



MEMORANDUM

Date: September 17, 2014 JN 134489

To: Timothy R. Jonasson, P.E. Public Works Director/City Engineer

From: Mario Zamora, P.E. RBF Consulting

Subject: **Adams Street Signal and Street Improvements:**
Summary of Traffic Operations and Safety Benefits

This memorandum provides a summary and assessment of potential benefits of the proposed Adams Street roadway improvement project in La Quinta, California. The project area includes the segment of Adams Street from State Route (SR) 111 to approximately 500 feet north of Corporate Center Drive.

EXISTING ROADWAY CONDITIONS

Adams Street is classified as a secondary arterial and has been built as a primary arterial between Highway 111 and Avenue 48, with traffic volumes ranging from 12,000 to 14,000 vehicles per day, according to the City of La Quinta General Plan Circulation Element. Within the project area, Adams Street is typically a five lane section, two travel lanes in each direction, a center turn lane, and sidewalks on both sides.

Adjacent land uses include commercial retail on both the east and west sides of Adams Street. There are two driveways along the western frontage of Adams Street which provide access to the Kohl's store, Shell Station, and service commercial uses. A third driveway located just north of the proposed improvements provided an additional access to the Kohl's store which has recently been closed as part of the Adams Street Bridge Construction. The driveway closure eliminated a right in/right out turning movement to/from Adams Street which redirected vehicles to the south Kohl's driveway (See Exhibit). The eastern Adams Street frontage includes a driveway to the Sprout's Farmers Market and the side street with a stop controlled intersection providing rear access into the existing Pavilion shopping center located on Corporate Center Drive. All three driveways and Corporate Center Drive are minor-leg stop sign controlled intersections and allow all turning movements to/from Adams Street. No on-street parking is provided.

A Traffic Signal Warrant Analysis was conducted to determine whether signalization of the Adams Street/Corporate Center Drive intersection is warranted based on traffic control signal needs studies and guidelines set forth in the 2012 California Manual on Uniform Traffic Control

Devices (RBF Consulting, May 28, 2013). According to the results of the Signal Warrant Analysis, three of the evaluated California MUTCD warrants are currently satisfied for the intersection of Adams Street and Corporate Center Drive for existing conditions, including warrants for eight-hour vehicular volume; four-hour vehicular volume; and peak hour vehicular volume. Only one warrant must be satisfied in order to justify the installation of a traffic signal system¹.

PROPOSED ROADWAY IMPROVEMENTS

As shown in the attached **Exhibit 1: Adams Street Signal and Street Improvements**, the project proposes the following roadway improvements that will improve traffic control and relieve traffic congestion along this portion of Adams Street:

- Close the southern Kohl's driveway. Install a traffic signal at the intersection of Adams Street / Corporate Center Drive and construct a new driveway to the Kohl's site at the west leg of this intersection. If U turns cannot be accommodated at the intersection, no U turns signs should be placed on the signal mast-arm. This intersection will include designated left turn lanes with raised medians on Adams Street and pedestrian crossings on all four approaches. The proposed intersection will serve as the primary access point to Kohl's by replacing the two previous driveway access points on the west side of Adams Street.
- Install a raised median (approximately 650' in length) on Adams Street from SR-111 to the proposed traffic signal at Corporate Center Drive. The existing northbound left turn lane from Adams Street to the Shell Station driveway and the southbound left turn lane from Adams Street to the Sprout's Farmers Market driveway will be improved with channelized raised left turn lane medians. The channelized left turn lane medians will be geometrically orientated to allow left turns from Adams Street to the driveways but will prohibit left-turns out from both of the driveways onto Adams Street.

SUMMARY OF PROJECT BENEFITS

The goals of the proposed plan are to improve roadway safety and relieve traffic congestion while balancing the mobility needs of commuter traffic with the accessibility needs of the adjoining commercial land uses. The following section provides a summary of how the plan will achieve these goals.

The proposed raised medians and channelized left turn lanes will prevent vehicles from turning left out of driveways onto Adams Street which will result in reduced vehicle conflicts and less driver confusion along the corridor. The channelized left turn lane medians will improve traffic flows and safety through clearly defined turning paths and improved visibility for left-turning drivers.

The construction of the traffic signal at the intersection of Adams Street and Corporate Center Drive and realignment of the Kohl's driveway to the west leg of the intersection will result in numerous operational and safety benefits. The traffic signal will include positive control for pedestrians including marked pedestrian crosswalks which will enhance the visibility of

¹ *Signal Warrant Analysis*, RBF Consulting, May 28, 2013, p. 17.

pedestrians and encourage pedestrians to cross at the signal. The re-alignment of the Kohl's driveway with Corporate Center Drive will provide for improved vehicle and pedestrian cross-access between the commercial sites on both sides of Adams Street. Signalization of the intersection will assist vehicles entering and exiting Corporate Center Drive and the Kohl's driveway. The traffic signal can also better accommodate the increased traffic volumes at the intersection as a result of vehicles being displaced by the driveway closures and restricted left turn movements at the Kohl's store, Shell Station, and the Sprout's Farmers Market driveways.