

# Expo Phase 1 Preliminary Gating Analysis

September 19, 2014

System Safety and Operations Committee  
David Sutton  
Deputy Executive Officer, TAP

## Motion



1. Report on which Expo Phase 1 stations can be gated and provide a financial plan to install gates at those stations
2. Report on criteria for designing at-grade stations to accommodate gates, and what can be modified so gates are install at all at-grade stations currently in design or planning stages

## Preliminary Recommendation

- 11 non-gated Expo Phase 1 light rail stations examined
- 8 at-grade stations are unfeasible to gate due to Fire/Life Safety and National Fire Protection Association standards:

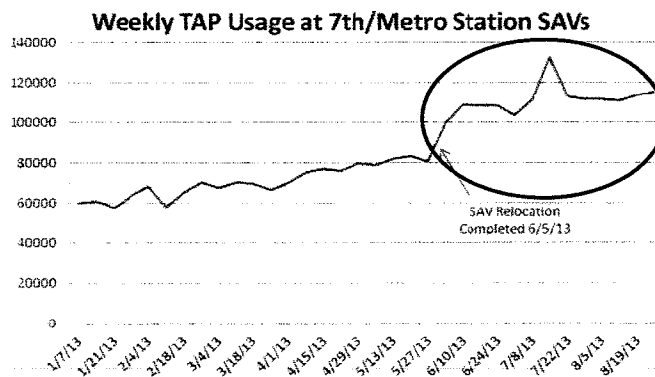


Pico  
 23rd Street  
 Jefferson  
 USC Exposition,  
 Vermont  
 Western,  
 Crenshaw  
 Farmdale

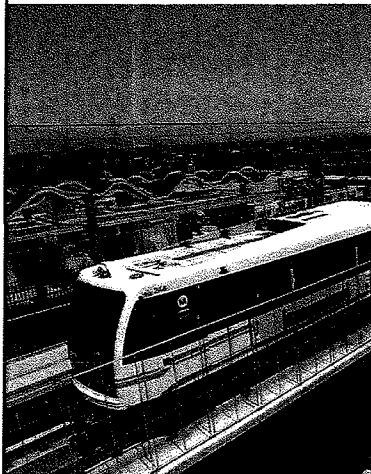
- To meet requirements, platform width need widening by at least four feet.

## Recommendation (cont.)

- At the 8 at-grade stations, staff will assess possibility of deploying additional Stand Alone Validators (SAVs) at station entrances in a "Virtual Gate" configuration.
- Based on 12-week average, the SAV usage of similar arrays at 7<sup>th</sup>/Metro increased by 48%.



## Recommendation (cont.)



### 3 Grade-separated stations:

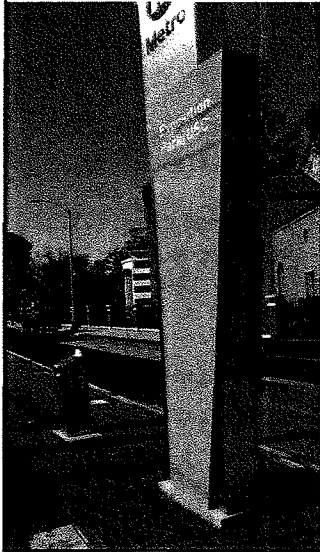
- La Brea (East and West Plaza),
  - La Cienega (East and West Plaza)
  - Culver City (East and West Plaza).
- Aerial grade-separated stations may have sufficient space to install fare gates, but are subject to further analysis to determine if there is sufficient emergency egress.
  - Staff will engage an engineering consulting firm to perform analysis and report back to Board with results.

## Recommendation (cont.)



- Metro's Design Criteria currently identifies Barrier-type configuration for fare gates to be used on all grade-separated stations and at certain at-grade stations
- Metro Design Criteria will be modified to require Fare Gates at future at-grade Stations.
- For projects currently in planning stages, updated Design Criteria fare gates for at-grade stations must be included in procurement.
- For projects advertised but not yet awarded, addendum must be provided for bidders to include fare gates on at-grade stations.
- For projects awarded and currently under design or construction, projects must be evaluated to determine feasibility for at-grade fare gates.

## Financial Impact



- ROM for equipment & construction to implement fare gates at 3 grade-separated Expo Line stations:  
**\$3,131,677 + annual maintenance cost of \$65,630**
- ROM for the additional SAV's at 8 at-grade stations:  
**\$172,614 with annual operating cost of \$141,050**
- ROM total for above:  
**\$3.5 million**
- Annual net increase in revenues anticipated for latching at-grade separated stations:  
**\$490,000**
- Net revenue increase = **19%**
- **7 years to pay off**

## Next Steps



- Staff will provide results of the engineering analysis to Board by January 2014.
- Staff will recommend funding and will proceed with cost proposal from fare collection equipment vendor
- Projected funding from Homeland Security funds and/or Prop 1B funds or other sources
- For current projects, staff will identify funding and provide amendments and contract modifications where fare gates are feasible
- Staff will modify Design Criteria for planning and design of future projects to include fare gates