FILED
11/01/22
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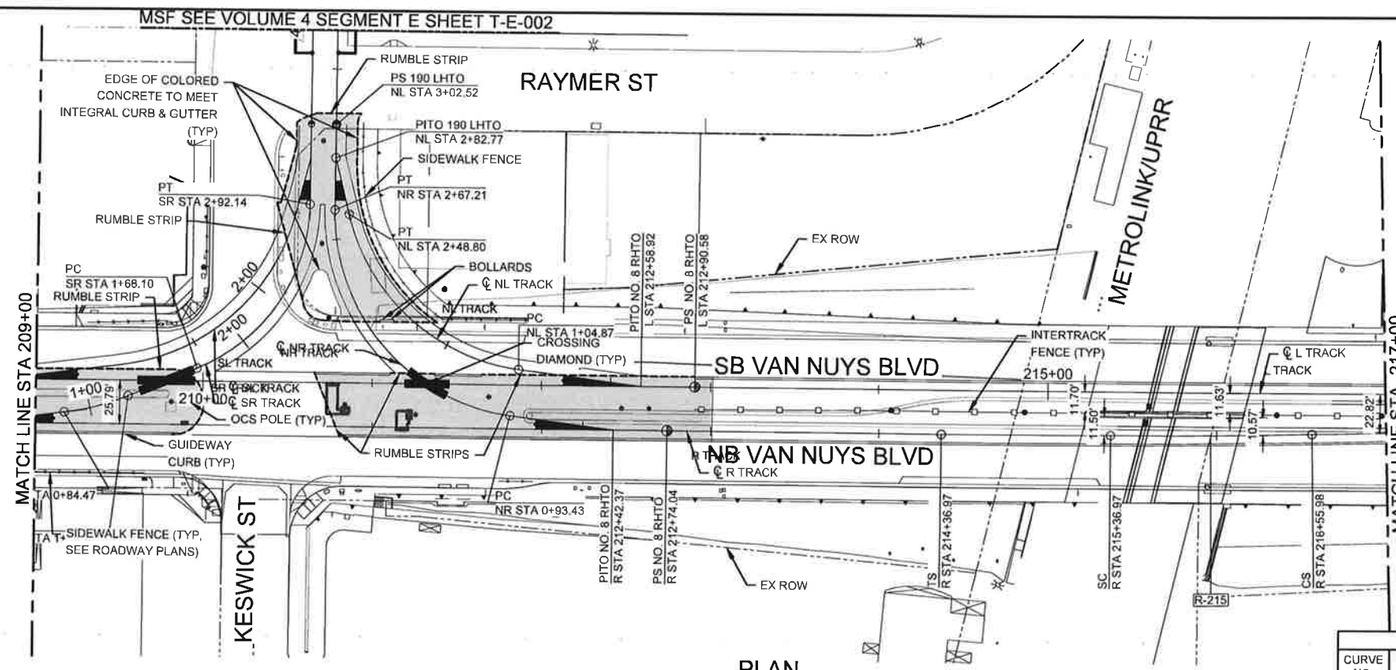
A2211009

Exhibit B2: Keswick Street



PLAN

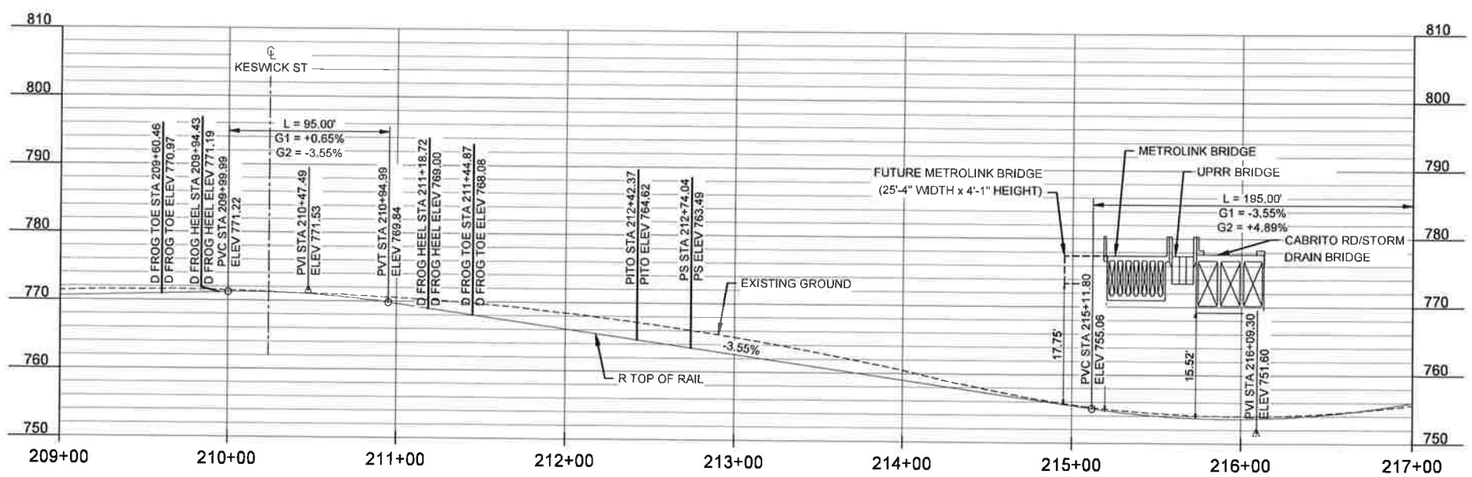
SCALE: 1" = 40'

NOTES:

1. SL, SR, NR, AND NL TRACKS SHALL BE FULLY RESTRAINED FROM HEEL OF FROG TO HEEL OF FROG.
2. SEE T-B-018 FOR SL TRACK AND SR TRACK GEOMETRY, SEE T-B-019 FOR NL TRACK AND NR TRACK GEOMETRY.
3. SEE SHEET T-B-001 FOR GENERAL PLAN AND PROFILE NOTES.

COLORED CONCRETE

R TRACK CURVE DATA								
CURVE NO.	Ls IN (FT)	Ls OUT (FT)	R (FT)	Lc (FT)	E (IN)	Ea (IN)	Eu (IN)	DESIGN SPEED V (MPH)
R-215	100	100	7,500	119.01	0.63	0.50	0.13	35



PROFILE

HORZ: 1" = 40'
VERT: 1" = 10'

40' 20' 0 40' 80'
HORIZ: 1"=40'

10' 0 10' 20'
VERT: 1"=10'

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA), UNDER THE FEDERAL TRANSIT ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA.

REV	DATE	BY	APP	REG. NO.	EXPIRES	SEAL HOLDER	DESCRIPTION
2	5/23/22						30%/60% STATION LOCATION MODS
1	4/30/21						30%/60% DESIGN SUBMITTAL
0	8/7/20						15%/30% DESIGN SUBMITTAL

DESIGNED BY D. SALAZAR
DRAWN BY D. SALAZAR
CHECKED BY D. LEE
IN CHARGE M. FREEMAN
DATE 05/20/2022

FOR REVIEW ONLY NOT FOR CONSTRUCTION

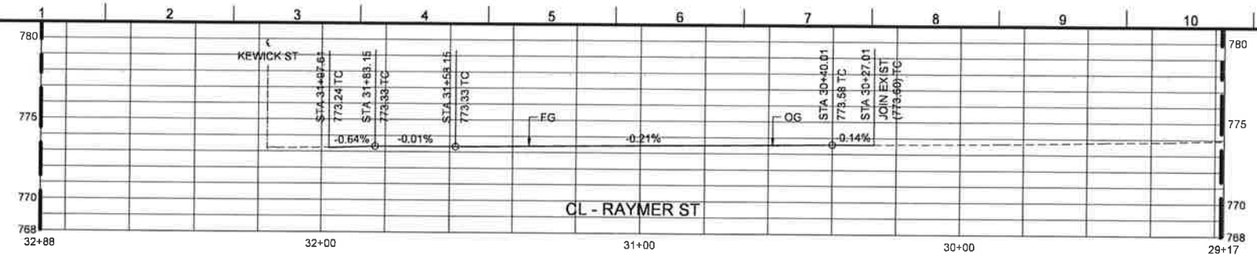
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

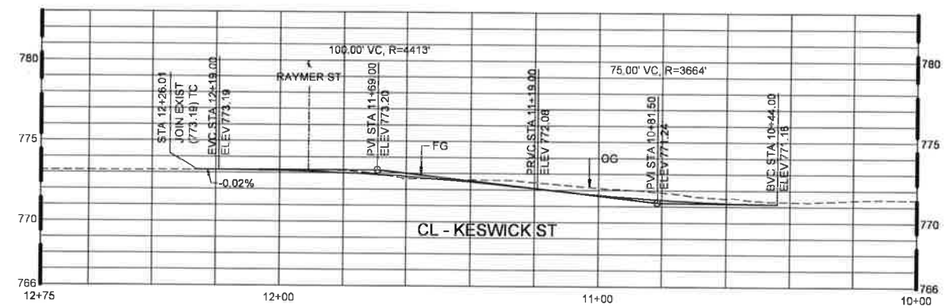
Gannett Fleming

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

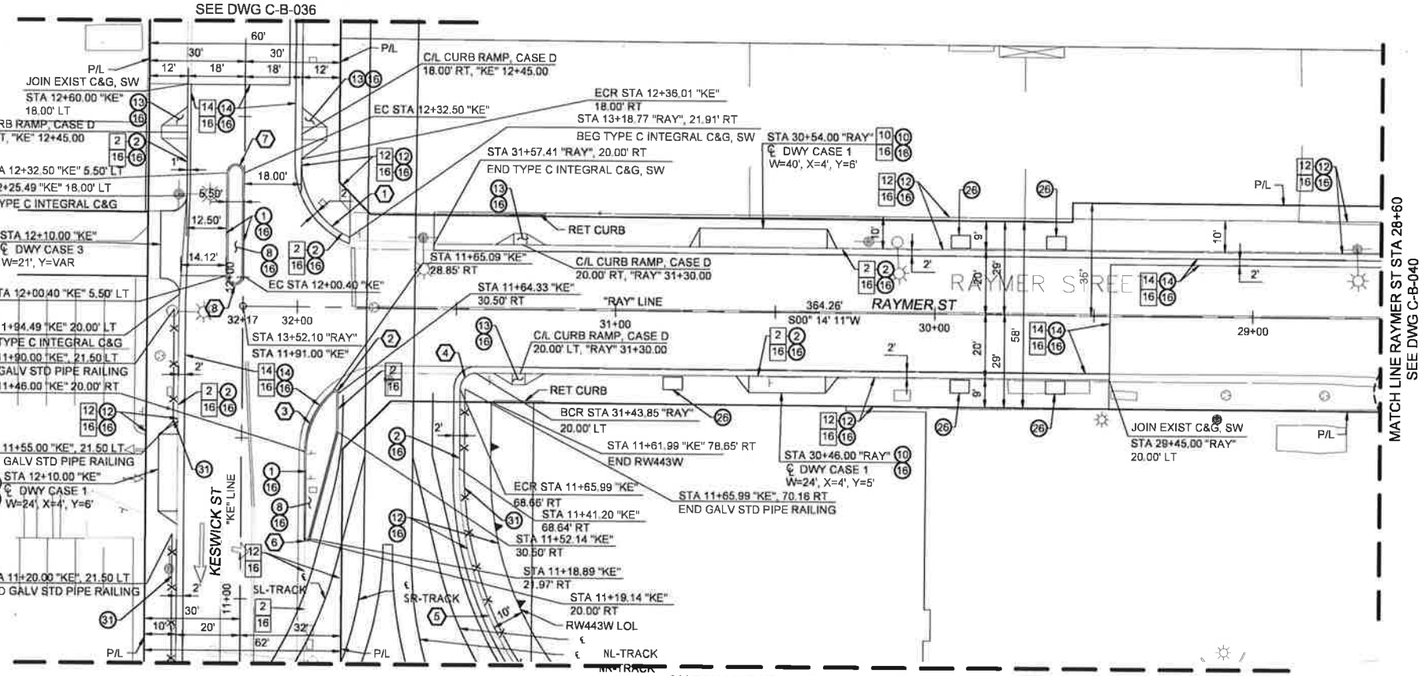
TRACK ALIGNMENT PLAN AND PROFILE STA 209+00 TO STA 217+00

CONTRACT NO E0129
DRAWING NO T-B-003
REV 2
SCALE AS SHOWN
SHEET NO





MATCH LINE KESWICK ST STA 12+80
SEE DWG C-B-036



MATCH LINE KESWICK ST STA 10+80
SEE DWG C-B-004

CONSTRUCTION SYMBOLS:

- CONSTRUCT
- EXISTING
- REMOVE
- REMODEL EXISTING
- REMOVE AND CONSTRUCT
- WORK BY OTHERS

CONSTRUCTION NOTES:

1 CONCRETE CURB
2 TYPE C INTEGRAL CURB & GUTTER
8 CONCRETE PAVEMENT
10 CONCRETE DRIVEWAY
12 CONCRETE WALK
13 CURB RAMP
14 ASPHALT CONCRETE PAVEMENT
16 CRUSHED MISCELLANEOUS BASE
26 TREE WELL
31 PIPE RAILING

NOTES:

1. SEE UTILITY PLANS (U) FOR EXISTING/PROPOSED UTILITIES.
2. SEE STREET LIGHTING PLANS (SL) FOR EXACT LOCATIONS AND DETAILS.
3. SEE TRAFFIC SIGNAL PLANS (TR) FOR TRAFFIC SIGNAL POLE AND EQUIPMENT LOCATIONS AND DETAILS.
4. SEE TRACKWORK PLANS (T) FOR TRACK RELATED WORK INCLUDING GUIDEWAY CURB.
5. SEE DRAINAGE PLANS (D) FOR STORM DRAIN RELATED WORK.
6. SEE RIGHT-OF-WAY PLANS FOR RIGHT-OF-WAY TAKE AND TEMPORARY CONSTRUCTION EASEMENTS
7. SEE PLANTING PLANS (L) FOR LANDSCAPE AND TREE/TREEWELL LOCATIONS. INSTALL 4'X8' TYPE 1 TREE WELL COVER PER STANDARD PLAN S-450-3.
8. SEE TREE PROTECTION/LANDSCAPE (L) PLANS FOR EXISTING TREES TO BE REMOVED OR PROTECTED IN PLACE (PROVIDED BY D/B TEAM).
9. SEE NOTICE TO CONTRACTOR NOTES FOR REMOVAL AND REINSTALLATION/RELOCATION OF CITY TRANSIT FURNITURE.
10. FOR CURB RAMP AND INTERSECTION DETAILS, SEE CD-B-003

CURVE DATA TABLE

No.	RADIUS	DELTA	LENGTH	TANGENT
1	25.00'	67°29'35"	29.45'	16.70'
2	1.00'	130°13'41"	2.27'	2.16'
3	25.00'	49°46'19"	21.72'	11.60'
4	5.00'	90°00'00"	7.85'	5.00'
5	110.00'	56°28'56"	108.44'	59.08'
6	1.00'	165°36'32"	2.89'	7.92'
7	2.75'	180°00'00"	8.64'	-
8	2.75'	180°00'00"	8.64'	-

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

REV	DATE	BY	APP	REG. NO.	EXPIRES	SEAL HOLDER	DESCRIPTION
3	10/07/22						CPUC APPLICATION #3
2	07/20/22						30%/60% STATION LOCATION MODS
1	04/30/21						30%/60% DESIGN SUBMITTAL
0	08/07/20						15%/30% DESIGN SUBMITTAL

REVISION DATES (DESIGN STAGE ONLY)

DESIGNED BY P. YANG
DRAWN BY M. JAMIL
CHECKED BY H. NGUYEN
IN CHARGE H. NGUYEN
DATE 07/20/22

FOR REVIEW ONLY NOT FOR CONSTRUCTION

LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

WKE

Gannett Fleming

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR
STREET IMPROVEMENTS
KESWICK ST AND RAYMER ST
PLAN AND PROFILE

CONTRACT NO E0129
DRAWING NO C-B-005
REV 2
SCALE HORIZ: 1"=20' VERT: 1"=4'
SHEET NO

CITY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
ENGINEERING
CITY OF LOS ANGELES

WKE, INC.
DESIGN GROUP
ENGINEER: H. NGUYEN
DESIGNED BY: P. YANG
DRAWN BY: M. JAMIL
CHECKED BY: H. NGUYEN
APPROVED BY: H. NGUYEN

V NO. REVISIONS | DATE | BY
SIGNAL NO.
WORK ACCEPTED
B - PERMITS
INDEX NO.

BUREAU OF ENGINEERING APPROVAL
OFFICE
CHECKED BY
SIGNATURE
DATE

VERTICAL CONTROL: SEE PROJECT CONTROL MAP
HORIZONTAL CONTROL: SEE PLAN SHEETS FOR CONTROL LINE REFERENCE

SHEET TITLE: STREET IMPROVEMENTS PLAN AND PROFILE
PROJECT: EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR
ADDRESS:

DRAWING NO.
SHEET OF SHEETS

THE CITY OF LOS ANGELES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

Sheet Version 4.0

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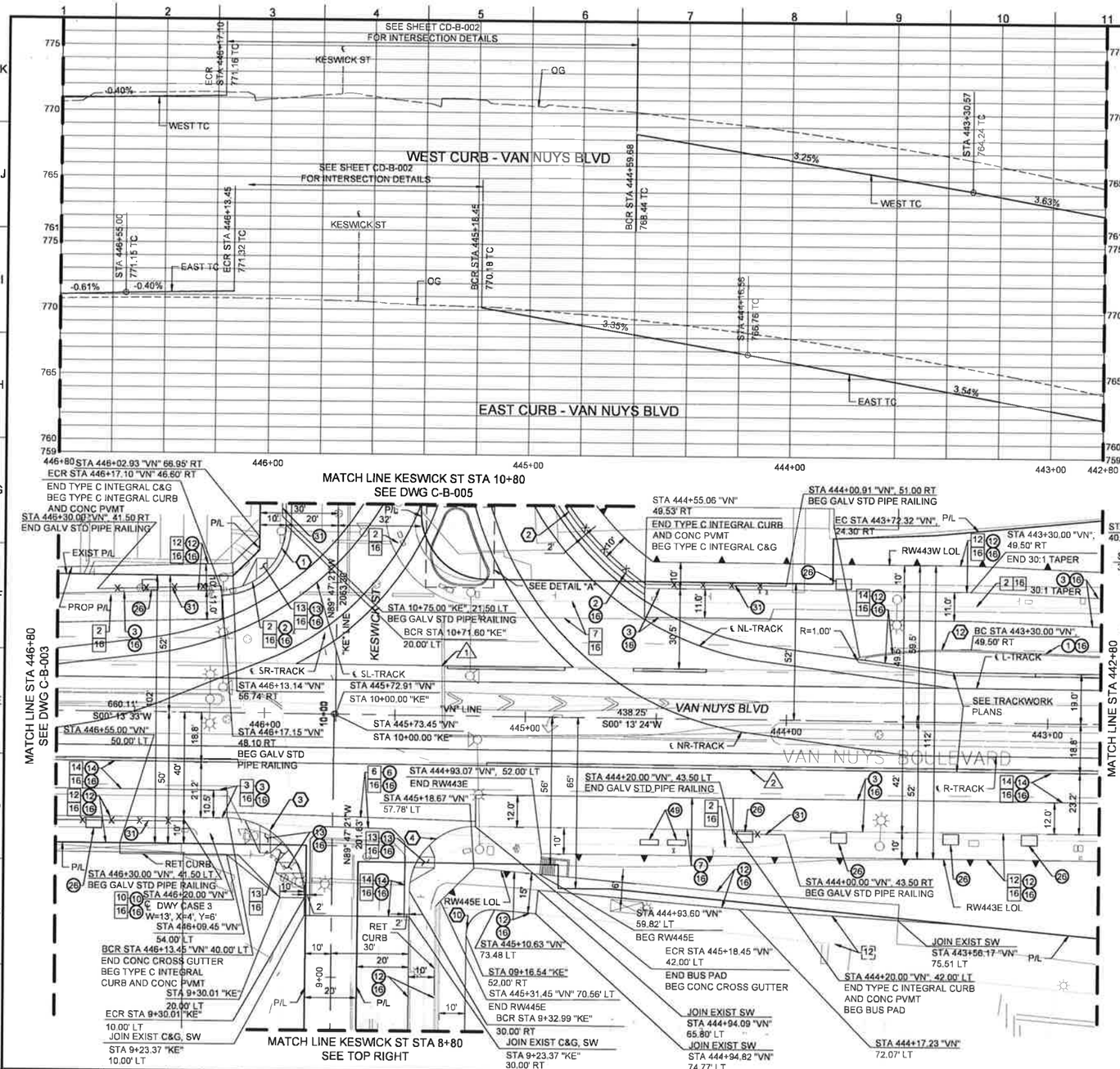

CONSTRUCTION SYMBOLS:

- CONSTRUCT
- EXISTING
- REMOVE
- REMODEL EXISTING
- REMOVE AND CONSTRUCT
- WORK BY OTHERS

GUIDEWAY CURB DATA TABLE				
No.	RADIUS	BEARING/DELTA	LENGTH	TANGENT
1		N00°13'33"E	1067.97'	
2		N00°13'33"E	1039.08'	

CONSTRUCTION NOTES:

1 TYPE A CURB
2 TYPE C INTEGRAL CURB & GUTTER
3 TYPE C INTEGRAL CURB & CONCRETE PAVEMENT
6 CONCRETE INTERSECTION GUTTER
7 BUS PAD
10 CONCRETE DRIVEWAY
12 CONCRETE WALK
13 CURB RAMP
14 ASPHALT CONCRETE PAVEMENT
16 CRUSHED MISCELLANEOUS BASE
26 TREE WELL
31 PIPE HANDRAIL
49 TRANSIT BENCH

NOTES:

1. SEE UTILITY PLANS (U) FOR EXISTING/PROPOSED UTILITIES.
2. SEE STREET LIGHTING PLANS (SL) FOR EXACT LOCATIONS AND DETAILS.
3. SEE TRAFFIC SIGNAL PLANS (TR) FOR TRAFFIC SIGNAL POLE AND EQUIPMENT LOCATIONS AND DETAILS.
4. SEE TRACKWORK PLANS (T) FOR TRACK RELATED WORK INCLUDING GUIDEWAY CURB.
5. SEE DRAINAGE PLANS (D) FOR STORM DRAIN RELATED WORK.
6. SEE RIGHT-OF-WAY PLANS FOR RIGHT-OF-WAY TAKE AND TEMPORARY CONSTRUCTION EASEMENTS
7. SEE PLANTING PLANS (L) FOR LANDSCAPE AND TREE/TREEWELL LOCATIONS. INSTALL 4'X6' TYPE 1 TREE WELL COVER PER STANDARD PLAN S-450-3.
8. SEE TREE PROTECTION/LANDSCAPE (L) PLANS FOR EXISTING TREES TO BE REMOVED OR PROTECTED IN PLACE (PROVIDED BY D/B TEAM).
9. SEE NOTICE TO CONTRACTOR NOTES FOR REMOVAL AND REINSTALLATION/RELOCATION OF CITY TRANSIT FURNITURE.
10. FOR CURB RAMP AND INTERSECTION DETAILS, SEE SHEET CD-B-002.

CURVE DATA TABLE				
No.	RADIUS	DELTA	LENGTH	TANGENT
1	25.00'	88°06'12"	38.44'	24.19'
2	110.00'	56°28'56"	108.44'	59.08'
3	30.00'	89°59'06"	47.12'	29.99'
4	25.00'	90°00'45"	39.28'	25.01'
5	114.80'	4°57'04"	9.92'	4.96'
6	5.00'	141°23'37"	12.34'	14.28'
7	129.51'	8°59'04"	20.31'	10.17'
8	5.00'	116°15'10"	10.14'	8.04'
9	12.00'	116°17'21"	24.36'	19.31'
10	10.00'	94°40'29"	16.52'	10.85'
11	11.00'	180°00'00"	34.56'	
12	200.00'	12°18'36"	42.97'	21.57'

REV.	DATE	BY	APP	REG. NO.	EXPIRES	SEAL HOLDER	DESCRIPTION
2	05/16/22						30%/60% STATION LOCATION MODS
1	04/30/21						30%/60% DESIGN SUBMITTAL
0	08/07/20						15%/30% DESIGN SUBMITTAL

REVISION DATES (DESIGN & PLANS ONLY)

DESIGNED BY P. YANG
DRAWN BY M. JAMIL
CHECKED BY H. NGUYEN
IN CHARGE H. NGUYEN
DATE 05/16/22

FOR REVIEW ONLY NOT FOR CONSTRUCTION

Metro
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

WKE
Gannett Fleming

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR
STREET IMPROVEMENTS
VAN NUYS BLVD
PLAN AND PROFILE
STA 442+80 TO STA 446+80

CONTRACT NO E0129
DRAWING NO C-B-004
REV 1
SCALE HORIZ: 1"=20'
VERT: 1"=4'
SHEET NO
SHEET OF SHEETS

DRAWING NO.

CITY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
ENGINEERING
CITY OF LOS ANGELES

WKE INC.
DESIGN GROUP
ENGINEER: H. NGUYEN
DESIGNED BY: P. YANG
DRAWN BY: M. JAMIL
CHECKED BY: H. NGUYEN
APPROVED BY: H. NGUYEN

NO. REVISIONS DATE BY
SERIAL NO.
WORK ACCEPTED
B - PERMITS
INDEX NO.
BUREAU OF ENGINEERING APPROVAL
OFFICE CHECKED BY:
SIGNATURE DATE

VERTICAL CONTROL: SEE PROJECT CONTROL MAP
HORIZONTAL CONTROL: SEE PLAN SHEETS FOR CONTROL LINE REFERENCE

SHEET TITLE: STREET IMPROVEMENTS PLAN AND PROFILE
PROJECT: EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR
ADDRESS:

THE CITY OF LOS ANGELES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

Sheet Version 4.0

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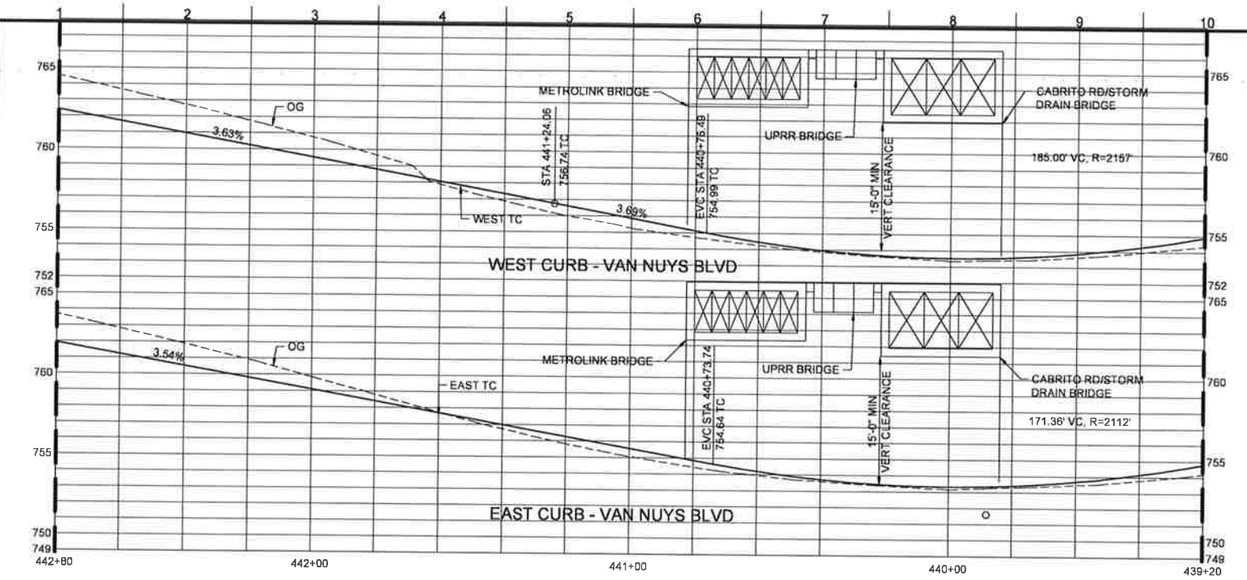

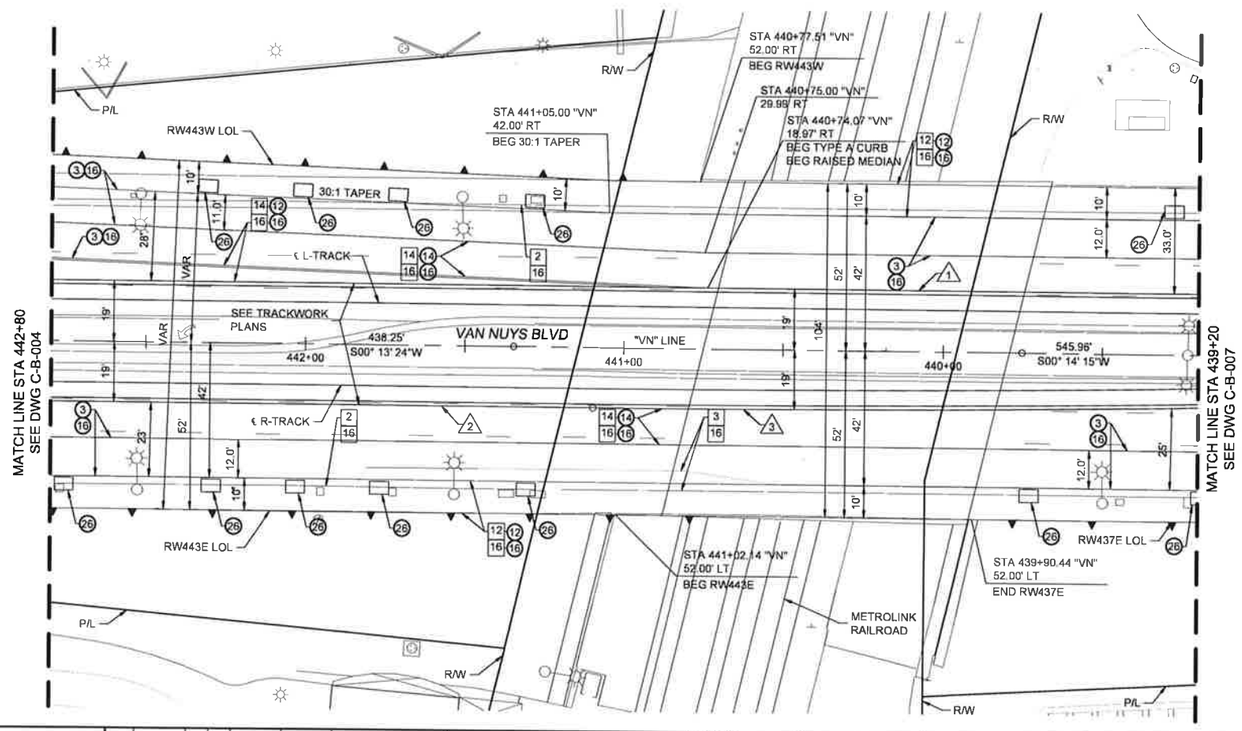

CONSTRUCTION SYMBOLS:

- CONSTRUCT
- EXISTING
- REMOVE
- REMODEL EXISTING
- REMOVE AND CONSTRUCT
- WORK BY OTHERS

CONSTRUCTION NOTES:

1 TYPE A CURB
2 TYPE C INTEGRAL CURB & GUTTER
3 TYPE C INTEGRAL CURB & CONCRETE PAVEMENT
12 CONCRETE WALK
14 ASPHALT CONCRETE PAVEMENT
16 CRUSHED MISCELLANEOUS BASE

NOTES:

1. SEE UTILITY PLANS (U) FOR EXISTING/PROPOSED UTILITIES.
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9. SEE NOTICE TO CONTRACTOR NOTES FOR REMOVAL AND REINSTALLATION/RELOCATION OF CITY TRANSIT FURNITURE.

GUIDEWAY CURB DATA TABLE

No.	RADIUS	BEARING/DELTA	LENGTH	TANGENT
1		N00°13'33"E	1067.97'	
2		N00°13'33"E	1039.08'	
3	7600.00'	1°40'23"	221.93'	110.97'

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

REV.	DATE	BY	APP	REG. NO.	EXPIRES	SEAL HOLDER	DESCRIPTION
2	05/16/22						30%/60% STATION LOCATION MODS
1	04/30/21						30%/60% DESIGN SUBMITTAL
0	08/07/20						15%/30% DESIGN SUBMITTAL

REVISION DATES (DESIGN STAGE ONLY)

DESIGNED BY P. YANG
DRAWN BY M. JAMIL
CHECKED BY H. NGUYEN
IN CHARGE H. NGUYEN
DATE 05/16/22

FOR REVIEW ONLY NOT FOR CONSTRUCTION

Metro
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

WKE
Gannett Fleming

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR
STREET IMPROVEMENTS
VAN NUYS BLVD
PLAN AND PROFILE
STA 439+20 TO STA 442+80

CONTRACT NO. E0129
DRAWING NO. C-B-006 REV 1
SCALE HORIZ: 1"=20' VERT: 1"=4'
SHEET NO.

CITY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
CITY OF LOS ANGELES ENGINEERING
WKE, INC.
DESIGN GROUP
ENGINEER H. NGUYEN
DESIGNED BY P. YANG
DRAWN BY M. JAMIL
CHECKED BY H. NGUYEN
APPROVED BY H. NGUYEN
VERTICAL CONTROL: SEE PROJECT CONTROL MAP
HORIZONTAL CONTROL: SEE PLAN SHEETS FOR CONTROL LINE REFERENCE
SHEET TITLE: STREET IMPROVEMENTS PLAN AND PROFILE
PROJECT: EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR
ADDRESS:
DRAWING NO.
SHEET OF SHEETS
V NO. REVISIONS DATE BY
WORK ACCEPTED SERIAL NO.
B - PERMITS
INDEX NO.
BUREAU OF ENGINEERING APPROVAL OFFICE CHECKED BY SIGNATURE DATE

THE CITY OF LOS ANGELES OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

Sheet Version 4.0

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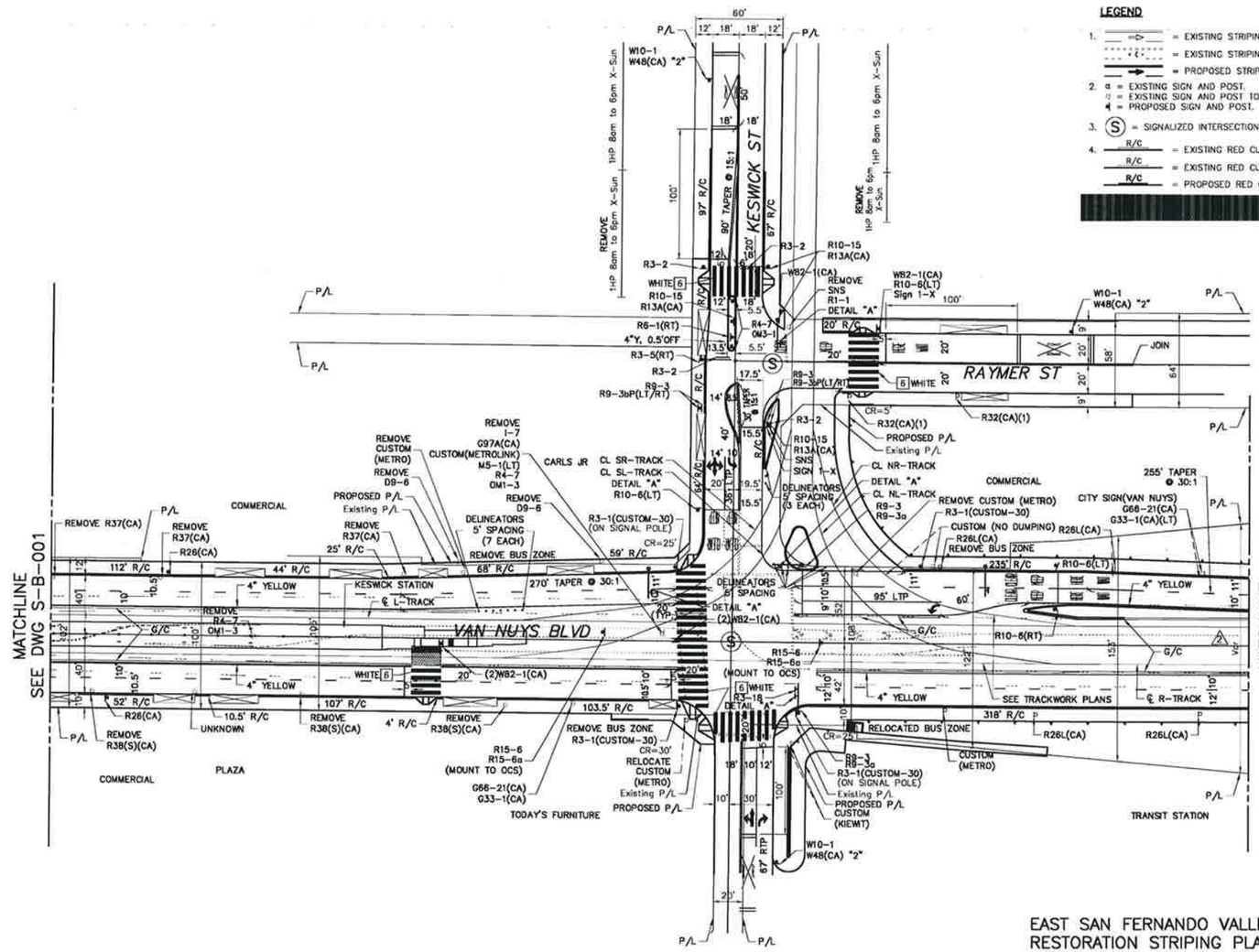
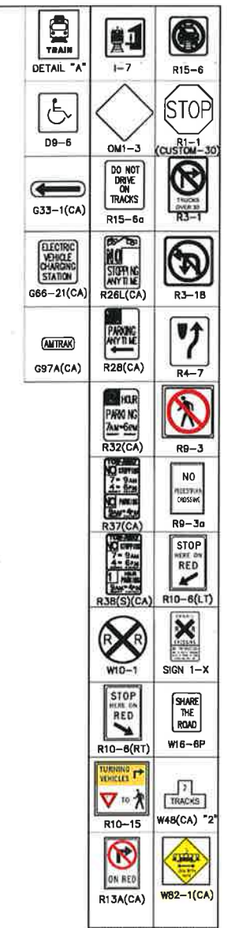


LEGEND

1. = EXISTING STRIPING & MARKINGS TO REMAIN.
   = EXISTING STRIPING & MARKINGS TO BE REMOVED.
   = PROPOSED STRIPING & MARKINGS.
2. = EXISTING SIGN AND POST.
   = EXISTING SIGN AND POST TO BE REMOVED OR RELOCATED.
   = PROPOSED SIGN AND POST.
3. (S) = SIGNALIZED INTERSECTION.
4. R/C = EXISTING RED CURB MARKINGS TO REMAIN.
   R/C = EXISTING RED CURB MARKINGS TO BE REMOVED.
   R/C = PROPOSED RED CURB MARKINGS.



EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR RESTORATION STRIPING PLAN

REVIEWED ____ 20__	RECOMMENDED ____ 20__	ACCEPTED ____ 20__
Transportation Engineer	Senior Transportation Engineer	Principal Transportation Engineer

INSTALLATION DATES
MARKOUT BEGAN:
MARKOUT COMPLETED:
STRIPING COMPLETED:
District: EAST VALLEY
Thomas Guide: 532-A3
References:
FIELD INVESTIGATION

CITY OF LOS ANGELES
DEPARTMENT OF TRANSPORTATION
SELETA J. REYNOLDS, GENERAL MANAGER

VAN NUYS BLVD
KESWICK ST

IF THIS PLAN HAS NOT BEEN IMPLEMENTED WITHIN TWO (2) YEARS OF THE ACCEPTANCE DATE, IT MUST BE RESUBMITTED TO LADOT METRO PROGRAMS DIVISION FOR REVIEW.

PROJECT NO. PCM14007
DRAWING NO. S-B-002

NO.	REVISION DESCRIPTION	DATE	BY	REVIEWED	DATE
				T.E.A. / T.E. / S.T.E.	
				DISTRICT BIKEWAYS	

REV	DATE	BY	APV	REG NO.	EXPIRES	SEAL HOLDER	DESCRIPTION
2	09/28/22						CPUC APPLICATION #3
1	04/30/21						30%/60% DESIGN SUBMITTAL
0	08/07/20						15%/30% DESIGN SUBMITTAL

DESIGNED BY P. YANG
DRAWN BY A. VILLEGAS
CHECKED BY H. NGUYEN
IN CHARGE H. NGUYEN
DATE 04/30/21

FOR REVIEW ONLY NOT FOR CONSTRUCTION

Metro
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

WKE

Gannett Fleming

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

SIGNING AND STRIPING PLAN
SHEET 2 OF 16

CONTRACT NO E0129
DRAWING NO S-B-002
REV 2
SCALE 1" = 40'
SHEET NO

SIGNAL STANDARD SCHEDULE

	No.	TYPE	FOUND. TYPE	PED. PUSH BUT'N TYPE	PED. PUSH BUT'N PHASE	REMARKS/RELATED NOTES
	(1)	352 CAB	F-332*	–	–	ATSAC 2070 CONTROLLER IN 352 CABINET
***	(2)	17-3-100	CIDH	–	–	15' MAST ARM
**	(3)	1	F-1	APS(8)	8	INSTALL APS
*****	(4)	CD953	BSL	–	–	
**	(5)	1A	F-1	–	–	
***	(6)	17-3-100	CIDH	–	–	15' MAST ARM
**	(7)	1	F-1	–	–	
*****	(8)	CD953C	BSL	APS(8)	8	INSTALL APS
***	(9)	16-3-100	CIDH	APS(8)	8	15' MAST ARM; INSTALL APS
***	(10)	19-4-100	CIDH	APS(8)	8	CUST. 20' MAST ARM; INSTALL APS
**	(11)	1	F-1	APS(8)	8	INSTALL APS
*****	(12)	CD953C	BSL	APS(8)	8	INSTALL APS
***	(15)	17-3-100	CIDH	–	–	REVERSE 15' MAST ARM
***	(16)	17-3-100	CIDH	–	–	20' MAST ARM
	(17)	REAR VIDEO CAMERA POLE (PHOTO ENFORCEMENT)				
****	(18)	C-2-100	CIDH	–	–	20' MAST ARM, CCTV CAMERA
**	(19)	1	F-1	APS(8)	8	INSTALL APS
***	(20)	17-3-100	CIDH	APS(8)	8	15' MAST ARM; INSTALL APS
	(21)	VIDEO CAMERA POLE (PHOTO ENFORCEMENT)				

* Per LADOT STD. DWG. No. S-52.1.3
** Per LADOT STD. DWG. No. S-51.1.3A
*** Per LADOT STD. DWG. No. S-52.1.6
**** Per LADOT STD. DWG. No. S-52.1.4B
***** FOR REFERENCE ONLY, SEE STREET LIGHTING SHEET.

NOTES:

1. FULLY-ACTUATED OPERATION WITH ATSAC CAMERA (ATSAC 2070 CONTROLLER IN 352 CABINET)

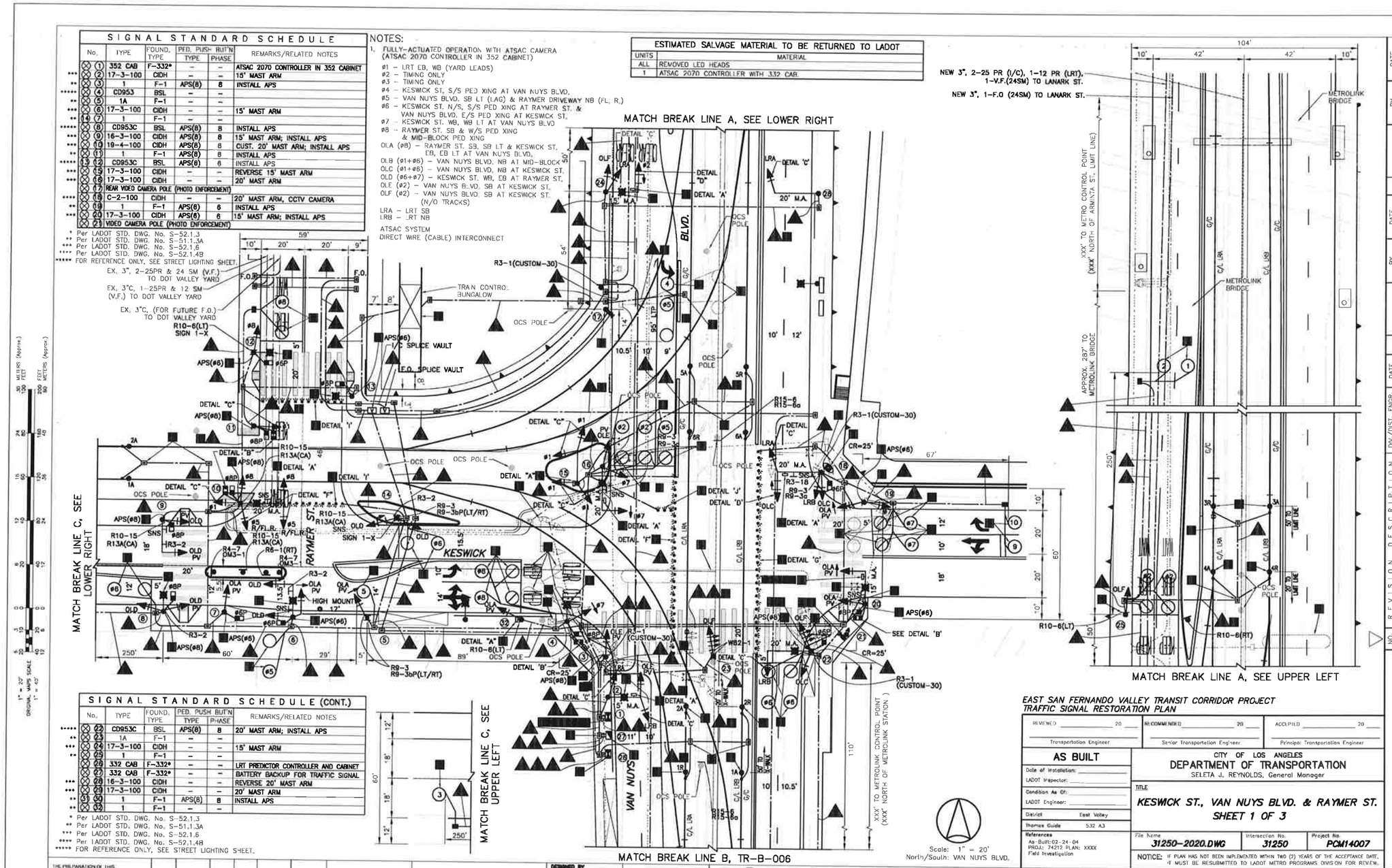
ø1 – LRT EB, WB (YARD LEADS)
ø2 – TIMING ONLY
ø3 – TIMING ONLY
ø4 – KESWICK ST. S/S PED XING AT VAN NUYS BLVD.
ø5 – VAN NUYS BLVD. SB LT (LAG) & RAYMER DRIVEWAY NB (FL, R.)
ø6 – KESWICK ST. N/S, S/S PED XING AT RAYMER ST. & VAN NUYS BLVD. E/S PED XING AT KESWICK ST.
ø7 – KESWICK ST. WB, WB LT AT VAN NUYS BLVD
ø8 – RAYMER ST. SB & W/S PED XING & MID-BLOCK PED XING
OLA (ø8) – RAYMER ST. SB, SB LT & KESWICK ST. EB, EB LT AT VAN NUYS BLVD.
OLB (ø1+ø6) – VAN NUYS BLVD. NB AT MID-BLOCK
OLC (ø1+ø6) – VAN NUYS BLVD. NB AT KESWICK ST.
OLD (ø6+ø7) – KESWICK ST. WB, EB AT RAYMER ST.
OLE (ø2) – VAN NUYS BLVD. SB AT KESWICK ST.
OLF (ø2) – VAN NUYS BLVD. SB AT KESWICK ST. (N/O TRACKS)

LRA – LRT SB
LRB – LRT NB

ATSAC SYSTEM
DIRECT WIRE (CABLE) INTERCONNECT

ESTIMATED SALVAGE MATERIAL TO BE RETURNED TO LADOT

UNITS	MATERIAL
ALL	REMOVED LED HEADS
1	ATSAC 2070 CONTROLLER WITH 332 CAB.



SIGNAL STANDARD SCHEDULE (CONT.)

	No.	TYPE	FOUND. TYPE	PED. PUSH BUT'N TYPE	PED. PUSH BUT'N PHASE	REMARKS/RELATED NOTES
*****	(22)	CD953C	BSL	APS(8)	8	20' MAST ARM; INSTALL APS
**	(23)	1A	F-1	–	–	
***	(24)	17-3-100	CIDH	–	–	15' MAST ARM
**	(25)	1	F-1	–	–	
	(26)	332 CAB	F-332*	–	–	LRT PREDICTOR CONTROLLER AND CABINET
	(27)	332 CAB	F-332*	–	–	BATTERY BACKUP FOR TRAFFIC SIGNAL
***	(28)	16-3-100	CIDH	–	–	REVERSE 20' MAST ARM
***	(29)	17-3-100	CIDH	–	–	20' MAST ARM
**	(31 30)	1	F-1	APS(8)	8	INSTALL APS
**	(32)	1	F-1	–	–	

* Per LADOT STD. DWG. No. S-52.1.3
** Per LADOT STD. DWG. No. S-51.1.3A
*** Per LADOT STD. DWG. No. S-52.1.6
**** Per LADOT STD. DWG. No. S-52.1.4B
***** FOR REFERENCE ONLY, SEE STREET LIGHTING SHEET.

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT
TRAFFIC SIGNAL RESTORATION PLAN

REVIEWED _____ 20 ___ — Transportation Engineer
RECOMMENDED _____ 20 ___ — Senior Transportation Engineer
ACCEPTED _____ 20 ___ — Principal Transportation Engineer

AS BUILT
Date of Installation:
LADOT Inspector:
Condition As Of:
LADOT Engineer:
District: East Valley
Thomas Guide: 532 A3
References: As-Built: 02-24-04; PROJ.: 74212 PLAN: XXXX; Field Investigation

CITY OF LOS ANGELES
DEPARTMENT OF TRANSPORTATION
SELETA J. REYNOLDS, General Manager

TITLE
KESWICK ST., VAN NUYS BLVD. & RAYMER ST.
SHEET 1 OF 3

File Name: *31250-2020.DWG* | Intersection No.: *31250* | Project No.: *PCM14007*

NOTICE: IF PLAN HAS NOT BEEN IMPLEMENTED WITHIN TWO (2) YEARS OF THE ACCEPTANCE DATE, IT MUST BE RESUBMITTED TO LADOT METRO PROGRAMS DIVISION FOR REVIEW.

NO.	REVISION DESCRIPTION	DW./DIST. ENGR.	DATE	BY	DATE	BY	DATE
				TIMING	DISTRICT	CHECKED	
				DESIGNER	GEOMETRIC	SR. DRAFTING	
				ATSAC	METRO RAIL	DRAFTING	
				TRANSIT PRIORITY		FIELD	
						BASE	

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA) UNDER THE FEDERAL TRANSIT ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
▲	10/12/22						CPUC APPLICATION #3
1	01/29/21						30%/60% DESIGN SUBMITTAL
0	08/07/20						15%/30% DESIGN SUBMITTAL

DESIGNED BY: M. GUTIERREZ
DRAWN BY: M. GUTIERREZ
CHECKED BY: N. KIM
IN CHARGE: B. LI
DATE: 04/30/21

FOR REVIEW ONLY NOT FOR CONSTRUCTION

Metro — LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

PLANS PREPARED BY: iteris — 1700 Carnegie Avenue, Suite 100, Santa Ana, CA 92705-551; Phone: (949)270-9460; Fax: (949)270-9481

PROJECT PRIME: Gannett Fleming

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR
TRAFFIC SIGNAL RESTORATION PLAN
KESWICK ST. & VAN NUYS BLVD./RAYMER ST.
SHEET 1 OF 3

CONTRACT NO: E-0129
DRAWING NO: TR-B-005 | REV: 1
SCALE: 1" = 20'
SHEET NO:

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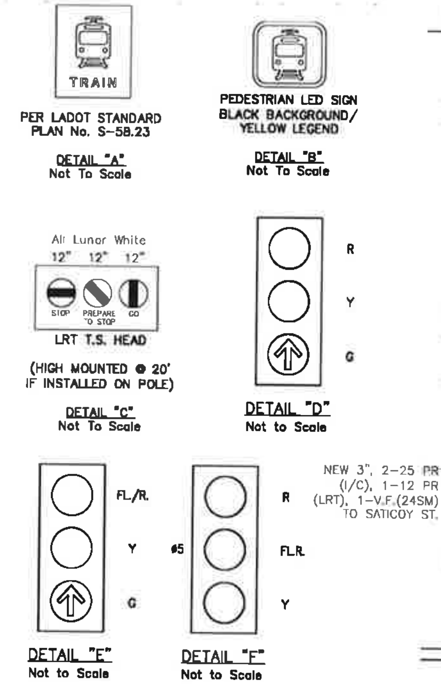
NOTES (CONT'D):

- REMOVE CONTROLLER, CABINET, AND FOUNDATION.
- INSTALL ATSAC 2070 CONTROLLER IN NEW 352 CABINET. THE CONTRACTOR SHALL PROVIDE A COMPLETE FUNCTIONING CONTROLLER ASSEMBLY AND CABINET CONFORMING TO THE LATEST LADOT SPECIFICATIONS FOR 2070 CONTROLLER AND 352 CABINET, AND SHALL INCLUDE ALL NECESSARY AUXILIARY EQUIPMENT TO PROVIDE A COMPLETE AND FUNCTIONING CONTROLLER SYSTEM. CONTRACTOR TO DELIVER ASSEMBLED CONTROLLER FOR TESTING TO THE DEPARTMENT OF TRANSPORTATION GENERAL SHOP, PIPER TECHNICAL CENTER, 555 RAMIREZ STREET THIRTY (30) DAYS PRIOR TO INSTALLATION. CONTRACTOR TO PICK UP AND INSTALL CONTROLLER ASSEMBLY ON NEW F-332 FOUNDATION.
- CONTRACTOR SHALL FURNISH AND INSTALL BATTERY BACKUP SYSTEM (BBS) IN NEW 332 CABINET PER LADOT SPECIFCATIONS 92-066-03 (LATEST EDITION). BBS SHALL BE COMPATIBLE WITH AND MEET ALL SPECIFICATIONS REQUIRED BY THE TRAFFIC SIGNAL SYSTEM; PROVIDE A MINIMUM OF 8 HOURS CONTINUOUS POWER TO OPERATE THE TRAFFIC SIGNAL; PROVIDE NORMALLY OPEN CONTACT OUTPUTS FOR "LOW BATTERY", "BATTERY FAIL" AND "ON-BATTERY".
- REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT, STANDARD, FOUNDATION AND ABANDON EXISTING CONDUITS.
- FURNISH AND INSTALL ELECTRIC TRAIN WARNING SIGN PER LADOT STD. DWG. NO. S-58.23.
- INSTALL ACCESSIBLE PEDESTRIAN SIGNAL (APS) PER LADOT STD. DWG. NO. S-73.2.
- ABANDON LOOPS.
- INSTALL COHU MODEL 3965-5100-PEDD CCTV WITH ER3960 SHAFT. PROVIDE 5 YEAR COHU CCTV WARRANTY. INSTALL COHU CA297E CAMERA CABLE FROM CAMERA TO CONTROLLER CABINET. INSTALL COHU7411444-001 3" EXTENSION BRACKET WITH THE NEW CAMERA. CONTRACTOR SHALL PROVIDE ALL NECESSARY CABLE AND CONNECTORS TO ENSURE A PROPERLY FUNCTIONING CCTV (VIDEO) SYSTEM. CONTACT COMMUNICATION ENGINEER AT (213) 978-0150 FOR ACCEPTANCE OF VIDEO MATERIALS AND EQUIPMENT SPECIFICATIONS PRIOR TO PURCHASE.
- INSTALL ALL NECESSARY AUXILIARY EQUIPMENT IN 352 CABINET TO INSURE PROPERLY FUNCTIONING CCTV (VIDEO) SYSTEM. CONTACT COMMUNICATION ENGINEER AT (213) 978-0150 FOR ACCEPTANCE OF VIDEO MATERIALS AND EQUIPMENT SPECIFICATIONS PRIOR TO PURCHASE.
- FURNISH AND INSTALL INTERNALLY ILLUMINATED RAISED PAVEMENT MARKERS (IIRPM) AS SHOWN. SEE DETAILS F, G, H, I AND J. SEE 'IIRPM OPERATIONS' FOR SEQUENCE DETAILS. PROVIDE AN OUTPUT CONNECTED TO EACH IIRPM FUNCTION OF THE LT PHASES AND/OR PROVIDE ONE OUTPUT CONNECTED TO THE LRT PHASES.
- SEE STREET LIGHTING SHEET FOR WORK ON STREET LIGHTING FACILITIES.
- INSTALL DETECTOR LOOP(S) FOR LADOT STD. DWG. NO. S-70.1.A & S-70.1.D CASE II. CONTRACTOR SHALL OBTAIN APPROVAL FROM LADOT INSPECTOR PRIOR TO INSTALLATION OF ANY LOOPS.
- INSTALL DETECTOR LOOP(S) PER LADOT STD. DWG. NO. S-70.1A. CONTRACTOR SHALL OBTAIN APPROVAL FROM LADOT INSPECTOR PRIOR TO INSTALLATION OF ANY LOOPS.
- INSTALL PREFORMED LRT TRACK AREA DETECTOR LOOP PER LADOT STD. DWG. NO. S-70.4A.
- CONTRACTOR TO PROVIDE TEN (10) MODEL GT-200-LRT LIGHT RAIL LOOP SENSORS. CONTACT RAUL DE ANDA AT (213) 473-8467 FOR CURRENT SPECIFICATIONS.
- CONDUIT SHALL BE INSTALLED AT A MINIMUM OF 36" DEPTH FROM TOP OF RAIL.
- INSTALL TWO(2) PREDICTOR 2070 CONTROLLERS IN NEW 332 CABINET. THE CONTRACTOR SHALL PROVIDE A COMPLETE FUNCTIONING CONTROLLER ASSEMBLY AND CABINET CONFORMING TO THE LATEST LADOT SPECIFICATIONS FOR 2070 CONTROLLER AND 332 CABINET AND SHALL INCLUDE ALL THE NECESSARY AUXILIARY EQUIPMENT TO PROVIDE A COMPLETE AND FUNCTIONING CONTROLLER SYSTEM. CONTRACTOR TO DELIVER COMPLETELY ASSEMBLED CONTROLLER FOR TESTING TO THE DEPARTMENT OF TRANSPORTATION GENERAL SHOP, PIPER TECHNICAL CENTER, 555 RAMIREZ STREET THIRTY (30) DAYS PRIOR TO INSTALLATION. CONTRACTOR TO PICK UP AND INSTALL CONTROLLER ASSEMBLY ON NEW F-332 FOUNDATION.

19. NOTIFY LADOT MAJOR CONSTRUCTION COORDINATION DIVISION AT (213) 972-5968 PRIOR TO START OF CONSTRUCTION.
20. ALL NEW VEHICLE AND PEDESTRIAN TRAFFIC SIGNALS SHALL BE LED MODULE, PER LADOT SPECIFICATION 92-088-06 (LATEST EDITION).
21. ALL PEDESTRIAN INDICATIONS SHALL BE LED COUNT-DOWN HEADS.
22. TRAFFIC CONSULTANT SHALL BE RESPONSIBLE FOR IDENTIFYING AND RESOLVING SUBSTRUCTURE CONFLICT WITH PROPOSED FOUNDATION DURING THE DESIGN PHASE AND INSTALLATION OF TRAFFIC SIGNAL EQUIPMENT.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LABOR AND MATERIAL INVOLVED IN THE REMOVAL, MARKOUT AND INSTALLATION OF ALL SIGNS, STRIPING AND PAVEMENT MARKINGS PER LADOT GEOMETRIC PLAN NO. S-B-002.
24. TRAFFIC CONSULTANT SHALL BE RESPONSIBLE FOR IDENTIFYING ALL THE EXISTING CONDITIONS, AND PREPARE ALL THE NECESSARY PLANS DURING THE DESIGN PHASE, TO INSTALL NEW ATSAC INTERCONNECT (I/C), VIDEO FIBER (V.F.), AND FIBER OPTIC (F.O.) TRUNKLINE COMMUNICATION CABLES, AND INCLUDE ALL THE NECESSARY SIGNAL EQUIPMENT TO ACCOMPLISH A NEW COMPLETE ATSAC COMMUNICATION SYSTEM.
25. TRAFFIC CONSULTANT SHALL BE RESPONSIBLE FOR PREPARING THE REQUIRED LRT DETECTOR LOOPS AND LRT PREDICTION PLAN(S), TO INCLUDE ALL THE NECESSARY ATSAC INTERCONNECT AND COMMUNICATION CABLES, AND THE INSTALLATION OF PREDICTOR CONTROLLER(S) FOR A COMPLETE LRT SYSTEM.
26. SEE SHEET NO. FO-B-004 FOR ADDITIONAL WORK RELATED TO ATSAC INTERCONNECT AND COMMUNICATION SYSTEM.

- CONTRACT SHALL FURNISH AND INSTALL TRAIN PREEMPTION INTERCONNECT CABLE AND 4-WIRE 22-AWG COMMUNICATION CABLE BETWEEN TRAFFIC SIGNAL CABINET AND TRAIN CONTROL BUNGALOW.
- INSTALL PREFORMED VEHICLE DETECTOR LOOP(S) PER LADOT STD. DWG. NO. S-70.1E.
- INSTALL METAL COVER TRAFFIC PULL BOX PER LADOT STD. DWG. NO. S-78.5.2.



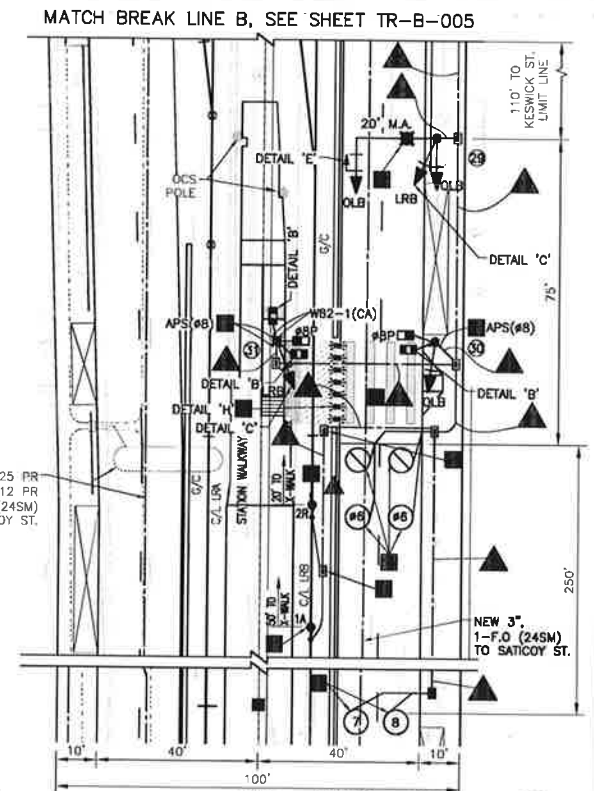
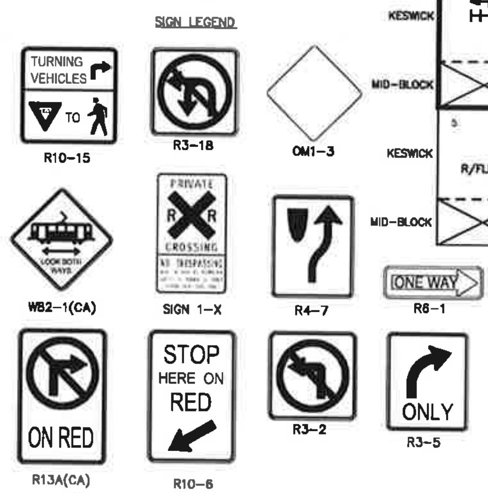


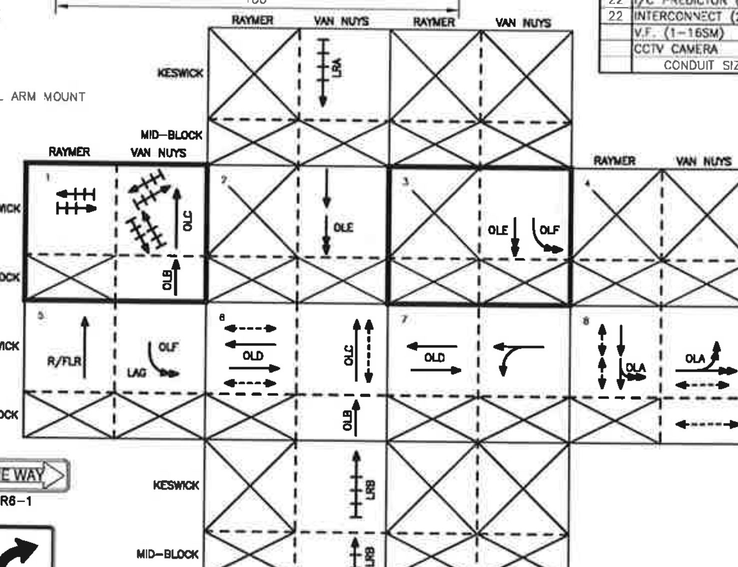
PHOTO ENFORCEMENT SYMBOLS

- RADAR UNIT MOUNTED ON TRAFFIC SIGNAL POLE
- AUXILIARY FLASH UNIT MOUNTED ON BSL POLE
- PHOTO ENFORCEMENT CAMERA WITH FLASH DUAL ARM MOUNT
- PHOTO ENFORCEMENT WARNING SIGN SR56 (CA)
- REAR VIDEO CAMERA

SIGN LEGEND



- INSTALL SEPARATE DLC PAIR FOR CURB LANE LOOPS.



PROPOSED PHASE DIAGRAM

- ▬ = EXCLUSIVE ONLY PHASE
- ◆◆ = GREEN EXTENSION
- OLA = #8 (OLA GREEN EXTENSION = X SEC.)
- OLB = #1+#8
- OLC = #1+#8
- OLD = #6+#7 (OLD GREEN EXTENSION = X SEC.)
- OLE = #2+#3 (OLE GREEN EXTENSION = X SEC.)
- OLF = #3+#5 (OLE GREEN EXTENSION = X SEC.)
- #1 = PREEMPTION ONLY FOR LRT TRAVELING ON TRACKS CROSSING KESWICK STREET.
- #3 = PREEMPTION TRACK CLEARANCE TIMING ONLY

CONDUCTOR SCHEDULE

SIZE No.	CABLE / WIRE	RUN																																			
MULTI	5 CONDUCTOR CABLE 5 X #14	1	1	2		3		8	3			3	2		4					4		4	5		6	2			5	3	3		2	5	3		2		
MULTI	9 CONDUCTOR CABLE 8 X #14 & 1 X #12 (COM)																																						
MULTI	13 CONDUCTOR CABLE 12 X #14 & 1 X #12 (COM)																																						
MULTI	28 CONDUCTOR CABLE 27 X #14 & 1 X #10 (COM)						1			2	1			2		2		1	2		2			2			1	1								1		2	2
MULTI	5 CONDUCTOR CABLE (APS) 5 X #14																			1	1				1	1	1		2								2	2	
6	SERVICE																																						
14	IIRPM CABLE (3 X #14)																1																						
14	PED PUSHBUTTON	2		2		2		2	2			2	2		2											2			2	2			2				2		
12	BUS DLC (1-PAIR)																																						
18	DLC (2 PAIR)				1		1			1	2			3		4		1	5		6						2	2				2		2		2		3	5
18	DLC (3 PAIR)																																						
12	LRT DLC (1 PAIR)									2				2		2			2		2			2								2		2		2		2	2
22	I/C PREDICTOR (12 PAIR)																																						
22	INTERCONNECT (25 PAIR)																																						
	V.F. (1-16SM)																																						
	CCTV CAMERA																							1			1											1
	CONDUIT SIZE	2"	2"	2"	2"	2"	3"	3"	2"	3"	3"	2"	2"	3"	2"	3"	2"	3"	3"	2"	3"	3"	2"	3"	3"	2"	3"	3"	3"	2"	2"	2"	2"	3"	2"	3"	2"	3"	3"

CONDUCTOR SCHEDULE

SIZE No.	CABLE / WIRE	RUN																																					
MULTI	5 CONDUCTOR CABLE 5 X #14	S		S	1	1		1		4					S	4		S																1		1			2		
MULTI	9 CONDUCTOR CABLE 8 X #14 & 1 X #12 (COM)	P		P											P			P																	1						
MULTI	13 CONDUCTOR CABLE 12 X #14 & 1 X #12 (COM)	A		A											A			A																							
MULTI	28 CONDUCTOR CABLE 27 X #14 & 1 X #10 (COM)	R	2	R			1		1		1	1	1	2	R			R						2																	
MULTI	5 CONDUCTOR CABLE (APS) 5 X #14	E	1	E	1										E			E																							
6	SERVICE																3		3	3	3	3	3																		
14	IIRPM CABLE (3 X #14)																																								
14	PED PUSHBUTTON				2																																				
12	BUS DLC (1-PAIR)																																								
18	DLC (2 PAIR)		11				2				3	3	4	15										15													1		1	1	1
18	DLC (3 PAIR)																																								
12	LRT DLC (1 PAIR)		4				4				4	4	4	8					4			4		16	2	4	2	4	2	2	2	2	4								
22	I/C PREDICTOR (12 PAIR)																																								
22	INTERCONNECT (25 PAIR)																																								
	V.F. (1-16SM)																																								
	CCTV CAMERA		1											1									1																		
	CONDUIT SIZE	3"	3"	3"	2"	2"	3"	2"	3"	2"	3"	3"	3"	3"	3"	2"	2"	3"	2"	3"	3"	3"	3"	3"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	3"	2"	2"	2"	2"	2"	2"

CONDUCTOR SCHEDULE

SIZE No.	CABLE / WIRE	RUN																			
MULTI	5 CONDUCTOR CABLE 5 X #14						2														
MULTI	9 CONDUCTOR CABLE 8 X #14 & 1 X #12 (COM)																				
MULTI	13 CONDUCTOR CABLE 12 X #14 & 1 X #12 (COM)																				
MULTI	28 CONDUCTOR CABLE 27 X #14 & 1 X #10 (COM)																				
6	SERVICE																				
14	IIRPM CABLE (3 X #14)														1						
18	DLC (2 PAIR)							1			1									2	1
22	I/C PREDICTOR (12 PAIR)							1		1											
22	INTERCONNECT (25 PAIR)		3		3	3		2		2							3				
22	INTERCONNECT (4 X #22)			1														1			
	V.F. (1-24SM)		1		1	1		1		1							1				
	V.F. (1-12SM)		1		1	1											1				
	F.O. (1-24SM)								1			1	1						1		
	CONDUIT SIZE	3"	3"	3"	3"	3"	2"	3"	3"	3"	2"	3"	3"	3"	2"	3"	3"	3"	3"	2"	2"

TRAFFIC SIGNAL RESTORATION PLAN
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT

REVIEWED ____ 20 __	RECOMMENDED ____ 20 __	ACCEPTED ____ 20 __
Transportation Engineer	Senior Transportation Engineer	Principal Transportation Engineer

AS BUILT

Date of Installation: ____
LADOT Inspector: ____
Condition As Of: ____
LADOT Engineer: ____
District: East Valley
Thomas Guide: 532 A3
References: As-Built: 02-24-04; PROJ.: 74212 PLAN: XXXX; Field Investigation

CITY OF LOS ANGELES
DEPARTMENT OF TRANSPORTATION
SELETA J. REYNOLDS, General Manager

TITLE
KESWICK ST., VAN NUYS BLVD. & RAYMER ST. SHEET 2 OF 3

File Name	Intersection No.	Project No.
31250-2020.DWG	31250	PCM14007

NOTICE: IF PLAN HAS NOT BEEN IMPLEMENTED WITHIN TWO (2) YEARS OF THE ACCEPTANCE DATE, IT MUST BE RESUBMITTED TO LADOT METRO PROGRAMS DIVISION FOR REVIEW.

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA) UNDER THE FEDERAL TRANSIT ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
▲	10/12/22						CPUC APPLICATION #3
0	01/29/21						30%/60% DESIGN SUBMITTAL

DESIGNED BY: M. GUTIERREZ
DRAWN BY: M. GUTIERREZ
CHECKED BY: N. KIM
IN CHARGE: B. LI
DATE: 04/30/21

FOR REVIEW ONLY NOT FOR CONSTRUCTION

Metro — LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

PLANS PREPARED BY: iteris — 1700 Carnegie Avenue, Suite 100, Santa Ana, CA 92705-551, Phone: (949)270-9400, Fax: (949) 270-9481

PROJECT PRIME: Gannett Fleming

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR
TRAFFIC SIGNAL RESTORATION PLAN
KESWICK ST. & VAN NUYS BLVD./RAYMER ST.
SHEET 2 OF 3

CONTRACT NO: E-0129
DRAWING NO: TR-B-006
REV: 1
SCALE: 1" = 20'
SHEET NO:

NO.	REVISION DESCRIPTION	DIV./DIST. ENGR.	DATE	BY	DATE	BY	DATE

CHECKED / DESIGNER / SR. DRAFTING / DRAFTING / FIELD / BASE
TIMING / DISTRICT / GEOMETRIC / ATSAC / METRO RAIL / TRANSIT PRIORITY

1" = 20' ORIGINAL MAPS SCALE 1" = 40'

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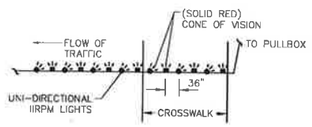
IIRPM OPERATIONS:

1. IIRPM LIGHTS FACING KESWICK STREET WESTBOUND AND EASTBOUND
   1.1. LIGHTS SHALL BE SOLID RED WHEN LRT PHASE IS ACTIVE.
   1.2. LIGHTS SHALL TURN OFF WHEN LRT PHASE IS INACTIVE.
2. IIRPM LIGHTS FACING VAN NUYS SOUTHBOUND LEFT-TURN LANE
   2.1. LIGHTS SHALL BE SOLID RED:
   WHEN LEFT TURN PHASE (ø5) IS RED OR
   WHEN LRT PHASE IS ACTIVE.
   2.2. LIGHTS SHALL TURN OFF WHEN LEFT TURN PHASE (ø5) IS GREEN OR YELLOW AND LRT PHASE IS INACTIVE.
3. IIRPM LIGHTS FACING VAN NUYS NORTHBOUND LANE
   3.1. LIGHTS SHALL BE SOLID RED:
   WHEN LEFT TURN PHASE (ø6) IS RED OR
   WHEN LRT PHASE IS ACTIVE.
   3.2. LIGHTS SHALL TURN OFF WHEN LEFT TURN PHASE (ø6) IS GREEN OR YELLOW AND LRT PHASE IS INACTIVE.
4. IIRPM LIGHTS FACING METROLINK STATION PED XING (NORTH) (INCLUDING BI-DIRECTIONAL LIGHTS)
   4.1. LIGHTS SHALL BE SOLID RED WHEN LRT PHASE IS ACTIVE.
   4.2. LIGHTS SHALL TURN OFF WHEN LRT PHASE IS INACTIVE.
5. IIRPM LIGHTS FACING RAYMER STREET NORTHBOUND AND SOUTHBOUND
   5.1. LIGHTS SHALL BE SOLID RED WHEN LRT PHASE IS ACTIVE.
   5.2. LIGHTS SHALL TURN OFF WHEN LRT PHASE IS INACTIVE.

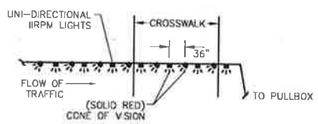
LEGEND:

UNI-DIRECTIONAL IIRPM LIGHT

BI-DIRECTIONAL IIRPM LIGHT



DETAIL "F"
Not To Scale



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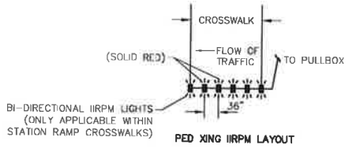

PED XING IIRPM LAYOUT

DETAIL "H"
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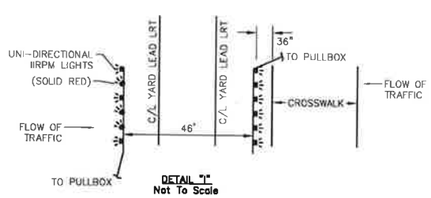

DETAIL "I"
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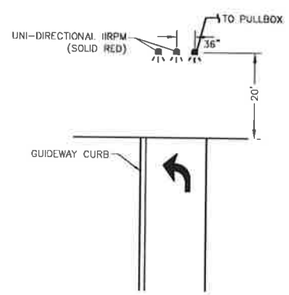


LEFT-TURN LANE IIRPM LAYOUT

DETAIL "J"
Not To Scale

LRT SEQUENCE: THROUGH-ONLY LRT OPERATIONS

1. LRT ENTERS TRACK CIRCUIT AND INITIATES CALL VIA THE TRAIN CONTROL BUNGALOW TO THE TRAFFIC SIGNAL CONTROLLER TO PROCEED WITH LRT THROUGH MOVEMENTS (NORTHBOUND/SOUTHBOUND) AT VAN NUYS BOULEVARD/KESWICK STREET.
2. PEDESTRIAN SIGNALS FOR PHASE 8P DISPLAYING "WALK" INDICATION COMPLETE THE TIMING OF "WALK" AND THEN ENTER INTO PEDESTRIAN CLEARANCE. PEDESTRIAN SIGNALS NOT SHOWING "WALK" INDICATION WILL NOT START A "WALK" INDICATION. CONCURRENT VEHICULAR SIGNALS TIME NORMALLY UNTIL YELLOW CLEARANCE, EXCEPT IF PHASES OLB, OLC, OLE, AND OLF ARE GREEN, THEN THEY REMAIN GREEN.
3. UPON COMPLETION OF PEDESTRIAN CLEARANCE FOR PHASE 8P, PEDESTRIAN SIGNALS DISPLAY SOLID "DON'T WALK". UPON COMPLETION OF YELLOW CLEARANCE FOR VEHICULAR INDICATIONS, VEHICULAR SIGNALS DISPLAY SOLID RED.
4. PHASES 2, OLB, OLC, AND OLE WILL REMAIN GREEN UNTIL THE LRT PROCEEDS THROUGH VAN NUYS BLVD. & KESWICK ST. INTERSECTION VIA LRT PHASES LRA AND/OR LRB. SOLID RED FOR ALL OTHER VEHICULAR SIGNALS.
5. LRT LEAVES CIRCUIT VIA ACTIVATION LOOPS.
6. SIGNAL RETURNS TO NORMAL OPERATION.

PHOTO ENFORCEMENT NOTES:

- METRO'S PHOTO ENFORCEMENT VENDOR TO FURNISH AND INSTALL PHOTO ENFORCEMENT CAMERA WITH FLASH POLE. CONNECT CAMERA SERVICE, BRT RED, YELLOW, AND GREEN SENSOR WIRES, AUXILIARY FLASH POWER TRIGGER CONDUCTORS, AND GROUND AT CAMERA POLE TERMINAL BLOCK.
- PHOTO ENFORCEMENT CONTRACTOR TO INSTALL 10' GROUND ROD. METRO'S PHOTO ENFORCEMENT VENDOR TO CONNECT 6 AWG SOLID GROUND WIRE TO PHOTO ENFORCEMENT CAMERA POLE WITH FLASH ARM MOUNT TERMINAL BLOCK GROUND LUG.
- METRO'S PHOTO ENFORCEMENT VENDOR TO INSTALL AUXILIARY FLASH UNIT, FURNISHED BY XEROX, ON STREET LIGHTING POLE. MAKE CONNECTIONS AT FLASH UNIT TERMINAL BLOCK FOR FLASH UNIT POWER AND TRIGGER CONNECTIONS.
- METRO'S PHOTO ENFORCEMENT VENDOR TO INSTALL XEROX-FURNISHED PHOTO ENFORCEMENT WARNING SIGN SR56 (CA) AND SIGN POLE, PRIOR TO ACTIVATION OF SYSTEM.
- METRO'S PHOTO ENFORCEMENT VENDOR TO INSTALL REAR VIDEO CAMERA ON 10' POLE.
- METRO'S PHOTO ENFORCEMENT VENDOR TO MOUNT RADAR UNIT ON NEW TRAFFIC SIGNAL POLE APPROX. 19' FROM GRADE (MINIMUM HEIGHT IS 13').
- PHOTO ENFORCEMENT CONTRACTOR TO INSTALL WATERPROOF 120V AC SERVICE CONNECTOR FOR EACH PHOTO ENFORCEMENT CAMERA AT SERVICE PULL BOX. PROVIDE IN-LINE WATERPROOF FUSE HOLDER WITH 15A FUSER IN EACH CAMERA SERVICE CIRCUIT.
- PHOTO ENFORCEMENT CONTRACTOR TO INSTALL 10' GROUND ROD. METRO'S PHOTO ENFORCEMENT VENDOR TO CONNECT 6 AWG SOLID GROUND WIRE TO AUXILIARY FLASH UNIT TERMINAL GROUND LUG.
- METRO'S PHOTO ENFORCEMENT VENDOR SHALL FURNISH AND INSTALL PHOTO ENFORCEMENT TRAFFIC UNIT AND COMMUNICATION CHANNEL CARD IN 352 CABINET.
- METRO'S PHOTO ENFORCEMENT VENDOR TO FURNISH AND INSTALL 4 CURRENT SENSING SWITCHES (CR MAGNETICS CR9350-ACA), MOUNTED ON XEROX-FURNISHED PANEL, ON CABINET FRAME A DIRECTED BY LADOT. INSTALL IN-LINE WATERPROOF FUSE HOLDER WITH 5A FUSE IN SWITCH OUTPUT TO CAMERA UNIT.

RAILROAD PREEMPTION FOR YARD LEAD OPERATIONS

1. TRAIN WILL BE ENTERING THE YARD; PREEMPTION IS ACTIVATED.
2. IF A PHASE IS DISPLAYING "WALK" IT IMMEDIATELY ADVANCES TO FLASH DON'T WALK. PEDESTRIAN CLEARANCE TIME WILL COMPLETE THE FULL INTERVAL.
3. AFTER PEDESTRIAN CLEARANCE TIME IS COMPLETED, CURRENT VEHICULAR PHASE WILL ADVANCE TO YELLOW INTERVAL AND ALL-RED INTERVALS.
4. PREEMPTION WILL THEN DISPLAY GREEN FOR THE TRACK CLEARANCE PHASES ONLY FOR PHASE 3. ALL OTHER INDICATIONS WILL DISPLAY RED FOR THE VEHICULAR PHASES AND OVERLAPS. THE CLEARANCE PHASE WILL TIME FOR XX SECONDS.
5. CLEARANCE PHASES WILL ADVANCE TO YELLOW AND ALL-RED INDICATIONS AFTER THE CLEARANCE TIME COMPLETES.
6. PHASE 1 WILL DISPLAY GREEN INDICATIONS AFTER THE CLEARANCE INTERVAL AND HOLD IN THIS PHASE WHILE PREEMPTION IS ACTIVE.
7. AFTER PREEMPTION CONCLUDES, PHASE 1 WILL TERMINATE AND DISPLAY YELLOW AND ALL-RED.
8. TIMING CONTINUES NORMAL OPERATION STARTING WITH PHASE 2 AND PHASE 6.

NO	REVISION DESCRIPTION	DIV./DIST. ENGR.	DATE	CHECKED	BY	DATE	TIMING	BY	DATE
				DESIGNER			DISTRICT		
				SR. DRAFTING			GEOMETRIC		
				DRAFTING			ATSAC		
				FIELD			METRO RAIL		
				BASE			TRANSIT PRIORITY		

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR PROJECT
TRAFFIC SIGNAL RESTORATION PLAN

REVIEWED ____ 20__	RECOMMENDED ____ 20__	ACCEPTED ____ 20__
Transportation Engineer	Senior Transportation Engineer	Principal Transportation Engineer

AS BUILT
Date of Installation:
LADOT Inspector:
Condition As Of:
LADOT Engineer:
District: East Valley
Thomas Guide: 532 A3
References: As-Built: 02-24-04 PROJ.: 74212 PLAN: XXXX Field Inveslligation

CITY OF LOS ANGELES
DEPARTMENT OF TRANSPORTATION
SELETA J. REYNOLDS, General Manager

TITLE
KESWICK ST., VAN NUYS BLVD. & RAYMER ST.
SHEET 3 OF 3

File Name: *31250-2020.DWG* | Intersection No.: *31250* | Project No.: *PCM14007*

NOTICE: IF PLAN HAS NOT BEEN IMPLEMENTED WITHIN TWO (2) YEARS OF THE ACCEPTANCE DATE, IT MUST BE RESUBMITTED TO LADOT METRO PROGRAMS DIVISION FOR REVIEW.

THE PREPARATION OF THIS DRAWING HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA) UNDER THE FEDERAL TRANSIT ACT OF 1964, AS AMENDED, AND IN PART BY THE TAXES OF THE CITIZENS OF LOS ANGELES COUNTY AND OF THE STATE OF CALIFORNIA.

REV	DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION
▲	10/12/22						CPUC APPLICATION #3
0	04/21/21						30%/60% DESIGN SUBMITTAL

DESIGNED BY: M. GUTIERREZ
DRAWN BY: M. GUTIERREZ
CHECKED BY: N. KIM
IN CHARGE: B. LI
DATE: 04/30/21

FOR REVIEW ONLY NOT FOR CONSTRUCTION

Metro — LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

PLANS PREPARED BY: iteris — 1700 Carnegie Avenue, Suite 100, Santa Ana, CA 92705-551, Phone: (949)270-9460, Fax: (949) 270-9481

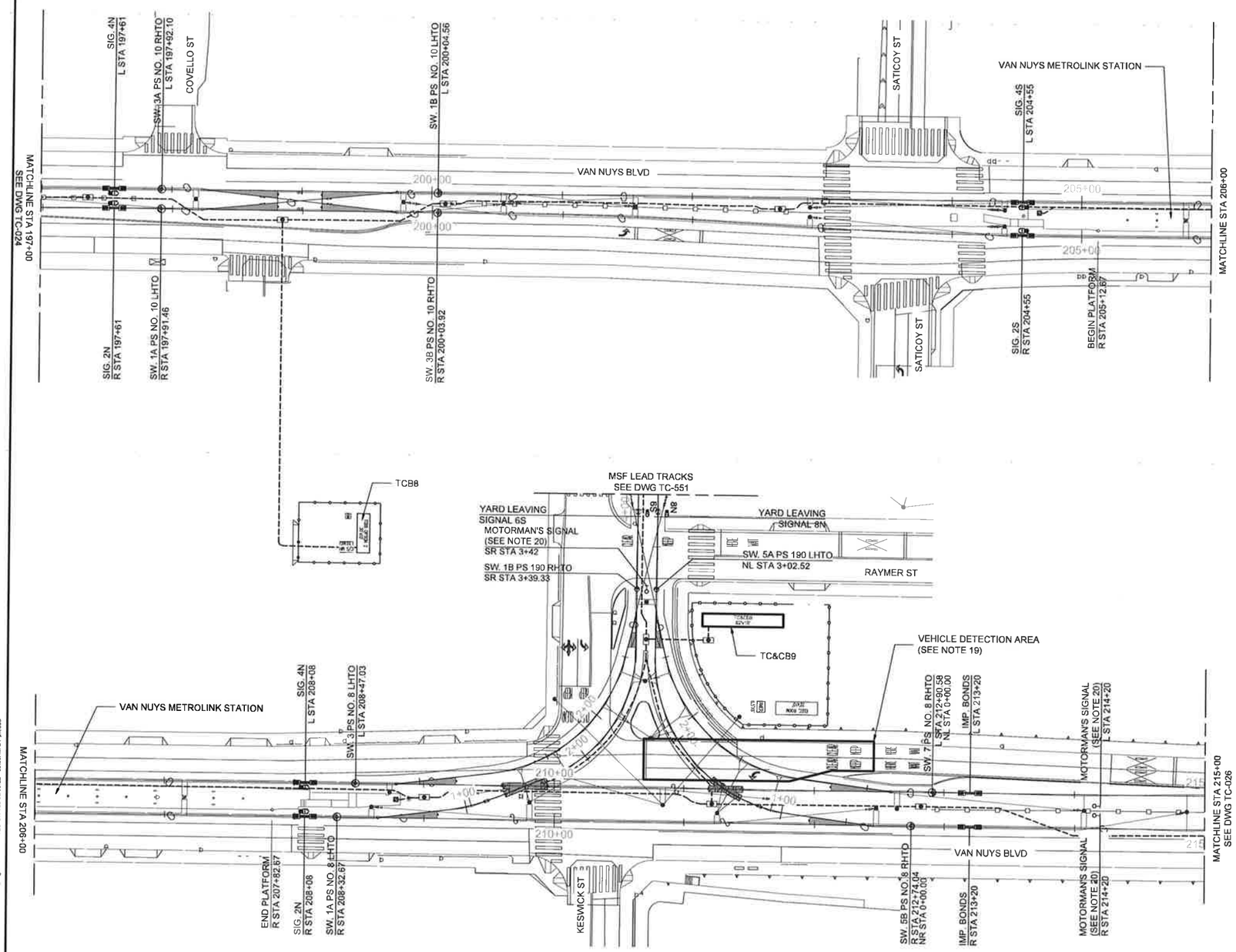
PROJECT PRIME: Gannett Fleming

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR
TRAFFIC SIGNAL RESTORATION PLAN
KESWICK ST. & VAN NUYS BLVD./RAYMER ST.
SHEET 3 OF 3

CONTRACT NO: E-0129
DRAWING NO: TR-B-006A | REV: 1
SCALE: 1" = 20'
SHEET NO:

C:\pwworking\dot01\ienryrich\dot01\d0989549\E0129-TR-B-004 10/13/2022 10:16 AM

1" = 20' ORIGINAL MAPS SCALE 1" = 40'



NOTES:

1. CAB SIGNALING TO BE CUT-IN FOR NORTHBOUND TRAVEL ON BOTH TRACKS AT SIGNALS 6N AND 8N NEAR WYANDOTTE STREET.
2. CAB SIGNALING TO BE CUT-OUT FOR SOUTHBOUND TRAVEL WHEN THE REAR OF THE TRAIN CLEARS THE DIAMOND INTERLOCKING LIMITS. CAB CUT-OUT CODE RATE FORCES THE TRAIN INTO STREET RUNNING MODE.
3. THE DIAMOND INTERLOCKING SHALL BE CONTROLLED FROM THE 30X10 TCB8 OPTION 1 OR OPTION 2.
4. SIGNALS 2N AND 4N AT THE DIAMOND INTERLOCKING SHALL BE LOW SIGNALS. REFER TO METRO TRAIN CONTROL DIRECTIVE DRAWING TCD-402. REFER TO DRAWING T-200 FOR TYPICAL CROSS SECTION AT THIS LOCATION. TRACK STATIONING SHOWN FOR SIGNALS 2N AND 4N IS APPROXIMATE. SIGNALS TO BE LOCATED 30' FROM THE POINT-OF-SWITCH.
5. SIGNALS 2S AND 4S AT THE SOUTH END OF THE VAN NUYS/METROLINK STATION SHALL BE HIGH SIGNALS. REFER TO METRO TRAIN CONTROL DIRECTIVE DRAWING TCD-401.
6. SIGNALS 2N AND 4N AT THE NORTH END OF THE VAN NUYS/METROLINK STATION SHALL BE HIGH SIGNALS. REFER TO METRO TRAIN CONTROL DIRECTIVE DRAWING TCD-401.
7. SIGNALS 6S AND 8N WEST OF RAYMER STREET AT THE YARD LEAD SHALL BE HIGH SIGNALS. REFER TO METRO TRAIN CONTROL DIRECTIVE DRAWING TCD-401.
8. THE BLOCK BOUNDARIES LOCATED TO THE NORTH OF SWITCHES NO. 7 AND 5B SHALL PROVIDE REAR END RELEASE FOR NORTHBOUND MAINLINE AND YARD EXIT ROUTES. ADDITIONAL TRACK CIRCUITS SHALL BE PROVIDED AS REQUIRED FOR TRAFFIC SIGNAL INTERFACES.
9. 10 MPH AND 15 MPH SPEED RESTRICTIONS ON THE YARD TURNOUT TRACKS AND THE MAINLINE, RESPECTIVELY, SHALL BE ENFORCED BY CAB SIGNALING.
10. THE YARD ACCESS INTERLOCKING IS TO BE CONTROLLED FROM THE TC&CB9 LOCATED SOUTHTHEAST OF THE RAYMER/KESWICK INTERSECTION.
11. COORDINATE INTERFACE BETWEEN TRAIN CONTROL SYSTEM AND TRAFFIC SIGNAL SYSTEM AT RAYMER/KESWICK INTERSECTIONS, SOUTHBOUND VAN NUYS BLVD AND THE PEDESTRIAN CROSSWALK AT KESWICK STATION.
12. PROVIDE OCCUPANCY DETECTION FOR TRANSMISSION TO ROC, INTERFACE WITH TRAFFIC SIGNALING SYSTEM, AND OTHER FUNCTIONS IN CONFORMANCE WITH MRDC REQUIREMENTS.
13. COORDINATE PLACEMENT OF 2N SIGNAL AND ASSOCIATED IMPEDANCE BONDS WITH THE LOCATION OF THE PEDESTRIAN CROSSING AND ASSOCIATED TRAFFIC SIGNALING.
14. TWC LOOPS FOR SIGNALS 2N AND 4N SHALL BE INSTALLED BASED UPON NORMAL SIGNAL OFF-SETS. THE TWC LOOPS SHALL PROVIDE INTERLOCKING ROUTE INITIATION/CANCEL FOR THE DIAMOND INTERLOCKING.
15. TWC LOOPS FOR SIGNALS 6S AND 8N SHALL BE INSTALLED BASED UPON NORMAL SIGNAL OFF-SETS. IN ADDITION TO PROVIDING INTERLOCKING ROUTE INITIATION/CANCEL FOR LEAVING THE MSF AREA, THE TWC LOOPS SHALL ALSO PROVIDE TRAFFIC INTERFACE TO THE KESWICK/RAYMER/VAN NUYS INTERSECTION. THE TWC LOOP AT SIGNAL 6S, WHEN ALIGNED FOR A ROUTE ONTO R TRACK, SHALL ALSO PROVIDE TRAFFIC INTERFACE TO THE PEDESTRIAN CROSSING ON THE R TRACK AT THE NORTH END OF THE STATION.
16. TWC LOOPS FOR SIGNALS 2S AND 4S SHALL BE INSTALLED ON BOTH TRACKS BASED UPON THE TRAIN BERTH AT THE SOUTH END OF THE STATION. IN ADDITION TO PROVIDING INTERLOCKING ROUTE INITIATION/CANCEL FOR THE DIAMOND INTERLOCKING, THE TWC LOOPS SHALL PROVIDE FOR TRAFFIC INTERFACE TO THE SATICOY STREET CROSSING.
17. TWC LOOPS FOR SIGNALS 2N AND 4N SHALL BE INSTALLED ON BOTH TRACKS BASED UPON THE TRAIN BERTH AT THE NORTH END OF THE STATION. IN ADDITION TO PROVIDING INTERLOCKING ROUTE INITIATION/CANCEL FOR THE YARD ACCESS INTERLOCKING, THE TWC LOOPS SHALL PROVIDE FOR TRAFFIC INTERFACE TO THE KESWICK/RAYMER/VAN NUYS INTERSECTION. THE TWC AT SIGNAL 2N SHALL ALSO PROVIDE FOR TRAFFIC INTERFACE TO THE PEDESTRIAN CROSSING ON THE R TRACK AT THE NORTH END OF THE STATION.
18. COORDINATE NEGATIVE RETURN CROSSBOND INTERFACE AT CENTER TAPS OF IMPEDANCE BONDS LOCATED AT SIGNALS 2S AND 4S.
19. AUTOMOBILE VEHICLE DETECTION SHALL BE PROVIDED IN THE HIGHTLIGHTED AREA SHOWN BY THE TRAIN CONTROL SYSTEM FOR SB VAN NUYS BLVD TRAFFIC LANES THAT CONFLICT WITH TRAIN MOVEMENTS INTO AND OUT OF THE MSF.
20. GROUND MOUNTED MOTORMAN'S SIGNALS SHALL BE PROVIDED BY TRAIN CONTROL SYSTEM FOR SOUTHBOUND MAINLINE-TO-YARD TRAIN MOVES AND FOR NORTHBOUND YARD-LEAVING TRAIN MOVES.

40' 0 40' 80'
1" = 40'

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REV	DATE	BY	APP	REG. NO.	EXPIRES	SEAL HOLDER	DESCRIPTION
1	8/1/22						30%/60% DESIGN SUBMITTAL
0	8/7/20						15%/30% DESIGN SUBMITTAL

DESIGNED BY H. SCHWEITZER
DRAWN BY G. SESTOSO
CHECKED BY C. FOX
IN CHARGE S. BISTA
DATE 08/01/2022

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Metro
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

SECOTrans
LTK Engineering Services, NBA Engineering, Pacific Railway Enterprises, Inc., and Romas Consulting Services, Inc. Joint Venture

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

TRAIN CONTROL
TRACK PLAN
STA 197+00 TO STA 215+00

CONTRACT NO E0129
DRAWING NO TC-025
REV 1
SCALE 1:40
SHEET NO

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Plot Driver=NONE
E0129-TC-025.dwg