

Signal Timing Briefs

May 2015 - T15-6

Mobility

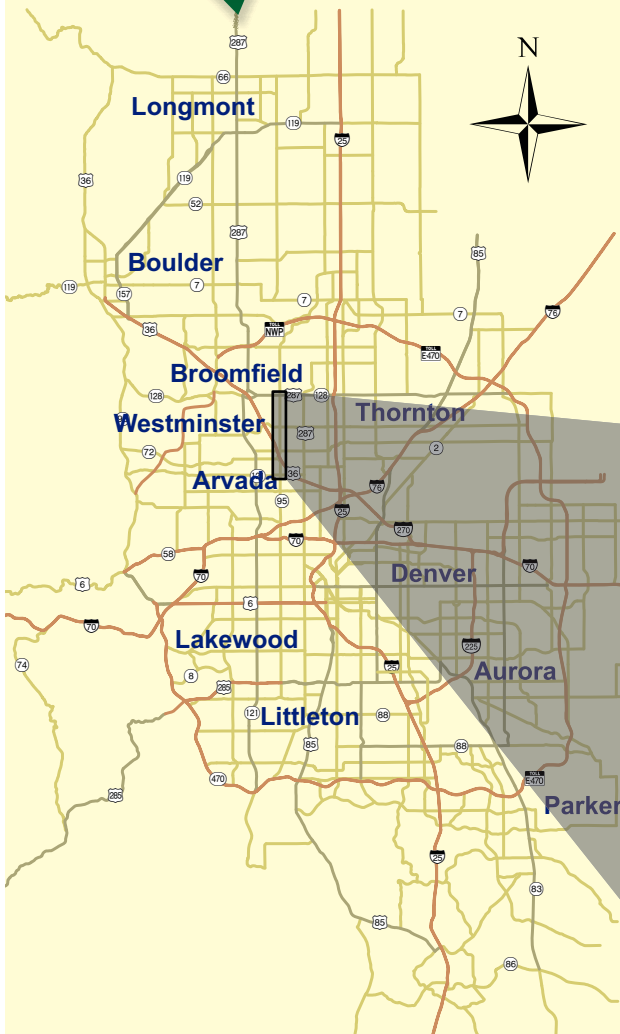
DRCOG

DENVER REGIONAL COUNCIL OF GOVERNMENTS

We make life better!

Sheridan Boulevard: 120th Avenue to 72nd Avenue

The Denver Regional Council of Governments leads multijurisdictional partnerships to achieve optimal signal timing and coordination on area roadways. Adjustments to signal timing are key to ensuring the smoothest possible flow for drivers, saving time and money. Signal timing also minimizes greenhouse gas emissions and other pollutant emissions, preserving and enhancing air quality.

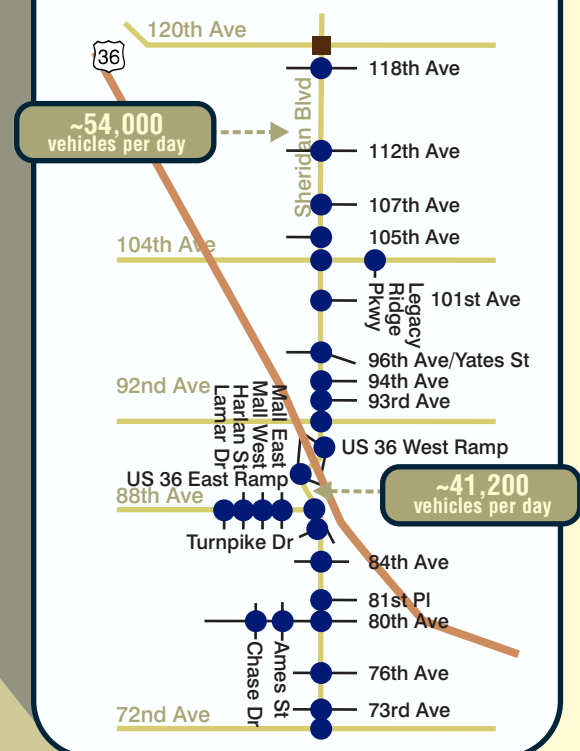


Project Description

The City of Westminister installed signal equipment upgrades on Sheridan Boulevard. This project implemented timing and coordination plans for 21 traffic signals on Sheridan Boulevard, with cross-coordination with one signal at 104th Avenue and Legacy Ridge Parkway, four signals on 88th Avenue from Lamar Drive to Westminister Mall East, and two signals on 80th Avenue from Chase Drive to Ames Street.

Sheridan Boulevard is a principal arterial roadway in the Metro Vision Regional Transportation Plan traveling north-south through the City of Westminister and providing access to US 36. Land use along the roadway in the project area is a mixture of residential and commercial property.

Sheridan Boulevard



Project Achievements

Performance Measures

Daily Benefits

Vehicle hours of travel	326 hours reduction
Fuel consumption	163 gallons decrease
Time and fuel costs	\$7,750 savings
Total greenhouse gas emissions	3,402 pounds reduction
Total criteria pollutant emissions	45 pounds reduction

Project Partners' Signals

- CDOT
- City of Westminister

Sheridan Boulevard: 120th Avenue to 72nd Avenue

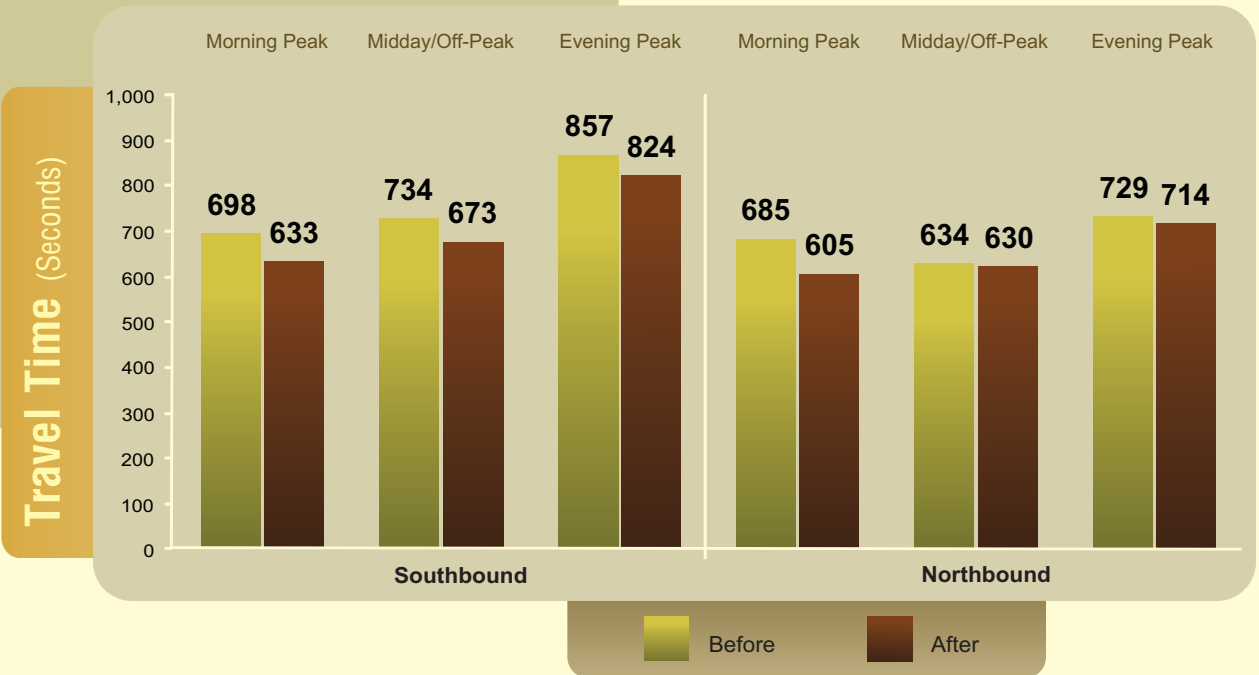
Timing Revision:

	Morning Peak		Midday/Off-Peak		Evening Peak	
	Before	After	Before	After	Before	After
Time Period	6:00 - 8:30 a.m. (No change)		8:30 a.m - 3:00 p.m. (No change)		3:00 - 6:30 p.m. (No change)	
Cycle Length (seconds)	120 (No change)		100 ¹ (No change)		120 (No change)	
Other Timing Parameters	--	Revised	--	Revised	--	Revised

¹ The intersections at 120th and 118th Avenues operate with a 110-second cycle length.

Travel Time Improvements (6.0 miles end to end)

Improvements were achieved during all periods evaluated in both directions.



Overall Improvements

The value to motorists, in terms of weekday time and fuel savings, is calculated to be approximately \$7,750 daily, or about \$1.95 million annually. An additional benefit of the project is improved reliability of signal operations, thanks to equipment upgrades. These upgrades allow traffic signal malfunctions to be quickly detected and reported. This results in less stopping and delays for the traveling public.