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**PLANNING AND PROGRAMMING COMMITTEE**  
**APRIL 18, 2012**

**SUBJECT:** I-605 "HOT SPOTS" FEASIBILITY STUDY - STATUS REPORT

**ACTION:** RECEIVE AND FILE

**RECOMMENDATION**

Receive and file status update for I-605 "Hot Spots" Feasibility Study.

**ISSUE**

Measure R designated \$590 million (unescalated) for I-605 mainline, ramp and interchange improvements within the Gateway Cities (Southeast portion of the County). Metro retained RBF Consulting to conduct a study which will determine the feasibility of potential geometric and operational improvements for severely congested areas or "Hot Spots," (Attachment A - Study Area Map). This report is a status update of the work completed to date.

**BACKGROUND**

In 2005, the Gateway Cities Council of Governments (GCCOG) sponsored a Needs Assessment for SR-91 and I-605 in response to concerns about large volumes of trucks projected to utilize area freeways in the future. The Needs Assessment concluded that the SR-91 and I-605 freeways have many existing design, capacity, and operational deficiencies that must be addressed, including the need for additional general purpose lanes, and various improvements to the freeway to freeway interchanges.

The GCCOG followed the Needs Assessment with an Initial Corridor Studies which was completed in 2008. In order to provide policy guidance to the Initial Corridor Studies, the GCCOG Board of Directors adopted the SR-91/I-605/I-405 Guiding Principles. The guiding principles include confining any proposed improvements to stay within the State rights-of-way, excluding any elevated or double-decking concept as an option for expanding freeway capacity, and examining options for a non-freeway, regional freight movement corridor. The Corridor Studies identified several chronic traffic congestion areas, "Hot Spots", along the I-605, SR-91, I-105, and I-405 corridors. In September 2010, the Board awarded a contract to RBF Consulting for a Feasibility Study of these "Hot Spots." The purpose of this study is to analyze in more detail congestion

improvement alternatives for the “Hot Spots” identified in previous studies. The study area comprises of the I-605 and traversing freeways (I-405, SR-91, I-105) within the Gateway Cities area, including major arterial intersections adjacent to the freeways.

The methodology for this study includes three distinct steps. First, the project team will conduct a preliminary technical evaluation of the previously identified “Hot Spots.” The next step, the project team will conduct a more detailed traffic analysis to determine the cause of the current deficiencies and project future traffic conditions. The last step consists of developing highway and arterial intersection improvement concept plans. A summary of the work done to date is included below.

## **DISCUSSION**

Working in close collaboration with Metro, GCCOG staff and the I-605 Technical Advisory Committee (TAC), the project team has completed the identification and preliminary technical evaluation of the congestion hot spots within the study area and is now developing an initial set of potential geometric improvement concepts.

### **Traffic Modeling and Hot Spot Identification**

The team collected a comprehensive amount of existing traffic data for the I-605, I-405, SR-91, and I-105 freeways. Using the collected information, the project team completed an analysis of existing traffic operations and mapped the accident locations and rates for all freeways in the study area.

The project team also met with Caltrans and engineering staff from the cities along the I-605 corridor and traversing freeways in the study area to elicit information on current freeway and arterial operational issues. The analysis of the traffic operations combined with the information provided by city staff and Caltrans, allowed the project team to identify and validate “hot spots,” determine the cause of the congestion, and identify the best methods to improve the flow of traffic (Attachment B - Year 2035 I-605 Congestion Hot Spot Map). For the arterial system, the project team has identified the top twenty most congested intersections in need of improvements and is working to expand the list to include an additional twenty intersections. The list was developed using traffic industry performance indicators such as: level of service and volume-to-capacity ratios.

To better understand future traffic conditions in the study area, the project team has developed a number of modeling scenarios including: a financially constrained model (no-build scenario), an unconstrained model that includes partially funded projects (e.g. I-710 South Project, SR-710 North Study), and a number of potential toll scenarios to determine how the Orange County Transportation Authority’s (OCTA) proposed I-405 Express Lanes would affect Los Angeles County.

Lastly, the team has completed a multi-modal report that assesses the potential of alternative modes of transportation to reduce or relieve traffic on the freeway and arterials.

## **Preliminary Freeway and Arterial Improvement Plan**

With the "hot spot" evaluation completed, the project team is now in the process of developing a corridor-wide improvement plan (consistent with the SR-91/I-605/I-405 Guiding Principles) which includes freeway widening (where feasible), auxiliary lanes, on/off ramp reconfiguration, and operational improvements. Additionally, the project team has engaged the I-605 TAC Committee in the development of proposed intersection improvement plans for the forty most congestion intersections within the study area. The cities have been extremely helpful in providing input on the proposed plans.

### **NEXT STEPS**

Once the overall freeway and arterial improvement plans are refined, the project team will continue to work with the I-605 TAC to identify individual projects to be advanced into the next phase of project development. Those projects may include freeway to freeway interchanges, additional general purpose lanes, and arterial improvements. Metro expects an initial list of selected projects to be presented for approval at the I-605 TAC in July 2012.

Metro staff will continue to work with the GCCOG and the I-605 TAC to ensure that the feasibility study provides the necessary planning information to move several projects into the next phase of project development.

### **ATTACHMENT**

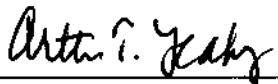
- A. I-605 Project Study Area
- B. Year 2035 I-605 Congestion Hot Spot Map

Prepared by:      Lucy Olmos, Transportation Planner  
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Douglas R. Failing, P.E.  
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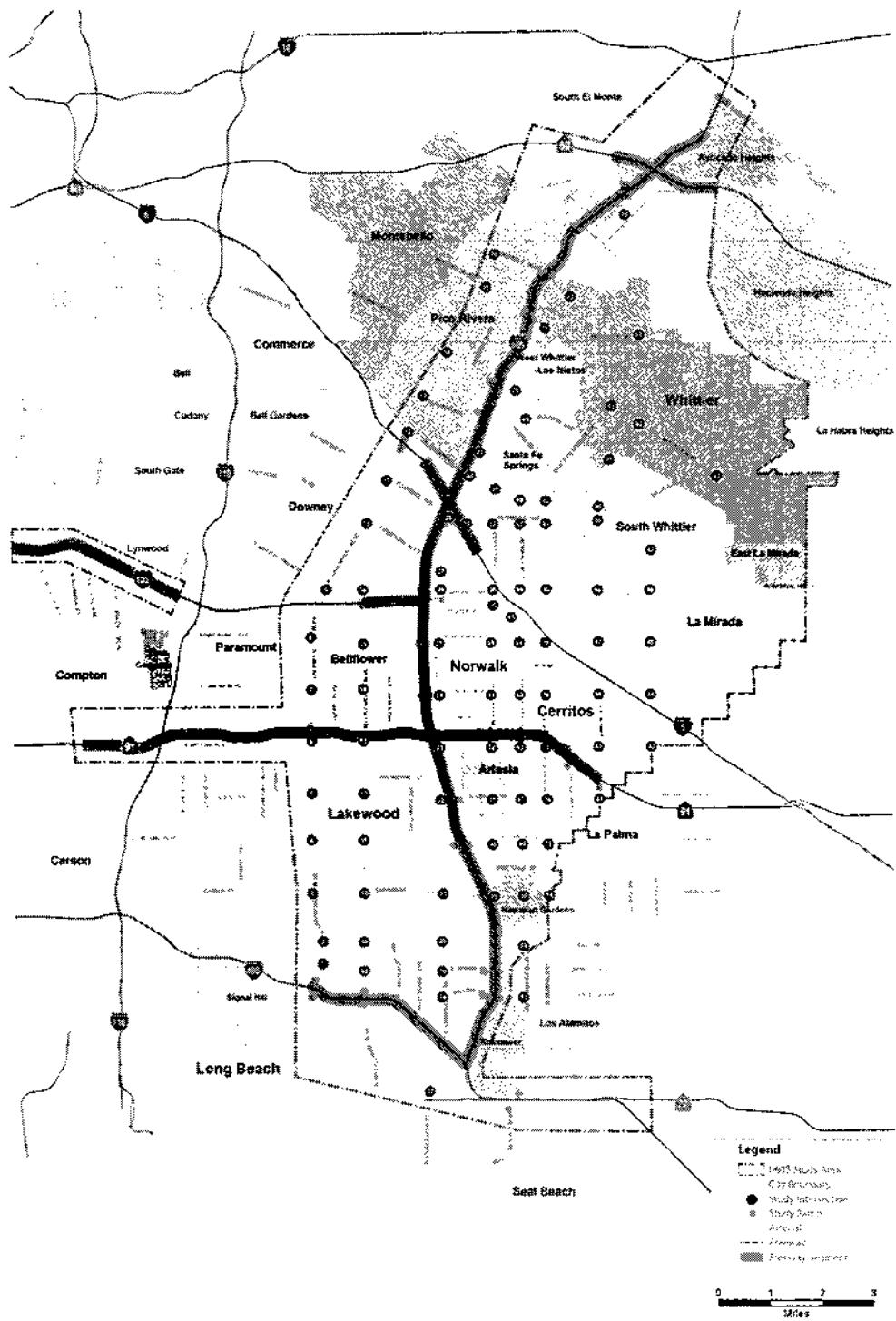


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Arthur T. Leahy  
Chief Executive Officer

ATTACHMENT A

"I-605 Project Study Area"



CONGESTION HOT SPOTS FOR THE SR-91 / I-605 / I-405 CORRIDOR  
FEASIBILITY ANALYSIS AND PSRS

**Study Area**



## ATTACHMENT B

## "Year 2035 I-605 Congestion Hot Spot Map"

