Agenda Item 11 SMMC 2/28/11

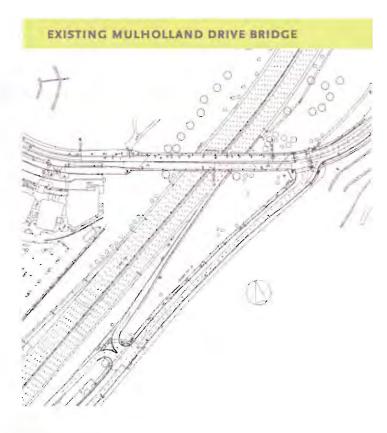
I-405 Sepulveda Pass Improvements Project

Mulholland Drive Bridge Relocation



Overview

In response to community concerns about the degrading of traffic flow during demolishing and reconstructing the Mulholland Drive Bridge, the I-405 Sepulveda Pass Improvements Project began looking for alternatives to the baseline plan for rebuilding the bridge.



The original, approved design and construction sequence adopted for the overpass reconstruction (the baseline plan) required two demolition phases occurring over two extended weekends approximately one year apart. During these demolition weekends, the project would close the entire northbound and southbound I-405 freeway through the Sepulveda Pass for approximately 54 consecutive hours.

Long-term effects on traffic would include traffic flow across the bridge being reduced by one lane during 25 months of bridge reconstruction and utility movement. At other times, utility relocation would sometimes require full closure of the bridge.

Caltrans anticipates these closures would result in a geometric increase in travel times in the Los Angeles County travel network, particularly for drivers trying to access the Getty Center, Los Angeles International Airport, Skirball Cultural Center and the University of California, Los Angeles, as well as other businesses and schools. Access to the Westside and San Fernando Valley would also be diminished.

The project asked its bridge designers and traffic engineers to integrate community suggestions and provide a new plan. As a result, these experts developed a plan to construct a new Mulholland Drive Bridge south of the existing bridge.

The overriding advantage of this plan is the construction of a new Mulholland Drive Bridge while the existing bridge continues to carry traffic across the Sepulveda Pass. In this scenario the driving public and local residents would be freed from the twin demolition weekends and freed from relying on a Mulholland Drive Bridge with reduced capacity.

Conclusion

Based on all factors analyzed, the bridge designers and traffic engineers concluded that Alternative 1, Option 6 offers the largest short-term and long-term benefits for residents of the Sepulveda Pass and commuters who rely on the transportation corridor.

Four Alternatives in the New Plan



Alternative 1 provides a realigned Mulholland Bridge that intersects with Skirball Center Drive approximately 200 feet south of the existing intersection. The existing intersection of Mulholland Drive/Skirball Center Drive would be reconfigured to change eastbound and westbound through movements for Mulholland Drive into northbound and southbound through movements for Skirball Center Drive and Mulholland Drive.



Alternative 3 provides a realigned Mulholland Bridge with a roundabout intersection of Mulholland Drive and Skirball Center Drive. The center of the roundabout wouldbe approximately 220 feet southwest of the existing intersection.



Alternative 2 provides a curved, southerly aligned Mulholland Bridge that joins into existing Mulholland Drive, maintaining eastbound and westbound through movements for Mulholland Drive.



Alternative 4 provides a parallel, northerly aligned Mulholland Bridge that joins into existing Mulholland Drive approximately 150 feet north of the existing intersection, maintaining eastbound and westbound through movements for Mulholland Drive.

Both Alternative 3 and Alternative 4 would require significant retaining wall impacts on the east side of Skirball Center Drive.

Impact Analysis of the Four Alternatives

The design impact analysis concluded that Alternative 1 would have a significant right-of-way impact on the west end of the bridge. By aligning the bridge more perpendicular to the freeway, however, and intersecting with Skirball Center Drive approximately 430 feet south of the existing intersection, a design could be achieved in which the right-of-way impact could be avoided. Acceptable speeds would be maintained along Mulholland Drive.

Alternative 2 had substantial right-of-way impacts on the west and east ends of the bridge. Unlike Alternative 1, these impacts could not be mitigated due to roadway geometrics constraints and the high cost of constructing a curved bridge.

Alternative 3 had substantial right-of-way impacts on the west and east ends of the bridge and significant retaining wall impacts on the east side of Skirball Center Drive. While there was potential to mitigate the right-of-way impact on the west end of the bridge, the impacts on the east end could not be mitigated without construction of a significant retaining wall immediately east of the roundabout intersection.

Alternative 4 had such substantial right-of-way and retaining wall impacts on the west end of the bridge, that these impacts could not be mitigated.

Traffic analyses were conducted on six options of Alternative 1 to determine the optimal lane configuration and signal phasing. The engineers chose Option 6. With this option, the Mulholland Drive/Skirball Center Drive interchange operated at level of service C or better. This would be a noticeable improvement over the current Mulholland Drive/Skirball Center Drive interchange, which operates at level of service F. The baseline plan would offer no improvement in level of service.

Option 6 would also accommodate the greatest percentage of future traffic growth. Option 6 would accommodate a 50 percent growth in traffic, greater than the 36 percent growth expected to occur by 2031, the year for which the new bridge will be designed. Given the estimated annual traffic growth rate of 1.47 percent in the project area (included in the Environmental Impact Report for the project), only Option 6 would remain operating at a level of service better than F.

In addition, a pedestrian crossing and sidewalk would be provided on the south and east sides of the Mulholland Drive/Skirball Center Drive interchange in Option 6.

ALTERNATIVE 1, OPTION 6

The traffic analyses showed that Option 6 (with the configuration shown above) would provide the best traffic operating conditions among the six options for Alternative 1. Options 2 and 4 also provided a level of service C for the Mulholland Drive/Skirball Center Drive interchange but with slightly higher delays than Option 6. Options 3 and 5 would operate at an unsatisfactory level service of E.

TRAFFIC CONFIGURATION OF THE ALTERNATIVE 1 OPTIONS

Option 1	Mulholland Drive eastbound: left, 2 right lanes Skirball Center Drive northbound: left, 2 through lanes
Option 2	Mulholland Drive eastbound: 2 left, 1 right lane Skirball Center Drive northbound: 1 left, 2 through lanes
Option 3	Mulholland Drive eastbound: 1 left, 2 right lanes Skirball Center Drive northbound: 7 left, 7 shared left- through, 1 through lane
Option 4	Mulholland Drive eastbound: 1 left, 2 right lanes Skirball Center Drive northbound: 2 left, 1 through lane
Option 5	Mulholland Drive eastbound: 1 left, 1 shared left-right, 1 right lane Skirball Center Drive northbound: 1 left, 2 through lanes
Option 6	Mulholland Drive eastbound: 2 left, 1 right lane Skirball Center Drive northbound: 2 left, 1 through lane

Chronology of Public Comment on Mulholland Drive Bridge Design

2007	Public comments were received during the Environmental Impact phase
2008	Environmental Impact Report approval of baseline design
	Community expresses concerns regarding major impacts from the baseline design, particularly > Two full-freeway weekend closures > Reduced traffic capacity of Mulholland Drive Bridge during utility relocation and bridge construction > Access for emergency response during bridge reconstruction
MAY-AUG 2010	Community presented ideas regarding alternatives to baseline plan, including building a parallel bridge or temporary bridge during construction
SEPT 2010	Project presents plan for realignment of Mulholland Bridge to the Community Advisory Committee; media outlets report on new plan
OCT 2010 - PRESENT	Project provides updates to Mulholland Educational Corridor Association and other stakeholders on status of realignment plan
DEC 2010 - PRESENT	Project presents Mulholland Drive Bridge relocation issues to public at Quarterly Public Meeting
JAN 2011 - PRESENT	Project updates Community Advisory Committee on Mulholland Drive Bridge relocation issues

Developing The New Plan

In developing this new plan, the project studied four design alternatives. All would accommodate a one-phase demolition of the existing Mulholland Drive Bridge once the new bridge has been constructed. All would:

- > Eliminate the twin 54-hour weekend closures
- > Eliminate reduced traffic flow across the existing Mulholland Drive Bridge
- > Reduce full closures of existing bridge for utility relocation

In developing the new plan, the project was required to study how it would impact:

- > Roadway geometrics
- > Utilities
- > Retaining walls
- > Aesthetics
- > Traffic operations
- > Constructability
- > Bridge stability



How to reach us and stay involved

Do you have a question about the freeway improvements, want more information or wish to be added to our mailing list? Here's how you can reach us:

EMAIL

1405@metro.net

PHONE

You can also leave your questions or comments on our project phone line by calling **213.922.3665**. Phone messages are retrieved at least once every business day.

FACEBOOK

Be sure to visit us on Facebook at facebook.com/405project

TWITTER

twitter.com/l_405

