

# City of Cincinnati



## MONTANA AVENUE SAFETY IMPROVEMENT PROJECT

**Date:** November 18, 2008

### **EXISTING CONDITIONS**

Montana Avenue is a Principal Arterial in the City's Through Street System. It is an important east-west connector in the local and regional roadway network providing access to and from the west to I-74, I-75, and Downtown Cincinnati. A network of principal arterials with redundancy exists on the west side of Cincinnati. This means that no one or two streets have to accommodate an excessively high volume of traffic.

Currently, the 1.8 mile section of Montana Avenue between Boudinot Avenue and Farrell Drive carries between 12,000 and 20,000 vehicles per day with the highest volume carried on the eastern-most sections closest to I-74, dropping off as the road heads west and intersects with major north-south roadways. Montana Avenue is also a major transit route with two bus lines, the Western Hills-Uptown and the Montana Express. Because Montana Avenue serves as a commuter route for western communities, traffic is concentrated during the morning and evening rush hours. To help accommodate that traffic while also respecting the needs of the adjacent residential land use, on-street parking is permitted except during those periods. The parking not only provides a convenience for the residents, but also buffers pedestrians and residents from traffic.

The right of way on Montana Avenue is 60 feet wide, with between 34 and 36 feet used for the roadway. This pavement is striped into four lanes, each nine feet wide. The width of the tree lawn varies between approximately two feet and four feet. The sidewalk is four feet wide. The existing facilities—roadway, sidewalks, and tree lawn—are below city standards for safety and comfort. The right of way extends between three and six feet beyond the existing sidewalk.

### **ISSUE**

Over the years, the Department of Transportation and Engineering (DOT) has identified significant safety problems on Montana Avenue between Boudinot Avenue and Farrell Avenue. Cincinnati Police also recorded a large number of crashes. Many of the crashes have been quite severe and involved minor as well as life-altering injuries. Unfortunately, some of the crashes have involved fatalities.

Analysis of the crash data showed that there were a total of 624 crashes reported along this section of roadway in the four-year period preceding 2008. This number is above the city average for this type of roadway. Most crashes result from the narrow traffic lanes and a lack of left turn lanes at signalized intersections. These factors also increase congestion, leading to additional incidents. The crashes were evenly distributed along the length of the proposed project, indicating that improvements are needed throughout the project length.

### **PROJECT INCEPTION**

In April 2005, City Council authorized the City Manager to enter into an agreement with the Ohio Department of Transportation to complete the Montana Avenue: Farrell Drive to Boudinot Avenue Street Improvement Project, awarding the City \$6,093,392 for the purpose of minor roadway widening, installation of turn lanes, and improvement of sidewalk spaces. The original estimated cost was approximately \$9.1 million with the additional funding anticipated from City

Capital and other grant sources such as the Ohio Public Works Commission and the Hamilton County Municipal Road Fund. The anticipated construction date was 2010.

## **DESIGN PROCESS**

Since February 2006, the Department of Transportation and Engineering has been working to develop a plan that resolves the safety concerns; preserves the role of Montana in the City's street network; respects and supports the adjacent residential land uses, residents' needs, and other community concerns; provides for efficient movement of traffic; enhances the area; and complies with City standards.

Since an initial meeting with the Westwood Civic Association Board on February 14, 2006, DOTE staff have met with community representatives at six other public meetings and with smaller groups, designated by the community, an additional eight times to discuss project details and review field conditions.

## **DESIGN PARAMETERS**

Roadway design criteria that may be standard in suburban areas were not considered for this project due to the adjacent residential land uses and denser urban character of this area. Additionally, as the design was refined, adjustments were made to reflect community input and to mitigate the impact of the project. Some of the changes that were made are described below.

- Suburban standards (not considered)
  - Continuous five-lane cross-section
  - 12-foot center lane width (used city standard 10-foot lane)
  - 13-foot curb lane width (used city standard 11-foot lane)
  
- Initial changes made in response to community input
  - Eliminated widening for left-turn lanes at Anaconda Drive
  - Eliminated widening for left-turn lanes at Wunder Avenue
  - Eliminated widening for left-turn lanes at Harrison Avenue
  - Eliminated widening for left-turn lanes at Epworth Avenue
  - Eliminated widening for left-turn lanes at Boudinot Avenue
  
- Additions made in response to community input
  - Installing pavers in the Business District
  - Installing decorative signage in the Business District
  - Installing trees in the Business District
  - Offering pedestrian scale lighting through the Business District if supported by abutting businesses
  - Reduced tree lawns to three feet (city preferred minimum is four feet).
  - Offering canopy trees to abutting property owners to install behind the sidewalk.
  - Offering choices on yard treatments (e.g., decorative walls in lieu of grading) to reduce impacts on abutting property

In September 2007, the community requested that a "road diet" be considered for Montana. A road diet reduces the number of lanes on a road and adds a center left turn lane to try to improve safety as an alternative to widening a roadway.

## ROAD DIET ALTERNATIVES

To ensure the optimal consideration of Montana Avenue's possibilities for a road diet, especially in light of its role in the street network, the volume of traffic it carries, and its impact on adjacent residences and businesses, Jennifer Rosales from Parsons Brinckerhoff Inc. in Portland, Oregon was hired to do the study and analysis. Ms. Rosales is nationally recognized for her leadership in road diets, has national and international experience in their design, and is the author of "Road Diet Handbook: Setting Trends for Livable Streets."

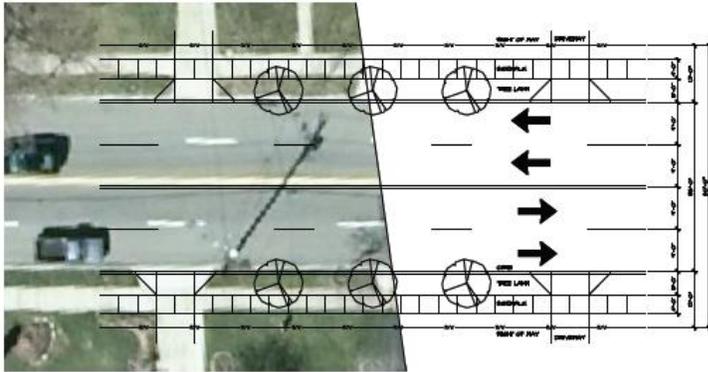
At the Public Meeting on August 14, 2008, Ms. Rosales presented the additional alternatives that were developed including those that had been requested by the community illustrating the road diet. For comparison's sake, she included in her analysis the existing condition as well as the most recent plan developed by the City. She also developed three additional alternatives to be considered.

Each alternative has different impacts on adjacent property, driveway access, traffic flow on Montana Avenue and nearby streets, on-street parking, pedestrian use, and trees. These alternatives will affect residents, businesses, motorists, and pedestrians differently. Below are the five alternatives that were presented at the August 14, 2008 Public Meeting. Example plan views are attached to this report.

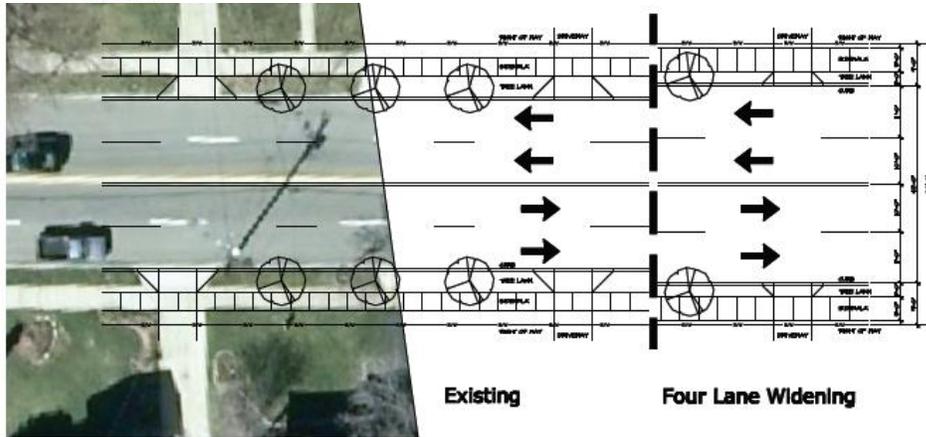
- **No Build** – four, nine-foot lanes – 36 feet total pavement width (existing). This option was not considered since it does not meet any of the project needs.
- **Four-lane widening** – widen roadway three feet on each side to provide four standard lanes – 42-foot total pavement width with left turn lanes at Westwood Northern Boulevard. This was the most current plan developed by the Department of Transportation and Engineering prior to exploring the road diet options. This project would include a new road, curbs, and driveway aprons. It also would include consistent tree lawns and wider sidewalks. Canopy trees would be available to be planted in residents' yards if desired. The business district would receive pavers, trees, and decorative signage. Traffic flow would be similar to existing conditions with increased safety due to the lane widening. There would be additional widening at Westwood Northern Boulevard to provide left turn lanes. Project cost is estimated at \$9.1 million. \$6.1 million federal grant funding already awarded for this project and outside funding anticipated for additional \$2 million. \$1 million provided from City capital funds.
- **Three-lane section (Road Diet)** – re-stripe existing roadway to one travel lane in each direction with a center left turn lane – 36 foot pavement width. This would require the elimination of all on-street parking within the project limits. This project would include surface rehabilitation and restriping of the existing street. There would be no widening required. The traffic analysis shows that the three-lane section for the entire length of Montana Avenue would create significant delays in the morning and evening rush hours, but should improve safety. There would be widening at Westwood Northern Boulevard to provide right turn lanes. Project cost is \$800,000. The project is not eligible for federal funding, so \$6.1 million federal grant would have to be returned. Work to be funded with City capital funds.
- **Three-lane section (Road Diet) plus on-street parking on one side** – widen roadway three feet on each side to provide one travel lane in each direction with center left turn lane and parking on one side – 42 foot pavement width. The project would include a new road, curbs, and driveway aprons. It also would include consistent tree lawns and wider sidewalks. There would be additional widening at Westwood Northern Boulevard. Project cost is estimated at \$9 million. The project is not eligible for federal

funding, so \$6.1 million federal grant would have to be returned. Work to be funded with City capital funds.

- **Hybrid** - Four-lane widening from project limits near Farrell Drive to just west of Westwood Northern Boulevard with on-street parking, and three-lane section without on-street parking from west of Westwood Northern Boulevard to Boudinot Avenue– 42 foot pavement width from Farrell Drive to west of Westwood Northern Boulevard with left turn lanes at Westwood Northern Boulevard and 36 foot pavement width from west of Westwood Northern to Boudinot. The hybrid alternative adequately addresses the issues of safety and traffic flow.

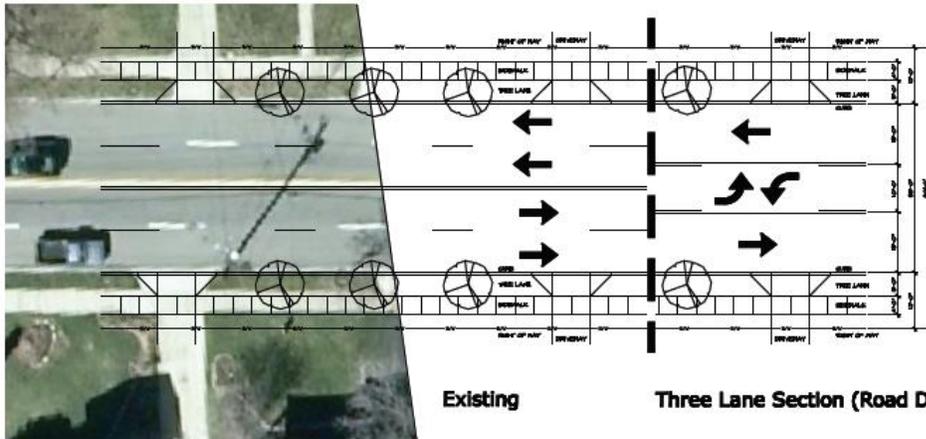


Existing



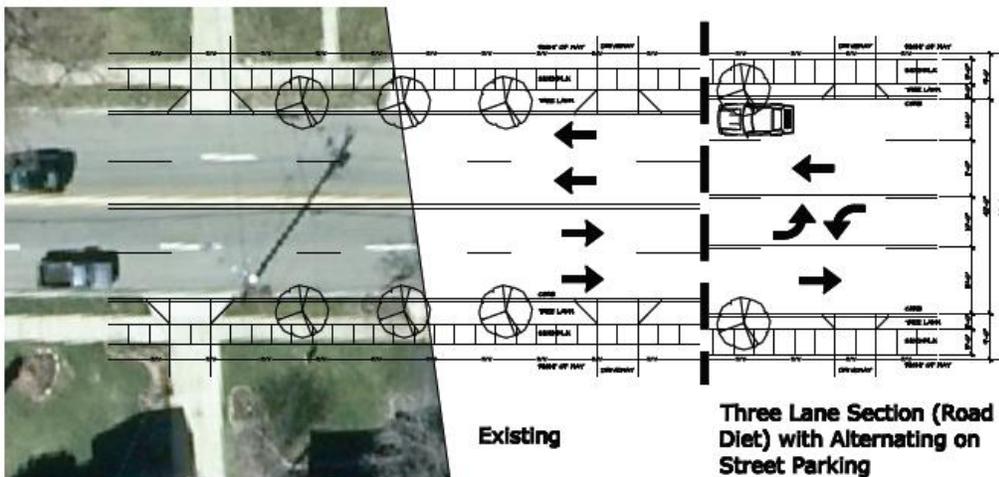
Existing

Four Lane Widening



Existing

Three Lane Section (Road Diet)



Existing

Three Lane Section (Road Diet) with Alternating on Street Parking