

## Union Boulevard / Simms Street: Colfax Avenue to Alameda Avenue



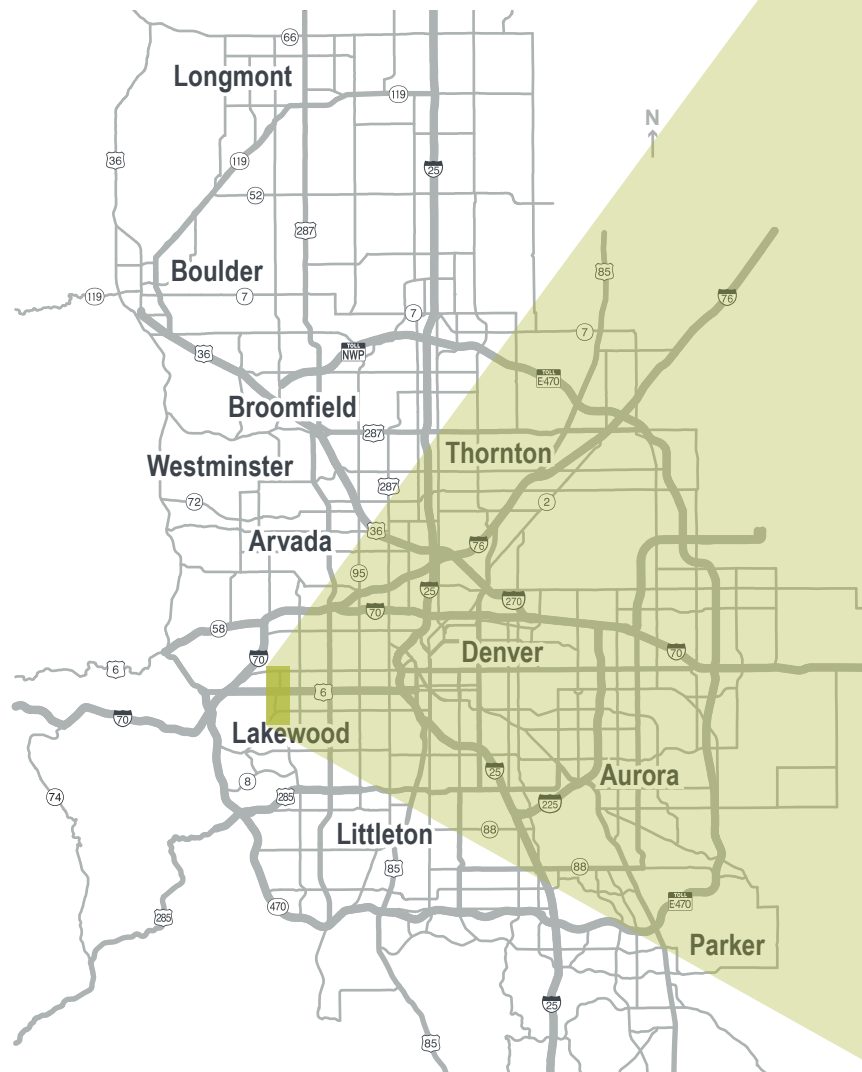
### Federal Funds for Lakewood

DRCOG allocated \$19,000 in federal funds for equipment upgrades within the City of Lakewood, resulting in fewer delays caused by signal or sensor malfunctions.

DRCOG engineering staff developed the signal timing and coordination plans in partnership with the project stakeholders.

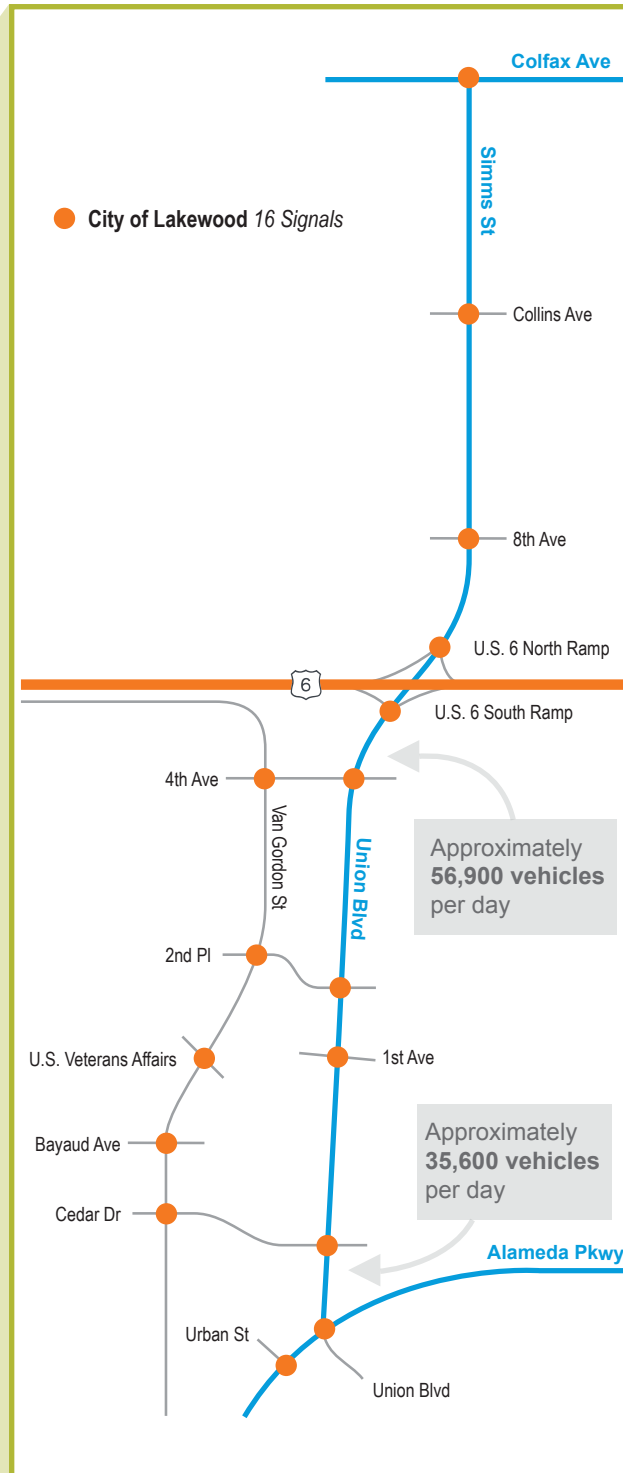
## Project Achievements

Performance Measures	Daily Reduction
Vehicle travel time	798 hours
Fuel consumption	624 gallons
Time and fuel costs	\$19,100 savings daily (\$4.78 million annually)
Greenhouse gas emissions	11,981 pounds
Emissions of six EPA-regulated pollutants	131 pounds

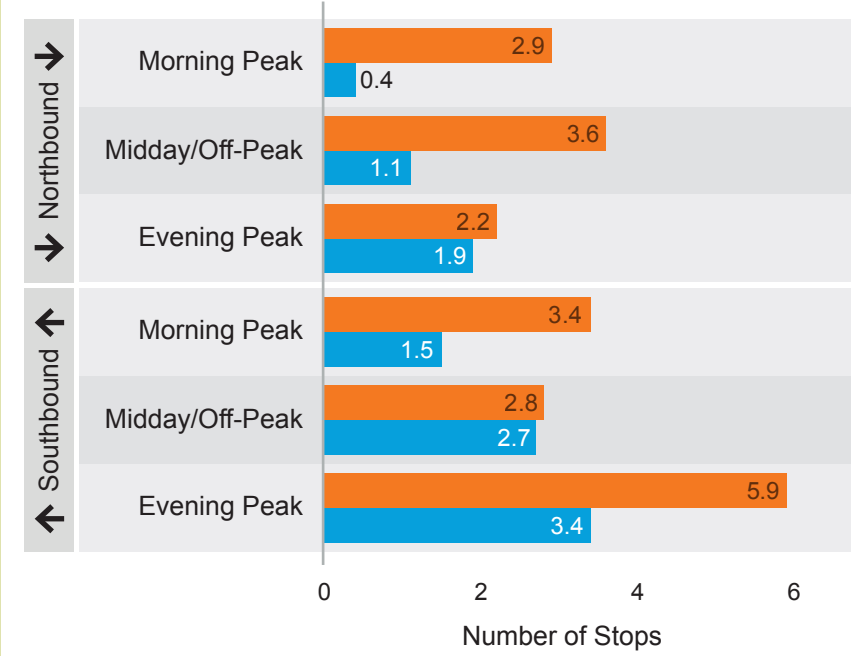
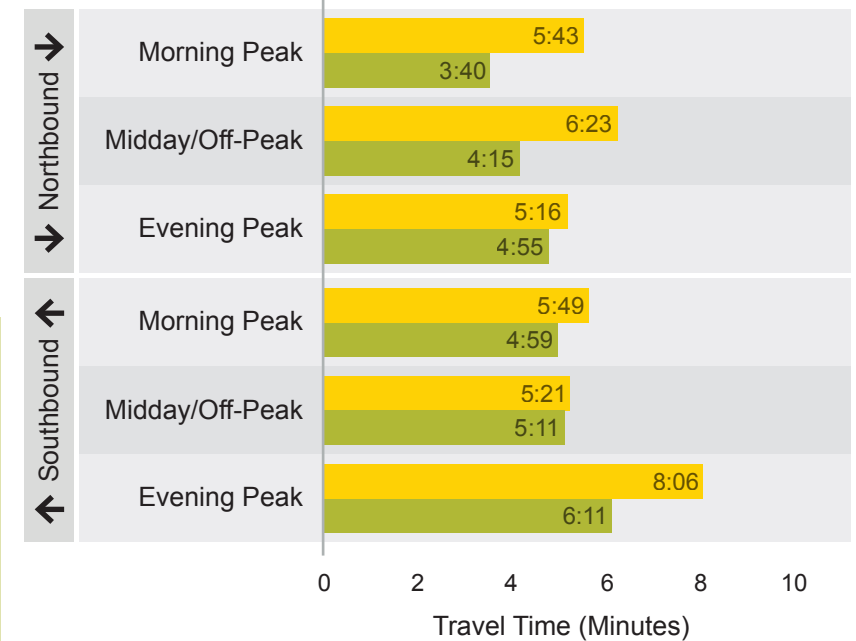


## Project Scope

Union Boulevard / Simms Street  
(2.2 miles)



## Overall Improvements



## Traffic Signal Coordination

Traffic signal coordination allows traffic to travel along a street without stopping at every light. A major component of any coordinated signal-timing plan is properly sized cycle length shared by each intersection along the corridor. The cycle length is the time required for one sequence of signal displays (green, yellow and red) around an intersection to be lit for each approach. DRCOG's engineers evaluate cycle lengths to strike a balance between intersection capacity and delay for all users. The cycle lengths vary by time of day to account for fluctuating numbers of vehicles, bicyclists and pedestrians.

Time of day	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00
1 Simms St & Colfax	150-second cycle	110-second cycle	120-second cycle	150-second cycle	150-second cycle	110-second cycle	120-second cycle	150-second cycle	150-second cycle	110-second cycle	120-second cycle	150-second cycle	150-second cycle
2 Simms & Collins Ave													
3 Simms & 8th Ave													
4 Simms & U.S. 6 North Ramp													
5 Simms/Union & U.S. 6 South Ramp													
6 Union & 4th Ave													
7 Union & 2nd Ave													
8 Union & 1st Ave													
9 Union & Cedar Ave													
10 Alameda & Union Ave													
11 Alameda & Urban St													
12 Van Gordon & 4th Ave	75-second cycle	55-second cycle	60-second cycle	75-second cycle	55-second cycle	60-second cycle	75-second cycle	75-second cycle	55-second cycle	60-second cycle	75-second cycle	75-second cycle	
13 Van Gordon & 2nd Pl													
14 Van Gordon & U.S. Veterans Affairs													
15 Van Gordon & Bayaud Ave													
16 Van Gordon & Cedar Dr													

For more information about signal timing, see: [bit.ly/SignalRed](http://bit.ly/SignalRed)  
 For more information about DRCOG's traffic operations program, see: [bit.ly/TrafficOps](http://bit.ly/TrafficOps)

# SIGNAL TIMING PROJECT BRIEF

## Union Boulevard / Simms Street: Colfax Avenue to Alameda Avenue

The Denver Regional Council of Governments (DRCOG) leads multijurisdictional partnerships to achieve optimal signal timing and coordination on area roadways. Traffic signal timing adjustments provide the smoothest possible flow for cars, trucks and buses. At the same time, safety is enhanced for all users, including pedestrians and bicyclists. Signal timing optimization saves drivers time and money, minimizes greenhouse gas and pollutant emissions, and enhances air quality.