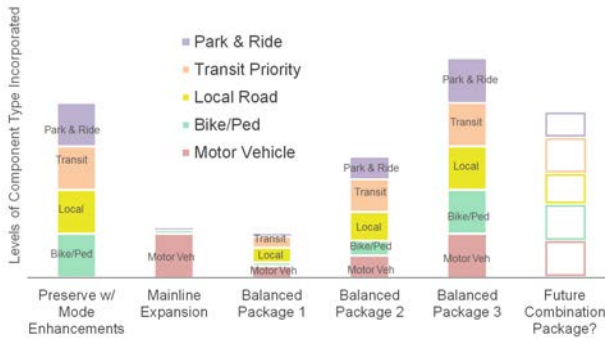


What's ahead.

Strategy packages

To meet all the PEL objectives, strategy packages that assemble motor vehicle, bicycle and pedestrian, local road, transit, and transportation demand management improvements will be needed. The PEL recommended five strategy packages for evaluation. The first strategy package, Preserve with Mode Enhancements, includes numerous alternate mode and local system improvements but no Beltline capacity expansion. The second, Mainline Expansion, provides Beltline capacity expansion and more modest improvements to alternate modes and local system. Balanced Packages 1 through 3 are combinations of the first two, with varying levels of modal improvements. These packages will be investigated in future study phases to determine the improvement combination that most effectively meets the study goals and objectives.

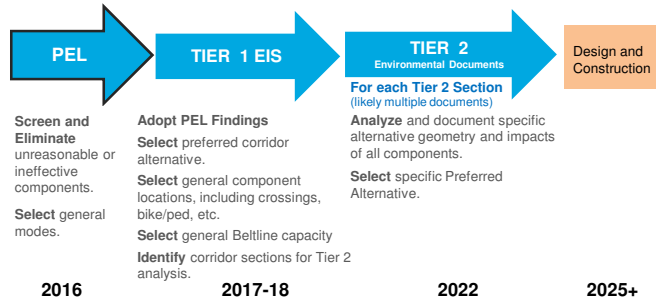


Graphic representation schematically portraying the amount of each component type incorporated in each strategy package. Bar height generally represents the amount of the component incorporated compared to the total amount that could be incorporated.

Environmental document

The PEL study is planned for completion in the spring of 2016. After this, WisDOT will initiate the environmental study process that will be conducted in two steps, or tiers. It will evaluate in more detail the improvements recommended for further study by the PEL study final report. The first tier will evaluate and refine PEL recommendations for the whole corridor and the results will be documented in a Final Environmental Impact Statement (FEIS). The second tier(s) will be detailed evaluations of FEIS recommended improvements to specific sections of the Beltline corridor. Construction funding cannot be requested until Tier 2 evaluation(s) are completed. The start of construction is not expected to begin until at least 2025.

Estimated timeline



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The Beltline

November 2015

Why is the Beltline being studied?

Congestion

- Daily traffic volumes are up to 127,000 vehicles per day. Volumes will increase by nearly 40% by 2050 based on projected Dane County population growth.
- The Beltline regularly operates at very congested levels (Level of Service F) during the weekday morning and evening rush hours.



Safety

- Sections of the Beltline, particularly between Seminole Highway and John Nolen Drive, have crash rates that greatly exceed the state average.

Regional Importance

- The Beltline connects the Madison metropolitan area to the state and national transportation systems.
- 14,950 businesses are within 5 miles of the Beltline and employ over 297,000 employees.¹
- In 2011, 12.2 million tons of freight valued at \$14.2 billion dollars traveled on the Beltline.²

Livability and Alternate Modes

- Built originally as a rural bypass, the Beltline now connects the west and east metropolitan areas, yet separates neighborhoods.
- Opportunities to cross the Beltline as a pedestrian, cyclist, or transit user are limited and typically congested.

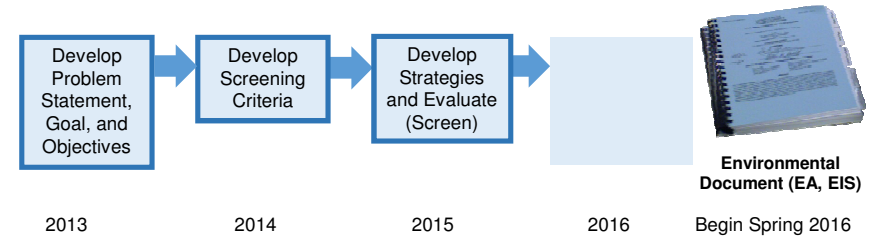
Pavement Conditions

- Much of the Beltline pavement is over 25 years old and nearing the end of its useful life.

Planning and Environment Linkages (PEL) Process

A PEL study is one of Federal Highway Administration's "Every Day Counts" initiatives and is part of MAP-21 (Moving Ahead for Progress in the 21st Century) Act legislation.

The PEL study process is an efficient way to integrate early planning into the highway improvement development process. It can reduce delays in meeting transportation needs.



The graphic above summarizes the PEL process. Currently the study team is evaluating strategies that address Beltline needs. Strategies that show promise will be brought forward into the future environmental study documents.

¹ 2010 ESRI Business Locations (using Reference USAGov, a division of Infogroup, an internet-based database).
² WisDOT report, Multimodal Freight Network-2012 Interim Activities Report



What's in.

A variety of improvement types will be recommended for further evaluation in the environmental document phase beginning in 2016. The following paragraphs describe these improvement types.

Beltline Motor vehicle components such as:

- Hard shoulder running – allows all vehicles to use one of two shoulders as a travel lane during rush hours.
- Bus on shoulder – allows buses to use the shoulder under certain conditions.
- Bus only lane – a dedicated freeway bus lane
- High occupancy vehicle (HOV) lanes – a dedicated lane for 2 or more occupants, can include dynamic tolling (HOT lanes).
- Conventional lane – a general purpose lane for all vehicles.

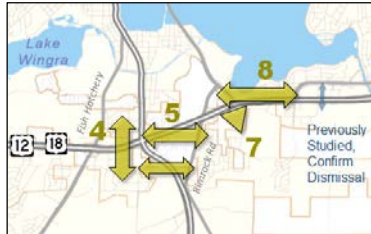


Bicycle and pedestrian components could include:

- New Beltline bike/ped overpasses in Beltline sections where there are none.
- Bike/ped path connections, such as one that would link the Whitney Way/Beltline bike/ped path with the Southwest or Cannonball paths
- Improved bicycle and pedestrian accommodations through Beltline interchanges.

Local road components could include:

Overpasses of the Beltline, such as west or east of Gammon Road and Whitney Way, west of Park Street, or an overpass of US 14 connecting Stewart Street with Novation Parkway.



Transit priority components that show promise

Transit priority allows buses to gain a time advantage as they travel through interchange signals. Examples include extending the green light for buses and allowing buses to get ahead of traffic queues (backups).



Park and ride components being evaluated

Potential park and ride lots that are close to the urban area and transit may have the ability to reduce single occupant vehicle use on the Beltline.

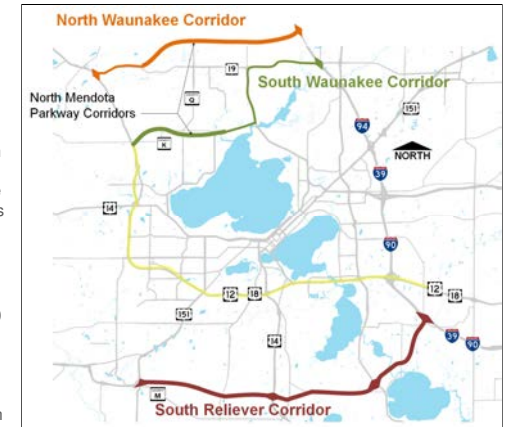
What's out.

Alternate highway corridors

The PEL studied alternate roadway corridors north and south of the Madison area to see whether they could remove enough traffic from the Beltline to eliminate the need for Beltline improvements. Travel system changes such as new roadways can alter area traffic patterns and their effects can be predicted through the use of a Travel Demand Model developed for the Madison Metro area.

Traffic modeling indicates the two roadway corridors north of Lake Mendota would attract up to 25,000 vehicles per day (vpd) if they existed today. Yet neither of them reduce Beltline traffic volumes and one corridor actually increases Beltline traffic in the Middleton area. Both corridors are eliminated from further study because they do not satisfy Beltline PEL objectives.

Modeling indicates a South Reliever corridor could attract 30,000 vehicles per day or more and remove up to 11,000 vpd from the Beltline if it existed today and 5,000 vpd in 2050. Constructing a South Reliever would require up to 1,000 acres of new road right of way, of which much is farmland. The amount of traffic redirection is not great enough to improve operations on the Beltline so the South Reliever is being eliminated from further study as a stand-alone Beltline solution.



Alternate modes as stand-alone solutions

The PEL studied alternate travel modes, such as buses on the Beltline, Bus Rapid Transit (BRT), and rail (Transport 2020), to see whether these modes could reduce Beltline traffic volumes enough to eliminate the need for Beltline improvements.

Traffic modeling indicates that buses on the Beltline and Rail (Transport 2020) had essentially no effect on Beltline traffic volumes. Modeling also indicates that the BRT system would reduce Beltline traffic volumes by less than 1% in both 2010 and 2050.

Scenario planning is another way to evaluate the effects of alternatives under different base variables. Using a traffic model, the Beltline PEL evaluated the effects of more compact land use assumptions and higher alternate mode use to understand the effect on Beltline traffic volumes.

These alternate mode and land use scenarios provided measurable benefits for both BRT ridership and Isthmus traffic reductions. They had no or very limited effect on Beltline traffic volumes. Based on these findings, alternate travel modes are being eliminated from further study as stand-alone solutions to Beltline challenges. Many of these alternate mode improvements have individual merits and will be considered in combination with Beltline roadway improvements.

