

LA Metro  
One Gateway Plaza  
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Los Angeles, CA 90012



# TREE INVENTORY

FEBRUARY 29, 2016

*East San Fernando Valley Transit Corridor Study Draft EIS/EIR*



**Metro**



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## Abbreviations

2008 RCP	2008 Regional Comprehensive Plan
2012 RTP	2012–2035 Regional Transportation Plan/Sustainable Communities Strategy
AA	Alternatives Analysis
BRT	bus rapid transit
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CPA	Community Plan Area
DEIR	Draft Environmental Impact Report
DEIS	Draft Environmental Impact Statement
FTA	Federal Transit Administration
Growth Vision	2004 Compass Blueprint Growth Vision
HOV	high-occupancy vehicle
I	Interstate [I]
LADOT	Los Angeles Department of Transportation
LRT	light rail transit
L RTP	Long-Range Transportation Plan
Metro	Los Angeles County Metropolitan Transportation Authority
MPO	Metropolitan Planning Organization
MSF	maintenance and storage facility
NEPA	National Environmental Policy Act
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SCAG	Southern California Association of Governments
SR	State Route
TSM	Transportation System Management
U.S.C.	United States Code

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## East San Fernando Valley Transit Corridor Project Area





# INTRODUCTION

## Introduction

### BACKGROUND

The Federal Transit Administration (FTA) and Los Angeles County Metropolitan Transportation Authority (Metro) have initiated a Draft Environmental Impact Statement (DEIS)/Environmental Impact Report (DEIR) for the East San Fernando Valley Transit Corridor Project (Project). The DEIS/DEIR is being prepared with the FTA as the Lead Agency under the National Environmental Policy Act (NEPA) and Metro as the Lead Agency under the California Environmental Quality Act (CEQA).

The following six alternatives, including four build alternatives, a TSM Alternative, and the No-Build Alternative, are being evaluated as part of this study:

- No-Build Alternative
- TSM Alternative
- Build Alternative 1 – Curb-Running BRT Alternative
- Build Alternative 2 – Median-Running BRT Alternative
- Build Alternative 3 – Low-Floor LRT/Tram Alternative
- Build Alternative 4 –LRT Alternative

All build alternatives would operate over 9.2 miles, either in a dedicated bus lane or guideway (6.7 miles) and/or in mixed-flow traffic lanes (2.5 miles), from the Sylmar/San Fernando Metrolink station to the north to the Van Nuys Metro Orange Line station to the south, with the exception of Build Alternative 4 which includes a 2.5-mile segment within Metro-owned railroad right-of-way adjacent to San Fernando Road and Truman Street and a 2.5-mile underground segment beneath portions of Panorama City and Van Nuys.

On June 25, 2015, Metro meet with representatives from KOA and ICF to discuss the need to identify any street trees that could be impacted by advanced utility work, construction activities, and sidewalk and roadway modifications for each alternative. It was determined that a general Tree Inventory would be conducted by Metro and disclosed in the DEIS/DEIR to better inform stakeholders, the public, and decision makers of the trees that could be removed by one of the four build alternatives.

### METHODOLOGY

Metro conducted a Tree Inventory along the 9.2 mile project alignment within the Cities of Los Angeles and San Fernando. A combination of drive by window surveys, walking, and aerial mapping were used to conduct estimated tree counts. Trees within each City's owned right-of-way open and available for inspection were counted and included in aerial

# INTRODUCTION

maps in the attached Tree Inventory Report (see Appendix A). To determine the amount of potentially impacted trees for each alternative, the tree inventory was compared to the areas of sidewalk and roadway modifications identified in the Conceptual Engineering (CE) Alignment Design Drawings prepared by KOA (see Appendix B).

General sizes for the impacted trees were also evaluated and placed in the following categories.

- Small:  $\leq$  5ft tall and/or observed to be newly plated
- Medium: Between 5ft -15ft and/or observed to be around 3-7 years in age
- Large:  $\geq$  15ft and/or observed to be mature (large trunk and/or Canopy) and over 7-years

**SMALL**



**MEDIUM**



**LARGE**



SOURCE: METRO, 2015

For Real Estate Acquisition, Railroad Right-of-Way, or areas not accessible by field observation, no tree inventory was conducted.

Prior to construction of any alternative, however, an arboricultural inventory and evaluation tree report would need to be prepared, by a qualified arborist, for the project and approved by each City. Trees approved for removal (or replacement) shall be done in accordance to the specifications outlined in City of Los Angeles Tree Ordinance 177404



# INTRODUCTION

and City of San Fernando Comprehensive Tree Management Program Ordinance (Ordinance No. 1539).

For more information on the types of trees in the study, including heritage trees, please see the East San Fernando Valley Transit Corridor *Ecosystems/Biological Resource Impacts Report*, prepared by [redacted] in [redacted] in Appendix [redacted] of this Draft EIS/EIR.

## FIELD INVESTIGATION

A site visit was conducted between 9:30 a.m. and 3:30 p.m. on June 30, 2015, between 9:30 a.m. and 3:30 p.m., and on July 14, 2015 between 11:45 a.m. and 4:30 p.m., by a Metro Urban/Transportation Planner and Summer Intern. Visibility was good for all days of the site visits.

The site visit focused on conducting an inventory of all trees located on sidewalks and medians along Van Nuys Boulevard and San Fernando Road. The effort included hand mapping the location of trees, documenting the general size (small, medium, and large) of trees, and taking photos of different trees along the 9.2 mile alignment.



# EXECUTIVE SUMMARY

## Executive Summary

### OBSERVATIONS

The entire 9.2 mile alignment within the Cities of Los Angeles and San Fernando right-of-way was open and available for inspection, with the exception of two locations where construction activities prevented access. No trees were present at either of the locations.

A wide variety of trees were observed in size, age, and species. In the Civic Center along Van Nuys Boulevard between the Metro Orange Line and Sherman Way, a concentration of mostly large palms 30-60 feet in height lined the sidewalks. At the Malls in Panorama City and at Roscoe/Chase, very large mature trees with large canopies lined the streets. Just north to the I-5 interchange, larger growth trees and a variety of small to median trees were observed. In the Pacoima area to San Fernando Road, trees were small to median sized and scattered further apart than other areas. Along the San Fernando Railroad Tracks between Van Nuys Boulevard and the San Fernando Road/Truman Street split, small newly planted trees aligned the Class I Bicycle Path were observed. In the City of San Fernando's downtown, a centralized concentration of large mature trees were observed. In addition, three large median landscaped planter that housed medium to large trees were also observed. Below is an example of one located just north of Sherman Way.



# EXECUTIVE SUMMARY

The locations and impacted trees evaluated as part of this report are included in figures 2-1 through 2-12 in Appendix A. A summary of the impacted trees are discussed in the next section.

## FINDINGS

Approximately 1,141 trees were counted. Of the 1,141 trees, 884 (77%) were located in the City of Los Angeles and 257 (23%) in the City of San Fernando.

### No-Build

The No-Build Alternative would have no impact to street trees.

### TSM Alternative

The TSM Alternative would have no impact to street trees.

### Alternative 1 - Curb-Running BRT Alternative

The Curb-Running BRT Alternative would have no impact to street trees.

### Alternative 2 – Median-Running BRT

The Median-Running BRT Alternative would potentially impact 77 (7%) of the street trees.

### Alternative 3 – Low-Floor LRT/Tram

The Low-Floor LRT/Tram Alternative would potentially impact 386 (34%) of the street trees.

### Alternative 4 –LRT

The LRT Alternative would potentially impact 141 (12%) of the street trees.

A breakdown of the tree counts and impacted trees for each alternative are included in Tables 1-1 and 1-2.

# EXECUTIVE SUMMARY

Table 1-1: Tree Inventory - Counts

Locations	Total Trees	Impacted Trees			
		Alt 1	Alt 2	Alt 3	Alt 4
City of Los Angeles	884	0	77	167	141
City of San Fernando	257	0	0	219	0
<b>TOTAL</b>	<b>1141</b>	<b>0</b>	<b>77</b>	<b>386</b>	<b>141</b>

It should be noted, that the Low-Floor LRT/Tram Alternative is the only alternative that impacts trees in the City of San Fernando. This could be because the Alternative's amount of stations (28) compared to the other Alternatives (14, 17, and 18), the alignment the runs along San Fernando Road through City of San Fernando, and the extensive roadway reconfiguration that would be required. 84 percent of the trees inventoried in the City are impacted by Alternative 3.

Table 1-2: Tree Inventory – Percentages

Locations	Total Trees	Impacted Trees			
		Alt 1	Alt 2	Alt 3	Alt 4
City of Los Angeles	77%	0%	9%	19%	16%
City of San Fernando	23%	0%	0%	85%	0%
<b>TOTAL</b>	<b>100%</b>	<b>0%</b>	<b>7%</b>	<b>34%</b>	<b>12%</b>

As shown in Table 1-3, Alternatives 2, 3, and 4 would impact a large percentage of medium and large trees. For large trees, the Median-Running BRT Alternative impacts 37 (48%), the Low-Floor LRT/Tram Alternative impacts 180 (47%), and the LRT Alternative impacts 75 (53%) of the street trees inventoried.

Table 1-3: Tree Inventory – Size

Size	Impacted Trees			
	Alt 1	Alt 2	Alt 3	Alt 4
Small	0	4	82	11
Medium	0	36	124	55
Large	0	37	180	75
<b>TOTAL</b>	<b>0</b>	<b>77</b>	<b>386</b>	<b>141</b>

# EXECUTIVE SUMMARY

It should be noted that Alternative 4 – LRT could impact trees within the 2.5 mile of the San Fernando Railroad Right-of-Way. In addition, both Alternatives 3 and 4 could have additional impacts to trees from Right-of-Way Acquisition. As mentioned earlier, no tree inventory was conducted for Real Estate Acquisition, in the Railroad Right-of-Way, or areas not accessible by field observation.

The No-Build, TSM and Curb-Running BRT Alternatives would have no impacts to trees.

# COMPANY/CONTACT INFORMATION

## Company/Contact Information

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## APPENDIX

- A. TREE INVENTORY REPORT
- B. CE ALIGNMENT DESIGN DRAWINGS





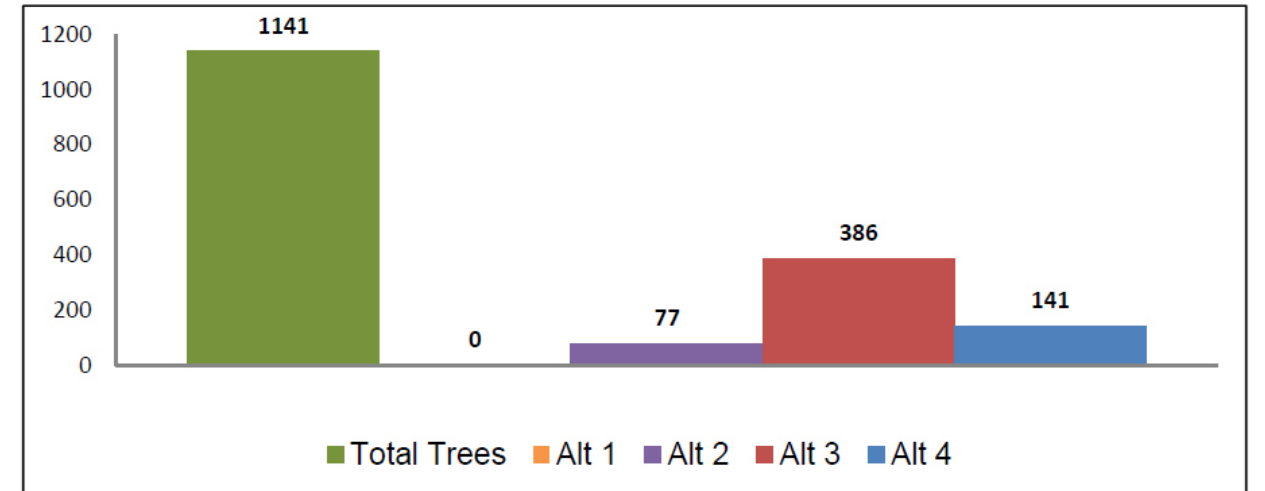


# ESFV Transit Corridor Project Tree Inventory



Source: Metro, 2015

## Tree Inventory - Counts



Locations	Total Trees	Impacted Trees			
		Alt 1	Alt 2	Alt 3	Alt 4
City of Los Angeles	884	0	77	167	141
City of San Fernando	257	0	0	219	0
<b>TOTAL</b>	<b>1141</b>	<b>0</b>	<b>77</b>	<b>386</b>	<b>141</b>

## Tree Inventory - Size

Small

Medium

Large



Figure 2-1: Van Nuys Boulevard - MOL to Hartland

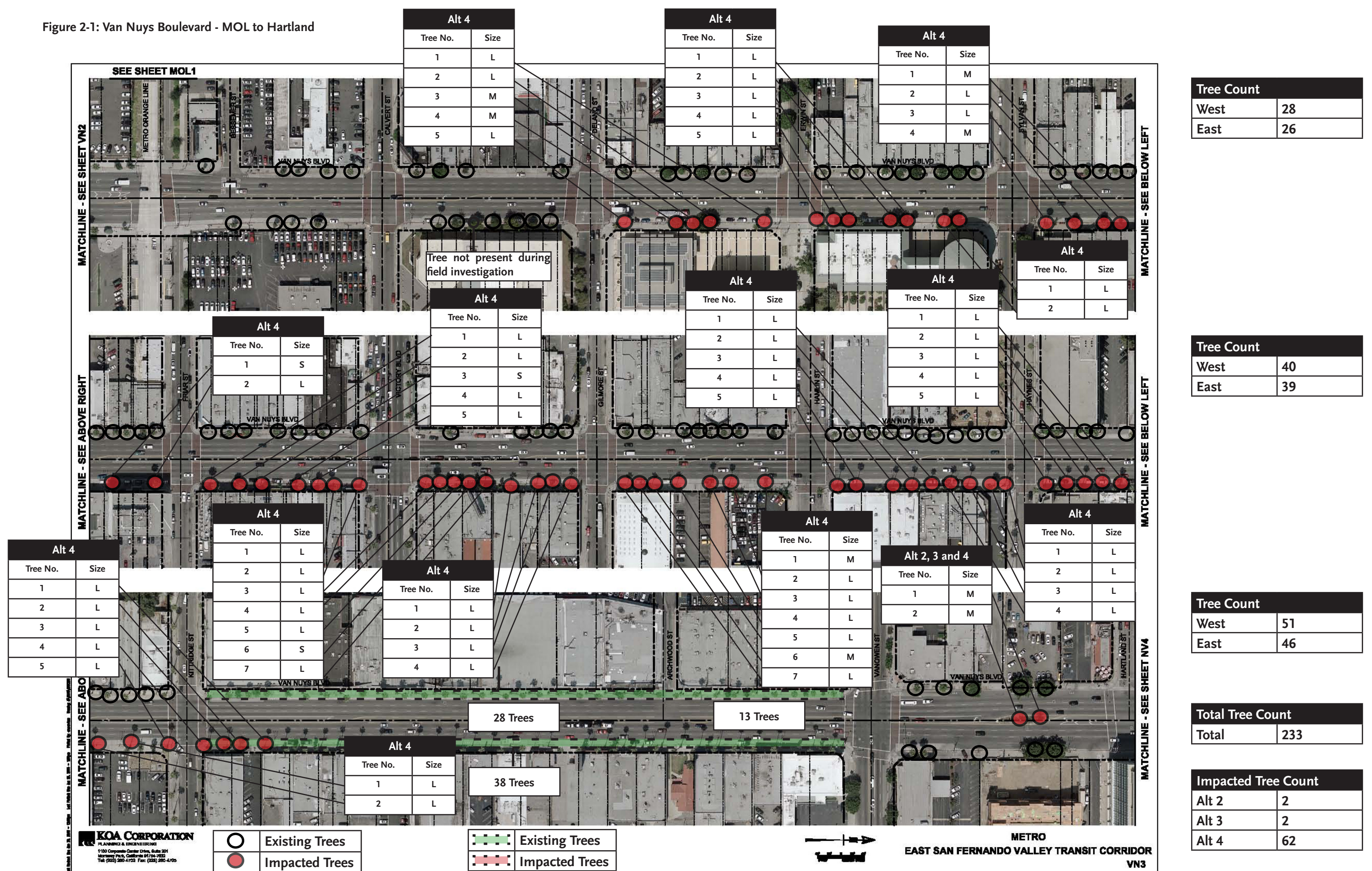
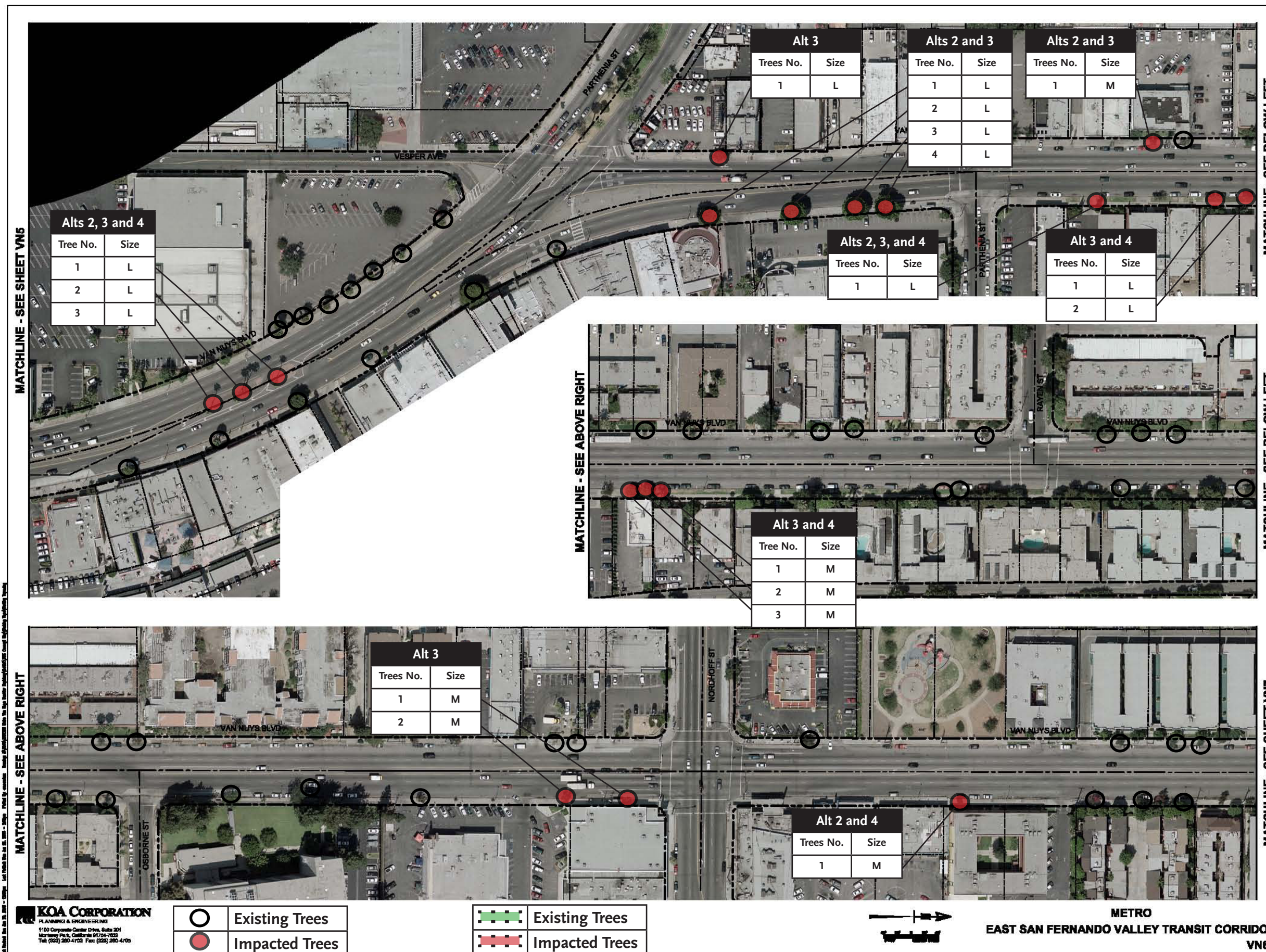






Figure 2-4: Van Nuys Boulevard - Chase to Nordhoff



Tree Count	
West	11
Median	3
East	13

Tree Count	
West	8
East	7

Tree Count	
West	8
East	11

Total Tree Count	
Total	61

Impacted Tree Count	
Alt 2	10
Alt 3	17
Alt 4	10

Figure 2-5: Van Nuys Boulevard - Tupper to Canterbury

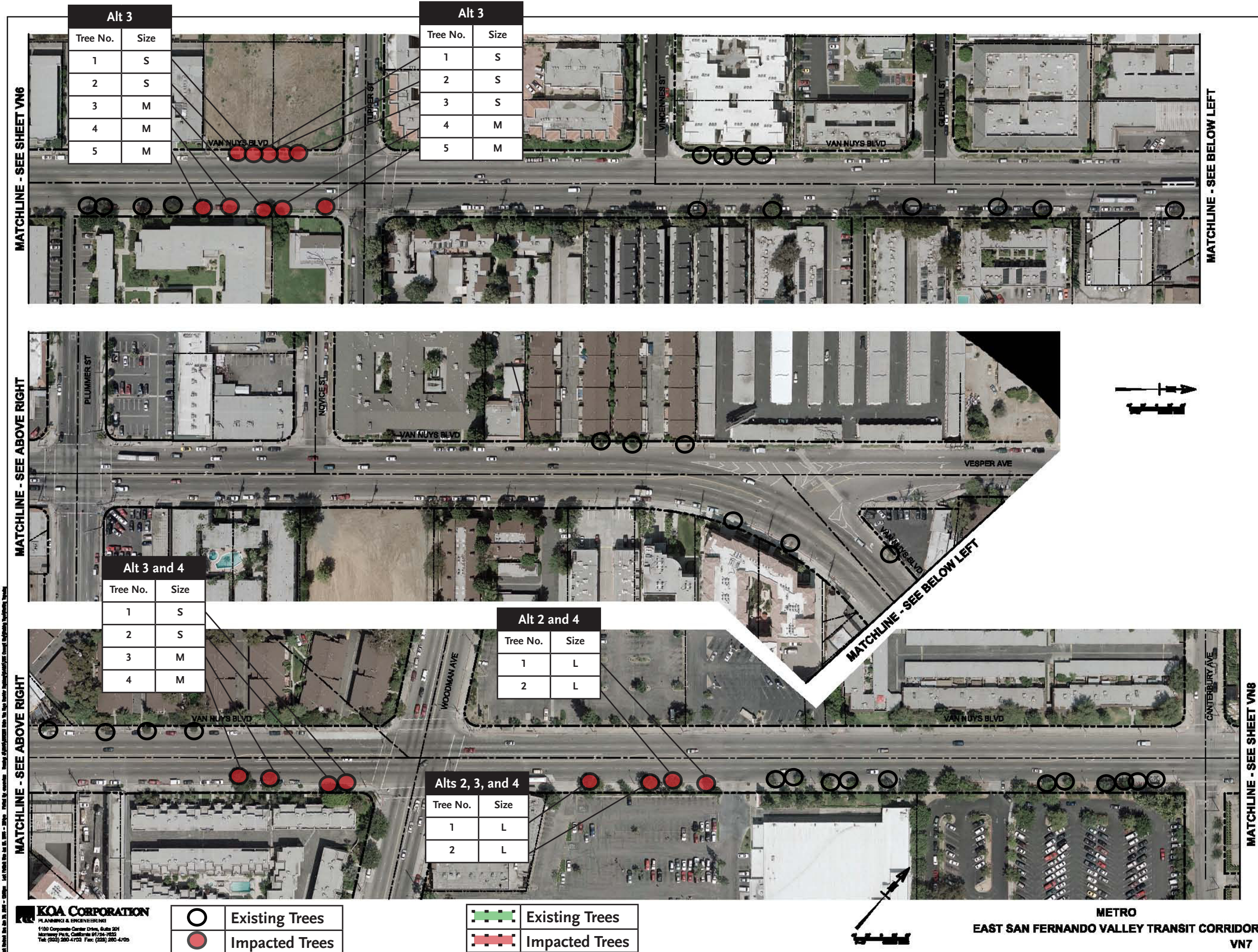
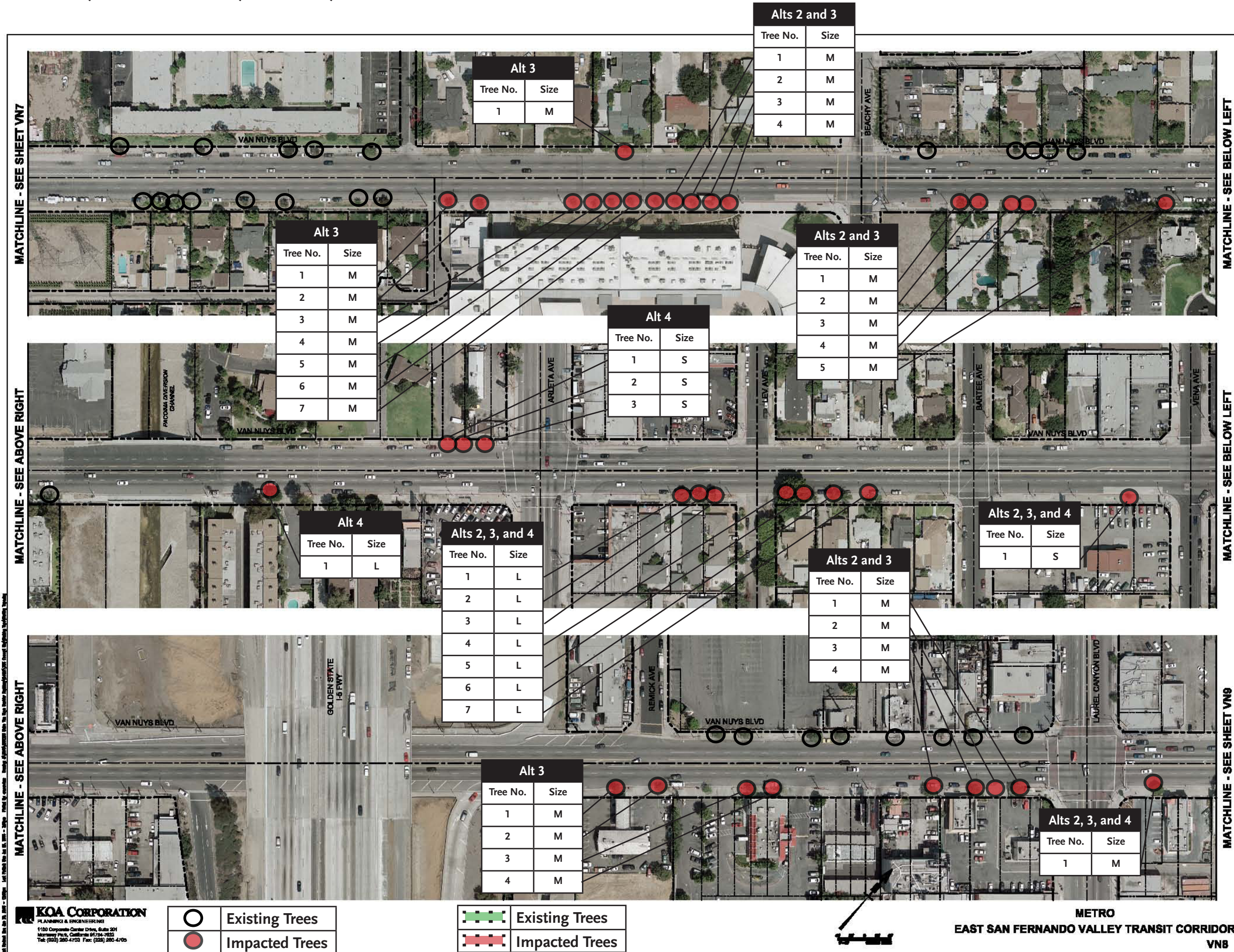


Figure 2-6: Van Nuys Boulevard - Canterbury to Laurel Canyon



Tree Count	
West	11
East	24

Tree Count	
West	3
East	10

Tree Count	
West	8
East	9

Total Tree Count	
Total	65

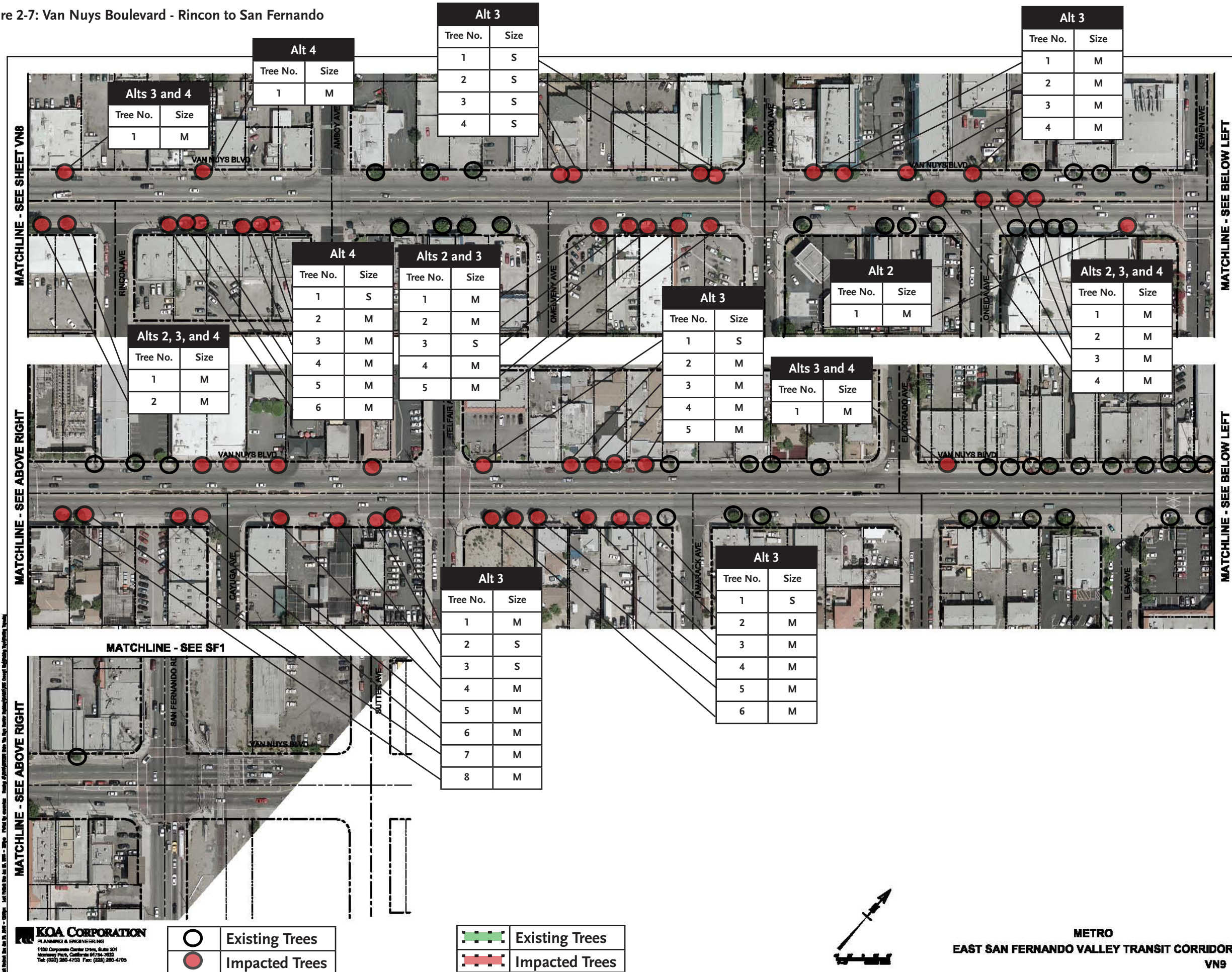
Impacted Tree Count	
Alt 2	22
Alt 3	34
Alt 4	9

VAN NUYS BLVD - SEE ABOVE RIGHT  
 GOLDEN STATE I-6 FWY  
 REMICK AVE  
 VAN NUYS BLVD  
 LAUREL CANYON BLVD  
 METRO EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 VN8

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	Existing Trees		Existing Trees
	Impacted Trees		Impacted Trees

Figure 2-7: Van Nuys Boulevard - Rincon to San Fernando



**Tree Count**

West	17
Median	4
East	26

**Tree Count**

West	27
East	24

**Tree Count**

West	1
East	0

**Total Tree Count**

Total	99
-------	----

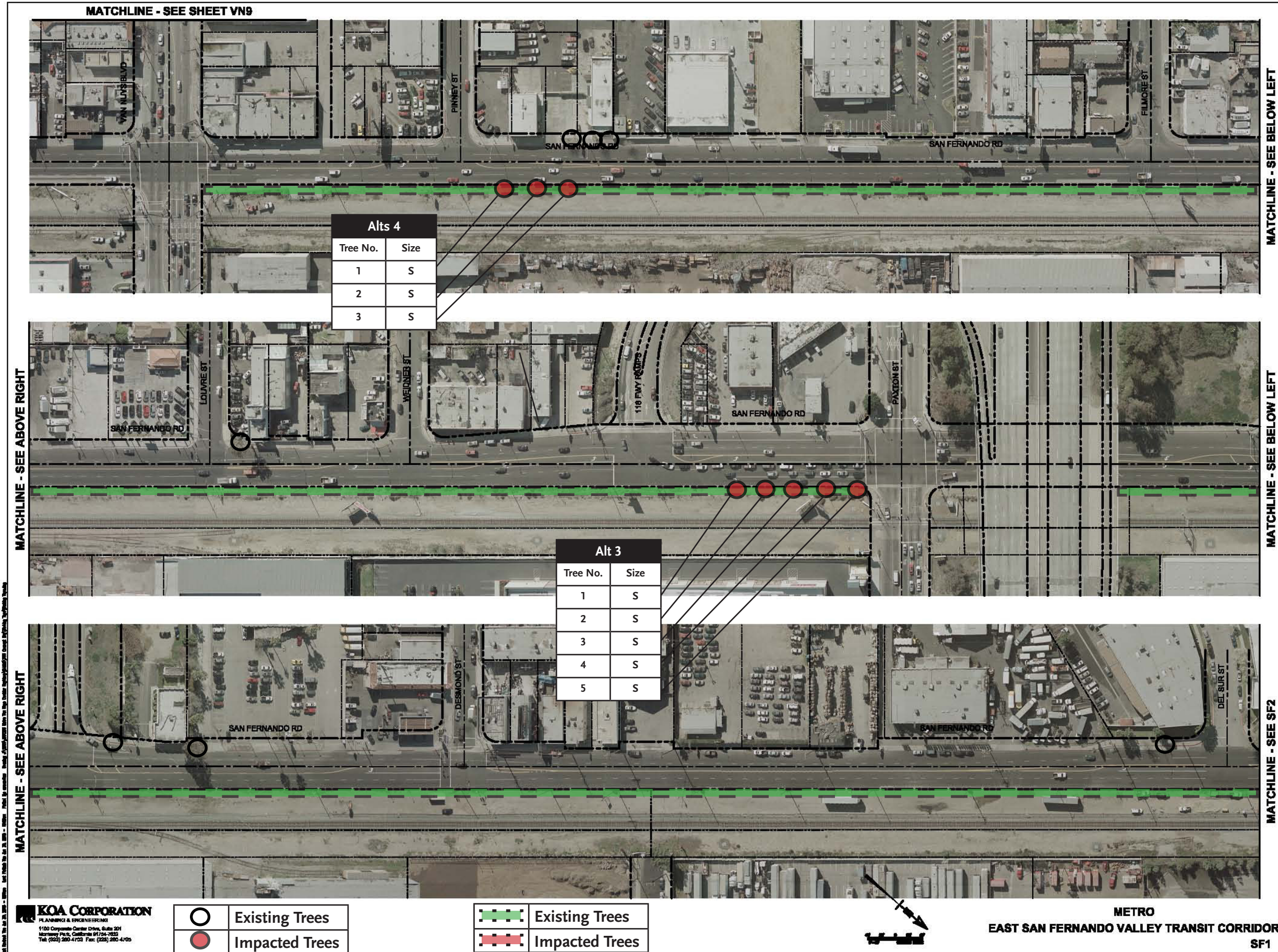
**Impacted Tree Count**

Alt 2	12
Alt 3	36
Alt 4	15

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Figure 2-8: San Fernando - Van Nuys to Del Sur



**Alts 4**

Tree No.	Size
1	S
2	S
3	S

**Alt 3**

Tree No.	Size
1	S
2	S
3	S
4	S
5	S

**Tree Count**

West	3
------	---

**Tree Count**

West	1
East - Van Nuys to 118	48

**Tree Count**

West	3
------	---

**Total Tree Count**

Total	55
-------	----

**Impacted Tree Count**

Alt 2	0
Alt 3	5
Alt 4	3

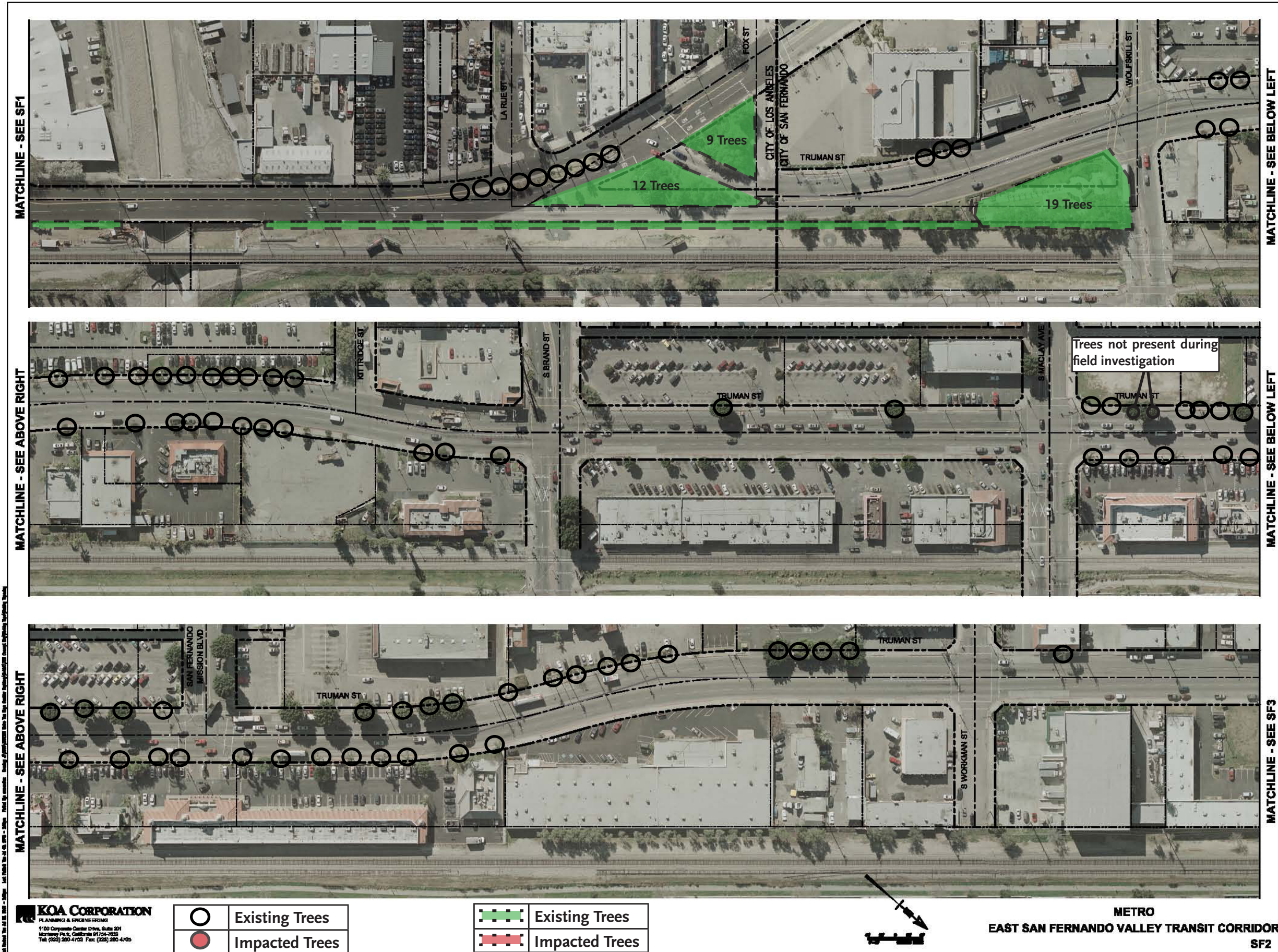
	Existing Trees
	Impacted Trees

	Existing Trees
	Impacted Trees

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 SF1

Figure 2-9: San Fernando/Truman - Pacoima Wash to Workman



Tree Count	
West	5
East	2
Medians	30
East - Bridge at Wash to Park	20
Park	19

Tree Count	
West	18
East	20

Tree Count	
West	19
East	12

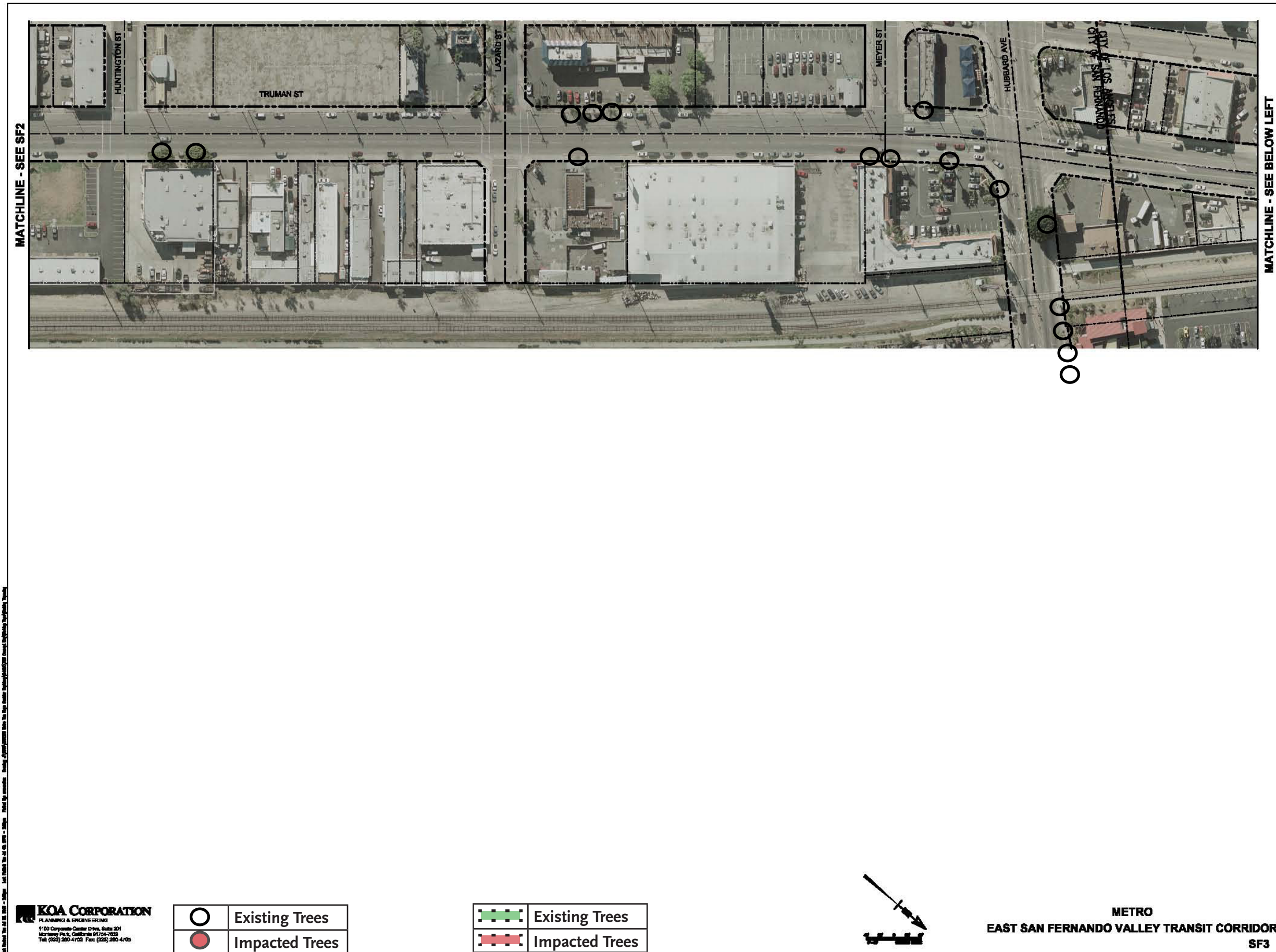
Total Tree Count	
Total	145

Impacted Tree Count	
Alt 2	0
Alt 3	0
Alt 4	0

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 SF2

Figure 2-10: Truman/Railroad ROW - Huntington to Bleeker



Tree Count	
North/West	9
South/East	7

Total Tree Count	
Total	16

Impacted Tree Count	
Alt 2	0
Alt 3	0
Alt 4	0

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	Existing Trees
	Impacted Trees

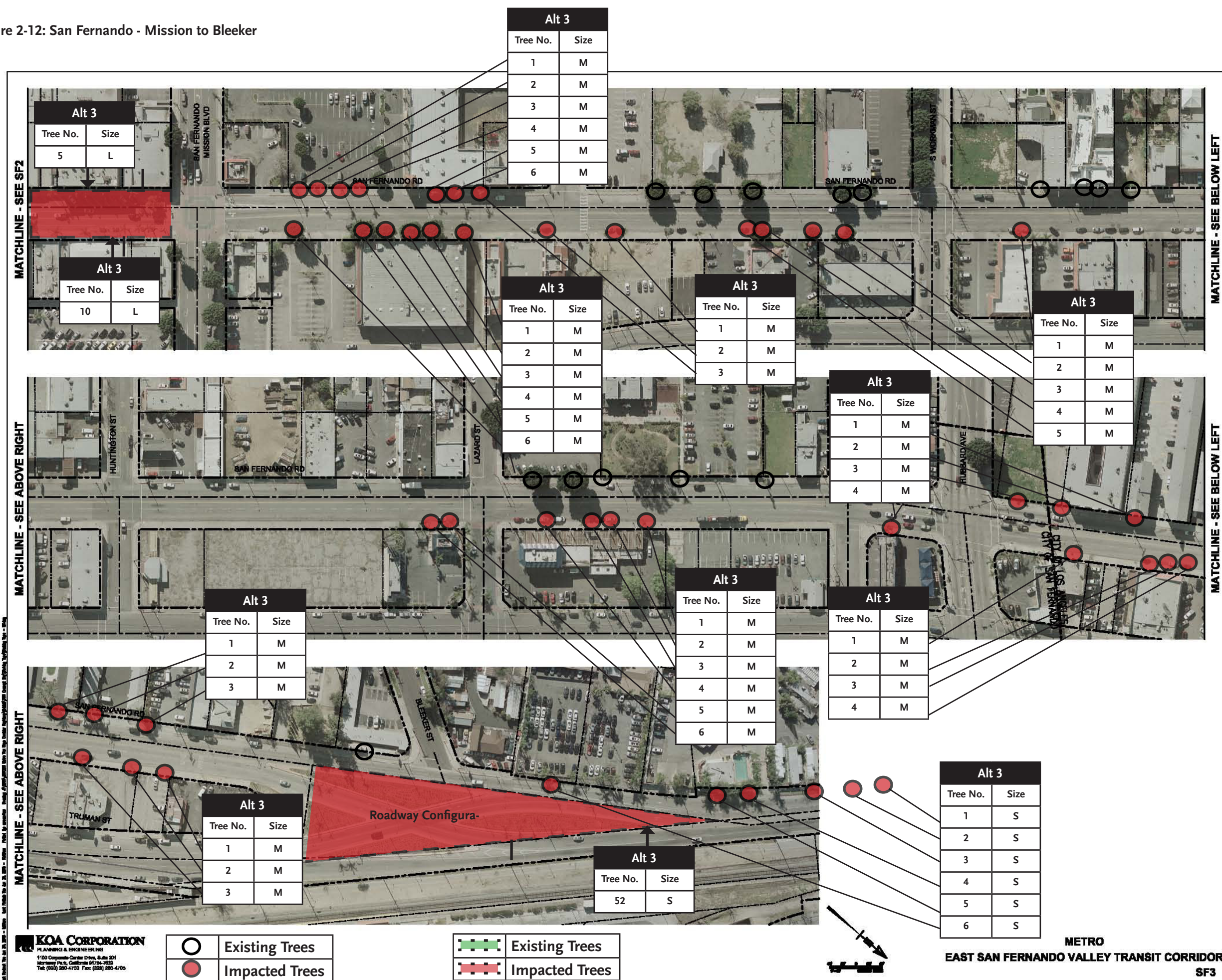
	Existing Trees
	Impacted Trees



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**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR**  
 SF3



Figure 2-12: San Fernando - Mission to Bleeker



Alt 3	
Tree No.	Size
1	M
2	M
3	M
4	M
5	M
6	M

Alt 3	
Tree No.	Size
5	L

Alt 3	
Tree No.	Size
10	L

Alt 3	
Tree No.	Size
1	M
2	M
3	M
4	M
5	M
6	M

Alt 3	
Tree No.	Size
1	M
2	M
3	M

Alt 3	
Tree No.	Size
1	M
2	M
3	M
4	M
5	M

Alt 3	
Tree No.	Size
1	M
2	M
3	M
4	M

Alt 3	
Tree No.	Size
1	M
2	M
3	M

Alt 3	
Tree No.	Size
1	M
2	M
3	M
4	M
5	M
6	M

Alt 3	
Tree No.	Size
1	M
2	M
3	M
4	M

Alt 3	
Tree No.	Size
1	M
2	M
3	M

Alt 3	
Tree No.	Size
52	S

Alt 3	
Tree No.	Size
1	S
2	S
3	S
4	S
5	S
6	S

Tree Count	
West	21
East	24

Tree Count	
West	10
East	11

Tree Count	
West	12
East	3
Medians	52

Total Tree Count	
Total	133

Impacted Tree Count	
Alt 2	0
Alt 3	113
Alt 4	0

	Existing Trees
	Impacted Trees

	Existing Trees
	Impacted Trees

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 SF3



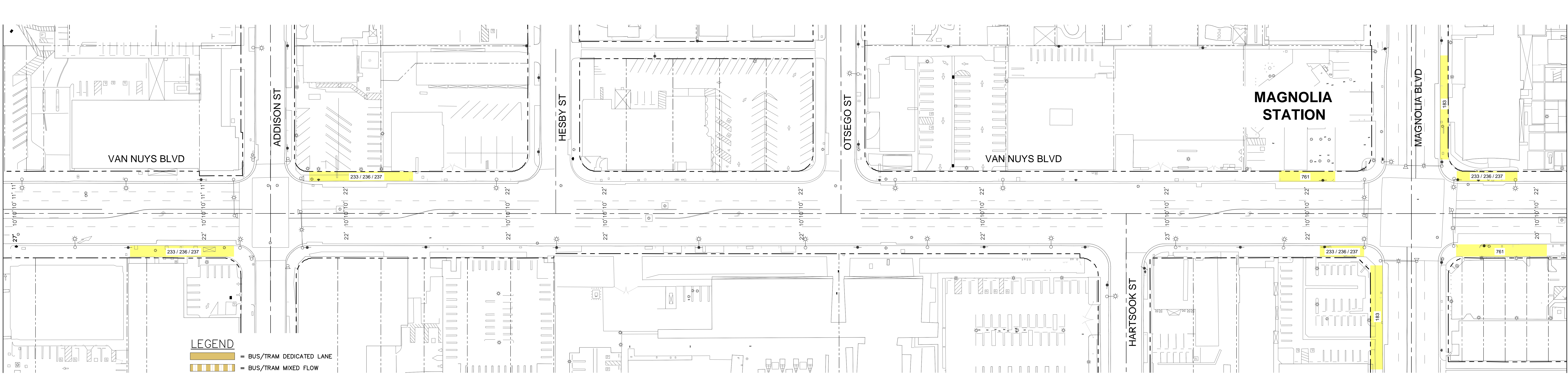
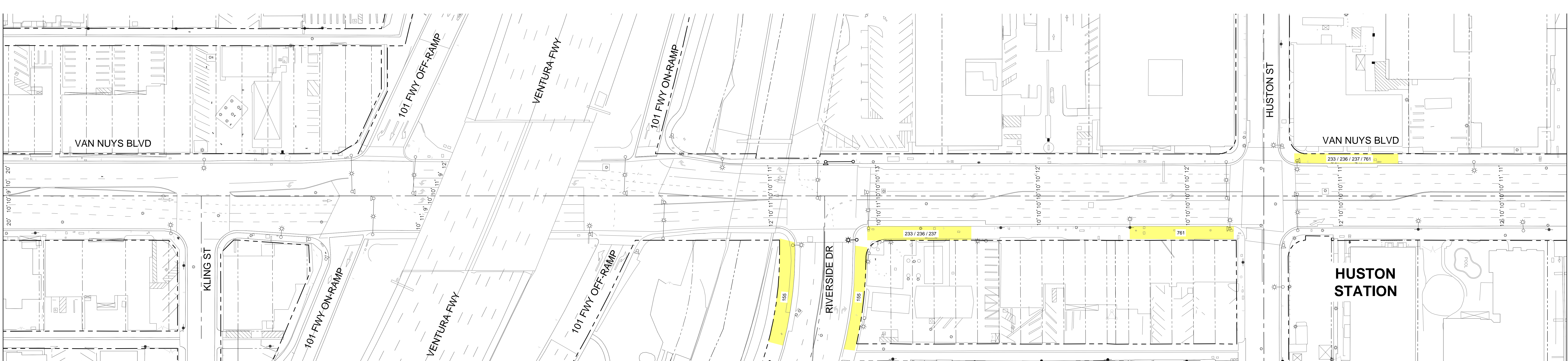
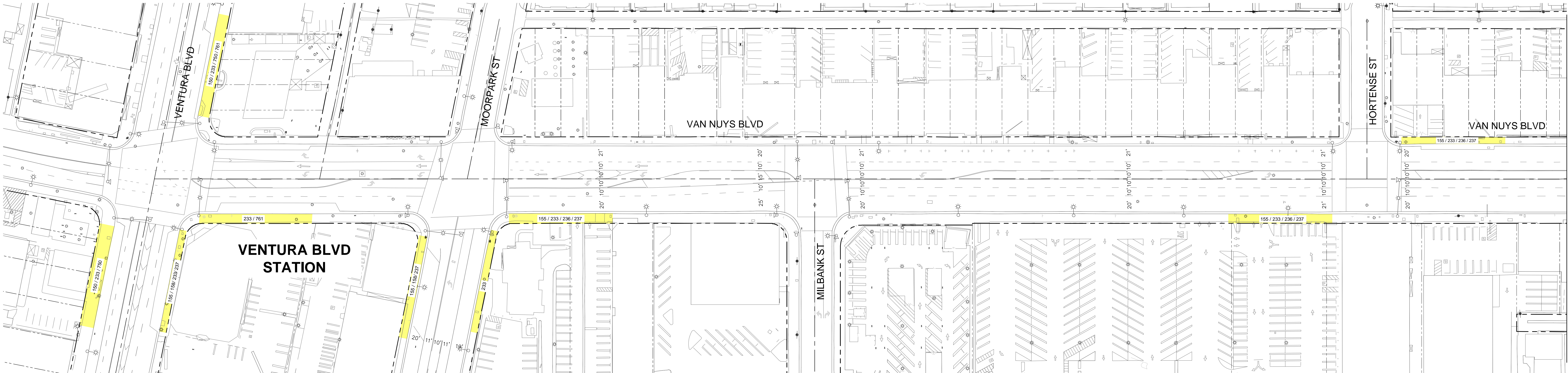
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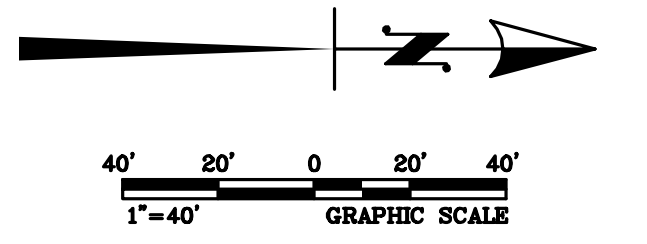
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MATCHLINE - SEE SHEET ALT1-2



- LEGEND**
- BUS/TRAM DEDICATED LANE
  - BUS/TRAM MIXED FLOW
  - S/W NARROWING
  - EXISTING STOP
  - PROP./UPGRADED STATION
  - REMOVED STOP
  - REMOVED ON STREET PARKING

# ALTERNATIVE 1 - BRT CURB RUNNING



**METRO**  
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
ALT1-1

Last Revised: Thu, Jun 16, 2016 - 12:29pm. Last Plotted: Thu, Jun 16, 2016 - 12:29pm. Plotted By: shlee. Drawings: C:\0101\B01020\_Metro Van Nuys Corridor\_Roadway\Sheet\BRT\_Concept\_Eng\Alternative\_Establish\_V1\_1 - Exhibit.dwg







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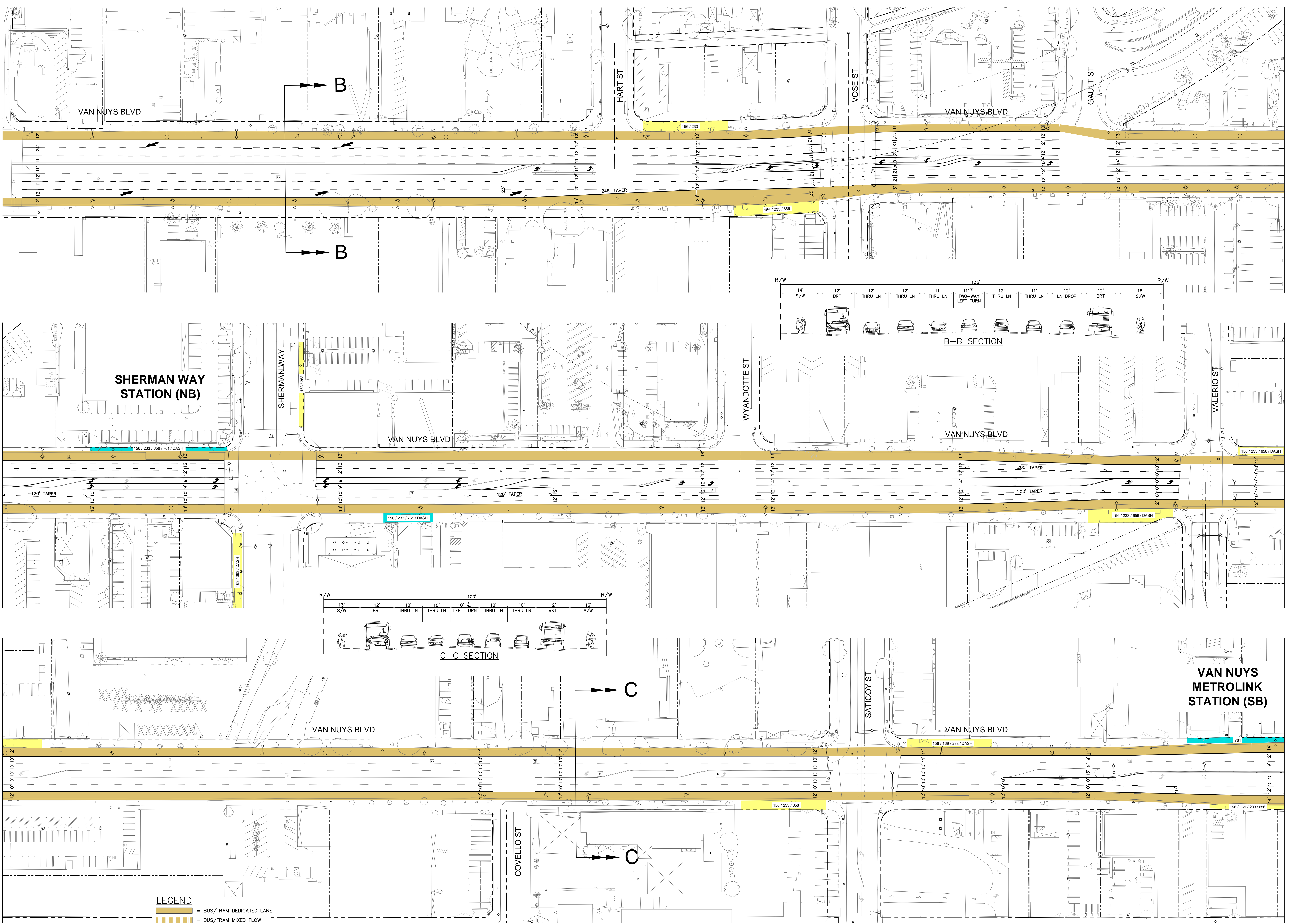
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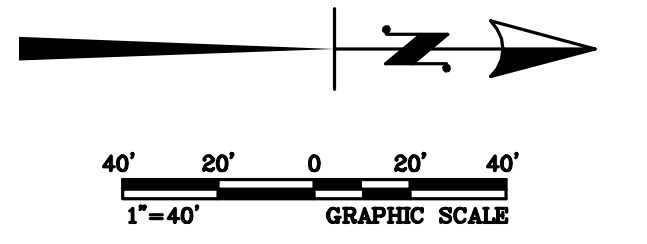
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- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 1 - BRT CURB RUNNING

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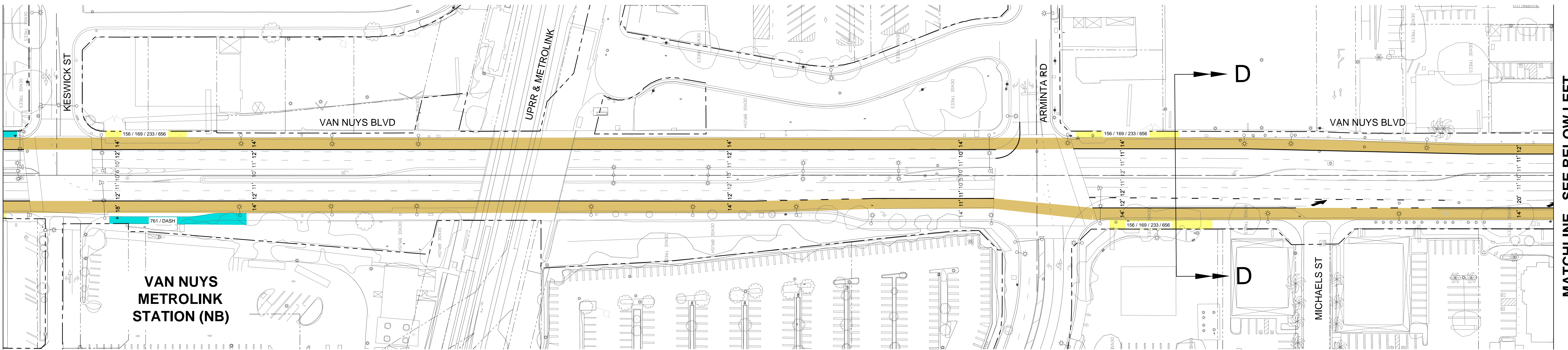


**METRO**  
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 ALT1-4

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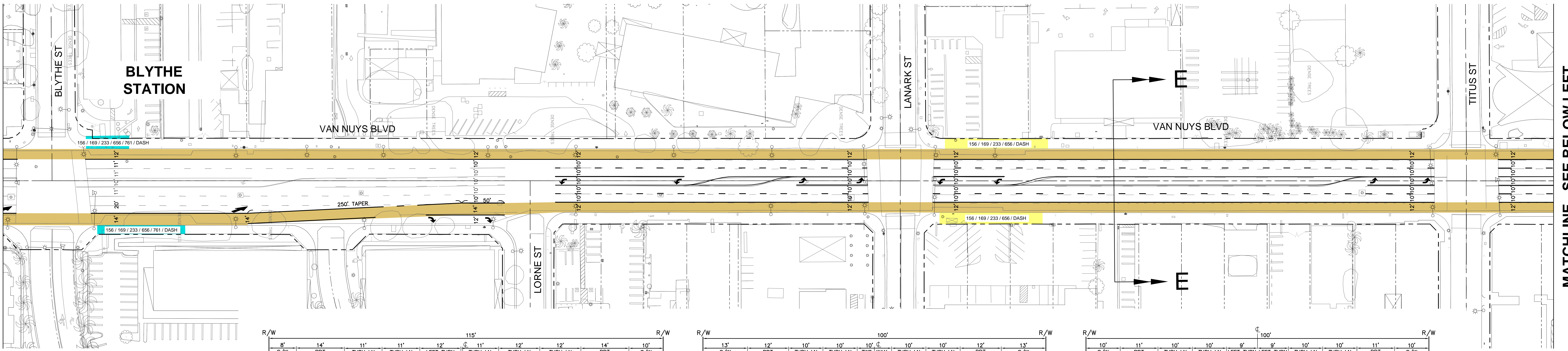
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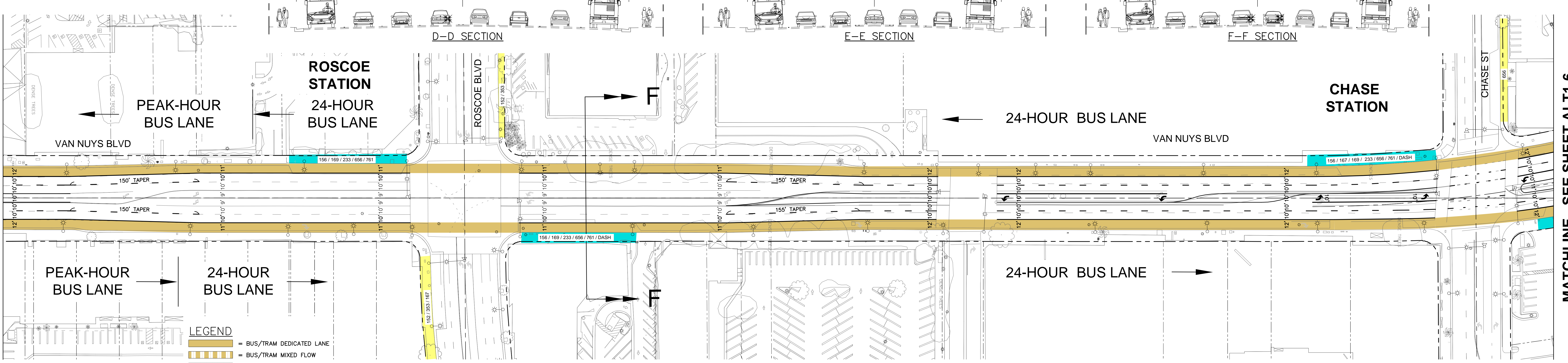
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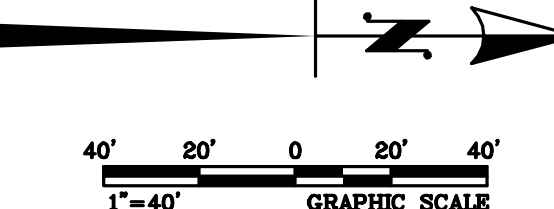
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- LEGEND**
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  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

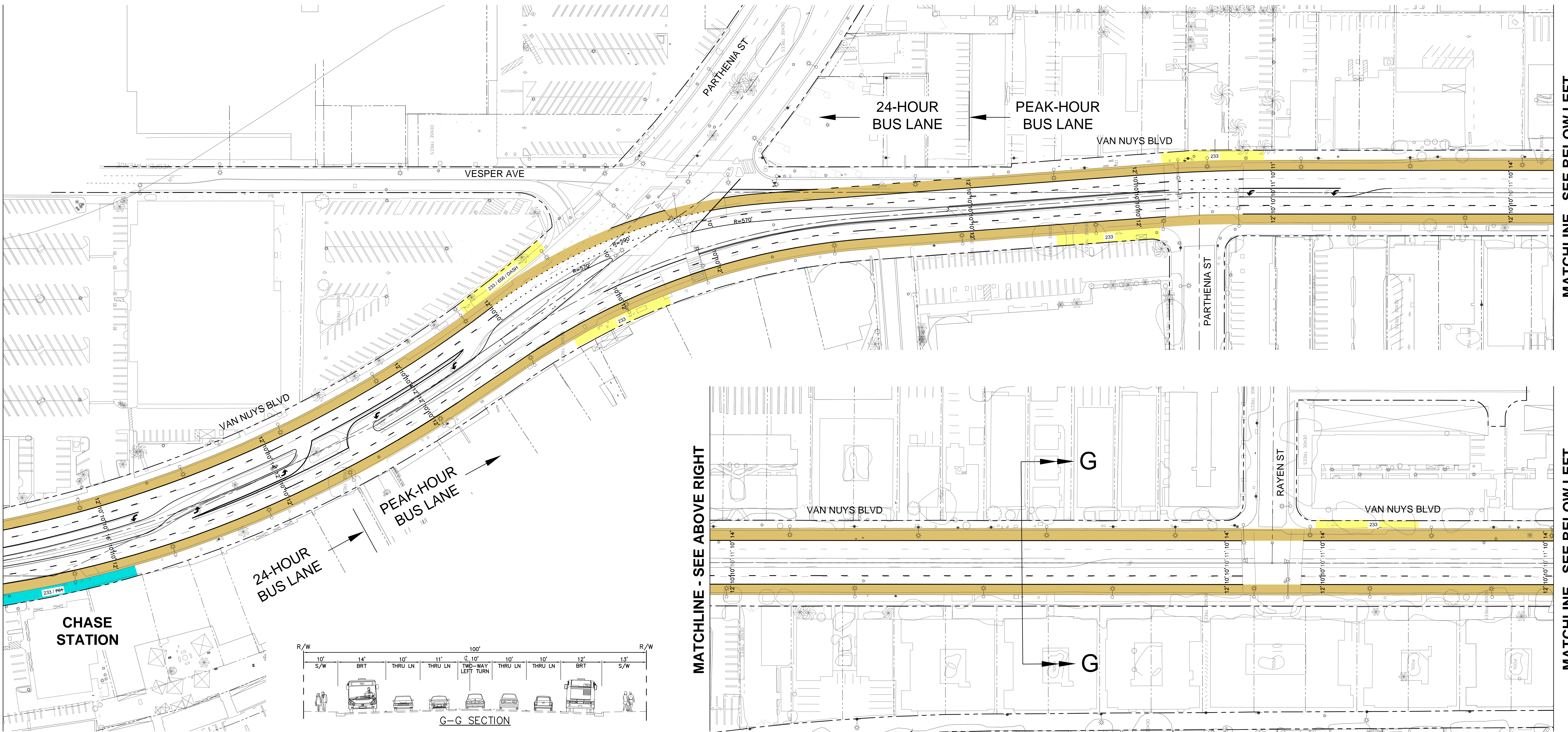
# ALTERNATIVE 1 - BRT CURB RUNNING

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**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT1-5

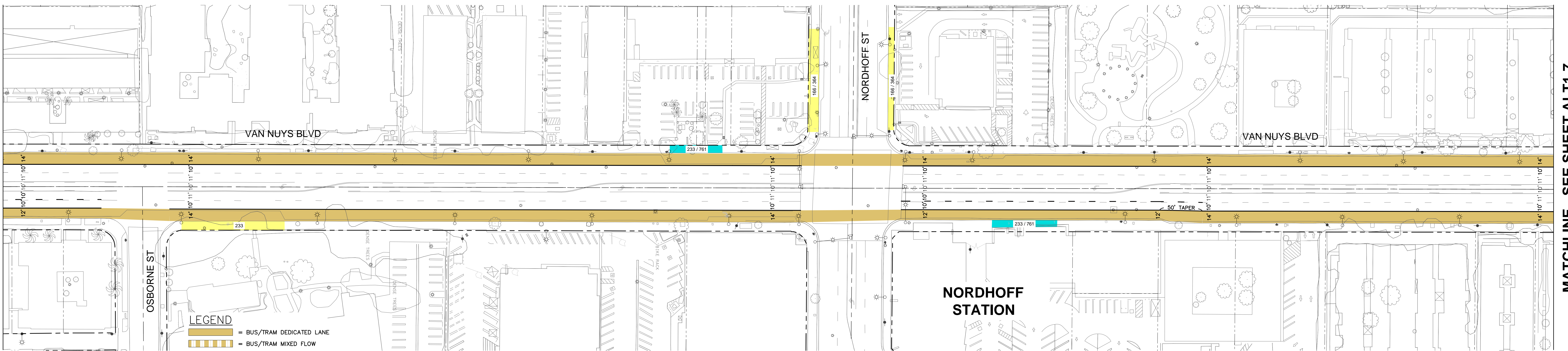
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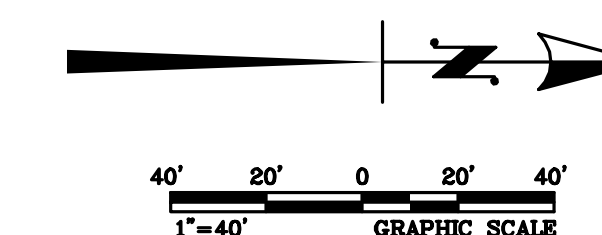
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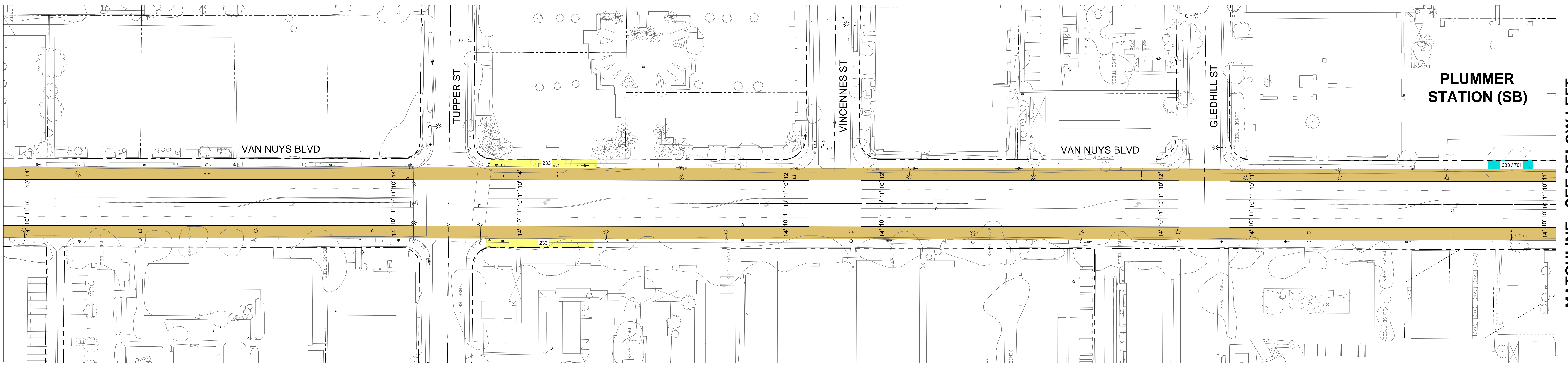
- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 1 - BRT CURB RUNNING



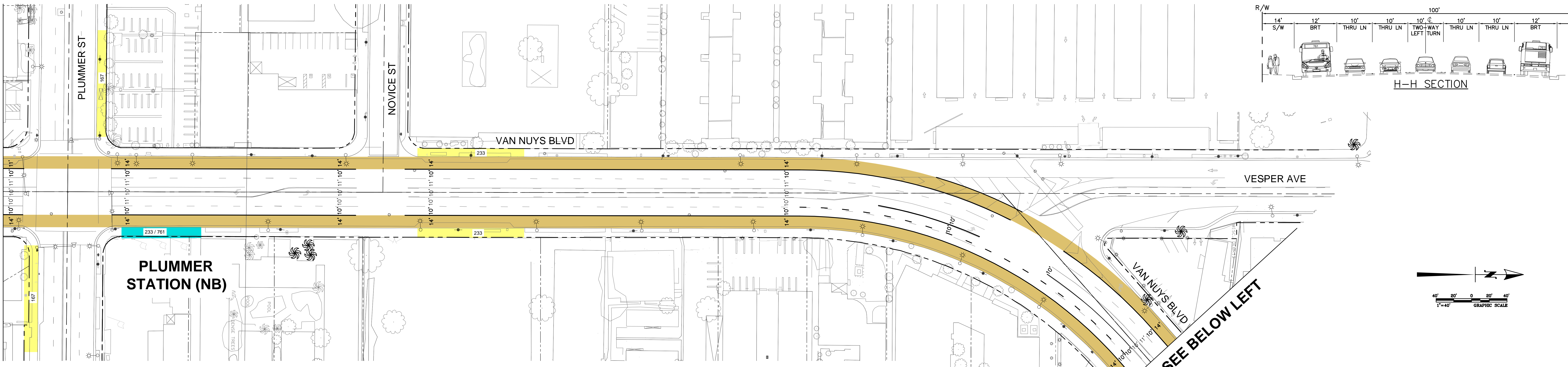
MATCHLINE - SEE SHEET ALT1-6

MATCHLINE - SEE BELOW LEFT



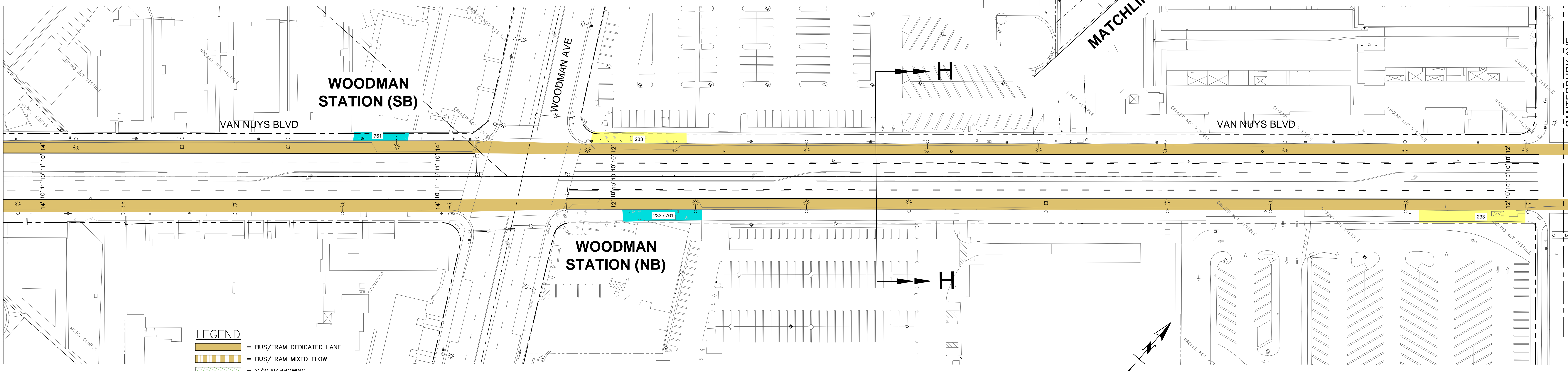
MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE BELOW LEFT



MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE SHEET ALT1-8

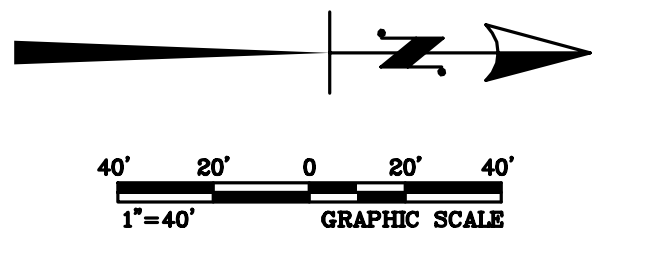
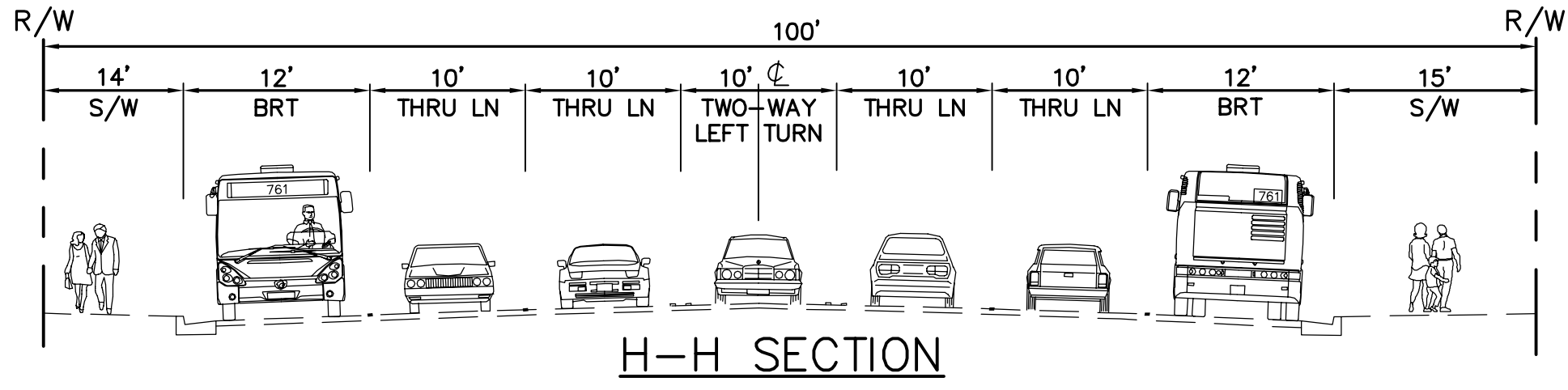
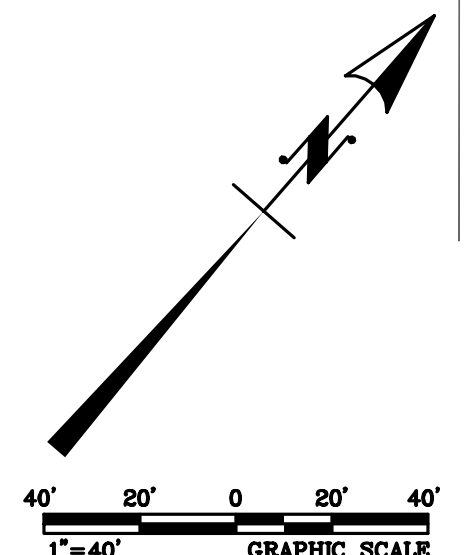


- LEGEND**
- BUS/TRAM DEDICATED LANE
  - BUS/TRAM MIXED FLOW
  - S/W NARROWING
  - EXISTING STOP
  - PROP./UPGRADED STATION
  - REMOVED STOP
  - REMOVED ON STREET PARKING

# ALTERNATIVE 1 - BRT CURB RUNNING

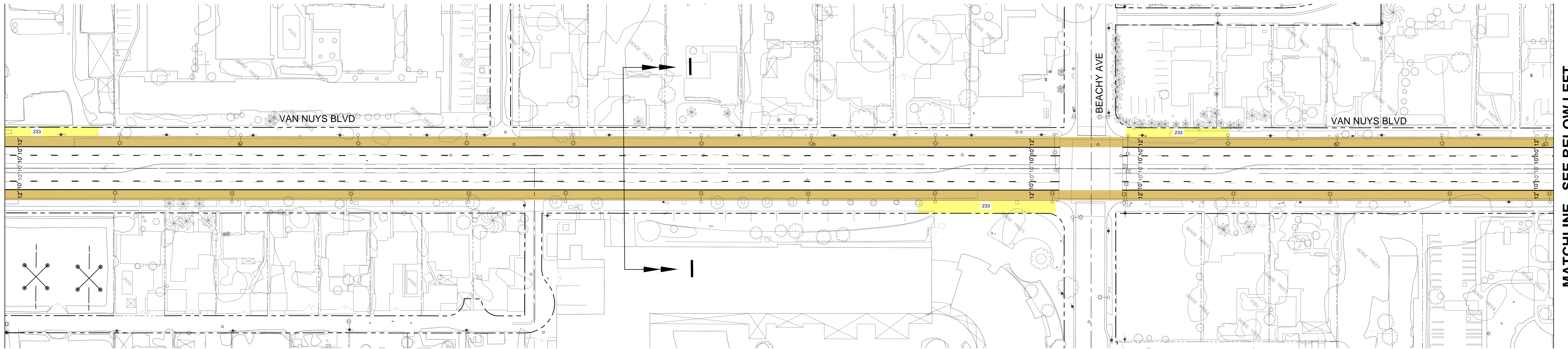
**KOA CORPORATION**  
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 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754-7632  
 Tel: (323) 260-4703 Fax: (323) 260-4705

**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT1-7



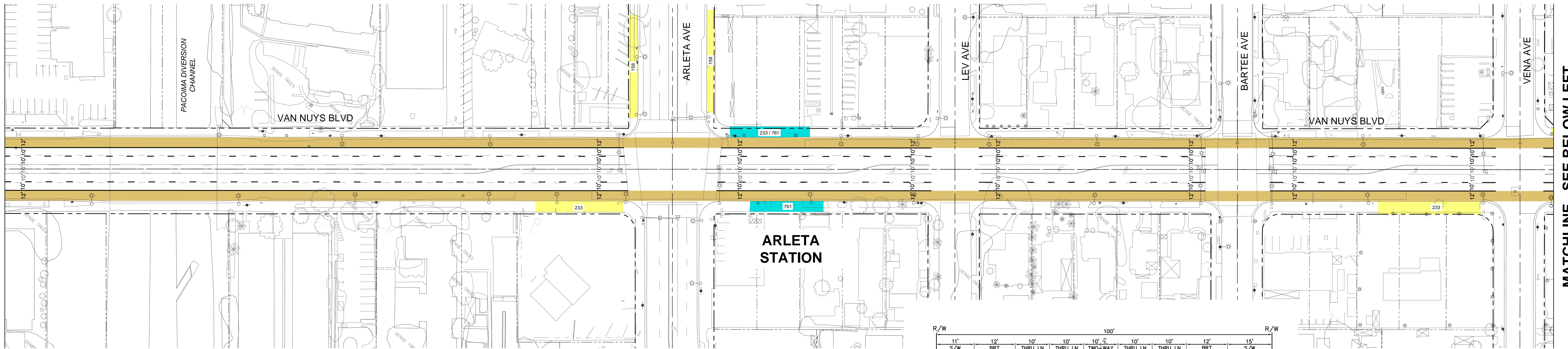
MATCHLINE - SEE SHEET ALT1-7

MATCHLINE - SEE BELOW LEFT



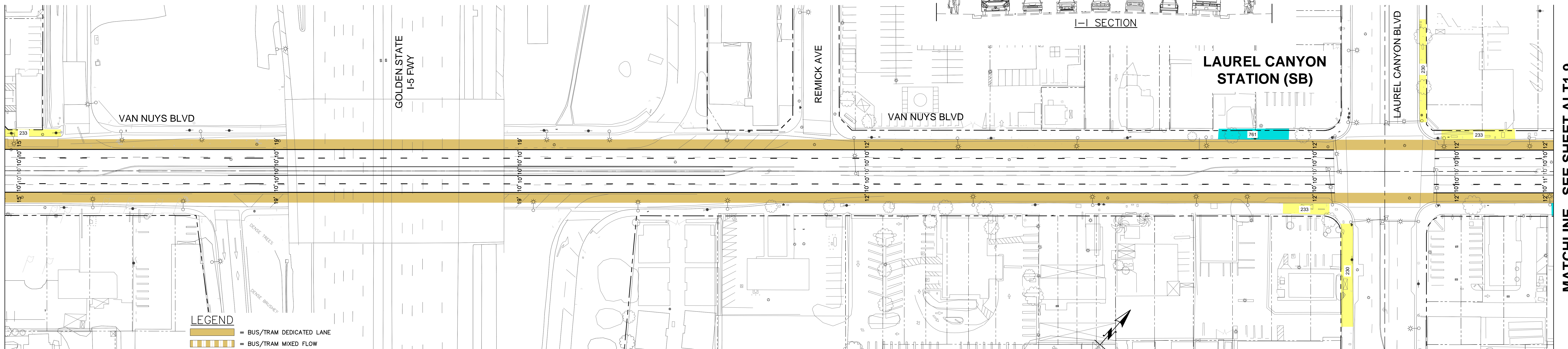
MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE BELOW LEFT

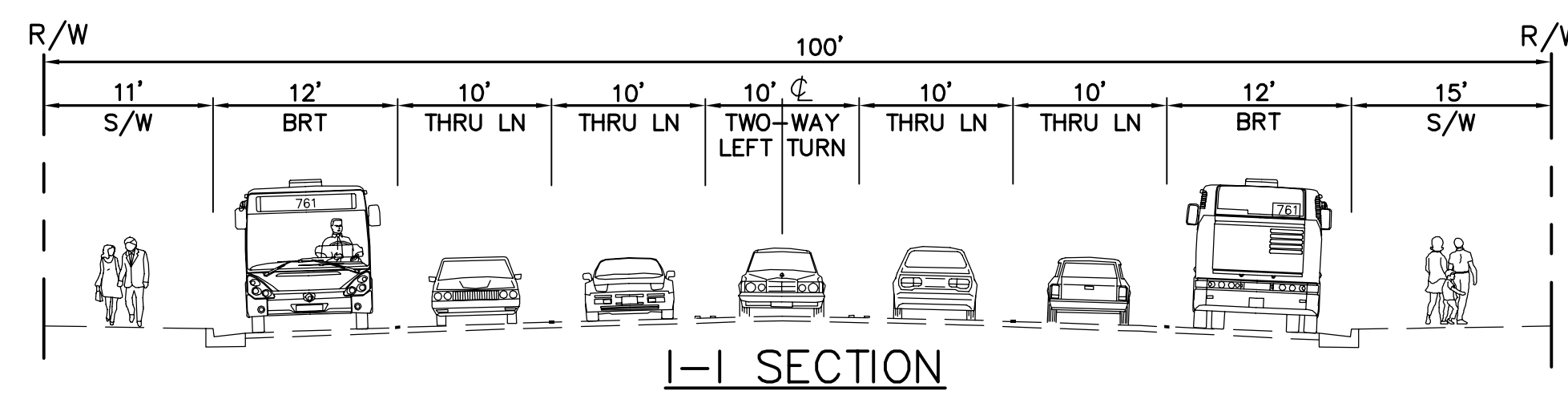


MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE SHEET ALT1-9

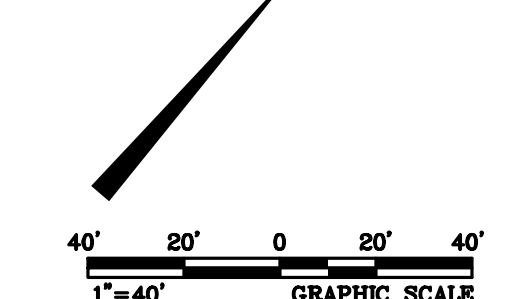


- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING



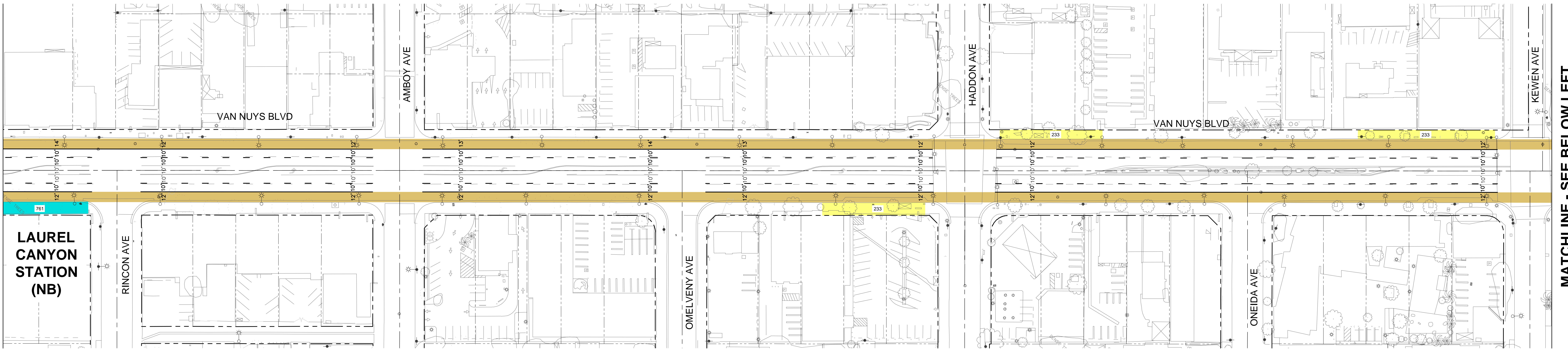
**KOA CORPORATION**  
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# ALTERNATIVE 1 - BRT CURB RUNNING



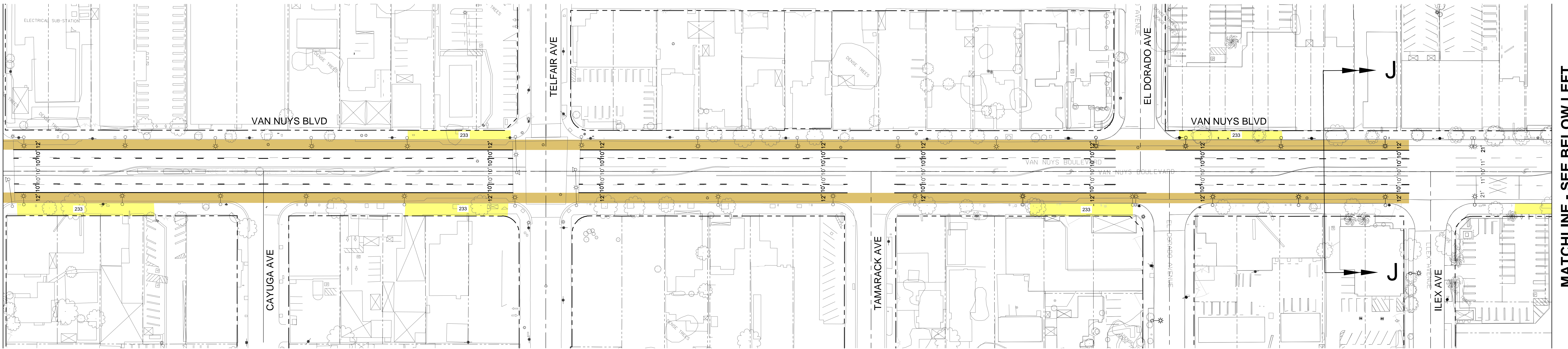
**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT1-8

MATCHLINE - SEE SHEET ALT1-8



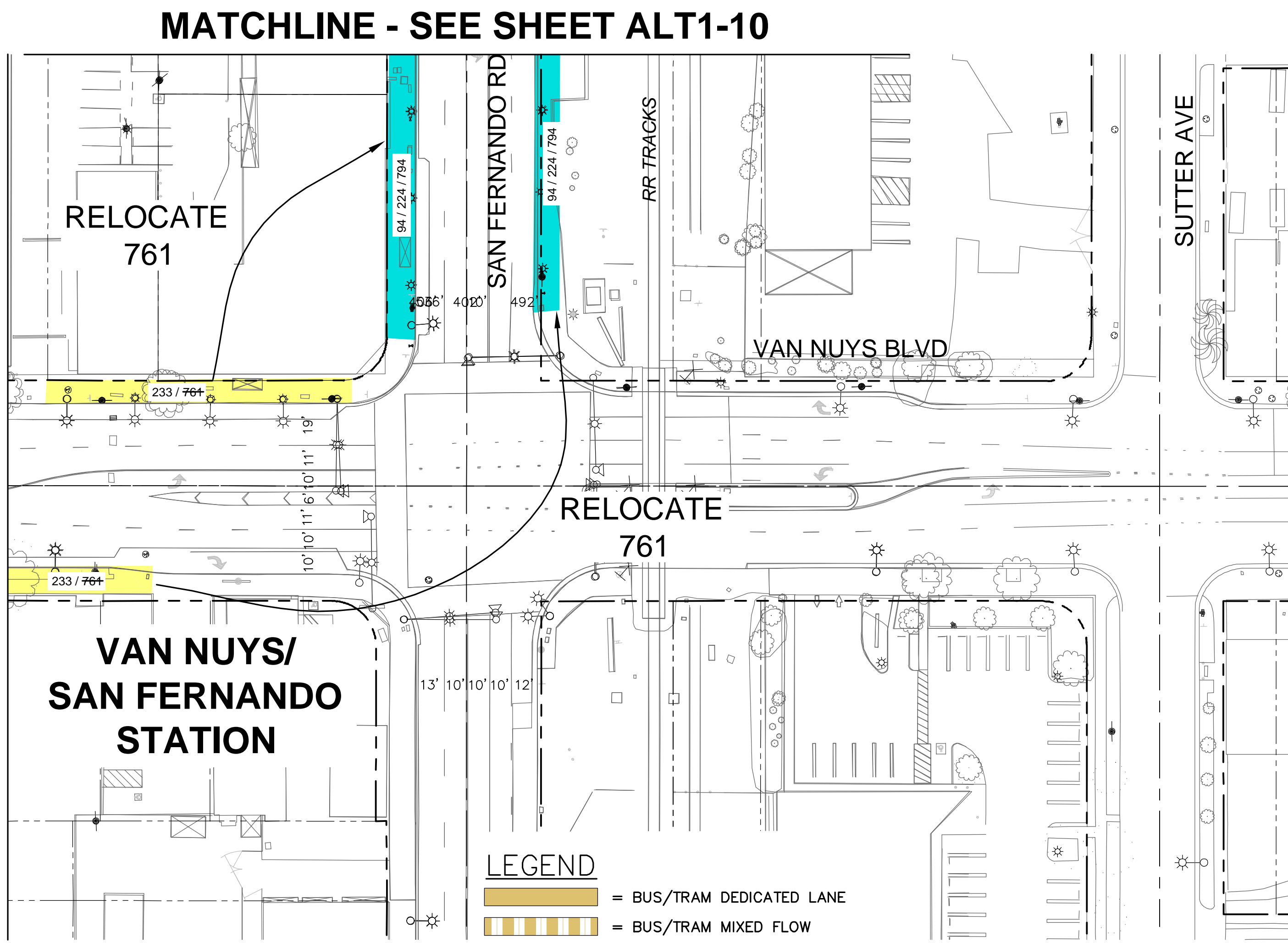
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT

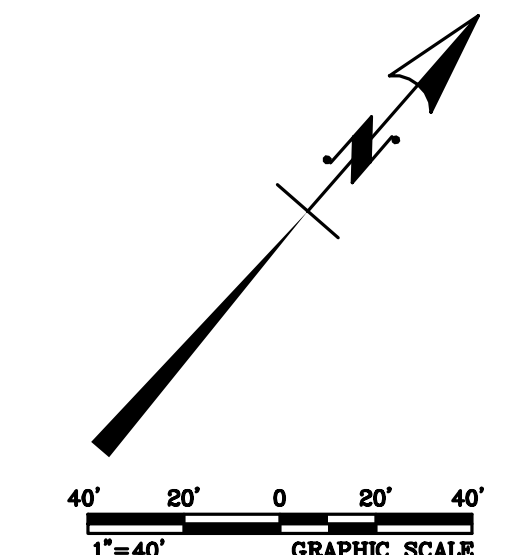
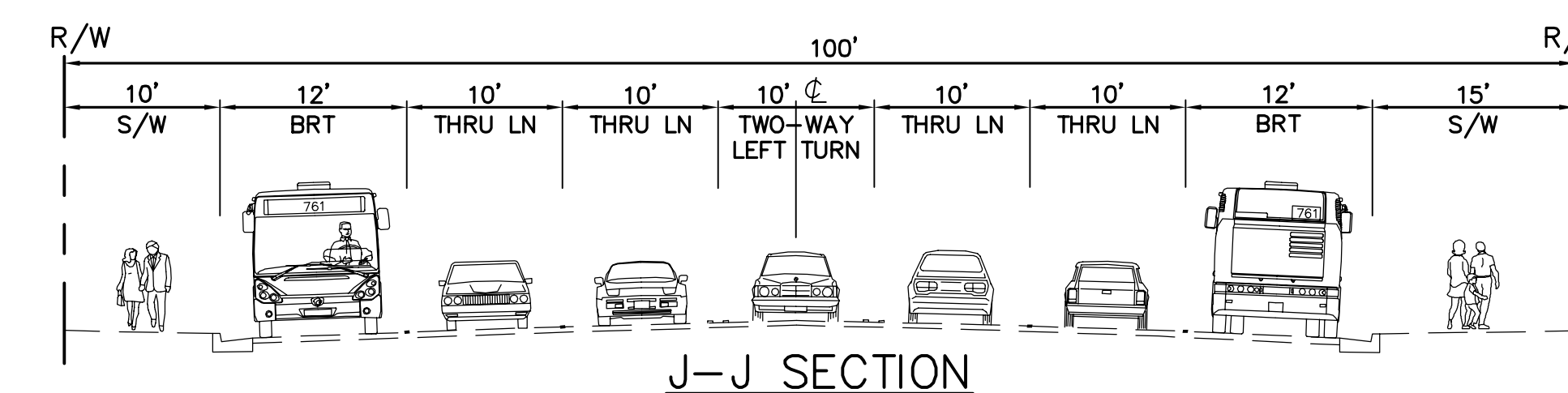


MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

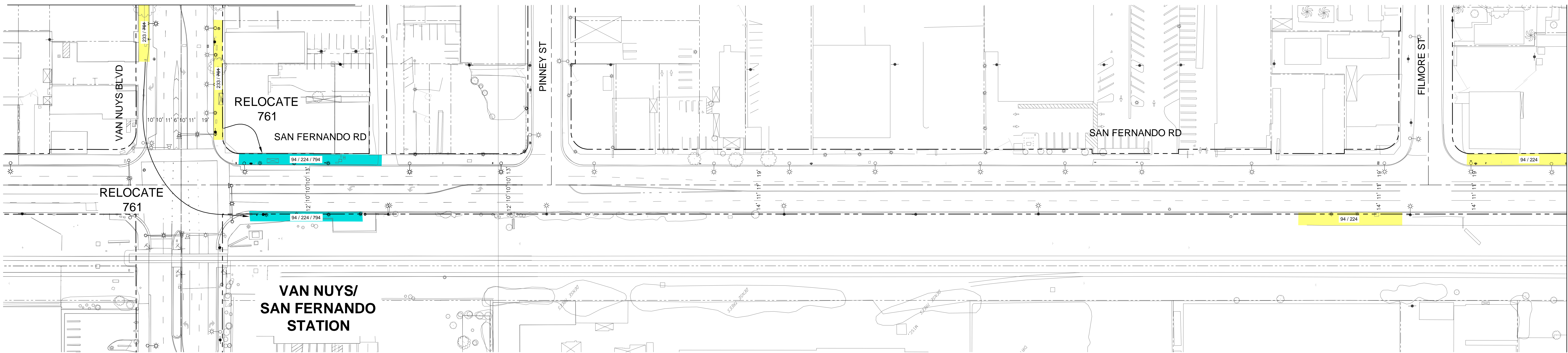


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# ALTERNATIVE 1 - BRT CURB RUNNING

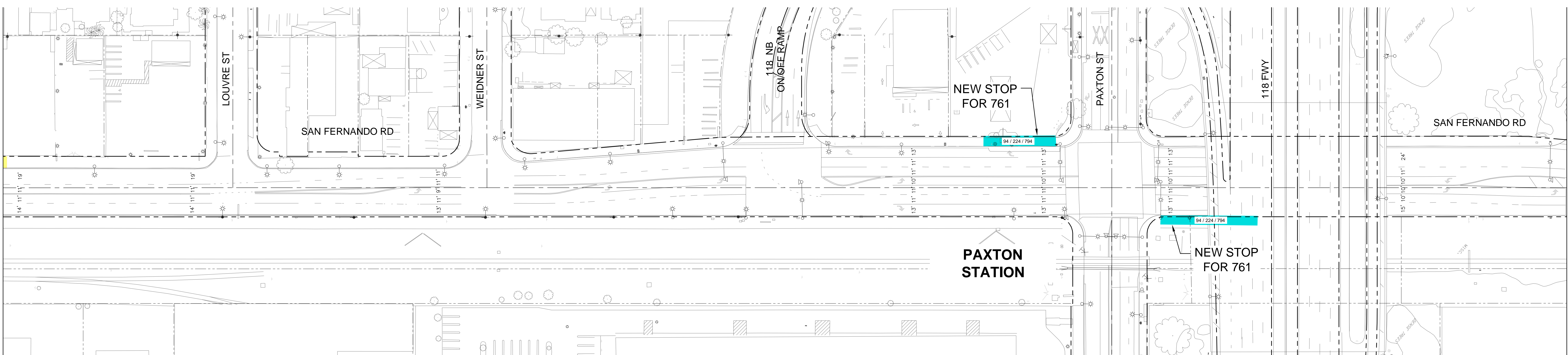
**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT1-9

MATCHLINE - SEE SHEET ALT1-9



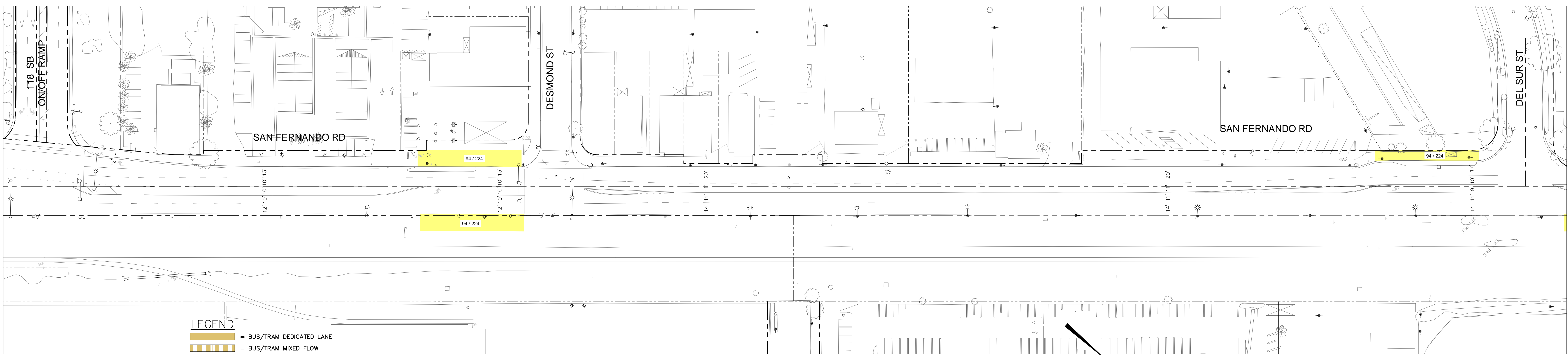
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT

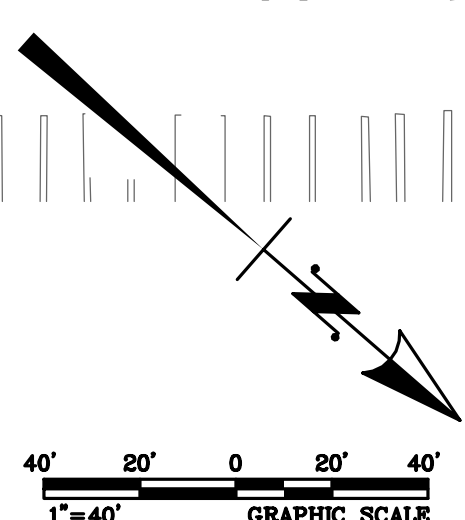


MATCHLINE - SEE ALT1-11

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

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# ALTERNATIVE 1 - BRT CURB RUNNING



**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT1-10



MATCHLINE - SEE ALT1-10

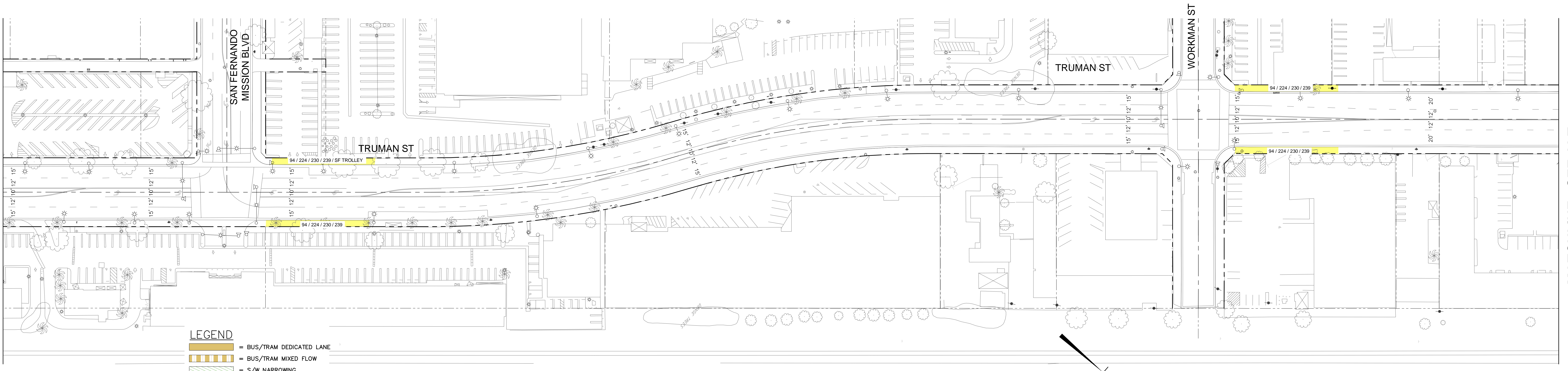
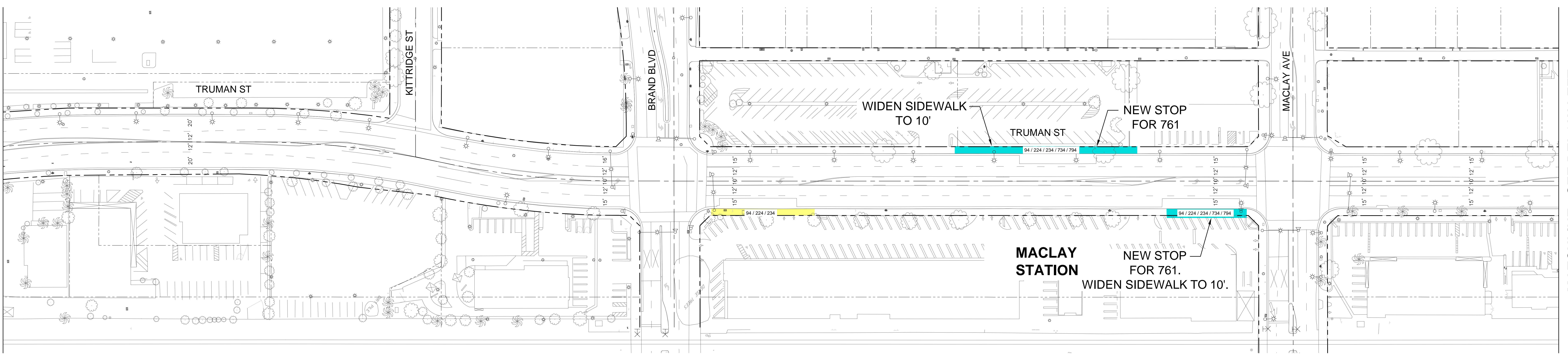
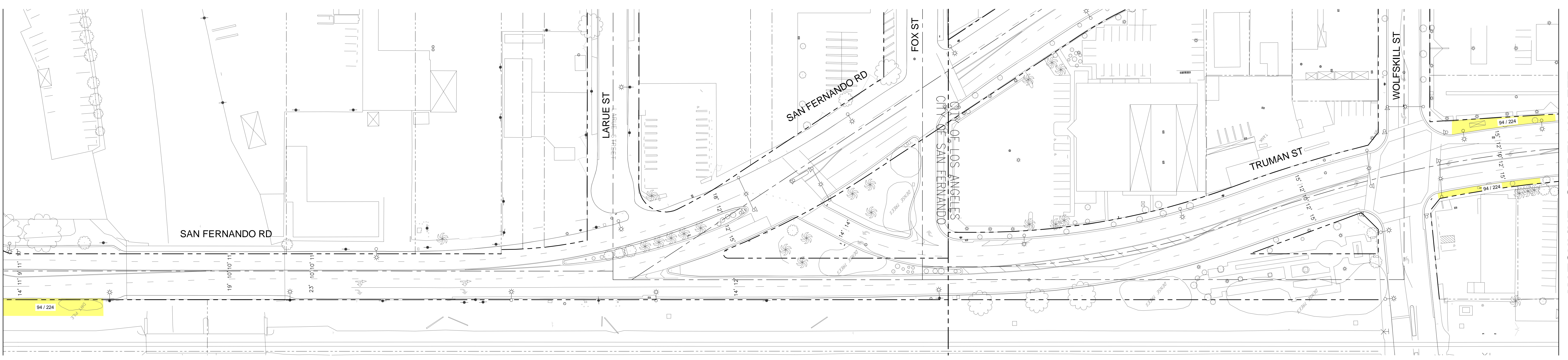
MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE BELOW LEFT

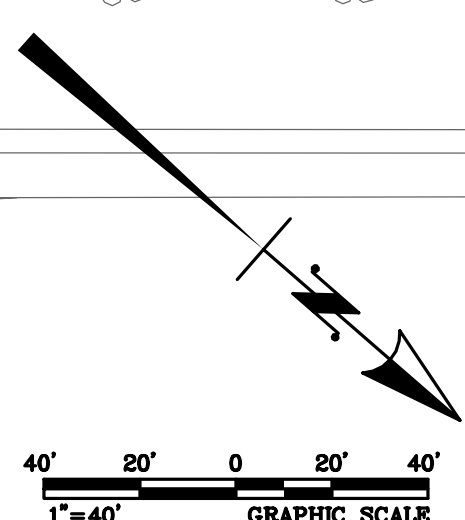
MATCHLINE - SEE ALT1-12



- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

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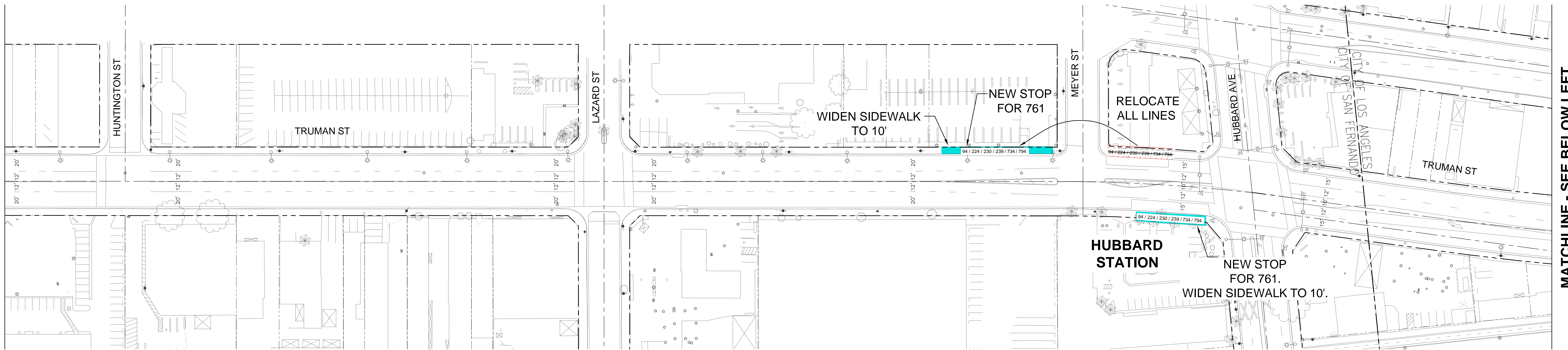
# ALTERNATIVE 1 - BRT CURB RUNNING



**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT1-11

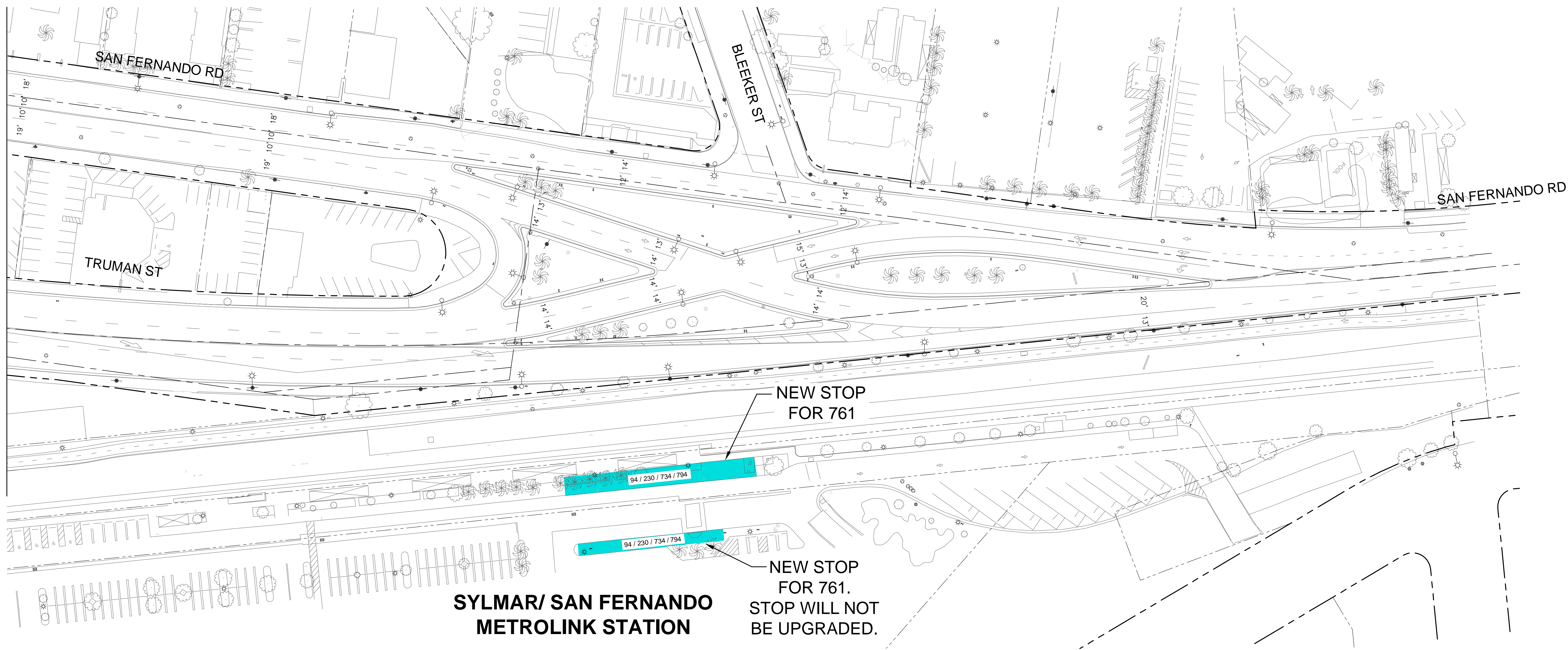
Last Revised: Thu Jun 16, 2016 - 12:28pm  
 User: jls  
 Plot: Alt1-11.dwg  
 Plot Date: Thu Jun 16, 2016 - 12:28pm  
 Plot Path: C:\Users\jls\AppData\Local\Temp\AutoCAD\Plot\Alt1-11.dwg  
 Plot Scale: 1"=40'  
 Plot Size: 11.00 x 17.00  
 Plot Color: Black  
 Plot Lineweight: 0.20  
 Plot Linetype: Solid  
 Plot Font: Arial, 10  
 Plot Orientation: Landscape  
 Plot Units: Feet  
 Plot Style: Standard  
 Plot Color: Black  
 Plot Lineweight: 0.20  
 Plot Linetype: Solid  
 Plot Font: Arial, 10  
 Plot Orientation: Landscape  
 Plot Units: Feet  
 Plot Style: Standard

MATCHLINE - SEE ALT1-11



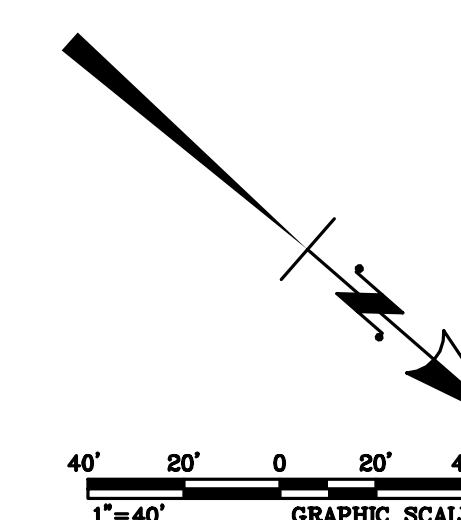
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 1 - BRT CURB RUNNING



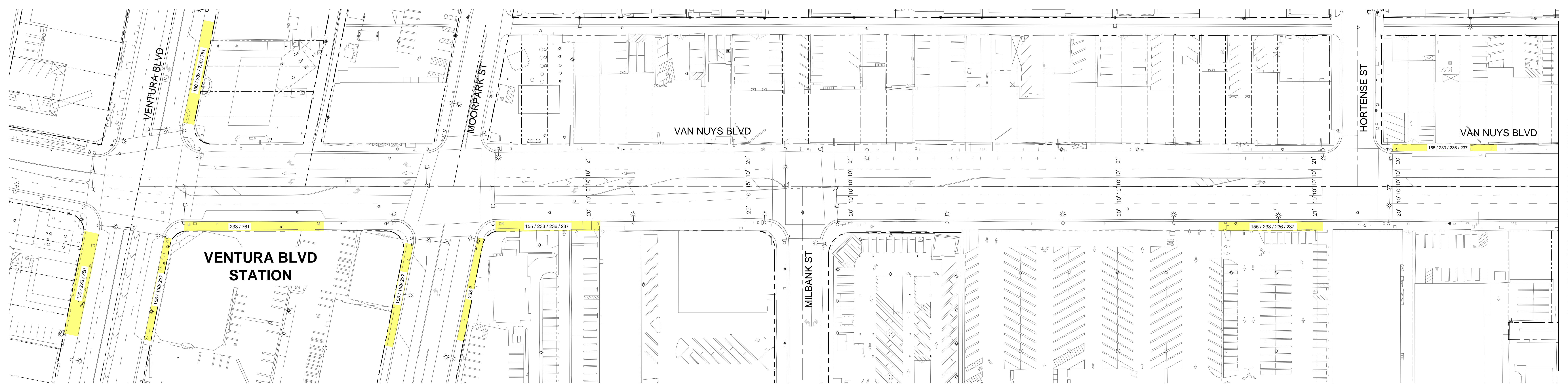
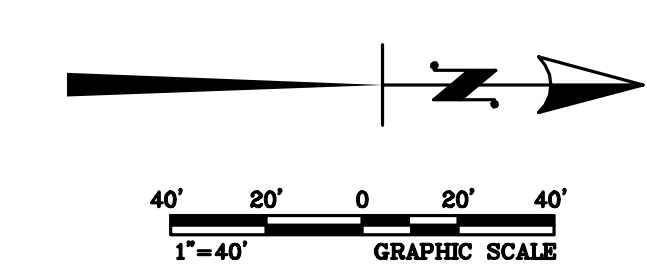
Last Revised: Tue, Apr 22, 2014 - 2:53pm  
 Last Printed: Tue, Apr 22, 2014 - 3:01pm  
 Drawing: 131010.BRT1205 Metro Van Nuys Corridor (Rampway) (Sheet) (3/20) (Design: Engineering) (Sheet) (1) - E:\31010

MATCHLINE - SEE ABOVE RIGHT

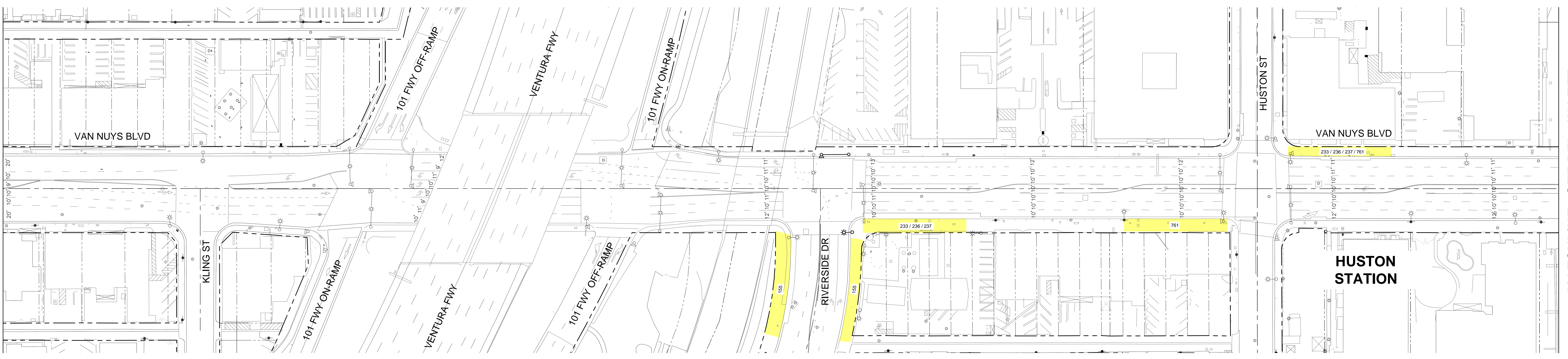
MATCHLINE - SEE ABOVE RIGHT

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

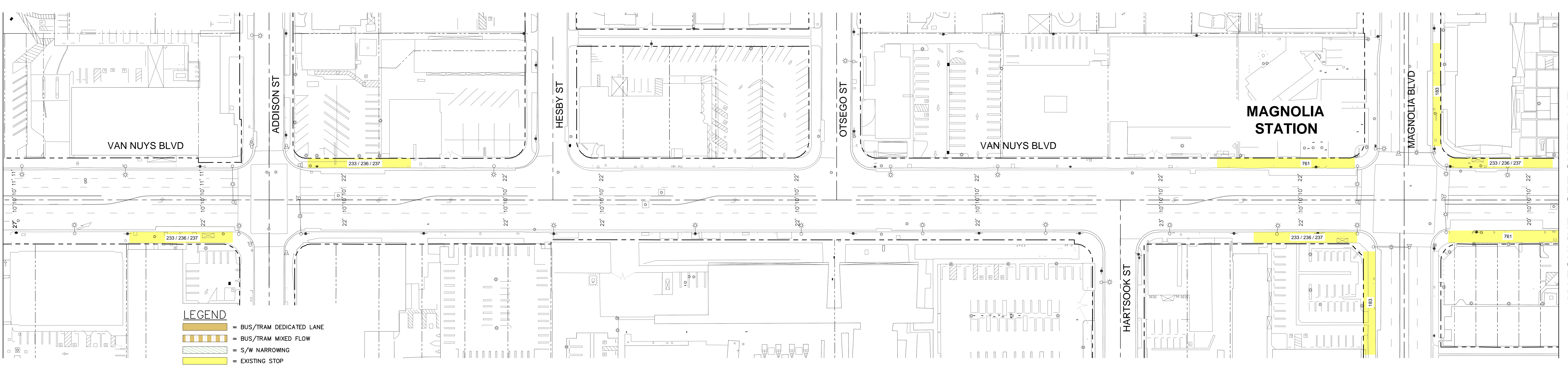
# ALTERNATIVE 2 - BRT MEDIAN RUNNING



MATCHLINE - SEE BELOW LEFT

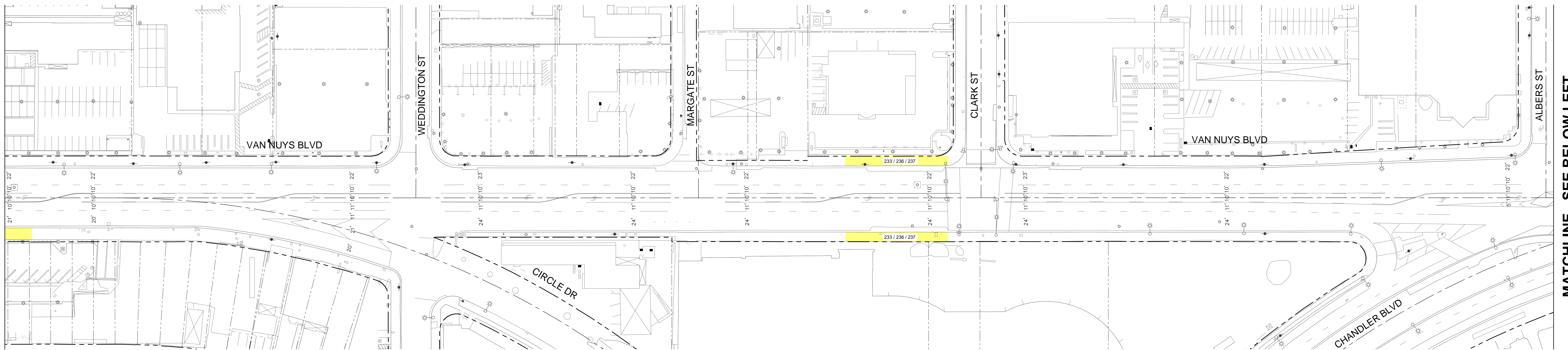


MATCHLINE - SEE BELOW LEFT



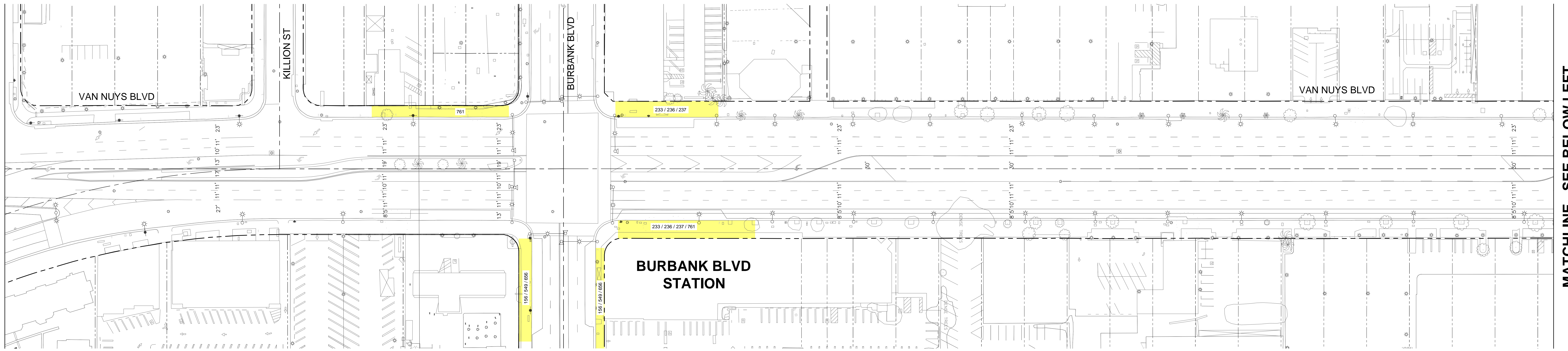
MATCHLINE - SEE SHEET ALT2-1

MATCHLINE - SEE SHEET ALT2-1



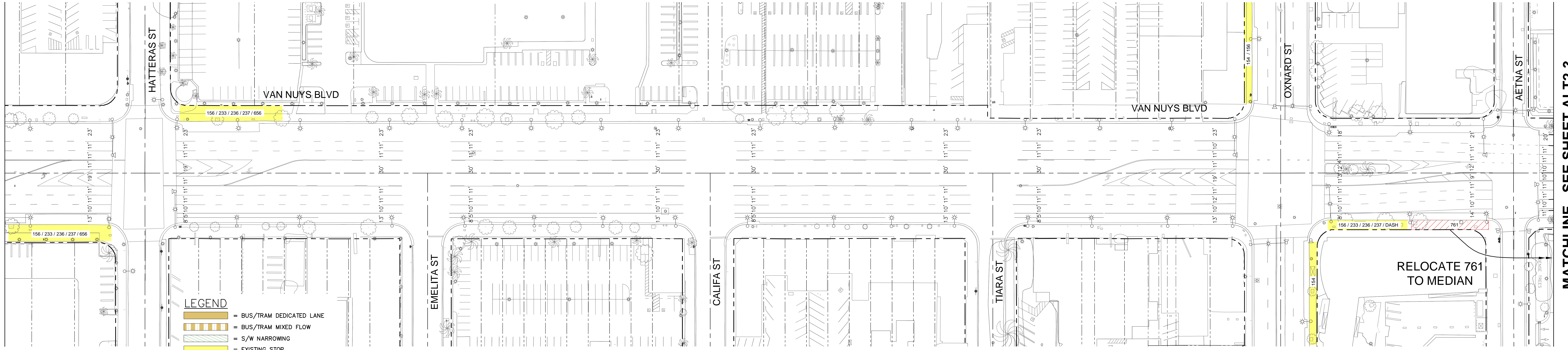
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE BELOW LEFT

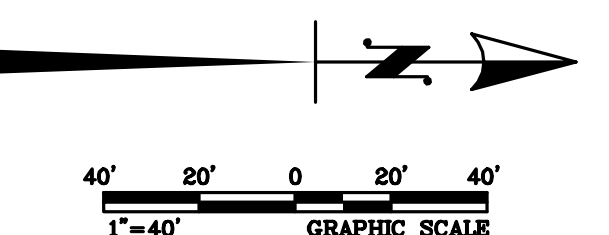
MATCHLINE - SEE ABOVE RIGHT



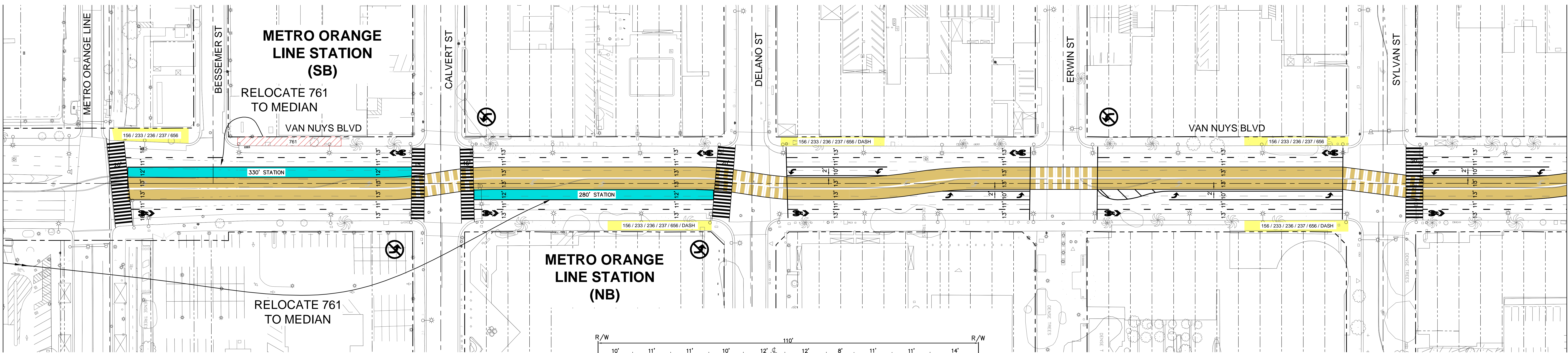
MATCHLINE - SEE SHEET ALT2-3

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 2 - BRT MEDIAN RUNNING

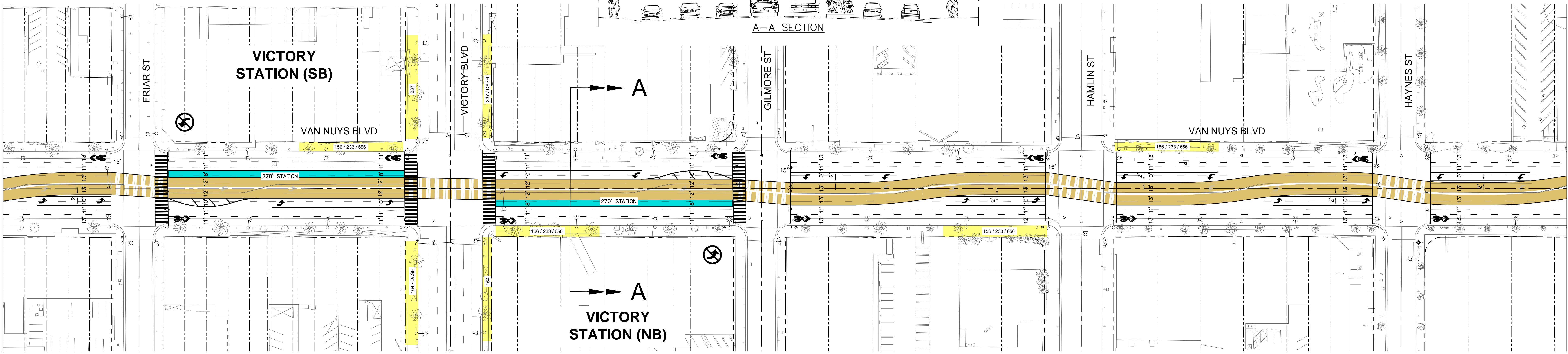


MATCHLINE - SEE SHEET ALT2-2



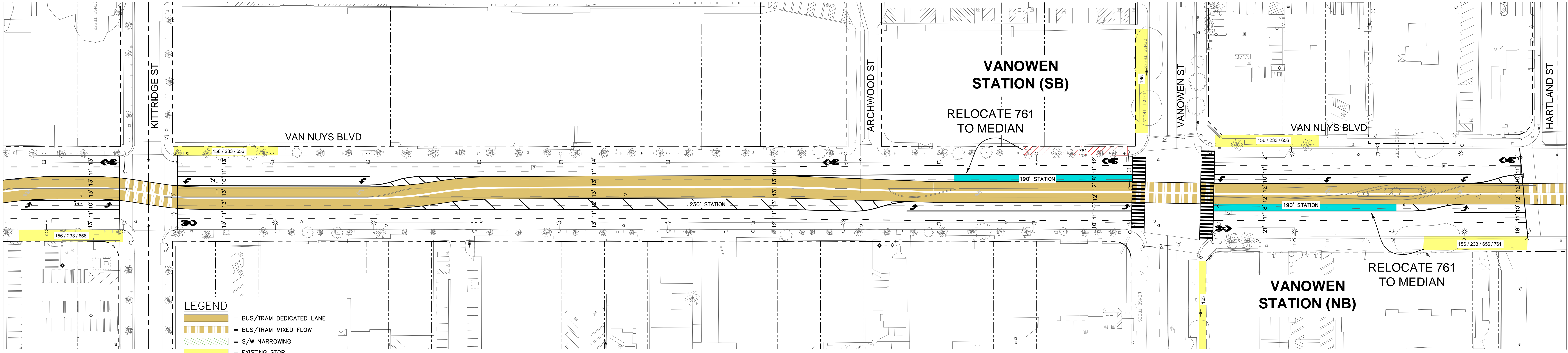
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE BELOW LEFT

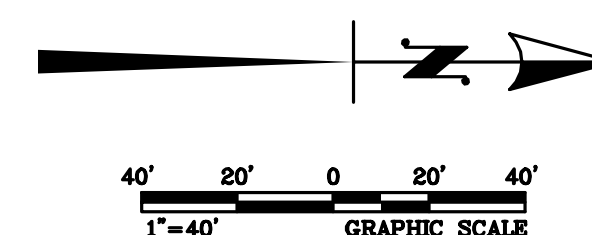
MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE SHEET ALT2-4

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 2 - BRT MEDIAN RUNNING



MATCHLINE - SEE SHEET ALT2-3

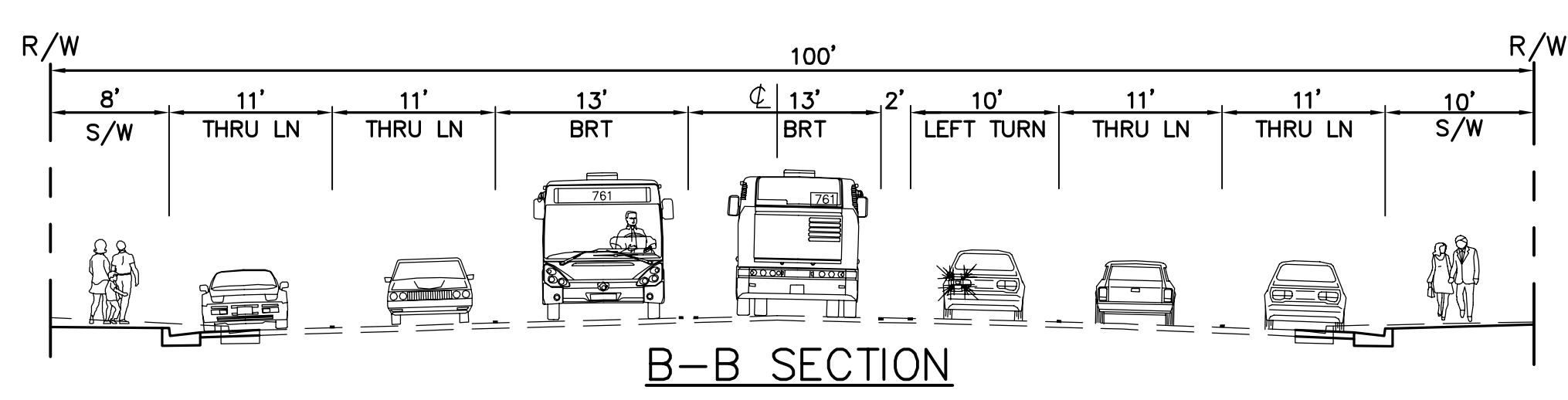
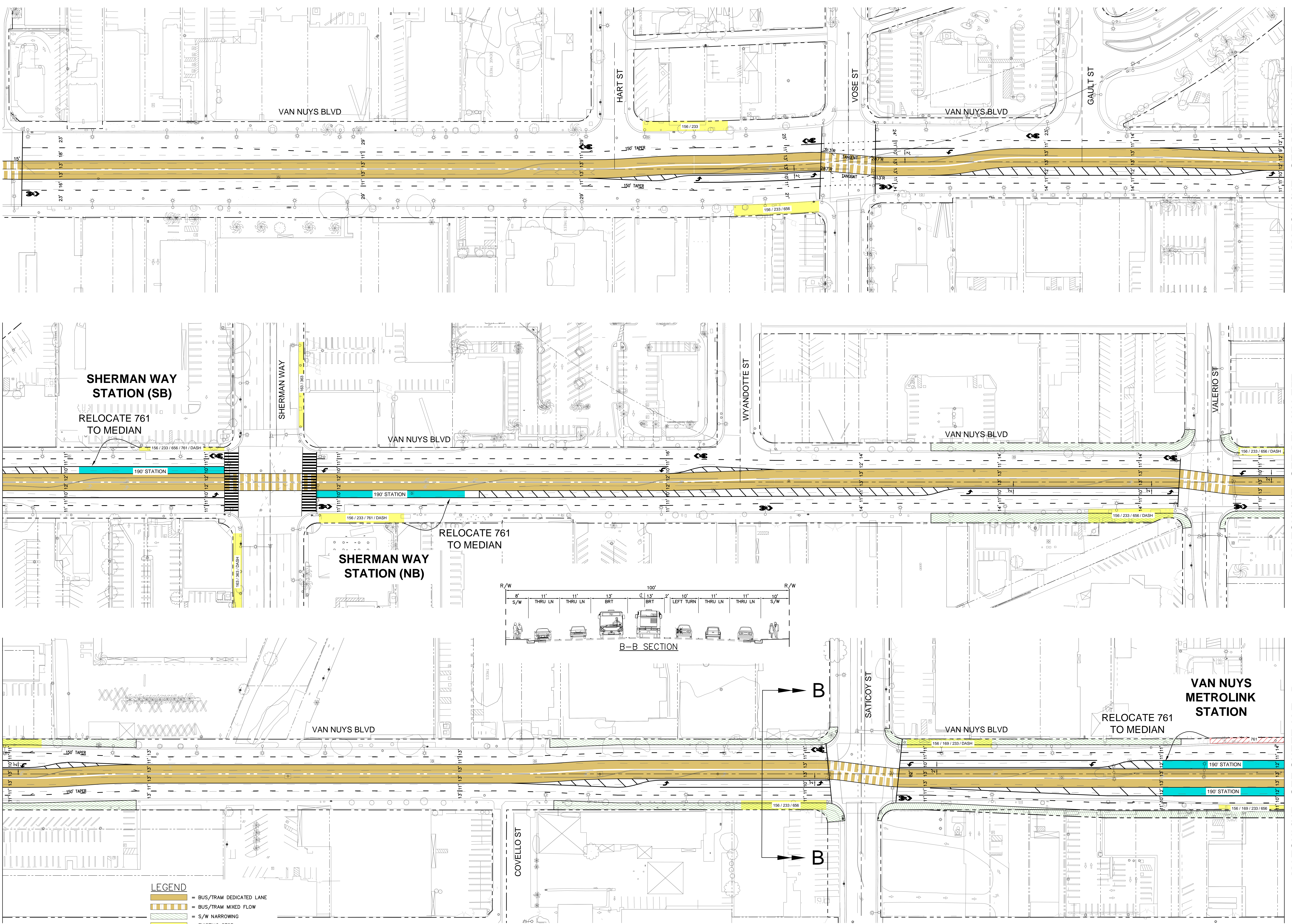
MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE BELOW LEFT

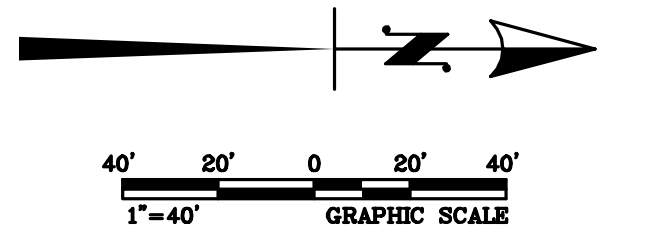
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE SHEET ALT2-5

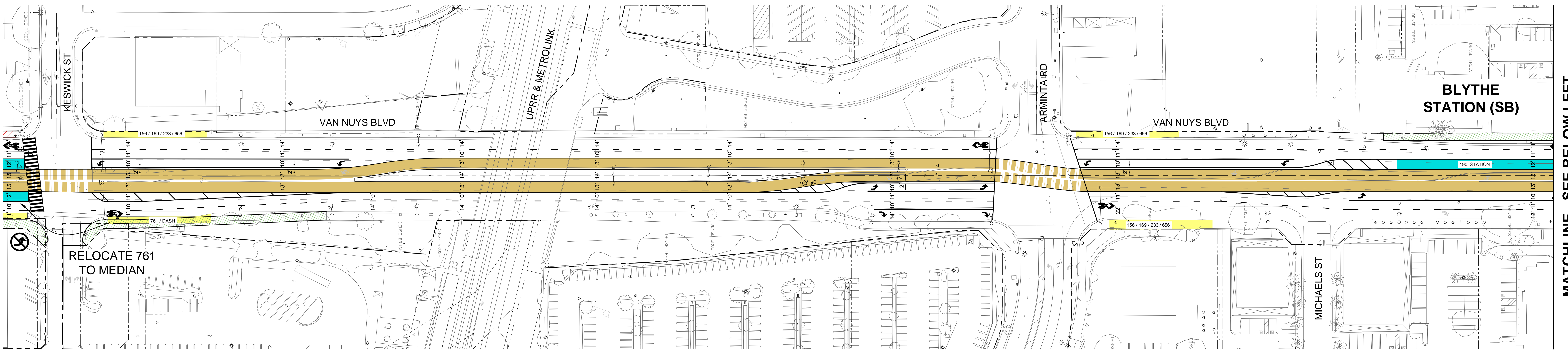


- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 2 - BRT MEDIAN RUNNING

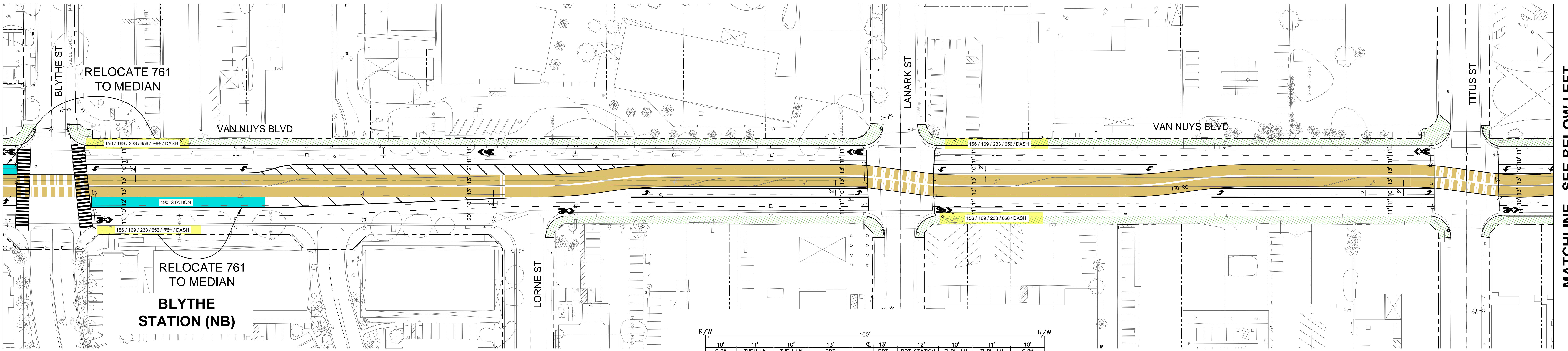


MATCHLINE - SEE SHEET ALT2-4



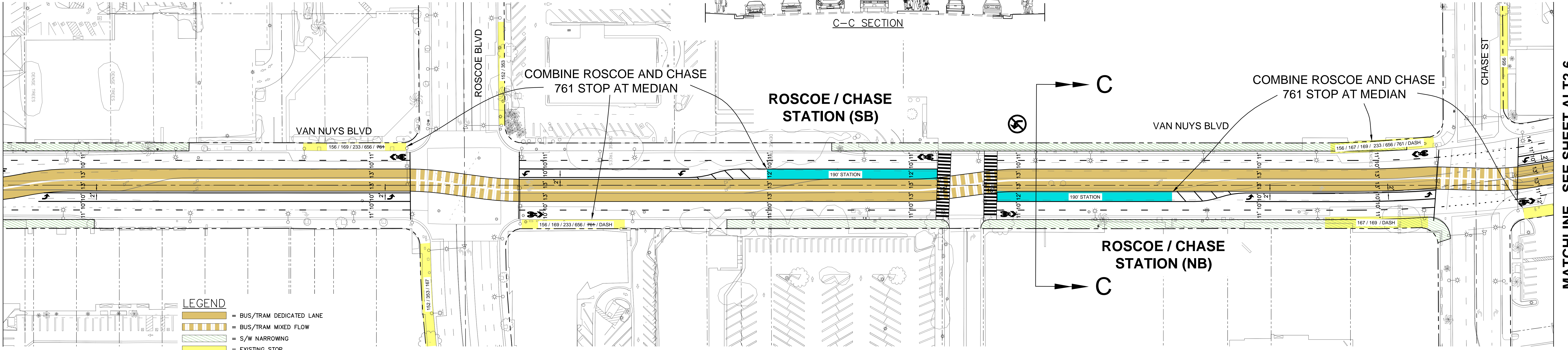
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT

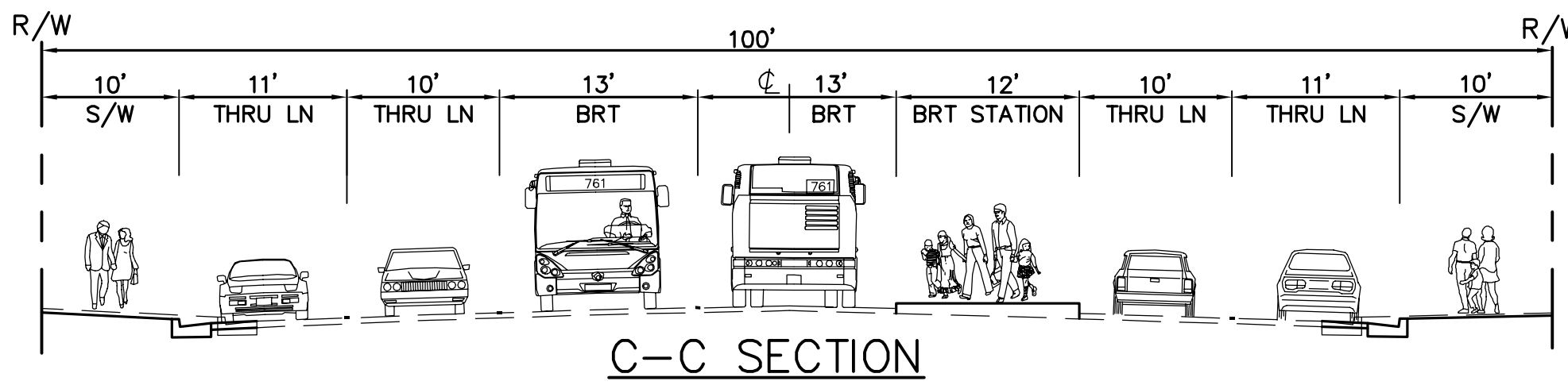


MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT

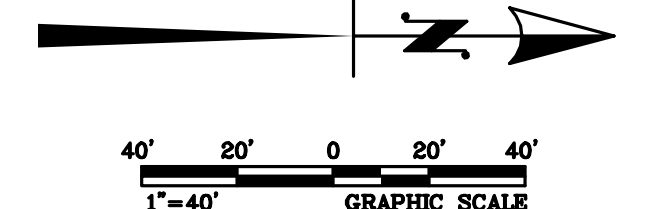


MATCHLINE - SEE SHEET ALT2-6

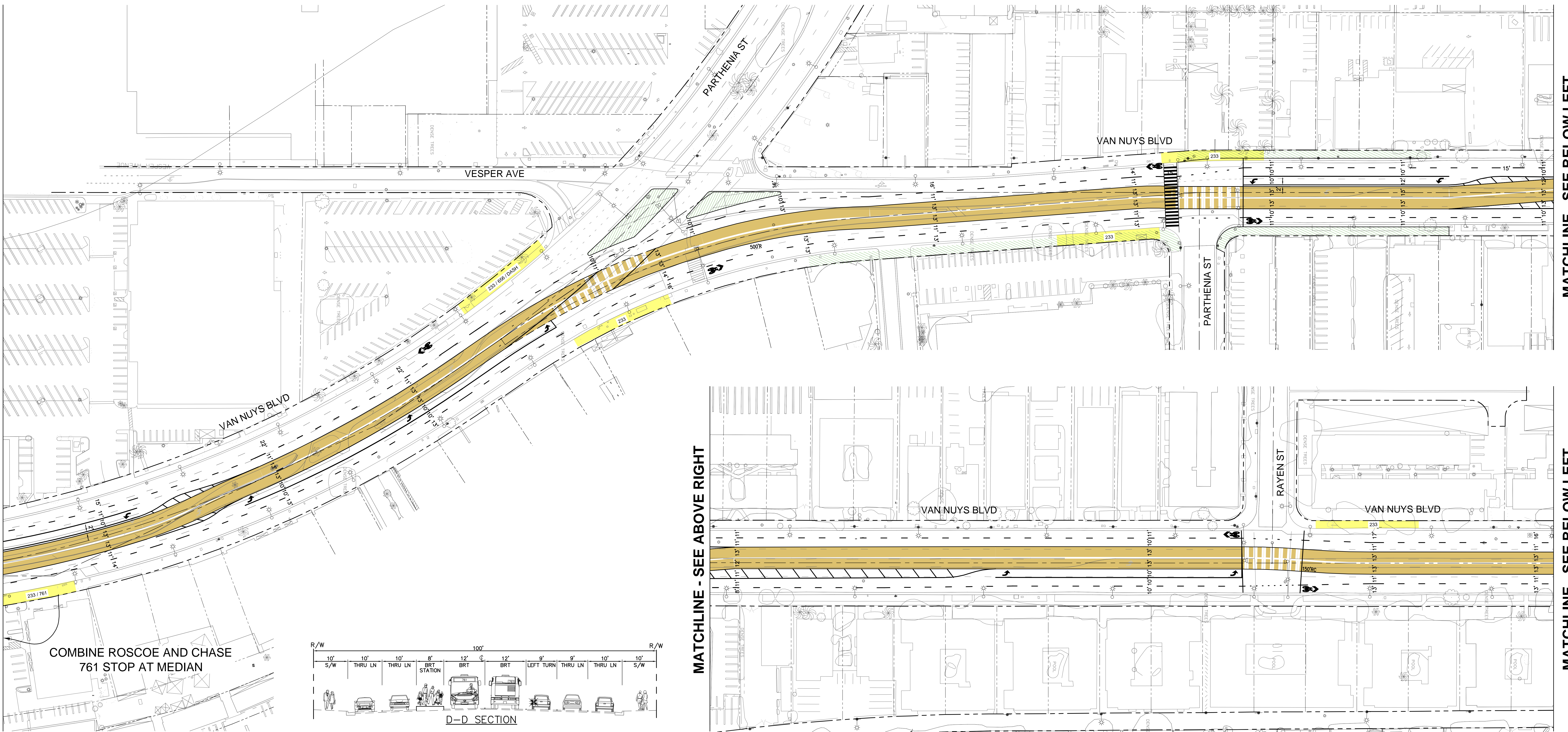


- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 2 - BRT MEDIAN RUNNING

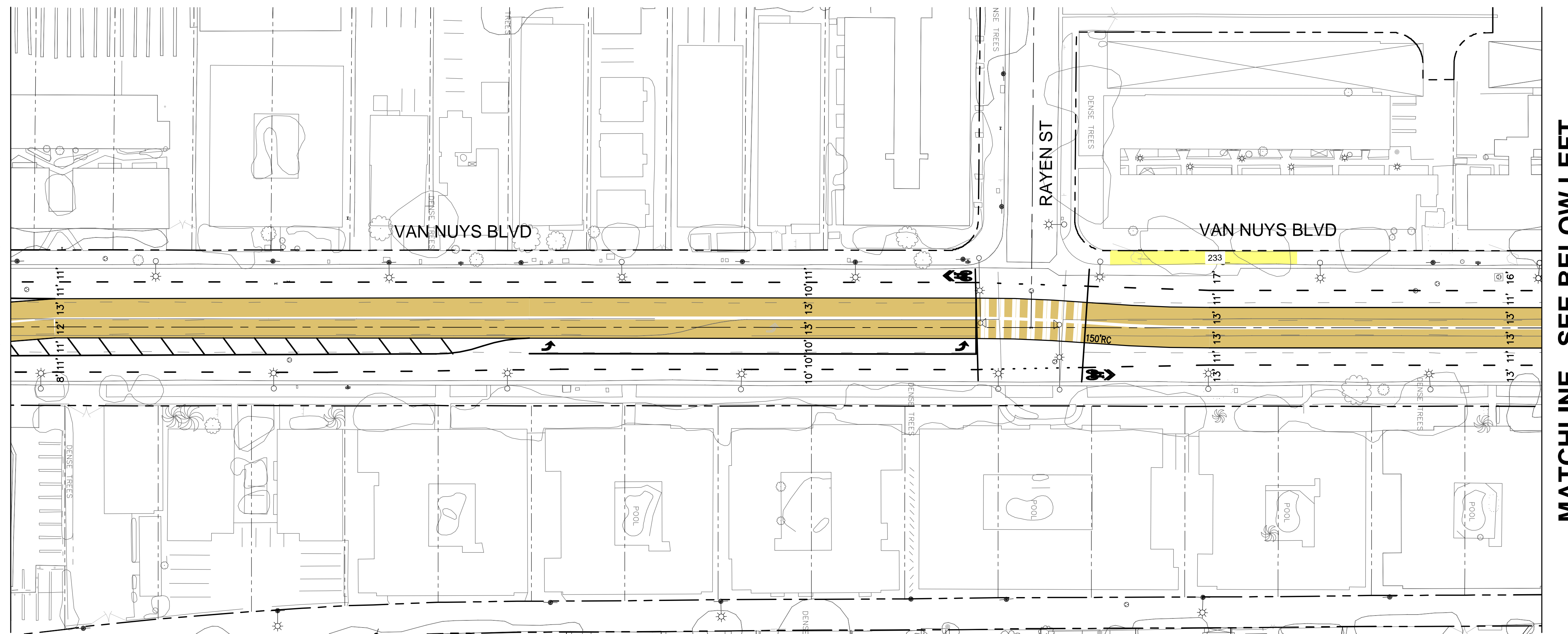


MATCHLINE - SEE SHEET ALT2-5



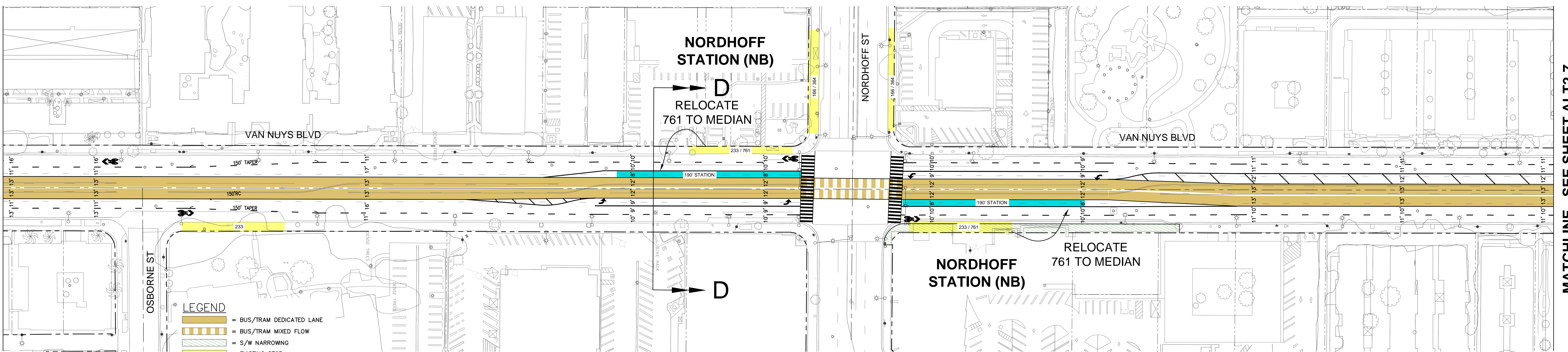
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT

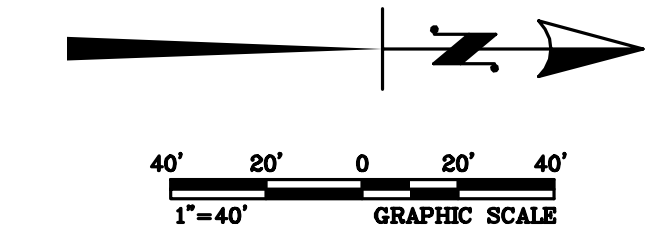


MATCHLINE - SEE SHEET ALT2-7

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

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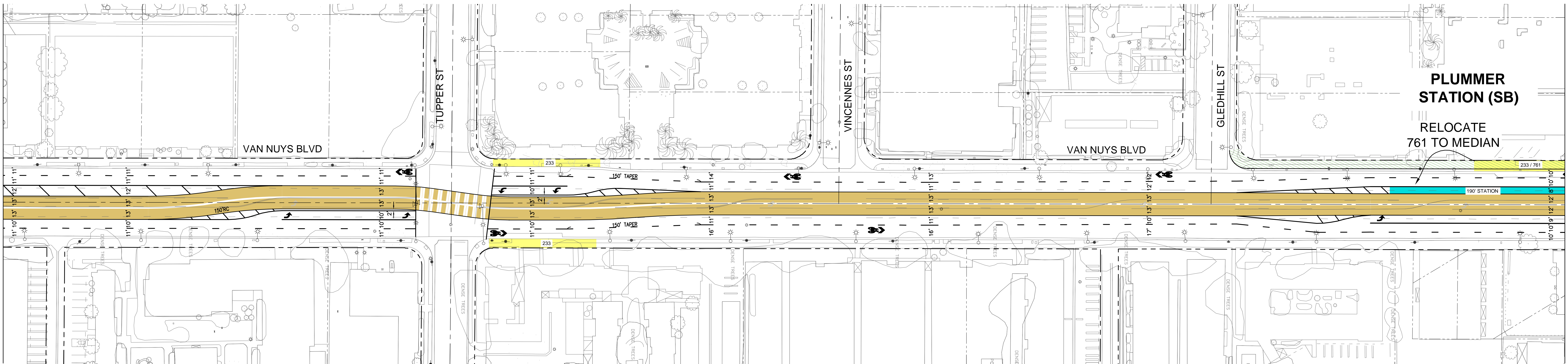
# ALTERNATIVE 2 - BRT MEDIAN RUNNING



**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT2-6

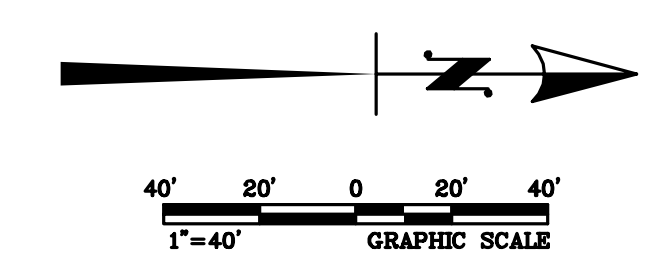
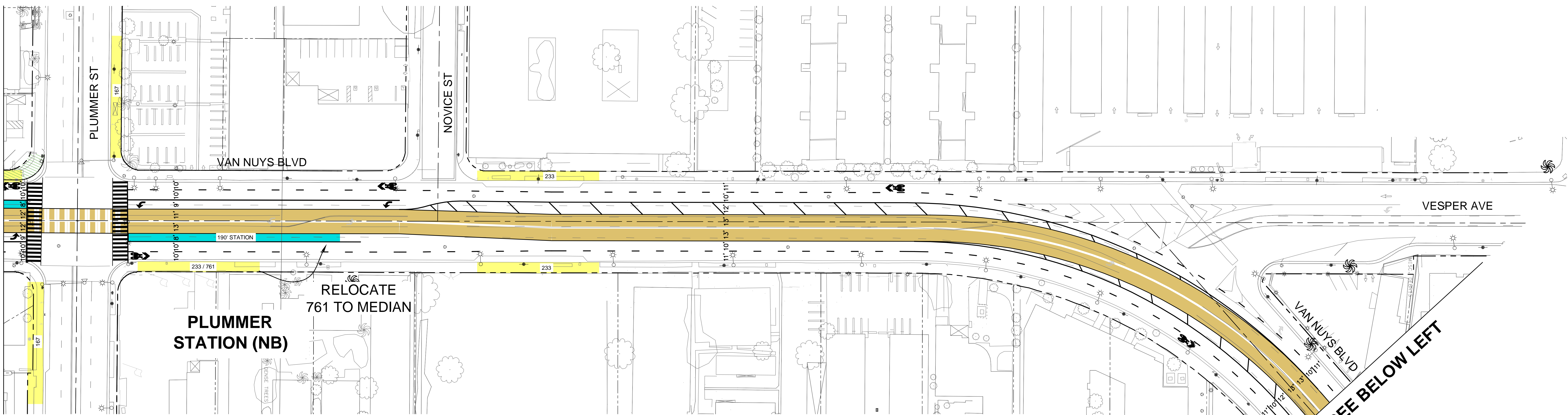


MATCHLINE - SEE SHEET ALT2-6



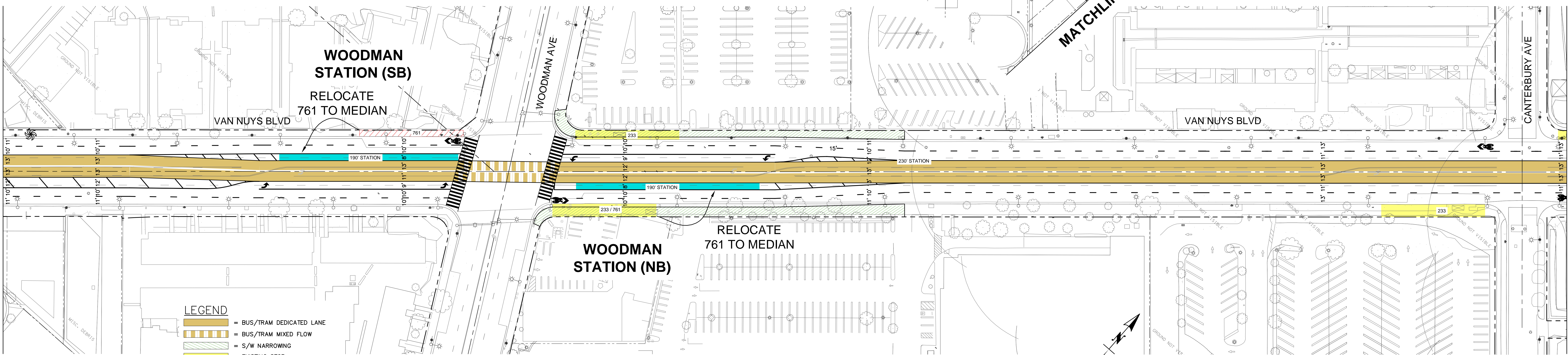
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE BELOW LEFT

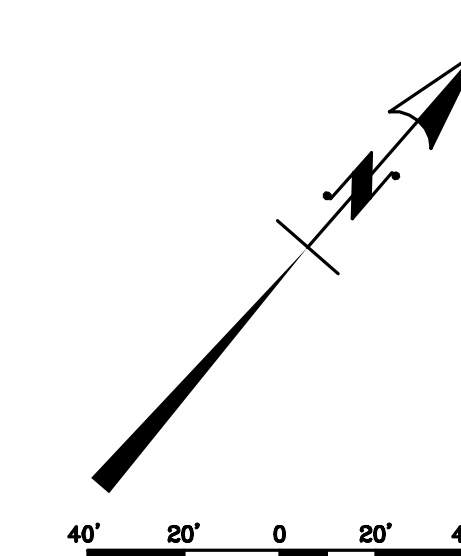
MATCHLINE - SEE ABOVE RIGHT



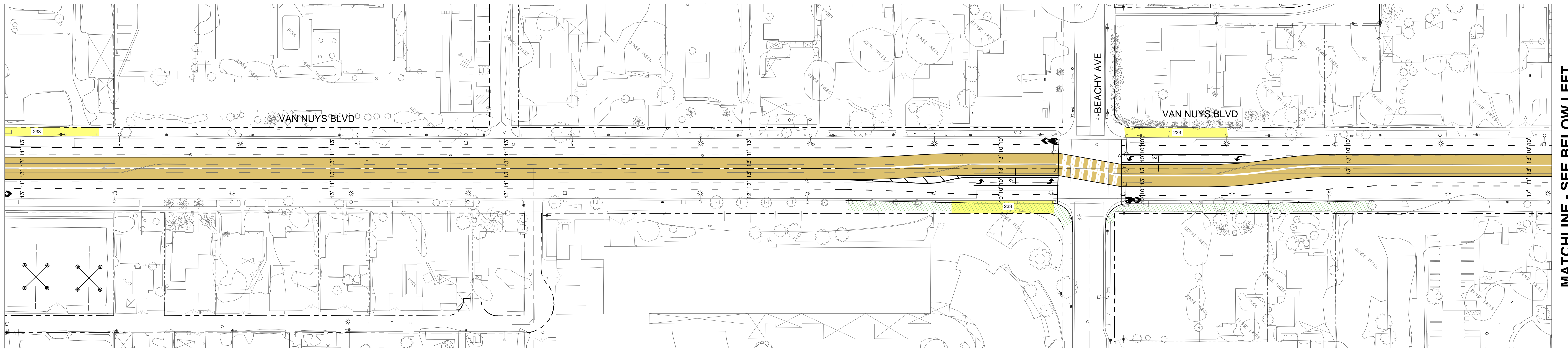
MATCHLINE - SEE SHEET ALT2-8

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 2 - BRT MEDIAN RUNNING

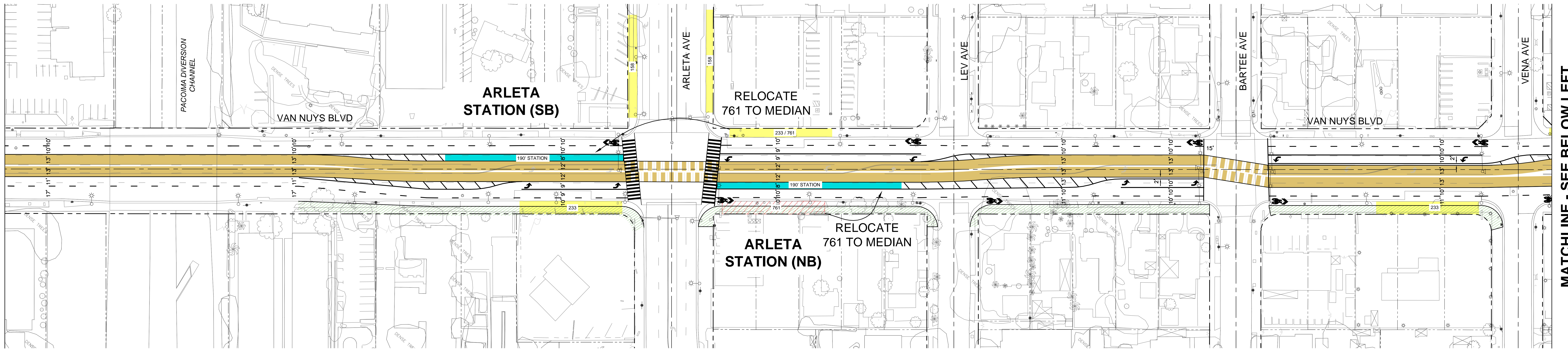


MATCHLINE - SEE SHEET ALT2-7



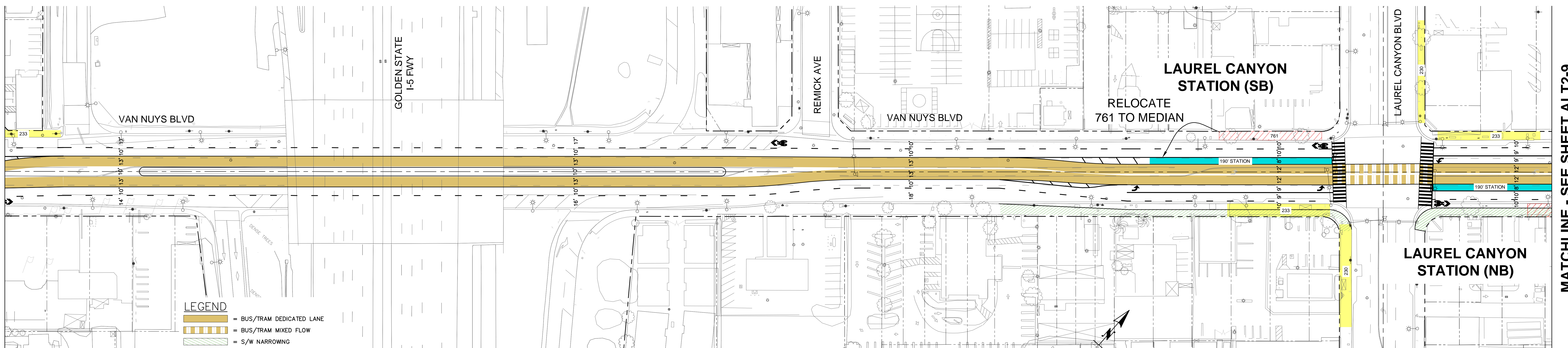
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE BELOW LEFT

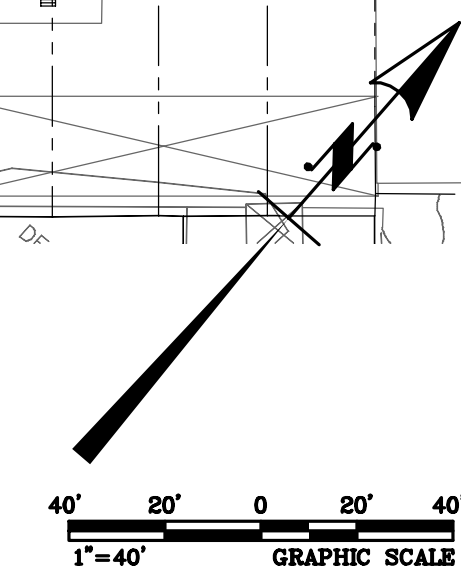
MATCHLINE - SEE ABOVE RIGHT



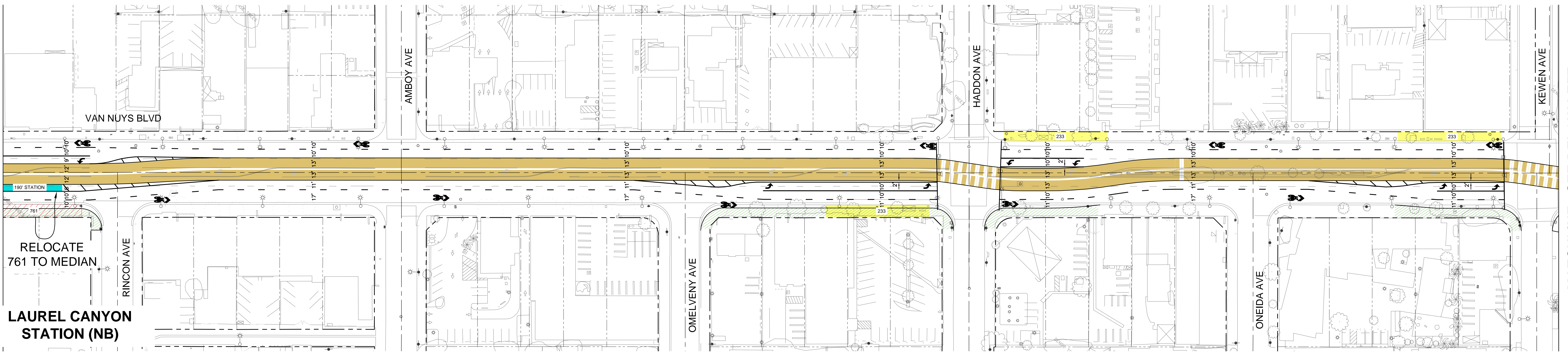
MATCHLINE - SEE SHEET ALT2-9

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 2 - BRT MEDIAN RUNNING

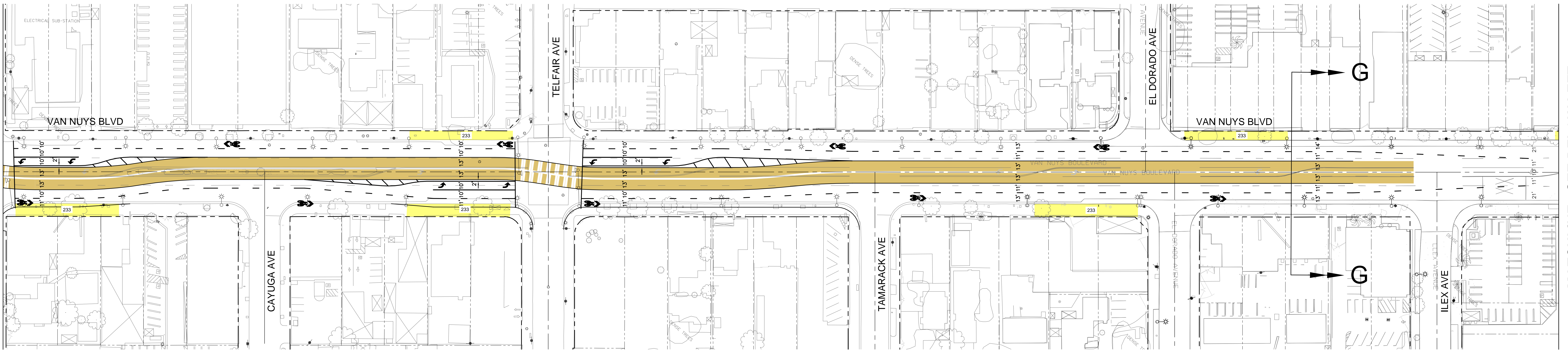


MATCHLINE - SEE SHEET ALT2-8



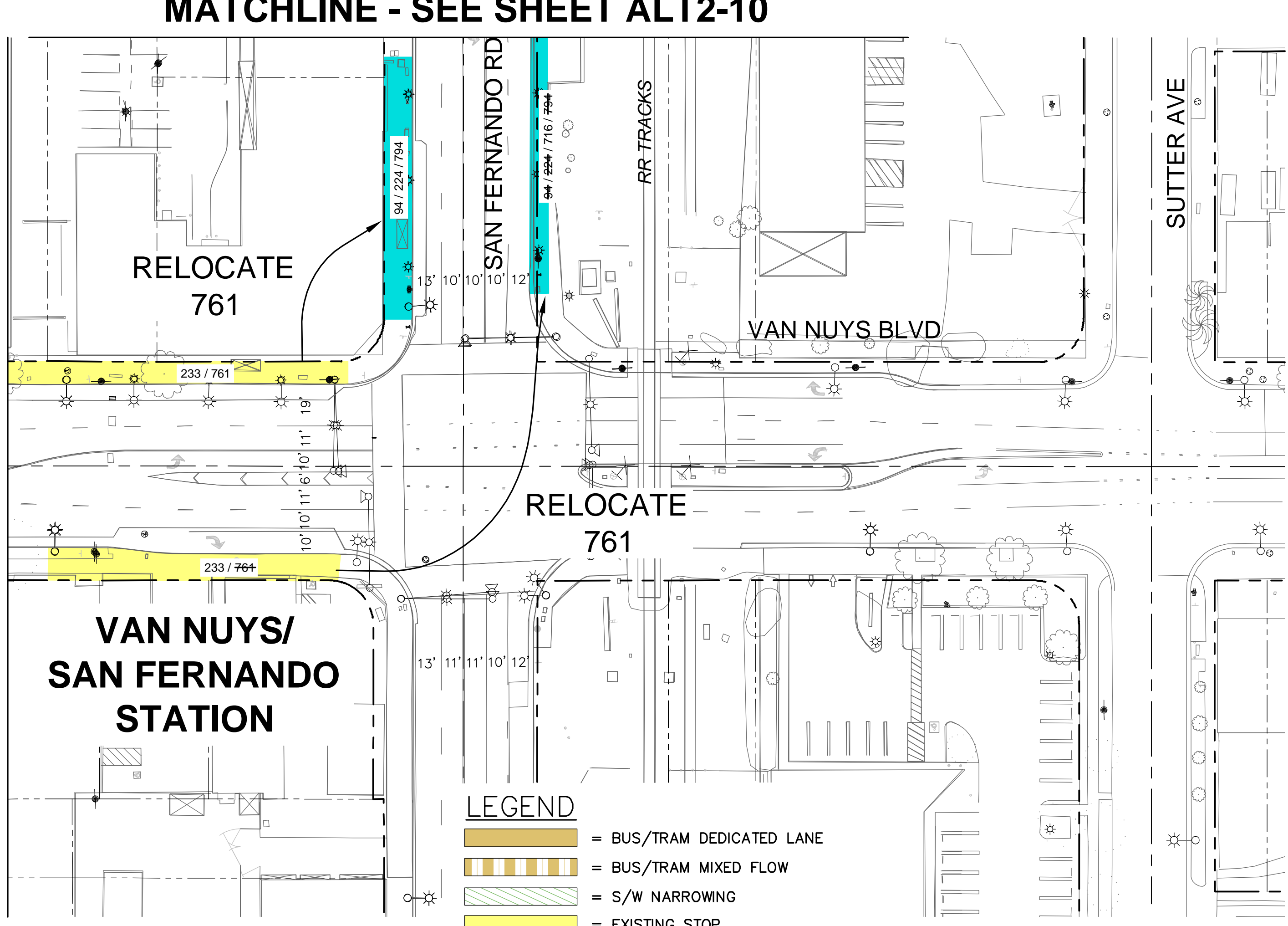
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT

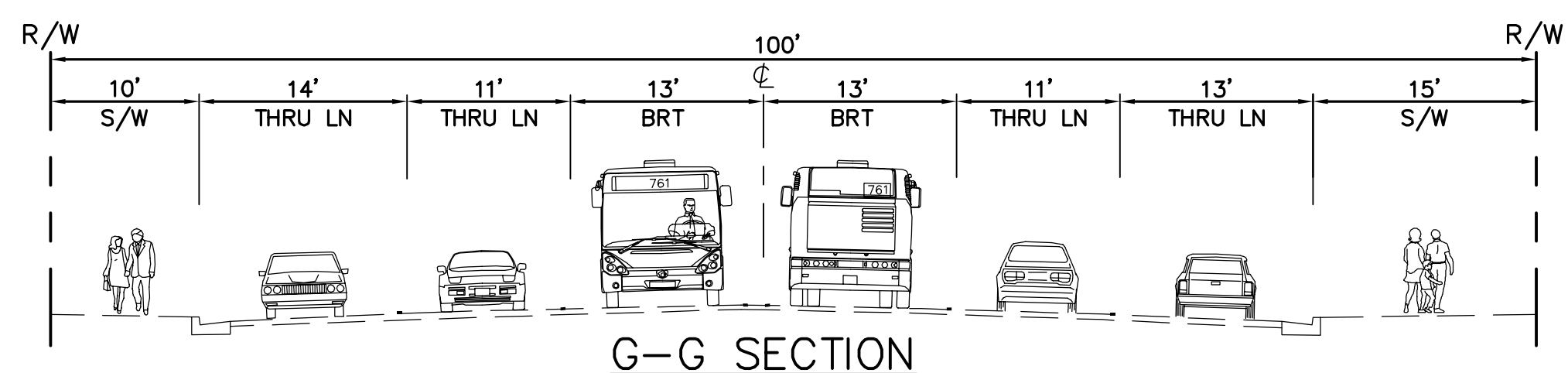


MATCHLINE - SEE SHEET ALT2-10

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 Monterey Park, California 91754-7632  
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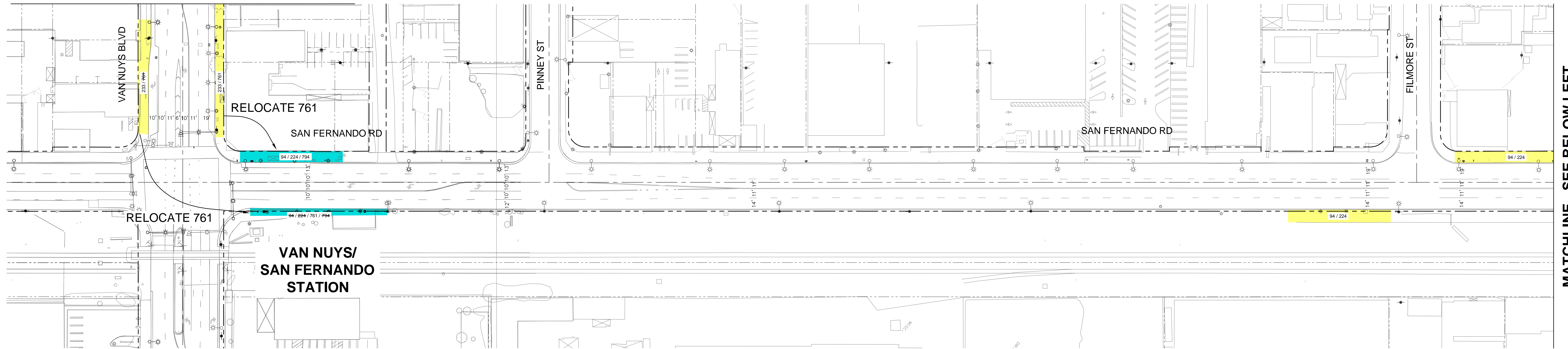
- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 2 - BRT MEDIAN RUNNING



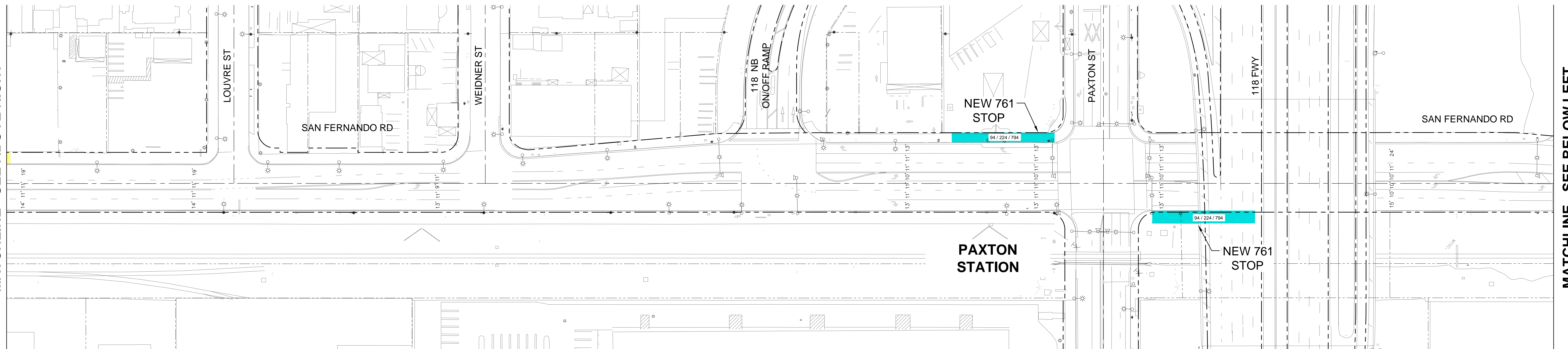
**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT2-9

MATCHLINE - SEE SHEET ALT2-9



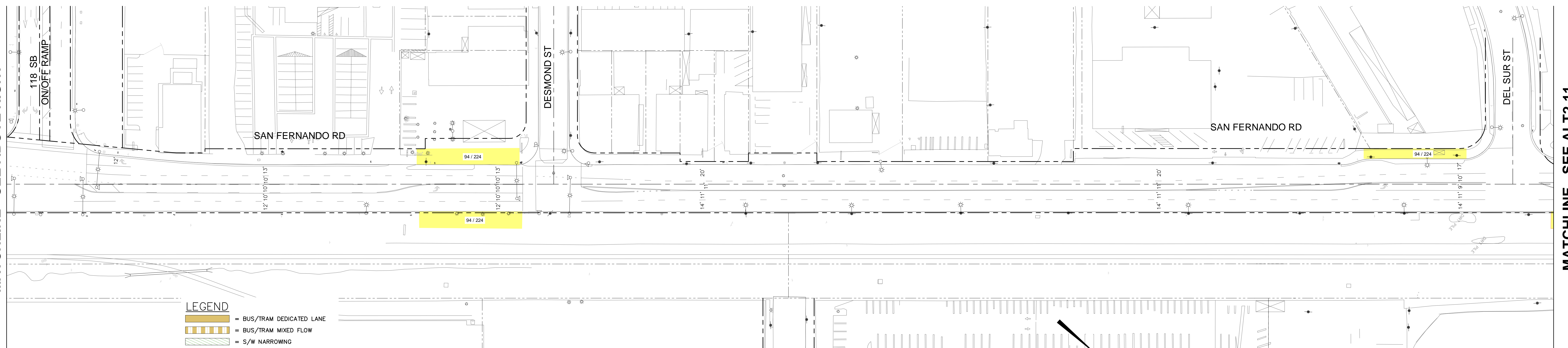
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE BELOW LEFT

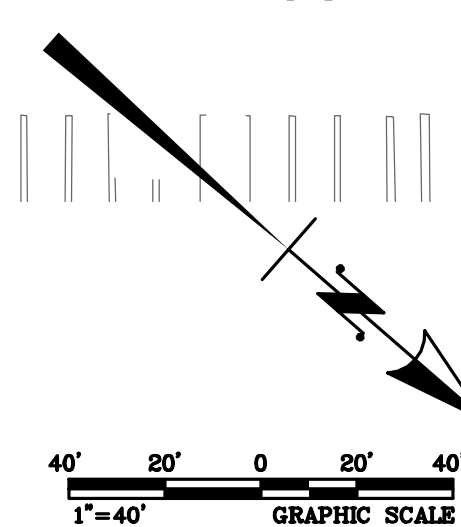
MATCHLINE - SEE ABOVE RIGHT



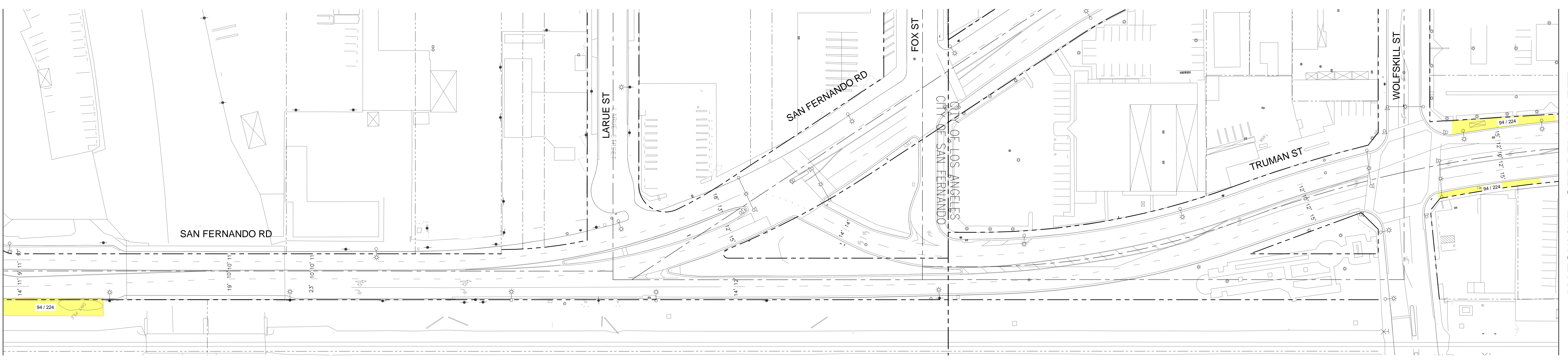
MATCHLINE - SEE ALT2-11

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 2 - BRT MEDIAN RUNNING

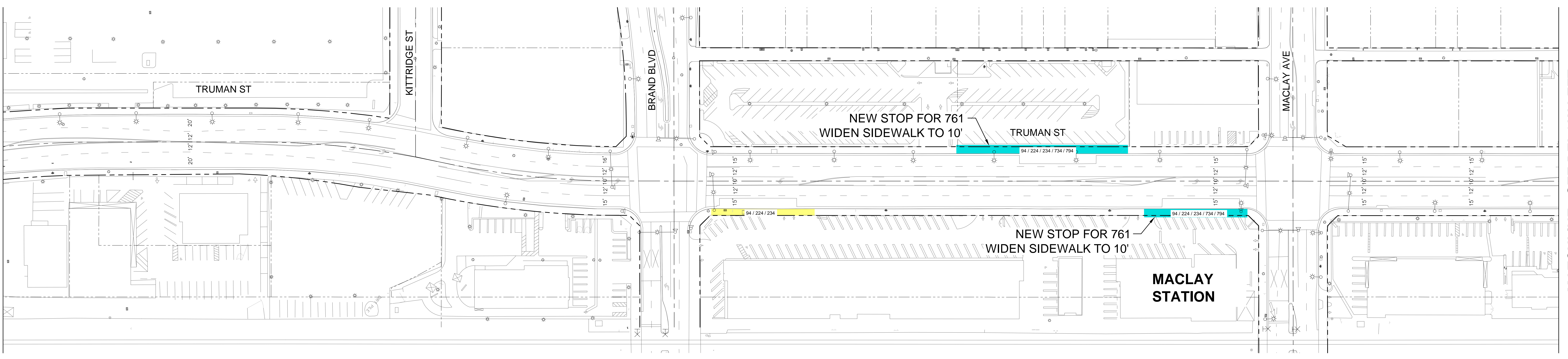


MATCHLINE - SEE ALT2-10



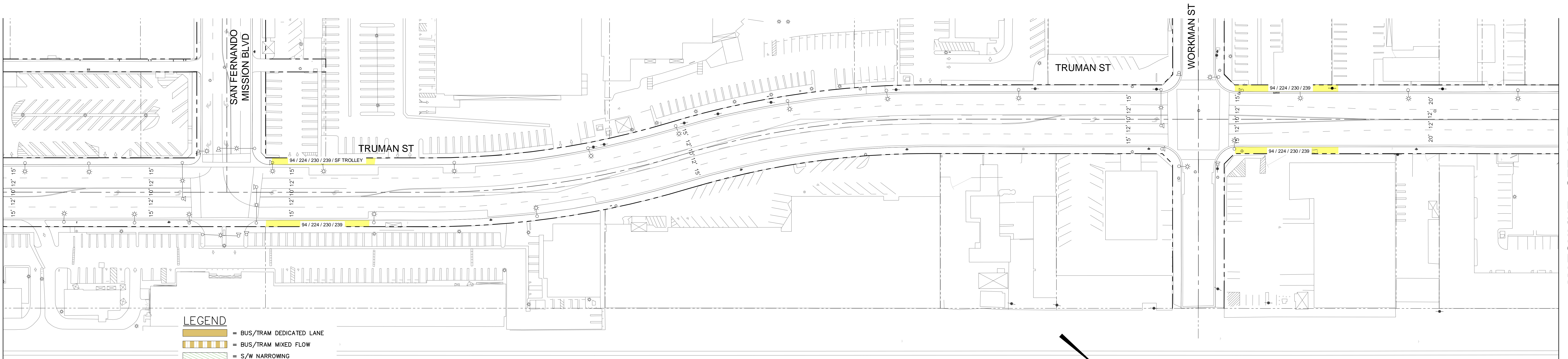
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE BELOW LEFT

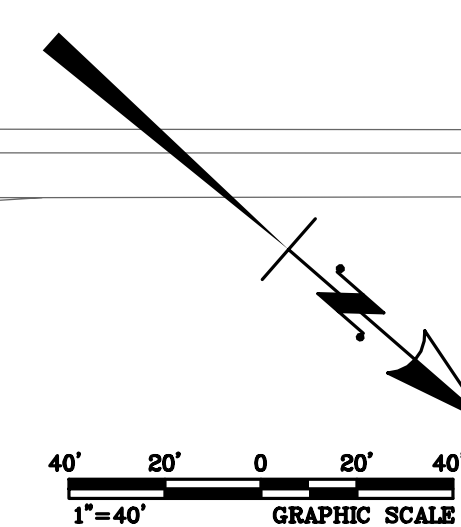
MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE ALT2-12

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP
  - = REMOVED ON STREET PARKING

# ALTERNATIVE 2 - BRT MEDIAN RUNNING

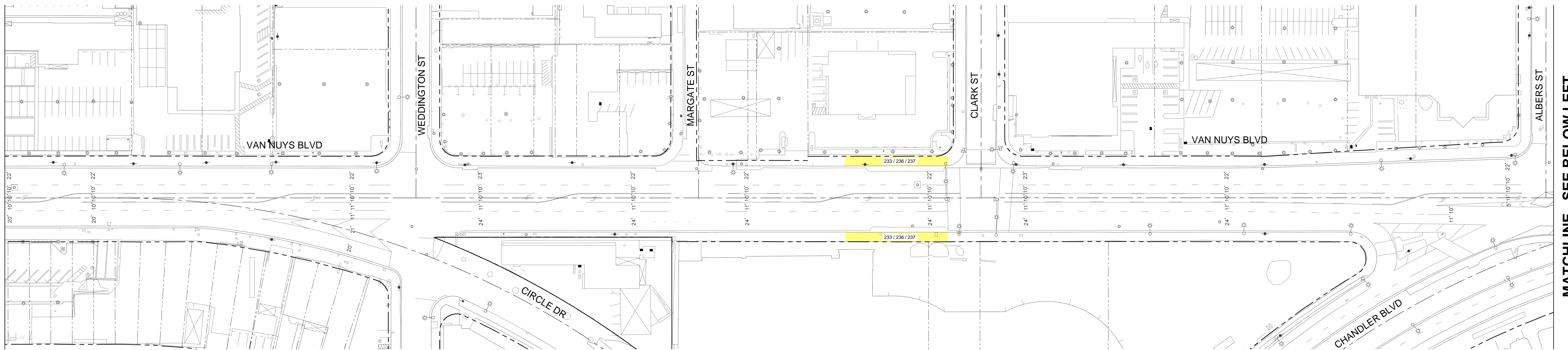


Last Revised: Thu, Jun 16, 2016 - 12:41pm  
 Last Plotted: Thu, Jun 16, 2016 - 12:46pm  
 Drawing: C:\0101\B0200\_Metro\_Van\_Naps\_Corridor\_Roadway\Exhibits\Concept\_Eng\Alternative\_Establish\_V2 - Exhib1.dwg  
 Plotted By: abie



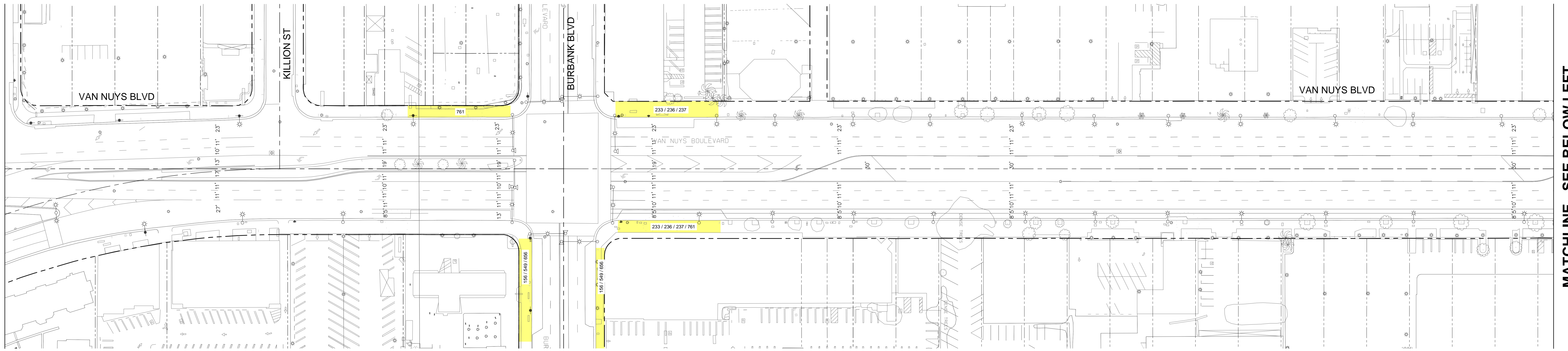


MATCHLINE - SEE SHEET ALT3-1



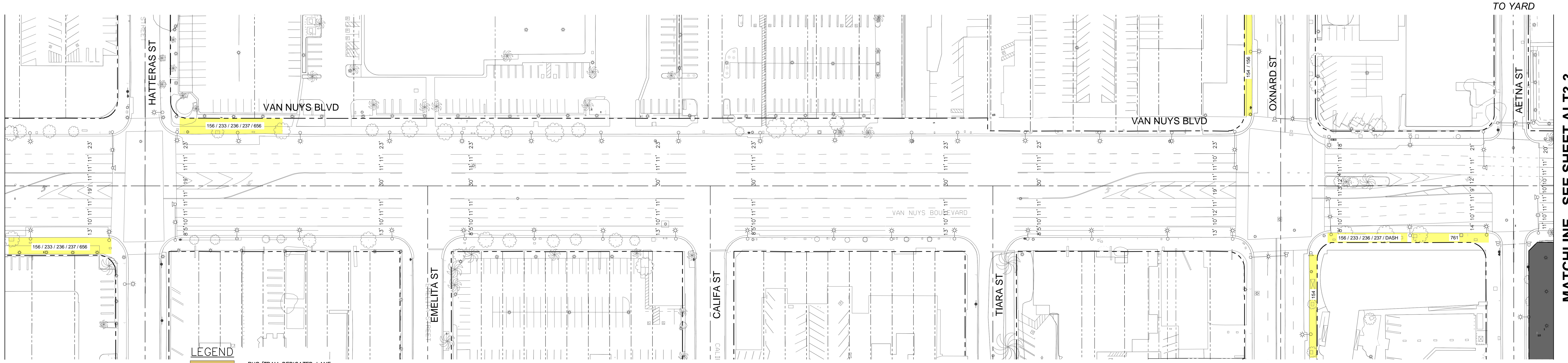
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT

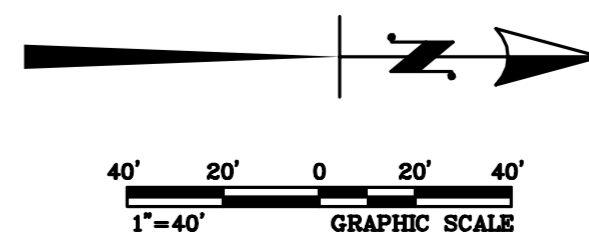


MATCHLINE - SEE SHEET ALT3-3

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING OR WIDENING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP

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# ALTERNATIVE 3 - TRAM MEDIAN RUNNING



**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT3-2

Last Revised: Mon Sep 08, 2014 - 3:15pm. Last Plotted: Mon Sep 08, 2014 - 3:50pm. Drawing: E:\2014\10101000 Main Van Nuys Corridor (Risinger) (Civil) (DWG) Concept Ery/Merwin/Echab/A/E 2 - Exhibit Part 1 of 2.dwg



MATCHLINE - SEE ALT3-2

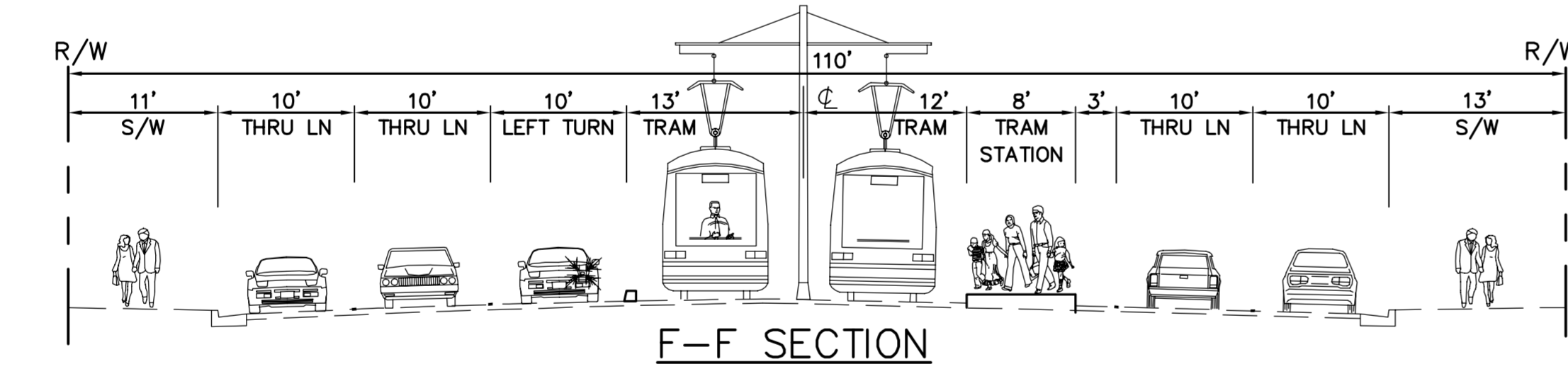
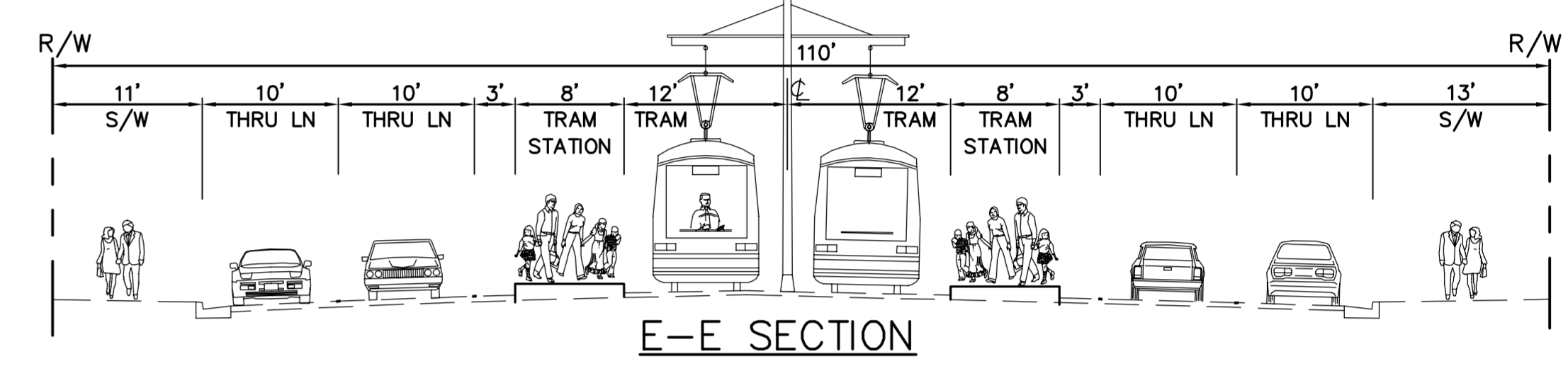
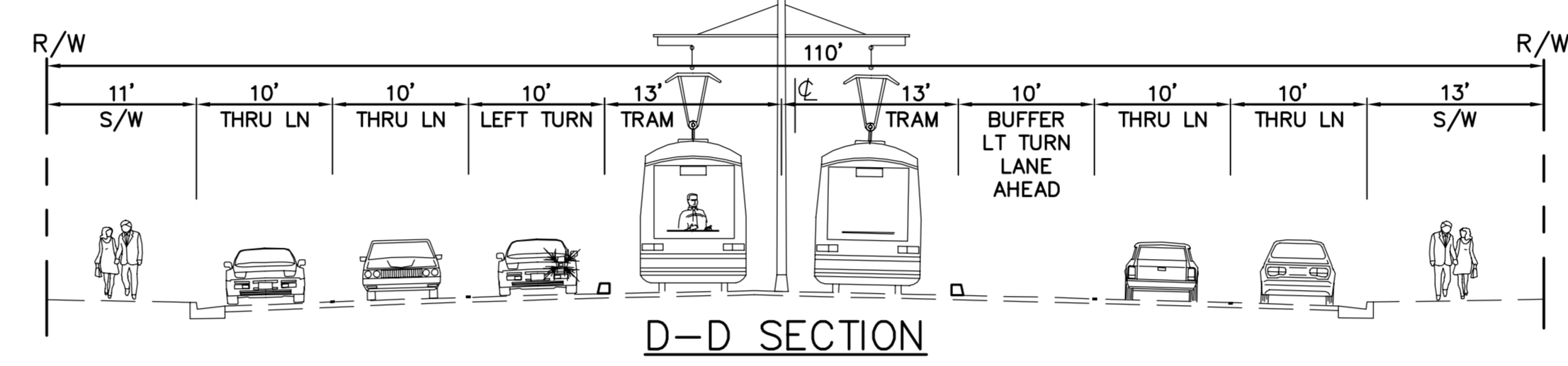
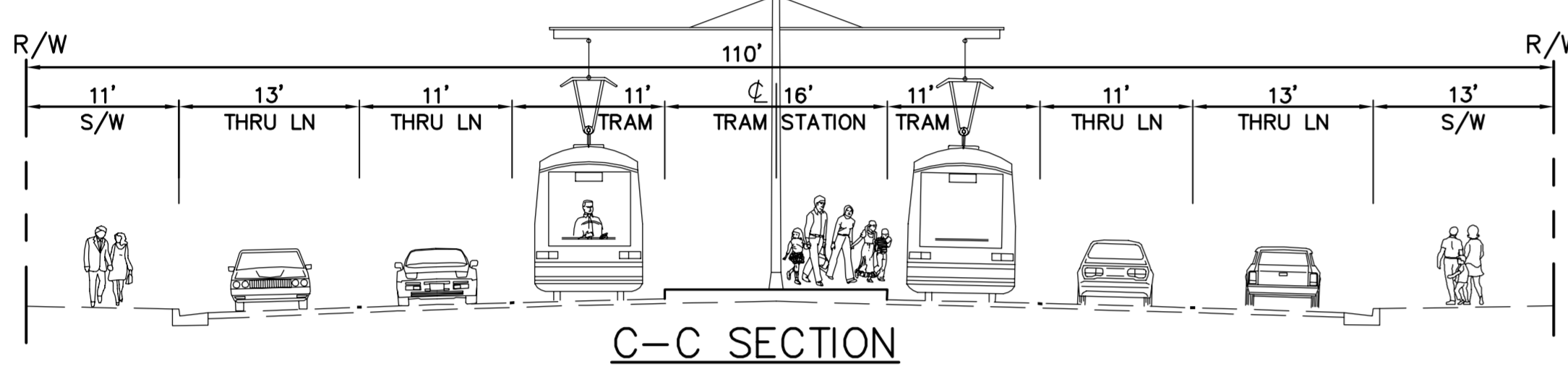
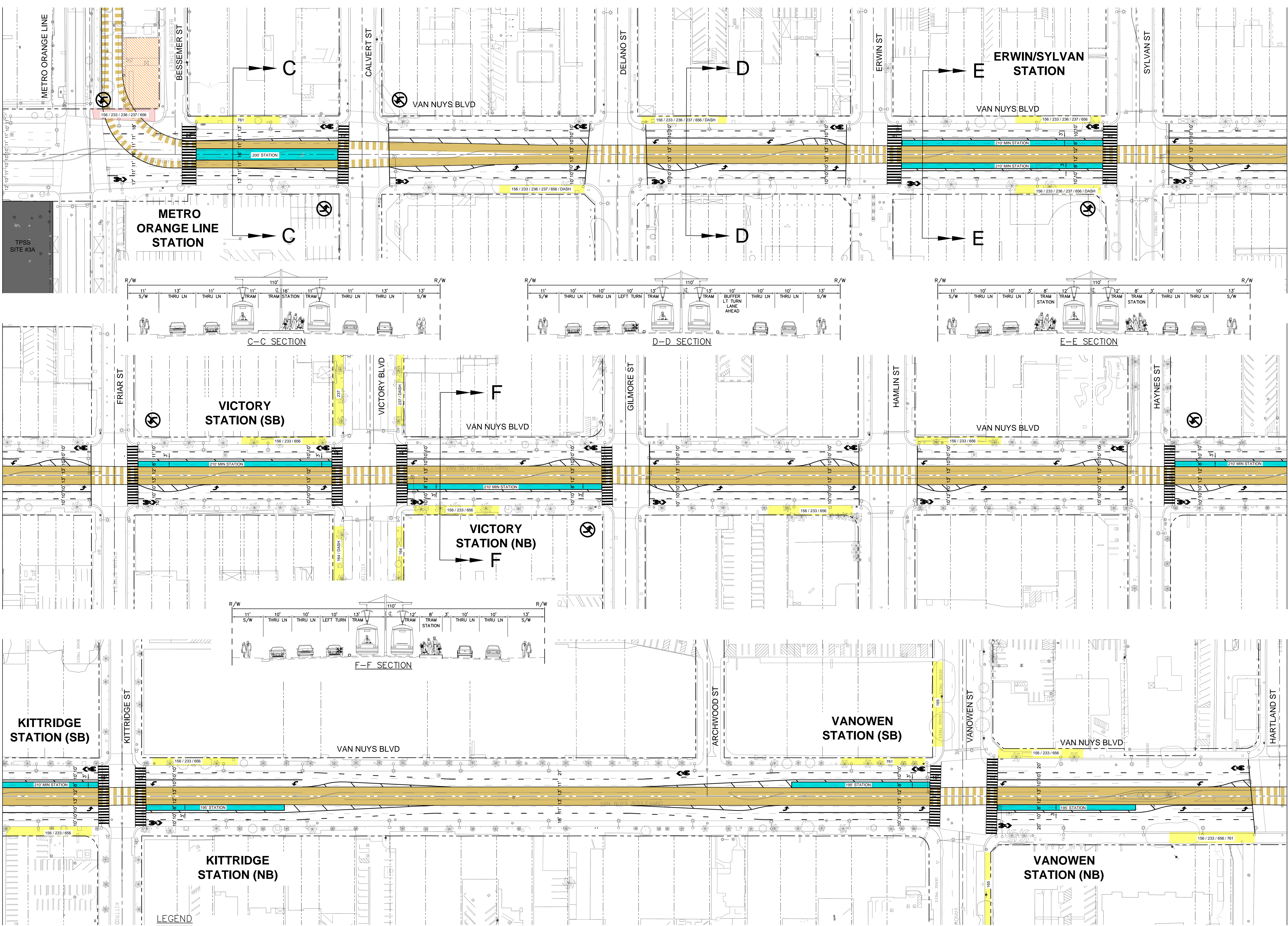
MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE BELOW LEFT

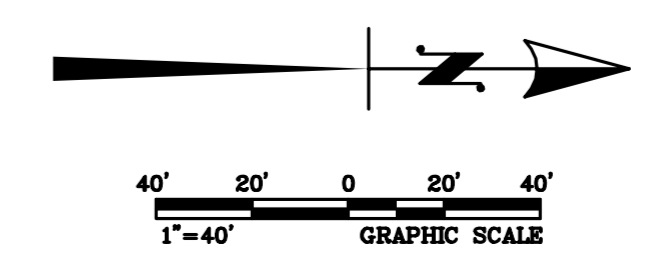
MATCHLINE - SEE SHEET ALT3-4



- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING OR WIDENING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP

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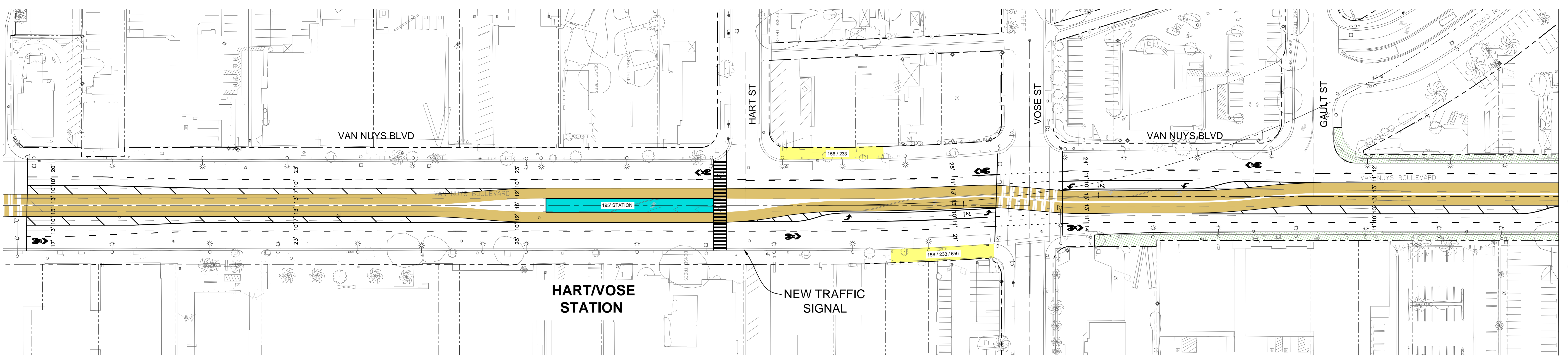
# ALTERNATIVE 3 - TRAM MEDIAN RUNNING



**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT3-3

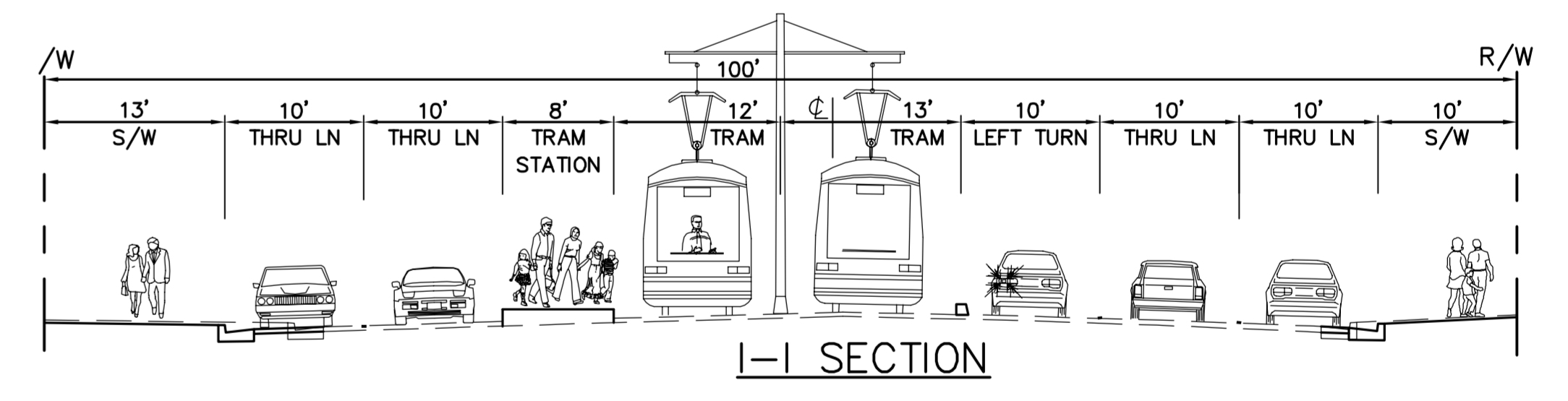
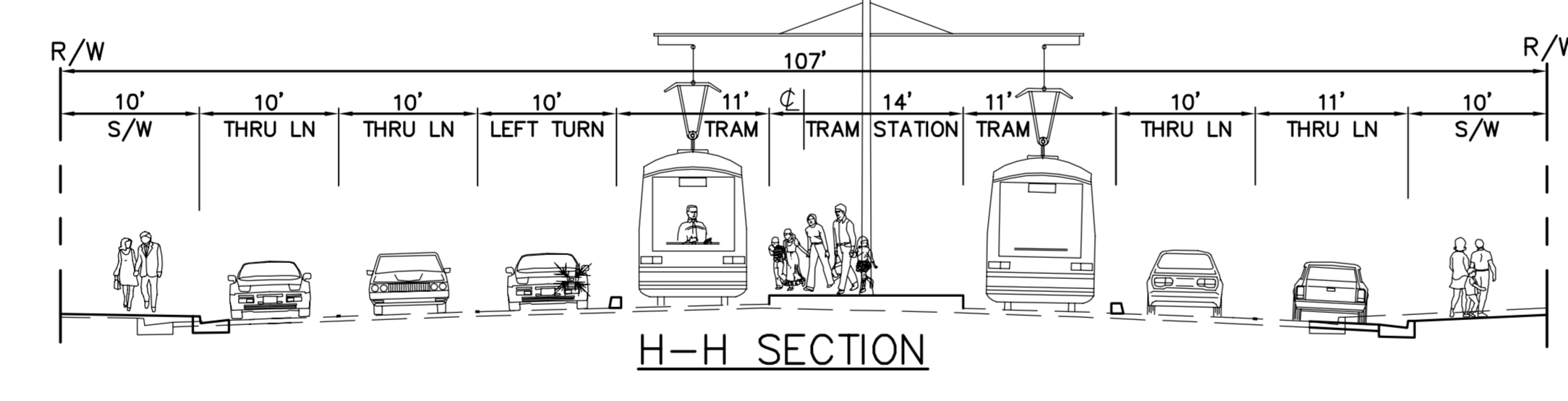
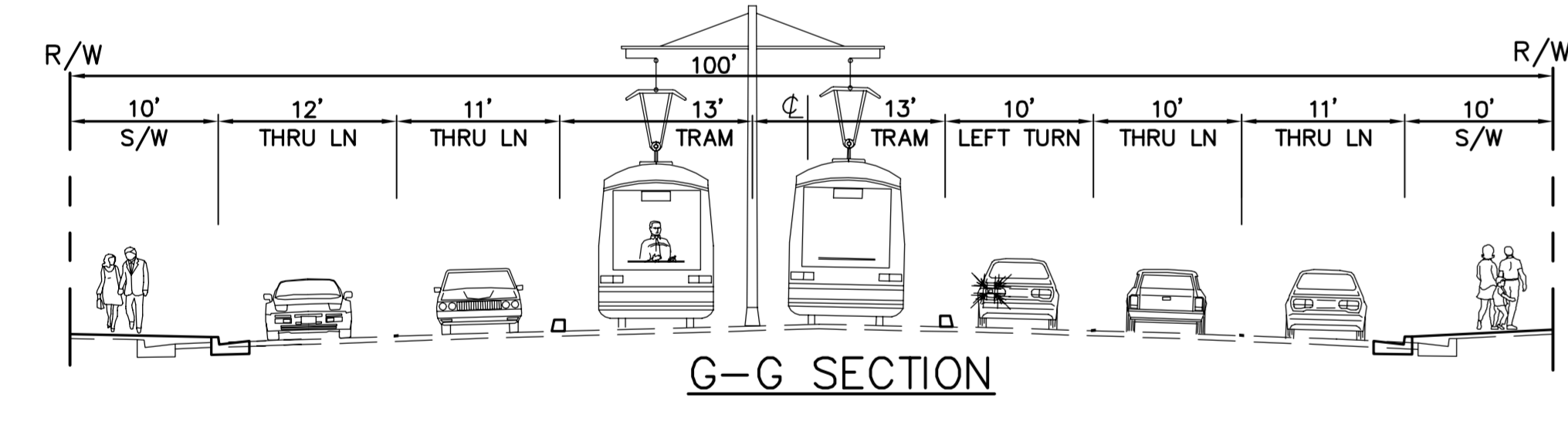
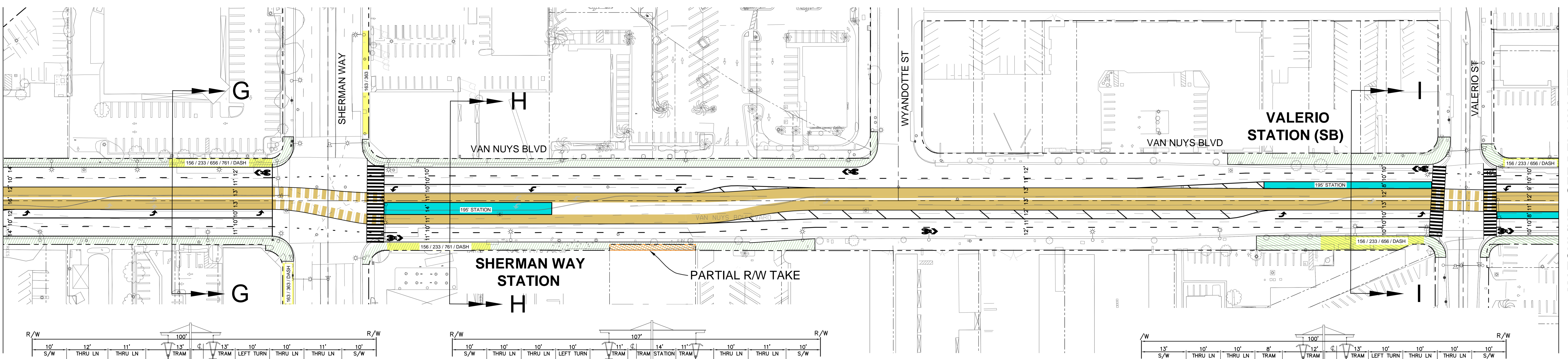
MATCHLINE - SEE SHEET ALT3-3

MATCHLINE - SEE BELOW LEFT



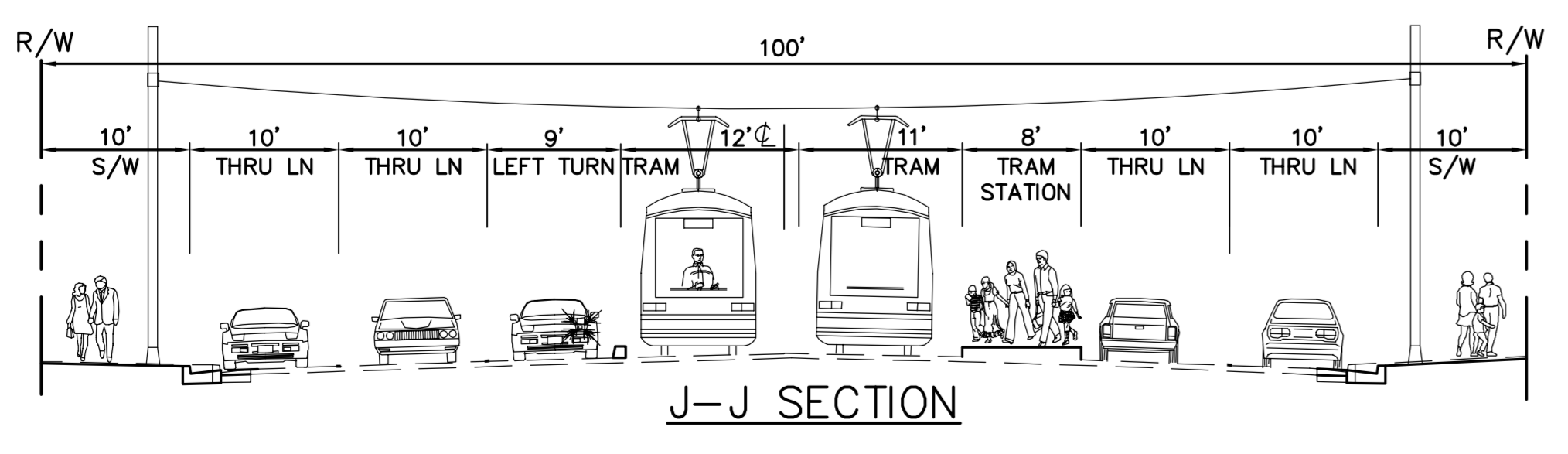
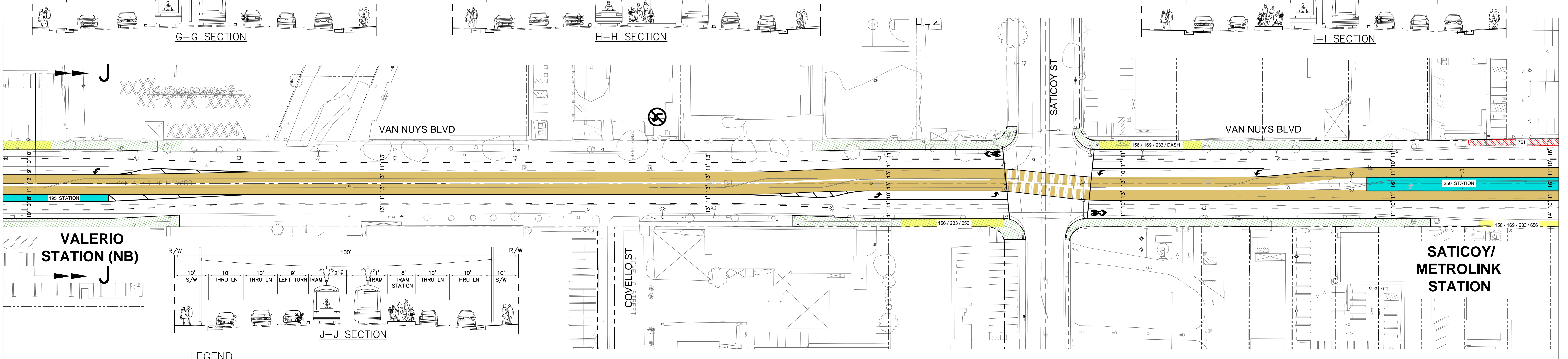
MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE BELOW LEFT



MATCHLINE - SEE ABOVE RIGHT

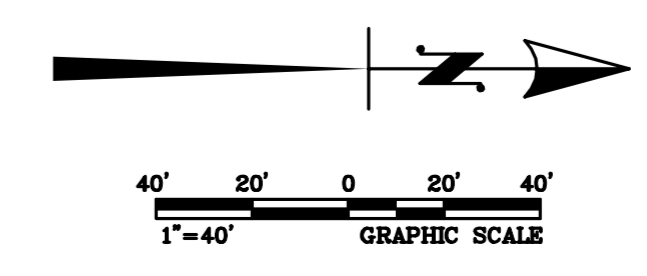
MATCHLINE - SEE SHEET ALT3-5



- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING OR WIDENING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP

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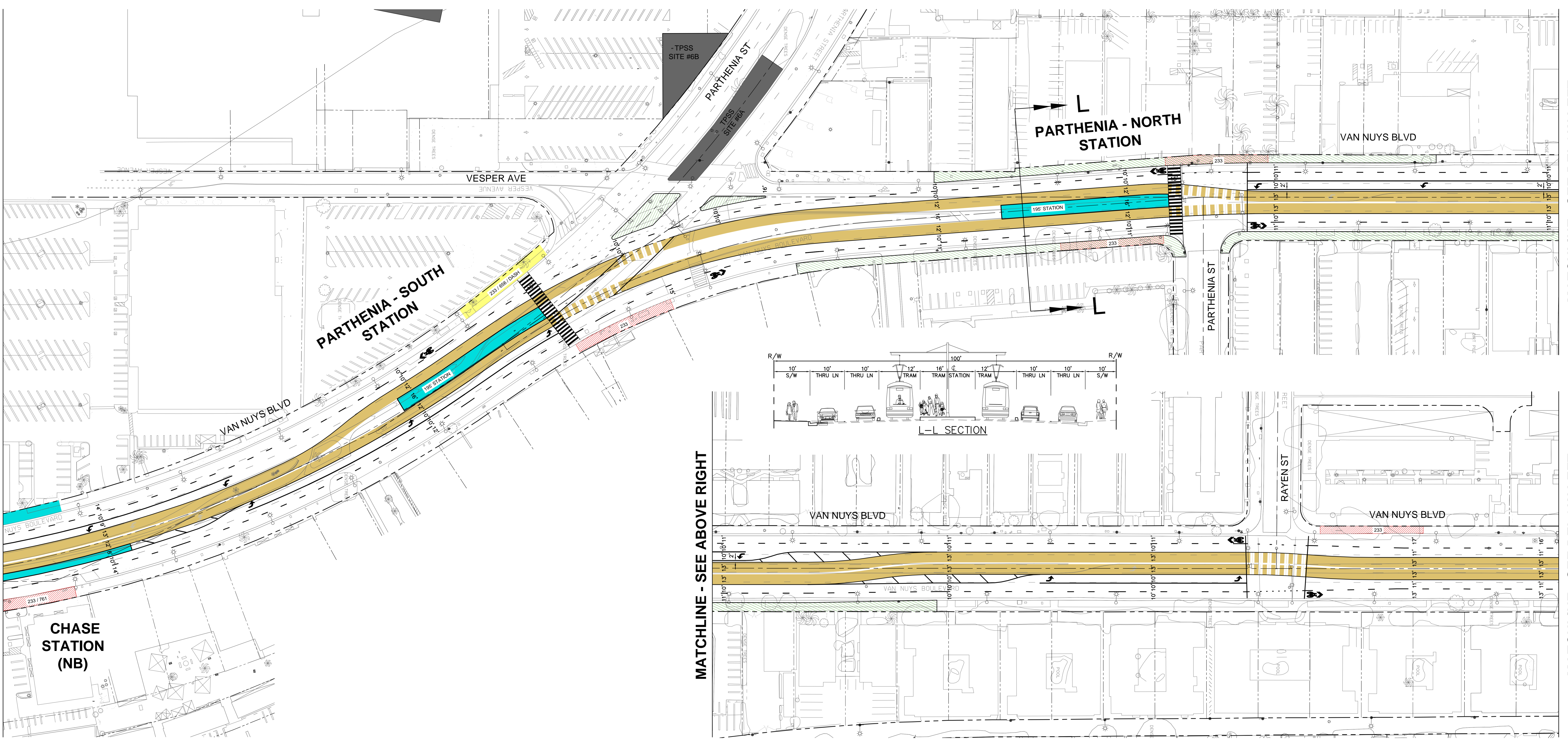
# ALTERNATIVE 3 - TRAM MEDIAN RUNNING



**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT3-4

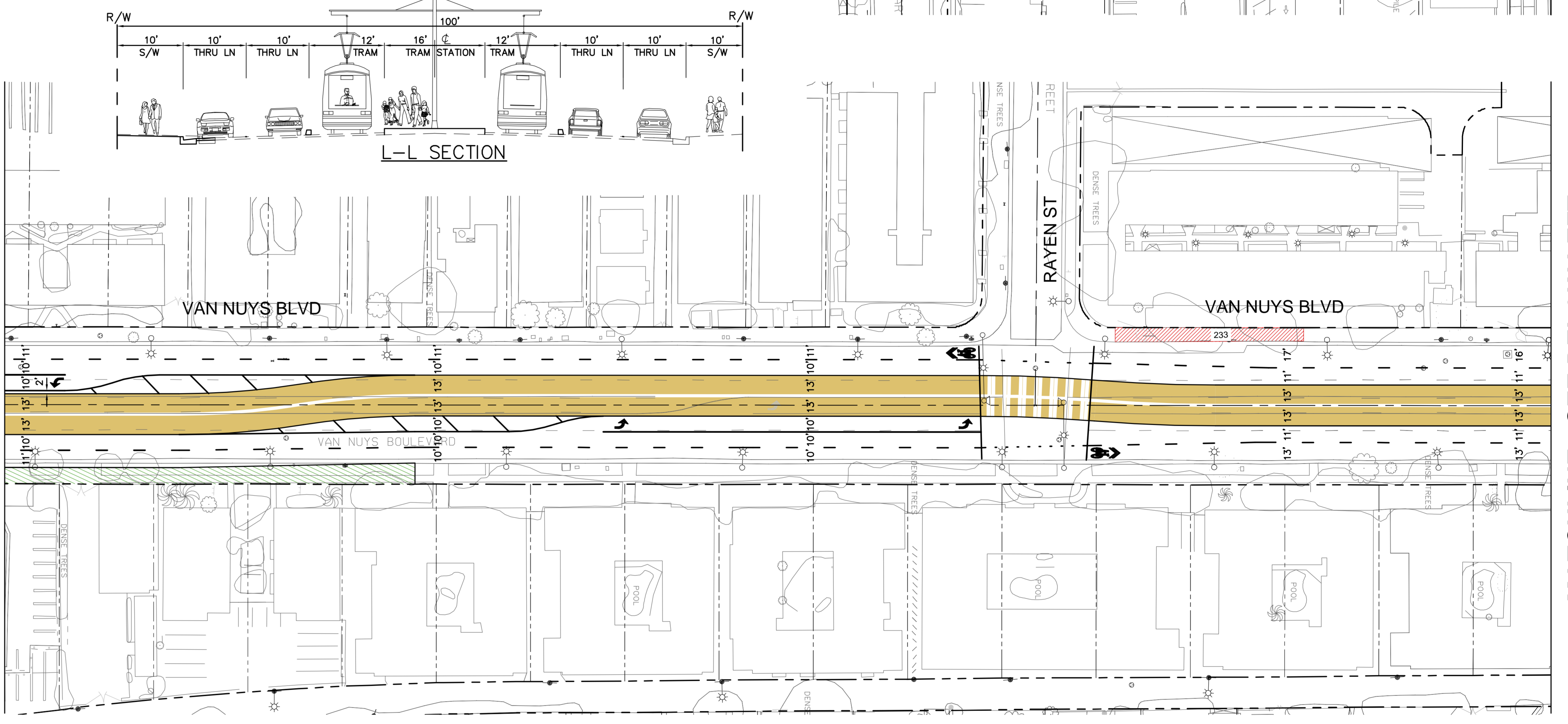


MATCHLINE - SEE SHEET ALT3-5



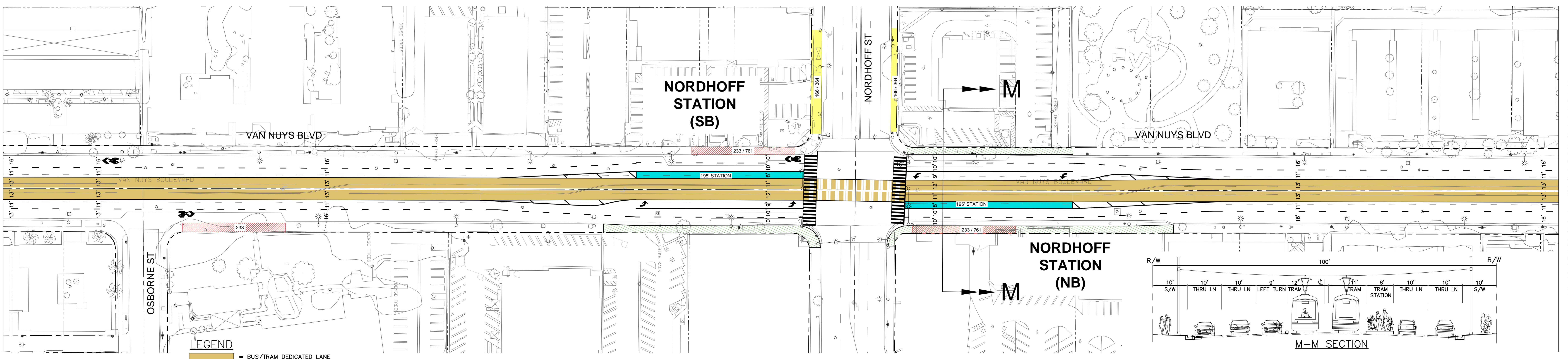
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT

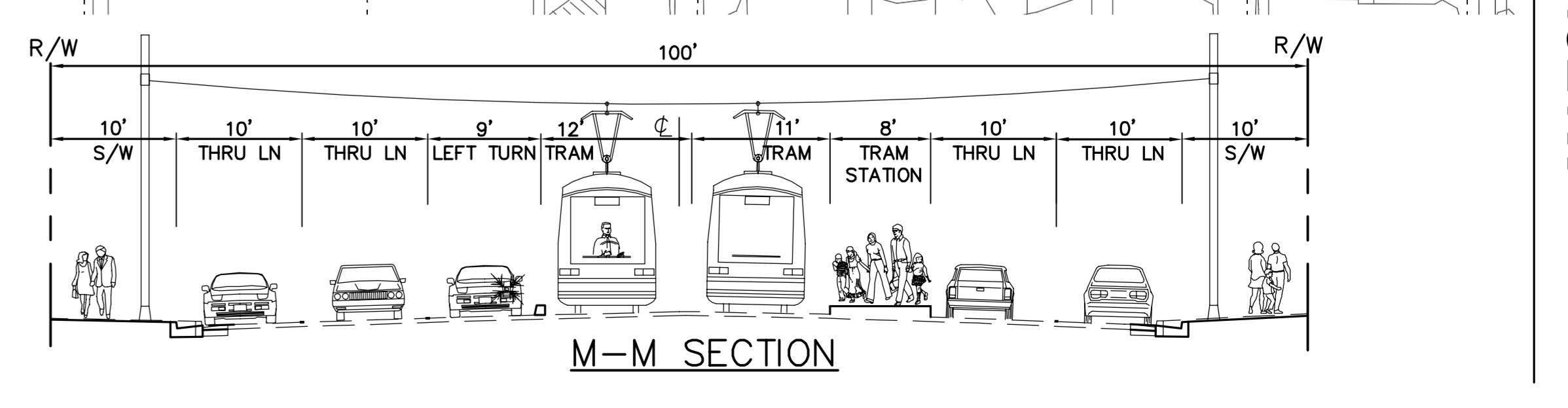


MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



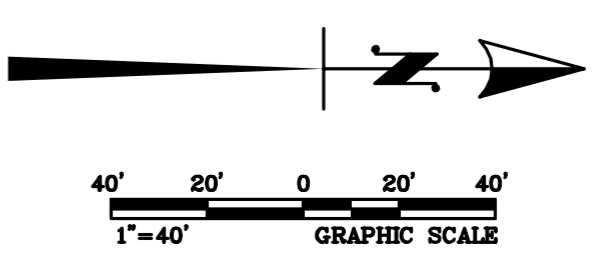
MATCHLINE - SEE SHEET ALT3-7



- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING OR WIDENING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP

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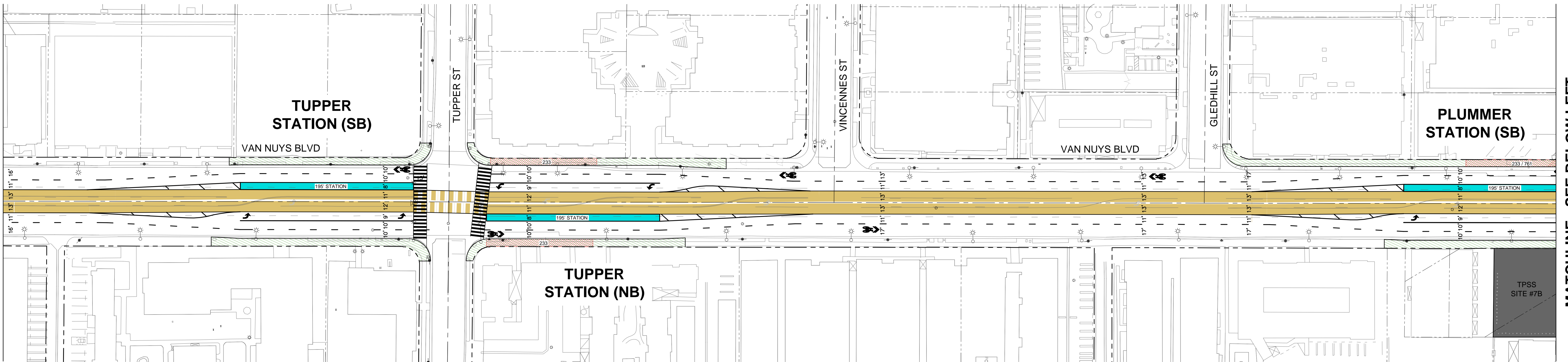
# ALTERNATIVE 3 - TRAM MEDIAN RUNNING



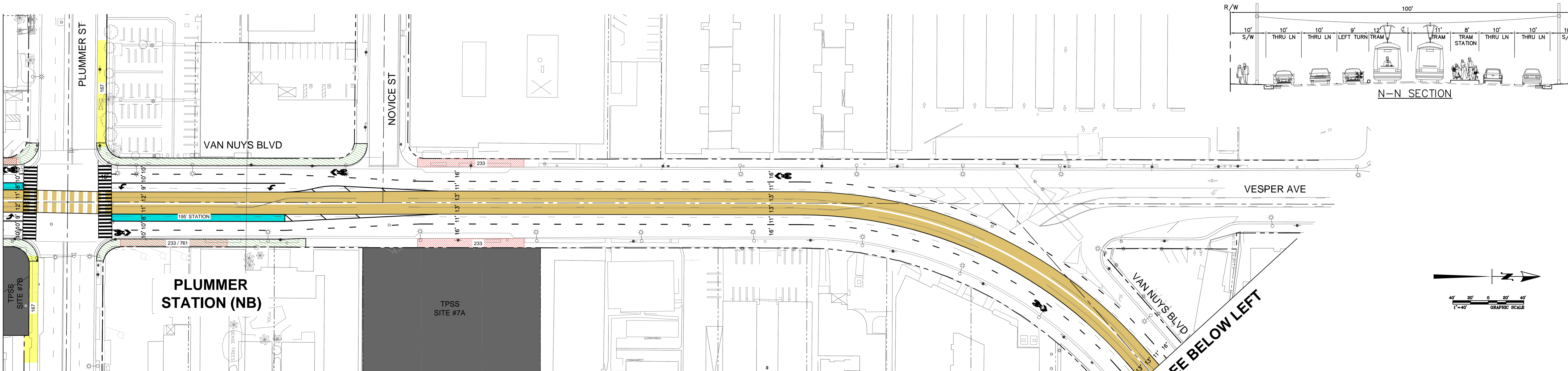
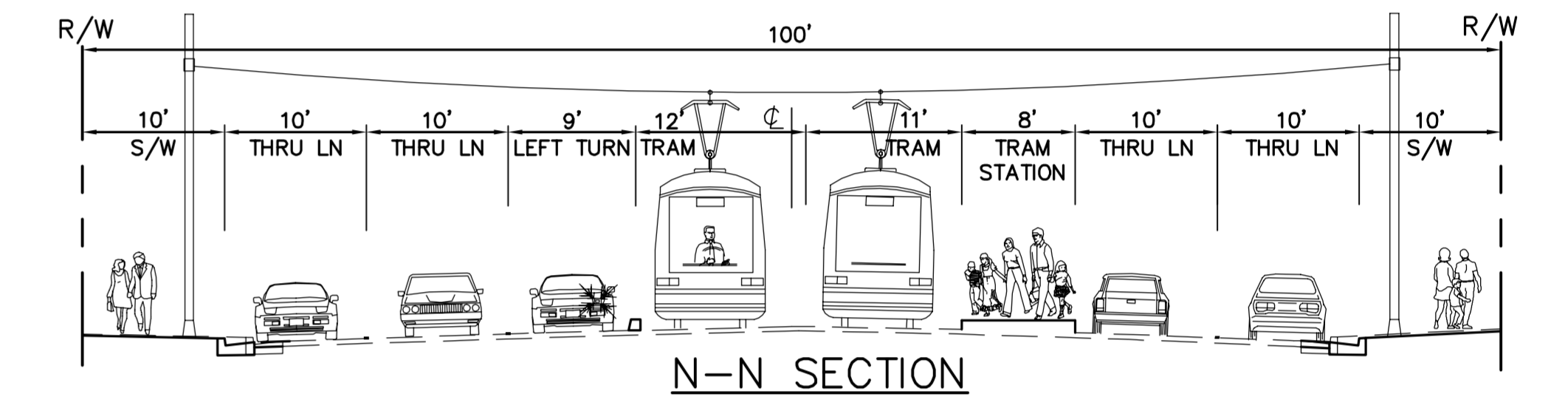
**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT3-6

MATCHLINE - SEE SHEET ALT3-6

MATCHLINE - SEE BELOW LEFT

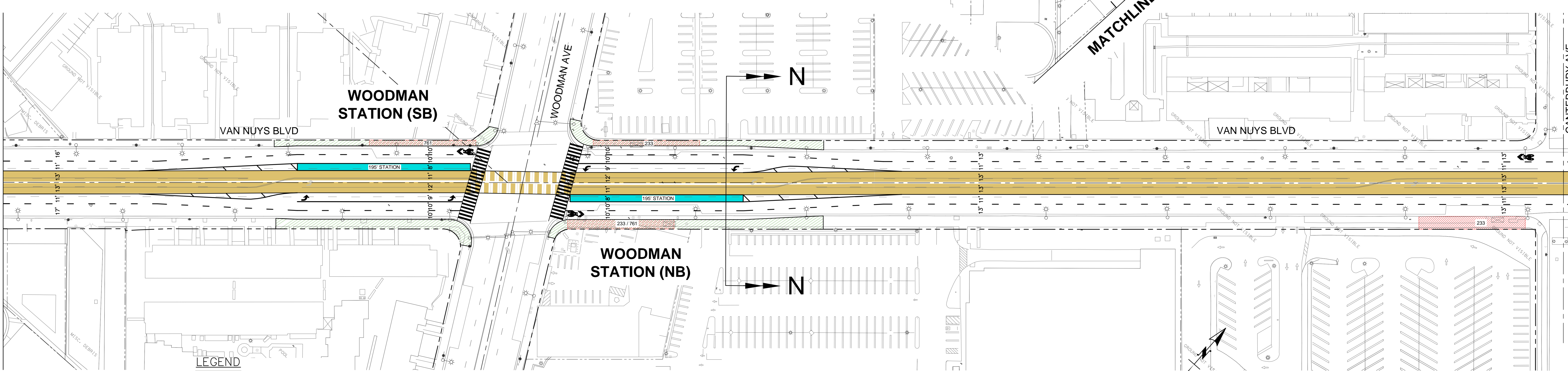


MATCHLINE - SEE ABOVE RIGHT



MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE SHEET ALT3-8

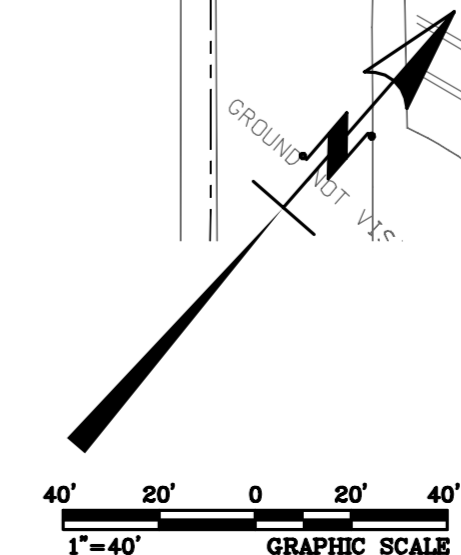


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- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING OR WIDENING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP

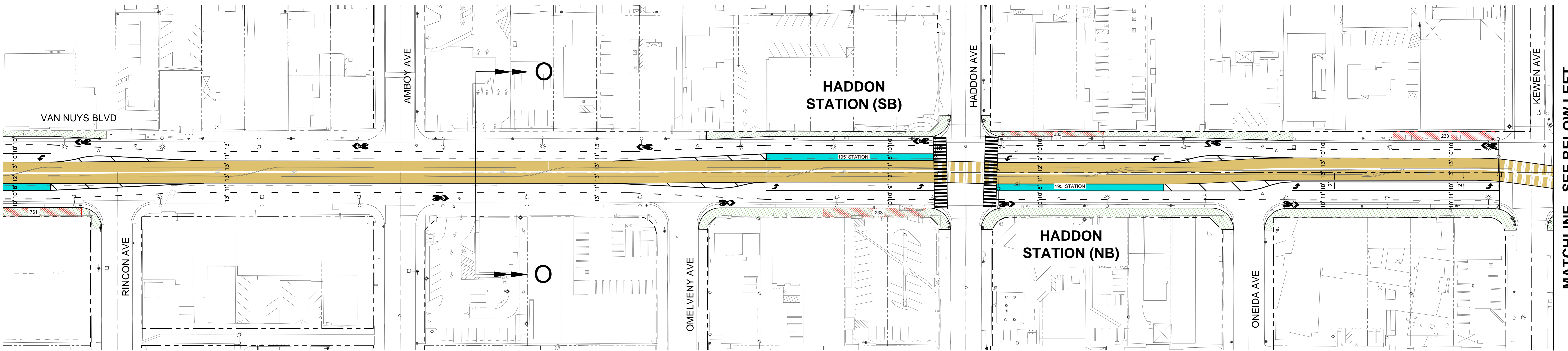
# ALTERNATIVE 3 - TRAM MEDIAN RUNNING

**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT3-7

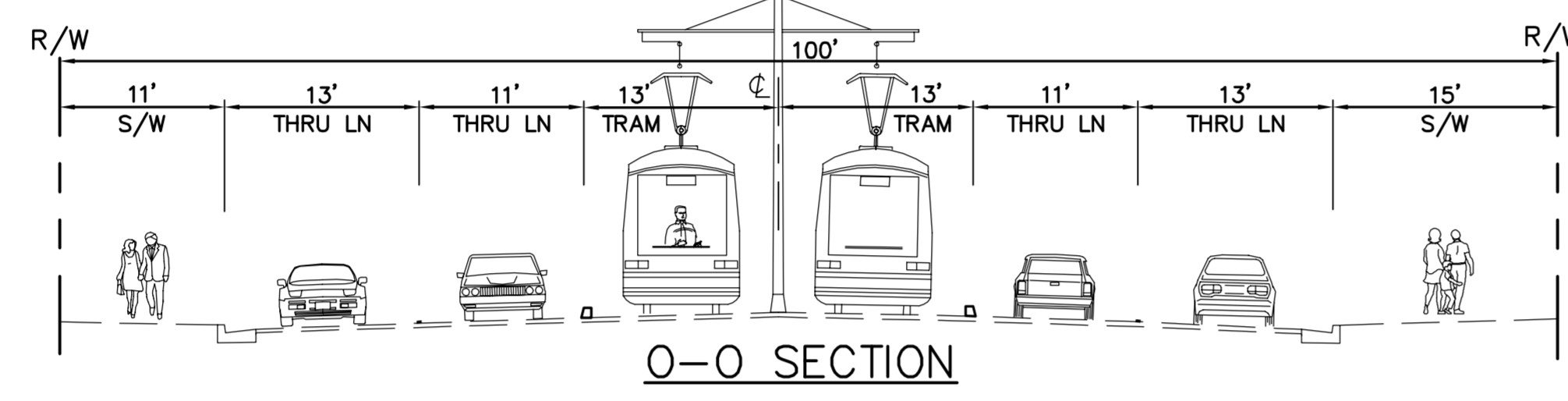




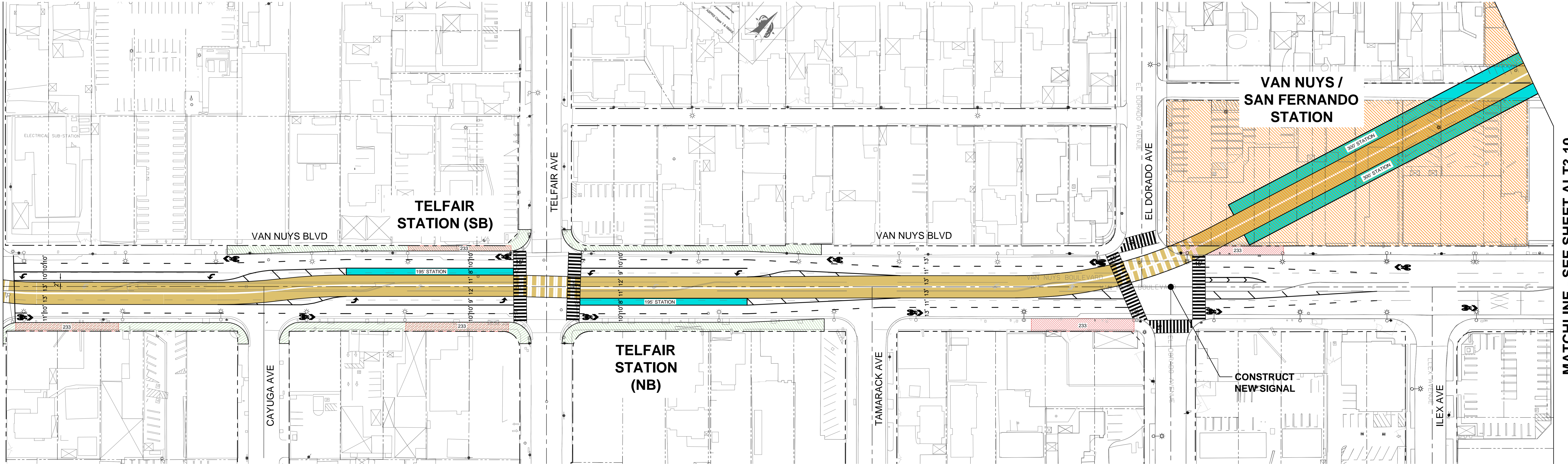
MATCHLINE - SEE SHEET ALT3-8



MATCHLINE - SEE BELOW LEFT



MATCHLINE - SEE ABOVE RIGHT

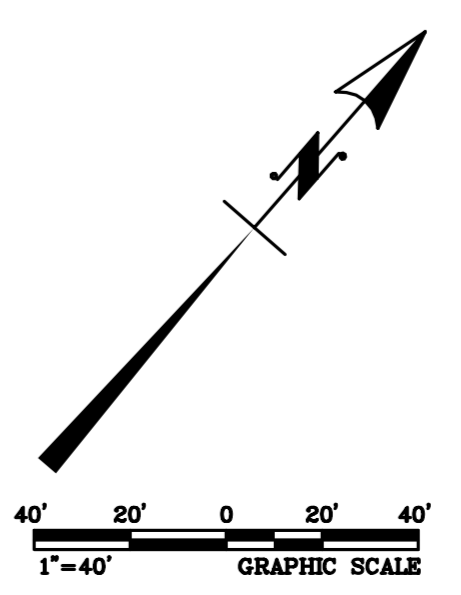


MATCHLINE - SEE SHEET ALT3-10

- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING OR WIDENING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP

# ALTERNATIVE 3 - TRAM MEDIAN RUNNING

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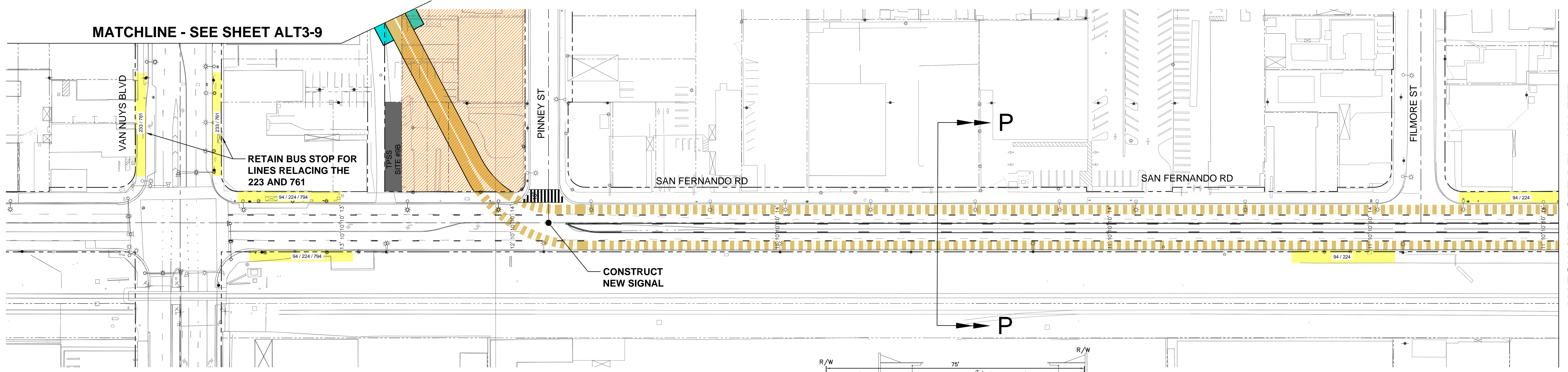


**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT3-9

Last Revised: Thu Aug 28, 2014 - 9:12am  
 Last Plotted: Thu Aug 28, 2014 - 9:20am  
 Drawing: A:\010\081005 Metro Van Nuys Corridor Raster\Alt3\Concept\_Exp\Alternative\_3 - E-Alt3 Part 2 of 2.dwg  
 Plotted By: abse

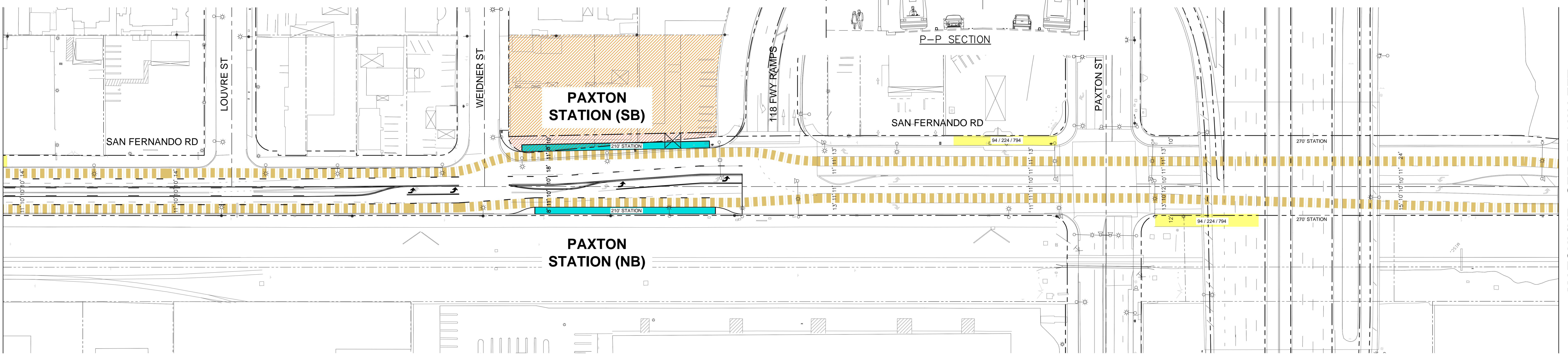
MATCHLINE - SEE SHEET ALT3-9

MATCHLINE - SEE BELOW LEFT



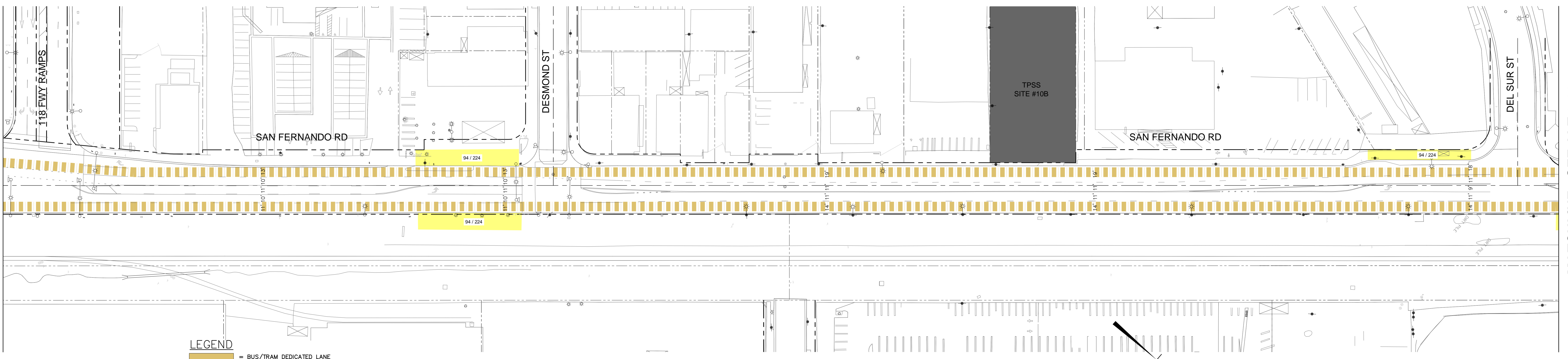
MATCHLINE - SEE ABOVE RIGHT

MATCHLINE - SEE BELOW LEFT



MATCHLINE - SEE ABOVE RIGHT

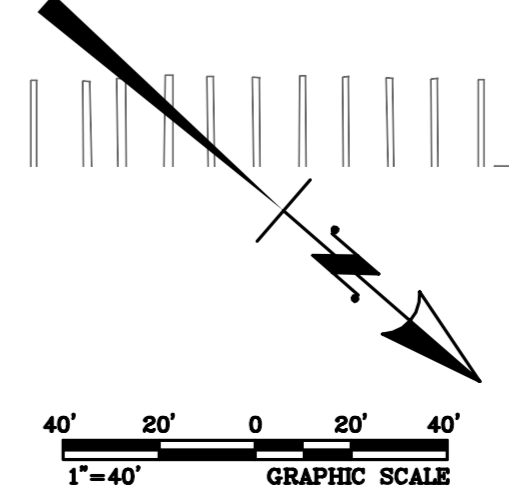
MATCHLINE - SEE ALT 3-11



- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING OR WIDENING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP

# ALTERNATIVE 3 - TRAM MEDIAN RUNNING

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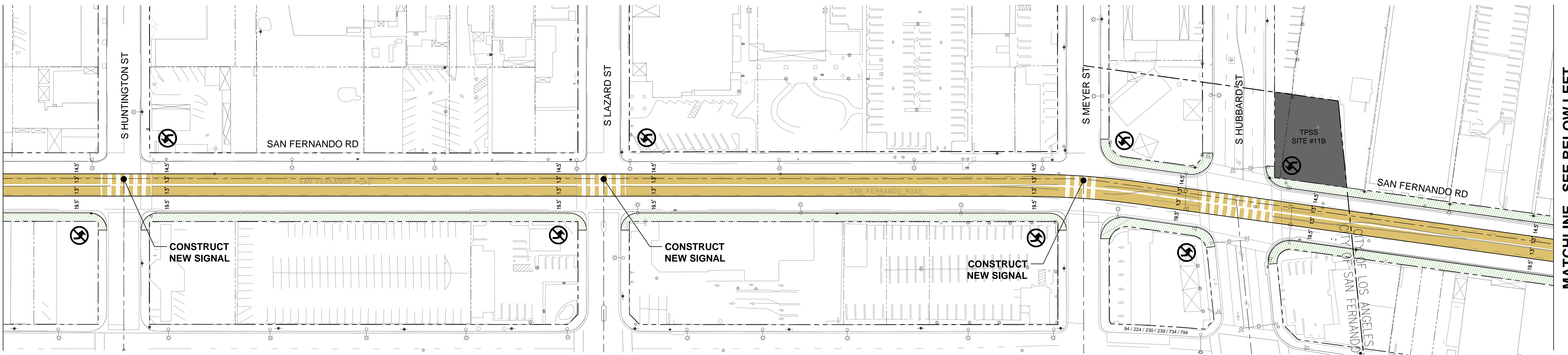
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 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT3-10

Last Revised: Thu Aug 28, 2014 - 9:20am. Last Plotted: Thu Aug 28, 2014 - 9:20am. Drawings: 3\30\10\001005 Metro Van Nuys Corridor Raster\Alt3-10 Concept\_Exp\Alternative\_3 - Exhibit Part 2 of 2.dwg



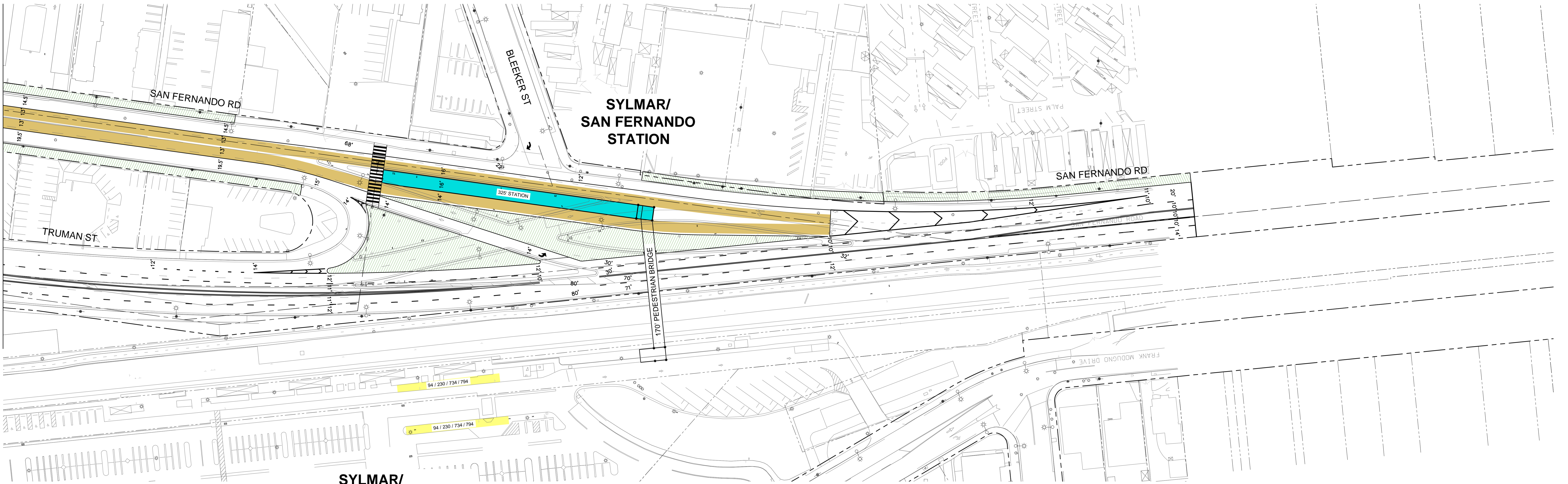


MATCHLINE - SEE ALT3-11



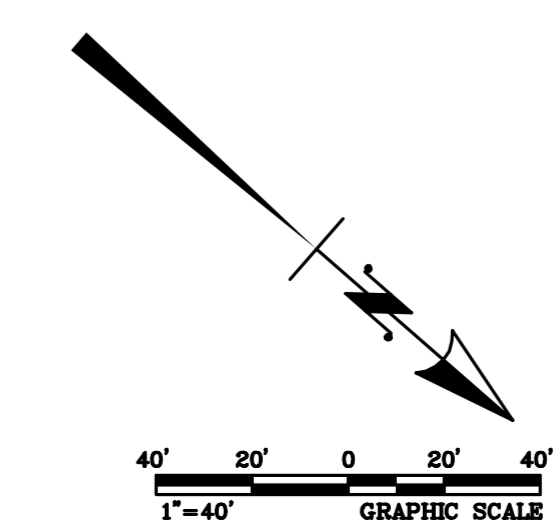
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE ABOVE RIGHT



- LEGEND**
- = BUS/TRAM DEDICATED LANE
  - = BUS/TRAM MIXED FLOW
  - = S/W NARROWING OR WIDENING
  - = EXISTING STOP
  - = PROP./UPGRADED STATION
  - = REMOVED STOP

# ALTERNATIVE 3 - TRAM MEDIAN RUNNING

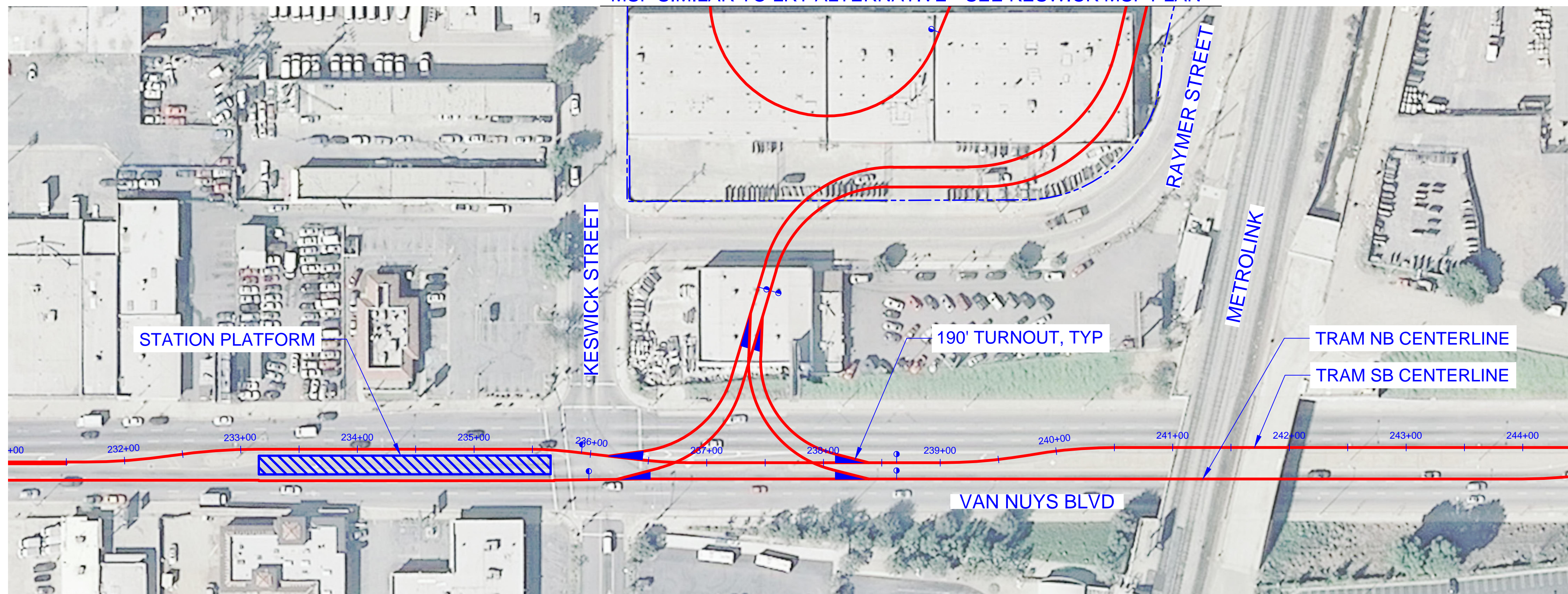


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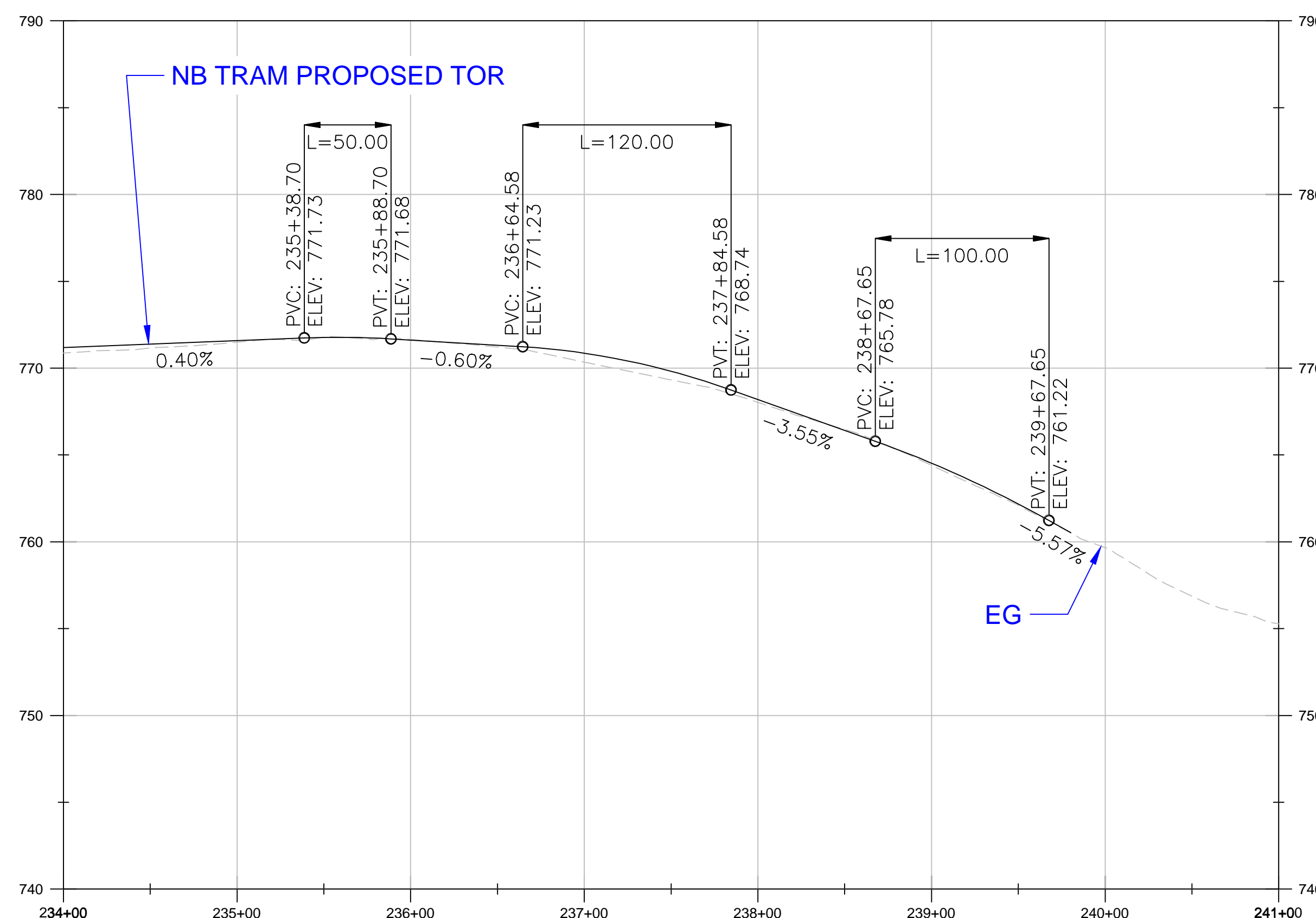
**METRO**  
 EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 ALT3-12

Last Revised: Thu Aug 28, 2014 - 9:12am  
 Last Printed: Thu Aug 28, 2014 - 9:12am  
 Drawing: A:\010\0810105 Metro Van Nuys Corridor Raster\Alt3-12 Concept\_01\010\0810105\_03 - Exhibit Part 2 of 2.dwg  
 User: jay@koa.com  
 Plotter: HP DesignJet T1100e

MSF SIMILAR TO LRT ALTERNATIVE - SEE KESWICK MSF PLAN



PLAN



PROFILE

CADD PROJECT FILE NAME: I:\projects\4015220\4015220\_0001\90\_CAD\_Models\_and\_Sheets\04\_CK\_Track\_Rail\X-Track-MSF-Keswick\_Trom-2cor\_C3D.dwg Aug 27, 2014 3:47pm magallan

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY S. MAGALLAN
DRAWN BY S. MAGALLAN
CHECKED BY A. SOKOL
IN CHARGE A. SOKOL
DATE 8/27/2014

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY  
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
PLANNING & ENGINEERING  
1100 Corporate Center Drive, Suite 201  
Monterey Park, California 91754  
Tel: (323) 260-4703 Fax: (323) 260-4705



PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
TRAM ALTERNATIVE  
MAINTENANCE FACILITY  
KESWICK OPTION - MSF CONNECTION TRACKS  
PLAN & PROFILE

CONTRACT NO PS-4370-2622
DRAWING NO MSF-B
REV 0
SCALE HORIZ: 1"=60' VERT: 1"=6'
SHEET NO

SCALES

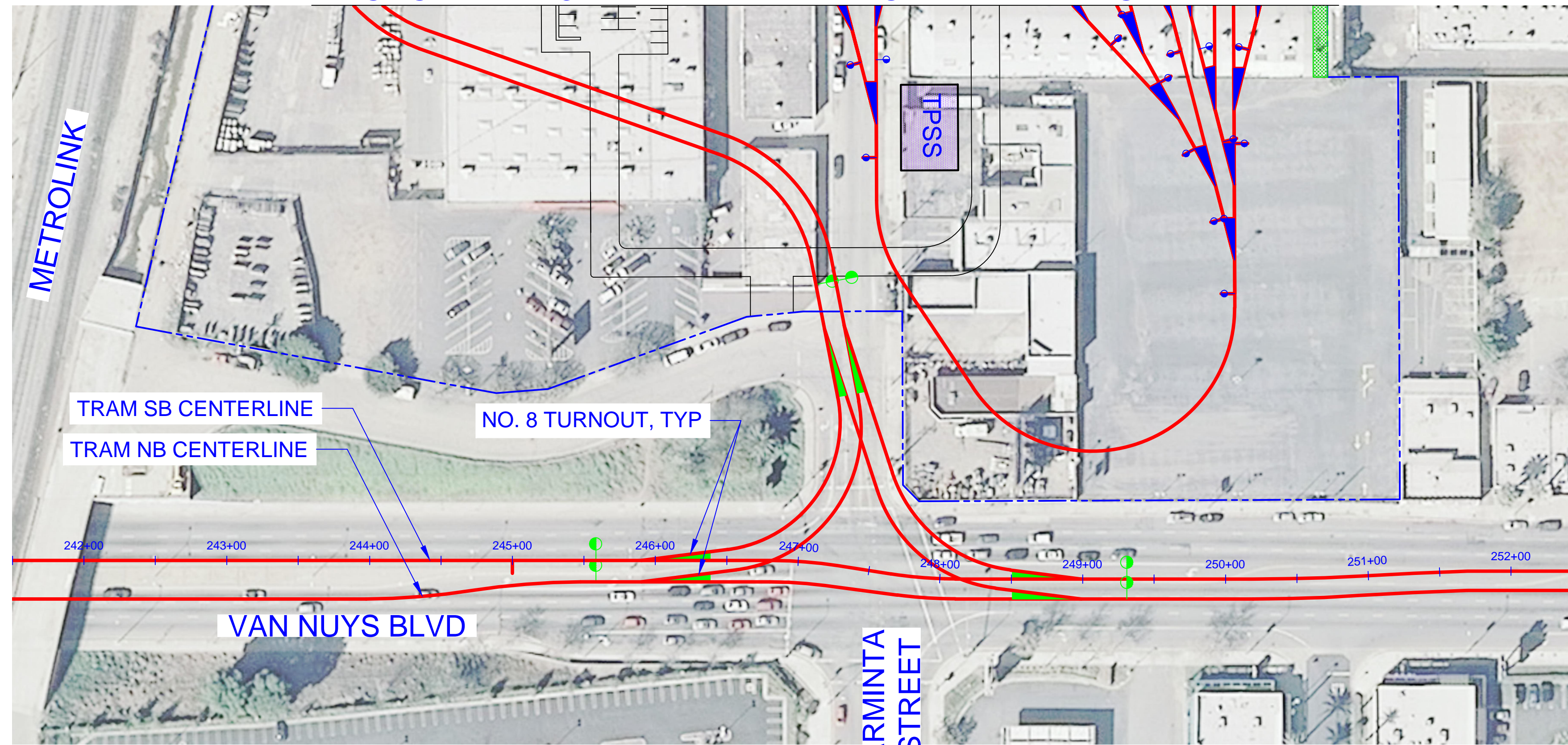
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VERT. 1"=6'

SHEET

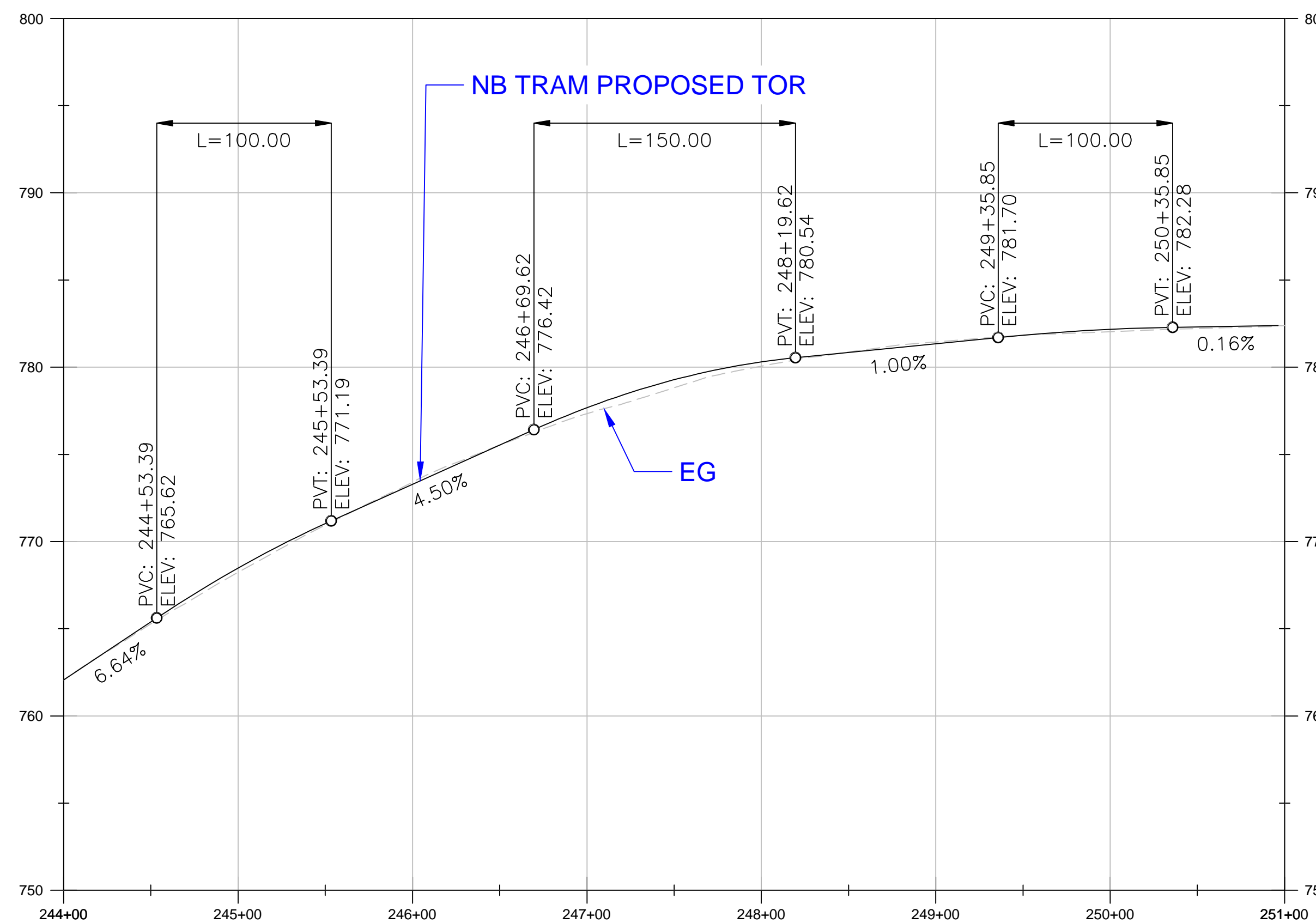
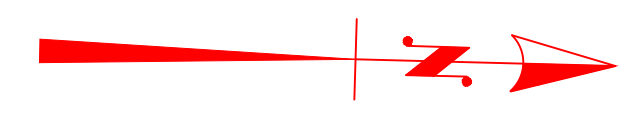
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MSF SIMILAR TO LRT ALTERNATIVE - SEE ARMINTA MSF PLAN



PLAN



PROFILE

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY  
S. MAGALLON  
DRAWN BY  
S. MAGALLON  
CHECKED BY  
A. SOKOL  
IN CHARGE  
A. SOKOL  
DATE  
08/27/2014

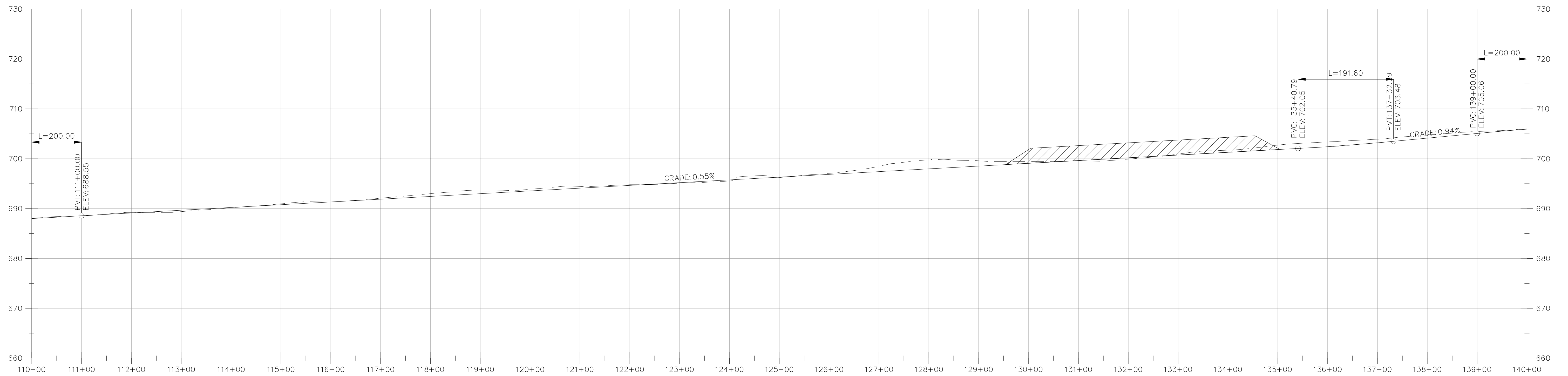
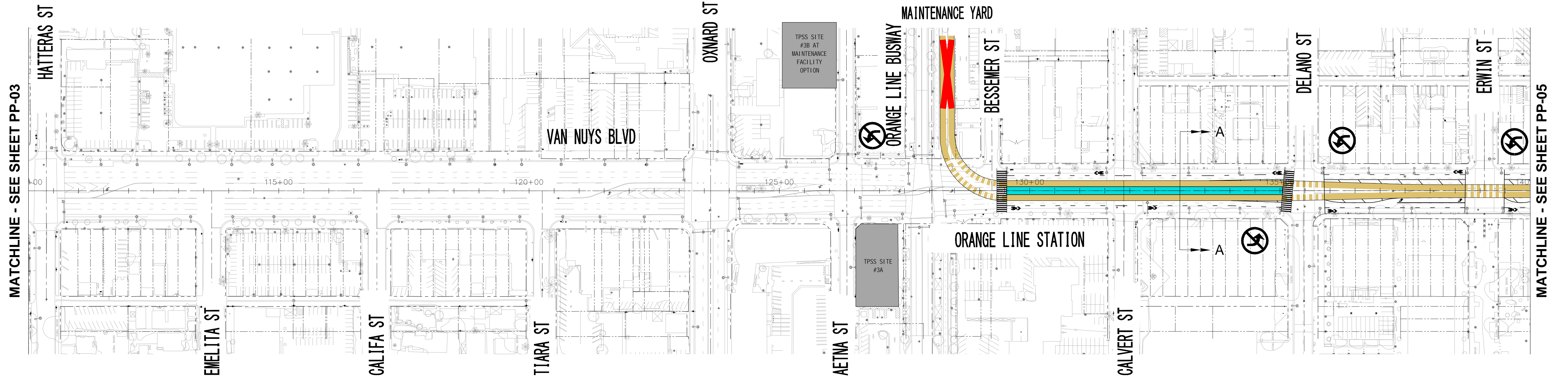
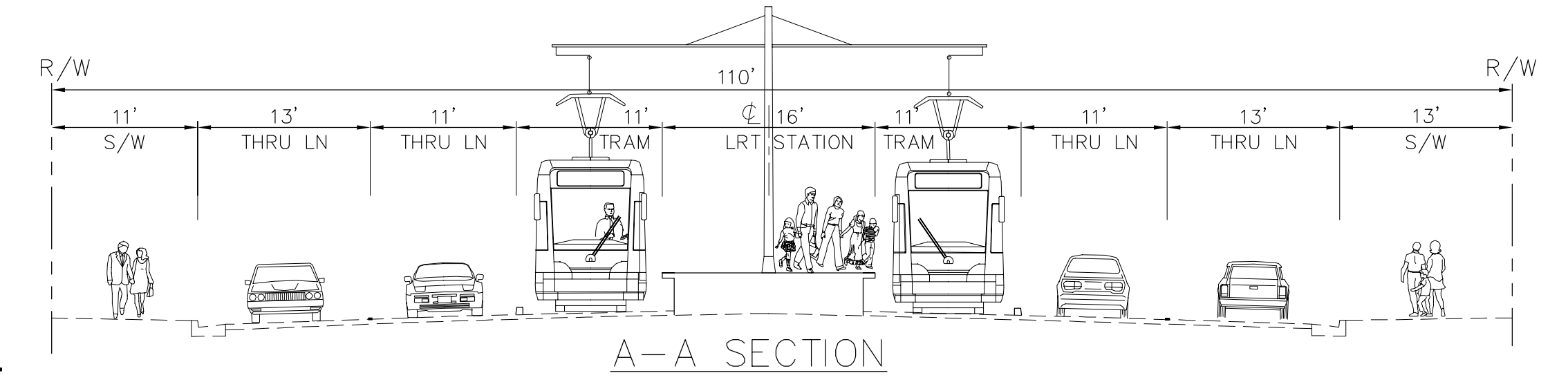
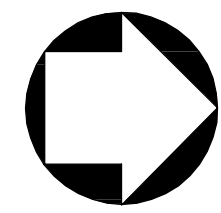
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

**STV**  
 PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 TRAM ALTERNATIVE  
 MAINTENANCE FACILITY  
 ARMINTA ST - MSF CONNECTION TRACKS  
 PLAN & PROFILE

CONTRACT NO	PS-4370-2622
DRAWING NO	REV 0
SCALE	HORIZ: 1"=60' VERT: 1"=6'
SHEET NO	



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

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DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

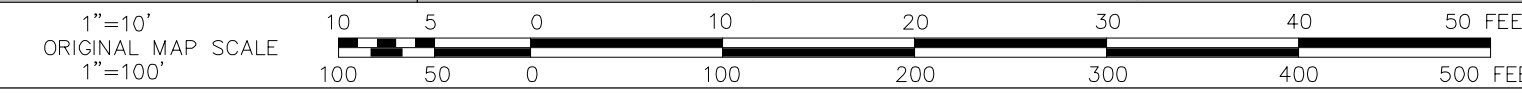
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE

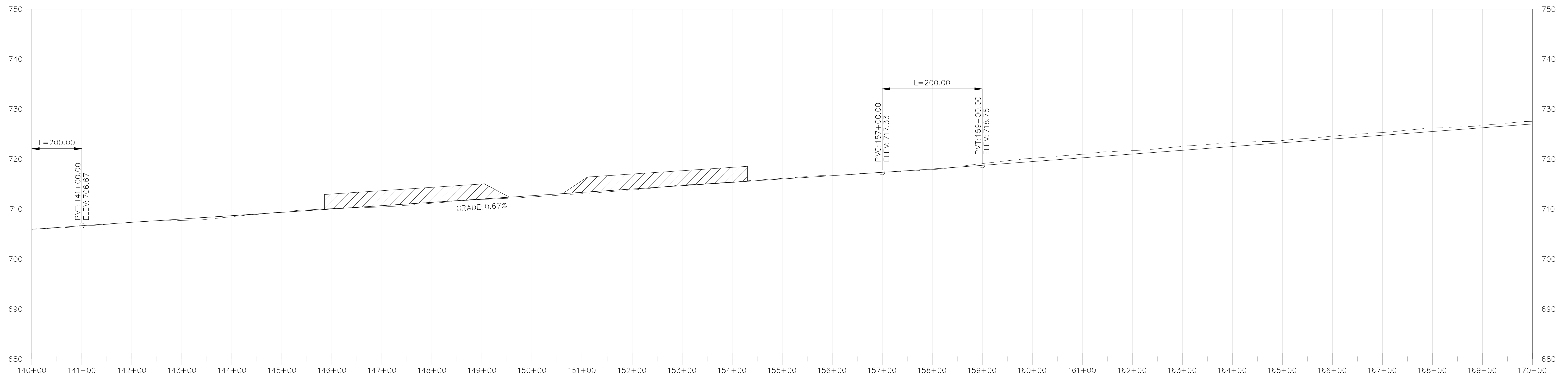
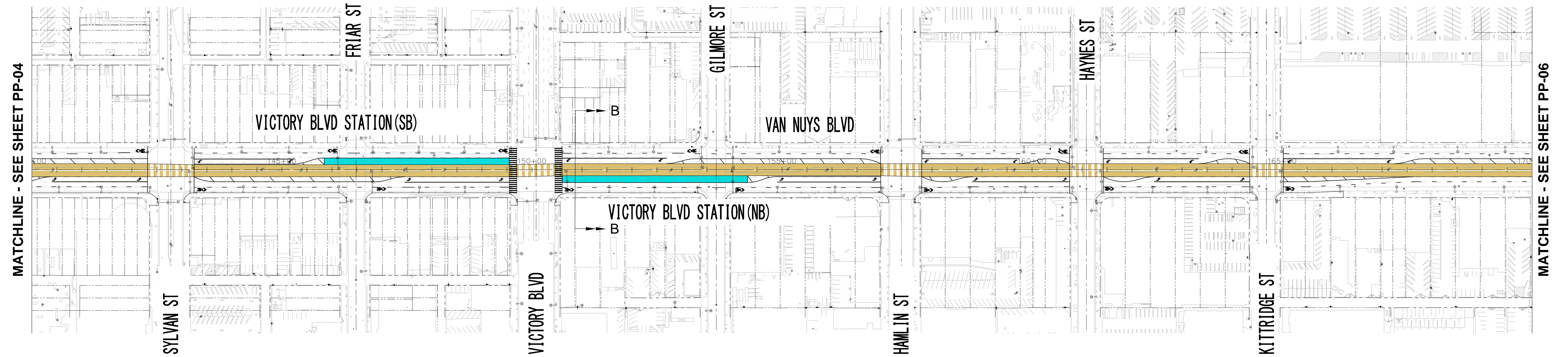
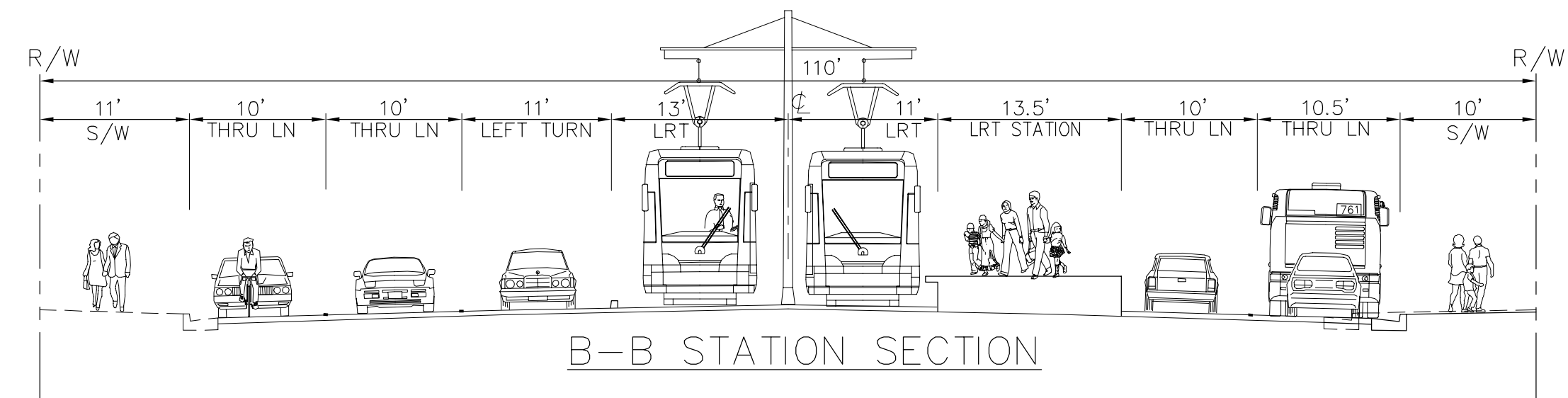
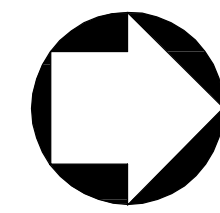
PLAN & PROFILE  
 STA 110+00 TO STA 140+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-04
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SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100' VERT. 1"=10'	<b>SHEET</b>	<b>INDEX NUMBER</b>
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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

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DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

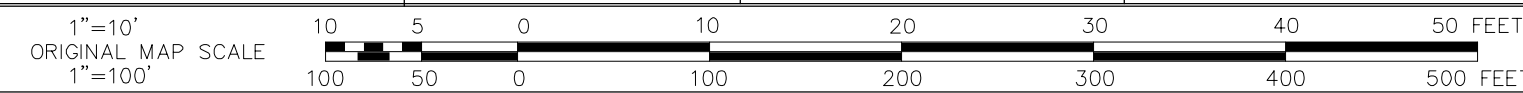
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE

PLAN & PROFILE  
 STA 140+00 TO STA 170+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-05
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	

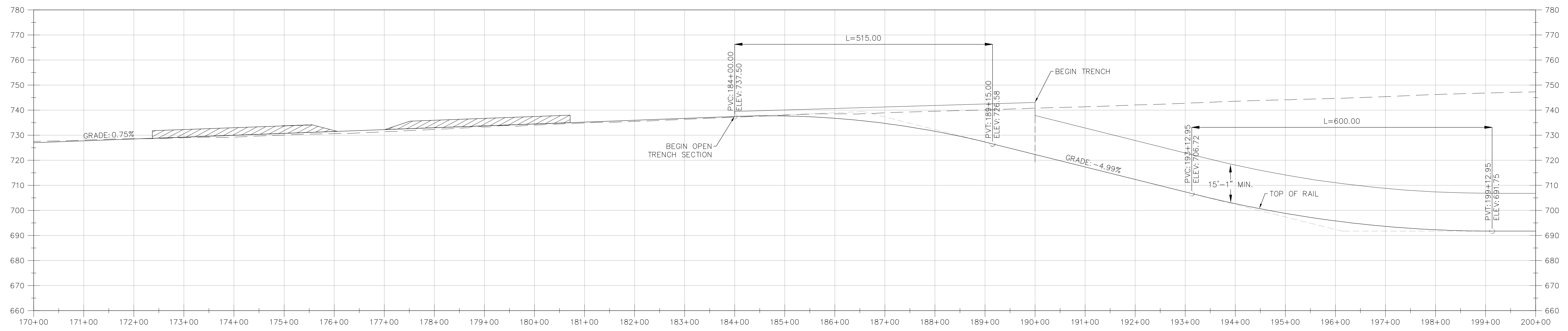
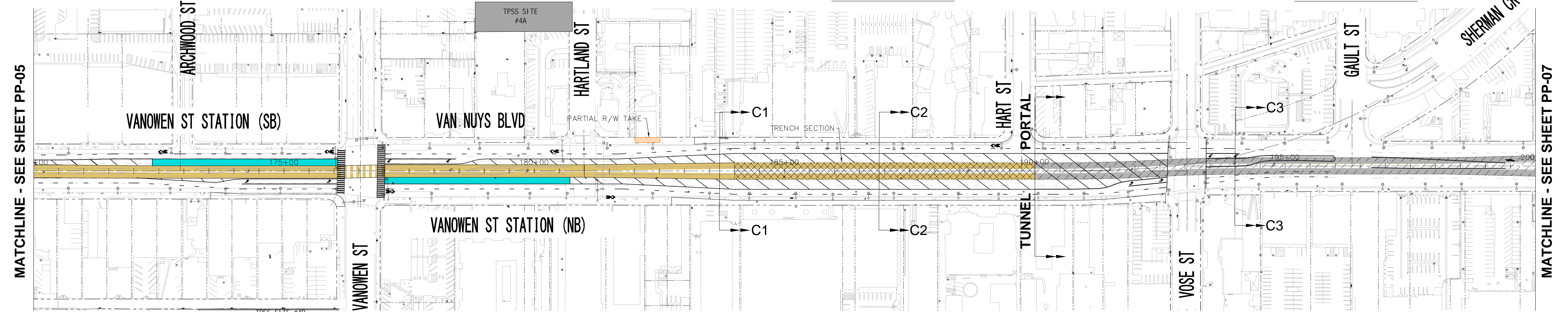
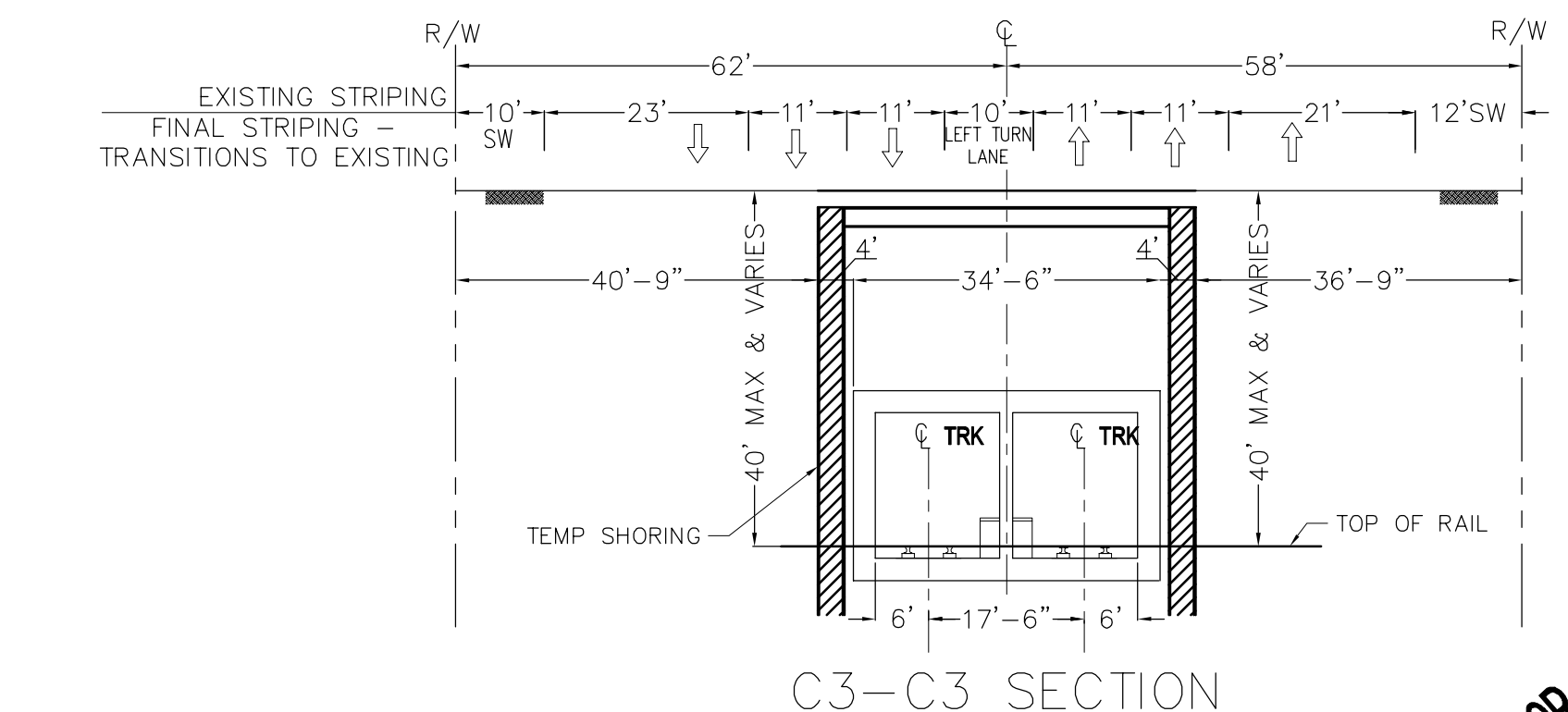
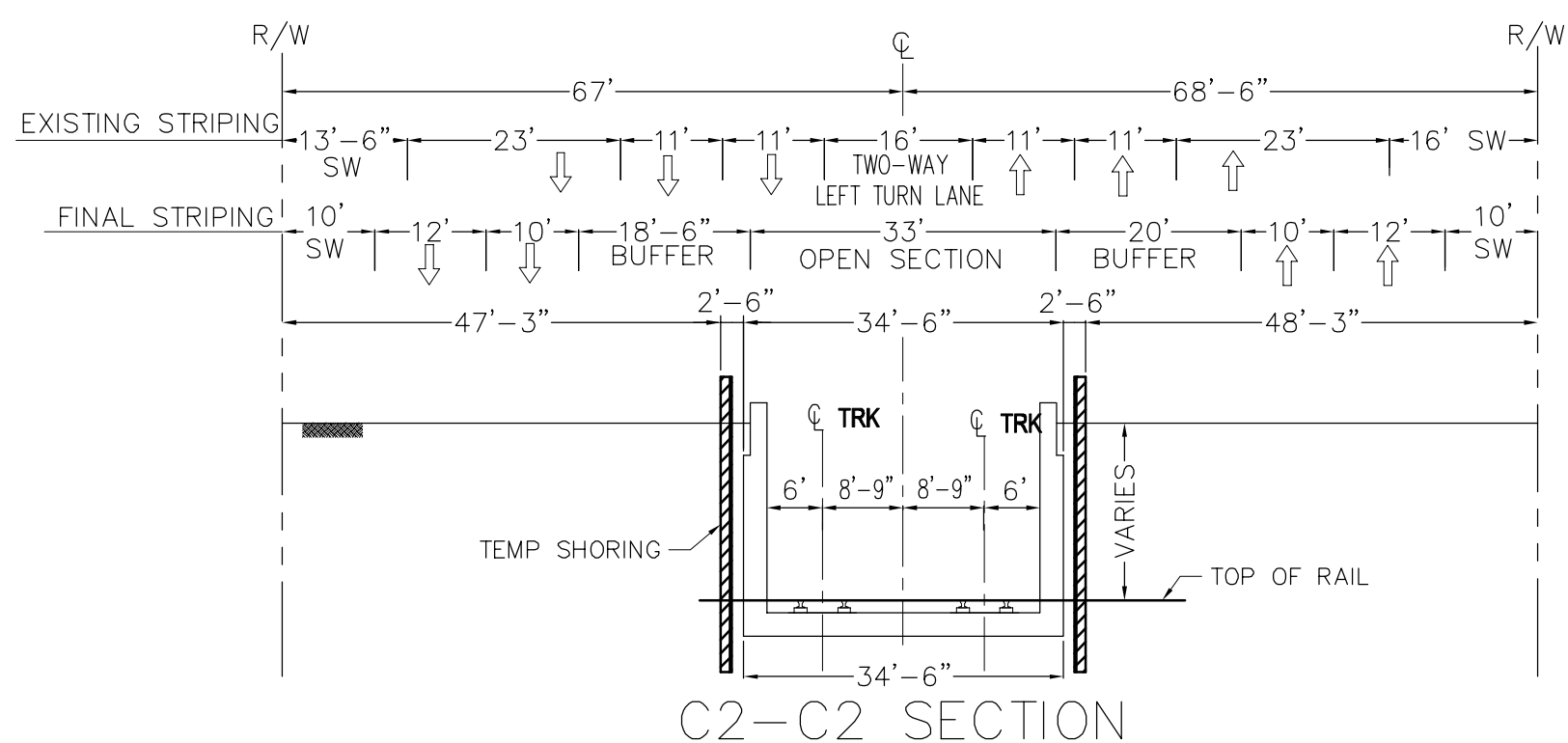
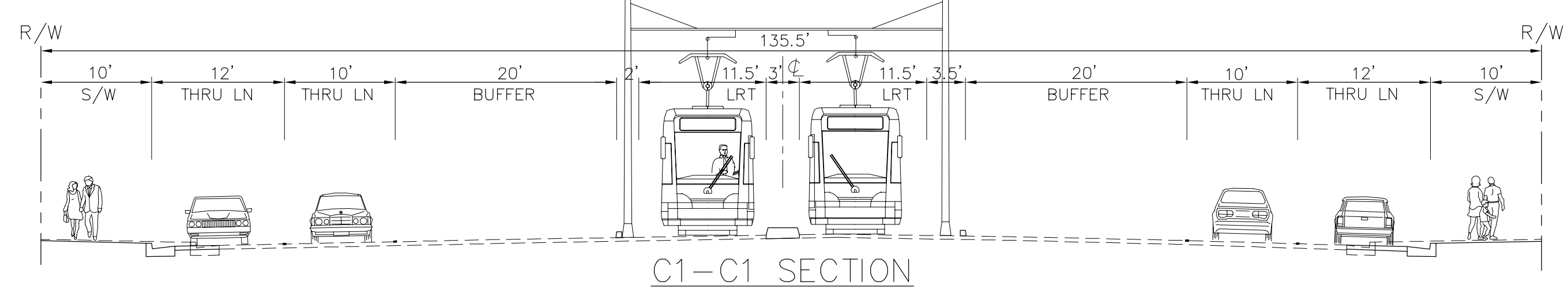
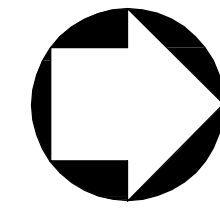


**SCALES**  
 HORIZ. 1"=100'  
 VERT. 1"=10'

**SHEET**

**INDEX NUMBER**

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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

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DRAWN BY							
CHECKED BY							
IN CHARGE							
DATE							
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

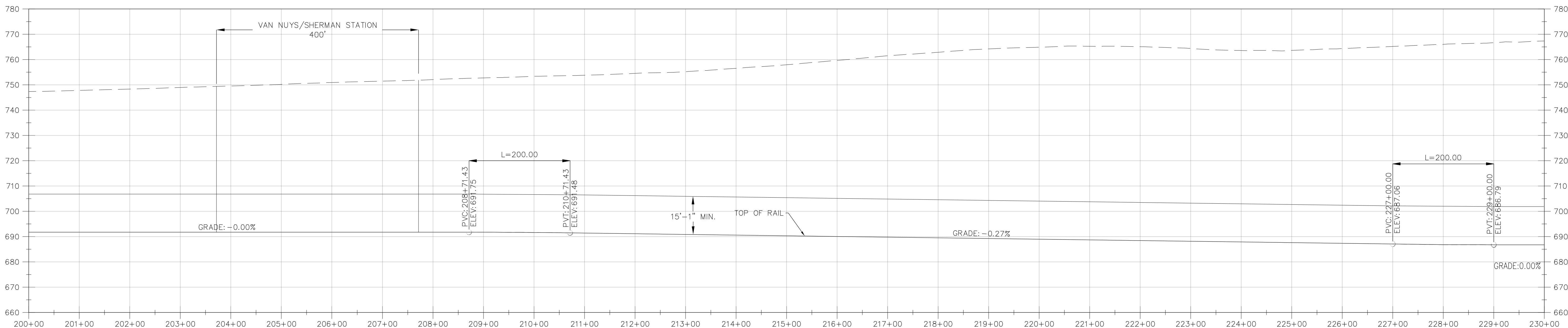
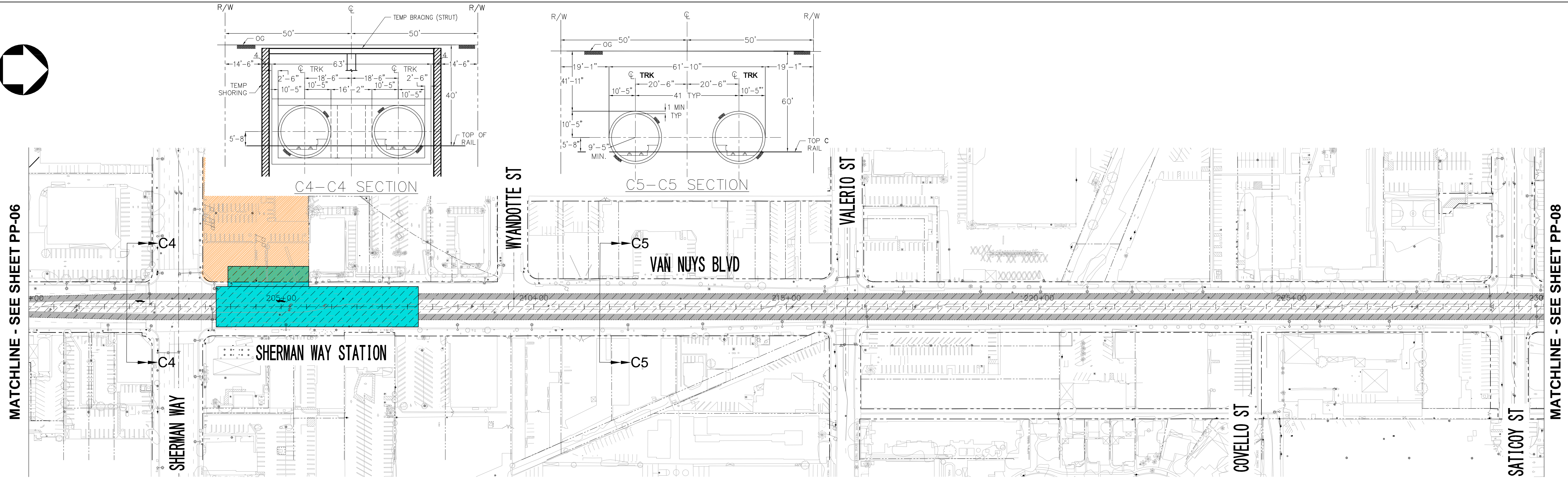
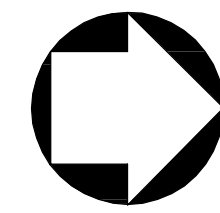
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 170+00 TO STA 200+00  
 OPTION A

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-06A
SCALE	HORIZ: 1"=100' VERT: 1"=5'
SHEET NO	

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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

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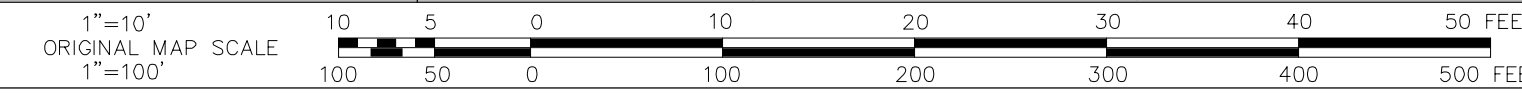
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DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 200+00 TO STA 230+00  
 OPTION A

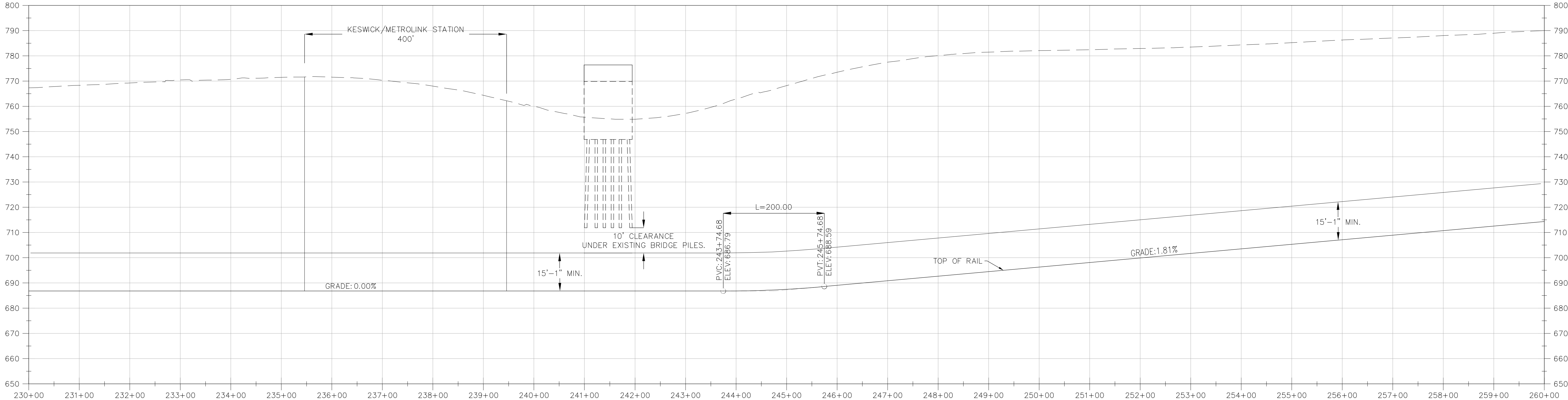
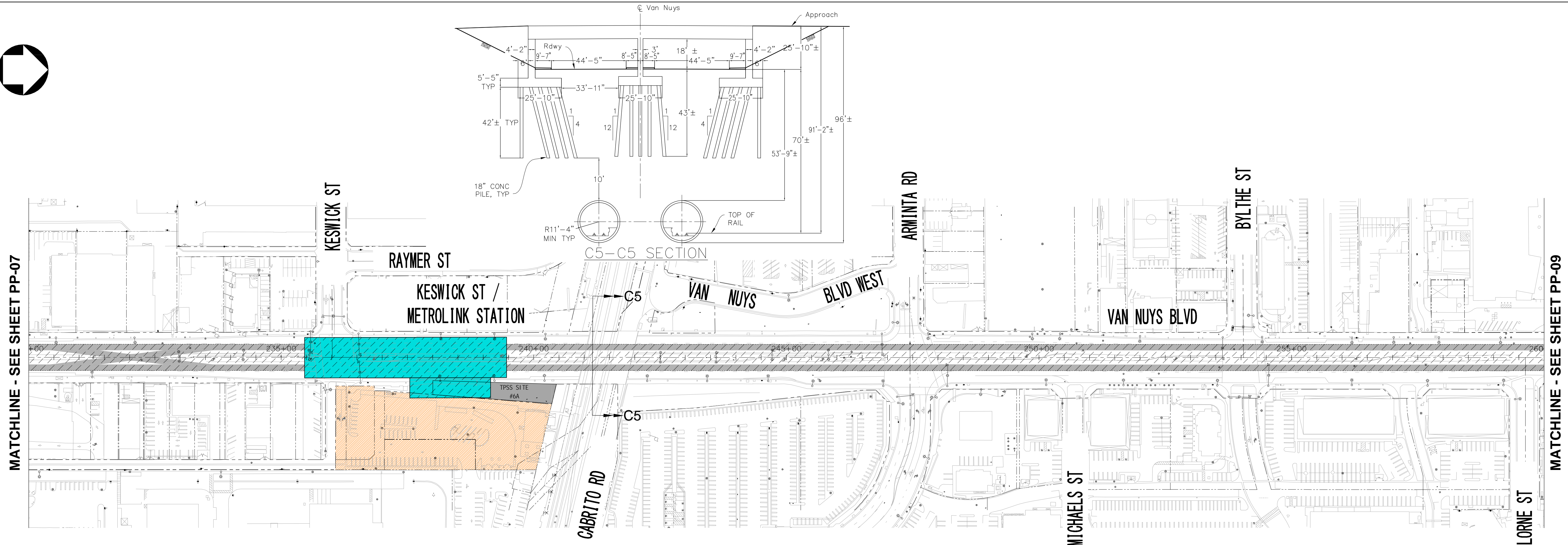
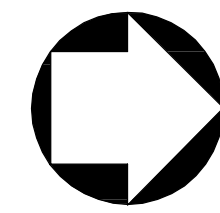
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DRAWING NO	PP-07A
SCALE	HORIZ: 1"=100' VERT: 1"=5'
SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100' VERT. 1"=10'	<b>SHEET</b>	<b>INDEX NUMBER</b>
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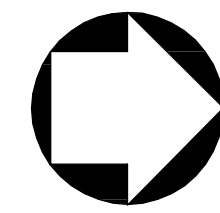


ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

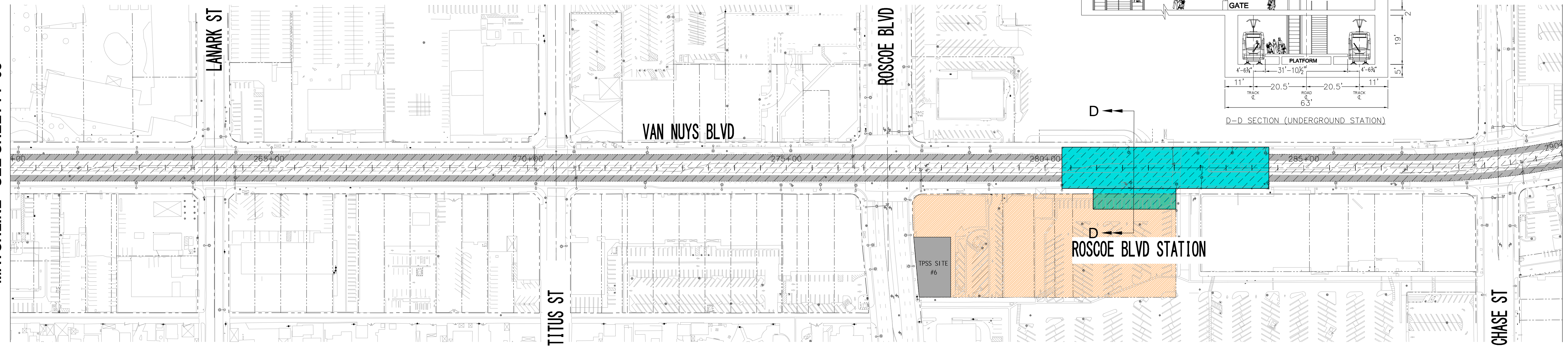
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DESIGNED BY																																	
DRAWN BY																																	
CHECKED BY																																	
IN CHARGE																																	
DATE																																	
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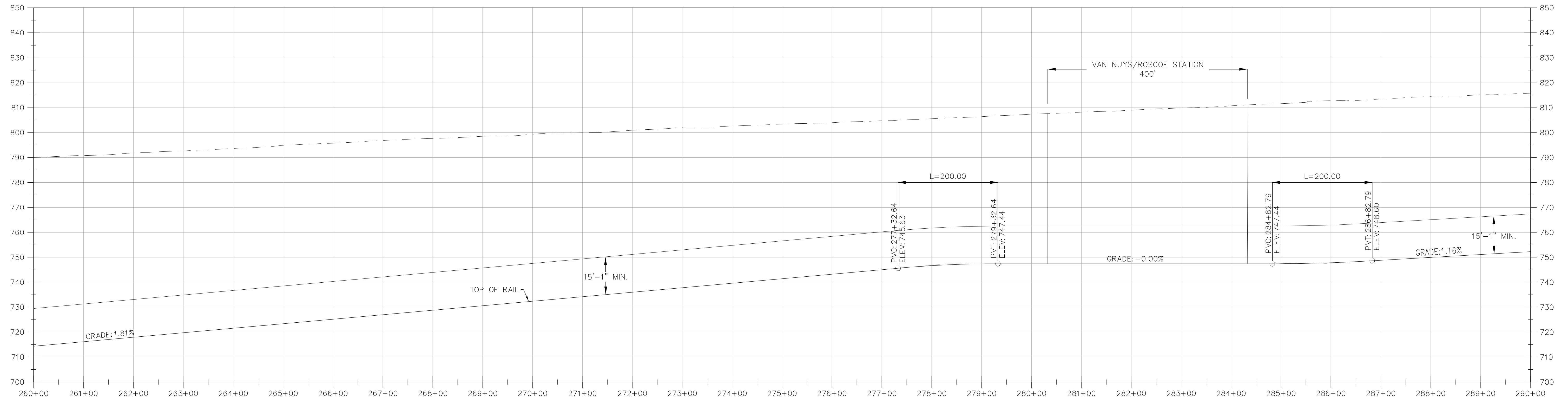
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MATCHLINE - SEE SHEET PP-08



MATCHLINE - SEE SHEET PP-10



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

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IN CHARGE	
DATE	

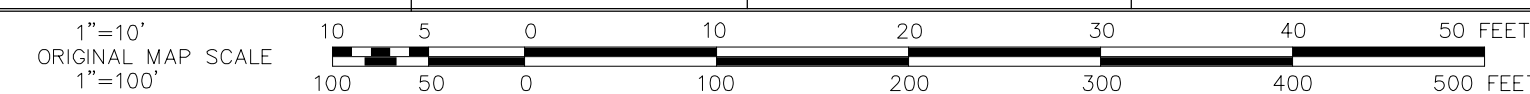
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 260+00 TO STA 290+00  
 OPTION A

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-09A
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SHEET NO	

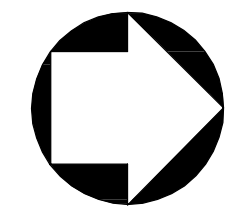


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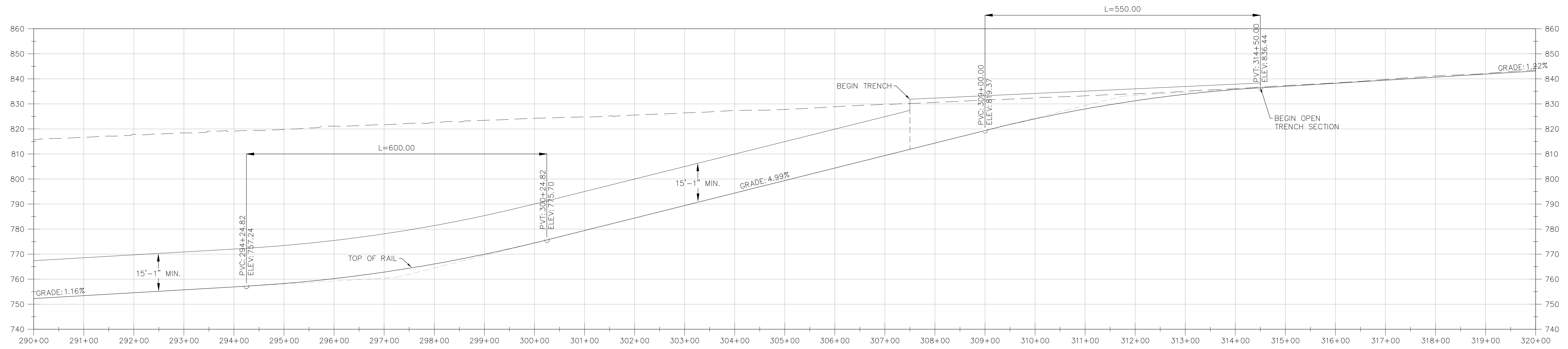
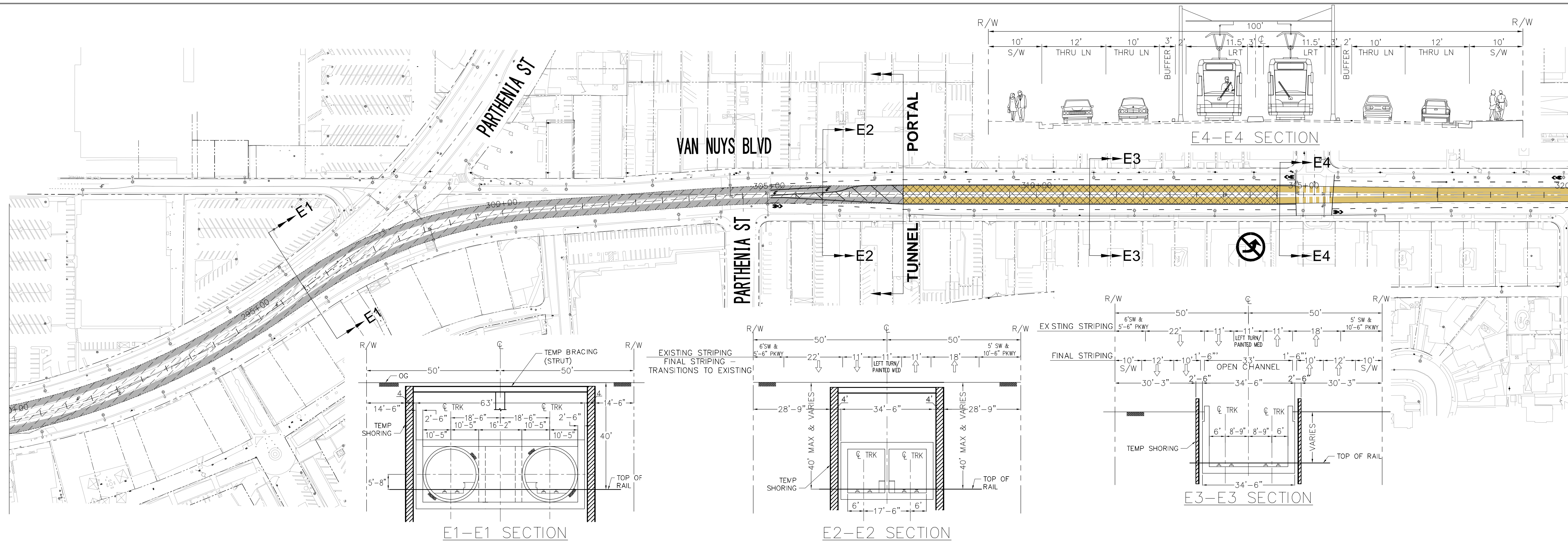
SHEET

INDEX NUMBER



MATCHLINE - SEE SHEET PP-09

MATCHLINE - SEE SHEET PP-11



**ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND**

**DESIGN SPEED = 50MPH**

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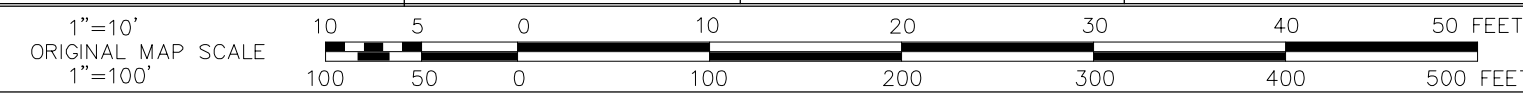
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DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY  
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
PLANNING & ENGINEERING  
1100 Corporate Center Drive, Suite 201  
Monterey Park, California 91754  
Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
LIGHT RAIL TRANSIT ALTERNATIVE  
PLAN & PROFILE  
STA 290+00 TO STA 320+00  
OPTION A

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-10A
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SHEET NO	



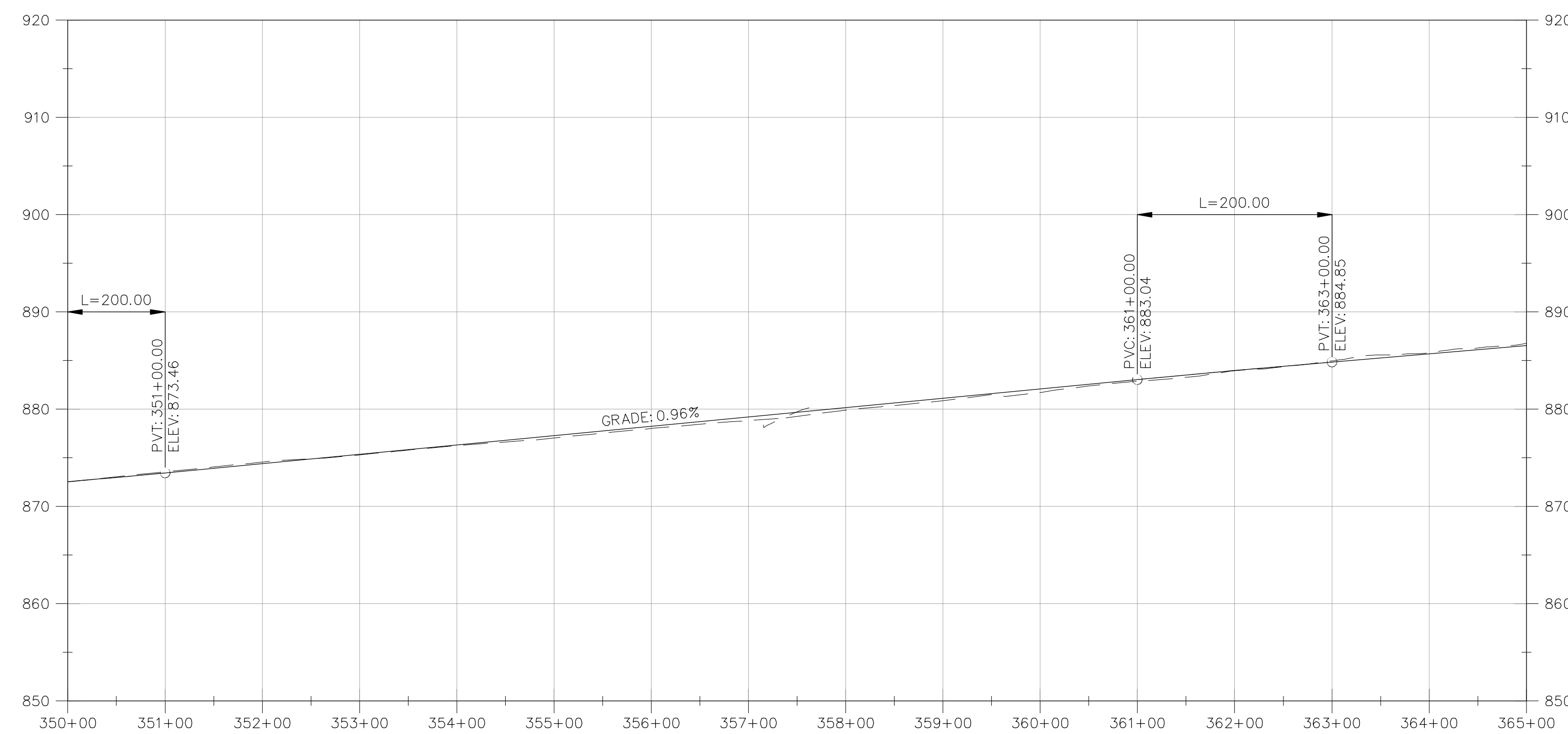
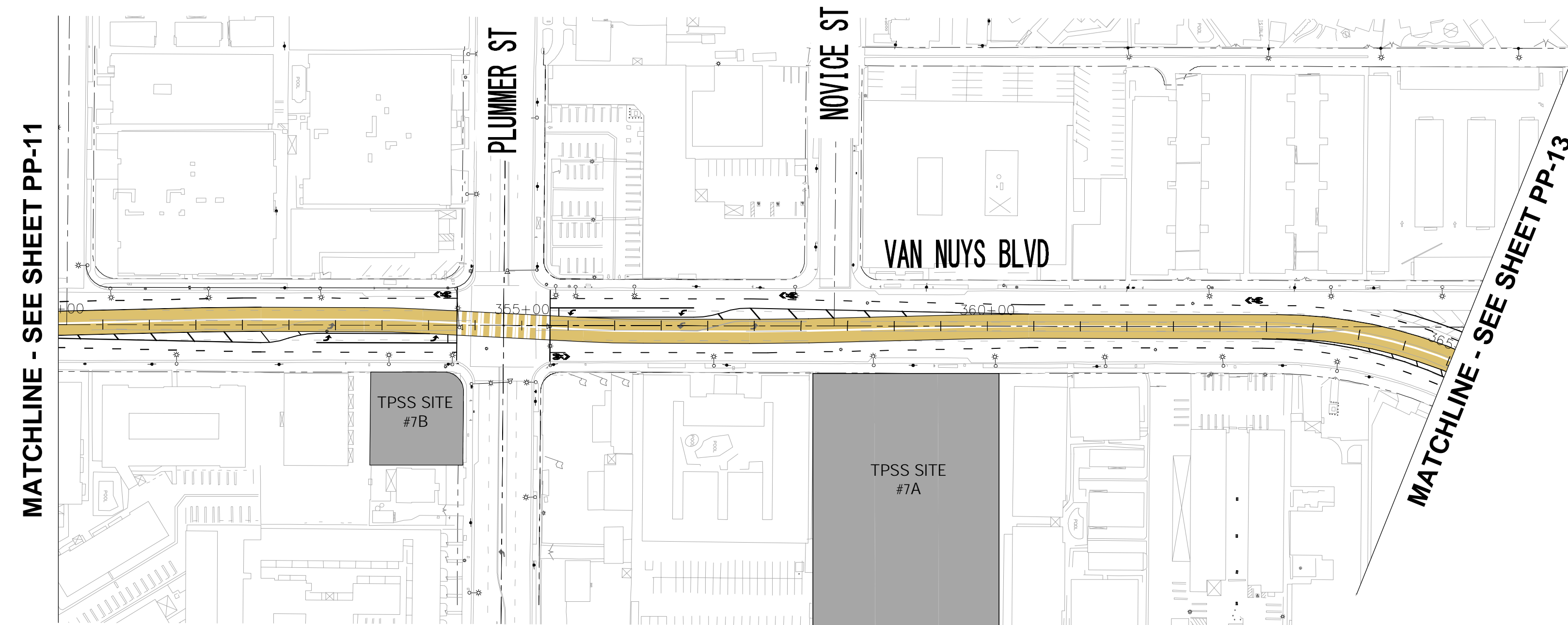
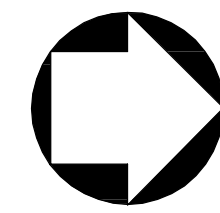
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HORIZ. 1"=100'  
VERT. 1"=5'

**SHEET**

**INDEX NUMBER**





ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

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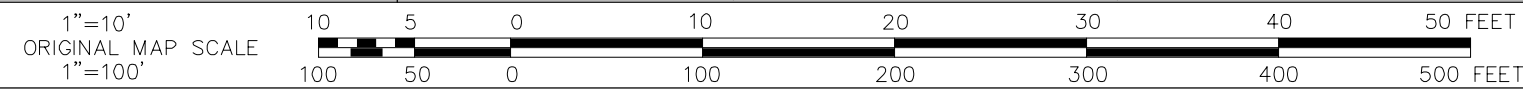
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**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 350+00 TO STA 365+00

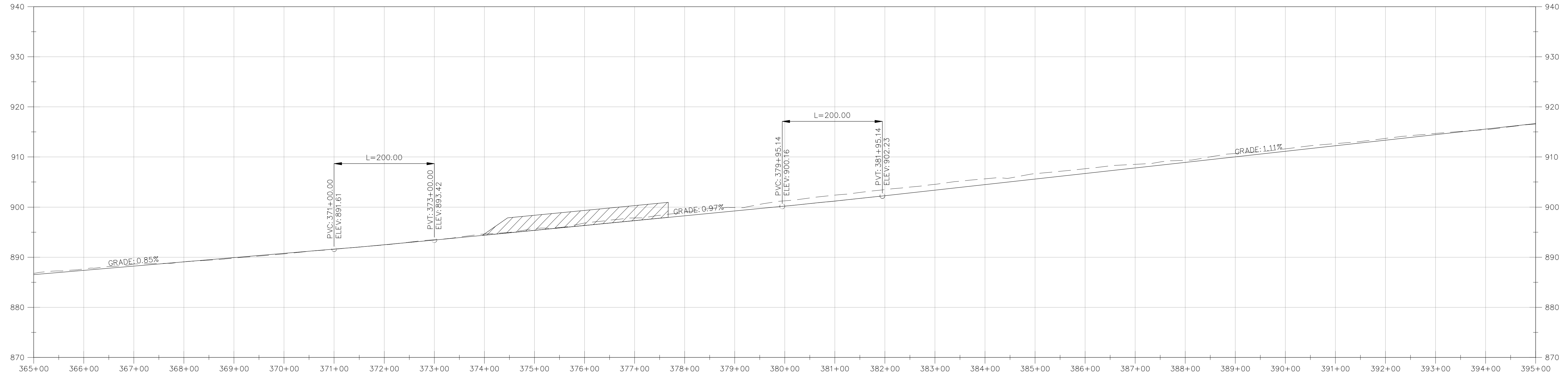
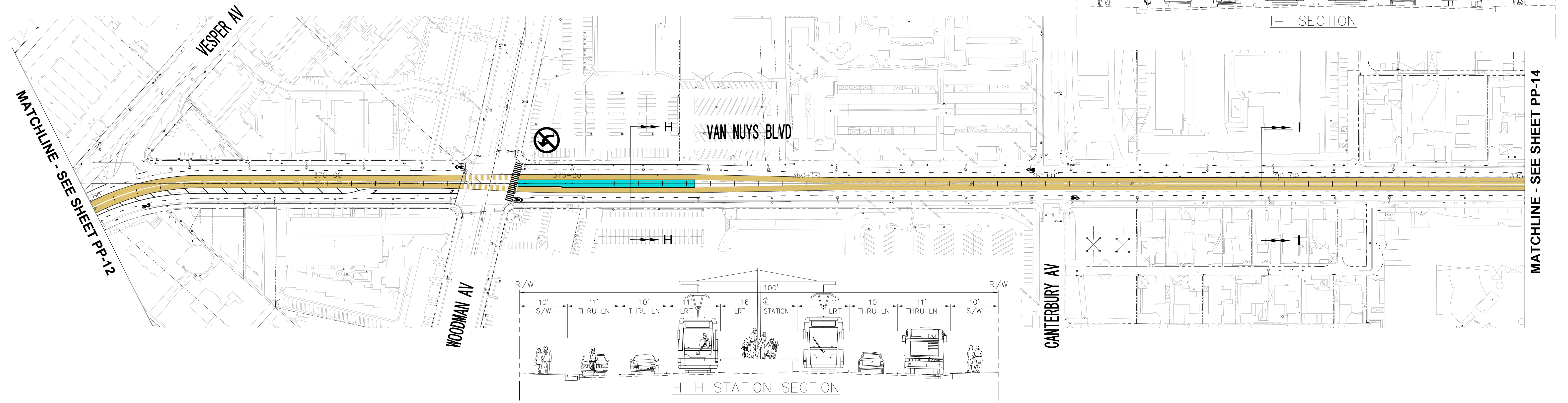
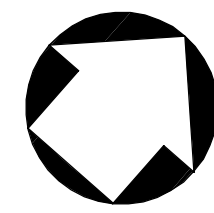
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DRAWING NO	PP-12
REV	0
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SHEET NO	



**SCALES**  
 HORIZ. 1"=100'  
 VERT. 1"=10'

**SHEET**

**INDEX NUMBER**



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

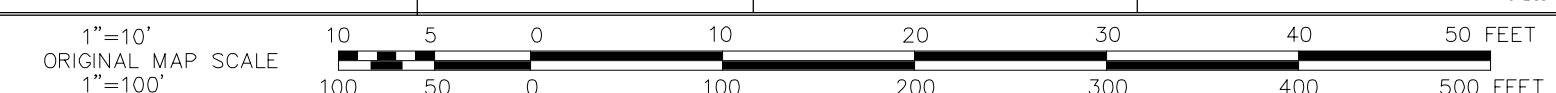
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DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

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 1100 Corporate Center Drive, Suite 201  
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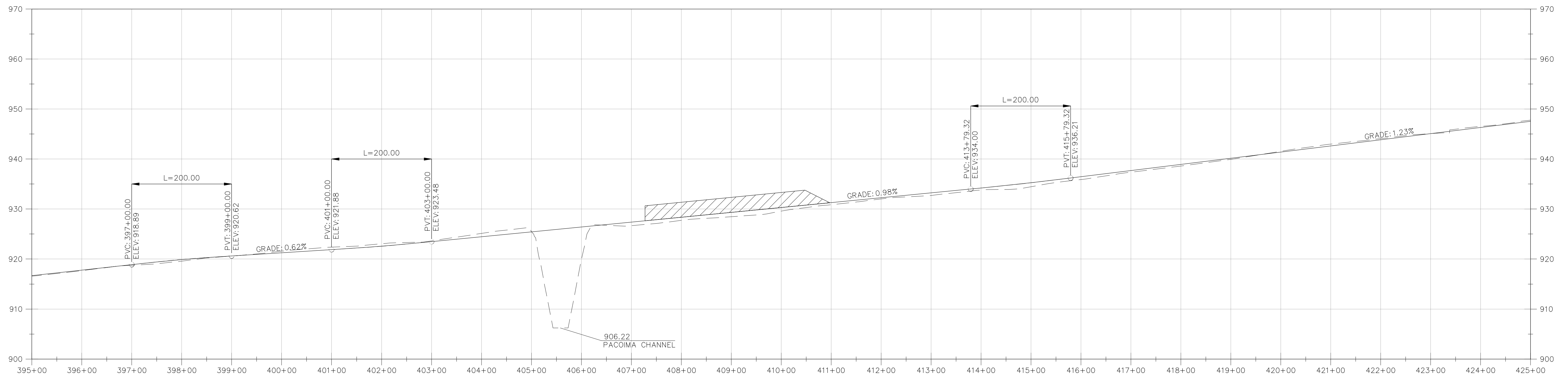
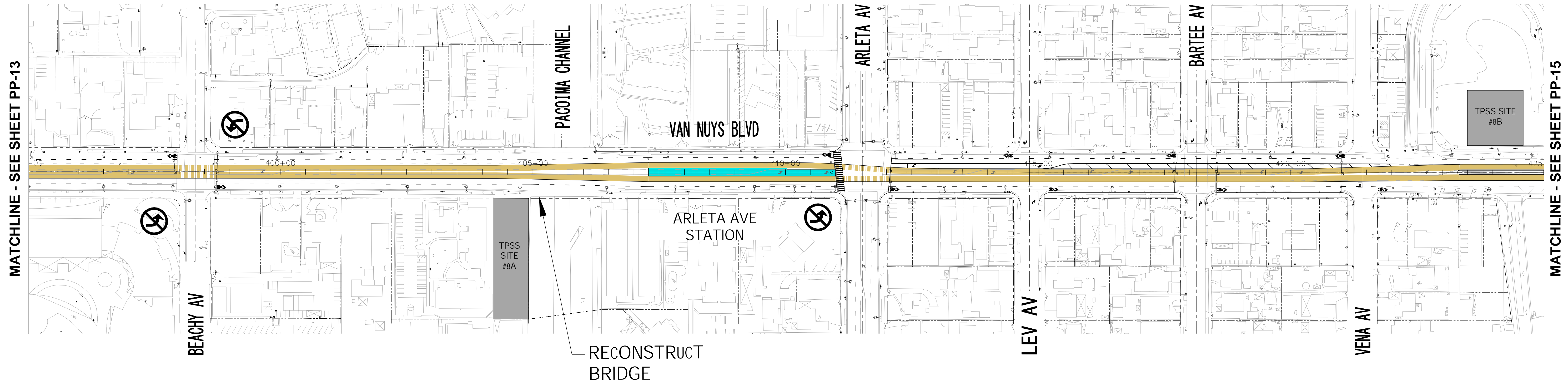
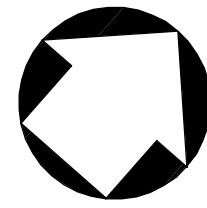
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 365+00 TO STA 395+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-13
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	0



<b>SCALES</b>	HORIZ. 1"=100'	<b>SHEET</b>	<b>INDEX NUMBER</b>
	VERT. 1"=10'		

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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

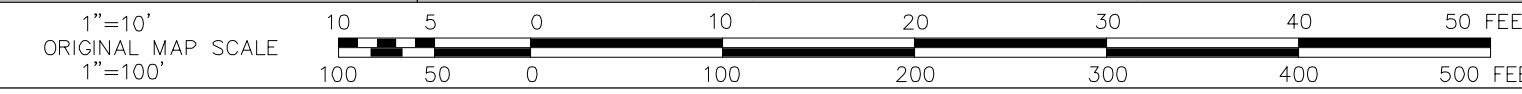
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE

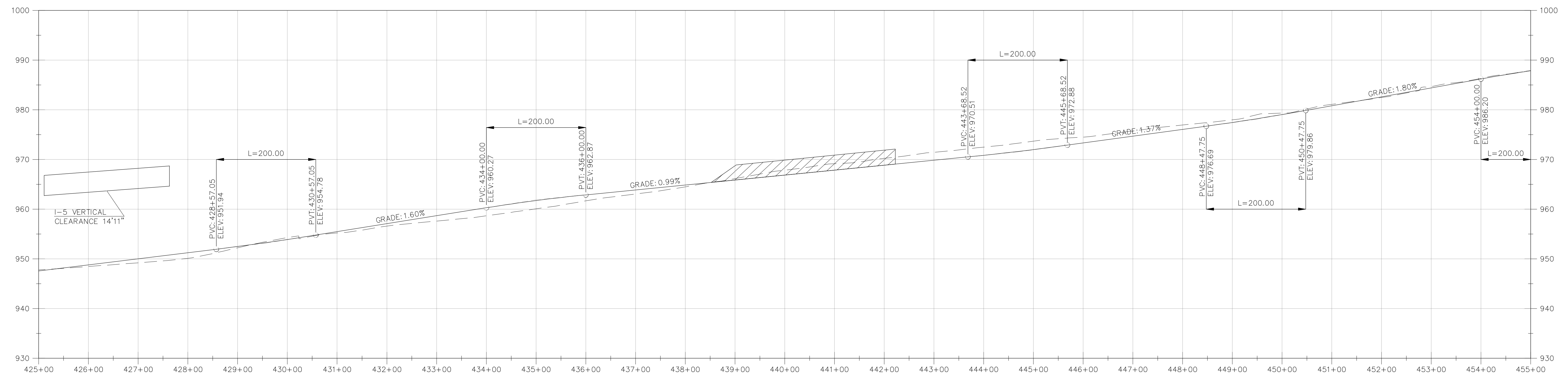
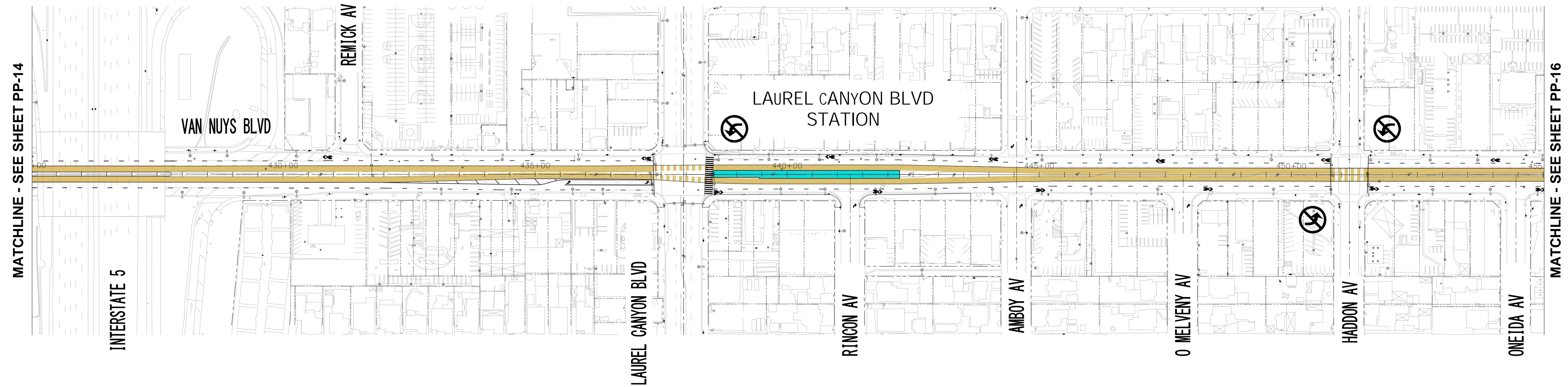
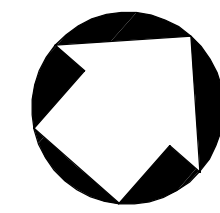
PLAN & PROFILE  
 STA 395+00 TO STA 425+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-14
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100'	<b>SHEET</b>	<b>INDEX NUMBER</b>
	VERT. 1"=10'		

CADD PROJECT FILE NAME: J:\2010\B01205 Metro Van Nuys Corridor Rapidway\Exhibit\_30% Concept Eng\Alternative Exhibits\Alt 4B - F&P\PP-14.dwg Aug 28, 2014 8:21am \_blise



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

CAD PROJECT FILE NAME: J:\2010\B01205 Metro Van Nuys Corridor Rapidway\30% Concept Eng\Alternative Exhibits\Alt 4B -R&P\PP-15.dwg, Aug. 28, 2014 8:21am, blise

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

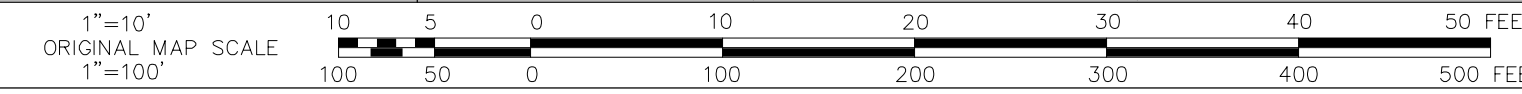
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DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

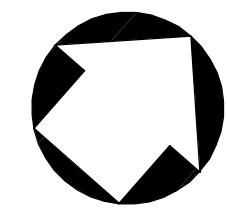
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 425+00 TO STA 455+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-15
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



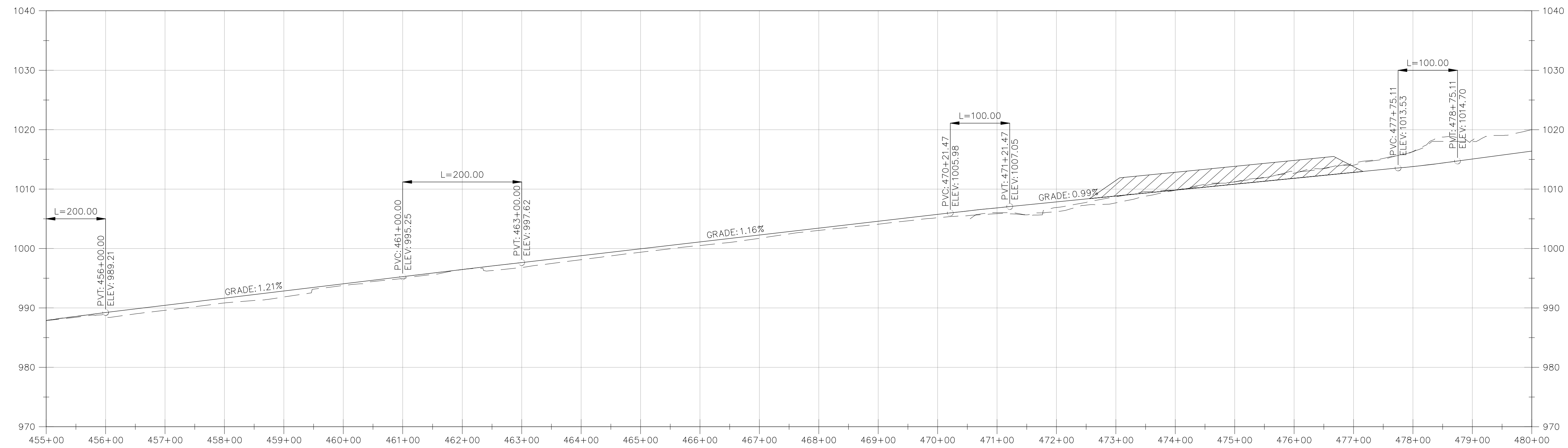
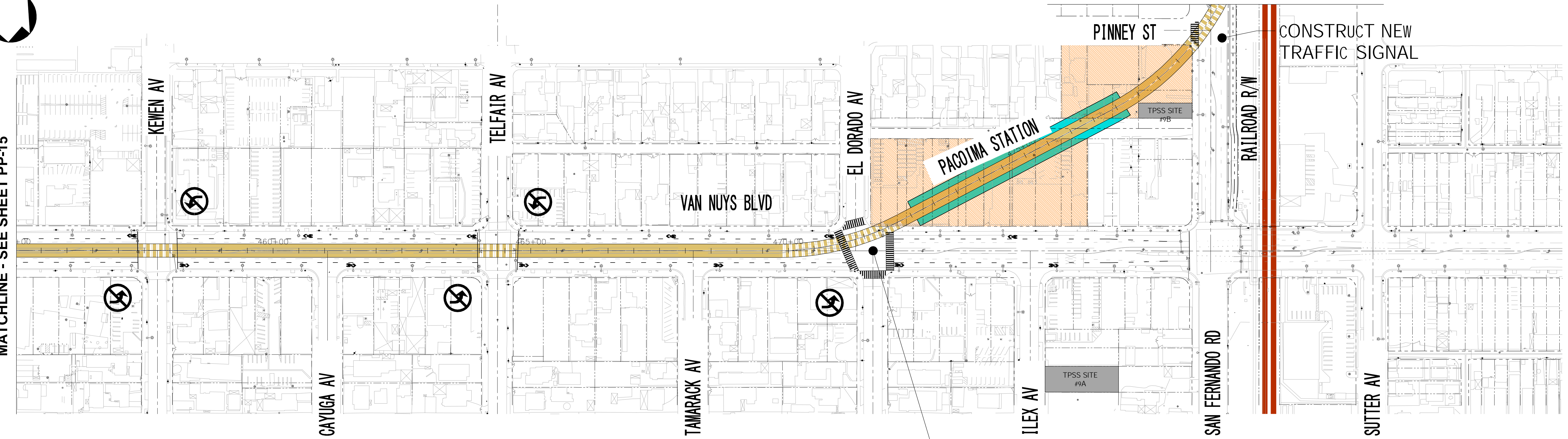
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	VERT: 1"=10'		





MATCHLINE - SEE SHEET PP-15

SEE SHEET PP-17



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

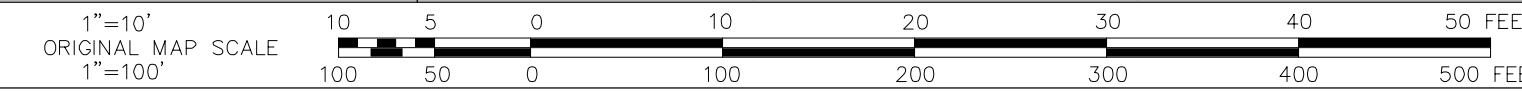
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE

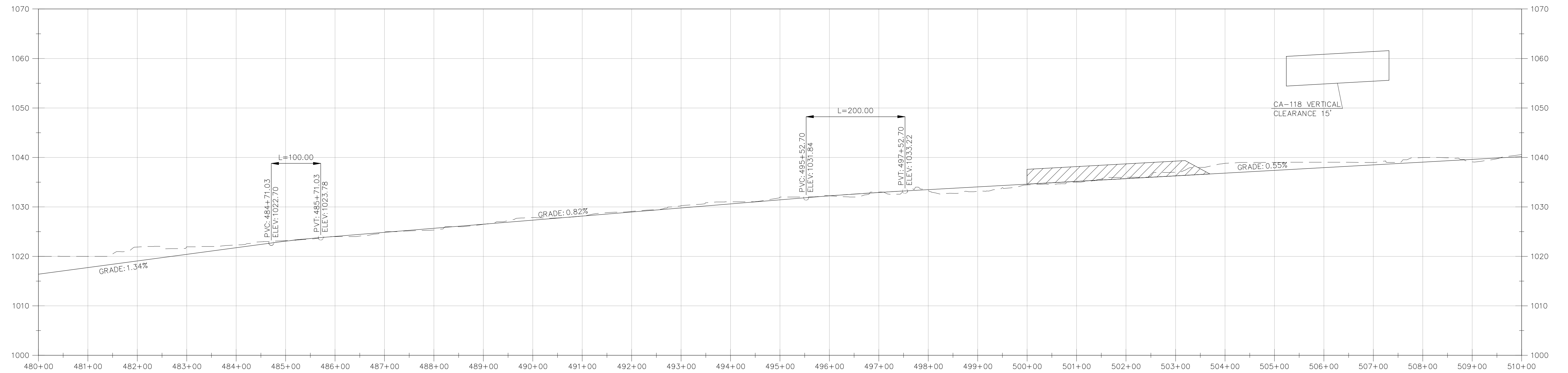
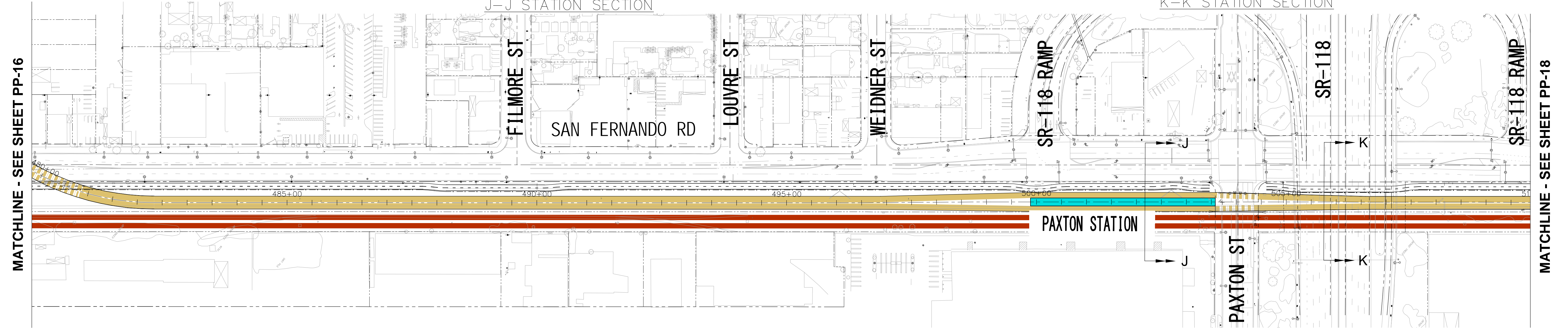
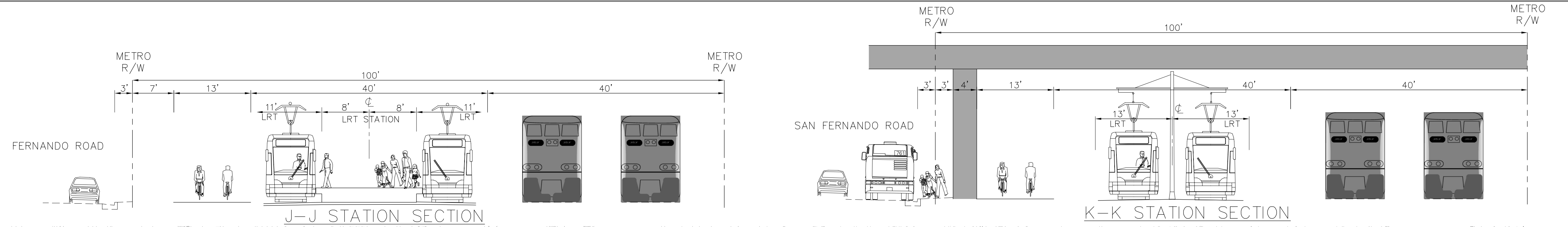
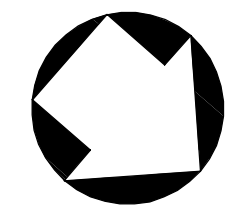
PLAN & PROFILE  
 STA 455+00 TO STA 480+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-16
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100' VERT. 1"=10'	<b>SHEET</b>	<b>INDEX NUMBER</b>
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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

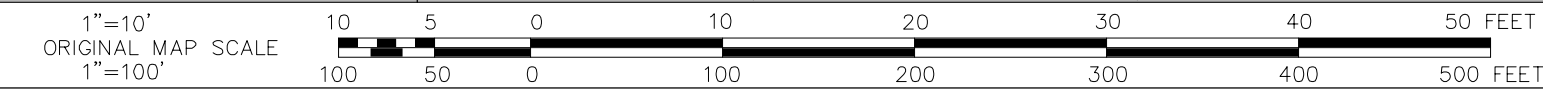
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE

PLAN & PROFILE  
 STA 480+00 TO STA 510+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-17
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	

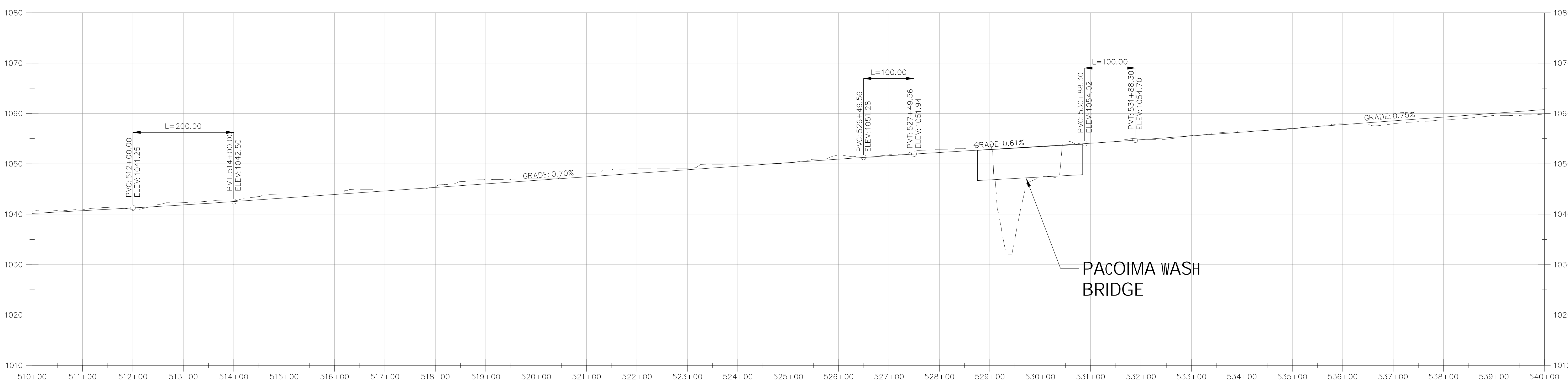
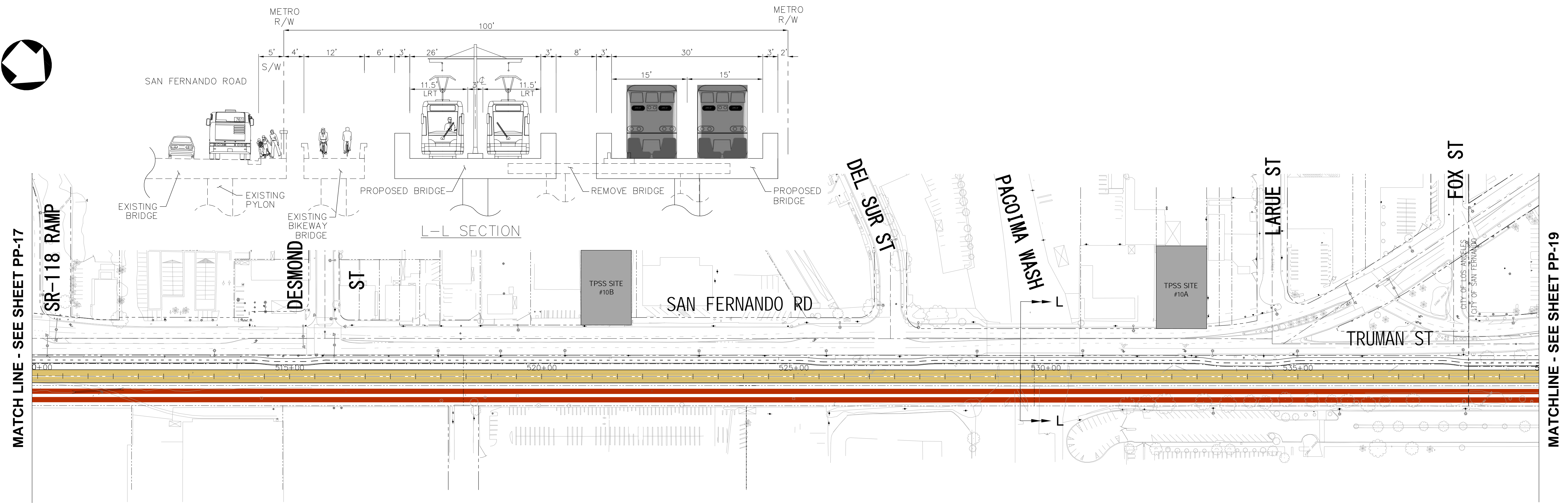
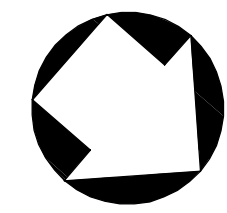


**SCALES** HORIZ. 1"=100'  
VERT. 1"=10'

**SHEET**

**INDEX NUMBER**

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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

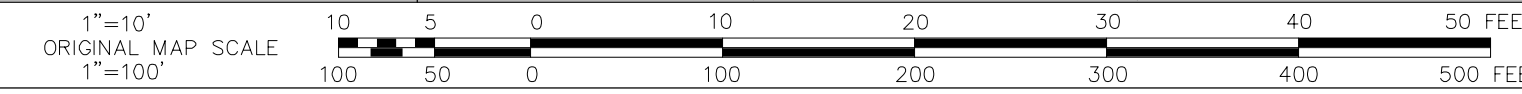
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DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

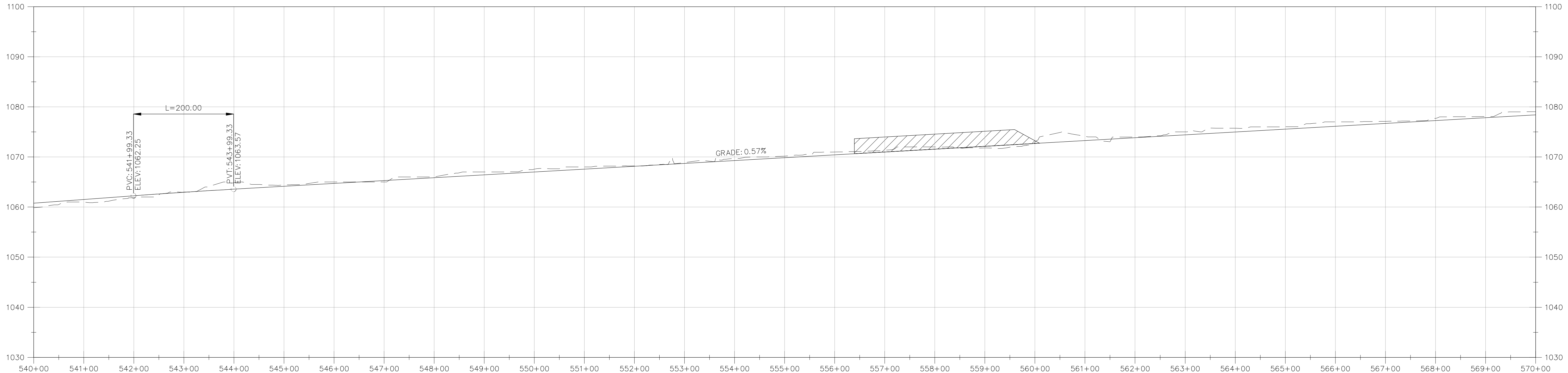
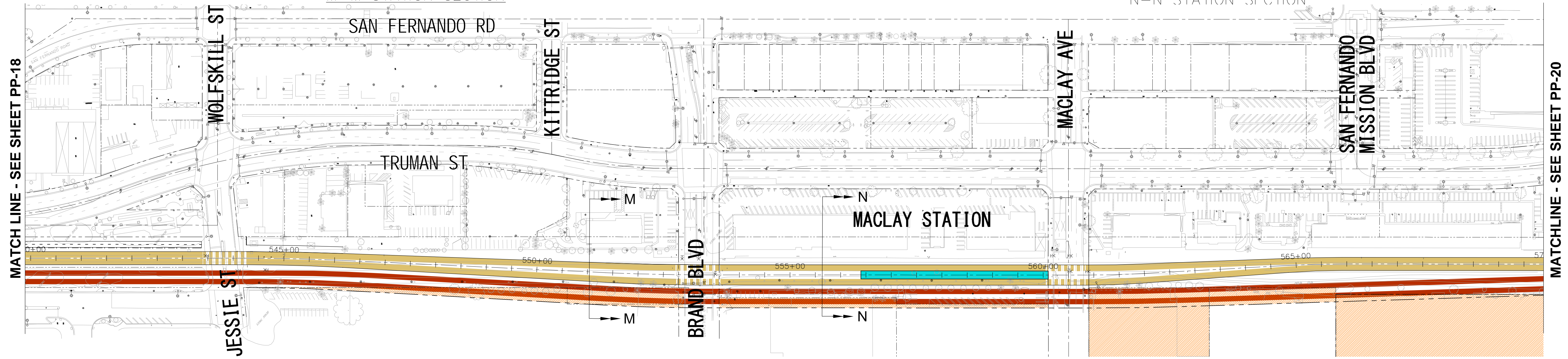
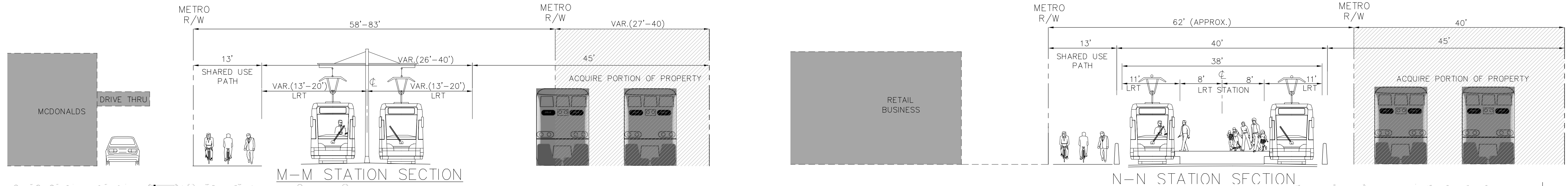
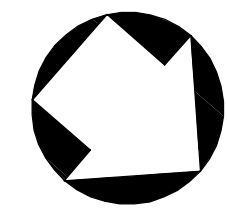
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 510+00 TO STA 540+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-18
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100'	<b>SHEET</b>	<b>INDEX NUMBER</b>
	VERT. 1"=10'		

CAD PROJECT FILE NAME: J:\2010\B01205 Metro Van Nuys Corridor Rapidway\Exhibit\30% Concept Eng\Alternative Exhibits\Alt 4B - P&P\PP-18.dwg Aug 28, 2014 8:22am\_sbsise



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

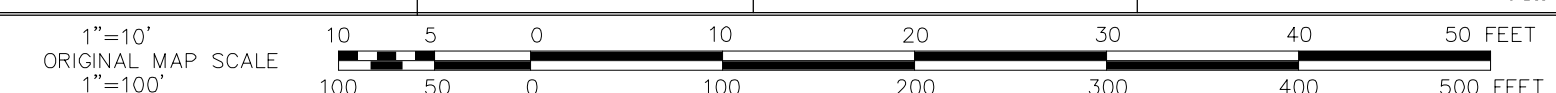
DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
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 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 540+00 TO STA 570+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-19
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	

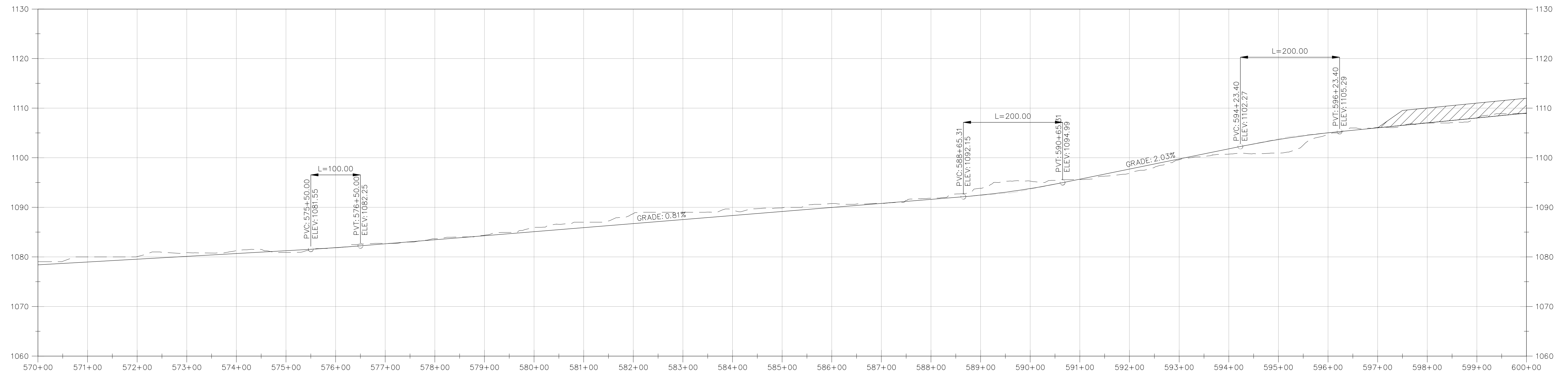
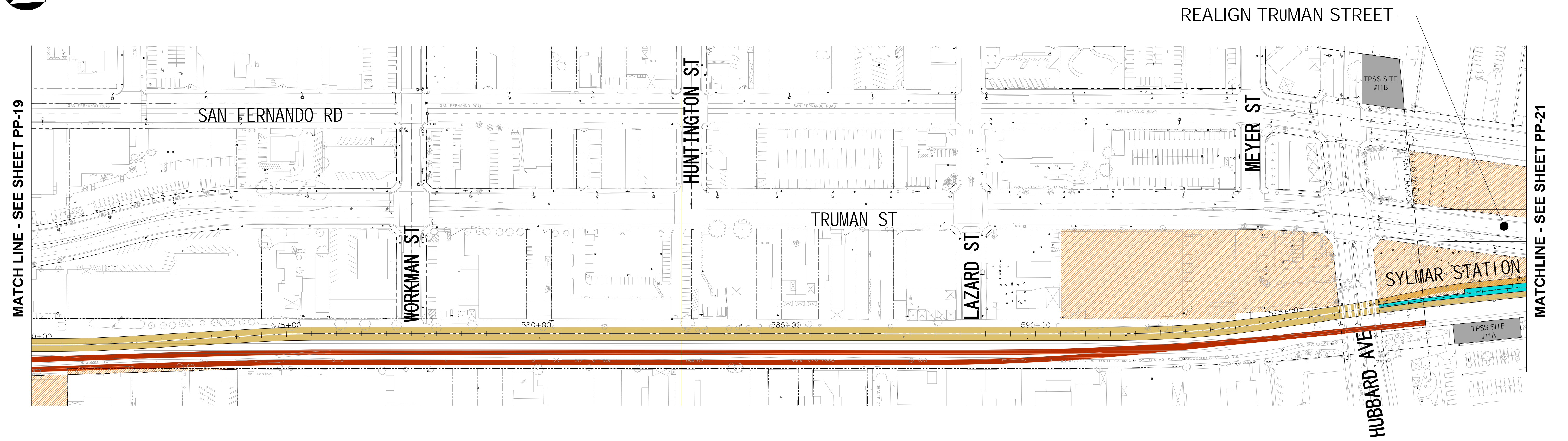
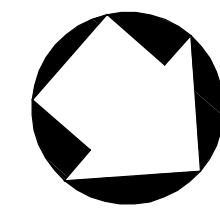


**SCALES**  
 HORIZ. 1"=100'  
 VERT. 1"=10'

**SHEET**

**INDEX NUMBER**

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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

CAD PROJECT FILE NAME: J:\2010\B01205 Metro Van Nuys Corridor Rapidway\Exhibit\30% Concept Eng\Alternative Exhibits\Alt 4B -R&P\PP-20.dwg Aug 28, 2014 8:23am\_sbase

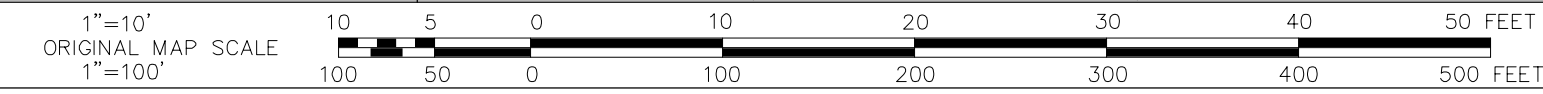
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**  
**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 570+00 TO STA 600+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-20
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



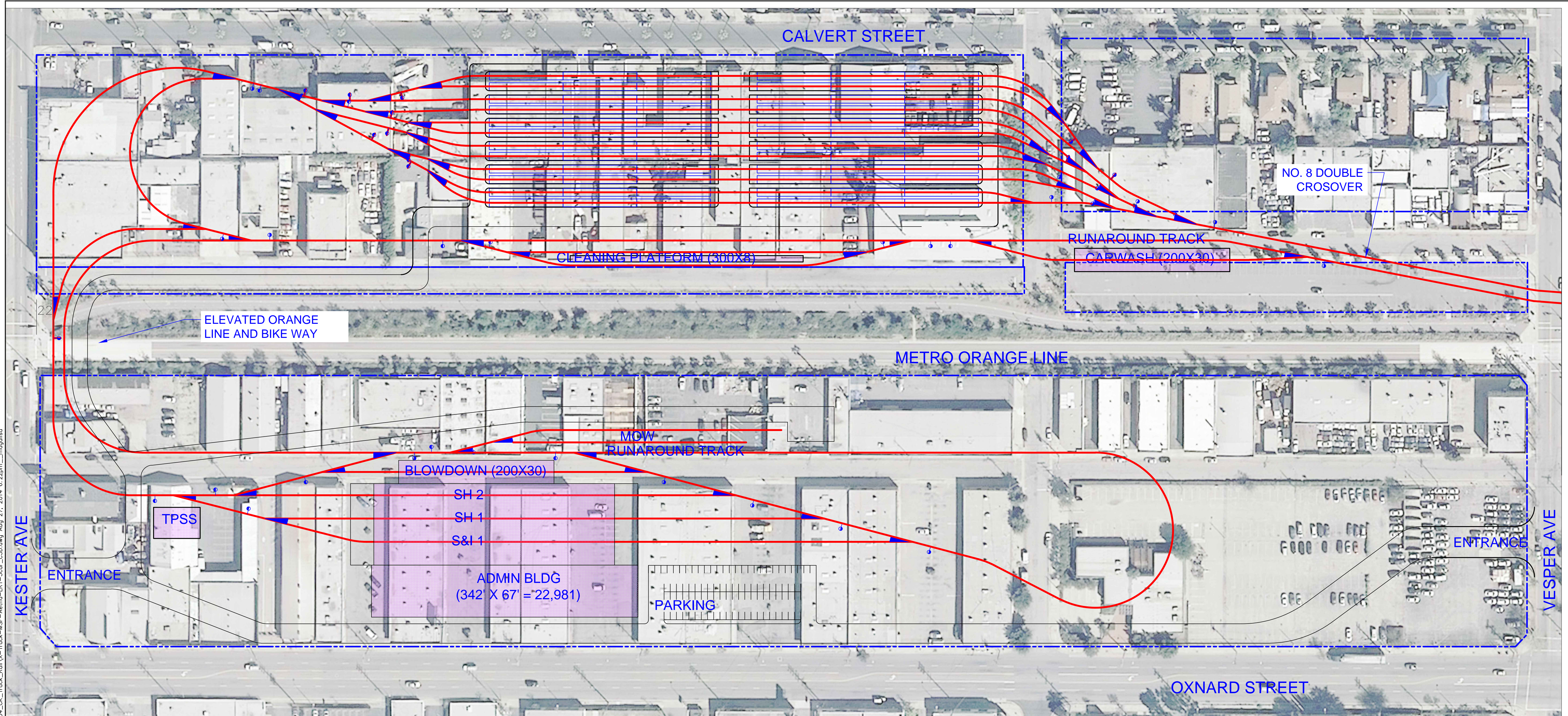
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 VERT. 1"=10'

**SHEET**

**INDEX NUMBER**



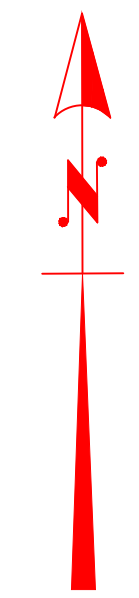
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MATCH LINE - SEE FOLLOWING SHEET

**NOTE: SECURITY TOWER VS. CCTV**

MSF SITE: 30.0 ACRES  
 STORAGE CAPACITY: 24 - 3 CAR TRAINS  
 72 CARS TOTAL  
 190FT RADIUS TURNOUTS  
 MIN RADIUS = 100'



REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY L. TERRELL-LEWIS
DRAWN BY S. MAGALLON
CHECKED BY A. SOKOL
IN CHARGE A. SOKOL
DATE 08/27/14

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

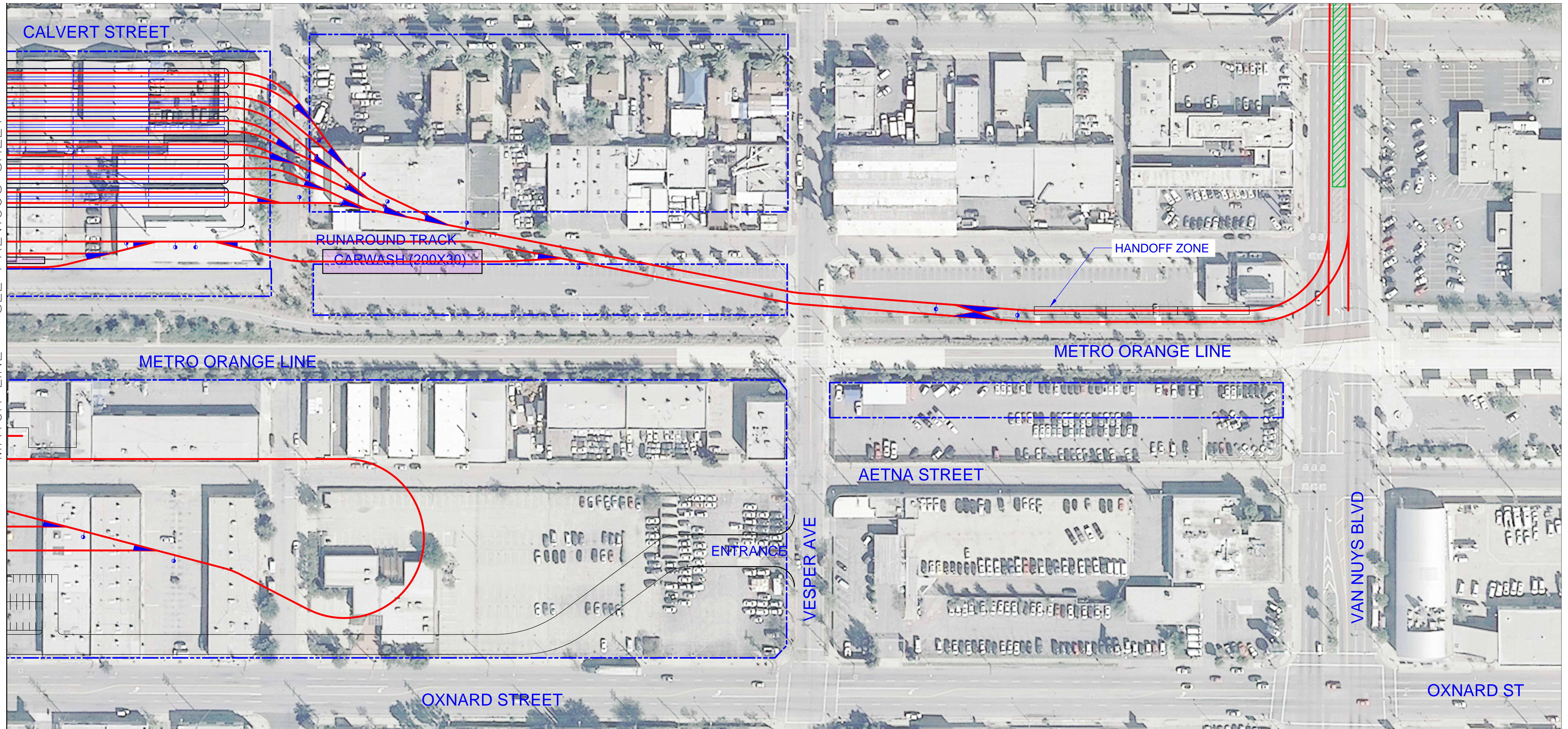
**STV**  
 PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 MAINTENANCE FACILITY  
 AETNA - 3 CAR TRAINS

CONTRACT NO PS-4370-2622
DRAWING NO REV 0
SCALE HORIZ: 1"=60' VERT: N/A
SHEET NO

CADD PROJECT FILE NAME: I:\projects\4015220\4015220\_0001\90\_CAD\_Models\_and\_Sheets\04\_CK\_Track\_Rail\X-Track-MSF-Aetna-LRT-3car-C3D.dwg Aug 27, 2014 6:23pm magallan

MATCH LINE - SEE PREVIOUS SHEET



**NOTE: SECURITY TOWER VS. CCTV**

MSF SITE: 30.0 ACRES  
 STORAGE CAPACITY: 24 - 3 CAR TRAINS  
 72 CARS TOTAL  
 190FT RADIUS TURNOUTS  
 MIN RADIUS = 100'

DESIGNED BY  
 L. TERRELL-LEWIS  
 DRAWN BY  
 S. MAGALLAN  
 CHECKED BY  
 A. SOKOL  
 IN CHARGE  
 A. SOKOL  
 DATE  
 08/27/14

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY  
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
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 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705



PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 MAINTENANCE FACILITY  
 AETNA - 3 CAR TRAINS

CONTRACT NO  
 PS-4370-2622  
 DRAWING NO  
 REV 0  
 SCALE HORIZ: 1"=60'  
 VERT: N/A  
 SHEET NO

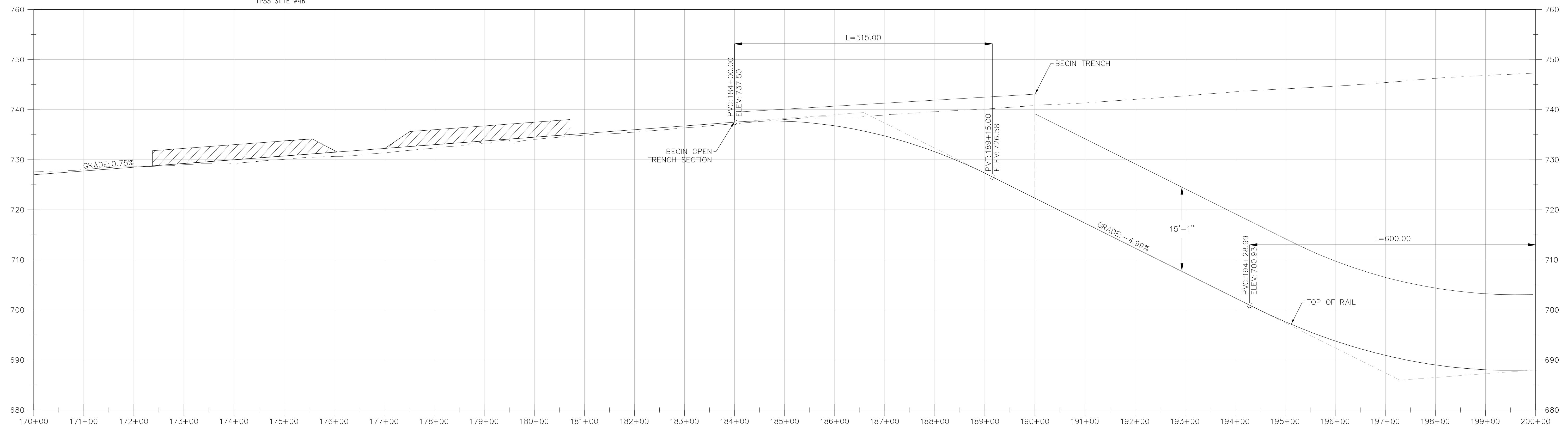
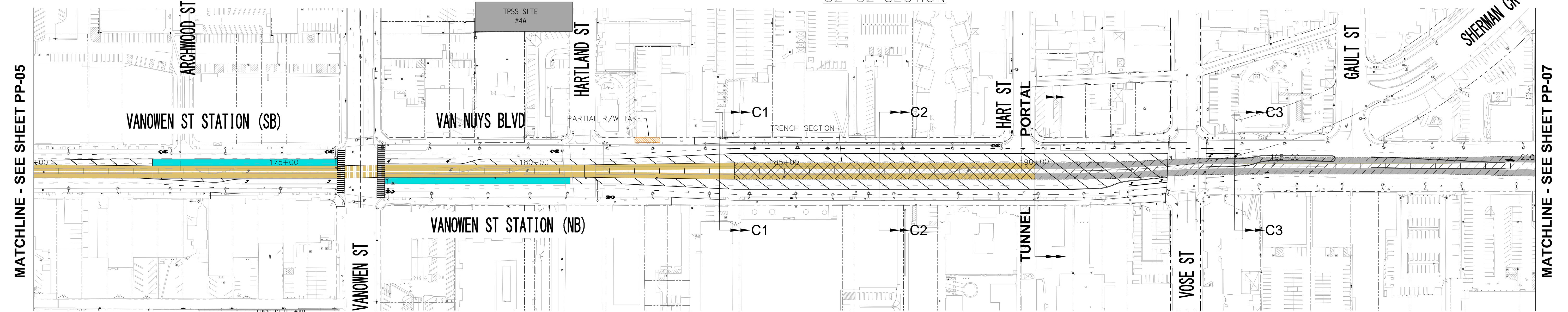
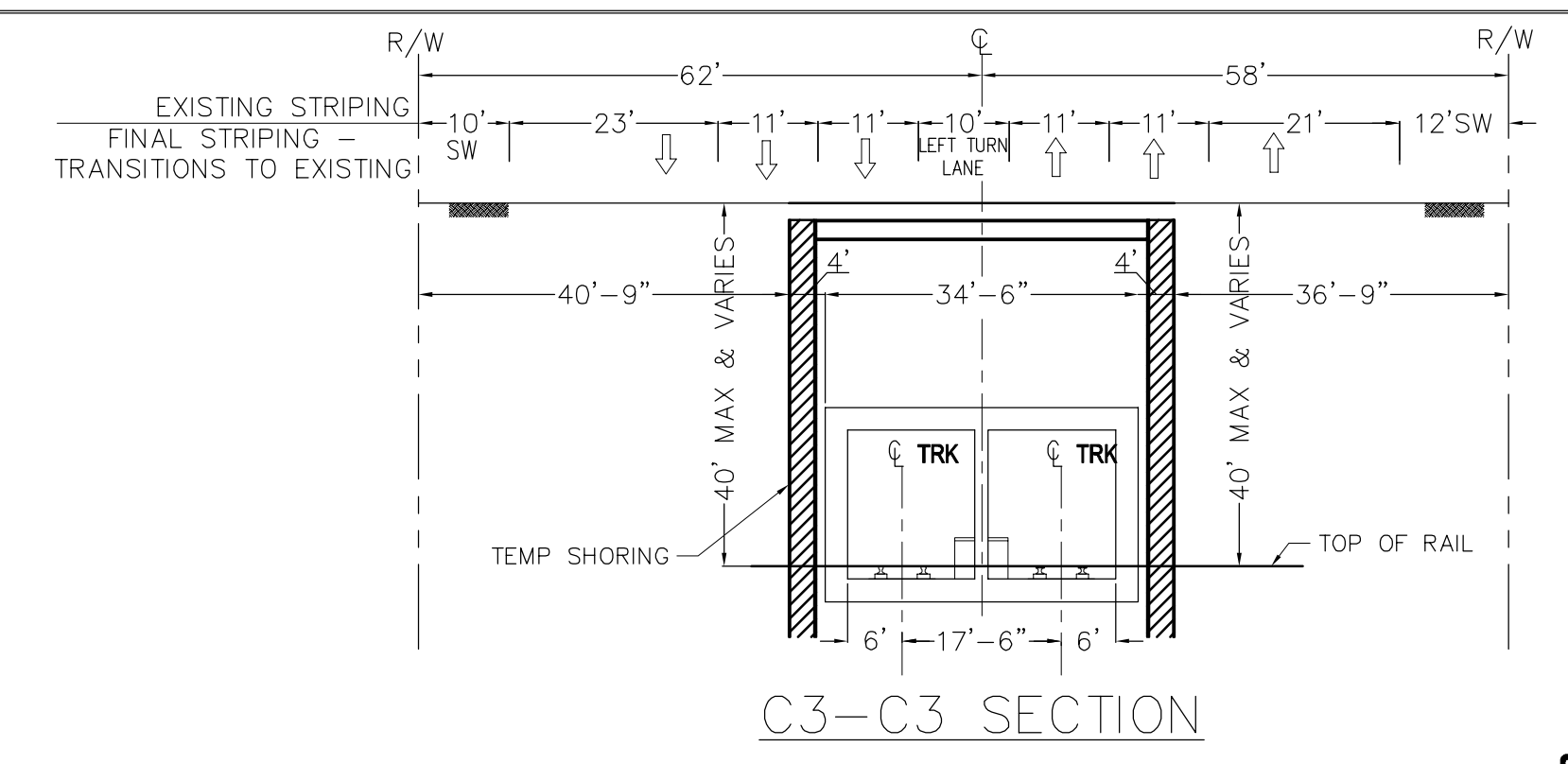
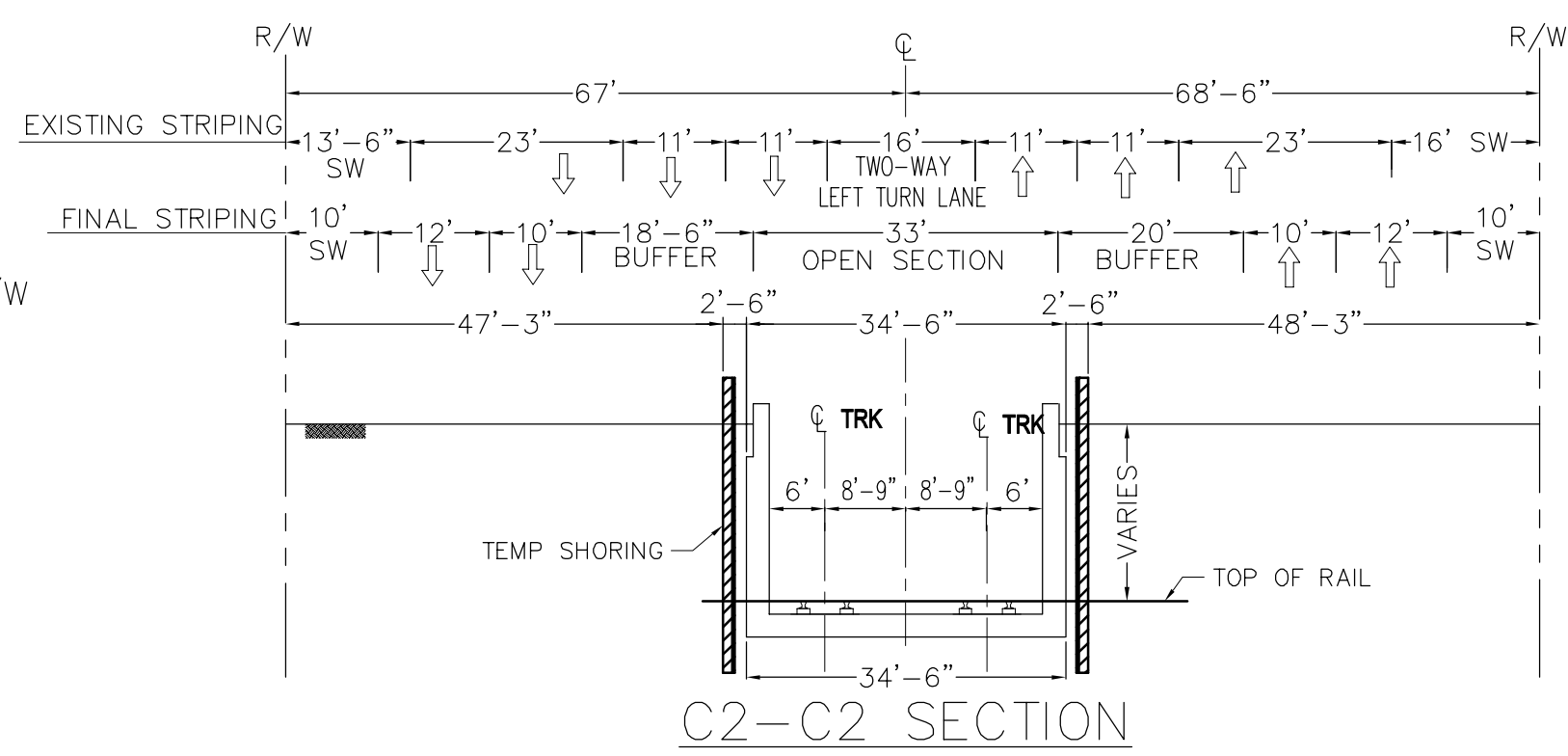
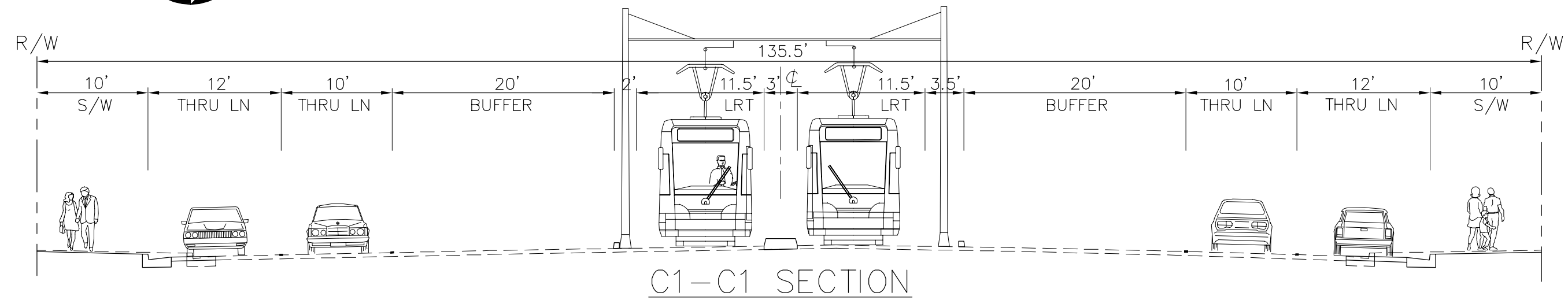
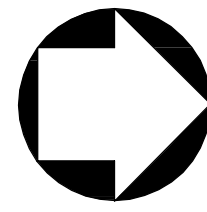
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

SCALES  
 HORIZ. 1"=60'  
 VERT. N/A

SHEET

INDEX NUMBER





ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

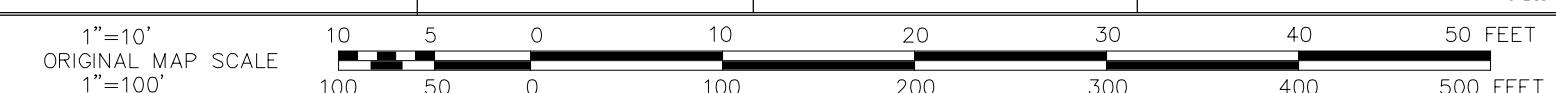
DESIGNED BY							
DRAWN BY							
CHECKED BY							
IN CHARGE							
DATE							
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
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 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 170+00 TO STA 200+00  
 OPTION B

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-06B
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



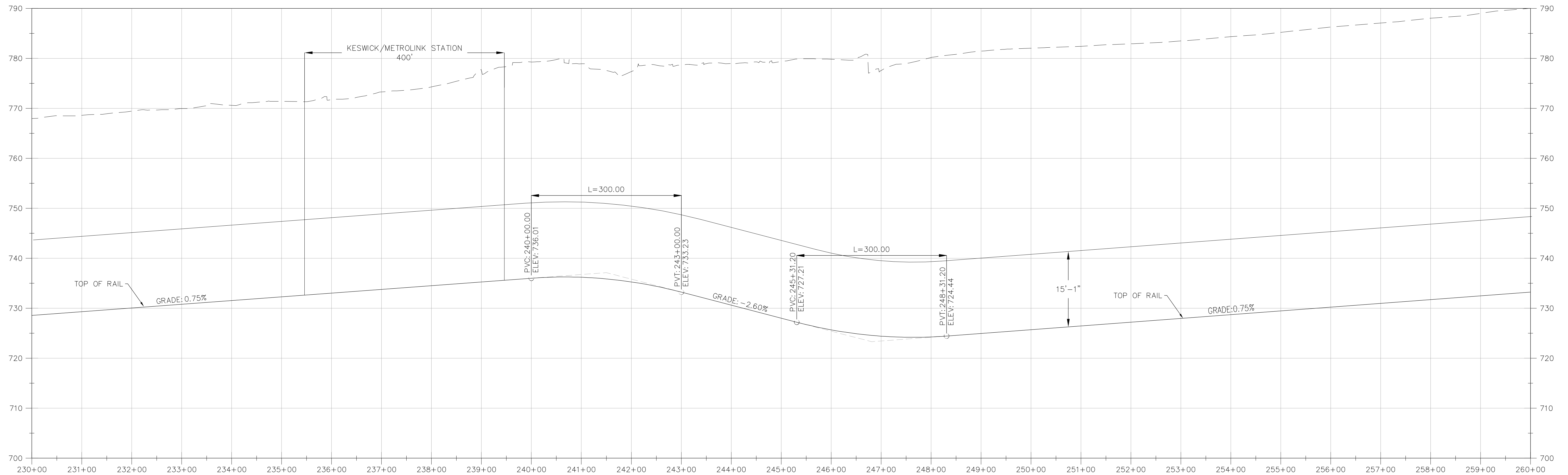
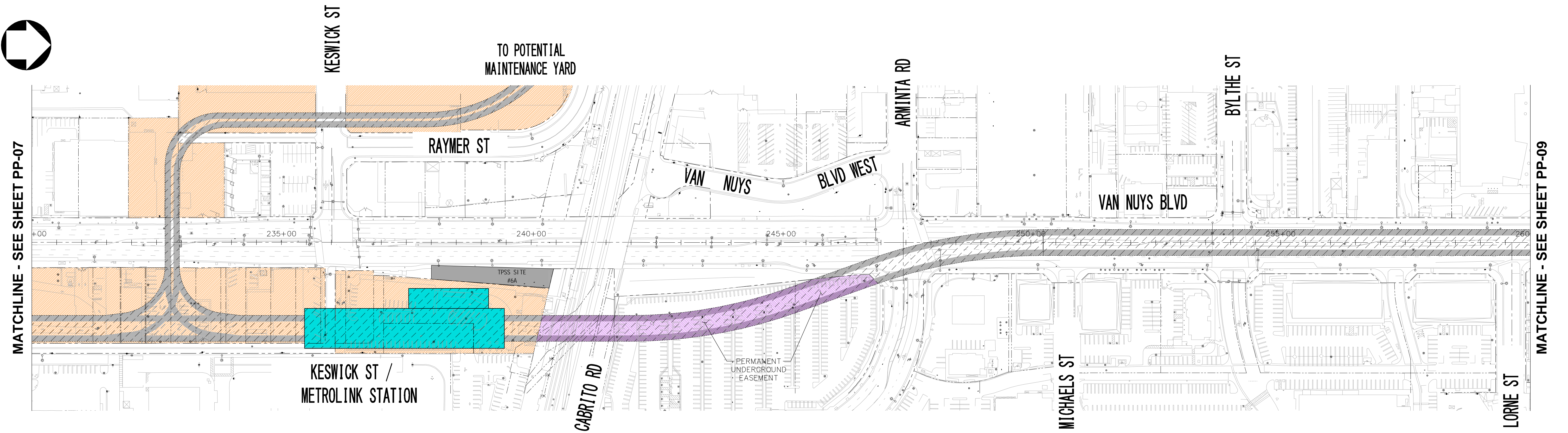
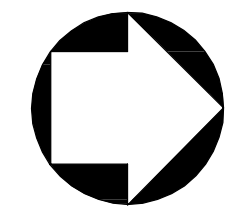
**SCALES**  
 HORIZ. 1"=100'  
 VERT. 1"=10'

**SHEET**

**INDEX NUMBER**

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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

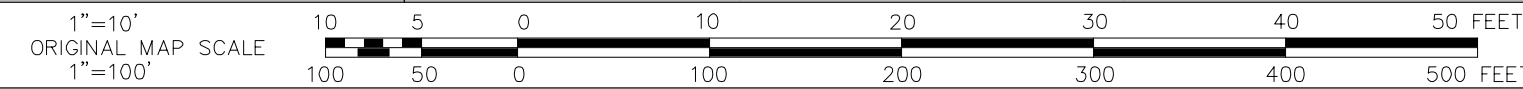
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

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 Monterey Park, California 91754  
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PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 230+00 TO STA 260+00  
 OPTION B

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-08B
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	

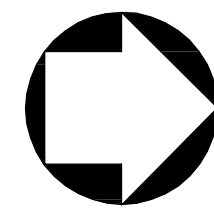


**SCALES**  
 HORIZ. 1"=100'  
 VERT. 1"=10'

**SHEET**

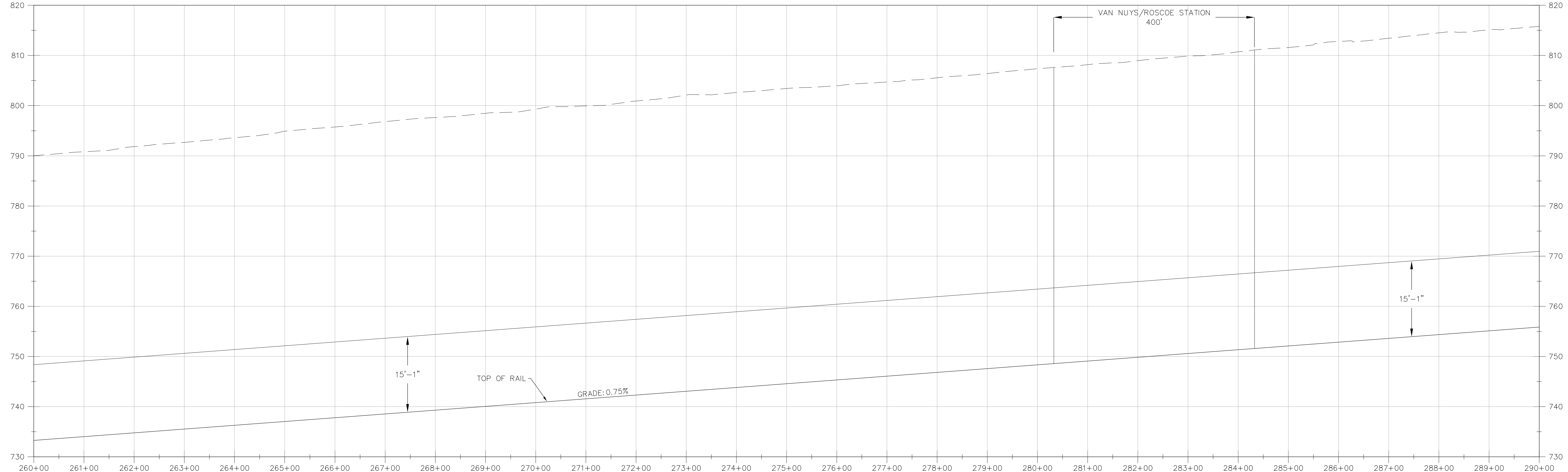
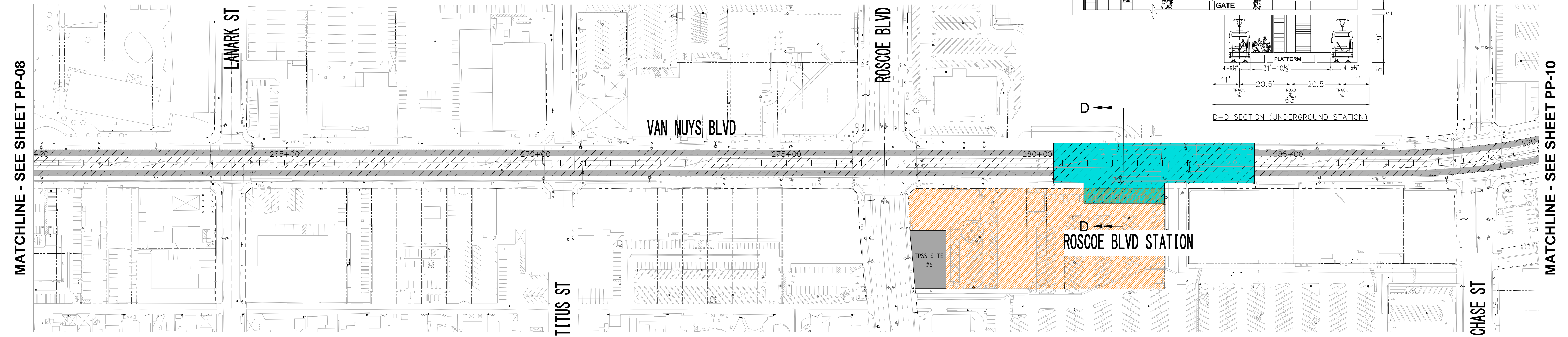
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MATCHLINE - SEE SHEET PP-08

MATCHLINE - SEE SHEET PP-10



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

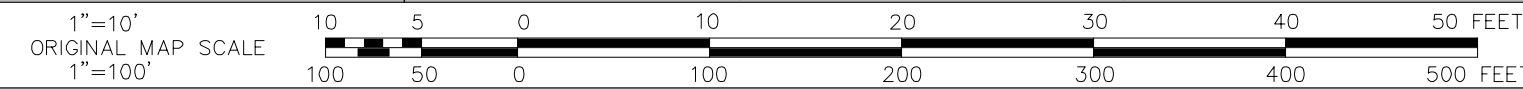
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 260+00 TO STA 290+00  
 OPTION B

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-09B
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	

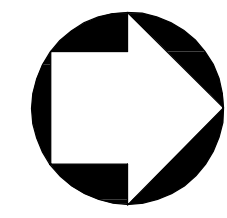


SCALES

HORIZ. 1"=100'  
VERT. 1"=10'

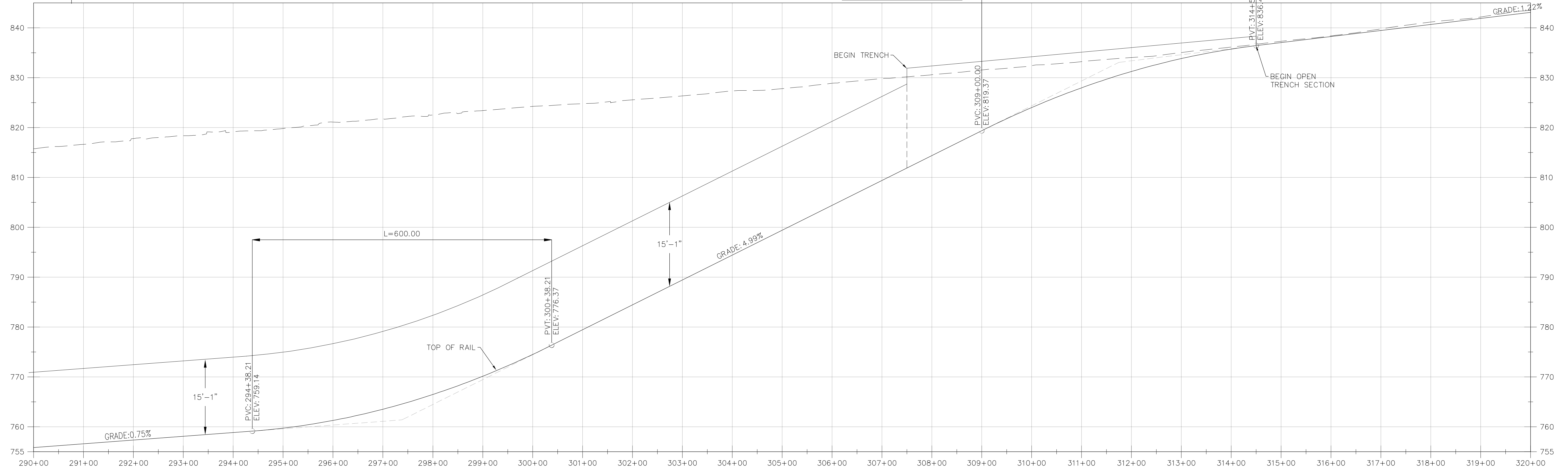
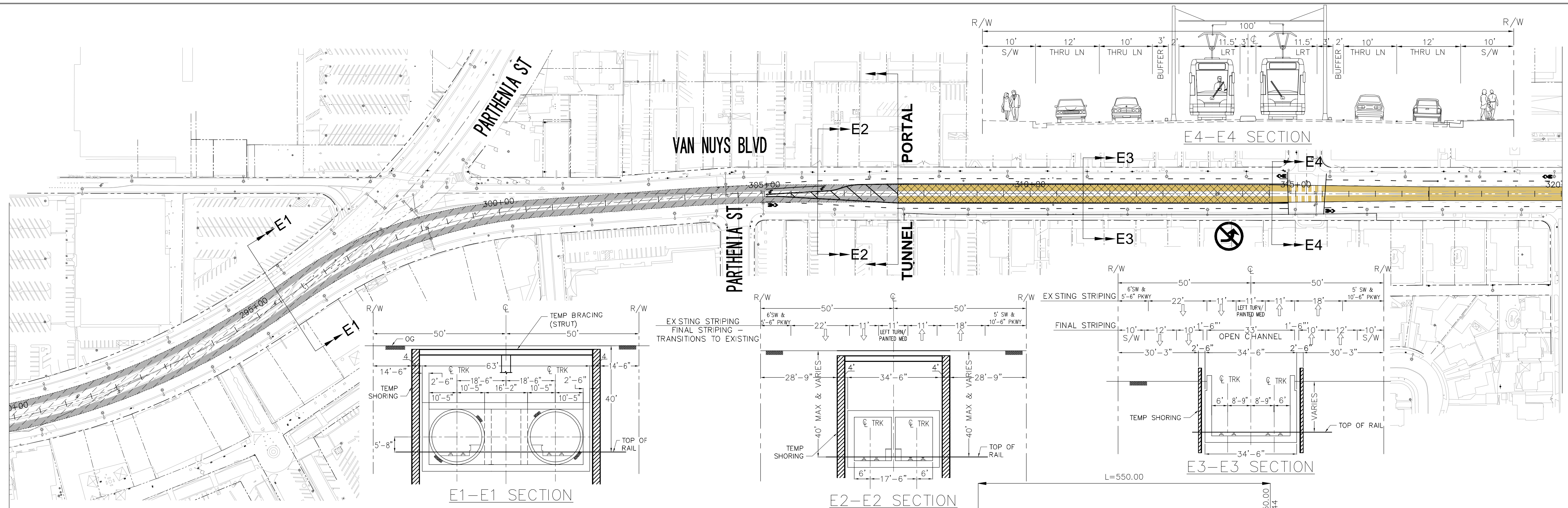
SHEET

INDEX NUMBER



MATCHLINE - SEE SHEET PP-09

MATCHLINE - SEE SHEET PP-11



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

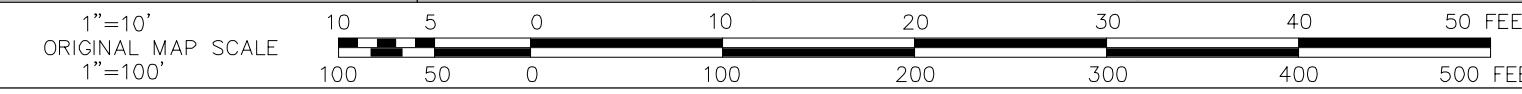
DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

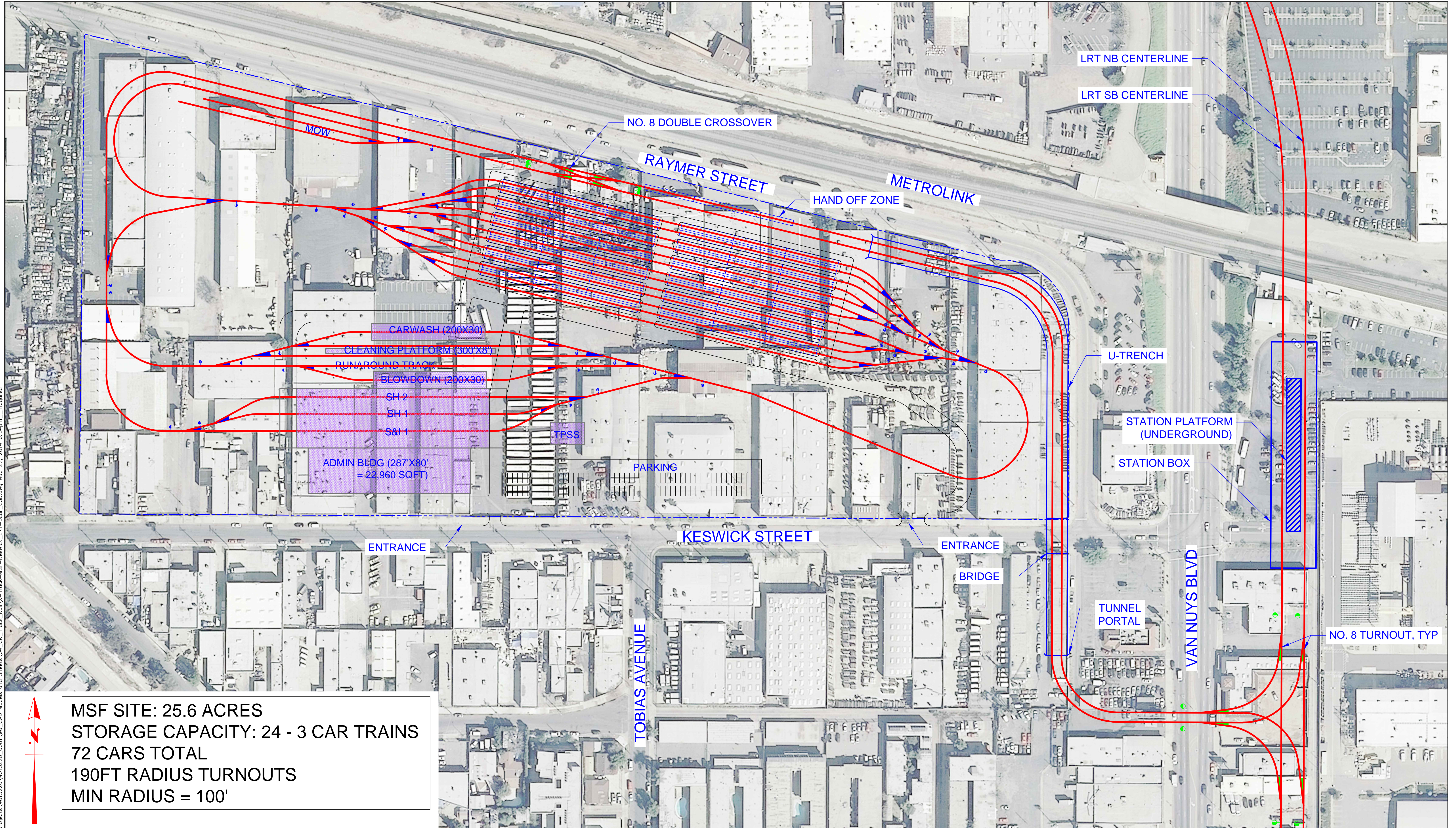
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 290+00 TO STA 320+00  
 OPTION B

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-10B
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100' VERT. 1"=10'	<b>SHEET</b>	<b>INDEX NUMBER</b>
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MSF SITE: 25.6 ACRES  
 STORAGE CAPACITY: 24 - 3 CAR TRAINS  
 72 CARS TOTAL  
 190FT RADIUS TURNOUTS  
 MIN RADIUS = 100'

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REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY  
 L. TERRELL-LEWIS  
 DRAWN BY  
 S. MAGALLON  
 CHECKED BY  
 A. SOKOL  
 IN CHARGE  
 A. SOKOL  
 DATE  
 08/27/2014

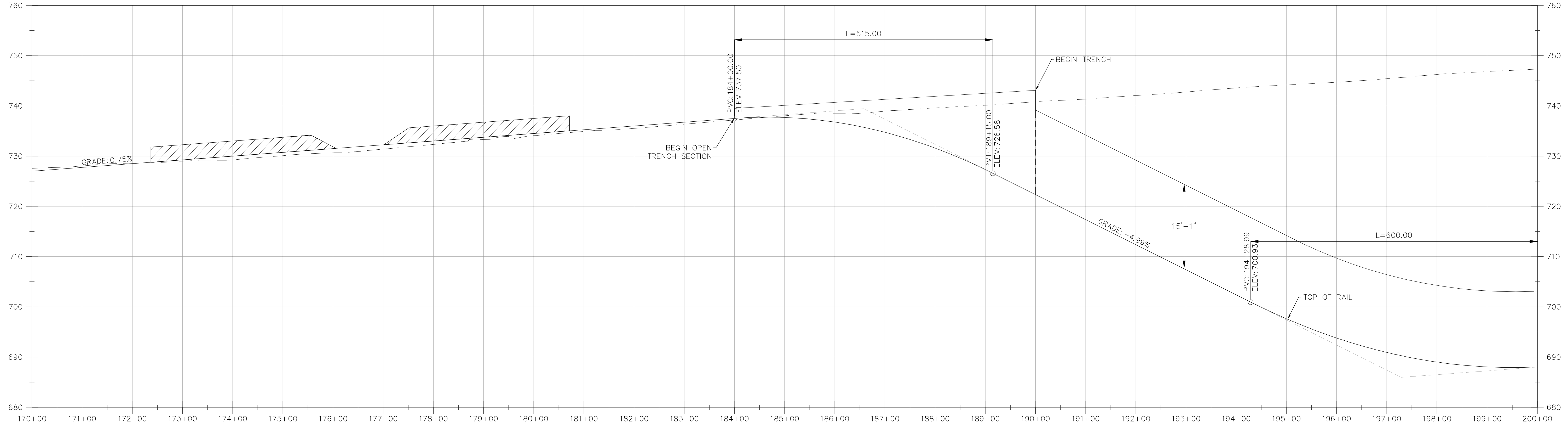
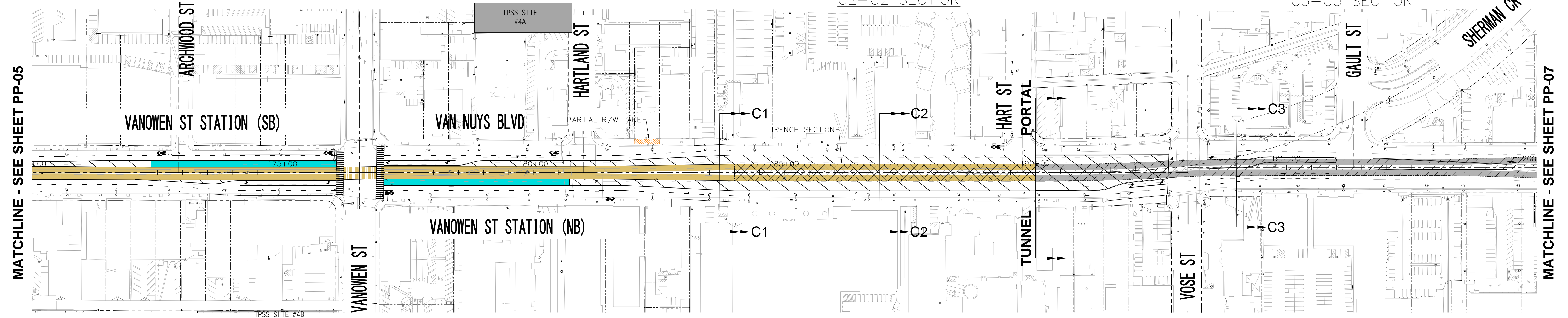
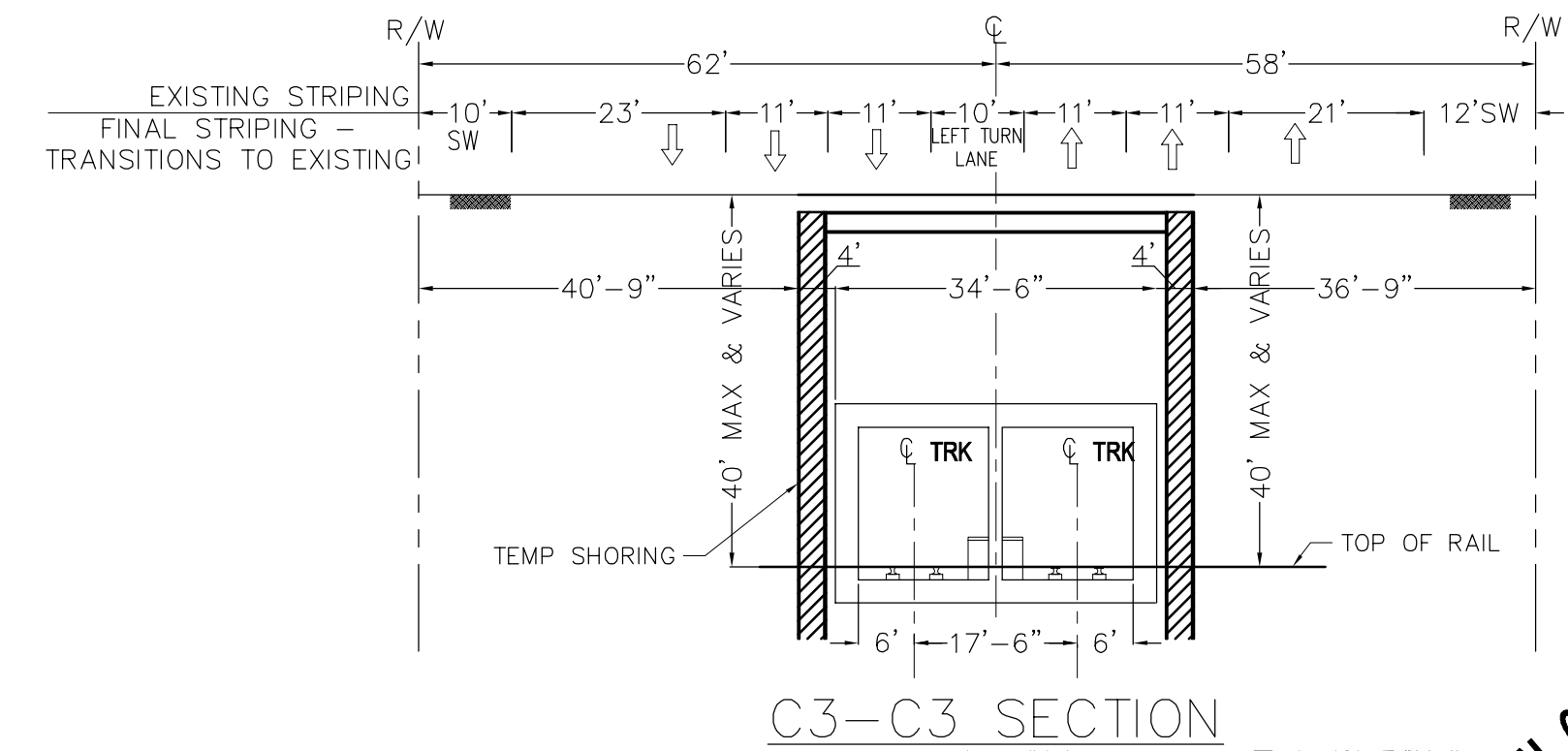
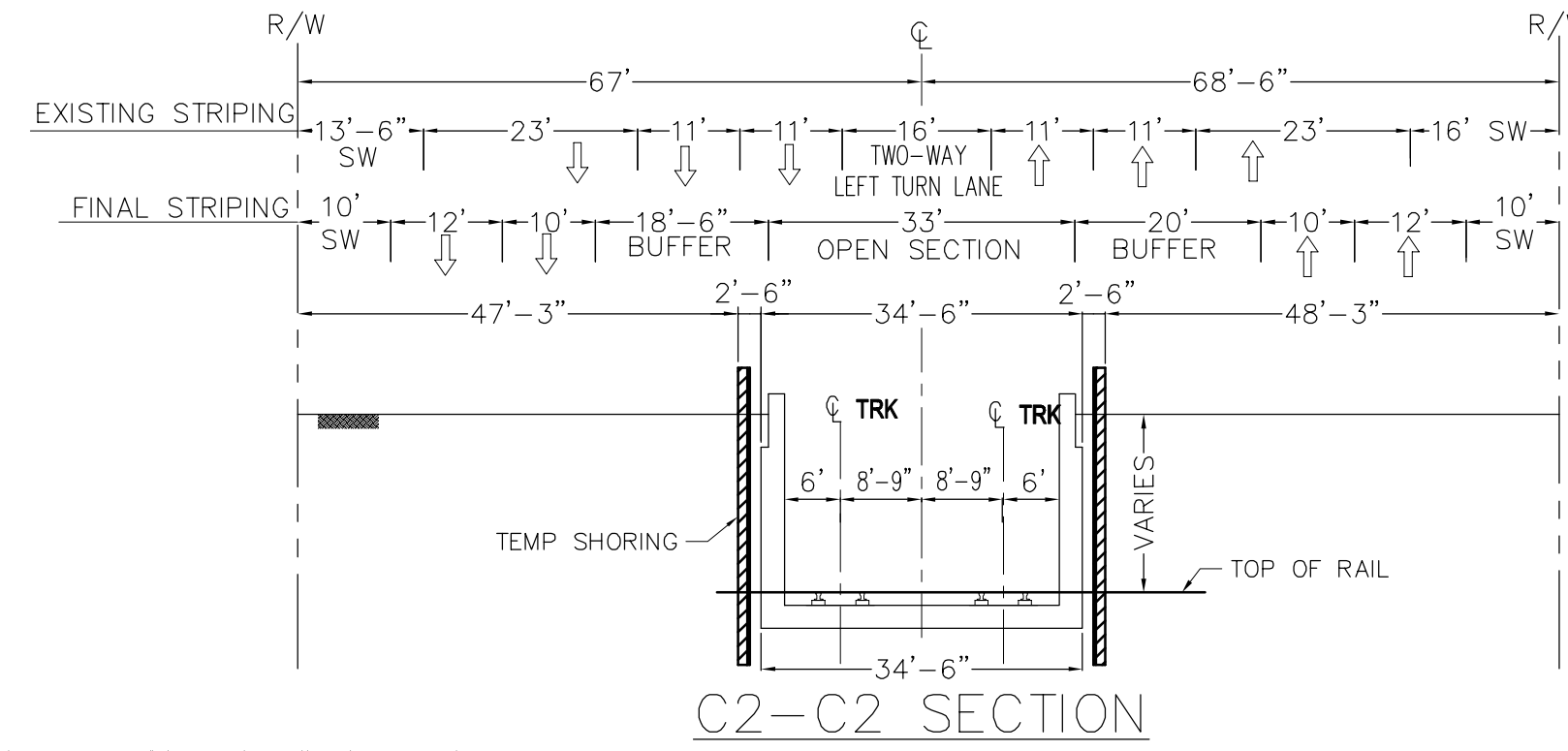
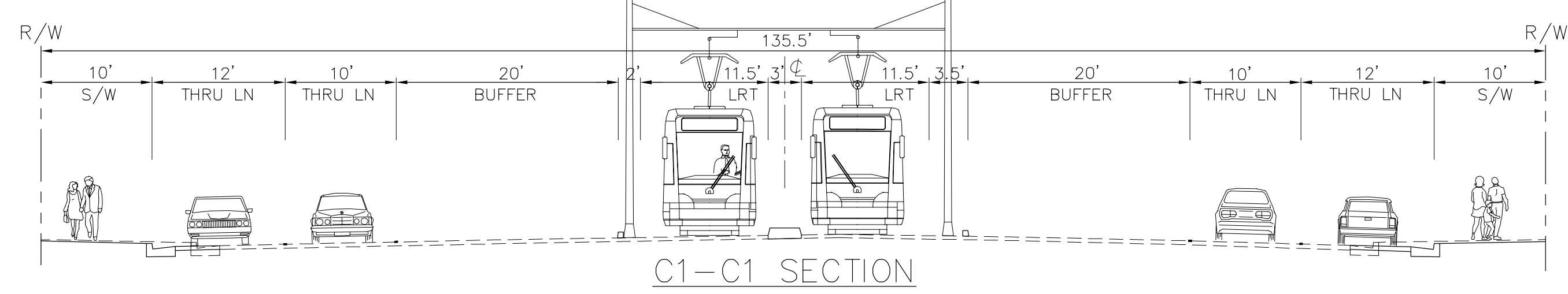
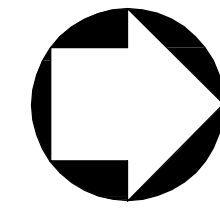
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

KOA CORPORATION  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 MAINTENANCE FACILITY  
 KESWICK OPTION - 3 CAR TRAINS

CONTRACT NO	PS-4370-2622
DRAWING NO	KESWICK LRT
REV	0
SCALE	HORIZ: 1"=60' VERT: N/A
SHEET NO	



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

DESIGNED BY							
DRAWN BY							
CHECKED BY							
IN CHARGE							
DATE							
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

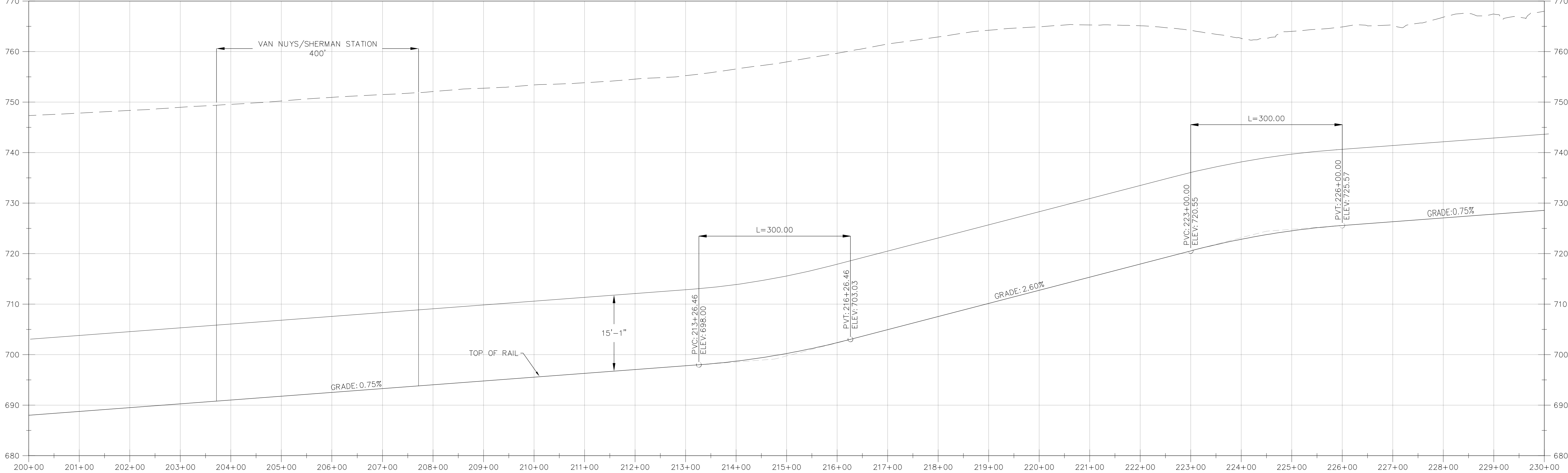
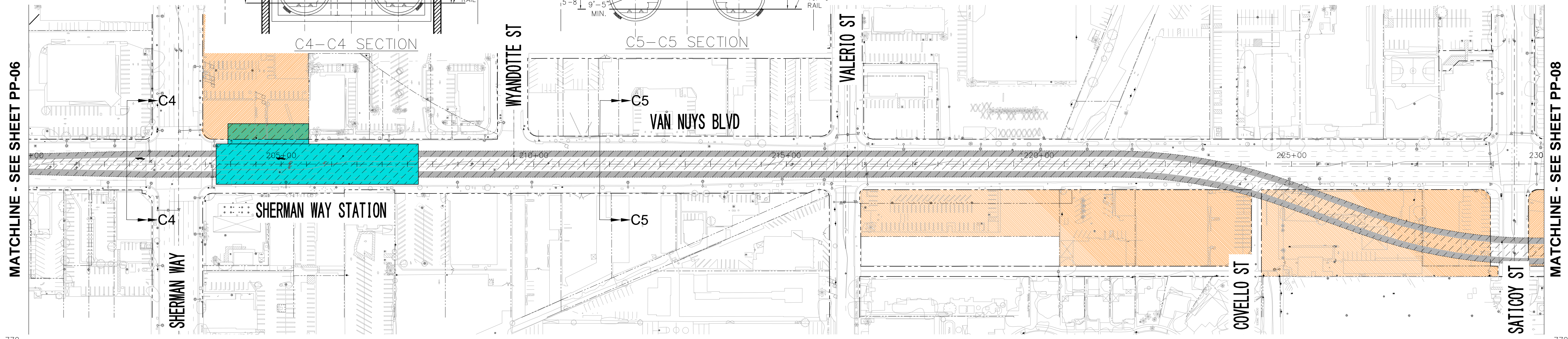
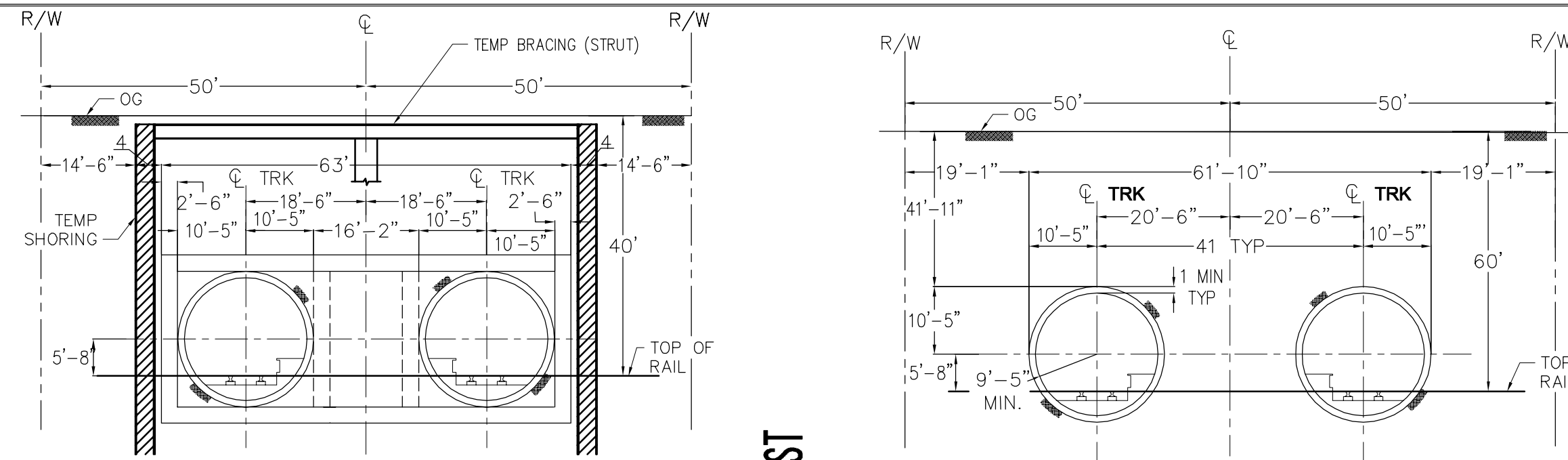
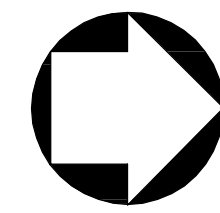
PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 170+00 TO STA 200+00  
 OPTION C

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-06C
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	0

ORIGINAL MAP SCALE 1"=100' 10 5 0 10 20 30 40 50 FEET 100 50 0 100 200 300 400 500 FEET	<b>SCALES</b> HORIZ. 1"=100' VERT. 1"=10'	<b>SHEET</b>	<b>INDEX NUMBER</b>
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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

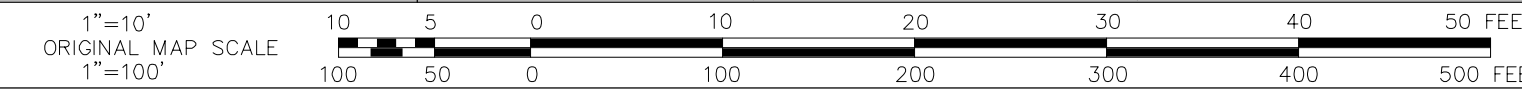
DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 200+00 TO STA 230+00  
 OPTION C

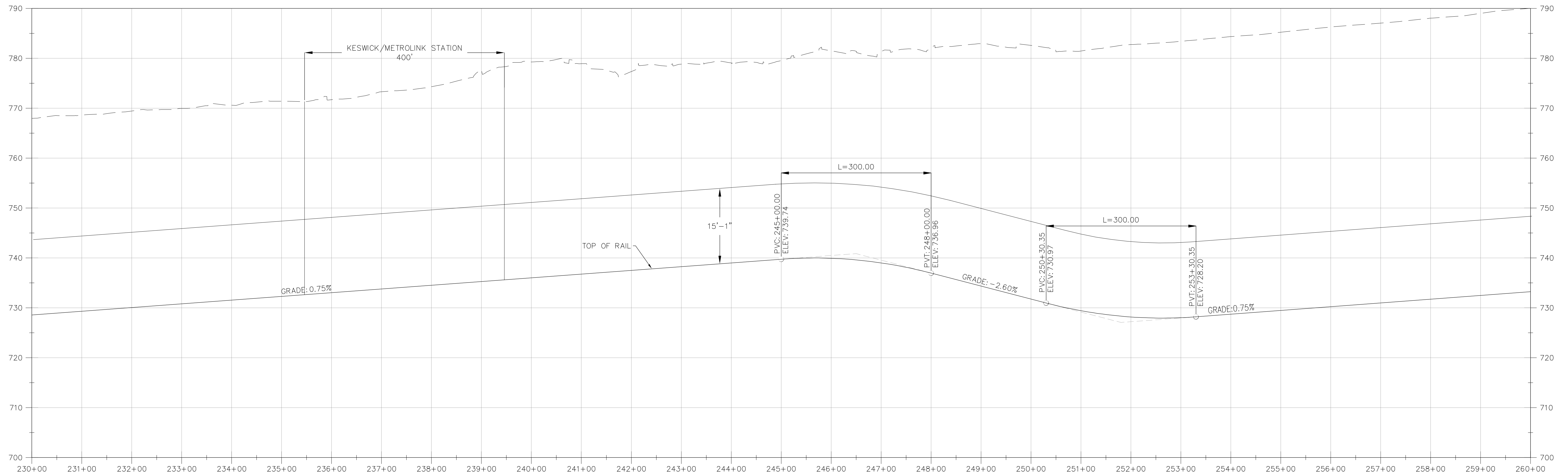
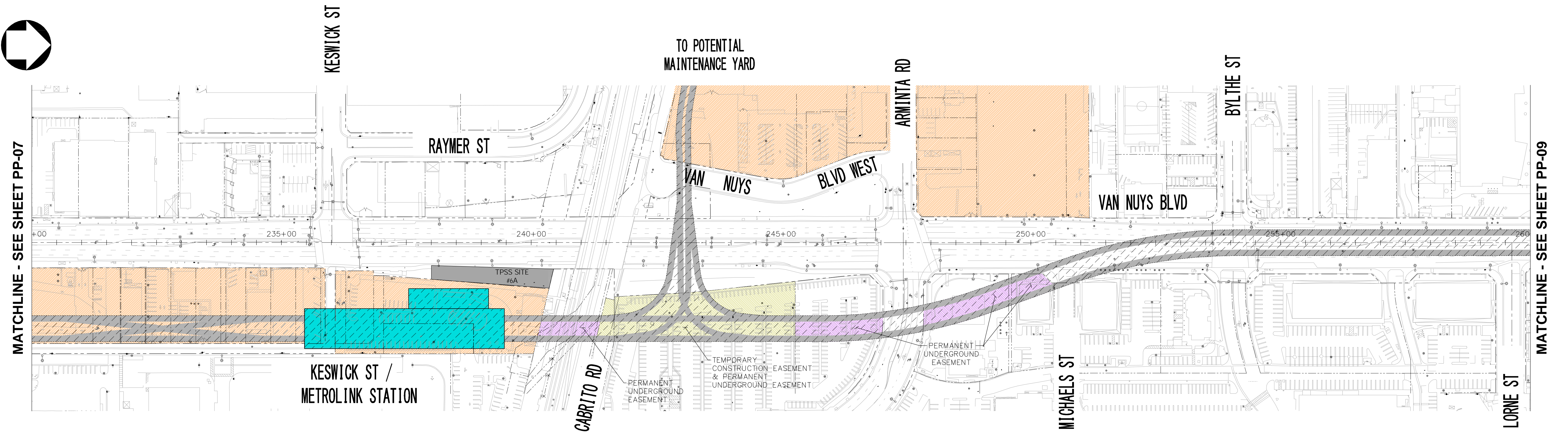
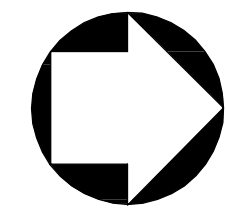
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DRAWING NO	PP-07C
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100' VERT. 1"=10'	<b>SHEET</b>	<b>INDEX NUMBER</b>
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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

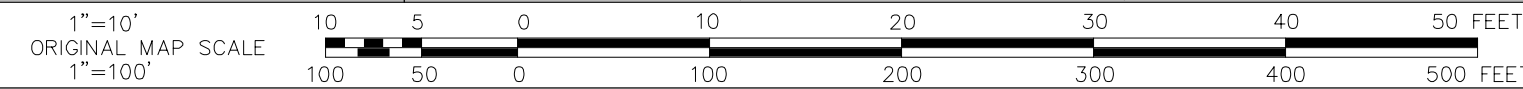
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 230+00 TO STA 260+00  
 OPTION C

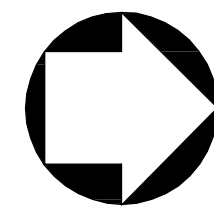
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DRAWING NO	PP-08C
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SHEET NO	



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 VERT. 1"=10'

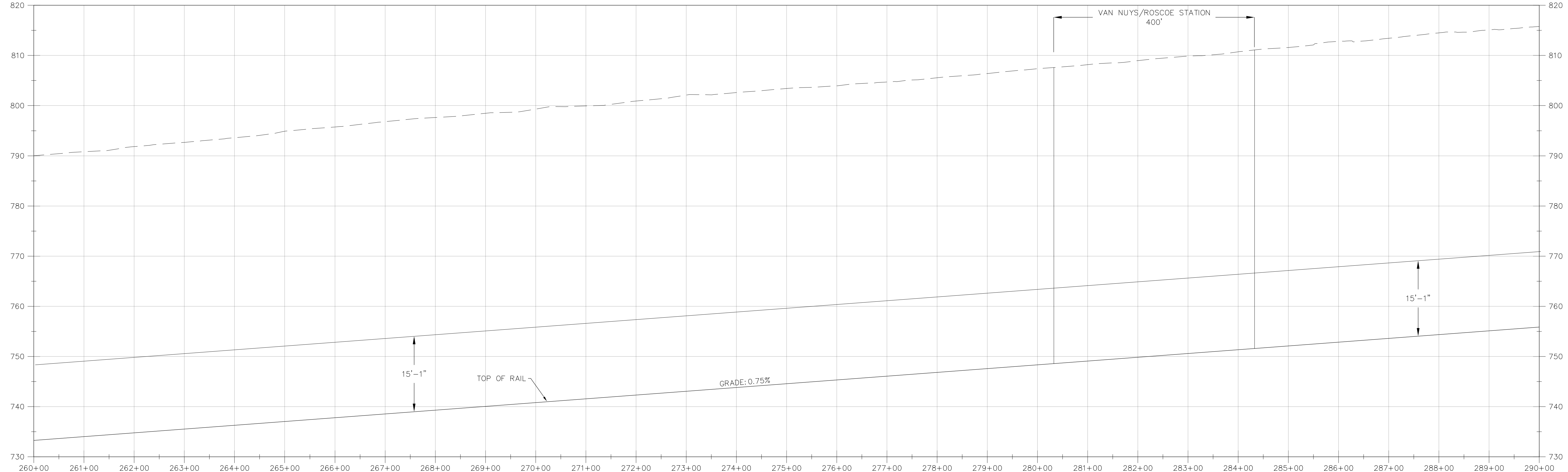
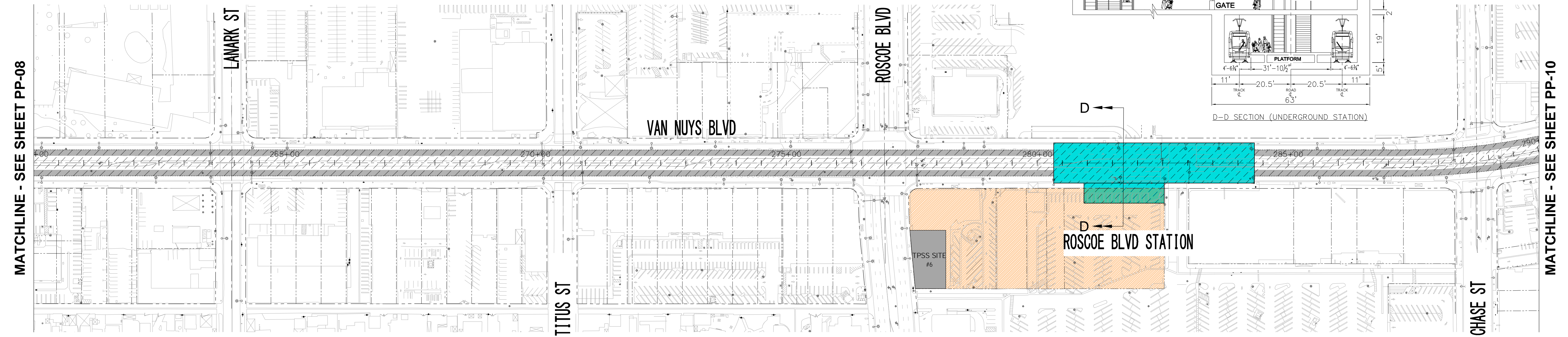
SHEET

INDEX NUMBER



MATCHLINE - SEE SHEET PP-08

MATCHLINE - SEE SHEET PP-10



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY
DRAWN BY
CHECKED BY
IN CHARGE
DATE

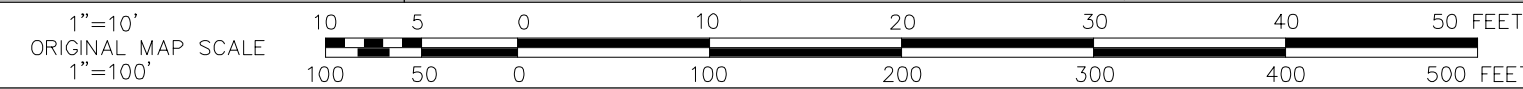
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 260+00 TO STA 290+00  
 OPTION C

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-09C
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



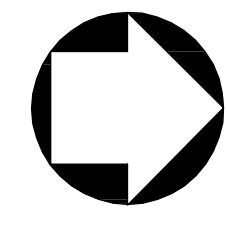
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VERT. 1"=10'

SHEET

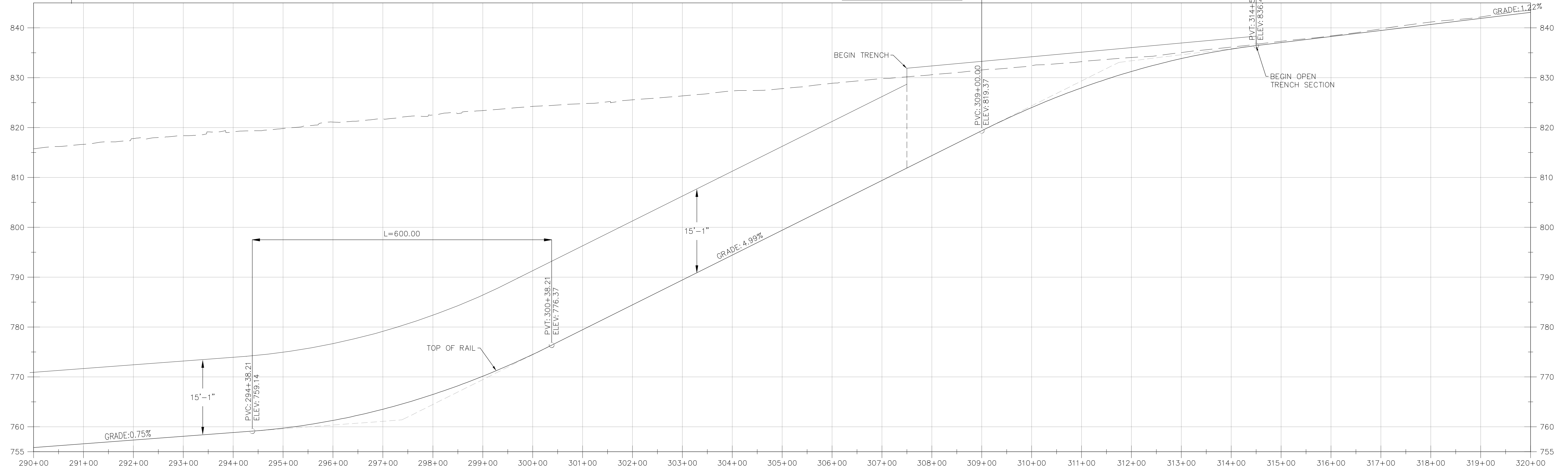
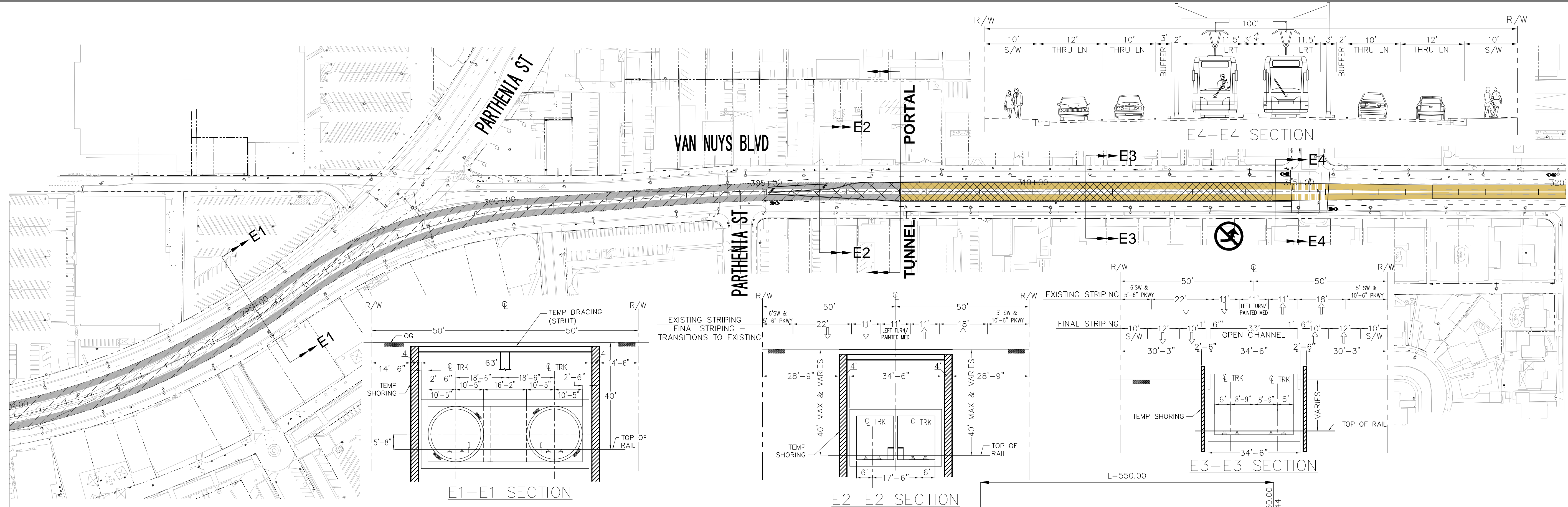
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MATCHLINE - SEE SHEET PP-09

MATCHLINE - SEE SHEET PP-11



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

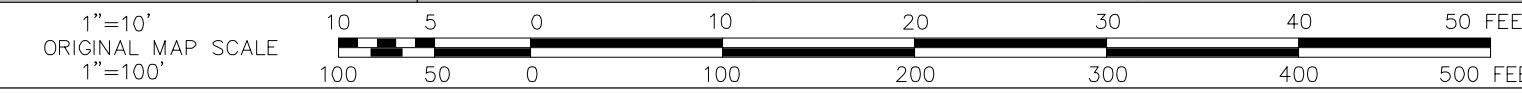
DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

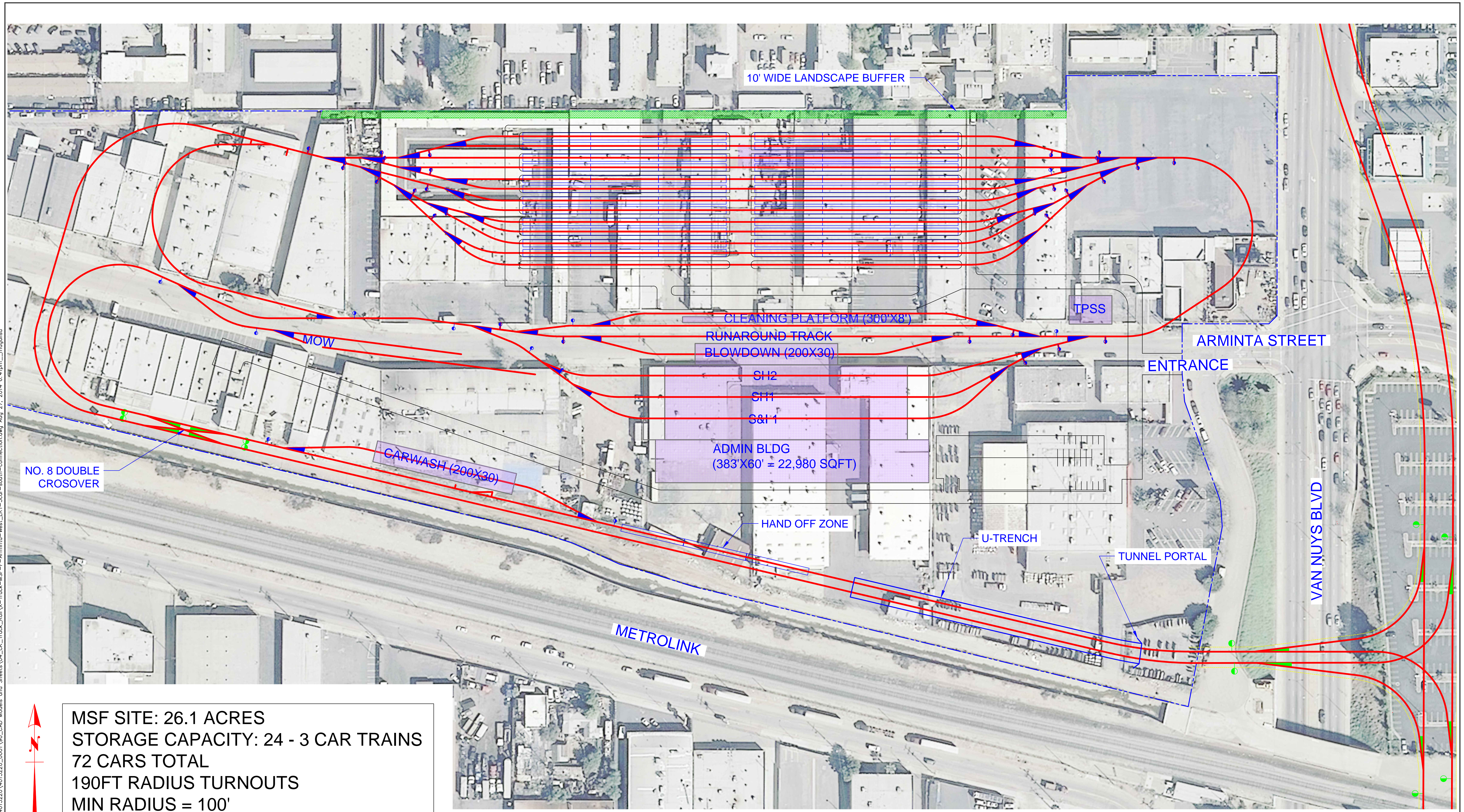
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 290+00 TO STA 320+00  
 OPTION C

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-10C
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100' VERT. 1"=10'	<b>SHEET</b>	<b>INDEX NUMBER</b>
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MSF SITE: 26.1 ACRES  
 STORAGE CAPACITY: 24 - 3 CAR TRAINS  
 72 CARS TOTAL  
 190FT RADIUS TURNOUTS  
 MIN RADIUS = 100'

60'

CADD PROJECT FILE NAME: I:\projects\4015220\4015220\_0001\90\_CAD\_Models and Sheets\04\_CK\_Track\_Rail\X-Track-MSF-F-Arminta-West\_LRT-3car-south-connection.dwg Aug 27, 2014 6:41pm -mgoliso

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY  
 L. TERRELL-LEWIS  
 DRAWN BY  
 S. MAGALLON  
 CHECKED BY  
 A. SOKOL  
 IN CHARGE  
 A. SOKOL  
 DATE  
 08/27/2014

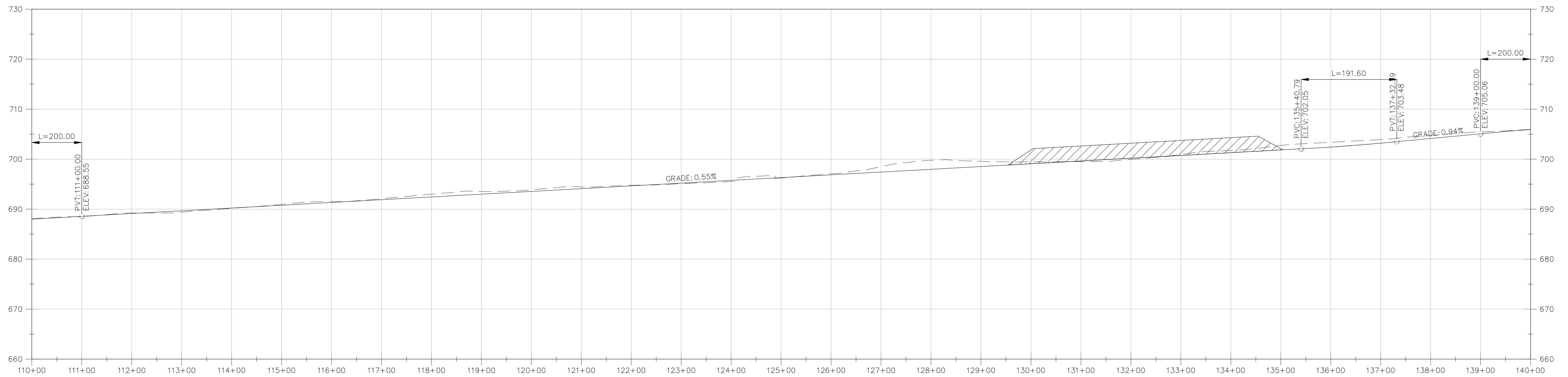
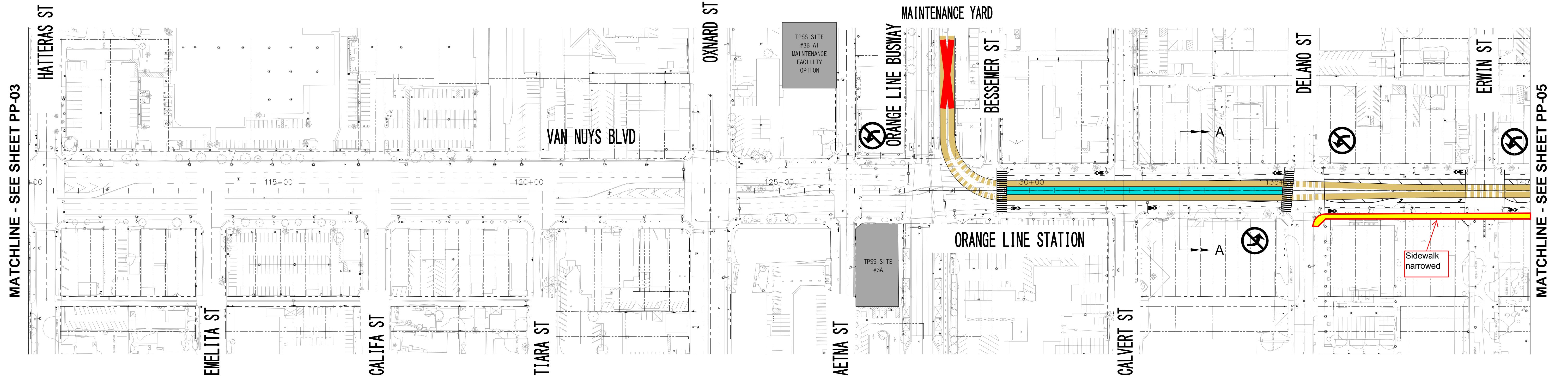
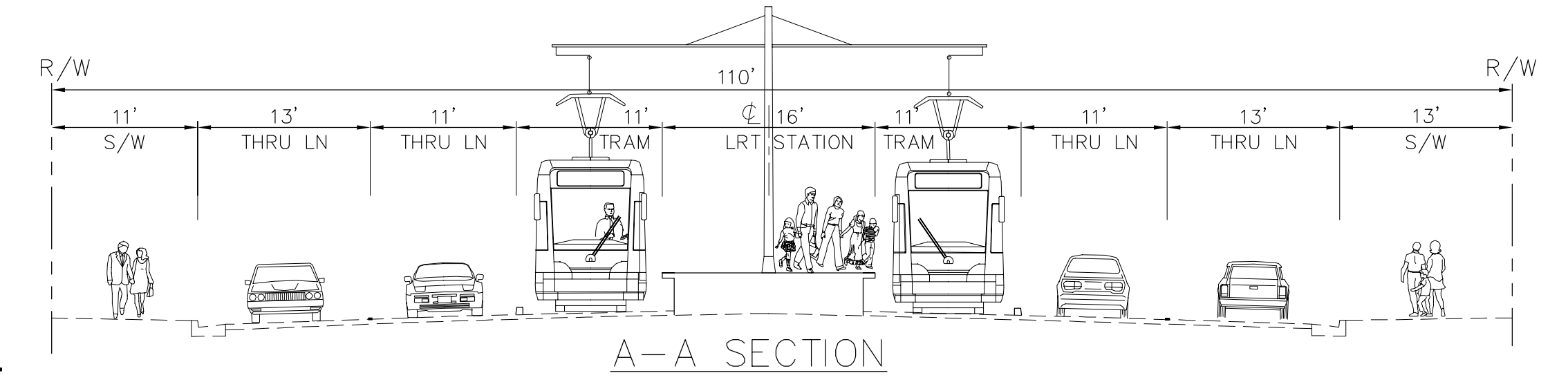
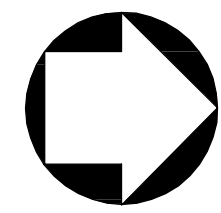
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

**STV**  
 PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 MAINTENANCE FACILITY  
 ARMINTA ST - 3 CAR TRAINS  
 SOUTH CONNECTION OPTION

CONTRACT NO	PS-4370-2622
DRAWING NO	REV 0
SCALE	HORIZ: 1"=60' VERT: N/A
SHEET NO	



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGNED BY							
DRAWN BY							
CHECKED BY							
IN CHARGE							
DATE							
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

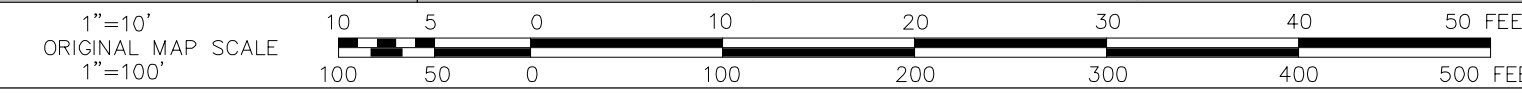
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE

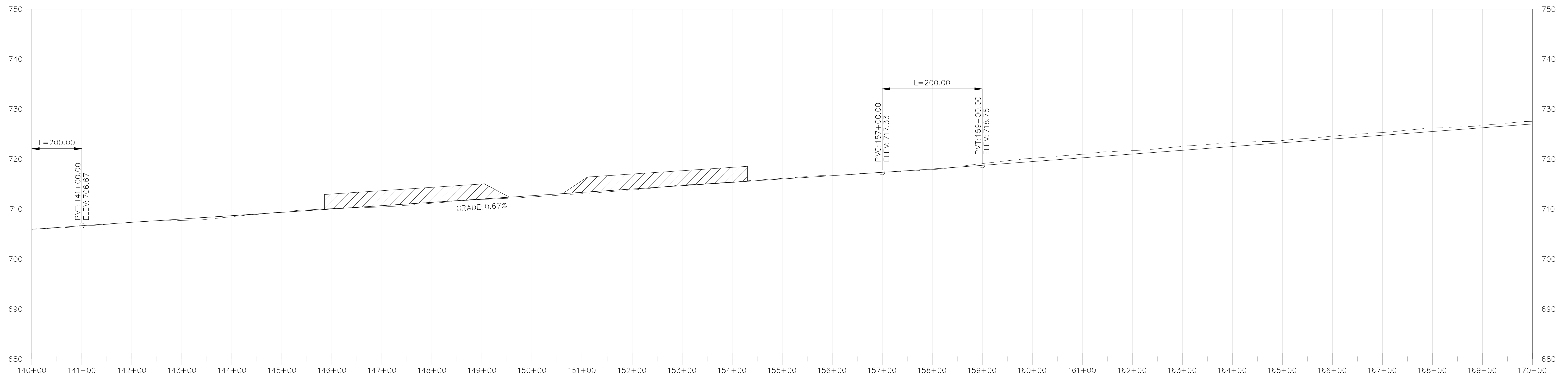
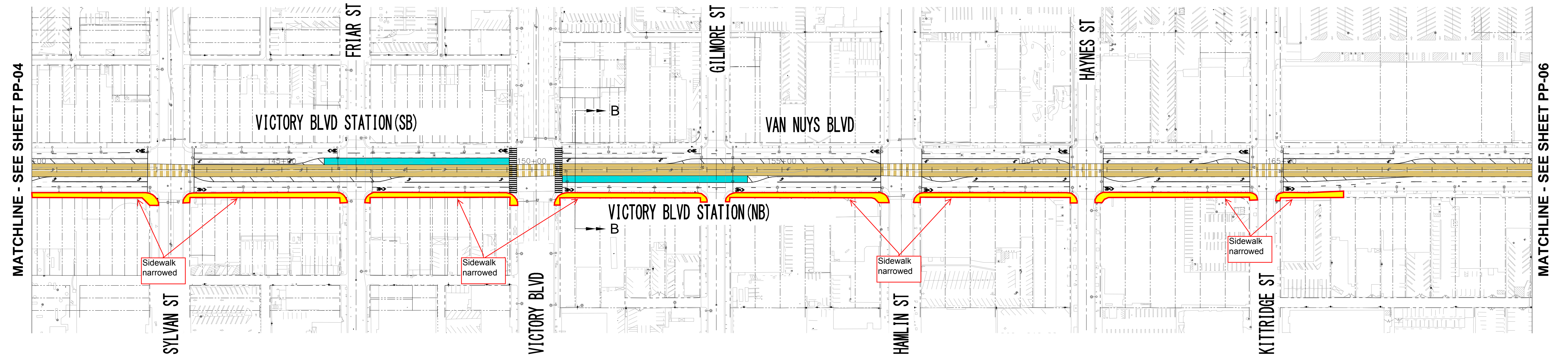
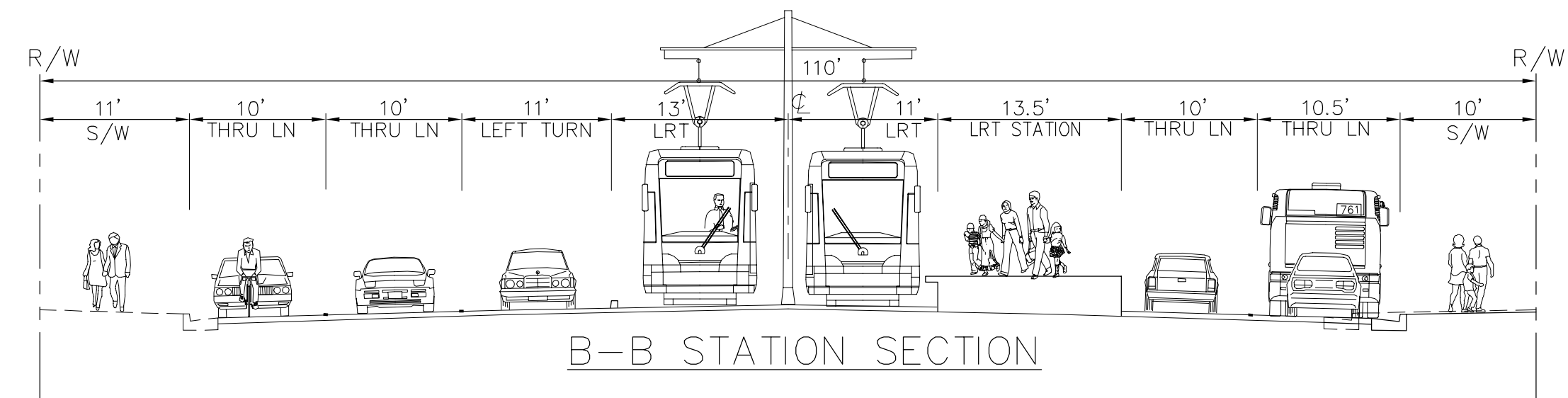
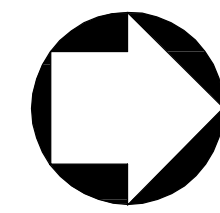
PLAN & PROFILE  
 STA 110+00 TO STA 140+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-04
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100' VERT. 1"=10'	<b>SHEET</b>	<b>INDEX NUMBER</b>
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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

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DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

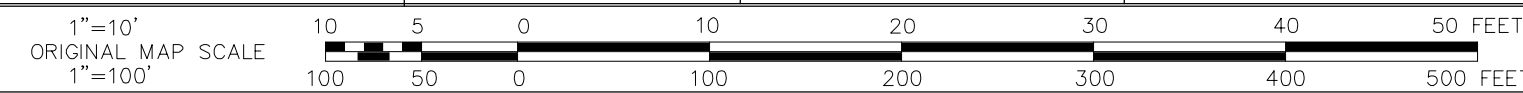
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 140+00 TO STA 170+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-05
REV	0
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SHEET NO	

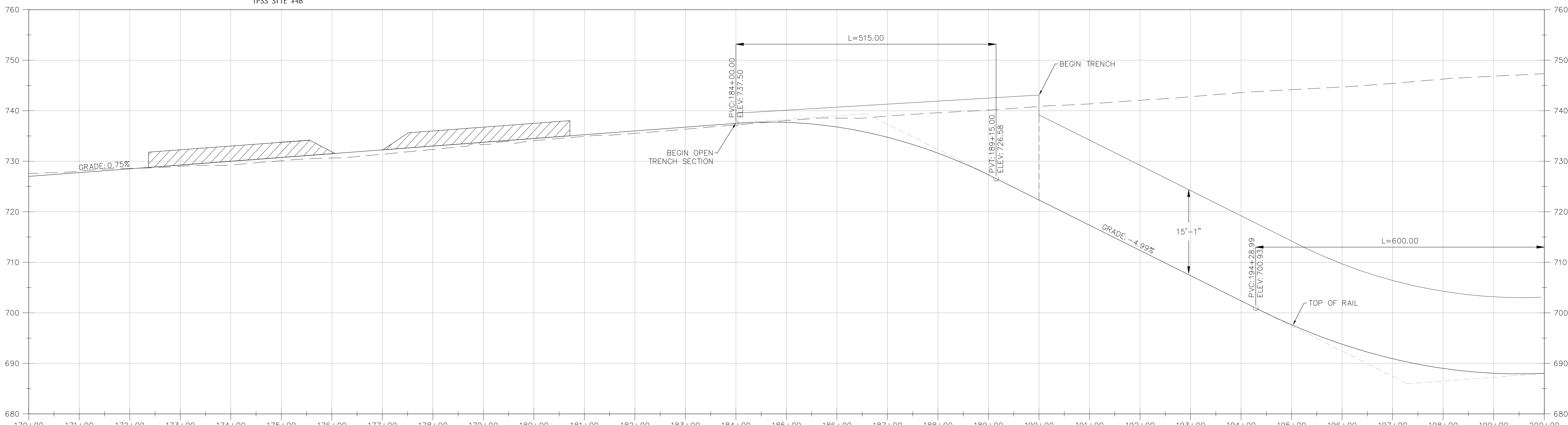
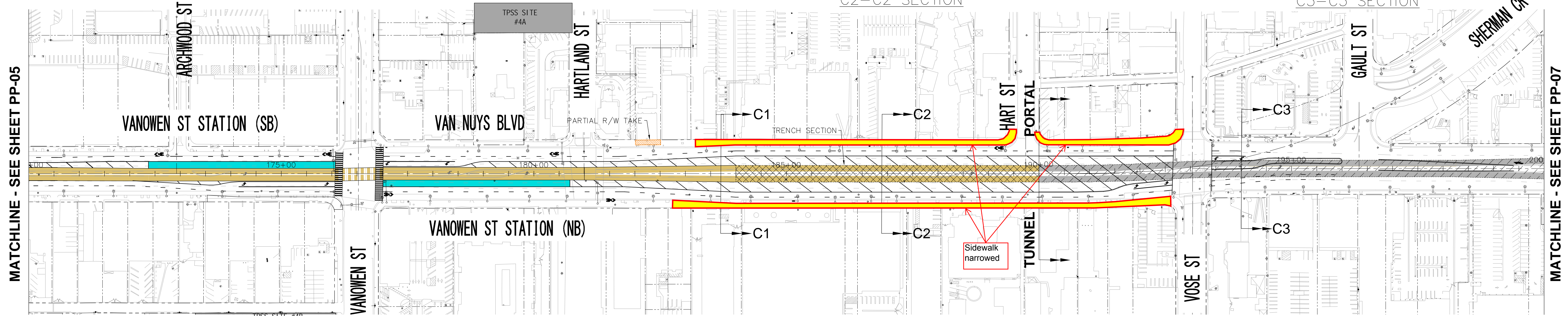
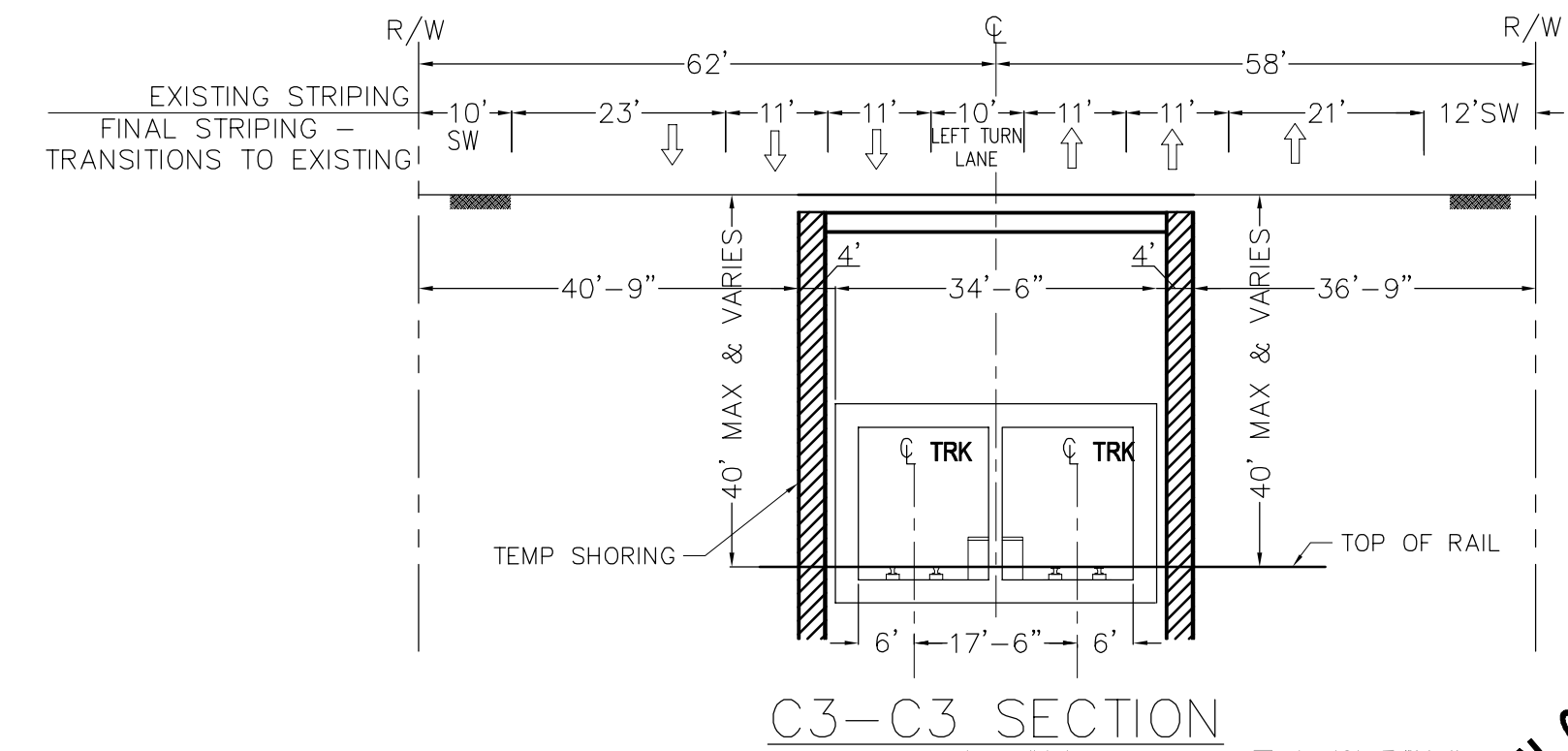
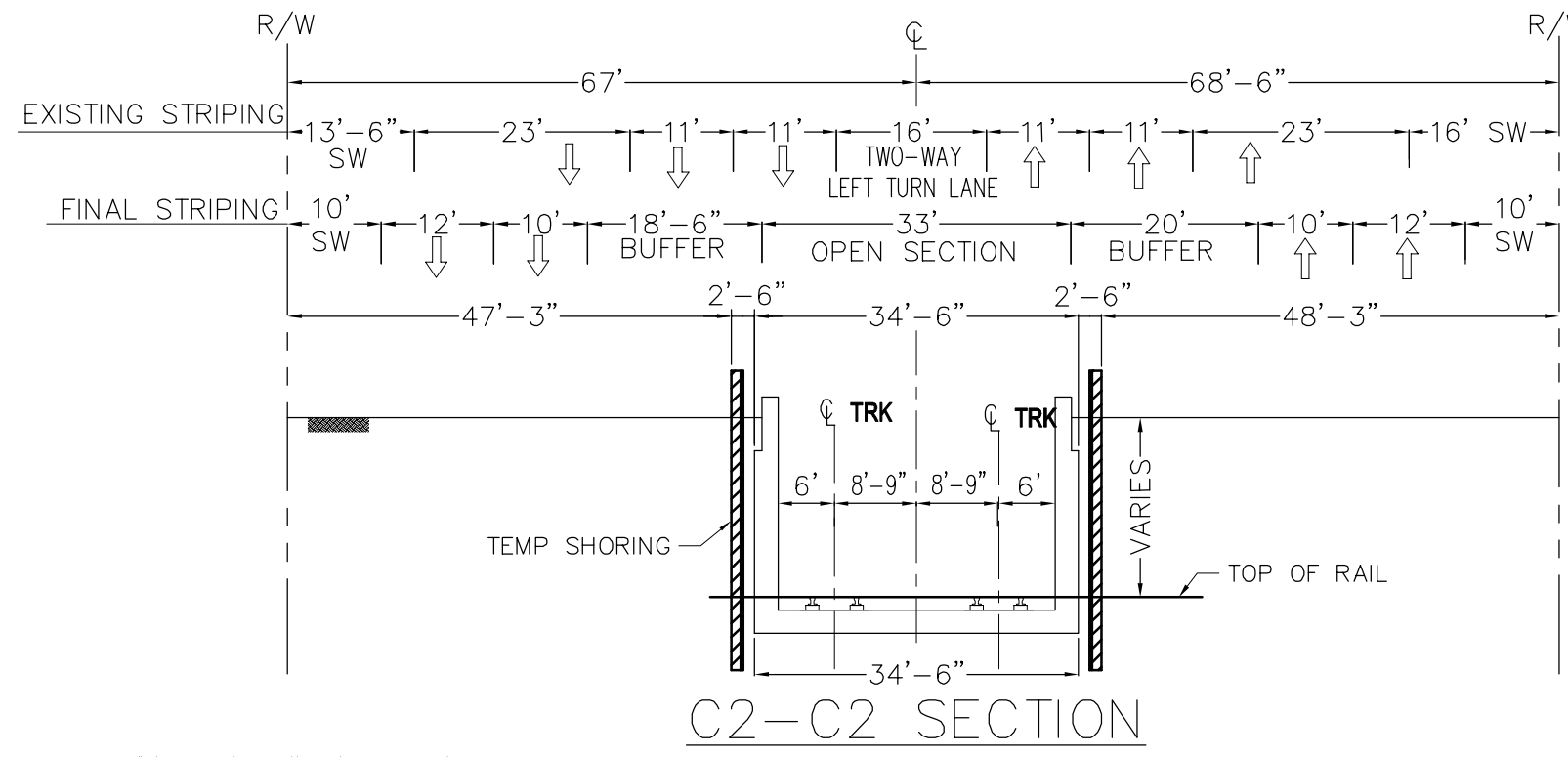
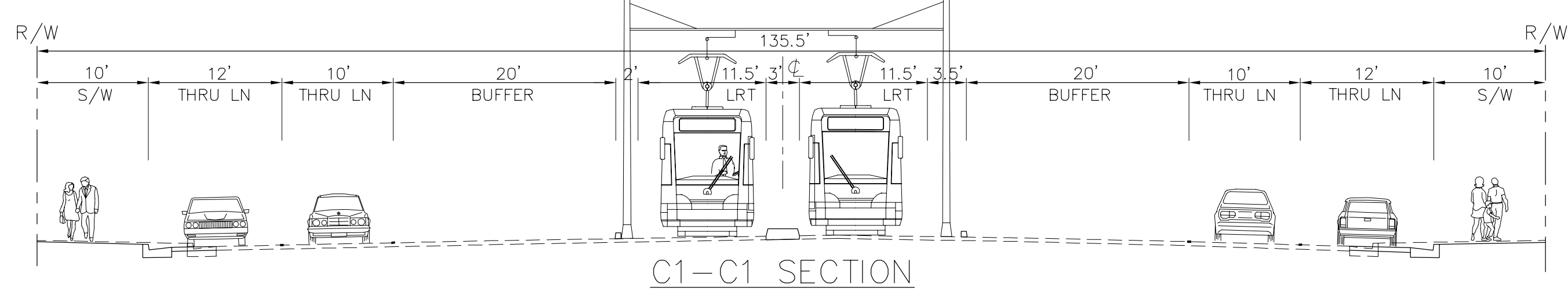
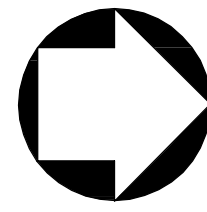


**SCALES**

HORIZ. 1"=100'  
VERT. 1"=10'

**SHEET**

**INDEX NUMBER**



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

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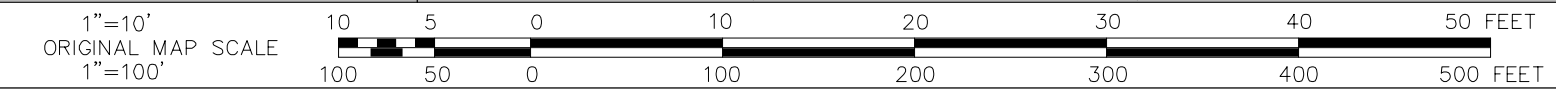
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DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 170+00 TO STA 200+00  
 OPTION C

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-06C
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	

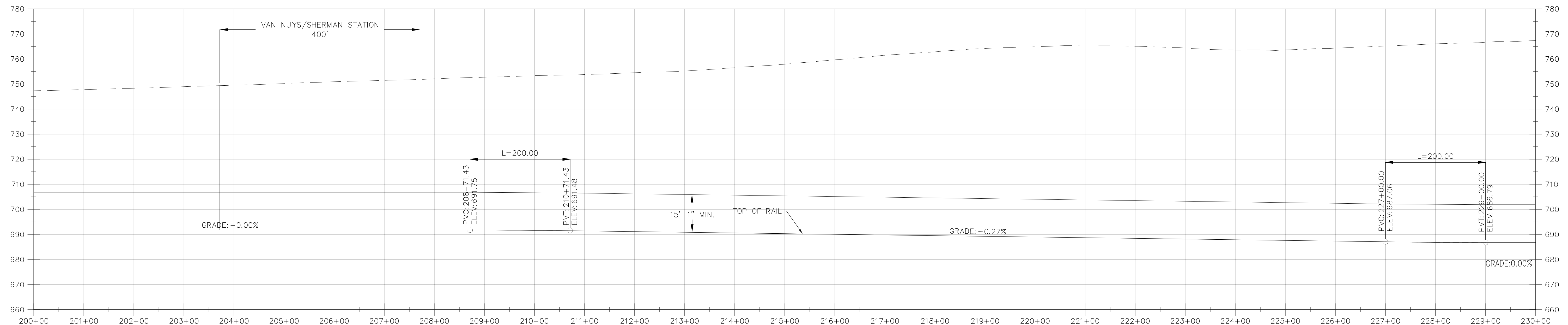
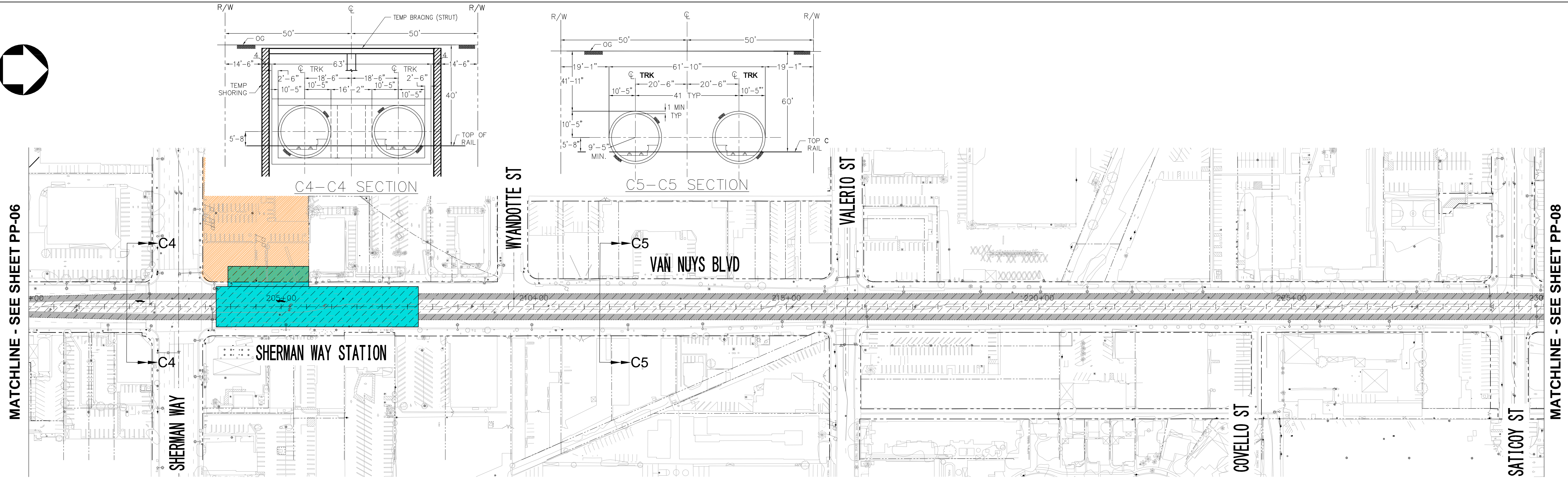
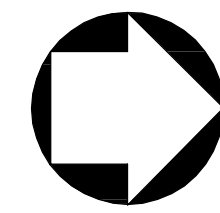


**SCALES**  
 HORIZ. 1"=100'  
 VERT. 1"=10'

**SHEET**

**INDEX NUMBER**

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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

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DRAWN BY	
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IN CHARGE	
DATE	

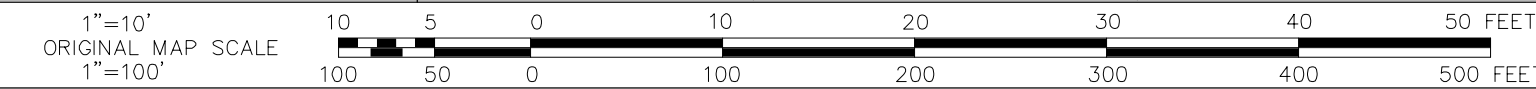
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
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 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 200+00 TO STA 230+00  
 OPTION A

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-07A
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=5'
SHEET NO	



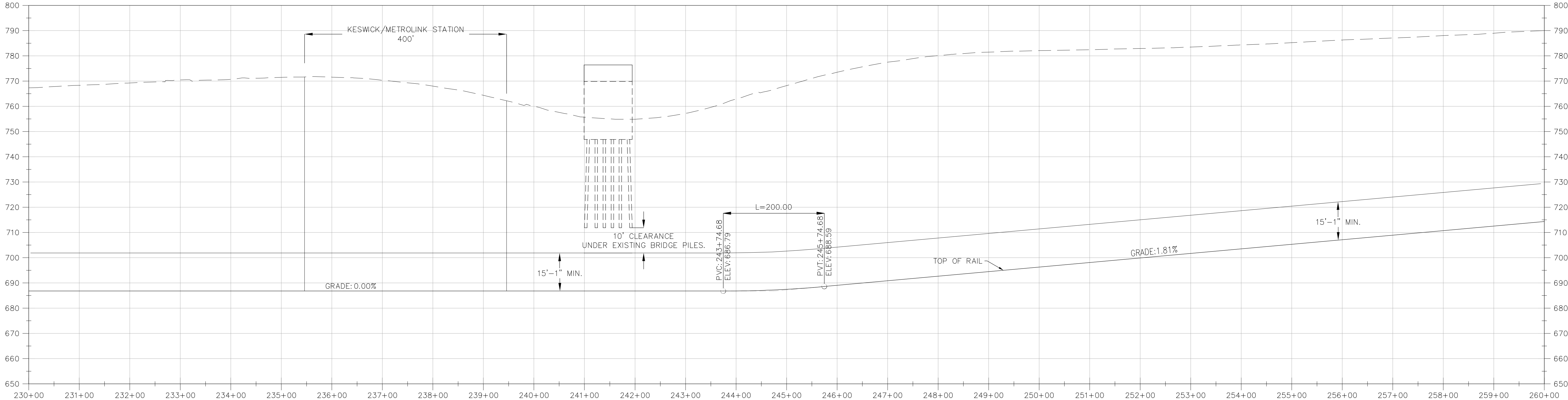
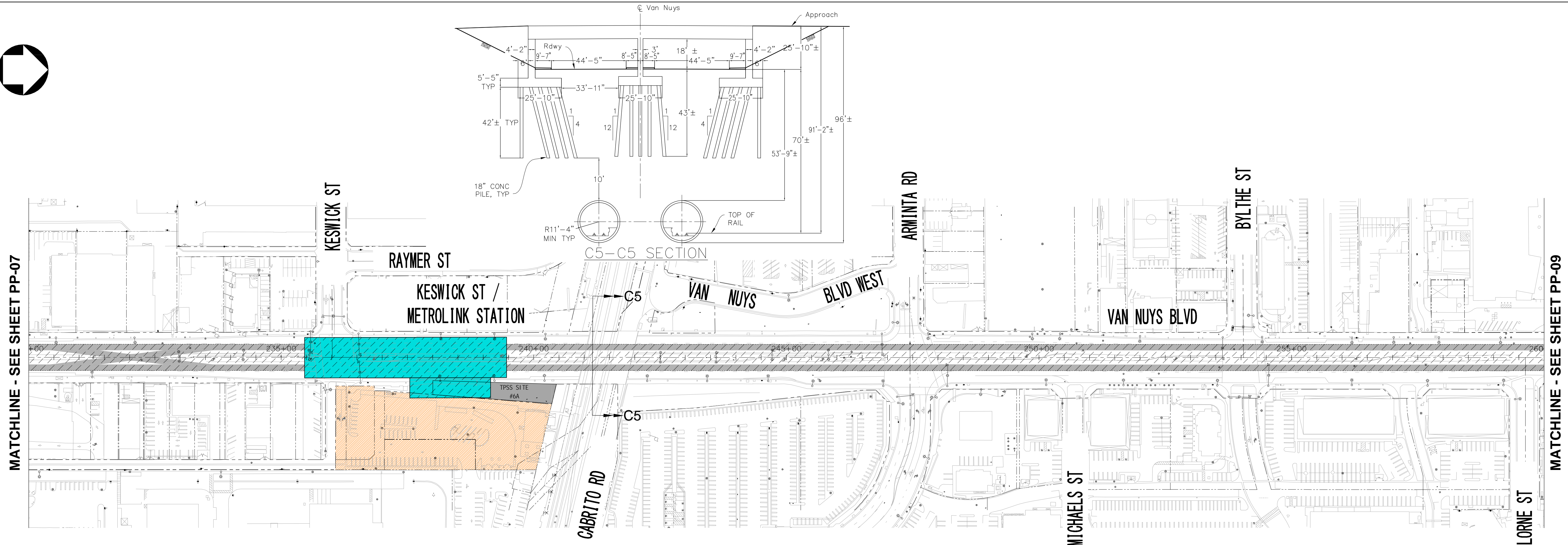
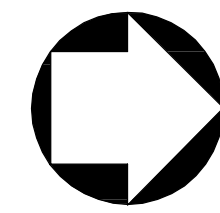
SCALES

HORIZ. 1"=100'  
VERT. 1"=10'

SHEET

INDEX NUMBER





ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

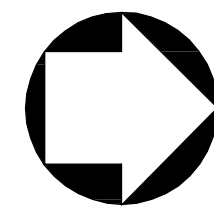
**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
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EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 230+00 TO STA 260+00  
 OPTION A

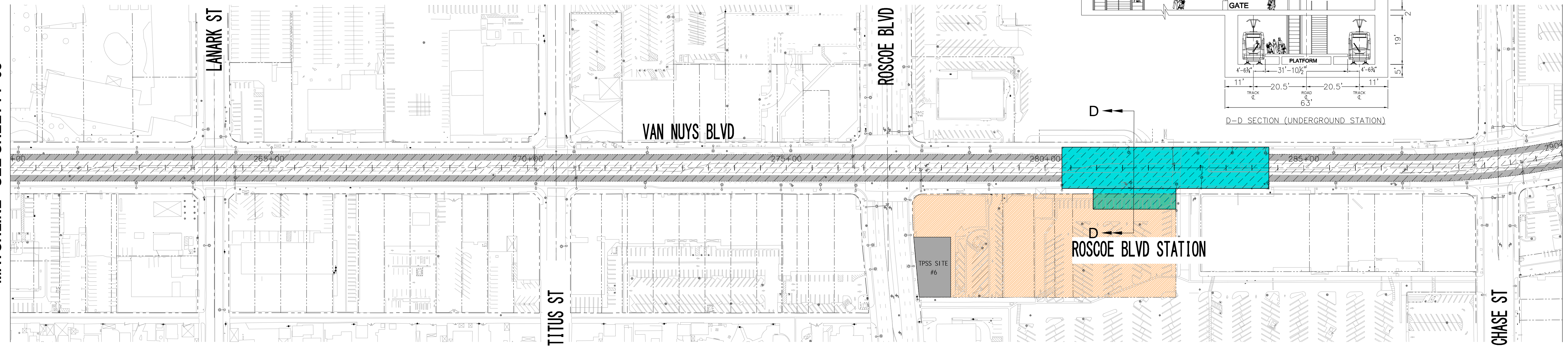
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DRAWING NO	PP-08A
SCALE	HORIZ: 1"=100' VERT: 1"=5'
SHEET NO	

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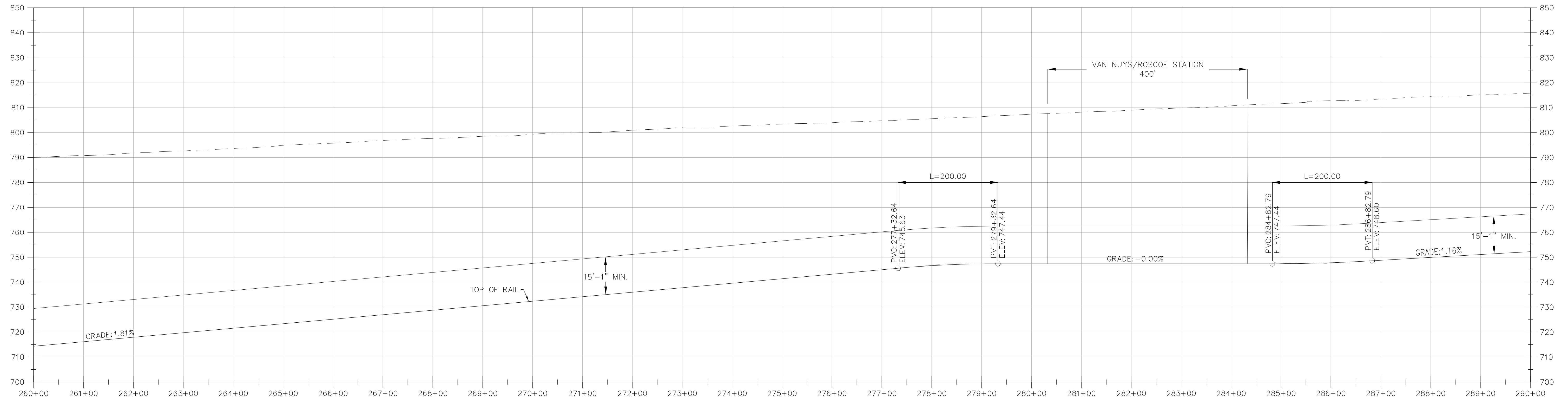
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MATCHLINE - SEE SHEET PP-08



MATCHLINE - SEE SHEET PP-10



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

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DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

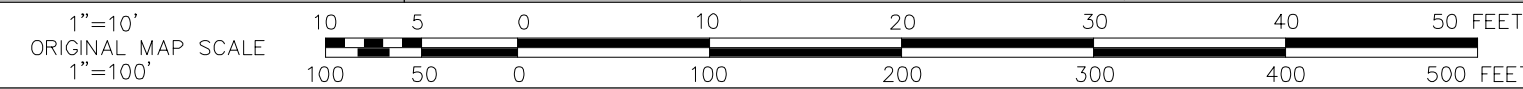
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
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 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 260+00 TO STA 290+00  
 OPTION A

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-09A
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SHEET NO	

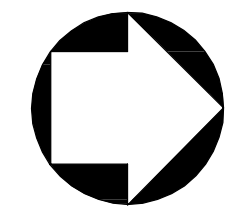


SCALES

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VERT. 1"=10'

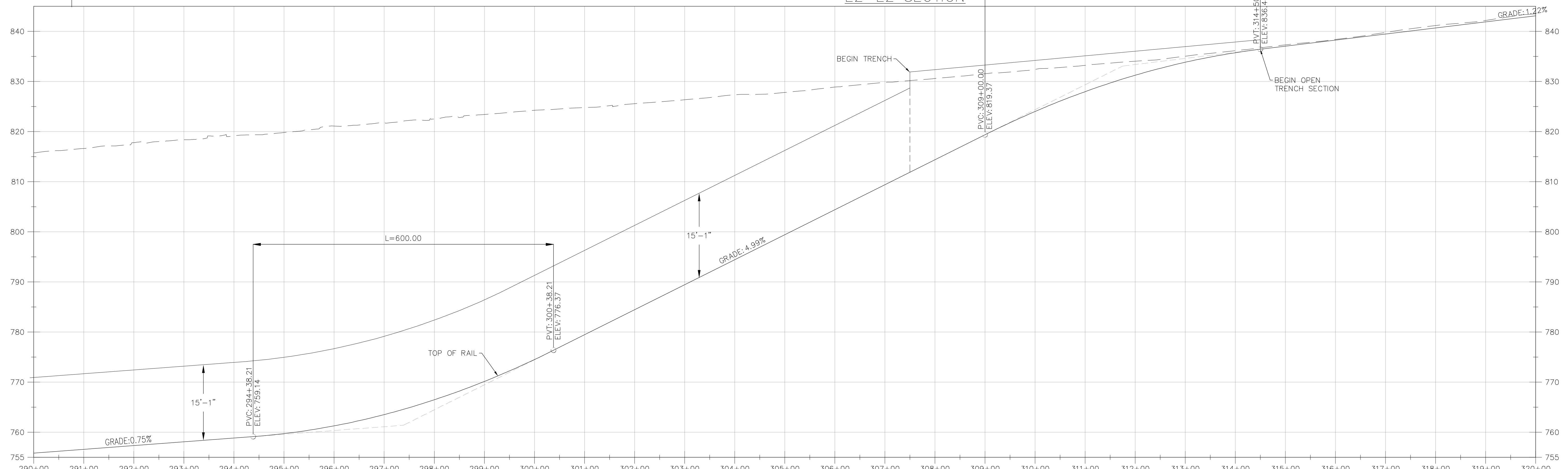
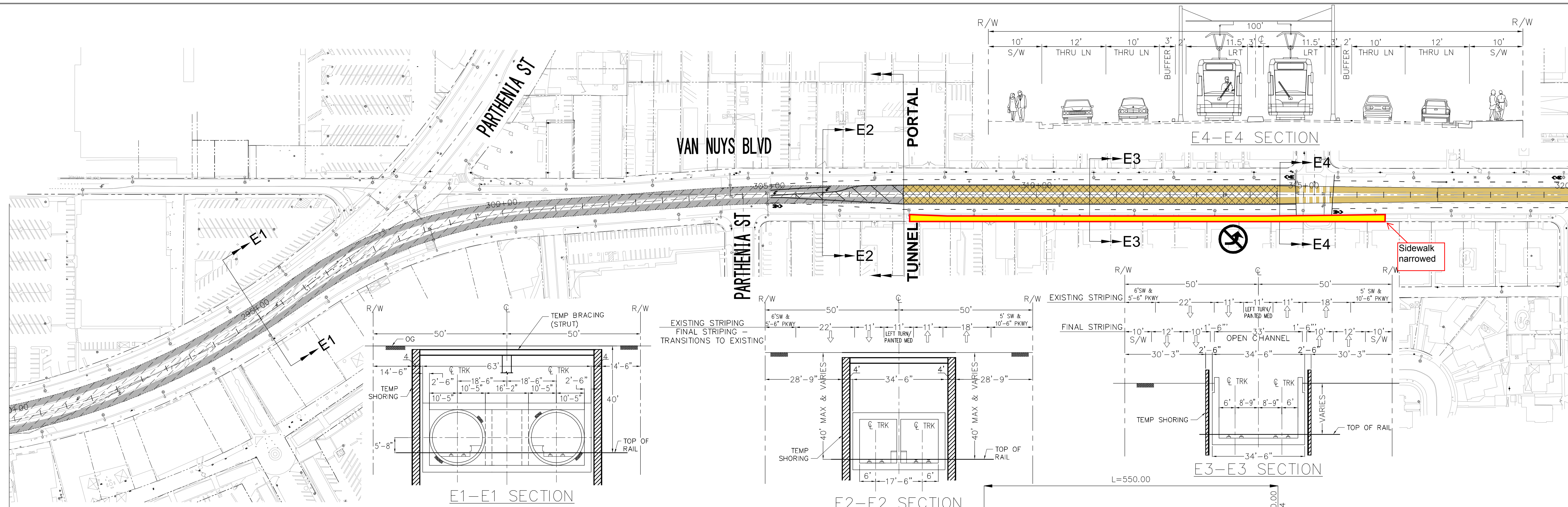
SHEET

INDEX NUMBER



MATCHLINE - SEE SHEET PP-09

MATCHLINE - SEE SHEET PP-11



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

DESIGN SPEED = 50MPH

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

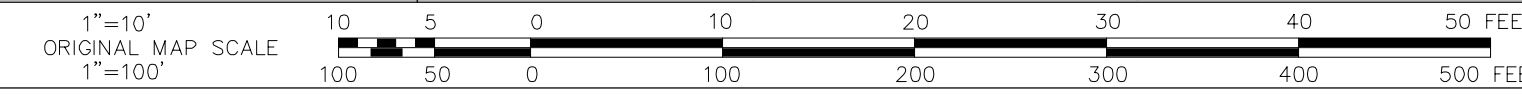
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**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 290+00 TO STA 320+00  
 OPTION C

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-10C
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SHEET NO	



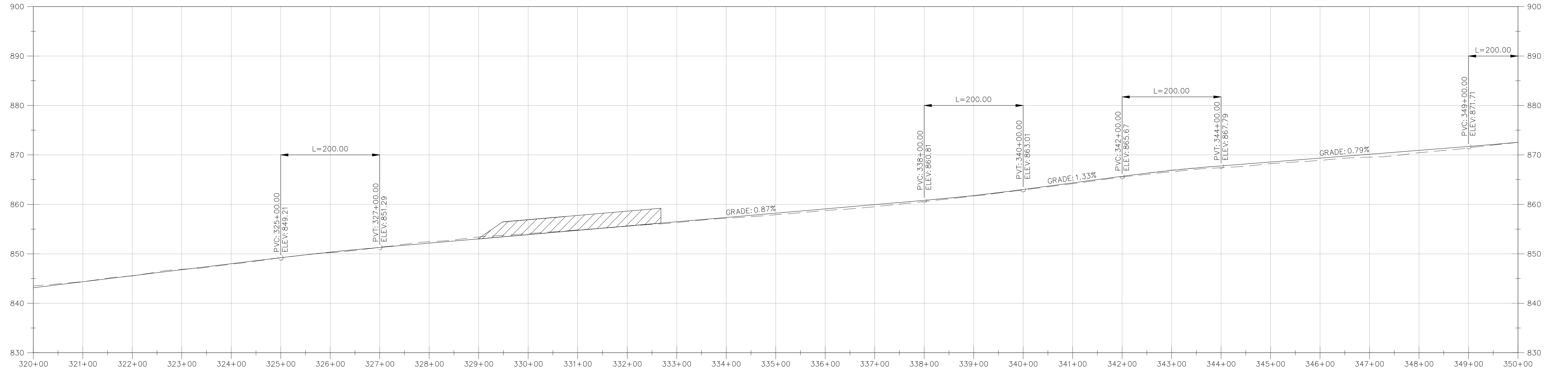
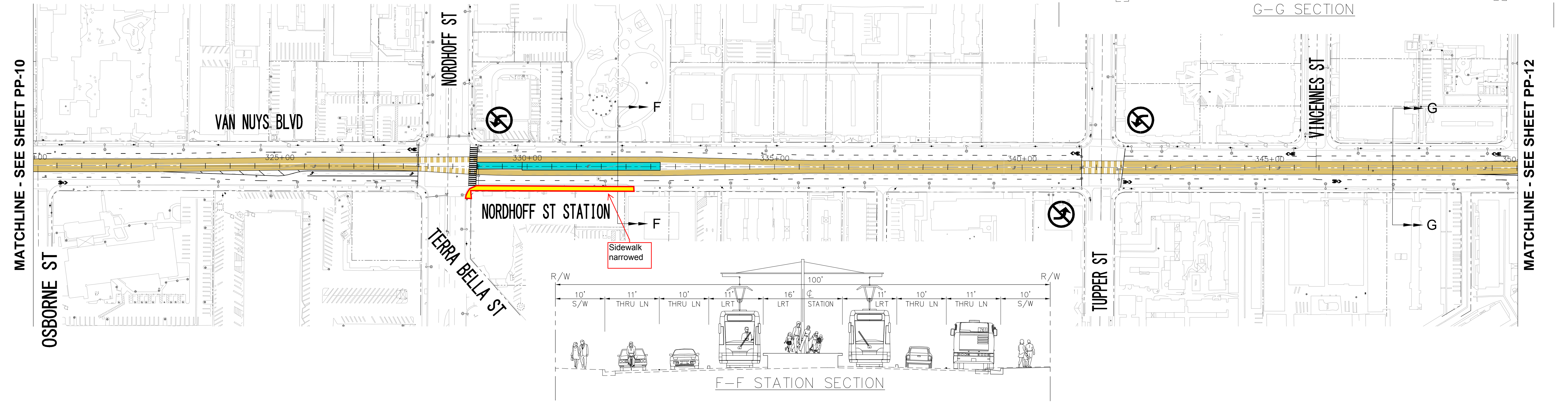
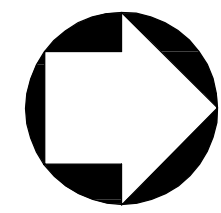
SCALES

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VERT. 1"=10'

SHEET

INDEX NUMBER

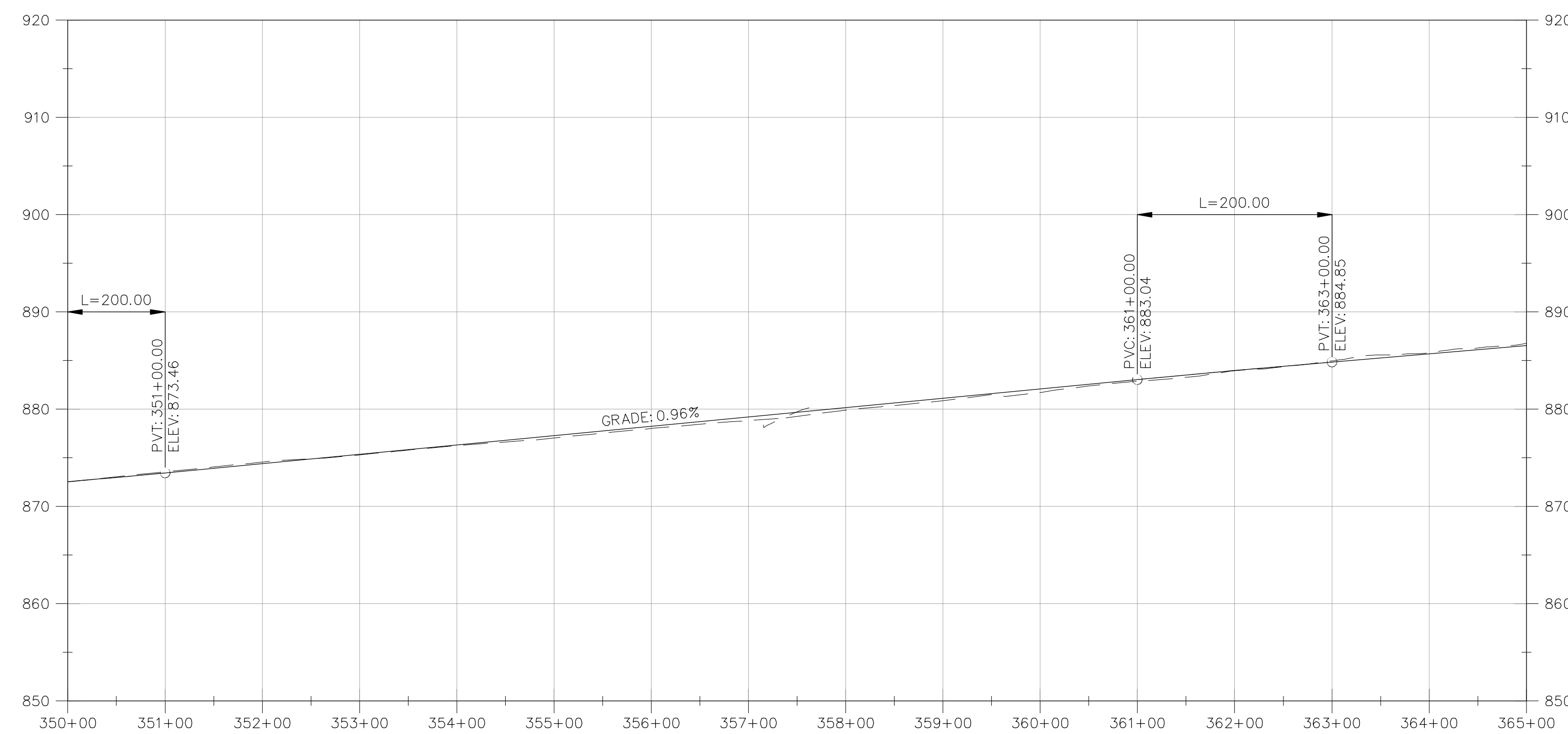
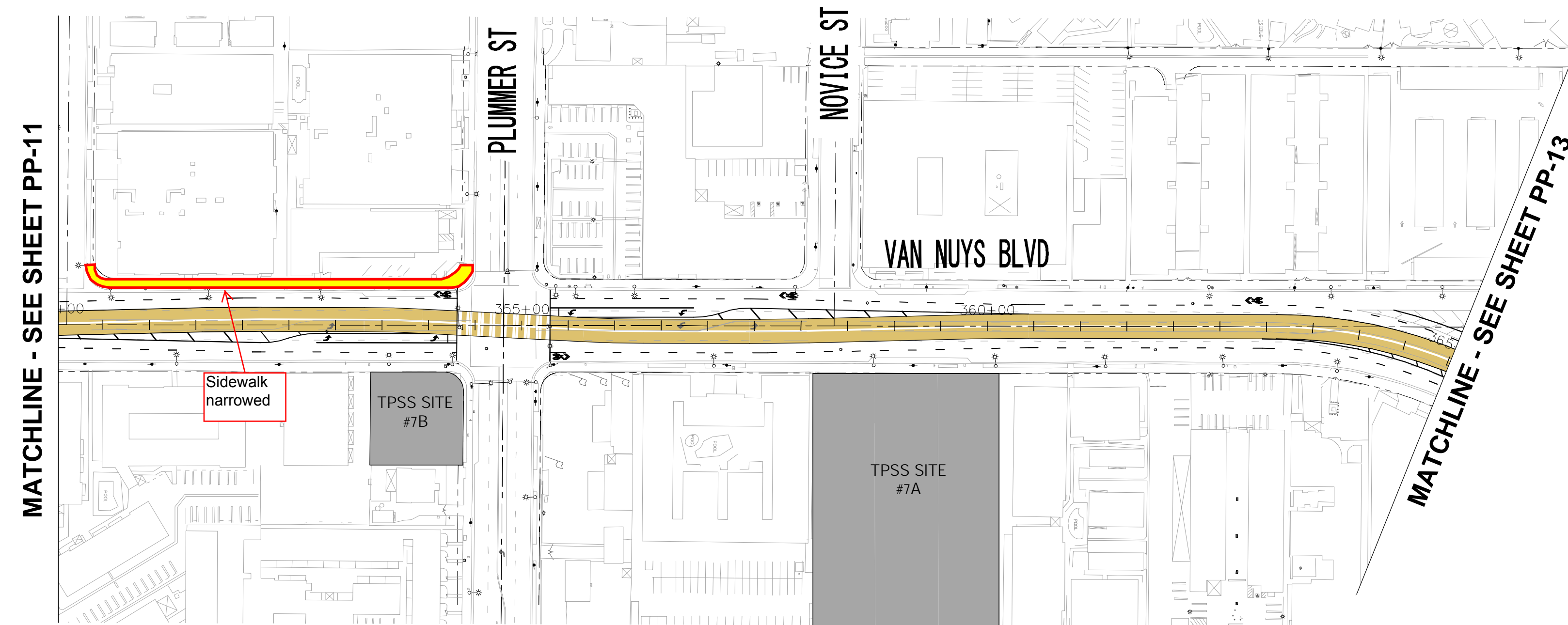
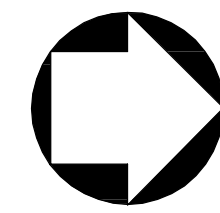
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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

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DESIGNED BY																			
DRAWN BY																			
CHECKED BY																			
IN CHARGE																			
DATE																			
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>BY</th> <th>APP</th> <th>REG NO</th> <th>EXPIRES</th> <th>SEAL HOLDER</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION									<p><b>LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY</b>  <b>EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT</b></p> <p><b>KOA CORPORATION</b>          PLANNING &amp; ENGINEERING          1100 Corporate Center Drive, Suite 201          Monterey Park, California 91754          Tel: (323) 260-4703 Fax: (323) 260-4705</p>	<p>EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR          LIGHT RAIL TRANSIT ALTERNATIVE</p> <p>PLAN &amp; PROFILE          STA 320+00 TO STA 350+00</p>	<p>CONTRACT NO PS-4370-2622</p> <p>DRAWING NO PP-11</p> <p>SCALE HORIZ: 1"=100' VERT: 1"=10'</p> <p>SHEET NO REV 0</p>
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION												
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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

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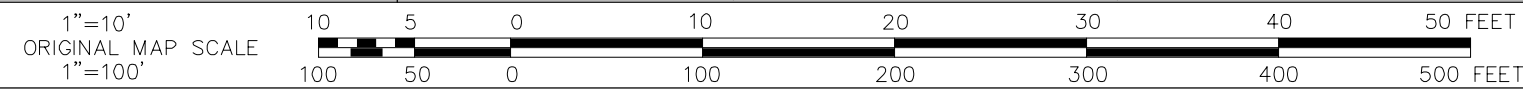
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 350+00 TO STA 365+00

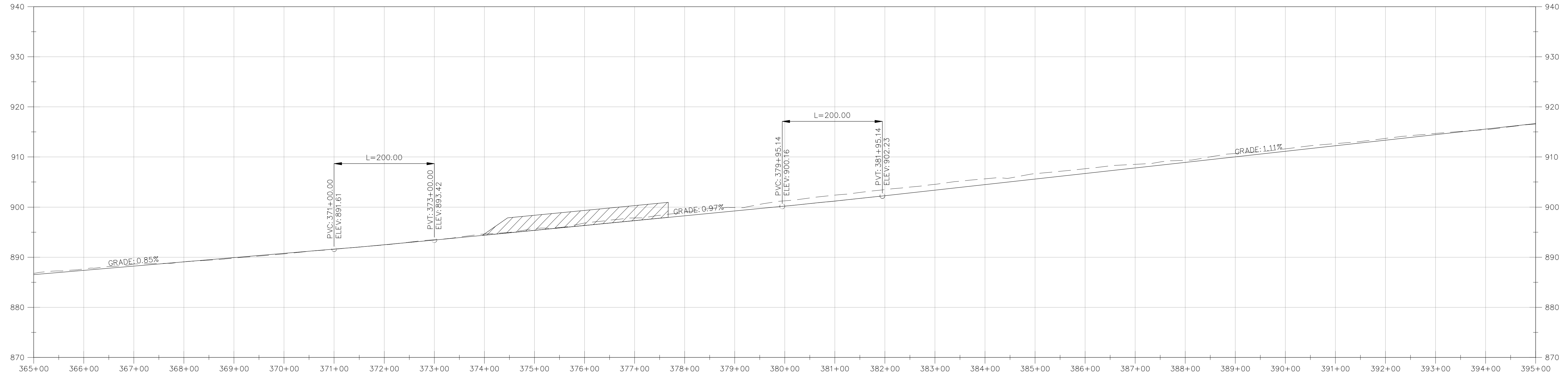
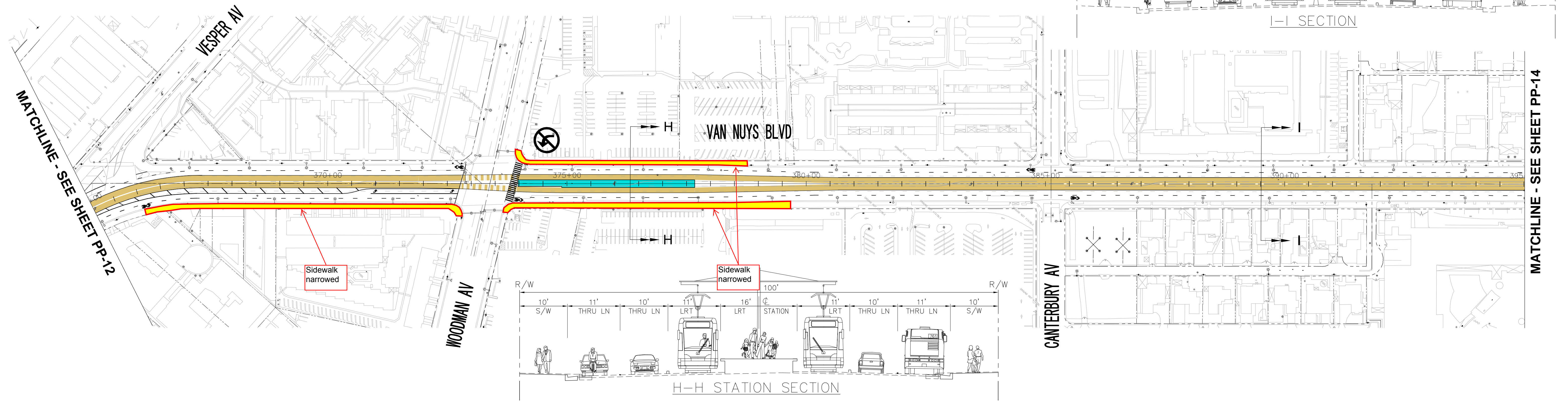
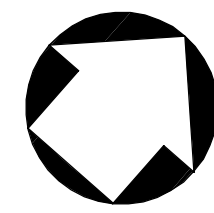
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DRAWING NO	PP-12
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SHEET NO	



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VERT. 1"=10'

**SHEET**

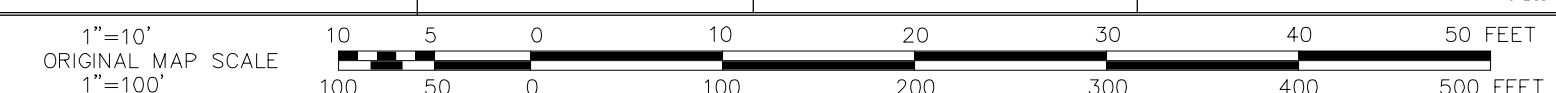
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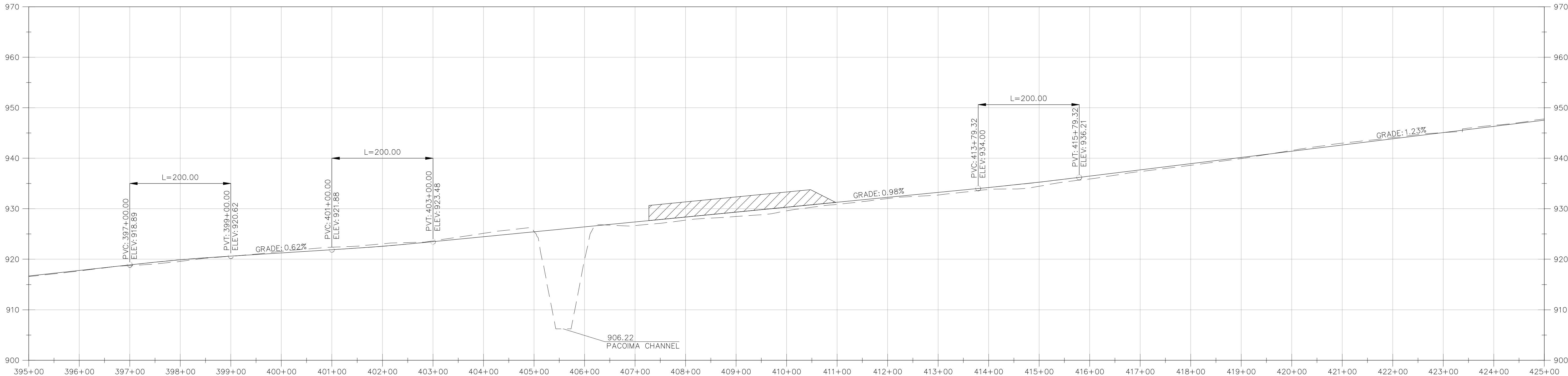
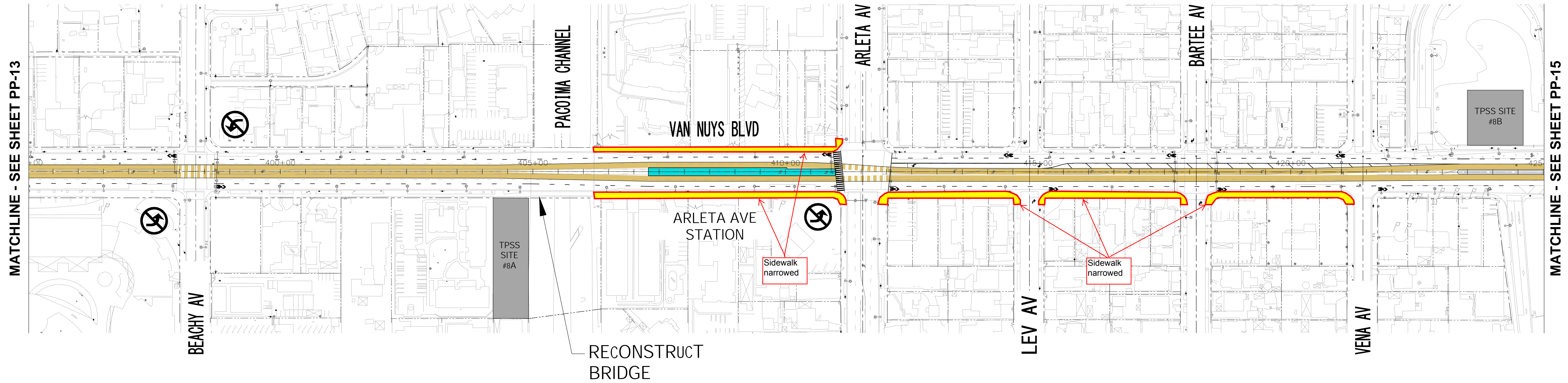
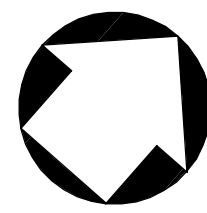


**ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND**

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DESIGNED BY																											
DRAWN BY																											
CHECKED BY																											
IN CHARGE																											
DATE																											
REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION	PROJECT MANAGER				<b>SCALES</b> HORIZ. 1"=100' VERT. 1"=10'		<b>SHEET</b>		<b>INDEX NUMBER</b>											





ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

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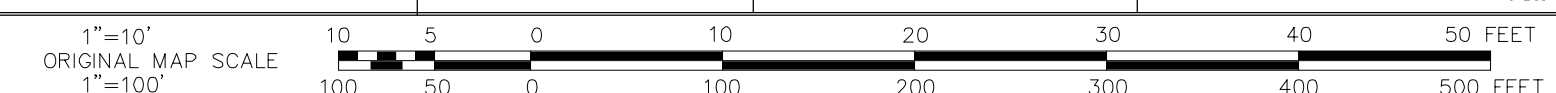
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**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

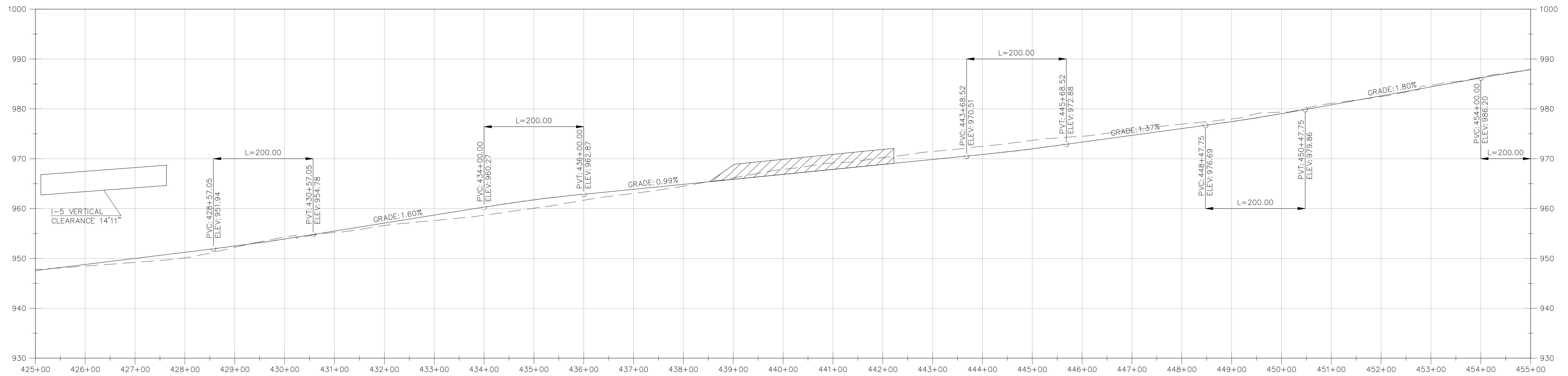
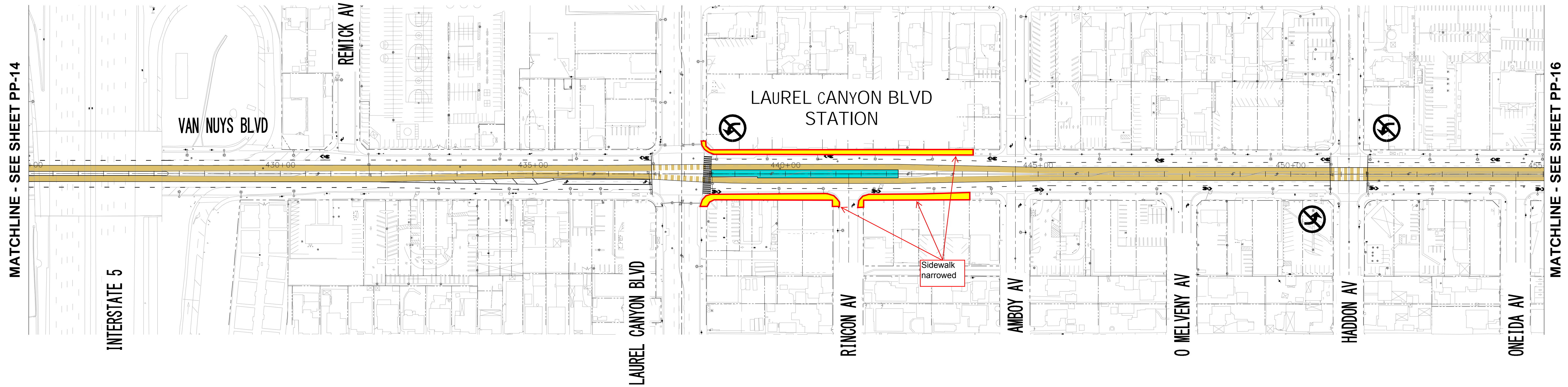
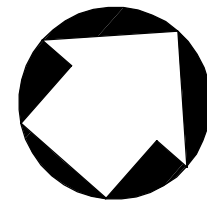
**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 395+00 TO STA 425+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-14
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



SCALES	HORIZ. 1"=100'	SHEET	INDEX NUMBER
	VERT. 1"=10'		



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

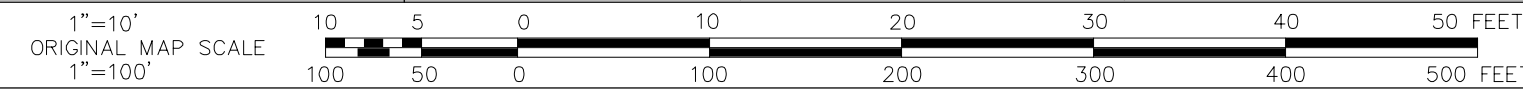
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 425+00 TO STA 455+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-15
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



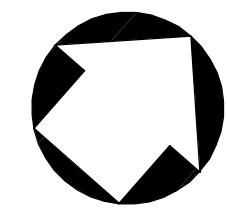
**SCALES**

HORIZ. 1"=100'  
VERT. 1"=10'

**SHEET**

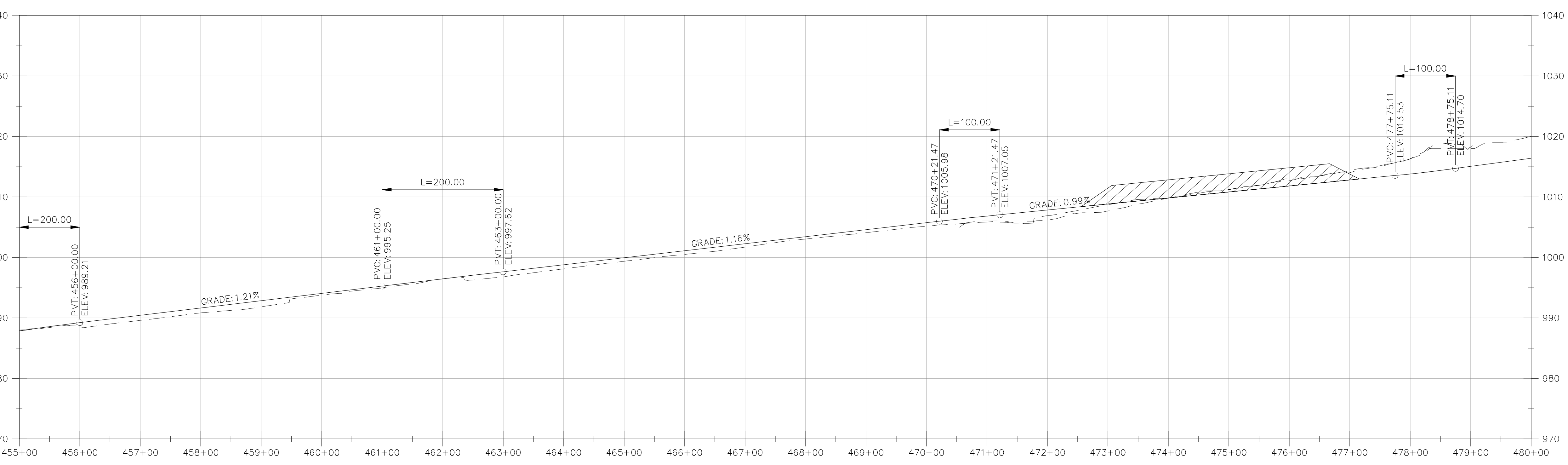
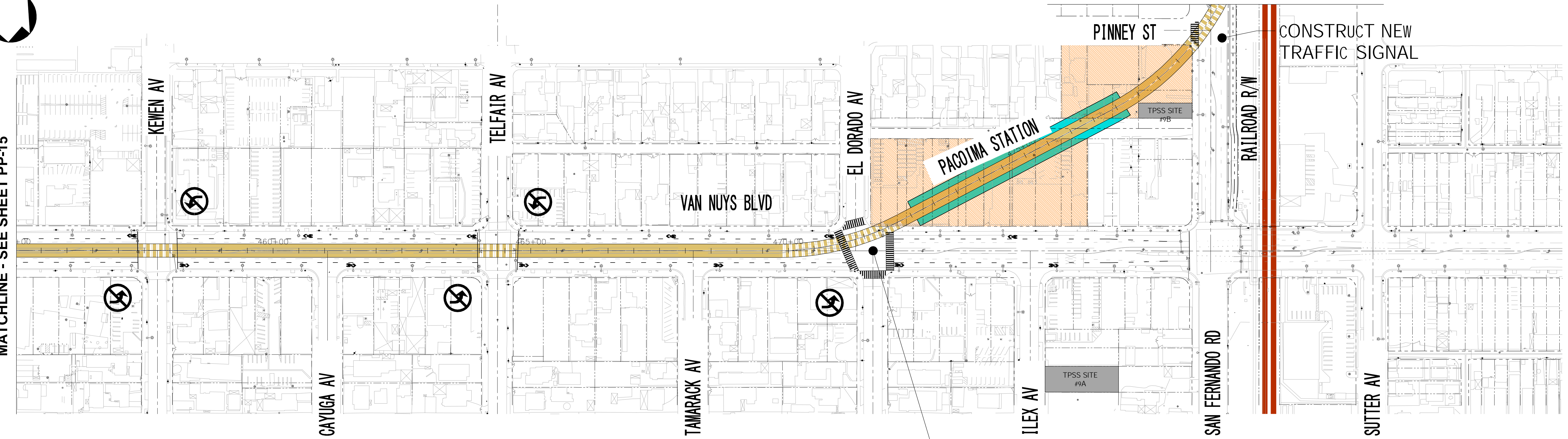
**INDEX NUMBER**





MATCHLINE - SEE SHEET PP-15

SEE SHEET PP-17



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

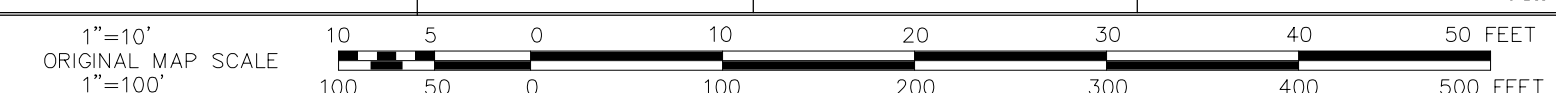
DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

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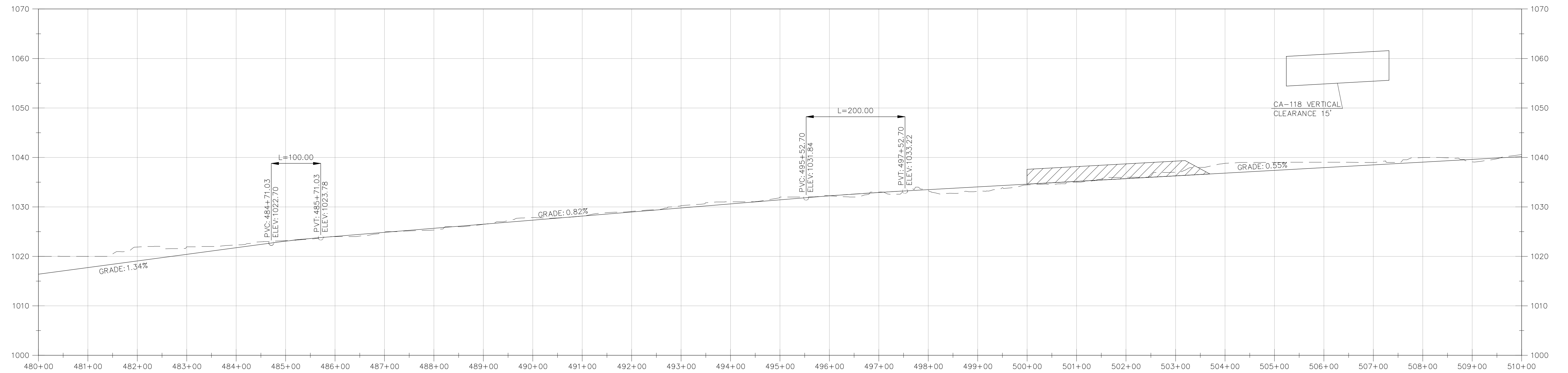
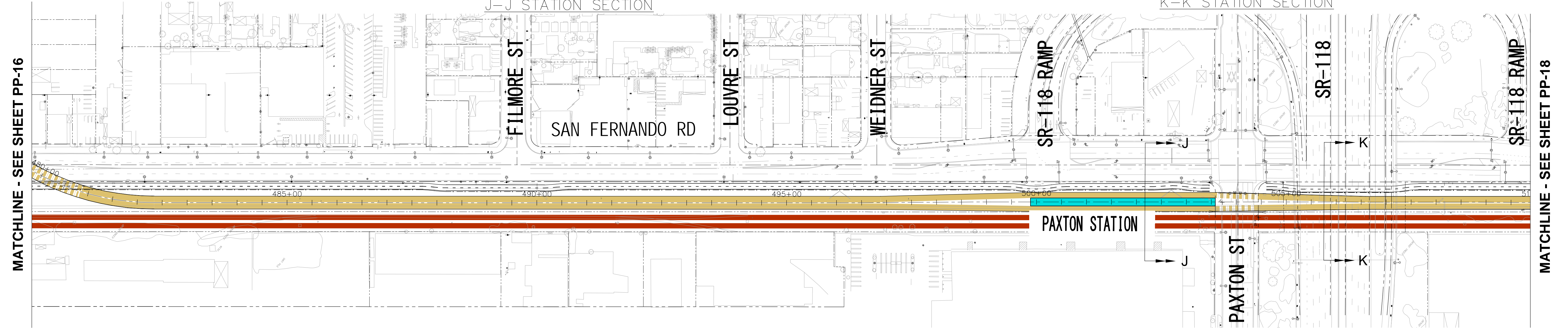
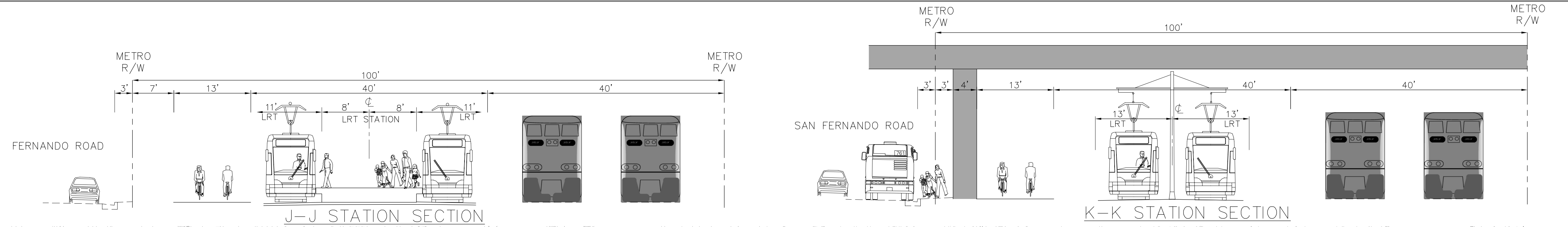
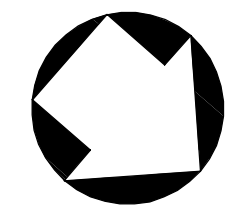
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 455+00 TO STA 480+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-16
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



SCALES	HORIZ. 1"=100'	SHEET	INDEX NUMBER
	VERT. 1"=10'		

CAD PROJECT FILE NAME: J:\2010\B01205 Metro Van Nuys Corridor Rapidway\Exhibit\30% Concept Eng\Alternative Exhibits\Alt 4B -F&P\PP-16.dwg Aug 28, 2014 8:21am \_tblise



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

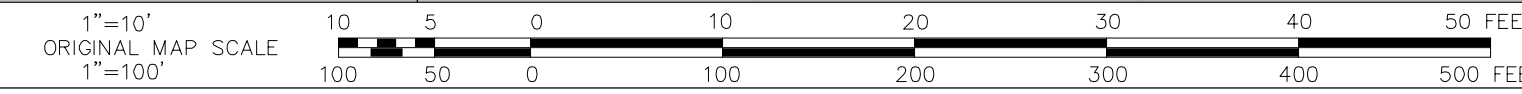
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE

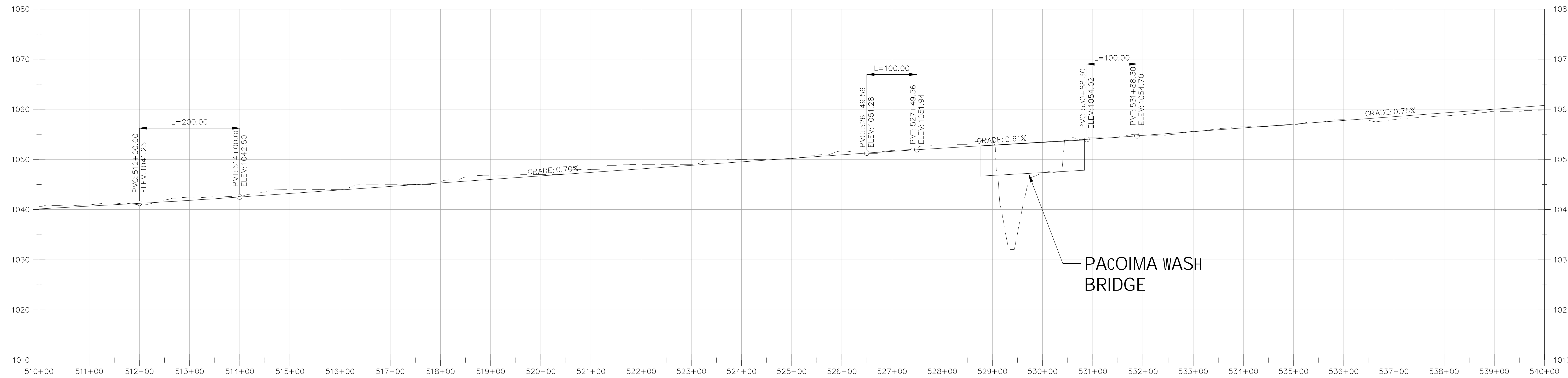
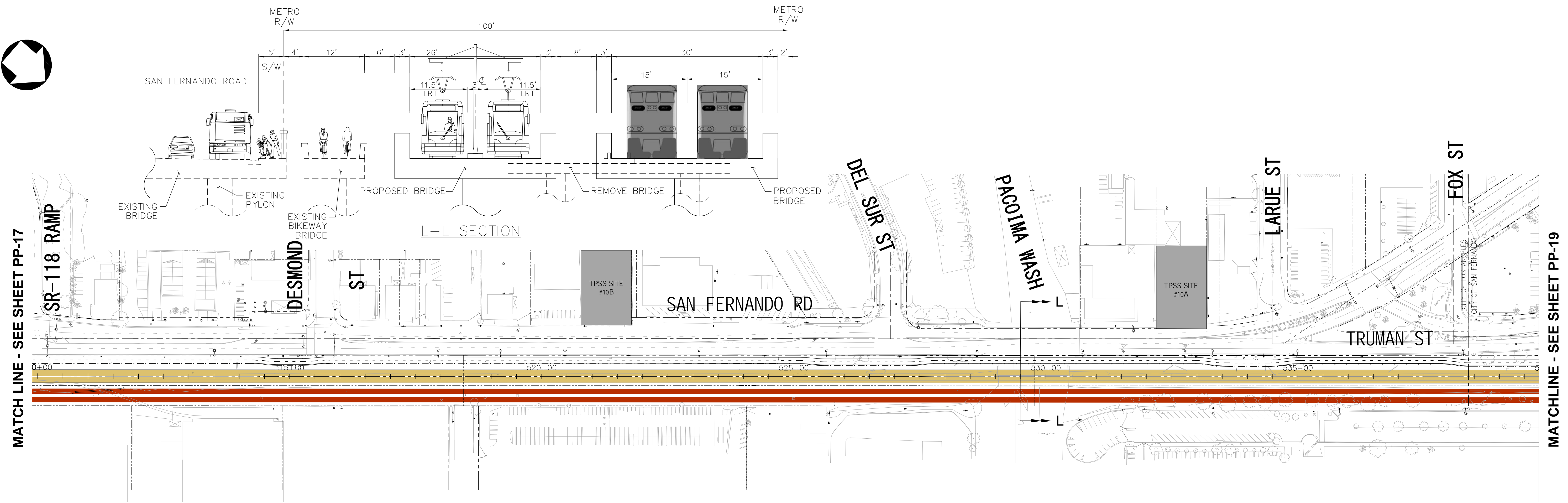
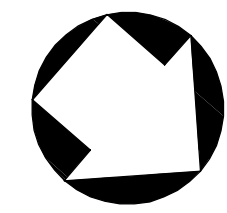
PLAN & PROFILE  
 STA 480+00 TO STA 510+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-17
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100' VERT. 1"=10'	<b>SHEET</b>	<b>INDEX NUMBER</b>
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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

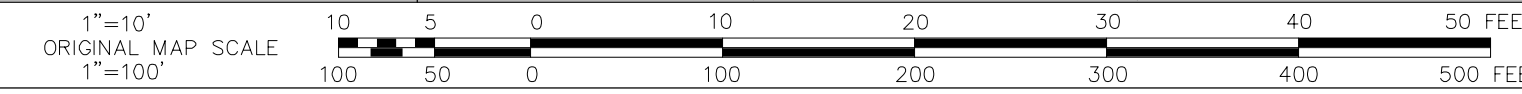
DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

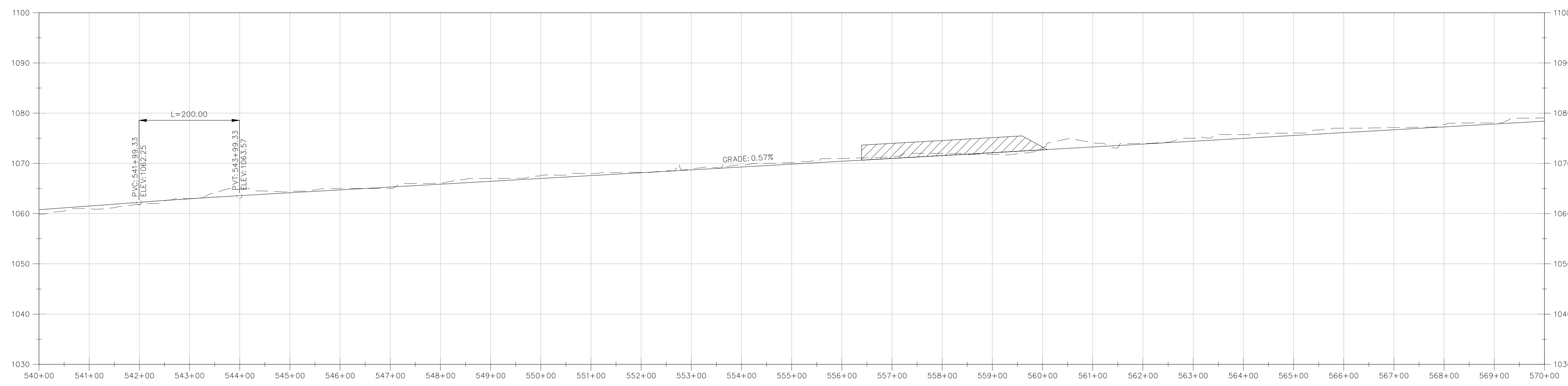
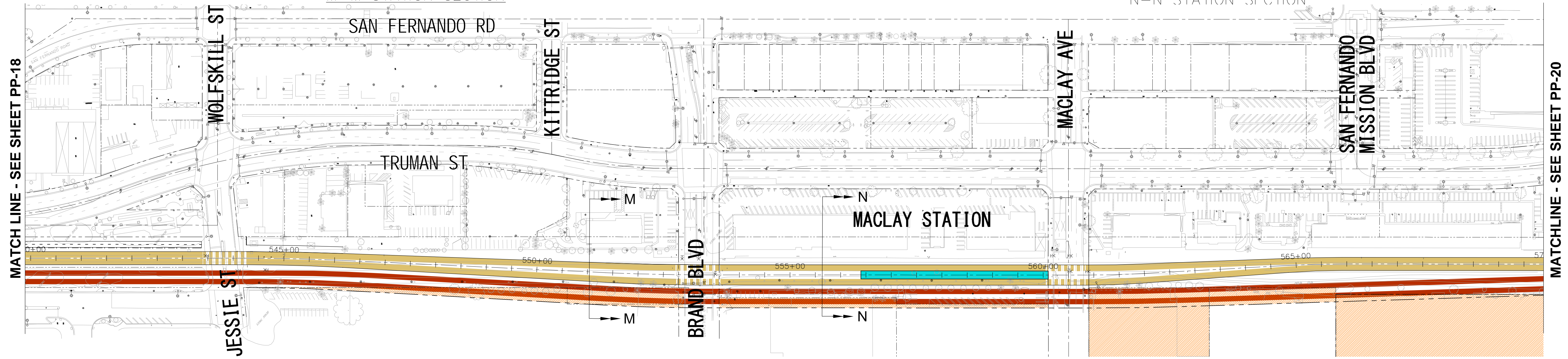
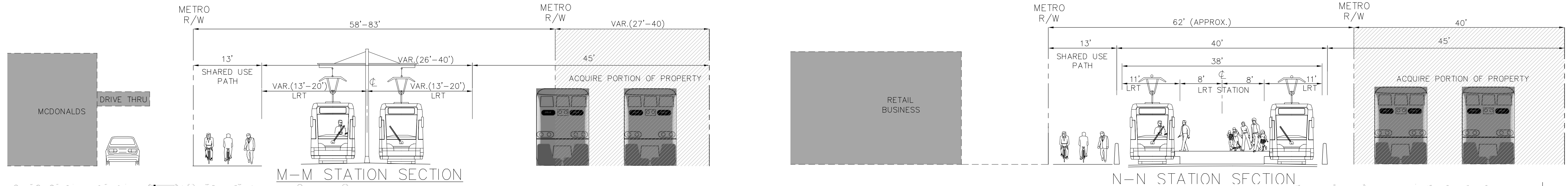
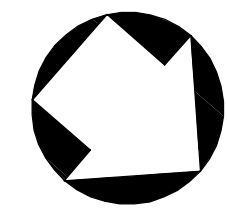
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 510+00 TO STA 540+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-18
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



SCALES	HORIZ: 1"=100'	SHEET	INDEX NUMBER
	VERT: 1"=10'		

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ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

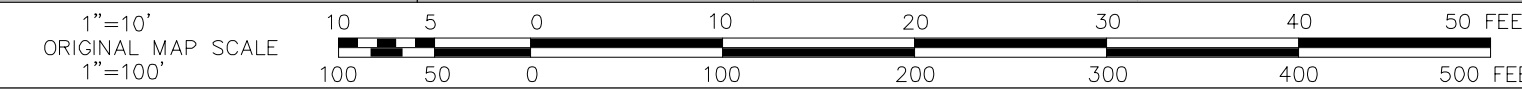
**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
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 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE

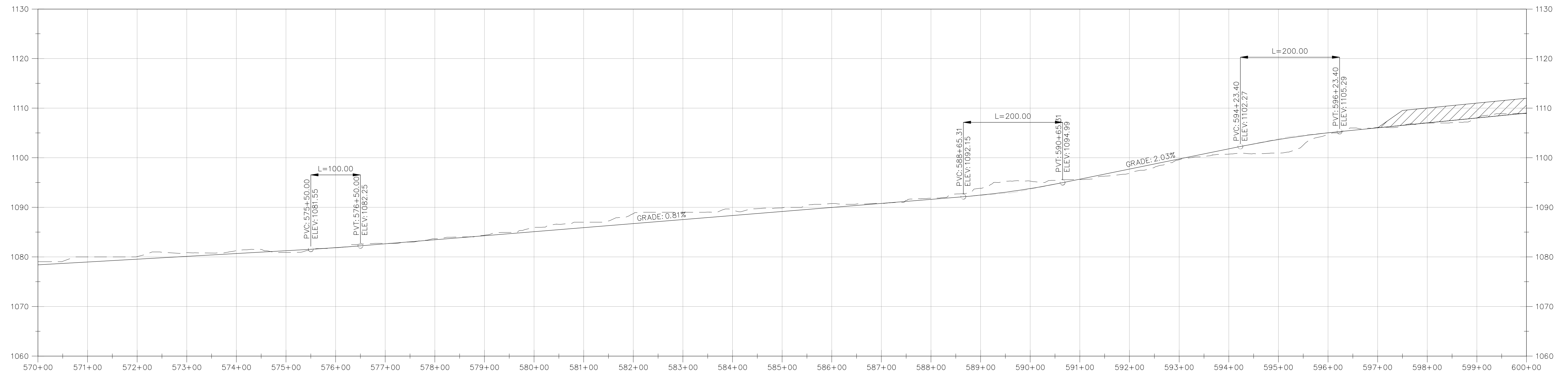
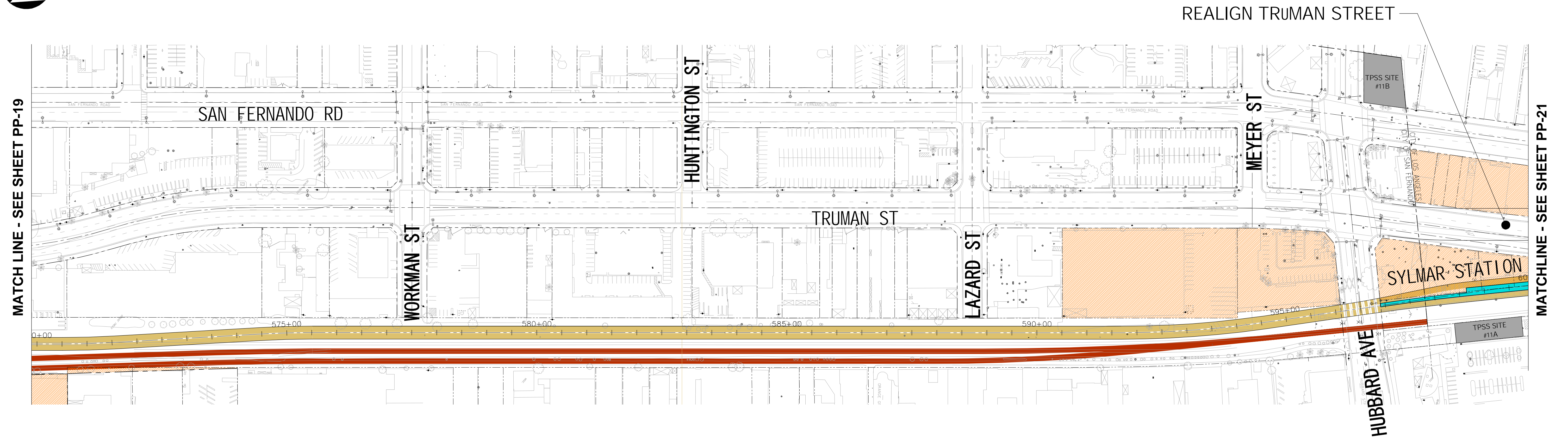
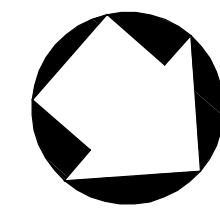
PLAN & PROFILE  
 STA 540+00 TO STA 570+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-19
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



<b>SCALES</b>	HORIZ. 1"=100' VERT. 1"=10'	<b>SHEET</b>	<b>INDEX NUMBER</b>
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CAD PROJECT FILE NAME: J:\2010\B01205 Metro Van Nuys Corridor Rapidway\30% Concept Eng\Alternative Exhibits\Alt 4B - P&P\PP-19.dwg Aug 28, 2014 8:23am\_sbsie



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

CAD PROJECT FILE NAME: J:\2010\B01205 Metro Van Nuys Corridor Rapidway\Exhibit\30% Concept Eng\Alternative Exhibits\Alt 4B -R&P\PP-20.dwg Aug 28, 2014 8:23am\_sbase

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

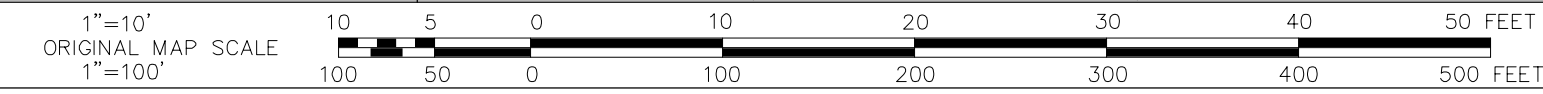
DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

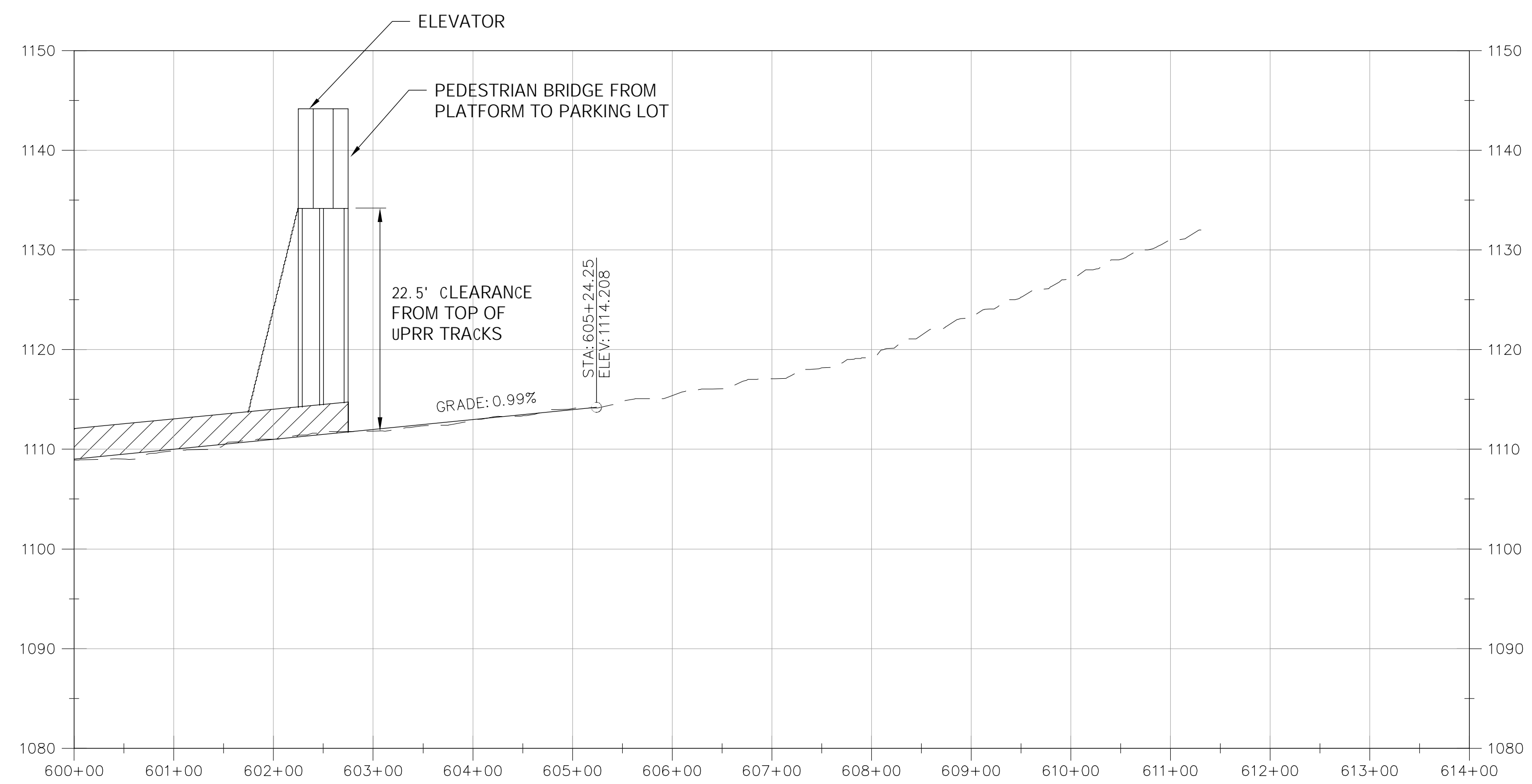
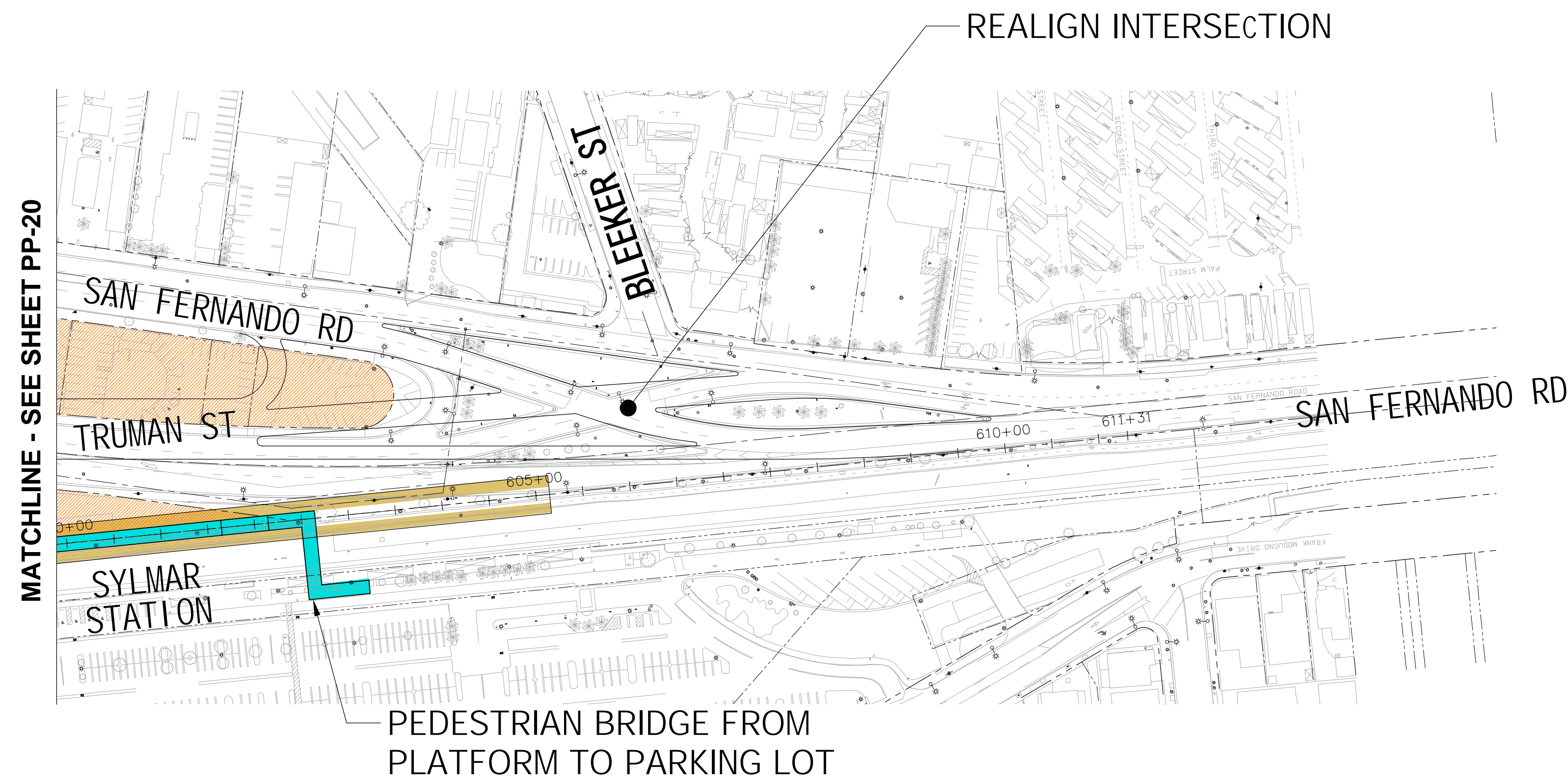
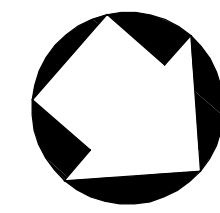
**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 570+00 TO STA 600+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-20
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	



SCALES	HORIZ. 1"=100'	SHEET	INDEX NUMBER
	VERT. 1"=10'		



ALTERNATIVE 4 - LRT MEDIAN RUNNING/ UNDERGROUND

CAD PROJECT FILE NAME: J:\2010\B01205 Metro Van Nuys Corridor Rapidway\Exhibit\30% Concept Eng\Alternative Exhibits\Alt 4B - F&P\PP-21.dwg Aug 28, 2014 8:24am\_sblise

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

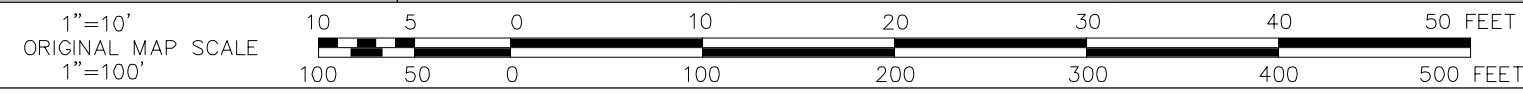
DESIGNED BY	
DRAWN BY	
CHECKED BY	
IN CHARGE	
DATE	

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 PLAN & PROFILE  
 STA 600+00 TO STA 614+00

CONTRACT NO	PS-4370-2622
DRAWING NO	PP-21
REV	0
SCALE	HORIZ: 1"=100' VERT: 1"=10'
SHEET NO	

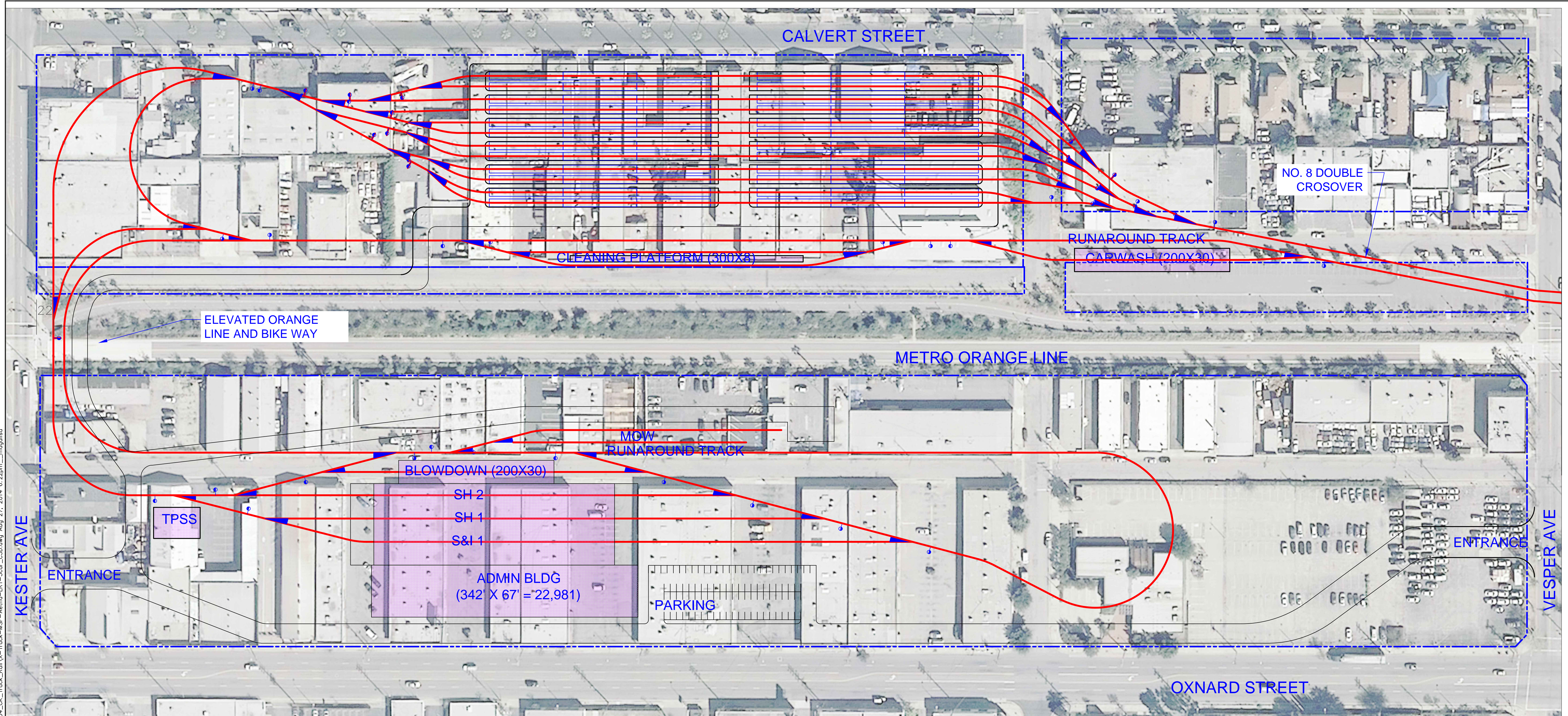


**SCALES** HORIZ. 1"=100'  
VERT. 1"=10'

**SHEET**

**INDEX NUMBER**

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MATCH LINE - SEE FOLLOWING SHEET

**NOTE: SECURITY TOWER VS. CCTV**

MSF SITE: 30.0 ACRES  
 STORAGE CAPACITY: 24 - 3 CAR TRAINS  
 72 CARS TOTAL  
 190FT RADIUS TURNOUTS  
 MIN RADIUS = 100'

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY L. TERRELL-LEWIS
DRAWN BY S. MAGALLON
CHECKED BY A. SOKOL
IN CHARGE A. SOKOL
DATE 08/27/14

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

**KOA CORPORATION**  
 PLANNING & ENGINEERING  
 1100 Corporate Center Drive, Suite 201  
 Monterey Park, California 91754  
 Tel: (323) 260-4703 Fax: (323) 260-4705

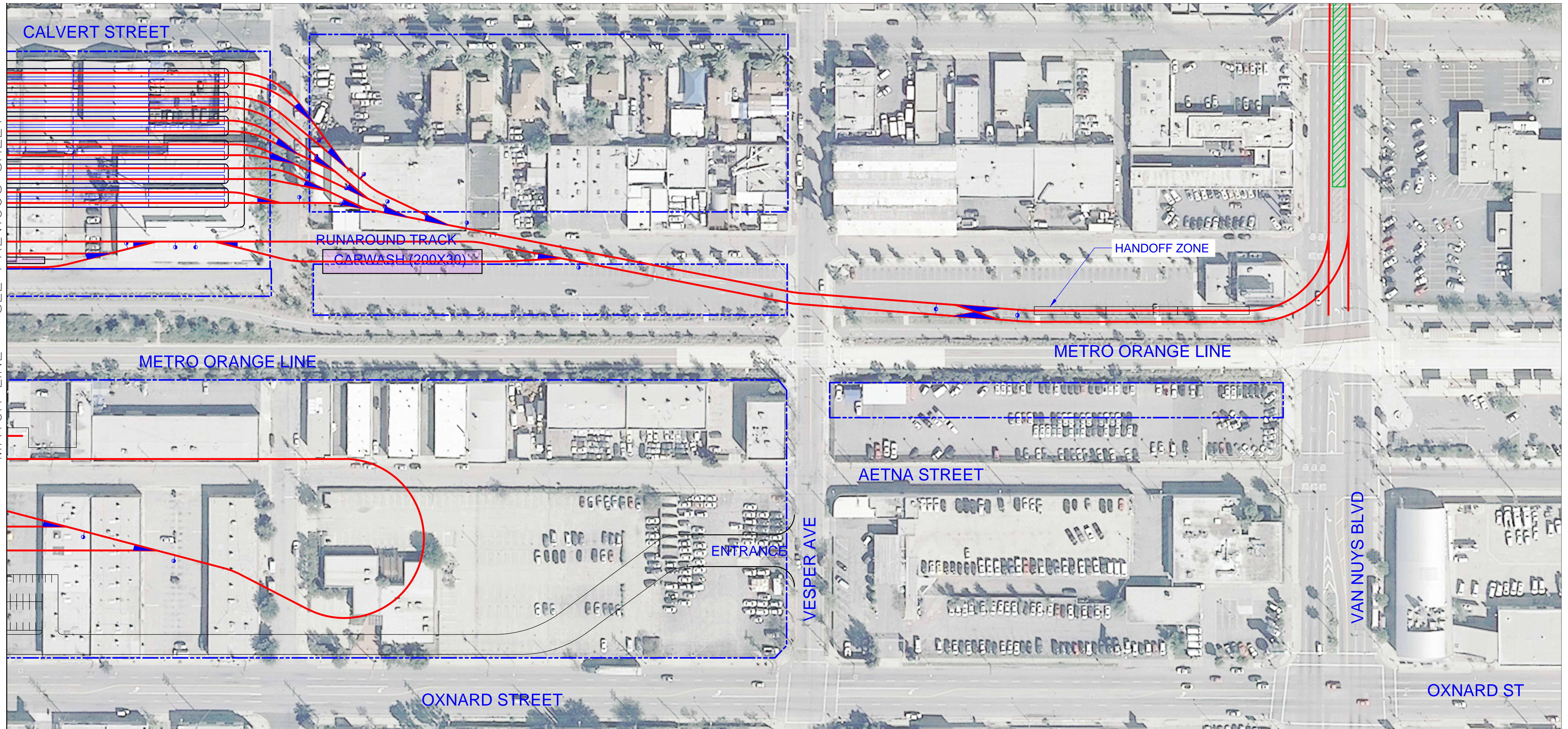
**STV**  
 PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 MAINTENANCE FACILITY  
 AETNA - 3 CAR TRAINS

CONTRACT NO PS-4370-2622	REV 0
DRAWING NO	
SCALE HORIZ: 1"=60'	VERT: N/A
SHEET NO	

CADD PROJECT FILE NAME: I:\projects\4015220\4015220\_0001\90\_CAD\_Models\_and\_Sheets\04\_CK\_Track\_Rail\X-Track-MSF-Aetna-LRT-3car\_C3D.dwg Aug 27, 2014 6:23pm\_mogallia

MATCH LINE - SEE PREVIOUS SHEET



**NOTE: SECURITY TOWER VS. CCTV**

MSF SITE: 30.0 ACRES  
 STORAGE CAPACITY: 24 - 3 CAR TRAINS  
 72 CARS TOTAL  
 190FT RADIUS TURNOUTS  
 MIN RADIUS = 100'



REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY  
 L. TERRELL-LEWIS  
 DRAWN BY  
 S. MAGALLON  
 CHECKED BY  
 A. SOKOL  
 IN CHARGE  
 A. SOKOL  
 DATE  
 08/27/14

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**  
**EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT**

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 Tel: (323) 260-4703 Fax: (323) 260-4705



PROJECT MANAGER

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR  
 LIGHT RAIL TRANSIT ALTERNATIVE  
 MAINTENANCE FACILITY  
 AETNA - 3 CAR TRAINS

CONTRACT NO  
 PS-4370-2622  
 DRAWING NO  
 REV 0  
 SCALE HORIZ: 1"=60'  
 VERT: N/A  
 SHEET NO

SCALES

HORIZ. 1"=60'  
VERT. N/A

SHEET

INDEX NUMBER