Music City Loop

Mayor’s Office Questions

Type of Facility:	Underground Public Transportation System
Name of Facility:	Music City Loop
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This document is publicly releasable.

SCOPE OF DOCUMENT

This document provides detailed responses to questions from Metro Nashville regarding Music City Loop. The goal is to address the intent of inquiries, clarify project design, operations, safety, and planning considerations, and offer transparency throughout the project. MCL is happy to engage in multiple conversations and provide updated versions as additional information or feedback becomes available..

1.0 Pre Evaluation

1. **How will emergency vehicle access be maintained during and after tunnel construction? Las Vegas tunnel exits are identified by numbers, not associated with any addressing points at the street level. (In Las Vegas, TBC provided - in the contract - pre-positioned ATVs outfitted by the Fire Department to access tunnels with all necessary rescue equipment.)**

   Music City Loop tunnels are designed in accordance with NFPA 130 standards, which require exit spacing of no greater than 2,500 feet. During both construction and operation, emergency vehicles will access the tunnels through the same portals as Music City Loop vehicles. Music City Loop will also conduct weekly emergency response drills with first responders to prepare for a wide range of scenarios.

2. **There are jurisdictional differences regarding which authority is responsible for permitting a project for life safety, including plan review and subsequent inspections. Given that the Nashville Fire Department will be the agency providing emergency response, it makes sense that NFD would have authority over the life safety permitting requirements. Both the State Fire Marshal's Office and the Nashville Fire Marshal's Office have adopted their own versions of the fire code, and there may be differences between the two. It is important to review the applicable jurisdiction and code requirements to ensure proper compliance.**

   Music City Loop will be compliant with any authorities having jurisdiction over life safety procedures. Music City Loop has held productive meetings with the State Fire Marshal's Office and the Nashville Fire Department. Music City Loop has extended an open invitation to both agencies to visit Vegas Loop to observe current life safety systems and procedures. Music City Loop looks forward to collaborating with the City of Nashville and the State of Tennessee.

3. **Will these tunnels be constructed with wireless repeaters or radio frequency extenders allowing 911 calls to be placed clearly from underground or support radio communications from responders to dispatch or other surface-level resources?**

   Music City Loop tunnels will be equipped with redundant communication infrastructure to support 911 calls and responder communications, similar to Vegas Loop. A first responder repeater emergency communication system will enable direct coordination between responders in the tunnel and surface-level dispatch or resources, meeting NFPA-130 standards and supporting emergency response needs. Passengers and responders will be able to place 911 calls in four ways: Blue Light

Stations, directly from their cell phones, through the vehicles themselves, or via the Operations Control Center. Additional communications systems include LTE cell service and secured Wi-Fi links, ensuring clear connectivity underground.

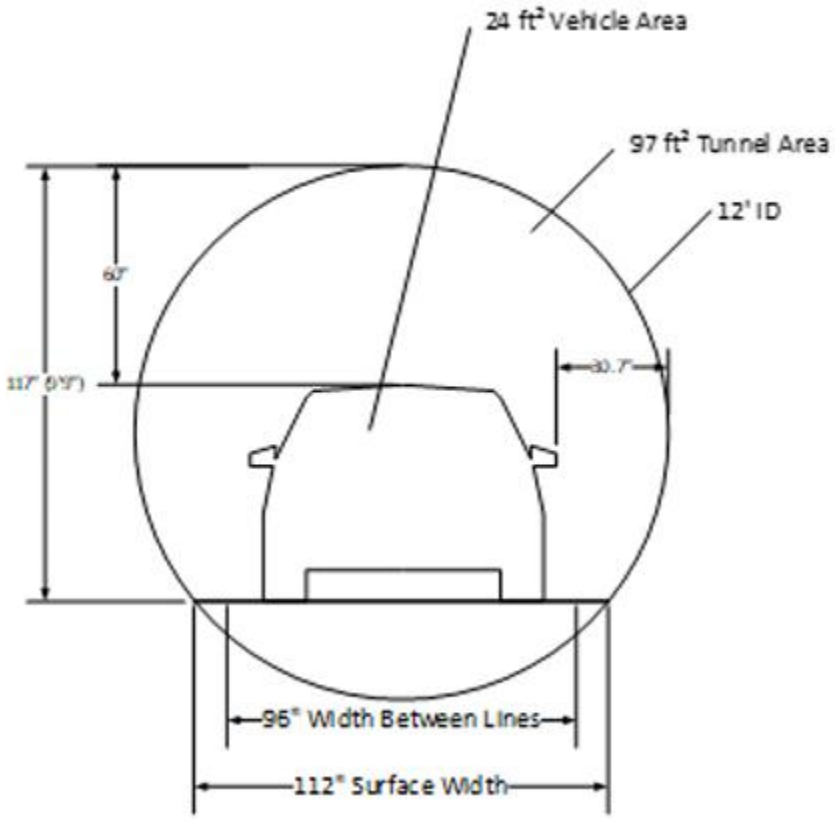
4. Where will emergency access points be established?

See Pre Evaluation Question 1.

5. The width of the tunnel in Las Vegas allows 3 inches between the vehicle door and the tunnel wall (built specifically to the size of a standard Tesla Model Y). If an emergency occurs in the vehicle while in the tunnel, how can personnel reach those inside the vehicle?

The claim of only 3 inches of clearance is inaccurate. Music City Loop tunnels provide ample space for passengers and employees to safely and comfortably exit the vehicle with no obstructions in an emergency.

Figure 1 – Illustration of Vegas Loop Dimensions



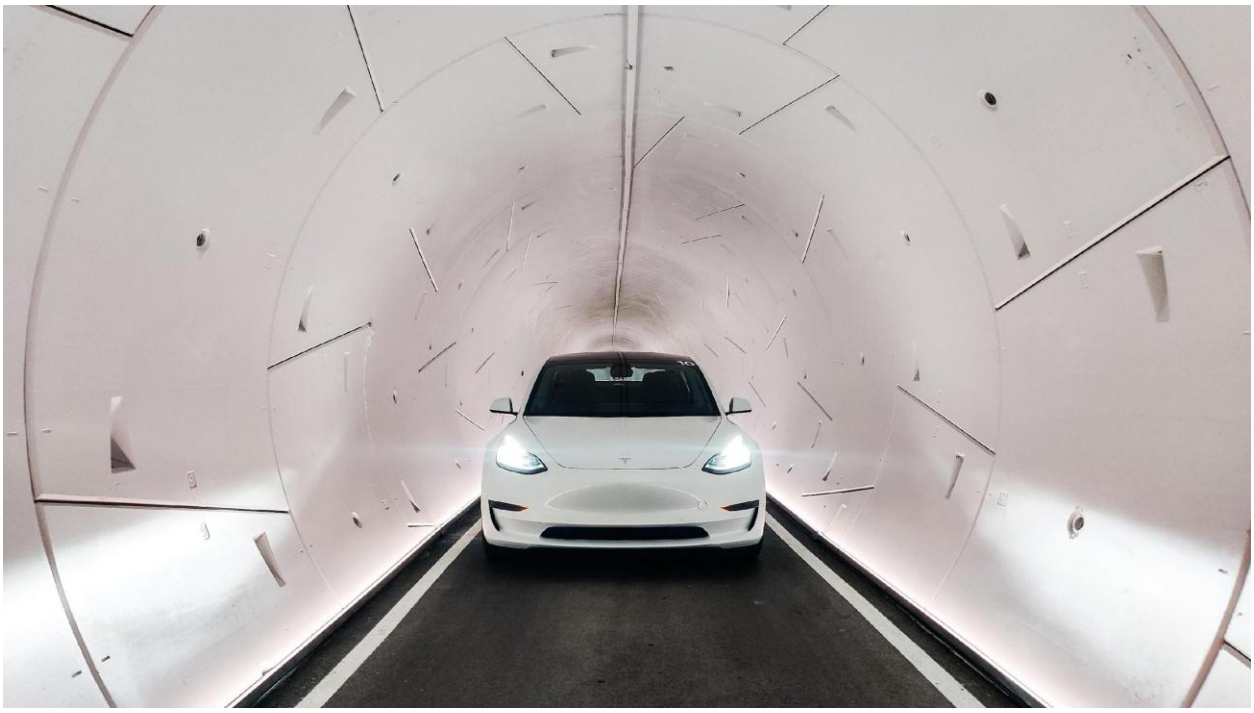
6. If a vehicle battery ignited while in the tunnel, where does the smoke and hazardous gas vent from the tunnel?

In the unlikely event of a vehicle battery ignition, Music City Loop's redundant, bidirectional ventilation system, exceeding NFPA-130 standards, will direct smoke and hazardous gases away from passenger egress and responder ingress toward ventilation outlets. Continuous monitoring for gas and smoke ensures passenger safety during all operations.

7. The Las Vegas tunnel restricts pedestrians in this incredibly-narrow tunnel solely with signage and a plastic drop bar that can be walked around or under. How can we ensure pedestrians do not access the tunnel, causing a hazard?

Tunnel access points in Music City Loop 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. By contrast, subway systems often have narrow 3-foot pathways crowded with passengers and first responders, which can slow movement and create conflicts during an evacuation.

Figure 2 – Loop Tunnel



8. The Las Vegas tunnel is not built to drain floodwater/rainwater. Rainfall from either end of the tunnel can flow freely down into the tunnel. More than 8 inches of water shuts down operations. How will rainfall/floodwater be mitigated in an area like Nashville, prone to flooding?

Vegas Loop is built to drain floodwater and rainwater. Similar to Vegas Loop, Music City Loop tunnels are watertight by gaskets that seal the segment joints and a 3-inch thick layer of grout sealant on the outside of the tunnel. (Vegas Loop is almost exclusively submerged and operates almost below the water table without issue). There are only limited areas where the 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. If water does enter the system the tunnels have redundant high-power sump pumps to exit any water. And in the unlikely event that the tunnels do experience large amounts of water, this does not present an electrical hazard, as it would in a subway or tram system with an electrified third rail. For one real world example, in February 2025, there was flash flooding in Las Vegas with water sweeping cars down the Strip, yet Vegas Loop remained open and unaffected.

9. What is the total cost?

Music City Loop is 100% privately funded, using no taxpayer dollars for construction or operation. The total project cost is expected to be a few hundred million dollars.

10. Is the planning, design, and construction cost of the project to be completely borne by TBC?

The planning, design, and construction costs of Music City Loop will be 100% privately funded. Stations will be funded by Music City Loop or other private parties, with no use of public funds.

11. How will this impact insurances? Liability, Property, Workers Comp, ISO?

Music City Loop's insurance will meet and exceed all applicable requirements, including those specified in permits, Tennessee state law, and other relevant regulations. Liability is governed by Tennessee law, and while injuries are highly unlikely due to Music City Loop's advanced safety features, Music City Loop would be responsible for any injury caused by its operations.

12. Who will own the tunnel long term? AA? State? Boring Co?

The long-term ownership structure of the tunnel is under review and will be publicly released once finalized.

13. How will the Tunnel pay for upkeep and emergency services? PILOT? Are they tax exempt? Similar to a utility?

The upkeep and maintenance of the tunnel will be privately funded and subject to the terms of the lease agreement with the state.

14. Will they be paying for movement of existing utilities? Will they follow permitting as required?

Music City Loop is under extensive utility review with relevant parties to avoid conflicts with existing utilities. If necessary, Music City Loop will cover the cost of relocating utilities and adhere to all required permitting processes.

15. Will there be an agreement with the City for emergency services and how to access private or authority property?

Yes, emergency services will be available throughout the entire system. Music City Loop will work closely with the State and Nashville as appropriate for emergency services.

16. If someone is hurt, who is liable?

See Pre Evaluation Question 11.

17. Who will permit the whole project? Do we have the right type of permit/inspectors to handle this type of work?

Several permits will be required for Music City Loop. The project will be permitted by the authorities that oversee each portion of the work, and all necessary inspections will be conducted to ensure compliance. Music City Loop looks forward to working with the State and City of Nashville.

18. Would any land leases/sale at the airport have to go through Council?

Land leases or sales at Nashville International Airport will follow the airport's standard procedures and be approved by the Metro Nashville Airport Authority, consistent with other airport land agreements.

19. Are they going to pay franchise fees? To the State? To the Airport?

The terms for any fees to the state or airport are still under discussion. Music City Loop will comply with all applicable regulations once the agreements are in place.

20. Who will operate the Tunnel? Does their financial proforma show a surplus/profit? If not, who covers the deficit?

Music City Loop will operate the tunnel. In the scenario where there is a deficit, Music City Loop will cover the deficit.

21. Will this be presented to GNRC for consideration of inclusion in the TIP in order to add it to the STIP? When will that briefing or presentation occur?

The project's inclusion in broader regional and state transportation planning initiatives is possible, though no meeting date has been scheduled. Future expansions could include stations and routes across other Nashville communities, with potential alignments determined based on the city's growth, transit needs, and input from the public.

22. What will the environmental review process entail? Assuming they seek a CE, what input will the community be provided during the preliminary design, environmental, design, and construction phases? Who will lead that process?

Music City Loop will comply with the required environmental reviews based on the project's scope and the party responsible for reviewing the scope. Music City Loop is

engaging with the community to gain an understanding of what is desired in the system and will comply with regulations regarding the release of preliminary designs, environmental assessments, design, and construction phases.

23. Which entity is responsible for the review of construction plans for the road, utilities, etc?

Review responsibilities depend on the project scope. For example, TDOT will review construction drawings and plans for road-related work, TN811 oversees utility-related construction plans, and other components will be reviewed by relevant regulatory bodies.

24. Will emergency access sites have associated buildings? If yes, will the buildings be located within ROW or on private property?

An emergency access site is an underground staircase or a station, providing exit capacity. These sites can be located within the ROW or on private property.

25. Will construction require abandonment and relocation of Metro utilities? (water/sewer/stormwater)

See Pre Evaluation Question 14.

26. What are the impacts to surface areas (roads, public and private parking, transit routes, any closures, detours, etc?)

No road closures or detours are anticipated. Music City Loop utilizes advanced tunnel boring machines (TBMs) that generate minimal vibration and noise. In Las Vegas, similar TBMs tunneled beneath fully occupied convention center halls without impacting activities above ground, and Music City Loop's approach is designed to similarly minimize disturbances to streets, parking, and transit routes.

27. Contingency planning for critical incidents involving this project?

Music City Loop has comprehensive contingency and routine operational procedures covering safety, security, environmental, and construction-related incidents. There are 71 documented procedures in total, including fire, evacuation (fire, active threat, disaster, etc.), loss of power, medical emergency and response, and flooding. All procedures are rehearsed during a mix of internal and external drills. Full drills occur every three months, and routine operational drills are conducted weekly.

28. Threats to Project/Project Staff

Music City Loop will implement dedicated site security staff, secure construction zones, full camera coverage, and coordination with local law enforcement to protect workers and equipment, ensuring compliance with safety regulations.

29. Dedicated project site security staff and management of security.

See Pre Evaluation Question 28.

30. Existing Infrastructure and Natural Events, Weather, etc.

Music City Loop is a weatherproof system designed to withstand natural events. The tunnels are watertight by gaskets that seal the segment joints and a 3-inch thick layer of grout sealant on the outside of 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. If water does enter the tunnels, redundant high-power sump pumps remove it. In the unlikely event that the tunnels experience large amounts of water, this does not present an electrical hazard, as it would in a subway or tram system with an electrified third rail.

31. During the construction of the Transit Tunnel, who will respond/assist in emergency situations, to include incidents involving workers?

The initial response will be handled by Music City Loop's Environmental Health and Safety team. In the event of a life-threatening or serious emergency, Music City Loop will contact the appropriate authorities.

32. Invert of existing 8.5' sewer tunnel at Lafayette and Lewis Streets along proposed tunnel route is at elevation 391, or 50' below existing grade

See Pre Evaluation Question 14.

33. Invert of existing 8' storm tunnel at Lafayette and 7th Avenue S. along proposed tunnel route is approximately 38' below existing grade

See Pre Evaluation Question 14.

34. Proposed tunnel route and depth may conflict with a potential future sewer tunnel

See Pre Evaluation Question 14.

35. **How would station planning for this project at Nashville International Airport relate to existing plans for a new transportation center expected to be completed in the next 2 - 3 years? The new transportation center is anticipated to accommodate a significant increase in bus volume for WeGo Public Transit as peak bus volumes would increase from approximately 1.5 WeGo Public Transit buses per hour to 12.0 WeGo Public Transit buses per hour, as the number of routes serving the airport increases from 1 to 4.**

    See Pre Evaluation Question 21.

36. **How will planning for the project coordinate with planning for the Murfreesboro Pike All Access Corridor included in Choose How You Move? How will the project minimize disruptions to Metro's plans to significantly upgrade transportation infrastructure and make changes to the right-of-way on Murfreesboro Pike? Will the project account for ongoing TDOT planning work for the implementation of Choice Lanes in the I24 corridor, with integration of transit service?**

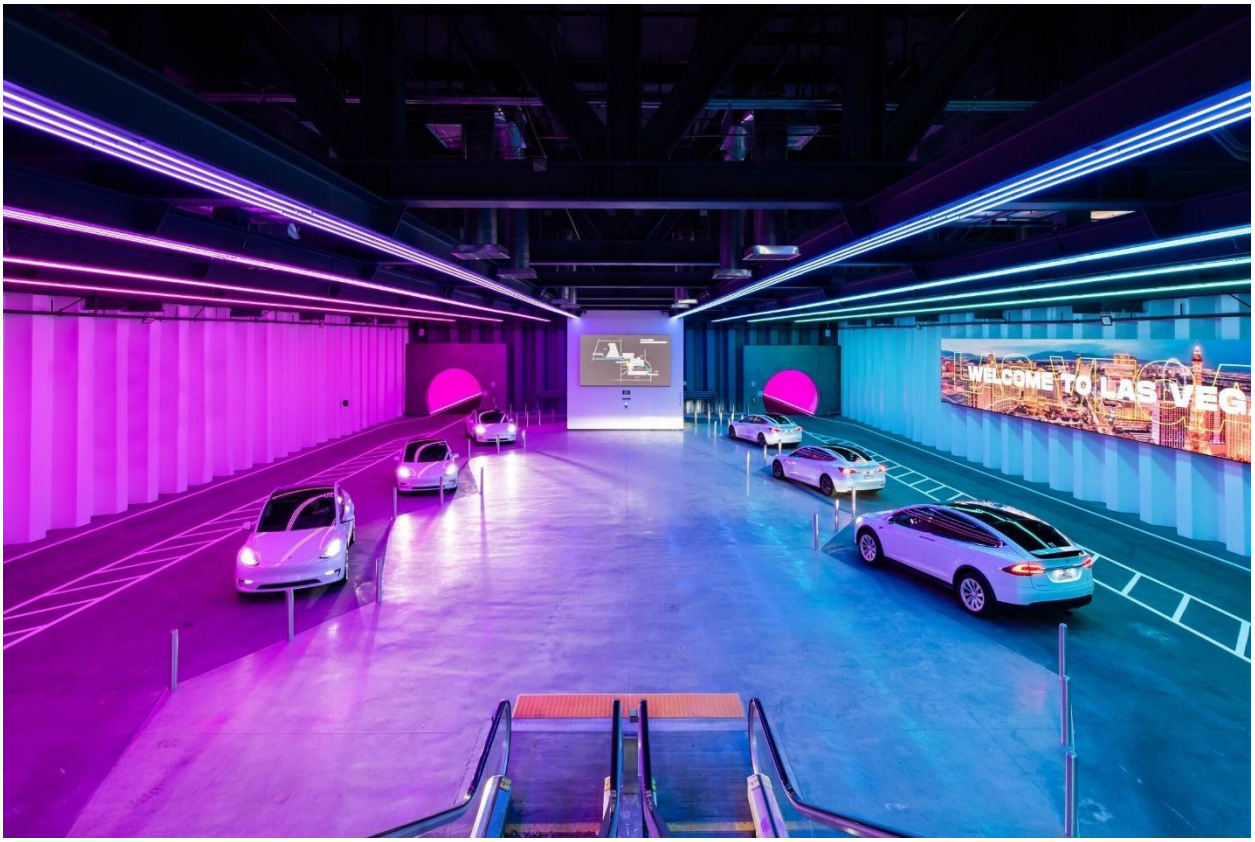
    See Pre Evaluation Question 21.

37. **What are the termini of the project? Where within downtown Nashville is the project anticipated to site its subterranean station? How will the subterranean station transport passengers to ground level? How will the project seek to minimize any disruption to Metro's planned SoBro transit center near Representative John Lewis Way South, Elm Street, 4th Avenue South, and Ash Street that is included in the CHYM program?**

    The alignment and station locations are still under discussion and in the planning phase. The initial project will run from 637 Rosa Parks Blvd to Nashville International Airport. Stations along the alignment will be located either at the surface or below ground. For subsurface stations, passengers will access ground level through ramps, stairs, elevators, and escalators.

Figure 3 – Surface Station

Figure 4 – Subsurface Station



38. How will the project consider recommendations and findings from Connect Downtown? How will the project ensure alignment with Connect Downtown projects?

See Pre Evaluation Question 21.

39. What are the boundaries and termini of the project? What is the project's planned route(s)? How will the project consider alignment, partnership opportunities, and/or avoidance of conflict with transit centers and specifically The Elizabeth Duff Transit Center at WeGo Central, SoBro Transit Center and East Bank Transit Center?

See Pre Evaluation Question 37.

40. Is there a long-term vision for expansion along other corridors in the Middle Tennessee region? Is this segment envisioned as the spine of a broader network?

See Pre Evaluation Question 21.

41. Which local agencies are TDOT and TBC currently coordinating with on this potential project?

See Pre Evaluation Question 17.

42. Is any state funding currently being considered or programmed for this effort?

See Pre Evaluation Question 10.

43. Is there potential for extending the corridor north to Bell Road?

See Pre Evaluation Question 21.

44. How will the proposed link align with Metro Nashville's Choose How You Move (CHYM) deployments and priorities?

See Pre Evaluation Question 21.

45. How does this proposed link compare to other transit alternatives—such as surface BRT or light rail—in terms of capacity, scalability, and cost-effectiveness?

The Music City Loop offers lower construction costs and faster transit times. Music City Loop does not currently use high-occupancy vehicles because smaller Tesla vehicles

enable express rides that achieve near-continuous passenger flow (larger vehicles require more stops to accommodate each passenger's destination). For more information, visit boringcompany.com/loop.

46. What are the long-term funding mechanisms to support and sustain operations? Is revenue from the service expected to fully cover operations and maintenance costs?

See Pre Evaluation Question 10.

2.0 Construction

1. Regarding the logistics of transportation, will there be a return Transit Tunnel, will the Transit Tunnel be one way, or will there be one Transit Tunnel with two-way roads?

The Music City Loop will feature twin unidirectional tunnels running parallel to each other, with each tunnel designed for one-way traffic to optimize flow and safety.

2. Will they be paying for movement of existing utilities? Will they follow permitting as required?

See Pre Evaluation Question 14.

3. What happens if the project gets started and is abandoned? Will there be bonds/LOC to cover the issues?

Music City Loop will have the necessary performance and payment bonds in the unlikely event of abandonment. Additional bonds or letters of credit are under discussion. In such a scenario, ownership of a valuable underground transportation asset would remain with the appropriate authority.

4. What are the proposed dimensions (e.g., diameter and depth) of the underground tunnel system?

The tunnel system will target a depth of approximately 30 feet below the surface, with adjustments as needed based on site conditions. Each tunnel will have an internal diameter of 12 feet.

5. How will geological and subsurface utility challenges—such as Tennessee limestone and existing underground infrastructure be addressed?

Detailed geotechnical investigations and utility surveys are underway along the alignment to assess the limestone formations and map existing underground infrastructure. This work will ensure geological conditions and utility conflicts are fully understood and addressed prior to tunneling operations.

6. **What are the anticipated surface-level impacts during construction, particularly to local streets, neighborhoods, and commercial corridors?**

   See Pre Evaluation Question 26.

7. **How will the proposed tunnel system interface with existing surface-level transportation infrastructure (e.g., the airport, proposed and existing stations, transit hubs, and parking facilities)?**

   See Pre Evaluation Question 21.

8. **What role will regional stakeholders like Metro Nashville play during the engineering, design, and construction phases?**

   See Pre Evaluation Question 22.

9. **Can engineering plans or technical review documents from similar deployments (e.g., Las Vegas) be shared with Metro Nashville engineering teams? Are in-person technical briefings or peer reviews with local staff being considered?**

   Yes, Music City Loop will happily share relevant data from similar deployments with stakeholders. In-person technical briefings and peer reviews with local staff will be conducted.

10. **Are any concept plans available for the proposed system? If not, when will they be shared with Metro Nashville and other relevant public-sector stakeholders?**

    Once concept plans are ready, Music City Loop will share them with Metro Nashville and other relevant public-sector stakeholders. Additionally, see Construction Question 9.

11. **Will the system be designed to remain within the existing right-of-way (ROW) along Murfreesboro Pike?**

    Yes, the system will be designed to remain within the existing State rights-of-way (ROWs).

12. **Can technical specifications be provided for the future vehicles intended to operate within the tunnel?**

Music City Loop will transport passengers in a fleet of dedicated Tesla vehicles (initially Model Ys and Model Xs) through an underground tunnel network to their destinations with no intermediate stops. Trained drivers, referred to as Loop drivers, will operate the vehicles to enhance the passenger experience and provide an additional layer of safety, ensuring a personalized and secure ride. For detailed vehicle specifications, refer to tesla.com.

3.0 Post Implementation

1. **How will contacting emergency services be advertised to users in the tunnel?**

See Pre Evaluation Question 3.

2. **How will they be accessed/secured to ensure only responders enter when necessary?**

During an emergency, Music City Loop security will promptly cordon off affected portal entrances and exits to restrict access to authorized responders only, ensuring controlled and safe entry for emergency personnel.

3. **How will they be mapped?**

It is not clear what is being asked in this question. Music City Loop will be happy to provide a detailed answer with additional clarification.

4. **Will the tunnels have cameras accessible for public safety and NDOT?**

See Pre Evaluation Question 7.

5. **In Las Vegas, the Operating Center for the Tunnel is located in a historically high-crime area, without fencing, leaving the monitoring center and all vehicles used to drive in the tunnel unsecured and open for tampering. Where will this center be located and the vehicles secured?**

The Las Vegas OCC is fully secured with more than five physical layers of protection, including multiple fences, walls, and controlled access points. Multiple redundant OCCs in Las Vegas can fully operate the system if needed, and the same security approach will be applied in Nashville. Security at each site includes multiple on-site

teams and coordination with law enforcement. Specific addresses will not be publicly released for security reasons.

6. **Who will cover expenses relating to specialized equipment, training, materials, and other considerations for emergency response?**

   Funding for specialized emergency response equipment, training, and materials is subject to ongoing discussions with relevant stakeholders to determine appropriate cost-sharing arrangements.

7. **Who will be responsible for managing security for the tunnel access? For example, if an unhoused individual(s) were to enter the safety area, who would be responsible for managing that response?**

   Music City Loop's internal security team will serve as the primary responder for unauthorized access, such as by unhoused individuals. In cases involving dangerous individuals or situations, Music City Loop will promptly notify law enforcement, consistent with protocols used in the Vegas Loop.

8. **With consideration to autonomous vehicles and electric cars, will License Plate Readers (LPRs) be utilized within/along the Transit Tunnel in service to tracking vehicles entering and exiting the tunnel?**

   Only Music City Loop vehicles will operate in the tunnels. We will utilize a variety of industry-leading capabilities and technology to ensure security and system monitoring. Vehicle activity will be monitored at all portals, and Music City Loop's dedicated fleet of vehicles is equipped with GPS, transmitting real-time location data to the OCC for comprehensive tracking.

9. **With regard to traffic crashes, associated obstructions, and general roadway enforcement, is the Metropolitan Nashville Police Department (MNPD) expected to respond, or will this be shared responsibility with the Tennessee Highway Patrol (THP)?**

   Initial response will be handled by Music City Loop security personnel, who will assess the situation and notify outside services if needed. For escalated incidents, 911 is called and the dispatcher will deploy the appropriate agency. Coordination with MNPD, THP, and other relevant parties will occur to establish clear protocols.

10. **Specifically, which vehicles will be permitted into the Transit Tunnel? Will it only be autonomous vehicles and electric cars? Relatedly, will there be structures and**

safeguards ensuring accessibility/admittance, and who will be responsible for managing this?

Only Music City Loop's dedicated fleet of Tesla vehicles, along with authorized emergency and security vehicles, will be permitted to operate within the tunnel system. Redundant safeguards and security measures, managed by Music City Loop, will ensure strict control over vehicle access and compliance with accessibility requirements.

11. **Regarding the Transit Tunnel's comprehensive logistics, what will be the associated staffing/manpower and their respective operational hours? Relatedly, concerning law enforcement presence, what staffing/man-power and operational hours will need to be dedicated to the Nashville Transit Tunnel and by which agencies?**

Music City Loop's Operations Control Center will provide 24/7 monitoring through comprehensive camera coverage with no blind spots, ensuring real-time oversight of tunnel operations and passenger entry points. Staffing and operational hours for Music City Loop personnel, as well as any required law enforcement presence, are under discussion with relevant agencies to ensure adequate coverage.

12. **What will be the emergency contingency in the situation(s) when the Transit Tunnel will need to be shut down? Will the autonomous vehicles and electric cars be rerouted, and if so, what course will this take?**

See Pre Evaluation Question 27.

13. **From an investigative standpoint (and in partial association to Transit Tunnel shutdowns), what will be the emergency contingency plans as regards roadway homicides, non-lethal shootings, and fatalities.**

See Pre Evaluation Question 27.

14. **Will there be emergency contingency protocols in place in the cases of hazardous devices, including but not limited to Improvised Explosive Devices (IEDs) and other incendiary weapons?**

See Pre Evaluation Question 27. Additionally, for any specific scenarios, Music City Loop is happy to review the procedures in an in-person meeting with stakeholders.

15. **How will the Tunnel pay for upkeep and emergency services? PILOT? Are they tax exempt? Similar to a utility?**

See Pre Evaluation Question 10.

16. **What is the long term capital maintenance costs of this project?**

See Pre Evaluation Question 10.

17. **If someone is hurt, who is liable?**

See Pre Evaluation Question 11.

18. **Who will operate the Tunnel? Does their financial proforma show a surplus/profit? If not, who covers the deficit?**

See Pre Evaluation Question 20.

19. **What are lasting impact to our infrastructure? Require additional Capital Maintenance?**

See Pre Evaluation Question 10.

20. **Where is the downtown station currently proposed to be located? While the Convention Center is one option, other locations—such as Music City Central—may provide greater benefit for both residents and visitors. Future facilities, including the proposed SoBro Transit Center and the East Bank Transit Center, should also be considered in station planning.**

See Pre Evaluation Question 21.