

## PURPOSE

This section identifies 167 bike-transit hubs and provides a systematic audit procedure and 12 conceptual bike-transit hub access plans. Bike-transit hubs are locations where a combination of elements – numerous transit and/or rail service lines, activity, and surrounding demographics – make them prime candidates to improve bicycle access. The goal is to allocate bikeway resources to areas that will improve both bicycle and transit ridership in the form of linked trips.

Effective public transit depends on people being able to walk or bicycle comfortably and safely to and from stations and stops, which also reduces the need for additional car parking. Other benefits to bike-transit connections are improved mobility choices, a denser and mixed-use urban environment, and improved physical health through active lifestyles.

Metro chose to focus on bicycle accessibility to transit hubs rather than an arterial system of bikeways for several reasons. Bike-transit hubs:

1. Provide benefits at a low cost
2. Provide seamless travel with transit
3. Leverage transit investments
4. Increase personal mobility by increasing options
5. Mitigate traffic congestion
6. Meet federal and state legislative objectives
7. Reduce dependence on private automobiles
8. Reduce parking demand
9. Assist the ongoing effort to reduce air pollution
10. Decrease energy use

### What is a Bike-Transit Hub?

Bike-transit hubs are on-street or off-street transit stops or transit centers with one or more municipal transit operators and travel modes, and high volumes of transit riders.

#### 1. On-street Transit Stop

- Stop may be used by a single or combination of services including Metro Rapid, Metro Local, MUNI Operator, Other Service Provider and community-based operations; along with limited and express services where appropriate
- On-street customer service and bus layover facilities
- Accessed by bus transfer, drop-off, walking, and bicycle
- May be located adjacent to transit-oriented retail and/or mixed-use development
- Customer services and amenities may include:
  - Service identity
  - Service maps/timetables
  - Lighting
  - Bicycle parking
  - Sidewalk/intersection paving improvements (for improved pedestrian and ADA access and safety)

#### 2. On-street Transit Center or Community Transit Center

- Serves a high level of bus activity including Metro Rapid, Metro Local, MUNI Operator, Other Service Provider and community-based operations; along with limited and express services where appropriate
- On-street customer service; primarily on-street bus service/layover facilities
- Accessed by bus transfer, drop-off, walking and bicycle
- May include shared park-and-ride opportunities in some locations
- May be located adjacent to transit-oriented retail and/or mixed-use development
- Customer services and amenities may include:
  - Service identity
  - Service maps/timetables
  - Lighting
  - Seating and phones
  - Neighborhood area maps/information
  - Ticket vending machines
  - Communication systems (such as VMS) to provide real-time travel, service problem, and delay information



- Bicycle racks
- Sidewalk/intersection paving improvements (for improved pedestrian and ADA access and safety)

### 3. Off-Street Transit Center or Subregional Transit Center

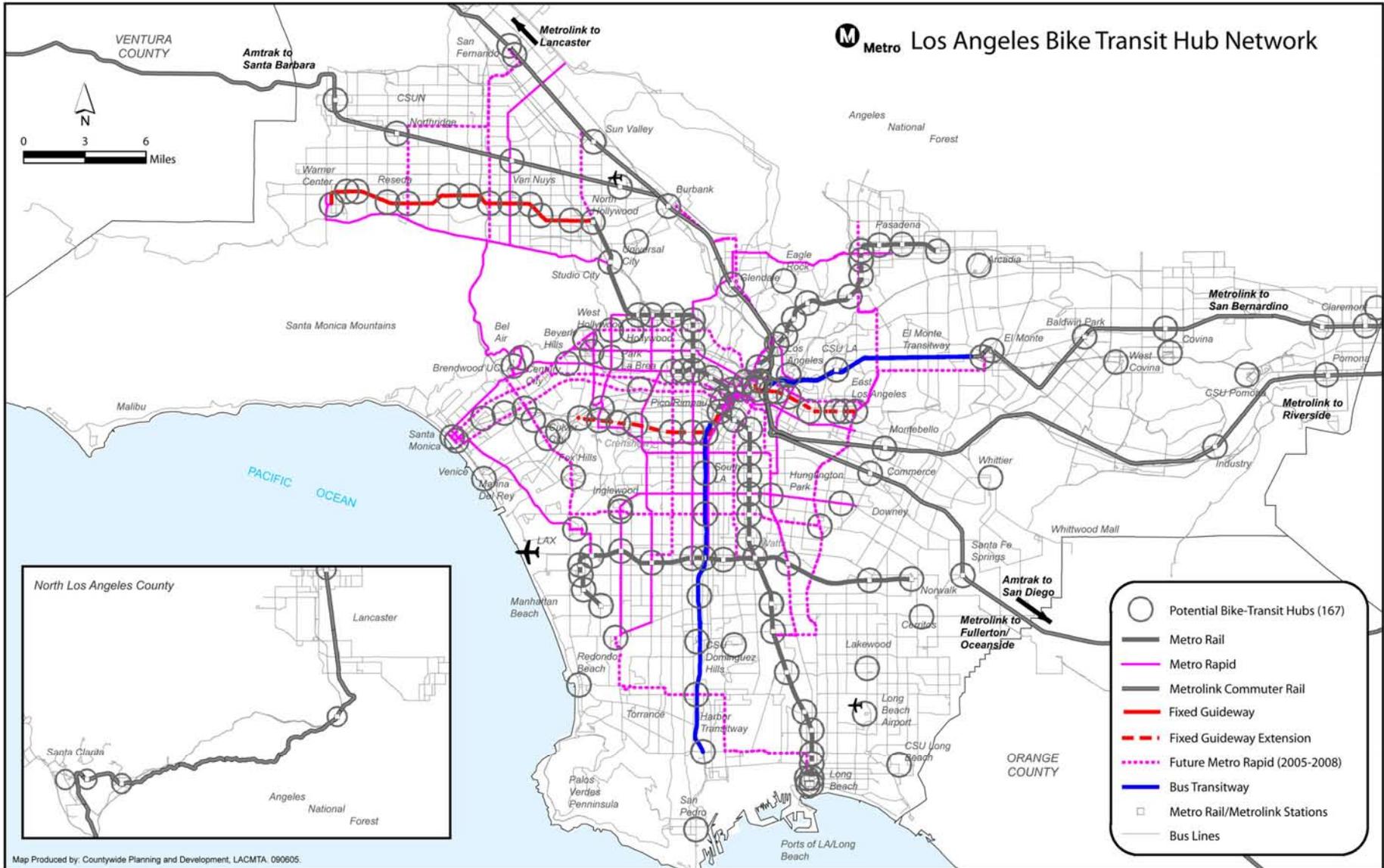
- Serves Metro Rail and/or the interface of two Metro Rapid lines along with Metro Local, MUNI Operator, Other Service Provider and community-based services; along with limited and express services where appropriate
- May include a combination of on- and off-street customer service and bus service/layover facilities; may include some operational support facilities
- Accessed by full range of modes: rail and bus transfer, auto, drop-off, walking, and bicycle
- May include shared or transit-only park-and-ride facilities
- May be located adjacent to transit-oriented retail and/or mixed-use development; may be integrated with on-site development
- Customer services and amenities may include:
  - Service identity
  - Customer protection (canopy, shelter or building element)
  - Service maps/timetables
  - Neighborhood area map/information
  - Ticket vending machines
  - Lighting, seating, and phones
  - Bicycle racks/lockers
  - Sidewalk/intersection paving improvements (for improved pedestrian and ADA access and safety)
  - Communication systems (such as VMS) to provide real-time travel, service problem, and delay information
  - Closed-circuit television cameras and security speaker telephones
  - Landscaping
  - Public art

### 4. Major Transit Center or Regional Transit Center

- Serves Metro Rail and the interface of two or more Metro Rapid lines along with Metro Local, MUNI Operator, Other Service Provider and community-based services; along with limited and express services as appropriate
- May include a combination of on- and off-street customer service and bus service/layover facilities; may include some off-street operational support facilities
- Accessed by full range of modes: rail and bus transfer, auto, drop-off, walking and bicycle
- May include shared or transit-only park-and-ride facilities
- May be located adjacent to transit-oriented retail and/or mixed-use development; may be integrated with on-site development
- Customer services and amenities may include:
  - Service identity
  - Customer protection (canopy, shelter or building element)
  - Service maps/timetables
  - Neighborhood area map/information
  - Ticket vending machines
  - Lighting
  - Seating and phones
  - Bicycle racks/lockers
  - Sidewalk/intersection paving improvements (for improved pedestrian and ADA access and safety)
  - Communication system (such as VMS) to provide real-time travel, service problem and delay information
  - Closed-circuit television cameras monitored by security personnel and security speaker telephones
  - Landscaping
  - Public art



Map 1 – Bike Transit Hubs



## BIKE-TRANSIT HUBS

The 167 bike-transit hubs identified in Los Angeles County are shown on Map 1, and a list of the hubs is in Appendix A.

As our stated goal is to improve bike-transit access to these hubs, the next step is to conduct an audit of the hub and surrounding streets. A Bike-Transit Hub Audit Process was developed that can be used by local agencies to identify the obstacles to bicycle access to the hub and, therefore, to transit. This Audit Process can be found in detail in Appendix B: How to Conduct a Bike-Transit Audit.

Next, we selected 12 of the 167 Bike-Transit Hubs to develop prototype, or “template,” Bike-Transit Hub Access Plans. The following criteria was used for selecting the 12 hubs:

- Agency nomination
- Geographical distribution
- Diversity of transit use
- Site characteristics

It is important to note that Bike-Transit Hub Access Plans can be replicated by any local agency. The Audit and Access Plans are not a replacement for sound engineering, feasibility, and other efforts, but instead are intended to help local agencies develop enough information to move forward with obtaining funding and completing design work. Metro may prioritize bike-transit hub improvements in its next Call for Projects as well.

### Bike-Transit Hub Access Plans

Staff conducted a field audit of each of the selected 12 bike-transit hubs, and Access Plans were developed for each. The Access Plans are as follows:

#### Metro Red Line .....Pages 21–26

1. North Hollywood Bike-Transit Hub: Bike to Urban Heavy Rail

#### Metro Gold Line .....Pages 27–32

2. Chinatown Bike-Transit Hub: Bike to Urban Downtown Light Rail

#### Metro Blue Line .....Pages 33–38

3. Willow Bike-Transit Hub: Bike to Urban Light Rail

#### Metrolink.....Pages 39–52

4. Downtown Pomona Metrolink Bike-Transit Hub: Bike to Urban Commuter Rail
5. Palmdale Metrolink Bike-Transit Hub: Bike to Suburban Commuter Rail

#### Transit Centers .....Pages 53–70

6. El Monte Bike-Transit Hub: Bike to Regional Transit Center
7. Harbor Transitway (Exposition Park/USC) Bike-Transit Hub: Bike to Busway
8. LAX Bike-Transit Hub: Bike to Metropolitan Airport

#### Metro Rapid .....Pages 71–98

9. Inglewood Bike-Transit Hub: Bike to Metro Rapid and Local Bus at Neighborhood Transit Center
10. South Gate Bike-Transit Hub: Bike to Metro Rapid and Local Bus at Commercial Center
11. South Bay Galleria Bike-Transit Hub: Bike to Metro Rapid and Local Bus at Commercial Center
12. West Hollywood Fairfax Bike-Transit Hub: Bike to Local Bus and Future Metro Rapid at Commercial Center





## NORTH HOLLYWOOD BIKE-TRANSIT HUB

City of Los Angeles



## NORTH HOLLYWOOD BIKE-TRANSIT HUB

### Bike to Urban Heavy Rail

**Hub ID:** 215 (Refer to Bike-Transit Hub Data Spreadsheet)  
**Name:** North Hollywood (Metro Red Line Station, Orange Line)  
**Intersection:** Lankershim Boulevard and Chandler Boulevard  
**Jurisdiction:** City of Los Angeles

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

Metro’s North Hollywood Red Line station is located at the east end of the San Fernando Valley just south of Burbank. North Hollywood (“NoHo”) is an up-and-coming mixed-use district with many multi-story infill projects underway around the station and nearby. Theaters, restaurants, and a large city park (North Hollywood Park) are some of the attractions. It is the northwest terminus of the Metro Red Line subway and the east terminus of the Metro Orange Line busway. The station has a large and fully utilized park-and-ride lot.

- Terminus of Metro Red Line and Metro Orange Line busway.
- Medium density urban location, typically to 3- and 4-story.
- Land uses are a combination of commercial, auto dealership, restaurant, office, and multi-family mid-rise residential.
- Topography is flat.
- Major barriers include North Hollywood Park and the Hollywood Freeway (CA-170).

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). In comparison to other transit hubs in Los Angeles County, the North Hollywood Station had higher than average transit service and employment densities, slightly lower than average population and transit ridership densities and slightly higher than average median income. Our analysis of transit and bicycle ridership at this location indicates that it scores 180 out of 359, or in the 50th percentile of all bike-transit hubs. Transit hub scoring serves as a way to compare transit hubs across the County.

The table on the following page draws on 2000 Census data, SCAG population and employment projections for the year 2010 and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.

<b>Metro Bus Riders</b>	8,086	<b>Local Bus Service (Other)</b>	No
<b>Metro Rail Riders</b>	16,513	<b>Population (3 miles)</b>	51,128
<b>BRT Service</b>	Yes	<b>Employment (3 miles)</b>	59,483
<b>Existing Transit Center</b>	Yes	<b>Household Income</b>	\$43,888
<b>Metro Rapid</b>	No	<b>Transit Riders (3 miles)</b>	6,133

In addition, the following major activity centers and destinations are located within the study area:

- Restaurant/theater district to the south.
- Several schools on McCormick Street, including a future high school site on Vineland.



- Major park (North Hollywood Park).
- Future development projects planned by Metro and the Community Redevelopment Agency on right-of-way westbound from Ethel Avenue and eastbound from Vineland Avenue.

**Bicycle Access Conditions**

Key bicycle access observations include:

- To the west, North Hollywood Park and the Hollywood Freeway constrain east-west route choices to Burbank Boulevard, Chandler Boulevard, Magnolia Boulevard, and Camarillo Street.
- To the east, Vineland Avenue, a difficult to cross 4- to 6-lane arterial, only has signals at Burbank Boulevard, Chandler Boulevard, Magnolia Boulevard, and Camarillo Street. A project is underway to improve bicycling conditions on Vineland and provide an additional Chandler Bike Path connection for one mile to the Burbank Chandler Bike Path.
- The district to the south and north has an intact street grid, but the old rail right of way paralleled by Chandler Boulevard interrupts it.
- Lankershim Boulevard cuts diagonally across the grid in the northwest-southeast direction and interrupts local-street access.
- Chandler Boulevard is the key east-west route with bike lanes. It crosses under the freeway without an interchange. Chandler jogs across the old rail right of way at Vineland Avenue; a project is underway to make this a safer bicycle and pedestrian link. To the west, a bikeway parallels the Orange Line from Lankershim Boulevard to Warner Center. To the east, a bike path is planned from Vineland Avenue to Clybourn Avenue. An existing bike path runs from Clybourn Avenue to Victory Boulevard.
- Bakman Avenue is a good north-south local-access alternative to Tujunga Avenue.
- Weddington Street is a good east-west local-access alternative to Chandler Boulevard between Tujunga Avenue and Vineland Avenue.

**Bicycle Facilities**

Existing bike lanes: Chandler Boulevard  
 Existing bike paths: Chandler Boulevard to the east  
 Existing Bicycle parking: Table

Location	Parking Type	Spaces	Accessibility	Security
NoHo Station	Racks	64	Good	Poor
NoHo Station	Lockers	12	Good	Good

**Transit Connections**

Transit Type	Agency	Description
Rail Lines	METRO	Red Line
Bus Rapid Transit Line	METRO	Orange Line
Bus Lines	METRO	152
		154
		156
		166
		183
		353
	Burbank Bus	363
		NOHO-Empire (Airport) Media District



Chandler Bike Path



Existing Conditions



North Hollywood Metro Red Line station



Bike racks and lockers at station



Rough pavement on Lankershim Boulevard, looking north from Killion Street



New High School on Vineland Avenue



Bike lane on Chandler Boulevard, eastbound past North Hollywood Park



Burbank Boulevard facing east



## Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

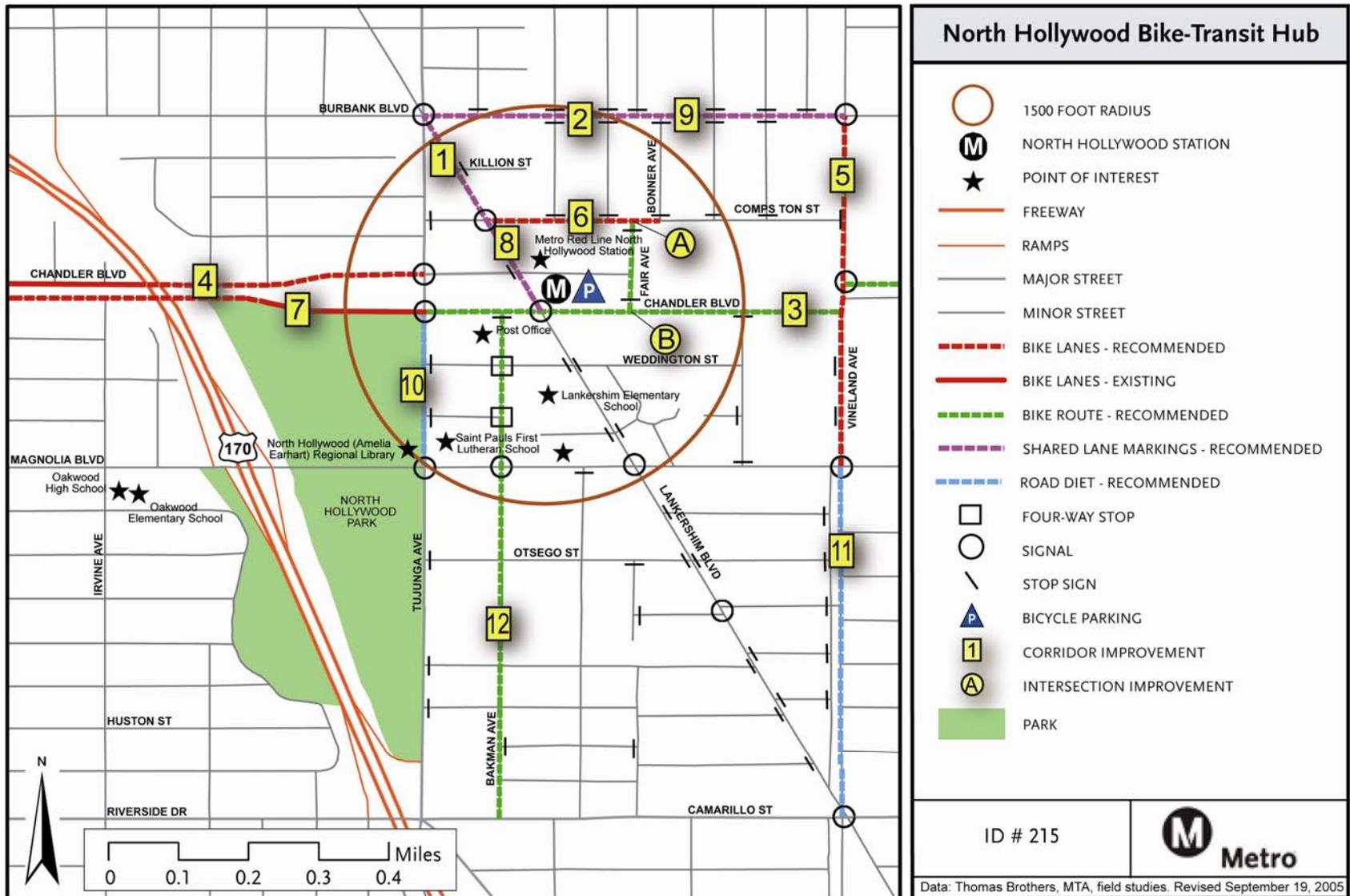
Improvements for the bicycle access routes to the Willow station are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing. The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Repair/replace damaged pavement	1	Lankershim Blvd: between Killion Street and Burbank Blvd	0.08	\$10-20 per sq ft
	2	Burbank Blvd: between Lankershim and Vineland Ave.	1.03	\$10-20 per sq ft
Add Bike Lanes	3	Chandler Blvd: between Fair and Vineland Ave. (Bike lanes already planned and roadway is being widened)	0.25	n/a
	4	Chandler Blvd: between 170 and Tujunga	0.83	\$24,800
	5	Vineland Ave: between Burbank and Chandler. (This is planned for 2006.)	0.50	\$15,000
	6	Compston St: between Lankershim and Bonner Ave.	0.21	\$6,200
	On eastbound Chandler approaching North Hollywood Park, add a second line of bike lane dashes between the bus stop and the start of the diagonal parking.			

Corridor Improvements (Cont.)	Map Key	Location	Miles	Est. Cost
Add narrow painted island between bike lane and parking	7	Chandler St.: eastbound at the park.	0.04	\$1,300
Shared lane markings	8	Lankershim Blvd: between Chandler and Burbank	0.31	\$1,600
	9	Burbank Blvd: between Lankershim and Vineland Ave.	0.50	\$2,500
Potential lane reduction (Road Diet)	10	Tujunga Ave: between Chandler and Magnolia	0.30	\$12,500
	11	Vineland Ave: between Chandler and Camarillo	1.45	\$65,400
Add bike route and directional signage	12	Bakman Ave: between Chandler and Camarillo	0.72	\$7,200
Intersection Improvements	Map Key	Location	Est. Cost	
Provide bicycle sensitive detector loop and bicycle detection marking	On all lead positions and left turn lanes. \$2,500 per intersection.			
Place bicycle lane between left and right turn lanes on Fair Ave.	A	Fair Ave. at Compston St	n/a	
	B	Fair Ave. at Chandler Blvd.	n/a	
The intersection at Vineland and Chandler will be signalized to facilitate the transition from the Chandler bike path to the Vineland bike lanes.				
Bicycle Parking				
On sidewalks in retail/commercial/restaurant blocks, provide individual inverted-U's as needed. (\$100 per 2-bike U-rack)				
Check supply of racks at North Hollywood Station.				



Map 2 – North Hollywood Bike-Transit Hub Recommendations



## CHINATOWN BIKE-TRANSIT HUB

City of Los Angeles



## CHINATOWN BIKE-TRANSIT HUB

### Bike to Urban Downtown Light Rail

**Hub ID:** 501 (Refer to Bike-Transit Hub Data Spreadsheet)  
**Name:** Chinatown (Gold Line Station)  
**Intersection:** Alameda Street/ College Avenue  
**Jurisdiction:** City of Los Angeles

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

The Chinatown Station is located just under half a mile north of Union Station, in the northern part of Downtown Los Angeles. The Chinatown area is characterized by a moderate to high-density combination of commercial uses (offices, restaurants, shops), residential uses, and on the eastern side, heavy and light industry and warehousing. Chinatown itself is a tourist destination, as is Olivera Street, located a quarter mile southeast of the station.

Broadway Boulevard and Main Street lead to San Fernando Boulevard, which in turn leads to the start of the Los Angeles River Path approximately four miles north of the Chinatown Station. Chinatown’s proximity to Union Station, downtown, Dodger Stadium, and the redeveloping Los Angeles River corridor makes it a very active location for bicyclists, especially those commuting to work.

- Metro Gold Line station.
- High density urban location.
- Land uses are a combination of office, restaurant, and residential.
- Topography is generally flat with low hills.
- Major barriers include the UPRR and Gold Line tracks to the east.

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). The area surrounding the Chinatown Gold Line Station has slightly higher transit service and a significantly higher concentration of transit riders than the average transit hub in Los Angeles County. The surrounding area has very low median income and very low employment density compared to other transit hubs. Area population densities are average. Our analysis of transit and bicycle ridership at this location indicates that it scores 236 out of 359, or in the 66<sup>th</sup> percentile of all bike transit hubs.

The table on the following page draws on 2000 Census data, SCAG population and employment projects for the year 2010 and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.



Metro Bus Riders	1,989	Local Bus Service (Other)	Yes
Metro Rail Riders	1,531	Population (3 miles)	53,139
BRT Service	No	Employment (3 miles)	17,103
Existing Transit Center	Yes	Household Income	\$26,303
Metro Rapid	No	Transit Riders (3 miles)	32,107

In addition, the following major activity centers and destinations are located within the study area:

- Ann Street and Castelar Street Elementary Schools
- Chinatown Branch Library
- Pacific Alliance Medical Center
- Dodger Stadium
- Union Station

### Bicycle Access Conditions

Key bicycle access observations include:

- Streets in area are busy with on-street parking and double-parking by delivery trucks.
- Traffic speeds are relatively low and streets are reasonably wide.
- Intersections are complex, with many oblique angles, and no bicycle actuation.
- Security issues in the area lend themselves to bicycle lockers or other similar solutions.
- Street grid pattern is broken, making wayfinding difficult.
- The north ends of Broadway and Alhambra have higher traffic speeds, heavy peak hour flows, and traverse heavy industrial areas

### Bicycle Facilities

Existing bike lanes: None

Existing bike paths: None

Existing bicycle parking: Table

Location	Parking Type	Spaces	Accessibility	Security
Chinatown Station	Racks	6	Good	Fair

### Transit Connections

Transit Type	Agency	Description
Rail Lines	METRO	Gold Line
		45
		46
		58
		76
		81
		83
		84
		85
		90
		91
		94
		96
		394
	LADOT	B
		409
	LADOT CE	413
		419
	Antelope Valley	785
		794
	Santa Clarita	799
Bus Lines		



## Existing Conditions



Bike racks at station



College Avenue facing west from rail line



College Avenue facing east from I-110



Spring Street facing south



Spring Street facing north towards station



Alameda Street facing south across College Avenue



## Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

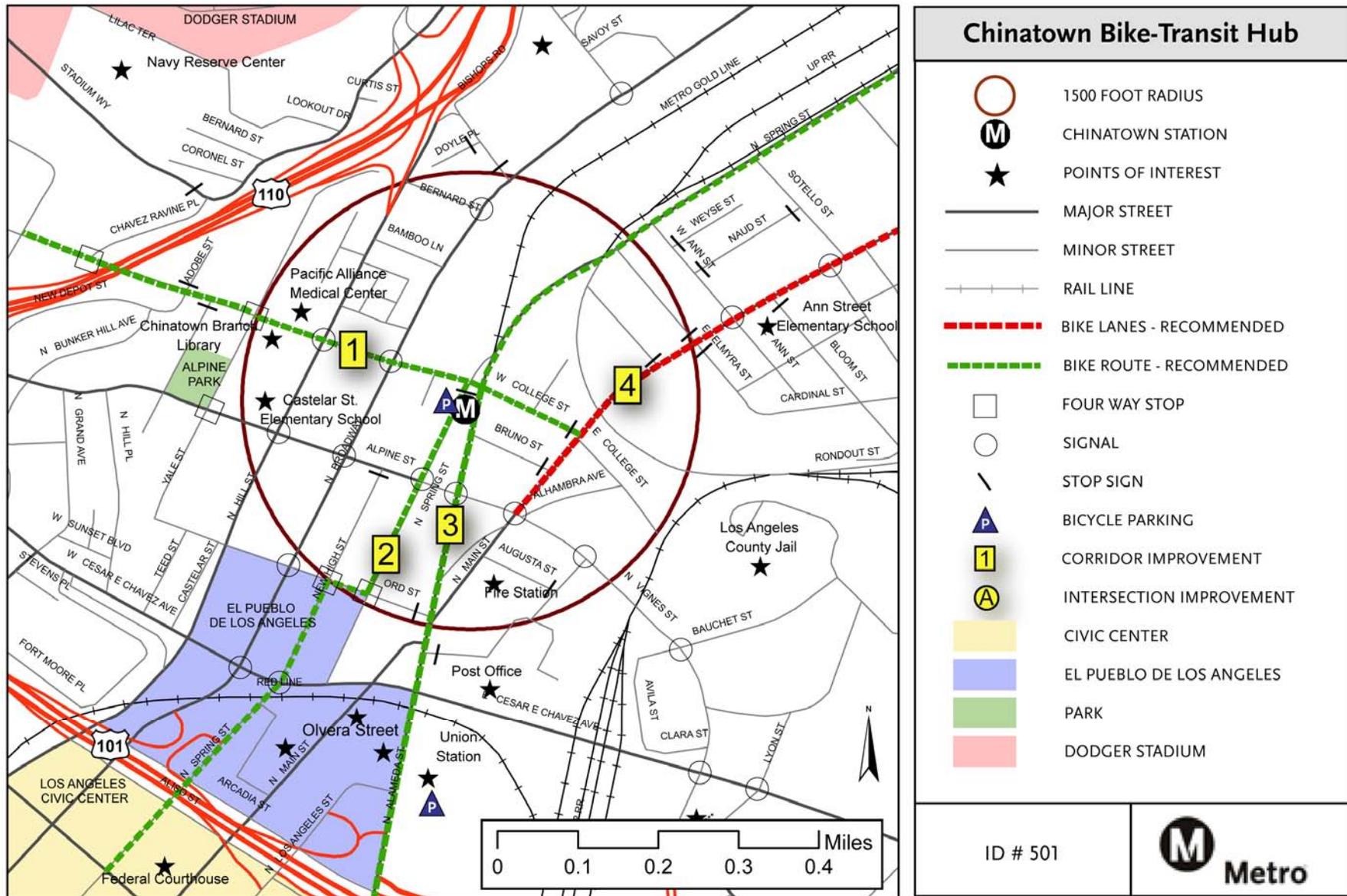
Improvements for bicycle access to the Chinatown hub are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing.

The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Add Class III bike route signage and stencils. Add directional signage.	1	College St: between Main St. and Figueroa Terrace	0.64	\$6,400
	2	Spring Street: from E. Temple St. over the 101 Freeway	1.23	\$13,000
	3	Alameda St: between College St. and E. Commercial St.	0.73	\$7,300
Add Class II bike lanes or consider for 3-4 lane road diet.	4	North Main St: between Alpine Ave. and Lamar St. Bike lanes can be accommodated by removing parking and restriping to 6 11 11  11 11 6. Road diet can be accommodated by adding a center turn lane and restriping to 13 10  10  10 13	0.93	\$27,900
<b>Suggested Bicycle Parking</b>				
Add bike lockers at Chinatown Station (\$1,500 per 2-bike locker).				
Install inverted-U racks in front of businesses in Chinatown where sidewalk widths allow (\$100 per 2-bike U-rack).				



Map 3 – Chinatown Bike-Transit Hub Recommendations



## WILLOW BIKE-TRANSIT HUB

City of Long Beach



## WILLOW BIKE-TRANSIT HUB

### Bike to Urban Light Rail

<b>Hub ID:</b>	315 (Refer to Bike-Transit Hub Data Spreadsheet)
<b>Name:</b>	Willow Station (Metro Blue Line)
<b>Intersection:</b>	Long Beach Boulevard and 27 <sup>th</sup> Street
<b>Jurisdiction:</b>	City of Long Beach

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

Metro’s Willow Station is located on Long Beach Boulevard north of downtown Long Beach. It is in a medium density urban area with many parcels under redevelopment. Typical building heights are three to four stories. The station is bordered by a shopping center and an elementary school. Two medical centers, Long Beach Memorial Medical Center and Pacific Hospital, are within a quarter mile of the station. Veterans’ Memorial Park is located just north of the station. .

- Medium density urban location with many parcels currently

- redeveloping, typically to 3- and 4-stories.
- Land uses include a major medical center, a shopping plaza with supermarket, two elementary schools (Jackie Robinson Academy and Oakwood School), a neighborhood park (Veterans Memorial Park), and single-family residential neighborhoods.
- Topography is mostly flat except for hills to the east.

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). The three-mile area around Willow Station has slightly higher than average transit service and slightly lower than average median income than other transit hubs in the County. Population density is slightly lower in comparison to other transit hubs while the number of transit riders who live in the three-mile radius is slightly above average. Our analysis of transit and bicycle ridership at Willow Station indicates that it scores 183 out of 359, or in the 51st percentile of all bike-transit hubs.

The table on the next page draws on 2000 Census data, SCAG population and employment projects for the year 2010, and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.



Metro Bus Riders	118	Local Bus Service (Other)	1515
Metro Rail Riders	6035	Population (3 miles)	63,964
BRT Service	Future	Employment (3 miles)	68,427
Existing Transit Center	Yes	Household Income	\$34,288
Metro Rapid	No	Transit Riders (3 miles)	9533

In addition, the following major activity centers and destinations are located within the study area:

- Jackie Robinson Academy on Long Beach Boulevard
- Oakwood School at Pacific Avenue and 27th Street
- Long Beach Memorial Medical Center
- Pacific Hospital of Long Beach

### Bicycle Access Conditions

Key bicycle access observations include:

- The at-grade Blue Line tracks on Long Beach Boulevard present hazards for cyclists.
- To the west there is an intact, fine-grained grid of residential streets all the way to the Los Angeles River.
- Willow Street (running east-west) and Long Beach Boulevard (running north-south) are arterials with narrow lanes and on-street parking.
- Both 27th and 28th Streets are candidates for east-west connectors to the L.A. River path because both line up well with the west side of the station, cross Pacific Avenue at signals and are residential local streets west of Pacific. However, 27th connects more directly to the station, the adjacent shopping plaza, and the gated crossing of the Metro Blue line to reach the Medical Center to the east.
- Southbound Long Beach Boulevard has a pinch point approaching the tracks and an angled crossing of the two tracks.

- A 1.2-mile Class I bike path is planned along the former Pacific Electric right-of-way starting at Long Beach City College and extending northwest toward the Willow Blue line station. Due to existing development, the Class I path will not extend the entire way to the station.

### Bicycle Facilities

Existing bike lanes: Spring Street east of Long Beach Boulevard  
 Existing bike paths: Los Angeles River bike path and proposed Pacific Electric right-of-way bikeway improvements  
 Existing bicycle parking: Table

Location	Parking Type	Spaces	Accessibility	Security
Willow Station	Composition. Locker	8	Good	Good
Willow Station	eLocker	2	Good	Good
Willow Station	Racks	16	Good	Fair
Parking garage	Lockers	16	Good	Good

### Transit Connections

Transit Type	Agency	Description
Rail Lines	METRO	Blue Line
Bus Lines	METRO	60
		360
	Long Beach	51
		52
		192
		102



## Existing Conditions



Pine Street approaching 28<sup>th</sup> Street



Spring Street at Long Beach Boulevard



Willow Street diagonal railroad crossing



Bike lockers at Willow Station



Bike racks at Willow Station



Willow strip mall by station garage showing bike signage



## Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

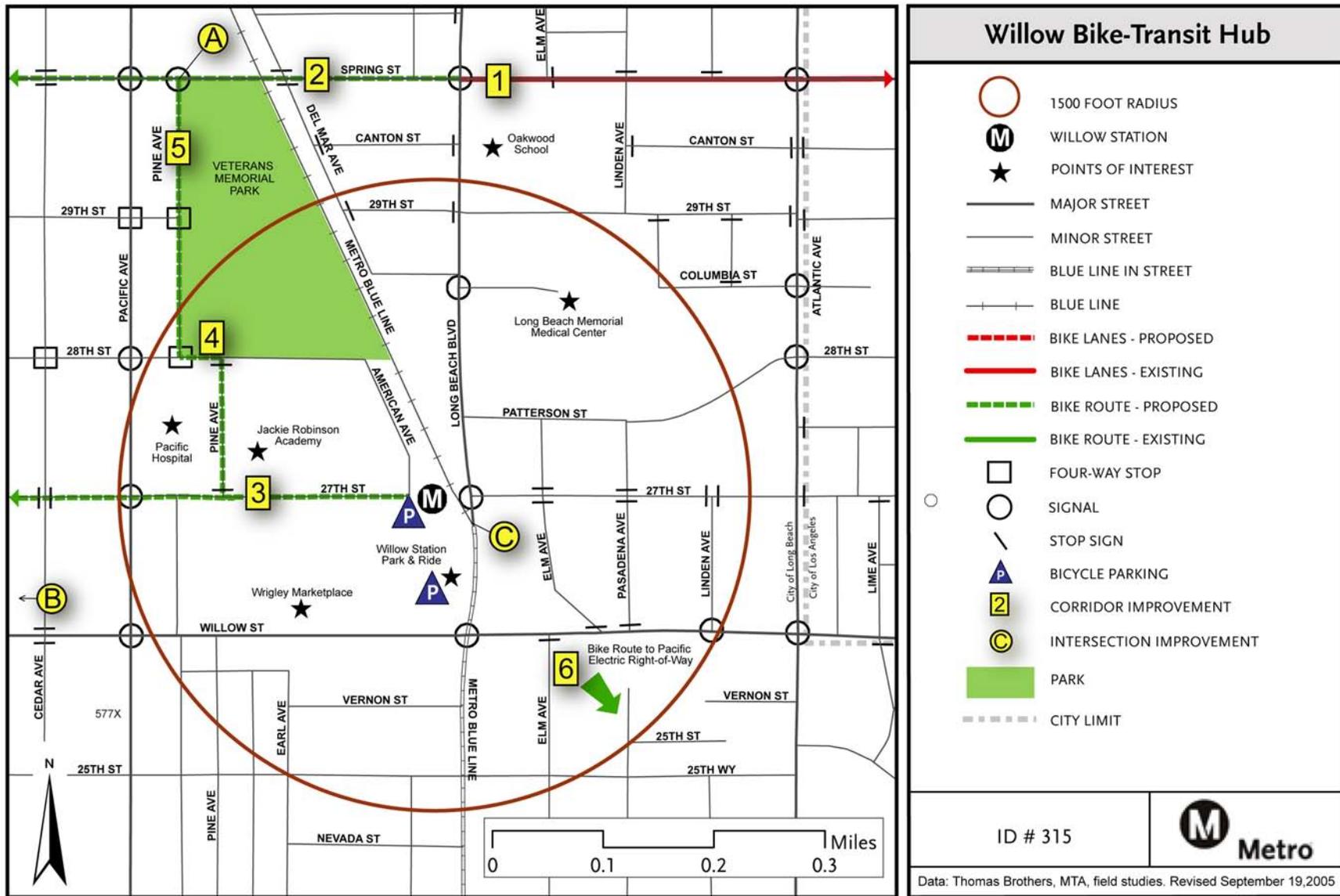
Improvements for the bicycle access routes to the Willow station are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing. The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Improve Pavement Condition	1	Spring St.: westbound at Long Beach Blvd.	0.1	\$10 to \$20 per sq ft
Add Bike Lanes	1	Spring St.: westbound at Long Beach Blvd. signal. Add through bike lane "pocket" by taking space from outer through lane	0.04	\$1,000
Add bike route signage	2	Spring St.: between Long Beach Blvd. and Pacific Ave.	0.21	\$1,000
	3	27 <sup>th</sup> St.: between LA River and Willow Station	0.84	\$4,200
	4	28 <sup>th</sup> St.: between east and west Pine Ave. intersections	0.03	\$400
	5	Pine Ave.: between Spring St. and 27 <sup>th</sup> St.	0.38	\$1,900
	6	Between Pacific Electric right-of-way Class I bike path and Willow Station – Route not yet determined. (Pacific Electric right-of-way not shown on map.)	Approx 1.25	TBD

Intersection Improvements	Map Key	Location	Est. Cost
Provide bicycle sensitive detector loop and bicycle detection marking		On all lead positions and left turn lanes	
Install intersection improvements such as pavement markings and signage to improve cyclist left turn from Spring to Pine	A	Pine Ave. at Spring St.	Striping \$2 per linear foot. Signs: \$200 each.
Add directional signage to direct cyclists between Willow St. and LA River Path	B	Willow St. at LA River Path. Current access directs cyclists through the residential streets and is not clear or direct.	\$200 per sign
Improve the safety of southbound Long Beach Blvd bicycle travel over the tracks.	C	Long Beach Blvd. at Blue Line tracks. Install pavement markings, flexible posts, or an in-street curb to allow bicyclists to safely cross tracks at a right angle.	\$200 per flexible post
<b>Suggested Bicycle Parking</b>			
On sidewalks in retail/commercial/restaurant blocks, provide individual inverted-U's as needed; specify square tubing. (\$100 per 2-bike U-rack)			
On sidewalks in Wrigley Marketplace and along Willow Street retail.			
Add Bike Parking Guide Signs near stations and parking garage.			



Map 4 – Willow Bike-Transit Hub Recommendations



## DOWNTOWN POMONA METROLINK BIKE-TRANSIT HUB

City of Pomona



## DOWNTOWN POMONA METROLINK BIKE-TRANSIT HUB

### Bike to Urban Commuter Rail

<b>Hub ID:</b>	614 (Refer to Bike-Transit Hub Data Spreadsheet)
<b>Name:</b>	Downtown Pomona (Metrolink)
<b>Intersection:</b>	Main and Metrolink
<b>Jurisdiction:</b>	City of Pomona

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

The Downtown Pomona Metrolink station is located four blocks north of downtown Pomona. The rail line that runs through Pomona carries Metrolink’s Riverside line and Amtrak trains. The Amtrak station is across Main St. from the Metrolink station.

The city has an intact fine-grained street grid which connects well with the station and provides nearby at-grade crossings of the tracks. The

downtown commercial and civic area is about 1/3 mile south of the tracks. Buildings in downtown are primarily four stories. North of the tracks the area becomes more residential. Holt Avenue roughly defines the commercial / residential boundary.

The major north-south arterials are Garey Avenue, White Avenue, and Towne Avenue, all of which cross the rail lines. North of the tracks, the major east-west streets are Holt Avenue, which is fairly busy, Monterey Avenue and Alvarado Street, which is about ½ mile north of the tracks. South of the tracks, the major east-west streets are 3<sup>rd</sup> Street, Mission Boulevard, and 9<sup>th</sup> Street.

- Served by Metrolink’s Riverside Line and Amtrak.
- Railroad tracks divide the civic and commercial areas to the south from the residential areas to the north.
- Area characterized by a fine grained street grid.
- Topography is flat.

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). While the area surrounding Downtown Pomona Station has lower than average population and employment density and higher than average median income than other transit hubs in the County, the area shows average levels of transit service. The density of transit riders that live within 3 miles of the transit hub is much lower than other transit hubs. Our analysis of transit and bicycle ridership at this location indicates that it scores 129 out of 359, or in the 36th percentile of all bike-transit hubs.



The table below draws on 2000 Census data, SCAG population and employment projections for the year 2010 and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.

Metro Bus Riders	1	Local Bus Service (Other)	Yes
Metro Rail Riders	346	Population (3 miles)	35,322
BRT Service	No	Employment (3 miles)	37,679
Existing Transit Center	Yes	Household Income	\$43,374
Metro Rapid	No	Transit Riders (3 miles)	2403

In addition, the following major activity centers and destinations are located within the study area:

- Civic Center with City Hall, library, municipal court and fire station 1/3 mile south of transit hub.
- Western University of Health Sciences
- Pomona Catholic High School
- Amtrak Station
- Pomona Chamber of Commerce

**Bicycle Access Conditions**

Key bicycle access observations include:

- The railroad is not a significant barrier because it is crossed by north-south routes every two to three blocks.
- Park Avenue and Palomares Street are candidates for bike lanes south of Alvarado, extending at least to the tracks and (depending on available width) possibly south to 3<sup>rd</sup> or 9<sup>th</sup>. These streets cross busy Holt Ave. at signals. To reach either of these north-south streets from the station, a cyclist would proceed north on Main Street to Monterey, then east or west to Park or Palomares respectively.
- South of the tracks, 3<sup>rd</sup> Street and 9<sup>th</sup> Street may be candidates for east-west connectivity.
- Holt Avenue is a very busy street best avoided by cyclists.

- The ornate pedestrian overcrossing at the station (see photo below) is locked at night.

**Bicycle Facilities**

Existing bike lanes: None  
 Existing bike paths: None  
 Existing bicycle parking: Table

Location	Parking Type	Spaces	Accessibility	Security
Pomona Station	Wave	6	Good	Good

**Transit Connections**

Transit Type	Agency	Description
Rail Lines	Metrolink	Riverside Line Station
Bus Lines	METRO	684
		191
		193
		195
		482
		480
		852
	855	
	OMNI	161

Pomona Metrolink



Downtown Pomona Metrolink Station



## Existing Conditions



Bike rack at station



Monterey Avenue, facing west



Intersection of Palomares Street and Holt Avenue



Pomona Metrolink Station



Alvarado Street and Park Avenue looking southbound



Intersection of Palomares Street and Holt Avenue



## Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

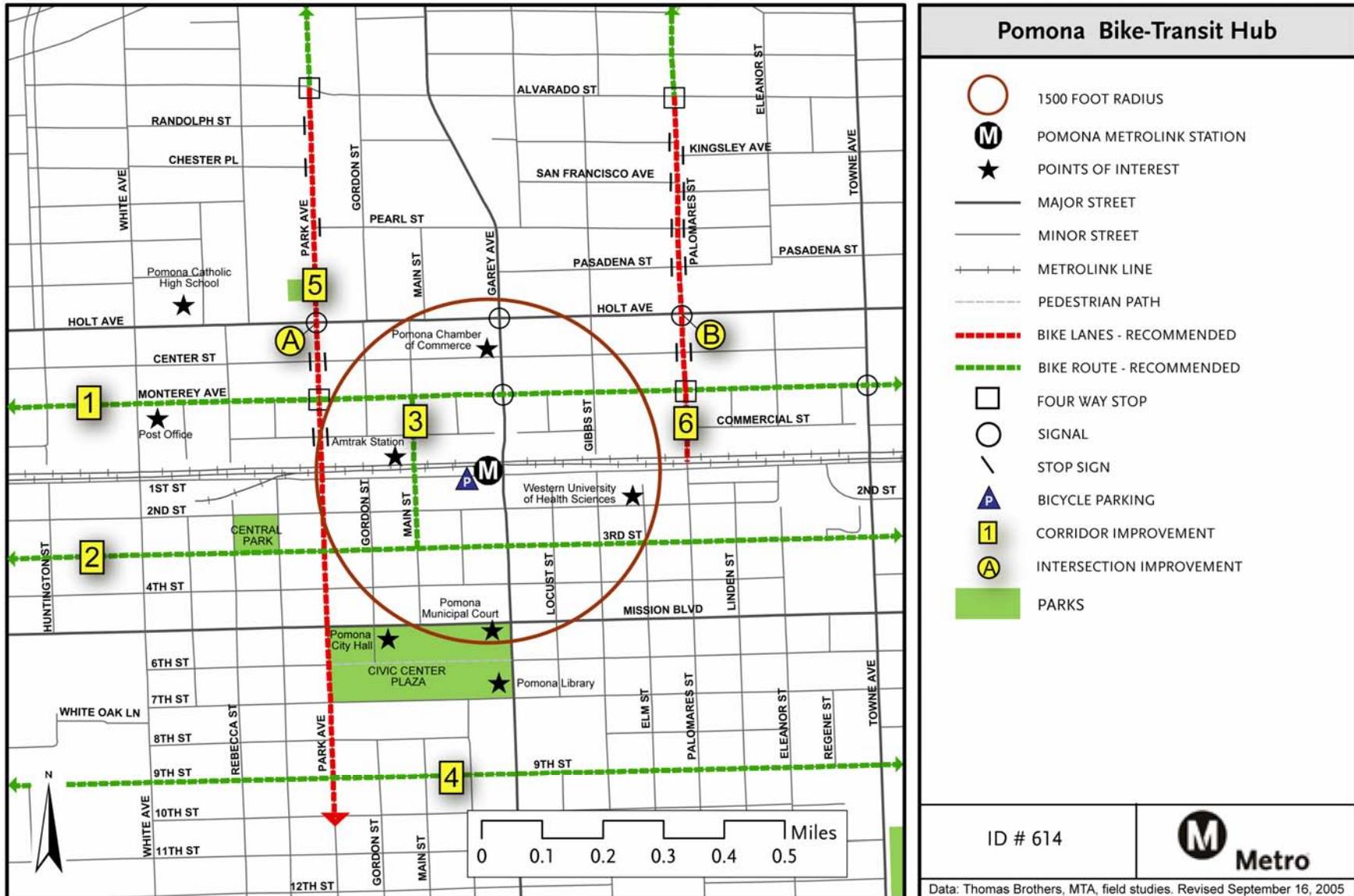
Improvements for the bicycle access routes to the Downtown Pomona hub are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing. The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Add Class III bike route signage and stencils. Add directional signage.	1	Monterey Ave.: between White Ave. and Towne Ave., extending east and west	1.22	\$12,200
	2	Third St.: between White Ave. and Towne Ave., extending east and west	1.23	\$12,300
	3	Main St.: between Monterey Ave. and 3rd St.	0.25	\$2,500
	4	9th St.: between White Ave. and Towne Ave., extending east and west	1.22	\$12,200
Add Class II bike lanes, with bike route signage extending north of Alvarado	5	Park Ave.: between 9th St. and Alvarado St. Restripe to 13 10  10  10 13	1.20	\$36,000
	6	Palomares St.: between 9th St. and Alvarado St.	0.60	\$18,100

Intersection Improvements	Map Key	Location	Est. Cost
Provide bicycle sensitive detector loop and bicycle detection marking		On all lead positions and left turn lanes.	
	A	Park Ave. at Hold Ave.	\$2,500
	B	Palomares St. at Hold Ave.	\$2,500
<b>Suggested Bicycle Parking</b>			
Add lockers at the Downtown Pomona Metrolink Station and at the Amtrak station (\$1,500 per 2-bike locker).			



Map 5 – Downtown Pomona Metrolink Bike-Transit Hub Recommendations



## PALMDALE METROLINK BIKE-TRANSIT HUB

City of Palmdale



## PALMDALE METROLINK BIKE-TRANSIT HUB

### Bike to Suburban Commuter Rail

<b>Hub ID:</b>	625 (Refer to Bike-Transit Hub Data Spreadsheet)
<b>Name:</b>	Palmdale Transportation Center (Metrolink)
<b>Intersection:</b>	Sierra Highway and 6 <sup>th</sup> Street East
<b>Jurisdiction:</b>	City of Palmdale

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

Metrolink's Palmdale station is near the north end of the Antelope Valley Line, which terminates at Lancaster. These two cities form the northernmost reach of the rail commute area of greater Los Angeles.

The Palmdale Transportation Center is situated on the west side of the Metrolink line at the northwest corner of an older, low-density downtown with many undeveloped and vacant parcels. West of the rail line and north of Palmdale Boulevard is mostly residential except for commercial and light industrial along 6th Street East, the street closest to the tracks.

East of the rail line between Sierra Highway and the tracks is a linear park (Dr. Robert St. Clair Parkway). East of Sierra Highway between Avenue Q and Avenue R is the active area of the old downtown.

- Metrolink Antelope Valley Line station.
- Low density urban location with many undeveloped and underdeveloped parcels.
- Land uses are a combination of commercial, light industrial, and residential (mostly single-family).
- Topography is flat.
- Major barriers include the rail line (adjacent) and the CA-14 freeway (about 1 mile to the west). Palmdale Boulevard, a major commercial arterial, is also not very bike-friendly and is under Caltrans jurisdiction as SR 138.
- Barriers mostly run N-S; there are several good N-S route candidates.
- Avenue Q crosses under the freeway without an interchange.

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). Compared with other transit hubs in Los Angeles County, the area surrounding the Palmdale Transportation Center has higher than average transit service, but lower population and employment densities and significantly fewer transit riders living within a three-mile radius. The median income for the area is slightly higher than the average median income of all transit hubs. Our analysis of transit and bicycle ridership at this location indicates that it scores 129 out of 359, or in the 36th percentile of all bike-transit hubs.



The table below draws on 2000 Census data, SCAG population and employment projections for the year 2010 and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.

Metro Bus Riders	N/A	Local Bus Service (Other)	Yes
Metro Rail Riders	N/A	Population (3 miles)	24,750
BRT Service	No	Employment (3 miles)	29,351
Existing Transit Center	Yes	Household Income	\$43,659
Metro Rapid	No	Transit Riders (3 miles)	812

In addition, the following major activity centers and destinations are located within the study area:

- Two schools (Yucca School, Oak Tree Learning Center).
- Greenspace includes Desert Sands Park and Dr. Robert St. Clair Parkway.
- The City’s Downtown is located 1 mile from the station. Downtown locations include: the Civic Center, main library, youth library, courthouse, recreation center, senior center, the Chimbole Center and the Palmdale Playhouse.

**Bicycle Access Conditions**

Key bicycle access observations include:

- Cyclists may access the Palmdale Transportation Center via Transportation Center Drive, 6<sup>th</sup> Street East and Clock Tower Plaza Drive.
- Residential and light commercial street grid in area provides alternative to busy east-west arterial (Palmdale Blvd.) and north-south arterial (Sierra Highway). Secondary grid has mostly wide unstriped streets that are comfortable for cycling.
- Traffic speeds on arterial are moderate to high on arterials and low to moderate on the secondary grid.
- Major intersections are modest size with signals; some have through bike lanes on the minor street but no bike actuation at the intersections.

- Nearby street grid is well connected on both sides of north-south rail line, but track crossings are infrequent and could use improvement. Metro has awarded a grant for a pedestrian overcrossing at Avenue Q which will provide a strategic link across the rail line.
- Sierra Highway has wide shoulders suitable for experienced commuters but there are significant gaps in the shoulders, and its rail crossing needs “bow-outs” to enable crossing tracks at a safer angle.

**Bicycle Facilities**

- Existing bike lanes: -6th St. E between Palmdale Ave and Transit Center.  
 -10th St. E between Avenue R and Palmdale Blvd.  
 -Palmdale Blvd. westbound for 1 block between - Sierra Highway and 6th St. E (across RR tracks).
- Existing bike paths: -Sierra Highway Bike Trail runs north from the station along Sierra Highway.  
 -Within Dr. Robert St. Clair Parkway (unsigned).
- Existing bicycle parking: Table

Location	Parking Type	Spaces	Accessibility	Security
Palmdale Transportation Center	Racks	10	Good	Good
	Lockers	8	Good	Excellent

**Transit Connections**

Transit Type	Agency	Description
Rail Lines	Metrolink	Antelope Line Station
Bus Lines	Antelope Valley	1
		2
		3
		7
		8
		9
		97
		785
		786
	787	
	Santa Clarita	795

Palmdale Metrolink



Existing Conditions



Avenue Q-7 at 9<sup>th</sup> Street East



Dr. Robert St. Clair Parkway



Palmdale Transportation Center



Sierra Highway Bike Trail



Bike lane approaching Palmdale Transportation Center.  
6<sup>th</sup> Street East, facing south



6<sup>th</sup> Street East, facing north



## Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

Improvements for bicycle access to the Palmdale Transportation Center hub are identified below. Corridor improvements include bike lanes, restriping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing. The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Install Class II bike lanes and close shoulder gaps by adding pavement	1	Sierra Highway south of Sierra Highway Bike Trail	1.08	\$32,400+
Close shoulder gaps by adding pavement	2	3rd St. East	0.51	n/a
	3	Avenue Q	0.87	n/a
Widen (restripe) bike lanes	4	Palmdale Blvd. between Sierra Highway and 6th St. East	0.93	up to \$14,500
Add Class II bike lanes where outside shoulder lane width allows	4	Palmdale Blvd.	0.93	up to \$27,400
	5	Clock Tower Plaza Dr.	0.40	\$12,000
Install Class III bike route signage	6	5th St. East between Ave. Q and Palmdale Blvd.	0.52	\$2,600
	3	Ave. Q from west of rail line, under freeway to west terminus	0.87	\$4,400

Corridor Improvements (Cont.)	Map Key	Location	Miles	Est. Cost
Install Class III bike route signage	7	9th St. East between Palmdale Blvd. and Ave. Q	0.53	\$2,700
	2	3rd St. East between Ave. Q and Technology Dr., with directions to Palmdale Transportation Center	0.51	\$2,500
Perform regular maintenance such as sweeping	8	Sierra Highway Bike Trail between 6th St. East and Technology Dr.	0.28	n/a
Restripe multi-lane segment for wider outside lane	9	Avenue Q: between 6th St. East and 5th St. East	0.9	\$950
Improve pavement condition	1	Sierra Highway from Ave. Q-7 to Palmdale Blvd.	0.53	\$10 to 20 per sq ft
Intersection Improvements	Map Key	Location	Est. Cost	
Provide bicycle sensitive detector loop and bicycle detection marking	On all lead positions and left turn lanes, especially at the intersection of:			
	A	Palmdale Blvd. at 6th St. East	\$2,500	
Restripe arterial on both shoulders	B	6th St. East at Sierra Highway	\$2 per linear foot	
Move south-facing Sierra Highway Bike Trail sign to prevent blocking sightlines to the south where Trail users cross Sierra Highway east to west	C	Sierra Highway Bike Trail at Technology Dr.	n/a	
Fill in narrow grooves in valley gutter or re-pour gutter	D	Ave. Q-7 at 9th St.	\$500+	



Intersection Improvements (cont'd)	Map Key	Location	Est. Cost
Provide bow-out at angled railroad crossing to enable safer crossing angle	E	Sierra Highway	n/a
Remove "Begin/End Bike Lane" signs	F	6th St. East at Avenue Q	n/a
<b>Suggested Bicycle Parking</b>			
Provide key access (monthly rental) lockers at Palmdale Transportation Center (\$1,500 per bike locker).			

**Other Notes**

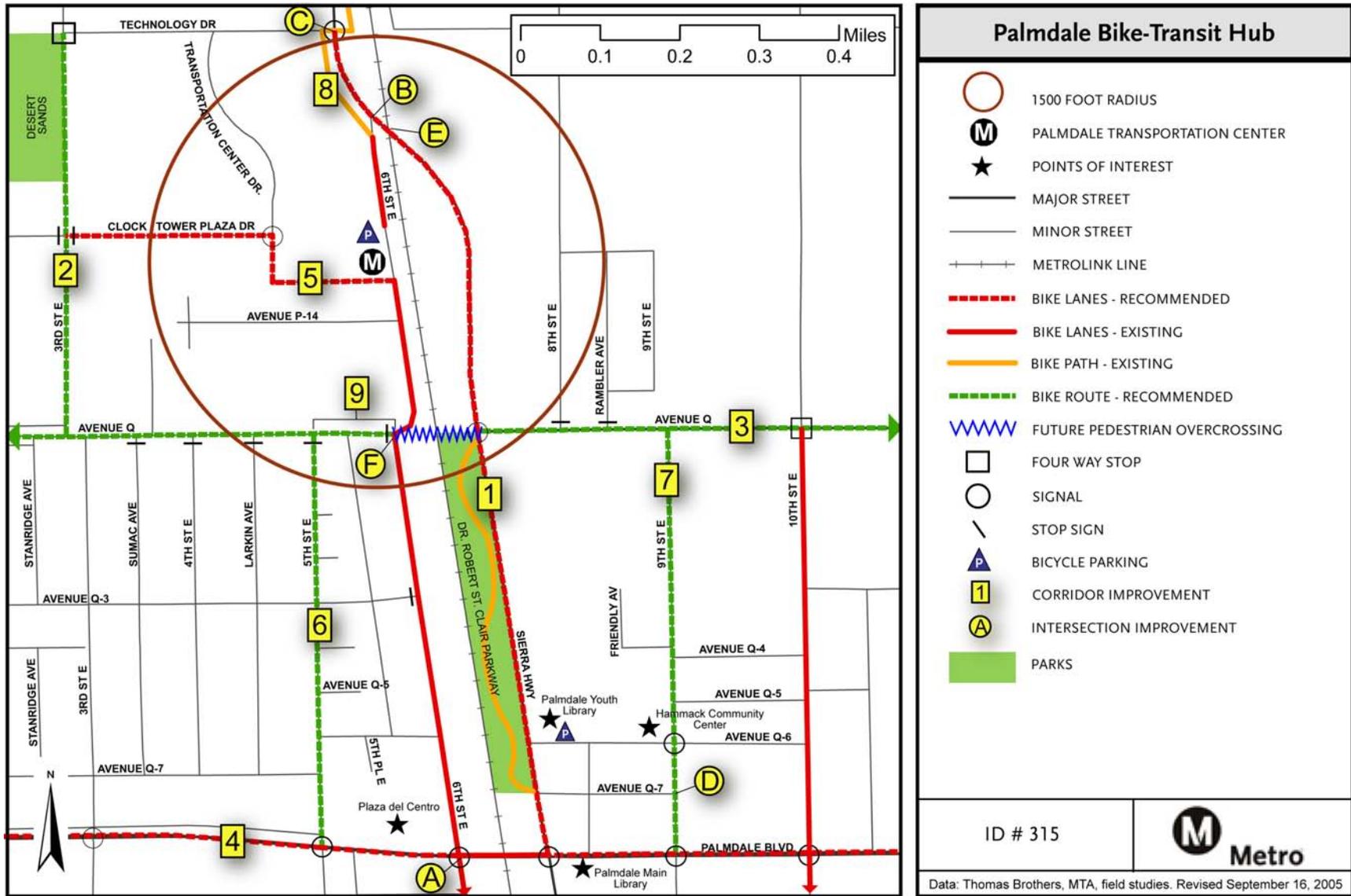
- 6<sup>th</sup> Street East between Avenue Q and Palmdale Boulevard is a good example of a segment for a 3-lane street with bike lanes and parking both sides.
- Catch basin inlets on Clock Tower Plaza Drive are a good example of well-designed inlets (flush with curb; no projection into gutter pan).



Metrolink Cycle Safe Lockers



Map 6 – Palmdale Metrolink Bike-Transit Hub Recommendations



Palmdale Metrolink





## EL MONTE BIKE-TRANSIT HUB

City of El Monte



## EL MONTE BIKE-TRANSIT HUB

### Bike to Regional Transit Center

<b>Hub ID:</b>	703 (Refer to the Bike-Transit Hub Data Spreadsheet)
<b>Name:</b>	El Monte Transit Center
<b>Intersection:</b>	Ramona Boulevard and Santa Anita Avenue
<b>Jurisdiction:</b>	City of El Monte

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

The El Monte bike-transit hub is the east terminus of the El Monte (I-10) busway serving downtown Los Angeles. The transit center sits on a triangular area bounded by the Rio Hondo River to the northwest, the I-10 freeway to the south and Santa Anita Ave. to the east. The area east of the transit center and north of Ramona is a shopping district slated for redevelopment. A single-family residential neighborhood is located east of the transit center, south of Ramona. Downtown El Monte is located just over half a mile to the southeast of the transit center, on the south side of the freeway. The area west of the Rio Hondo is currently

commercial and light industrial, but is slated for residential redevelopment.

There are several recreational amenities adjacent to the transit center. The Rio Hondo River runs northeast-southwest just west of the hub and has a shared-use path on its east levee. Fletcher Park and Pioneer Park border the south and north sides of the transit center, respectively. The Amigos de los Rios advocacy group is collaborating with cities along the Rio Hondo and San Gabriel Rivers to develop a regional circular park network along these rivers.

- Terminus of the El Monte busway.
- Planned redevelopment for the commercial area to the east of the transit center and the neighborhood west of the River.
- Plans for development of a regional park network along the Rio Hondo and San Gabriel Rivers. (Emerald Necklace).

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). Compared to other transit hubs in the County, the area within a three-mile radius of the El Monte transit center had very high transit service, high employment and population densities, had slightly below average median income. The number of transit riders who live within a three-mile radius of the transit center was low compared to other transit hubs. Our analysis of transit and bicycle ridership at this location indicates that it scores 197 out of 359, or in the 55th percentile of all bike-transit hubs. The table on the next page lists the scoring for the El Monte Bike-Transit hub. Transit hub scoring serves as a way to compare transit hubs across the County.



The table below draws on 2000 Census data, SCAG population and employment projections for the year 2010 and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.

Metro Bus Riders	n/a	Local Bus Service (Other)	Yes
Metro Rail Riders	n/a	Population (3 miles)	93,782
BRT Service	Yes	Employment (3 miles)	68,180
Existing Transit Center	Yes	Household Income	\$41,619
Metro Rapid	Future	Transit Riders (3 miles)	4852

In addition, the following major activity centers and destinations are located within the study area:

- Two local parks adjacent to the transit center (Fletcher and Pioneer Parks).
- El Monte Airport three-quarters of a mile northeast.
- Downtown El Monte is located half a mile to the southeast.
- Three elementary schools located within a mile of the transit hub (New Lexington, Wilkerson and Shirsper).

**Bicycle Access Conditions**

Key bicycle access observations include:

- One-way streets Brockway and Asher provide westbound and eastbound routes that parallel the freeway.
- Access under the freeway is possible on Santa Anita, Lexington, Tyler Avenues, and Meeker Road and via a pedestrian tunnel at Utah.
- Mildred Street provides a good east-west bike route connecting from Meeker Road, crossing Santa Anita at a light and connecting to Asher and the Rio Hondo River Path.
- Access to the Rio Hondo River Path is possible at Asher. Access gates at Fletcher Park and the transit center are locked, despite posted signs stating that gates will be locked only during storms.
- Bicycle access over the Rio Hondo is only possible at Valley Boulevard, a major east-west arterial. A direct connection across the river is needed at or near the transit center.

**Bicycle Facilities**

Existing bike lanes: None  
 Existing bike paths: Rio Hondo River Pathway  
 Existing Bicycle parking: Table

Location	Parking Type	Spaces	Accessibility	Security
Transit Center	Racks	48	Good	Good

**Transit Connections**

Transit Type	Agency	Description		
Rail Lines	Metrolink	Riverside Line Station		
		70		
		76		
		170		
		176		
		267		
		268		
		270		
		376		
		484		
		487		
		490		
		577X		
		Bus Lines	METRO	178
				269
				480/481
				482
486				
488				
492				
494				
City of El Monte	Civic Line			Exp-Flair Business Park

El Monte



## Existing Conditions



Bike racks at El Monte Transit Center



Looking at transit center from Rio Hondo Bike Path. Gate is locked.



Cut fence along Rio Hondo Bike Path, showing desire for access to park



Dark underpass along Rio Hondo Bike Path



Looking east down Brockway



Pedestrian undercrossing at Utah Avenue and the 10 freeway



### Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

Improvements for the bicycle access routes to the El Monte Transit Center hub are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing.

The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Add Class III bike route signage and pavement stencils. Add directional signage.	1	Merced Ave: from Towne Way Dr. south	0.54	\$5,400+
	2	Towne Way Dr: from Merced Ave. to Brockway St.	0.31	\$3,100
	3	Brockway St: west from Towne Way Dr connecting to Rio Hondo River Path	0.15	\$1,500
	4	Mildred St: West from Meeker Rd, north on Rio Hondo Parkway, west on Asher Ave.	1.09	\$10,900
	5	Ramona Blvd: between Tyler Ave. and the transit center	0.50	\$5,000
	6	Meeker Rd: at Mildred, extending north and south	0.32	\$3,200+

Corridor Improvements (Cont.)	Map Key	Location	Miles	Est. Cost
Add Class III bike route signage and pavement stencils. Add directional signage. Increase shoulders under I-10 freeway to 8' or consider Class II bike lanes	7	Lexington Ave: between Mildred St. and Ramona Blvd.	0.36	\$3,600 to \$10,800
	8	Tyler Ave: between Garvey Ave. and Valley Blvd. extending in both directions as appropriate	1.53	\$15,300 to \$45,900+
Open locked gate from the River Path and add directional signage through the parking lot to the transit center	9	Southwest corner of transit center	n/a	\$1200 for six directional signs
Add Class II bike lanes	10	Brockway St: between Meeker and Santa Anita Ave. This can be accomplished by removing parking from the non-residential side and restriping the street to a 14 13 13 configuration.	0.67	\$20,000

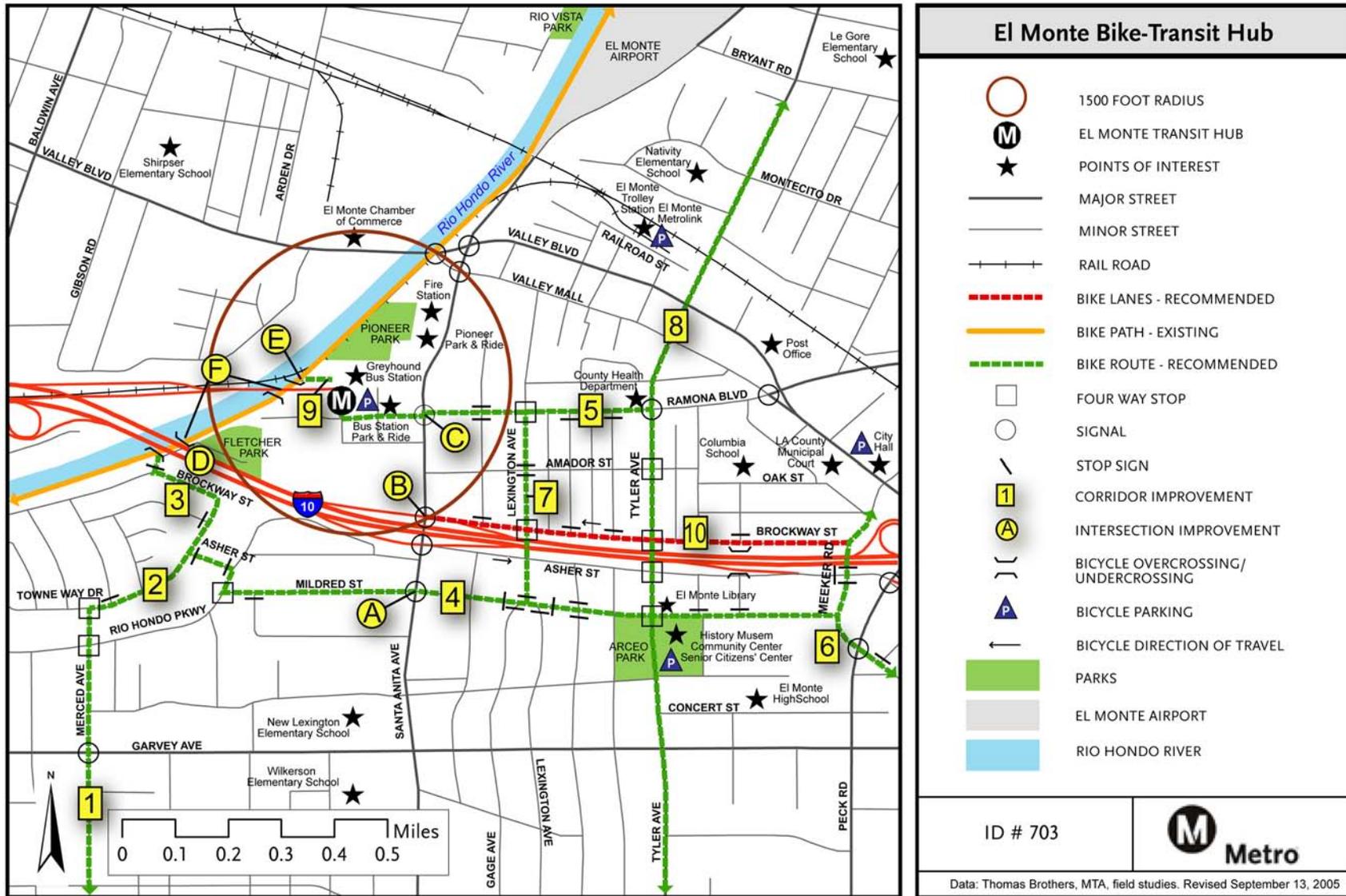
Intersection Improvements	Map Key	Location	Est. Cost
Provide bicycle sensitive loop detector and bicycle detection marking on pavement	On all lead positions and left turn lanes and specifically at:		
	A	Mildred St. at Santa Anita Ave.	\$2,500
	B	Brockway St. at Santa Anita Ave.	\$2,500
Open access gates to Rio Hondo River Path	C	Ramona Blvd at Santa Anita Ave.	\$2,500
	D	River Path and Fletcher Park	n/a
Add vandal-proof lighting	E	River Path and transit station	n/a
	F	Rio Hondo River Path: at I-10 and Fletcher Park Driveway undercrossings.	\$200 per light, plus installation

Suggested Bicycle Parking
Add lockers at the El Monte bus center (\$1,500 per 2-bike locker).



Map 7 – El Monte Bike-Transit Hub Recommendations



## HARBOR TRANSITWAY (EXPOSITION PARK/USC) BIKE-TRANSIT HUB

City of Los Angeles



## HARBOR TRANSITWAY (EXPOSITION PARK/USC) BIKE-TRANSIT HUB

### Bike to Busway

**Hub ID:** 708 (Refer to Bike-Transit Hub Data Spreadsheet)  
**Name:** Exposition Park (USC)  
**Intersection:** Flower Street and 37<sup>th</sup> Street  
**Jurisdiction:** City of Los Angeles

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

The Exposition Park Transit Center is located just east of the University of Southern California, at the intersection of Flower Street and 37<sup>th</sup> Street. The transit center serves the Harbor Freeway (I-110) Transitway and provides bus access from the median of the I-110 freeway.

The area immediately surrounding the transit center is primarily parking lots. The Los Angeles DMV is located a block to the east. The University

of Southern California main campus is less than a quarter mile to the northwest. The USC Campus is very bicycle-friendly, and many students bicycle from the surrounding neighborhoods to class. Exposition Park, with its museums and coliseum, are just to the west of the transit center. Student housing for USC is located a few blocks north of the transit center.

Surface streets at the transit center are designed to facilitate freeway access and are not comfortable for cyclists or pedestrians. Farther from the transit center are several streets that are good candidates for bicycle routes. To the east of the transit center, a north-east/south-west grid begins and provides good access to downtown Los Angeles.

- Transit Center serving the Harbor Freeway Transitway.
- Primarily parking lots and commercial use around area.
- Immediately adjacent surface streets designed to facilitate freeway access.
- Vermont Avenue, located to the east of USC, is one of the heaviest traveled transit corridors in Los Angeles County.
- A light rail line is planned along the median of Exposition Boulevard.
- Topography is flat.

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). The Exposition Park Bike-Transit Hub has high levels of transit service and very high population and employment densities compared to other bike-transit hubs in the County. Median household income is slightly higher than the average median income of other transit hubs. Our analysis of transit and bicycle ridership at this location indicates that it scores 359 out of 359, or in the 100th percentile of all bike-transit hubs.

The table below draws on 2000 Census data, SCAG population and employment projections for the year 2010 and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.



Metro Bus Riders	625	Local Bus Service (Other)	Yes
Metro Rail Riders	n/a	Population (3 miles)	242,682
BRT Service	Yes	Employment (3 miles)	142,273
Existing Transit Center	Yes	Household Income	\$47,888
Metro Rapid	Yes	Transit Riders (3 miles)	40,699

In addition, the following major activity centers and destinations are located within the study area:

- University of Southern California main campus.
- Los Angeles DMV.
- Exposition Park, which contains: Museum of Natural History, California Science Center, California African-American Museum, Los Angeles Memorial Coliseum, Los Angeles Memorial Sports Arena.

### Bicycle Access Conditions

Key bicycle access observations include:

- Bicycle access to the transit center from northbound Flower and westbound 37<sup>th</sup> Streets are difficult. Both streets are one-way as they approach the transit center and the two right lanes are turn lanes for freeway access. To safely access the transit center, cyclists must walk bikes around three legs of the intersection, as the most direct crossing is prohibited.
- Exposition Park and USC create a barrier for cyclists as they break up the surrounding street pattern and routes through these areas do not have wayfinding signs.
- Grand Avenue is currently a good bike route from the transit center toward downtown Los Angeles.
- Exposition Boulevard and Martin Luther King Jr. Boulevard are major east-west connectors.
- Vermont Boulevard and Figueroa Street are major north-south routes. Both are heavily traveled with observed speeds of 45 to 50 mph. Vermont has very poor pavement quality on the curb lane due to the heavy bus traffic.

- Bike routes exist on Jefferson Boulevard, Vermont Avenue and Main Street, north west and east of the transit hub, respectively.

### Bicycle Facilities

Existing bike lanes: None  
 Existing bike paths: None  
 Existing bicycle parking: None at the transit center

### Transit Connections

Transit Type	Agency	Description
Bus Lines	METRO	442
		444
		445
		446
		447
		460
		450X
		550
	LADOT CE	438
		448
	OCTA	701
		721
	Gardena	1
Torrance	1	
	2	



## Existing Conditions



Harborway Transit Center at freeway grade



Harborway Transit Center at street grade



At 37<sup>th</sup> Street and Hope Street facing west, showing the prohibited pedestrian crossing



Grand Avenue facing north



Martin Luther King Boulevard, facing west



Exposition Boulevard at Figueroa Boulevard, facing east



### Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

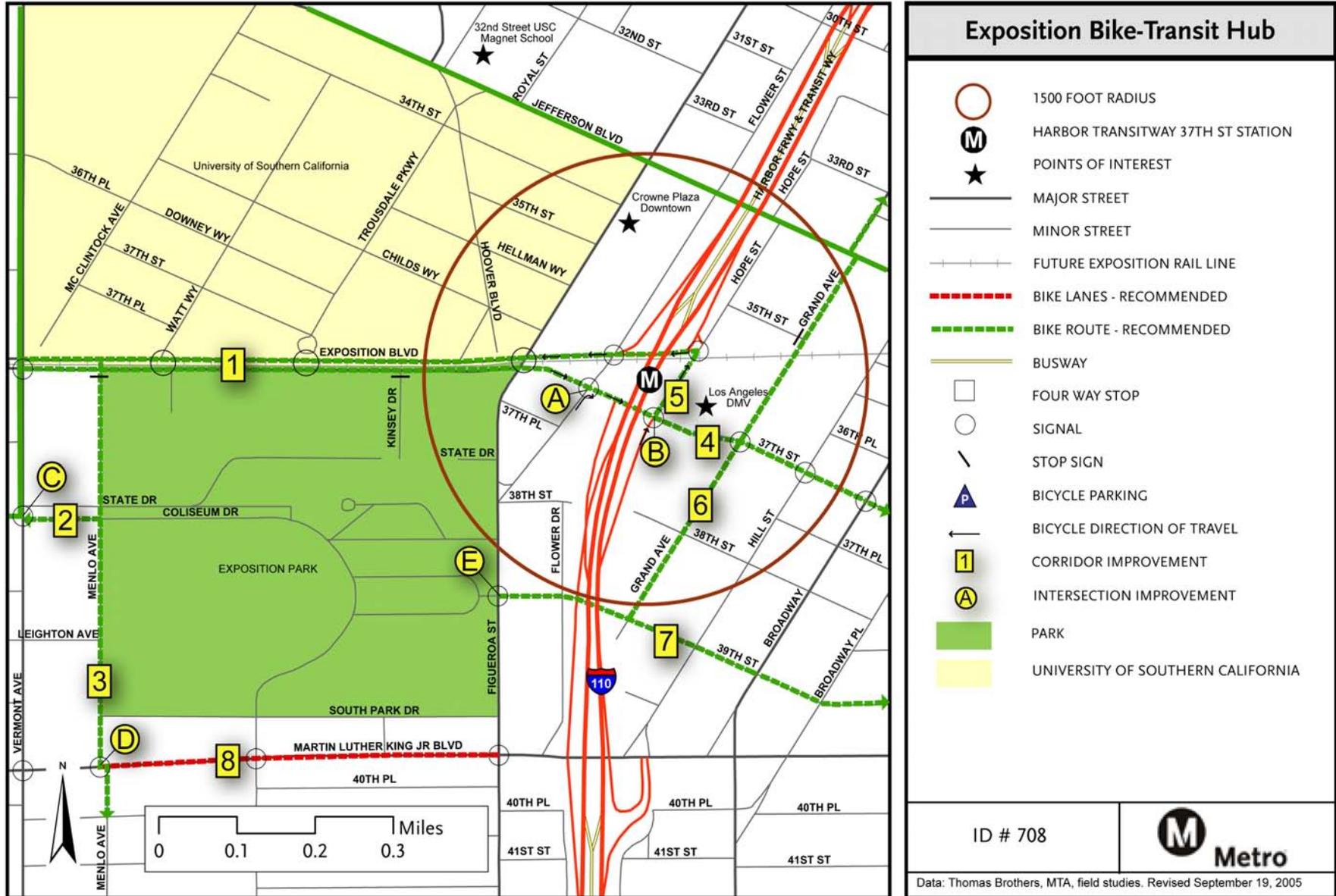
Improvements for bicycle access to the Exposition Park Transit Center are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing. The following map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Add Class III bike route signage and stencils. Add directional signage	1	Exposition Blvd: between Hope St and Vermont Ave.	0.72	\$7,200
	2	39th St: from Menlo Ave. west	0.13	\$1,300 +
	3	Menlo Ave: from Exposition Blvd. to Martin Luther King Blvd, continuing south	0.58	\$5,800
	4	37th St: between Exposition Blvd and Main Street. Also repair pavement.	0.71	\$7,100+
	5	Hope St: northbound on one-way section between 37th St and Exposition Blvd.	0.10	\$1,000
	6	Grand Ave: from 39th St to 18 <sup>th</sup> Street, east on 18 <sup>th</sup> Street from Grand to Main St. connecting to the bike route on Main St.	1.86	\$18,600

Corridor Improvements (Cont.)	Map Key	Location	Miles	Est. Cost
Add Class III bike route signage and stencils. Add directional signage	7	39th St: between Main and Figueroa St.	0.45	\$4,500
Add Class II Bike Lanes – traffic study needed	8	Martin Luther King Blvd: between Figueroa St and Menlo Ave. Study to see if the center turn lane can be removed (cost given for bike lanes).	0.42	\$12,700
Intersection Improvements	Map Key	Location	Est. Cost	
Add fourth leg of cross walk, install pedestrian/bicycle actuated signal and signage enabling cyclists to use crosswalk	A	Flower St and 37th St: Install east crosswalk across 37 <sup>th</sup> . Adjust signal timing to prevent conflicts between pedestrians and cars turning right from Flower onto 37th.	\$5,000 +	
	B	37th St and Hope St: Install north crosswalk across 37th. Adjust signal timing to prevent conflicts between pedestrians and cars turning right from 37th onto Hope	\$5,000 +	
Provide bicycle sensitive detector loop and bicycle detection marking	On all lead positions and left turn lanes, and especially at the following intersections:			
	C	On 39th St at Vermont Ave	\$2,500	
	D	On Menlo Ave at Martin Luther King Blvd	\$2,500	
	E	On 39th St at Figueroa St.	\$2,500	
Suggested Bicycle Parking				
Provide bike lockers at surface level of transit center. Ensure that they are located in a visible, well-lit spot (\$1,500 per 2-bike locker).				



Map 8 – Harbor Transitway (Exposition Park/USC) Bike-Transit Hub Recommendations



## LAX BIKE-TRANSIT HUB

City of Los Angeles



LAX



## LAX BIKE-TRANSIT HUB

### Bike to Metropolitan Airport

<b>Hub ID:</b>	711 (Refer to Bike-Transit Hub Data Spreadsheet)
<b>Name:</b>	Lax City Bus Center (Metro Bus)
<b>Intersection:</b>	Airport Way at 96 <sup>th</sup> Street (LAX Lot C)
<b>Jurisdiction:</b>	City of Los Angeles

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

The LAX City Bus Center is a bus transit center located next to the Los Angeles Airport (LAX) near the intersection of Airport Boulevard and 96<sup>th</sup> Street. The Bus Center is located at LAX Parking Lots C and D and is a transfer point between the airport bus system and the municipal and Metro bus systems. The surrounding land uses are primarily airport-oriented services, such as rental car operations, hotels and parking.

The surrounding area is characterized by a grid of major arterials. Manchester Boulevard runs east-west about 4/5 of a mile north; Century

Boulevard runs east-west two blocks south. Bordering the area on the west is Sepulveda Boulevard and on the east is Aviation Boulevard. These roads are very heavily traveled, and intimidating to all but the most experienced cyclists. Sepulveda and Aviation connect south to bike lanes on Imperial Highway, but Sepulveda passes under the Airport's south runways through an underpass that is closed to cyclists.

A master plan for Los Angeles Airport was adopted in 2004. The plan calls for extensive changes to ground transportation to the airport, including construction of a people mover that would connect Metro Green Line Aviation Station and regional and local buses to the central airport terminal. The City Bus Center will likely change dramatically in the next 5-7 years as the plan is implemented. These recommendations are based on existing conditions.

To the north of the bus center, accessible via Jenny Avenue and Westchester Parkway, lies a residential section of Westchester, the Westchester Branch Library, and Westchester Center.

- Located at LAX Parking Lots C and D.
- Transfer point between LAX bus and local/Metro buses.
- Surrounded by grid of heavily traveled arterials.
- Residential area of Westchester located half a mile north.

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service, and whether or not the stop is a terminus). The LAX City Bus Center bike-transit hub has higher than average employment densities and transit service than other transit hubs in Los Angeles County. The density of transit riders and residents that live within three miles of the hub is lower than the countywide average. The median income of the surrounding area is also lower than the average transit hub. Our analysis of transit and bicycle ridership at this location indicates that it scores 141 out of 359, or in the 39th percentile of all bike-transit hubs.



The table below draws on 2000 Census data, SCAG population projections for the year 2010, LAX employment figures, and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.

Metro Bus Riders	846	Local Bus Service (Other)	Yes
Metro Rail Riders	N/A	Population (3 miles)	45,737
BRT Service	No	Employment (3 miles)	59,000
Existing Transit Center	Yes	Household Income	\$35,598
Metro Rapid	Future	Transit Riders (3 miles)	4634

In addition, the following major activity centers and destinations are located within the study area:

- Los Angeles International Airport
- Numerous hotels and rental car agencies
- Westchester Center
- Escuela de Montessori

### Bicycle Access Conditions

Key bicycle access observations include:

- The bus center is situated within a 1 mile grid of major arterials: Manchester Avenue, Century Boulevard, Aviation Boulevard and Sepulveda Boulevard.
- Sepulveda Boulevard crosses under the Airport through an underpass that is closed to cyclists. The underpass is in Caltrans jurisdiction.
- Almost a mile south, Imperial Highway carries bike lanes and connects to the South Bay Bike Path, which runs south from Santa Monica along the Ocean.
- Westchester Parkway/Arbor Vitae Street provides east-west connectivity. Arbor Vitae connects to the City of Inglewood to the east.
- 96<sup>th</sup> Street, where the bus center is located, has two travel lanes in each direction with wide (18-foot) outside lanes. It is a main route for several airport and rental car shuttle buses.

- Cyclists using this bus center could be grouped into three types: those who are bicycling to the airport and will be leaving their bicycle at the bus center or disassembling it to take on the plane; those who are arriving on a plane and will be bicycling away from the airport; and those who are cycling to and from employment at the airport.
- Cycling to, from and around the airport could be further improved with a “bike-station” area that provides amenities such as bicycle parking, storage, repairs, changing/restroom. Cyclists would also benefit from improved access signage and area maps that provide route and destination information for employees and travelers. The bike-station may be most appropriate at the planned Intermodal Transportation Center at Metro Green Line’s Aviation station, 1.5 miles south of the City Bus Center.

### Bicycle Facilities

Existing bike lanes: Imperial Blvd (1 mile south of transit center)  
 Existing bike paths: North-south bike path 2 miles west of the airport  
 Existing bicycle parking: Table

Location	Parking Type	Spaces	Accessibility	Security
Lot C	Plastic Madrax 2-door lockers	16	Fair	Good
Lot C	Inv-U	10	Good	Good

### Transit Connections

Transit Type	Agency	Description
Bus Lines	METRO	111
		115
		117
		315
		625
	Torrance	8



## Existing Conditions



Metro Local Bus with Bike Rack



Bike cabled to pole with lockers in background



Lockers at Bus Center



Lockers with Bus Center Terminal in background



Bike Racks



City Bus Center Terminal



## Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

Improvements for the bicycle access routes to the LAX City Bus Center are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing. The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Install Class II bike lanes	1	96th St. between Airport Blvd. and Sepulveda	0.60	\$18,100
Install Class III bike route signage and stencils	2	Jenny Ave. between Westchester Pkwy. and 96th St.	0.26	\$2,600
	3	Arbor Vitae St./Westchester Pkwy. between Will Rogers St. and Bellanca Ave.	0.86	\$8,600
	4	Will Rogers St. between Westchester Pkwy. and West Manchester Ave.	0.56	\$5,600
Install Class II bike lanes or additional curb width in both directions as part of tunnel rehabilitation	5	Sepulveda Tunnel under LAX runway	0.25	TBD

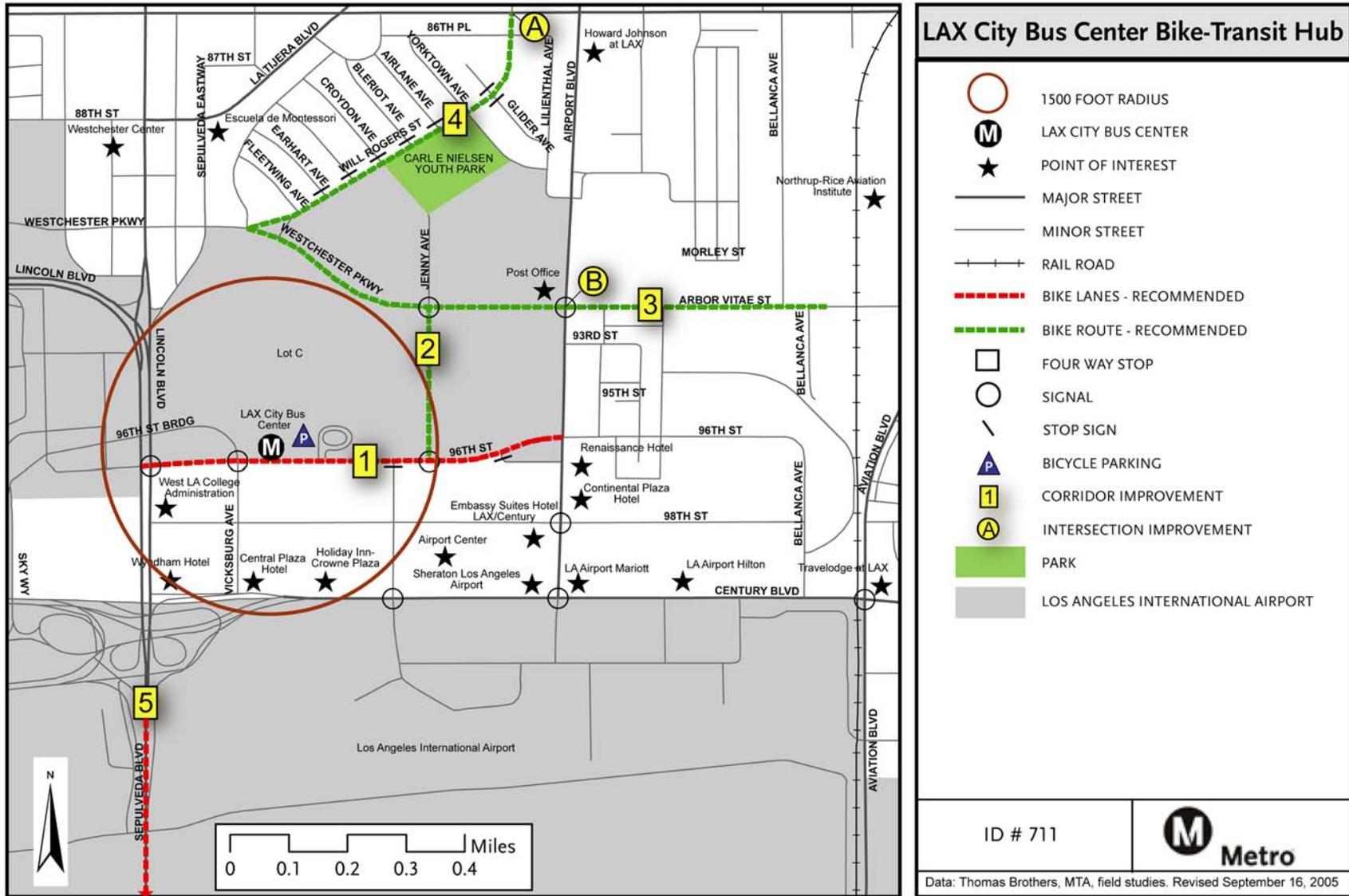
Intersection Improvements	Map Key	Location	Est. Cost
Provide bicycle sensitive detector loop and bicycle detection marking	On all lead positions and left turn lanes. These improvements are specifically needed at the following intersections:		
	A	Will Rogers St. and West Manchester Ave.	\$2,500
	B	Arbor Vitae St. and Airport Blvd.	\$2,500
Suggested Bicycle Parking			
Provide employee racks in Lot D, behind security perimeter protected from vehicles with bollards (\$100 per 2-bike U-Rack, \$200 per bollard, plus installation).			
Convert/replace current rental lockers with smart lockers, ideally with a remote reservation system (\$1,500 per bike locker, plus installation costs).			
Install bike racks at the bus shelter (\$100 per 2-bike U-lock, plus installation costs).			
Install signage on lockers to inform cyclists who they can contact regarding locker rental.			

### Other Notes

- Workstand clamps could be installed near the airport shuttle building. This would allow cyclists who are arriving from LAX with their stored bicycles to rebuild the bicycles before riding off. This would also allow cyclists who are riding to the airport the ability to disassemble their bicycles and box them before accessing the airport via the shuttle bus.
- Though retrofitting the Sepulveda Boulevard underpass to allow cyclists will be difficult, this route provides key north-south access and retrofitting should be considered as a long-term project.



Map 9 – LAX Bike-Transit Hub Recommendations



## INGLEWOOD BIKE-TRANSIT HUB

City of Inglewood



## INGLEWOOD BIKE-TRANSIT HUB

### Bike to Metro Rapid and Local Bus at Neighborhood Transit Center

<b>Hub ID:</b>	705 (Refer to Bike-Transit Hub Data Spreadsheet)
<b>Name:</b>	Inglewood Bus Center (Metro Bus)
<b>Intersection:</b>	La Brea Avenue and Kelso Street
<b>Jurisdiction:</b>	City of Inglewood

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

The Inglewood Bus Center is located in Inglewood’s historic and revitalizing downtown commercial district, atop a low hill surrounded by relatively flat terrain except to the north. The Bus Center is a bus turnaround and layover area on the east side of La Brea Avenue at Kelso Street. The district is approximately bounded on the east by Prairie Avenue, on the south by Arbor Vitae Street, on the west by Fir Avenue and on the north by Florence Avenue. La Brea Avenue runs north-south and divides the commercial

district from the civic center west of La Brea Avenue. Manchester Boulevard runs east-west through the commercial district and is a key cross-town arterial for the Los Angeles region. Most intersections within the study area are controlled by signals or four-way stops.

Approximately one-half mile east of the bus center, the land use changes sharply from small-scale commercial to large-scale regional entertainment venues. East of Prairie Avenue are the Great Western Forum, the Hollywood Park racetrack, and the Hollywood Park Casino. North of these complexes are Daniel Freeman Hospital, the Inglewood Park Cemetery, and the 51-acre Vincent Park. The City proposes to build a bicycle path along the Park’s south edge.

- Located in downtown Inglewood.
- Bus Center is on top of a low hill surrounded mostly by flat terrain.
- Most streets controlled by signals or four-way stops.

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). Compared to other transit hubs in Los Angeles County, the area around Inglewood Bus Center has higher than average transit service and employment, average transit ridership, and higher than average median income. Our analysis of transit and bicycle ridership at this location indicates that it scores 183 out of 359, or in the 51st percentile of all bike-transit hubs. Transit hub scoring serves as a way to compare transit hubs across the County.



The table below draws on 2000 Census data, SCAG population and employment projections for the year 2010 and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.

Metro Bus Riders	n/a	Local Bus Service (Other)	Yes
Metro Rail Riders	n/a	Population (3 miles)	94,324
BRT Service	Future	Employment (3 miles)	84,916
Existing Transit Center	Yes	Household Income	\$52,544
Metro Rapid	Yes	Transit Riders (3 miles)	7515

In addition, the following major activity centers and destinations are located within the study area:

- Hollywood Park Casino
- Great Western Forum
- Hollywood Park Racetrack
- Caroline Coleman Stadium
- Daniel Freeman Hospital
- Downtown Inglewood (City Hall, Police and Fire Stations, Library, Juvenile Court)
- Inglewood High School
- Inglewood Park Cemetery
- Vincent and Rogers Parks

**Bicycle Access Conditions**

Key bicycle access observations include:

- Pincay Drive is a good candidate for a bike route as an alternative to the heavily traveled Manchester Boulevard. It passes through the Great Western Forum and Hollywood Park area.
- Kelso Street is a bike route to the west of the bus center. The street comes to a T at the bus center, and then continues to the east of the bus center. The eastern half of Kelso is a bike route candidate as it crosses Prairie Avenue at a signal. Kelso Street becomes Pincay Drive after crossing Prairie.
- Hillcrest Boulevard, which runs along the hilltop between Florence and Manchester, is a bike route candidate.

- Eucalyptus Avenue is a bike route candidate as it crosses Manchester Boulevard and Florence Avenue at signals.
- Arbor Vitae Street and Florence Avenue are candidates for bike lanes.
- The remaining streets in the commercial district form a fine-grained grid with mostly signal and all-way-stop control; speeds are low to moderate so all streets are good for bicycling.
- The city plans to modify the street connectivity of the block where La Brea meets Spruce Avenue and Market Street.
- The City is planning to reconstruct La Brea Avenue from Florence Avenue to Century Boulevard and is studying the feasibility of installing bike lanes south of Hillcrest Boulevard as part of this reconstruction.

**Bicycle Facilities**

Existing bike lanes: None  
 Existing bike routes: Kelso Street from bus center west  
 Existing bike paths: None  
 Existing bicycle parking: None

**Transit Connections**

Transit Type	Agency	Description
Bus Lines	METRO	40
		111
		211
		212
		442
		711
		740



## Existing Conditions



Inglewood Bus Center, looking south on La Brea Avenue



Inglewood Bus Center bus turnaround



Facing east on Arbor Vitae Street at Myrtle Avenue



Facing north on Market Street



Market Street with "bicycles prohibited" sign on lamp post



Path to the Bus Center



### Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map at the end of this document. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

Improvements for the bicycle access routes to the Inglewood Bus Center are identified below. Corridor improvements include bike lanes, re-stripping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing.

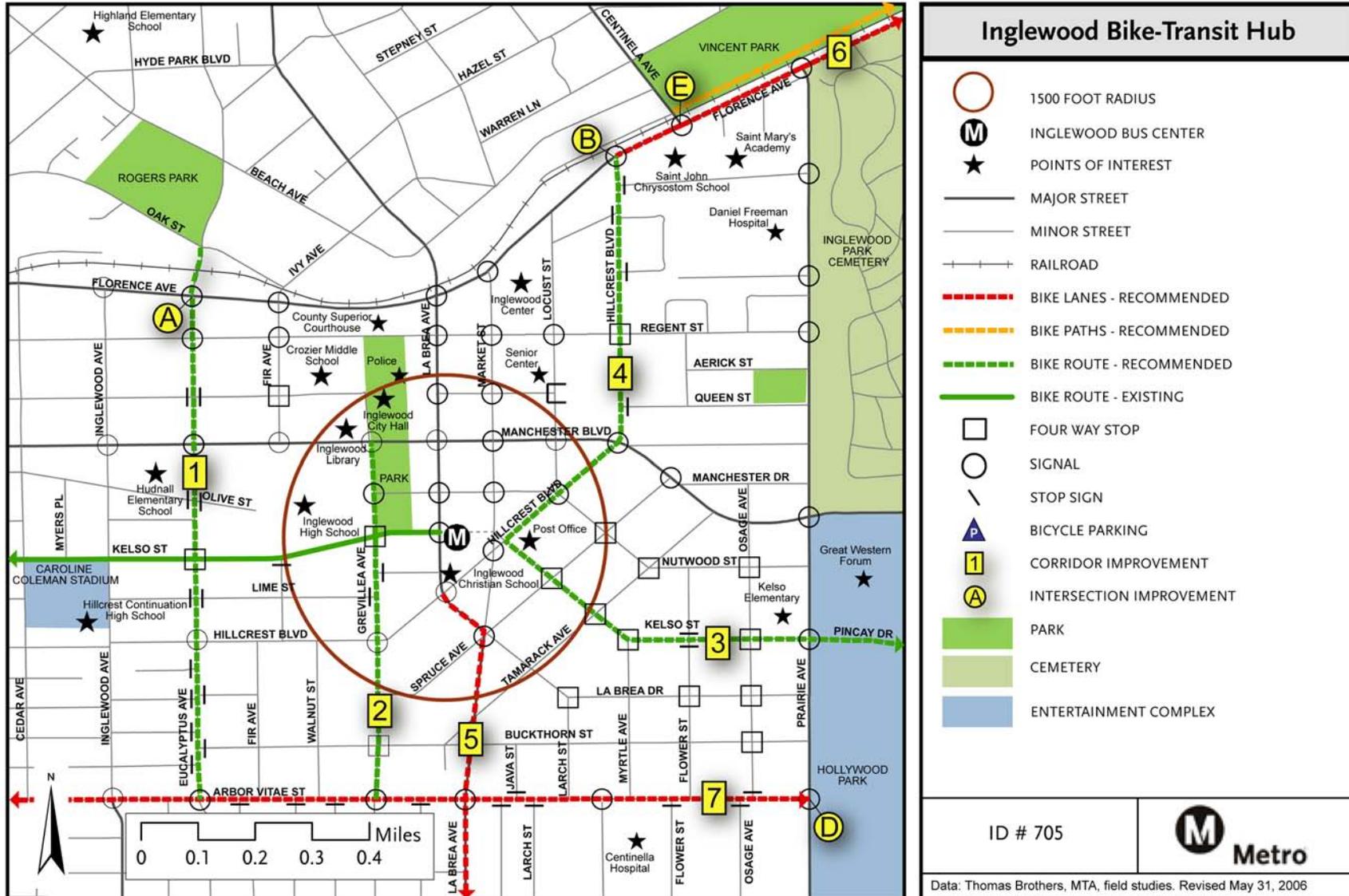
The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Add Class III bike route signage and stencils. Add directional signage	1	Eucalyptus Ave: Arbor Vitae St. to Rogers Park	0.88	\$8,800
	2	Grevillea Ave: Arbor Vitae to Manchester Blvd.	0.62	\$6,200
	3	Kelso/Pincay Dr: Hillcrest Blvd to Prairie Ave., continuing east	0.64	\$6,400
	4	Hillcrest Blvd: Florence to Kelso	0.74	\$7,400
Add Class II bike lanes	5	La Brea Ave: Hillcrest Blvd to Hardy St, continuing south	0.64	\$19,100
	6	Florence Ave: from Hillcrest Ave East. Bike lanes recommended as a less costly alternative to Class I path in park.	0.48	\$14,423
Add Class II bike lanes	7	Arbor Vitae St from Prairie Ave to Eucalyptus Ave, continuing west. Restripe to 12 11 11 12 or 13 10 13 10	1.16	\$30,900

Intersection Improvements	Map Key	Location	Est. Cost
Provide bicycle sensitive detector loop and bicycle detection marking	On all lead positions and left turn lanes, especially at the following intersections:		
	A	On Eucalyptus Ave at Florence Ave.	\$2500
	B	Hillcrest Blvd. and Florence Ave.	\$2500
	C	On Kelso and 90 <sup>th</sup> at Prairie	\$2500
Ensure that the planned bike path in Vincent Park connects to the street.	D	On Arbor Vitae St. at Prairie	\$2500
	E	Centinela and Florence Avenues.	n/a
<b>Suggested Bicycle Parking</b>			
Install bike racks at transit hub. (\$100 per 2-bike U-rack)			
Install bike lockers at transit hub. (\$1,500 per 2-bike locker)			
Install inverted-U racks in front of businesses in downtown area. Recommend square tubing to prevent theft. (\$100 per 2-bike U-rack)			



Map 10 – Inglewood Bike-Transit Hub Recommendations



## SOUTH GATE BIKE-TRANSIT HUB

City of South Gate



## SOUTH GATE BIKE-TRANSIT HUB

### Bike to Metro Rapid and Local Bus at Commercial Center

<b>Hub ID:</b>	1009
<b>Name:</b>	South Gate (Refer to Bike-Transit Hub Data Spreadsheet)
<b>Intersection:</b>	Atlantic Avenue and Firestone Boulevard
<b>Jurisdiction:</b>	City of South Gate

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

The South Gate Hub is located at the intersection of Atlantic Avenue and Firestone Boulevard in a commercial area in the City of South Gate just south of the Cudahy/South Gate border. The transit hub is served by Metro Rapid and Metro local bus service. It is slated to become a transit center in the future.

The land use in the study area is primarily commercial and industrial to the north and northeast, with a residential area south of Southern Avenue and west of South Gate Park. Shultz steel occupies a large parcel of land adjacent to the Los Angeles River. Union Pacific Rail lines cross through the study area, intersecting just a quarter-mile northwest of the transit center. South Gate Park is located a quarter-mile southwest of the transit hub. Plans for redevelopment of a parcel north of Firestone Boulevard and west of Atlantic Avenue include a college.

Two off-road paths are nearby. A utility corridor running east-west, parallel to Southern Avenue, serves as the location of the Southern Avenue Bicycle and Pedestrian Path. This 10-foot-wide concrete path is used by students to reach a middle school located at the intersection of Otis Street and Southern Avenue. The Los Angeles River Bike Path runs north-south about a half-mile east of the transit hub. During the field study, access to the river path was possible through Firestone Boulevard.

- Two rail lines cross the study area.
- Land use primarily commercial and industrial.
- Class II bike paths located along Los Angeles River and parallel to Southern Avenue.
- The area north of Firestone Boulevard and west of Atlantic Avenue is slated for redevelopment.

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). Compared to other transit hubs in Los Angeles County, the South Gate transit hub has slightly higher than average transit service levels, higher employment, population, and transit ridership densities, and lower median income within a three-mile radius. Our analysis of transit and bicycle ridership at this location indicates that the transit hub scores 194 out of 359, or in the 54th percentile of all bike-transit hubs. Transit hub scoring serves as a way to compare transit hubs across the County.



The table below draws on 2000 Census data, SCAG population and employment projections for the year 2010 and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.

Metro Bus Riders	2246	Local Bus Service (Other)	Yes
Metro Rail Riders	N/A	Population (3 miles)	79,622
BRT Service	No	Employment (3 miles)	72,448
Existing Transit Center	Future	Household Income	\$35,224
Metro Rapid	No	Transit Riders (3 miles)	10,899

In addition, the following major activity centers and destinations are located within the study area:

- South Gate Civic Center on Otis Street near Firestone Boulevard
- South Gate Park and South Gate Golf Course
- Three elementary schools (Tweedy and Bryson Avenue Schools are in South Gate, Park Avenue School is in Cudahy)
- Schulz Steel on Rayo Avenue

### Bicycle Access Conditions

Key bicycle access observations include:

- Existing bicycle amenities provide good bicycle access east-west along Southern Avenue to the north-south Los Angeles River Path, but do not connect directly to the transit hub or nearby worksites. The Southern Avenue Bicycle Pedestrian Path does not directly connect with Atlantic Avenue.
- Firestone Boulevard has heavy traffic and on-street parking and is a difficult street to bicycle on. It is the most direct east-west route from the transit center and is the only road that crosses the Los Angeles River within a mile of the transit center.
- Atlantic Avenue has heavy traffic and on-street parking, and is also a difficult street to bicycle on. It is the most direct route north from the transit center over the railroad tracks and south to the bike lanes on Southern Avenue.

- The LA River path is accessible from ramps connecting Firestone Boulevard and the Firestone Boulevard Bridge with the path.
- Southern Avenue runs along South Gate Park and provides access to the Los Angeles River Path. West of Atlantic, it is paralleled by the Southern Avenue Bicycle and Pedestrian Path. This path runs along a power line corridor and curves away from Southern Avenue to avoid the power line towers approximately every third street. The intersections of the path and the perpendicular residential streets have blind spots due to parking, and are in need of safety improvements such as bulb-outs or median refuge islands.
- There may be an opportunity for a direct connection from Shultz Steel to the Los Angeles River Path for steelworkers.

### Bicycle Facilities

Existing bike lanes:	Southern Avenue between Los Angeles River and Vosler Avenue
Existing bike paths:	Los Angeles River Path Southern Avenue Bicycle and Pedestrian Path
Existing bicycle parking:	None

### Transit Connections

Transit Type	Agency	Description
Bus Lines	METRO	115
		260
		315
		361



## Existing Conditions



Bike Trailer on Atlantic Avenue at  
Ardine Street



LA River Bike Path approaching  
Firestone Boulevard



Atlantic Avenue south of Firestone  
Boulevard, facing south



Southern Avenue, facing east



A worker uses a bicycle on Rayo Avenue  
near Schulz Steel



Hildreth Avenue at Southern Avenue,  
showing Southern Avenue Bicycle and  
Pedestrian Path



## Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

Improvements for bicycle access to the South Gate hub are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing. The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Stripe Class II bike lanes	1	Salt Lake Ave. between Atlantic Ave. and Ardine St. (City of Cudahy) Restripe to 6 14 14 6	0.21	\$6,300
	2	Atlantic Ave. between Salt Lake Ave. and Ardine St. (City of Cudahy) Bike lanes can be accommodated by removing parking on one side and restriping to 11 foot lanes and 11 foot turn lane or removing parking on both lanes and restriping to 12 foot lanes.	0.11	\$3,300
Install Class III bike route pavement markings and signage	3	Salt Lake Ave. between Ardine and Santa Ana St. (City of Cudahy)	0.27	\$2,700
	4	Firestone Place between Rayo Ave. and Firestone Blvd.	0.22	\$2,200

Corridor Improvements (Cont.)	Map Key	Location	Miles	Est. Cost
To eliminate intersection conflicts on existing Class I bike paths, install Class III bike route pavement markings and signage. Eliminate center turn lane, restripe lanes to 16' westbound and 23' eastbound with parking. Add turn pockets.	5	Southern Ave. between Atlantic Ave. and Otis St.	0.87	\$36,100
Extend Southern Avenue Bicycle Pedestrian Path to Atlantic Avenue	6	Utility corridor from Burke Ave. to Atlantic Ave.	0.25	\$139,400
Consider creating bicycle routes, lanes or paths through the redevelopment area north of Firestone and west of Atlantic	7	East-west route through redevelopment area, connecting to Atlantic Ave., possibly along Mason St.	0.57	\$5,700
	8	North-south route through redevelopment area, connecting Salt Lake Ave. to Mason Ave.	0.20	\$2,000
Study the feasibility of narrowing inside travel lane to give width to the outside lane and/or removing parking on one or both sides of street	9	Atlantic Ave. between Salt Lake Ave. and Firestone St.	0.24	n/a
Restripe road to provide more outside width for cyclists	10	Atlantic Ave. between Firestone Blvd. and Southern Ave. Narrow inside lane from 12' to 11', widening the outside lane and parking to 21'	0.41	\$13,000
	11	Rayo Ave. from Southern Ave. to north end of street. Restripe to 13 14 14 13	0.65	\$19,400

-continued-



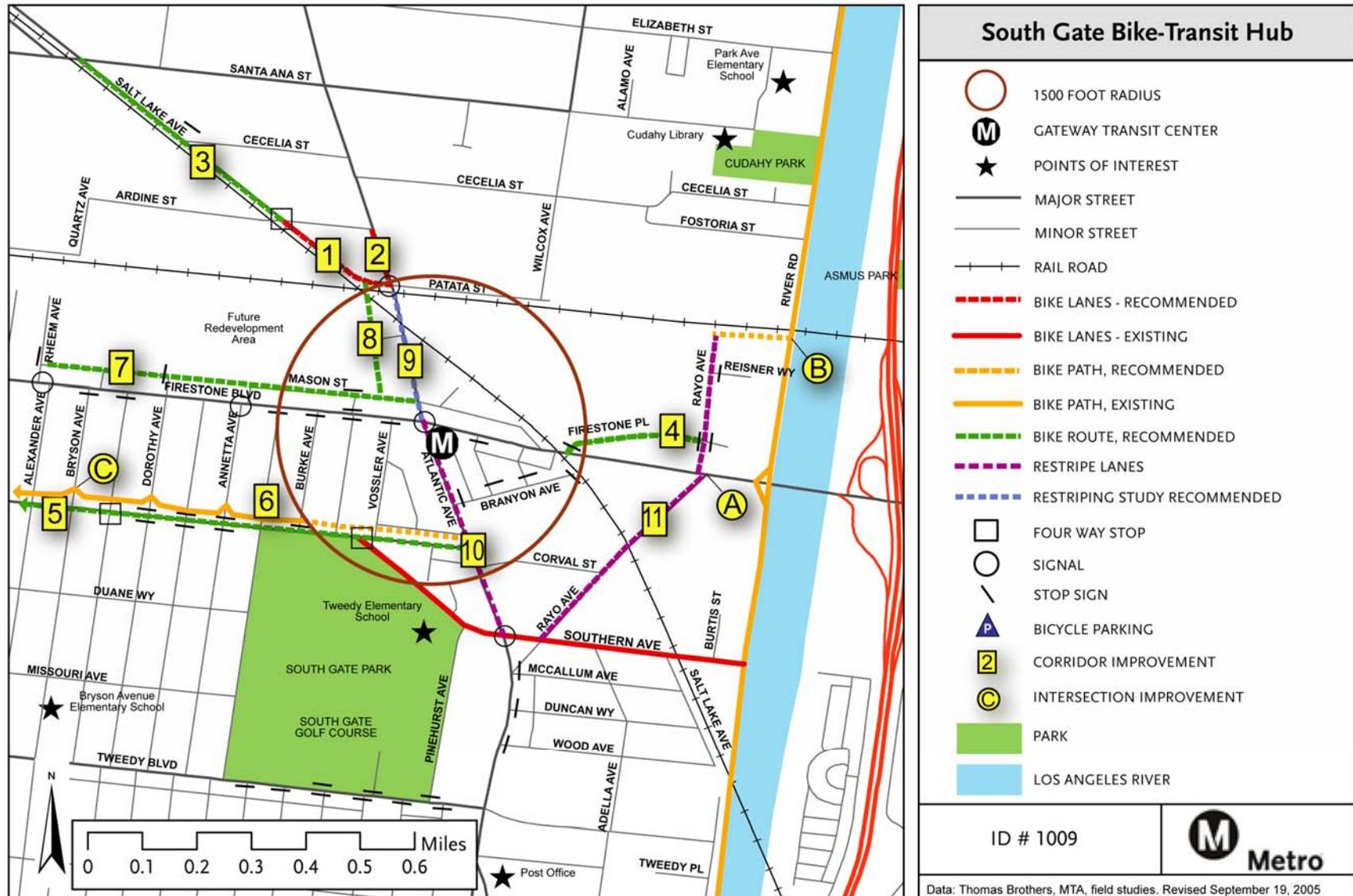
Intersection Improvements	Map Key	Location	Est. Cost
Provide bicycle sensitive detector loop and bicycle detection marking	(A)	Rayo Ave. at Firestone Blvd.	\$2,500
Install directional signage	(B)	LA River path at Schulz Steel	\$200 per sign (4 signs)
Install crossing improvements such as bulb outs or medians along length of Class I bikeway	(C)	Utility corridor Class I path parallel to Southern Ave.	\$15,000 per bulb-out (8 bulb-outs)

**Other Notes**

- Proposed redevelopment in the area north of Firestone Boulevard and west of Atlantic Avenue includes a college. Future plans for any educational facilities in the area should include accommodations for bicycles. Both a north-south and an east-west route through the redevelopment area are recommended. The north-south route, if connected to Salt Lake Avenue and Mason Avenue, could provide a safer alternative to Atlantic Avenue.
- Atlantic Avenue is a difficult route to bicycle on due to high traffic volumes, narrow lanes and on-street parking, and as such is not recommended as a bicycle route. Improvements to this street are limited as it is in a commercial area which requires parking. However, between Firestone Boulevard and Southern Avenue it may be possible to narrow the inside lane by a foot and thereby provide an extra foot to cyclists sharing the outside lane with motorists.
- Improvements 1, 2, and 4 on Salt Lake Avenue and Atlantic Avenue north of Firestone are in the jurisdiction of the City of Cudahy.
- Encourage Shultz Steel to install bike route signage from Los Angeles River Path to the factory and bike parking to allow workers to bike to work.



Map 11 – South Gate Bike-Transit Hub Recommendations



South Gate





## SOUTH BAY GALLERIA BIKE-TRANSIT HUB

City of Redondo Beach



## SOUTH BAY GALLERIA BIKE-TRANSIT HUB

### Bike to Metro Rapid and Local Bus at Commercial Center

**Hub ID:** 722 (Refer to Bike-Transit Hub Data Spreadsheet)  
**Name:** South Bay Galleria (Metro Bus)  
**Intersection:** Kingsdale Ave. and Artesia Blvd.  
**Jurisdiction:** City of Redondo Beach

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

South Bay Galleria is a major regional shopping mall in Redondo Beach. The transit center is a bus turnaround / layover on the mall side of Kingsdale Avenue between Grant Avenue and Artesia Boulevard; the mall’s west parking garage forms the east wall of the transit center area.

The mall is bounded on the north and east by two major arterials with raised medians: Artesia Boulevard and Hawthorne Boulevard. To the

south and west, it is bounded by smaller 182<sup>nd</sup> Street and Kingsdale Avenue. There are signals at all four corners. Within these four streets, much of the mall property is given over to parking.

Streets within the study area form a rough grid but are broken by the mall, the Pacific Crest Cemetery, railroad tracks and a freeway. A block to the west of the transit center, the Burlington Northern Santa Fe Rail Road tracks run north-south and reduce access to the residences to the west. Grant Avenue runs under the tracks from the west and connects directly to the transit center. Less than a mile northeast of the transit center, the San Diego Freeway (405) creates another barrier to bicycles. Redondo Beach Boulevard runs under the freeway.

East of Hawthorne Boulevard and west of the railroad tracks the land use changes dramatically to residential.

- Terminus of 740 Metro Rapid.
- Major barriers include BNSF Railroad tracks and 405 Freeway.
- Located at the South Bay Galleria, a major regional shopping center.
- Within half a mile of surrounding residential areas.

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). The South Bay Galleria bike-transit hub shows below average transit ridership levels compared to other transit hubs in the County. It shows much higher median incomes than the other transit hubs, and somewhat higher population and higher employment density. Our analysis of transit and bicycle ridership at this location indicates that it scores 123 out of 359, or in the 34th percentile of all bike-transit hubs.

The table on the next page draws on 2000 Census data, SCAG population and employment projects for the year 2010, and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.



Metro Bus Riders	not available	Local Bus Service (Other)	Yes
Metro Rail Riders	not applicable	Population (3 miles)	64,285
BRT Service	No	Employment (3 miles)	60,749
Existing Transit Center	Yes	Household Income	\$63,740
Metro Rapid	Yes	Transit Riders (3 miles)	3067

In addition, the following major activity centers and destinations are located within the study area:

- South Bay Galleria
- Several schools (Washington Elementary School, Adams and Magruder Middle Schools and Torrance Children's Center)

### Bicycle Access Conditions

Key bicycle access observations include:

- One-seventy-seventh Street is a bike route / bike boulevard candidate between the mall and Prairie Avenue. It could be extended east beyond Prairie if a signal were added at the intersection.
- Prairie is a candidate for bike lanes between 177<sup>th</sup>, to 182<sup>nd</sup> and possibly further south.
- One-Eighty-Second Street is a candidate for bike lanes between Prairie Avenue and Inglewood Avenue and, with a traffic study, may qualify for a 4-to-3 lane "road diet" between Prairie and Hawthorne Boulevard.
- Kingsdale is a 40-foot wide street with no parking and two 20-foot wide lanes. Starting at 182<sup>nd</sup> St. and continuing north along the west edge of the mall's parking lots, Kingsdale has no parking on either side, so its 40-foot width can accommodate 6-foot bike lanes and 14-foot travel lanes. The wide travel lanes would be ideal for the buses that use this segment to reach the transit center. However, for one block before the Grant Avenue signal there are houses and on-street parking on Kingsdale's

west side, precluding bike lanes. That segment should have bicycle warning signage and perhaps "Share the Road" signs.

- Grant's bike lanes should be extended the remaining one block distance to Kingsdale if possible. This appears to be straightforward in the westbound direction but may not be possible eastbound due to the 2-lane storage layout approaching the Kingsdale/Grant signal.

### Bicycle Facilities

Existing bike lanes: Grant Avenue west of Kingsdale

Existing bike paths: None

Existing Bicycle parking: Table

Location	Parking Type	Spaces	Accessibility	Security
South Bay Galleria Transit Center	Wave	10	Good	good

### Transit Connections

Transit Type	Agency	Description
Bus Lines	METRO	40
		210
		211
		740
		710
	Torrance	8



## Existing Conditions



South Bay Galleria Transit Center



Bike rack at transit center and adjacent sidewalk



Bike Lanes on Grant Avenue, eastbound toward South Bay Galleria



Slots in the valley gutters at Grevillea Avenue and 166<sup>th</sup> Street



Grevillea Avenue and 166<sup>th</sup> St looking southbound



Intersection of Kingsdale Avenue and Grant Boulevard



## Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

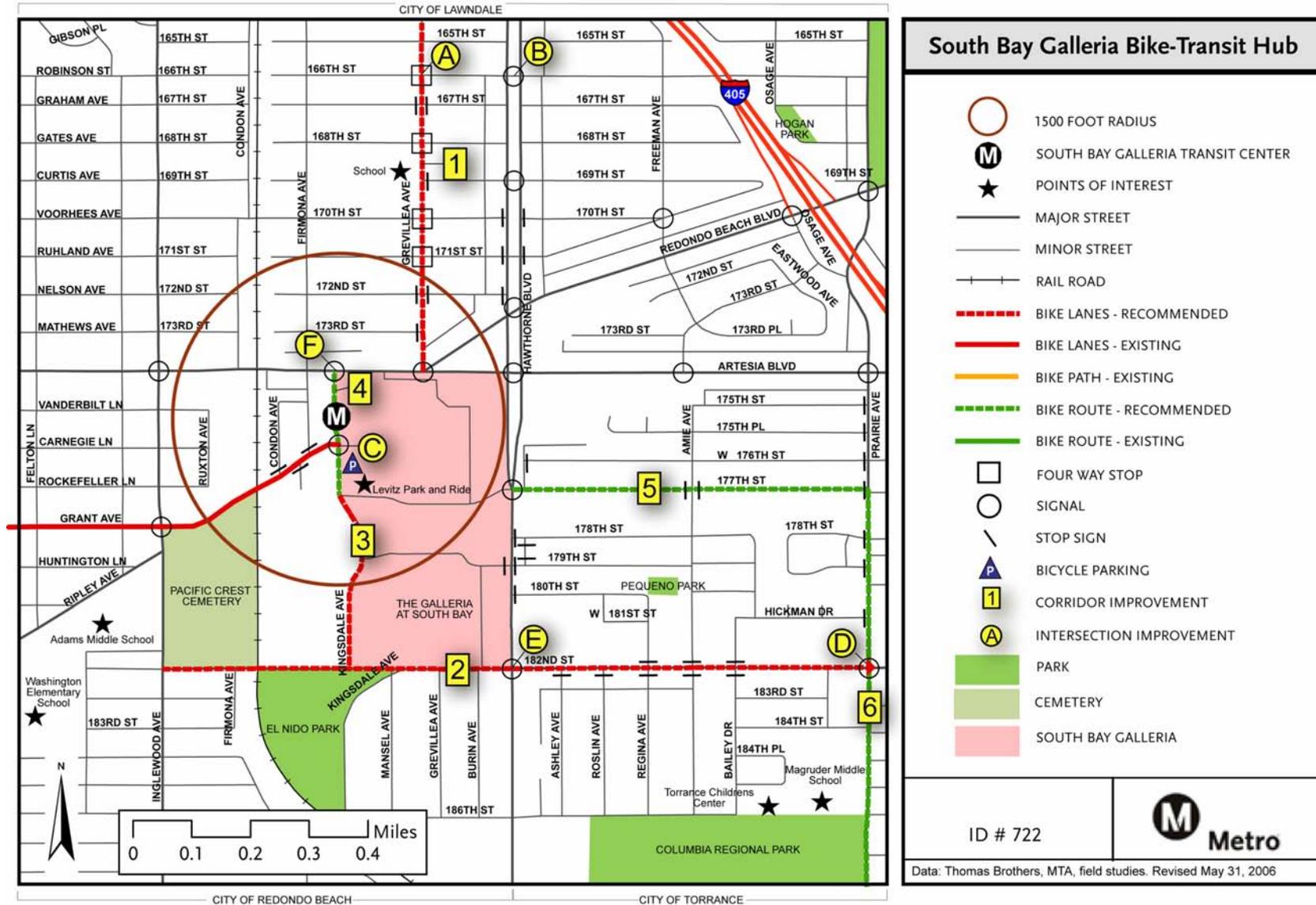
Improvements for the bicycle access routes to the South Bay Galleria hub are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing. The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Add Class II bike lanes	1	Grevillea Ave.: from Artesia to 166th, extending north, City of Lawndale	0.59	\$5,900
	2	182nd St.: between Inglewood Ave. to Yukon Ave. (connection to N. Torrance High School to the east) Cities of Redondo Beach and Torrance	1.0	\$10,200
	3	Kingsdale Ave.: between 177th St. and 182nd St. City of Redondo Beach	0.21	\$2,100
Add Class III bike route signage and stencils. Add directional signage	4	Kingsdale Ave.: between Artesia Blvd. and 177th St. City of Redondo Beach	0.3	\$9,200
	5	177th St.: between Hawthorne Blvd. and Prairie Ave. City of Torrance	1	\$30,000
	6	Prairie Ave: between 177th St. and 182nd St., extending south	0.68	\$20,300
4-to-3 lane "Road Diet"	2	182nd St.: between Prairie Ave. and Hawthorne Blvd. City of Torrance	0.5	\$22,500

Intersection Improvements	Map Key	Location	Est. Cost
Remove slots from valley gutters	A	Grevillea Ave. and 166th St.	n/a
	B	Hawthorne Blvd. and 166th St.	n/a
Relocate bike rack away from pedestrian path of travel	C	South Bay Galleria Transit Center Grant Ave. and Kingsdale Ave. Currently, bikes parked on the bike rack will impede pedestrian travel. Turning the bike rack so it is perpendicular to the walkway will fix this problem.	n/a
Provide bicycle sensitive detector loop and bicycle detection marking	D	182nd St. and Prairie Ave.	\$2,500
	E	182nd St. and Hawthorne Blvd.	\$2,500
	F	Artesia Blvd. and Kingsdale Ave.	\$2,500



Map 12 – South Bay Galleria Bike-Transit Hub Recommendations



## WEST HOLLYWOOD FAIRFAX BIKE-TRANSIT HUB

City of West Hollywood



## WEST HOLLYWOOD FAIRFAX BIKE-TRANSIT HUB

### Bike to Local Bus and Future Metro Rapid at Commercial Center

**Hub ID:** 1023 (Refer to Bike-Transit Hub Data Spreadsheet)  
**Name:** West Hollywood-Fairfax (Metro Bus)  
**Intersection:** Santa Monica Boulevard and N. Fairfax Avenue  
**Jurisdiction:** City of West Hollywood

#### Introduction

This Bike Transit Hub Access Plan is part of the Metro Bicycle Transportation Strategic Plan (BTSP), a countywide effort to improve bicycle facilities. The BTSP focuses on bicycle accessibility to major transit hubs in Los Angeles County, along with gaps in the regional bikeway system. One hundred sixty seven (167) bike-transit hubs were identified and evaluated as part of the BTSP. Of those, 12 hubs were selected for field review and completion of an Access Plan. The purpose of the Access Plan is to identify potential improvements to bicycle access and parking at the transit hubs in order to expand the range of the bicycle and transit modes of transportation. Local agencies can use these plans to make improvements as part of roadway and transit projects. This or similar Access Plans can be used for seeking funding. Local agencies may choose to complete other Access Plans as well using the methodology and tools provided in the BTSP.

#### Existing Conditions

The West Hollywood-Fairfax hub is a major bus stop centrally located at the junction of two thriving commercial arterials, Santa Monica Boulevard and Fairfax Avenue. The arterials run through a grid of high density residential streets. West of the transit hub, parts of Santa Monica Boulevard have a landscaped median, mid-block crossings, Class II bike

lanes, and a proposed Class I bike path. Fairfax Boulevard is a heavily traveled four- to six-lane arterial.

The hub is served by Metro Bus 218, West Hollywood City bus, and Metro Rapid Fairfax line. It will be served by Metro Rapid along Santa Monica Boulevard in the near future.

The transit hub is in the jurisdiction of the City of West Hollywood; however, West Hollywood city limits end approximately a quarter-mile north and south of the transit hub. Beyond the city limits, the jurisdiction switches to the City of Los Angeles. The location is characterized by:

- High density urban location.
- Land uses: One- to four-story retail/commercial/office along arterials. Single-family and multi-story multifamily off the arterials. Santa Monica Boulevard is a major retail and restaurant street.
- Topography: East-west streets run nearly flat; north-south streets have a modest grade that climbs to the north, toward the Hollywood hills.
- There are no barriers other than the mild grade.
- Served by Metro Rapid (Fairfax), Metro Local and West Hollywood City Line buses. Metro Rapid service will be implemented on Santa Monica Blvd. in the near future.

#### Transit Service and Demographics

Transit hub scoring is based on the demographics of residents within three miles (population, median income), characteristics of the surrounding three miles (number of jobs) and characteristics of the transit center (number of daily transit users, type of service and whether the stop is a terminus or not). The area within three miles of the West Hollywood transit hub has very high employment and population densities compared with other transit hubs in the County. The number of transit riders who live within three miles of the transit center is higher than average, as is the median income. Our analysis of transit and bicycle ridership at this location indicates that it scores 193 out of 359, or in the 54th percentile of all bike-transit hubs. Transit hub scoring provides a way to compare hubs across the entire County.



The table below draws on 2000 Census data, SCAG population and employment projections for the year 2010 and Metro Bus and Rail average weekday boardings and alightings within 1/8 mile of the transit hub.

<b>Metro Bus Riders</b>	5244	<b>Local Bus Service (Other)</b>	Yes
<b>Metro Rail Riders</b>	n/a	<b>Population (3 miles)</b>	113,613
<b>BRT Service</b>	No	<b>Employment (3 miles)</b>	99,706
<b>Existing Transit Center</b>	Future	<b>Household Income</b>	\$50,657
<b>Metro Rapid</b>	Yes and Future	<b>Transit Riders (3 miles)</b>	10,670

In addition, the following major activity centers and destinations are located within the study area:

- Sunset Boulevard and Hollywood Boulevard are major tourist and entertainment destinations.
- Whole Foods supermarket on northeast corner of study intersection.
- West Hollywood City Hall and the Chamber of Commerce are located west of the transit hub.
- Hollywood Highland Center, including the Red Line Station is east of the study area and accessible via buses from the transit hub.
- The La Brea Gateway Center at La Brea and Santa Monica Boulevard.
- There is direct transit service between this hub and Cedars-Sinai Medical Center, the Beverly Center, the Farmer's Market at 3<sup>rd</sup> and Fairfax, and the Red Line subway.
- The Avenues of Art and Design.
- The Pacific Design Center.
- The concentration of nightclubs and restaurants on the west side of West Hollywood.

### Bicycle Access Conditions

Key bicycle access observations include:

- Excellent bicycle connectivity parallel to and across the arterials. There is a completely intact grid of narrow side streets along both axes with low-to-moderate speeds. Typical width ranges from 29 feet (parking one side only) to 36 feet (parking both sides). Volumes on these streets can be high, especially during peak commute times.
- Fairfax Avenue has signals every 1,000 feet and Santa Monica Boulevard has signals every 500 to 1,000 feet, providing many opportunities to cross the arterials on alternative minor streets.
- Traffic speeds on the two arterials are moderate. Fairfax has 3 lanes each way and its speeds are higher than Santa Monica Boulevard. An experienced commuter/utility cyclist can keep up with traffic on Santa Monica Boulevard. A cyclist can also ride at high speeds in the downhill (south) direction on Fairfax. Traffic volumes on these arterials are very high.
- West Hollywood completed its Bicycle and Pedestrian Mobility Access Plan in Spring 2003. This Plan contains recommendations for several corridors within the bike-transit hub study area. Recommendations in this Access Plan are consistent with the West Hollywood Mobility Access Plan and in some cases duplicate recommendations made in that plan.
- Metro Rapid Bus service will be starting on Santa Monica Boulevard in the near future.



**Bicycle Facilities**

Existing bike lanes: Santa Monica Boulevard from King/Flores west  
 Existing bike routes: Fairfax Avenue south of Fountain Avenue and Fountain Avenue east of Fairfax  
 Existing bike paths: None  
 Existing bicycle parking: Table

Location	Parking Type	Spaces	Accessibility	Security
At bus stop on northeast corner of Santa Monica & Fairfax Blvds	Post and hoop	6	Good	Fair

Additional bicycle parking is available at:

- West Hollywood City Hall
- Gelson’s Market at Kings Road and Santa Monica Boulevard
- Retail establishment across Santa Monica Boulevard from City Hall
- Kings Road Park at Kings Road and Romaine Avenue
- Plummer Park at Martel Avenue
- LaBrea Gateway Center at LaBrea Boulevard
- Sunset Millennium Project at Almont
- Kings Road Municipal Parking Structure at Kings Road
- Various locations adjacent to business establishments

**Transit Connections**

Transit Type	Agency	Description
Bus Lines	METRO	4
		217
		218
		304
		717



## Existing Conditions



Looking west on Santa Monica Boulevard toward the Fairfax Avenue intersection



La Jolla Avenue, facing south



La Jolla Avenue facing north to Santa Monica Boulevard



Santa Monica Boulevard pedestrian crossing with median refuge



Bike Racks on Fairfax Ave at Santa Monica Boulevard



Willoughby Street, looking west from Fairfax Boulevard



## Recommended Improvements

A field audit was performed on major corridors within a 1,500 foot radius of the bike-transit hub. Potential improvements are summarized below and on the map on the following page. More detailed descriptions of each improvement type are provided in the Design Toolbox in the Appendix. Additional feasibility, traffic, and other studies will be needed to finalize any improvement plans.

Improvements for the bicycle access routes to the West Hollywood Fairfax hub are identified below. Corridor improvements include bike lanes, re-striping, and other linear projects that lend themselves to corridors. Intersection improvements include items such as bicycle signal detectors, re-configured crosswalks, and modifications to signal timing. The map keys can be used to locate the improvement area on the Access Plan Map at the end of this document.

Corridor Improvements	Map Key	Location	Miles	Est. Cost
Install Class III bike route striping, signage and pavement stencils, and consider traffic calming	1	Spaulding Ave. from Fountain to Lexington, Lexington Ave. from Spaulding to Genesee, Genesee Ave. from Lexington to Willoughby	0.6	\$9,000
	2	Laurel Ave. from Hollywood Blvd. to Willoughby Ave.	1.0	\$10,000
	3	Willoughby Ave. from Kings Rd. to Gardner St.	1.1	\$10,600
Remove travel lane in each direction, stripe Class II bike lanes and install directional signage	4	Fairfax Blvd. between Santa Monica Blvd. and Willoughby Ave.	.25	\$12,500

Corridor Improvements (Cont.)	Map Key	Location	Miles	Est. Cost
Install Class III bike route striping, signage and pavement stencils	5	Santa Monica Blvd.: from Kings Rd. to La Brea Ave.	1.75	\$26,250
	6	Gardner /Vista St. between Romaine St. and Fountain Ave.	0.4	\$4,000
	7	Sweetzer Ave.: from Sunset Blvd. to Willoughby Ave.	0.7	\$6,500
	8	Fountain Ave. from Fairfax to La Cienega	1.9	\$28,500
Intersection Improvements	Map Key	Location	Est. Cost	
Provide bicycle sensitive detector loop and bicycle detection marking	On all lead positions and left turn lanes, especially at the following intersections:			
	A	Fairfax Ave. and Willoughby Ave.	\$2,500	
	B	Fairfax Ave. and Fountain Ave.	\$2,500	
	C	Gardner/Vista St. at Santa Monica Blvd.	\$2,500	
	D	Santa Monica Blvd. and Genesee Ave.	\$2,500	
	E	Santa Monica Blvd. and Fairfax Ave.	\$2,500	
Bicycle Parking				
Install additional bike racks along the Santa Monica Boulevard Corridor near businesses and other uses .(\$100 per 2-bike U-rack, plus installation costs).				

### Other Notes

- Recommendation 1 is the same as Project 21: Genesee Avenue Neighborhood Bikeway/Safe Routes to School Project in the West Hollywood Mobility Plan.
- Recommendation 2 is an addition to the Mobility Plan.
- Recommendation 3 is an addition to the Mobility plan. The route is multi-jurisdictional as it runs through West Hollywood and the City of Los Angeles.
- Recommendation 6 is an addition to the Mobility plan.



- Loop detectors and markings are also recommended at :
  - Santa Monica Boulevard at Laurel, Crescent Heights, La Jolla, Sweetzer, Kings/Flores and Curson.
  - Fountain at Sweetzer, Crescent Heights, Laurel, Spalding, Gardner, Vista.
  - Sunset at Sweetzer, Roxbury/Harper, Crescent Heights, Laurel, Fairfax.
- It is recommended that the City continue to encourage businesses to provide secure bicycle facilities near entrances and exits.



Map 13 – West Hollywood Fairfax Bike-Transit Hub Recommendations

