

Los Angeles County
Metropolitan Transportation Authority

Metro Orange Line Enhancements San Fernando Valley/San Gabriel Valley High Capacity Transit Corridor

**Planning and Programming Committee
April 15, 2015**

**System Safety, Security and Operations Committee
April 16, 2015**



Background

- July 2014 Board Direction
 - Develop and fund feasibility studies to:
 - › Enhance Metro Orange Line service, including potential conversion to Light Rail Transit (LRT)
 - › Connect San Fernando and San Gabriel Valleys through a High Capacity Transit Corridor
- Case Studies provide high level analysis of:
 - General physical configuration
 - Adjacent land uses
 - Ridership and travel time
 - General Cost - capital and operating
 - Issues and constraints

Metro Orange Line Enhancements

- Nearing capacity in eastern section during peak hours
 - North Hollywood
 - Van Nuys
 - Reseda
- Two alternatives studied:
 - Enhancements to existing BRT service, including:
 - > Increasing speeds through intersections
 - > Grade separations at key intersections
 - > Higher bus capacity
 - > Short line service
 - Convert Metro Orange Line to Rail
 - > New construction needed, including:
 - Grade crossing improvements/separations
 - Tracks and station platforms
 - Maintenance Facility
 - > Replacement on-street bus service needed during construction

Metro Orange Line Enhancements

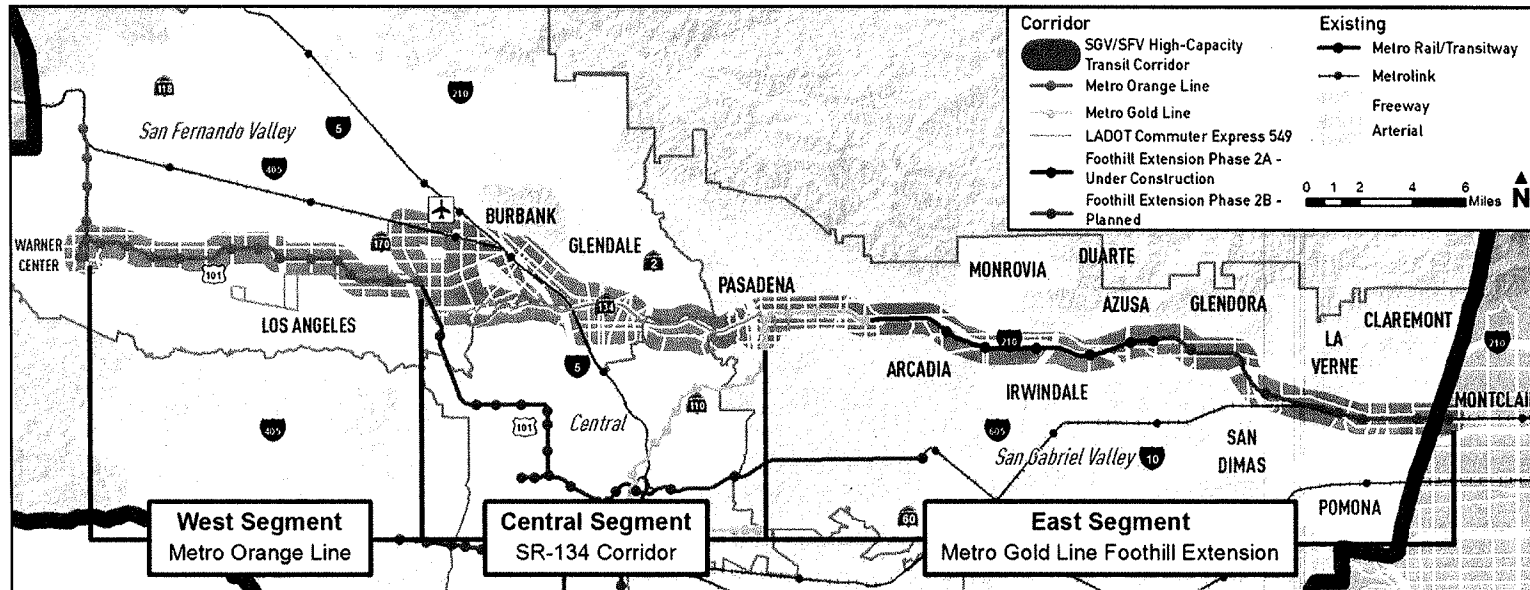
Alternative	Alternative 1 – Improved BRT	Alternative 2 – Conversion to Rail
Existing Travel Time	56 – 59 min	
Projected Travel Time	44 – 49 min	41 – 44 min
Potential Travel Time Improvements	10 – 12 min	15 min
Existing Capacity*	1,300	
Projected Capacity	1,900 – 2,600	3,300 – 7,500
Potential Capacity Improvement over Existing	50% – 100%	150% – 480%
Rough Order of Magnitude (ROM) Capital Cost (2015 \$)	\$230M – \$350M	\$1.2B – \$1.6B
ROM Annual Operations & Maintenance Cost (2015 \$)	\$20M – \$29M	\$46M – \$69M

*Capacity = passengers per hour per direction

- Capacity and travel time improvements can be realized with BRT upgrades



San Fernando Valley/San Gabriel Valley (SFV/SGV) High Capacity Transit Corridor



- Approximately 60-mile corridor from Warner Center to Montclair
- Two alternatives studied:
 - BRT from North Hollywood to Pasadena, transfer to Metro Gold Line
 - › Add BRT ramps to SR-134 HOV lanes
 - › New median busway stations on SR-134
 - LRT service from Warner Center to Montclair
 - › Mix of aerial, at-grade and below grade alignment
 - › Transfer to Metro Gold Line

SFV/SGV High Capacity Transit Corridor

Alternative	West Segment	Central Segment	East Segment
Existing Conditions			
	28,000 ¹	420 ¹	43,000 ¹
Alternative 1 – BRT Service from North Hollywood to Pasadena			
Projected Ridership	28,000+ ² (50% - 100% capacity increase)	1,100-1,700 ³	65,000-77,000 ⁴
Alternative 2 –LRT service from Warner Center to Montclair			
Forecasted Ridership	28,000+ ² (150% - 480% capacity increase)	20,000-30,000 ³	65,000-77,000 ⁴

¹ Includes boardings at all stations along the existing route .

² West segment ridership has not yet been estimated – projected capacity increase shown for reference

³ Central segment ridership forecast in Bob Hope Airport Ground Access Study

⁴ East segment ridership forecast by Foothill Authority

	Alternative 1 BRT (58 miles)	Alternative 2 LRT (61 miles)
Existing Conditions Travel Time (Warner Center to Montclair)	170 – 215 min	
Projected Travel Time	113 – 139 min	126 – 136 min
Potential Travel Time Improvements	57 – 76 min	44 – 79 min
Rough Order of Magnitude (ROM) Capital Cost (2015 \$)	\$1,200M - \$1,900M	\$4,600M - \$8,000M
ROM Annual Operations & Maintenance Cost (2015 \$)	\$110M - \$160M	\$160M – \$250M



Metro

SFV/SGV High Capacity Transit Corridor Findings

- One-seat ride from Warner Center to Montclair may not be feasible
- Transfer to Metro Gold Line required in Pasadena
- Recommendation to start with BRT to build-up ridership