

Lincoln MPO 2040

# Long Range Transportation Plan Update

**Community Values:** How community input has been incorporated in the Long Range Transportation Plan



**Funding Objective:** An approach to maximize the existing system's capacity

**Fiscally Constrained Plan Elements:**  
What can reasonably be funded over the 24-year planning horizon



**Adopted**  
January 13, 2017

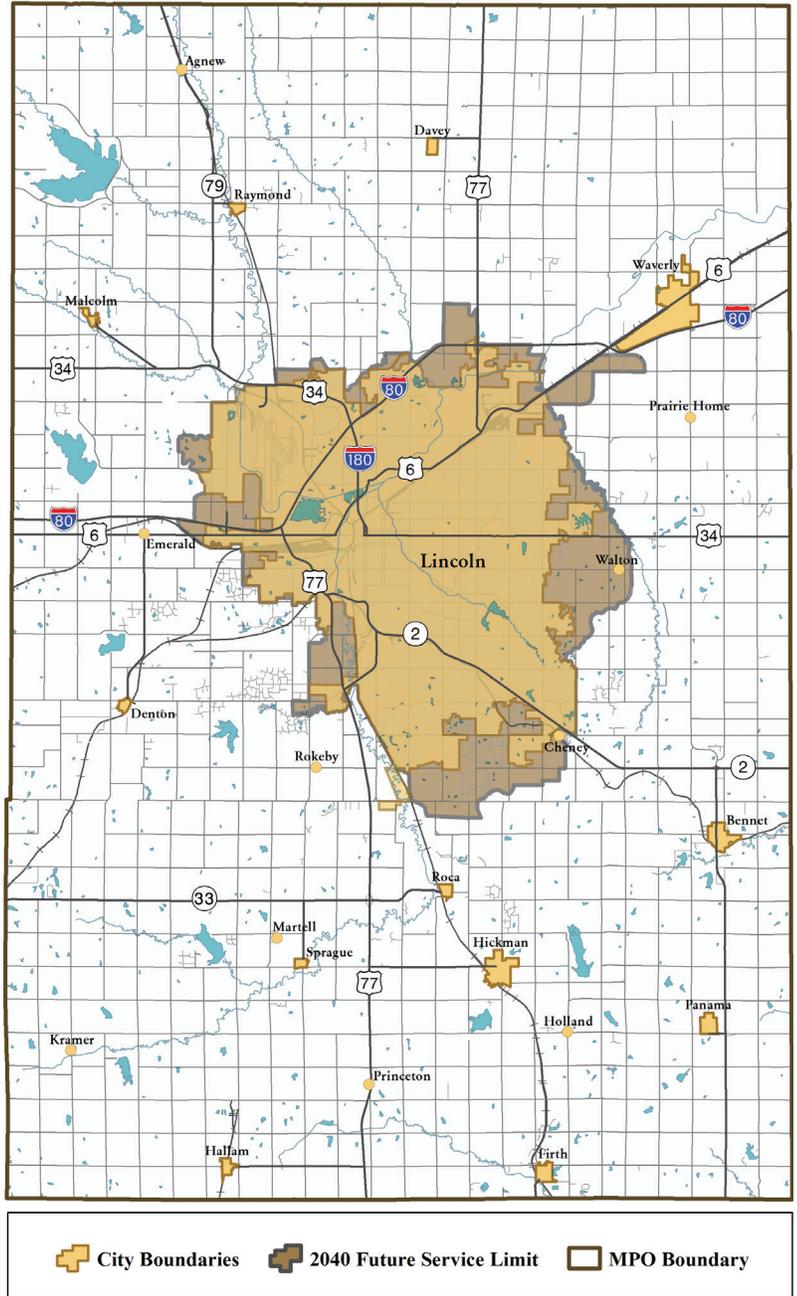
The Lincoln Metropolitan Planning Organization (MPO) Long Range Transportation Plan (LRTP) covers the transportation systems of the Lincoln Metropolitan Planning Area (MPA), encompassing all of **Lancaster County, NE**. It addresses the transportation needs of the region through 2040.



The Lincoln LRTP follows the federal requirements for preparing a Long Range Transportation Plan as specified in the Fixing America's Surface

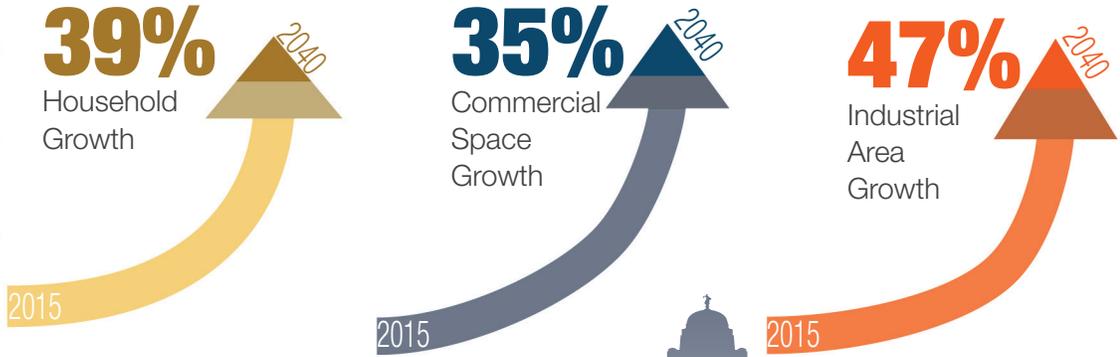
Transportation (FAST) Act, the current federal transportation funding and policy bill. This is important because compliance with **federal requirements** must be met for the region to receive federal **transportation funding**.

Transportation planning sets a **vision** for the transportation system and establishes **funding priorities**. The last Lincoln MPO LRTP was adopted in December 2011. Since that time, many of the high priority transportation projects identified in that plan have been successfully funded and constructed.



The **2040 Future Service Limit** is the 125 square mile area where urban services, and annexation into the City of Lincoln, are anticipated by 2040. The LRTP includes more detailed transportation planning for this area.

The Lincoln LRTP has been developed in tandem with the update of the *City of Lincoln-Lancaster County Comprehensive Plan*. Developing the LRTP alongside the Comprehensive Plan allows an integrated land use and transportation planning approach that offers a direct link between the two planning activities. The Comprehensive Plan **population and employment forecasts** form the basis for the future travel demand contemplated in the LRTP.



The LRTP addresses the region’s roadway, transit, freight, bicycle, and pedestrian modes in a combined effort to account for the interdependent nature of the multimodal transportation system.

## Transportation Goals

*The vision for transportation in Lincoln and Lancaster County is a safe, efficient and sustainable transportation system that enhances the quality of life, livability, and economic vitality of the community.*

The goals listed represent the community’s vision for Lincoln and Lancaster County’s transportation system. These seven goals are the foundation for performance measures, performance targets, and the recommended funding plan.



**Maintenance** – A well-maintained transportation system.



**Mobility and System Reliability** – An efficient, reliable, and well-connected transportation system for moving people and freight.



**Livability and Travel Choice** – A multimodal system that provides travel options to support a more compact, livable urban environment.



**Safety and Security** – A safe and secure transportation system.



**Economic Vitality** – A transportation system that supports economic vitality for residents and businesses.



**Environmental Sustainability** – A transportation system that enhances the natural, cultural, and built environment.



**Funding and Cost Effectiveness** – Collaboration in funding transportation projects that maximizes user benefits.

Broad based, inclusive community outreach efforts for this plan encouraged active participation in identifying the vision, goals, and needs of the region. The Lincoln MPO reached out to stakeholders across the region through online surveys, open houses, and focus groups. The City of Lincoln and Lancaster County participated extensively in the development of this plan, as did the local transit agency (StarTran), the Nebraska Department of Roads (NDOR), and many community-based organizations and advocacy groups representing the diverse interests of Lincoln and Lancaster County.

**Equity** The MPO outreach activities ensured that all community members regardless of race, color, religion, income status, national origin, age, gender, sexual orientation, disability, marital status, or political affiliation, had an equal opportunity to participate in the MPO’s decision-making process.

## Committees

The contents of the LRTP were developed over a year-long process in close coordination with the LRTP Oversight Planning Committee and the Lincoln/Lancaster County Planning Commission. At key milestones, the LRTP was presented and discussed with the MPO Technical Committee and the MPO Officials Committee. The Lancaster County Board and Lincoln City Council are the adopting bodies for the Comprehensive Plan and participate in the approval of the LRTP through membership on the MPO Officials Committee.

## Phases of Outreach:

Phase 1 – Transportation Needs

Phase 2 – Understanding Priorities

Phase 3 – Validating a Vision

**Online Survey** An online survey was open for two months and completed by more than **820** community members. The great success of the survey was instrumental in understanding the community’s transportation priorities.



## Focus Group Meetings

Early in the planning process, eight focus group meetings were held with stakeholders representing various interests in the community. The purpose of the meetings was to gather insights on key transportation issues and concerns.



# Public Meetings

Three public meetings provided interactive opportunities for community members to share their input, learn about the transportation planning process, and discuss their ideas with the project team.

## Community Input

Information gathered throughout the LRTP community engagement revealed several recurring themes:

- **Technology** has changed and will continue to change transportation in Lincoln (e.g., intelligent transportation systems, electric vehicles, driverless cars, automated convoys).
- As Lincoln experiences continued **growth** (both infill development in the downtown core and new development in the fringe areas), the transportation network needs to support evolving travel needs.
- **Changing demographics and travel preferences** will continue to shape the mobility needs of the community. For example, an increasing number of Millennials prefer not to drive, and an aging population may no longer be able to drive.
- The need for **better north-south roads** and support for the East Beltway.
- The importance of **maintaining** the transportation system and making the system function as **efficiently** as possible.
- The community values Lincoln's **extensive trail network**, and would like to see more on-street bike facilities.

The input received from the community was used directly in developing the LRTP. Specifically, community input was a critical component in:

- Establishing goals
- Identifying transportation projects
- Prioritizing projects
- Developing the funding plan and allocating resources

*What the community LOVES about transportation in Lincoln:*



Community members were asked, "If you had \$100 to fund transportation improvements in Lincoln, how would you spend it?" With a total of 824 responses, the top choice of the community was to **maintain existing streets**. The community's responses, however, reinforced the need for a **balanced approach** to funding transportation in Lincoln; many participants expressed that all categories are important.



Various sources will be used to fund transportation projects and programs included in this LRTP, including federal, state, local, and private resources. In total, an estimated \$2.4 billion in transportation revenues can reasonably be expected for the urban area roadway, transit, and trails programs over the 24-year planning horizon (2017 – 2040).



Urban Roads Program Funds:

**\$1.9 billion**

- City Wheel Tax
- General Revenues
- Arterial Street Impact Fees
- Railroad Transportation Safety District (RTSD)
- State Train Mile Tax
- Highway Allocation Funds (State Fuel Tax)
- Federal Surface Transportation Program
- Federal Hazard Elimination



Transit Funds:

**\$450 million**

- Federal Transit Administration (FTA)
- State Revenues
- Fares, Advertising, and UNL Contract
- General Revenues



Trails Funds:

**\$36 million**

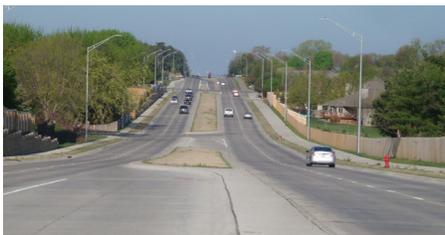
- Federal Set Aside from ST Block Grant Program
- Federal Recreational Trails
- Lower Platte South Natural Resources District
- Trail Impact Fees
- Private Contributions
- Keno Funds
- Park & Recreation Repair and Replacement

## Funding Restrictions and Commitments

**One-third** of the approximately **\$2.4 billion** available for transportation is either restricted to certain project types or has already been committed to specific projects or programs. The remaining **\$1.6 billion** in funding is considered “flexible” and could be used for a variety of transportation-related purposes.

## The Cost of Transportation Projects

While \$2.4 billion over 24 years seems like a lot of money, transportation projects are expensive! Here are some typical costs for transportation improvements:



Road widening: \$10.5-\$12M/mile



New transit route: \$60K/mile (annual)



Trail: \$300K/mile

# Funding Objective

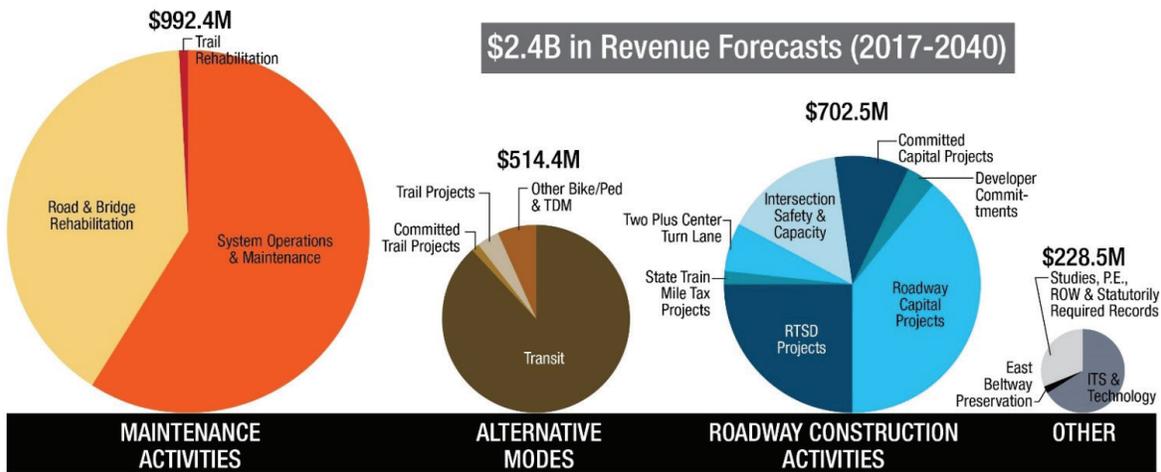
To achieve the goals outlined within the LRTP, revenues will need to increase over the 24 year time horizon. The costs to construct transportation projects have inflated by approximately five percent per year in recent years. This shortfall necessitates a strategic approach to funding Lincoln’s transportation projects and programs.

Based on the limited funding availability, input from the LRTP Committees and the community, and the potential for emerging technologies in transportation (such as signal coordination, traveler information, and driverless cars), the LRTP establishes a funding objective to **maximize the existing system’s capacity**. The plan recognizes the importance of **maintaining** the transportation system and making the system **function as efficiently as possible**, and includes:

- An increased emphasis on **rehabilitation, technology, and intersection bottlenecks**, while allowing construction of **critical capital projects** and continuation of funding for **alternative modes**.
- An alternative approach to major widening projects including **traffic signal coordination and intersection improvements** on major corridors.

A case study of the Highway 2 corridor found that traffic signal coordination and improvements at key intersections to eliminate bottlenecks could bring comparable benefits to major widening at a significantly lower cost. Therefore, the LRTP funding plan emphasizes identification and implementation of cost-effective solutions such as these.

The LRTP recommends allocating the available transportation revenues to the following project and program categories:



## Increasing Construction Costs

A project that costs \$10M today will cost \$20M in 2030, and over \$32M in 2040.\* That’s more than triple the current cost. Current transportation revenues are only growing at approximately half the rate of inflation and therefore will not be able to keep pace with this level of project cost inflation.

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\*Assumes a 5% annual inflation, consistent with trends over the past five years; current revenue sources are projected to increase at 2.5% per year.



The following pages provide information on what can reasonably be funded over the 24-year planning horizon within the Fiscally Constrained Plan. By directing the available transportation revenues to cost-effective improvements and maintaining the existing infrastructure, the Fiscally Constrained Plan is able to address the region's most pressing needs.

## Maintenance Activities

The **System Operations & Maintenance** program includes ongoing maintenance requirements (e.g., snow removal, street sweeping, stormwater management, and pothole repair) to keep the transportation system functional. The \$586 M allocation to this category will provide continuation of the current operations and maintenance activities.

The **Road and Bridge Rehabilitation** program includes the repair of arterial and residential streets and bridges. A pavement condition rating system is used to help determine which road surfaces are in most need of repair. Also included in the Rehabilitation program is bridge rehabilitation and signal replacements. It is important to note that money invested today in the ongoing maintenance and repair of the street system saves a significant amount of money in the future by avoiding the costs associated with full reconstruction of roadways. Currently, the Rehabilitation program is funded at increased levels – a 58% increase since 2010 – resulting in 72.2 miles of arterials and 487 blocks of residential street improvements. These targeted investments in the rehabilitation

program over the past six years have resulted in measurable improvements in the condition of Lincoln's streets. However, rehabilitation needs continue to outpace investment as the current system ages and expands with City growth. Community members identified maintaining the existing transportation infrastructure as the top priority; the \$398 M allocation increases funding for Road and Bridge Rehabilitation compared to the current funding levels.

The \$8.3 M allocated to **Trail Rehabilitation** is composed of Keno funds, Park & Recreation Repair and Replacement funds, and other trail-specific funding sources; this allocation will allow a continuation of the current trail rehabilitation program.



# Alternative Modes

The \$452 M allocation to **Transit** will allow StarTran to operate the Transit Development Plan (TDP) Preferred Alternative routes and services and to maintain the vehicle fleet. The priority transit projects that are expected to be funded within the Fiscally Constrained Plan include:

- Replacement buses, Handivans, other vehicles
- Enhancements to bus shelters and stops
- Security enhancements
- Computer replacements and upgrades
- Shop equipment upgrades
- Building renovations and improvements

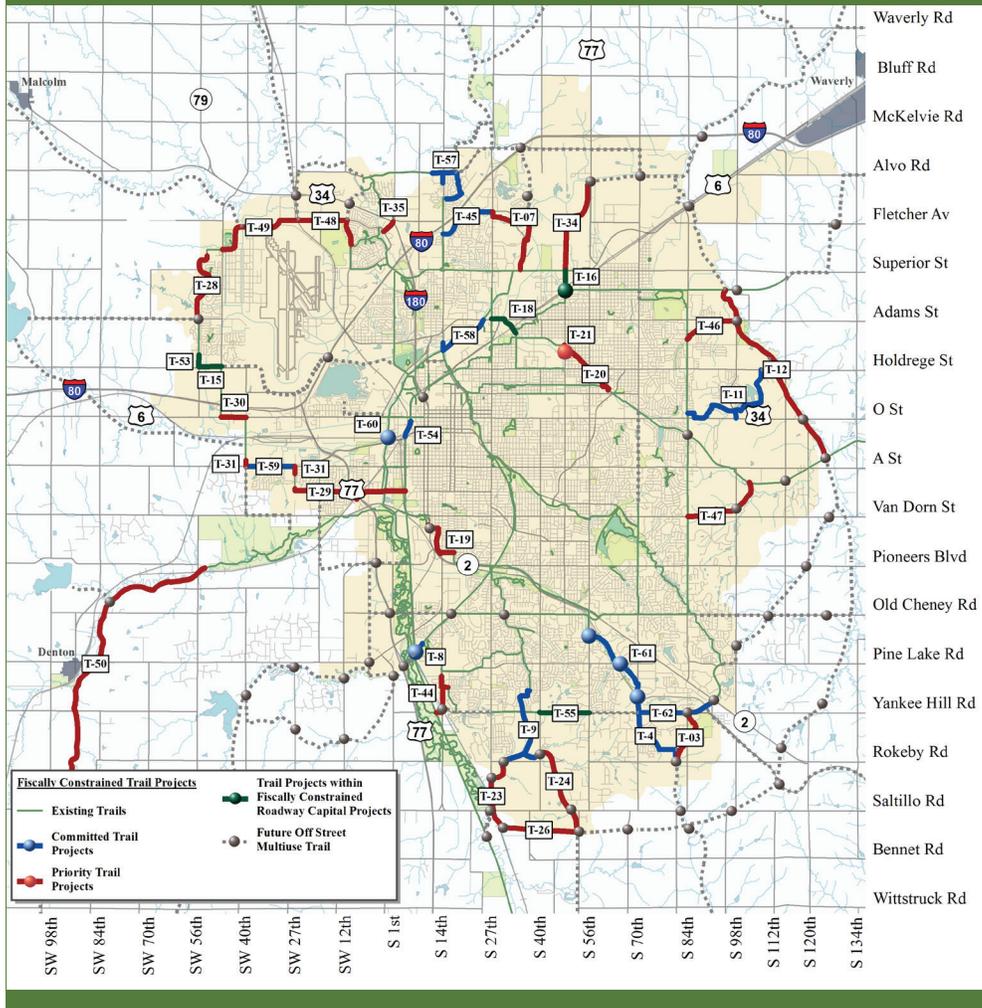
Additional transit enhancements (such as next bus information and transit signal priority) will be addressed in the Technology Program.

The **Bike/Ped and Travel Demand Management** (TDM) program (with a \$33.5 M allocation) includes sidewalk repairs, ADA compliant ramps, on-street bike facilities, and the travel options program. Primary objectives of the program are to improve Lincoln's walkability and expand the on-street bike network.

The future on-street bike facilities are assumed to be funded, to the extent possible, through the existing street improvement programs. On-street bike lanes can be done very cost-effectively, particularly if paired with planned street overlays or rehabilitation projects.

Funding for larger projects like a north-south cycle track could be pursued through Tax Increment Financing (TIF) with commercial redevelopment in the downtown area (similar to the funding for the N Street Cycle Track).

The **Trail** program allocation of \$28 M is expected to fund construction of approximately 55 miles of new trails (including trail projects with current funding commitments), as shown below.

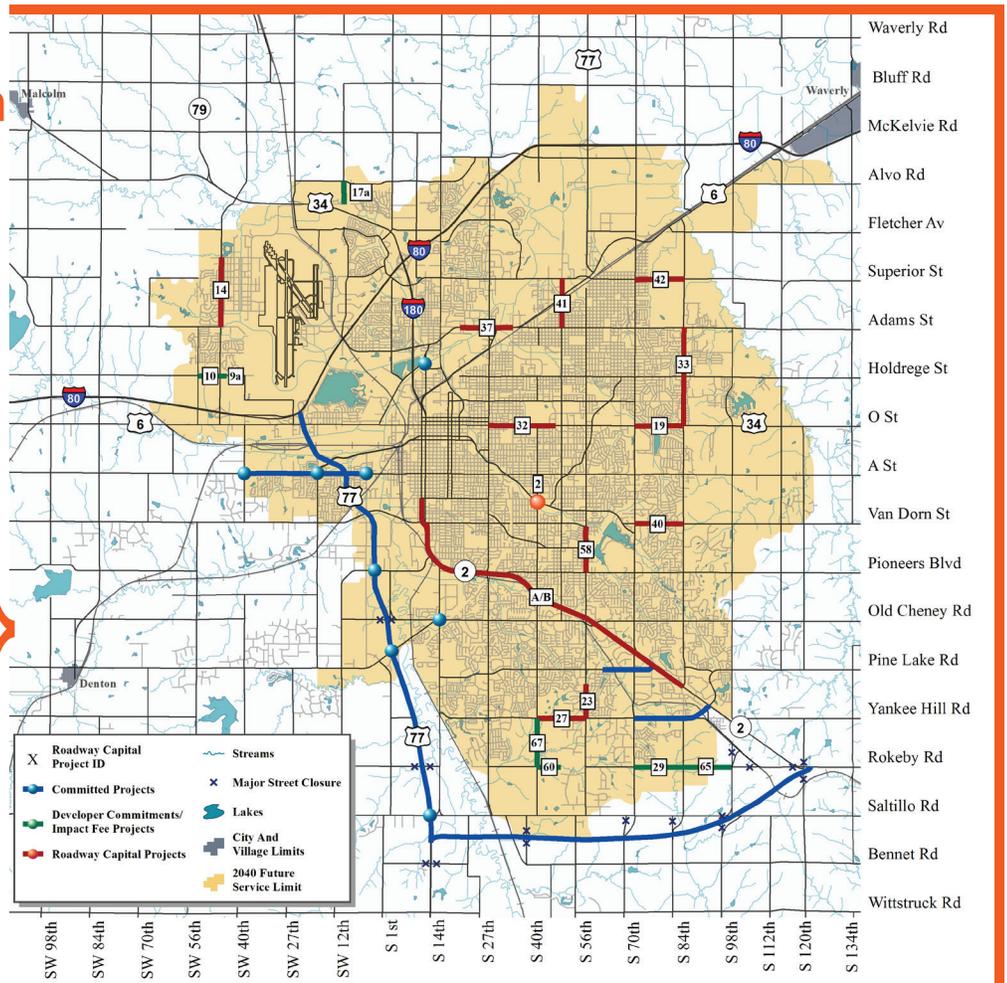


As travel behaviors change and transportation technologies evolve, there is an increased awareness of the need for strong **inter-modal connections**.

Advances such as Transportation Network Companies (TNCs), bike-sharing, car-sharing, pedestrian access to transit and driverless cars are making car-optional living more viable. There is a need to proactively plan for a strong interface between travel modes, allowing a mix of mobility options that are well-coordinated and can be competitive (in terms of travel time and cost) with private car ownership.

# Roadway Construction Activities

In total, the funding allocation for **Roadway Capital Projects** is \$366M, including \$66.8M for Committed Projects, \$25.6M for Developer Commitments, and \$274 M for other Roadway Capital Projects. As shown in the map to the right, this would allow for construction of 27 high priority Roadway Capital Projects.



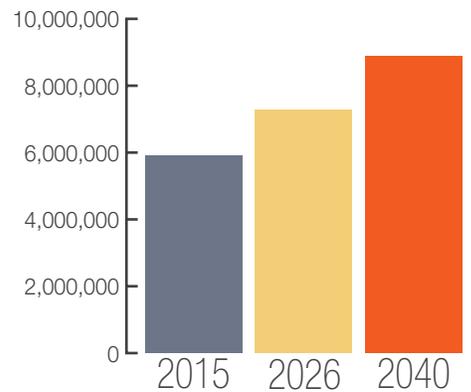
Several roadway corridors were originally contemplated as six-lane (or four-lane) major widening projects. In keeping with the LRTP Funding Objective, improvements to these corridors will instead focus on traffic signal coordination and intersection improvements. This alternative approach is recommended for these five corridors within the fiscally constrained plan:

- N. 84th St between O St and Adams St
- O St between Antelope Valley and 46th St
- O St between Wedgewood Dr and 98th St
- Cornhusker Hwy between N. 20th St and N. 33rd St
- Van Dorn St between S. 70th St and S. 84th St

Funding for a Highway 2 Corridor Study is included in the LRTP to identify high priority improvements.

As Lincoln continues to grow, traffic volumes are expected to increase. The vehicle miles of travel (VMT) are forecast to increase 50 percent by 2040. Trips are expected to be longer, on average, as the community grows outward.

## Vehicle Miles of Travel (VMT)



With the high priority roadway capital projects in place, approximately 89 percent of Lincoln's streets will remain uncongested by 2040.

Several road-related programs complement the Roadway Capital Projects. These programs provide important and strategic improvements to address **congestion and safety** at a moderate cost. These programs have annual budgets that are used to address the highest priority projects.

- Railroad Transportation Safety District (RTSD) and State Train Mile Tax Projects - \$188 M (railroad crossing improvements)
- Two Plus Center Turn Lane Projects - \$43 M
- Intersection Safety and Capacity Projects - \$105 M



*The **East Beltway** was identified as the highest priority roadway capital project by the public. A project of this size depends on additional funding from the state and/or federal government. The LRTP includes an allocation of \$250,000 per year (\$6 M over the 24-year time horizon) that will be used to preserve land along the East Beltway corridor.*

The LRTP includes a \$70.7 M allocation to continue **essential staff functions** related to improving the transportation system, including:

- Pre-project level engineering studies
- Responses to non-project specific public inquiries
- Engineering standards and guidelines
- Staff coordination with private sector growth proposals
- Legal requirements for record keeping

Technology in transportation is advancing rapidly. The Green Light Lincoln initiative uses smart technologies to improve traffic flow and reduce travel times. By using the next generation of traffic management systems, **Lincoln travelers can expect less time waiting at red lights, fewer vehicle emissions, and a reduction in crashes.** By maximizing the existing capacity of the City's streets through signal timing improvements, the need for major capacity expansions could be postponed or eliminated. The LRTP resource allocation includes a total of \$151.85 M in funding for **Intelligent Transportation Systems (ITS) and Technology**, which would allow full implementation of the City's Traffic Management Plan and Green Light Lincoln initiative and will help Lincoln to stay abreast of emerging technologies.



Lancaster County's **Rural Roads Program** identifies priority paving projects that are most likely to receive funding (separate from MPO funds) during the 2040 planning period. Most of the budget for the rural roadway network is devoted to maintenance of the network including grading, spreading gravel, snow removal and bridge and right of way maintenance. About \$1 M per year is devoted to the programmed paving projects.

The Nebraska Department of Roads (NDOR) goes through a separate process to identify high priority state projects. The Transportation Innovation Act (TIA) and Build Nebraska Act (BNA) provide funding for **state-significant transportation projects**. Lincoln and Lancaster County actively work with NDOR to ensure the transportation needs of the Lincoln MPO are represented. Although state projects are not included in the Fiscally Constrained Plan, the rankings of these projects in the LRTP reflect where they fall within the Lincoln MPO's priorities. The **South Beltway** and **West Beltway** improvements are examples of state projects being funded in part with BNA funds.

# Adoption

The Lincoln MPO Long Range Transportation Plan was unanimously adopted by the MPO Officials Committee on January 13, 2017. Prior to adoption, the LRTP was recommended by the MPO Technical Committee, and LPLAN 2040 (the comprehensive plan for Lincoln and Lancaster County), which includes a transportation chapter based on the LRTP, was adopted by the Lincoln City Council and the Lancaster County Board of Commissioners with minor wording revisions to the transportation chapter.

# Looking Ahead

The LRTP funding objective of maintaining the existing infrastructure, making the transportation system function as efficiently as possible, constructing the highest priority capital projects and continuing funding for bike, pedestrian and transit modes will enable the Fiscally Constrained Plan to address the region's most pressing needs. However, the transportation needs in the Lincoln MPO are greater than the available funding. The LRTP includes an Illustrative Plan, which describes the roadway, transit, and trail projects that are desired but cannot be done within 24-year planning period due to funding limitations.

Examples of projects with strong community support that are not included in the Fiscally Constrained Plan due to funding limitations:

- East Beltway
- Completion of the South Beltway Trail
- Multi-modal Transportation Center
- Further implementation of the next phases of the Transit Development Plan

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Continued conversations with the community are needed to discuss how more of the transportation needs can be met.

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[www.lincoln.ne.gov/city/plan/lrtupdate](http://www.lincoln.ne.gov/city/plan/lrtupdate)

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