Los Angeles County
Metropolitan Transportation Authority

Attachment A

Executive Summary | Final

LOS ANGELES COUNTY RAIL NETWORK INTEGRATION STUDY

Summer 2024

Metro

Glossary

2028 Games	2028 Olympic and Paralympic Games
ACS	American Community Survey
ATIIP	USDOT Active Transportation Infrastructure Investment Program
ATP	CA Active Transportation Program
ATTAIN	USDOT Advanced Transportation Technology and Innovation Program
AVL	Antelope Valley Line, Metrolink
B, K, M	Billion(s), Thousand(s), or Million(s), typically in reference to dollar values
BLW	Brightline West high-speed rail between Rancho Cucamonga to Las Vegas
BRT	Bus rapid transit
CA	California
CAHSR	California High-Speed Rail
CalSTA	California State Transportation Agency
Cal-ITP	California Integrated Travel Project
CBO	Community-based organization
CIP	Capital Investment Program
CMAQ	USDOT Congestion Mitigation Air Quality Improvement Program
CSULB	California State University Long Beach
ESFV LRT	East San Fernando Valley Light Rail Transit
FLM	First/Last Mile
HBA	Hollywood Burbank Airport
HDC	High Desert Corridor
HOV	High Occupancy Vehicle
I-405	Interstate 405
LA	Los Angeles
LADOT	City of Los Angeles Department of Transportation
LADWP	City of Los Angeles Department of Water and Power
LAUS	Los Angeles Union Station
LAX	Los Angeles International Airport
LBT	Long Beach Transit
Link US	Link Union Station
LOSSAN	Los Angeles—San Diego—San Luis Obispo Rail Corridor, Amtrak
LPP	CA Local Partnership Program
LRT	Light rail transit
LRTP	Long Range Transportation Plan
Metro	Los Angeles County Metropolitan Transportation Authority
MTC	Metropolitan Transportation Commission, San Francisco, California
Muni	Municipal transit operator, in the LA region this is typically local and/or intercity bus or shuttle service
NoHo	North Hollywood
OC	Orange County
OCTA	Orange County Transportation Authority
OOM	Order of magnitude
RAISE	USDOT Rebuilding American Infrastructure with Sustainability and Equity Grant
RCN	USDOT Reconnecting Communities and Neighborhoods Grant Program

REAP	CA Regional Early Action Planning Grant
RITC	Regional Intermodal Transportation Center, Burbank Airport
RNI	Rail Network Integration
RTA	Regional Transportation Authority, Chicago, Illinois
RTP	Regional Transportation Plan – SCAG's RTP is called "Connect SoCal":
S-Bahn	A commuter rail service that connects suburbs and commuter regions with city centers and main rail stations. It is an abbreviation of Stadtschnellbahn, from Stadt ("city") + schnell ("fast") + Bahn ("rail").
SBL	San Bernardino Line, Metrolink
SCAG	Southern California Association of Governments
SCORE	Southern California Optimized Rail Expansion – Metrolink's CIP
SCRRA	Southern California Regional Rail Authority
SFS	City of Santa Fe Springs
STA	CA State Transit Assistance
SGV	San Gabriel Valley
TCC	CA Transformative Climate Communities
TDA	CA Transportation Development Act
TIRCP	CalSTA Transit and Intercity Rail Capital Program
UCLA	University of California, Los Angeles
TOD/TOC	Transit Oriented Development/Transit Oriented Communities
Tripper	Additional capacity that an agency adds to an existing public transit route that operates on only a portion of a route
TSM	Transportation systems management
USDOT	United States Department of Transportation
VA	Veterans Affairs
VCL	Ventura County Line, Metrolink

Study Purpose and Need.

Study Purpose

The Los Angeles County Rail Network Integration Study (Study) identifies strategic opportunities for operational, infrastructure, and policy improvements for better connectivity and removal of barriers to access the transit system within and around LA County. It provides a roadmap to facilitate interagency coordination on infrastructure investments and implement features of the California State Rail Plan.

This Study supports the goals of the Metro Vision 2028 Strategic Plan and 2020 LRTP, as well as the 2018 and 2023 California State Rail Plans, by planning seamless travel experiences across rail and public transit in California, with social equity and sustainability benefits.

The outcome of this 3-year Study includes recommendations for Systemwide, Station-Oriented, and Connectivity improvements for the transit system and specific stations. These recommendations, shown in Figure 3, are the result of robust technical analysis and stakeholder engagement, which included numerous working meetings with agencies and Metro committees, workshops with CBOs, and the distribution of thousands of customer surveys.

Implementation of the project recommendations listed in this report is subject to approval by the governing jurisdiction and funding. While there are currently no dedicated funding sources, Metro will continue to pursue funding opportunities and foster ongoing coordination and meaningful partnerships with local, state, and federal agencies, the private sector, and local stakeholders for the implementation of project(s) and program(s).

Study recommendations, when funded and approved, will help the region create a more robust system with easily implementable projects in the near-term, and more extensive projects and programs in the medium- and long-term.

This ramp on the eastbound I-105 on-ramp in Norwalk, is signed for "no pedestrians." However, as this is the most direct route to the Norwalk C Line Station from adjacent neighborhoods to the east and south, pedestrians and bicyclists frequently use this shoulder to travel.

Issues and Challenges

The Los Angeles region has heavily invested in creating a safe and world-class transit system during the past 30 years, allowing people to travel without a car throughout the county. New investments throughout the region and state will further expand the system. This investment is funded by major local voter-supported initiatives, such as Measures R (2008) and M (2016), state programs, such as SB1 and significant federal funding.

The LA County transit system includes 47 local and intercity bus operators, 100 miles of light rail, connections to over 540 miles of regional commuter rail, connections to inter-city and long-distance Amtrak, and future CAHSR. With such an expansive system, however, the region's operators and owners must be strongly coordinated so that customers can enjoy a seamless, well-maintained, safe and secure total transit system. The outcomes of improved integration will help to increase transit mode share, increase rail passenger miles, and reduce GHG emissions and VMT.

There are numerous areas for improving integration to facilitate an accessible and seamless transit system. For instance, stations are typically owned and operated by different jurisdictions, so it can be challenging to coordinate and standardize maintenance, signage, wayfinding, and other station amenities. Rail stations, bus stops, transit centers, and transfer locations often lack basic amenities such as shade, seating, or informational and directional signage.

Standardization and coordination challenges extend beyond the station to FLM connections, such as pedestrian and bicycle infrastructure, which allows people to make shorter and safer trips to access transit. FLM challenges are exacerbated by a historic lack of regional investment in pedestrian and bicycle infrastructure – an issue regional and local agencies have recently begun to address.

For both existing and potential transit riders, the multitude of agencies providing service can create confusion for customers seeking information, in trip planning and en route. Confusing transfers across different services and multiple fare devices/structures can be also challenging.

The improvements identified throughout this Study will reduce barriers to riding transit and create a more seamless experience for riders, resulting in increased ridership.

Improved transit service, access, and travel experience will improve the economic, social, and environmental conditions for residents and visitors of LA County through increased access to jobs and services, improved air quality, and reduced transportation cost burdens.

Additionally, these investments are a foundation of LA's resilient growth, supporting unprecedented back-to-back world events, including the World Cup in 2026, Superbowl in 2027, and the 2028 Olympic and Paralympic Games. Several program priorities identified in this Study – such as new bus service on express lanes, improved trip planning, integrated fares, and improved FLM connections – can be implemented for these major events while reinforcing long-term increases in transit mode share and improved mobility and accessibility for our region.

Study Scope, Process, and Timeline

The Study was funded by a 2018 TIRCP grant from CalSTA to address network integration opportunities, with other rail and transit systems, including linkages to the statewide rail system, airports, and neighboring county transit services, and to enhance the benefits of AB 1550 (*Gomez. Greenhouse gases: investment plan: disadvantaged communities*). The intention of this additional network integration funding is to ensure collaboration, eliminate duplicate investments, and ultimately create a seamless travel experience across rail and public transit in California. As part of this Study, Metro is leading the planning processes for network integration efforts focusing on regional rail and transit connectivity to the State rail network as described in the California State Rail Plan. CalSTA and Caltrans are involved in the network integration efforts, providing technical assistance and ensuring that statewide goals and priorities are addressed during the work. This network integration planning requires coordination with Metrolink and its network integration planning for the regional rail system as described in the Metrolink Strategic Business Plan.

In fall 2020, following the initiation of the current TIRCP Network Integration Framework Agreement between Metro and CalSTA, Metro staff developed the scope of the network integration study in partnership with Caltrans and CalSTA. Metro assessed station areas across LA County, aside from LAUS, that had the potential for high-transfer activities are anticipated between Metro bus and rail system, Amtrak/Metrolink stations, and future CAHSR stations.

Three study areas with six stations were identified – listed here and shown in Figure 1.

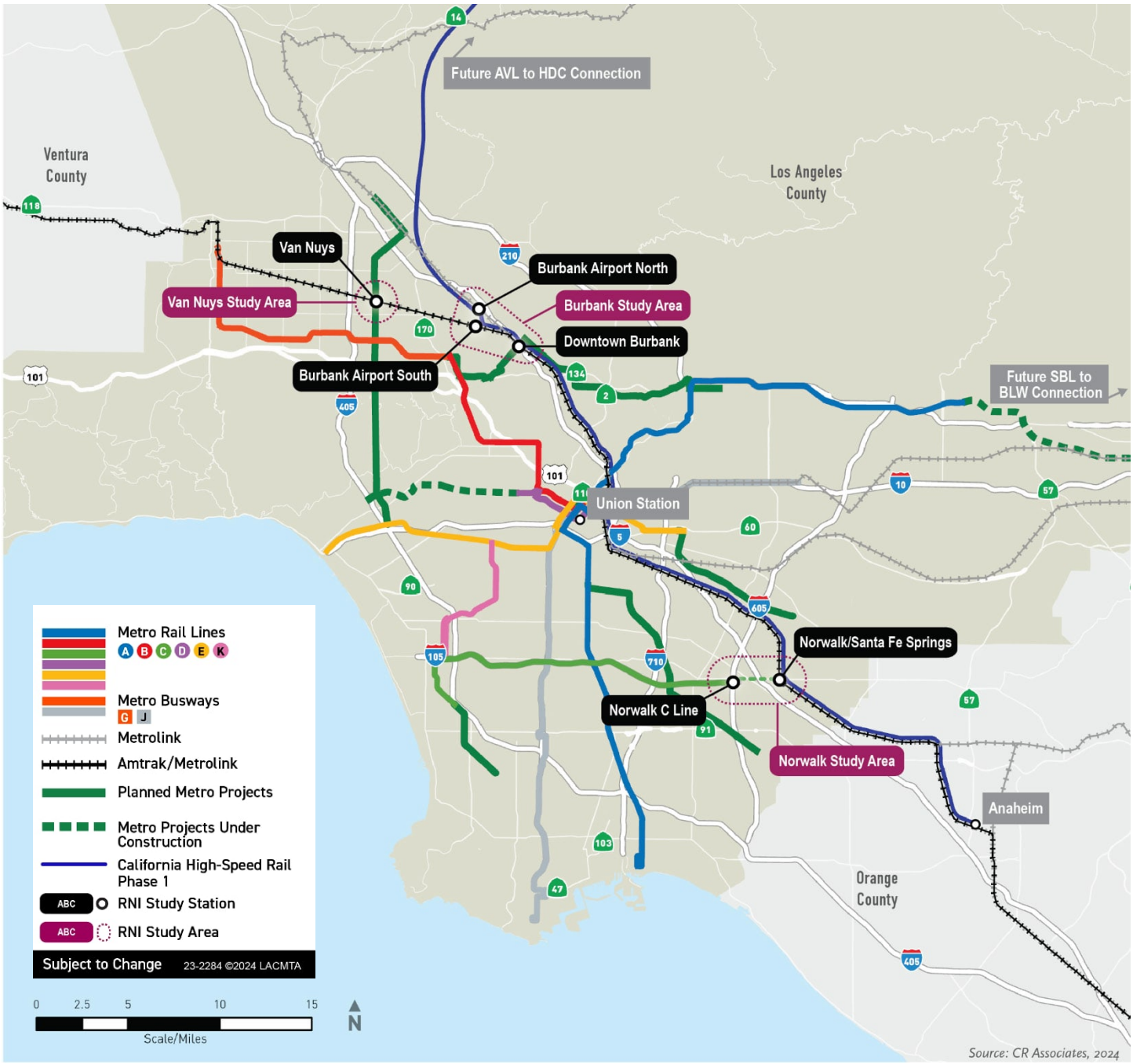
> **Van Nuys Study Area**: Future ESFV LRT, Sepulveda Corridor, and elevated G Line (Orange) BRT at Van Nuys Boulevard
  - Van Nuys Station

> **Burbank Study Area**: Future CAHSR station and Metro NoHo to Pasadena BRT station
  - Burbank Airport North Station
  - Burbank Airport South Station
  - Metrolink Downtown Burbank Station

> **Norwalk Study Area**: Future CAHSR station and transfers between Metro and Metrolink
  - Norwalk C Line Station
  - Metrolink Norwalk/Santa Fe Springs Station

Figure 1

STUDY AREAS AND STATIONS WITHIN LOS ANGELES COUNTY



A Metrolink train arrives at the Downtown Burbank Station. Metro buses can be seen on the right side of the image.

Furthermore, the Study will explore potential opportunities for high-capacity express transit services leveraging state investment in the highway network and HOV/Express Lanes within the Los Angeles region, such as coordination between transit systems to allow for long-distance travel and opportunities for Fly Away services to be integrated as part of the State rail network.

In August 2021, Metro hired a consultant team, led by CR Associates, to lead the technical analysis and outreach. The technical analysis included: ridership demand analysis using a combination of the Metro and California High-Speed Rail travel demand model data, informed by Metrolink and Amtrak ridership; operational model impacts analysis including all passenger rail operations; FLM assessments at each station, including walk-audits; identification and screening of solutions through a cost-benefit analysis, applying Metro and State goals; development of design concepts at several station areas; a high-level risk analysis of potential environmental impacts of proposed solutions; and a robust stakeholder and community engagement, including multiple meetings with agencies and inter-departmental teams at Metro, public surveys, CBO workshops and briefings with Metro committees. Systems planning of the transit network included the analysis of the current urban transit, commuter rail, and the intercity rail network in Los Angeles County and adjacent metropolitan areas, through the use of an operations model applied to the transit systems network, and analysis of travel markets identified in the network. Noted currently are some but not all of the systems planning methodologies that were applied in this study.

Figure 2

STUDY TIMELINE

SUMMER/FALL 2021	SPRING/SUMMER 2022	FALL 2022 – SUMMER 2023	FALL 2023 – SPRING 2024	SUMMER 2024
Project kick-off	**Data collection for baseline conditions analysis**	**Identification of wayfinding and First/Last Mile opportunities**	**CBO Focus Group**	**Final Study recommendations**
Baseline understanding	**Identification of systemwide network integration opportunities**	**Second round of stakeholder outreach**	**Ongoing stakeholder outreach**	
First round of stakeholder briefings		**Initiation of CBO engagement**	**Draft Study recommendations**	

Figure 3

LA COUNTY REGIONAL TRANSIT NETWORK & STUDY RECOMMENDATIONS

Existing and planned Los Angeles County regional rail and bus network and the Study's proposed projects.

What We've Heard

This Study was done with constant partner feedback through meetings and surveys with internal and external stakeholders across the county and state including community-based organizations to develop the Study's recommendations.

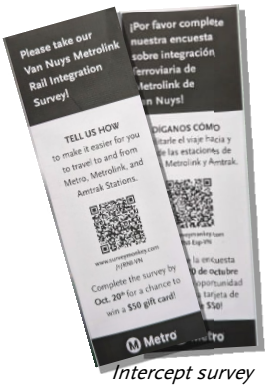
Project Partners

CBOs

The RNI Study Team conducted two rounds of CBO workshops in 2023 to gather feedback regarding opportunities and concerns for the transit system at each station. The CBO participants are listed in **the CBO Workshop Participation callout box**, organized by the CBO's primary focus area.

Transit Riders

The RNI Study team distributed survey links on bookmarks to transit riders at the Van Nuys Station, Downtown Burbank Station, and Norwalk C Line Station. The number of surveys distributed, the number of responses, and the percentage of responses are listed in Table 1 below.



Intercept survey "bookmarks"

Table 1

Transit Rider Survey Engagement

Station	# of customers engaged	# of responses received *(Response Rate)*
Van Nuys Station	300	**79** *(26%)*
Downtown Burbank Station	400	**79** *(20%)*
Norwalk C Line Station*	2,200	**336** *(15%)*

** Norwalk C Line Station Survey Distribution includes Norwalk Transit Line #4 transfers to Norwalk Metrolink*

CBO Workshop Participation

Transportation
- > The Transit Coalition
- > Move LA
- > People for Mobility Justice

Cultural Nonprofit
- > Mundo Maya Foundation

Health / Environment
- > Long Beach Environmental Alliance

Disabilities Advocates
- > Southern California Resource Services for Independent Living
- > Independent Living Center of Southern California

Community Advocacy
- > Norwalk Unides
- > Pacoima Beautiful
- > Los Angeles Neighborhood Initiative (LANI)

Seniors
- > Long Beach Gray Panthers

Housing
- > Greater LA Realtors

CBO representatives are shown discussing the Norwalk/SFS Station.

Metrolink riders discuss the project and Transit Rider Survey with a member of the Study team at the Van Nuys Station.

Agency, Metro, and Policy Stakeholders

The Study team conducted dozens of meetings with local and regional agency stakeholders listed in Table 2 below.

Table 2

Agency Stakeholders

Agency	Van Nuys Station	Burbank Stations	Norwalk Stations
CalSTA, Caltrans, Cal-ITP	•	•	•
SCRRA/Metrolink	•	•	•
CAHSR		•	•
SCAG	•	•	•
OCTA	•	•	•
LOSSAN/Amtrak	•	•	•
City of Burbank		•	
Hollywood Burbank Airport		•	
City of LA, LADOT Transit, LADWP	•		
Los Angeles World Airports (LAWA)			•
Long Beach Transit			•
City of Norwalk, Norwalk Transit			•
City of Santa Fe Springs			•
Metro Technical Advisory Committee (TAC)	•	•	•
Metro Youth Council	•	•	•
Metro Accessibility Advisory Committee (AAC)	•	•	•
Metro Aging and Disability Transportation Network (ADTN)	•	•	•
Metro San Fernando Valley Service Council	•	•	
Metro Gateway Cities Service Council			•

Additionally, the RNI team coordinated with a number of internal Metro groups, listed below.

- > Countywide Planning & Development
  - Long Range Planning
  - Mobility Corridors
  - First/Last Mile Planning
  - Grants Management & Oversight
  - Systemwide Planning & Design
- > Regional Rail
- > Operations and Service Planning
  - Modeling
  - Bus Charging Infrastructure
- > Community Relations
- > Customer Experience
- > Program Management
- > TAP
- > Fareless System Initiative

CBO representatives are shown discussing opportunities and concerns specific to individual stations during a CBO Workshop.

Themes

Major themes emerged from the agency and council, CBO, and transit rider engagement process. These are categorized by high-level topics below.

Communications

- App upgrades (consolidation, real-time planning, more features)
- Payment clarification needed (fare structure, transfers, ticketing, discount programs)
- Wayfinding and signage considerations (larger font, more directional signage, multiple languages, platform/transit)
- Real-time schedule updates (app and in-person digital signage)
- Clearer alerts for changes or cancellations in service are needed (app and in-person)

Connectivity

- FLM improvements for pedestrians and cyclists
- Improve wayfinding signage to the stations
- Fare integration, integrated ticketing
- Transit-oriented development and communities (TOD/TOC)
- Improved transit service and frequency
- Route schedules and trip planning between services should be synced to reduce wait times, missed connections, and confusion

Accessibility

- Improve accommodations for non-English speakers
- Improve accommodations for people with mobility impairments
- Improve accommodations for individuals who are hard of hearing and vision impaired
- Preserve low-tech features (such as phone numbers, physical maps, and tap card reloading)

Norwalk/Santa Fe Springs Metrolink Station – identified improvements include seating, shade, wayfinding/signage and real-time signage, FLM, service to Norwalk C Line, and potential additional Amtrak Pacific Surfliner regular service stops.

Amenities

- Improve station amenities
- Shade/rain coverage for walkway areas in addition to waiting areas
- More seating needed (consider peak work and school travel times)
- Heat and cold regulation (water misters/heating)
- More bike parking
- Drinking water stations
- Restrooms and restroom maintenance (and indication of restroom locations on maps)
- Additional security
- Cleanliness improvements
- Agreements for station maintenance and operations

Other

- Unhoused population frequently noted at stations and on transit

What We've Learned

The RNI Study undertook a variety of technical studies to better understand the needs and opportunities of regional and local transit. A summary of the findings is presented here.

Regional Travel Demand

The RNI Study examined major transit corridor markets throughout Los Angeles County with data from Metro's travel demand model and CAHSR travel demand model data, and boarding/alighting data from Metrolink and Amtrak.

The regional demand assessment identified markets that could benefit from improvements in connectivity, reliability, and/or service improvements. Major markets identified for new service in this Study were screened against those already planned for in regional plans, including the SCAG RTP, Metrolink SCORE, Metro's LRTP, and the California State Rail Plan.

The three primary markets/corridors that the Study identified that could benefit from improved rail or express bus connectivity, reliability, or service increases are:

> Between north LA County along the Antelope Valley Line corridor and Ventura along the Ventura County Line Metrolink Corridors
> Service in the LOSSAN Corridor in Los Angeles County
> Service in the I-405 corridor between CSULB/VA Hospital in the south and UCLA/VA Hospital in the north

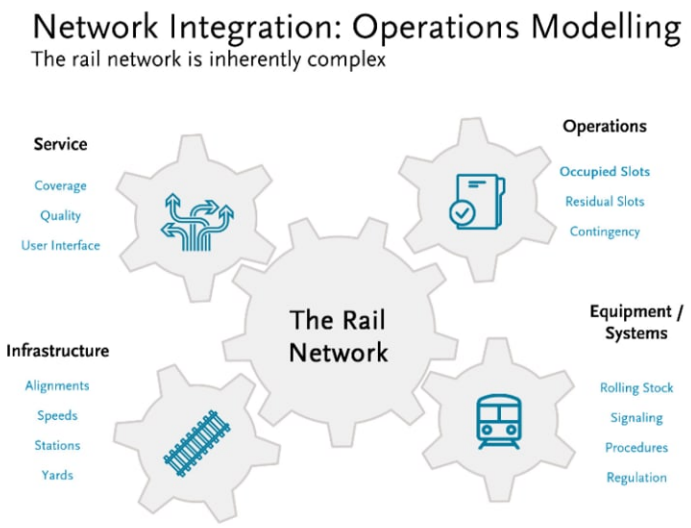
Riders board and alight a Metrolink train at the Downtown Burbank Station.

Operational Analysis

The Study developed a comprehensive rail operations model (Figure 4) of Metrolink, Amtrak, Metro, and future CAHSR trains. Through this analysis, the Study examined areas that could improve existing service, reduce transfer delays, and potentially add frequency without major disruptions to existing rail or freight services, or require major capital investments.

Figure 4

OPERATIONS FRAMEWORK



The findings from this analysis identified potential near-term, low-cost/high-value improvements and longer-term, higher-investment/higher-value improvements. These include:

Timed transfer in Downtown Burbank

An opportunity for a near-term, low-cost solution to improve connectivity in the Burbank Study Area is a timed transfer at the Downtown Burbank station, which allows passengers to transfer between the inbound Metrolink AVL and outbound VCL – or vice versa, inbound VCL to outbound AVL. This connection was found to provide two significant improvements for riders:

1. **Regional connection**: Improved service with reduced transfer times between Antelope Valley and Ventura County, two major markets defined in the regional travel demand analysis. This regional connection can be improved without added travel time for other passengers or costs to the operators.
2. **Local connection**: Improved circulation between Burbank Airport North and Burbank Airport South stations.

Circulation between the two stations could be conveniently provided by a train-to-train connection, rather than train to circulator bus, providing near-term benefits for passengers accessing the airport or future Burbank CAHSR station.

Additional Amtrak Service Stops

The ridership model identified an increase in rail ridership resulting from additional Amtrak stops added at Downtown Burbank and Norwalk/SFS. The operational rail model found that there would be negligible, if any, travel time service impacts on Amtrak service or other rail operators to stop at these two additional stations. This service improvement could be implemented immediately and provide increased transit service frequency for passengers in those station areas desiring to travel the LOSSAN corridor in LA County and beyond.

Additional Metrolink Service in LA County

The operational rail model was utilized to assess if additional intraregional service could be implemented without disruption to freight, Metrolink, or Amtrak Pacific Surfliner service. It was found that a "tripper" between Chatsworth station in the north and Laguna Niguel in the south (interlined through Union Station, similar to Pacific Surfliner) could be implemented at up to ½ hour frequency all day on Metrolink without disruptions to other rail services. The "tripper" concept is akin to S-Bahn service and will serve as a regional rail through service, which allows a one-seat ride from Chatsworth to Laguna Niguel, with more frequent stops in an expanded urban core from Burbank to Norwalk/Santa Fe Springs station along the LOSSAN corridor. The SCORE project, combined with the completion of Link- LAUS, will enable a one-seat concept that link OCL/VCL service.

Metrolink train and passengers at the Burbank Airport South Station.

System Gap Closures

One major system gap closure (Figure 5) was identified that could result in thousands of new riders per year within the Study areas – the light rail extension between the Metro C Line terminus in Norwalk and the Norwalk/SFS Metrolink Station. This 2.9-mile gap creates a link between Metro's C Line and the Metrolink/Amtrak Corridor. This extension is currently programmed in Measure M for completion between 2052 and 2054 but can be initially addressed with the addition of increased bus frequency with TSM improvements between the stations, along with a bus connector service between the stations, with the eventual extension of light rail in the future. If implemented, the Norwalk/Santa Fe Springs station would be only one of four stations in California to have High-Speed Rail, Amtrak, Commuter Rail, and LRT.

Figure 5

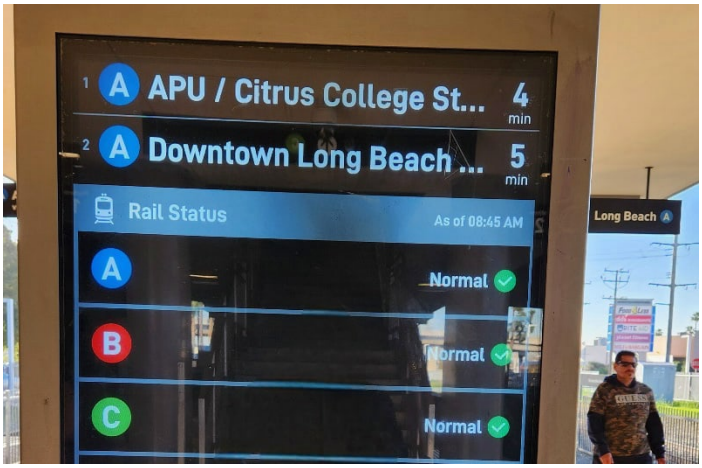
IDENTIFIED GAP CLOSURE – NORWALK C LINE TO NORWALK/SFS

Wayfinding/Trailblazing Signage

The Study examined the existing conditions of wayfinding signs that direct people walking, biking, and driving to the stations. The location, content, and condition of signage were examined through Google Maps and field examinations, and compared with the policies of Metrolink, Amtrak, and Metro. It was found that wayfinding signs are insufficient in location, typically in poor condition, lacking consistent information, and lacking coordinated information about all services at each station. Wayfinding and trailblazing are challenged by a patchwork of ownership, different standards and priorities, and funding and investment opportunities.

Existing signage on platforms and station areas is frequently worn out or confusing for users.

Bicycle-oriented Metrolink trailblazing.



Signage with live updates helps riders understand when trains are coming.

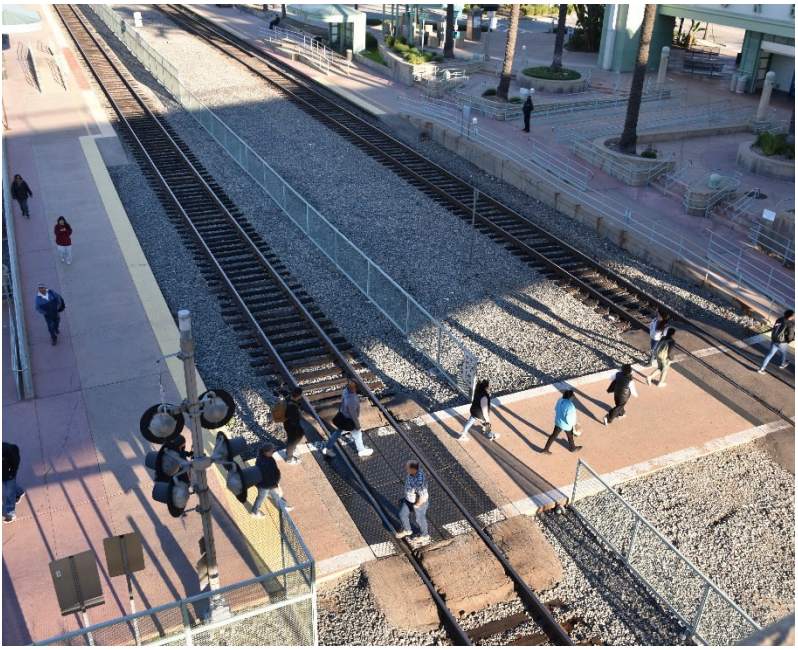
Existing signage on routes to the stations are frequently worn out, inconsistent, or do not include all available services.

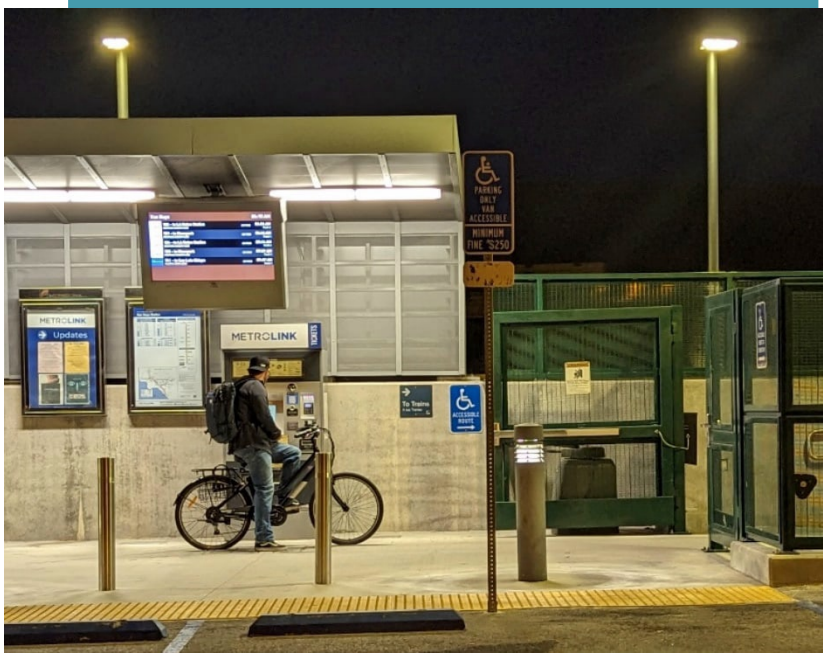
Station/Platform Assessments

The Study examined existing conditions of each station area conditions and platform conditions for passenger comfort and information, per guidance from Metro, Metrolink, and Amtrak. It was found that most station platforms lack adequate signage, shade (except for Metro C Line LRT as the platform is beneath the freeway), and internal wayfinding between services at each station area.

Platforms were assessed for lighting, shade, weather protection, safe and accessible routes, fare payment options, bicycle parking, and other amenities.

- *The image above, at the Norwalk C Line Station, shows live signage and an overpass used as shade/weather protection.*
- *The image below, at the Van Nuys Station, shows a cyclist stopping to purchase a Metrolink ticket at night.*
- *The image on the bottom left, at the Downtown Burbank Station, shows the eastern at-grade pedestrian crossing.*





Pedestrians walk on Olive Avenue bridge and travel via stairs or the elevator to access the Downtown Burbank Station. The NoHo-to-Pasadena BRT has planned stops on either end of the bridge.

First/Last Mile

The Study conducted an FLM assessment for active transportation connectivity. It was found that every station has barriers to accessibility due to gaps in first/last mile conditions, or unsafe or stressful conditions, which can reduce the likelihood for someone to ride transit, such as lack of bike lanes, high-speed traffic, narrow sidewalks, and/or lack of lighting and shade.

Policy review

The Study determined that there are policy conditions that could help reduce barriers to riders and improve the conditions of each station. Policy conditions can help improve a variety of areas for rider comfort and ease of riding, including:

- Seamless fares
- Integrated wayfinding/trailblazing
- Integrated station signage
- Station amenities, such as shade and seating
- FLM
- Construction and maintenance agreements for areas within and beyond station areas (i.e., FLM/wayfinding)
- Safety and Security

Funding/Financing

A detailed assessment of funding opportunities was examined for local, state, and federal programs. The multitude of existing and new programs provide robust opportunities for Metro, along with partner agencies, jurisdictions, and community organizations to implement projects. The Bipartisan Infrastructure Law, combined with California funding, and local funding, such as Metro's Measure M, provides many opportunities for Metro and its partners to seek capital and operating funds for the improvements identified in this plan.

A detailed listing of potential funding and financing strategies at the local, state, and federal levels is documented in the *RNI Study Technical Report Task 5, Funding and Financing*. The report presents three major categories of funding for **infrastructure**, **non-infrastructure**, or **planning**, and whether the funding could be applied to the following:

- Station assessments
- Wayfinding/trailblazing
- FLM – motorized
- FLM – active transportation
- Transit operations
- Safety
- Security

In brief, nearly all projects or programs could be at least partially funded locally through TDA, STA, Propositions A & C, or Measures R & M.

At the state level, promising programs include ATP, REAP, TIRCP, TCC, and LPP.

At the federal level, programs include ATIIP, ATTAIN, All Stations Accessibility, CMAQ, and RCN.

Recommendations & Implementation

Based on the technical analysis and outreach to stakeholders, CBOs, and riders, the Study found several promising opportunities that can reduce barriers to transit, improve connectivity and user experience, and promote ridership.

The Study identified seven high-impact recommendations for **systemwide, station-focused**, and **connectivity** improvements with a proposed implementation for near-term (0-5 years), medium-term (5-10 years), or long-term (10+ years). Implementation can often occur in phases based on availability of funding; acceptability to stakeholders – including community members and agencies; level of design and permitting complexity; estimated capital and operating costs; and agency(s) approval. No funding or approvals have been secured for any recommendation to date. See Table 3, below.

Table 3

Study Opportunities and Recommendations

	Agency(s)		OOM Capital Cost *(2022 $'s) by Phase ****		
Recommendations	Lead	Supporting	Near (0-5)	Medium (5-10)	Long (10+)
SYSTEMWIDE IMPROVEMENTS					
1. **Wayfinding, Signage, and Trailblazing**	Metro	Metrolink, Amtrak, all Operators, Caltrans, local Jurisdictions	$1M	$4M	$10M+
2. **Fare Integration and Ticketing**	Metro	Metrolink, Amtrak, all Operators, Caltrans, Cal-ITP, local Jurisdictions	$66.4M*	-	-
2A. **Improved Trip Planning Platforms for Regional Customer Information**	Metro	Metrolink, Amtrak, all Operators, Caltrans, Cal-ITP, local Jurisdictions	-	$9M *	-
STATION-ORIENTED IMPROVEMENTS					
3. **Station Access, Circulation, and FLM**	Metro	Cities of Los Angeles, Burbank, and Norwalk	<$100K	$16.6M	$72.6M
4. **Station Improvements and Customer Amenities**	Metro	Metrolink, Cities of LA, Burbank, Norwalk, SFS	$8.7M	$18.2M	$4.7M
CONNECTIVITY IMPROVEMENTS					
5. **Revenue Service Stops for Amtrak Pacific Surfliner trains at Downtown Burbank and Norwalk/SFS**	Metrolink & Amtrak	Cities of Burbank, Norwalk, and SFS	<$100K	-	$200M
5A. **Metrolink SFV-to-OC Line "Tripper" Service**	Metrolink	SCAG	<$200K	-	$238M
5B. **Timed Transfer at Downtown Burbank**	Metrolink	Amtrak, City of Burbank, CAHSR	<$100K	-	$10M
6. **I-405 Freeway Express Bus**	Metro	Caltrans	-	-	$3M
7. **Metro Norwalk C Line Station to Norwalk/SFS Station Connection (Near-Term Bus – Long-Term LRT) ****	Metro	SCAG, CAHSR, Cities of Norwalk, SFS, Long Beach Transit, Norwalk Transit	$3M	$13.2M	$1.3B - $2.6B

** Per Metro's May 2024 Board Action and 2028 Games Mobility Concept Plan prioritized projects.*
*** Phased bus prior to rail*
**** Pending funding and approvals*

Source: CR Associates, 2024

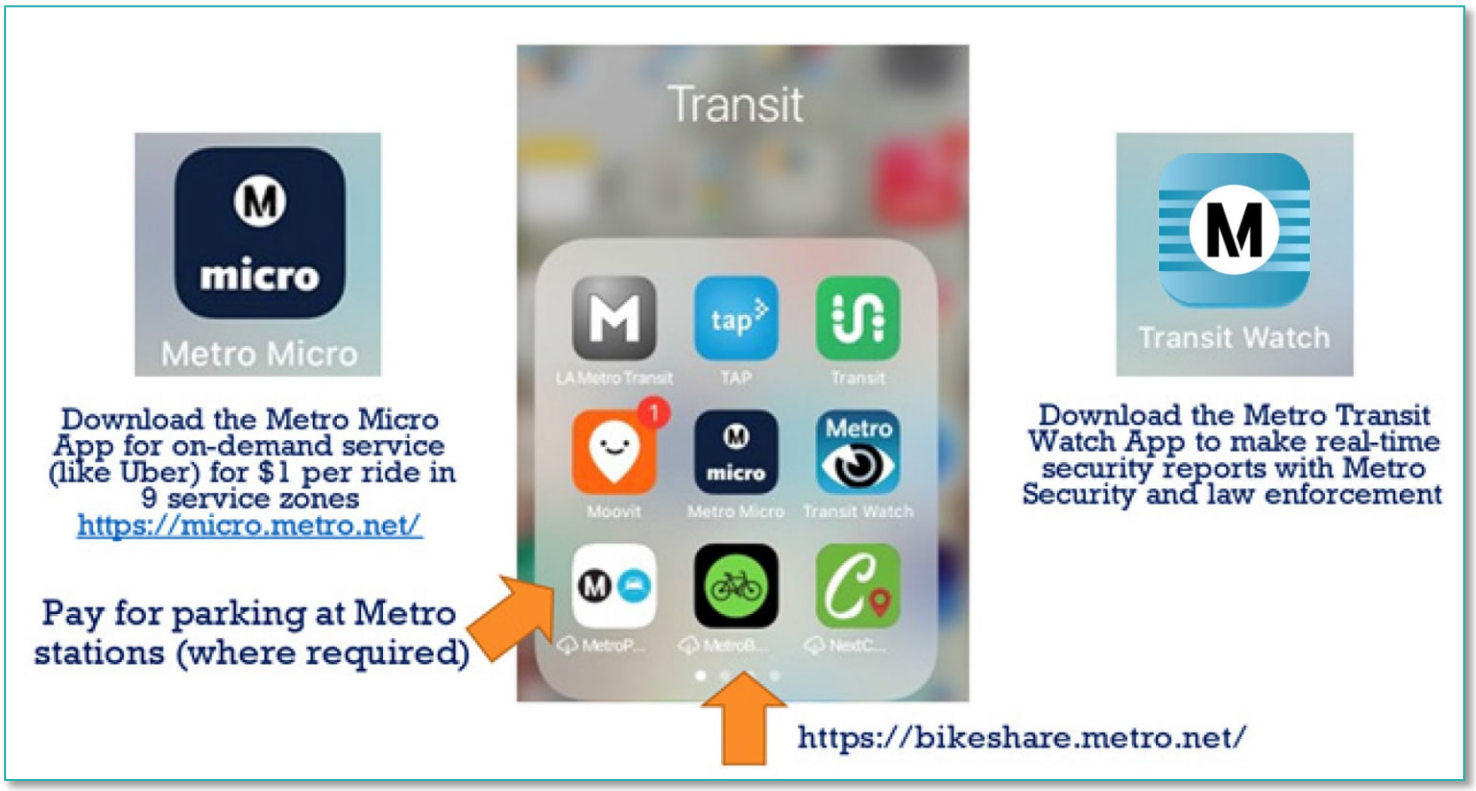
Systemwide Improvements

Systemwide improvements benefit the stations examined for this Study and could be implemented throughout LA County. The three major categories of systemwide improvements are the following:

- Wayfinding, Signage, and Trailblazing
- Fare Integration and Ticketing
- Improved Trip Planning Platforms for Regional Customer Information

Systemwide improvements are primarily implementable countywide in the medium-term as there is a need for significant coordination between agencies, development of the programs, and the need to secure funding. However, prior to implementing regionwide, some program elements could be implemented in the near-term, or even immediately, as pilot programs – such as described in the Wayfinding, Signage, and Trailblazing section.

Metro is currently undertaking an effort to understand the feasibility of consolidating its mobile applications per Board Motion 2022-0789, Consolidated Metro Transportation App Motion (2022).



As shown here, Metro currently has a variety of apps that assist passengers with various needs including Metro Micro, parking, TAP cards, transit planning, safety, and bike share. In addition, riders may choose to use other private trip planning applications such as Transit, Moovit, Uber, Bird, or the individualized apps hosted by Munis.

Wayfinding, Signage, and Trailblazing

Phase	*OOM Capital (2022 $'s)*
Near-Term Pilot	$1M
Medium-Term	$4M
Long-Term	$10M+

A primary challenge of the existing regional transit system is a lack of consistent signage, wayfinding/trailblazing to/from stations, and within each station area. This challenge is not unique to the Los Angeles region, for example, the MTC in the Bay Area is beginning a rollout of a Regional Mapping and Wayfinding project, and the RTA in the Chicago area has developed and deployed interagency signage to key stations throughout the region.

This Study recommends that wayfinding and trailblazing at and around each station be improved in coordination with a regional signage and wayfinding program that identifies design, location, and maintenance. Metro should adopt a policy or standards for commuter rail and intercity rail station signage/wayfinding in LA County. The signage and wayfinding program should incorporate and identify Metro, Metrolink, Amtrak, municipal bus operators, rideshare, park-and-ride, and other services, such as bikeshare and micromobility. The projects would provide ADA-compliant directions for people to access the system using all modes, including walking, biking, auto, or other.

Implementation of this project could be initiated with a small pilot program which would allow for strategic planning between agencies, assignment of installation, definition of a maintenance program, and funding. All signage improvements at the Study stations could be implemented in the medium-term, with regional implementation in the long-term.

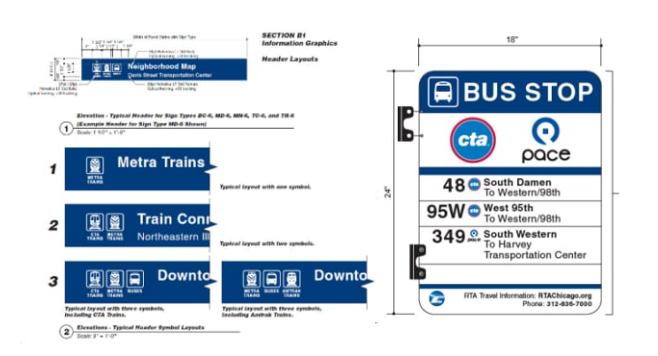
Existing signage on routes to the stations are frequently worn out, inconsistent, or do not include all available services.

Wayfinding, Signage, and Trailblazing – Pilot Program.

This Study identified a potential pilot program to integrate wayfinding across all applicable agencies at a selection of stations. The pilot would initiate a regional plan in a targeted station area for integrated Wayfinding/Trailblazing and station signage that would eventually be expanded throughout Los Angeles County.

This pilot could be funded by TIRCP as it achieves this grant program's goal to "Integrate the rail service of the state's various rail operations, including integration with the high-speed rail system." It is estimated an initial pilot program focused on a single station area could be implemented for approximately $1 million.

The pilot should be coordinated with Metrolink's Customer Experience team who are developing a pilot project to update/standardize Metrolink signage at and around Metrolink stations.



Examples of integrated wayfinding from CTA in Chicago, IL and MTC in San Francisco, CA

Fare Integration and Ticketing

Phase	*OOM Capital (2022 $'s)*
Near-Term	$66.4M

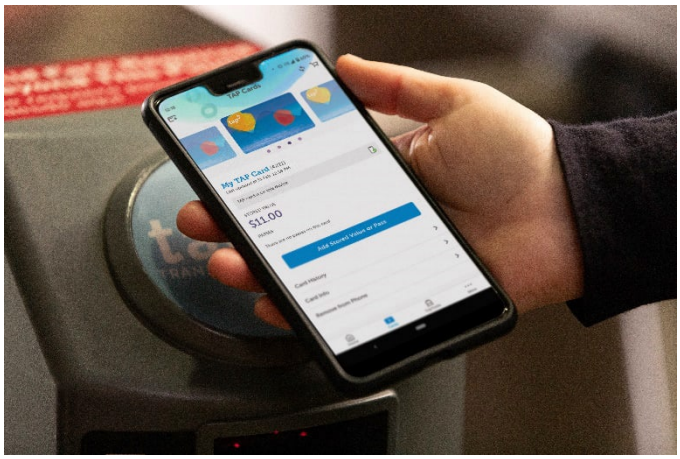
Transit riders throughout LA County must navigate through multiple providers, each with multiple fare programs, passes, costs, and transfer policies. The complications of understanding how, where, when, and how much to pay – especially for an individual taking a new or infrequently used route – create a barrier to riders and potential riders.

Seamless fares will allow riders to use and transfer between the transit services provided by Metro, municipal operators, Metrolink, Amtrak, and future CAHSR. This will reduce confusion and cost barriers to riding while increasing customer understanding and confidence in transit travel.

Implementation is near-term to allow for strategic planning between agencies, including Metrolink and Amtrak, which are currently integrating fares through the Codeshare program, and to coordinate with the statewide Cal-ITP program, which is currently pursuing implementation statewide. Implementation can include simplified "back-of-house" solutions and the use of common payment methods, such as credit cards, and lessons learned from new pilot programs, and other open-loop fare payment systems. The program must identify funding sources to help agencies with discrepancies in costs to provide a trip while simplifying and standardizing region-wide fares between modes for customers.

In May 2024, Metro Board approved $66.4 million to upgrade the Tap system (Tap Plus); the new open system will allow customers and visitors to use the same contactless purchases to tap and ride on Metro and all the other TAP participating transit agencies. Additionally, Metrolink is currently working with SCAG/Caltrans/Cal-ITP on an Open-Loop pilot project.

Separate TAP and Metrolink ticket vending machines at Downtown Burbank Station.



TAP cards can be used through the TAP smartphone app.

Improved Trip Planning Platforms for Regional Customer Information

Phase	*OOM Capital (2022 $'s)*
Medium	$9M

Streamlined and integrated planning and en route information for web- and app-based information will remove barriers to riding as the large variety of transit options can be confusing. This is especially important for new riders, those dealing with service disruptions, and those transferring between providers.

An essential improvement consistently requested through the Study outreach is to alert passengers of any service disruptions.

Additionally, information should be available in multiple languages, accessible for the hearing and visually impaired, and coordinated with station and trailblazing signage.

Implementation is medium-term to allow for the necessary coordination between agencies and to identify funding. Metro is pursuing a trip planning program in preparation for the 2028 Games.

A Metro bus arrives at the Van Nuys Station. A Metro bus sign can be seen on the far side of the crosswalk. Some crosswalks are worn out and some curbs are missing ramps and/or tactile strips.

Station-Oriented Improvements

Station-oriented improvements were identified at each of the six stations examined in this Study. Improvements are organized into two categories – Station Connectivity & FLM and Station Improvements & Customer Amenities. More information on station-oriented improvements can be found in *RNI Task 3, Baseline Conditions*, and in *RNI Task 4, Station Improvements*. The proposed station improvement recommendations are compatible with Metrolink's Station Enhancement Study. It is recommended that Metro coordinate with SCRRA to seek funding opportunities for implementation of these improvements.

Station Improvements & Customer Amenities are the improvements to improve the rider experience. Detailed documentation of the needed improvements identified at each station can be found in the *Task 3 Baseline Conditions Technical Report*. These improvements were identified through a detailed technical assessment and confirmed through stakeholder and community engagement.

Considerations for future design and implementation phases will include environmental and security aspects, such as sight lines, materials, and maintenance agreements. Lessons learned from the Throne restroom pilot may be useful to this project's restroom proposals. Station Experience and Systemwide Design should continue involvement as the project advances.

The improvements will require partnerships with the operators at each station and the governing City. The major categories for these improvements and amenities are:

- **Customer Information,** such as better signage/wayfinding within each station
- **Station Accessibility,** such as multi-lingual, multi-ability, and graphical signage
- **Station Boarding Area Amenities,** such as security and temporary restrooms

Station Access, Circulation & FLM are improvements outside of station platforms or plazas connecting to the surrounding community and major improvements for auto, pedestrian, and bike movements within stations. These improvements facilitate safe and comfortable access by foot or wheel for a range of users. For all six station areas, it is recommended that Metro and other agencies support FLM priorities by the respective cities that improve connectivity. There are several improvements where Metro would take a leadership role, or the improvements would be in coordination with a major transit project, such as Sepulveda Transit Corridor, or CAHSR. However, the majority of improvements outside of station platforms or plazas are generally the responsibility of the local jurisdictions to design, construct, and maintain.

Section Organization

Projects in this section are listed by:

- Station area (e.g., Burbank Airport South)
- Project type:
  - Station Improvements & Customer Amenities
  - Station Connectivity & FLM
- Applicable implementation phase(s) (near-, medium-, and long-term)
- Scale of capital improvement and operating costs

Van Nuys Station

Van Nuys Station is owned by the City of Los Angeles and has Metrolink VCL, Amtrak Pacific Surfliner, and Coast Starlight service, as well as Metro and LADOT DASH bus service. This station will be served by the ESFV LRT line, under construction, and is the planned northern terminus station for the Sepulveda Transit Corridor project. The station has ample parking, several bus bays, bike pods, restrooms, drinking fountains, and an Amtrak station agent. The Station is challenging to walk or bike to due to it being surrounded by industrial land uses and multiple barriers, including freight rail to the north, the multi-lane, high-speed Van Nuys Boulevard to the west, and LADWP yards to the south. Additionally, the station rests above street grade with access below grade, which creates challenges for passengers with mobility impairments.

Improvements recommended under this Study (see Table 4, Figures 6 and 7 below) include immediate replacement of worn signage, improvement of wayfinding to and within the station, improved ADA paths (and possibly new elevators), and bike connectivity to the neighborhood to the south and the G Line. In addition to the identified improvements, this Study recommends implementing the improvements identified in Metro's *ESFV LRT FLM Plan (2020)*.

Metro and other cooperating agencies may also have concurrent activities within or adjacent to the Van Nuys Rail Station area described in this study. These concurrent activities may include but not be limited to parking improvements, bus feeder service and connectivity, and first/last mile improvements. As these concurrent activities advance, Metro will advise the status of these activities to the public and how they are interrelated to the next steps that emerge from the Rail Network Integration study.

Table 4

Van Nuys Station and Access Improvements

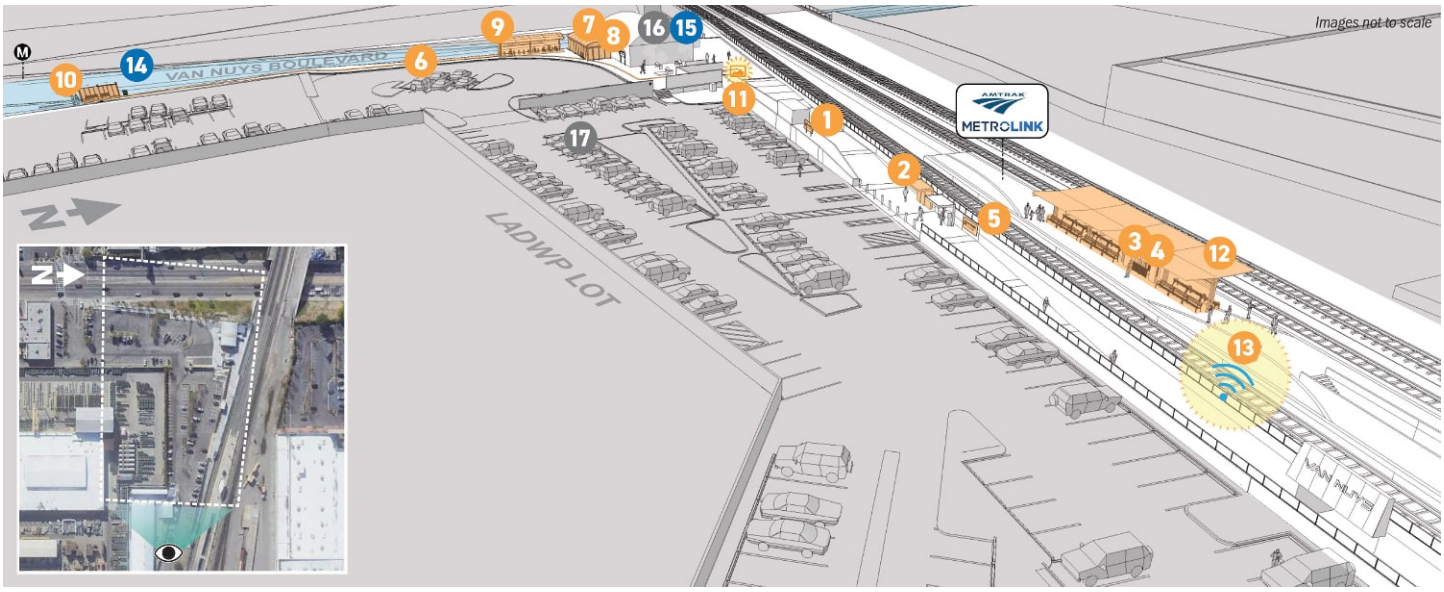
Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information *(e.g., multi-agency transit wayfinding)*	$1M	Near
	Station Accessibility *(e.g., bike hub, micromobility parking)*	$0.8M	Near
	Station Boarding Area *(e.g., sound barrier, bus stop amenities)*	$1.9M	Medium
	Station Improvements & Customer Amenities Subtotal	**$3.7M**	
	FLM And Safety: Bicycle Connection from the Station to Neighborhoods *[V5.A]*	$10.1M	Long
	Van Nuys Station Total	**$13.9M**	

Figure 6

Van Nuys Station

Figure 7

Van Nuys Station Improvements Rendering



Proposed Improvements

1. Static Directional Signage
2. Station Area Map
3. Real-Time Arrival Info
4. Visual Wayfinding to Connecting Transit Service
5. Audio Wayfinding to Connecting Transit Service
6. Tactile Wayfinding to Connecting Transit Service
7. Bike Hub
8. Bike Share
9. Shared Dockless Micro-Mobility Parking
10. Bus Stop Amenities
11. Public Art
12. Shade Structure
13. Wifi

Projects Planned by Others

14. East San Fernando Valley Light Rail Transit Project
15. Future Sepulveda Transit Corridor Station, Location TBD

Existing Station Features

16. Indoor Station Area and Restrooms
17. Electric Vehicle Parking

Burbank Airport North Station

This relatively new station is located near the future HBA terminal and future CAHSR station. There is an existing disconnect from the station platform to the Sun Valley neighborhood in the City of Los Angeles, directly north of the station. It is anticipated that the Brighton to Roxford project, which will expand the station by constructing a second track along with an associated platform, will create a direct connection to the station to the north.

With the arrival of the nearby future CAHSR station, the Burbank Airport North Station will also become a major mobility hub. Metro will need to coordinate closely with the CAHSR and the City of Burbank to advance station planning.

The Study recommendations at Burbank Airport North Station focus on platform and station improvements as shown in Table 5 and Figures 8 and 9, below. The study recommends that Metro support the recommendations identified in the *Burbank Airport Connectivity Study* (2023), Burbank's *Complete Our Streets* (2020), the Brighton to Roxford Double-Track project, the *Golden State Specific Plan* (inclusive of CAHSR Burbank and Metro Station Area Plan). It is anticipated that many of the FLM improvements to the north and south of the station will be implemented by the City of Burbank, connecting the station to the existing and planned bike and pedestrian networks surrounding the station. This improvement in connectivity is anticipated to increase passenger use of rail to access the airport terminal.

The recommended time transfer activity at Downtown Burbank will improve connectivity from VCL to AVL, the future CAHSR station, and the future airport terminal.

Table 5

Burbank Airport North Station and Access Improvements

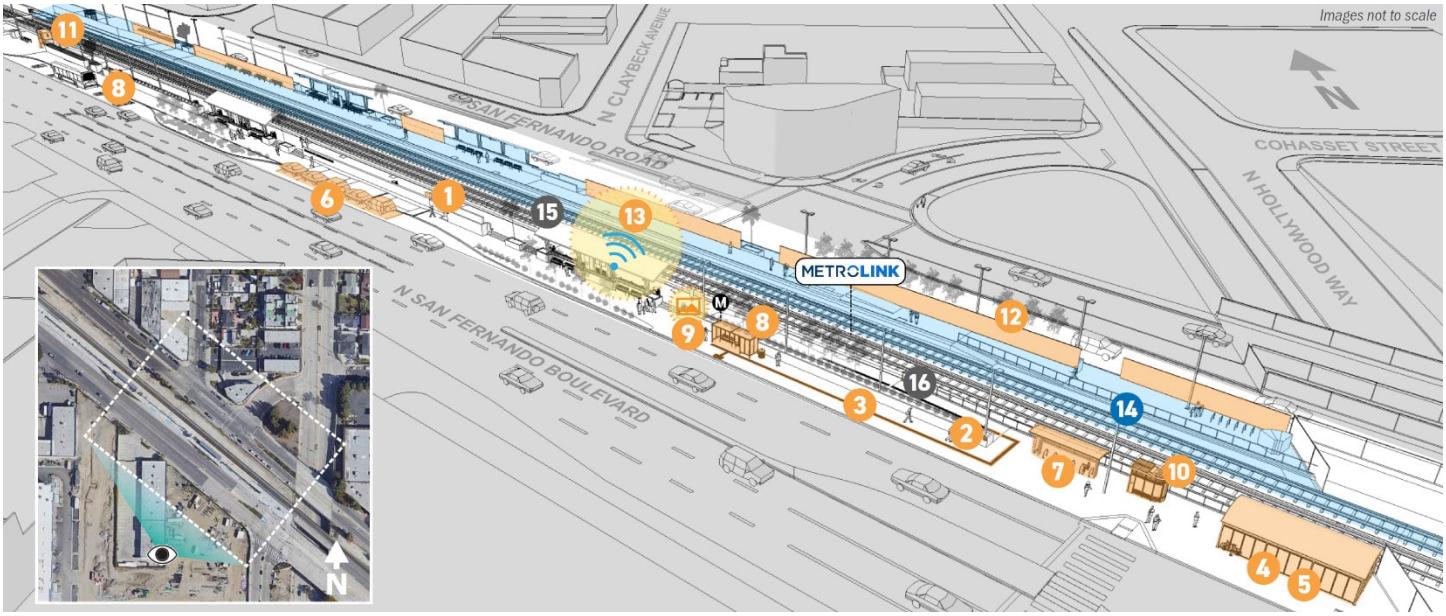
Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information *(e.g., audio and tactile wayfinding)*	$1.0M	Near
	Station Accessibility *(e.g., bike and car share, bike hub)*	$1.9M	Medium
	Station Boarding Area *(e.g., bus stop amenities, restrooms)*	$2.4M	Long
	Burbank Airport North Station Total	**$5.4M**	

Figure 8

Burbank Airport North Station

Figure 9

Burbank Airport North Station Improvements Rendering



Proposed Improvements

1. Customer Service Kiosk
2. Audio Wayfinding to Connecting Transit Service
3. Tactile Wayfinding to Connecting Transit Service
4. Bike Hub
5. Bike Share
6. Car Share & EV Charging
7. Shared Dockless Micro-Mobility Parking
8. Bus Stop Amenities & Amenities at Existing Airport Shuttle Stop
9. Public Art
10. Restrooms
11. Security Kiosk
12. Sound Barrier
13. Wifi

Projects Planned by Others

14. Brighton to Roxford Double-Track Project

Existing Station Features

15. Shade Structures
16. Access Ramp

Burbank Airport South Station

The Burbank Airport South Station provides convenient walkable connectivity to the existing airport terminal and the RITC and is served by Metrolink VCL and Amtrak Pacific Surfliner. The Burbank Airport South station is currently in a state of disrepair. The station needs to be brought up to an adequate state of good repair. Metro and the City of Burbank should develop an agreement for station maintenance going forward since LOSSAN is no longer maintaining the station.

The station has a long, narrow strip of parking that is disjointed, challenging to enter and exit, and not friendly to pedestrians. North of the tracks, there are disconnected pedestrian facilities and no bike facilities. In the near future, passengers wanting to connect to the airport will need to shuttle to the future HBA terminal that will be opened closer to the Burbank Airport North station.

This Study recommends station-oriented improvements as noted in the table and figures below. Additionally, it is recommended that Metro support, where feasible, improvements identified in the *Burbank Airport Connectivity Study* (2023) and Burbank's *Complete Our Streets* (2020) complete streets plan.

In addition to the projects outlined in Table 6 and shown in Figures 10 and 11, the Study recommends easily implementable near-term/low-cost projects to improve pedestrian crossings on Empire Avenue at the north and south ends of the platform and restriping the parking lot for improved flow. In the medium-term, the reconstruction of ADA access to Vanowen Street, signaling improvement for cross-platform pedestrian crossings, and the reconstruction of the parking lot are recommended. A grade-separated pedestrian crossing(s) between the platforms to bypass the tracks and between the platform and the RITC over Empire Avenue should be considered – dependent on the long-term changes in boarding and alighting at the station, which could increase based on more frequent service and construction of nearby residential and commercial development, or decrease due to the relocation of the current HBA Terminal to the north.

Table 6

Burbank Airport South Station and Access Improvements

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information *(e.g., digital signage, wayfinding, maps)*	$1.3M	Near
	Station Accessibility *(e.g., accessible ramps, micromobility parking)*	$0.47M	Medium
	Station Boarding Area *(e.g., security kiosk, restrooms, shade trees)*	$2.4M	Long
	Station Improvements & Customer Amenities Subtotal	***$4.1M***	
	FLM Burbank Station Access (access to Vanowen St/HBA and improved pedestrian and vehicle access) *[BS6]*	$16.6M	Medium
	Burbank Airport South Station Total	**$20.7M**	

Figure 10

Burbank Airport South Station

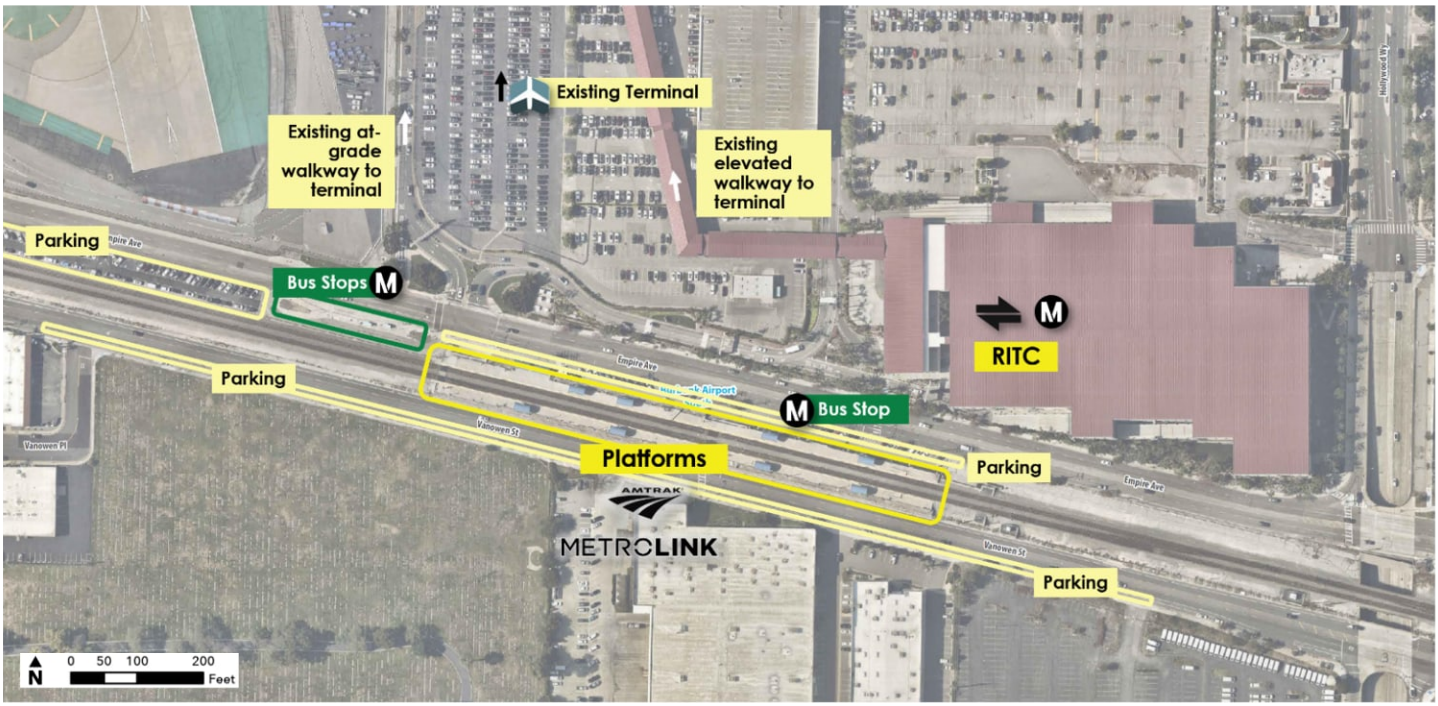
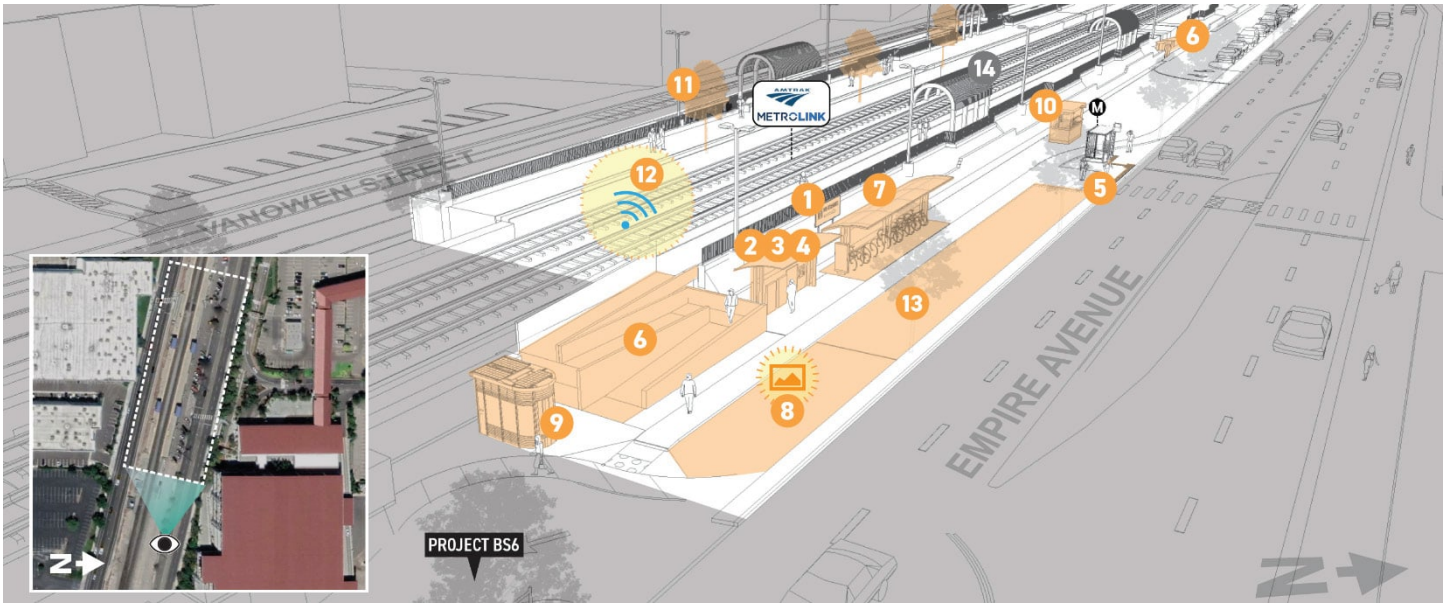


Figure 11

Burbank Airport South Station Improvements Rendering



Proposed Improvements

1. Static Directional Signage
2. Digital Information Kiosk
3. Customer Service Kiosk
4. Station Area Map
5. Tactile Wayfinding to Connecting Transit Service
6. Access Ramp
7. Shared Dockless Micro-Mobility Parking
8. Public Art
9. Restrooms
10. Security Kiosk
11. Shade Trees
12. Wifi
13. Pedestrian-Supportive Landscaping

Existing Station Features

14. Shade Structures

Other RNI Proposed Improvements

BS6 Burbank South Parking

Note:
A grade-separated pedestrian crossing and vertical circulation to connect Burbank Airport South Station with the RITC can be studied in a future study.

Downtown Burbank Station

The Downtown Burbank Station is served by Metrolink VCL and AVL with occasional regular and "*codeshare"* Amtrak Pacific Surfliner service; bus services available include Metro, Burbank Bus, Glendale Beeline, and Santa Clarita Transit. Metro's planned NoHo-to-Pasadena BRT Line will pass the rail station on the Olive Avenue bridge with stops in Downtown Burbank and south of the bridge. Currently, passengers can walk/bike between Downtown Burbank and the station via narrow sidewalks on Olive Avenue bridge or incomplete bike and pedestrian routes along Front Avene to Verdugo Avenue. Several large parking lots provide free parking at the station.

The at-grade platform allows passengers to access trains in both directions without climbing stairs or traversing a tunnel. In the future, it is anticipated that CAHSR will construct grade-separated pedestrian crossings of the platform. New vertical access to Magnolia Avenue is under construction, providing improved pedestrian connectivity to Downtown. The station has several distinguishing amenities, including an elevator to Olive Avenue, a bike station, restrooms, vending machines, and drinking fountains.

Recommended improvements for this station are summarized in Table 7 and shown in Figures 12 and 13 below.

Additionally, in the medium-term, it is recommended to improve at-grade track crossings by improving signals. Metrolink should collaborate with the City of Burbank to inspect and modify the signal timing parameters as appropriate at the at-grade crossing to address pedestrian safety concerns.

In the long-term, it is recommended that significant repairs or replacement to the Olive Avenue bridge occur. This major improvement has been identified in other studies and could be paired with an improvement to the Magnolia Avenue bridge for a total estimated cost of $45 million. In coordination with any Olive Avenue bridge improvements, a more convenient relocation of the NoHo-to-Pasadena BRT stops adjacent to the station should be assessed.

It is further recommended that Metro support the planned and in-progress projects for station connections identified in Burbank's *Complete Our Streets*, complete streets plan, which complements the Study's recommendations.

Table 7

Downtown Burbank Station and Access Improvements

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information *(e.g., station signage, wayfinding, maps)*	$1.4M	Near
	Station Accessibility *(e.g., accessible ramps, micromobility parking)*	$0.5M	Medium
	Station Boarding Area *(e.g., pedestrian lean bar, sound barrier, lighting)*	$5.0M	Medium
	Station Improvements & Customer Amenities Subtotal	***$6.9M***	
	FLM Parking Circulation Access & Signal onto Front Street *[DB3.1]*	$5.8M	Long
	Downtown Burbank Station Total	**$12.6M**	

Figure 12

Downtown Burbank Station

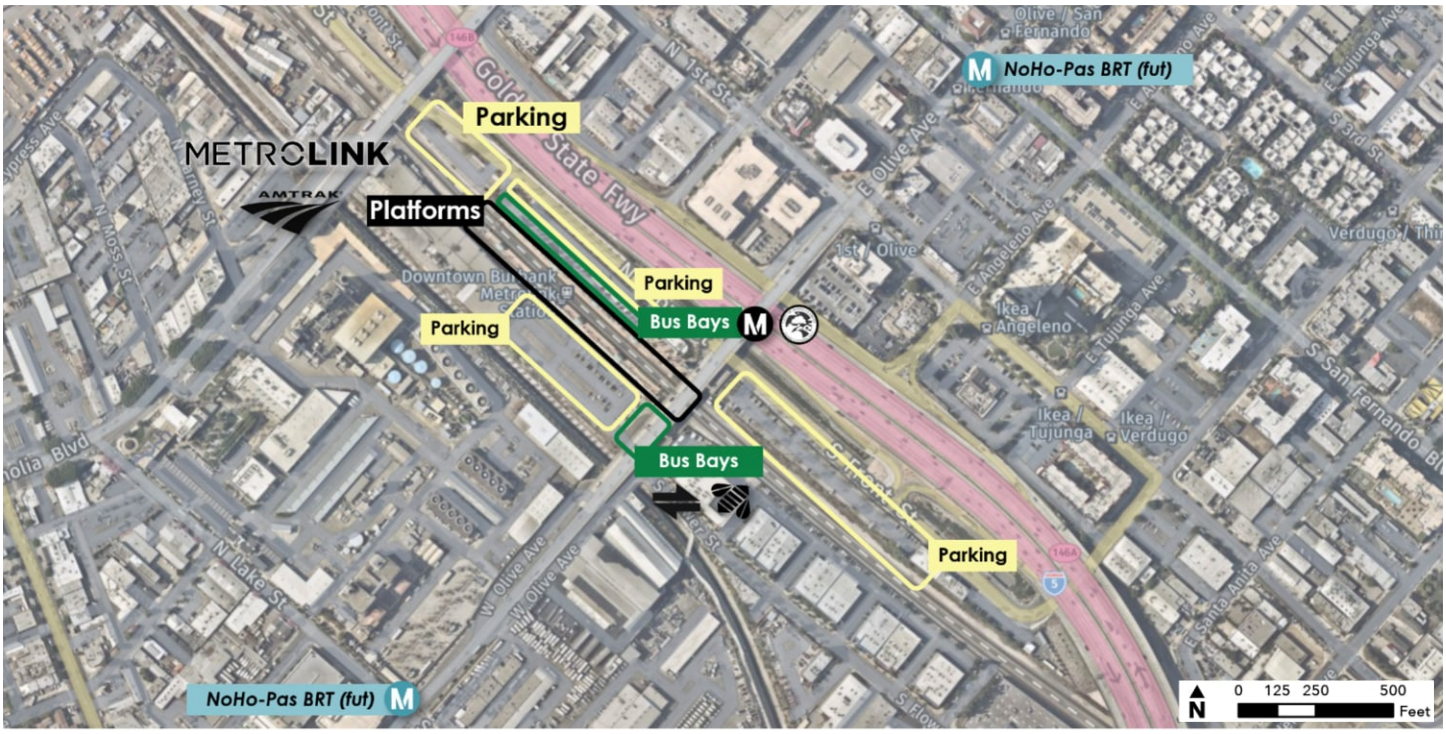
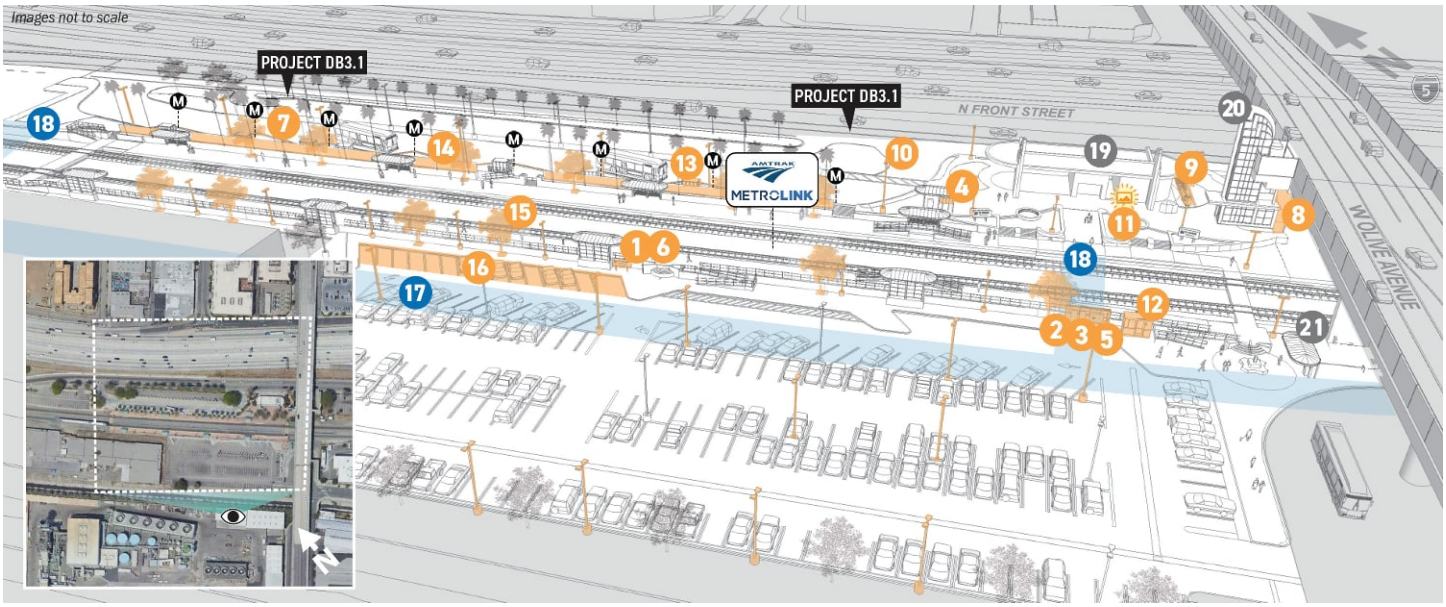


Figure 13

Downtown Burbank Improvements Rendering



Proposed Improvements

1. Static Directional Signage
2. Digital Information Kiosk
3. Customer Service Kiosk
4. Real-Time Arrival Info
5. Station Area Map
6. Audio Wayfinding to Connecting Transit Service
7. Tactile Wayfinding to Connecting Transit Service
8. Access Ramp
9. Shared Dockless Micro-Mobility Parking
10. Supplemental Lighting
11. Public Art
12. Security Kiosk
13. Shade Structures
14. Sound Barrier
15. Shade Trees
16. Electric Vehicle Parking

Projects Planned by Others

17. Planned California High-Speed Rail Alignment
18. Planned California High-Speed Rail Pedestrian Crossing

Existing Station Features

19. Restrooms and Bike Hub
20. Vertical Connection to W. Olive Avenue
21. Bus Stop Amenities

Other RNI Proposed Improvements

DB3.1 Front Street

Norwalk C Line Station

The Norwalk C Line Station is the eastern terminus of Metro's C Line. The station also has bus service from Metro, LBT, and Norwalk Transit. The station is approximately 2.5 miles from the Norwalk/SFS station to the east – the two stations are connected by Norwalk Transit Line 4. The station has several parking lots, so it is accessible by car but is separated from the surrounding neighborhoods for pedestrians and bicyclists due to closed access gates and freeway infrastructure. Hoxie Avenue, the station's primary access road, is the only access by bike or foot to the station, connecting to the high-speed, high-traffic Imperial Avenue.

The station-oriented improvements that this Study identified for this station include those in the introduction to the **Station-Oriented Improvements** section along with those identified in Table 8 and shown in Figures 14 and 15 below.

Additionally, in the near-term, it is recommended that pedestrian/bike gates be opened to the neighborhood at Foster Road, east of I-605, and Flatbush Avenue, west of I-605, accompanied by a parking permit program. It is also recommended that, where feasible, Metro support the improvements identified in Norwalk's *Bicycle Master Plan (2022).*

A near-, medium-, and long-term recommendation for improving transit connectivity between Norwalk C Line and Norwalk/SFS station is described in the **Connectivity Improvements** section of this document.

Metro is further examining improvements to the C Line Station that will be available as an addendum to this study.

Table 8

Norwalk C Line Station and Access Improvements

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information *(e.g., station signage, wayfinding, maps)*	$1.6M	Near
	Station Accessibility *(e.g., accessible ramps, micromobility parking, vertical circulation, bike hub)*	$3.1M	Medium
	Station Boarding Area *(e.g., restrooms, shade trees, bus stop amenities)*	$3.5M	Medium
	Station Improvements & Customer Amenities Subtotal	***$8.2M***	
	FLM Pedestrian/Bike Access to Studebaker Rd on Adoree St *[C1]*	$19.4M	Long
	Norwalk Station Parking Lot Improvements (including EV charging and bus, bike, pedestrian, and vehicle circulation improvements) *[C2.A]*	$25.6M	Long
	Norwalk Traffic Circle *[C5]*	$11.7M	Long
	Station Access, Circulation & FLM Subtotal	***$56.7M***	
	Norwalk C Line Station Total	**$64.9M**	

Figure 14

Norwalk C Line Station

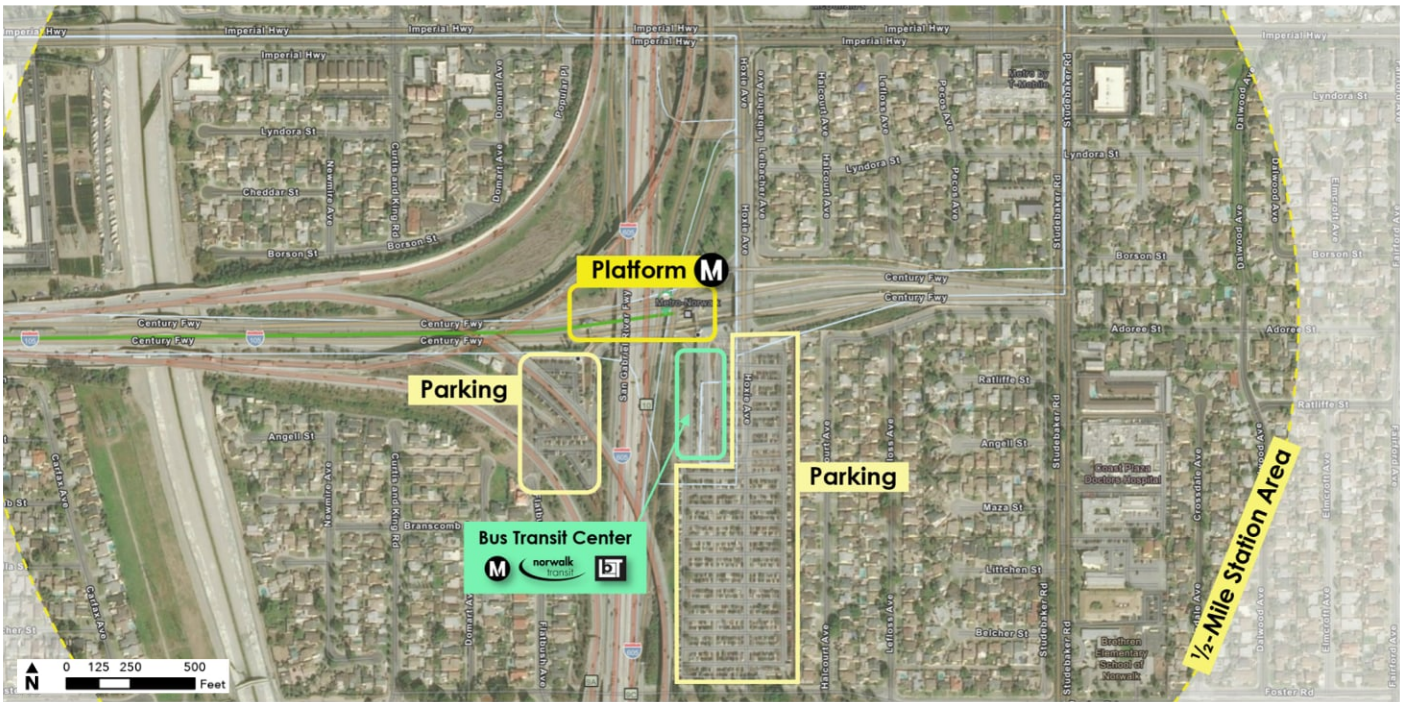
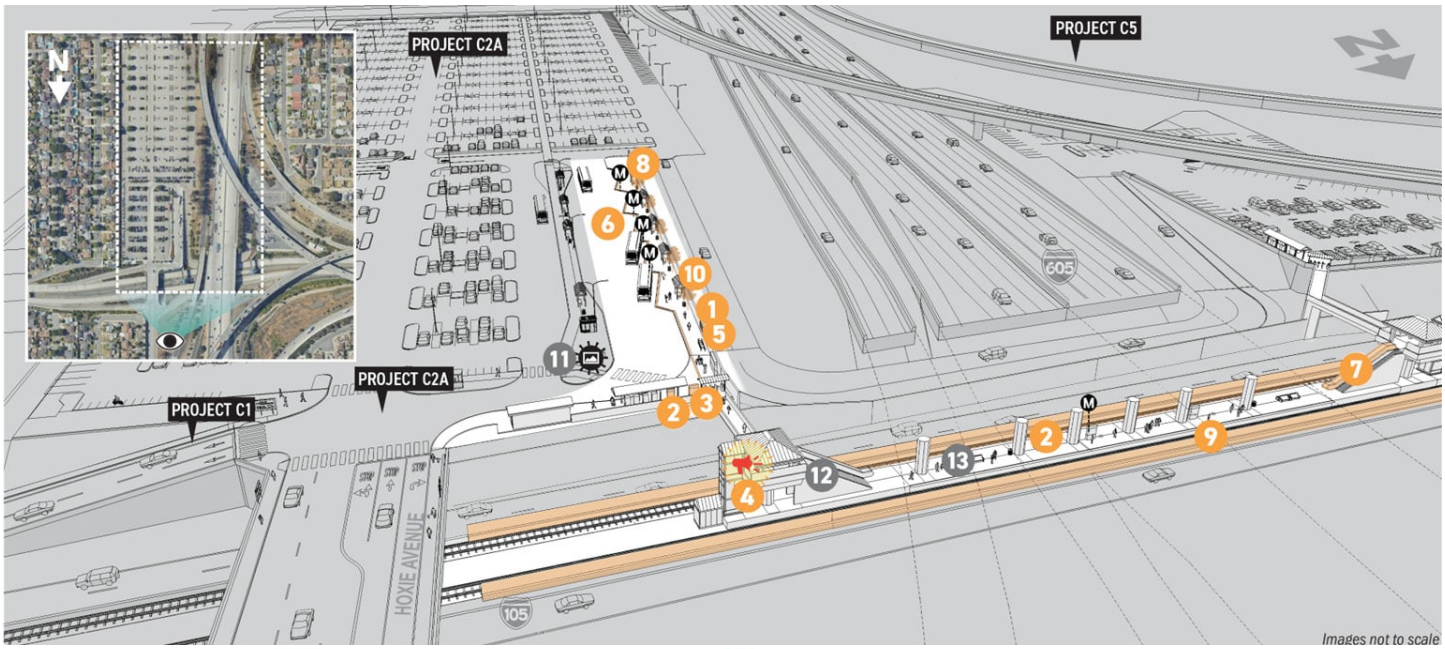


Figure 15

Norwalk C Line Station Improvements Rendering



Proposed Improvements

1. Static Directional Signage
2. Real-Time Arrival Info
3. Customer Service Kiosk
4. Stationwide PA System
5. Audio Wayfinding to Connecting Transit Service
6. Tactile Wayfinding to Connecting Transit Service
7. New Escalator
8. Bus Stop Amenities
9. Sound Barrier
10. Shade Trees

Existing Station Features

11. Public Art
12. Escalator
13. Platform Amenities

Other RNI Proposed Improvements

- C1 FLM Access to Studebaker
- C2A Norwalk Parking Lot
- C5 Norwalk Traffic Circle

Norwalk/SFS Station

The Norwalk/SFS Station currently has Metrolink and occasional event-only Amtrak service and is planned as one of the CAHSR station options. The station is approximately 2.5 miles from the Norwalk C Line Station and is served by one bus line (Norwalk Transit Route 4), which directly connects the two stations. The station is isolated from pedestrian and bus access due to high-speed, high-traffic Imperial Avenue to the north, which is currently the only access route. Large parking lots on either side of the platforms provide ample car access, but isolate the station from pedestrians and bicyclists.

The recommended improvements for this station include those listed in Table 9 and shown in Figures 16 and 17 below. A near-, medium-, and long-term recommendation for improving transit connectivity between Norwalk C Line and Norwalk/SFS station is described in the **Connectivity Improvements** section of this document.

The Study recommends that Metro support, where feasible, improvements identified in Norwalk's *Bicycle Master Plan (2022),* SFS's *General Plan (2022)*, and CAHSR Norwalk Station plans. A pedestrian improvement that would connect the station to Zimmerman Park and a transit-oriented development south of the station is recommended and is under planning by the City of Norwalk.

The BNSF freight railway runs through the station, which is on the San Bernardino subdivision. To accommodate freight movements, passenger trains must occasionally use the opposite track from what is typically used. This opposing direction of travel can be confusing and inconvenient for riders as the only access between the platforms is via an elevated bridge; regular platform announcements must be made to alert travelers as the static signage can be misleading. In the long-term, an additional passing track and platform is recommended to allow the separation of passenger and freight trains.

An expansion of platform and tracks that would also include new tracks over Imperial Highway is estimated to cost approximately $160 million. This improvement, which would better segregate passenger trains from BNSF freight trains, might be implemented by Metrolink or others and has been part of discussions between SCRRA and BNSF. An associated platform expansion is included in the **Connectivity Improvements** section as part of "revenue service stops for Amtrak."

Table 1

Norwalk/SFS Station and Access Improvements

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information (e.g., station signage, wayfinding, maps)	$1.5M	Near
	Station Accessibility (e.g., accessible ramps, micromobility parking)	$0.94M	Medium
	Station Boarding Area (e.g., pedestrian lean bar, restrooms, shade trees)	$0.79M	Medium
	Norwalk/SFS Station Total	**$3.2M**	

Figure 16
Norwalk/SFS Station

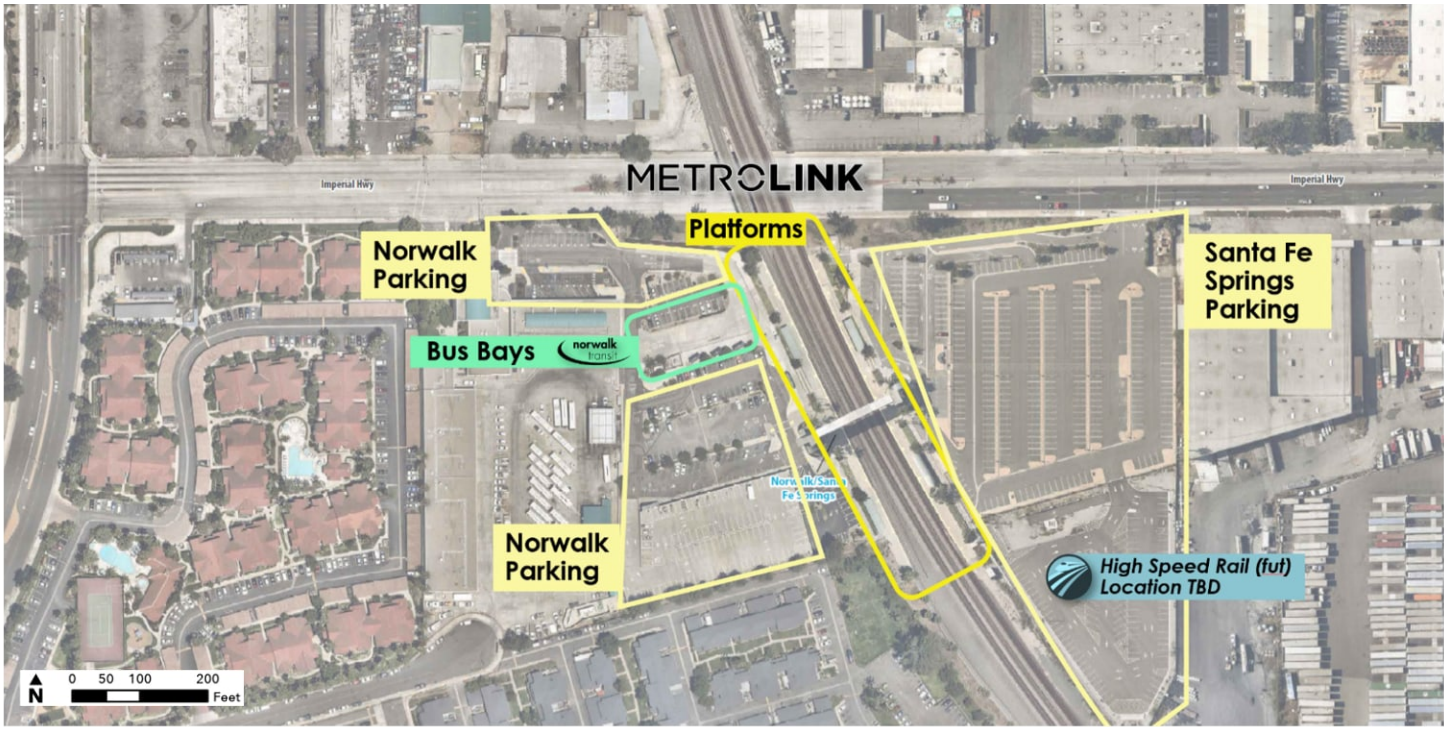
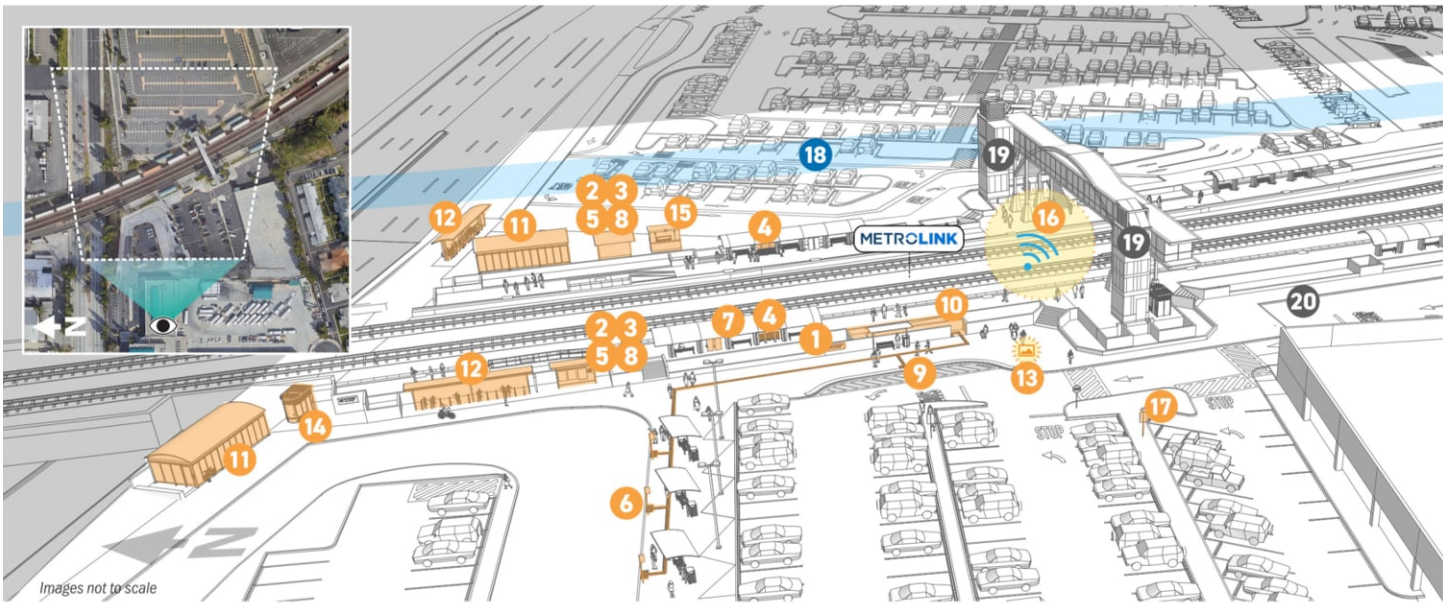


Figure 17
Norwalk/SFS Station Improvements Rendering



Proposed Improvements

1. Static Directional Signage
2. Digital Information Kiosk
3. Customer Service Kiosk
4. Real-Time Arrival Info
5. Station Area Map
6. Sidewalk Stop Poles
7. Visual Wayfinding to Connecting Transit Service
8. Audio Wayfinding to Connecting Transit Service
9. Tactile Wayfinding to Connecting Transit Service
10. Access Ramp
11. Bike Hub/Bike Share
12. Shared Dockless Micro-Mobility Parking
13. Public Art
14. Restrooms
15. Security Kiosk
16. Wifi
17. Improved Parking Signage

Projects Planned by Others

18. Planned California High-Speed Rail Alignment

Existing Station Features

19. Elevator
20. Electric Vehicle Parking

Connectivity Improvements

Revenue Service Stops for Amtrak Pacific Surfliner trains at Downtown Burbank and Norwalk/SFS.

Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Near	<$100K	$0
Long	$200M	$0

In the urban corridor, all Pacific Surfliner trains should stop at Downtown Burbank and Norwalk stations (and Northridge). Codeshare or Rail2Rail programs can be utilized to promote fare integration between the two services. See Figures 18 and 19.

When combined with Metrolink service, inbound service at Downtown Burbank would immediately grow to 30 trains (from 27) daily; with hourly service between 6:00 pm and 10:00 pm; and Norwalk/Santa Fe Springs would immediately grow to 25 trains (from 15) daily ; with four new service stops between 10:30 am and 4:30 pm, as shown in Figure 18. This can be implemented in the near-term with minimal capital and/or operating costs. In the long-term, additional improvements could be made to modify platform lengths and additional tracks at Norwalk/SFS Station and improve track crossings for pedestrians.

Metrolink SFV-to-OC Line, Tripper Service

Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Near	<$200K	$4.8M
Long	$238M	$19.9M

This new connection service within the dense LOSSAN corridor within LA County would provide hourly, weekday service for an 18-hour window between Chatsworth and Laguna Niguel. Service could be implemented with existing Metrolink trainsets to fill midday gaps, with long-term service providing all-day improved frequency as shown in the charts below.

Inbound train service from Burbank to LAUS would increase to three trains (from two) per hour between 6:00 am and 7:00 am and to four (from three) trains per hour between 9:00 am and 10:00 am. See Figures 18 and 19.

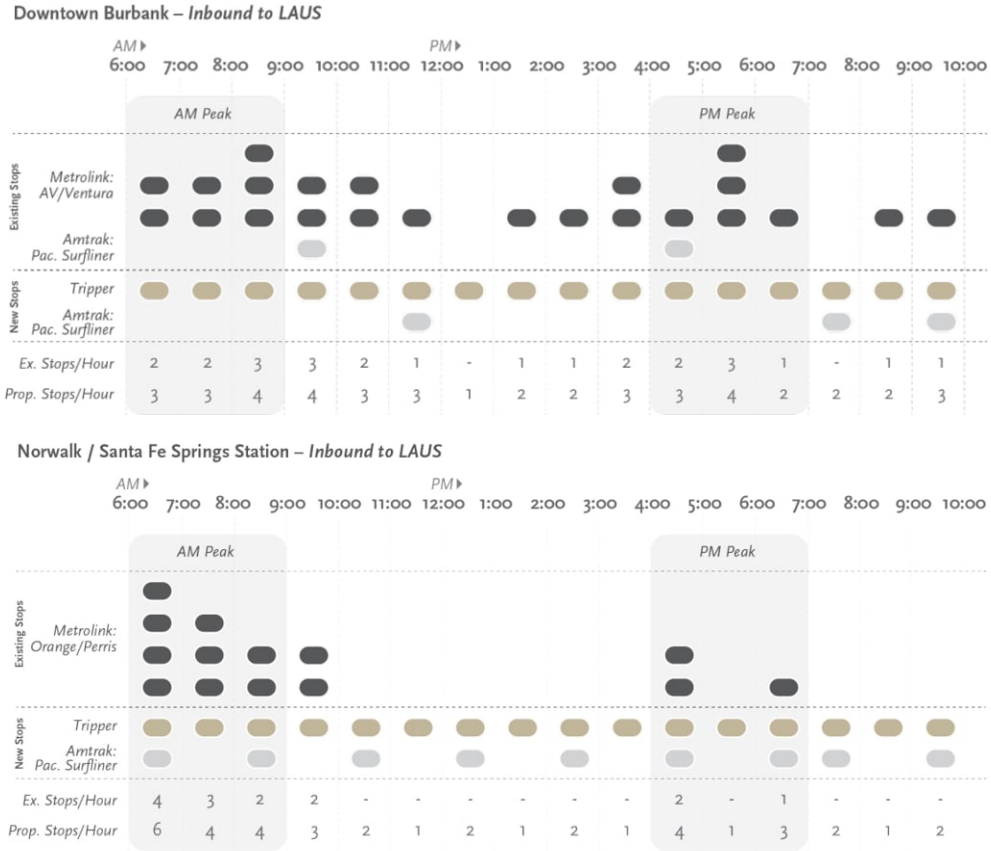


Figure 18

Sample of Existing and Proposed Stops per Hour, Based on Inbound Service

This is an example of inbound service only and is illustrative of a single direction of service improvments. Both inbound and outbound service improvements are recommended.

Metrolink's new October 2024 schedule expansion should fill the mid-day train schedule, noted here as Tripper service.

As shown in Figure 18, midday service between 10:30 am and 4:30 pm would improve to two-to-three trains per hour (from one train per hour).

Inbound train service from Norwalk/SFS to LAUS would improve to six trains/hour between 6:00 am and 7:00 am (from four), and to four trains/hour between 7:00 am and 9:00 am (from three), and midday frequency would improve to nearly two per hour between 10:30 am and 4:30 pm (currently, no service exists during this time period.)

Implementation could start in the mid-term by deploying trains for hourly midday service from 11:00 am to 4:00 pm, utilizing trainsets that otherwise serve peak-hour-only routes. Longer-term, all-day service would require six additional trainsets.

While this service could begin in the near-term, the interlined operation would be improved with the completion of the run-through tracks that will be completed as part of the Link US Project.

Figure 19

Proposed Amtrak Stops & Metrolink Service

Timed Transfer at Downtown Burbank Station

Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Near	<$100K	$0
Long*	$10M	$0

*For train signaling improvements

This timed transfer between the inbound Metrolink AVL and outbound VCL – or vice versa, inbound VCL to outbound AVL, will have immediate benefits of reduced travel time between these markets and rail shuttle services between Burbank Airport North and Burbank Airport South Stations.

Implementation could start immediately without additional capital or operating costs. Mid-term, improvements could be made to train signals to improve at-grade pedestrian crossings. Long-term, CAHSR may construct grade-separated pedestrian crossings of the tracks at this station.

During implementation, the competing desire for clockface schedules on the AVL and VCL should be considered. This may make it harder to have timed transfers between the two commuter rail lines.

Rail passengers wait to board the Metrolink train while others alight at Downtown Burbank Station. In the distance, passengers wait to cross for transit services on the other side of the tracks.

I-405 Freeway Express Bus

Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Long	$3M	$6M

Metro and other bus operators in the region currently operate multiple express buses on Toll and HOV lanes throughout the region. As part of this RNI Study, it was determined a gap in existing or planned express service exists on I-405 and could best be implemented when the planned Toll Lanes are in place in LA County. This proposed express bus service, see Figure 20, would take advantage of the estimated 10% travel time improvement of Toll Lanes on I-405, forecasted to be open in 2030. Service destinations for buses connecting from south to north in LA County include stops at CSULB/Tibor Rubin VA Medical Center, and connections to rail and BRT stations along the route (where feasible) at A, J, C, K, and E lines at UCLA/West LA VA Medical Center. Anticipated frequency would match the J Line to San Pedro with approximately 20 minutes of all-day weekday service.

The travel time for this service would benefit from implementation in the long-term with the addition of toll lanes. In the near-term, the service could be introduced without the added travel time benefit, potentially tested as part of the 2028 Games service.

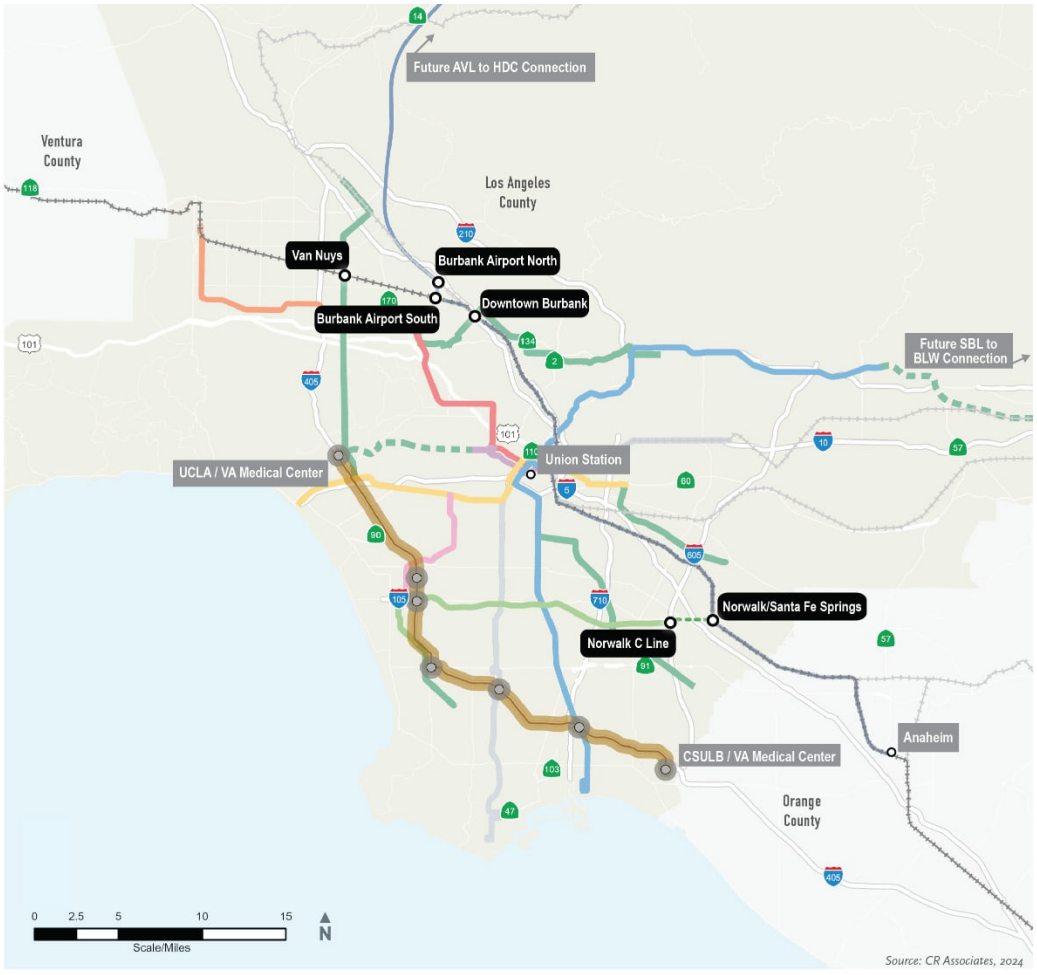
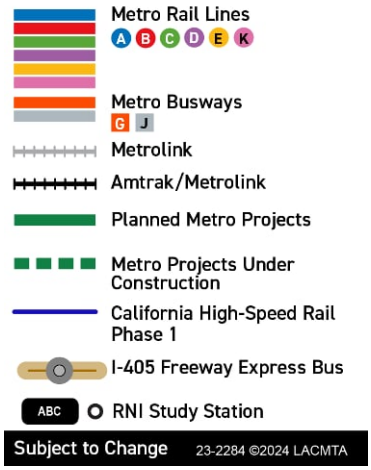


Figure 20

Proposed I-405 Bus Service



Metro Norwalk C Line Station to Norwalk/SFS Station Connection

Enhanced transit service between Norwalk C Line and Norwalk/SFS stations would increase connectivity between the terminus of Metro's C Line light rail and the Metrolink Station, with potential for connectivity to Amtrak Pacific Surfliner service and future CAHSR at Norwalk/SFS, see Figure 21. This would create immediate benefits through enhanced connectivity and the establishment of these stations as major transit hubs.

Near-/Medium-Term: Enhanced Bus between Norwalk C Line and Norwalk/SFS Stations.

Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Near	$3M	$1.5M
Medium	$13.2M	$2.9M

In the near-term, additional service could be provided by Norwalk Transit Route 4 and/or extending LBT Routes 172/173 to Norwalk/SFS. In the medium-term, a dedicated, enhanced bus service with increased frequency and spot improvements to improve reliability, along with bus stop enhancements to improve customer comfort, would provide substantial benefits for existing riders and attract new riders.

Long-Term: LRT Extension of the C Line to Norwalk/SFS Station.

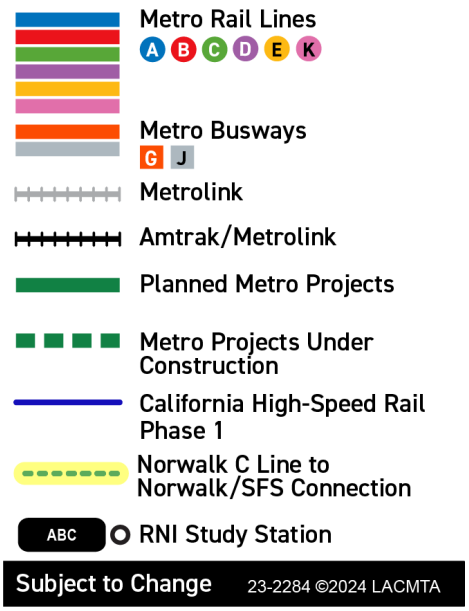
Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Long	$1.3B-2.6B	$7M

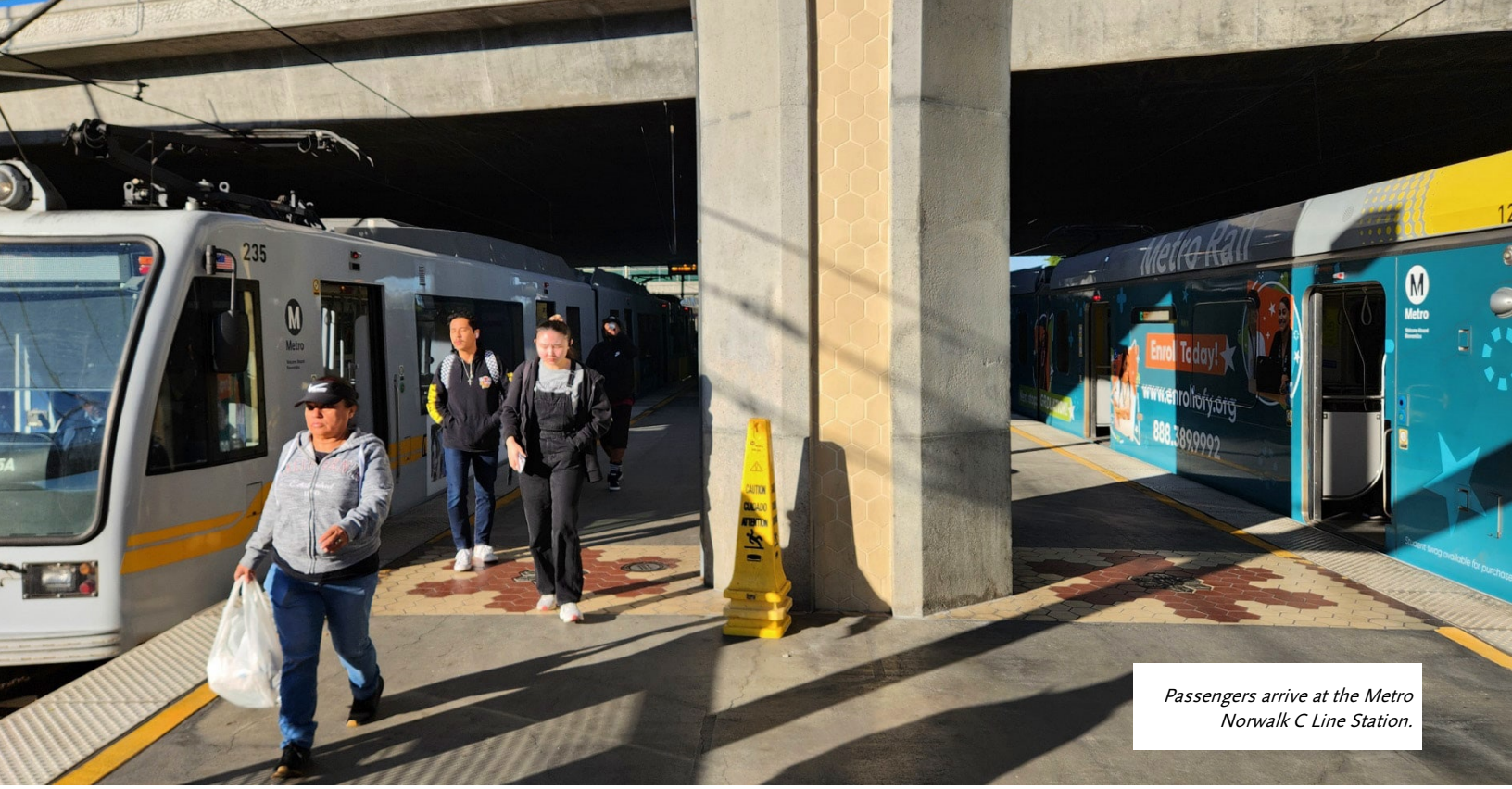
The LRT extension of the C Line to the Norwalk/SFS station is by far the most significant gap closure that can be made to improve connectivity and network integration as part of this study. Metro should explore opportunities to move this critical gap closure project up to earlier than 2052. Extending the C Line to the Norwalk/Santa Fe Springs Station would close a notable gap in the regional rail transit network, creating a more seamless experience for local and regional riders.

This extension would create a rail hub in southeastern LA County with service to LRT, commuter rail, Amtrak Pacific Surfliner, and CAHSR. This will be only one of four locations in California with this level of rail service – providing direct connectivity to San Luis Obispo, Downtown Los Angeles, San Diego, LAX, Orange County, Ventura, Riverside/Perris, and, pending CAHSR, the Central Valley and San Francisco.

Figure 21

Norwalk C Line to Norwalk/SFS Connection





Passengers arrive at the Metro Norwalk C Line Station.

Conclusion

The Los Angeles County Rail Network Integration Study (Study) is funded by the 2018 TIRCP grant and was awarded to Metro in August 2021. The Study highlights the top 7 recommendations to integrate services between Metro's transit network with the statewide commuter rail system (Metrolink/Amtrak) and future California High-Speed Rail stations in LA County.

These recommendations include:

- **Systemwide**: such as wayfinding, fare integration, and customer information
- **Station-Oriented**: such as First/Last Mile, station improvements, and customer amenities
- **Connectivity**: such as new express bus service on toll lanes, extensions of LRT, and increased frequency of Metrolink and Amtrak service

The project team has conducted multiple rounds of stakeholder briefings with key project stakeholders (local, regional, and state) throughout the Study to receive and incorporate their comments on the draft recommendations. The Study team also conducted two rounds of CBO workshops and station intercept surveys in the Summer/Fall of 2023.

An OOM estimated costs and timeline for proposed improvements are included in the Study, along with a detailed funding/financing analysis.

The Study team is working with partnering agencies to identify state and local funding strategies for the recommended improvements and implementation strategies for potential pilot projects through Metro's upcoming Regional Rail Strategic Plan update program.

Los Angeles County
Metropolitan Transportation Authority

Attachment B

Technical Report | Final

LOS ANGELES COUNTY RAIL NETWORK INTEGRATION STUDY

Metro

Summer 2024

Acknowledgements

The Los Angeles County Rail Network Integration Study was prepared with valuable contributions from many parties as listed here.

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Glossary

2028 Games	2028 Olympic and Paralympic Games
ACS	American Community Survey
ATIIP	USDOT Active Transportation Infrastructure Investment Program
ATP	CA Active Transportation Program
ATTAIN	USDOT Advanced Transportation Technology and Innovation Program
AVL	Antelope Valley Line, Metrolink
B, K, M	Billion(s), Thousand(s), or Million(s), typically in reference to dollar values
BIPOC	Black, Indigenous, or People of Color
BLW	Brightline West high-speed rail between Rancho Cucamonga to Las Vegas
BMP	Best Management Practices
BRT	Bus rapid transit
CA	California
CAHSR	California High-Speed Rail
CalSTA	California State Transportation Agency
Cal-ITP	California Integrated Travel Project
CBO	Community-based organization
CIP	Capital Investment Program
CMAQ	USDOT Congestion Mitigation Air Quality Improvement Program
COG	Council of Governments
CSULB	California State University Long Beach
EFC	Equity Focus Community, as defined by "High Need" and "Very High Need" by MENI
ESFV LRT	East San Fernando Valley Light Rail Transit
FLM	First/Last Mile
HBA	Hollywood Burbank Airport
HDC	High Desert Corridor
HOV	High Occupancy Vehicle
I-405	Interstate 405
LA	Los Angeles
LADOT	City of Los Angeles Department of Transportation
LADWP	City of Los Angeles Department of Water and Power
LAUS	Los Angeles Union Station
LAX	Los Angeles International Airport
LBT	Long Beach Transit
Link US	Link Union Station
LOSSAN	Los Angeles—San Diego—San Luis Obispo Rail Corridor, Amtrak
LPP	CA Local Partnership Program
LRT	Light rail transit
LRTP	Long Range Transportation Plan
LTS	Level of Traffic Stress quantifies the amount of discomfort that people feel when they bicycle. The methodology was developed in 2012 by the Mineta Transportation Institute at San Jose State University.
MENI	Metro Equity Need Index
Metro	Los Angeles County Metropolitan Transportation Authority
MTC	Metropolitan Transportation Commission, San Francisco, California

Muni	Municipal transit operator, in the LA region this is typically local and/or intercity bus or shuttle service
NoHo	North Hollywood
OC	Orange County
OCTA	Orange County Transportation Authority
OOM	Order of magnitude
PES	Pedestrian Environment Score quantifies the amount of discomfort that people feel when they travel by foot. The methodology was developed by CR Associates.
RAISE	USDOT Rebuilding American Infrastructure with Sustainability and Equity Grant
RCN	USDOT Reconnecting Communities and Neighborhoods Grant Program
REAP	CA Regional Early Action Planning Grant
RITC	Regional Intermodal Transportation Center, Burbank Airport
RNI	Rail Network Integration
RTA	Regional Transportation Authority, Chicago, Illinois
RTP	Regional Transportation Plan – SCAG's RTP is called "Connect SoCal":
S-Bahn	A commuter rail service that connects suburbs and commuter regions with city centers and main rail stations. It is an abbreviation of Stadtschnellbahn, from Stadt ("city") + schnell ("fast") + Bahn ("rail").
SBL	San Bernardino Line, Metrolink
SCAG	Southern California Association of Governments
SCORE	Southern California Optimized Rail Expansion – Metrolink's CIP
SCRRA	Southern California Regional Rail Authority
SFS	City of Santa Fe Springs
SFV	San Fernando Valley
STA	CA State Transit Assistance
SGV	San Gabriel Valley
TCC	CA Transformative Climate Communities
TDA	CA Transportation Development Act
TIRCP	CalSTA Transit and Intercity Rail Capital Program
UCLA	University of California, Los Angeles
TOD/TOC	Transit Oriented Development/Transit Oriented Communities
Tripper	Additional capacity that an agency adds to an existing public transit route that operates on only a portion of a route
TSM	Transportation systems management
USDOT	United States Department of Transportation
VA	Veterans Affairs
VCL	Ventura County Line, Metrolink

Table of Contents

Attachments

Attachment A: **Intercept Survey and Outreach Summary**

Attachment B: **Systemwide Opportunity and Gap Analysis**

Attachment C: **Baseline Conditions Report for Focused Hot Spot Areas**

Attachment D: **Funding and Financing Strategy Report**

Supplemental Study

C Line Norwalk Transit Center Improvements Study
(Submitted Separately)

CHAPTER 1

Study Purpose & Need.

This Study identifies strategic opportunities and a roadmap for operational, infrastructure, and policy improvements to support better connectivity and remove barriers to transit system access within and around LA County.

Study Purpose

The Los Angeles County Rail Network Integration Study (Study) identifies strategic opportunities for operational, infrastructure, and policy improvements for better connectivity and removal of barriers to access the transit system within and around LA County. It provides a roadmap to facilitate interagency coordination on infrastructure investments and implement features of the California State Rail Plan.

This Study supports the goals of the Metro Vision 2028 Strategic Plan and 2020 LRTP, as well as the 2018 and 2023 California State Rail Plans, by planning seamless travel experiences across rail and public transit in California, with social equity and sustainability benefits.

The outcome of this 2-year Study includes recommendations for Systemwide, Station-Oriented, and Connectivity improvements for the transit system and specific stations. These recommendations, shown in Chapter 4, Recommendations & Implementation, are the result of robust technical analysis and stakeholder engagement, which included numerous working meetings with agencies and Metro committees, workshops with CBOs, and the distribution of thousands of customer surveys.

Implementation of the project recommendations listed in this report is subject to approval by the governing jurisdiction and funding. While there are currently no dedicated funding sources, Metro will continue to pursue funding opportunities and foster ongoing coordination and meaningful partnerships with local, state, and federal agencies, the private sector, and local stakeholders for the implementation of project(s) and program(s).

Study recommendations, when funded and approved, will help the region create a more robust system with easily implementable projects in the near-term, and more extensive projects and programs in the medium- and long-term.

This ramp on the eastbound I-105 on-ramp in Norwalk, is signed for "no pedestrians." However, as this is the most direct route to the Norwalk C Line Station from adjacent neighborhoods to the east and south, pedestrians and bicyclists frequently use this shoulder to travel.

Issues and Challenges

Los Angeles had the world's largest interurban electric rail system, spanning over 1,167 route miles prior to 1953. Compare that history to today's combined urban rail and commuter rail system of approximately 608 route miles in the metropolitan area, along with a bus service coverage area of 1447 square miles in LA County, there remains substantial room for improvement. Significant challenges remain in land use, demographics, equity, and evolving travel markets to increase mode share as the urban transit network expands, along with expanding commuter/regional/high-speed and intercity rail options.

The current LA County transit system includes 47 local and intercity bus operators, 100 miles of light rail, connections to over 540 miles of regional commuter rail, connections to inter-city and long-distance Amtrak, and future CAHSR. With such an expansive system, however, the region's operators and owners must be strongly coordinated so that customers can enjoy a seamless, well-maintained, safe, and secure total transit system. The outcomes of improved integration will help to increase transit mode share, increase rail passenger miles, and reduce GHG emissions and VMT.

Los Angeles has an infamously auto-centric sprawling development pattern, creating long distances for commute and other trips. The social, health, and economic impacts of auto-dominated transportation are measurable. Of the ten million people living in LA County, 4.5 million people are living in Disadvantaged Census Tracts, with 82% of households experiencing housing cost burden (an indicator of limited access to education, employment, and other essential services), according to the USDOT Equitable Transportation Community Explorer.

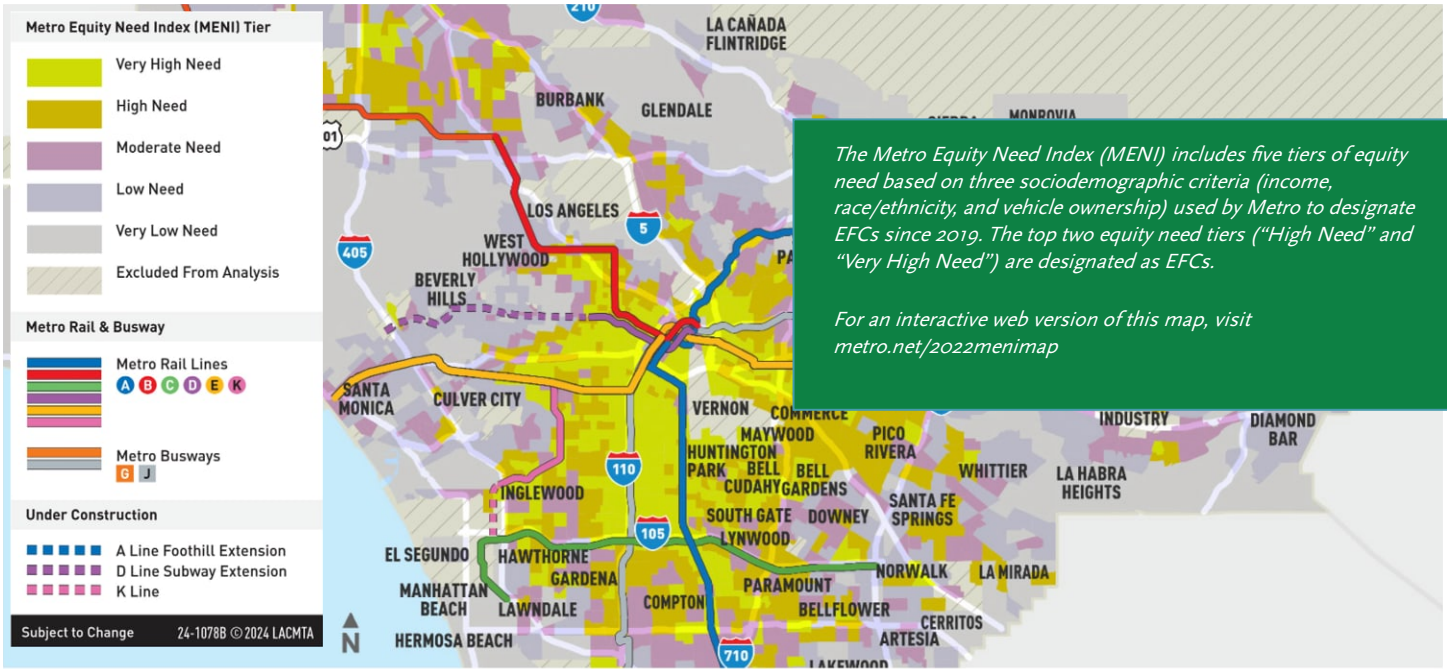
The Los Angeles region has made significant investments to create a safe and world-class transit system during the past 30 years. New investments throughout the region and state will further expand the system. This investment is funded by major local voter-supported initiatives, such as Measures R (2008) and M (2016), state programs, such as SB1 and significant federal funding.

Although the vast existing transit network allows people to travel without a car throughout the county, numerous challenges exist for existing and future riders to travel seamlessly throughout the entire system. Barriers, such as difficult FLM access, confusing transfers across different services, and multiple fare devices/structures exist. These challenges, common in transit systems in major cities in the US, are intensified by challenges unique to geography and land use of LA County, resulting in a relatively low transit commute mode share of 4.8% in the region compared to other large West Coast regions, such as Seattle, San Francisco, and Portland, OR (ACS 2019).

Metro's equity assessment, MENI, has identified 967 census tracts – home to over 3.9 million people – with high or very high needs as EFCs where transportation needs are greatest. EFCs consider where there are higher concentrations of resident and household demographics associated with

Figure 1

METRO EQUITY NEED INDEX (MENI)



The Metro Equity Need Index (MENI) includes five tiers of equity need based on three sociodemographic criteria (income, race/ethnicity, and vehicle ownership) used by Metro to designate EFCs since 2019. The top two equity need tiers ("High Need" and "Very High Need") are designated as EFCs.

For an interactive web version of this map, visit metro.net/2022menimap

mobility barriers (low-income households earning less than $60,000 per year; BIPOC populations; and households that do not have a car). Improved transit service, access, and travel experience will improve the economic, social, and environmental conditions for residents and visitors of LA County through increased access to jobs and services, improved air quality, and reduced transportation cost burdens.

There are numerous areas for improving integration to facilitate an accessible and seamless transit system. For instance, stations are typically owned and operated by different jurisdictions, so it can be challenging to coordinate and standardize maintenance, signage, wayfinding, and other station amenities. Rail stations, bus stops, transit centers, and transfer locations often lack basic amenities such as shade, seating, or informational and directional signage.

Standardization and coordination challenges extend beyond the station to FLM connections, such as pedestrian and bicycle infrastructure, which allows people to make shorter and safer trips to access transit. FLM challenges are exacerbated by a historic lack of regional investment in pedestrian and bicycle infrastructure – an issue regional and local agencies have recently begun to address.

For both existing and potential transit riders, the multitude of agencies providing service can create confusion for customers seeking information, in trip planning and en route. Confusing transfers across different services and multiple fare devices/structures can also be challenging.

The improvements identified throughout this Study will reduce barriers to riding transit and create a more seamless experience for riders, resulting in increased ridership.

Additionally, these investments are a foundation of LA's resilient growth, supporting unprecedented back-to-back world events, including the World Cup in 2026, Superbowl in 2027, and the 2028 Olympic and Paralympic Games. Several program priorities identified in this Study – such as new bus service on express lanes, improved trip planning, integrated fares, and improved FLM connections – can be implemented for these major events while reinforcing long-term increases in transit mode share and improved mobility and accessibility for our region.

Study Scope, Process, and Timeline

The Study was funded by a 2018 TIRCP grant from CalSTA to address network integration opportunities, with other rail and transit systems, including linkages to the statewide rail system, airports, and neighboring county transit services, and to enhance the benefits of AB 1550 (*Gomez. Greenhouse gases: investment plan: disadvantaged communities*). The intention of this additional network integration funding is to ensure collaboration, eliminate duplicate investments, and ultimately create a seamless travel experience across rail and public transit in California. As part of this Study, Metro is leading the planning processes for network integration efforts focusing on regional rail and transit connectivity to the State rail network as described in the California State Rail Plan. CalSTA and Caltrans are involved in the network integration efforts, providing technical assistance and ensuring that statewide goals and priorities are addressed during the work. This network integration planning requires coordination with Metrolink and its network integration planning for the regional rail system as described in the Metrolink Strategic Business Plan.

In fall 2020, following the initiation of the current TIRCP Network Integration Framework Agreement between Metro and CalSTA, Metro staff developed the scope of the Study in partnership with Caltrans and CalSTA. Metro assessed station areas across LA County, aside from LAUS, that had the potential for high-transfer activities are anticipated between Metro bus and rail system, Amtrak/Metrolink stations, and future CAHSR stations.

Three study areas with six stations were identified – listed here and shown in Figure 2.

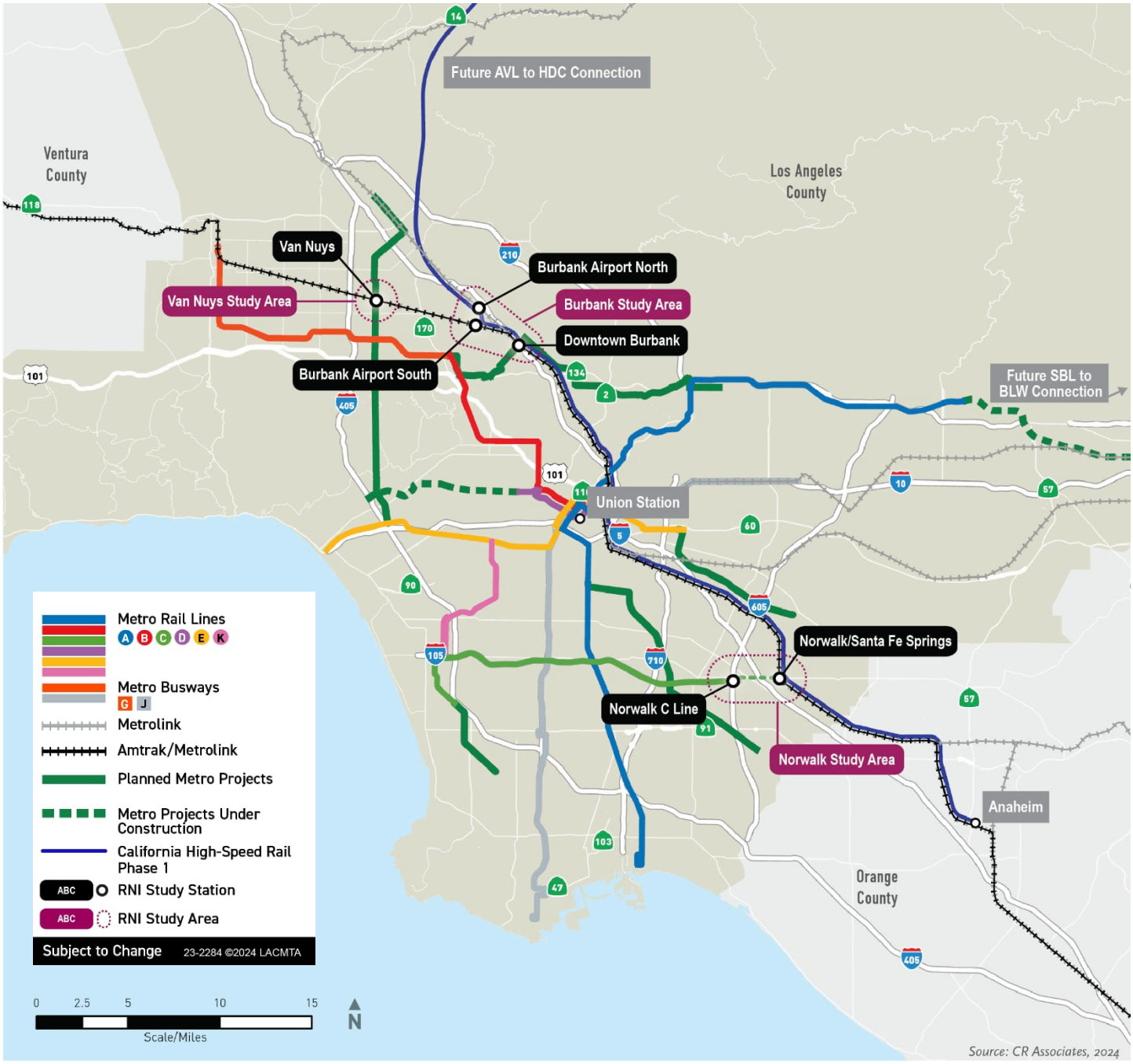
> **Van Nuys Study Area**: Future ESFV LRT, Sepulveda Transit Corridor Project, and elevated G Line (Orange) BRT at Van Nuys Boulevard
  - Van Nuys Station

> **Burbank Study Area**: Future CAHSR station and Metro NoHo to Pasadena BRT station
  - Burbank Airport North Station
  - Burbank Airport South Station
  - Metrolink Downtown Burbank Station

> **Norwalk Study Area**: Future CAHSR station and transfers between Metro and Metrolink
  - Norwalk C Line Station
  - Metrolink Norwalk/Santa Fe Springs Station

Figure 2

STUDY AREAS AND STATIONS WITHIN LOS ANGELES COUNTY



Furthermore, this Study explores potential opportunities for high-capacity express transit services leveraging state investment in the highway network and HOV/Express Lanes within the Los Angeles region, such as coordination between transit systems to allow for long-distance travel and opportunities for Fly Away services to be integrated as part of the State rail network.

In August 2021, Metro hired a consultant team, led by CR Associates, to lead the technical analysis and outreach, described in the following section.

Figure 3

STUDY TIMELINE

SUMMER/FALL 2021	SPRING/SUMMER 2022	FALL 2022 – SUMMER 2023	FALL 2023 – SPRING 2024	SUMMER 2024
Project kick-off	Data collection for baseline conditions analysis	Identification of wayfinding and First/Last Mile opportunities	CBO Focus Group	Final Study recommendations
Baseline understanding	Identification of systemwide network integration opportunities	Second round of stakeholder outreach	Ongoing stakeholder outreach	
First round of stakeholder briefings		Initiation of CBO engagement	Draft Study recommendations	

A Metrolink train arrives at the Downtown Burbank Station. Metro buses can be seen on the right side of the image.

Study Methodology

The Study recommendations have been driven by a holistic methodology, combining what we heard through engagement with what we learned through analytical assessment of policies, ridership demand, operations, stations and platforms, FLM, and wayfinding.

Who we heard

The study included robust stakeholder and community engagement, included multiple meetings with partner agencies, inter-departmental teams at Metro, public surveys, CBO workshops, and Metro committees.

- **CBOs:** The Study team hosted two rounds of CBO listening and learning sessions to gain feedback on priorities for improvement and responses to recommendations
- **Transit Riders**: Engaged approximately 2,900 riders and received over 500 survey responses related to customer experience
- **Agencies:** Conducted over 35 informational and listening sessions with 11 agencies and two COGs (Metro San Fernando Valley Service Council and Metro Gateway Cities Service Council)
- **Metro committees and departments:** Presented and received feedback on priorities and recommendations over a dozen metro departments and four Metro committees

➔ ***Learn more:*** A summary of findings is in Chapter 2, What We've Heard, and Attachment A, Intercept Survey and Outreach Summary.

Analysis Methods

The technical analysis included: ridership demand analysis using a combination of the Metro and CAHSR travel demand model data, informed by Metrolink and Amtrak ridership; operational model impacts analysis including all passenger rail operations; FLM assessments at each station, including walk-audits; identification and screening of solutions through a cost-benefit analysis, applying Metro and State goals; development of design concepts at several station areas; a high-level risk analysis of potential environmental impacts of proposed solutions. Systems planning of the transit network included the analysis of the current urban transit, commuter rail, and the intercity rail network in Los Angeles County and adjacent metropolitan areas, using an operations model applied to the transit systems network, and analysis of travel markets identified in the network. Noted below are some but not all the systems planning methodologies that were applied in this Study.

- **Systemwide opportunity and constraints analysis:** Identified locations where potential opportunities and gaps/constraints exist on the current and foreseeable regional rail and express-lane network in the three Study areas based upon examination of previous and existing studies, along with interviews with key jurisdictional stakeholders.

  ➔ ***Learn more:*** A summary of findings is in Chapter 3, What We've Learned, and Attachment B, Systemwide Opportunity and Gap Analysis.

- **Baseline conditions analysis**: Examined potential near-term improvements for connectivity at the six Study stations, as well as regional improvements that include new express bus routes on freeway express lanes and improvements to system frequencies.

  ➔ ***Learn more:*** A summary of findings is in Chapter 3, What We've Learned, and Attachment C, Baseline Conditions Report for Focused Hot Spot Areas.

- **Funding and Financing Strategy**: Serves as a resource for establishing the range of potential funding sources and financing strategies for funding the Study's recommended programs and projects.

  ➔ ***Learn more:*** A summary of findings is in Chapter 3, What We've Learned, and Attachment D, Funding and Financing Strategy Report.

Study Recommendations

This Study examined over 150 project improvements and identified seven high-impact categories of recommendations for **systemwide**, **station-focused**, and **connectivity** improvements with proposed implementation for near-term (0-5 years), medium-term (5-10 years), or long-term (10+ years). Regional recommendations and the studied stations – where focused recommendations are located – are shown in Figure 4.

Additional improvements include:

- Wayfinding, signage, and trailblazing
- Fare integration and ticketing
- Improved trip planning platforms
- Station/platform and FLM improvements at each station

Network Integration Recommendations: For the LA region and each of the three station areas and six stations, recommendations were advanced that create opportunities for better linkages between the Metro system and the regional rail network. Factors guiding these recommendations include the goals to increase ridership and passenger miles traveled on transit by reducing or closing service gaps, as well as improving station design elements that may hinder possible connections to existing and future stations, including Metro, Metrolink, Amtrak, and CAHSR.

Implementation can often occur in phases based on availability of funding; acceptability to stakeholders – including community members and agencies; level of design and permitting complexity; estimated capital and operating costs; and agency(s) approval. No funding or approvals have been secured for any recommendation to date.

➔ ***Learn more***: A summary of recommendations and implementation strategies are in the "Recommendations & Implementation" section of this report.

Figure 4

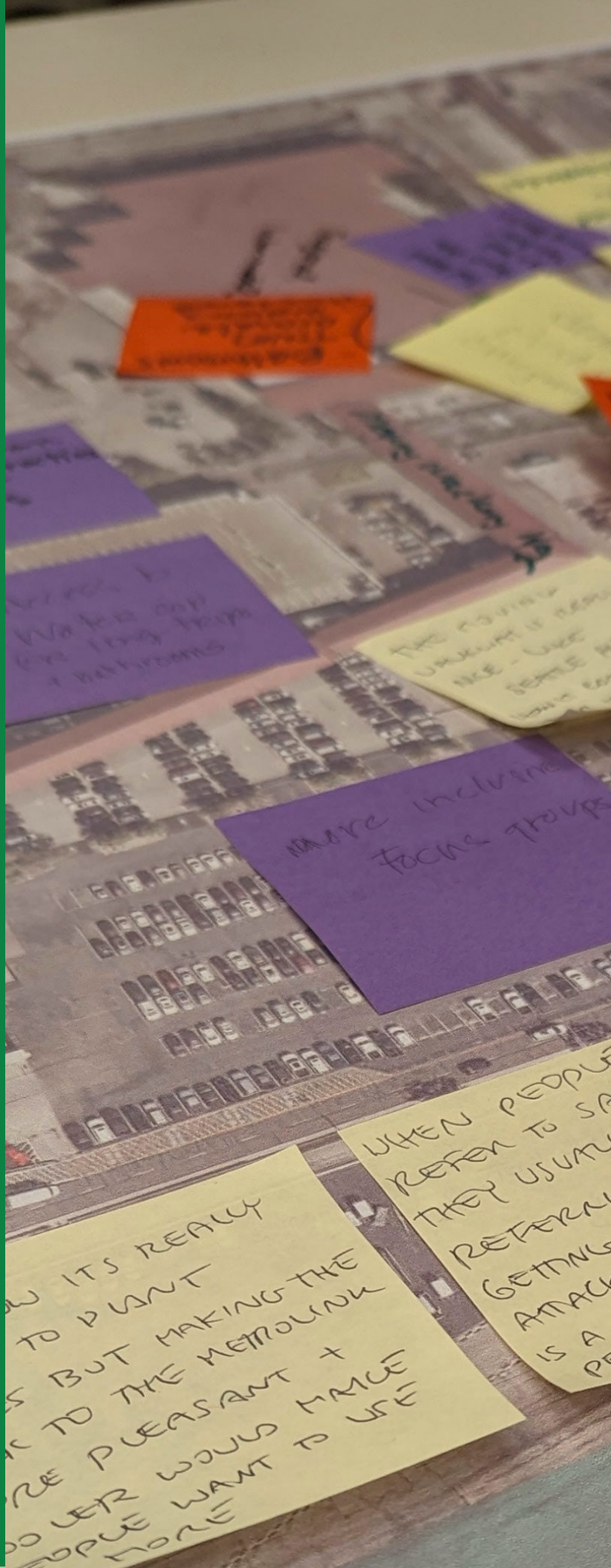
STUDY RECOMMENDATIONS

Existing and planned Los Angeles County regional rail and bus network and the Study's proposed projects.

CHAPTER 2

What We've Heard.

This Study's recommendations were informed by constant feedback from internal Metro teams and committees, and multiple meetings and workshops with external agency stakeholders and community-based organizations, and passenger surveys.



Project Engagement

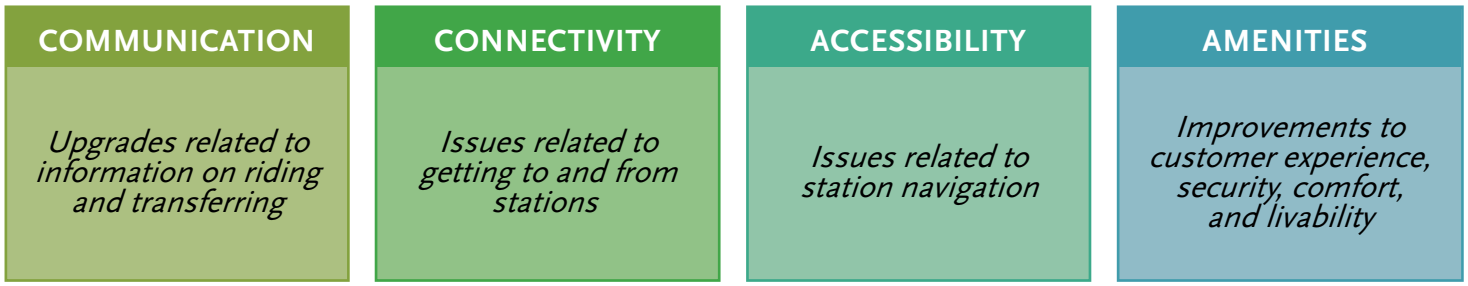
CBOs, Riders, and Jurisdictional Stakeholders.

The Study Team gathered customer input from CBOs and riders. The feedback gained through the CBO engagement workshops, intercept surveys with riders, and discussions with partner agencies, highlighted common opportunities for improvement in several areas, outlined in Figure 5. These include:

- **Communication** upgrades, particularly signage, wayfinding, and live schedule updates.
- **Connectivity** issues, particularly pedestrian and bicyclist infrastructure in the surrounding neighborhoods.
- **Accessibility and ADA** issues, including deficiencies with vertical circulation such as elevators or escalators.
- **Amenities and customer experience** improvements, particularly lighting, seating, shade/rain protection, restrooms, and cleanliness.

Figure 5

STUDY & ENGAGEMENT THEMES



➔ ***Learn more***: A summary of stakeholder engagement can be found in Attachment A: Intercept Survey and Outreach Summary

CBOs

The Study team conducted two rounds of CBO workshops in 2023 to gather feedback regarding opportunities and concerns for the transit system at each station. The CBO participants are listed in **the CBO Workshop Participation callout box**, organized by the CBO's primary focus area.

Metro staff reached out to a vast network of community organizations across LA County existing in the Metro Community Based Organization Database. These include Norwalk Unides, Southern California Resource Services for Independent Living, Pacoima Beautiful, Los Angeles Neighborhood Initiative (LANI), Long Beach Environmental Alliance, Long Beach Gray Panthers, Independent Living Center of Southern California, The Transit Coalition, Mundo Maya Foundation, and Greater LA Realtors, Move LA, and People for Mobility Justice.

These CBOs, who serve or work within the three Study areas of Van Nuys, Burbank, and Norwalk, participated in two rounds of workshops to discuss systemwide improvements. Metro provided an overview of the Study objectives, the systemwide needs assessment for infrastructure, operational improvements, and the performance criteria. CBOs distributed surveys to their members prior to the workshops. At the workshops CBO representatives described what they've heard from their communities of interest concerning their experiences at the three stations and traveling systemwide.

Each round of workshops included one in-person session and one virtual make-up session. The first round occurred on August 15 (in-person) and August 29 (virtual), 2023, and focused on collecting feedback on the station areas, such as usage patterns, issues, and suggestions for improvement. As part of the first round of engagement, a survey of CBO participants was also conducted in August of 2023 to elicit additional feedback (see Attachment D).

The second round of workshops occurred on September 12 (in-person) and September 15 (virtual), 2023. In the second round, participants were presented with proposed station improvements and collected comments from the first round. Feedback was collected to ensure that the proposed improvements and notes accurately captured the comments collected in round one.

CBO Workshop Participation

Transportation

- The Transit Coalition
- Move LA
- People for Mobility Justice

Cultural Nonprofit

- Mundo Maya Foundation

Health / Environment

- Long Beach Environmental Alliance

Disabilities Advocates

- Southern California Resource Services for Independent Living
- Independent Living Center of Southern California

Community Advocacy

- Norwalk Unides
- Pacoima Beautiful
- Los Angeles Neighborhood Initiative (LANI)

Seniors

- Long Beach Gray Panthers
- AARP

Housing

- Greater LA Realtors

CBO representatives discussing the Norwalk/SFS Station.

Transit Riders

The Study team distributed survey links on 2.5" x 7" bookmarks to transit riders at the Van Nuys Station, Downtown Burbank Station, and Norwalk C Line Station.

Intercept survey "bookmarks"

The bookmarks were distributed during peak morning and evening travel periods on October 10 and October 11, 2023.

Surveys were distributed with QR codes and survey links that allowed transit riders to complete the survey through *SurveyMonkey* in either English or Spanish. People who completed the entire survey could voluntarily enter for a chance to win a $50 Visa reward card that they would receive via email.

The approximate number of surveys distributed and response rates at each station are shown in Table 1. At all stations, 497 people completed the first page of the survey and 385 people completed the entire survey. The overall response rate of 17% is in line with the industry average for an online intercept survey of this length. One example of the results of the survey are shown in Figure 6. A detailed breakdown of the survey results can be found in Attachment A, Intercept Survey and Outreach Summary.

Table 1

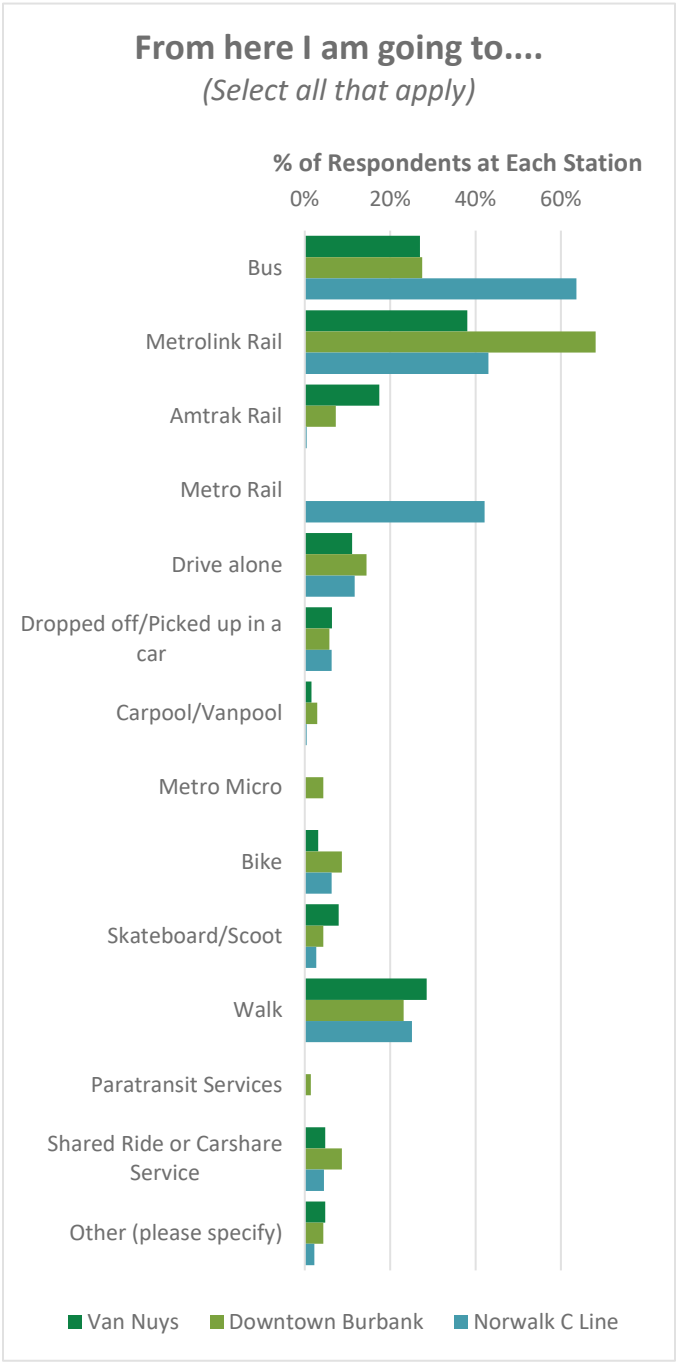
Transit Rider Survey Engagement

Station	# of customers engaged	# of responses received *(Response Rate)*
Van Nuys Station	300	**79** *(26%)*
Downtown Burbank Station	400	**79** *(20%)*
Norwalk C Line Station *	2,200	**336** *(15%)*

** Norwalk C Line Station Survey Distribution includes Norwalk Transit Line #4 transfers to Norwalk/SFS Metrolink Station*

Figure 6

Summary of one of the Transit Rider Survey Questions



➔ *Learn more: See Attachment A, Intercept Survey and Outreach Summary.*

Metrolink riders discuss the Transit Rider Survey with a member of the Study team at the Van Nuys Station.

Agency, Metro, and Policy Stakeholders

The Study team conducted dozens of meetings with local and regional agency stakeholders, and committees listed in Table 2 below. Each group provided input to the Study based on their area of expertise and jurisdiction, and helped identify areas where improved integration could help remove barriers to increase ridership.

Table 2

Agency/Committee Stakeholders

Agency/Committee	Van Nuys Station	Burbank Stations	Norwalk Stations
CalSTA, Caltrans, Cal-ITP	•	•	•
SCRRA/Metrolink	•	•	•
CAHSR		•	•
SCAG	•	•	•
OCTA	•	•	•
LOSSAN/Amtrak	•	•	•
City of Burbank		•	
Hollywood Burbank Airport		•	
City of LA, LADOT Transit, LADWP	•		
Los Angeles World Airports (LAWA)			•
Long Beach Transit			•
City of Norwalk, Norwalk Transit			•
City of Santa Fe Springs			•
Metro Technical Advisory Committee (TAC)	•	•	•
Metro Youth Council	•	•	•
Metro Accessibility Advisory Committee (AAC)	•	•	•
Metro Aging and Disability Transportation Network (ADTN)	•	•	•
Metro San Fernando Valley Service Council	•	•	
Metro Gateway Cities Service Council			•

Additionally, the Study team coordinated with a number of internal Metro groups, listed below.

- > Countywide Planning & Development
  - Long Range Planning
  - Mobility Corridors
  - First/Last Mile Planning
  - Grants Management & Oversight
  - Systemwide Planning & Design
- > Regional Rail
- > Operations and Service Planning
  - Modeling
  - Bus Charging Infrastructure
- > Community Relations
- > Customer Experience
- > Program Management
- > TAP
- > Fareless System Initiative

CBO representatives are shown discussing opportunities and concerns specific to individual stations during a CBO Workshop.

Engagement Themes

Major themes emerged from the agency, committees, CBO, and transit rider engagement process. These are categorized by high-level topics below.

Communications

- App upgrades (consolidation, real-time planning, more features)
- Payment clarification needed (fare structure, transfers, ticketing, discount programs)
- Wayfinding and signage considerations (larger font, more directional signage, multiple languages, platform/transit)
- Real-time schedule updates (app and in-person digital signage)
- Clearer alerts for changes or cancellations in service are needed (app and in-person)

Connectivity

- FLM improvements for pedestrians and cyclists
- Improve wayfinding signage to the stations
- Fare integration, integrated ticketing
- Transit-oriented development and communities (TOD/TOC)
- Improved transit service and frequency
- Route schedules and trip planning between services should be synchronized to reduce wait times, missed connections, and confusion

Accessibility

- Improve accommodations for non-English speakers
- Improve accommodations for people with mobility impairments
- Improve accommodations for individuals who are hard of hearing and vision impaired
- Preserve low-tech features (such as phone numbers, physical maps, and tap card reloading)

Norwalk/Santa Fe Springs Metrolink Station – identified improvements include seating, shade, wayfinding/signage and real-time signage, FLM, service to Norwalk C Line, and potential additional Amtrak Pacific Surfliner regular service stops.

Amenities

- Improve station amenities
- Shade/rain coverage for walkway areas in addition to waiting areas
- More seating needed (consider peak work and school travel times)
- Heat and cold regulation (water misters/heating)
- More bike parking
- Drinking water stations
- Restrooms and restroom maintenance (and indication of restroom locations on maps)
- Additional security
- Cleanliness improvements
- Agreements for station maintenance and operations

Other

- Unhoused people frequently observed at stations and on transit

CHAPTER 3

What We've Learned.

The RNI Study undertook a variety of technical studies to better understand the needs and opportunities of regional and local transit. A summary of the findings is presented here.

Technical and Policy Analyses

The RNI Study conducted two levels of technical analysis to gain an understanding of the constraints and opportunities of physical and policy barriers, and travel market demand for improved connectivity. The detailed analysis and findings from the technical and policy analyses can be found in Attachments B, Systemwide Opportunity and Gap Analysis, and C, Baseline Conditions Report for Hot Spot Areas.

Systemwide Opportunity and Gap Analysis

The Systemwide Opportunity and Gap Analysis identifies locations where potential opportunities and gaps/constraints exist on the current and foreseeable regional rail and express-lane network in the three Study areas based upon examination of previous and existing studies, and interviews with key jurisdictional stakeholders.

Additionally, previous and existing studies, reports and policy documents were reviewed to inform the development of cost/benefit criteria and provide information on planned projects in the Study areas and related regional policies. Transportation demand analysis data was gathered from a variety of Metro and statewide modeling sources, in addition to data from Metrolink/SCRRA, CAHSR Authority, SCAG, local jurisdictions, municipal operators, Los Angeles World Airports, Hollywood Burbank Airport, OCTA and LOSSAN.

An example of travel demand for potential new express bus routes is shown in

➔ ***Learn more***: See Attachment B, Systemwide Opportunity and Gap Analysis.

Baseline Conditions Report for Hot Spot Areas.

The Baseline Conditions Report for Focused Hot Spot Areas (Baseline) examines the potential near-term improvements for connectivity at the station hot spots, new express bus routes on freeway express lanes, and improvements to system frequencies. This examination expands on the findings of the Systemwide Opportunity and Gap Analysis.

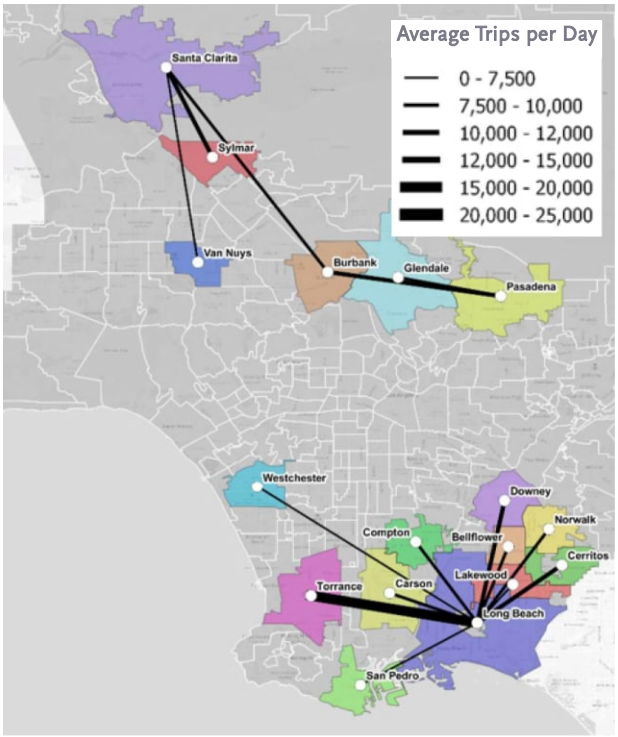
The Baseline analysis found a range of improvements that offer improved access and connectivity that could be implemented at a low-cost in the near-term as well as those that can be implemented at a higher cost in the long-term.

Multiple benefit criteria and high-level order-of-magnitude (OOM) costs were developed to provide a cost/benefit assessment of potential improvements for further analysis.

➔ Learn more: See Attachment C, Baseline Conditions Report for Focused Hot Spot Areas.

Figure 7

Transit Gap Analysis of Demand Existing Non-Downtown Los Angeles Trips over 5-Miles



Source: CRA & Cambridge Systematics

Key Findings from Technical and Policy Analysis.

The findings from the technical and policy analysis are summarized in the following sections below.

Regional Travel Demand

The RNI Study examined major transit corridor markets throughout Los Angeles County with data from Metro's travel demand model and CAHSR travel demand model data, and boarding/alighting data from Metrolink and Amtrak.

The regional demand assessment identified markets that could benefit from improvements in connectivity, reliability, and/or service improvements. Major markets identified for new service in this Study were screened against those already planned for in regional plans, including the SCAG RTP, Metrolink SCORE, Metro's LRTP, and the California State Rail Plan.

The three primary markets/corridors that the Study identified that could benefit from improved rail or express bus connectivity, reliability, or service increases are:

- Between north LA County along the Antelope Valley Line corridor and Ventura along the Ventura County Line Metrolink Corridors
- Service in the LOSSAN Corridor in Los Angeles County
- Service in the I-405 corridor between CSULB/VA Medical Center in the south and UCLA/VA Medical Center in the north

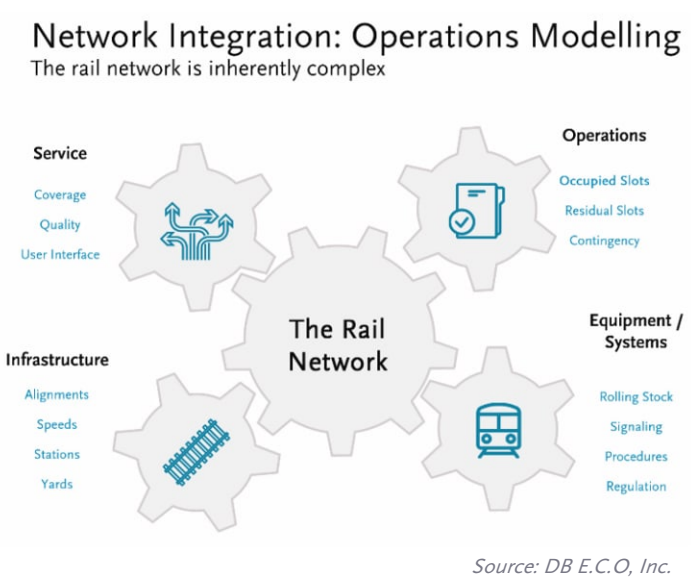
Metrolink train and passengers at the Burbank Airport South Station.

Operational Analysis

The Study developed a comprehensive rail operations model (Figure 8) of Metrolink, Amtrak, Metro, and future CAHSR trains. Through this analysis, the Study examined areas that could improve existing service, reduce transfer delays, and potentially add frequency without major disruptions to existing rail or freight services, or require major capital investments.

Figure 8

OPERATIONS FRAMEWORK



Source: DB E.C.O, Inc.

The findings from this analysis identified potential near-term, low-cost/high-value improvements and longer-term, higher-investment/higher-value improvements. These include:

Timed transfer in Downtown Burbank

An opportunity for a near-term, low-cost solution to improve connectivity is a timed transfer at the Downtown Burbank station, which allows passengers to transfer between the inbound Metrolink AVL and outbound VCL – or vice versa, inbound VCL to outbound AVL. This connection was found to provide two significant improvements for riders:

1. **Regional connection**: Improved service by reducing transfer times between Antelope Valley and Ventura County, two major markets identified in the regional travel demand analysis that could gain riders from increased service. This regional connection can be improved without added travel time for other passengers or costs to the operators.
2. **Local connection**: Improved circulation between Burbank Airport North and Burbank Airport South stations. Circulation between the two stations could be conveniently provided by a train-to-train connection, rather than train to circulator bus, providing near-term benefits for passengers accessing the airport or future Burbank CAHSR station.

Additional Amtrak Service Stops

The ridership model identified an increase in rail ridership resulting from additional Amtrak stops added at Downtown Burbank and Norwalk/SFS. The operational rail model found that there would be negligible, if any, travel time service impacts on Amtrak service or other rail operators to stop at these two additional stations. This service improvement could be implemented immediately and provide increased transit service frequency for passengers in those station areas desiring to travel the LOSSAN corridor in LA County and beyond.

Additional Metrolink Service in LA County – SFV-OC

The operational rail model was utilized to assess if additional intraregional service could be implemented without disruption to freight, Metrolink, or Amtrak Pacific Surfliner service. It was found that an SFV-OC "tripper" between Chatsworth station in SFV and Laguna Niguel in OC (interlined through LAUS, similar to Pacific Surfliner) could be implemented at up to ½ hour frequency all day on Metrolink without disruptions to other rail services. The "tripper" concept is akin to S-Bahn service and will serve as a regional rail through service, which allows a one-seat ride from Chatsworth to Laguna Niguel, with more frequent stops in an expanded urban core from Burbank to Norwalk/SFS station along the LOSSAN corridor. The SCORE project, combined with the completion of Link- LAUS, will enable a one-seat concept that link OCL/VCL service.

System Gap Closures

One major system gap closure (

Figure 9) was identified that is projected to result in thousands of new riders per year within the Study areas is a light rail extension between the Metro C Line terminus in Norwalk and the Norwalk/SFS Metrolink Station. This 2.9-mile gap creates a link between Metro's C Line and the Metrolink/Amtrak Corridor. This extension is currently programmed in Measure M for completion between 2052/54 but can be initially addressed with the addition of increased bus frequency with TSM, or "enhanced bus" improvements between the stations, along with a bus connector service between the stations, with the eventual extension of light rail in the future. If implemented, the Norwalk/Santa Fe Springs station would be only one of four stations in California to have high-speed rail, Amtrak, commuter rail, and LRT.

Figure 9

IDENTIFIED GAP CLOSURE – NORWALK C LINE TO NORWALK/SFS

Wayfinding/Trailblazing Signage

The Study examined the existing conditions of wayfinding signs that direct people walking, biking, transferring between transit, and driving to and within the stations.

An inventory of the existing station-oriented wayfinding, parking, or pick-up/drop-off signage was conducted along primary streets within one mile of each of the six stations. The inventory, including location, content, and condition, was examined through Google Maps and field examinations. This data was compiled to assess the stations' identifiability to users arriving or passing each station.

Existing signage was compared with Metro, Metrolink, and Amtrak policies, outlined here:

> The Metro Signage & Environmental Graphic Design Standards (2019) guide how to appropriately use Metro's wayfinding assets to ensure that messaging is instantly recognized, understood, and helpful to people riding Metro's system. It provides guidelines for formatting, such as logos, font size, pictograms, symbols, and colors.

> The Metrolink Southern California Regional Rail Authority Design Criteria Manual (2021) defines the design of an SCRRA signage layout that communicates effectively and serves train crews and passengers. It includes sign placement, rail crossing signage, off-site and at-station wayfinding, monument signage, and text standards.

> The Amtrak Graphic Signage Standards Manual (2010) includes sign installation and placement guidelines. It provides guidance on mounting options, sign size, layout, design, maintenance, fabrication, and installation, among other things.

The Study found that wayfinding signs within the Van Nuys, Burbank, and Norwalk Study areas typically fall short of the standards and guidelines. Wayfinding and trailblazing are

Figure 10

Signage Assessment Framework

ID	Station	Transit Facility	Condition	Compliance with Applicable Guidelines	Directional	Description	For Vehicles	For Bicyclists	For Pedestrians	Location Description	Post Type	Existing Condition
13d	Burbank Downtown	Unnamed rail	Good	No Metrolink, Amtrak, bus or parking information	Yes	Rail Station Graphic Directional Sign	Yes	Yes	Yes	Verdugo Ave East of Varney St EB	Stand Alone	
14d	Burbank Downtown	Metrolink	Worn, faded	No Amtrak, bus or parking information	Yes	Metrolink Directional Sign	Yes	Yes	Yes	Northeast corner of Verdugo Ave and Flower St	Stand Alone	
15d	Burbank Downtown	Metrolink	Good	No Amtrak, bus or parking information	No	Burbank Station Sign	Yes	Yes	Yes	Front St South of Magnolia Bl SB	Monument Sign	
16d	Burbank Downtown	Metrolink	Good	No Amtrak, bus or parking information	Yes	Burbank Station Sign	Yes	Yes	Yes	Front St south of Magnolia Ave SB	Monument Sign	
17d	Burbank Downtown	Metrolink	Good	No Amtrak, bus or parking information	No	Burbank Sign	Yes	Yes	Yes	Front St north of Olive Ave SB	Monument Sign	

An assessment of existing signage and trailblazing was conducted in a one-mile radius around each station. A detailed assessment of each Study area can be found in Attachment C, Baseline Conditions Report for Focused Hot Spot Areas.

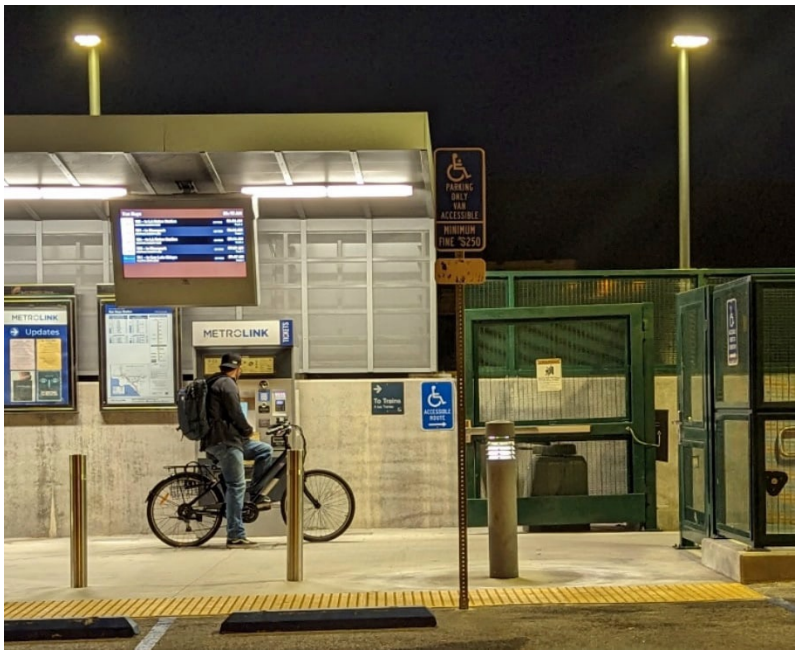
challenged by a patchwork of ownership, different standards and priorities, and funding and investment opportunities. They are often found in poor condition, lack consistent and coordinated information about all services at each station, and are primarily auto-oriented. It's important to note that most existing signs assessed do not comply with Metro, Metrolink, or Amtrak design guidelines. The lack of cohesive, uncompliant, and poorly maintained signage highlights the signage and wayfinding system's need for improvement.

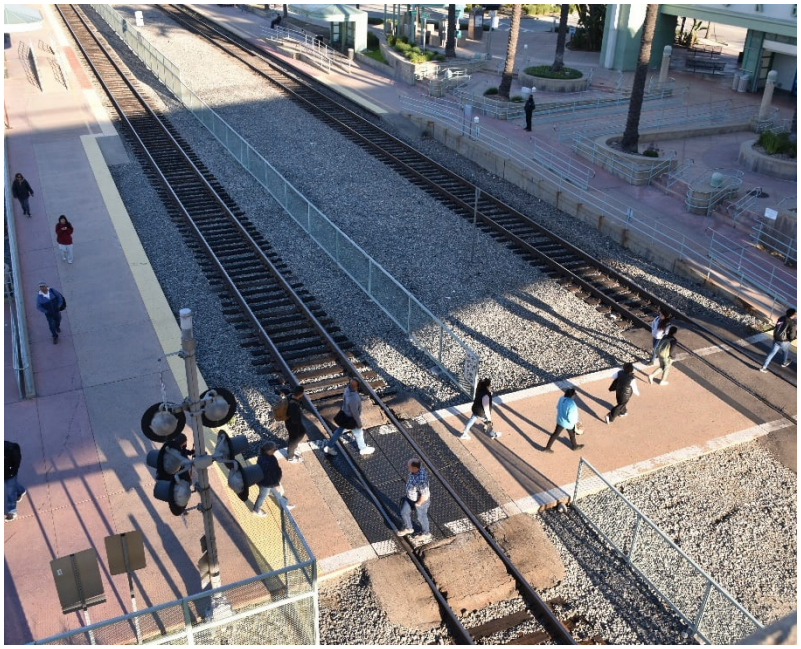
The findings indicate that new signage should be installed at and around the six stations for cyclists, pedestrians, transit riders, and drivers. Wayfinding signage should point clearly to the stations, including the distance to the stations, and be placed at all key pedestrian and bicycle decision-making points and any significant roadway intersections.

Existing signage at and around the stations were observed to be frequently worn out, inconsistent, lacking available services, or confusing for users.

Platforms were assessed for lighting, shade, weather protection, safe and accessible routes, fare payment options, bicycle parking, and other amenities.

- *The image here, at the Norwalk C Line Station, shows live signage and an overpass used as shade/weather protection.*
- *The image on the center left, at the Van Nuys Station, shows a cyclist stopping to purchase a Metrolink ticket at night.*
- *The image on the bottom left, at the Downtown Burbank Station, shows the eastern at-grade pedestrian crossing.*





Station/Platform Assessments

The Study examined the existing conditions of each station rail platforms and bus stops. Field assessments were conducted at each station area, evaluating customer information resources and infrastructure, station accessibility, and station boarding area amenities per Metro, Metrolink, and Amtrak guidance. Operational constraints for trains, BRT, or buses at the stations were also assessed.

It was found that most stations lack adequate signage, shade, and internal wayfinding between services at each station area. Other issues include accessibility challenges, lack of continuous sidewalk connections, and ADA constraints.

The recommendations from Metro's 2020 Transit Service Policy & Standards, 2020 BRT Design Guidelines, 2018 Transfers Design Guide, and Metrolink's 2021 Accessibility and Affordability Study were carefully considered. These recommendations were then used to propose improvements at each station, primarily focusing on enhancing rider comfort and accessibility, thereby improving the overall transit experience.

Based on industry-standard practices, protocols, procedures, and methodologies, preliminary high-level cost estimates were developed that informed decision-making and prioritization of improvements.

Proposed improvements include:

> **Customer information**: ex. Station area map, static directional signage, real-time signage, fare payment
> **Station accessibility**: ex. Bike racks, bike center/hub, sidewalks, vertical circulation, track crossings
> **Station boarding area**: ex. Shade, seating, bus stop improvements, lighting

Pedestrians walk on Olive Avenue bridge and travel via stairs or the elevator to access the Downtown Burbank Station. The NoHo-to-Pasadena BRT has planned stops on either end of the bridge.

First/Last Mile

The Study conducted an FLM assessment for active transportation connectivity. This assessment was based on the quality of the environment for pedestrians and bicyclists. PES was the measure used to evaluate the pedestrian environment along roadway locations and crossings within a half-mile travelshed of the transit stations. LTS was used to assess the quality of the bicycling environment along roadways within a one-mile travelshed of the transit stations.

In addition to the assessment, an examination of potential future projects and a review of recommended FLM policies and guidelines were conducted. Metro's policy is guided by Vision 2028 (2018), the Customer Experience Plan (2022), Transfers Design Guide (2018), First/Last Mile (FLM) Guidelines (2021), First/Last Mile Safety Analysis Tool (2021), and the 2020 Long Range Transportation Plan (LRTP). These are informed by regional, state, and federal guidance, including Connect SoCal (SCAG, 2020).

It was found that every station has barriers to accessibility due to gaps in the surrounding active transportation network or unsafe and stressful conditions, which can reduce the likelihood that an individual will choose to ride transit. These barriers include a lack of bike lanes connecting to the stations, high-speed traffic, narrow sidewalks, lack of lighting and shade, lack of safe crossings, numerous records of pedestrian and bicycle-involved collisions, and challenging access due to rail tracks.

Policy Review

The Study determined that there are policy improvements between agencies that could help reduce barriers to riders and improve the conditions of each station. Policy conditions can help improve a variety of areas for rider comfort and ease of riding, including:

- Seamless fares
- Integrated wayfinding/trailblazing
- Integrated station signage
- Station amenities, such as shade and seating
- FLM installation and maintenance
- Construction and maintenance agreements for areas within and beyond station areas
- Safety and Security within each station area

The assessment of policy and existing conditions informed the recommended projects.

➔ ***Learn more:*** See Attachment C, Baseline Conditions Report for Focused Hot Spot Areas.

Funding/Financing

This assessment serves as a resource for establishing a list of potential funding sources and financing strategies for funding the Study's recommended projects and programs.

The Study prepared a comprehensive assessment of funding opportunities at local, state, and federal levels. This detailed analysis includes the history of each program's funding and its direct relevance to RNI projects and programs. Moreover, the Study includes assessments of alternative funding mechanisms, such as P3s, to define additional near-term funding sources and revenue opportunities. The Funding and Financing Strategy Report (Attachment D) provides a detailed list of potential funding and financing strategies.

Each RNI project or program was assigned a category to help users match projects to potential funding sources. The six categories can be defined as such:

- **Station Assessment Improvements** refer to projects that improve amenities at transit stations and stops, such as lighting, seating, and user comfort.
- **Wayfinding** relates to projects that enhance or install signage guiding people to transit stations and stops.
- **First/Last Mile** refers to projects that help users navigate the first and last mile between their homes and transit or from other destinations and transit. This category is broken down into projects that aid motorized users, such as vehicle users, and projects that aid active transportation users, such as pedestrians or cyclists.
- **Transit Operations** refers to transit operators' costs for operations, maintenance, and programs.
- The **Safety** category relates to projects or programs that reduce the likelihood of injury.
- **Security** projects and programs improve a location's physical or digital infrastructure to reduce risks of any harm done by others.

Funding programs were screened for their potential to fund projects within any of the six categories and whether they can fund infrastructure, non-infrastructure, or planning projects. To locate potential funding options for a specific project, one should reference the category the project was given and scan the List of Funding Tables (Attachment D: Appendix A) for all programs that contain that category.

At the state level, promising programs include ATP, REAP, TIRCP, TCC, and LPP.

At the federal level, promising programs include ATIIP, ATTAIN, All Stations Accessibility, CMAQ, and RCN.

Ultimately, the Bipartisan Infrastructure Law, combined with California funding and local funding, such as Metro's Measure M, provides many opportunities for Metro and its partners to seek capital and operating funds for the improvements identified in this plan.

➔ ***Learn more:*** See Attachment D, Funding and Financing Strategy Report.

CHAPTER 4

Recommendations & Implementation.

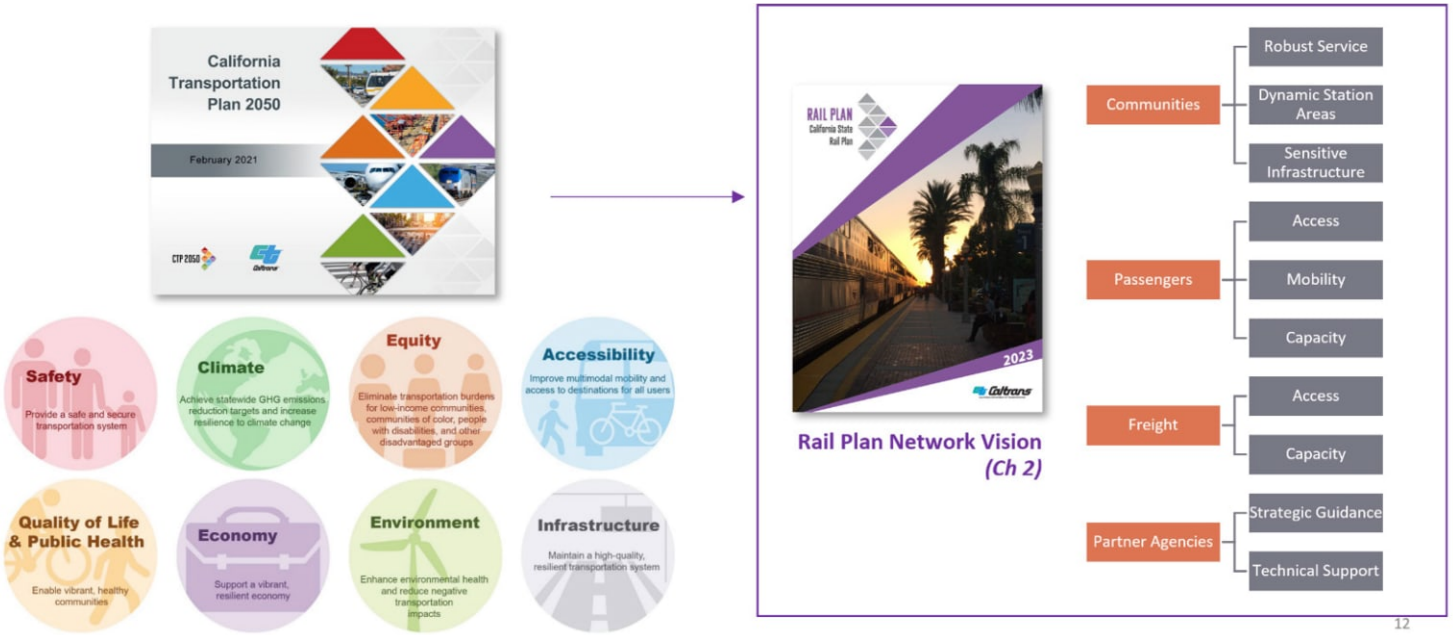
Based on the technical analysis and engagement with stakeholders, CBOs, and riders, the Study found several promising opportunities that can reduce barriers to transit, improve connectivity and user experience, and promote ridership.

The Study examined over 150 potential improvements and categorized them into the seven high-impact general areas for **systemwide**, **station-focused**, and **connectivity** improvements with a proposed implementation for near-term (0-5 years), medium-term (5-10 years), or long-term (10+ years). The detailed project lists can be found in Attachment C, Baseline Conditions Report for Focused Hot Spot Areas.

Projects and programs were screened through a set of criteria that was founded on regional plans and policies and informed by the goals of the State California Transportation Plan – the goals of CTP 2050 and vision of the State Rail Plan are shown in Figure 11 below.

Figure 11

California Transportation Plan 2050 and State Rail Plan



Metro's RNI Study is aligned with the State Rail Plan, CTP 2050, Metro's Vision 2028 and 2020 LRTP, and other regional strategic business plans (e.g., CAHSR, SCRRA, Amtrak)

Implementation can often occur in phases based on availability of funding; acceptability to stakeholders – including community members and agencies; level of design and permitting complexity; estimated capital and operating costs; and agency(s) approval.

See Table 3 below for the Study recommendations. No funding or approvals have been secured for any recommendations to date.

Table 3

Study Opportunities and Recommendations

Recommendations	Agency(s)		OOM Capital Cost *(2022 $'s) by Phase ****		
	Lead	Supporting	Near (0-5)	Medium (5-10)	Long (10+)
SYSTEMWIDE IMPROVEMENTS					
1. Wayfinding, Signage, and Trailblazing	Metro	Metrolink, Amtrak, all Operators, Caltrans, local Jurisdictions	$1M	$4M	$10M+
2. Fare Integration and Ticketing	Metro	Metrolink, Amtrak, all Operators, Caltrans, Cal-ITP, local Jurisdictions	$66.4M	-	-
2A. Improved Trip Planning Platforms for Regional Customer Information	Metro	Metrolink, Amtrak, all Operators, Caltrans, Cal-ITP, local Jurisdictions	-	$9M *	-
STATION-ORIENTED IMPROVEMENTS					
3. Station Access, Circulation, and FLM	Metro	Cities of Los Angeles, Burbank, and Norwalk	<$100K	$16.6M	$72.6M
4. Station Improvements and Customer Amenities	Metro	Metrolink, Cities of LA, Burbank, Norwalk, SFS	$8.7M	$18.2M	$4.7M
CONNECTIVITY IMPROVEMENTS					
5. Revenue Service Stops for Amtrak Pacific Surfliner trains at Downtown Burbank and Norwalk/SFS	Metrolink & Amtrak	Cities of Burbank, Norwalk, and SFS	<$100K	-	$200M
5A. Metrolink SFV-to-OC Line "Tripper" Service	Metrolink	SCAG	<$200K	-	$238M
5B. Timed Transfer at Downtown Burbank	Metrolink	Amtrak, City of Burbank, CAHSR	<$100K	-	$10M
6. I-405 Freeway Express Bus	Metro	Caltrans	-	-	$3M
7. Metro Norwalk C Line Station to Norwalk/SFS Station Connection (Near-Term Bus – Long-Term LRT) **	Metro	SCAG, CAHSR, Cities of Norwalk, SFS, Long Beach Transit, Norwalk Transit	$3M	$13.2M	$1.3B - $2.6B

Source: CR Associates, 2024

** Per Metro's May 2024 Board Action and 2028 Games Mobility Concept Plan prioritized projects.*
*** Phased bus prior to rail*
**** Pending funding and approvals*

Systemwide Improvements

Systemwide improvements benefit the stations examined for this Study and could be implemented throughout LA County. The three major categories of systemwide improvements are the following:

- Wayfinding, Signage, and Trailblazing
- Fare Integration and Ticketing
- Improved Trip Planning Platforms for Regional Customer Information

Systemwide improvements are primarily implementable countywide in the medium-term as there is a need for significant coordination between agencies, development of the programs, and the need to secure funding. However, prior to implementing regionwide, some program elements could be implemented in the near-term, or even immediately, as pilot programs – such as described in the Wayfinding, Signage, and Trailblazing section.

Metro is currently undertaking an effort to understand the feasibility of consolidating its mobile applications per Board Motion 2022-0789, Consolidated Metro Transportation App Motion (2022).

Figure 12
Metro Phone Apps

Source: Metro, 2024

As shown here, Metro currently has a variety of apps that assist passengers with various needs including Metro Micro, parking, TAP cards, transit planning, safety, and bike share. In addition, riders may choose to use other private trip planning applications such as Transit, Moovit, Uber, Bird, or the individualized apps hosted by Munis.

Wayfinding, Signage, and Trailblazing

Phase	*OOM Capital (2022 $'s)*
Near-Term Pilot	$1M
Medium-Term	$4M
Long-Term	$10M+

A primary challenge of the existing regional transit system is a lack of consistent signage, wayfinding/trailblazing to/from stations, and within each station area. This challenge is not unique to the Los Angeles region, for example, the MTC in the Bay Area is beginning a rollout of a Regional Mapping and Wayfinding project, and the RTA in the Chicago area has developed and deployed interagency signage to key stations throughout the region.

This Study recommends that wayfinding and trailblazing at and around each station be improved in coordination with a regional signage and wayfinding program that identifies design, location, and maintenance. Metro should adopt a policy or standards for commuter rail and intercity rail station signage/wayfinding in LA County. The signage and wayfinding program should incorporate and identify Metro, Metrolink, Amtrak, municipal bus operators, rideshare, park-and-ride, and other services, such as bikeshare and micromobility. The projects would provide ADA-compliant directions for people to access the system using all modes, including walking, biking, auto, or other.

Implementation of this project could be initiated with a small pilot program which would allow for strategic planning between agencies, assignment of installation, definition of a maintenance program, and funding. All signage improvements at the Study stations could be implemented in the medium-term, with regional implementation in the long-term.

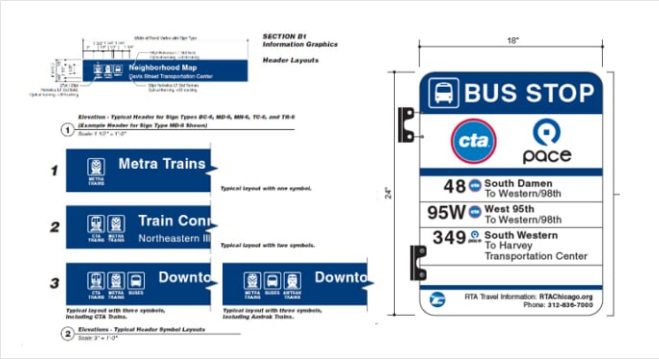
Existing signage on routes to the stations are frequently worn out, inconsistent, or do not include all available services.

Wayfinding, Signage, and Trailblazing – Pilot Program.

This Study identified a potential pilot program to integrate wayfinding across all applicable agencies at a selection of stations. The pilot would initiate a regional plan in a targeted station area for integrated Wayfinding/Trailblazing and station signage that would eventually be expanded throughout Los Angeles County.

This pilot could be funded by TIRCP as it achieves this grant program's goal to "Integrate the rail service of the state's various rail operations, including integration with the high-speed rail system." It is estimated an initial pilot program focused on a single station area could be implemented for approximately $1 million.

The pilot should be coordinated with Metrolink's Customer Experience team who are developing a pilot project to update/standardize Metrolink signage at and around Metrolink stations.



Examples of integrated wayfinding from CTA in Chicago, IL and MTC in San Francisco, CA

Fare Integration and Ticketing

Phase	*OOM Capital (2022 $'s)*
Near-Term	$66.4M

Transit riders throughout LA County must navigate through multiple providers, each with multiple fare programs, passes, costs, and transfer policies. The complications of understanding how, where, when, and how much to pay – especially for an individual taking a new or infrequently used route – create a barrier to riders and potential riders.

Seamless fares would allow riders to use and transfer between the transit services provided by Metro, municipal operators, Metrolink, Amtrak, and future CAHSR. This will reduce confusion and cost barriers to riding while increasing customer understanding and confidence in transit travel.

Implementation is medium-term to allow for strategic planning between agencies, including Metrolink and Amtrak, which are currently integrating fares through the Codeshare program, and to coordinate with the statewide Cal-ITP program, which is currently pursuing implementation statewide. Implementation can include simplified "back-of-house" solutions and the use of common payment methods, such as credit cards, and lessons learned from new pilot programs, and other open-loop fare payment systems. The program must identify funding sources to help agencies with discrepancies in costs to provide a trip while simplifying and standardizing region-wide fares between modes for customers.

Separate TAP and Metrolink ticket vending machines at Downtown Burbank Station.

Recent Fare Changes to Break Down Barriers to Riding

- Metro simplified fares in 2022 with a new fare capping program, where regular fare riders never pay more than $5/day and never more than $18 with seven days. This program also reduced fares for seniors, persons with disabilities and students.
- Metro, and participating transit operators are continuing to break down barriers for riders of all ages and incomes. Metro's Low-Income-Fare-is-Easy (LIFE) Program offers low-income riders 20 free rides per month, after a 90-day introduction period with pass good for unlimited free riders.
- The Metro and LA DOT Mobility Wallet Pilot Program (recently ended in April, 2024) is a the nation's largest Universal Basic Mobility pilot program, which offered a debit card with $150 per month to spend on bus, train (Metro/Metrolink/Amtrak), e-scooter, micro-transit, car rental, Uber/Lift or purchase of an e-bike.
- In April 2024, the Metro Board made the Student GoPass Pilot Program permanent for LAUSD and Los Angeles Community College students unlimited free rides on Metro's buses and trains.
- Metrolink is currently working with SCAG/Caltrans/Cal-ITP on an Open-Loop pilot project.
- In May 2024, Metro Board approved $66.4 million to upgrade the Tap system (Tap Plus); the new open system will allow customers and visitors to use the same contactless purchases to tap and ride on Metro and all the other TAP participating transit agencies.

Improved Trip Planning Platforms for Regional Customer Information

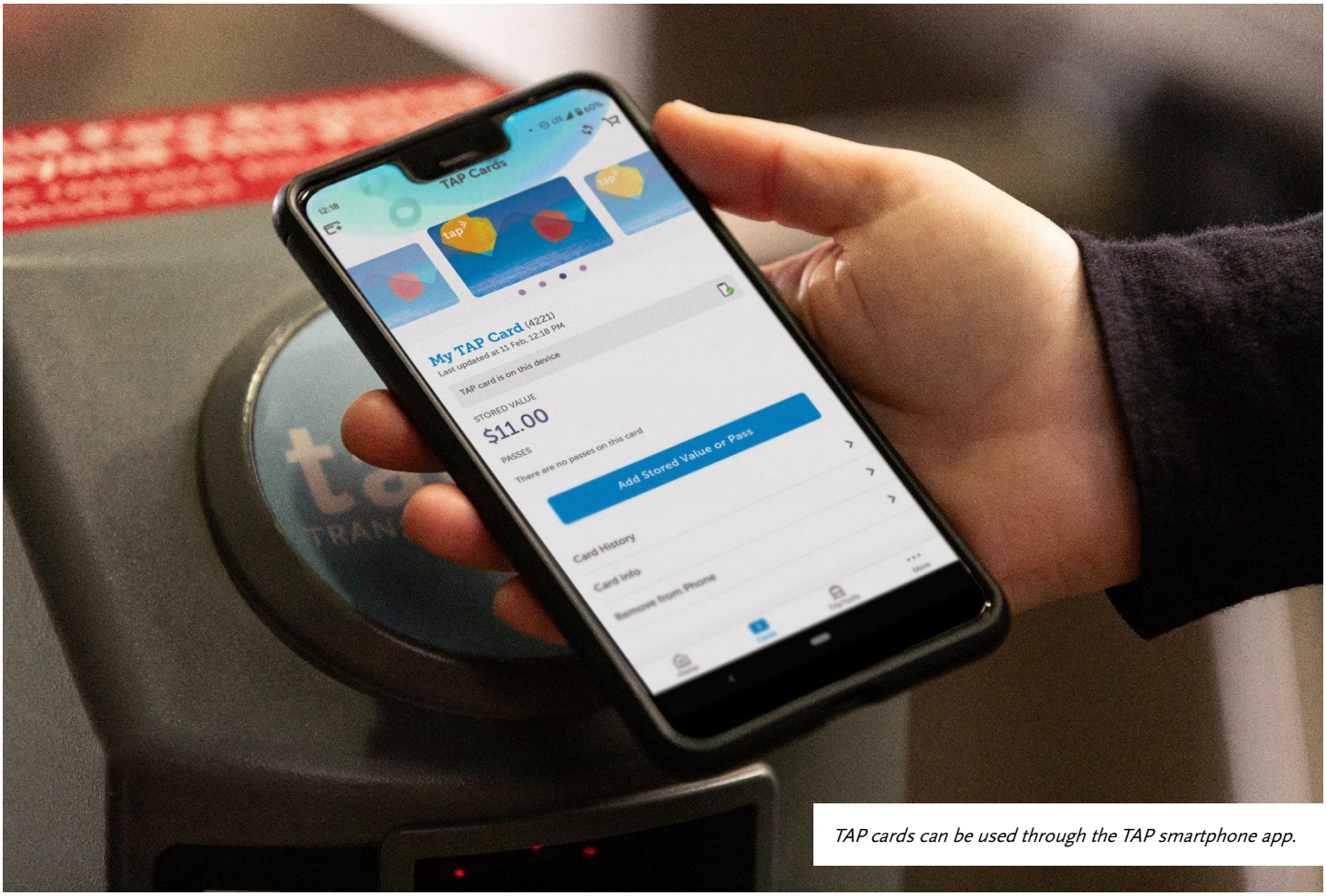
Phase	*OOM Capital (2022 $'s)*
Medium	$9M

Streamlined and integrated planning and en route information for web- and app-based information will remove barriers to riding as the large variety of transit options can be confusing. This is especially important for new riders, those dealing with service disruptions, and those transferring between providers.

An essential improvement consistently requested through the Study outreach is to alert passengers of any service disruptions.

Additionally, information should be available in multiple languages, accessible for the hearing and visually impaired, and coordinated with station and trailblazing signage.

Implementation is medium-term to allow for the necessary coordination between agencies and to identify funding. Metro is pursuing a trip planning program in preparation for the 2028 Games.



TAP cards can be used through the TAP smartphone app.

Station-Oriented Improvements

Station-oriented improvements were identified at each of the six stations examined in this Study. Improvements are organized into two categories – Station Improvements & Customer Amenities and Station Access, Circulation & FLM. More information on station-oriented improvements can be found in Attachment C, Baseline Conditions Report for Focused Hot Spot Areas. The proposed station improvement recommendations are compatible with Metrolink's Station Enhancement Study. It is recommended that Metro coordinate with SCRRA to seek funding opportunities for implementation of these improvements.

Station Improvements & Customer Amenities are the improvements to improve the rider experience. Detailed documentation of the needed improvements identified at each station can be found in *Attachment C: Baseline Conditions Report for Focused Hot Spot Areas*. These improvements were identified through a detailed technical assessment and confirmed through stakeholder and community engagement.

Considerations for future design and implementation phases will include environmental and security aspects, such as sight lines, materials, and maintenance agreements. Lessons learned from the Throne restroom pilot may be useful to this project's restroom proposals. Station Experience and Systemwide Design should continue involvement as the project advances.

The improvements will require partnerships with the operators at each station and the governing City. The major categories for these improvements and amenities are:

- **Customer Information,** such as better signage/wayfinding within each station
- **Station Accessibility,** such as multi-lingual, multi-ability, and graphical signage
- **Station Boarding Area Amenities,** such as security and temporary restrooms

Station Access, Circulation & FLM are improvements outside of station platforms or plazas connecting to the surrounding community and major improvements for auto, pedestrian, and bike movements within stations. These improvements facilitate safe and comfortable access by foot or wheel for a range of users. For all six station areas, it is recommended that Metro and other agencies support FLM priorities by the respective cities that improve connectivity. There are several improvements where Metro would take a leadership role, or the improvements would be in coordination with a major transit project, such as Sepulveda Transit Corridor Project, or CAHSR. However, most improvements outside of station platforms or plazas are generally the responsibility of the local jurisdictions to design, construct, and maintain.

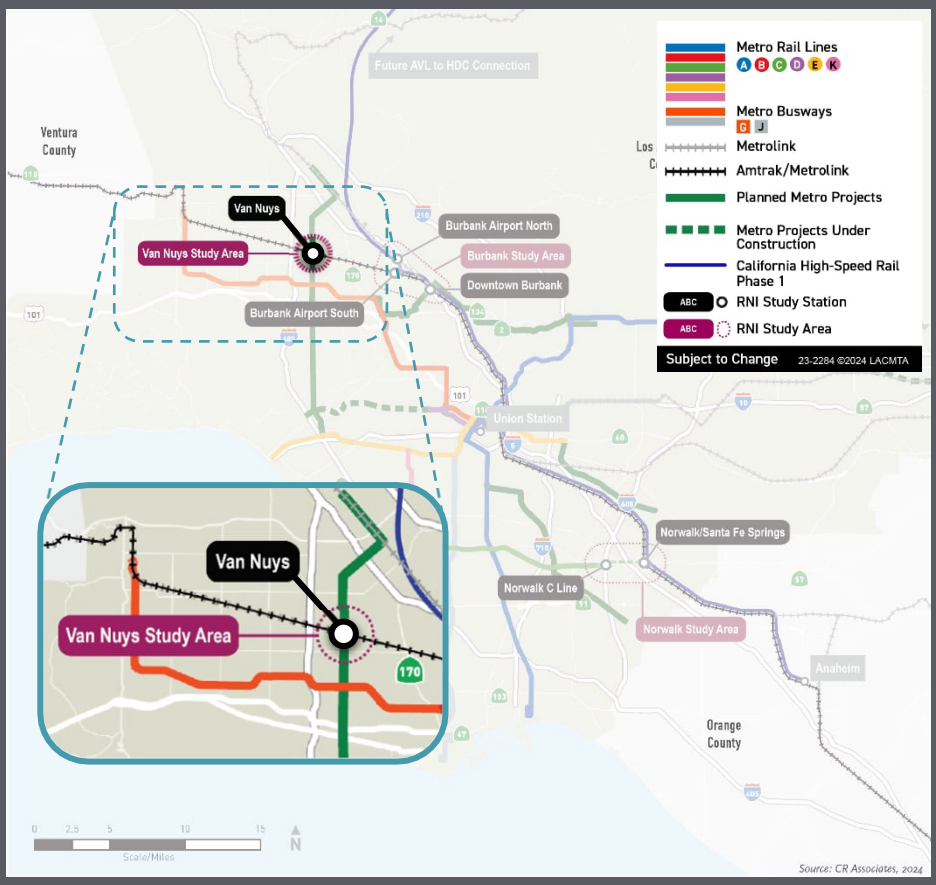
Section Organization

Projects in this section are listed by:

- Station area (e.g., Burbank Airport South)
- Project type:
  - Station Improvements & Customer Amenities
  - Station Connectivity & FLM
- Applicable implementation phase(s) (near-, medium-, and long-term)
- Scale of capital improvement and operating cost

Van Nuys Station

Figure 13
Van Nuys Station Location



Station Area

Van Nuys Station is owned by the City of Los Angeles and has Metrolink VCL, Amtrak Pacific Surfliner, and Coast Starlight service, as well as Metro and LADOT DASH bus service. This station will be served by the ESFV LRT line, under construction, and is the planned northern terminus station for the Sepulveda Transit Corridor project.

The station has ample parking, several bus bays, bike pods, restrooms, drinking fountains, and an Amtrak station agent. The Station is challenging to walk or bike to due to it being surrounded by industrial land uses and multiple barriers, including freight rail to the north, the multi-lane, high-speed Van Nuys Boulevard to the west, and LADWP yards to the south. Additionally, the station rests above street grade with access below grade, which creates challenges for passengers with mobility impairments.

$13.9M

VAN NUYS STATION TOTAL ROM COSTS (2022 DOLLARS)*

** The projects are currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

Figure 14
Van Nuys Station

Source: CRA

Van Nuys Station Recommendations

Improvements recommended under this Study (see *Table 4* and Figure 15) include immediate replacement of worn signage, improvement of wayfinding to and within the station, improved ADA paths (and possibly new elevators), and bike connectivity to the neighborhood to the south and the G Line. In addition to the identified improvements, this Study recommends implementing the improvements identified in Metro's *ESFV LRT FLM Plan (2020)*.

Metro and other cooperating agencies may also have concurrent activities within or adjacent to the Van Nuys Rail Station area described in this Study. These concurrent activities may include but not be limited to parking improvements, bus feeder service and connectivity, and first/last mile improvements. As these concurrent activities advance, Metro will advise the status of these activities to the public and how they are interrelated to the next steps that emerge from the Rail Network Integration Study.

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information *(e.g., multi-agency transit wayfinding)*	$1M	Near
	Station Accessibility *(e.g., bike hub, micromobility parking)*	$0.8M	Near
	Station Boarding Area *(e.g., sound barrier, bus stop amenities)*	$1.9M	Medium
	Station Improvements & Customer Amenities Subtotal	**$3.7M**	
	FLM And Safety: Bicycle Connection from the Station to Neighborhoods *[V5.A]*	$10.1M	Long
	Van Nuys Station Total	**$13.9M**	

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*

	Customer Information *(e.g., multi-agency transit wayfinding)*	$1M	Near
	Station Accessibility *(e.g., bike hub, micromobility parking)*	$0.8M	Near
	Station Boarding Area *(e.g., sound barrier, bus stop amenities)*	$1.9M	Medium
	Station Improvements & Customer Amenities Subtotal	**$3.7M**	
	FLM And Safety: Bicycle Connection from the Station to Neighborhoods *[V5.A]*	$10.1M	Long
	Van Nuys Station Total	**$13.9M**	

Table 4

Van Nuys Station and Access Improvements

Figure 15

Van Nuys Station and Access Improvements

Legend

- Van Nuys Station Improvements
- Station + Entrance
- Metrolink/Amtrak Tracks

Wheel Facilities

Shared-Use/Off-Street Path (Class I)	Protected Bicycle Lane (Class IV)
Existing	Existing
Planned	Planned
Bicycle Lane (Class II)	**Bicycle-Friendly Streets (Class III)**
Existing	Existing
Planned	Planned

A station area radius of a half-mile is included for planning purposes of this study. A more focused station area may be included as part of future activities in project design and implementation.

Subject to Change 23-2284 ©2024 LACMTA

Source: CR Associates, 2024

Project No. V1 & 3

Van Nuys Station & Platform Improvements.

Improved amenities and connections at the station will improve the experience for riders in the short term and in the medium and long term when the East San Fernando Valley LRT and the Sepulveda Transit Corridor Project have stations installed in the vicinity of the existing Metrolink station.

Figure 17

Van Nuys Station Improvements Location

TIMELINE

Near-term | Medium-term | Long-term

Project Need

The station was recently renovated, however additional improvements that focus on wayfinding and information, cycling and micro-mobility, bus access, and improved customer experience are recommended to enhance the existing station.

Improvements will also support the long-term vision for the station area as a transit hub connecting three high-quality transit routes.

Figure 16

Aerial View of Van Nuys Station

Aerial view of the Van Nuys station looking east.

Types of Improvements

Rail Operations

- ✓ **Bus Operations**
- ✓ **Auto Access**
- ✓ **First/Last Mile**
- ✓ **Wayfinding/Trailblazing**
- ✓ **Station Improvements**

Policy Considerations

The redevelopment of the Van Nuys Station area will require coordination between Metrolink and Amtrak, who operate at the existing station, Metro, who operates buses and will operate the future ESFV LRT and Sepulveda Transit Corridor Project, as well as the City of Los Angeles, who operates buses and owns much of the surrounding properties.

Construction and maintenance costs will need to be considered both in the near- and medium-terms.

Implementation

Lead Agency:

> Metrolink

Supporting Agencies:

> Metro
> City of Los Angeles: LADPW, LADOT
> Amtrak

VAN NUYS STATION IMPROVEMENTS & CUSTOMER AMENITIES ROM COSTS FOR CONSTRUCTION

(2022 Dollars) *

$3.7M

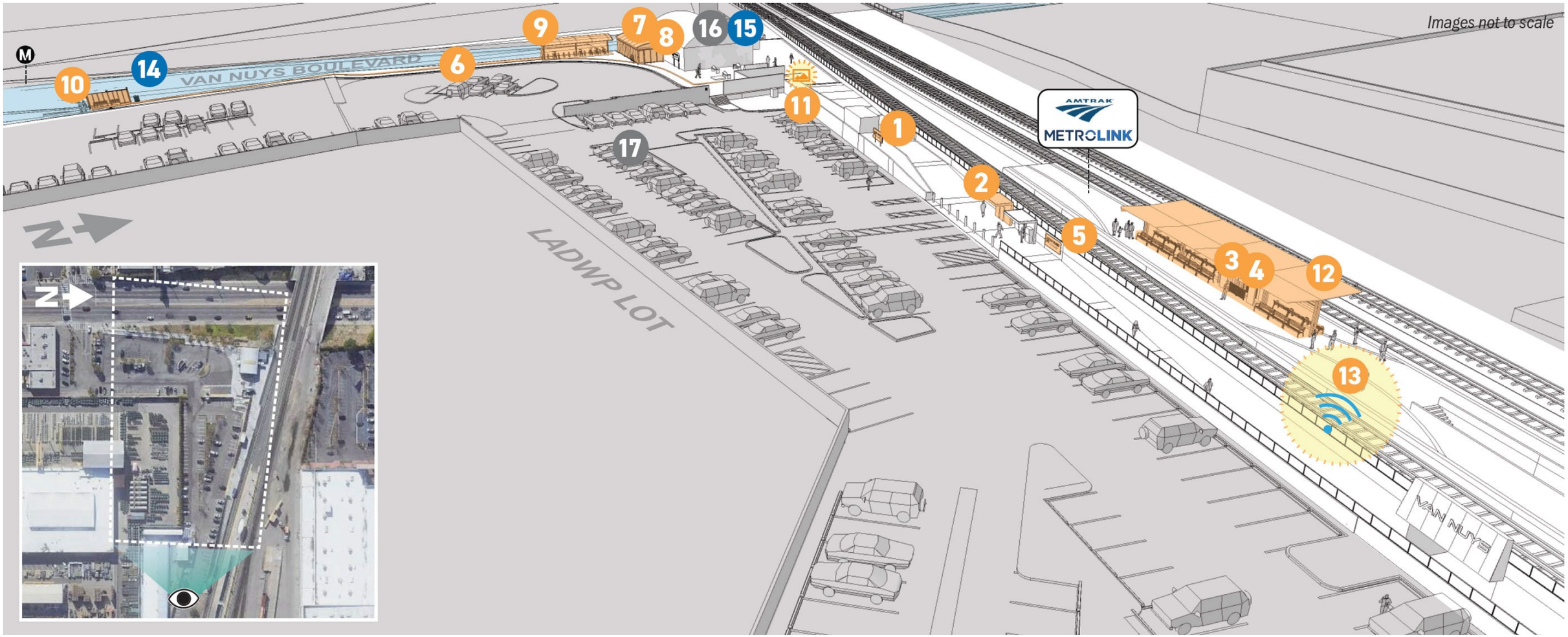
** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

- **SAFETY:** Provide a safe and secure transportation system
- **QUALITY OF LIFE & PUBLIC HEALTH:** Enable vibrant, healthy communities
- **CLIMATE:** Achieve statewide GHG emission reduction targets and increase resilience to climate change
- **ENVIRONMENT:** Enhance environmental health and reduce negative transportation impacts
- **EQUITY:** Eliminate transportation burdens for low-income communities, communities of color, people with disabilities, and other disadvantaged groups
- **ECONOMY:** Support a vibrant, resilient economy
- **ACCESSIBILITY:** Improve multimodal mobility and access to destinations for all users
- **INFRASTRUCTURE:** Maintain a high-quality, resilient transportation system

Figure 18

VAN NUYS STATION PROPOSED STATION AND PLATFORM IMPROVEMENTS RENDERING



Source: CRA & STV

Proposed Improvements

1. Static Directional Signage
2. Station Area Map
3. Real-Time Arrival Info
4. Visual Wayfinding to Connecting Transit Service
5. Audio Wayfinding to Connecting Transit Service
6. Tactile Wayfinding to Connecting Transit Service
7. Bike Hub
8. Bike Share
9. Shared Dockless Micro-Mobility Parking
10. Bus Stop Amenities
11. Public Art
12. Shade Structure
13. Wifi

Projects Planned by Others

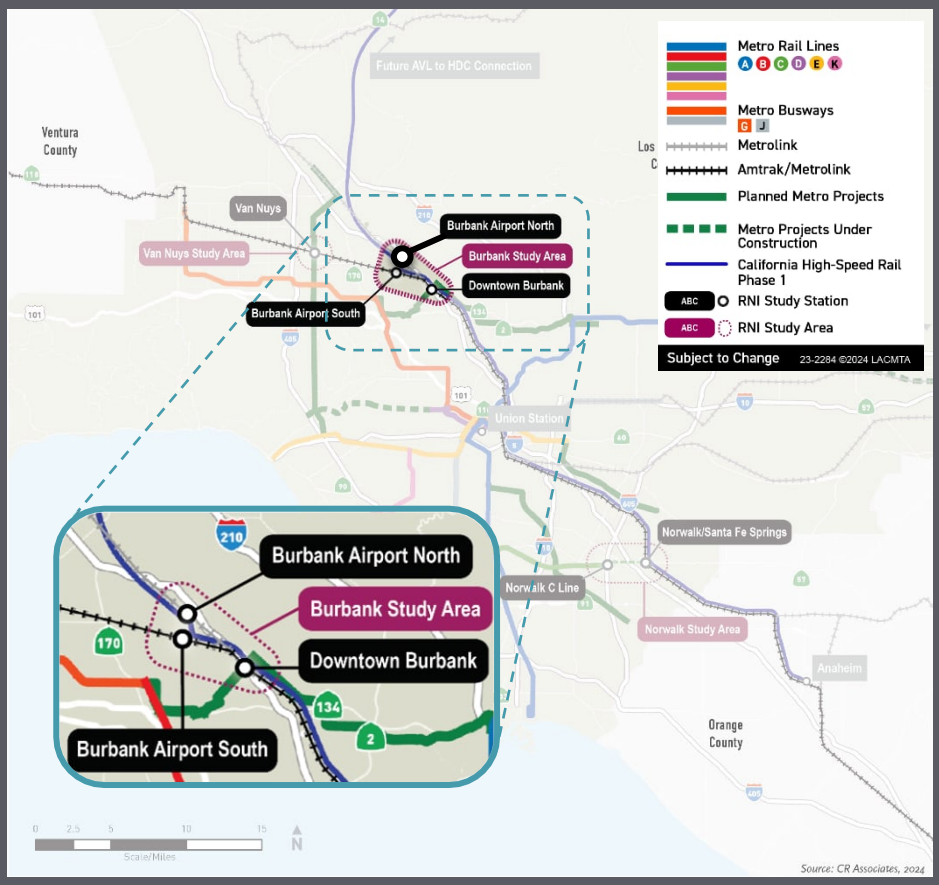
14. East San Fernando Valley Light Rail Transit Project
15. Future Sepulveda Transit Corridor Station, Location TBD

Existing Station Features

16. Indoor Station Area and Restrooms
17. Electric Vehicle Parking

Burbank Airport North Station

Figure 19
Burbank Airport North Station Location



Station Area

This relatively new station is located near the future HBA terminal and future CAHSR station. There is an existing disconnect from the station platform to the Sun Valley neighborhood in the City of Los Angeles, directly north of the station. It is anticipated that the Brighton to Roxford project, which will expand the station by constructing a second track along with an associated platform, will create a direct connection to the station to the north.

With the arrival of the nearby future CAHSR station, the Burbank Airport North Station will also become a major mobility hub. Metro will need to coordinate closely with the CAHSR and the City of Burbank to advance station planning.

$5.4M

BURBANK AIRPORT NORTH STATION TOTAL ROM COSTS FOR STATION AREA IMPROVEMENTS (2022 DOLLARS)*

** The projects are currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

Figure 20
Burbank Airport North Station

Source: CRA

Burbank Airport North Station Recommendations

The Study recommendations at Burbank Airport North Station focus on platform and station improvements as shown in Table 5 and Figure 21, below. The Study recommends that Metro support the recommendations identified in the *Burbank Airport Connectivity Study* (2023), Burbank's *Complete Our Streets* (2020), the Brighton to Roxford Double-Track project, the *Golden State Specific Plan* (inclusive of CAHSR Burbank and Metro Station Area Plan). It is anticipated that many of the FLM improvements to the north and south of the station will be implemented by the City of Burbank, connecting the station to the existing and planned bike and pedestrian networks surrounding the station. This improvement in connectivity is anticipated to increase passenger use of rail to access the airport terminal.

The recommended time transfer activity at Downtown Burbank will improve connectivity from VCL to AVL, the future CAHSR station, and the future airport terminal.

Table 5
Burbank Airport North Station and Access Improvements

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information *(e.g., audio and tactile wayfinding)*	$1.0M	Near
	Station Accessibility *(e.g., bike and car share, bike hub)*	$1.9M	Medium
	Station Boarding Area *(e.g., bus stop amenities, restrooms)*	$2.4M	Long
	Burbank Airport North Station Total	**$5.4M**	

Figure 21

Burbank Airport North Station and Access Improvements

Legend

- Burbank Airport South Station Improvements
- Station + Entrance
- Metrolink/Amtrak Tracks
- CA High Speed Rail Alignment
- City Boundaries

Wheel Facilities

Shared-Use/Off-Street Path (Class I)	Protected Bicycle Lane (Class IV)
Existing	Existing
Planned	Planned
Bicycle Lane (Class II)	Bicycle-Friendly Streets (Class III)
Existing	Existing
Planned	Planned

A station area radius of a half-mile is included for planning purposes of this study. A more focused station area may be included as part of future activities in project design and implementation.

Subject to Change 23-2284 ©2024 LACMTA

Source: CR Associates, 2024

Project No. BN7

Burbank Airport North Station & Platform Improvements.

This project upgrades amenities at the Burbank Airport North Station. The project accounts for the future Brighton to Roxford Double-Track improvements, Burbank Airport terminal relocation, and a new CAHSR station.

Figure 22

Burbank Airport North Improvements Location

TIMELINE

Near-term | Medium-term | Long-term

Project Need

The existing station lacks amenities that riders can use before or after getting on the train. It is also lacking infrastructure that improves transfer between the Metrolink train and other modes of travel. The proposed improvements include a bike hub, security, restrooms, and improved amenities at the existing bus and airport shuttle stops.

The Burbank-Glendale-Pasadena Airport Authority for the Hollywood Burbank Airport is planning on reconstructing and relocating the terminal to the north, adjacent to the future CAHSR station. The Burbank Airport North Station has planned renovation, which will add a second track and an additional platform opening up access to the north side of the station as part of the Brighton to Roxford Double-Track Project. With these improvements, the station will increase in prominence for the region, increasing its need for high-quality amenities and interfaces with connecting travel modes.

Figure 23

Aerial View of Burbank Airport North Station

Source: CRA

Aerial view of the Burbank Airport North station looking east.

Types of Improvements

Rail Operations

- ✓ **Bus Operations**
- ✓ **Auto Access**
- ✓ **First/Last Mile**
- ✓ **Wayfinding/Trailblazing**
- ✓ **Station Improvements**

Policy Considerations

Improvements to the Burbank Airport South Station will require agreements for construction and maintenance between Metrolink, the City of Burbank, and Hollywood Burbank Airport.

Consideration should be given to the future Burbank CAHSR Station, which is anticipated to be south of the existing Metrolink platform.

The Brighton to Roxford Double-Track project to AVL will open access to the north. This requires additional maintenance agreements.

Implementation

Lead Agency, Station Platform Improvements:

> Metrolink

Supporting Agencies, Access and Wayfinding:

> City of Burbank
> City of Los Angeles
> Hollywood Burbank Airport
> CAHSR

BURBANK AIRPORT NORTH STATION TOTAL ROM COSTS FOR CONSTRUCTION

(2022 Dollars) *

$5.4M

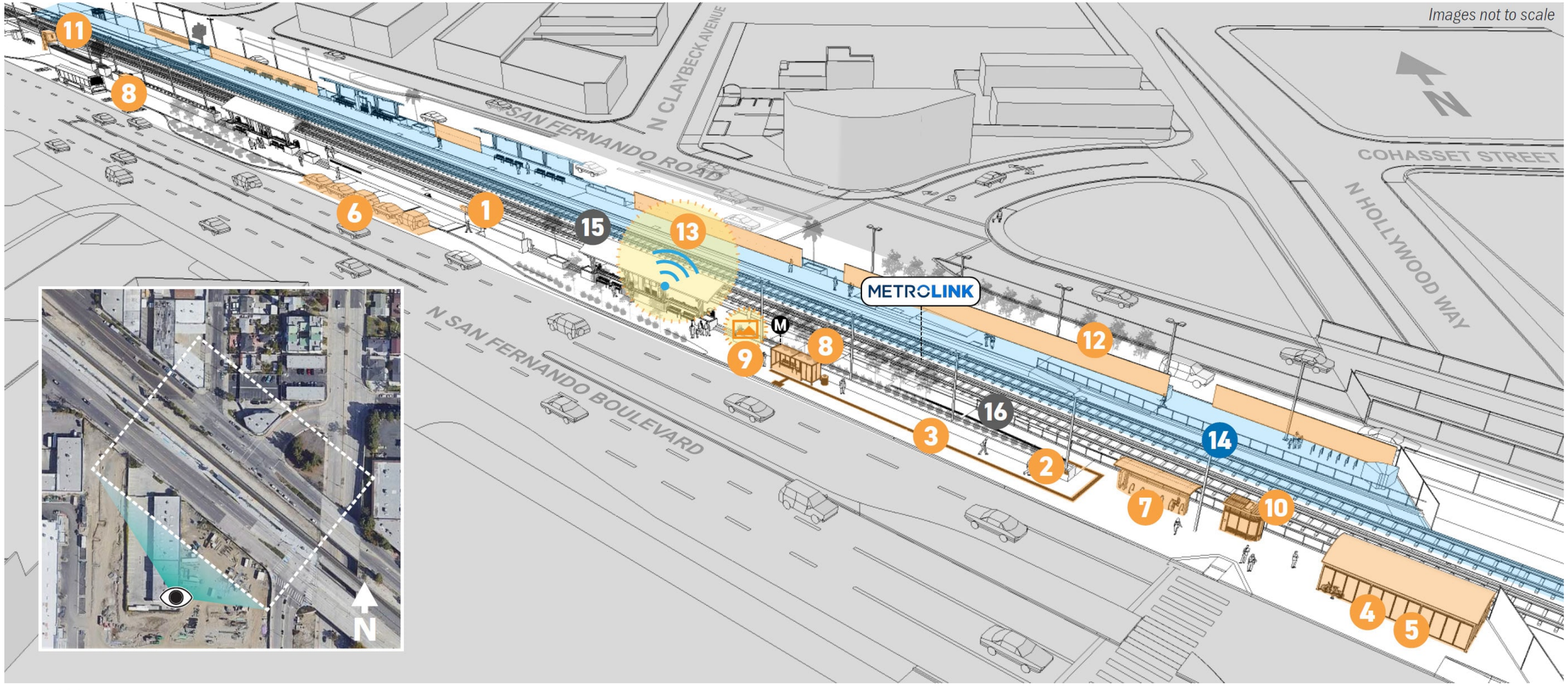
** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

- **SAFETY:** Provide a safe and secure transportation system
- **QUALITY OF LIFE & PUBLIC HEALTH:** Enable vibrant, healthy communities
- **CLIMATE:** Achieve statewide GHG emission reduction targets and increase resilience to climate change
- **ENVIRONMENT:** Enhance environmental health and reduce negative transportation impacts
- **EQUITY:** Eliminate transportation burdens for low-income communities, communities of color, people with disabilities, and other disadvantaged groups
- **ECONOMY:** Support a vibrant, resilient economy
- **ACCESSIBILITY:** Improve multimodal mobility and access to destinations for all users
- **INFRASTRUCTURE:** Maintain a high-quality, resilient transportation system

Figure 24

BURBANK AIRPORT NORTH STATION PROPOSED STATION AND PLATFORM IMPROVEMENTS RENDERING



Source: CRA & STV

Note: Active transportation and other improvement projects proposed by others are not illustrated.

Proposed Improvements

1. Customer Service Kiosk
2. Audio Wayfinding to Connecting Transit Service
3. Tactile Wayfinding to Connecting Transit Service
4. Bike Hub
5. Bike Share
6. Car Share & EV Charging
7. Shared Dockless Micro-Mobility Parking
8. Bus Stop Amenities & Amenities at Existing Airport Shuttle Stop
9. Public Art
10. Restrooms
11. Security Kiosk
12. Sound Barrier
13. Wifi

Projects Planned by Others

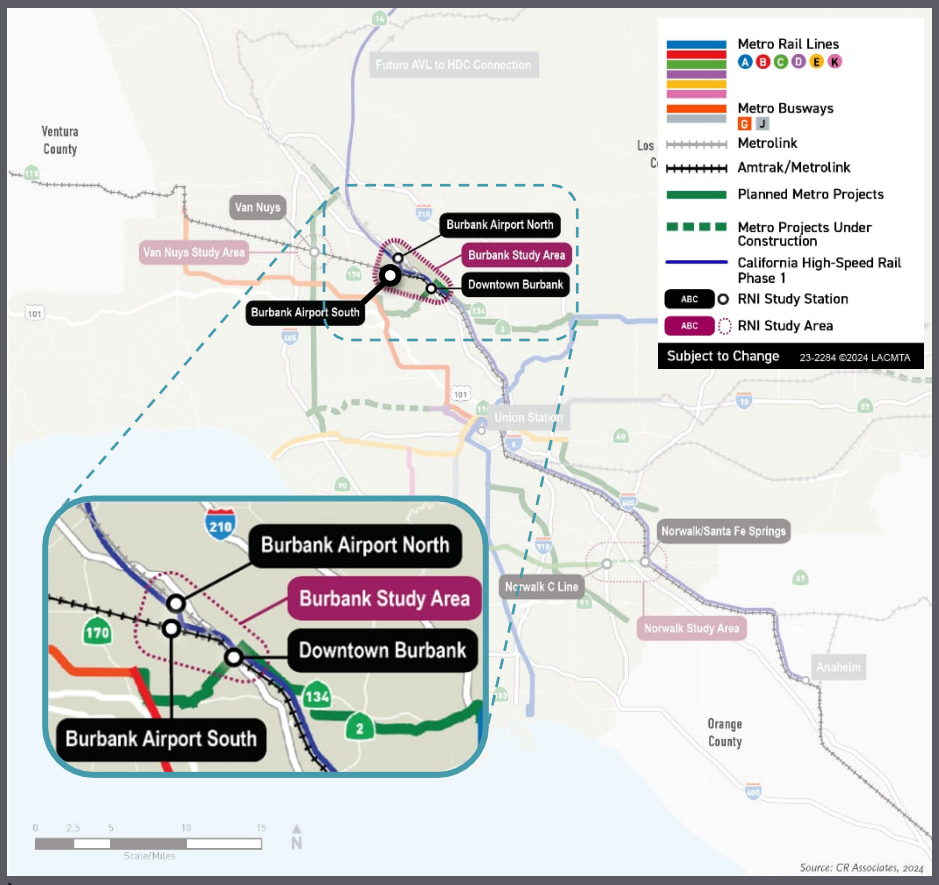
14. Brighton to Roxford Double-Track Project

Existing Station Features

15. Shade Structures
16. Access Ramp

Burbank Airport South Station

Figure 25
Burbank Airport South Station Location



Station Area

The Burbank Airport South Station provides convenient walkable connectivity to the existing airport terminal and the RITC and is served by Metrolink VCL and Amtrak Pacific Surfliner. The Burbank Airport South station is currently in a state of disrepair. The station needs to be brought up to an adequate state of good repair. Metro and the City of Burbank should develop an agreement for station maintenance going forward since LOSSAN is no longer maintaining the station.

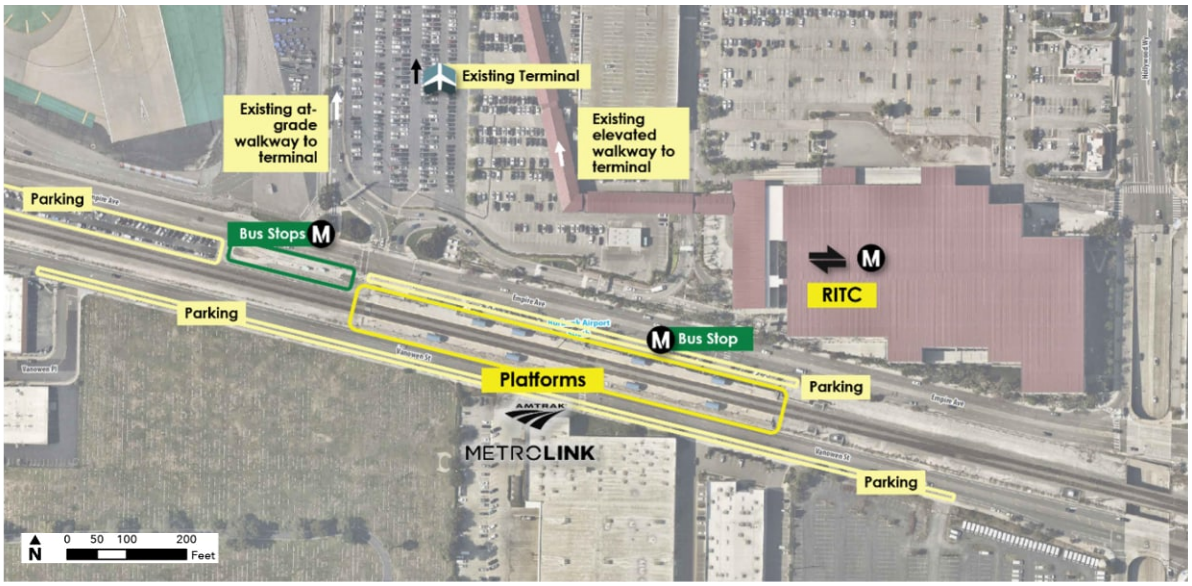
The station has a long, narrow strip of parking that is disjointed, challenging to enter and exit, and not friendly to pedestrians. North of the tracks, there are disconnected pedestrian facilities and no bike facilities. In the near future, passengers wanting to connect to the airport will need to shuttle to the future HBA terminal that will be opened closer to the Burbank Airport North station.

$20.7M

BURBANK AIRPORT NORTH STATION ROM TOTAL COSTS (2022 DOLLARS)*

** The projects are currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

Figure 26
Burbank Airport South Station Existing Conditions



Source: CRA

Burbank Airport South Station Recommendations

This Study recommends station-oriented improvements as noted in Table 6 and Figure 27. Additionally, it is recommended that Metro support, where feasible, improvements identified in the *Burbank Airport Connectivity Study* (2023) and Burbank's *Complete Our Streets* (2020) complete streets plan.

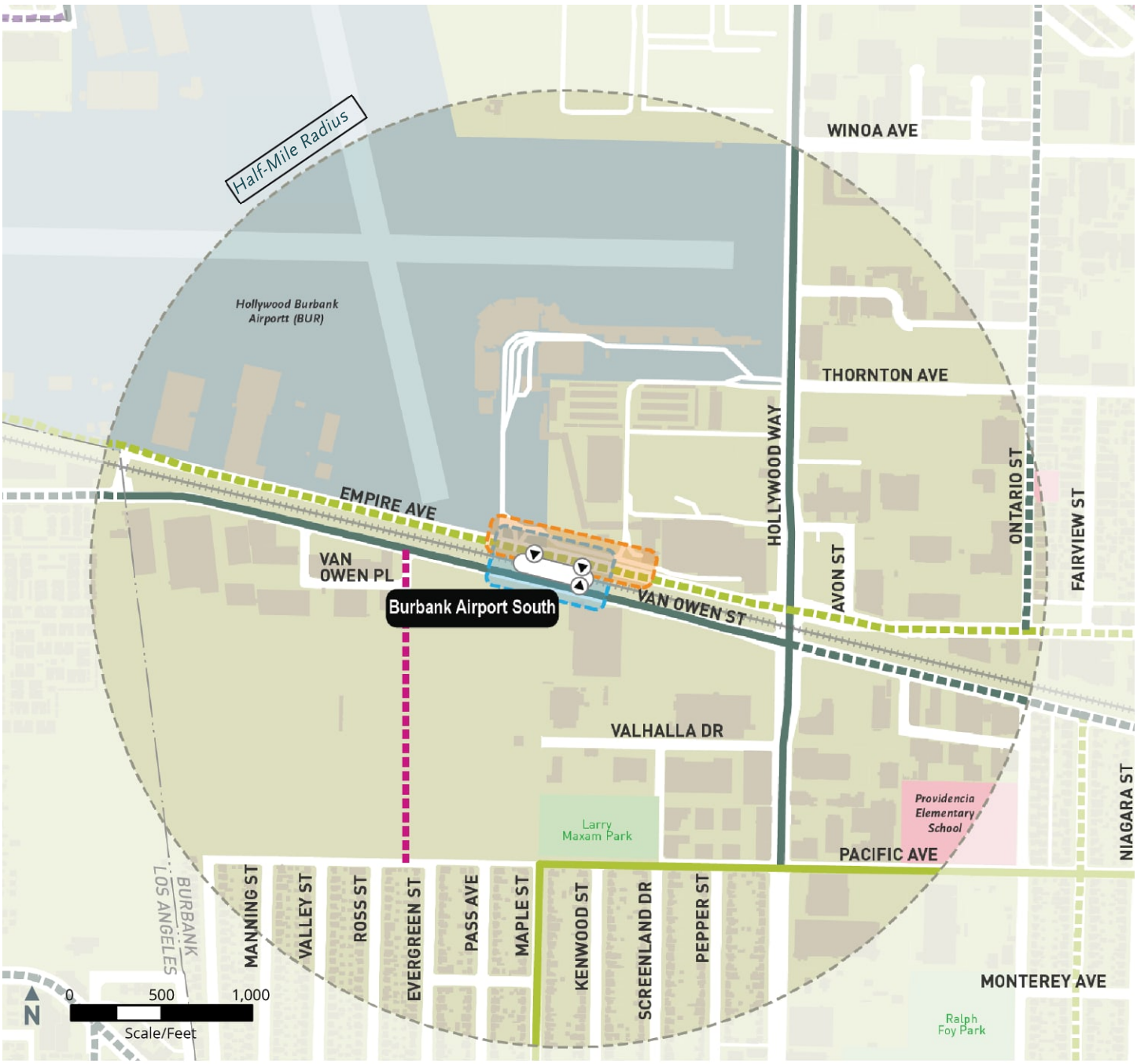
In addition to the projects outlined in Table 6 and shown in Figures 10 and 11, the Study recommends easily implementable near-term/low-cost projects to improve pedestrian crossings on Empire Avenue at the north and south ends of the platform and restriping the parking lot for improved flow. In the medium-term, the reconstruction of ADA access to Vanowen Street, signaling improvement for cross-platform pedestrian crossings, and the reconstruction of the parking lot are recommended. A grade-separated pedestrian crossing(s) between the platforms to bypass the tracks and between the platform and the RITC over Empire Avenue should be considered – dependent on the long-term changes in boarding and alighting at the station, which could increase based on more frequent service and construction of nearby residential and commercial development or decrease due to the relocation of the current HBA Terminal to the north.

Table 6
Burbank Airport South Station and Access Improvements

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information *(e.g., digital signage, wayfinding, maps)*	$1.3M	Near
	Station Accessibility *(e.g., accessible ramps, micromobility parking)*	$0.47M	Medium
	Station Boarding Area *(e.g., security kiosk, restrooms, shade trees)*	$2.4M	Long
	Station Improvements & Customer Amenities Subtotal	***$4.1M***	
	FLM Burbank Station Access (access to Vanowen St/HBA and improved pedestrian and vehicle access) *[BS6]*	$16.6M	Medium
	Burbank Airport South Station Total	**$20.7M**	

Figure 27

Burbank Airport South Station and Access Improvements



Legend

- Burbank Airport South Station Improvements
- FLM Burbank Station Access
- Station + Entrance
- Metrolink/Amtrak Tracks
- City Boundaries

Wheel Facilities

Shared-Use/Off-Street Path (Class I)	Protected Bicycle Lane (Class IV)
Existing	Existing
Planned	Planned
Bicycle Lane (Class II)	Bicycle-Friendly Streets (Class III)
Existing	Existing
Planned	Planned

A station area radius of a half-mile is included for planning purposes of this study. A more focused station area may be included as part of future activities in project design and implementation.

Subject to Change 23-2284 ©2024 LACMTA

Source: CR Associates, 2024

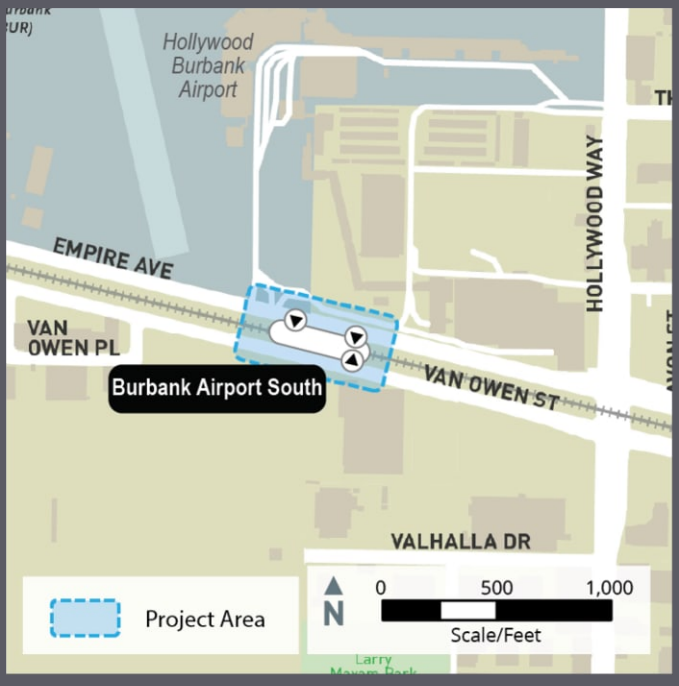
Project No. BS1

Burbank Airport South Station & Platform Improvements.

This project better connects pedestrians to/from the Burbank Airport South Station from/to the Airport to the north and to businesses and neighborhoods to the south. It creates a welcoming plaza on the northeast side of the station that improves the experience for those connecting by foot, bike, transit, or vehicle.

Figure 28

Burbank Airport South Improvements Location



TIMELINE

Near-term | Medium-term | Long-term

Project Need

The station is currently lacking access on the southeastern side of the platform, which increases travel distances for all passengers using the existing eastern crosswalk on the eastern side of Empire Avenue. The new pedestrian plaza near this crosswalk includes a new ramp and much-needed information for transit riders.

Figure 29

Aerial View of Burbank Airport South Station

Aerial view of the station looking northwest.

Types of Improvements

- ✓ **Rail Operations**
- Bus Operations
- ✓ **Auto Access**
- ✓ **First/Last Mile**
- ✓ **Wayfinding/Trailblazing**
- ✓ **Station Improvements**

Policy Considerations

Improvements to the Burbank Airport South Station will require agreements for construction and maintenance between Metrolink, Amtrak, the City of Burbank, and the adjacent Hollywood Burbank Airport.

Implementation

Lead Agency:

> Metrolink

Supporting Agencies:

> Amtrak
> City of Burbank
> Hollywood Burbank Airport

BURBANK AIRPORT SOUTH STATION IMPROVEMENTS & CUSTOMER AMENITIES ROM COSTS FOR CONSTRUCTION

(2022 Dollars) *

$4.1M

** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

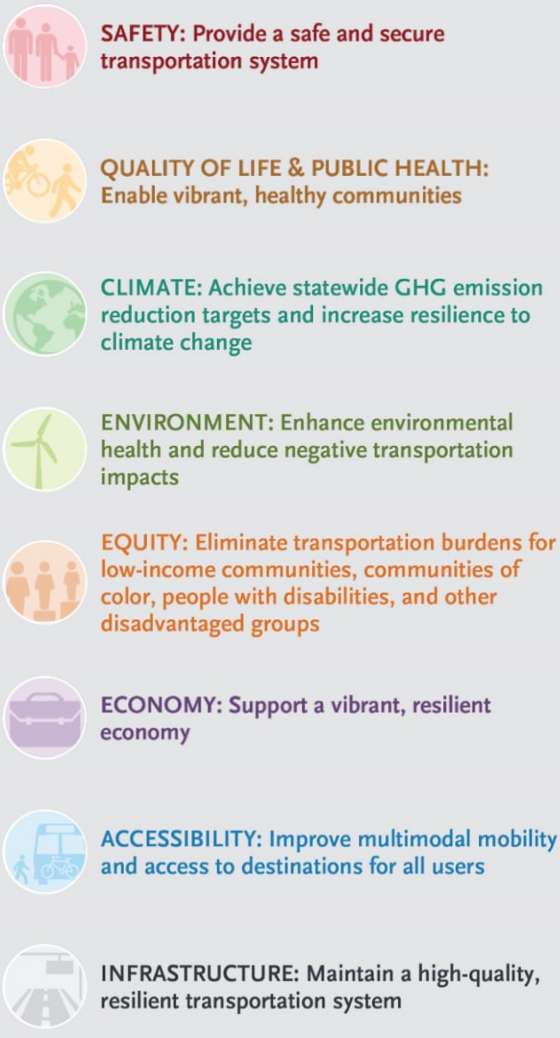
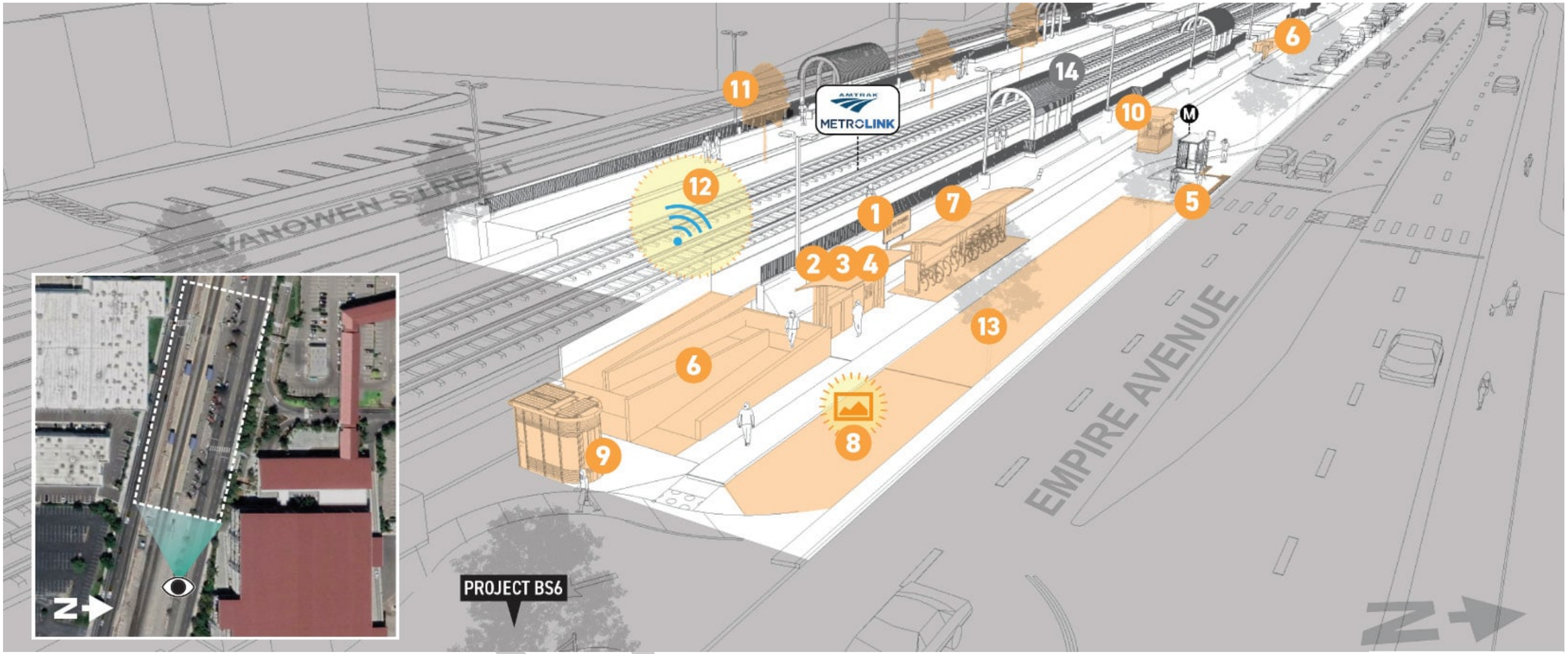


Figure 30

BURBANK AIRPORT SOUTH STATION PROPOSED STATION AND PLATFORM IMPROVEMENTS RENDERING



Source: CRA & STV

Proposed Improvements

1. Static Directional Signage
2. Digital Information Kiosk
3. Customer Service Kiosk
4. Station Area Map
5. Tactile Wayfinding to Connecting Transit Service
6. Access Ramp
7. Shared Dockless Micro-Mobility Parking
8. Public Art
9. Restrooms
10. Security Kiosk
11. Shade Trees
12. Wifi
13. Pedestrian-Supportive Landscaping

Existing Station Features

14. Shade Structures

Other RNI Proposed Improvements

BS6 Burbank South Parking

Notes:
A grade-separated pedestrian crossing and vertical circulation to connect Burbank Airport South Station with the RITC can be examined in a future study.
Note: Active transportation and other improvement projects proposed by others are not illustrated.

Project No. BS6

FLM Burbank Airport South Station Access.

This project would revitalize the Burbank Airport South Station parking lots along the southern curb line of Empire Ave. Existing angled passenger parking lots and underutilized employee parking lots are proposed to be redesigned for better circulation, drop off parking, pedestrian access, access onto Empire Ave, and new green space.

Figure 31

Burbank Airport South Improvements Location

TIMELINE

Near-term | **Medium-term** | Long-term

Project Need

It is anticipated that ridership will grow at the station, increasing the need for quality vehicle and pedestrian access.

Existing vehicle parking is not well-designed, resulting in unsafe or uncomfortable movements for drivers. Dead end parking with narrow circulation lanes requires backing out to the driveway access. There is an informal parking lot on the eastern side of the station, which is occasionally used but could be transformed into a formalized parking lot to serve the growing number of riders.

The project area further suffers from a lack of high-quality pedestrian access between the station on the south side of Empire Avenue and the Hollywood Burbank Airport Terminal and the Regional Intermodal Transportation Center (RITC) on the north side of Empire Avenue. Additionally, there is a lack of accessible pedestrian routes at the eastern end of the station.

Depending on ridership increases, a grade-separated pedestrian crossing and vertical circulation to connect Burbank Airport South Station with the RITC can be examined in a future study.

The existing parking lot is challenging for drivers to maneuver and lacks pedestrian pathways.

Types of Improvements

Rail Operations

- ✓ **Bus Operations**
- ✓ **Auto Access**
- ✓ **First/Last Mile**
- ✓ **Wayfinding/Trailblazing**
- ✓ **Station Improvements**

Environmental Considerations

The proposed Project would likely qualify for a categorical or statutory exemption. After review, it is unlikely for the Project to have a significant impact on the surrounding environment. If an exemption is unavailable, an Initial Study would likely yield no potentially significant impacts, non-standard BMPs, or non-standard mitigation measures. It is also unlikely that hazardous materials in the immediate vicinity of the proposed Project would pose a threat to individuals involved in the construction or operation of the proposed Project.

Policy Considerations

Improvements around the Burbank Airport South Station will require agreements for construction and maintenance between Metrolink, Amtrak, the City of Burbank, and the adjacent Hollywood Burbank Airport.

Implementation

Lead Agency:

> Metrolink

Supporting Agencies:

> Amtrak
> City of Burbank
> Hollywood Burbank Airport

BURBANK AIRPORT SOUTH STATION ACCESS, CIRCULATION & FLM ROM COSTS FOR CONSTRUCTION

(2022 Dollars) *

$16.6M

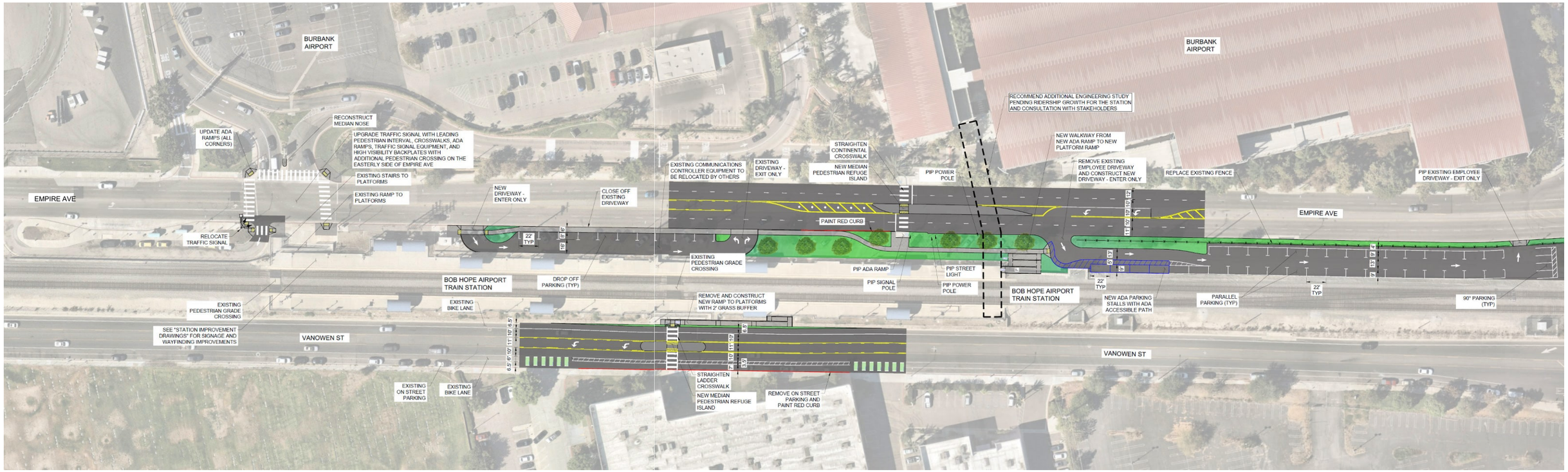
** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

- **SAFETY:** Provide a safe and secure transportation system
- **QUALITY OF LIFE & PUBLIC HEALTH:** Enable vibrant, healthy communities
- **CLIMATE:** Achieve statewide GHG emission reduction targets and increase resilience to climate change
- **ENVIRONMENT:** Enhance environmental health and reduce negative transportation impacts
- **EQUITY:** Eliminate transportation burdens for low-income communities, communities of color, people with disabilities, and other disadvantaged groups
- **ECONOMY:** Support a vibrant, resilient economy
- **ACCESSIBILITY:** Improve multimodal mobility and access to destinations for all users
- **INFRASTRUCTURE:** Maintain a high-quality, resilient transportation system

Figure 32

BURBANK SOUTH PARKING LOT RECONFIGURATION PROPOSED PROJECT *(DRAWING 1 OF 1)*



Notes:
A grade-separated pedestrian crossing and vertical circulation to connect Burbank Airport South Station with the RITC can be examined in a future study. Platform-oriented improvements can be found in the Burbank Airport South Station & Platform Improvements [BS1].

Traffic signal upgrades are proposed at the intersection of Empire Ave and the Burbank Airport driveway to allow for additional pedestrian crossings on the easterly side of Empire Ave. Traffic signals will be upgraded with leading pedestrian intervals and high visibility backplates.

Access from the Burbank Airport and car rental plaza is being improved upon with median refuge islands on Empire Ave and Vanowen St. Median refuge islands reduce the pedestrian crossing distances.

A new platform ramp is proposed on Empire Ave and an existing platform ramp on Vanowen St will be upgraded to provide a grass separation between pedestrians using the ramp and the roadway by slightly shifting the roadway and eliminating a portion of on-street parking.

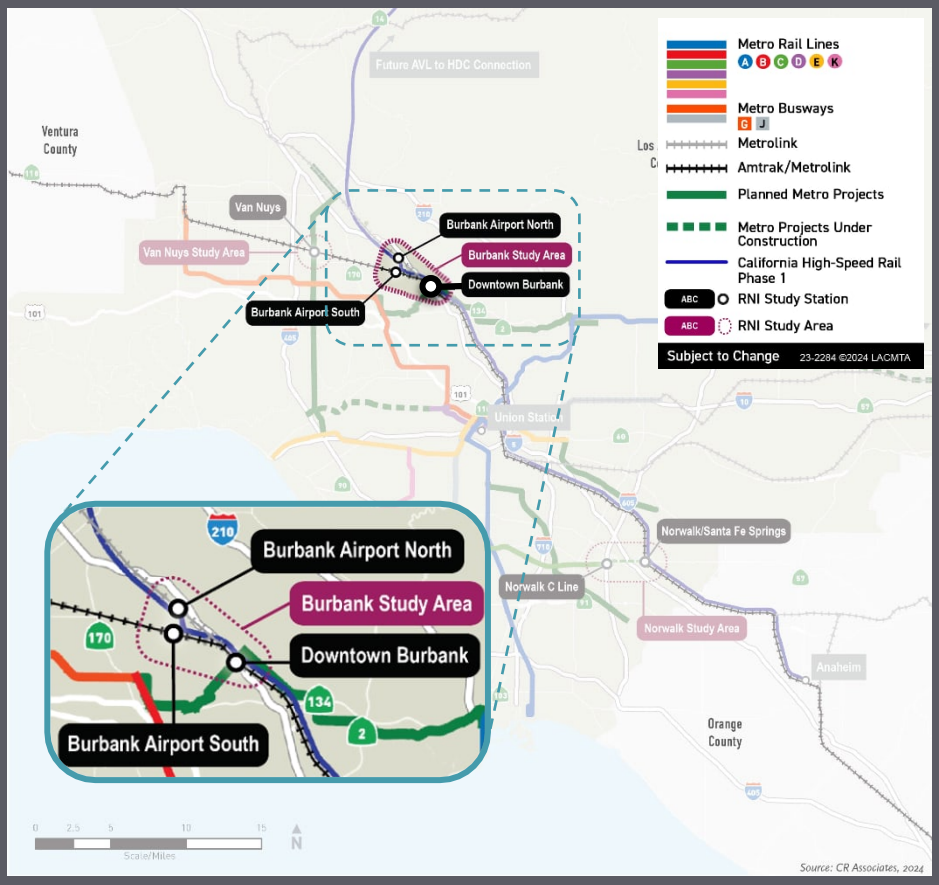
Figure 33

Aerial View of Burbank Airport South Station

Aerial view of the station looking northwest with several highlighted issues.

Downtown Burbank Station

Figure 34
Downtown Burbank Station Location



Station Area

$12.6M

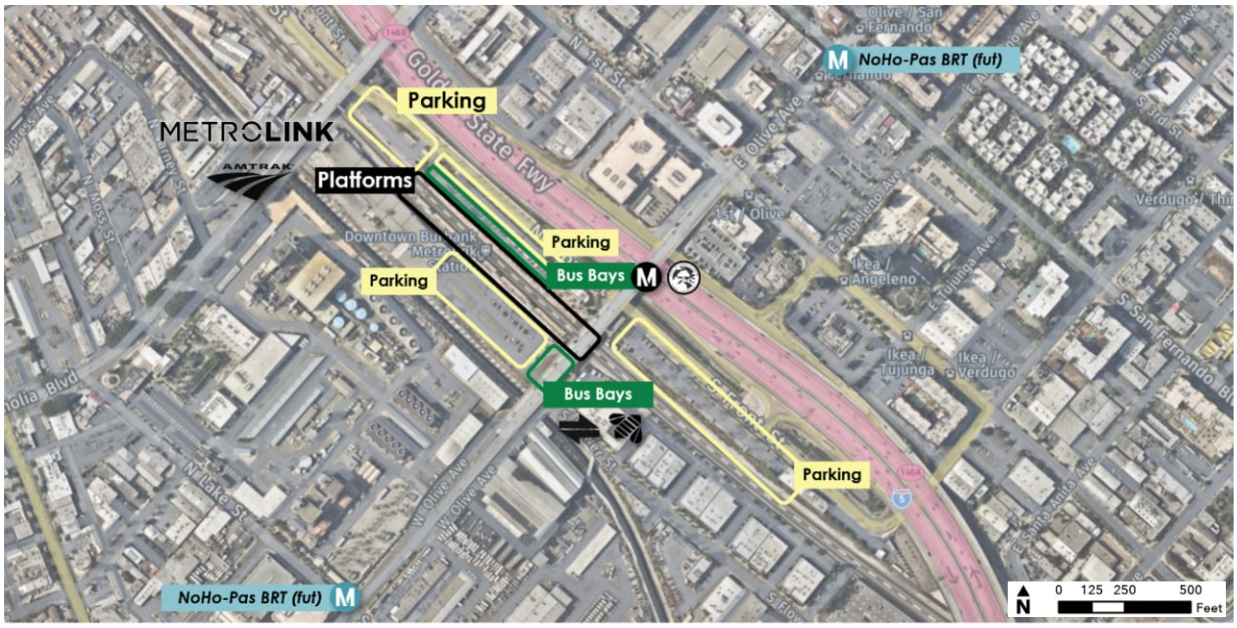
DOWNTOWN BURBANK STATION TOTAL ROM COSTS FOR STATION AREA IMPROVEMENTS (2022 DOLLARS)*

** The projects are currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

The Downtown Burbank Station is served by Metrolink VCL and AVL with occasional regular and "codeshare" Amtrak Pacific Surfliner service; bus services available include Metro, Burbank Bus, Glendale Beeline, and Santa Clarita Transit. Metro's planned NoHo-to-Pasadena BRT Line will pass the rail station on the Olive Avenue bridge with stops in Downtown Burbank and south of the bridge. Currently, passengers can walk/bike between Downtown Burbank and the station via narrow sidewalks on Olive Avenue bridge or incomplete bike and pedestrian routes along Front Avene to Verdugo Avenue. Several large parking lots provide free parking at the station.

The at-grade platform allows passengers to access trains in both directions without climbing stairs or traversing a tunnel. In the future, it is anticipated that CAHSR will construct grade-separated pedestrian crossings of the platform. New vertical access to Magnolia Avenue is under construction, providing improved pedestrian connectivity to Downtown. The station has several distinguishing amenities, including an elevator to Olive Avenue, a bike station, restrooms, vending machines, and drinking fountains.

Figure 35
Downtown Burbank Station



Source: CRA, 2024

Downtown Burbank Station Recommendations

Recommended improvements for this station are summarized in Table 7 and shown and Figure 36 below. Additionally, in the medium-term, it is recommended to improve at-grade track crossings by improving signals. Metrolink should collaborate with the City of Burbank to inspect and modify the signal timing parameters as appropriate at the at-grade crossing to address pedestrian safety concerns.

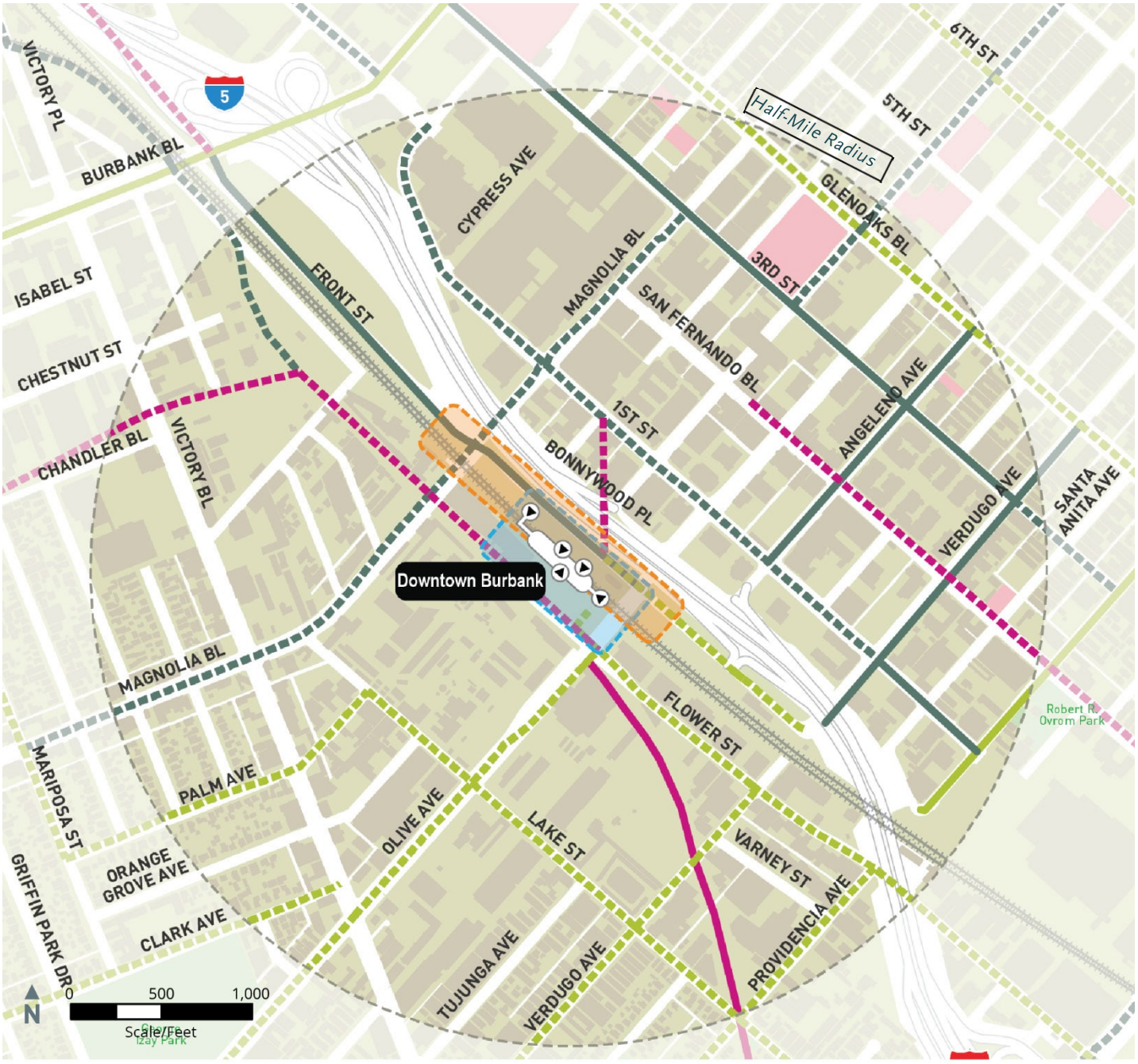
In the long-term, it is recommended that significant repairs or replacement to the Olive Avenue bridge occur. This major improvement has been identified in other studies and could be paired with an improvement to the Magnolia Avenue bridge for a total estimated cost of $45 million. In coordination with any Olive Avenue bridge improvements, a more convenient relocation of the NoHo-to-Pasadena BRT stops adjacent to the station should be assessed.

It is further recommended that Metro support the planned and in-progress projects for station connections identified in Burbank's *Complete Our Streets*, complete streets plan, which complements the Study's recommendations.

Table 7
Downtown Burbank Station and Access Improvements

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information *(e.g., station signage, wayfinding, maps)*	$1.4M	Near
	Station Accessibility *(e.g., accessible ramps, micromobility parking)*	$0.5M	Medium
	Station Boarding Area *(e.g., pedestrian lean bar, sound barrier, lighting)*	$5.0M	Medium
	Station Improvements & Customer Amenities Subtotal	***$6.9M***	
	FLM Parking Circulation Access & Signal onto Front Street *[DB3.1]*	$5.8M	Long
	Downtown Burbank Station Total	**$12.6M**	

Figure 36
Downtown Burbank Station and Access Improvements



Legend

- Downtown Burbank Station Improvements
- FLM Parking Circulation Access & Signal onto Front Street
- Station + Entrance
- Metrolink/Amtrak Tracks

Wheel Facilities

Shared-Use/Off-Street Path (Class I)	Protected Bicycle Lane (Class IV)
Existing	Existing
Planned	Planned
Bicycle Lane (Class II)	**Bicycle-Friendly Streets (Class III)**
Existing	Existing
Planned	Planned

A station area radius of a half-mile is included for planning purposes of this study. A more focused station area may be included as part of future activities in project design and implementation.

Subject to Change

Source: CR Associates, 2024

Project No. DB4

Downtown Burbank Station & Platform Improvements.

This project improves amenities at the station for all users including pedestrians, cyclists, bus riders, train riders, and those riding in vehicles. The project includes electric vehicle charging and improvements to wayfinding and information.

Figure 38

Downtown Burbank Improvements Location

TIMELINE

Near-term | Medium-term | Long-term

Project Need

The Downtown Burbank Station serves as a transit hub not only for Metrolink (AVL and VCL) and Amtrak but also for a number of bus operators. Access within the station area to these amenities for pedestrians and cyclists is currently limited.

Traffic on I-5 and Olive Street Bridge contribute to a noisy environment at the station.

The planned NoHo-to-Pasadena BRT line will have stations on both ends of the Olive Street Bridge. The BRT line will connect the cities of Los Angeles (North Hollywood and Eagle Rock communities), Burbank, Glendale and Pasadena, improving access to jobs, education and other important destinations. The two BRT stations near the Downtown Burbank Station will provide the only connection between the BRT line and the Metrolink system.

Figure 37

Aerial View of Downtown Burbank Station

View of the Downtown Burbank Station looking northwest.

Types of Improvements

- ✓ Rail Operations
- ✓ Bus Operations
- ✓ Auto Access
- ✓ First/Last Mile
- ✓ Wayfinding/Trailblazing
- ✓ Station Improvements

Policy Considerations

The improvement of the station will require an agreement or MOU between Metrolink, Amtrak, the City of Burbank, any municipal bus operators who operate at the station, and Metro.

It is anticipated that as part of the CAHSR project, there will be additional investments in grade-separated connections between the north and south platforms.

Implementation

Lead Agency:

> Metrolink

Supporting Agencies:

> City of Burbank
> Amtrak
> CAHSR
> Metro
> Burbank Transit
> Santa Clarita Transit
> Glendale Beeline

DOWNTOWN BURBANK STATION IMPROVEMENTS & CUSTOMER AMENITIES ROM COSTS FOR CONSTRUCTION

(2022 Dollars) *

$6.9M

** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

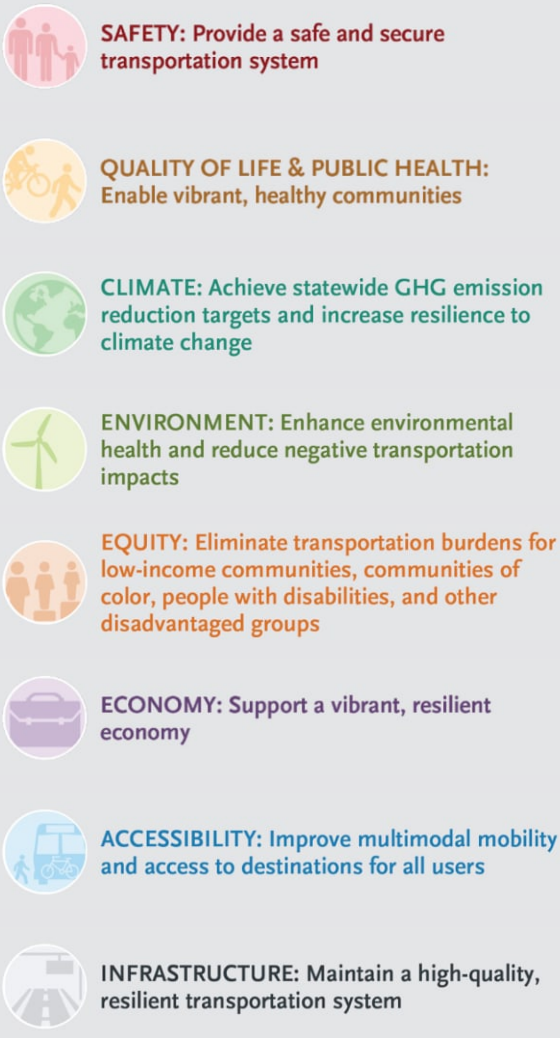
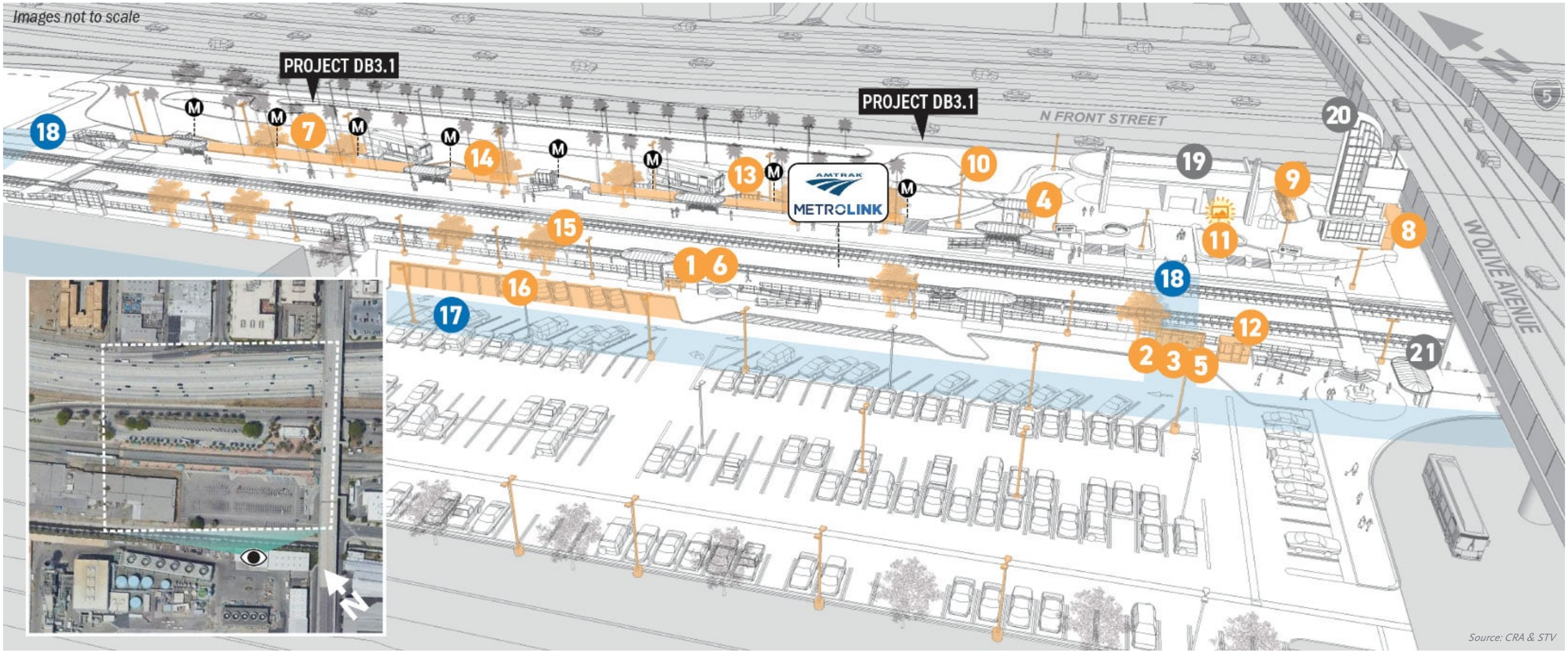


Figure 39

DOWNTOWN BURBANK STATION PROPOSED STATION AND PLATFORM IMPROVEMENTS RENDERING



Proposed Improvements

1. Static Directional Signage
2. Digital Information Kiosk
3. Customer Service Kiosk
4. Real-Time Arrival Info
5. Station Area Map
6. Audio Wayfinding to Connecting Transit Service
7. Tactile Wayfinding to Connecting Transit Service
8. Access Ramp
9. Shared Dockless Micro-Mobility Parking
10. Supplemental Lighting
11. Public Art
12. Security Kiosk
13. Shade Structures
14. Sound Barrier
15. Shade Trees
16. Electric Vehicle Parking

Projects Planned by Others

17. Planned California High-Speed Rail Alignment
18. Planned California High-Speed Rail Pedestrian Crossing

Existing Station Features

19. Restrooms and Bike Hub
20. Vertical Connection to W. Olive Avenue
21. Bus Stop Amenities

Other RNI Proposed Improvements

DB3.1 Front Street

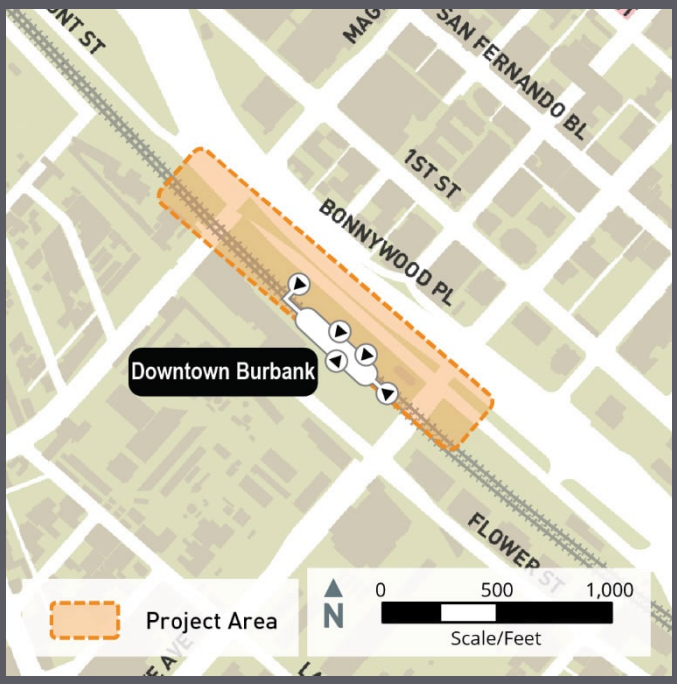
Project No. DB3.1

FLM Parking Circulation Access & Signal onto Front Street.

This project improves run times for buses at the station by signalizing two intersections. These two intersections include pedestrian crosswalks, bike signals, and pedestrian push buttons. The project also improves circulation within the station area itself for pedestrians and buses.

Figure 40

Downtown Burbank Improvements Location



TIMELINE

Near-term | Medium-term | **Long-term**

Project Need

The Downtown Burbank Station serves as a transit hub not only for Metrolink and Amtrak but also for buses. Access to these amenities for pedestrians and cyclists is currently limited.

- No crosswalks connecting the existing sidewalks on the north side of Front St to the station
- Existing bicycle infrastructure is unprotected
- Buses must wait for vehicle traffic to enter and exit the station

Photo of eastern driveways, looking east. Existing Class II bike facilities and pick-up/drop-off are shown. There is no crosswalk connecting the sidewalk on the northern side of Front Street to the station. Buses need to wait for vehicle traffic to exit the bus hub.

Photo of western driveways, looking east. Existing Class II bike facilities are shown. There is no crosswalk connecting the sidewalk on the northern side of Front Street to the station. Buses need to wait for vehicle traffic to enter the bus hub.

Types of Improvements

Rail Operations

- ✓ **Bus Operations**
- ✓ **Auto Access**
- ✓ **First/Last Mile**
- ✓ **Wayfinding/Trailblazing**

Station Improvements

Environmental Considerations

The proposed Project would likely qualify for a categorical or statutory exemption. After review, it is unlikely that the Parking Circulation Access & Signal onto Front Street Project will significantly impact the surrounding environment. If an exemption is unavailable, an Initial Study would likely yield no potentially significant impacts, non-standard BMPs, or non-standard mitigation measures. It is also unlikely that hazardous materials in the immediate vicinity of the proposed Project would pose a threat to individuals involved in the construction or operation of the proposed Project.

Policy Considerations

The improvement of the station will require an agreement or MOU between Metrolink, Amtrak, the City of Burbank, any municipal bus operators who operate at the station, and Metro.

It is anticipated that as part of the CAHSR project, there will be additional investments in grade-separated connections between the north and south platforms.

Implementation

Lead Agency:

> City of Burbank

Supporting Agencies:

> Metrolink
> Amtrak
> Metro

STATION ACCESS, CIRCULATION & FLM ROM COSTS FOR CONSTRUCTION

(2022 Dollars) *

$5.8M

** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

- **SAFETY:** Provide a safe and secure transportation system
- **QUALITY OF LIFE & PUBLIC HEALTH:** Enable vibrant, healthy communities
- **CLIMATE:** Achieve statewide GHG emission reduction targets and increase resilience to climate change
- **ENVIRONMENT:** Enhance environmental health and reduce negative transportation impacts
- **EQUITY:** Eliminate transportation burdens for low-income communities, communities of color, people with disabilities, and other disadvantaged groups
- **ECONOMY:** Support a vibrant, resilient economy
- **ACCESSIBILITY:** Improve multimodal mobility and access to destinations for all users
- **INFRASTRUCTURE:** Maintain a high-quality, resilient transportation system

Figure 41

PROPOSED PROJECT *(DRAWING 1 OF 2)*

Front St is restriped to limit certain left turning movements with painted medians. The closure of an existing exit only driveway for passenger parking is proposed to eliminate a conflict for vehicles turning onto Front Street thereby consolidating movements to one exit only driveway. A buffered 10' two-way cycle track is proposed along the transit station frontage to improve upon the existing bike lanes that will also tie into future bike lane improvements along Front Street.

LEGEND:

- CONCRETE
- ASPHALT
- TRUNCATED DOMES
- MINOR LANDSCAPING IMPROVEMENTS
- PROTECT IN PLACE

NERAL NOTES:

EXISTING TREES FOUND IN POOR HEALTH BY AN ARBORIST SHALL BE REPLACED

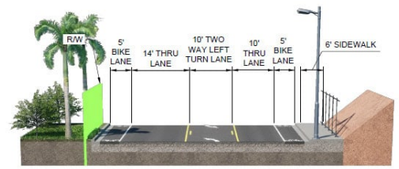
PROPOSED SHADE TREES SHALL BE SUITABLE FOR INLAND REGION: SUNSET ZONES 18, 19, 20, 21 FROM L.A. METRO'S PLANT PALETTE RECOMMENDATIONS PER ISDS LANDSCAPING WHITE PAPER. SELECTED TREES SHALL NOT BE FLOWER BEARING, CAUSING DEBRIS NEAR SIDEWALKS OR BIKE LANES. SELECTED TREES SHALL AVOID DANGEROUS DROPPINGS, ROOT GROWTH PATTERNS, AND TREE CANOPY HEIGHTS. SHRUBS SHALL BE MAINTAINED UNDER 36" FROM FINAL ELEVATION OF ADJACENT PATHWAYS

PROPOSED SHADE TREES SHALL BE CENTERED WITHIN PLANTING AREA

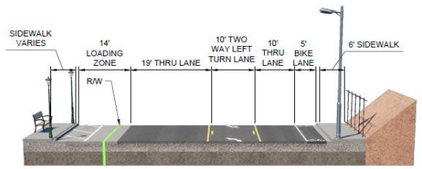
LIGHTING SHALL FOLLOW ISDS LIGHTING WHITE PAPER GUIDELINES WITH EMPHASIS FOR PEDESTRIAN WALKING PATHS

PROJECT SHALL ANALYZE IMPROVEMENTS TO INCLUDE SAFETY MEASURES AND CRIME PREVENTION ELEMENTS (E.G. CCTV CAMERAS, LIGHTING LEVELS, TREE PLACEMENT, HEIGHT OF LANDSCAPING, MIRRORS FOR CORNER BLIND SPOTS, L.A. METRO CALL POINTS) PER CPTED MEASURES AND ISDS SAFETY AND SECURITY WHITE PAPER GUIDELINES

PROPOSED LANDSCAPING ELEMENTS SHALL PRIORITIZE VISIBILITY OVER SHADE TO MAXIMIZE SAFETY



SECTION B-B EXISTING
N.T.S.



SECTION A-A EXISTING
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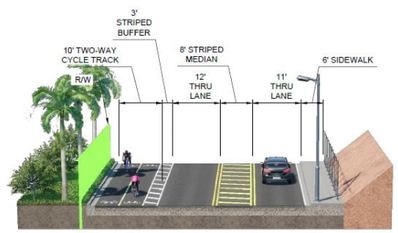

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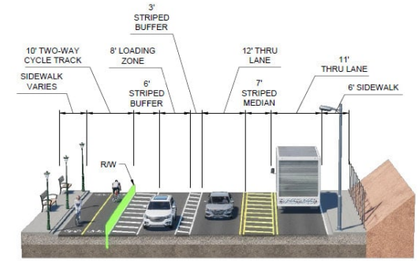

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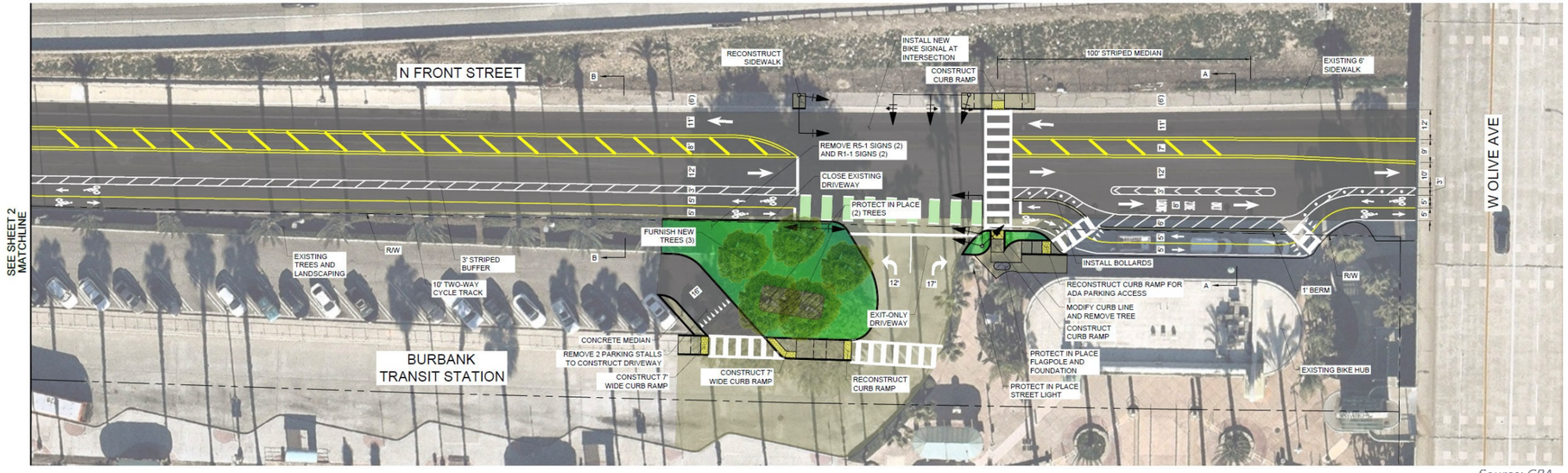
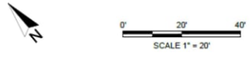




Source: CRA

Figure 42

PROPOSED PROJECT *(DRAWING 2 OF 2)*

Special consideration was given to transitioning the two-way cycle track to the existing bike lanes adjacent to the northern curb line. Curb ramps and crosswalks are proposed within the Burbank Transit Station parking lot to aid pedestrian circulation.

LEGEND:

- CONCRETE
- ASPHALT
- TRUNCATED DOMES
- MINOR LANDSCAPING IMPROVEMENTS
- PROTECT IN PLACE

GENERAL NOTES:

EXISTING TREES FOUND IN POOR HEALTH BY AN ARBORIST SHALL BE REPLACED

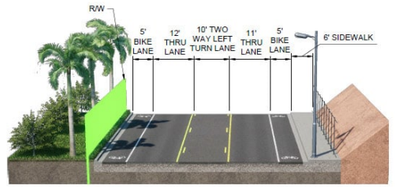
PROPOSED SHADE TREES SHALL BE SUITABLE FOR INLAND REGION: SUNSET ZONES 18, 19, 20, 21 FROM L.A. METRO'S PLANT PALETTE RECOMMENDATIONS PER ISDS LANDSCAPING WHITE PAPER. SELECTED TREES SHALL NOT BE FLOWER BEARING, LITTER DEBRIS NEAR SIDEWALKS OR BIKE LANES. SELECTED TREES SHALL AVOID DANGEROUS DROPPINGS, ROOT GROWTH PATTERNS, AND TREE CANOPY HEIGHTS. SHRUBS SHALL BE MAINTAINED UNDER 36" FROM FINAL ELEVATION OF ADJACENT PATHWAYS

PROPOSED SHADE TREES SHALL BE CENTERED WITHIN PLANTING AREA

LIGHTING SHALL FOLLOW ISDS LIGHTING WHITE PAPER GUIDELINES WITH EMPHASIS FOR PEDESTRIAN WALKING PATHS

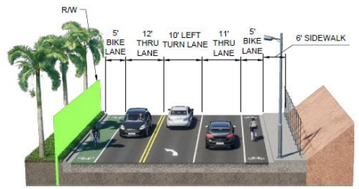
PROJECT SHALL ANALYZE IMPROVEMENTS TO INCLUDE SAFETY MEASURES AND CRIME PREVENTION ELEMENTS (E.G. CCTV CAMERAS, LIGHTING LEVELS, TREE PLACEMENT, HEIGHT OF LANDSCAPING, MIRRORS FOR CORNER BLIND SPOTS, L.A. METRO CALL POINTS) PER CPTED MEASURES AND ISDS SAFETY AND SECURITY WHITE PAPER GUIDELINES

PROPOSED LANDSCAPING ELEMENTS SHALL PRIORITIZE VISIBILITY OVER SHADE TO MAXIMIZE SAFETY

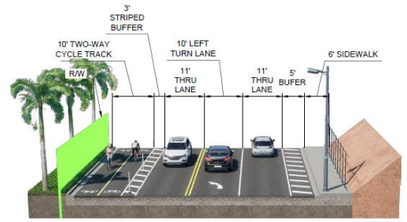


SECTION D-D EXISTING
N.T.S.

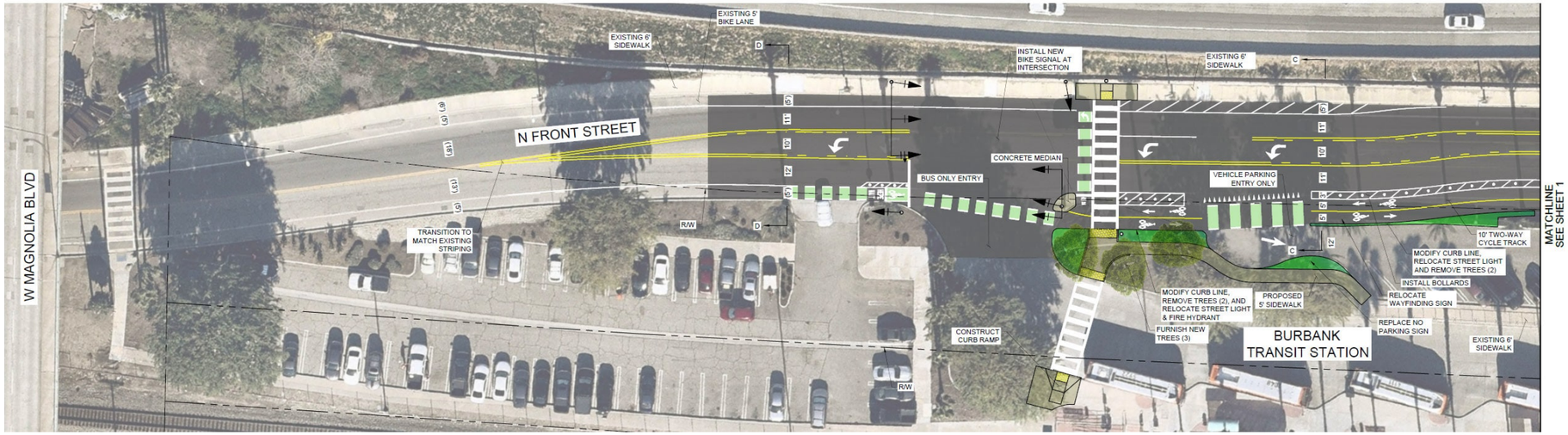
SECTION C-C EXISTING
N.T.S.



SECTION D-D PROPOSED
N.T.S.



SECTION C-C PROPOSED
N.T.S.

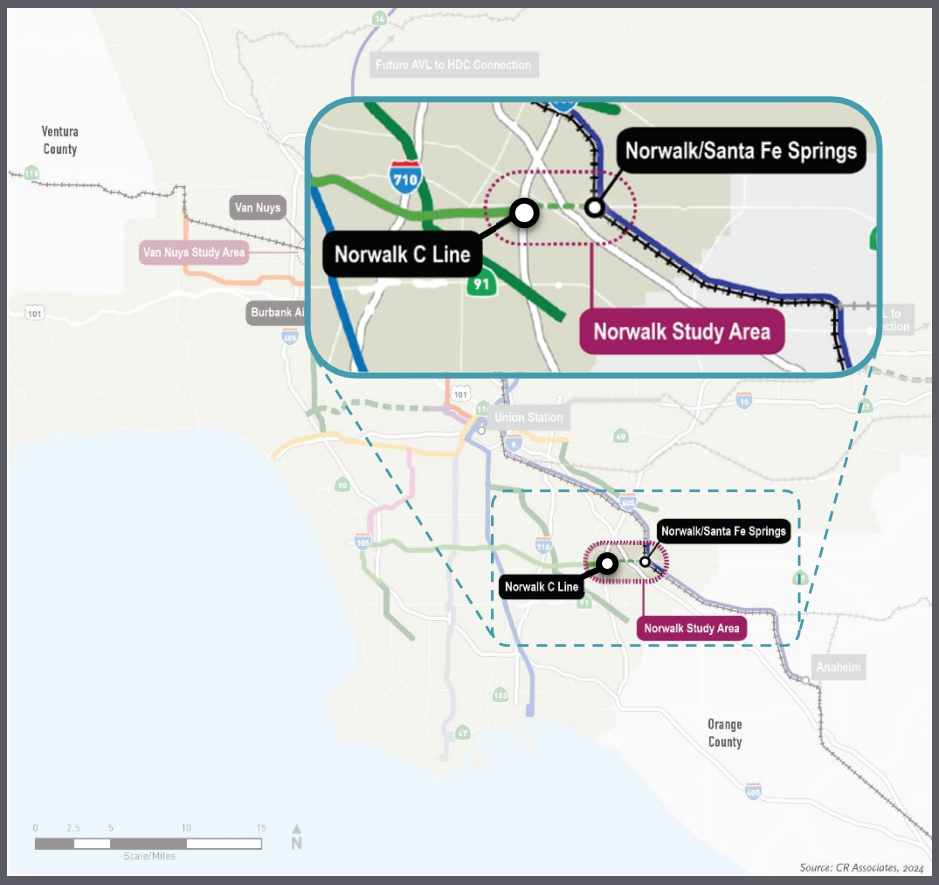


Source: CRA

0' 20' 40'
SCALE 1" = 20'

Norwalk C Line Station

Figure 43
Norwalk C Line Station Location



Station Area

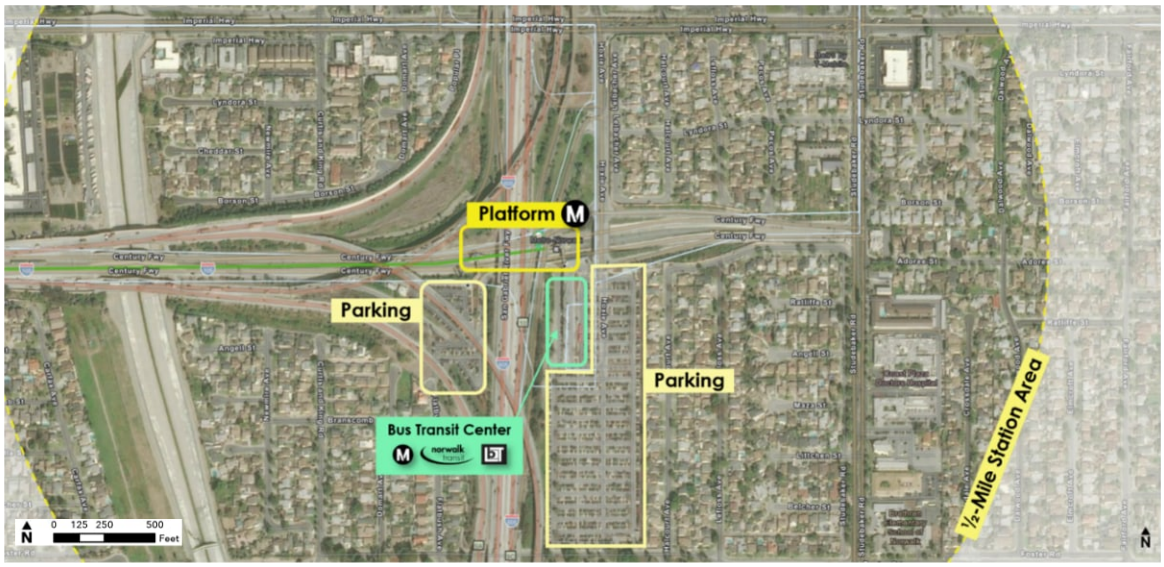
The Norwalk C Line Station is the eastern terminus of Metro's C Line. The station also has bus service from Metro, LBT, and Norwalk Transit. The station is approximately 2.5 miles from the Norwalk/SFS station to the east – the two stations are connected by Norwalk Transit Line 4. The station has several parking lots, so it is accessible by car but is separated from the surrounding neighborhoods for pedestrians and bicyclists due to closed access gates and freeway infrastructure. Hoxie Avenue, the station's primary access road, is the only access by bike or foot to the station, connecting to the high-speed, high-traffic Imperial Avenue.

$64.9M

NORWALK C LINE STATION TOTAL ROM COSTS FOR STATION AREA IMPROVEMENTS (2022 DOLLARS)*

** The projects are currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

Figure 44
Norwalk C Line Station



Source: CRA

Norwalk C Line Station Recommendations

The station-oriented improvements that this Study identified for this station include those in the introduction to the Station-Oriented Improvements section along with those identified in Table 8 and shown in

* Near-term potential to open gates to the south

Figure 45 below. Additionally, in the near-term, it is recommended that pedestrian/bike gates be opened to the neighborhood at Foster Road, east of I-605, and Flatbush Avenue, west of I-605, accompanied by a parking permit program. It is also recommended that, where feasible, Metro support the improvements identified in Norwalk's *Bicycle Master Plan (2022).*

A near-, medium-, and long-term recommendation for improving transit connectivity between Norwalk C Line and Norwalk/SFS station is described in the **Connectivity Improvements** section of this document.

Metro is examining additional bus-oriented improvements to the C Line Station that will be available as an addendum to this Study.

Table 8
Norwalk C Line Station and Access Improvements

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information *(e.g., station signage, wayfinding, maps)*	$1.6M	Near
	Station Accessibility *(e.g., accessible ramps, micromobility parking, vertical circulation, bike hub)*	$3.1M	Medium
	Station Boarding Area *(e.g., restrooms, shade trees, bus stop amenities)*	$3.5M	Medium
	***Station Improvements & Customer Amenities Subtotal** [C8]*	***$8.2M***	
	FLM Pedestrian/Bike Access to Studebaker Rd on Adoree St *[C1]*	$19.4M	Long
	Norwalk Station Parking Lot Improvements (including EV charging and bus, bike, pedestrian, and vehicle circulation improvements) *[C2.A]*	$25.6M	Near* & Long
	Norwalk Traffic Circle *[C5]*	$11.7M	Long
	Station Access, Circulation & FLM Subtotal	***$56.7M***	
	Norwalk C Line Station Total	**$64.9M**	

** Near-term potential to open gates to the south*

Figure 45

Norwalk C Line Station and Access Improvements

Legend

- Station + Entrance
- Metro C Line
- City Boundaries
- Norwalk C Line Station Improvements
- FLM Pedestrian/Bike Access to Studebaker Rd on Adoree
- Norwalk Station Parking Lot Improvements
- Norwalk Traffic Circle

Wheel Facilities

- Shared-Use/Off-Street Path (Class I): Existing, Planned
- Protected Bicycle Lane (Class IV): Existing, Planned
- Bicycle Lane (Class II): Existing, Planned
- Bicycle-Friendly Streets (Class III): Existing, Planned

Subject to Change 23-2284 ©2024 LACMTA

Source: CR Associates, 2024

A station area radius of a half mile is included for planning purposes of this study. A more focused station area may be included as part of future activities in project design and implementation.

Project No. C8

Norwalk C Line Station & Platform Improvements.

Improved access, wayfinding, informational signage, and amenities are proposed for the Norwalk C Line Station. This project is designed in coordination with several other proposed projects that address first/last mile access, parking, and bus circulation.

Figure 47
Norwalk C Line Improvements Location

TIMELINE

Near-term | Medium-term | Long-term

Project Need

The station lacks high-quality amenities in locations throughout the area. The proposed projects enhance the existing bus shelters, wayfinding, and informational signage.

The station is surrounded by freeways and high-speed streets, necessitating the inclusion of new sound walls to protect and enhance the experience of transit riders.

Figure 46
Aerial View of the Norwalk C Line Station

Aerial view of the station looking south/southwest.

Types of Improvements

Rail Operations

- ✓ **Bus Operations**
- ✓ **Auto Access**
- ✓ **First/Last Mile**
- ✓ **Wayfinding/Trailblazing**
- ✓ **Station Improvements**

Policy Considerations

The redevelopment of the Norwalk C Line Station parking lot beyond what is currently proposed, which could include a multi-story parking structure and/or mixed-use developments will require a change in policy for Metro regarding maintenance and upkeep and an agreement and/or MOU with the City of Norwalk.

Any work within the parking lot will require an agreement or MOU between Metro and Caltrans.

The enhanced bus facilities will require coordination between Metro, Norwalk Transit, and Long Beach Transit.

Implementation

Lead Agency:

> Metro

Supporting Agencies:

> City of Norwalk
> Norwalk Transit
> Long Beach Transit
> Caltrans

NORWALK C LINE STATION IMPROVEMENTS & CUSTOMER AMENITIES ROM COSTS FOR CONSTRUCTION

(2022 Dollars)*

$8.2M

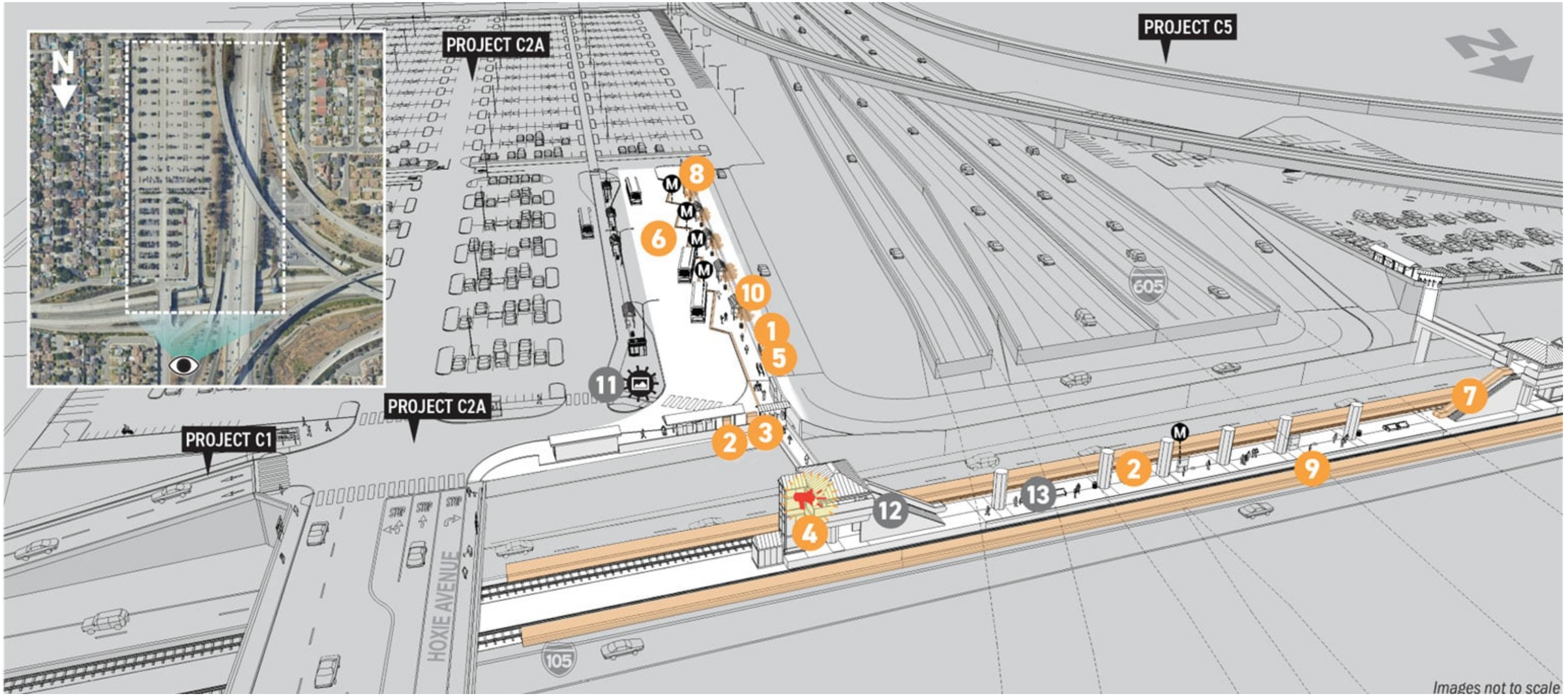
** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

- **SAFETY:** Provide a safe and secure transportation system
- **QUALITY OF LIFE & PUBLIC HEALTH:** Enable vibrant, healthy communities
- **CLIMATE:** Achieve statewide GHG emission reduction targets and increase resilience to climate change
- **ENVIRONMENT:** Enhance environmental health and reduce negative transportation impacts
- **EQUITY:** Eliminate transportation burdens for low-income communities, communities of color, people with disabilities, and other disadvantaged groups
- **ECONOMY:** Support a vibrant, resilient economy
- **ACCESSIBILITY:** Improve multimodal mobility and access to destinations for all users
- **INFRASTRUCTURE:** Maintain a high-quality, resilient transportation system

Figure 48

NORWALK C LINE STATION PROPOSED STATION AND PLATFORM IMPROVEMENTS RENDERING



Proposed Improvements

1. Static Directional Signage
2. Real-Time Arrival Info
3. Customer Service Kiosk
4. Stationwide PA System
5. Audio Wayfinding to Connecting Transit Service
6. Tactile Wayfinding to Connecting Transit Service
7. New Escalator
8. Bus Stop Amenities
9. Sound Barrier
10. Shade Trees

Existing Station Features

11. Public Art
12. Escalator
13. Platform Amenities

Other RNI Proposed Improvements

- C1 FLM Access to Studebaker
- C2A Norwalk Parking Lot
- C5 Norwalk Traffic Circle

Note: Active transportation and other improvement projects proposed by others are not illustrated.

Source: CRA & STV

Project No. C1

FLM Pedestrian/ Bike Access to Studebaker Rd on Adoree St.

A safe first/last mile connection between the station and adjacent neighborhoods along the I-105 eastbound onramp, through an existing sound wall, and on Adoree St. This new path reduces travel time for transit users and increases active transportation access.

Figure 49

Norwalk C Line Improvements Location

TIMELINE

Near-term | Medium-term | **Long-term**

Project Need

The I-105 eastbound on-ramp is the most direct route for people living and working in neighborhoods to the south and east of the station. This route, however, has no pedestrian or bicycle facilities. Despite this, people travel on the shoulder of the on-ramp, creating an unsafe condition for all individuals whether on foot, bike, transit, or car.

The project serves two purposes:

> It connects Studebaker Road to the Norwalk C Line Station at Hoxie Street.
> It creates a passthrough at Adoree, drastically reducing the travel time for those living in the neighborhoods directly east and south of the station.

People have been observed traveling toward and away from the station despite signage prohibiting pedestrians and cyclists.

Types of Improvements

Rail Operations

✓ **Bus Operations**

✓ **Auto Access**

✓ **First/Last Mile**

Wayfinding/Trailblazing

Station Improvements

Environmental Considerations

The proposed project would likely qualify for a categorical or statutory exemption. After review, it is unlikely that the Project will have a significant impact on the surrounding environment. If an exemption is unavailable, an Initial Study would likely yield no potentially significant impacts, non-standard BMPs, or non-standard mitigation measures. It is also unlikely that hazardous materials in the immediate vicinity of the proposed Project would pose a threat to individuals involved in the construction or operation of the proposed Project.

Policy Considerations

The project will require an agreement or MOU between the City of Norwalk and Caltrans.

Implementation

Lead Agency:

> City of Norwalk

Supporting Agencies:

> Metro
> Caltrans

FLM PEDESTRIAN/BIKE ACCESS TO STUDEBAKER RD ON ADOREE ST ROM COSTS FOR CONSTRUCTION

(2022 Dollars)*

$19.4M

** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

SAFETY: Provide a safe and secure transportation system

QUALITY OF LIFE & PUBLIC HEALTH: Enable vibrant, healthy communities

CLIMATE: Achieve statewide GHG emission reduction targets and increase resilience to climate change

ENVIRONMENT: Enhance environmental health and reduce negative transportation impacts

EQUITY: Eliminate transportation burdens for low-income communities, communities of color, people with disabilities, and other disadvantaged groups

ECONOMY: Support a vibrant, resilient economy

ACCESSIBILITY: Improve multimodal mobility and access to destinations for all users

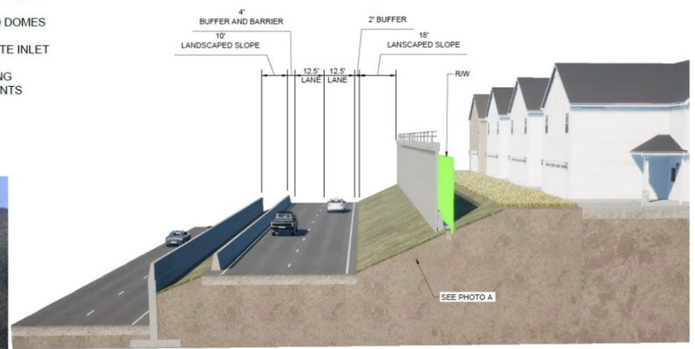
INFRASTRUCTURE: Maintain a high-quality, resilient transportation system

Figure 50

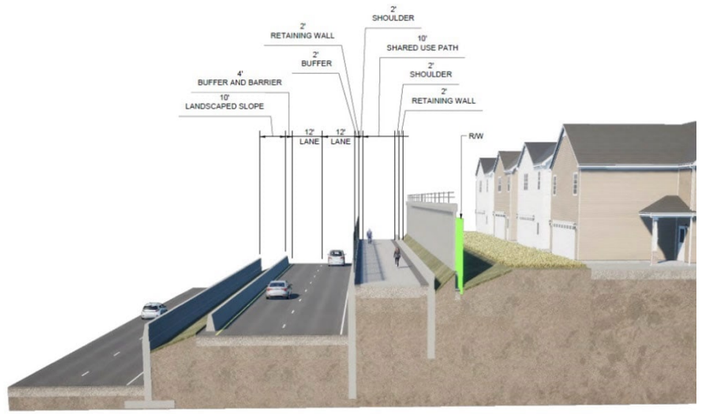
PROPOSED PROJECT *(DRAWING 1 OF 3)*

One option for connecting Hoxie Avenue to Adoree Street is to work within Caltrans' right of way to create a multiuse path for pedestrians and cyclists.

PHOTO A
EXISTING LANDSCAPED SLOPE



SECTION A-A EXISTING
N.T.S.



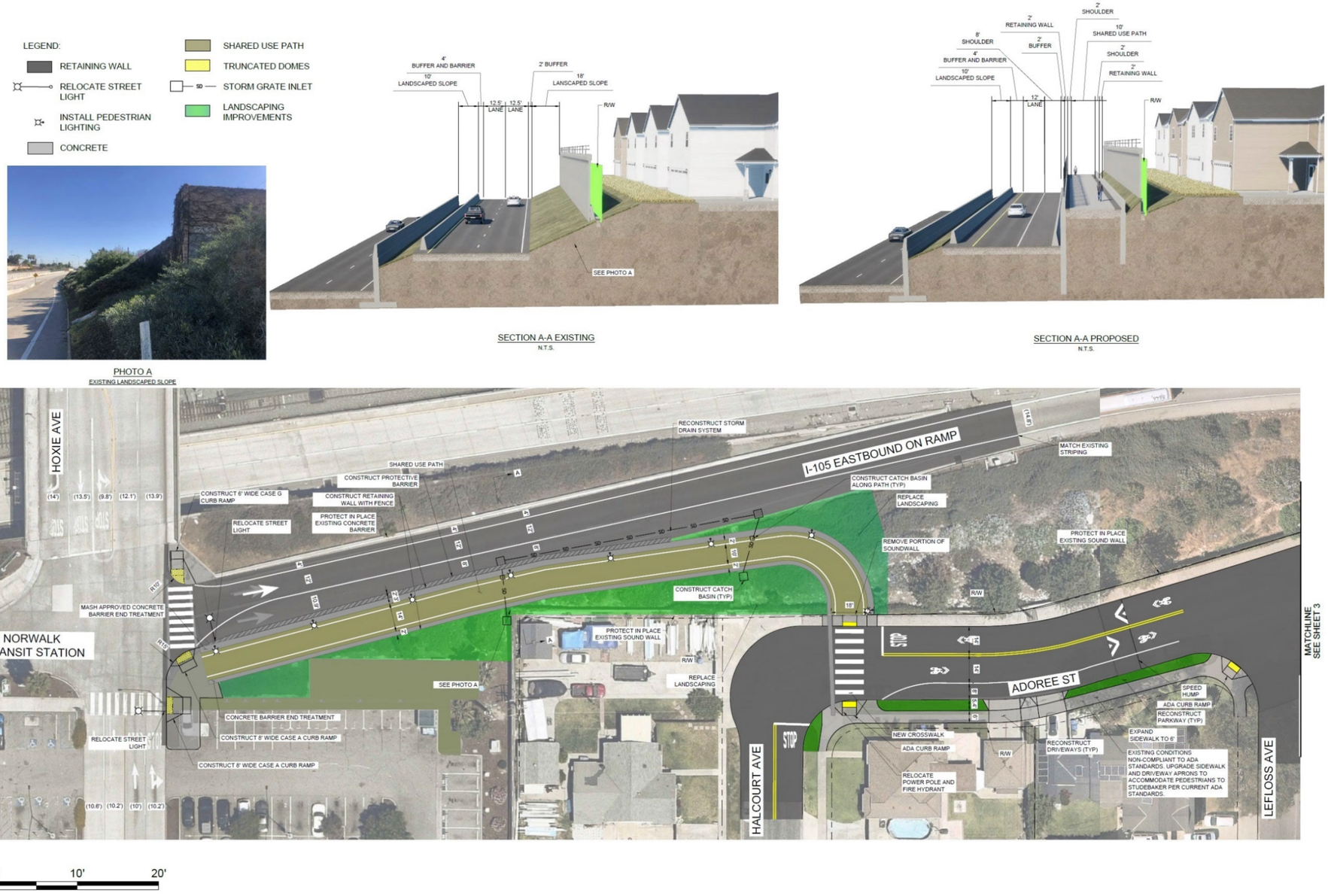
SECTION A-A PROPOSED
N.T.S.

Source: CRA

Figure 51

PROPOSED PROJECT *(DRAWING 2 OF 3)*

The second option for connecting Hoxie Avenue to Adoree Street is to remove a lane of travel on the I-105 eastbound on ramp.

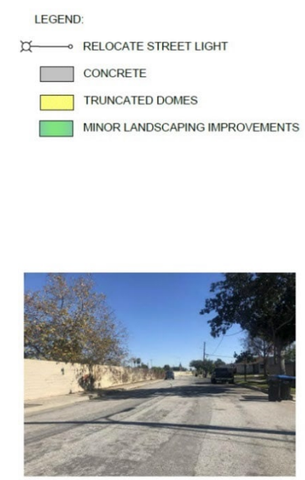


Source: CRA

Figure 52

PROPOSED PROJECT *(DRAWING 3 OF 3)*

Improvements on Adoree Street include widened sidewalks on the south side of the street, Class III bicycle markings (sharrows), and speed humps, which help calm traffic.



Source: CRA

Project No. C2.A

Norwalk Station Parking Lot Improvements.

This project improves access within the station's primary parking lot (long-term) and at the periphery, notably at the Hoxie Avenue entrance and the Foster Road gate (short-term).

The project improves the experience for all users including drivers, bus riders/operators, pedestrians, and cyclists.

Figure 53

Norwalk C Line Improvements Location

TIMELINE

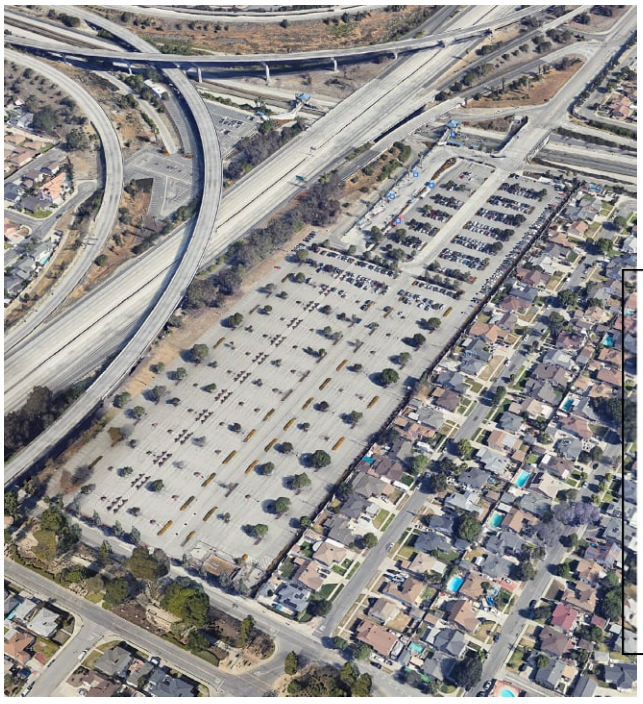
Near-term | Medium-term | Long-term

Project Need

Circulation within and around the Norwalk C Line Station parking lot is challenging for buses, pedestrians, and cyclists. Issues include:

- Lack of adequate connection for bicyclists and pedestrians to neighborhood N/S/E/W
- Conflicts for pedestrian circulation to platform from parking lot
- Lack of auto pick-up/drop-off spaces
- Conflicts and challenges for buses and vehicles exiting at Hoxie Avenue

➔ ***Learn more:*** See phased plans in the Supplemental Study: C Line Norwalk Transit Center Improvements Study (submitted separately).



Source: Google

Aerial view of the station parking lot looking northwest. Foster Road is in the foreground and the Metro station and Hoxie Avenue are in the background.

Types of Improvements

Rail Operations

- ✓ **Bus Operations**
- ✓ **Auto Access**
- ✓ **First/Last Mile**
- ✓ **Wayfinding/Trailblazing**
- ✓ **Station Improvements**

Environmental Considerations

The proposed project would likely qualify for a categorical or statutory exemption. After review, it is unlikely that the Project will have a significant impact on the surrounding environment. If an exemption is unavailable, an Initial Study would likely yield no potentially significant impacts, non-standard Best Management Practices, or non-standard mitigation measures. It is also unlikely that hazardous materials in the immediate vicinity of the proposed Project would pose a threat to individuals involved in the construction or operation of the proposed Project.

Policy Considerations

The project will require an agreement or MOU between Metro and Caltrans. And coordination for construction and maintenance from all implementing parties.

Implementation

Lead Agency:

> Metro

Supporting Agencies:

> City of Norwalk
> Norwalk Transit
> Long Beach Transit
> Caltrans

NORWALK STATION PARKING LOT IMPROVEMENTS ROM COSTS FOR CONSTRUCTION

(2022 Dollars)*

$25.6M

** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

- **SAFETY:** Provide a safe and secure transportation system
- **QUALITY OF LIFE & PUBLIC HEALTH:** Enable vibrant, healthy communities
- **CLIMATE:** Achieve statewide GHG emission reduction targets and increase resilience to climate change
- **ENVIRONMENT:** Enhance environmental health and reduce negative transportation impacts
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- **ECONOMY:** Support a vibrant, resilient economy
- **ACCESSIBILITY:** Improve multimodal mobility and access to destinations for all users
- **INFRASTRUCTURE:** Maintain a high-quality, resilient transportation system

Figure 54

PROPOSED PROJECT *(DRAWING 1 OF 4)*

Project C2.A intends to increase pedestrian access throughout the Norwalk Station Parking Lot. Additional sidewalks, high-visibility crosswalks, and a new bike lane allows pedestrians and bicyclists to connect to the existing bus bays on the north end of the parking lot. New curb extensions, a mid-block crossing, and raised crosswalks promote increased pedestrian safety as well. The addition of new green spaces, lighting, shade trees, and safety measures further promotes walkability. The project intends to furnish and install new bike lockers and a bike hub at Norwalk Station. In addition to pedestrian and bicyclist improvements, the inclusion of new thru lanes provides better circulation and ingress/egress through the station parking lot. The number of ADA parking stalls will increase in the parking lot due to the reconfiguration of parking adjacent to the bus bays.

LEGEND:

- RELOCATE STREET LIGHT
- INSTALL NEW STREET LIGHT
- CONCRETE
- TRUNCATED DOMES
- MINOR LANDSCAPING IMPROVEMENTS
- RECONSTRUCT CURB RAMP
- INSTALL BIKE LOCKERS
- PROPOSED SHADE TREES

ADA PARKING SPACES

22 REQUIRED
26 EXISTING

23 PROPOSED IN NORTH PARKING LOT
14 PROPOSED IN SOUTH PARKING LOT

37 TOTAL PROPOSED ADA COMPLIANT PARKING SPACES

GENERAL NOTES:

1. EXISTING TREES FOUND IN POOR HEALTH BY AN ARBORIST SHALL BE REPLACED
2. PROPOSED SHADE TREES SHALL BE A MIX OF TIER 1 AND TIER 2 SHADE TREES SUITABLE FOR BASIN REGION: SUNSET ZONES 22, 23 FROM L.A. METRO'S PLANT PALETTE RECOMMENDATIONS PER ISDS LANDSCAPING WHITE PAPER. SELECTED TREES SHALL NOT BE FLOWER BEARING, CAUSING DEBRIS NEAR SIDEWALKS OR BIKE LANES. SELECTED TREES SHALL AVOID DANGEROUS DROPPINGS, ROOT GROWTH PATTERNS, AND TREE CANOPY HEIGHTS. SHRUBS SHALL BE MAINTAINED UNDER 36" FROM FINAL ELEVATION OF ADJACENT PATHWAYS
3. PROPOSED SHADE TREES SHALL BE CENTERED WITHIN PLANTING AREA
4. LIGHTING SHALL FOLLOW ISDS LIGHTING WHITE PAPER GUIDELINES WITH EMPHASIS FOR PEDESTRIAN WALKING PATHS
5. PROJECT SHALL ANALYZE AND IMPROVEMENTS TO INCLUDE SAFETY MEASURES AND CRIME PREVENTION ELEMENTS (E.G. CCTV CAMERAS, LIGHTING LEVELS, TREE PLACEMENT, HEIGHT OF LANDSCAPING, MIRRORS FOR CORNER BLIND SPOTS, L.A. METRO CALL POINTS)
6. PROPOSED LANDSCAPING ELEMENTS SHALL PRIORITIZE VISIBILITY OVER SHADE TO MAXIMIZE SAFETY

Figure 55

PROPOSED PROJECT *(DRAWING 2 OF 4)*

The south-facing section (A-A on the plan drawing) is taken through the proposed reconfiguration of the bus bays and access, handicapped parking, and vehicle/bike access routes.

LEGEND:

- RELOCATE STREET LIGHT
- INSTALL NEW STREET LIGHT
- CONCRETE
- TRUNCATED DOMES
- MINOR LANDSCAPING IMPROVEMENTS
- RECONSTRUCT CURB RAMP
- INSTALL BIKE LOCKERS
- PROPOSED SHADE TREES

ADA PARKING SPACES

22 REQUIRED
26 EXISTING

23 PROPOSED IN NORTH PARKING LOT
14 PROPOSED IN SOUTH PARKING LOT

37 TOTAL PROPOSED ADA COMPLIANT PARKING SPACES

GENERAL NOTES:

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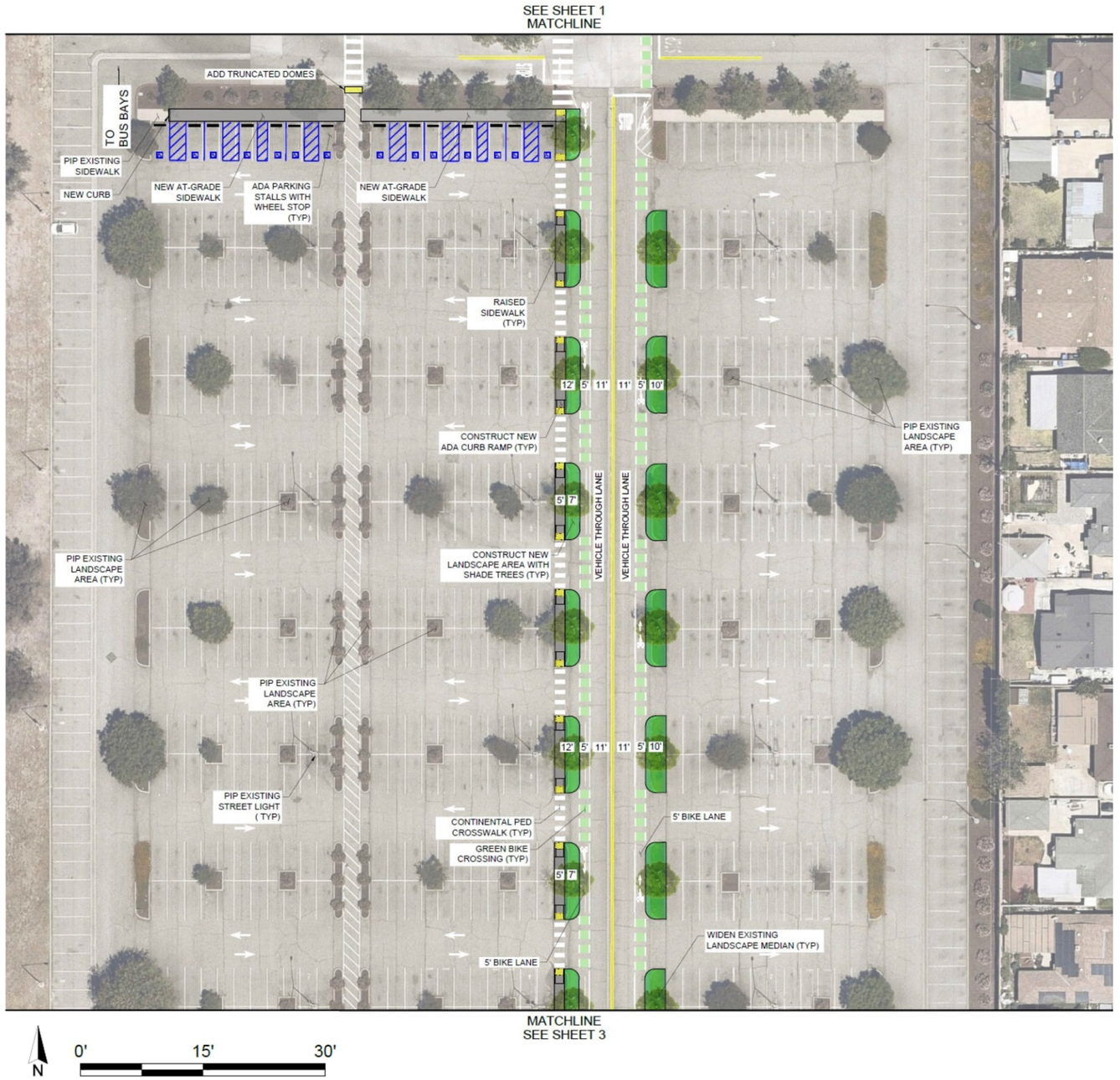
3. PROPOSED SHADE TREES SHALL BE CENTERED WITHIN PLANTING AREA
4. LIGHTING SHALL FOLLOW ISDS LIGHTING WHITE PAPER GUIDELINES WITH EMPHASIS FOR PEDESTRIAN WALKING PATHS
5. PROJECT SHALL ANALYZE AND IMPROVEMENTS TO INCLUDE SAFETY MEASURES AND CRIME PREVENTION ELEMENTS (E.G. CCTV CAMERAS, LIGHTING LEVELS, TREE PLACEMENT, HEIGHT OF LANDSCAPING, MIRRORS FOR CORNER BLIND SPOTS, L.A. METRO CALL POINTS)
6. PROPOSED LANDSCAPING ELEMENTS SHALL PRIORITIZE VISIBILITY OVER SHADE TO MAXIMIZE SAFETY

Figure 56

PROPOSED PROJECT *(DRAWING 3 OF 4)*

The central portion of the station includes pedestrian and bicycle improvements, widened landscaping, and ADA parking stalls.



LEGEND:

- RELOCATE STREET LIGHT
- INSTALL NEW STREET LIGHT
- CONCRETE
- TRUNCATED DOMES
- MINOR LANDSCAPING IMPROVEMENTS
- RECONSTRUCT CURB RAMP
- PROPOSED SHADE TREE

GENERAL NOTES:

1. EXISTING TREES FOUND IN POOR HEALTH BY AN ARBORIST SHALL BE REPLACED
2. PROPOSED SHADE TREES SHALL BE A MIX OF TIER 1 AND TIER 2 SHADE TREES SUITABLE FOR BASIN REGION: SUNSET ZONES 22, 23 FROM L.A. METRO'S PLANT PALETTE RECOMMENDATIONS PER ISDS LANDSCAPING WHITE PAPER. SELECTED TREES SHALL NOT BE FLOWER BEARING, CAUSING DEBRIS NEAR SIDEWALKS OR BIKE LANES. SELECTED TREES SHALL AVOID DANGEROUS DROPPINGS, ROOT GROWTH PATTERNS, AND TREE CANOPY HEIGHTS. SHRUBS SHALL BE MAINTAINED UNDER 36" FROM FINAL ELEVATION OF ADJACENT PATHWAYS
3. PROPOSED SHADE TREES SHALL BE CENTERED WITHIN PLANTING AREA
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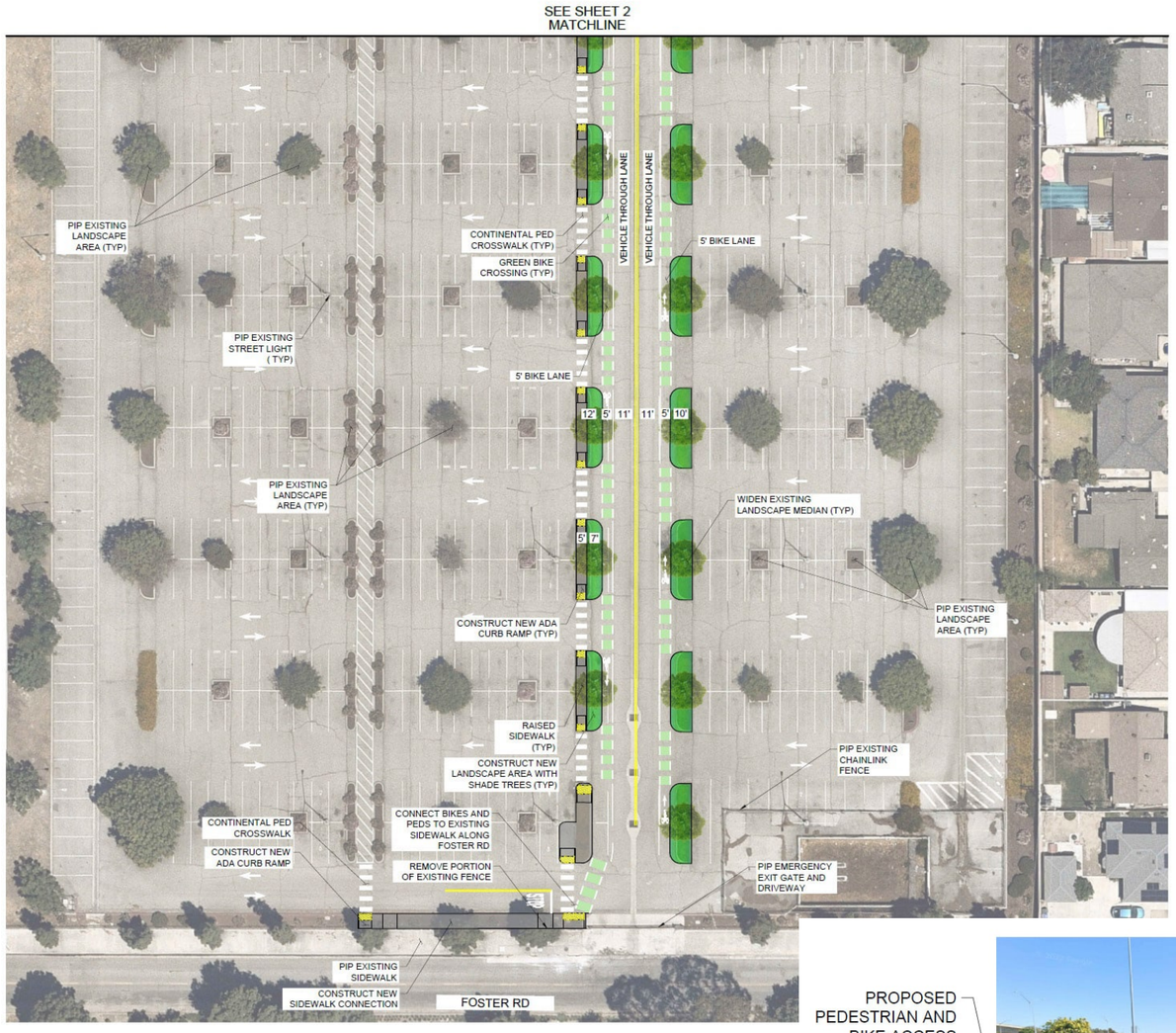
6. PROPOSED LANDSCAPING ELEMENTS SHALL PRIORITIZE VISIBILITY OVER SHADE TO MAXIMIZE SAFETY

Figure 57

PROPOSED PROJECT *(DRAWING 4 OF 4)*

The project proposes to open a portion of the fence at the southern end of the parking lot to allow pedestrian and bicyclist access from Foster Rd. It is intended that only maintenance and emergency vehicles, not personal vehicles or buses, have access through the gate.



Source: CRA

LEGEND:

- RELOCATE STREET LIGHT
- INSTALL NEW STREET LIGHT
- CONCRETE
- TRUNCATED DOMES
- MINOR LANDSCAPING IMPROVEMENTS
- RECONSTRUCT CURB RAMP

GENERAL NOTES:

1. EXISTING TREES FOUND IN POOR HEALTH BY AN ARBORIST SHALL BE REPLACED
2. PROPOSED SHADE TREES SHALL BE A MIX OF TIER 1 AND TIER 2 SHADE TREES SUITABLE FOR BASIN REGION: SUNSET ZONES 22, 23 FROM L.A. METRO'S PLANT PALETTE RECOMMENDATIONS PER ISDS LANDSCAPING WHITE PAPER. SELECTED TREES SHALL NOT BE FLOWER BEARING, CAUSING DEBRIS NEAR SIDEWALKS OR BIKE LANES. SELECTED TREES SHALL AVOID DANGEROUS DROPPINGS, ROOT GROWTH PATTERNS, AND TREE CANOPY HEIGHTS. SHRUBS SHALL BE MAINTAINED UNDER 36" FROM FINAL ELEVATION OF ADJACENT PATHWAYS
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6. PROPOSED LANDSCAPING ELEMENTS SHALL PRIORITIZE VISIBILITY OVER SHADE TO MAXIMIZE SAFETY

PHOTO A
EXISTING EMERGENCY GATE AND DRIVEWAY

Project No. C5

Norwalk Traffic Circle.

A traffic circle is proposed to slow traffic coming off I-105 entering the Norwalk Metro Station Parking Lot, replacing the existing guardrail within the parking lot to discourage speeding. Pedestrian and vehicular circulation are reconfigured to promote safety for all users. Access to Flatbush Avenue is proposed for pedestrians and cyclists only along with CCTV cameras.

Figure 58

Norwalk C Line Improvements Location

TIMELINE

Near-term | Medium-term | **Long-term**

Project Need

Vehicles exiting the freeway ramp directly into the western Norwalk C Line Station parking lot travel at high speeds and can collide with objects or people within the parking lot. Additionally, access to the station from adjacent neighborhoods is officially cut off, however makeshift access points were observed during field visits.

Vehicles traveling at high speeds have less control over their vehicles. This can result in collisions, as seen in the photo above.

The gate that restricts access between the station and the adjacent neighborhoods at Flatbush Avenue.

Types of Improvements

- Rail Operations
- Bus Operations
- ✓ **Auto Access**
- ✓ **First/Last Mile**
- ✓ **Wayfinding/Trailblazing**
- Station Improvements

Policy Considerations

The improvement of the station will require an agreement or MOU between Caltrans, Metro, and the City of Norwalk.

Implementation

Lead Agency:

> Metro

Supporting Agencies:

> City of Norwalk
> Caltrans

NORWALK TRAFFIC CIRCLE ROM COSTS FOR CONSTRUCTION

(2022 Dollars)*

$11.7M

** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

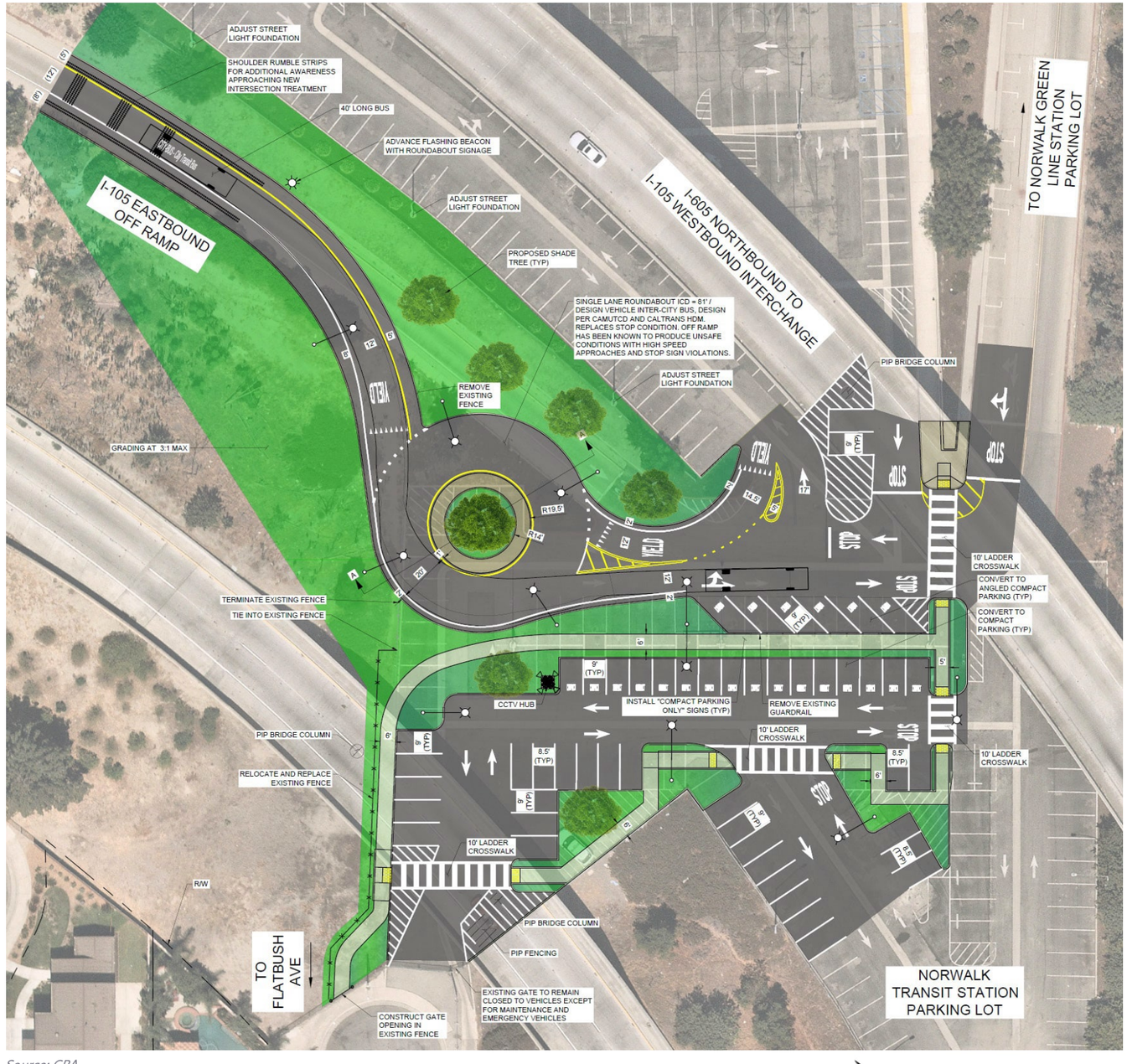
CTP 2050 Goals Advanced

- **SAFETY:** Provide a safe and secure transportation system
- **QUALITY OF LIFE & PUBLIC HEALTH:** Enable vibrant, healthy communities
- **CLIMATE:** Achieve statewide GHG emission reduction targets and increase resilience to climate change
- **ENVIRONMENT:** Enhance environmental health and reduce negative transportation impacts
- **EQUITY:** Eliminate transportation burdens for low-income communities, communities of color, people with disabilities, and other disadvantaged groups
- **ECONOMY:** Support a vibrant, resilient economy
- **ACCESSIBILITY:** Improve multimodal mobility and access to destinations for all users
- **INFRASTRUCTURE:** Maintain a high-quality, resilient transportation system

Figure 59

PROPOSED PROJECT *(DRAWING 1 OF 1)*

A traffic circle is proposed to slow traffic coming off I-105 entering the Norwalk Metro Station Parking Lot, replacing the existing guardrail within the parking lot to discourage speeding. Additional traffic calming features include rumble strips and advanced flashing beacons on the off ramp. The traffic circle will also aid internal parking circulation and act as traffic calming. Pedestrian circulation is promoted by proposed curb ramps, high visibility crosswalks, and sidewalk access to Flatbush Ave and within the Norwalk parking lot. Greenspace is being provided to allow space for amenities such as shade trees, lighting, and a CCTV hub that improves the pedestrian experience. Furthermore, lighting and CCTV is placed so that pedestrian walking paths are well lit and visible.



LEGEND:

- CONCRETE
- ASPHALT
- TRUNCATED DOMES
- LANDSCAPING IMPROVEMENTS
- NEW STREET LIGHT
- RUMBLE STRIPS
- PROTECT IN PLACE

GENERAL NOTES:

1. EXISTING TREES FOUND IN POOR HEALTH BY AN ARBORIST SHALL BE REPLACED
2. PROPOSED SHADE TREES SHALL BE A MIX OF TIER 1 AND TIER 2 SHADE TREES SUITABLE FOR BASIN REGION: SUNSET ZONES 22, 23 FROM L.A. METRO'S PLANT PALETTE RECOMMENDATIONS PER ISDS LANDSCAPING WHITE PAPER. SELECTED TREES SHALL NOT BE FLOWER BEARING, CAUSING DEBRIS NEAR SIDEWALKS OR BIKE LANES. SELECTED TREES SHALL AVOID DANGEROUS DROPPINGS, ROOT GROWTH PATTERNS, AND TREE CANOPY HEIGHTS. SHRUBS SHALL BE MAINTAINED UNDER 36" FROM FINAL ELEVATION OF ADJACENT PATHWAYS
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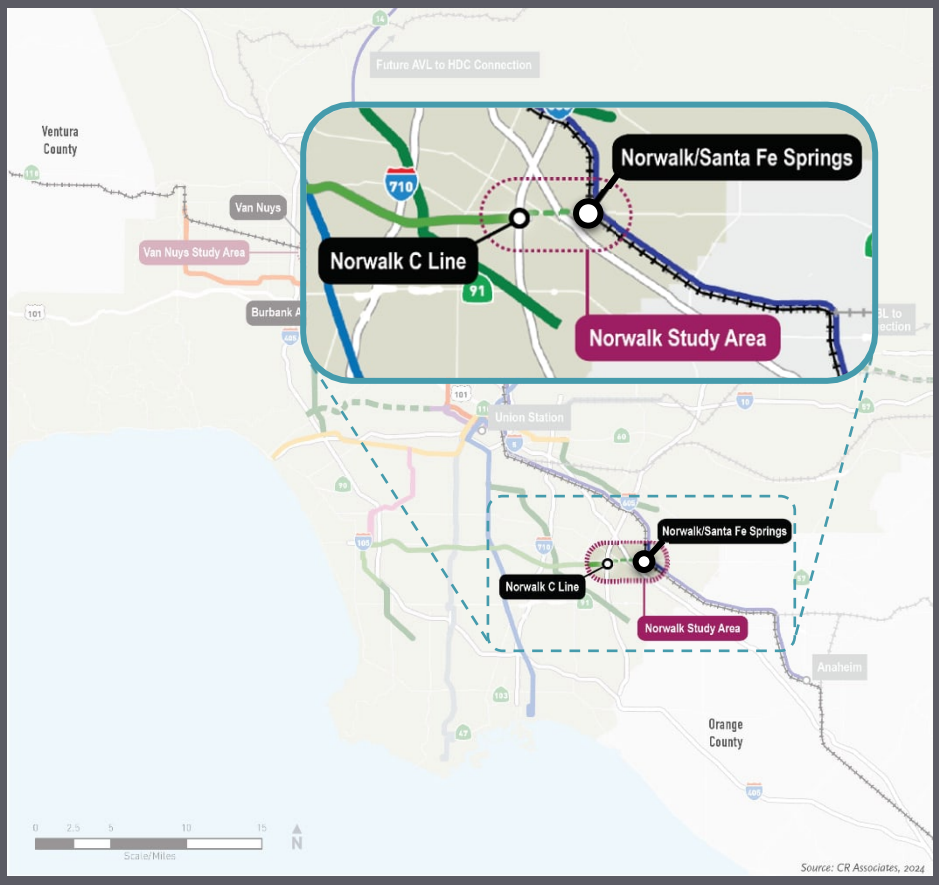
6. PROPOSED LANDSCAPING ELEMENTS SHALL PRIORITIZE VISIBILITY OVER SHADE TO MAXIMIZE SAFETY

Source: CRA

Norwalk/SFS Station

Figure 60
Norwalk/SFS Station Location



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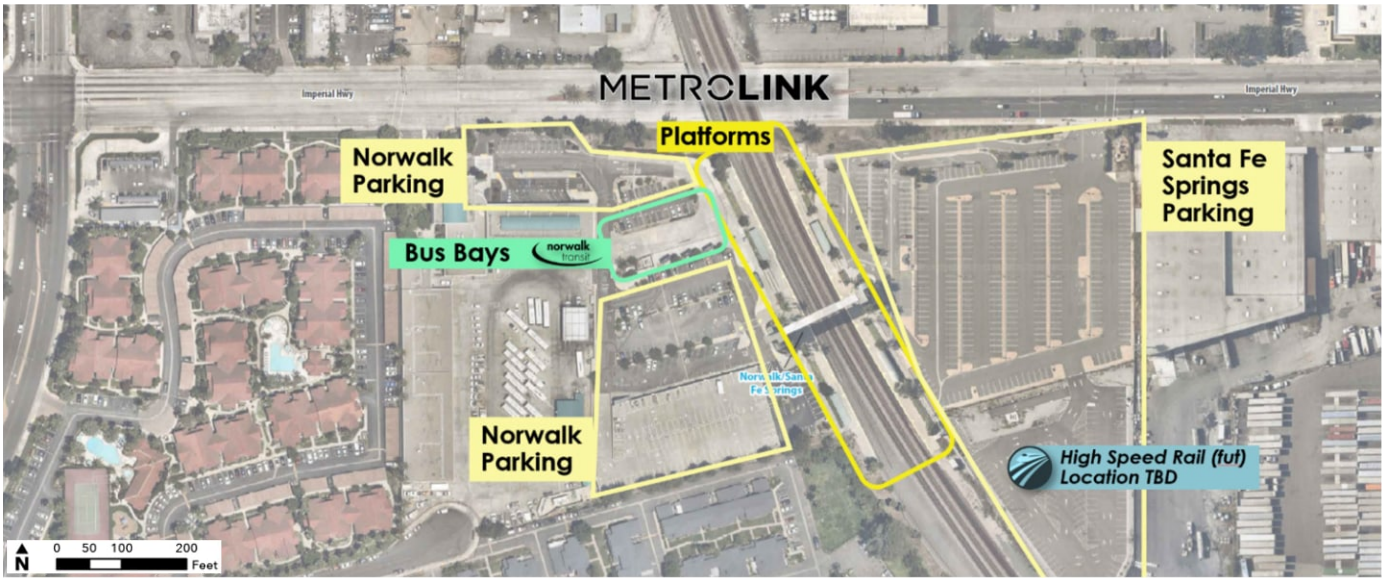
The Norwalk/SFS Station currently has Metrolink and occasional event-only Amtrak service and is planned as one of the CAHSR station options. The station is approximately 2.5 miles from the Norwalk C Line Station and is served by one bus line (Norwalk Transit Route 4), which directly connects the two stations. The station is isolated from pedestrian and bus access due to high-speed, high-traffic Imperial Avenue to the north, which is currently the only access route. Large parking lots on either side of the platforms provide ample car access but isolate the station from pedestrians and bicyclists.

$3.2M

NORWALK/SFS STATION TOTAL ROM COSTS FOR STATION AREA IMPROVEMENTS (2022 DOLLARS)*

** The projects are currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

Figure 61
Norwalk/SFS Station



Source: CRA

Norwalk/SFS Station Recommendations

The recommended improvements for this station include those listed in

Table 9 (also shown in Figure 62). A near-, medium-, and long-term recommendation for improving transit connectivity between Norwalk C Line and Norwalk/SFS station is described in the **Connectivity Improvements** section of this document.

The Study recommends that Metro support, where feasible, improvements identified in Norwalk's *Bicycle Master Plan (2022),* SFS's *General Plan (2022)*, and CAHSR Norwalk Station plans. A pedestrian improvement that would connect the station to Zimmerman Park and a transit-oriented development south of the station is recommended and is under planning by the City of Norwalk.

The BNSF freight railway runs through the station, which is on the San Bernardino subdivision. To accommodate freight movements, passenger trains must occasionally use the opposite track from what is typically used. This opposing direction of travel can be confusing and inconvenient for riders as the only access between the platforms is via an elevated bridge; regular platform announcements must be made to alert travelers as the static signage can be misleading. In the long-term, an additional passing track and platform is recommended to allow the separation of passenger and freight trains.

An expansion of platform and tracks that would also include new tracks over Imperial Highway is estimated to cost approximately $160 million. This improvement, which would better segregate passenger trains from BNSF freight trains, might be implemented by Metrolink or others and has been part of discussions between SCRRA and BNSF. An associated platform expansion is included in the Connectivity Improvements section.

Table 9
Norwalk/SFS Station and Access Improvements

Type	*Project*	*OOM Capital (2022 $'s)*	*Phase*
	Customer Information (e.g., station signage, wayfinding, maps)	$1.5M	Near
	Station Accessibility (e.g., accessible ramps, micromobility parking)	$0.94M	Medium
	Station Boarding Area (e.g., pedestrian lean bar, restrooms, shade trees)	$0.79M	Medium
	Norwalk/SFS Station Total	**$3.2M**	

Figure 62

Norwalk/SFS Station and Access Improvements

Legend

- Norwalk/Santa Fe Springs Station Improvements
- Station + Entrance
- Metrolink/Amtrak Tracks
- CA High Speed Rail Alignment
- City Boundaries

Wheel Facilities

Shared-Use/Off-Street Path (Class I)	Protected Bicycle Lane (Class IV)
Existing	Existing
Planned	Planned
Bicycle Lane (Class II)	Bicycle-Friendly Streets (Class III)
Existing	Existing
Planned	Planned

A station area radius of a half-mile is included for planning purposes of this study. A more focused station area may be included as part of future activities in project design and implementation.

Subject to Change 23-2284 ©2024 LACMTA

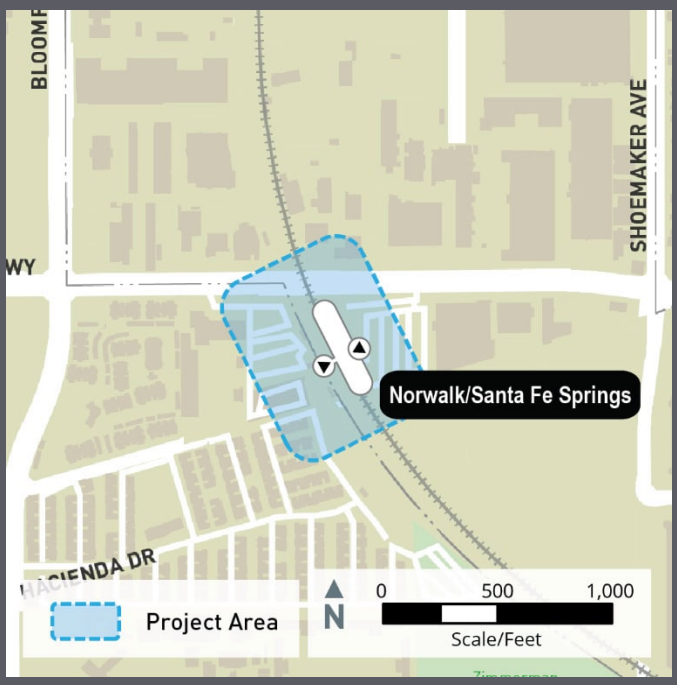
Source: CR Associates, 2024

Project No. NSFS3

Norwalk/SFS Station & Platform Improvements.

Improved access, wayfinding, informational signage, and amenities are proposed for the Norwalk/Santa Fe Springs Metrolink Station. This project is designed with future stops for Amtrak, CAHSR, and the C Line Extension in mind.

Figure 63
Norwalk/SFS Improvements Location



TIMELINE

Near-term | Medium-term | Long-term

Project Need

The station lacks high-quality amenities in locations throughout the area. The proposed projects focus on static and digital informational signage along with enhanced access and secure bike parking.

The station area lacks wayfinding that can help pedestrians, cyclists, and drivers locate the platform and other services while arriving, departing, or transferring between modes.

Existing signage is worn and should be repaired or replaced.

Types of Improvements

- ✓ Rail Operations
- ✓ Bus Operations
- ✓ Auto Access
- ✓ First/Last Mile
- ✓ Wayfinding/Trailblazing
- ✓ Station Improvements

Policy Considerations

> The improvement of the Norwalk/Santa Fe Springs Metrolink Station will require an agreement or MOU between Metrolink and the City of Norwalk and Norwalk Transit.
> Any impacts on BNSF will need to be carefully considered and minimized.
> Pending investment in additional services and stops, future transfer connectivity and supporting amenities will need to be coordinated with CAHSR, Amtrak, and Metro.
> The potential to add regular Amtrak service stops will increase frequency in the peak and add new mid-day service.

Implementation

Lead Agency:

> Metrolink

Supporting Agencies:

> City of Norwalk
> Norwalk Transit
> Amtrak
> BNSF
> CAHSR
> Metro

NORWALK/SFS STATION TOTAL ROM COSTS FOR CONSTRUCTION

(2022 Dollars)*

$3.2M

** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

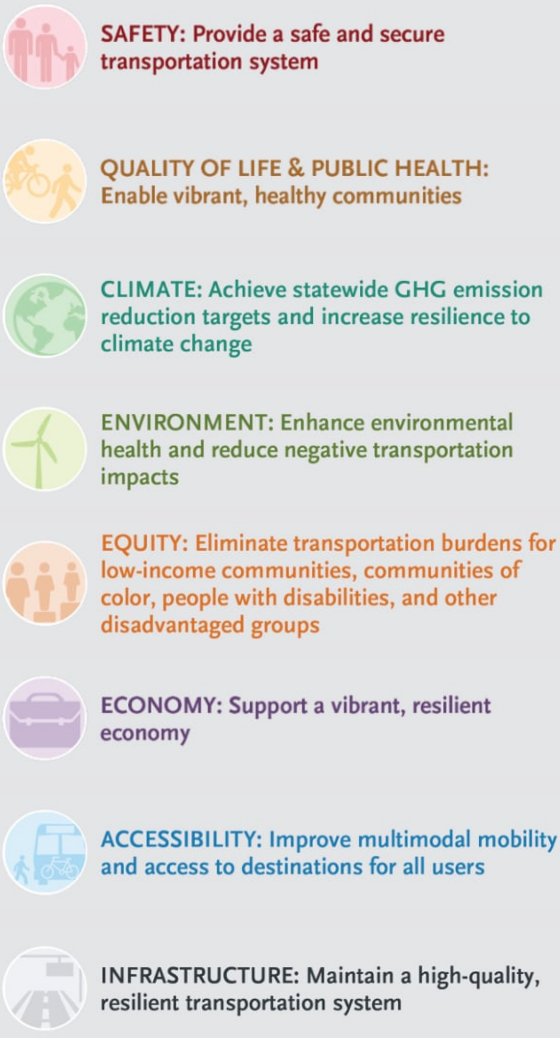
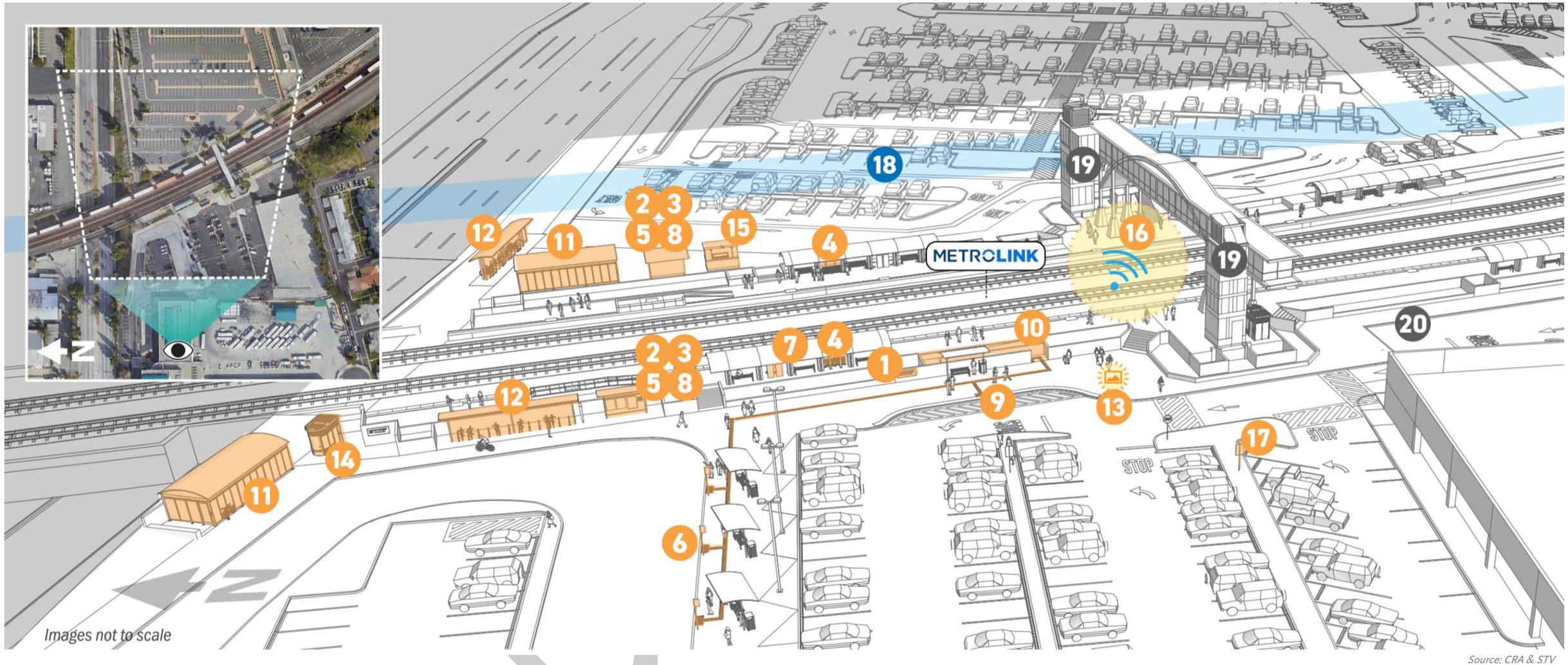


Figure 64

NORWALK/SFS STATION PROPOSED STATION AND PLATFORM IMPROVEMENTS RENDERING



Source: CRA & STV

Proposed Improvements

1. Static Directional Signage
2. Digital Information Kiosk
3. Customer Service Kiosk
4. Real-Time Arrival Info
5. Station Area Map
6. Sidewalk Stop Poles
7. Visual Wayfinding to Connecting Transit Service
8. Audio Wayfinding to Connecting Transit Service
9. Tactile Wayfinding to Connecting Transit Service
10. Access Ramp
11. Bike Hub/Bike Share
12. Shared Dockless Micro-Mobility Parking
13. Public Art
14. Restrooms
15. Security Kiosk
16. Wifi
17. Improved Parking Signage

Projects Planned by Others

18. Planned California High-Speed Rail Alignment

Existing Station Features

19. Elevator
20. Electric Vehicle Parking

Note: Additional active transportation and other improvement projects proposed by others are not illustrated.

Connectivity Improvements.

As described in the Regional Travel Demand analysis in Chapter 3, several connectivity improvements were identified that can improve connectivity through modest improvements of existing services and new service in existing corridors.

Near-term, low-cost improvements include increased stops on existing Amtrak service at Downtown Burbank and Norwalk/SFS, and timed transfer of AV/VCL Metrolink at Downtown Burbank. Longer-term capital improvements could make these connections.

Other Connectivity improvements include improving Norwalk/SFS station track and platforms, adding Metrolink service in the LOSSAN Corridor between San Fernando Valley and Orange County, and adding new express bus service on future toll lanes in the I-405 Corridor.

Buses at Norwalk C Line Transit Center

Revenue Service Stops for Amtrak Pacific Surfliner trains at Downtown Burbank and Norwalk/SFS.

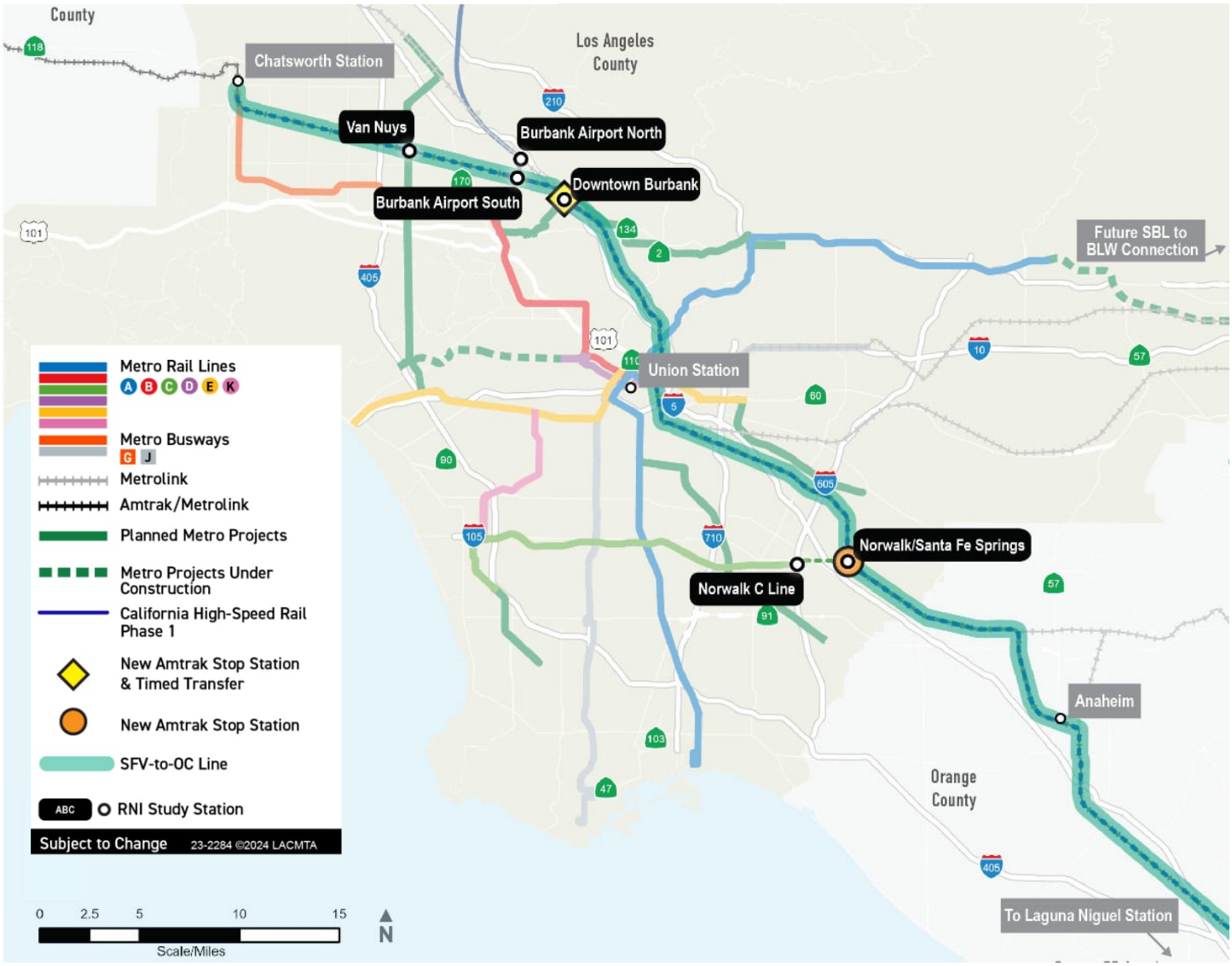
Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Near	<$100K	$0
Long	$200M	$0

In the urban corridor, all Pacific Surfliner trains should stop at Downtown Burbank and Norwalk/SFS stations. Codeshare or Rail2Rail programs can be utilized to promote fare integration between the two services. See Figure 65 below the proposed locations of new Amtrak stop stations.

When combined with Metrolink service, inbound service at Downtown Burbank would immediately grow to 30 trains (from 27) daily; with hourly service between 6:00 pm and 10:00 pm; and Norwalk/Santa Fe Springs would immediately grow to 25 trains (from 15) daily; with four new service stops between 10:30 am and 4:30 pm, as shown in Figure 18. This can be implemented in the near-term with minimal capital and/or operating costs. In the long-term, additional improvements could be made to modify platform lengths and additional tracks at Norwalk/SFS Station and improve track crossings for pedestrians.

Figure 65

Proposed Amtrak Stops & Metrolink Service



Metrolink SFV-to-OC Line, Tripper Service

Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Near	<$200K	$4.8M
Long	$238M	$19.9M

This new connection service within the dense LOSSAN corridor within LA County would provide hourly, weekday service for an 18-hour window between Chatsworth and Laguna Niguel. Service could be implemented with existing Metrolink trainsets to fill midday gaps, with long-term service providing all-day improved frequency as shown in the charts below.

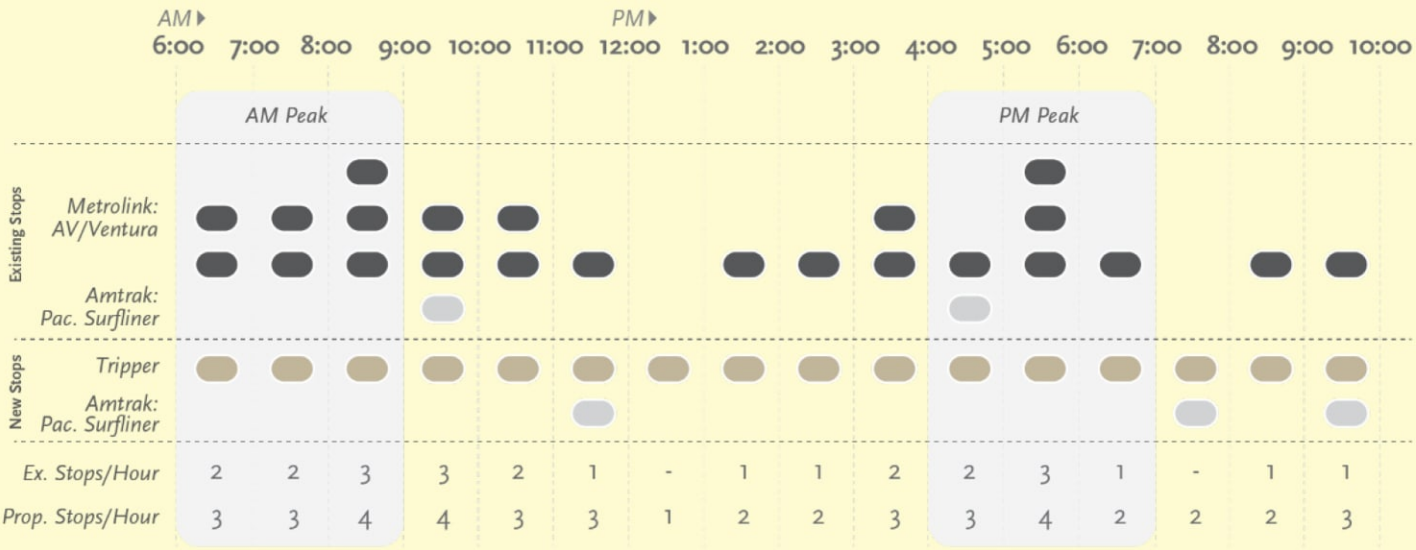
Figure 66

Sample of Existing and Proposed Stops per Hour, Based on Inbound Service

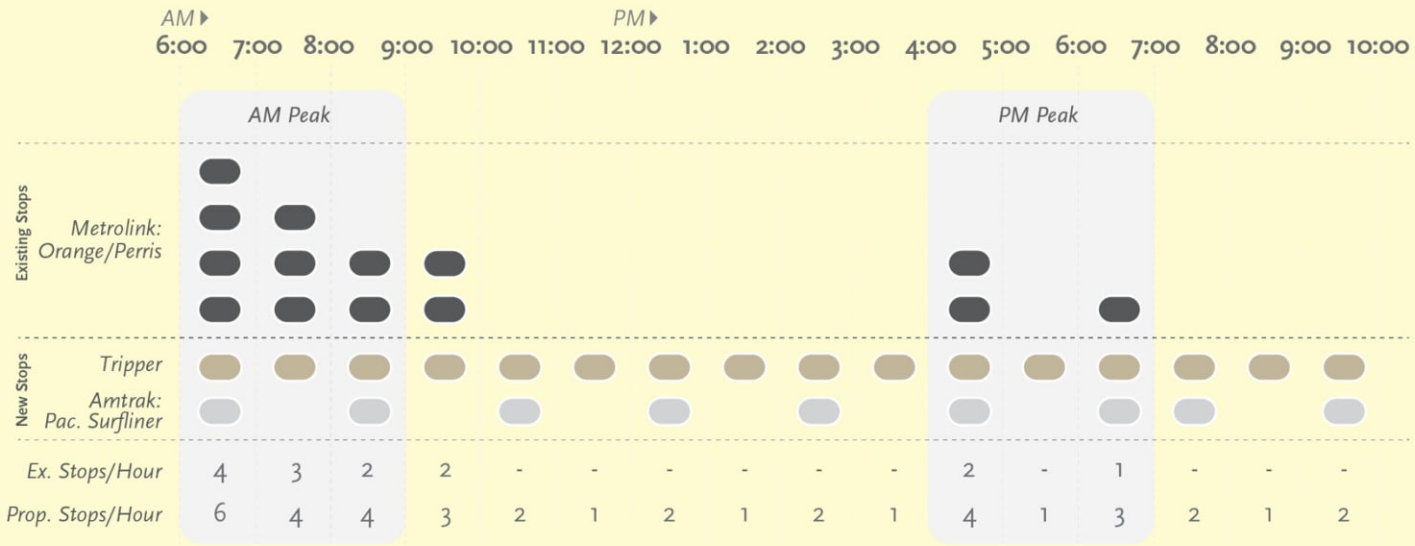
This is an example of inbound service only and is illustrative of a single direction of service improvments. Both inbound and outbound service improvements are recommended.

Metrolink's new October 2024 schedule expansion should fill the mid-day train schedule, noted here as Tripper service.

Downtown Burbank – *Inbound to LAUS*



Norwalk / Santa Fe Springs Station – *Inbound to LAUS*



Source: CRA

Inbound train service from Burbank to LAUS would increase to three trains (from two) per hour between 6:00 am and 7:00 am and to four (from three) trains per hour between 9:00 am and 10:00 am. See Figure 65 for the proposed alignment and Figure 66 for a sample of existing and proposed stops per hour, based on inbound service.

As shown in Figure 66, midday service between 10:30 am and 4:30 pm would improve to two-to-three trains per hour (from one train per hour).

Inbound train service from Norwalk/SFS to LAUS would improve to six trains/hour between 6:00 am and 7:00 am (from four), and to four trains/hour between 7:00 am and 9:00 am (from three), and midday frequency would improve to nearly two per hour between 10:30 am and 4:30 pm (currently, no service exists during this time period.)

Implementation could start in the mid-term by deploying trains for hourly midday service from 11:00 am to 4:00 pm, utilizing trainsets that otherwise serve peak-hour-only routes. Longer-term, all-day service would require six additional trainsets.

While this service could begin in the near-term, the interlined operation would be improved with the completion of the run-through tracks that will be completed as part of the Link US Project.

An Amtrak Pacific Surfliner train passing through Norwalk/SFS Station.

Timed transfer at Downtown Burbank Station

Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Near	<$100K	$0
Long*	$10M	$0

*For train signaling improvements

This timed transfer between the inbound Metrolink AVL and outbound VCL – or vice versa, inbound VCL to outbound AVL, will have immediate benefits of reduced travel time between these markets and rail shuttle services between Burbank Airport North and Burbank Airport South Stations.

Implementation could start immediately without additional capital or operating costs. Mid-term, improvements could be made to train signals to improve at-grade pedestrian crossings. Long-term, CAHSR may construct grade-separated pedestrian crossings of the tracks at this station.

During implementation, the competing desire for clockface schedules on the AVL and VCL should be considered. This may make it harder to have timed transfers between the two commuter rail lines.

Rail passengers wait to board the Metrolink train while others alight at Downtown Burbank Station. In the distance, passengers wait to cross for transit services on the other side of the tracks.

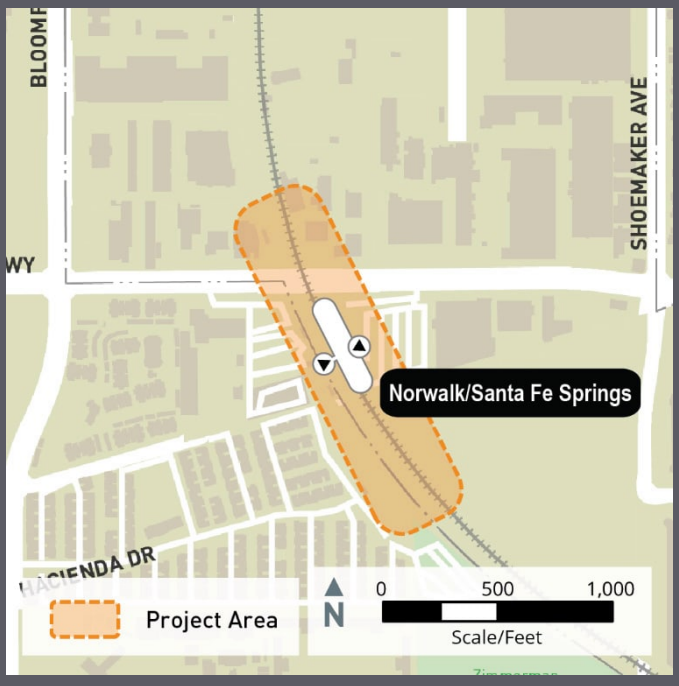
Project No. NSFS6 & 7

Norwalk/SFS Track Expansion.

The addition of an Amtrak stop adds just over a minute of additional dwell time to the Amtrak while increasing connection opportunities for riders traveling from the Norwalk C Line Station and local buses. While there is capacity for Amtrak to begin stopping at Norwalk/SFS without impeding freight or Metrolink operations, adding an additional track and platform at the Norwalk/Santa Fe Springs Station will allow for Amtrak to stop and reduce current conflicts with freight trains traveling through this portion of the corridor.

Figure 67

Norwalk/SFS Improvements Location



TIMELINE

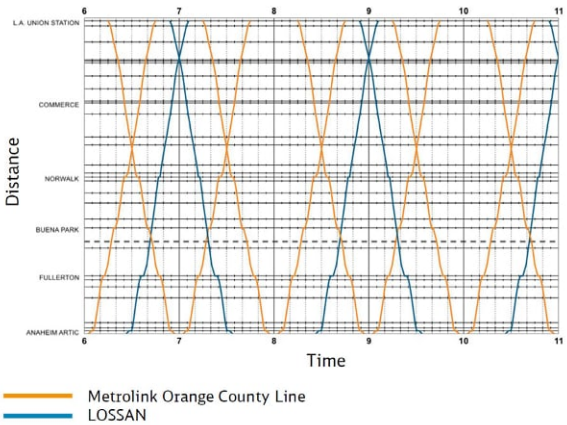
Near-term | Medium-term | Long-term

Project Need

The Norwalk/Santa Fe Springs Station has a long-term opportunity to become a regional transit hub with the extension of the Metro C Line from the Norwalk Station and the opening of CAHSR. In the shorter term, the expansion of tracks with associated platforms will allow for increased frequency of service for existing and future transit riders by adding Amtrak (LOSSAN) stops at this station. The expanded capacity at the station will allow for sufficient line separation and platform occupancy for the existing Metrolink and future Amtrak service patterns.

Figure 68

Metrolink and LOSSAN/Amtrak Stringlines



Stringlines show capacity within existing operations

Types of Improvements

- ✓ Rail Operations
- ✓ Station Improvements

Environmental Considerations

The proposed project would likely qualify for a categorical or statutory exemption due to being mostly within the footprint of the existing facilities. After review, it is unlikely for the Development of Norwalk/SFS Metrolink/Amtrak Center Platform Design Project to have a significant impact on the surrounding environment. If an exemption is unavailable, an Initial Study would likely yield no potentially significant impacts, non-standard BMPs, or non-standard mitigation measures. It is also unlikely that hazardous materials in the immediate vicinity of the proposed Project would pose a threat to individuals involved in the construction or operation of the proposed Project.

Policy Considerations

- > Coordination will be required between SCRRA, LOSSAN, and BNSF for existing and planned operations during and after construction.
- > The track expansion will primarily be within the City of Santa Fe Spring's existing parking lot, adjacent to the planned Norwalk CAHSR Station.
- > Coordination with CAHSR and Metro regarding future construction and transit expansion will be required.

Implementation

Lead Agency:

- > Metrolink

Supporting Agencies:

- > City of Santa Fe Springs
- > City of Norwalk & Norwalk Transit
- > LOSSAN / Amtrak
- > BNSF
- > CAHSR
- > Metro

NORWALK/SFS TRACK EXPANSION ROM COSTS FOR CONSTRUCTION

(2022 Dollars) *

NEAR-TERM: **$0**

LONG-TERM: **$160M**

** This project is currently unfunded. Additional environmental, engineering, and public outreach will need to be completed prior to implementation.*

CTP 2050 Goals Advanced

- **SAFETY:** Provide a safe and secure transportation system
- **QUALITY OF LIFE & PUBLIC HEALTH:** Enable vibrant, healthy communities
- **CLIMATE:** Achieve statewide GHG emission reduction targets and increase resilience to climate change
- **ENVIRONMENT:** Enhance environmental health and reduce negative transportation impacts
- **EQUITY:** Eliminate transportation burdens for low-income communities, communities of color, people with disabilities, and other disadvantaged groups
- **ECONOMY:** Support a vibrant, resilient economy
- **ACCESSIBILITY:** Improve multimodal mobility and access to destinations for all users
- **INFRASTRUCTURE:** Maintain a high-quality, resilient transportation system

Figure 69

PROPOSED PROJECT *(DRAWING 1 OF 1)*

Conceptual plan of the proposed project, which includes additional tracks, an island platform, a new freight bridge, and a potential pedestrian tunnel. The proposed Project includes the construction of a new 680' island platform roughly where two middle tracks are now (likely tunnel to connect), a new freight bridge over Imperial Highway, two new freight tracks east of current tracks, and the reconstruction of the eastern passenger track to connect with new platform. The objective of the proposed project is to increase access and efficiency for increased ridership.

Source: CRA & STV

I-405 Freeway Express Bus

Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Long	$3M	$6M

Metro and other bus operators in the region currently operate multiple express buses on Toll and HOV lanes throughout the region. As part of this RNI Study, it was determined a gap in existing or planned express service exists on I-405 and could best be implemented when the planned Toll Lanes are in place in LA County. This proposed express bus service, see Figure 70, would take advantage of the estimated 10% travel time improvement of Toll Lanes on I-405, forecasted to be open in 2030. Service destinations for buses connecting from south to north in LA County include stops at CSULB/Tibor Rubin VA Medical Center, and connections to rail and BRT stations along the route (where feasible) at A, J, C, K, and E lines at UCLA/West LA VA Medical Center. Anticipated frequency would match the J Line to San Pedro with approximately 20 minutes of all-day weekday service.

The travel time for this service would benefit from implementation in the long-term with the addition of toll lanes. In the near-term, the service could be introduced without the added travel time benefit, potentially tested as part of the 2028 Games service.

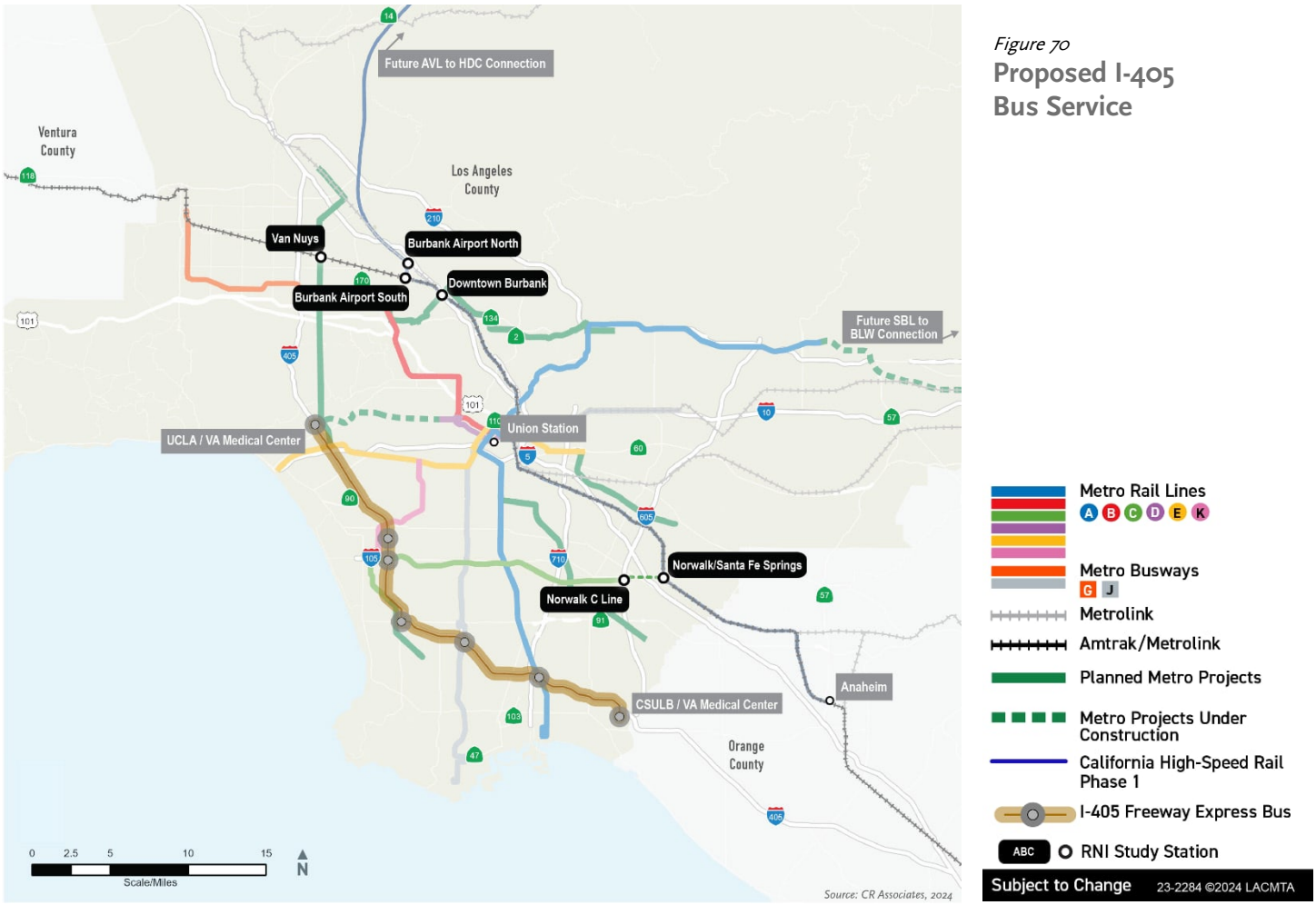


Figure 70
Proposed I-405 Bus Service

Metro Norwalk C Line Station to Norwalk/SFS Station Connection

Enhanced transit service between Norwalk C Line and Norwalk/SFS stations would increase connectivity between the terminus of Metro's C Line light rail and the Metrolink Station, with potential for connectivity to Amtrak Pacific Surfliner service and future CAHSR at Norwalk/SFS, see Figure 21. This would create immediate benefits through enhanced connectivity and the establishment of these stations as major transit hubs.

Near-/Medium-Term: Enhanced Bus between Norwalk C Line and Norwalk/SFS Stations.

Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Near	$3M	$1.5M
Medium	$13.2M	$2.9M

In the near-term, additional service could be provided by Norwalk Transit Route 4 and/or extending LBT Routes 172/173 to Norwalk/SFS. In the medium-term, a dedicated, enhanced bus service with increased frequency and spot improvements to improve reliability, along with bus stop enhancements to improve customer comfort, would provide substantial benefits for existing riders and attract new riders.

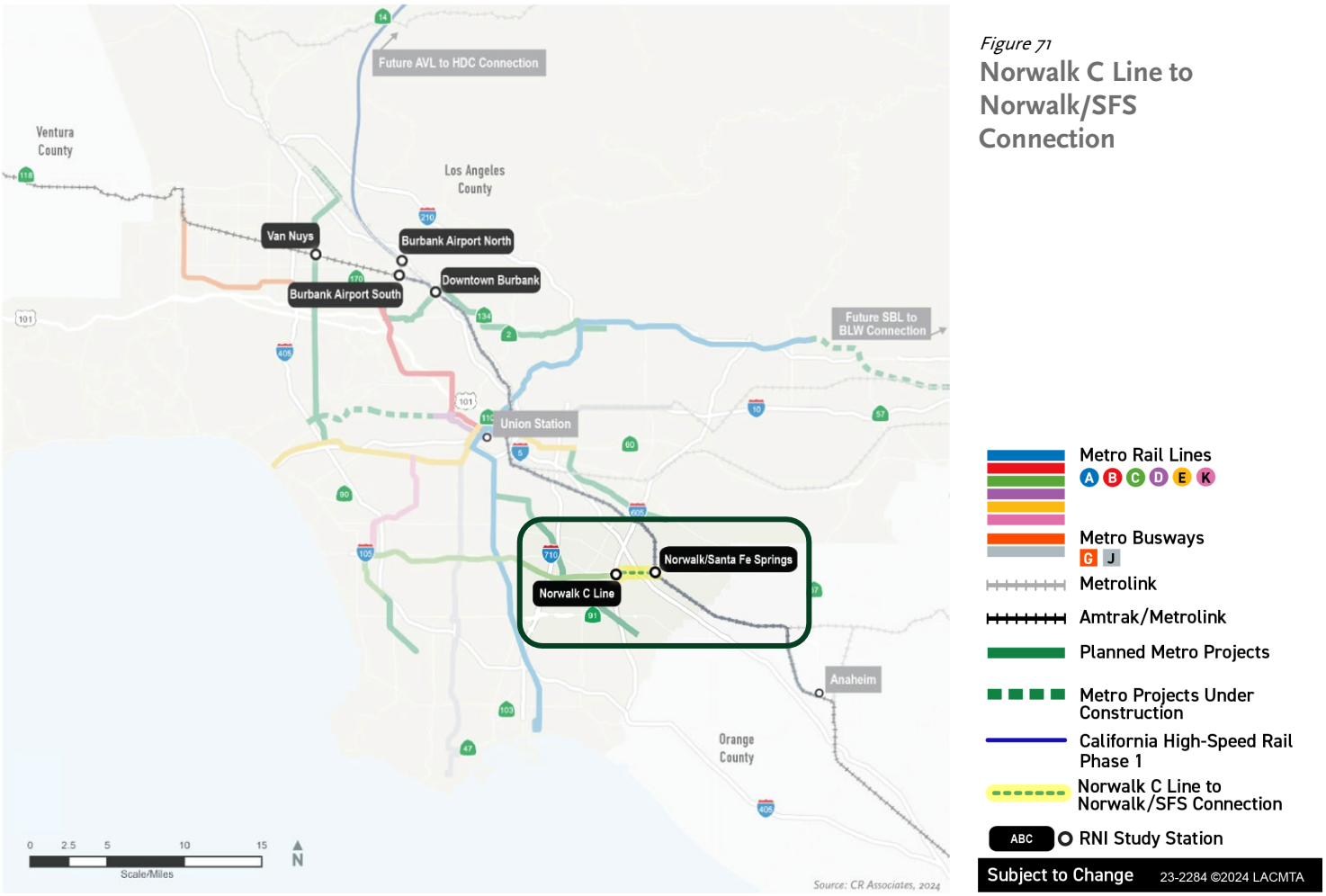


Figure 71
Norwalk C Line to Norwalk/SFS Connection

Long-Term: LRT Extension of the C Line to Norwalk/SFS Station.

Phase	*OOM Capital (2022 $'s)*	*Annual Operating (2022 $'s)*
Long	$1.3B-2.6B	$7M

The LRT extension of the C Line to the Norwalk/SFS station is by far the most significant gap closure that can be made to improve connectivity and network integration as part of this Study. A sample alignment for the extension is illustrated in Figure 72. Metro should explore opportunities to move this critical gap closure project up to earlier than 2052. Extending the C Line to the Norwalk/Santa Fe Springs Station would close a notable gap in the regional rail transit network, creating a more seamless experience for local and regional riders.

This extension would create a rail hub in southeastern LA County with service to LRT, commuter rail, Amtrak Pacific Surfliner, and CAHSR. This will be only one of four locations in California with this level of rail service – providing direct connectivity to San Luis Obispo, Downtown Los Angeles, San Diego, LAX, Orange County, Ventura, Riverside/Perris, and, pending CAHSR, the Central Valley and San Francisco.

Table 10

Cost and Boarding Increases for Near- and Long-Term Connections between the Norwalk C Line and Norwalk/SFS Stations

	Near-Term: Best Bus	Long-Term: Rail Extension
Costs (2022 $'s)		
Capital	$130M	$200M from Measure M and $570M from other local and state sources for Green Line Eastern Extension (year 2052-2054 completion); Cost Varies pending configuration ($1.3 - $2.6B)
Operating (Annual)	$2.9M	$7M
Daily Boardings Increase over No-Build Scenario		
Model Yr.	*2017*	*2047*
System	1,647	2,659
Segment	500	1,700

Figure 72

Sample Alignment for the C Line Extension to Norwalk/SFS Station

CHAPTER 5

Conclusion

The Study identified three categories of recommendations – system-wide, station-oriented, and connectivity – that Metro and partner agencies can use to advance local, regional, and state infrastructure goals.

Passengers arrive at the Metro Norwalk C Line Station.

The Los Angeles County Rail Network Integration Study (Study) is funded by the 2018 TIRCP grant and was awarded to Metro in August 2021. The Study highlights the top 7 recommendations to integrate services between Metro's transit network with the statewide commuter rail system (Metrolink/Amtrak) and future CAHSR stations in LA County.

These recommendations include:

- **Systemwide**: such as wayfinding, fare integration, and customer information
- **Station-Oriented**: such as First/Last Mile, station improvements, and customer amenities
- **Connectivity**: such as new express bus service on toll lanes, extensions of LRT, and increased frequency of Metrolink and Amtrak service

The project team has conducted multiple rounds of stakeholder briefings with key project stakeholders (local, regional, and state) throughout the Study to receive and incorporate their comments on the draft recommendations. The Study team also conducted two rounds of CBO workshops and station intercept surveys in the Summer/Fall of 2023.

An OOM estimated costs and timeline for proposed improvements are included in the Study, along with a detailed funding/financing analysis.

The Study team is working with partnering agencies to identify state and local funding strategies for the recommended improvements and implementation strategies for potential pilot projects through Metro's upcoming Regional Rail Strategic Plan update program.

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