

TO: James L. App, City Manager  
FROM: Doug Monn, Director of Public Works  
SUBJECT: Temporary Stop Control, Riverside Avenue at 10<sup>th</sup> Street  
DATE: April 17, 2012

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NEEDS: For the City Council to consider placing temporary all-way stop sign control on Riverside Avenue at 10<sup>th</sup> Street in conjunction with the temporary closure of 13<sup>th</sup> Street between Railroad Street and Riverside Avenue.

- FACTS:
1. At their meeting of March 6, the Council was advised of upcoming construction activity on the 13<sup>th</sup> Street bridge over the freeway and the inevitable constraints to through traffic.
  2. In response, the Council approved a temporary traffic control plan to divert west side traffic away from 13<sup>th</sup> Street.
  3. The Council expressed concern with the impact of the temporary traffic control plan on the intersection of Riverside Avenue at 10<sup>th</sup> Street and requested staff to evaluate the need for temporary all-way stop controls.
  4. New stop signs must be placed in accordance with criteria established in the California Manual of Uniform Traffic Control Devices (MUTCD). Temporary stop controls should be evaluated under the same criteria.

ANALYSIS &

CONCLUSION: As requested by Council, we reviewed the need and appropriateness of installing temporary all-way stop controls on Riverside Avenue at 10<sup>th</sup> Street. The concept behind the need is to create gaps for entry onto Riverside Avenue for the increased volumes of traffic on 10<sup>th</sup> Street resulting from the closure of 13<sup>th</sup> street.

Stop controls currently exist on the 10<sup>th</sup> Street approach. Because of the relative low volumes, no counts are available on 10<sup>th</sup> Street. In 2008, Average Daily Traffic (ADT) was measured on Riverside Avenue between 12<sup>th</sup> and 10<sup>th</sup> Streets at 8,077; 5,712 being southbound. Bike and pedestrian activity is limited. The majority of the southbound traffic is accelerating with the anticipation of accessing southbound 101.

All way stop controls are typically used where the volume of traffic on intersecting streets is approximately equal. Ordinarily Riverside Avenue has a much higher volume than 10<sup>th</sup> Street. However, if the assumption is made that

with the closure of 13<sup>th</sup> Street, one third of its traffic would be routed to 10<sup>th</sup> Street (one third to 16<sup>th</sup> Street and one third to alternative routes in the City) the volume on 10<sup>th</sup> Street may reach 5,000 to 6,000 ADT, still less than Riverside Avenue, but somewhat closer.

The Manual of Uniform Traffic Control Devices offers several criteria for use when considering all-way stop controls. In summary, they may be considered where:

- The signs are used as an interim measure to control traffic prior to signalization
- A prevalent accident history exists
- High traffic volumes exist on both streets
- There is need to control left turn conflicts
- Locations that generate high pedestrian volumes
- Locations where sight distance constraints exist
- Installation of all-way stop controls would improve traffic operations.

In the case of Riverside Avenue and 10<sup>th</sup> Street the only qualifying criteria could be traffic volumes. The specific warrants for traffic volumes are as follows:

- 300 vehicles per hour for any 8 hours from the major street approaches (Riverside Avenue)
- 200 vehicles per hour for the same 8 hours from the minor street approach (10<sup>th</sup> Street)
- The 85<sup>th</sup> percentile approach speed exceeds 40 mph.

Riverside Avenue meets the volume approach warrant. 10<sup>th</sup> Street does not typically meet the volume warrant, however with the detour in place it may. According to our most recent Speed Zone Survey the 85<sup>th</sup> percentile approach speed on Riverside Avenue is 40 mph. It technically does not *exceed* 40 mph.

While a temporary stop sign on Riverside Avenue may serve to create gaps to help 10<sup>th</sup> Street traffic access Riverside Avenue, it will also frustrate southbound Riverside Avenue drivers who have just negotiated thick bridge traffic only to find themselves in another queue. It might also cause back-up to 13<sup>th</sup> Street, further blocking traffic exiting the bridge. All-way stop controls on Riverside Avenue are not a good fit.

Unwarranted stop signs, those not meeting criteria established in the MUTCD, typically result in disobedience resulting in higher collision rates and a decline in overall safety. Given that warrants may be approachable, it appears prudent to watch the operations of Riverside Avenue and 10<sup>th</sup> Street and re-evaluate

conditions once traffic patterns have settled as a result of the on-going bridge construction.

POLICY

REFERENCE: California Manual of Uniform Traffic Control Devices; Municipal Code Section 12.16.010

FISCAL

IMPACT: None

- OPTIONS:
- a. Advise the Director of Public Works to continue to monitor the intersection of Riverside Avenue at 10<sup>th</sup> Street for the need for temporary all-way stop controls.
  - b. Amend, modify or reject the above option.

Prepared by: John Falkenstien, City Engineer