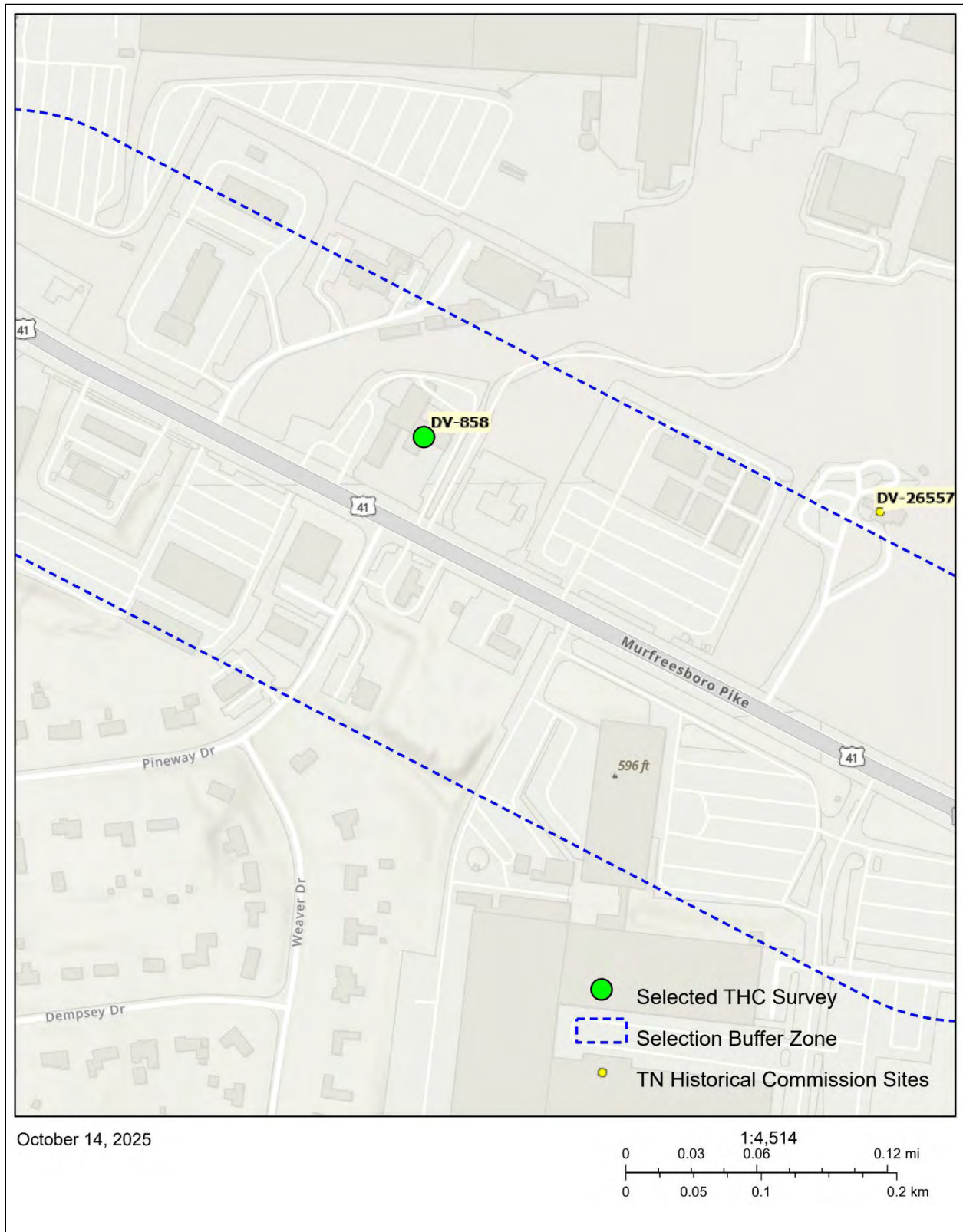


Figure 13. Previously recorded properties in the Airport/8th Ave. route.

Table 3. Previously recorded THC properties along the Broadway/West End Ave. route.

SurveyID	Historic Name	Common Name	Construction date	NRHP Status
DV-16584	EMPIRE FURNITURE CO		1900	
DV-16598			1890	
DV-16503			1879	NRH DISTRI
DV-16384		TOMMY'S PL MARKET	1930	NR DISTRIC
DV-16609		ALAMO OF NASHVILLE	1890	
DV-16618		FRIEDMANS LOANS	1900	
DV-25731		GRAY LINE TOURS	1920	DEMOLISH
DV-16365			1945	
DV-16583	HOME FURNITURE CO	ALAMO	1902	
DV-27008	null	null	1973	null
DV-16515		L&L RESTAURANT SUPPLY	1910	
DV-24285			1930	
DV-24685	JIM REED CHEVROLET		1940	
DV-16312		TENNESSEAN/BANNER	1935	
DV-16480	HOOPER TRUNK CO	MERCHANT MALL	1890	NRD
DV-16509		MARKET ST EMPORIUM	1879	NRH DISTRI
DV-24477	DUPONT PAINT	BUDGET SEARS	1925	
DV-24687	CUMBERLAND MOTORS	BEAMAN	1935	
DV-16543			1930	
DV-24649			1890	
DV-24673			1890	
DV-16593	DERRYBERRY CO GROCERY	DERRYBERRY DESIGN	1940	
DV-18524			1935	
DV-24691	AVON APARTMENTS		1900	
DV-16615		BLUE BAYOU	1900	
DV-16502	NL PERRY CO	SERVICE MERCHANDISE	1880	NRL DISTRI
DV-16554		PARKING	1941	
DV-16540			1939	
DV-24667			1930	
DV-16380		JR'S HATTERS	1930	
DV-24307	THE ELLISTON	THE ELLISTON	1920	
DV-24641	ISER APARTMENTS	LYLE AVE APRTMENTS	1900	

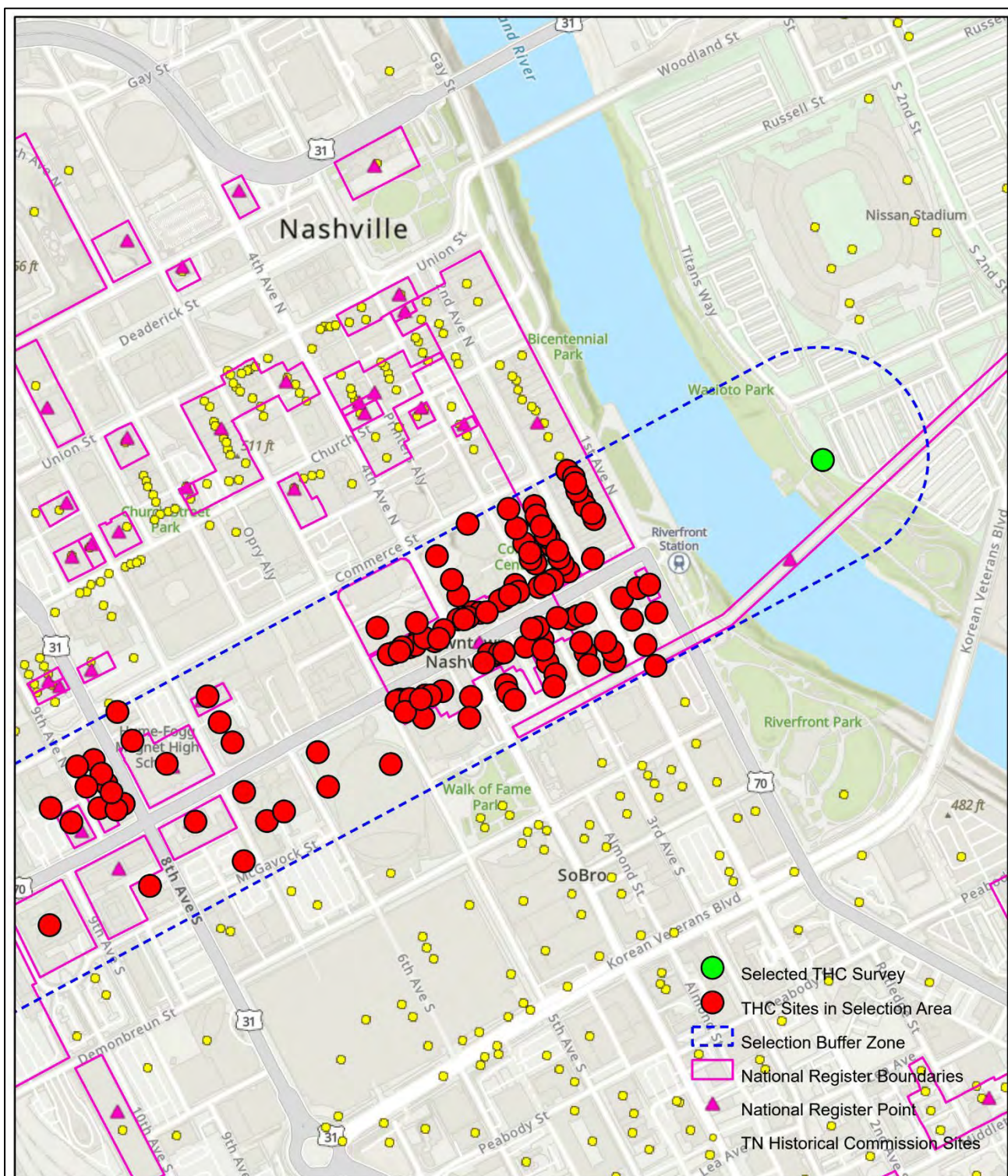
DV-24615			1920	
DV-16550			1920	
DV-16606			1930	
DV-16578	WOLF & CO	ROSE LOAN	1910	
DV-23419A		COWBOY STATUES MADE		
DV-16325		COLE ANTIQUES	1928	
DV-16590	BEESLEY FURNITURE CO	SOFA SHOP	1930	
DV-16383		MCQUIDDY PRINTING CO	1930	
DV-16596		ONE HOUR PHOTO	1890	
DV-16335	UNION STATION	UNION STATION HOTEL	1900	NR LISTED
DV-16381		GRAND LODGE F & AM	1930	NRL
DV-16498	COMMERCE UNION	SOVRAN	1885	NRD
DV-16573	WILLIAMS MKT	TURF BAR	1925	
DV-24669	WEST END UNITED		1937	
DV-24681			1920	
DV-16505			1900	NRL DISTRI
DV-16494	FLOORMENS SUPPLY CO	VACANT	1890	NRD
DV-16580	PHILLIPS & QUARLES	LAWRENCE GROS	1920	
DV-24659			1900	
DV-27009	Vanderbilt University	Old Gymnasium	1880	NR listed
DV-16500	AMERICAN NATIONAL BAND	NASHVILLE SCENE	1920	NRL HD
DV-16610			1890	
DV-24663			1900	
DV-16378		L.C. TILLER PIANOS	1940	
DV-24639			1900	
DV-24613			1920	
DV-16544	BAXTER BUILDING		1891	
DV-16315		THE TRULL COMPANY	1920	
DV-16549			1930	
DV-16341	A/B	FIRST BAPTIST CHURCH	1920	
DV-16388	SERN METHODIST		1920	NR LISTED
DV-16613		GRUHN GUITARS INC	1920	
DV-16313		AUTO VALET WAXING	1940	
DV-16591			1940	
DV-16574	NASHVILLE MIRROR CO	SQUIRES LOUNGE	1925	
DV-16546			1930	
DV-16594	HARDISON SEED	HARDISON FEED & SEED	1935	
DV-16316		NASHVILLE BANNER &	19	
DV-16587	J.L. PERRY CO	SERVICE MERCHANDISE	1910	
DV-24671			1930	

DV-24637			1900	
DV-16511	SILVER DOLLAR SALOON		1870	NRL HD
DV-16486	TOLEDOS SCALE NASHVILLE	LAURELLS RAW BAR	1890	NRD
DV-16539	WALLACE GARAGE/MOTOR	CENTRAL PARKING	1939	
DV-24669	West End United Methodist	West End United Methodist	1948	null
DV-24657			1895	
DV-16605		MAYFAIR	1890	
DV-16588	J.C. PERRY CO	SERVICE MERCHANDISE	1890	
DV-24647			1905	
DV-16344	CUSTOMS HOUSE		1905	NRL
DV-16474	WA YEARDIN&SONS DRY	DETAILS HAIR DESIGN	1895	NRD
DV-16379		HUME FOGG HIGH SCHOOL	1912	
DV-16360		SOVRAN BANK	1945	
DV-16576	BOB'S BICYCLE SHOP	GENERAL LEE'S	1910	
DV-16619		TOOTSIES	1890	
DV-16319		12TH AND PORTER	1928	
DV-16476	SWAGGERTY MFG	ICHI BAN RESTAURANT	1890	NRD
DV-24303		THE MAYFAIR	1930	
DV-16528		NASHVILLE ARTS GALLERY	1890	NRL DISTRI
DV-16542			1936	
DV-16517		WILLIAMS EQUIP	1920	
DV-16468	IDEAL CASH STORE	ABLE FOOD SERVICE	1935	
DV-16309		DEPOT OFFICE FURNITURE	1935	
DV-24665			19	
DV-16490	SERN PRODUCE CO		1890	NRD
DV-16495		MARKET ST MALL	1880	NRD
DV-26008		First Baptist Church	1929	NW corner
DV-24643	USER APRTMENTS	LYLE AVE APRTMENTS	1900	
DV-16614		ADULT WORLD	1900	
DV-16597			1900	
DV-16602		VACANT	1890	
DV-16526	VOGELY & TODD	VOGELY & TODD	1935	
DV-16324		OFFICE FURNITURE WHSE	1940	
DV-16579	HG HILL GROCERY	ERNEST TUBB RECORD	1910	
DV-16375	VESTOR MUSIC	VACANT	1930	
DV-16607			1890	
DV-16339	CUMBERLAND	FIRST LUTHERAN CHURCH	1950	
DV-16367	METHODIST-EPISCOPAL		1907	NRE

DV-16563		RYMAN AUDITORIUM	1891	
DV-16501	HOOVER BLDG	PATTY'S ROCK CAFE	1904	NRD DISTRI
DV-16572	FOUTCH'S DRUG	BUDDY'S SANDWHICHES	1925	
DV-16470	LEFKOVITS/FLEISHMAN CO	ACTION RESTAURANT	1940	
DV-16541			1940	
DV-16575	SERN AUTOMATIC MUSIC CO		1910	
DV-16492	ORMAN PARTIES SADDLERY	ZIMMERMAN/SATURN	1885	NRD
DV-24679	CORINTHIAN LODGE NO. 414		1915	
DV-24645			1905	
DV-16506		THE SALVAGE STORE	1940	
DV-16612		WESTERN WEAR	1890	
DV-16603			1890	
DV-16508	TENNESSEE MACHINERY CO	ASSOCIATED SALVAGE	1880	
DV-16616		ROBERTS	1900	
DV-16507			1890	NRL DISTRI
DV-16497		BOHANNON BREWING	1880	NRD
DV-24309			1910	
DV-16314		CARDEN & CHERRY	1900	
DV-16317		WT STRINGFELL & CO INC	1920	
DV-16386			1920	NR DIST
DV-16342				
DV-25733		JAY'S RESTAURANT/MID-	1922	
DV-16376	VAULT CO	BOND STORAGE	1935	
DV-16585	HARLEY HOLT		1925	
DV-16562		GRIEF BUILDINGS	1850	
DV-16482	HERBERT & LAWRENCE	MULLIGAN PUB & REST	1890	NRD
DV-27007	null	null	1960	null
DV-16362		CHRIST CHURCH	1892	
DV-16586		HARLEY HOLT CO	1910	
DV-16311	WELLS FARGO		1940	
DV-16385		JAMES ROBERTSON APT	1930	NR
DV-24323	THE WEST END	THE WEST END	1925	
DV-16589	BEESLEY FURNITURE CO	SOFA SHOP	1930	
DV-16592		TILLMAN & SON	1940	
DV-24661	E GRAY SMTIH AUTOS	TOWER RECORDS	1940	
DV-16595	ACME FEEDD	ACME FARM SUPPLY	1910	
DV-24677			1905	
DV-24675			1890	
DV-16496	DRRG COLLINS/STEGE	RC MATHEWS	1898	NRD

DV-16552			1928	
DV-16538		KENNEDY & BOWDEN	1920	
DV-24305			1900	
DV-24693		CATHERDRAL OF THE	1910	
DV-24689			1900	
DV-24635			1900	
DV-24629			1880	
DV-24683			1930	
DV-24699			1920	
DV-16323			1940	
DV-16326		HIPPODROME	1940	
DV-16310		CUMBERLAND	1940	
DV-16336	THE POST OFFICE		1934	
DV-16382		VICTOR VICTORIA'S	1930	
DV-16377		CLASSIC CAT	1930	
DV-16561			1920	
DV-16577	GEM FURNITURE CO	THE WHEEL	1910	
DV-16617		TOBY'S	1900	
DV-16530	HARRY COHEN SHOES		1922	
DV-16611			1930	
DV-16553		HATCH SHOWPRINT	1926	
DV-16582	MORRIS FURNITURE CO		1920	
DV-16548		YELLOW FRONT RADIATOR	1940	
DV-16604		MANAS FURNITURE CO	1880	
DV-16608		VACANT	1890	
DV-16600	BROADWAY NATIONAL BANK		1900	
DV-16601		L&L LOAM	1890	
DV-16504		SERVICE MERCHANDISE	1930	
DV-16599	BAXTER BUILDING		1891	
DV-16510		WILLIAMS SALVAGE	1890	
DV-16545		RICHARD & RICARDS	1930	
DV-16484	LONE CHEMICAL CO	NASHVILLE CIRCUS	1890	NRD
DV-16488	PV JACKSON & CO WHOL	ROBINS REALTY/ROBNSON	1890	NRD
DV-16478	BROADWAY LEATHER HOUSE	BROADWAY LEATHER	1890	NRD
DV-16499		BONKERS	1890	NRE
DV-16299		NASHVILLE BRIDGE	1920	
DV-16547		WILLIAMS SALVAGE CO	1930	
DV-16472	SAMUELS	DISCOUNT REST	1910	
DV-16513		ACE OF CLUBS (NIGH	1910	
DV-16466		ARCHITECTURAL SALVAGE	1930	

DV-16343		FIRST BAPTIST CHURCH	1884	
DV-24287		MARSHALL DONLY COMBS	1900	
DV-25735		NASHBORO LOUNGE	1920	



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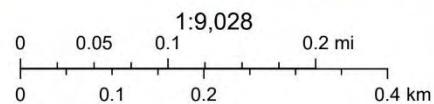


Figure 14. Previously recorded properties in the Broadway/West End Loop route.

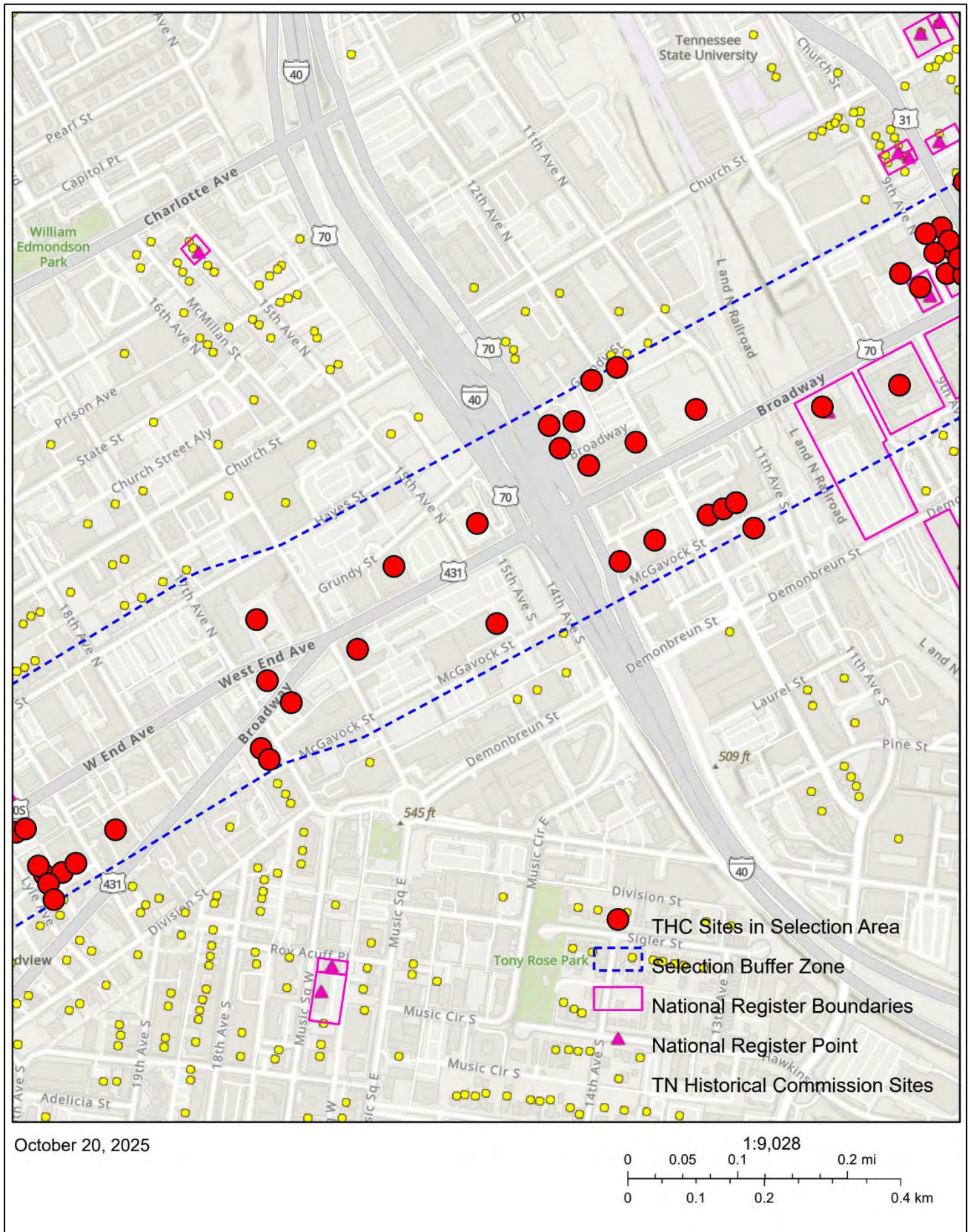


Figure 15. Previously recorded properties in the Broadway/West End Loop route.

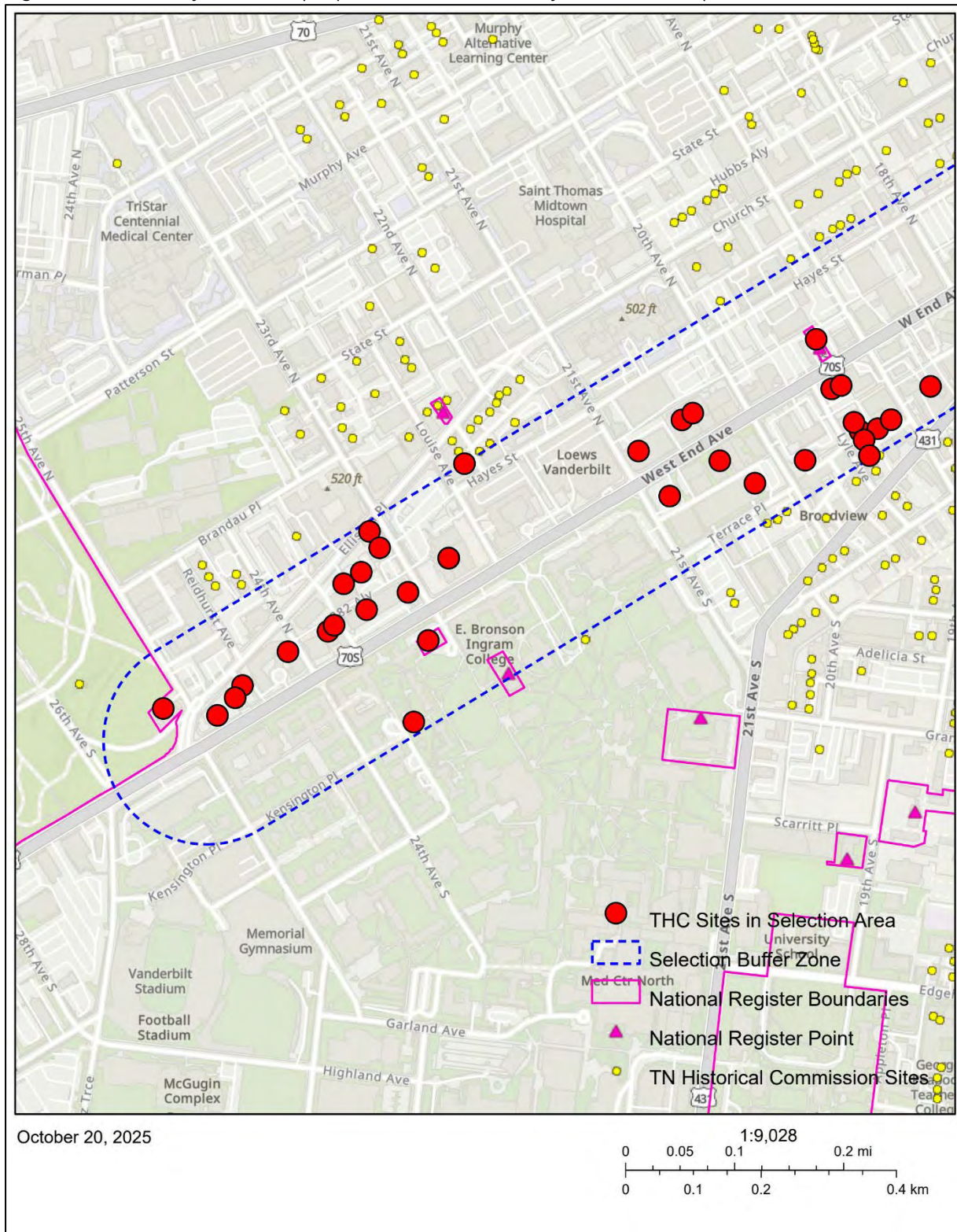


Figure 16. Previously recorded properties in the Broadway/West End Loop route.

Table 4. NRHP properties in the 500 foot radius of the total APE.

NRHP ID	Name
70000894	Tennessee State Capitol
03001154	Tennessee State Library and Archives
14000084	Tennessee State Supreme Court Bldg.
SG100001822	Tennessee War Memorial
82001727	Young Christian Women's Association Bldg.
99000957	Castner-Knott Bldg.
85001607	Doctor's Bldg.
84003483	Bennie Dillon Bldg.
84000376	Berger Bldg.
83003029	Savage House
80003791	Frost Bldg.
74001909	Hume Fogg High School
84003519	Southern Methodist Publishing House
78002577	Christ Church
72001232	Federal Office Bldg.
16000739	Kefauver Federal Bldg.
84000580	U.S. Post Office
69000178	Nashville Union Station
79002423	Gilbert Mansion
11000418	Alumni Memorial Hall
72001233	Vanderbilt Gymnasium
08000689	Centennial Park
84000092	James Robertson Hotel
71000819	Ryman Auditorium
80003785	Broadway Historic District
72001237	2 nd Ave. Commercial District
98000320	Acme Farm Supply Bldg.
86003237	Shelby St. Bridge
72001234	Holy Trinity Church
84003496	Elm St. Methodist Church
84003507	Lindsley Ave. Church of Christ
05000180	Cameron School

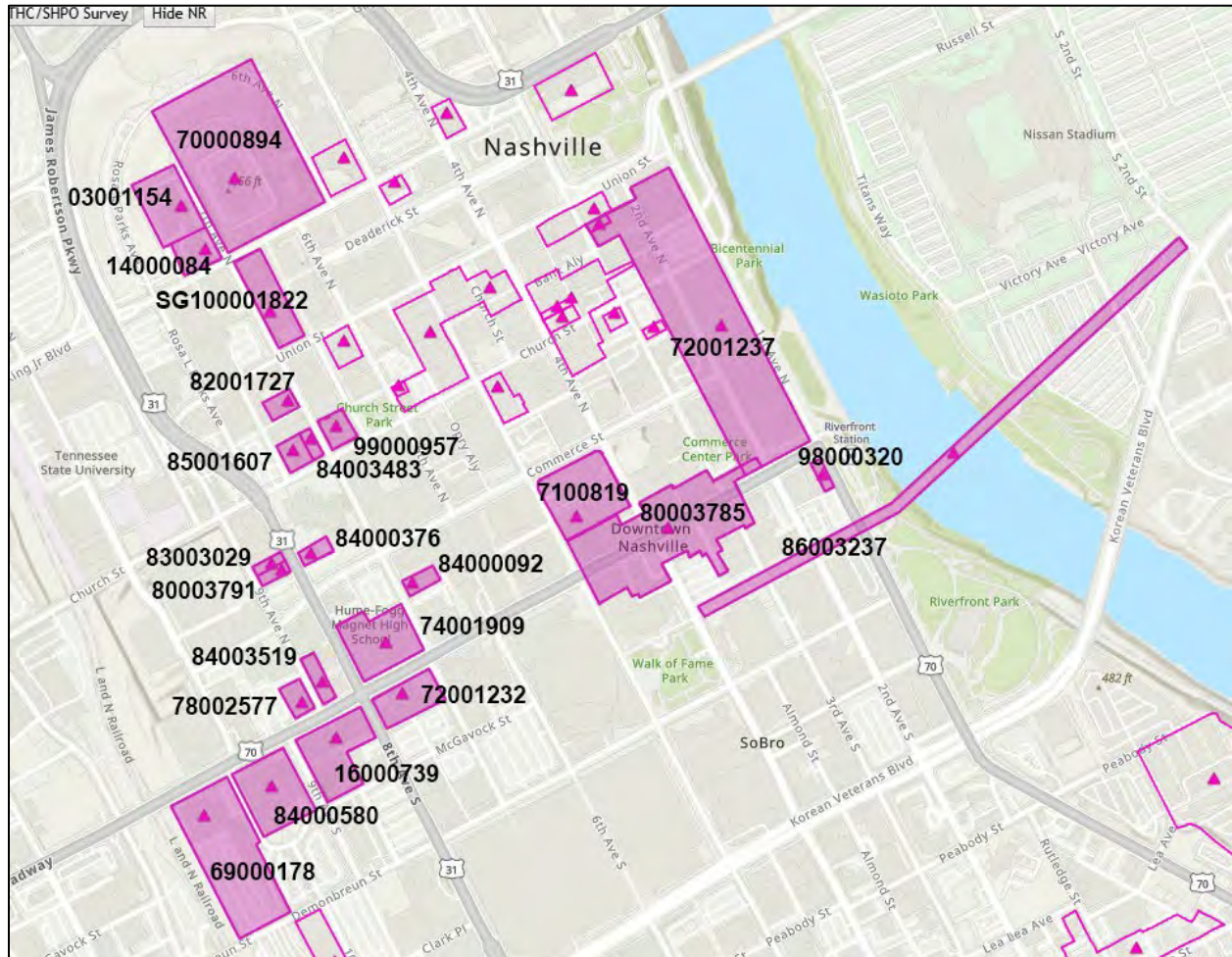


Figure 17. NRHP properties in the 500 foot radius of the total APE.

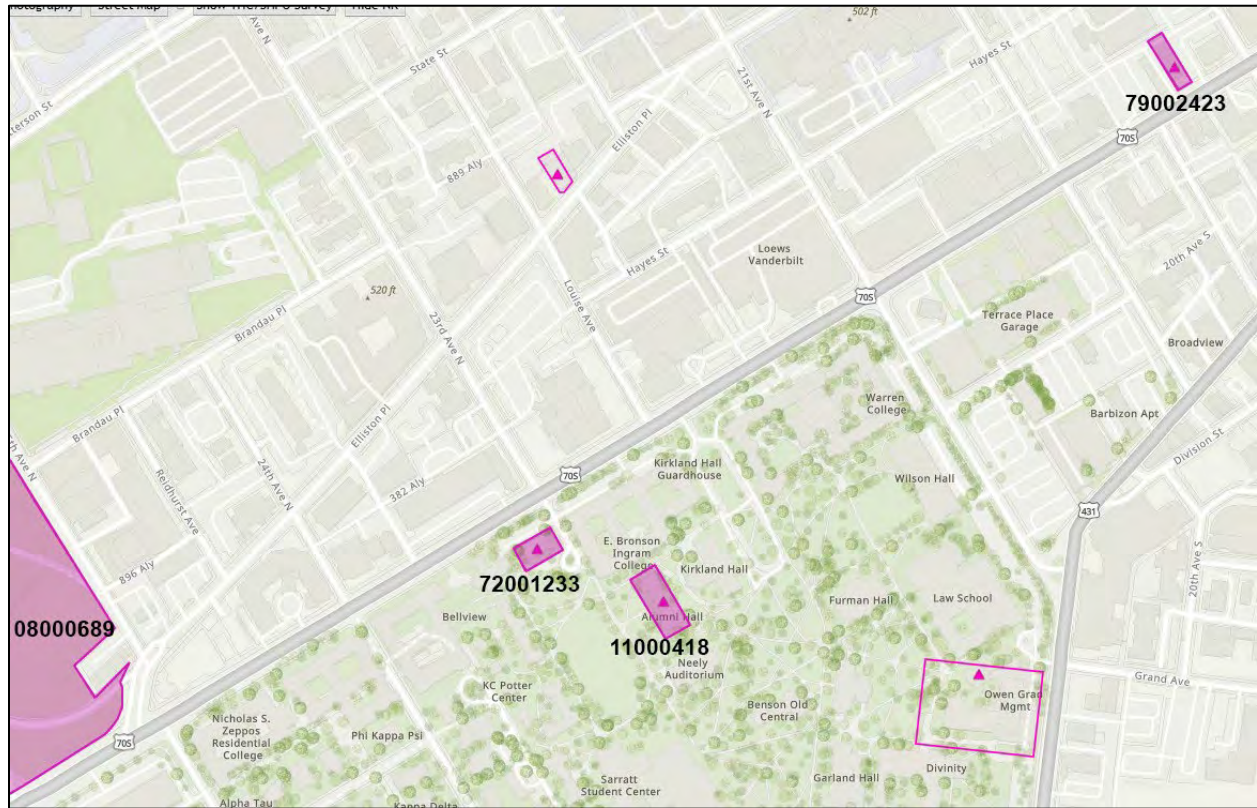


Figure 18. NRHP properties in the 500 foot radius of the total APE.

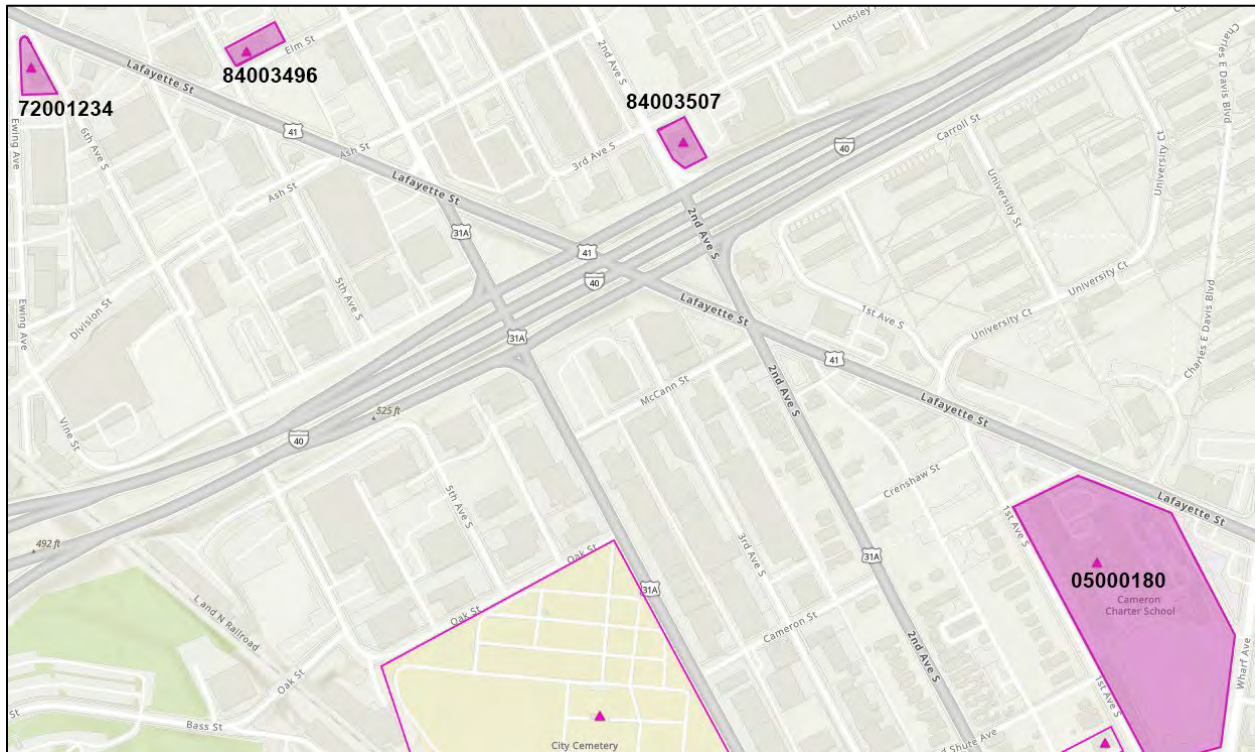


Figure 19. NRHP properties in the 500 foot radius of the total APE.