

and attractive option for residents. Among these investments would be the installation of a Federally mandated “Positive Train Control” (PTC) system. The current lack of PTC on the line prevents the operation of any additional weekday trips on the schedule. In addition to opening up the schedule for more commuter-oriented service, this investment would also allow the Star to be deployed for more large-scale special events to help relieve congestion and pressure on downtown parking facilities.

Because this project represents the only multi-county transit investment in this plan, it is important to understand that the ultimate responsibility to identify funding for these capital and operating projects cannot fall solely to Nashville and Davidson County. Wilson County and the cities along the line (Mt. Juliet and Lebanon) will also need to play a large role, as will the State of Tennessee and the Tennessee Department of Transportation if these projects are to become reality. As with all other projects in this plan, funding will be sought “opportunistically” from as many potential sources as possible (including the Federal Government and the private sector).

Some of the specific projects identified above represent “shared infrastructure” between Davidson and Wilson County, and both would need to contribute in some fashion. Positive Train Control, Rail Vehicle Fleet Expansion, and Rail Vehicle Shop/Yard Upgrades are examples that fall into this category. Even if a project is located within a specific county (improvements to the rail vehicle shop/yard in Wilson County and creation of a “downtown-adjacent railcar layover

yard” in Davidson County, for instance), they are considered “shared” projects because they are essential to the overall operation of the line.

Other specific projects would become the responsibility of the county in which they are located. Examples here include specific station improvements and quiet zone and protected crossing upgrades. In all cases, local funding would be required to leverage other available funds from private sources, State and Federal government.

The table on page 33 breaks the projects listed above into “Davidson,” “Wilson,” and “Shared” categories.

Traffic/Multimodal/Safety

Funding buckets described below represent the prioritization of investment levels of projects and project types. The projects that will be included in these programs are organized by Council District and presented in the Appendix.

\$200M Sidewalks

The project funding plans to address 80% of the remaining priority sidewalk needs across the county. There are approximately 75 miles of sidewalk to be repaired and installed across the county. Metro Public Works began addressing these priority needs in 2016 and oversees assigning priority to sidewalk projects. Metro’s sidewalk priorities are defined in Chapter 5 of *WalknBike*, the city’s bicycle and pedestrian master plan. An update to *WalknBike* and the



Fig. 19: Jefferson Street cap as proposed during US DOT Ladders of Opportunity; Every Place Counts Design Challenge, Summary Report

current Metro Public Works sidewalk prioritization process will be undertaken within the next 18 months.

\$200M State of Good Repair

The project funding plans to covers the current gap in fully funding the annual paving and sidewalk repair budgets. It also fully addresses the backlog of paving needs and needed culvert/bridge repairs and brings approximately 30% of non-ADA compliant sidewalks into compliance.

\$175M Jefferson Street Multimodal Cap/Connector

From Nashville Civic Design Center’s Plan of Nashville, shown in Fig. 19, and the U.S. Department of Transportation’s Every Place Counts Challenge, a cap over I-65/I-40 could better connect the west and east sides of North

Nashville with Jefferson Street serving as its anchor. The Jefferson Street bridge over I-40 (National Bridge ID: 19I00400057) carries approximately 14,000 vehicles per day. It was built in 1967 and was last inspected in 2013. At that time, it was rated to be in good condition, but narrow, cracked sidewalks and 24-foot-wide travel lanes create a hostile pedestrian environment on this bridge. As this bridge ages it will be important to ensure a state of good repair, seek opportunities to reconnect bifurcated communities, and expand access to social and economic activities.

The negative impacts of I-40 predicted by community members have been validated by numerous academic studies and local observations by professional planning staff in the years since I-40 was constructed through North Nashville. An intervention, like a freeway cap, could create new affordable office or retail space, supply shared parking, or support affordable housing for parcels made undevelopable because

they were narrowed by the construction of the highway. Such an intervention could yield safety and placemaking benefits, generating economic value for neighbors and bridge users.

For planning purposes, an eight-acre cap (348,480 square feet) was assumed at \$500/square foot, for a total of \$175M. As illustrated above, the cap is located over I-65/I-40 and extends from Jefferson Street to Jackson Street. This provides improved connections along Jefferson and Jackson and “new” east and west connections via Meharry Boulevard and Phillips Street. Mixed use investments are shown along Jefferson Street and a park with pedestrian and/or bikeways occupy the remainder of the cap.

\$117M Restoration & Resiliency, State Routes, Partnership Funding, and Innovation & Sustainability Corridors

Restoration & Resiliency

The project funding plans to provide for ongoing infrastructure restoration and resiliency efforts in the North Nashville, Germantown, East Nashville, and Donelson areas hardest hit by the recent storms. Resiliency may focus on those efforts to harden infrastructure to better withstand future events.

State Routes & Partnership Funding

This funding category will also allow for future partnerships with TDOT on needed State Route/Interstate improvements including those addressing freight and congestion in Metro, other federal/state/public private partnership funding,

emerging needs and opportunities arising over the life of the program.

TDOT is in the process of identifying how best to address growing congestion and mobility needs within the 5-County Middle Tennessee Region (Davidson, Rutherford, Sumner, Williamson, and Wilson counties). While these plans are still under development, there are a number of project concepts that relate to better managing our roadways in and around the Inner Loop, as well as along major commuting corridors (such as West End) that serve and support Nashville-Davidson County as well as the region’s surrounding counties.

The concepts of the plan focus on management solutions relative to freeways, arterials, and transit. In addition to regional coordination with all of the partners, current project commitments identified within the IMPROVE Act are also considered to determine could leverage and partnership opportunities to best respond to the region’s growing congestion and mobility needs. Although many of these needs are beyond available existing funding, there may be some potential opportunity to leverage funding for some of these projects (either associated with IMPROVE Act projects and/or other existing funding programs). Transit solutions and other operational solutions will be heavily dependent upon local funding and/or federal discretionary fund

A partnership effort with TDOT specifically related to Inner Loop and the West End corridor notes:

- A reconfiguration of the Inner Loop to address weaving and conflict points including creating a better collector-distributor roadway system on either side of the Inner Loop

- For major commuter arterial corridors (which includes West End) improvements focus on bottleneck intersection locations. Improvements at these locations range from turn lane improvements and signal timing changes to reconfiguration of intersection geometrics.
- Transit investments cross both interstate and arterial roadways. Building upon previous transit plans within the region as well as the congestion analysis undertaken by TDOT, 5 interstate corridors (I-24 E, I-65 S, I-40 W, I-24 W, and I-65 N) and 8 arterial roadways (Charlotte, Broadway/West End, 21st Ave/ Hillsboro Pike, Dickerson Pike, Nolensville, Pike, Gallatin Pike, and Clarksville Pike) were identified for transit investments. Investments in park-and-ride lots, transit signal priority, and sidewalk and transit stop improvements are also envisioned with this category of improvements.
- This funding category specifically includes \$6M of partnership funding for design necessary to advance capital improvements considered by TDOT for high capacity transit on West End Avenue from downtown to 31st. Avenue. Additional coordination with Vanderbilt University recognizes the necessary partnership for the transportation and land use vision for West End Avenue. Vanderbilt University has committed to partner with the city and other stakeholders to foster this conversation and develop a transportation and land use vision that appropriately accommodates the regional employment growth in this area.
- Investing in Regional Traffic Operations to improve traffic flow by upgrading infrastructure at 900+ traffic signals on state routes and actively managing daily demand
- Investing in Transportation Demand Management (TDM) programs to expand commute trip reduction programs such as ridesharing, carpooling, alternative modes, and other travel demand management strategies
- Exploring additional funding support for Non-Motorized Investments for local bicycle and pedestrian infrastructure and the continued filling of gaps on the state highway system
- Partnering with regional and local transit agencies to identify funding that would Support Transit Operations on the state highway system
- Consulting with freight partners to determine opportunities or technologies that would result in reduced truck traffic through downtown Nashville

TDOT's congestion study effort not only supports recommendations within the Metro Nashville Transportation Plan but are integrally to the success of both efforts. Additionally, Vanderbilt's FutureVU plan equally aligns with the strategies TDOT has identified and that of Metro's draft Plan. Collectively, we will work with other major employers like Vanderbilt within the region to support investments that allow use all modes (that are convenient, safe, and reliable) and best work to manage demand in a way that allows for continued economic growth of the region and state.

In addition, there are a number of other program area considerations. These include:

Innovation & Sustainability Corridors

Seven million dollars is set aside for the Martin Luther King, Jr. Boulevard/Charlotte Avenue Innovation Corridor & Gallatin Sustainability Corridor serving as living labs for technology and sustainability pilots and demonstrations including smart signals, crosswalks, parking, CAE (computer-aided engineering) vehicles, green infrastructure, solar powered features such as crosswalks, lighting, native species right-of-way plantings, and others.

MLK Jr. Boulevard/Charlotte Avenue Innovation Corridor

The MLK Jr. Boulevard/Charlotte Avenue Innovation Corridor fronts the State's Capital building and continues as a densely developed corridor with 88,000 jobs and 16,000 residents living within a half mile of the corridor (within the segment between Downtown Nashville and

White Bridge Pike). The corridor follows Route 50-Charlotte Pike (Fig. 19) from WeGo Central on 5th Avenue North to I-40 near Nashville West shopping center. Specific project limits will be determined as the project design, including project phasing that is likely, advances.

Several large medical complexes, Centennial Park and Art Center occupy the corridor and most notably, Vanderbilt University, with 12,000 students and 8,000 faculty and staff are within a half mile of the corridor. The existing development and diversity of uses as well as potential partnership with Vanderbilt University engineering make this an optimum location for pilots demonstrating how technology can improve and balance mobility needs which is a noted goal for the Charlotte Avenue Corridor Study adopted in October 2018 by the Metro Planning Commission. Additionally, as was done in Chattanooga, honoring Dr. King with a corridor that advances our future mobility is a fitting action.

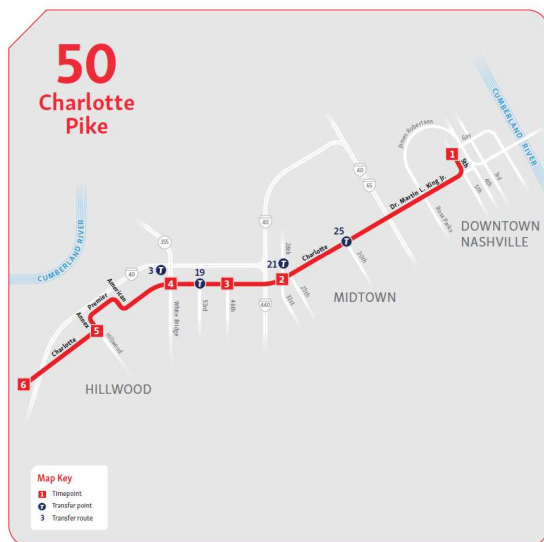


Fig. 20: Charlotte Pike Innovation Corridor will generally follow route 50 Charlotte Pike from Downtown Nashville to I-40 at Nashville West.

Gallatin Sustainability Corridor

The Gallatin Sustainability Corridor will leverage all sustainability activities deployed in the corridor including transit, bike and pedestrian improvements, solar, native plantings and landscaping, stormwater runoff management, potential cool street pavement and other technologies to demonstrate sustainability practice and value. This corridor follows Route 56 Gallatin Pike (Fig. 20) and extends from WeGo Central on 5th Avenue to the RiverGate Mall. Specific project limits will be determined as the project design, including project phasing that is likely, advances.



Fig. 21: Gallatin Pike Sustainability Corridor will generally follow route 56 Gallatin Pike

\$75M Safety/Vision Zero/Traffic Calming

This program of funding would serve to address the existing backlog of traffic calming requests maintained by Metro Public Works as well as to address operational safety improvements supporting the Vision Zero Action Plan, which is currently under development, addressing the highest accident locations and safety initiatives. This program fully funds all traffic calming requests and provides ongoing maintenance of traffic calming devices. It also addresses 10-15 major arterial issues per year.

\$35M Active Transportation/Bikeways/Greenways

This program funds approximately seven miles of new bikeway every year, growing our network by 20% over five years. Specific greenway needs are to be determined.

\$15M Traffic Management System/Signal Upgrades

This funding category implements the recommendations of the Traffic Management System Evaluation currently underway. Significant reductions in travel time delay and safety improvements through improved traffic flow and management are anticipated. Modernizing our traffic signal networks are a key component for all improvements in all modes, including the Better Bus initiatives.

- Full intersection detection upgrade – \$30K – 20 intersections per year – \$600K per year
- Partial detection upgrade – \$20K – 10 intersections per year – \$200K per year
- Communications – \$500 per cell modem per year – assumes 500 modems per year – \$250K per year.
- Traffic Control Center – 1.5 million in year one towards repurposing facility at Howard School complex and 4 staff each year upon commissioning at \$250K per year
- Timing development and traffic-responsive equipment implementation – \$3K per intersection – 200 intersections per year \$600K

- CCTV installations – \$6K per location – 50 locations per year – \$300K
- Connected vehicle and new technology testing – \$10K per location – 20 locations per year – \$200K
- Intersection rewiring – \$50K per intersection – 20 intersections per year – \$1M

\$1M Downtown Neighborhood Traffic Project

Metro Nashville, with a population of over 694,144 in 2019, includes one of the most visited downtowns in America with a vibrant business, travel and tourism and music industry. Over 16 million out of town visitors came to Nashville in 2019 including almost five million at downtown events. Home to major and minor league teams, sporting events also draw large crowds of supporters to the Downtown. As the pandemic lessens, a return to vibrancy for Downtown is anticipated.

To support these activities, as of the second quarter of 2020, Downtown Nashville boasts 9,381 hotel rooms and an additional 6,923 under construction or planned. The downtown resident population is numbered at 13,000 and 2,861 residential units are under construction. As of 2019, more than 72,000 employees work in downtown including well-known brands such as Amazon, Sony and Hospital Corporation of America. With continuous activity and cranes on the skyline, curb space in Downtown Nashville has been in great demand with loading/unloading, rideshare, micro-mobility and parking 24-hour activities.

Downtown is a unique neighborhood of businesses, employees, institutions and residents with delivery and service vehicles, cars, transit, rideshare services, scooters, bikes and pedestrians all competing for mobility.

Key areas of Downtown activity including Broadway, the influence of institutions such as Vanderbilt University, high growth west side corridors as well as initiatives such as the Coord pilot curbside infrastructure management pilot, parking modernization and transit needs must be considered in a strong community engagement project so that the weighting and prioritization of these demands is determined and this study/project sets forth the necessary framework for design and implementation, including downtown transit priority.

Total \$818M Capital

Total Operating \$2.063M additional over current funding for DOT functions

OVERALL CAPITAL \$1.6439B

OVERALL ANNUAL OPERATING \$37.273M additional for transit and all other

REGIONAL AND STATE COORDINATION THROUGH GNRC AND TDOT. The plan recognizes that our Metro-focused efforts are mindful of regional collaboration opportunities in the Improve Act and Regional partnering opportunities identified in Appendix 7. Inner Loop Study and evaluation of how technology may be used to manage truck traffic on our freeway system. Coordination for potential Amtrak service to Atlanta. Appendix 7 provides a list of multiple opportunities.

DOWNTOWN NASHVILLE infrastructure improvements will be undertaken through “bucket” categories including traffic management, safety, sidewalks and others as well as Better Bus programming defined through the Downtown planning effort underway including curbside infrastructure and parking management as well as the specific Downtown Neighborhood Traffic Project.

AFFORDABLE HOUSING STRATEGY:

Includes the 2% funding of local capital detailed in the transit section above and commitment to an inventory of those corridors for existing affordable housing, forecasted need and identified opportunities/areas for development. This strategy draws from the Transit and Housing Affordability Task Force chaired by former Nashville Mayor Bill Purcell and Davidson County Clerk Brenda Wynn.