

**Denver Public Works  
DATA REVIEW for  
RED LIGHT PHOTO ENFORCEMENT PROGRAM**

To support the Denver Police Department photo enforcement program Traffic Engineering Services (TES) was asked to make recommendations on where red light photo enforcement would have potential to increase the safety of the street network. To accomplish that goal TES reviewed the 100 highest accident locations to determine what locations might provide the most benefits in terms of safety. These locations involved a higher occurrence of broadside and approach turn accidents. This review resulted in the selection of four locations susceptible to safety improvements by the installation of red light enforcement cameras. They are:

1. Westbound 8<sup>th</sup> Avenue at Southbound Speer Boulevard
2. Eastbound 6<sup>th</sup> Avenue at Lincoln Street
3. Eastbound 6<sup>th</sup> Avenue at Kalamath Street
4. Northbound Quebec Street at 36<sup>th</sup> Avenue

During the installation of the photo enforcement system other changes were made to the operation of the traffic signals. These changes included, but are not limited to, corridor and intersection timing, yellow clearance time, signal head size and configuration, installation of pedestrian push buttons, and installation of countdown pedestrian indications. These changes and modifications are part of Traffic Engineering Service's ongoing maintenance efforts to increase safety and meet changing Federal Regulations. In order to better evaluate the effect of the other red light violation counter measures that were made at these intersections a control group of intersections were added to the analysis of the red light photo enforcement program. They are:

1. 8<sup>th</sup> Avenue and Broadway
2. Speer Boulevard and Broadway
3. Speer Boulevard and Champa Street
4. Alameda Avenue and Lincoln Street

The crash types most applicable to red light photo enforcement analysis are front-to-side and front-to-rear accidents. Based on the crash data available, TES focused on a 30 month before and 30 month after review of accident data for a total of a 5-year study. The results of the crash data review is presented in the following table.

<b>Red Light Photo Enforcement Camera Approach</b>						
	<b>Injury</b>		<b>Front-to-Side</b>		<b>Front-to-Rear</b>	
	<b>Before</b>	<b>After</b>	<b>Before</b>	<b>After</b>	<b>Before</b>	<b>After</b>
<b>RLR Intersections</b>						
6th Ave & Lincoln St	11	4	59	12	11	12
8th Ave & Speer Blvd	13	3	28	12	1	1
6th Ave & Kalamath St	1	1	6	2	2	2
36th Ave & Quebec St	3	1	9	8	2	4
<b>Control Intersections</b>						
8th Ave & Broadway	8	2	22	16	5	2
Speer Blvd & Broadway	6	3	15	12	4	3
Speer Blvd & Champa St	6	2	18	13	1	3
Alameda Ave & Lincoln St	5	2	17	8	3	3