



## Board Report

File #: 2017-0413, Version: 1

### PLANNING AND PROGRAMMING COMMITTEE OCTOBER 18, 2017

**SUBJECT: ORANGE LINE BUS RAPID TRANSIT IMPROVEMENTS**

**ACTION: APPROVE RECOMMENDATIONS**

#### **RECOMMENDATION**

APPROVE:

- A. the findings and recommendation resulting from the Orange Line Bus Rapid Transit Improvements Technical Study; and
- B. advancing Orange Line Bus Rapid Transit Improvements into the public engagement, environmental review and engineering design concurrent processes.

#### **AMENDMENT BY DUPONT-WALKER AS AMENDED BY SOLIS**

I MOVE THAT the recommendation be amended to carry the seven potential stand-alone grade separations identified in the consultant report\* forward into the environmental process for further consideration a project alternatives, and that MTA coordinate closely with LADOT on the environmental, stakeholder, and public review processes to refine and better identify potential traffic delay and other impacts to affected intersections.

\*Reseda Blvd., Balboa Blvd., Sepulveda Blvd., Van Nuys Blvd., Woodman Ave., Burbank Blvd., and Laurel Canyon Blvd.

AMENDMENT BY SOLIS: to explore cost-sharing with the City so that we could look at structure that might include the City and the COG.

#### **DISCUSSION**

##### Overview of Metro Orange Line

The MOL is a multi-modal transportation corridor. MOL provides a vital high-capacity transit link for San Fernando Valley and extends nearly 18 miles in length from the North Hollywood Metro Red Line station to Chatsworth, with a spur to Warner Center. It is a highly successful transit line in Metro's network, with approximately 25,000 daily riders.

## Technical Study Analysis

A Technical Study was authorized by the Board in January 2016. Improvements studied included grade separations, minor street closures, better transit signal priority technology, electronic bus connectivity to facilitate bus platooning and a four quadrant gating system. The core goal is to improve operating speeds/reduce bus travel times to move customers more efficiently and safely. Six alternatives were packaged together out of numerous individual, potential improvements. Four alternatives studied a different mix of grade separations. One alternative studied solely using gating at all intersections. Another alternative evaluated a mix of grade separations and gating.

## Technical Study Key Findings

Details of the Technical Study are outlined in Attachment A. Key findings are as follows:

- The gating system accomplished the highest benefit for the least cost relative to the other improvements. It allows buses to travel much faster than the current average of 21 miles per hour through roadway intersections while also improving safety by lowering the risk of vehicle intrusions into the busway.
- Gating is a cost-effective approach to providing an equitable distribution of safety improvements along the busway, which allows for a time saving that is cumulatively substantial. With gating, there is far less benefit to closing minor roads in the MOL corridor, as gating would reduce uncertainty for bus drivers at the crossings and improve travel times and safety.
- Grade separations of major arterial roadways did not achieve the hoped-for benefit in time savings because the stations located at these intersections required buses to stop anyway and are costly. Grade separations provide an equivalent or superior safety improvement but, due to the cost, the safety improvement is limited to those grade separated intersections, versus a busway-length deployment of safety gating.
- In general, the minor roads identified as high candidates for closure were found to be important for local access, complicating closures as a solution.

The alternative that studied a mix of gating and grade separation performed substantially better in all measures compared to the other alternatives and fits within the Measure M budget.

- Travel time is reduced by 16 minutes between the North Hollywood station and Chatsworth stations (12 minutes to Canoga Park station) when combined with enhanced bus operations.
- Daily ridership could be increased by over 10,000. Vehicular cross-traffic wait time is longer when the gates are down as compared to existing road traffic signal condition, but the gates only come down to stop traffic when needed for a bus crossing and all other times will be open for the cross traffic. Also, the gates will be coordinated for bicycle and pedestrian users of the Class I bike path, in certain circumstances.
- Preliminary analysis indicates a change in cross-vehicle travel time to be a few seconds different during peak periods and is significantly improved during off-peak than without this Project. As the project advances further into the design and technical study processes, the results from these performance metrics may change.

### Recommended Alternative

The recommended alternative addresses all modes along and crossing the corridor in a manner that will be more efficient and enhances safety. It is found to be consistent with the project in the Measure M Ordinance.

The recommended alternative involves a package of capital improvements:

- A new single-grade separation structure would span from Van Nuys to Sepulveda Boulevards and the existing stations at these locations would be relocated vertically to the new structure with side-loading station platforms. The new structure would also span three intersecting streets in between. The grade separation structure and stations would be designed to accommodate the long-term plan to convert MOL to light rail transit (LRT).
- All other intersections along the busway between North Hollywood and Chatsworth stations would receive four quadrant safety gates of the type used for LRT.
- The Class I bike path adjacent to the span of the busway grade separation structure would, at a minimum, be grade separated at Van Nuys and Sepulveda Boulevards; another design option would grade separate the same span as the busway structure.
- All the existing Class I bike path intersections with roadways would retain signalization, including at Van Nuys and Sepulveda Boulevards for local access.
- One minor street, Tyrone Avenue, would be closed to accommodate the busway grade separation structure.
- Other operational improvements to MOL may be implemented, which do not involve significant capital improvements.

### Reasoning for Recommended Alternative

This alternative is recommended because:

- It achieves superior and significant travel time savings for MOL of up to 16 minutes/29 percent each direction;
- Ridership could be increased by approximately 39 percent;
- It readies the transportation corridor for LRT conversion;
- Safety is markedly improved by nearly eliminating vehicular intrusions into the busway; and
- It fits within the Measure M budget, based on the conceptual engineering done to date.

Moreover, this alternative provides commensurate improvements to the adjacent regionally-significant active transportation facility, in furtherance of first-last mile connectivity to transit. It also accommodates two other planned, intersecting transit: East San Fernando Valley and Sepulveda Pass Transit Corridors. This alternative would be designed to support the creation of Transit-oriented Communities (TOC). Therefore, it does not preclude or complicate a potential, future update of the land use plan and zoning to support the creation of TOC at this mobility hub by the City of Los

Angeles, should the City decide to do so.

### Measure M Consistency Finding

The Measure M ordinance identifies the capital investment as “Orange Line BRT Improvements” with a groundbreaking date of FY2019 and an opening date of FY2025. Footnote “n” states, “Critical grade separation(s) will be implemented early through Operation Shovel Ready.” The Operation Shovel Ready Initiative was transmitted to the Board in January 2016 as an informational memorandum. The approach of the Initiative is to bring projects to a “Shovel-Ready” state that enables Metro to take advantage of potential opportunities, which may develop and allow the projects to advance into the engineering design and construction stage sooner than planned. While assumptions were made for the purposes of preparing the Measure M Expenditure Plan, all Measure M project descriptions are finalized after planning study, public engagement and environmental review. The final project description must be consistent with the project identified in the Measure M ordinance.

The recommended alternative is consistent with the Measure M ordinance. It allows for a faster build because it is less intense to construct overall. It allows for the fastest ride and greatest travel time improvements of all the alternatives studied, including a fiscally unconstrained alternative with five arterial roadway grade separations. And it is future ready because the improvements are designed to accommodate LRT to the extent feasible now. Measure M provides for converting MOL to LRT, with an opening date of FY2057. Because Measure M identifies the groundbreaking date for this project as FY2019, the recommendation is also consistent with Operation Shovel Ready, since the planning, environmental and design work must occur promptly to allow this early action project to be developed on schedule.

Additionally, the alternative accommodates the integration with two other planned Measure M projects: the East San Fernando Valley and Sepulveda Pass Phase 2 Transit Corridors. Importantly, the proposed combined grade separation and gating improvements allow MOL to be grade separated from these other two planned transit corridors.

Staff finds that each feature of the recommended alternative is distinctly consistent with Measure M:

- The busway grade separation structure provides for the critical separation set forth in footnote “n” of Measure M.
- It is critical because it separates the busway from two sub-regional arterial roadways with high peak period traffic volumes and accommodates future planned regional transit corridors by eliminating incompatible crossings of transit lines.
- Safety gating of all other intersections with the busway is a critical MOL corridor improvement because the safety benefits directly correlate with reducing bus travel times, while having a minimal effect on vehicular cross-traffic when combined with enhanced bus operations.
- The Class I bike path grade separation adjacent to the busway grade separation improves first -last mile connectivity by providing safer and faster active transportation crossings of Sepulveda and Van Nuys Boulevards, which is an MOL corridor improvement.
- Closure of Tyrone Avenue is necessary to accommodate the busway grade separation structure and does not significantly affect access or negatively impact traffic.

- The gating and project design also accommodates future LRT service, with the stations also being designed to accommodate LRT to the extent feasible now.

### Considerations

While a good solution, every proposed capital improvement comes with its own set of issues to consider and address. The recommended alternative introduces safety gating that includes the standard warning bell sound. Some stakeholders may have hoped that the grade separations would have a substantial benefit to reducing vehicular travel times across the valley. Because this is an investment in MOL improvements, as set forth in Measure M, improving sub-regional roadway travel congestion was outside the scope of the this capital investment, but was a consideration when evaluating the effect of the project on vehicular cross-traffic. Measure M provides local return and Multi-year Sub-regional Funds that may be used for improving local and sub-regional roadway travel times. Construction impacts will occur, mostly associated with the grade separation component. The construction plan will need to maintain bus, bicycle, pedestrian and vehicular access and service to the maximum extent that is reasonably feasible. Detailed engineering design has not yet been done. This additional step in the pre-development process may result in value engineering. Also, the project cost estimate will continue to be updated as the engineering advances. If any significant changes are identified that affect the future project description, the Board will be notified and provided with options for consideration.

### **DETERMINATION OF SAFETY IMPACT**

This Board action will not have any adverse safety impacts on Metro's employees and patrons. The Board is only authorizing additional study and engagement; no operational changes or construction result from this Board action.

### **FINANCIAL IMPACT**

The FY 2017-18 budget includes \$750,000 in Cost Center 4370 (Transit Corridors Planning), Project 471405 (Orange Line Grade Separation) to support the environmental phase for the Metro Orange Line Grades Separations/Other Improvements project. Since work on this project would be multiyear, it will be the responsibility of the cost center manager and Chief Planning Officer to budget funds in future years.

In addition, FY 2017-18 budget includes \$8,200,000 in Cost Center 8510, Project 471405 (Orange Line BRT Improvements) for engineering support and advanced utility relocation designs. Since work on this project would be multiyear, it will be the responsibility of the Project Manager and Chief Program Management Officer to budget funds in future years.

In June 2017, the Board of Directors authorized the CEO to execute a contract for Supplemental Engineering Services for Engineering Design of Rail and Highway Transportation Projects on a task order basis in the amount of \$15,000,000 with options for a total contract value not to exceed \$20,000,000, and execute individual Task Orders and changes within the Board approved contract amount. Since this is a multi-year project, the Chief Program Management Officer and the Project Manager will be responsible for budgeting for costs of future task orders related to this contract.

Measure M provides \$286 million in 2015 dollars for MOL improvements. A preliminary estimate

suggests that the recommended project fits within that budget. A refined cost estimate will be determined during the preliminary engineering phase. The source of funds for this recommendation is Measure M 35% funds earmarked for MOL Improvements, which is not eligible for bus and rail operating expenditures.

## **ALTERNATIVES CONSIDERED**

The Board could consider:

1. Selecting another alternative from the Technical Study as the preferred alternative;
2. Identifying multiple alternatives from the Technical Study to be advanced further into the design process, without selecting a preferred alternative now; or
3. Directing staff to study alternatives that were not previously considered.

These alternative Board actions are not recommended because of the reasons staff discussed in reaching its recommendation. Alternatives that exceed the Measure M budget are infeasible and based on the technical study are unlikely to achieve the goal of improving MOL. Declining to move the study forward is inconsistent with the Measure M ordinance and is therefore not an alternative considered.

## **NEXT STEPS**

### Environmental Review

Staff is currently evaluating the applicable environmental determination on the future project, ranging from a statutory exemption to an Environmental Impact Report. Additional design, study and public engagement will determine the appropriate environmental clearance for the future project. Should it be found exempt from California Environmental Quality Act (CEQA), thorough documentation will justify that determination.

### Areas of Coordination

In addition to the public and stakeholder engagement process, special coordination is required to implement the recommended alternative. As it is entirely within the City of Los Angeles, the City of Los Angeles Department of Transportation (LADOT) will need to approve gating of its streets, since the Public Utilities Commission does not regulate gating for buses. The application of gating for buses, while not inconsistent with the California Manual on Uniform Traffic Control Devices, will require further coordination and possibly formal approval from the Federal Highway Administration and review by the California Traffic Control Devices Committee.

### Public and Stakeholder Engagement

No formal public engagement occurred as part of the Technical Study. The Technical Study created and analyzed alternatives, which gives the public feasible options to consider, in addition to the recommended alternative. This approach was taken because MOL is not a blank slate; it is an existing facility. Therefore, the Technical Study facilitated the focus necessary as a prerequisite to public engagement. Informal stakeholder engagement did occur, primarily with LADOT.

Metro will conduct a robust public engagement program to share information and gather input from key stakeholders. In addition to coordinating with LADOT, the public engagement will target a range of stakeholders and general public with a potential interest in the project. This recommended project is subject to further consideration following the public engagement process.

In conclusion, following the Board's action, staff would simultaneously initiate the public and stakeholder engagement process, initiate the environmental review process, along with conducting engineering design to advance the future project and remain on schedule. Staff will report back on the outcomes from public engagement, environmental review and design development in 2018.

## **ATTACHMENTS**

Attachment A - Metro Orange Line Grade Separations/Other Improvements Technical Study Executive Summary

Attachment B - Presentation

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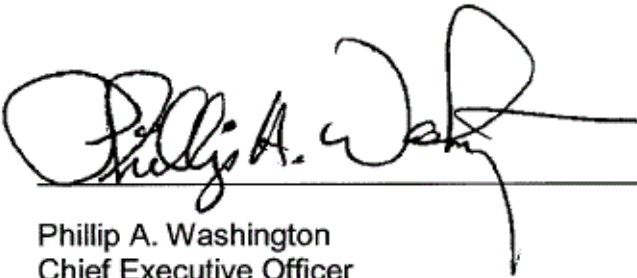
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