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NASHVILLE, TENNESSEE

EXECUTIVE SUMMARY

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walk**n**bike

Executive Summary

“A world-class multi-modal transportation system is essential to a vibrant city and better quality of life.” -Mayor Barry

The WalknBike plan aims to improve walking and biking in Nashville, connecting people to opportunity on a network of high-quality, comfortable, and safe sidewalks and bikeways. Resulting from several months of extensive stakeholder and public involvement, the plan is comprehensive in nature, addressing sidewalk and bikeway infrastructure needs, programs, and policies.

Why this Plan is Important

WalknBike serves as an update to the 2008 Strategic Plan for Sidewalks and Bikeways. Nashville’s residents have expressed a strong desire for a more connected, accessible, and safe network of sidewalks and bikeways. The plan supports the land use and transportation objectives of Nashville Next and nMotion by connecting developing corridors and centers to transportation options.

A more walkable and bikeable Nashville provides benefits that will address access, health, and environmental concerns:

- **7.6%** of the Nashville households do not have access to a vehicle
- Nashville’s **aging population** will need alternative transportation options
- **24.7%** of Nashville-Davidson County adults are obese

Vision Statement:

The Nashville bicycle and pedestrian system will be a network of high-quality, comfortable, safe sidewalks and bikeways, connecting people to opportunity. The system, inclusive to users of all ages and abilities, will promote and encourage safety, health, education, and active transportation.



What We Heard

Feedback for the plan was gathered through multiple avenues and outlets. The WalknBike project team sought to engage as many people as possible throughout the planning process. Types of engagement included:

- Project website: nashvillewalknbike.com
- Open house in April 2016 and Jan 2017
- Two public surveys launched in spring and summer of 2016
 - The first survey garnered **1,911 responses**.
 - The second survey had **3,222 responses**.
- Online interactive maps
- Mayor’s Transit Triathlon
- Pop-up events across Davidson County
- Social media campaign
- Community meetings

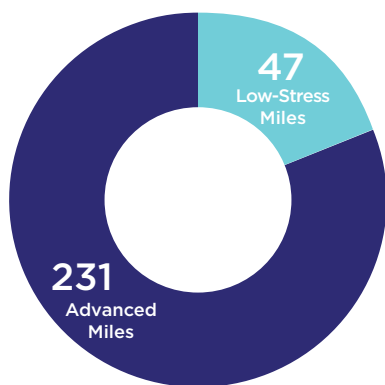


Existing Bikeway Network

Metro has installed 22 miles of buffered bike lanes and 2.5 miles of separated bike lanes since 2013.

Nashville residents reported being most comfortable on separated, low-stress bikeways, such as 11th Avenue separated bike lanes. Lack of connectivity, intersection treatments, and major pikes act as barriers to comfortable bike travel.

- Nashville has **278 miles** of existing bikeways.
- The majority of existing facilities, **231 miles**, are bikeways for experienced cyclists.



■ Advanced Bikeways
■ Low-Stress Bikeways

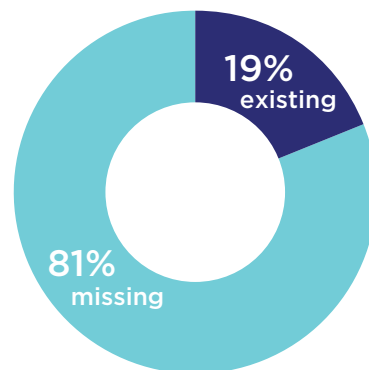


Existing Sidewalk Network

The Pedestrian Level of Service (PLOS) analysis showed that pedestrians will feel more comfortable walking in Nashville's core and inner neighborhoods due to greater sidewalk coverage.

Nashville ranks as the 15th most dangerous region in the US for pedestrians, based on the 2014 *Dangerous by Design* report.

- Metro is currently responsible for over **1,130 miles** of existing sidewalks and sidewalks in progress.
- There are **1,900 miles** of missing sidewalks in Nashville-Davidson County.



■ Existing Sidewalks
■ Missing Sidewalks

Prioritization Process

The plan presents a comprehensive long-term vision for a countywide network of sidewalks and bikeways. In order to meet the significant need for sidewalks and bikeways, Metro Nashville must be strategic in its investments.

The prioritization method from the 2008 plan, known as the Pedestrian Generator Index (PGI), was updated to consider additional factors: **social equity and safety**. Therefore, the goals of the draft Priority Sidewalk Network (PSN) and Priority Bikeway Network (PBN) are to first provide for areas of need and then secondly, provide geographic distribution.



Project List Development

The updated prioritization process is just one component of the overall project development process. Metro staff will implement the three-step process (described to the right) in order to develop a 5-year work program of prospective projects.

Ultimately, the ranking of priority projects in the draft plan is a **high-level, planning-scale evaluation of countywide needs**. This represents a start toward determining a project list that will consist of a full, transparent Metro-wide coordination process.



Step 1: Constructability Audit

Review project feasibility by accounting for right-of-way (ROW) impacts, environmental constraints, design considerations, and a more detailed cost analysis.



Step 2: Coordination Effort

Evaluate potential conflicts with other Metro-adopted priorities, community and modal plans, potential private-development investments, and other stakeholders.



Step 3: Collaboration Process

Involve input from individual project stakeholders to understand their concerns and priorities. Stakeholders could include elected officials, property owners, business leaders, and advocacy groups.

Priority Bikeway Network (PBN)

Four main criteria were used to plan the priority bikeway network:

- **Roadway Characteristics**
- **Bicycle Demand**
- **Constructability**
- **Public Input**

The Priority Bikeway Network focuses on low-stress facilities, which are facilities that would be comfortable and perceived to be safe for people of all ages and skill levels. Other network recommendations include bikeways that are suitable for experienced cyclists.

While there is need for bikeways throughout Nashville, the PBN focuses on the urban core where the demand and need for a connected network is the greatest.

Bikeway Network Implementation

Full implementation of the PBN will cost approximately \$41 million. The updated prioritization process was used to develop a five-year project list. Based on planning-level cost estimates, the table below shows how many years it would take to complete the priority low-stress bikeway network depending on the amount of annual funding.

Bikeway Funding Scenarios:

Annual Funding Allocation	Years to Complete Priority Low-Stress Bikeway Network
\$1,000,000	41 years
\$4,000,000	10 years
\$8,000,000	5 years

Examples of Low-Stress Bikeways



Bollard Protected Bikeway (Major Separated Bikeway)



Buffered Bike Lane (Minor Separated Bikeway)

Priority Sidewalk Network (PSN)

New Sidewalk Needs

Proposed sidewalk segments that scored high in the prioritization process are grouped into 4 categories:

- Destination + Transit Access
- School Connections
- Vision Zero (Safety Focus)
- Sidewalk Gaps

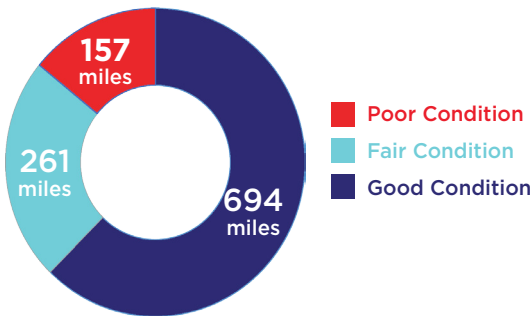
Several of the top scoring projects are along priority corridors for High Capacity Transit as identified in the ongoing transit plan update. These sidewalks are not included in the priority sidewalk network and project list since they will be included in transit corridor projects.

The total mileage of the Priority Sidewalk Network is 91 miles. The PSN will serve as the foundation for the development of the 5-year Strategic Project List.

Sidewalk Repair Needs

A prioritization process was developed for sidewalk repair needs based on a sidewalk condition inventory. ADA requests and compliance will remain a priority of Metro.

Condition of Existing Sidewalks:



Sidewalk Network Implementation

Since 2003, Nashville has built more than 300 miles of sidewalks. Even with these additional miles of sidewalks, Nashville still has significant need for more sidewalks. Full implementation of the PSN will cost \$550 million. The table below shows how many years it would take to complete the priority sidewalk network depending on how much funding is allocated each year for building sidewalks.

New Sidewalk Funding Scenarios:

Annual Funding Allocation	Years to Complete Priority Sidewalk Network
\$15,000,000	35 years
\$30,000,000	20 years
\$110,000,000	5 years

Sidewalk Repair Funding Scenarios:

Annual Funding Allocation	Years to Complete "Poor" and "Fair" Needs
\$5,000,000	47 years
\$15,000,000	16 years
\$47,000,000	5 years

Recommendations

As part of a comprehensive approach to creating a more bike-friendly and pedestrian-friendly environment, Nashville must also implement policies and programs that support walking and biking and that enhance safety for pedestrians and cyclists. Chapter 6 covers recommendations that fall under four categories:

- **Policies**
- **Programs**
- **Design**
- **Implementation**

These recommendations were developed with input from the WalknBike steering committee members. Each recommendation is designed as its own standalone cutsheet with background information, action steps for various agencies in Nashville, and case studies.

Strategic Implementation

The WalknBike plan does not set funding allocations. Instead, the plan develops a prioritization process to **guide investment in areas with the most need**. The Mayor's Office and Metro Council develop the annual budget program. In order to meet funding needs, creative funding sources and innovative design solutions must be explored.

WalknBike sets mode share goals for walking and biking by examining the commute mode share of Nashville's four aspirational cities - **Austin, Denver, Minneapolis, and Seattle**.

Additional Priorities

While implementing the priority sidewalk and bikeway networks and ensuring facilities are accessible is a key priority, WalknBike recommends two additional programs to increase safety for all users and promote innovation:



VISION ZERO

Address projects that improve safety for all users and increase bicycle and pedestrian comfort.



LIVING LAB

Pilot projects to test and develop innovative and low-cost design alternatives.

