



# Memorandum

**Date:** 06.11.14 **RE:** Plans and Programs Committee  
June 17, 2014

**To:** Plans and Programs Committee: Commissioners Mar (Chair), Kim (Vice Chair), Breed, Campos, Yee and Avalos (Ex Officio)

**From:** David Uniman – Deputy Director for Planning *DUE*

**Through:** Tilly Chang – Executive Director *TC*

**Subject:** **ACTION** – Recommend Adoption of the Balboa Park Station Area Circulation Study Final Report

## Summary

The Balboa Park Station Area Circulation Study, led by the Transportation Authority, aims to improve multimodal access and circulation around the Balboa Park Muni/BART Station, including reconfigurations of the I-280 Geneva and Ocean Avenue interchange ramps. The study's purpose is to build on previous station improvement efforts by exploring circulation network changes to reduce conflicts among the various users of the interchange and station area, including pedestrians, transit, vehicles, and bicycles. The study evaluated two potential configurations: Alternative 1, a split interchange between Ocean and Geneva Avenues; or Alternative 2, a consolidated interchange at Geneva Avenue. The process included technical evaluation of traffic, multimodal performance, engineering feasibility, and cost, as well as community and agency input. We have documented the results of that process in a final report, including a recommendation to advance Alternative 1, the split interchange, for more discussions on establishing the prioritization of these improvements within overall citywide funding priorities and for detailed design and analysis. On April 22, 2014, the Balboa Park Community Advisory Committee adopted a motion of support for the Balboa Park Station Area Circulation Study Final Report with a recommendation to advance only Elements 1 (closure of the northbound I-280 on-ramp from Geneva Avenue) and 2 (realignment of the southbound I-280 off-ramp to Ocean Avenue) of Alternative 1 for further study and implementation. The funding for this next step is anticipated through an appropriation from Prop K that is agendaized for separate action at the June Plans and Programs Committee meeting. **We are seeking a recommendation to adopt the Balboa Park Station Area Circulation Study Final Report.**

## BACKGROUND

The Balboa Park Station Area, located on the central south side of San Francisco, is a busy and multi-faceted hub of transportation activity. Home to the busiest Bay Area Rapid Transit (BART) Station outside of Downtown San Francisco, a San Francisco Municipal Transportation Agency (SFMTA) Muni light rail terminal and maintenance facility, and multiple bus lines along Geneva and Ocean Avenues, this area is one of the most important and heavily used transit hubs in the region, with over 25,000 transit riders moving through it each day. Meanwhile, Interstate 280 (I-280) traverses the neighborhood, with six freeway ramps tying into the local street network directly adjacent to the BART Station. While this interchange provides vehicular access to regional transit and other destinations, vehicles using it contribute to congestion, safety and access issues in the neighborhood.

The Transportation Authority initiated the Balboa Park Station Area Circulation Study in December 2011 to explore circulation-related improvements for the station area, funded by a planning grant from the California Department of Transportation (Caltrans) and an appropriation from Prop K. As well as supporting the study, the funds provided staffing for a Balboa Park Community Advisory Committee

(BPCAC), which has met bi-monthly to monitor and provide input to the multiple on-going improvement projects around the station.

The Balboa Park Station Area Circulation Study aims to improve multimodal access and circulation around the Balboa Park Muni/BART Station, including potential re-configurations of the I-280 Geneva and Ocean Avenue freeway ramps. Several previous studies in the area by other agencies, including the *Balboa Park Station Capacity Study* and *Pedestrian and Bicycle Connections Study*, have resulted in improvements recently completed, with more underway. The Balboa Park Circulation Study is focused specifically on issues not addressed by those previous efforts – changes relating to freeway ramps and the local transportation network that could further improve station access and circulation.

The purpose of this item is to seek a recommendation to adopt the Final Report (Enclosure 1).

## **DISCUSSION**

**Study Purpose and Goals:** The purpose of the study is to identify a circulation network alternative that reduces conflicts among the various users of the interchange and station area, including pedestrians, transit, vehicles, and bicycles. The study developed a set of goals to guide the development and evaluation of alternative circulation and improvement scenarios. The overarching goals are to:

1. Reduce the negative impacts on the local community resulting from vehicles accessing the regional road network
2. Support efficient, reliable bus and light rail operations
3. Enhance safety, accessibility, and convenience for pedestrians and bicyclists
4. Minimize impacts to traffic going to/coming from I-280
5. Develop feasible solutions that can be implemented within ten years

The current existing I-280 interchange ramp configuration at Ocean and Geneva Avenues features six overall ramps instead of the usual four ramps. The study's focus is on interchange and station access conditions, including kiss-and-ride patterns – transit patron drop-off and pick-up by private vehicle. Using the goals above, the study explored the potential for eliminating one or more interchange ramps as a way to shift travel patterns and reduce overall conflicts among the different users.

**Alternatives:** The study began by generating several circulation network designs to address Station Area circulation issues, undertaking a screening process to identify two concept alternatives for the formal evaluation. These alternatives identified specific freeway ramp closures and modifications to better manage congested locations and reduce pedestrian, bicycle, and transit conflicts at the freeway ramp intersections. The alternatives gave particular consideration to potential locations for kiss-and-ride operations. They also incorporated a Baseline set of previously identified local network improvements that are already moving forward for implementation.

**Alternative 1**, shown on page 29 in the final report, is a partial split interchange between Ocean and Geneva Avenues, in which northbound I-280 traffic would exit onto Geneva Avenue but enter the freeway from Ocean Avenue. Southbound traffic, as today, would still be able to exit to both Geneva and Ocean Avenues while only entering from Geneva Avenue. The concept here would be to accommodate all travel modes on both Ocean and Geneva Avenues while eliminating some key multimodal conflict points on both streets. This alternative re-configures the I-280 southbound off-ramp to Ocean Avenue from a high-speed merge to a signalized intersection. It closes the I-280 northbound on-ramp from Geneva Avenue. Finally, it provides a new northbound frontage road on the

east side of I-280 from Geneva Avenue to Ocean Avenue, utilized as the new kiss-and-ride location. The study estimated the cost of Alternative 1 at \$18 million in 2013 dollars. The study found this alternative appropriate to implement in phases over time, allowing simpler and less costly improvements to proceed while the more complex ones are developed further.

**Alternative 2**, shown on page 35 in the final report, would consolidate the interchange at Geneva Avenue. This concept provides all freeway access only at Geneva Avenue, dramatically reducing the vehicle volume on Ocean Avenue and therefore enabling Ocean Avenue to prioritize travel for transit and non-motorized modes. The alternative consists of permanently closing the northbound on-ramp to I-280 from Ocean Avenue and the southbound off-ramp from I-280 to Ocean Avenue. The study estimated the cost of Alternative 2 at \$12 million in 2013 dollars.

**Evaluation:** The study’s evaluation, guided by the identified study goals, included a traffic operations analysis, a feasibility analysis for engineering and capital cost considerations, and a multimodal performance assessment to identify benefits, constraints, and flaws. The results are shown in Table 1 and described in detail in Chapter 4 of the final report. The study found Alternative 1 to fulfill all study goals but that both alternatives involve important trade-offs. For instance, while Alternative 1 addressed multimodal conflict points at the I-280 southbound off-ramp intersection at Ocean Avenue and at the I-280 northbound on-ramp intersection at Geneva Avenue, these changes increased traffic and transit delays slightly on Ocean Avenue. The study found Alternative 2’s trade-offs to be especially dramatic; in removing all freeway-related traffic from Ocean Avenue, it improved transit and multimodal conditions there, but in doing so, it significantly exacerbated traffic congestion, delays and conflicts on Geneva Avenue.

The study therefore identified Alternative 1 as the higher-performing alternative. It also found Alternative 1 to be composed of elements that, if implemented individually, could spread over time the funds required for implementation and allow the agencies and community to select at a more fine-grained level which trade-offs are worth making.

**Table 1. Evaluation Summary**

STUDY GOALS	ALTERNATIVE		NOTES
	1	2	
Goal #1: Reduce the negative impacts on the local community resulting from automobiles accessing the regional road network	-	↓	Alternative 1 would have a neutral impact, decreasing vehicle delay on Geneva and increasing vehicle delay on Ocean. While Alternative 2 would decrease delay on Ocean, it would substantially increase delay on Geneva, resulting in severe delays at both ramp intersections.
Goal # 2: Support efficient, reliable bus and light rail operations	-	↓	Alternative 1 would have a neutral impact and Alternative 2 would have a negative impact on transit operations since Muni vehicles would be subject to the intersection delays described above.
Goal #3: Enhance safety, accessibility, and convenience for pedestrians and bicyclists	↑	↑	Both alternatives have a net positive influence on the pedestrian and bicycle environment.
Goal #4: Minimize impacts to traffic going to/coming from I-280	-	-	Neither alternative shows notable impacts to freeway operations.
Goal #5: Develop feasible solutions that can be implemented within ten years	↑	↑	Both projects can be feasibly implemented within 10 years.

Notes:

“↑ ” = positive impact; “-” = neutral impact; “↓ ” = negative impact

**Agency and Community Process:** The agencies that own, manage, and operate transportation facilities and services within the Balboa Station Area, including Caltrans, BART, and SFMTA, participated in a Technical Working Group which convened three times to provide guidance and feedback on the project goals, analysis and recommendations. In addition, Transportation Authority staff met individually with SFMTA, BART, and Caltrans staff throughout the project to discuss specific issues.

Outreach to the community and key stakeholders included two community workshops held at the City College of San Francisco, regular presentations to the BPCAC meetings, presentations to existing neighborhood groups, a 250-address email list for project updates, over 3,500 postcards mailed to residents in the area, and over 700 flyers distributed at local businesses and gathering spots.

On April 22, 2014, the BPCAC adopted a motion of support for the Balboa Park Station Area Circulation Study Final Report with a recommendation to advance only Elements 1 (closure of the northbound I-280 on-ramp from Geneva Avenue) and 2 (realignment of the southbound I-280 off-ramp to Ocean Avenue) of Alternative 1 for further study and implementation.

**Recommendations and Next Steps:** While both Alternative 1 and Alternative 2 would improve pedestrian and bicycle conditions within the Study Area, Alternative 1 would provide a more balanced approach to the area, reducing conflicts between motorized and non-motorized users on both Ocean and Geneva Avenues. In addition, Alternative 1's closure of the northbound on-ramp from Geneva Avenue provides an opportunity to create new space directly adjacent to the station that can be used for kiss-and-ride activity, discouraging such activity from occurring elsewhere and interfering with freeway ramp and transit stop operations.

Therefore, the study has identified Alternative 1 as the higher-performing alternative to advance for further study and implementation.

This study is the first stage of project development for the proposed project. Several more steps lie between conclusion of this stage and the time a project would be ready for implementation, including funding gathering and prioritization within overall city priorities, additional stakeholder and public outreach, environmental review including further transportation analysis, and detailed design and engineering. An aggressive schedule could see a potential pilot project operating two years from this study's approval date and full implementation in six years.

The next step will be a scoping step to identify and detail the next phases of work, including the roles and responsibilities of the stakeholder agencies. Funding for this next step is anticipated through an appropriation from Prop K that is agendized for separate action at this meeting.

**We are seeking a recommendation to adopt the Balboa Park Station Area Circulation Study Final Report.**

## **ALTERNATIVES**

1. Recommend adoption of the Balboa Park Station Area Circulation Study Final Report, as presented.
2. Recommend adoption of the Balboa Park Station Area Circulation Study Final Report, with modifications.
3. Defer action, pending additional information or further staff analysis.

**CAC POSITION**

The CAC was briefed on this item at its May 28, 2014 meeting and unanimously adopted a motion of support for the staff recommendation.

**FINANCIAL IMPACTS**

None.

**RECOMMENDATION**

Recommend adoption of the Balboa Park Station Area Circulation Study.

Enclosure:

1. Balboa Park Station Area Circulation Study