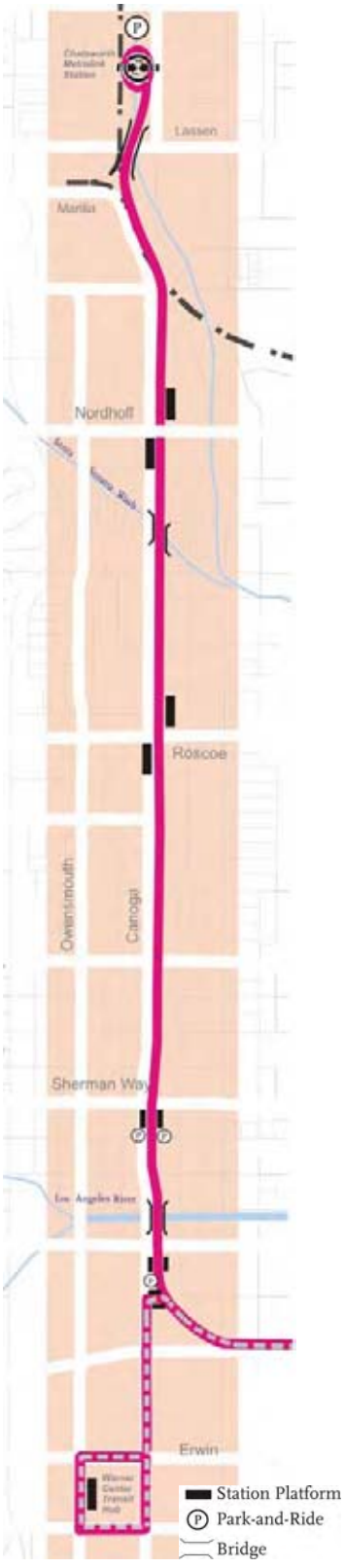
EXECUTIVE SUMMARY



Introduction

The Canoga Transportation Corridor Study was initiated in May 2007 to identify how to build upon the success of the Metro Orange Line (MOL) with a north-south connection from the western end of the busway at the Canoga Station to the Chatsworth Metrolink Station four miles to the north. Initially, eight alternatives along three different corridors were considered. The MOL extension alternatives included on-street, mixed-flow operations and dedicated bus lanes on Topanga Canyon Boulevard, De Soto Avenue and Canoga Avenue. Public scoping meetings were held in July 2007 at which input on project alternatives was solicited. A Screening Report was completed in September 2007 which narrowed the range of alternatives for study in the Draft Environmental Impact Report (DEIR) to two build alternatives, a No Project and a Transportation Systems Management (TSM) Alternative.

The DEIR was publicly circulated between March 3 and April 16, 2008. Public input was received from many individuals and 10 public agencies. The letters from the public generally focused on which alternative or northern option was the author's preferred alternative. The largest number of comments related to the desire for sound walls along residential portions of the corridor and concerns about noise and/or fumes. Most of the public input was supportive of a transportation improvement in the Canoga Corridor, including the landscape and pedestrian/bikeway improvements. Only a few persons were opposed to the project, including a few businesses that might be impacted by it.

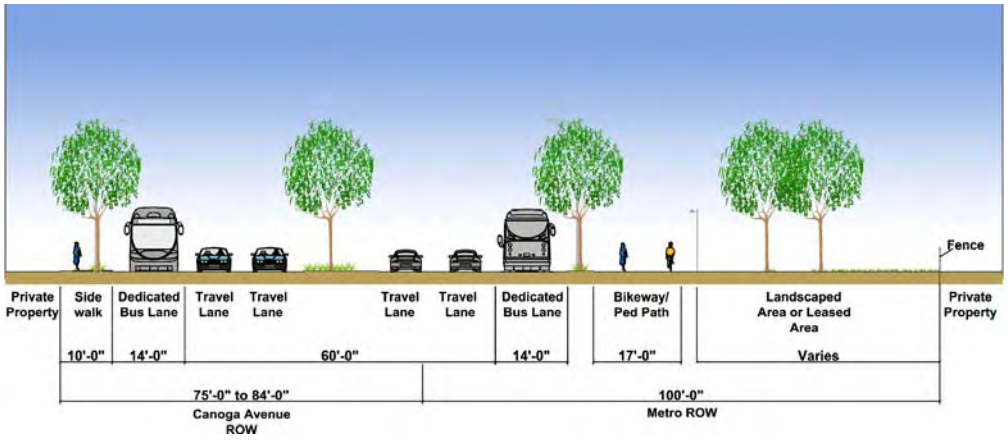
This Comparative Evaluation of Alternatives Report is intended to assist the Los Angeles County Metropolitan Transportation Authority (Metro) Board in selecting a Locally Preferred Alternative (LPA) for the Canoga Transportation Corridor based on the environmental analysis and other evaluation criteria.

Alternatives Evaluated

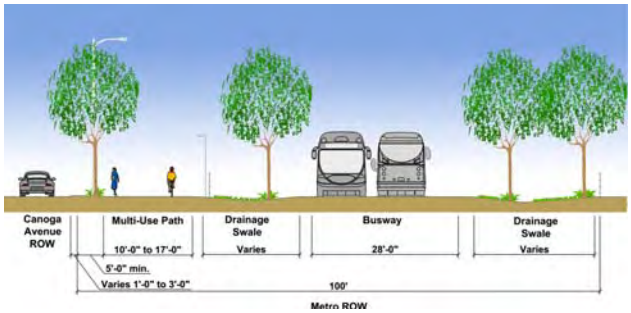
Three Project Alternatives were evaluated in addition to the 2030 No Project condition:

- **Transportation Systems Management Alternative** – addition of local bus service on Canoga Avenue and headway improvements to several existing Metro bus routes

- **On-Street Dedicated Bus Lanes Alternative** – widening of Canoga Avenue into the Metro-owned parallel former railroad right of way to provide dedicated bus-only lanes along the curbs and bicycle/pedestrian paths on the adjacent Metro right of way. The typical cross section for this alternative is illustrated below.



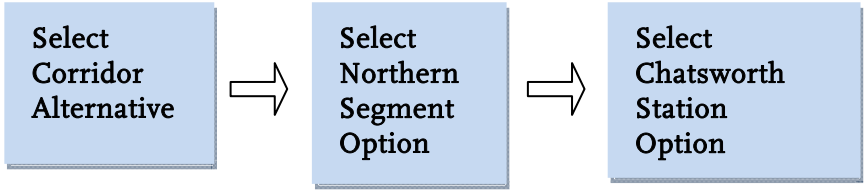
- **Busway Alternative** – extension of the MOL along the Metro-owned right of way with parallel bicycle/pedestrian paths similar to the existing MOL from North Hollywood to Canoga Station. The typical cross section for this alternative is illustrated below.



Locally Preferred Alternative

A corridor alternative (base LPA) is selected first. The northern segment options (how that corridor alternative will be connected to Lassen Street) are discussed and evaluated following the selection of the base LPA. Finally, the Chatsworth Station option that works best with the northern segment option is determined. This three step process is illustrated below.

A Three-Step LPA Selection Process



The Canoga Busway Alternative is the recommended LPA. It meets more of the goals and objectives (see table below) established for this corridor than the other alternatives. The Busway received strong public support, significantly more than any other alternative. It is less costly and more cost-effective than the On-Street Dedicated Bus Lanes Alternative. It provides aesthetic and landscape improvements along the corridor and provides the high-quality premium rapid bus service that has been successful on the MOL.

It also provides more safety (incident prevention) and certainty in terms of bus speeds and travel times into the future since buses are in a dedicated facility separate from autos.

Project Alternatives Comparison				
Goal/Objective	No Project	TSM	On-Street Dedicated Bus Lanes	Busway
Regional Connectivity				✓
North-South Mobility				✓
Land Use & Development				✓
Community Input				✓
Environmental Impacts	✓	✓		
Community Impacts	✓	✓		
Cost-Effectiveness				✓
Total				✓

✓ Alternative which best meets projects goals and objectives
Source: Iteris, 2008

The capital costs for the TSM Alternative include only the costs of additional buses, whereas the capital costs for the build alternatives includes the infrastructure and vehicle costs. The capital costs for the base (Option 1) alternatives are:

TSM Alternative: $12.6 million (2007 dollars)

On-Street Dedicated Lanes Alternative: $207.7 million (2007 dollars)

Busway Alternative: $157.3 million (2007 dollars)

The On-Street Dedicated Lanes Alternative is more costly than the busway because Canoga Avenue would have to be widened and re-built as part of that alternative, in addition to the costs of the parallel bike and pedestrian pathways and landscaping, whereas the Busway leaves Canoga Avenue largely as is and most of the capital cost is spent within the Metro right-of-way.

The annualized capital and operating costs for the alternatives are described below in 2007 dollars. The TSM Alternative is lower in cost, but also results in less annual hours of travel time savings for riders.

Cost-Effectiveness Calculation: Incremental Value Over No Project			
Alternative	**Annualized Capital Costs (2007 $)**	**Annual O&M Cost (millions 2007 $)**	**Annual Hours Saved (millions)**
TSM	$1.59	$15.33	0.08
On-Street Dedicated Bus Lanes Alternative	$56.43	$23.05	0.98
Busway	$33.42	$22.04	0.99

Source: Iteris, 2008

The Federal Transit Administration utilizes a factor called the cost-effectiveness index to compare transit projects around the country. The index is a measure of the cost to obtain an hour of travel time savings. The table below shows that the Busway Alternative is the most cost-effective alternative because it costs less than the On-Street Dedicated Lanes Alternative, while achieving slightly higher travel time savings and while it may be more expensive than the TSM Alternative, it results in much greater travel time savings.

Cost-Effectiveness Index Calculation (Lower is Better)		
Build Alternative	**Annualized Cost Per Hour Saved**	
	Over No Project	**Over TSM**
TSM	$ 211	-
On-Street Dedicated Bus Lanes	$ 81	-$130
Busway	$ 56	-$155

Source: Iteris, 2008

As seen on the table above, the Busway Alternative would be the most cost-effective alternative.

Stations on the Busway Alternative will be located at the following locations:

- Canoga Park-and-Ride Station (additional platforms added to the existing stations
- Sherman Way Park-and-Ride Station (includes parking)
- Roscoe Station
- Nordhoff Station
- Chatsworth Metrolink Park-and-Ride Station (additional platforms added, location depends upon which Northern Terminus Option is selected)

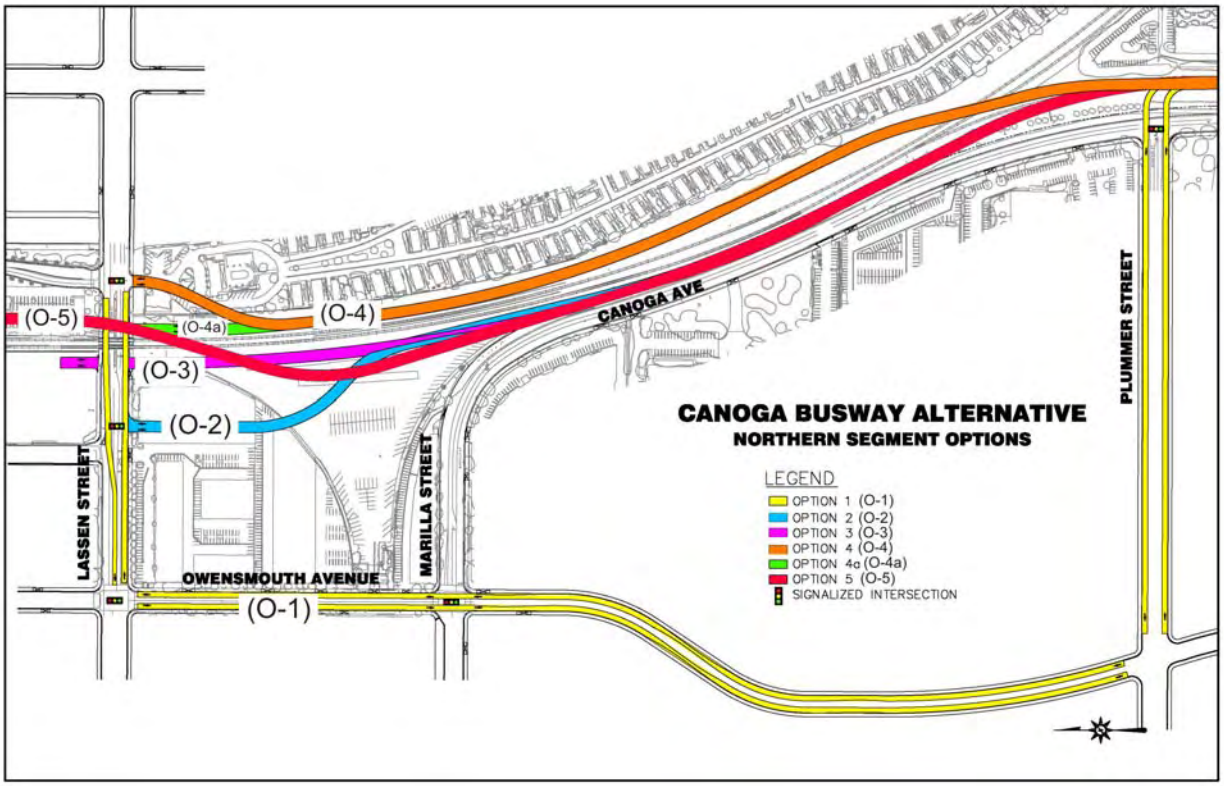
<u>Northern Terminus Option 5 – Grade Separation into Chatsworth Metrolink Station</u> is recommended as the LPA.

Five northern segment options were considered. These options are illustrated below.

Option 1 Busway Ends At Plummer - This has lowest capital cost, but would also be the least safe and have the lowest bus operating speed, thus lengthening travel times and reducing the quality of MOL service. This option is opposed by the Los Angeles Department of Transportation (LADOT), the Union Pacific Railroad Company (UP), the California Public Utilities Commission (PUC), and

Metrolink, due to safety concerns with buses crossing the railroad tracks at grade. Conversion to LRT under this option would be very costly due to property acquisitions.

Option 2 At-Grade "T" Intersection on Lassen Approx. 200 Ft West of Tracks – This option would have relatively low costs (even though it requires property acquisitions) and is also one of the least safe and slower options. Conversion to LRT under this option would be very costly due to property acquisitions.



Option 3 At-Grade Parallel Crossing of Lassen West of Tracks – this option is a faster and safer option compared to Options 1 and 2; however, it would require the station be on the west side of the railroad tracks (private property to be acquired) and this would make the rail-bus interface less convenient for travelers. Furthermore, having the station on the west side of the tracks would make LRT conversion more difficult in the future. This option would require a new signal on Lassen Street at the busway's crossing. This signal may require simultaneous railroad gate activation, causing additional traffic delays.

Option 4 Underpass of Tracks with Crossing of Lassen East of Tracks – These options are also faster and safer; however, they negatively impact the Sunburst Mobile Home Park, may be opposed by the UP railroad, and are difficult and costly to construct due to the undercrossing of the active rail tracks. Furthermore, this option would require a new signal on Lassen Street at the busway's crossing. This signal may require simultaneous railroad gate activation, causing additional traffic delays. This option would have lower LRT conversion costs, as the necessary ROW would have already been secured.

Option 5 Elevated/Underground Grade Separation of Railroad Tracks and Lassen Street – this option would be the safest way to access the Metrolink station. Furthermore, no private property would have to be acquired for this option. However, the overpass version of this option could be opposed by some due to visual concerns. The underpass version would cost significantly more than the other options. The overpass version would not cost more than Options 4 and 3.

As stated above, Option 5 is recommended as the LPA.

Chatsworth Station

Given that Option 5 is the preferred northern segment option, **Chatsworth Station Option D is the LPA.**

The total cost of the LPA, with the Busway, northern segment Option 5 (overcrossing) and Chatsworth Station Option D, is $191 million in 2007 dollars.

Other Considerations

- An optional station at Parthenia was included in the DEIR. It is recommended that it not be included in the LPA because it would result in one-half mile station spacing, closer than desired on rapid bus service or BRT and would attract a small number of new riders (250 per day). It also increases the cost of the project by $4.6 million (2007 dollars).

- The potential on-street, mixed-flow extension of MOL service north of the Chatsworth Metrolink Station to the SR-118 freeway was evaluated. It is not recommended because of the difficulty of locating a park-and-ride lot at SR-118, limited ridership forecast on the extension, congestion on the routes to the SR-118 which would slow bus travel times, and significant community opposition.