

**Metro**Los Angeles County
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metro.net**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
MARCH 19, 2015****SUBJECT: EXPO LINE PHASE 2 AND GOLD LINE FOOTHILL EXTENSION
PHASE 2A****ACTION: RECEIVE AND FILE****RECOMMENDATION**

Receive and file report on efforts to open Expo Line Phase 2 and Gold Line Foothill Extension Phase 2A rail extensions.

ISSUE

The Expo Line Phase 2 and Gold Line Foothill Extension Phase 2A rail extensions are under construction and scheduled to commence revenue service in FY16. Metro will receive two (2) light-rail Maintenance Facilities, 18.2 route miles for passenger service, 13 stations, and 78 light-rail vehicles, all of which must be fully-integrated with the existing rail network before revenue service begins.

These projects will increase Metro's light-rail system route miles by 26 percent and the number of stations along the entire rail network by 16 percent. Additionally, the two (2) light-rail Maintenance Facilities will increase Metro's total light-rail maintenance capacity by 75 percent.

DISCUSSION***Staffing***

During July of last year, the Board approved a comprehensive staffing plan for the two rail extensions, which included 275 positions for Operations. The staffing plan assumes a time-phased and milestone-based hiring concept, which relies on work performance information provided by the Expo Line and Gold Line Foothill Construction Authorities. Staff analyzed work performance information and planned the recruitment, hiring and training of personnel into 11 phases spanning a 14 month period.

Since July 2014, Metro has initiated two phases accounting for 94 positions. Of these 94 positions, 87 or 93% have been filled. Staff is in the process of initiating a third

phase accounting for 17 additional positions. Metro must concurrently manage contractor oversight, testing activities including pre-revenue testing, and asset inspection and acceptance before revenue service can begin.

These positions provide continued support for Systems Integration Testing of both line extensions and commissioning of new light-rail vehicles. Support activities include project monitoring and inspections, integrated testing, system readiness drills, asset inspection and acceptance, turnover coordination, the opening of two (2) Maintenance Facilities and pre-revenue service testing.

Staff will continue to monitor work performance information and initiate subsequent phases of hiring to support rail extension milestones.

Training Program & Schedule

The training program and schedule for the two rail extensions is aligned with Metro's time-phased and milestone-based staffing plan. Metro is recruiting for technical positions well in advance of actual needs to satisfy training and qualification requirements. Metro relies on internal promotion, a Joint Apprenticeship Council (JAC) program, and external recruiting to find experienced and qualified candidates for these positions. The JAC program provides opportunities for current employees to develop technical skills, improve productivity, and qualify for technical positions. JAC classes are underway for Maintenance Specialist, Signal Inspector, Traction Power Inspector, and scheduled for Track Inspector.

Metro also relies on internal promotion to identify qualified candidates for the Train Operator position. Internal promotion and/or external recruiting are relied on to find experienced and qualified candidates for the Rail Operations Controller and Rail Transit Operations Supervisor positions. Training classes are ongoing for these positions.

Staff will continue to monitor progress to ensure employees are trained and qualified ahead of rail extension milestones.

Testing Schedule

The two rail extensions must undergo Systems Integration Testing. Staff is working closely with the Expo Line and Gold Line Foothill Construction Authorities and contractors to plan and safely conduct this testing. Systems Integration Testing examines all systems including traffic control and Supervisory Control and Data Acquisition to ensure trains can safely operate along the alignment through highway-rail grade crossings, switches, special track work, stations, terminals, yards, and auxiliary tracks etc. Systems Integration Testing includes operating and testing multiple train scenarios to examine the reliability and redundancy of safety systems.

The Gold Line Systems Integration Testing began in October 2014 and is planned to continue through September 2015.

The Expo Line Systems Integration Testing is planned to begin in April 2015 and will likely continue through March 2016.

Pre-Revenue Service

The pre-revenue light-rail testing period for the two rail extensions will span a three to five month period. This testing is designed to simulate revenue service operations on the new segment, synchronizing it with the service already provided between 7th Street/Metro Center Station and Culver City on the Expo Line as well as Atlantic Station and Sierra Madre Villa Station on the Gold Line. The purpose of pre-revenue testing is to familiarize Metro staff and emergency responders with simulated service and the physical characteristics and equipment of each line.

Staff has planned for a temporary shortage of light-rail vehicles during pre-revenue service. To overcome this challenge, staff plans to separate pre-revenue and revenue operations on both the Expo and Gold Lines. By doing so, fewer light-rail vehicles will be needed for the early stages of the pre-revenue period. On both lines, pre-revenue trains consisting of two or three cars will operate separate from revenue trains at headways ranging from 6-24 minutes.

Expo Line trains will operate between Culver City Station and Colorado/4th Street Station in a test mode. Similarly, Gold Line trains will operate between Sierra Madre Villa Station and Azusa/Citrus Station in a test mode. During pre-revenue service, trains will typically operate every 6-12 minutes in the morning and afternoon; midday and evening service will operate every 10-20 minutes. Additionally, 5 minute schedules will be tested on select weekends.

As more new light-rail vehicles become available, staff will schedule select revenue trains to operate over the two rail extensions in a test mode. Expo Line trains from 7th Street/Metro Center Station arriving at Culver City Station will disembark passengers then continue to Colorado/4th Street Station in a test mode. In turn, eastbound trains coming from Colorado/4th Street Station will begin picking up passengers at Culver City Station then continue to 7th Street/Metro Center Station in revenue mode.

Similarly, Gold Line trains from Union Station arriving at Sierra Madre Villa Station will disembark passengers then continue to Azusa/Citrus Station in a test mode. In turn, southbound trains coming from Azusa/Citrus Station will begin picking up passengers at Sierra Madre Villa Station then continue to Union Station in revenue mode.

Scheduling select revenue trains to operate over the two rail extensions in a test mode will allow staff to synchronize pre-revenue with existing service and test systems integration for the entire line.

Revenue Service

Revenue service for the two rail extensions is scheduled to begin in 2016. Staff has planned for a temporary shortage of light-rail vehicles. At the start, Expo Line trains

may operate between 7th Street/Metro Center Station and Colorado/4th Street Station every 12 minutes in the morning and afternoon; midday and evening service every 10-20 minutes. As more new light-rail vehicles become available, trains will operate every 6 minutes in the morning and afternoon; midday and evening service will operate every 10-20 minutes.

Similarly, Gold Line trains will operate between Union Station and Azusa/Citrus Station every 12 minutes in the morning and afternoon; midday and evening service will operate every 10-20 minutes. As more new light-rail vehicles become available, trains will operate every 6 minutes in the morning and afternoon; midday and evening service will operate every 10-20 minutes.

On weekends and holidays, day service will likely be every 12 minutes on the Expo Line and 7.5 minutes on the Gold Line with evening service every 10-20 minutes on both lines.

Community Outreach

Staff will facilitate safety training for the community within a 1.5 square mile radius of both rail extensions over the next 12 to 14 months. Staff will deliver training to residents, schools and businesses in the community. Rail Safety Ambassadors will be positioned at key locations along the alignment during pre-revenue testing. Rail Safety Ambassadors observe and report safety concerns to Metro.

Staff will also distribute safety ads and flyers to residents, schools and businesses in the community. Once revenue service begins, staff will provide guided tours to introduce students and groups to the new line explaining safety features and how the new lines connect to their community and the Metro system.

Community Celebrations and Free Rides

Prior to the VIP Grand Opening celebration, staff will coordinate community rides. These rides will be for elected officials and community stakeholders by invitation only. These rides are intended to build awareness for the opening of each rail line.

Staff plans to host a VIP Grand Opening celebration the Friday before and the Monday after revenue service begins on both rail extensions. The celebration will be followed by one day of public/community free preview rides combined with the community celebrations along each alignment. During the public/community free ride celebration day, the community and public along with the media will have the opportunity to ride the service free for one day and explore sites and destinations located near the new rail stations.

Staff will be working with host event communities to develop a plan to for the community celebration events, which will be located at approximately four rail stations along each rail alignment, to raise community awareness for the opening and to

celebrate for the opening of the new line. Staff will host booths at each event site, which will include (1-2) Metro booths to provide information about rail safety, security, and the new service. Staff also plans to offer about 15-20 free booths, to the local community businesses, chambers, and other groups on a first come, first serve basis, to be a part of the local celebration.

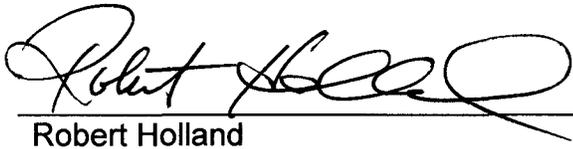
Each event site will be designed to reflect the local community and local businesses. Staff plans to create a community celebration which will showcase the local culture, businesses and talent from each community.

NEXT STEPS

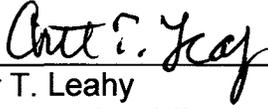
Provide the Board with regular updates on efforts to open Expo Line Phase 2 and Gold Line Foothill Extension Phase 2A rail extensions.

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