

**Metro**Los Angeles County  
Metropolitan Transportation AuthorityOne Gateway Plaza  
Los Angeles, CA 90012-2952213.92.  
metro.net**PLANNING AND PROGRAMMING COMMITTEE  
FEBRUARY 15, 2012****SUBJECT: WESTSIDE SUBWAY EXTENSION****ACTION: RECEIVE AND FILE****RECOMMENDATION**

Receive and File this report on changes to the Westside Subway Initial Construction Segment.

**ISSUE**

In October 2010, the Board approved the Westside Subway Extension Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) Locally Preferred Alternative; a 9-mile extension of the existing Metro Purple Line subway with seven new stations (Attachment A). The Draft EIS/EIR followed the Long Range Transportation Plan (LRTP) which calls for a phased delivery of the full project in three construction segments for completion in the following years:

- Wilshire/Fairfax Extension (2019 - Segment 1)
- Century City Extension (2026 - Segment 2)
- Westwood Extension (2036 - Segment 3)

Recent studies completed as a part of the ongoing Final EIS/EIR and Preliminary Engineering (PE), recommend shifting the initial construction segment from Wilshire/Fairfax to Wilshire/La Cienega (Attachment B). The proposed change will not increase the overall cost of the full Westside Extension Subway Project, but will affect the timing and funding for the initial construction segment.

This recommendation was scheduled to come for Board action as a part of the approval of the Westside Subway Final EIS/EIR and prior to the LRTP Financial Forecast Update (Planning & Programming Committee Item #6); however, additional time has been required to secure approvals from FTA to release the Final EIS/EIR. As a result, the LRTP update is now ahead of the Westside Subway on the Board calendar.

This report provides the rationale for the recommended change in the Westside Subway Initial Construction Segment and provides a financial analysis of how this shift in funding between Segments 1 and 2 of the project can be accomplished within overall policies and guidance that has been previously provided by the Board. Approval of the LRTP Financial Forecast Update will provide a financial framework for moving forward on the Westside Subway Extension project, but will not commit the Board to approve the subsequent recommendations that will come forward as a part of the Final EIS/EIR.

## **DISCUSSION**

### **Rationale for Changing the Initial Construction Segment**

The Wilshire/Fairfax Station vicinity has known deposits of paleontological resources and high concentrations of methane and hydrogen sulfide. Both of these issues complicate construction of the Station, resulting in more risk to the schedule than other stations along the alignment. The construction schedule is of particular importance for terminus stations, which serve as the entry and exit locations for the Tunnel Boring Machines (TBMs). Additionally, terminus stations must include a crossover to allow trains to access either side of the platform when entering or leaving the station. A station with a crossover requires 20 percent more cut-and-cover excavation as a station without a crossover.

The Final EIS/EIR incorporates the PE analysis and will provide the following reasons for recommending the shift of the initial terminus station from Wilshire/Fairfax to Wilshire/La Cienega:

- Interim Terminus Station Not Recommended in Gassy Ground- Elevated gas levels are located along Wilshire Boulevard in the area around the Wilshire/Fairfax Station. The Wilshire/La Cienega Station is located west of this elevated gas area. A fully enclosed tunnel mining system, such as a slurry-face TBM (a type of pressurized-face TBM), will be used for tunneling in the elevated gassy areas. If the Wilshire/Fairfax Station serves as the terminus for the first phase, the fully enclosed tunnel mining system would be required for both the first and second phases of construction, thereby unnecessarily increasing the complexity and cost of the second segment. By terminating at the Wilshire/La Cienega Station, the fully enclosed tunnel mining system would not be necessary for the second phase of construction—only the first phase—reducing construction costs for the second phase.
- Reduced Impact to Paleontological Resources- Because the Wilshire/Fairfax Station has known deposits of paleontological resources, there is the potential for delays to station excavation activities if paleontological resources are encountered. The Final EIS/EIR will detail the paleontological mitigation measures that will be implemented to minimize impacts to paleontological

resources. However, even with these mitigation measures in place, there is still the potential for delays to station excavation and construction at the Wilshire/Fairfax Station. Such delays could introduce significant costs to the construction budget. Therefore, the Wilshire/La Cienega Station, which is less likely to encounter paleontological resources and the associated schedule delays, is a preferred interim terminus station.

- Reduced Construction in Gassy Ground Areas- By shifting the interim terminus station from Wilshire/Fairfax to Wilshire/La Cienega, a crossover is no longer required at the Wilshire/Fairfax Station, thereby reducing the amount of cut-and-cover excavation in the vicinity of tar sands, elevated gas levels, and known paleontological deposits. By requiring cut and cover for a smaller area, fewer fossils will be encountered and less hazardous waste will require disposal. Additionally, there are safety benefits of reducing the amount of area and time spent excavating in the elevated gassy grounds.

### Financial Impact

The current cost estimate for the initial construction segment from Wilshire/Western to Wilshire/Fairfax is \$1.950 billion (YOE 2019). The cost for the initial construction segment from Wilshire/Western to Wilshire/La Cienega is \$2.331 billion; an increase of \$381 million. This cost represents an additional ¾ mile of subway tunneling and the additional station as well savings from escalation.

We have completed our Measure R Cost Management Process and Policy evaluation and have found that the following combination of new revenues and cost decreases will cover the \$381 million in a manner consistent with the Policy:

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|---|----------------|
| • New Starts Funds (request included in September 2011 submittal)   | \$ 175 M       |
| • City of Los Angeles Local Contribution (transfers from Segment 2) | \$ 11 M        |
| • Cost/Revenue Transfer from Segment 2 (same timing)                | \$ 106 M       |
| • Cost/Revenue Transfer from Segment 2/Wilshire BRT                 | <u>\$ 88 M</u> |
| • Total   | \$ 381 M       |

The \$88 million cost/revenue transfer from Segment 2/Wilshire BRT is necessary because the timing of the \$88 million in revenues from Segment 2 do not coincide with the need for additional funds on Segment 1 of the Wilshire BRT. The Measure R Cost Management and Control Policy directed us to consider funding for cost increases from the same corridor, and it is possible to defer the Wilshire BRT Segment 2 project to cover the timing issue. In March, we will be providing the Board with the full policy evaluation and recommendation consistent with this funding strategy for a longer Westside Subway Segment 1.

## Alternatives Considered

We considered deferring the Wilshire BRT Segment 2 funds for a concurrently recommended cost increase on the Regional Connector project. Two factors led us to conclude that the Westside Segment 1 use was more appropriate, as follows:

- The Measure R Cost Management Process and Policy stipulates that the corridor level cost/revenue transfer occur as a priority over a sub-regional transfer; and,
- The Wilshire BRT project is split between two sub-regions, the Westside area and the Central area.

Given that the corridor cost/revenue transfer occurs first and the Regional Connector is wholly in the Central area, we concluded that it is more appropriate to utilize the funds for the Westside Segment 1 project. Our ultimate recommendation makes it possible for all Measure R transit corridor projects to be accomplished on their original LRTP schedule.

## **NEXT STEPS**

We are currently working with the FTA on the review and approval to release the Final EIS/EIR. Recommendations regarding station locations, alignments and construction segments will be included in the Final EIS/EIR so that the public will have the opportunity to consider the material prior to action by the Board. We are seeking to secure FTA's approval to release the document in March.

## **ATTACHMENT**

- A. Map of Locally Preferred Alternative
- B. Map of Proposed Construction Segments

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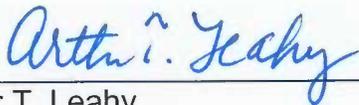
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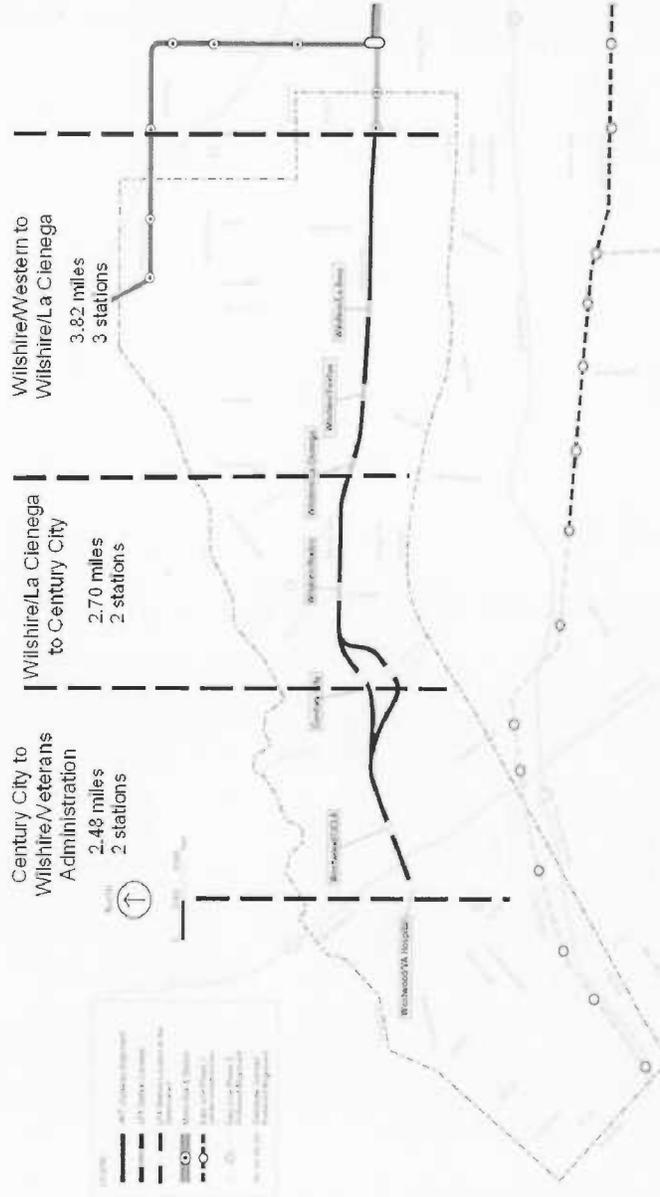
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Arthur T. Leahy  
Chief Executive Officer



# Westside Subway Extension Construction Phasing

## Westside Subway Extension Construction Contract Packaging



- Contract Packaging based upon availability of funding
- Design-Bid-Build project delivery of entire alignment or individual contracts (tunnels and stations)
- Potential Design-Build project delivery for trackwork, systems & systems integration testing