

72nd Avenue: Indiana Street to Sheridan Boulevard

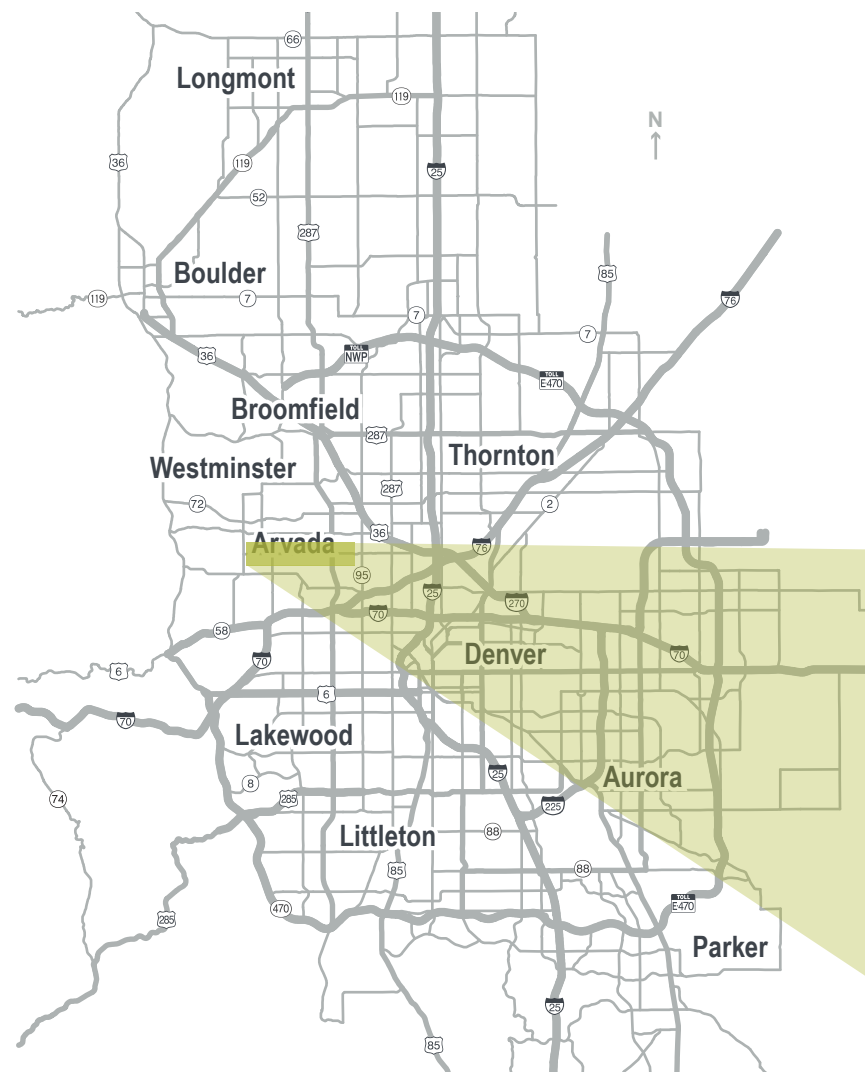


Federal Funds for Arvada

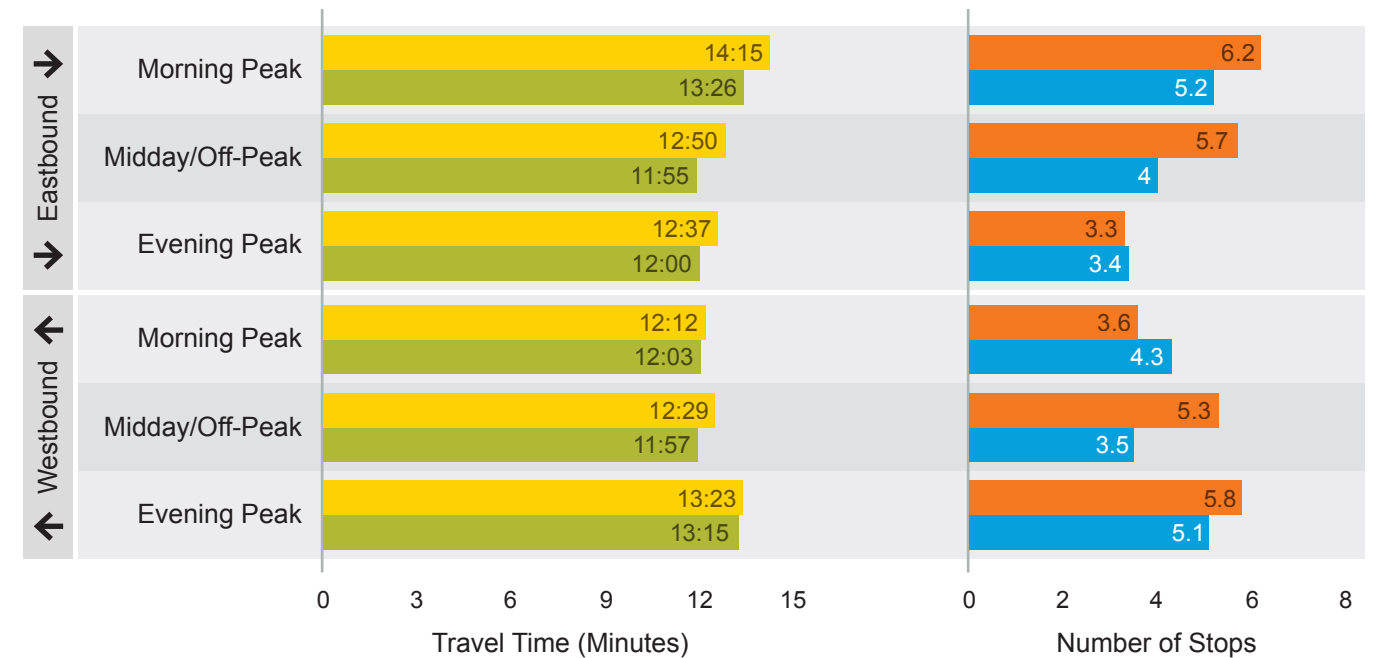
Development of the signal timing and coordination plans for this corridor was completed using the services of a consultant: Muller Engineering.

Project Achievements

Performance Measures	Daily Reduction
Vehicle travel time	152 hours
Fuel consumption	118 gallons
Time and fuel costs	\$3,650 savings daily (\$900,000 annually)
Greenhouse gas emissions	2,296 pounds
Emissions of six EPA-regulated pollutants	34 pounds



Overall Improvements



- Average Travel Time Before Retiming
- Average Travel Time After Retiming
- Average Number of Stops Across Corridor Before Retiming (Less Idling)
- Average Number of Stops Across Corridor After Retiming (Less Idling)

Project Scope

72nd Avenue (5.8 miles)



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	06:30	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00
1 Indiana St & 72nd Ave	100-second cycle			90-second cycle						120-second cycle				
2 Beech St & 72nd Ave	90-second cycle						100-second cycle							
3 Apex Rec Ctr & 72nd Ave	90-second cycle						100-second cycle							
4 Ward Rd & 72nd Ave	90-second cycle						100-second cycle							
5 Simms St & 72nd Ave	90-second cycle						100-second cycle							
6 Simms St & 74th Ave	45-second cycle						50-second cycle							
7 Quail St & 72nd Ave	90-second cycle						100-second cycle							
8 Oak St & 72nd Ave	90-second cycle						100-second cycle							
9 Kipling St & 72nd Ave	90-second cycle						100-second cycle							
10 Kipling St & 73rd Ave	90-second cycle						50-second cycle							
11 Kipling St & 74th Ave	90-second cycle						50-second cycle							
12 Kipling St & 77nd Dr	90-second cycle						60-second cycle							
13 Carr St & 72nd Ave	90-second cycle						100-second cycle							
14 Wadsworth Blvd & 72nd Ave	120-second cycle			110-second cycle						120-second cycle				
15 Pierce St & 72nd Ave	120-second cycle			110-second cycle						120-second cycle				
16 Lamar St & 72nd Ave	60-second cycle			55-second cycle						60-second cycle				
17 Depew St & 72nd Ave	60-second cycle			50-second cycle						60-second cycle				
18 Wal-Mart Entrance & 72nd Ave	120-second cycle			100-second cycle						120-second cycle				
19 Sheridan Blvd & 72nd Ave	120-second cycle			100-second cycle						120-second cycle				

City of Arvada
 CDOT
 City of Westminster

SIGNAL TIMING PROJECT BRIEF

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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.

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



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