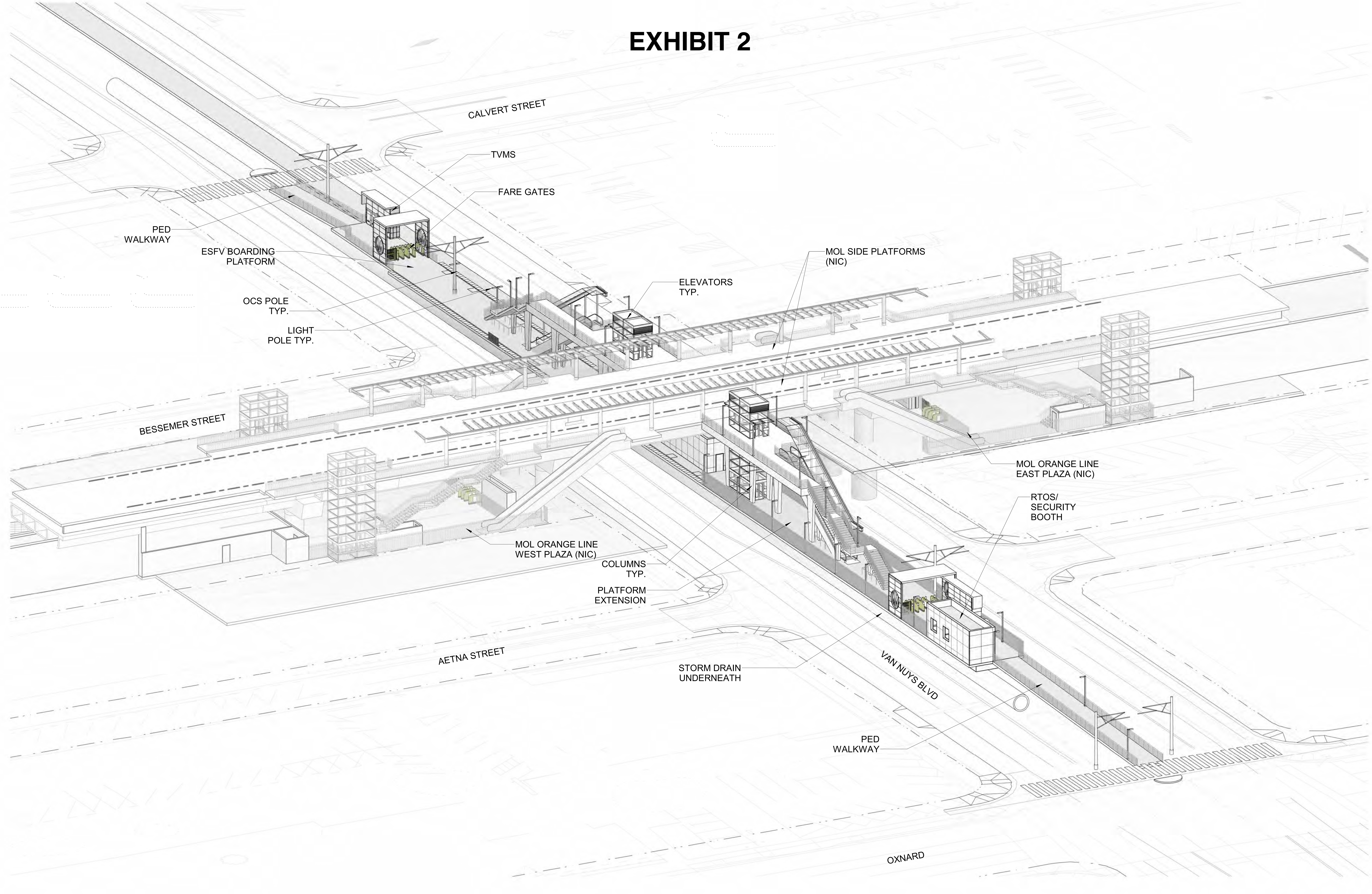
EXHIBIT 1

PLAN - VAN NUYS STATION

OPTION 1 - MEZZANINE AT VAN NUYS BLVD
GRADE SEP OVER VESPER AVE AND VAN NUYS BLVD

DRAFT - FOR DISCUSSION ONLY

EXHIBIT 2



1 **3D-VIEW**
SCALE:

Local File: BIM 360://065989 - LACMTA ESFV Transit Corridor/065989_ESFV MOL_A_CENTRAL_R19 051920.rvt
\x_central_R18.rvt
Project Number: #####
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REV	DATE	BY	APP	REG NO.	EXPIRES	SEAL HOLDER	DESCRIPTION
	11/20/19						BASIS OF DESIGN SUBMITTAL

DESIGNED BY: S. SOPORI
DRAWN BY: M. KHANBABIAN
CHECKED BY: H. IRFANI
IN CHARGE: P. KLINKON
DATE: 07/31/2020

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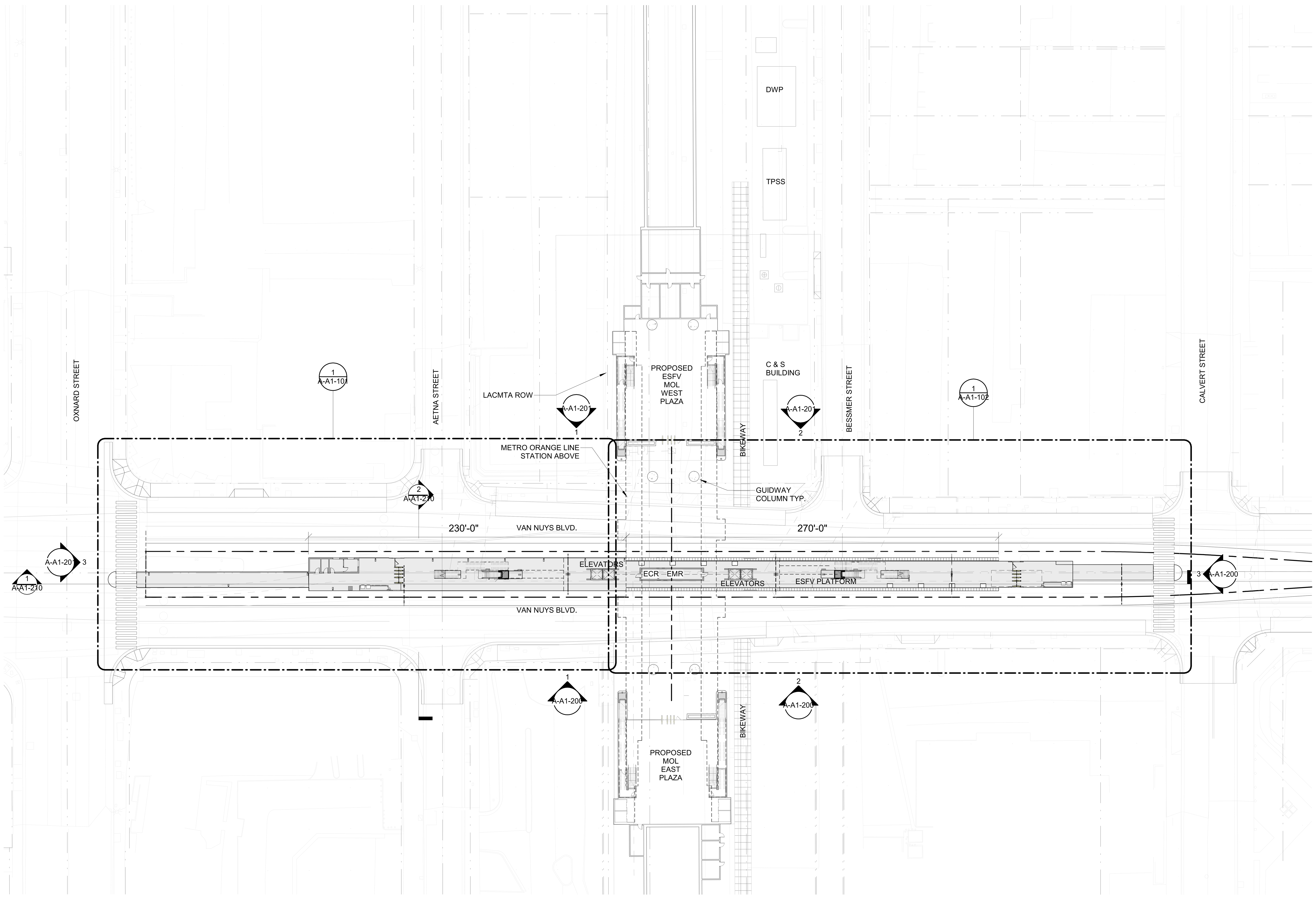
Metro
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

Gannett Fleming

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR
ESFV MOL STATION CONFIGURATION
VAN NUYS / METRO ORANGE LINE STATION
3D VIEW

CONTRACT NO: E0129
DRAWING NO: A-A1-001
REV:
SCALE: N.T.S.
SHEET NO.



1 SITE PLAN
SCALE: 1" = 40'-0"

40' 0' 40' 80'

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METROPOLITAN TRANSPORTATION AUTHORITY

Gannett Fleming

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR
ARCHITECTURAL
VAN NUYS / METRO ORANGE LINE STATION
SITE PLAN

CONTRACT NO: E0129
DRAWING NO: A-A1-100
REV:
SCALE: 1" = 40'-0"
SHEET NO:

Local File: BIM 360://065989 - LACMTA ESFV Transit Corridor/065989_ESFV MOL_A_CENTRAL_R19 051920.rvt
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Project Number: #####
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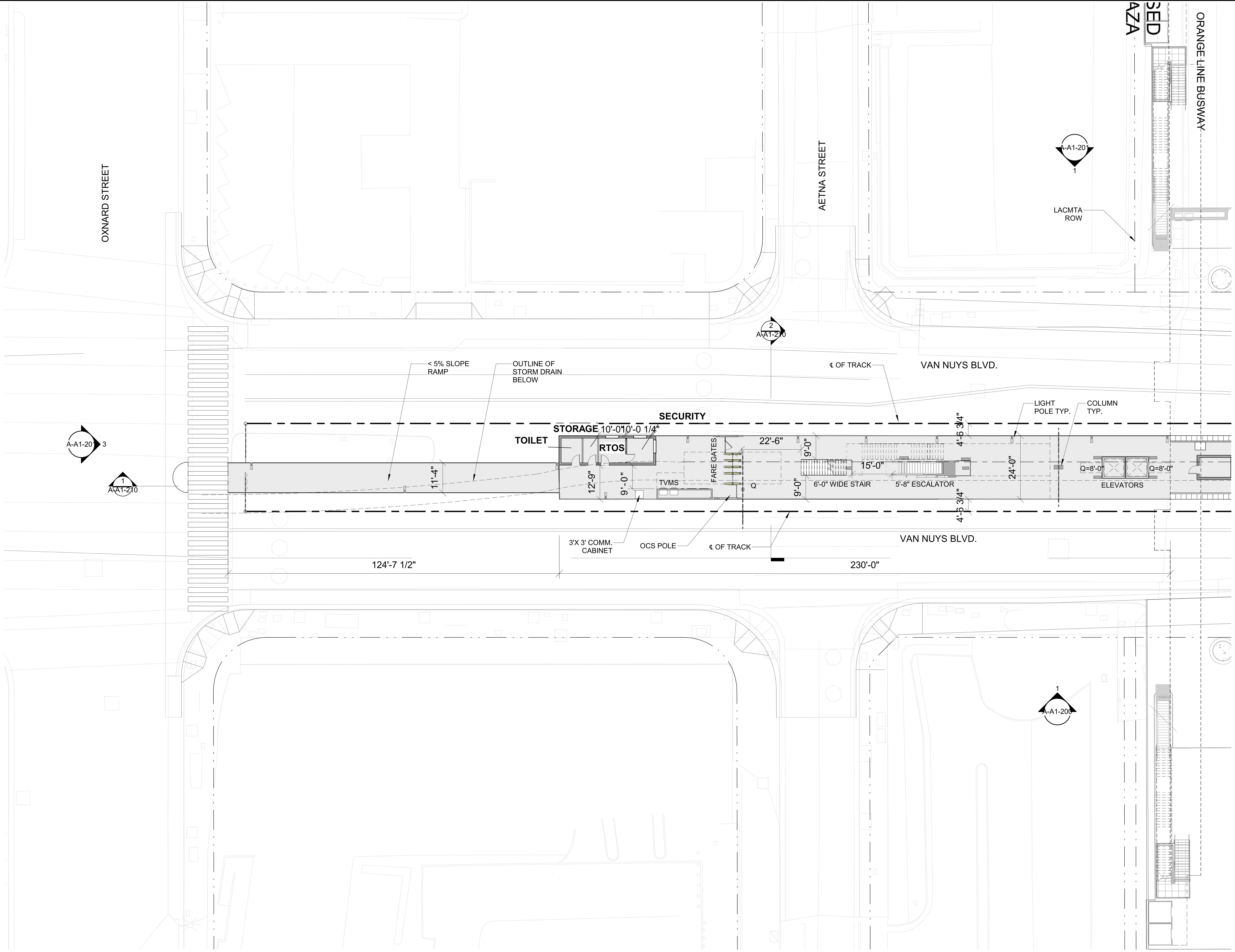

1 **PLATFORM PLAN - SOUTH**
SCALE: 1" = 20'-0"

NOTES:

1. SIX MIL THICK ANTI-ETCH SACRIFICIAL FILM INSTALLED ON FOR PROTECTION OF GLASS SURFACES.
2. ANTI-ETCH SACRIFICIAL FILM ON ALL STAINLESS STEEL SURFACE UP TO 10 FEET FROM GROUND.
3. ANTI GRAFFITI COATING ON ALL CONCRETE SURFACES.
4. ALL EMR, ECR, RTOS & SECURITY ROOM DOORS FACING PUBLIC SPACE TO BE STAINLESS STEEL.
5. EMR, ECR WALLS TO BE 1 HR FIRE RATED PER MRDC.
7. ALL METAL SURFACES TO BE STAINLESS STEEL PER MRDC AND PAVING PATTERN AT PLAZA LEVELTO BE PER LA METRO ARCHITECTRAL STANDARDS.

20' 0' 20' 40'

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DESIGNED BY: S. SOPORI
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CHECKED BY: H. IRFANI
IN CHARGE: P. KLINKON
DATE: 07/31/2020

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LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

Gannett Fleming

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR
ARCHITECTURE
VAN NUYS / METRO ORANGE LINE STATION
PLATFORM PLAN - SOUTH

CONTRACT NO: E0129
DRAWING NO: A-A1-101
REV
SCALE: As indicated
SHEET NO

Local File: BIM 360://065989 - LACMTA ESFV Transit Corridor/065989_ESFV MOL_A_CENTRAL_R19 051920.rvt
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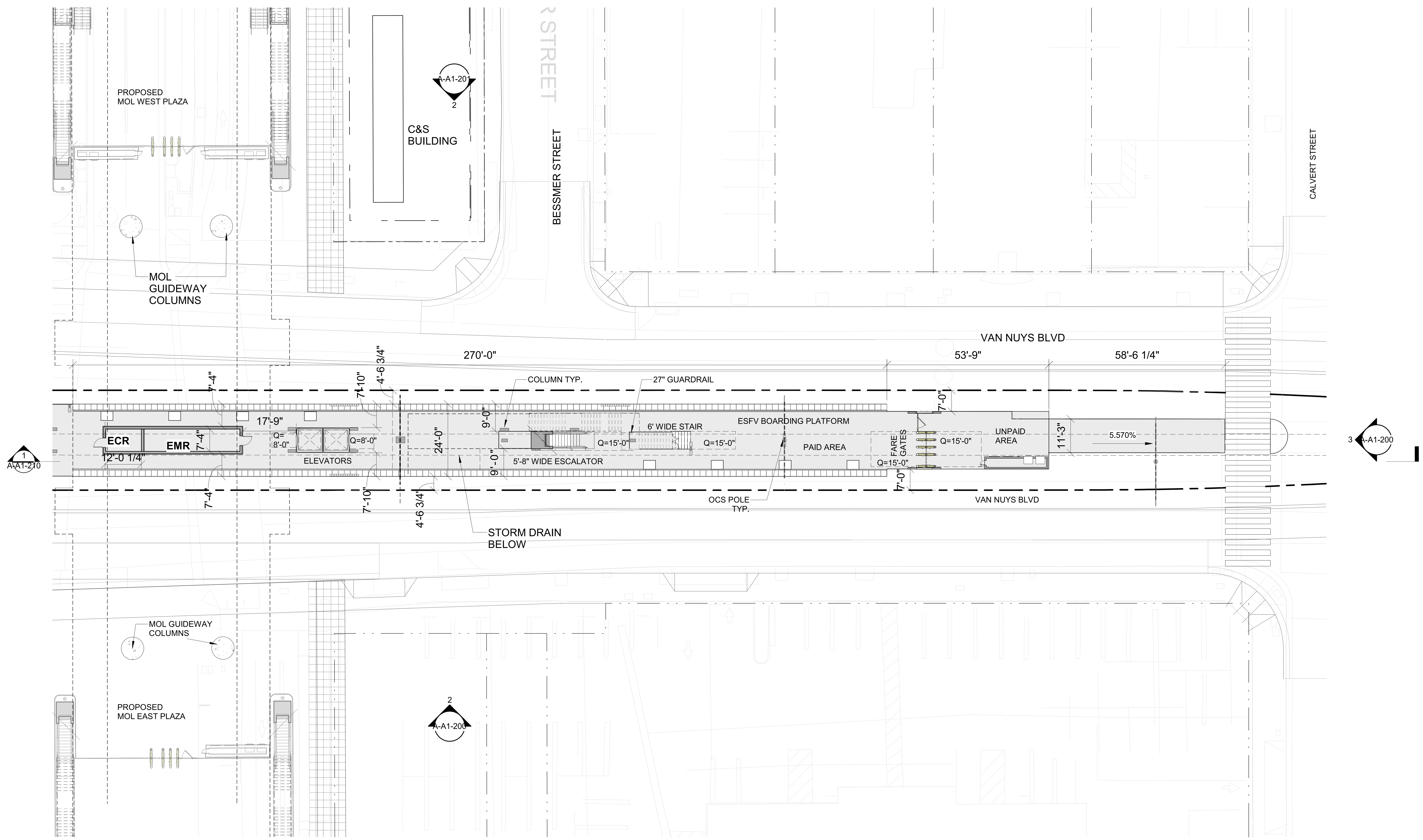

1 PLATFORM PLAN - NORTH

SCALE: 1" = 20'-0"

NOTES:

1. SIX MIL THICK ANTI-ETCH SACRIFICIAL FILM INSTALLED ON FOR PROTECTION OF GLASS SURFACES.
2. ANTI-ETCH SACRIFICIAL FILM ON ALL STAINLESS STEEL SURFACE UP TO 10 FEET FROM GROUND.
3. ANTI GRAFFITI COATING ON ALL CONCRETE SURFACES.
4. ALL EMR, ECR, RTOS & SECURITY ROOM DOORS FACING PUBLIC SPACE TO BE STAINLESS STEEL.
5. EMR, ECR WALLS TO BE 1 HR FIRE RATED PER MRDC.
7. ALL METAL SURFACES TO BE STAINLESS STEEL PER MRDC AND PAVING PATTERN AT PLAZA LEVELTO BE PER LA METRO ARCHITECTRAL STANDARDS.

20' 0' 20' 40'

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
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DESIGNED BY: S..SOPORI
DRAWN BY: M. KHANBABIAN
CHECKED BY: H. IRFANI
IN CHARGE: P. KLINKON
DATE: 07/31/2020

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Metro
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

Gannett Fleming

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR
ARCHITECTURE
VAN NUYS / METRO ORANGE LINE STATION
PLATFORM PLAN - NORTH

CONTRACT NO: E0129
DRAWING NO: A-A1-102
REV:
SCALE: As indicated
SHEET NO:

Local File:BIM 360://065989 - LACMTA ESFV Transit Corridor/065989_ESFV MOL_A_CENTRAL_R19 051920.rvt
\x_central_R18.rvt
Project Number: #####
07/01/2020 9:48:18 AM

1 **MOL PLATFORM LEVEL**
SCALE: 1" = 20'-0"

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REV	DATE	BY	APP	REG NO.	EXPIRES	SEAL HOLDER	DESCRIPTION
	11/20/19						BASIS OF DESIGN SUBMITTAL

DESIGNED BY: S. SOPORI
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CHECKED BY: H. IRFANI
IN CHARGE: S. SOPORI
DATE: 07/31/2020

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Metro
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY

Gannett Fleming

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR
ARCHITECTURAL
MOL PLATFORM LEVEL PLAN

CONTRACT NO: E0129
DRAWING NO: A-A1-103
REV:
SCALE: 1" = 20'-0"
SHEET NO:

Local File: BIM 360://065989 - LACMTA ESFV Transit Corridor/065989_ESFV MOL_A_CENTRAL_R19 051920.rvt
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Project Number: #####
07/01/2020 9:48:21 AM

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

MARCH 15, 2019

ADVANCED CONCEPTUAL ENGINEERING DRAWINGS
GUIDEWAY PLAN, PROFILE, AND TYPICAL SECTIONS

Metro

PREPARED BY:

KOA
1100 CORPORATE CENTER DRIVE, SUITE 201
MONTEREY PARK, CA 91754

STV 100 Years
1055 WEST 7TH STREET, SUITE 3150
LOS ANGELES, CA 90017

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ABBREVIATIONS

TRACK ALIGNMENT - HORIZONTAL

C/L	CENTERLINE
CS	CIRCULAR CURVE TO SPIRAL
PC	POINT OF CIRCULAR CURVE
PI	POINT OF INTERSECTION OF TWO TANGENTS
PT	POINT OF TANGENCY
TS	TANGENT TO SPIRAL
SC	SPIRAL TO CIRCULAR CURVE
SS	SPIRAL TO SPIRAL
ST	SPIRAL TO TANGENT OR SHORT TANGENT
CC	CENTER OF CIRCULAR CURVE
LC	LONG CHORD
DC	DEGREE OF CURVE
Δc	CENTRAL ANGLE OF CIRCULAR CURVE
Es	EXTERNAL DISTANCE
I	TOTAL INTERSECTION ANGLE
K	DISTANCE FROM TS TO PC ALONG TANGENT
L	TOTAL LENGTH OF CURVE
Lc	TOTAL LENGTH OF CIRCULAR CURVE
Ls	TOTAL LENGTH OF SPIRAL
L_{s1}	LENGTH OF SPIRAL IN
L_{s2}	LENGTH OF SPIRAL OUT
LT	LONG TANGENT
P	OFFSET DISTANCE FROM TANGENT TO PC, SPIRAL THROW
POS	POINT ON SPIRAL
POT	POINT ON TANGENT
POC	POINT ON CIRCULAR CURVE
Rc	RADIUS OF CIRCULAR CURVE
Tc	TANGENT LENGTH OF CIRCULAR CURVE
Ts	TANGENT DISTANCE FROM TS OR ST TO PI
θs	SPIRAL ANGLE
X	TANGENT DISTANCE FROM TS TO SC OR ST TO CS
Y	TANGENT OFFSET TO SC OR CS
Et	TOTAL SUPERELEVATION
Ea	ACTUAL SUPERELEVATION
Eu	UNBALANCED SUPERELEVATION
PS	POINT OF SWITCH
PITO	POINT OF INTERSECTION OF TURNOUT
PRC	POINT OF REVERSE CIRCULAR CURVE

TRACK ALIGNMENT - VERTICAL

VC	VERTICAL CURVE
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
POVC	POINT ON VERTICAL CURVE
LVC	LENGTH OF VERTICAL CURVE
MO	MIDDLE ORDINATE

UTILITY COMPANY / AGENCY ABBREVIATIONS

AAR	ASSOCIATION OF AMERICAN RAILROADS
AASHTO	ASSOCIATION OF AMERICAN STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ACI	AMERICAN CONCRETE INSTITUTE
AF	U.S. AIR FORCE
AM STATE	W. AMERICAN STATES WATER COMPANY (NOW LACOW)
ARCO	ATLANTIC RICHFIELD COMPANY (NOW FOUR CORNERS PIPELINE COMPANY)
AREMA	AMERICAN RAILWAY ENGINEERING & MAINTENANCE OF WAY ASSOCIATION
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AT&SF	ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY
BPL	BUREAU OF POWER AND LIGHT (NOW LA DWPPS)
BWS	BUREAU OF WATER SUPPLIES (NOW LA DWPWS)
CALTRANS	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
CON WCO	CONSERVATIVE WATER COMPANY (NOW LACOW)
DWP	LOS ANGELES DEPARTMENT OF WATER AND POWER
DWPWS	CITY OF LOS ANGELES, DEPARTMENT OF WATER AND POWER, WATER SYSTEM
DWPPS	CITY OF LOS ANGELES, DEPARTMENT OF WATER AND POWER, POWER SYSTEM
EMC	ENGINEERING MANAGEMENT CONSULTANT
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FTA	FEDERAL TRANSIT ADMINISTRATION
GP	GENERAL PETROLEUM (NOW MOBIL OIL)
GSD	CITY OF LOS ANGELES, GENERAL SERVICES DIVISION
GTE	GENERAL TELEPHONE COMPANY
LA	CITY OF LOS ANGELES
LACFCD	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
LACMTA	LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
LACO	COUNTY OF LOS ANGELES
LACOW	LOS ANGELES COUNTY WATER WORKS
LACRD	LOS ANGELES COUNTY ROAD DEPARTMENT
LACSD	LOS ANGELES COUNTY SANITATION DISTRICTS
LACTC	LOS ANGELES COUNTY TRANSPORTATION COMMISSION (NOW LACMTA)
LADOT	CITY OF LOS ANGELES, DEPARTMENT OF TRANSPORTATION
LADPW	LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LADWP-PS	CITY OF LOS ANGELES, DEPARTMENT OF WATER & POWER, POWER SYSTEMS
LADWP-WS	CITY OF LOS ANGELES, DEPARTMENT OF WATER & POWER, WATER SYSTEMS
LAG	LOS ANGELES GAS (NOW SCG OR TGC)
LAG&E	LOS ANGELES GAS & ELECTRIC (NOW SCG, TGC AND DWPPS)
LAPBL	LOS ANGELES TO PASADENA METRO BLUE LINE CONSTRUCTION AUTHORITY
LAWD	LOS ANGELES WATER DEPARTMENT (NOW DWPWS)
LAX	LOS ANGELES INTERNATIONAL AIRPORT
LB	CITY OF LONG BEACH
MTA	LOS ANGELES METROPOLITAN TRANSPORTATION AUTHORITY
MWD	METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
PAC BELL,PB	PACIFIC BELL COMPANY
PAS	CITY OF PASADENA
PACTEL, PTT	PACIFIC TELEPHONE & TELEGRAPH COMPANY
PUC	PUBLIC UTILITY COMMISSION
RCC	RAIL CONSTRUCTION CORPORATION
SCE	SOUTHERN CALIFORNIA EDISON COMPANY
SCAL W	SOUTHERN CALIFORNIA WATER COMPANY (NOW LACOW)
SCG	SOUTHERN CALIFORNIA GAS COMPANY(NOW THE GAS COMPANY)
SCRTD	SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT (NOW LACMTA)
SCT	SOUTHERN CALIFORNIA TELEPHONE COMPANY (NOW PACIFIC BELL)
SCWCO	SOUTHERN CALIFORNIA WATER COMPANY
SO PAC P	SOUTHERN PACIFIC PIPELINE COMPANY
SPTC OR SP	SOUTHERN PACIFIC TRANSPORTATION COMPANY
SO PAS	CITY OF SOUTH PASADENA
SPPWC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
STD OIL CO	STANDARD OIL COMPANY OF CALIFORNIA
TGC	THE GAS COMPANY(FORMERLY SOUTHERN CALIFORNIA GAS COMPANY)
TM-CATV	TIMES MIRROR CABLE TELEVISION (NOW SIMMONS CABLE TELEVISION)
UBC	UNIFORM BUILDING CODE
US	UNITED STATES
USC & GS	UNITED STATES COAST AND GEODETIC SURVEY
WUT	WESTERN UNION TELEGRAPH COMPANY(NOW ATS PART OF MCI)

MISCELLANEOUS

&	AND
@	AT
APPROX, APP	APPROXIMATE OR APPROXIMATELY
AB	AGGREGATE BASE
ABND	ABANDONED
ABS	ACRYLONITRILE-BUTADIENE-STYRENE
ABUT	ABUTMENT
AC	ASPHALT CONCRETE OR ASBESTOS CEMENT
ACC	ASPHALT CEMENT CONDUIT
ACD	ASPHALTIC CONCRETE DUCT
ACL	AUXILIARY CONTROL LINE
ACP	ASBESTOS CEMENT PIPE
ACWS	ASPHALT CONCRETE WEARING SURFACE
AGGR	AGGREGATE
AHD	AHEAD
AL	ALUMINUM OR LEFT TRACK - LINE A
ALIGN	ALIGNMENT
APP	APPROVED (REF)
APPROX	APPROXIMATELY
APPV	APPROVED
AR	RIGHT TRACK - LINE A
AS	AGGREGATE SUB-BASE
ASB	ASBESTOS
ASPH	ASPHALT
ATC	AUTOMATIC TRAIN CONTROL
AVE	AVENUE
AWG	AMERICAN WIRE GAUGE (GAGE)
A/R	AS REQUIRED
BB	BILLBOARD
BCOP	BARE COPPER
BCR	BEGIN CURB RETURN
BEG	BEGIN OR BEGINNING
BF	BOTTOM FACE
BFP	BACKFLOW PREVENTER
BIT	BITUMINOUS
BK	BACK
BL	BASELINE, BUILDING LINE OR LEFT TRACK-LINE B
BLDG	BUILDING
BLS	BLUE LIGHT STATION
BLVD	BOULEVARD
BM	BENCH MARK
BO	BLOW-OFF
BOC	BOTTOM OF CURB
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF SLOPE
BP	BEGIN PLATFORM
BSMT	BASEMENT
BRDG	BRIDGE
BRG	BEARING
BRK	BRICK
BRS	BLAST RELIEF SHAFT
BS	BELL AND SPIGOT
BUR CA	BURIED CABLE
BW	BOTTOM OF WALL OR BACK OF WALK
B TO B	BACK TO BACK
B-PC	SCHEDULE B - PLASTIC CONDUIT
C	CURB OR CONDUIT
CA	CABLE OR COMPRESSED AIR
CAB	CRUSHED AGGREGATE BASE
CB	CATCH BASIN
CBD	CENTRAL BUSINESS DISTRICT
CC-B	CONCRETE CONDUIT-TYPE B
CC-C	CONCRETE CONDUIT-TYPE C
CD	CURB DRAIN
CE	CONCRETE ENCASED
CF	CURB FACE
CFS	CUBIC FEET PER SECOND
C & G	CURB AND GUTTER
CGS	CENTER OF GRAVITY, STRAND
CHEM	CHEMICAL
CI	CAST IRON OR CURB INLET
CICLP, CIP(CL)	CAST-IRON CEMENT LINED PIPE
CIP	CAST IRON PIPE
CIRCUM	CIRCUMFERENCE
CISP(ES)	CAST IRON SOIL PIPE (EXTRA STRENGTH)
CJ	CONSTRUCTION JOINT, OR CONTROL JOINT
CL	CURB LINE OR CLASS
℄	CENTERLINE
CLF	CHAIN LINK FENCE
CLG	CEILING
CLR	CLEARANCE OR CLEAR
CMB	CRUSHED MISCELLANEOUS BASE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT, COUNTY, OR COMPANY
COL	COLUMN
COMM	COMMUNICATION
CONC	CONCRETE
CONC BL	CONCRETE BLOCK
COND	CONDUIT
CONF	CONFERENCE
CONN	CONNECT, CONNECTION, OR CONNECTOR
CONST	CONSTRUCT OR CONSTRUCTION
CONT	CONTINUED, CONTINUOUS, OR CONTINUATION
COORD	COORDINATE
COP	COPPER
COR	CORNER
CORR	CORRUGATE OR CORRUGATED
CPC	CORRUGATED PLASTIC CONDUIT, CEMETED PLASTIC PIPE
CPP	CORRUGATED PLASTIC PIPE
C/S	COMMUNICATIONS/SIGNALS
CSG	CASING
CSW	CONCRETE SIDEWALK
CTA	CENTRAL TANGENT ANGLE
CTB	CEMENT TREATED BASE
CU FT	CUBIC FOOT
CU IN	CUBIC INCH
CU YD	CUBIC YARD
CULV	CULVERT
CWD	CREOSOTED WOOD DUCT
CWR	CONTINUOUS WELDED RAIL
C TO C	CENTER TO CENTER
C-PC	SCHEDULE C - PLASTIC CONDUIT
D, d	DEPTH
D, DU, DCT	DUCT, D LOADING
DB	DUCT BANK
DEF	DEFLECTION
DEG	DEGREES
DEPT	DEPARTMENT
DESC	DESCRIPTION
DET	DETAIL
DF	DIRECT FIXATION
DG	DIESEL GAS OR DRY GAS
DI	DUCTILE IRON, DROP INLET
DIA OR Ø	DIAMETER
DIAG	DIAGRAM
DIM	DIMENSION
DIP(L)	DUCTILE IRON PIPE (LINED)
DIST	DISTRICT OR DISTANCE
DMD	DIAMOND
DMH	DRAINAGE MANHOLE
DML	DEMOLITION
DN	DOWN

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

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DRAWN BY A. LEWIS
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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

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STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

ABBREVIATIONS & SYMBOLS SHEET 1 OF 4

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ABBREVIATIONS

DW	DOMESTIC WATER
DWG	DRAWING
DWL	DOWEL
DWLG	DOWELLING
DWY	DRIVEWAY
E	EAST, ELECTRIC
EA	EACH
EB	EASTBOUND
EC	END CURVE
ECR	END CURB RETURN
E/E	EAST OF EAST RIGHT-OF-WAY LINE
EF	EACH FACE
EHH	ELECTRICAL HANDHOLE
EL	ELEVATION
ELEC	ELECTRIC OR ELECTRICAL
ELECT	ELECTRIC (REF)
ELEV	ELEVATOR OR ELEVATION
EMB	EMBANKMENT
EMH	ELECTRICAL MANHOLE
E/O	EAST OF
EOR	END OF ROAD
EP	EDGE OF PAVEMENT OR END PLATFORM
EQ	EQUAL, EQUATION OR EQUALITY
ES	EXTRA STRENGTH
ET	END TRACK
ETC	ET CETERA
ETS	EMERGENCY TRIP STATION
EW	EACH WAY
E/W	EAST OF WEST RIGHT-OF-WAY LINE
EX OR EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F	FIBER
FA	FIRE ALARM
FAC	FIRE ALARM CONDUIT
FAI	FRESH AIR INTAKE
FB	FIRE ALARM BOX
FBM	FOOT BOARD MEASUREMENT
FBP	FUTURE BEGIN PLATFORM
FC	FIBER CONDUIT OR FIRE CONNECTION
FD	FIBER DUCT, FLOOR DRAIN OR FIRE DEPARTMENT
FDN	FOUNDATION
FE	FLANGED END
FEP	FUTURE END PLATFORM
FF	FINISHED FLOOR OR FAR FACE
FFE	FINISH FLOOR ELEVATION
FG	FROG GAUGE PLATE OR FINISH GRADE
FH	FIRE HYDRANT
FIN	FINISH
FL	FLOW LINE, FUEL
FLG	FLANGE
FLP	FLOW LINE PIPE
FLR	FLOOR
FP	FIRE PROTECTION
FPS	FEET PER SECOND
FR	FRAME
FS	FIRE SERVICE, FINISHED SURFACE, OR FAR SIDE
FT	FOOT OR FEET
F TO F	FACE TO FACE
FWL	FIRE WATER LINE
FWY	FREEWAY
GA	GAUGE (GAGE)
GALV	GALVANIZE OR GALVANIZED
GAL(S)	GALLON(S)
GASO	GASOLINE

GB	GRADE BREAK
GIP	GALVANIZED IRON PIPE
GM	GAS METER
GND	GROUND
GP	GENERAL PACKAGE, GAUGE PLATE OR GRADING PLAN
GR	GRADE, GROUND OR GUARD RAIL PLATE
GRS	GALVANIZED RIGID STEEL
GSC	GALVANIZED STEEL CONDUIT
GV	GATE VALVE
GW	GUY WIRE
H	HIGH PRESSURE
HAP	HORIZONTAL ANGLE POINT
HB	HOSE BIB
HC	SANITARY SEWER HOUSE CONNECTION
HF	HEEL OF FROG
HGL	HYDRAULIC GRADE LINE
HH	HANDHOLE
HL	HEEL LENGTH
HMWPE	HIGH MOLECULAR WEIGHT POLYETHYLENE
HORIZ	HORIZONTAL
HOV	HIGH OCCUPANCY VEHICLE
HP	HORSE POWER, HEEL PLATE OR HIGH POINT
Hp	HORSEPOWER
HR	HEADROOM OR HOUR
HS	HIGH STRENGTH STEEL ASTM 432
HWY	HIGHWAY
ID	INSIDE DIAMETER
IFS	ICONIC FREEWAY STRUCTURE
IJ	INSULATED JOINT
IN	INCH OR INCHES
INV	INVERT
IP	IRON PIPE
JS	JUNCTION STRUCTURE
JT	JOINT
K	KIP OR KIPS
KF	KIP-FOOT
KLF	KIPS PER LINEAR FOOT
KSF	KIPS PER SQUARE FOOT
KV	KILOVOLT
L	LINE, LINING, OR LENGTH
LAT	LATERAL
LBS OR #	POUND(S)
LB-LA RTP	LONG BEACH-LOS ANGELES RAPID TRANSIT PROJECT (METRO BLUE LINE)
LD	LEAD
LF	LINEAR FOOT (FEET)
LG	LONG OR LENGTH
LGT	LIGHT (REF)
LH	LEFT HAND
LIN FT	LINEAR FEET
LJ	LEADED JOINT
LOC	LOCATE, LOCATED, OR LOCATION
LOL	LAYOUT LINE
LP	LOW PRESSURE OR LOW POINT
LPT	LOW POINT
LRT	LIGHT RAIL TRANSIT
LT	LEFT
LTG	LIGHTING

M	MAIN, MEDIUM PRESSURE
MACH	MACHINE OR MACHINERY
MAG	MAGNESIUM OR MAGNETIC
MAINT	MAINTENANCE
MAX	MAXIMUM
MBL	METRO BLUE LINE
MCD	MULTIPLE CONCRETE, CRESOTE DUCT
MCWD	MULTIPLE CREOSOTED WOOD DUCTS
MECH	MECHANICAL
MGL	METRO GREEN LINE
MH	MANHOLE
MIN	MINIMUM, MINUTES
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
ML	MORTAR LINED
ML & C	MORTAR LINED & COATED
MON	MONUMENT
MPH	MILES PER HOUR
MRL	METRO RED LINE
MTC	MULTI-TILE CONDUIT
MTD	MULTI-TILE DUCT
N	NORTH
N/A	NOT APPLICABLE
NB	NORTHBOUND
NF	NEAR FACE
NIC or N.I.C.	NOT IN CONTRACT
N/N	NORTH OF NORTH RIGHT-OF-WAY LINE
N/O	NORTH OF
NO. OR #	NUMBER
NRC	NON-REVENUE CONNECTOR
NRCP	NON-REINFORCED CONCRETE PIPE
NS	NEAR SIDE
N/S	NORTH OF SOUTH RIGHT-OF-WAY LINE
NTS	NOT TO SCALE
OC	ON CENTER(S) OR OVERCROSSING
OCS	OVERHEAD CONTACT SYSTEM
OD	OUTSIDE DIAMETER
OFC	ORANGEBURG FIBER CONDUIT
OG	ORIGINAL GROUND
OH	OVERHEAD
OPP	OPPOSITE
ORL	ORNAMENTAL LIGHTING
OTM	OTHER TRACK MATERIAL
P	PIPE
PA	POLICE ALARM OR PUBLIC ADDRESS
PB	PULL BOX
PCC	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVATURE
PCCP	PRE-STRESSED CONCRETE CYLINDER PIPE
PCL	PRIMARY CONTROL LINE
PCS	PIECES
PD	PAPER DUCT
PE	POLYETHYLENE OR PLAIN END, PLASTIC PIPE
PED	PEDESTRIAN
PEM	POLYETHYLENE MAIN, PLASTIC PIPE MEDIUM PRESSURE
PF	POINT OF FROG
PGL	PROFILE GRADE LINE
PITO	POINT OF INTERSECTION OF TURNOUT
PIV	POST INDICATOR VALVE

PL OR ⅊	PLATE
⅊	PROPERTY LINE
PLD	PLASTIC DUCT
PLT	PLASTIC TILE
PM	PARKING METER, PLASTIC PIPE MEDIUM PRESSURE
PO	PUSH-ON JOINT
POB	POINT OF BEGINNING
POC	POINT OF CONNECTION
POL	POLICE
PP	POWER POLE OR PAPER PIPE
PPD	PAPER PIPE DUCT
PROD	PRODUCT
PROP	PROPERTY OR PROPOSED
PS	POINT OF SWITCH
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSP	PAINT SHOP
PT(S)	POINT(S)
PUM, PXM	PLASTIC PIPE, MEDIUM PRESSURE
PV	PLUG VALVE
PVC	POINT OF VERTICAL CURVE
PVCC	POLYVINYL CHLORIDE CONDUIT
PVCP	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
PVMT	PAVEMENT
PWR	POWER
QTY	QUANTITY
QUAD	QUADRANT
R	RADIUS
RBM	RAILBOUND MANGANESE
RCB	REINFORCED CONCRETE BOX (CULVERT)
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RECT	RECTANGLE OR RECTIFIER
REF	REFERENCE
REINF	REINFORCE, REINFORCED, OR REINFORCEMENT
REQD	REQUIRED OR REQUIRE
RET	RETAINING
RET W	RETAINING WALL
REV	REVISE, REVISED, OR REVISION
RGS	RIGID GALVANIZED STEEL
RH	RIGHT HAND
ROW	RIGHT OF WAY
RR	RAILROAD
RT	RIGHT
RTP	RAIL TRANSIT PROJECT
RY	RAILWAY
R/W	RIGHT-OF-WAY
S	SOUTH, SLOPE, OR SIGN
SA	SERVICE AISLE
SB	SOUTHBOUND OR SPLICE BOX
SCC	STEEL CYLINDER CONCRETE (PIPE)
SCL	SECONDARY CONTROL LINE
SCRRA	SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY
SCWD	SINGLE CREOSOTED WOOD DUCT
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SEC	SECONDS
SECT	SECTION
SFP	SITE FINISH PLAN
SG	SUB GRADE
SHT	SHEET

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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
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CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

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KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

ABBREVIATIONS & SYMBOLS
SHEET 2 OF 4

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SHEET NO 4 OF 89

ABBREVIATIONS

SIG	SIGNAL
SIM	SIMILAR
SIP	SUPPORT IN PLACE
SL	STREET LIGHT
SLC	STREET LIGHT CONDUIT
SLPB	STREET LIGHT PULL BOX
SMH	SEWER MANHOLE
S/N	SOUTH OF NORTH RIGHT-OF-WAY LINE
SP	SPACE, SPACING, OR SITE PLAN
SPEC	SPECIFICATION(S) (REF)
SPR	SPRINKLER
SQ	SQUARE
S/S	SOUTH OF SOUTH RIGHT-OF-WAY LINE
SS	SANITARY SEWER OR STOP SIGN
SSD	SANDSTONE CEMENT DUCT
SSMH	SANITARY SEWER MANHOLE
ST	STREET
STA	STATION
STD	STANDARD OR SEWER TILED DUCT
STL	STEEL
STM	STEAM
STOR	STORAGE
STP	STEEL PIPE
STR	STRAIGHT
STRUCT	STRUCTURE
STY	STYRENE
SUB	SUBMITTED
SUPV	SUPERVISE OR SUPERVISOR
SURF	SURFACE
SW	SWITCH
SWK	SIDEWALK
SYM	SYMMETRICAL
TAN	TANGENT
T & B	TOP AND BOTTOM
TC	TILE CONDUIT, TOP OF CURB, TRACK CENTER, OR TRAIN ONTROL
TCC	TRAIN CONTROL/COMMUNICATIONS
TCCB	TRAIN CONTROL/COMMUNICATIONS BUILDING
TCCR	TRAIN CONTROL/COMMUNICATIONS ROOM
TCPRJ	PROJECTED TOP OF CURB
TD	TILE DUCT OR TILE DRAIN
TEL, T	TELEPHONE
TELE	TELESCOPING
TEMP	TEMPERATURE OR TEMPORARY
TERM	TERMINAL
TF	TOP OF FACE
TG	TOP OF GRADE, TOP OF GRATE, OR TELEGRAPH
THEO	THEORETICAL
THK	THICK OR THICKNESS
TL	TRAFFIC LIGHT OR TOE LENGTH
TMH	TELEPHONE MANHOLE
TO	TURNOUT
TOC	TOP OF CURB
TOP	TOP OF PIPE
TOS	TOP OF SLOPE
TP	POLICE TELEPHONE OR TRACTION POWER
TPS	TRACTION POWER SUBSTATION
TPSS	TRACTION POWER SUPPLY SYSTEM
T/LR	TOP OF LOW RAIL
T/R	TOP OF RAIL
TRD	TRANSIT DUCT
TRK	TRACK
TRPB	TRANSIT SHELTER PULLBOX
TS	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
TSCB	TRAFFIC SIGNAL CONTROL BOX
TSPB	TRAFFIC SIGNAL PULLBOX
TV	TELEVISION
TVCC	TRANSPORTED VITRIFIED CLAY CONDUIT
TVM	TICKET VENDING MACHINE
T/W	TOP OF WALL
TYP	TYPICAL
UC	UNDERCROSSING OR UNDER CONSTRUCTION
UD	UNDERDRAIN
UG	UNDERGROUND
UNK	UNKNOWN
UP	UNDERPASS OR COMBINATION POWER/TELEPHONE POLE
UPRR	UNION PACIFIC RAILROAD
UPE	UNDER PLATFORM EXHAUST
UNO	UNLESS NOTED OTHERWISE
V	VALVE, RATE OF SPEED, OR DESIGN SPEED
VAC	VACUUM
VAP	VERTICAL ANGLE POINT
VAR	VARIES OR VARIABLE
VCC	VITRIFIED CLAY CONDUIT
VCD	VITRIFIED CLAY DUCT
VCP	VITRIFIED CLAY PIPE
VCP(ES)	VITRIFIED CLAY PIPE (EXTRA STRENGTH)
VCT	VITRIFIED CLAY TILE
VERT	VERTICAL
VLT	VAULT
W	WEST OR WATER
W/	WITH
WB	WESTBOUND
WD	WATER DETECTOR
W/E	WEST OF EAST RIGHT-OF-WAY LINE
WG	WHITE GAS
WHH	WATER HANDHOLE
WHSE	WAREHOUSE
WI	WROUGHT IRON
WID	WIDTH
WIP	WROUGHT IRON PIPE
WL	WATER LEVEL
WLN	WATER LINE
WM	WATER METER
WMH	WATER MANHOLE
W/O	WITHOUT
WP	WORKING POINT OR WORK POINT
WSP	WELDED STEEL PIPE
WSP(L)	WELDED STEEL PIPE (CEMENT LINED)
WTR	WATER
WTW	WALL TO WALL
WV	WATER VALVE
WW	WASTEWATER
W/W	WEST TO WEST RIGHT-OF-WAY LINE
X-DRAIN	CROSS DRAIN
X-ING	CROSSING
X-MITER	TRANSMITTER
X-OVER	CROSS OVER
X-SECT	CROSS SECTION

SYMBOLS

AERIAL EASEMENT	
ASPHALT CONCRETE PAVEMENT	
AUTOMATIC GATE INTO PARKING AREA	
BALLAST	
BARRICADE POSTS, BOLLARDS	
BASE COURSE	
BEGIN OR END PLATFORM	BP OR EP
BENCH MARK	
BILLBOARD	
BLOCK WALL	
BORING & NUMBER	BOR 17
BOX	
BREAK LINE	
BRIDGE	
BUILDING	
BUMPING POST	
BUMPING POST NUMBER	000
CANOPY	
CATCH BASIN (CURB OPENING)	
CATCH BASIN (GRATING)	
CENTERLINE	
CLEANOUT	CO
COLUMN, BENT	
CONCRETE	
CONCRETE BARRIER	
CONCRETE CHANNEL	
CONSTRUCTION EASEMENT (TEMPORARY)	
CONTINUOUS WELDED RAIL	CWR
CONTOUR LINES	40 50
CONTROL POINT OR STREET INTERSECTION POINT	4-7-1
COORDINATE GRID CROSSHAIR	E174000 N87000
CURB	
CURB AND GUTTER	
CURVE NUMBER	A
CURVE POINT	PC,PT,PCC
DEPRESSION	
DOUBLE CROSSOVER	
DRAINAGE DITCH OR SWALE	
DRAINAGE INLET	
DRIVEWAY	
EDGE OF PAVEMENT	EP
EARTH	
ELASTOMER	
ELEVATION (EXISTING)	(175.2)
EMBANKMENT OR SLOPE	TOP OF SLOPE / BOTTOM OF SLOPE
EXISTING GROUND LINE	
FENCE-CHAIN LINK OR OTHER	
FIRE HYDRANT	
FLAGPOLE	FP
FLASHER	

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STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

ABBREVIATIONS & SYMBOLS SHEET 3 OF 4

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SYMBOLS

FOUNDATION OR RUIN	
GATE (PEDESTRIAN)	
GATE (RAILROAD)	
GATE (SWING)	
GUARD RAIL	
GRAVEL	
GRAVEL OR DIRT ROAD	
GROUND ROD	
GROUND ROD IN WELL	
GUY WIRE	
HANDICAPPED PARKING	
HEADSPAN	
HIGH VOLTAGE VAULT	HVV
HOSE BIB	
LANE LINES	
LIMIT OF GRADING	
LRT TCC SYSTEM HANDHOLE	CSE001
LRT TCC SYSTEM MANHOLE	CSE050
MANHOLE	SMH, EMH, TMH ETC
MANHOLE (EXIST)	
MATCH LINE	
METER BOX	WM
OCS POLE	
OIL WELL	
ORCHARD	
OVERHEAD SIGN	
OVERHEAD WIRES AND CABLES	
PALM TREE	
PARKING SPACES	
PERFORATED SUBDRAIN	
PICTURE CENTER	P C 1 4
PI	PI
PVI	PVI
PITO OR PI NUMBER	000
PLANTER	
POINT OF INTERSECTION OF TURNOUT (PITO)	PITO
POINT OF SWITCH (OR SWITCH MACHINE)	
POINT OF SWITCH NUMBER	000
POOL	N/A
POST WITH LIGHT & TRAFFIC LIGHT	TL
PULL BOX	
RAILROAD TRACK	
RAILROAD TURN-OUT	
RIDGE	R
RIGHT-OF-WAY	
SAND/CONC SURFACE	
SEWER, WATER OR GAS ENCASEMENT	
SIDEWALK, CONCRETE	
SINGLE CROSSOVER	
SHRUBBERY	
SOUNDWALL	
SOUNDWALL / RETAINING WALL	
SPA	S
AREA WITHIN STREET ROW - USAGE TO BE DETERMINED IN NEXT DESIGN PHASE	
SPOT ELEVATION	175.2
STANDPIPE	SP
STATION EQUATION	STA EQ 19+00.00 BK= 20+00.00 AHD
STEEL	
STREET LIGHT,TRAFFIC SIGNAL	(SL) (TS)
STREET LIGHT(EXIST)	
STREET LIGHT(PROPOSED)	SL
STREET SIGN	
SUBBALLAST	
SUBGRADE EARTH	
TANK	T
TIMBER	
TRACK CENTER LINE	AR 89+00
TRACTION POWER MANHOLE	TPN000
TRACTION POWER SUBSTATION	TPS
TRAFFIC CONDUIT	
TRAFFIC SIGNAL CONTROLLER	
TRANSIT SIGNAL	
TREE	
TURNOUT WITH NUMBER INDICATED	NO. 10
UNDERDRAIN	UD
UTILITY BOX	UB
UTILITY POLE	
VALVE, VENT	V, WV
WATER VALVE	
VALVE COVER	VC
VINEYARD	
WALL OR RETAINING WALL	
WELL	WELL
WOOD	
WORK POINT	
TACTILE WARNING STRIP	

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EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

ABBREVIATIONS & SYMBOLS SHEET 4 OF 4

CONTRACT NO
DRAWING NO GI-105
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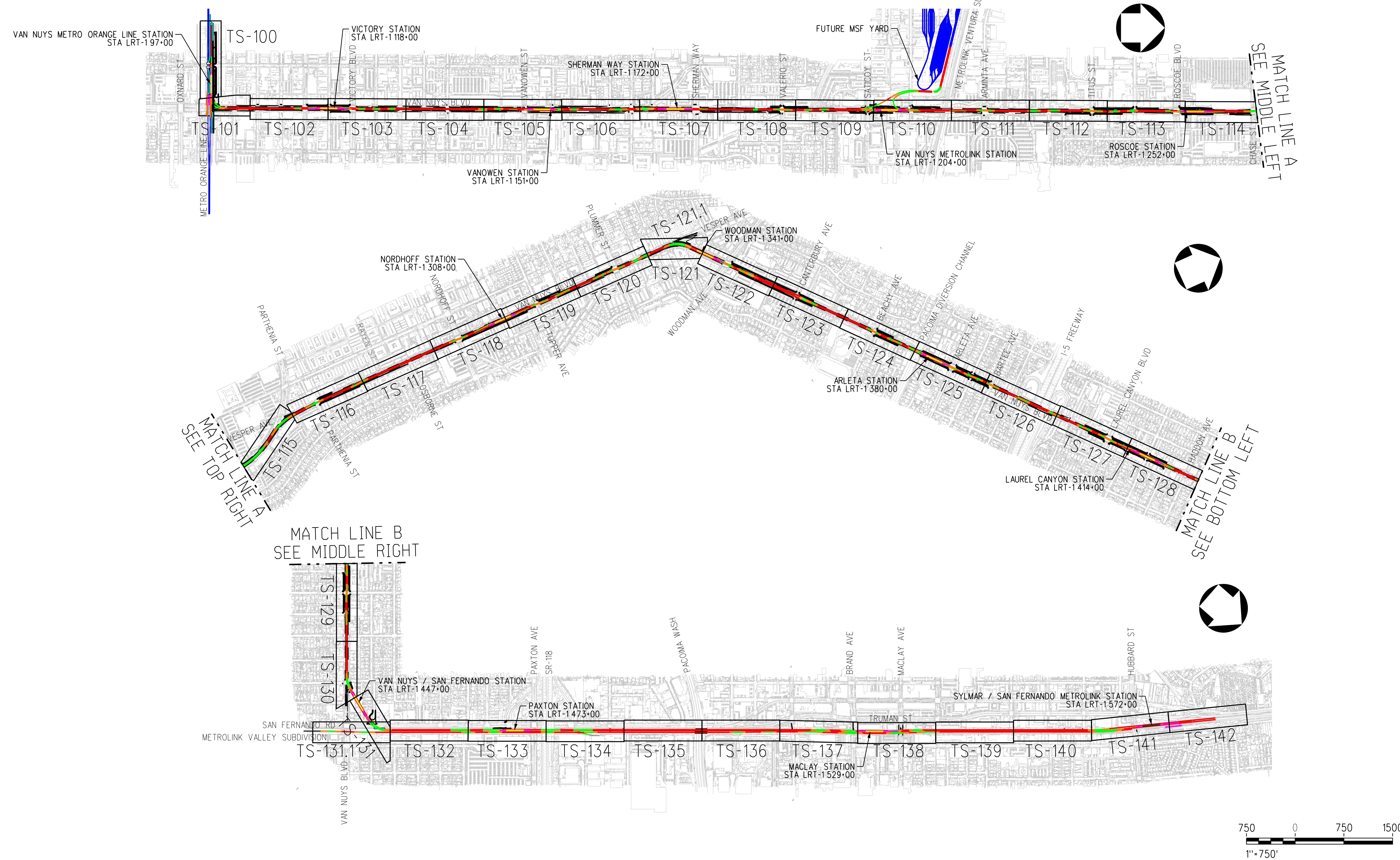
SHEET NO 6 OF 89



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STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

KEY MAP

CONTRACT NO
DRAWING NO GI-106
REV 0
SCALE NONE
SHEET NO 7 OF 89

LRT-1 TRACK GEOMETRY DATA

STATIONING DATA							INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	
	POB	N90°00'00"E	280.00	87+78.19	1888435.89	6424673.28																			
#8 LH T.O.	PS	N90°00'00"E	31.67	90+58.19	1888435.89	6424953.28																			
	PITO	N90°00'00"E	111.55	90+89.86	1888435.89	6424984.95																			
#8 RH T.O.	PITO	N90°00'00"E	31.67	92+01.42	1888435.89	6425096.51																			
	PS	N90°00'00"E	25.10	92+33.09	1888435.89	6425128.18																			
R-1000	PC			92+58.19	1888435.89	6425153.28																			
	PI				1888435.89	6425201.49	4°46'29"	0.00	0.72	15		4°36'07"	1200.00	4°36'07"	96.38	96.36									SEE NOTES 1, 3 & 6
	PT	S85°23'53"E	60.00	93+54.58	1888432.03	6425249.56																			
R-1005	PC			94+14.58	1888427.21	6425309.36																			
	PI				1888423.34	6425357.43	4°46'29"	0.00	0.72	15		4°36'07"	1200.00	4°36'07"	96.38	96.36									SEE NOTES 1 & 3
	PT	N90°00'00"E	328.48	95+10.96	1888423.34	6425405.64																			
R-1010	TS		100.00	98+39.44	1888423.34	6425734.12																			
	SC			99+39.44	1888432.81	6425833.31					100.00						16°22'13"	99.19	9.47	2.37	49.86	66.95	33.59	226.51	
	PI				1888459.60	6425924.52	32°44'26"	1.50	3.44	15		89°45'55"	175.00	57°01'29"	174.17	167.07									SEE NOTE 4
	CS		100.00	101+13.61	1888550.71	6425951.69																			
	ST	N00°14'05"E	195.01	102+13.61	1888649.85	6425961.56					100.00						16°22'13"	99.19	9.47	2.37	49.86	66.95	33.59	226.51	
#10 LH T.O.	PS	N00°14'05"E	31.42	104+08.62	1888844.86	6425962.36																			
	PITO	N00°14'05"E	139.9	104+40.04	1888876.28	6425962.49																			
#10 RH T.O.	PITO	N00°14'05"E	31.40	105+79.94	1889016.17	6425963.06																			
	PS	N00°14'05"E	674.80	106+11.35	1889047.59	6425963.19																			
R-1015	TS		40.00	112+86.16	1889722.39	6425965.96																			
	SC			113+26.16	1889762.39	6425966.14					40.00						0°05'44"	40.00	0.02	0.01	20.00	26.67	13.33	54.18	
	PI				1889776.83	6425966.23	0°28'39"	0.00	0.39	35		0°19'44"	12000.00	0°08'16"	28.88	28.88									SEE NOTE 1
	CS		40.00	113+55.04	1889791.27	6425966.35																			
	ST	N00°33'49"E	105.00	113+95.04	1889831.27	6425966.72					40.00						0°05'44"	40.00	0.02	0.01	20.00	26.67	13.33	54.69	
R-1020	TS		40.00	115+00.04	1889936.26	6425967.75																			
	SC			115+40.04	1889976.26	6425968.12					40.00						0°05'44"	40.00	0.02	0.01	20.00	26.67	13.33	54.65	
	PI				1889990.70	6425968.24	0°28'39"	0.00	0.39	35		0°19'44"	12000.00	0°08'16"	28.87	28.87									SEE NOTE 1
	CS		40.00	115+68.91	1890005.13	6425968.32																			
	ST	N00°14'06"E	445.94	116+08.91	1890045.13	6425968.51					40.00						0°05'44"	40.00	0.02	0.01	20.00	26.67	13.33	54.21	
R-1025	TS		40.00	120+54.85	1890491.07	6425970.34																			
	SC			120+94.85	1890531.07	6425970.54					40.00						0°09'00"	40.00	0.03	0.01	20.00	26.67	13.33	55.15	
	PI				1890546.47	6425970.64	0°45'00"	0.50	0.12	35		0°31'52"	7640.00	0°13'52"	30.81	30.81									SEE NOTE 1
	CS		40.00	121+25.66	1890561.87	6425970.81																			
	ST	N00°45'57"E	105.00	121+65.66	1890601.87	6425971.31					40.00						0°09'00"	40.00	0.03	0.01	20.00	26.67	13.33	55.64	
R-1030	TS		40.00	122+70.66	1890706.86	6425972.71																			
	SC			123+10.66	1890746.86	6425973.21					40.00						0°09'00"	40.00	0.03	0.01	20.00	26.67	13.33	55.64	
	PI				1890762.26	6425973.37	0°45'00"	0.50	0.12	35		0°31'52"	7640.00	0°13'52"	30.81	30.81									SEE NOTE 1
	CS		40.00	123+41.46	1890777.66	6425973.48																			
	ST	N00°14'06"E	105.00	123+81.46	1890817.66	6425973.68					40.00						0°09'00"	40.00	0.03	0.01	20.00	26.67	13.33	55.15	
R-1035	TS		40.00	124+86.46	1890922.66	6425974.11																			
	SC			125+26.46	1890962.66	6425974.22					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33	63.50	
	PI				1890986.08	6425974.24	1°00'00"	0.50	0.32	35		0°52'06"	5730.00	0°28'06"	46.85	46.85									SEE NOTE 1
	CS		40.00	125+73.31	1891009.51	6425974.06																			
	ST	N00°38'01"W	105.00	126+13.31	1891049.50	6425973.67					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33	63.34	
R-1040	TS		40.00	127+18.31	1891154.50	6425972.50																			
	SC			127+58.31	1891194.50	6425972.11					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33	63.34	
	PI				1891217.92	6425971.93	1°00'00"	0.50	0.32	35		0°52'06"	5730.00	0°28'06"	46.84	46.84									SEE NOTE 1
	CS		40.00	128+05.15	1891241.34	6425971.95																			
	ST	N00°14'06"E	1269.14	128+45.15	1891281.34	6425972.06					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33	63.50	
R-1045	TS		50.00	141+14.29	1892550.46	6425977.27																			
	SC			141+64.29	1892600.46	6425977.37					50.00						0°21'29"	50.00	0.10	0.03	25.00	33.33	16.67	71.26	
	PI				1892621.94	6425977.32	1°25'57"	0.50	0.68	35		1°19'53"	4000.00	0°36'55"	42.96	42.96									SEE NOTES 1 & 3
	CS		50.00	142+07.24	1892643.42	6425977.04																			
	ST	N01°05'48"W	100.00	142+57.24	1892693.41	6425976.19					50.00						0°21'29"	50.00	0.10	0.03	25.00	33.33	16.67	71.70	
R-1050	TS		50.00	143+57.24	1892793.39	6425974.28																			
	SC			144+07.24	1892843.39	6425973.42					50.00						0°21'29"	50.00	0.10	0.03	25.00	33.33	16.67	71.68	
	PI				1892864.86	6425973.15	1°25'57"	0.50	0.68	35		1°19'53"	4000.00	0°36'55"	42.96	42.95									SEE NOTES 1 & 3
	CS		50.00	144+50.20	1892886.34	6425973.10																			
	ST	N00°14'05"E	86.75	145+00.20	1892936.34	6425973.20					50.00						0°21'29"	50.00	0.10	0.03	25.00	33.33	16.67	71.27	
R-1055	TS		50.00	145+86.95	1893023.08	6425973.56																			
	SC			146+36.95	1893073.08	6425973.99					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	67.52	
	PI				1893090.47	6425974.31	3°10'59"	1.00	1.61	35		2°41'56"	1800.00	1°06'26"	34.79	34.79									SEE NOTES 1, 3, 4 & 5
	CS		50.00	146+71.73	1893107.86	6425974.96																			
	ST	N02°56'01"E	105.00	147+21.73	1893157.80	6425977.28					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	67.28	

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 HORIZONTAL GEOMETRY SHEET 1 OF 9

CONTRACT NO

DRAWING NO TS-010

REV 0

SCALE NONE

SHEET NO 8 OF 89

LRT-1 TRACK GEOMETRY DATA (CONT'D)

STATIONING DATA							INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	Δ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	
		N02°56'01"E	105.00																						
R-1060	TS		50.00	148+26.73	1893262.66	6425982.66																			SEE NOTES 1 & 5
	SC			148+76.73	1893312.61	6425984.99					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	67.28	
	PI				1893329.99	6425985.63	3°10'59"	1.00	1.61	35		2°41'56"	1800.00	1°06'26"	34.79	34.79									
	CS		50.00	149+11.52	1893347.38	6425985.95																			
	ST			149+61.52	1893397.38	6425986.38					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	67.52	
		N00°14'05"E	321.05																						
R-1065	TS		50.00	152+82.58	1893718.44	6425987.70																			SEE NOTE 1
	SC			153+32.58	1893768.44	6425987.76					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	69.03	
	PI				1893787.61	6425987.67	1°59'59"	0.75	0.89	35		1°40'00"	2865.00	0°46'00"	38.34	38.34									
	CS		50.00	153+70.92	1893806.77	6425987.33																			
	ST			154+20.92	1893856.76	6425986.13					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	69.30	
		N01°31'55"W	105.73																						
R-1070	TS		50.00	155+26.65	1893962.45	6425983.31																			SEE NOTE 1
	SC			155+76.65	1894012.44	6425982.12					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	65.58	
	PI				1894027.99	6425981.84	1°59'59"	0.75	0.89	35		1°37'20"	2865.00	0°37'20"	31.11	31.11									
	CS		50.00	156+07.76	1894043.55	6425981.72																			
	ST			156+57.76	1894093.55	6425981.66					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	65.54	
		N00°05'25"E	456.87																						
R-1075	TS		100.00	161+14.64	1894550.43	6425982.38																			
	SC			162+14.64	1894650.43	6425982.44					100.00						0°09'33"	100.00	0.09	0.02	50.00	66.67	33.33	158.52	
	PI				1894709.16	6425982.37	0°19'06"	0.00	0.26	35		0°41'32"	18000.00	0°22'26"	117.47	117.47									
	CS		100.00	163+32.11	1894767.89	6425981.92																			
	ST			164+32.11	1894867.89	6425980.96					100.00						0°09'33"	100.00	0.09	0.02	50.00	66.67	33.33	158.94	
		N00°36'07"W	120.29																						
R-1080	TS		100.00	165+52.40	1894988.17	6425979.70																			SEE NOTE 1
	SC			166+52.40	1895088.17	6425978.79					100.00						0°15'00"	100.00	0.15	0.04	50.00	66.67	33.33	132.21	
	PI				1895119.77	6425978.60	0°30'00"	0.00	0.41	35		0°48'58"	11460.00	0°18'58"	63.21	63.21									
	CS		100.00	167+15.61	1895151.37	6425978.58																			
	ST			168+15.61	1895251.37	6425978.80					100.00						0°15'00"	100.00	0.15	0.04	50.00	66.67	33.33	130.99	
		N00°12'50"E	1532.3																						
R-1085	PC			183+47.91	1896783.67	6425984.53																			SEE NOTE 1
	PI				1896822.40	6425984.67	1°16'24"	0.00	1.06	35		0°59'11"	4500.00	0°59'11"	77.46	77.46									
	PT			184+25.37	1896861.13	6425984.15																			
		N00°46'20"W	231.26																						
R-1090	TS		65.00	186+56.63	1897092.37	6425981.03																			SEE NOTES 1, 3 & 5
	SC			187+21.63	1897157.36	6425980.72					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1897172.16	6425980.91	4°35'01"	1.50	2.26	35		4°20'08"	1250.00	1°21'22"	29.59	29.59									
	CS		65.00	187+51.22	1897186.94	6425981.44																			
R-1095	SS		65.00	188+16.22	1897251.84	6425984.92					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
	SC			188+81.22	1897316.75	6425988.40					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1897323.22	6425988.63	4°35'01"	1.50	2.26	35		3°34'22"	1250.00	0°35'36"	12.94	12.94									
	CS		65.00	188+94.16	1897329.69	6425988.80																			
	ST			189+59.16	1897394.68	6425989.35					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
		N00°00'34"W	175.00																						
R-1100	TS		50.00	191+34.16	1897569.68	6425989.32																			SEE NOTE 1
	SC			191+84.16	1897619.68	6425989.17					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	63.89	
	PI				1897633.72	6425989.04	1°59'59"	1.00	0.64	35		1°33'41"	2865.00	0°33'41"	28.07	28.07									
	CS		50.00	192+12.24	1897647.75	6425988.78																			
	ST			192+62.24	1897697.74	6425987.55					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	64.18	
		N01°34'15"W	105.00																						
R-1105	TS		50.00	193+67.24	1897802.70	6425984.68																			SEE NOTE 1
	SC			194+17.24	1897852.68	6425983.45					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	77.04	
	PI				1897879.52	6425982.95	1°59'59"	1.00	0.64	35		2°04'24"	2865.00	1°04'24"	53.67	53.67									
	CS		50.00	194+70.91	1897906.35	6425982.95																			
	ST			195+20.91	1897956.35	6425983.24					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	76.63	
		N00°30'09"E	117.20																						
#10 LH T.O.	PS			196+38.12	1898073.56	6425984.27																			
		N00°30'09"E	31.42																						
	PITO			196+69.54	1898104.97	6425984.55																			
		N00°30'09"E	353.75																						
R-1110	TS		45.00	200+23.30	1898458.72	6425987.65																			SEE NOTES 1, 2, 3 & 5
	SC			200+68.30	1898503.72	6425988.31					45.00						1°01'53"	45.00	0.27	0.07	22.50	30.00	15.00		
	PI				1898515.65	6425988.63	4°35'01"	1.25	0.67	25		3°09'27"	1250.00	1°05'41"	23.88	23.88									
	CS		45.00	200+92.18	1898527.58	6425989.18																			
R-1115	SS		45.00	201+37.18	1898572.51	6425991.78					45.00						1°01'53"	45.00	0.27	0.07	22.50	30.00	15.00	---	
	SC			201+82.18	1898617.43	6425994.39					45.00						1°01'53"	45.00	0.27	0.07	22.50	30.00	15.00	---	
	PI				1898634.84	6425995.19	4°35'01"	1.25	0.67	25		3°39'36"	1250.00	1°35'50"	34.84	34.84									
	CS		45.00	202+17.02	1898652.26	6425995.50																			
	ST			202+62.02	1898697.25	6425995.77					45.00						1°01'53"	45.00	0.27	0.07	22.50	30.00	15.00		
		N00°00'00"E	467.56																						

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 HORIZONTAL GEOMETRY SHEET 2 OF 9

CONTRACT NO

DRAWING NO TS-011

REV 0

SCALE NONE

SHEET NO 9 OF 89

LRT-1 TRACK GEOMETRY DATA (CONT'D)

CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	Δ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	DESIGN VARIANCES
STATIONING DATA							INPUT DATA						CURVE DATA				SPIRAL DATA								
		N00°00'00"E	467.56																						
	TS			207+29.58	1899164.81	6425995.77																			
			45.00																						
	SC			207+74.58	1899209.81	6425995.98					45.00						0°47'10"	45.00	0.21	0.05	22.50	30.00	15.00		
R-1120	PI				1899214.77	6425996.04	3°29'37"	1.25	0.21	25		1°55'08"	1640.00	0°20'48"	9.92	9.92									
	CS			207+84.50	1899219.73	6425996.14																			
			45.00																						
	SS			208+29.50	1899264.71	6425997.44					45.00						0°47'10"	45.00	0.21	0.05	22.50	30.00	15.00	---	
			45.00																						
	SC			208+74.50	1899309.69	6425998.74					45.00						0°47'10"	45.00	0.21	0.05	22.50	30.00	15.00	---	SEE NOTES 1, 2, 3 & 5
R-1125	PI				1899314.65	6425998.84	3°29'37"	1.25	0.21	25		1°55'08"	1640.00	0°20'48"	9.92	9.92									
	CS			208+84.43	1899319.62	6425998.91																			
			45.00																						
	ST			209+29.43	1899364.62	6425999.12					45.00						0°47'10"	45.00	0.21	0.05	22.50	30.00	15.00		
		N00°00'00"E	165.36																						
#8 RH	PITO			210+94.79	1899529.98	6425999.12																			
		N00°00'00"E	31.66																						
T.O.	PS			211+26.46	1899561.65	6425999.12																			
		N00°00'00"E	249.44																						
	TS			213+75.90	1899811.08	6425999.12																			
			55.00																						
	SC			214+30.90	1899866.08	6425998.81					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33		
R-1130	PI				1899876.31	6425998.64	3°29'37"	1.25	1.62	35		2°38'10"	1640.00	0°42'52"	20.45	20.45									
	CS			214+51.35	1899886.53	6425998.34																			
			55.00																						
	SS			215+06.35	1899941.48	6425996.12					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	---	
			55.00																						
	SC			215+61.35	1899996.44	6425993.89					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	---	SEE NOTES 1, 2, 3 & 5
R-1135	PI				1900006.66	6425993.60	3°29'37"	1.25	1.62	35		2°38'10"	1640.00	0°42'52"	20.45	20.45									
	CS			215+81.80	1900016.88	6425993.42																			
			55.00																						
	ST			216+36.80	1900071.88	6425993.12					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33		
		N00°00'00"E	150.00																						
	TS			217+86.80	1900221.88	6425993.12																			
			55.00																						
	SC			218+41.80	1900276.88	6425993.42					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33		
R-1140	PI				1900295.34	6425993.73	3°29'37"	1.25	1.62	35		3°12'43"	1640.00	1°17'25"	36.93	36.93									
	CS			218+78.73	1900313.79	6425994.46																			
			55.00																						
	SS			219+33.73	1900368.72	6425997.23					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	---	
			55.00																						
	SC			219+88.73	1900423.65	6426000.01					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	---	SEE NOTES 1, 2, 3 & 5
R-1145	PI				1900437.70	6426000.56	3°29'37"	1.25	1.62	35		2°54'14"	1640.00	0°58'56"	28.12	28.12									
	CS			220+16.85	1900451.76	6426000.87																			
			55.00																						
	ST			220+71.85	1900506.75	6426001.47					54.93						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33		
		N00°18'29"E	501.21																						
	TS			225+73.06	1901007.96	6426004.17																			
			50.00																						
	SC			226+23.06	1901057.96	6426004.37					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	102.69	
R-1150	PI				1901110.77	6426004.42	1°00'00"	0.50	0.32	35		1°33'22"	5730.00	1°03'22"	105.63	105.63									SEE NOTES 1 & 4
	CS			227+28.69	1901163.58	6426003.50																			
			50.00																						
	ST			227+78.69	1901213.57	6426002.48					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	102.94	
		N01°14'53"W	105.01																						
	TS			228+83.70	1901318.55	6426000.19																			
			50.00																						
	SC			229+33.70	1901368.54	6425999.18					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	98.51	
R-1155	PI				1901417.14	6425998.33	1°00'00"	0.50	0.32	35		1°28'19"	5730.00	0°58'19"	97.21	97.21									SEE NOTE 1
	CS			230+30.91	1901465.75	6425998.31																			
			50.00																						
	ST			230+80.91	1901515.75	6425998.43					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	98.71	
		N00°13'26"E	350.90																						
	TS			234+31.81	1901866.65	6425999.80																			
			65.00																						
	SC			234+96.81	1901931.65	6426000.62					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-1160	PI				1901943.13	6426000.96	4°35'01"	1.50	2.26	35		4°01'57"	1250.00	1°03'11"	22.97	22.97									
	CS			235+19.79	1901954.60	6426001.52																			
			65.00																						
	SS			235+84.79	1902019.46	6426005.78					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
			65.00																						
	SC			236+49.79	1902084.32	6426010.04					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 3 & 5
R-1165	PI				1902095.79	6426010.60	4°35'01"	1.50	2.26	35		4°01'57"	1250.00	1°03'11"	22.97	22.97									
	CS			236+72.76	1902107.27	6426010.94																			
			65.00																						
	ST			237+37.76	1902172.27	6426011.76					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
		N00°13'26"E	95.34																						
	TS			238+33.10	1902267.61	6426012.13																			
			50.00																						
	SC			238+83.10	1902317.61	6426012.18					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	84.97	
R-1170	PI				1902352.56	6426012.01	1°59'59"	1.00	0.64	35		2°23'52"	2865.00	1°23'52"	69.89	69.89									SEE NOTES 1 & 3
	CS			239+52.99	1902387.49	6426010.99																			
			50.00																						
	ST			240+02.99	1902437.46	6426009.24					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	84.94	
		N02°10'26"W	105.00																						
	TS			241+07.99	1902542.38	6426005.26																			
			50.00																						
	SC			241+57.99	1902592.35	6426003.51					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	84.94	
R-1175	PI				1902627.28	6426002.49	1°59'59"	1.00	0.64	35		2°23'52"	2865.00	1°23'52"	69.89	69.89									SEE NOTE 1
	CS			242+27.88	1902662.23	6426002.32																			
			50.00																						
	ST			242+77.88	1902712.23	6426002.37					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	84.97	
		N00°13'26"E	414.11																						
	TS			246+92.00	1903126.34	6426003.98																			
			65.00																						
	SC			247+57.00	1903191.34	6426004.80					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-1180	PI				1903210.23	6426005.37	4°35'01"	1.50	2.26	35		4°42'43"	1250.00	1°43'57"	37.80	37.80									
	CS			247+94.80	1903229.09	6426006.50																			
			65.00																						
	SS			248+59.80	1903293.90	6426011.53					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
			65.00																						
	SC			249+24.80	1903358.70	6426016.56					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 4 & 5
R-1185	PI				1903377.44	6426017.69	4°35'01"	1.50	2.26	35		4°42'01"	1250.00	1°43'15"	37.54	37.54									
	CS			249+62.34	1903396.20	6426018.26																			
			65.00																						
	ST			250+27.34	1903461.20	6426019.09					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
		N00°14'08"E	270.29																						

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 HORIZONTAL GEOMETRY SHEET 3 OF 9

CONTRACT NO
DRAWING NO TS-012
REV 0
SCALE NONE

LRT-1 TRACK GEOMETRY DATA (CONT'D)

STATIONING DATA

CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING
		N00°14'08"E	270.29			
	TS			252+97.63	1903731.48	6426020.20
			65.00			
	SC			253+62.63	1903796.48	6426019.90
R-1190	PI				1903809.33	6426019.62
	CS			253+88.33	1903822.17	6426019.08
			65.00			
	SS			254+53.33	1903887.05	6426015.19
			65.00			
	SC			255+18.33	1903951.93	6426011.31
R-1195	PI				1903964.77	6426010.76
	CS			255+44.04	1903977.62	6426010.48
			65.00			
	ST			256+09.04	1904042.62	6426010.19
		N00°14'08"E	296.95			
	TS			259+06.00	1904339.58	6426011.41
			100.00			
	SC			260+06.00	1904439.56	6426010.33
R-1200	PI				1904710.95	6425999.32
	CS			265+38.93	1904947.15	6425865.23
			100.00			
	ST			266+38.93	1905032.59	6425813.29
		N32°08'36"W	105.77			
	TS			267+44.71	1905122.16	6425757.01
			140.00			
	SC			268+84.71	1905242.92	6425686.28
R-1205	PI				1905345.11	6425634.66
	CS			271+11.93	1905458.05	6425615.89
			140.00			
	ST			272+51.93	1905597.26	6425601.58
		N04°05'23"W	175.27			
	TS			274+27.20	1905772.08	6425589.08
			100.00			
	SC			275+27.20	1905871.86	6425582.56
R-1210	PI				1905925.56	6425579.72
	CS			276+34.73	1905979.33	6425579.02
			100.00			
	ST			277+34.73	1906079.33	6425578.95
		N00°18'51"E	459.52			
	TS			281+94.26	1906538.85	6425581.47
			65.00			
	SC			282+59.26	1906603.85	6425581.26
R-1215	PI				1906613.33	6425581.07
	CS			282+78.22	1906622.80	6425580.73
			65.00			
	SS			283+43.22	1906687.71	6425577.29
			65.00			
	SC			284+08.22	1906752.61	6425573.84
R-1220	PI				1906762.08	6425573.50
	CS			284+27.17	1906771.56	6425573.31
			65.00			
	ST			284+92.17	1906836.56	6425573.10
		N00°18'51"E	653.68			
#10 LH T.O.	PS			291+45.85	1907490.22	6425576.69
		N00°18'51"E	31.40			
	PITO			291+77.26	1907521.64	6425576.86
		N00°18'51"E	139.90			
#10 RH T.O.	PITO			293+17.16	1907661.53	6425577.63
		N00°18'51"E	31.42			
	PS			293+48.58	1907692.95	6425577.80
		N00°18'51"E	507.23			
	TS			298+55.81	1908200.17	6425580.58
			65.00			
	SC			299+20.81	1908265.17	6425581.50
R-1225	PI				1908278.01	6425581.91
	CS			299+46.51	1908290.85	6425582.58
			65.00			
	SS			300+11.51	1908355.69	6425587.08
			65.00			
	SC			300+76.51	1908420.53	6425591.59
R-1230	PI				1908433.36	6425592.26
	CS			301+02.21	1908446.21	6425592.66
			65.00			
	ST			301+67.21	1908511.20	6425593.58
		N00°18'51"E	725.62			
	TS			308+92.83	1909236.81	6425597.56
			65.00			
	SC			309+57.83	1909301.81	6425597.35
R-1235	PI				1909314.66	6425597.09
	CS			309+83.54	1909327.50	6425596.56
			65.00			
	SS			310+48.54	1909392.38	6425592.77
			65.00			
	SC			311+13.54	1909457.27	6425588.97
R-1240	PI				1909470.11	6425588.45
	CS			311+39.24	1909482.96	6425588.18
			65.00			
	ST			312+04.24	1909547.96	6425587.98
		N00°18'51"E	25.00			
	TS			312+29.24	1909572.96	6425588.11
			65.00			
	SC			312+94.24	1909637.95	6425589.03
R-1245	PI				1909647.42	6425589.33
	CS			313+13.20	1909656.89	6425589.77
			65.00			
	SS			313+78.20	1909721.76	6425593.93
			65.00			
	SC			314+43.20	1909786.62	6425598.08
R-1250	PI				1909796.09	6425598.53
	CS			314+62.15	1909805.56	6425598.83
			65.00			
	ST			315+27.15	1909870.56	6425599.74
		N00°18'51"E	105.00			

INPUT DATA / CURVE DATA / SPIRAL DATA / DESIGN VARIANCES

CURVE NO.	DESC	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	DESIGN VARIANCES
	TS																			
	SC					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-1190	PI	4°35'01"	1.50	2.26	35		4°09'27"	1250.00	1°10'41"	25.70	25.70									
	CS																			
	SS					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 4 & 5
	SC					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
R-1195	PI	4°35'01"	1.50	2.26	35		4°09'27"	1250.00	1°10'41"	25.70	25.70									
	CS																			
	ST					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	TS																			
	SC					100.00						2°33'28"	99.98	1.49	0.37	50.00	66.67	33.34	375.25	
R-1200	PI	5°06'57"	2.00	2.20	35		32°22'43"	1120.00	27°15'47"	532.93	527.92									
	CS																			
	ST					100.00						2°33'28"	99.98	1.49	0.37	50.00	66.67	33.34	375.27	
	TS																			
	SC					140.00						5°20'51"	139.88	4.35	1.09	69.98	93.38	46.71	257.60	
R-1205	PI	7°38'22"	3.00	3.27	35		28°03'12"	750.00	17°21'30"	227.22	226.35									
	CS																			
	ST					140.00						5°20'51"	139.88	4.35	1.09	69.98	93.38	46.71	257.63	
	TS																			
	SC					100.00						1°03'40"	100.00	0.62	0.15	50.00	66.67	33.33	153.86	
R-1210	PI	2°07'19"	1.50	0.24	35		4°24'15"	2700.00	2°16'55"	107.53	107.52									
	CS																			
	ST					100.00						1°03'40"	100.00	0.62	0.15	50.00	66.67	33.33	153.78	
	TS																			
	SC					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-1215	PI	4°35'01"	1.50	2.26	35		3°50'54"	1250.00	0°52'08"	18.96	18.96									
	CS																			
	SS					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2 & 5
	SC					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
R-1220	PI	4°35'01"	1.50	2.26	35		3°50'54"	1250.00	0°52'08"	18.96	18.96									
	CS																			
	ST					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
#10 LH T.O.	PS																			
	PITO																			
#10 RH T.O.	PITO																			
	PS																			
	TS																			
	SC					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-1225	PI	4°35'01"	1.50	2.26	35		4°09'27"	1250.00	1°10'41"	25.70	25.70									
	CS																			
	SS					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2 & 5
	SC					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
R-1230	PI	4°35'01"	1.50	2.26	35		4°09'27"	1250.00	1°10'41"	25.70	25.70									
	CS																			
	ST					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	TS																			
	SC					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-1235	PI	4°35'01"	1.50	2.26	35		4°09'27"	1250.00	1°10'41"	25.70	25.70									
	CS																			
	SS					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 3 & 5
	SC					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
R-1240	PI	4°35'01"	1.50	2.26	35		4°09'27"	1250.00	1°10'41"	25.70	25.70									
	CS																			
	ST					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	TS																			
	SC					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-1245	PI	4°35'01"	1.50	2.26	35		3°50'54"	1250.00	0°52'08"	18.96	18.96									
	CS																			
	SS					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 3 & 5
	SC					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
R-1250	PI	4°35'01"	1.50	2.26	35		3°50'54"	1250.00	0°52'08"	18.96	18.96									
	CS																			
	ST					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 HORIZONTAL GEOMETRY SHEET 4 OF 9

CONTRACT NO

DRAWING NO TS-013 REV 0

SCALE NONE

LRT-1 TRACK GEOMETRY DATA (CONT'D)

STATIONING DATA							INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	Δ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	
R-1255	TS	N00°18'51"E	105.00	316+32.15	1909975.55	6425600.32																			
	SC		55.00	316+87.15	1910030.55	6425600.32					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33		
	PI				1910040.78	6425600.20	3°29'37"	1.25	1.62	35		2°38'10"	1640.00	0°42'52"	20.45	20.45									
	CS			317+07.60	1910051.00	6425599.96																			
	SS		55.00	317+62.60	1910105.97	6425598.04					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	---	SEE NOTES 1, 2 & 5
R-1260	SC		55.00	318+17.60	1910160.93	6425596.12					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	---	
	PI				1910171.15	6425595.87	3°29'37"	1.25	1.62	35		2°38'10"	1640.00	0°42'52"	20.45	20.45									
	CS			318+38.05	1910181.38	6425595.76																			
	ST		55.00	318+93.05	1910236.38	6425595.75					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33		
R-1265	TS	N00°18'51"E	384.79	322+77.85	1910621.17	6425597.86																			
	SC		45.00	323+22.85	1910666.17	6425597.93					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
	PI				1910678.31	6425597.86	2°59'59"	1.00	1.46	35		2°04'42"	1910.00	0°43'42"	24.28	24.28									
	CS			323+47.13	1910690.45	6425597.63																			
	SS		45.00	323+92.13	1910735.43	6425596.42					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	SEE NOTES 1, 2, 3 & 5
R-1270	SC		45.00	324+37.13	1910780.42	6425595.21					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	
	PI				1910791.58	6425595.00	2°59'59"	1.00	1.46	35		2°01'12"	1910.00	0°40'12"	22.33	22.33									
	CS			324+59.47	1910802.75	6425594.91																			
	ST		45.00	325+04.47	1910847.75	6425594.94					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
R-1275	TS	N00°15'21"E	10.00	325+14.47	1910857.75	6425594.98																			
	SC		65.00	325+79.47	1910922.74	6425595.84					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1910933.41	6425596.16	4°35'01"	1.50	2.26	35		2°01'12"	1250.00	0°58'44"	21.36	21.36									
	CS			326+00.82	1910944.08	6425596.67																			
	SS		65.00	326+65.82	1911008.94	6425600.88					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 3, 4 & 5
R-1280	SC		65.00	327+30.82	1911073.80	6425605.10					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1911083.83	6425605.58	4°35'01"	1.50	2.26	35		3°54'00"	1250.00	0°55'14"	20.08	20.08									
	CS			327+50.91	1911093.87	6425605.89																			
	ST		65.00	328+15.91	1911158.86	6425606.81					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-1285	TS	N00°18'51"E	105.00	329+20.91	1911263.86	6425607.39																			
	SC		45.00	329+65.91	1911308.86	6425607.46					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
	PI				1911345.14	6425607.23	2°59'59"	1.00	1.46	35		3°31'35"	1910.00	2°10'35"	72.55	72.54									
	CS			330+38.45	1911381.38	6425605.62																			
	SS		45.00	330+83.45	1911426.32	6425603.28					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	SEE NOTES 1, 2 & 5
R-1290	SC		45.00	331+28.45	1911471.26	6425600.93					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	
	PI				1911507.50	6425599.33	2°59'59"	1.00	1.46	35		3°31'35"	1910.00	2°10'35"	72.55	72.54									
	CS			332+01.00	1911543.78	6425599.10																			
	ST		45.00	332+46.00	1911588.78	6425599.17					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
R-1295	TS	N00°18'51"E	217.77	334+63.78	1911806.55	6425600.36																			
	SC		100.00	335+63.78	1911906.37	6425605.07					100.00						7°09'43"	99.84	4.16	1.04	49.97	66.72	33.38	231.13	
	PI				1912028.75	6425621.13	14°19'26"	3.00	3.00	25		48°37'09"	400.00	34°17'43"	239.43	235.87									
	CS			338+03.21	1912120.79	6425703.35																			
	ST		100.00	339+03.21	1912189.52	6425775.89					100.00						7°09'43"	99.84	4.16	1.04	49.97	66.72	33.38	231.13	
R-1300	TS	N48°56'01"E	491.36	343+94.57	1912512.31	6426146.35																			
	SC		35.00	344+29.57	1912535.36	6426172.69					35.00						0°24'04"	35.00	0.08	0.02	17.50	23.33	11.67		
	PI				1912552.20	6426191.74	2°17'31"	0.75	1.13	35		1°58'04"	2500.00	1°09'56"	50.86	50.86									
	CS			344+80.43	1912569.43	6426210.45																			
	SS		35.00	345+15.43	1912593.25	6426236.09					35.00						0°24'04"	35.00	0.08	0.02	17.50	23.33	11.67	---	SEE NOTES 1, 2, 3 & 5
R-1305	SC		35.00	345+50.43	1912617.08	6426261.73					35.00						0°24'04"	35.00	0.08	0.02	17.50	23.33	11.67	---	
	PI				1912634.45	6426280.60	2°17'31"	0.75	1.13	35		1°58'40"	2500.00	1°10'32"	51.29	51.29									
	CS			346+01.71	1912651.43	6426299.81																			
	ST		35.00	346+36.71	1912674.48	6426326.15					35.00						0°24'04"	35.00	0.08	0.02	17.50	23.33	11.67		
R-1310	TS	N48°56'36"E	79.80	347+16.51	1912726.89	6426386.33																			
	SC		45.00	347+61.51	1912756.31	6426420.37					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
	PI				1912767.39	6426433.40	2°59'59"	1.00	1.46	35		2°22'34"	1910.00	1°01'34"	34.21	34.21									
	CS			347+95.72	1912778.24	6426446.63																			
	SS		45.00	348+40.72	1912806.50	6426481.65					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	SEE NOTES 1, 2, 5 & 6
R-1315	SC		45.00	348+85.72	1912834.76	6426516.66					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	
	PI				1912845.61	6426529.89	2°59'59"	1.00	1.46	35		2°22'34"	1910.00	1°01'34"	34.21	34.21									
	CS			349+19.92	1912856.69	6426542.92																			
	ST		45.00	349+64.92	1912886.11	6426576.97					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
#10 LH T.O.	PS	N48°56'36"E	29.81	349+94.73	1912905.69	6426599.44																			
	PITO	N48°56'36"E	31.41	350+26.15	1912926.32	6426623.13																			
#10 RH T.O.	PITO	N48°56'36"E	661.77	356+87.93	1913360.99	6427122.16																			
	PS	N48°56'36"E	31.41	357+19.35	1913381.62	6427145.85																			
		N48°56'36"E	30.00																						

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 HORIZONTAL GEOMETRY SHEET 5 OF 9

CONTRACT NO
DRAWING NO TS-014
REV 0
SCALE NONE
SHEET NO 12 OF 89

LRT-1 TRACK GEOMETRY DATA (CONT'D)

STATIONING DATA							INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	
		N48°56'36"E	30.00																						
R-1320	TS		50.00	357+49.35	1913401.33	6427168.47																			SEE NOTES 1, 2, 5 & 6
	SC			357+99.35	1913434.32	6427206.04					50.00						0°41'13"	50.00	0.20	0.05	25.00	33.33	16.67		
	PI				1913451.46	6427225.25	2°44'53"	1.00	1.26	35		2°47'19"	2085.00	1°24'53"	51.48	51.48									
	CS		50.00	358+50.83	1913469.06	6427244.03																			
R-1325	SS		50.00	359+00.83	1913503.55	6427280.23					50.00						0°41'13"	50.00	0.20	0.05	25.00	33.33	16.67	---	
	SC			359+50.83	1913538.04	6427316.42					50.00						0°41'13"	50.00	0.20	0.05	25.00	33.33	16.67	---	
	PI				1913555.65	6427335.20	2°44'53"	1.00	1.26	35		2°47'19"	2085.00	1°24'53"	51.48	51.48									
	CS		50.00	360+02.31	1913572.79	6427354.41																			
	ST	N48°56'36"E	818.91	360+52.31	1913605.78	6427391.98					50.00						0°41'13"	50.00	0.20	0.05	25.00	33.33	16.67		
R-1330	TS		50.00	368+71.22	1914143.64	6428009.48																			SEE NOTES 1, 2 & 5
	SC			369+21.22	1914176.32	6428047.33					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1914184.47	6428056.94	2°59'59"	1.00	1.46	35		2°15'22"	1910.00	0°45'22"	25.21	25.21									
	CS		50.00	369+46.42	1914192.49	6428066.66																			
R-1335	SS		50.00	369+96.42	1914223.99	6428105.49					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	SC			370+46.42	1914255.49	6428144.32					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	PI				1914263.52	6428154.03	2°59'59"	1.00	1.46	35		2°15'22"	1910.00	0°45'22"	25.21	25.21									
	CS		50.00	370+71.63	1914271.67	6428163.65																			
	ST	N48°56'36"E	107.84	371+21.63	1914304.35	6428201.49					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
R-1340	TS		50.00	372+29.47	1914375.18	6428282.81																			SEE NOTES 1, 2, 3 & 5
	SC			372+79.47	1914408.18	6428320.37					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1914416.58	6428329.76	2°59'59"	1.00	1.46	35		2°15'22"	1910.00	0°45'22"	25.21	25.21									
	CS		50.00	373+04.67	1914425.11	6428339.04																			
R-1345	SS		50.00	373+54.67	1914459.25	6428375.57					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	SC			374+04.67	1914493.39	6428412.10					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	PI				1914501.91	6428421.39	2°59'59"	1.00	1.46	35		2°15'22"	1910.00	0°45'22"	25.21	25.21									
	CS		50.00	374+29.88	1914510.31	6428430.78																			
	ST	N48°56'36"E	100.36	374+79.88	1914543.32	6428468.34					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
R-1350	TS		45.00	375+80.24	1914609.23	6428544.02																			SEE NOTES 1, 2, 3 & 5
	SC			376+25.24	1914638.66	6428578.07					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
	PI				1914651.21	6428592.83	2°59'59"	1.00	1.46	35		2°30'46"	1910.00	1°09'46"	38.76	38.76									
	CS		45.00	376+64.01	1914663.47	6428607.85																			
R-1355	SS		45.00	377+09.01	1914691.65	6428642.94					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	
	SC			377+54.01	1914719.83	6428678.02					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	
	PI				1914732.08	6428693.04	2°59'59"	1.00	1.46	35		2°30'46"	1910.00	1°09'46"	38.76	38.76									
	CS		45.00	377+92.77	1914744.64	6428707.80																			
	ST	N48°56'36"E	370.00	378+37.77	1914774.06	6428741.85					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
R-1360	TS		40.00	382+07.77	1915017.08	6429020.85																			SEE NOTES 1, 2 & 5
	SC			382+47.77	1915043.39	6429050.99					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33		
	PI				1915049.76	6429058.26	1°00'00"	0.50	0.32	35		0°35'36"	5730.00	0°11'36"	19.34	19.34									
	CS		40.00	382+67.11	1915056.17	6429065.50																			
R-1365	SS		40.00	383+07.11	1915082.71	6429095.42					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33	---	
	SC			383+47.11	1915109.26	6429125.34					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33	---	
	PI				1915115.66	6429132.59	1°00'00"	0.50	0.32	35		0°35'36"	5730.00	0°11'36"	19.34	19.34									
	CS		40.00	383+66.45	1915122.04	6429139.86																			
	ST	N48°56'36"E	122.68	384+06.45	1915148.35	6429169.99					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33		
R-1370	TS		60.00	385+29.13	1915228.92	6429262.50																			SEE NOTES 1, 2, 3 & 5
	SC			385+89.13	1915268.60	6429307.50					60.00						1°02'53"	60.00	0.37	0.09	30.00	40.00	20.00		
	PI				1915281.66	6429321.94	3°29'37"	1.25	1.62	35		3°27'24"	1640.00	1°21'38"	38.94	38.94									
	CS		60.00	386+28.07	1915295.05	6429336.08																			
R-1375	SS		60.00	386+88.07	1915336.85	6429379.12					60.00						1°02'53"	60.00	0.37	0.09	30.00	40.00	20.00	---	
	SC			387+48.07	1915378.66	6429422.16					60.00						1°02'53"	60.00	0.37	0.09	30.00	40.00	20.00	---	
	PI				1915392.05	6429436.29	3°29'37"	1.25	1.62	35		3°27'24"	1640.00	1°21'38"	38.94	38.94									
	CS		60.00	387+87.01	1915405.11	6429450.74																			
	ST	N48°56'36"E	44.04	388+47.01	1915444.79	6429495.74					60.00						1°02'53"	60.00	0.37	0.09	30.00	40.00	20.00		
R-1380	TS		50.00	388+91.05	1915473.72	6429528.95																			SEE NOTES 1, 2, 3 & 5
	SC			389+41.05	1915506.39	6429566.79					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1915512.09	6429573.51	2°59'59"	1.00	1.46	35		2°01'42"	1910.00	0°31'42"	17.61	17.61									
	CS		50.00	389+58.66	1915517.72	6429580.27																			
R-1385	SS		50.00	390+08.66	1915549.37	6429618.98					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	SC			390+58.66	1915581.03	6429657.68					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	PI				1915586.66	6429664.45	2°59'59"	1.00	1.46	35		2°01'42"	1910.00	0°31'42"	17.61	17.61									
	CS		50.00	390+76.27	1915592.36	6429671.16																			
	ST	N48°56'36"E	264.80	391+26.27	1915625.03	6429709.01					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 HORIZONTAL GEOMETRY SHEET 6 OF 9

CONTRACT NO

DRAWING NO TS-015 REV 0

SCALE NONE

SHEET NO 13 OF 89

LRT-1 TRACK GEOMETRY DATA (CONT'D)

CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	Δ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	DESIGN VARIANCES
		STATIONING DATA					INPUT DATA						CURVE DATA				SPIRAL DATA								
R-1390	TS	N48°56'36"E	264.80	393+91.07	1915798.95	6429908.68																			
	SC		50.00	394+41.07	1915831.68	6429946.48					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67		
	PI				1915840.05	6429956.26	1°59'59"	0.75	0.89	35		1°30'53"	2865.00	0°30'53"	25.73	25.73									
	CS			394+66.80	1915848.33	6429966.11																			
R-1395	SS		50.00	395+16.80	1915880.27	6430004.57					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	---	
	SC		50.00	395+66.80	1915912.22	6430043.04					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	---	SEE NOTES 1, 2 & 5
	PI				1915920.49	6430052.89	1°59'59"	0.75	0.89	35		1°30'53"	2865.00	0°30'53"	25.73	25.73									
	CS			395+92.53	1915928.86	6430062.66																			
	ST		50.00	396+42.53	1915961.59	6430100.46					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67		
R-1400	TS	N48°56'36"E	304.08	399+46.61	1916161.31	6430329.75																			
	SC		40.00	399+86.61	1916187.67	6430359.84					40.00						0°30'01"	40.00	0.12	0.03	20.00	26.67	13.33		
	PI				1916196.58	6430369.90	2°30'07"	1.00	1.05	35		1°40'23"	2290.00	0°40'21"	26.88	26.88									
	CS			400+13.49	1916205.62	6430379.85																			
R-1405	SS		40.00	400+53.49	1916232.67	6430409.31					40.00						0°30'01"	40.00	0.12	0.03	20.00	26.67	13.33	---	
	SC		40.00	400+93.49	1916259.73	6430438.77					40.00						0°30'01"	40.00	0.12	0.03	20.00	26.67	13.33	---	SEE NOTES 1, 2 & 5
	PI				1916268.76	6430448.72	2°30'07"	1.00	1.05	35		1°40'23"	2290.00	0°40'21"	26.88	26.88									
	CS			401+20.36	1916277.67	6430458.77																			
	ST		40.00	401+60.36	1916304.03	6430488.86					40.00						0°30'01"	40.00	0.12	0.03	20.00	26.67	13.33		
R-1410	TS	N48°56'36"E	285.58	404+45.95	1916491.61	6430704.21																			
	SC		45.00	404+90.95	1916521.28	6430738.04					45.00						0°37'06"	45.00	0.16	0.04	22.50	30.00	15.00		
	PI				1916532.87	6430751.05	2°44'53"	1.00	1.26	35		2°11'39"	2085.00	0°57'27"	34.84	34.84									
	CS			405+25.79	1916544.67	6430763.86																			
R-1415	SS		45.00	405+70.79	1916575.38	6430796.75					45.00						0°37'06"	45.00	0.16	0.04	22.50	30.00	15.00	---	
	SC		45.00	406+15.79	1916606.10	6430829.64					45.00						0°37'06"	45.00	0.16	0.04	22.50	30.00	15.00	---	SEE NOTES 1, 2 & 5
	PI				1916617.90	6430842.46	2°44'53"	1.00	1.26	35		2°11'39"	2085.00	0°57'27"	34.84	34.84									
	CS			406+50.63	1916629.48	6430855.47																			
	ST		45.00	406+95.63	1916659.16	6430889.29					45.00						0°37'06"	45.00	0.16	0.04	22.50	30.00	15.00		
R-1420	TS	N48°56'36"E	105.00	408+00.63	1916728.12	6430968.47																			
	SC		65.00	408+65.63	1916770.39	6431017.85					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1916779.94	6431029.41	4°35'01"	1.50	2.26	35		4°21'15"	1250.00	1°22'29"	29.99	29.99									
	CS			408+95.62	1916789.21	6431041.20																			
R-1425	SS		65.00	409+60.62	1916828.51	6431092.97					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
	SC		65.00	410+25.62	1916867.81	6431144.74					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2 & 5
	PI				1916877.08	6431156.53	4°35'01"	1.50	2.26	35		4°21'15"	1250.00	1°22'29"	29.99	29.99									
	CS			410+55.61	1916886.63	6431168.09																			
	ST		65.00	411+20.61	1916928.90	6431217.47					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-1430	TS	N48°56'36"E	701.62	418+22.23	1917389.72	6431746.54																			
	SC		50.00	418+72.23	1917422.73	6431784.10					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1917433.33	6431795.96	2°59'59"	1.00	1.46	35		2°27'16"	1910.00	0°57'16"	31.82	31.82									
	CS			419+04.05	1917444.14	6431807.64																			
R-1435	SS		50.00	419+54.05	1917478.40	6431844.05					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	SC		50.00	420+04.05	1917512.67	6431880.46					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	SEE NOTES 1, 2 & 5
	PI				1917523.47	6431892.14	2°59'59"	1.00	1.46	35		2°27'16"	1910.00	0°57'16"	31.82	31.82									
	CS			420+35.87	1917534.08	6431904.00																			
	ST		50.00	420+85.87	1917567.08	6431941.56					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
#10 LH T.O.	PS	N48°56'36"E	93.72	421+79.60	1917628.64	6432012.24																			
	PITO	N48°56'36"E	30.59	422+10.19	1917648.73	6432035.31																			
#10 RH T.O.	PITO	N48°56'36"E	140.72	423+50.92	1917741.16	6432141.42																			
	PS	N48°56'36"E	30.59	423+81.51	1917761.25	6432164.49																			
R-1440	TS	N48°56'36"E	60.00	424+41.51	1917800.66	6432209.73																			
	SC		50.00	424+91.51	1917833.67	6432247.29					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1917842.29	6432256.94	2°59'59"	1.00	1.46	35		2°16'35"	1910.00	0°46'35"	25.88	25.88									
	CS			425+17.39	1917851.05	6432266.46																			
R-1445	SS		50.00	425+67.39	1917885.20	6432302.98					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	SC		50.00	426+17.39	1917919.35	6432339.50					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	SEE NOTES 1, 2 & 5
	PI				1917928.11	6432349.03	2°59'59"	1.00	1.46	35		2°16'35"	1910.00	0°46'35"	25.88	25.88									
	CS			426+43.27	1917936.74	6432358.67																			
	ST		50.00	426+93.27	1917969.74	6432396.23					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
		N48°56'36"E	121.12																						

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 HORIZONTAL GEOMETRY SHEET 7 OF 9

CONTRACT NO
DRAWING NO TS-016
REV 0
SCALE NONE
SHEET NO 14 OF 89

LRT-1 TRACK GEOMETRY DATA (CONT'D)

STATIONING DATA							INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	Ea	Eu	V	LS	I	RADIUS	△	L	T	θ	X	Y	P	k	LT	ST	Ts	
							degrees	inches	inches	mph	feet	degrees	feet	degrees	feet	feet	degrees	feet	feet	feet	feet	feet	feet	feet	
		N48°56'36"E	121.12																						
R-1450	TS		65.00	428+14.39	1918049.29	6432487.56																			
	SC			428+79.39	1918091.56	6432536.94					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1918095.28	6432541.45	4°35'01"	1.50	2.26	35		3°30'57"	1250.00	0°32'11"	11.70	11.70									
	CS		65.00	428+91.09	1918098.97	6432546.00																			
R-1455	SS		65.00	429+56.09	1918139.02	6432597.19					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2 & 5
	SC			430+21.09	1918179.07	6432648.38					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1918182.75	6432652.93	4°35'01"	1.50	2.26	35		3°30'57"	1250.00	0°32'11"	11.70	11.70									
	CS		65.00	430+32.79	1918186.48	6432657.44																			
	ST	N48°56'36"E	124.19	430+97.79	1918228.74	6432706.82					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-1460	TS		50.00	432+21.98	1918310.31	6432800.47																			
	SC			432+71.98	1918343.32	6432838.03					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1918347.52	6432842.73	2°59'59"	1.00	1.46	35		1°52'42"	1910.00	0°22'42"	12.61	12.61									
	CS		50.00	432+84.60	1918351.76	6432847.40																			
R-1465	SS		50.00	433+34.60	1918385.65	6432884.16					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	SEE NOTES 1, 2 & 5
	SC			433+84.60	1918419.55	6432920.91					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	PI				1918423.79	6432925.58	2°59'59"	1.00	1.46	35		1°52'42"	1910.00	0°22'42"	12.61	12.61									
	CS		50.00	433+97.21	1918427.99	6432930.29																			
	ST	N48°56'36"E	744.48	434+47.21	1918461.00	6432967.84					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
R-1470	TS		100.00	441+91.69	1918949.98	6433529.23																			
	SC			442+91.69	1919018.62	6433601.86					100.00						6°59'14"	99.85	4.06	1.02	49.98	66.72	33.38	162.58	
	PI				1919063.29	6433642.02	13°58'28"	2.75	3.10	25		30°38'37"	410.00	16°40'09"	119.28	118.86									
	CS		100.00	444+10.98	1919117.60	6433667.67																			
	ST	N18°17'58"E	419.78	445+10.98	1919211.13	6433702.88					100.00						6°59'14"	99.85	4.06	1.02	49.98	66.72	33.38	162.58	
R-1475	TS		110.00	449+30.77	1919609.69	6433834.69																			
	SC			450+40.77	1919715.67	6433863.68					110.00						9°00'13"	109.73	5.75	1.44	54.95	73.43	36.75	255.23	
	PI				1919846.02	6433885.02	16°22'13"	3.50	3.11	25		59°21'22"	350.00	41°20'56"	252.59	247.14									
	CS		110.00	452+93.35	1919957.96	6433814.92																			
	ST	N41°03'24"W	924.81	454+03.35	1920044.48	6433747.19					110.00						9°00'13"	109.73	5.75	1.44	54.95	73.43	36.75	255.23	
R-1480	TS		100.00	463+28.16	1920741.84	6433139.77																			
	SC			464+28.16	1920817.34	6433074.19					100.00						0°14'12"	100.00	0.14	0.03	50.00	66.67	33.33	149.97	
	PI				1920855.24	6433041.45	0°28'25"	1.00	0.34	65		0°56'52"	12100.00	0°28'28"	100.19	100.18									
	CS		100.00	465+28.35	1920893.42	6433009.02																			
	ST	N40°06'31"W	200.09	466+28.35	1920969.82	6432944.49					100.00						0°14'12"	100.00	0.14	0.03	50.00	66.67	33.33	150.21	
R-1485	TS		100.00	468+28.45	1921122.86	6432815.58																			
	SC			469+28.45	1921199.25	6432751.05					100.00						0°14'12"	100.00	0.14	0.03	50.00	66.67	33.33	150.32	
	PI				1921237.51	6432718.55	0°28'25"	1.00	0.34	65		0°56'55"	12100.00	0°28'31"	100.39	100.39									
	CS		100.00	470+28.85	1921275.50	6432685.73																			
	ST	N41°03'27"W	591.38	471+28.85	1921351.00	6432620.16					100.00						0°14'12"	100.00	0.14	0.03	50.00	66.67	33.33	150.08	
R-1490	TS		100.00	477+20.24	1921796.93	6432231.72																			
	SC			478+20.24	1921872.25	6432165.94					100.00						0°14'12"	100.00	0.14	0.03	50.00	66.67	33.33	150.28	
	PI				1921909.96	6432132.81	0°28'25"	1.00	0.34	65		0°56'55"	12100.00	0°28'31"	100.39	100.39									
	CS		100.00	479+20.63	1921947.40	6432099.37																			
	ST	N42°00'23"W	200.00	480+20.63	1922021.80	6432032.55					100.00						0°14'12"	100.00	0.14	0.03	50.00	66.67	33.33	150.12	
R-1495	TS		100.00	482+20.63	1922170.41	6431898.71																			
	SC			483+20.63	1922244.81	6431831.89					100.00						0°14'12"	100.00	0.14	0.03	50.00	66.67	33.33	150.17	
	PI				1922282.25	6431798.45	0°28'25"	1.00	0.34	65		0°56'56"	12100.00	0°28'32"	100.41	100.41									
	CS		100.00	484+21.04	1922319.97	6431765.32																			
	ST	N41°03'27"W	265.54	485+21.04	1922395.29	6431699.53					100.00						0°14'12"	100.00	0.14	0.03	50.00	66.67	33.33	150.23	
#10 LH T.O.	PS	N41°03'27"W	31.41	487+86.59	1922595.53	6431525.11																			
	PITO	N41°03'27"W	139.90	488+18.00	1922619.22	6431504.48																			
#10 RH T.O.	PITO	N41°03'27"W	31.41	489+57.90	1922724.71	6431412.59																			
	PS	N41°03'27"W	2879.5	489+89.32	1922748.40	6431391.96																			
R-1500	TS		100.00	518+68.82	1924919.68	6429500.66																			
	SC			519+68.82	1924995.33	6429435.25					100.00						0°38'12"	100.00	0.37	0.09	50.00	66.67	33.33	157.39	
	PI				1925039.07	6429398.00	1°16'24"	1.50	1.08	55		2°44'11"	4500.00	1°27'47"	114.91	114.90									
	CS		100.00	520+83.72	1925083.75	6429361.87																			
	ST	N38°19'16"W	168.47	521+83.72	1925161.98	6429299.58					100.00						0°38'12"	100.00	0.37	0.09	50.00	66.67	33.33	157.55	
R-1505	TS		100.00	523+52.20	1925294.16	6429195.11																			
	SC			524+52.20	1925372.38	6429132.81					100.00						0°38'12"	100.00	0.37	0.09	50.00	66.67	33.33	156.97	
	PI				1925416.73	6429096.95	1°16'24"	1.50	1.08	55		2°43'32"	4500.00	1°27'08"	114.06	114.06									
	CS		100.00	525+66.26	1925460.16	6429059.98																			
	ST	N41°02'48"W	369.29	526+66.26	1925535.82	6428994.59					100.00						0°38'12"	100.00	0.37	0.09	50.00	66.67	33.33	157.13	

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL

NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 HORIZONTAL GEOMETRY
SHEET 8 OF 9

CONTRACT NO

DRAWING NO TS-017 REV 0

SCALE NONE

LRT-1 TRACK GEOMETRY DATA (CONT'D)

STATIONING DATA

CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING
		N41°02'48"W	369.29			
R-1510	TS			530+35.56	1925814.33	6428752.08
			50.00			
	SC			530+85.56	1925851.95	6428719.15
	PI				1925901.48	6428675.29
	CS			532+17.85	1925949.03	6428629.29
			50.00			
	ST			532+67.85	1925984.77	6428594.32
		N44°31'42"W	130.08			
R-1515	TS			533+97.93	1926077.50	6428503.11
			50.00			
	SC			534+47.93	1926113.24	6428468.14
	PI				1926160.32	6428422.60
	CS			535+78.90	1926209.33	6428379.16
			50.00			
	ST			536+28.90	1926246.94	6428346.21
		N41°04'19"W	2152.91			
#15 LH T.O.	PS			557+81.81	1927869.98	6426931.73
		N41°04'19"W	42.13			
	PITO			558+23.94	1927901.74	6426904.05
		N41°04'19"W	195.75			
#15 RH T.O.	PITO			560+19.69	1928049.31	6426775.44
		N41°04'19"W	42.12			
	PS			560+61.82	1928081.07	6426747.76
		N41°04'19"W	83.69			
R-1520	TS			561+45.51	1928144.16	6426692.78
			100.00			
	SC			562+45.51	1928219.31	6426626.80
	PI				1928351.59	6426508.91
	CS			565+99.70	1928474.18	6426380.98
			100.00			
	ST			566+99.70	1928542.84	6426308.27
		N46°51'18"W	820.56			
#8 LH T.O.	PS			575+20.26	1929103.98	6425709.57
		N46°51'18"W	31.66			
	PITO			575+51.93	1929125.63	6425686.46
		N46°51'18"W	201.52			
#8 RH T.O.	PITO			577+53.46	1929263.44	6425539.42
		N46°51'18"W	31.66			
	PS			577+85.12	1929285.10	6425516.32
		N46°51'18"W	332.93			
	POE			581+18.06	1929512.78	6425273.40

INPUT DATA / CURVE DATA / SPIRAL DATA / DESIGN VARIANCES

CURVE NO.	DESC	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	DESIGN VARIANCES
R-1510	TS																			
	SC					50.00						0°28'39"	50.00	0.14	0.03	25.00	33.33	16.67	116.17	
	PI	1°54'35"	1.00	0.57	35		3°28'54"	3000.00	2°31'36"	132.30	132.29									
	CS																			
	ST					50.00						0°28'39"	50.00	0.14	0.03	25.00	33.33	16.67	116.17	
R-1515	TS																			
	SC					50.00						0°28'39"	50.00	0.14	0.03	25.00	33.33	16.67	115.46	
	PI	1°54'35"	1.00	0.57	35		3°27'23"	3000.00	2°30'05"	130.97	130.96									
	CS																			
	ST					50.00						0°28'39"	50.00	0.14	0.03	25.00	33.33	16.67	115.56	
#15 LH T.O.	PS																			
	PITO																			
#15 RH T.O.	PITO																			
	PS																			
R-1520	TS																			
	SC					100.00						0°38'12"	100.00	0.37	0.09	50.00	66.67	33.33	277.29	
	PI	1°16'24"	1.00	0.05	35		5°46'59"	4500.00	4°30'35"	354.19	354.10									
	CS																			
	ST					100.00						0°38'12"	100.00	0.37	0.09	50.00	66.67	33.33	277.29	
#8 LH T.O.	PS																			
	PITO																			
#8 RH T.O.	PITO																			
	PS																			
	POE																			

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 HORIZONTAL GEOMETRY
SHEET 9 OF 9

CONTRACT NO

DRAWING NO TS-018 REV 0

SCALE NONE

LRT-2 TRACK GEOMETRY DATA

	STATIONING DATA						INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	
	POB	N90°00'00"E	280.00	88+31.08	1888449.89	6424673.28																			
#8 RH T.O.	PS	N90°00'00"E	31.67	91+11.08	1888449.89	6424953.28																			
	PITO	N90°00'00"E	111.55	91+42.75	1888449.89	6424984.95																			
#8 LH T.O.	PITO	N90°00'00"E	31.67	92+54.31	1888449.89	6425096.51																			
	PS	N90°00'00"E	25.10	92+85.98	1888449.89	6425128.18																			
R-2000	PC			93+11.08	1888449.89	6425153.28																			
	PI				1888449.89	6425201.49	4°46'29"	0.00	0.72	15		4°36'07"	1200.00	4°36'07"	96.38	96.36									SEE NOTES 1, 3 & 6
	PT	N85°23'53"E	60.00	94+07.46	1888453.76	6425249.56																			
R-2005	PC			94+67.46	1888458.58	6425309.36																			
	PI				1888462.45	6425357.43	4°46'29"	0.00	0.72	15		4°36'07"	1200.00	4°36'07"	96.38	96.36									SEE NOTES 1 & 3
	PT	N90°00'00"E	314.63	95+63.85	1888462.45	6425405.64																			
R-2010	TS		100.00	98+78.49	1888462.45	6425720.28																			
	SC			99+78.49	1888471.91	6425819.47					100.00						16°22'13"	99.19	9.47	2.37	49.86	66.95	33.59	226.51	
	PI				1888498.71	6425910.68	32°44'26"	1.50	3.44	15		89°45'55"	175.00	57°01'29"	174.17	167.07									SEE NOTE 4
	CS		100.00	101+52.66	1888589.81	6425937.85																			
	ST	N00°14'05"E	155.96	102+52.66	1888688.96	6425947.72					100.00						16°22'13"	99.19	9.47	2.37	49.86	66.95	33.59	226.51	
#10 RH T.O.	PS	N00°14'05"E	31.42	104+08.62	1888844.92	6425948.36																			
	PITO	N00°14'05"E	139.9	104+40.04	1888876.33	6425948.49																			
#10 LH T.O.	PITO	N00°14'05"E	31.40	105+79.94	1889016.23	6425949.06																			
	PS	N00°14'05"E	657.4	106+11.35	1889047.65	6425949.19																			
R-2015	TS		50.00	112+68.75	1889705.04	6425951.89																			
	SC			113+18.75	1889755.04	6425951.86					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	63.80	
	PI				1889768.99	6425951.72	3°10'59"	1.00	1.61	35		2°28'48"	1800.00	0°53'18"	27.91	27.91									SEE NOTES 1 & 5
	CS		50.00	113+46.66	1889782.94	6425951.37																			
	ST	N02°14'42"W	104.67	113+96.66	1889832.91	6425949.64					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	64.11	
R-2020	TS		50.00	115+01.33	1889937.50	6425945.54																			
	SC			115+51.33	1889987.47	6425943.82					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	63.88	
	PI				1890001.42	6425943.46	3°10'59"	1.00	1.61	35		2°28'48"	1800.00	0°53'18"	27.91	27.91									SEE NOTES 1 & 5
	CS		50.00	115+79.24	1890015.38	6425943.33																			
	ST	N00°14'06"E	363.02	116+29.24	1890065.38	6425943.30					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	64.04	
R-2025	TS		50.00	119+92.26	1890428.39	6425944.79																			
	SC			120+42.26	1890478.39	6425945.22					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	74.87	
	PI				1890503.30	6425945.67	3°10'59"	1.00	1.61	35		3°10'39"	1800.00	1°35'09"	49.82	49.82									SEE NOTES 1, 4 & 5
	CS		50.00	120+92.08	1890528.19	6425946.81																			
	ST	N03°24'45"E	89.94	121+42.08	1890578.11	6425949.56					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	74.97	
R-2030	TS		50.00	122+32.02	1890667.89	6425954.91																			
	SC			122+82.02	1890717.82	6425957.65					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	74.97	
	PI				1890742.71	6425958.79	3°10'59"	1.00	1.61	35		3°10'39"	1800.00	1°35'09"	49.82	49.82									SEE NOTES 1 & 5
	CS		50.00	123+31.85	1890767.61	6425959.24																			
	ST	N00°14'06"E	105.00	123+81.85	1890817.61	6425959.68					50.00						0°47'45"	50.00	0.23	0.06	25.00	33.33	16.67	74.87	
R-2035	TS		40.00	124+86.85	1890922.61	6425960.11																			
	SC			125+26.85	1890962.61	6425960.22					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33	63.50	
	PI				1890986.04	6425960.24	1°00'00"	0.50	0.32	35		0°52'06"	5730.00	0°28'06"	46.85	46.85									SEE NOTE 1
	CS		40.00	125+73.69	1891009.46	6425960.06																			
	ST	N00°38'01"W	105.00	126+13.69	1891049.46	6425959.67					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33	63.34	
R-2040	TS		40.00	127+18.69	1891154.45	6425958.50																			
	SC			127+58.69	1891194.45	6425958.11					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33	63.34	
	PI				1891217.87	6425957.93	1°00'00"	0.50	0.32	35		0°52'06"	5730.00	0°28'06"	46.84	46.84									SEE NOTE 1
	CS		40.00	128+05.54	1891241.29	6425957.95																			
	ST	N00°14'06"E	1269.07	128+45.54	1891281.29	6425958.06					40.00						0°12'00"	40.00	0.05	0.01	20.00	26.67	13.33	63.50	
R-2045	TS		50.00	141+14.61	1892550.36	6425963.27																			
	SC			141+64.61	1892600.36	6425963.37					50.00						0°21'29"	50.00	0.10	0.03	25.00	33.33	16.67	71.26	
	PI				1892621.84	6425963.32	1°25'57"	0.50	0.68	35		1°19'53"	4000.00	0°36'55"	42.96	42.96									SEE NOTE 1
	CS		50.00	142+07.57	1892643.31	6425963.04																			
	ST	N01°05'48"W	100.00	142+57.57	1892693.31	6425962.19					50.00						0°21'29"	50.00	0.10	0.03	25.00	33.33	16.67	71.70	
R-2050	TS		50.00	143+57.57	1892793.29	6425960.28																			
	SC			144+07.57	1892843.28	6425959.42					50.00						0°21'29"	50.00	0.10	0.03	25.00	33.33	16.67	71.68	
	PI				1892864.76	6425959.15	1°25'57"	0.50	0.68	35		1°19'53"	4000.00	0°36'55"	42.96	42.95									SEE NOTE 1
	CS		50.00	144+50.53	1892886.23	6425959.10																			
	ST	N00°14'05"E	779.21	145+00.53	1892936.23	6425959.20					50.00						0°21'29"	50.00	0.10	0.03	25.00	33.33	16.67	71.27	
R-2055	TS		50.00	152+79.75	1893715.45	6425962.40																			
	SC			153+29.75	1893765.45	6425962.67					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	70.90	
	PI				1893785.93	6425962.85	1°00'00"	0.75	0.89	35		0°54'35"	5730.00	0°24'35"	40.97	40.97									SEE NOTE 1
	CS		50.00	153+70.72	1893806.42	6425963.17																			
	ST	N01°08'40"E	95.79	154+20.72	1893856.41	6425964.09					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	70.07	

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-2 HORIZONTAL GEOMETRY SHEET 1 OF 9

CONTRACT NO
DRAWING NO TS-019
REV 0
SCALE NONE
SHEET NO 17 OF 89

LRT-2 TRACK GEOMETRY DATA

	STATIONING DATA						INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	Ea	Eu	V	LS	I	RADIUS	Δ	L	T	θ	X	Y	P	k	LT	ST	Ts	
							degrees	inches	inches	mph	feet	degrees	feet	degrees	feet	feet	degrees	feet	feet	feet	feet	feet	feet	feet	
		N01°08'40"E	95.79																						
	TS			155+16.51	1893952.18	6425966.01																			
			50.00																						
	SC			155+66.51	1894002.17	6425966.93					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	77.46	
R-2060	PI				1894029.88	6425967.36	1°00'00"	0.75	0.89	35		1°03'16"	5730.00	0°33'16"	55.44	55.44									SEE NOTE 1
	CS			156+21.94	1894057.60	6425967.53																			
			50.00																						
	ST			156+71.94	1894107.60	6425967.68					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	77.97	
		N00°05'25"E	462.59																						
	TS			161+34.53	1894570.19	6425968.41																			
			100.00																						
	SC			162+34.53	1894670.18	6425968.20					100.00						0°38'12"	100.00	0.37	0.09	50.00	66.67	33.33	139.04	
R-2065	PI				1894709.27	6425967.82	1°16'24"	0.50	0.55	35		2°16'07"	4500.00	0°59'43"	78.17	78.17									SEE NOTE 1
	CS			163+12.70	1894748.34	6425966.77																			
			100.00																						
	ST			164+12.70	1894848.28	6425963.34					100.00						0°38'12"	100.00	0.37	0.09	50.00	66.67	33.33	139.14	
		N02°10'42"W	127.54																						
	TS			165+40.25	1894975.74	6425958.49																			
			100.00																						
	SC			166+40.25	1895075.68	6425955.06					100.00						0°38'12"	100.00	0.37	0.09	50.00	66.67	33.33	143.85	
R-2070	PI				1895119.61	6425953.88	1°16'24"	0.50	0.55	35		2°23'33"	4500.00	1°07'09"	87.89	87.89									SEE NOTE 1
	CS			167+28.14	1895163.56	6425953.56																			
			100.00																						
	ST			168+28.14	1895263.56	6425953.56					100.00						0°38'12"	100.00	0.37	0.09	50.00	66.67	33.33	144.07	
		N00°12'50"E	455.88																						
	TS			172+84.03	1895719.44	6425955.26																			
			55.00																						
	SC			173+39.03	1895774.44	6425955.77					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	66.48	
R-2075	PI				1895785.99	6425956.01	3°29'37"	1.25	1.62	35		2°43'45"	1640.00	0°48'27"	23.11	23.11									SEE NOTES 1 & 5
	CS			173+62.14	1895797.54	6425956.41																			
			55.00																						
	ST			174+17.14	1895852.49	6425958.93					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	66.65	
		N02°56'34"E	104.04																						
	TS			175+21.18	1895956.39	6425964.27																			
			55.00																						
	SC			175+76.18	1896011.33	6425966.79					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	66.44	
R-2080	PI				1896022.88	6425967.18	3°29'37"	1.25	1.62	35		2°43'45"	1640.00	0°48'27"	23.11	23.11									SEE NOTES 1 & 5
	CS			175+99.29	1896034.43	6425967.42																			
			55.00																						
	ST			176+54.29	1896089.43	6425967.93					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	66.68	
		N00°12'50"E	694.18																						
	PC			183+48.47	1896783.60	6425970.53																			
R-2085	PI				1896822.33	6425970.67	1°16'24"	0.00	1.05	35		0°59'11"	4500.00	0°59'11"	77.46	77.46									SEE NOTE 1
	PT			184+25.93	1896861.06	6425970.15																			
		N00°46'20"W	231.73																						
	TS			186+57.67	1897092.77	6425967.03																			
			65.00																						
	SC			187+22.67	1897157.77	6425966.71					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-2090	PI				1897172.58	6425966.90	4°35'01"	1.50	2.26	35		4°20'14"	1250.00	1°21'28"	29.62	29.62									
	CS			187+52.29	1897187.39	6425967.44																			
			65.00																						
	SS			188+17.29	1897252.29	6425970.91					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2 & 5
			65.00																						
	SC			188+82.29	1897317.20	6425974.39					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
R-2095	PI				1897323.68	6425974.63	4°35'01"	1.50	2.26	35		3°34'28"	1250.00	0°35'42"	12.98	12.98									
	CS			188+95.27	1897330.17	6425974.80																			
			65.00																						
	ST			189+60.27	1897395.17	6425975.35					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
		N00°00'34"W	174.32																						
	TS			191+34.60	1897569.49	6425975.32																			
			50.00																						
	SC			191+84.60	1897619.49	6425975.17					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	63.88	
R-2100	PI				1897633.53	6425975.04	1°59'59"	1.00	0.64	35		1°33'41"	2865.00	0°33'41"	28.07	28.07									SEE NOTE 1
	CS			192+12.67	1897647.56	6425974.78																			
			50.00																						
	ST			192+62.67	1897697.54	6425973.55					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	64.18	
		N01°34'15"W	105.06																						
	TS			193+67.73	1897802.57	6425970.67																			
			50.00																						
	SC			194+17.73	1897852.55	6425969.45					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	76.77	
R-2105	PI				1897879.39	6425968.95	1°59'59"	1.00	0.64	35		2°04'24"	2865.00	1°04'24"	53.67	53.67									SEE NOTE 1
	CS			194+71.41	1897906.22	6425968.95																			
			50.00																						
	ST			195+21.41	1897956.22	6425969.24					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	76.91	
		N00°30'09"E	288.75																						
#10 LH T.O.	PITO			198+10.17	1898244.97	6425971.77																			
		N00°30'09"E	31.41																						
	PS			198+41.58	1898276.39	6425972.05																			
		N00°30'09"E	50.84																						
#10 LH T.O.	PS			198+92.43	1898327.23	6425972.50																			
		N00°30'09"E	31.41																						
	PITO			199+23.85	1898358.65	6425972.77																			
		N00°30'09"E	90.44																						
	TS			200+14.29	1898449.09	6425973.56																			
			45.00																						
	SC			200+59.29	1898494.09	6425973.78					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
R-2110	PI				1898510.30	6425973.73	2°59'59"	1.00	1.46	35		2°19'23"	1910.00	0°58'23"	32.43	32.43									
	CS			200+91.72	1898526.52	6425973.41																			
			45.00																						
	SS			201+36.72	1898571.50	6425972.16					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	SEE NOTES 1, 2, 3 & 5
			45.00																						
	SC			201+81.72	1898616.48	6425970.90					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	
R-2115	PI				1898624.32	6425970.75	2°59'59"	1.00	1.46	35		1°49'13"	1910.00	0°28'13"	15.68	15.68									
	CS			201+97.40	1898632.16	6425970.66																			
			45.00																						
	ST			202+42.40	1898677.16	6425970.48					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
		N00°00'00"E	410.05																						
#8 RH T.O.	PITO			206+52.46	1899087.21	6425970.48																			
		N00°00'00"E	31.65																						
	PS			206+84.12	1899118.88	6425970.48																			
		N00°00'00"E	8.28																						

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-2 HORIZONTAL GEOMETRY SHEET 2 OF 9

CONTRACT NO
DRAWING NO TS-020
REV 0
SCALE NONE
SHEET NO 18 OF 89

LRT-2 TRACK GEOMETRY DATA

	STATIONING DATA						INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	Δ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	
		N00°00'00"E	8.28																						
R-2120	TS		40.00	206+92.40	1899127.16	6425970.48																			SEE NOTES 1, 2, 5 & 6
	SC			207+32.40	1899167.16	6425970.84					40.00						1°32'55"	40.00	0.36	0.09	20.00	26.67	13.33		
	PI				1899178.37	6425971.14	7°44'34"	1.25	1.99	25		4°50'06"	740.00	1°44'16"	22.44	22.44									
	CS		40.00	207+54.85	1899189.58	6425971.79																			
	SS		40.00	207+94.85	1899229.46	6425974.80					40.00						1°32'55"	40.00	0.36	0.09	20.00	26.67	13.33	---	
R-2125	SC			208+34.85	1899269.35	6425977.81					40.00						1°32'55"	40.00	0.36	0.09	20.00	26.67	13.33	---	
	PI				1899280.55	6425978.45	7°44'34"	1.25	1.99	25		4°50'06"	740.00	1°44'16"	22.44	22.44									
	CS		40.00	208+57.29	1899291.77	6425978.76																			
	ST	N00°00'00"E	7.16	208+97.29	1899331.77	6425979.12					40.00						1°32'55"	40.00	0.36	0.09	20.00	26.67	13.33		
#8 RH T.O.	PS	N00°00'00"E	31.67	209+04.46	1899338.94	6425979.12																			
	PITO	N00°00'00"E	852.28	209+36.13	1899370.61	6425979.12																			
R-2130	TS		55.00	217+88.42	1900222.90	6425979.12																			SEE NOTES 1, 2, 3 & 5
	SC			218+43.42	1900277.89	6425979.42					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33		
	PI				1900296.38	6425979.73	3°29'37"	1.25	1.62	35		3°12'48"	1640.00	1°17'30"	36.97	36.97									
	CS		55.00	218+80.39	1900314.85	6425980.46																			
	SS		55.00	219+35.39	1900369.78	6425983.24					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	---	
R-2135	SC			219+90.39	1900424.71	6425986.01					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33	---	
	PI				1900438.78	6425986.57	3°29'37"	1.25	1.62	35		2°54'19"	1640.00	0°59'01"	28.16	28.16									
	CS		55.00	220+18.55	1900452.85	6425986.88																			
	ST	N00°18'29"E	500.00	220+73.55	1900507.85	6425987.48					55.00						0°57'39"	55.00	0.31	0.08	27.50	36.67	18.33		
R-2140	TS		50.00	225+73.55	1901007.84	6425990.17																			SEE NOTE 1
	SC			226+23.55	1901057.84	6425990.36					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	102.69	
	PI				1901110.66	6425990.42	1°00'00"	0.50	0.32	35		1°33'22"	5730.00	1°03'22"	105.63	105.63									
	CS		50.00	227+29.17	1901163.47	6425989.50																			
	ST	N01°14'53"W	105.00	227+79.17	1901213.45	6425988.48					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	102.94	
R-2145	TS		50.00	228+84.17	1901318.43	6425986.19																			SEE NOTE 1
	SC			229+34.17	1901368.42	6425985.18					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	98.51	
	PI				1901417.02	6425984.33	1°00'00"	0.50	0.32	35		1°28'19"	5730.00	0°58'19"	97.21	97.21									
	CS		50.00	230+31.38	1901465.62	6425984.31																			
	ST	N00°13'26"E	351.57	230+81.38	1901515.62	6425984.43					50.00						0°15'00"	50.00	0.07	0.02	25.00	33.33	16.67	98.70	
R-2150	TS		65.00	234+32.96	1901867.20	6425985.81																			SEE NOTES 1, 2, 3 & 5
	SC			234+97.96	1901932.19	6425986.62					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1901943.68	6425986.97	4°35'01"	1.50	2.26	35		4°01'57"	1250.00	1°03'11"	22.97	22.97									
	CS		65.00	235+20.94	1901955.15	6425987.52																			
	SS		65.00	235+85.94	1902020.01	6425991.78					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
R-2155	SC			236+50.94	1902084.87	6425996.04					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1902096.34	6425996.60	4°35'01"	1.50	2.26	35		4°01'57"	1250.00	1°03'11"	22.97	22.97									
	CS		65.00	236+73.91	1902107.82	6425996.94																			
	ST	N00°13'26"E	94.56	237+38.91	1902172.81	6425997.76					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-2160	TS		50.00	238+33.47	1902267.37	6425998.13																			SEE NOTE 1
	SC			238+83.47	1902317.37	6425998.18					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	84.97	
	PI				1902352.32	6425998.01	1°59'59"	1.00	0.64	35		2°23'52"	2865.00	1°23'52"	69.89	69.89									
	CS		50.00	239+53.36	1902387.25	6425996.99																			
	ST	N02°10'26"W	105.00	240+03.36	1902437.22	6425995.24					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	84.94	
R-2165	TS		50.00	241+08.36	1902542.14	6425991.26																			SEE NOTE 1
	SC			241+58.36	1902592.11	6425989.50					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	84.94	
	PI				1902627.04	6425988.48	1°59'59"	1.00	0.64	35		2°23'52"	2865.00	1°23'52"	69.89	69.89									
	CS		50.00	242+28.25	1902661.99	6425988.32																			
	ST	N00°13'26"E	414.41	242+78.25	1902711.99	6425988.37					50.00						0°30'00"	50.00	0.15	0.04	25.00	33.33	16.67	84.97	
R-2170	TS		30.00	246+92.66	1903126.40	6425989.98																			SEE NOTES 1 & 3
	SC			247+22.66	1903156.40	6425990.14					30.00						0°11'28"	30.00	0.03	0.01	15.00	20.00	10.00	44.25	
	PI				1903171.00	6425990.24	1°16'24"	0.50	0.55	35		2°23'52"	4500.00	0°22'19"	29.21	29.21									
	CS		30.00	247+51.87	1903185.61	6425990.44																			
	ST	N00°58'40"E	100.00	247+81.87	1903215.60	6425990.92					30.00						0°11'28"	30.00	0.03	0.01	15.00	20.00	10.00	44.95	
R-2175	TS		30.00	248+81.87	1903315.59	6425992.63																			SEE NOTES 1 & 3
	SC			249+11.87	1903345.58	6425993.10					30.00						0°11'28"	30.00	0.03	0.01	15.00	20.00	10.00	43.77	
	PI				1903359.73	6425993.30	1°16'24"	0.50	0.55	35		0°44'33"	4500.00	0°21'37"	28.30	28.30									
	CS		30.00	249+40.17	1903373.88	6425993.40																			
	ST	N00°14'08"E	931.87	249+70.17	1903403.88	6425993.56					30.00						0°11'28"	30.00	0.03	0.01	15.00	20.00	10.00	44.52	
R-2180	TS		100.00	259+02.04	1904335.75	6425997.39																			
	SC			260+02.04	1904435.73	6425996.31					100.00						2°33'28"	99.98	1.49	0.37	50.00	66.67	33.34	375.27	
	PI				1904707.12	6425985.31	5°06'57"	2.00	2.20	35		32°22'43"	1120.00	27°15'47"	532.93	527.92									
	CS		100.00	265+34.97	1904943.31	6425851.21																			
	ST	N32°08'36"W	105.23	266+34.97	1905028.76	6425799.28					100.00						2°33'28"	99.98	1.49	0.37	50.00	66.67	33.34	375.25	

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-2 HORIZONTAL GEOMETRY SHEET 3 OF 9

CONTRACT NO
DRAWING NO TS-021 REV 0
SCALE NONE
SHEET NO 19 OF 89

LRT-2 TRACK GEOMETRY DATA

	STATIONING DATA						INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	Ea	Eu	V	LS	I	RADIUS	△	L	T	θ	X	Y	P	k	LT	ST	Ts	
							degrees	inches	inches	mph	feet	degrees	feet	degrees	feet	feet	degrees	feet	feet	feet	feet	feet	feet	feet	
R-2185	TS	N32°08′36″W	105.23	267+40.21	1905117.87	6425743.28																			
	SC		140.00	268+80.21	1905238.63	6425672.55					140.00						5°20′51″	139.88	4.35	1.09	69.98	93.38	46.71	257.60	
	PI				1905340.82	6425620.94	7°38′22″	3.00	3.27	35		28°03′12″	750.00	17°21′30″	227.22	226.35									
	CS			271+07.43	1905453.76	6425602.16																			
	ST		140.00	272+47.43	1905592.97	6425587.85					140.00						5°20′51″	139.88	4.35	1.09	69.98	93.38	46.71	257.63	
R-2190	TS	N04°05′23″W	179.11	274+26.54	1905771.61	6425575.07																			
	SC		100.00	275+26.54	1905871.40	6425568.56					100.00						1°03′40″	100.00	0.62	0.15	50.00	66.67	33.33	153.73	
	PI				1905925.10	6425565.72	2°07′19″	1.50	0.24	35		4°24′15″	2700.00	2°16′55″	107.53	107.52									
	CS			276+34.07	1905978.87	6425565.02																			
	ST		100.00	277+34.07	1906078.86	6425564.95					100.00						1°03′40″	100.00	0.62	0.15	50.00	66.67	33.33	153.91	
R-2195	TS	N00°18′51″E	459.59	281+93.67	1906538.46	6425567.47																			
	SC		65.00	282+58.67	1906603.46	6425567.26					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1906612.93	6425567.07	4°35′01″	1.50	2.26	35		3°50′54″	1250.00	0°52′08″	18.96	18.96									
	CS			282+77.63	1906622.41	6425566.73																			
	SS		65.00	283+42.63	1906687.31	6425563.28					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	
R-2200	SC		65.00	284+07.63	1906752.22	6425559.84					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1906761.69	6425559.50	4°35′01″	1.50	2.26	35		3°50′54″	1250.00	0°52′08″	18.96	18.96									
	CS			284+26.58	1906771.17	6425559.31																			
	ST		65.00	284+91.58	1906836.17	6425559.10					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
#10 RH T.O.	PS	N00°18′51″E	654.13	291+45.72	1907490.30	6425562.69																			
	PITO	N00°18′51″E	31.41	291+77.14	1907521.71	6425562.86																			
#10 LH T.O.	PITO	N00°18′51″E	139.90	293+17.04	1907661.61	6425563.63																			
	PS	N00°18′51″E	31.41	293+48.46	1907693.03	6425563.80																			
R-2205	TS	N00°18′51″E	507.74	298+56.20	1908200.76	6425566.59																			
	SC		65.00	299+21.20	1908265.75	6425567.51					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1908278.60	6425567.91	4°35′01″	1.50	2.26	35		4°09′27″	1250.00	1°10′41″	25.70	25.70									
	CS			299+46.90	1908291.43	6425568.58																			
	SS		65.00	300+11.90	1908356.27	6425573.08					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2 & 5
R-2210	SC		65.00	300+76.90	1908421.11	6425577.59					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1908433.95	6425578.26	4°35′01″	1.50	2.26	35		4°09′27″	1250.00	1°10′41″	25.70	25.70									
	CS			301+02.60	1908446.79	6425578.66																			
	ST		65.00	301+67.60	1908511.79	6425579.58					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
R-2215	TS	N00°18′51″E	106.56	302+74.16	1908618.35	6425580.17																			
	SC		65.00	303+39.16	1908683.34	6425579.96					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1908696.19	6425579.70	4°35′01″	1.50	2.26	35		4°09′27″	1250.00	1°10′41″	25.70	25.70									
	CS			303+64.87	1908709.03	6425579.17																			
	SS		65.00	304+29.87	1908773.92	6425575.38					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 4 & 5
R-2220	SC		65.00	304+94.87	1908838.81	6425571.58					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1908851.65	6425571.05	4°35′01″	1.50	2.26	35		4°09′27″	1250.00	1°10′41″	25.70	25.70									
	CS			305+20.57	1908864.50	6425570.79																			
	ST		65.00	305+85.57	1908929.49	6425570.58					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
R-2225	TS	N00°18′51″E	644.02	312+29.59	1909573.50	6425574.12																			
	SC		65.00	312+94.59	1909638.50	6425575.04					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1909647.97	6425575.33	4°35′01″	1.50	2.26	35		3°50′54″	1250.00	0°52′08″	18.96	18.96									
	CS			313+13.55	1909657.44	6425575.78																			
	SS		65.00	313+78.55	1909722.30	6425579.93					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 3 & 5
R-2230	SC		65.00	314+43.55	1909787.17	6425584.09					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1909796.64	6425584.53	4°35′01″	1.50	2.26	35		3°50′54″	1250.00	0°52′08″	18.96	18.96									
	CS			314+62.50	1909806.11	6425584.83																			
	ST		65.00	315+27.50	1909871.10	6425585.75					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
R-2235	TS	N00°18′51″E	104.20	316+31.71	1909975.31	6425586.32																			
	SC		55.00	316+86.71	1910030.31	6425586.31					55.00						0°57′39″	55.00	0.31	0.08	27.50	36.67	18.33		
	PI				1910040.53	6425586.20	3°29′37″	1.25	1.62	35		2°38′10″	1640.00	0°42′52″	20.45	20.45									
	CS			317+07.16	1910050.75	6425585.96																			
	SS		55.00	317+62.16	1910105.72	6425584.03					55.00						0°57′39″	55.00	0.31	0.08	27.50	36.67	18.33	---	SEE NOTES 1, 2, 3 & 5
R-2240	SC		55.00	318+17.16	1910160.69	6425582.11					55.00						0°57′39″	55.00	0.31	0.08	27.50	36.67	18.33	---	
	PI				1910170.91	6425581.87	3°29′37″	1.25	1.62	35		2°38′10″	1640.00	0°42′52″	20.45	20.45									
	CS			318+37.61	1910181.13	6425581.76																			
	ST		55.00	318+92.61	1910236.13	6425581.75					55.00						0°57′39″	55.00	0.31	0.08	27.50	36.67	18.33		
		N00°18′51″E	384.88																						

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-2 HORIZONTAL GEOMETRY
SHEET 4 OF 9

CONTRACT NO
DRAWING NO TS-022 REV 0
SCALE NONE
SHEET NO 20 OF 89

LRT-2 TRACK GEOMETRY DATA

	STATIONING DATA						INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	
R-2245	TS	N00°18′51″E	384.88	322+77.50	1910621.01	6425583.86																			
	SC		45.00	323+22.50	1910666.01	6425583.93					45.00						0°40′30″	45.00	0.18	0.04	22.50	30.00	15.00		
	PI				1910678.15	6425583.85	2°59′59″	1.00	1.46	35		2°04′42″	1910.00	0°43′42″	24.28	24.28									
	CS			323+46.78	1910690.29	6425583.62																			
R-2250	SS		45.00	323+91.78	1910735.27	6425582.42					45.00						0°40′30″	45.00	0.18	0.04	22.50	30.00	15.00	---	SEE NOTES 1, 2, 3 & 5
	SC		45.00	324+36.78	1910780.26	6425581.21					45.00						0°40′30″	45.00	0.18	0.04	22.50	30.00	15.00	---	
	PI				1910791.42	6425580.99	2°59′59″	1.00	1.46	35		2°01′12″	1910.00	0°40′12″	22.33	22.33									
	CS			324+59.11	1910802.58	6425580.91																			
	ST		45.00	325+04.11	1910847.58	6425580.94					45.00						0°40′30″	45.00	0.18	0.04	22.50	30.00	15.00		
R-2255	TS	N00°15′21″E	10.79	325+14.90	1910858.38	6425580.99																			
	SC		65.00	325+79.90	1910923.37	6425581.84					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1910934.05	6425582.16	4°35′01″	1.50	2.26	35		3°57′31″	1250.00	0°58′45″	21.36	21.36									
	CS			326+01.26	1910944.72	6425582.67																			
R-2260	SS		65.00	326+66.26	1911009.58	6425586.89					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 3 & 5
	SC		65.00	327+31.26	1911074.44	6425591.10					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1911084.47	6425591.58	4°35′01″	1.50	2.26	35		3°54′01″	1250.00	0°55′14″	20.08	20.08									
	CS			327+51.34	1911094.51	6425591.89																			
	ST		65.00	328+16.35	1911159.51	6425592.81					65.01						1°29′24″	65.01	0.56	0.14	32.50	43.34	21.67		
R-2265	TS	N00°18′51″E	103.98	329+20.33	1911263.48	6425593.39																			
	SC		45.00	329+65.33	1911308.48	6425593.46					45.00						0°40′30″	45.00	0.18	0.04	22.50	30.00	15.00		
	PI				1911344.75	6425593.23	2°59′59″	1.00	1.46	35		3°31′35″	1910.00	2°10′35″	72.55	72.54									
	CS			330+37.87	1911381.00	6425591.62																			
R-2270	SS		45.00	330+82.87	1911425.94	6425589.28					45.00						0°40′30″	45.00	0.18	0.04	22.50	30.00	15.00	---	SEE NOTES 1, 2, 3 & 5
	SC		45.00	331+27.87	1911470.87	6425586.93					45.00						0°40′30″	45.00	0.18	0.04	22.50	30.00	15.00	---	
	PI				1911507.12	6425585.33	2°59′59″	1.00	1.46	35		3°31′35″	1910.00	2°10′35″	72.55	72.54									
	CS			332+00.42	1911543.40	6425585.10																			
	ST		45.00	332+45.42	1911588.40	6425585.17					45.00						0°40′30″	45.00	0.18	0.04	22.50	30.00	15.00		
R-2275	TS	N00°18′51″E	239.62	334+85.04	1911828.00	6425586.48																			
	SC		100.00	335+85.04	1911927.82	6425591.19					100.00						7°09′43″	99.84	4.16	1.04	49.97	66.72	33.38	231.13	
	PI				1912050.19	6425607.25	14°19′26″	3.00	3.00	25		48°37′09″	400.00	34°17′43″	239.43	235.87									
	CS			338+24.46	1912142.24	6425689.47																			
	ST		100.00	339+24.46	1912210.97	6425762.01					100.00						7°09′43″	99.84	4.16	1.04	49.97	66.72	33.38	231.13	
R-2280	TS	N48°56′01″E	430.05	343+54.51	1912493.48	6426086.24																			
	SC		55.00	344+09.51	1912529.38	6426127.91					55.00						0°57′39″	55.00	0.31	0.08	27.50	36.67	18.33		
	PI				1912538.77	6426139.05	3°29′37″	1.25	1.62	35		2°56′23″	1640.00	1°01′05″	29.14	29.14									
	CS			344+38.64	1912547.95	6426150.36																			
R-2285	SS		55.00	344+93.64	1912582.15	6426193.44					55.00						0°57′39″	55.00	0.31	0.08	27.50	36.67	18.33	---	SEE NOTES 1, 2, 3 & 5
	SC		55.00	345+48.64	1912616.35	6426236.51					55.00						0°57′39″	55.00	0.31	0.08	27.50	36.67	18.33	---	
	PI				1912625.45	6426247.71	3°29′37″	1.25	1.62	35		2°55′47″	1640.00	1°00′29″	28.86	28.85									
	CS			345+77.50	1912634.74	6426258.75																			
	ST		55.00	346+32.50	1912670.63	6426300.42					55.00						0°57′39″	55.00	0.31	0.08	27.50	36.67	18.33		
R-2290	TS	N48°56′36″E	65.87	346+98.38	1912713.90	6426350.10																			
	SC		65.00	347+63.38	1912757.01	6426398.74					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1912761.27	6426403.38	4°35′01″	1.50	2.26	35		3°33′26″	1250.00	0°34′40″	12.61	12.61									
	CS			347+75.98	1912765.58	6426407.98																			
R-2295	SS		65.00	348+40.98	1912810.83	6426454.65					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 3, 5 & 6
	SC		65.00	349+05.98	1912856.08	6426501.31					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1912860.39	6426505.91	4°35′01″	1.50	2.26	35		3°33′26″	1250.00	0°34′40″	12.61	12.61									
	CS			349+18.59	1912864.65	6426510.55																			
	ST		65.00	349+83.59	1912907.76	6426559.19					65.00						1°29′23″	65.00	0.56	0.14	32.50	43.33	21.67		
#10 RH T.O.	PS	N48°56′36″E	28.99	350+12.58	1912926.80	6426581.05																			
	PITO	N48°56′36″E	31.40	350+43.99	1912947.44	6426604.74																			
#10 LH T.O.	PITO	N48°56′36″E	661.79	357+05.78	1913382.10	6427103.77																			
	PS	N48°56′36″E	31.41	357+37.20	1913402.73	6427127.46																			
R-2300	TS	N48°56′36″E	30.17	357+67.37	1913422.55	6427150.21																			
	SC		50.00	358+17.37	1913455.25	6427188.03					50.00						0°37′32″	50.00	0.18	0.05	25.00	33.33	16.67		
	PI				1913471.71	6427207.34	2°30′07″	1.00	1.05	35		2°31′14″	2290.00	1°16′10″	50.73	50.73									
	CS			358+68.10	1913487.73	6427227.01																			
R-2305	SS		50.00	359+18.10	1913519.02	6427266.01					50.00						0°37′32″	50.00	0.18	0.05	25.00	33.33	16.67	---	SEE NOTES 1, 2, 5 & 6
	SC		50.00	359+68.10	1913550.31	6427305.00					50.00						0°37′32″	50.00	0.18	0.05	25.00	33.33	16.67	---	
	PI				1913566.33	6427324.67	2°30′07″	1.00	1.05	35		2°31′14″	2290.00	1°16′10″	50.73	50.73									
	CS			360+18.84	1913582.78	6427343.98																			
	ST		50.00	360+68.84	1913615.49	6427381.81					50.00						0°37′32″	50.00	0.18	0.05	25.00	33.33	16.67		
		N48°56′36″E	820.85																						

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
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Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-2 HORIZONTAL GEOMETRY SHEET 5 OF 9

CONTRACT NO

DRAWING NO TS-023 REV 0

SCALE NONE

SHEET NO 21 OF 89

LRT-2 TRACK GEOMETRY DATA

	STATIONING DATA						INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	
R-2310	TS	N48°56'36"E	820.85	368+89.69	1914154.63	6428000.78																			
	SC		50.00	369+39.69	1914187.30	6428038.63					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1914195.45	6428048.24	2°59'59"	1.00	1.46	35		2°15'22"	1910.00	0°45'22"	25.21	25.21									
	CS			369+64.90	1914203.48	6428057.95																			
	SS		50.00	370+14.90	1914234.98	6428096.78					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	SEE NOTES 1, 2 & 5
R-2315	SC		50.00	370+64.90	1914266.48	6428135.61					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	PI				1914274.50	6428145.33	2°59'59"	1.00	1.46	35		2°15'22"	1910.00	0°45'22"	25.21	25.21									
	CS			370+90.10	1914282.66	6428154.94																			
	ST		50.00	371+40.10	1914315.33	6428192.79					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
R-2320	TS	N48°56'36"E	106.82	372+46.92	1914385.49	6428273.34																			
	SC		50.00	372+96.92	1914418.50	6428310.89					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1914426.90	6428320.29	2°59'59"	1.00	1.46	35		2°15'22"	1910.00	0°45'22"	25.21	25.21									
	CS			373+22.13	1914435.42	6428329.57																			
	SS		50.00	373+72.13	1914469.56	6428366.10					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	SEE NOTES 1, 2, 3 & 5
R-2325	SC		50.00	374+22.13	1914503.70	6428402.63					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	PI				1914512.23	6428411.91	2°59'59"	1.00	1.46	35		2°15'22"	1910.00	0°45'22"	25.21	25.21									
	CS			374+47.33	1914520.63	6428421.31																			
	ST		50.00	374+97.33	1914553.63	6428458.87					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
R-2330	TS	N48°56'36"E	100.73	375+98.07	1914619.79	6428534.83																			
	SC		45.00	376+43.07	1914649.48	6428568.64					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
	PI				1914662.38	6428583.11	2°59'59"	1.00	1.46	35		2°30'46"	1910.00	1°09'46"	38.76	38.76									
	CS			376+81.83	1914675.58	6428597.31																			
	SS		45.00	377+26.83	1914706.46	6428630.03					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	SEE NOTES 1, 2, 3 & 5
R-2335	SC		45.00	377+71.83	1914737.35	6428662.76					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00	---	
	PI				1914750.54	6428676.96	2°59'59"	1.00	1.46	35		2°30'46"	1910.00	1°09'46"	38.76	38.76									
	CS			378+10.59	1914763.45	6428691.42																			
	ST		45.00	378+55.59	1914793.13	6428725.24					45.00						0°40'30"	45.00	0.18	0.04	22.50	30.00	15.00		
R-2340	TS	N48°56'36"E	335.39	381+90.98	1915013.42	6428978.14																			
	SC		65.00	382+55.98	1915055.68	6429027.52					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1915062.17	6429035.37	4°35'01"	1.50	2.26	35		3°54'46"	1250.00	0°56'00"	20.36	20.36									
	CS			382+76.34	1915068.52	6429043.32																			
	SS		65.00	383+41.34	1915108.22	6429094.79					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 3, 4 & 5
R-2345	SC		65.00	384+06.34	1915147.91	6429146.26					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1915154.27	6429154.21	4°35'01"	1.50	2.26	35		3°54'46"	1250.00	0°56'00"	20.36	20.36									
	CS			384+26.70	1915160.75	6429162.06																			
	ST		65.00	384+91.70	1915203.02	6429211.44					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-2350	TS	N48°56'36"E	55.09	385+46.79	1915239.20	6429252.98																			
	SC		60.00	386+06.79	1915278.88	6429297.99					60.00						1°02'53"	60.00	0.37	0.09	30.00	40.00	20.00		
	PI				1915291.94	6429312.43	3°29'37"	1.25	1.62	35		3°27'24"	1640.00	1°21'38"	38.94	38.94									
	CS			386+45.73	1915305.33	6429326.56																			
	SS		60.00	387+05.73	1915347.13	6429369.60					60.00						1°02'53"	60.00	0.37	0.09	30.00	40.00	20.00	---	SEE NOTES 1, 2, 3 & 5
R-2355	SC		60.00	387+65.73	1915388.94	6429412.64					60.00						1°02'53"	60.00	0.37	0.09	30.00	40.00	20.00	---	
	PI				1915402.33	6429426.78	3°29'37"	1.25	1.62	35		3°27'24"	1640.00	1°21'38"	38.94	38.94									
	CS			388+04.67	1915415.39	6429441.22																			
	ST		60.00	388+64.67	1915455.07	6429486.22					60.00						1°02'53"	60.00	0.37	0.09	30.00	40.00	20.00		
R-2360	TS	N48°56'36"E	44.70	389+09.38	1915484.44	6429519.94																			
	SC		50.00	389+59.38	1915517.11	6429557.79					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1915522.81	6429564.50	2°59'59"	1.00	1.46	35		2°01'42"	1910.00	0°31'42"	17.61	17.61									
	CS			389+76.99	1915528.44	6429571.27																			
	SS		50.00	390+26.99	1915560.09	6429609.97					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	SEE NOTES 1, 2, 3 & 5
R-2365	SC		50.00	390+76.99	1915591.75	6429648.67					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	PI				1915597.38	6429655.44	2°59'59"	1.00	1.46	35		2°01'42"	1910.00	0°31'42"	17.61	17.61									
	CS			390+94.60	1915603.08	6429662.15																			
	ST		50.00	391+44.60	1915635.75	6429700.00					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
R-2370	TS	N48°56'36"E	310.98	394+55.59	1915840.01	6429934.51																			
	SC		40.00	394+95.59	1915866.34	6429964.62					40.00						0°18'00"	40.00	0.07	0.02	20.00	26.67	13.33		
	PI				1915873.77	6429973.07	1°30'00"	0.75	0.48	35		0°56'15"	3820.00	0°20'15"	22.50	22.50									
	CS			395+18.09	1915881.25	6429981.47																			
	SS		40.00	395+58.09	1915907.96	6430011.24					40.00						0°18'00"	40.00	0.07	0.02	20.00	26.67	13.33	---	SEE NOTES 1, 2 & 5
R-2375	SC		40.00	395+98.09	1915934.67	6430041.02					40.00						0°18'00"	40.00	0.07	0.02	20.00	26.67	13.33	---	
	PI				1915942.15	6430049.41	1°30'00"	0.75	0.48	35		0°56'15"	3820.00	0°20'15"	22.50	22.50									
	CS			396+20.58	1915949.59	6430057.86																			
	ST		40.00	396+60.58	1915975.91	6430087.97					40.00						0°18'00"	40.00	0.07	0.02	20.00	26.67	13.33		
		N48°56'36"E	320.00																						

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

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NOT FOR CONSTRUCTION

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DRAWN BY A. CHOI
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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-2 HORIZONTAL GEOMETRY SHEET 6 OF 9

CONTRACT NO

DRAWING NO TS-024 REV 0

SCALE NONE

SHEET NO 22 OF 89

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LRT-2 TRACK GEOMETRY DATA

STATIONING DATA							INPUT DATA						CURVE DATA				SPIRAL DATA								DESIGN VARIANCES
	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	
R-2380	TS	N48°56'36"E	320.00	399+80.58	1916186.09	6430329.27																			
	SC		30.00	400+10.58	1916205.75	6430351.93					30.00						0°18'00"	30.00	0.05	0.01	15.00	20.00	10.00		
	PI				1916215.51	6430363.25	1°59'59"	0.75	0.89	35		1°11'52"	2865.00	0°35'52"	29.90	29.90									
	CS			400+40.48	1916225.15	6430374.68																			
R-2385	SS		30.00	400+70.48	1916244.42	6430397.67					30.00						0°18'00"	30.00	0.05	0.01	15.00	20.00	10.00	---	SEE NOTES 1, 2 & 5
	SC		30.00	401+00.48	1916263.69	6430420.67					30.00						0°18'00"	30.00	0.05	0.01	15.00	20.00	10.00	---	
	PI				1916273.33	6430432.09	1°59'59"	0.75	0.89	35		1°11'52"	2865.00	0°35'52"	29.90	29.90									
	CS			401+30.37	1916283.08	6430443.41																			
	ST		30.00	401+60.37	1916302.75	6430466.07					30.00						0°18'00"	30.00	0.05	0.01	15.00	20.00	10.00		
R-2390	TS	N48°56'36"E	303.00	404+63.37	1916501.76	6430694.55																			
	SC		45.00	405+08.37	1916531.44	6430728.37					45.00						0°37'06"	45.00	0.16	0.04	22.50	30.00	15.00		
	PI				1916543.02	6430741.39	2°44'53"	1.00	1.26	35		2°11'39"	2085.00	0°57'27"	34.84	34.84									
	CS			405+43.21	1916554.82	6430754.20																			
R-2395	SS		45.00	405+88.21	1916585.53	6430787.09					45.00						0°37'06"	45.00	0.16	0.04	22.50	30.00	15.00	---	SEE NOTES 1, 2 & 5
	SC		45.00	406+33.21	1916616.25	6430819.98					45.00						0°37'06"	45.00	0.16	0.04	22.50	30.00	15.00	---	
	PI				1916628.05	6430832.79	2°44'53"	1.00	1.26	35		2°11'39"	2085.00	0°57'27"	34.84	34.84									
	CS			406+68.06	1916639.63	6430845.81																			
	ST		45.00	407+13.06	1916669.31	6430879.63					45.00						0°37'06"	45.00	0.16	0.04	22.50	30.00	15.00		
R-2400	TS	N48°56'36"E	106.15	408+19.21	1916739.03	6430959.68																			
	SC		65.00	408+84.21	1916781.29	6431009.06					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1916790.85	6431020.62	4°35'01"	1.50	2.26	35		4°21'15"	1250.00	1°22'29"	29.99	29.99									
	CS			409+14.20	1916800.12	6431032.40																			
R-2405	SS		65.00	409+79.20	1916839.42	6431084.18					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 3 & 5
	SC		65.00	410+44.20	1916878.71	6431135.95					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1916887.99	6431147.74	4°35'01"	1.50	2.26	35		4°21'15"	1250.00	1°22'29"	29.99	29.99									
	CS			410+74.19	1916897.54	6431159.30																			
	ST		65.00	411+39.19	1916939.80	6431208.68					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-2410	TS	N48°56'36"E	20.00	411+59.19	1916952.94	6431223.76																			
	SC		65.00	412+24.19	1916996.05	6431272.40					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	PI				1917004.74	6431281.87	4°35'01"	1.50	2.26	35		4°09'27"	1250.00	1°10'41"	25.70	25.70									
	CS			412+49.89	1917013.63	6431291.16																			
R-2415	SS		65.00	413+14.89	1917059.36	6431337.34					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2, 3 & 5
	SC		65.00	413+79.89	1917105.09	6431383.53					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
	PI				1917113.98	6431392.82	4°35'01"	1.50	2.26	35		4°09'27"	1250.00	1°10'41"	25.70	25.70									
	CS			414+05.59	1917122.67	6431402.28																			
	ST		65.00	414+70.59	1917165.78	6431450.93					65.00						1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-2420	TS	N48°56'36"E	370.00	418+40.59	1917408.80	6431729.93																			
	SC		50.00	418+90.59	1917441.47	6431767.77					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1917451.76	6431779.91	2°59'59"	1.00	1.46	35		2°27'16"	1910.00	0°57'16"	31.82	31.82									
	CS			419+22.41	1917461.85	6431792.21																			
R-2425	SS		50.00	419+72.41	1917493.22	6431831.15					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	SEE NOTES 1, 2 & 5
	SC		50.00	420+22.41	1917524.58	6431870.09					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	PI				1917534.67	6431882.39	2°59'59"	1.00	1.46	35		2°27'16"	1910.00	0°57'16"	31.82	31.82									
	CS			420+54.23	1917544.97	6431894.52																			
	ST		50.00	421+04.23	1917577.64	6431932.37					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
#10 RH T.O.	PS	N48°56'36"E	92.89	421+97.13	1917638.66	6432002.42																			
	PITO	N48°56'36"E	31.42	422+28.55	1917659.29	6432026.11																			
#10 LH T.O.	PITO	N48°56'36"E	139.89	423+68.45	1917751.18	6432131.60																			
	PS	N48°56'36"E	31.41	423+99.86	1917771.81	6432155.29																			
R-2430	TS	N48°56'36"E	59.72	424+59.59	1917811.04	6432200.33																			
	SC		50.00	425+09.59	1917844.04	6432237.89					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	PI				1917852.67	6432247.53	2°59'59"	1.00	1.46	35		2°16'35"	1910.00	0°46'35"	25.88	25.88									
	CS			425+35.47	1917861.42	6432257.06																			
R-2435	SS		50.00	425+85.47	1917895.58	6432293.58					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	SEE NOTES 1, 2 & 5
	SC		50.00	426+35.47	1917929.73	6432330.09					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
	PI				1917938.48	6432339.62	2°59'59"	1.00	1.46	35		2°16'35"	1910.00	0°46'35"	25.88	25.88									
	CS			426+61.34	1917947.11	6432349.27																			
	ST		50.00	427+11.34	1917980.11	6432386.83					50.00						0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
		N48°56'36"E	121.83																						

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-2 HORIZONTAL GEOMETRY
SHEET 7 OF 9

CONTRACT NO

DRAWING NO TS-025 REV 0

SCALE NONE

SHEET NO 23 OF 89

LRT-2 TRACK GEOMETRY DATA

STATIONING DATA

	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING
	TS	N48°56'36"E	121.83	428+33.17	1918060.13	6432478.69
	SC		65.00	428+98.17	1918102.40	6432528.07
R-2440	PI				1918106.12	6432532.58
	CS			429+09.87	1918109.81	6432537.13
	SS		65.00	429+74.87	1918149.86	6432588.32
	SC		65.00	430+39.87	1918189.91	6432639.51
R-2445	PI				1918193.59	6432644.06
	CS			430+51.57	1918197.32	6432648.57
	ST		65.00	431+16.57	1918239.58	6432697.95
	TS	N48°56'36"E	123.54	432+40.11	1918320.72	6432791.10
	SC		50.00	432+90.11	1918353.72	6432828.66
R-2450	PI				1918357.93	6432833.36
	CS			433+02.72	1918362.16	6432838.03
	SS		50.00	433+52.72	1918396.06	6432874.79
	SC		50.00	434+02.72	1918429.96	6432911.54
R-2455	PI				1918434.19	6432916.22
	CS			434+15.33	1918438.40	6432920.92
	ST		50.00	434+65.33	1918471.40	6432958.48
	TS	N48°56'36"E	707.79	441+73.12	1918936.28	6433492.19
	SC		100.00	442+73.12	1919004.67	6433565.07
R-2460	PI				1919056.89	6433613.05
	CS			444+13.80	1919121.34	6433642.65
	ST		100.00	445+13.80	1919215.00	6433677.52
	TS	N18°17'58"E	422.78	449+36.59	1919616.41	6433810.27
	SC		110.00	450+46.59	1919722.39	6433839.26
R-2465	PI				1919852.73	6433860.60
	CS			452+99.17	1919964.68	6433790.50
	ST		110.00	454+09.17	1920051.20	6433722.77
	PC	N41°03'24"W	904.77	463+13.95	1920733.45	6433128.51
R-2470	PI				1920846.89	6433029.70
	PT			466+14.82	1920959.73	6432930.22
	PC	N41°24'05"W	199.57	468+14.39	1921109.43	6432798.23
R-2475	PI				1921221.94	6432699.03
	PT			471+14.39	1921335.05	6432600.51
	PC	N41°03'27"W	590.00	477+04.39	1921779.94	6432212.99
R-2480	PI				1921893.05	6432114.46
	PT			480+04.41	1922006.76	6432016.61
	PC	N40°42'50"W	200.00	482+04.41	1922158.35	6431886.15
R-2485	PI				1922272.03	6431788.33
	PT			485+04.34	1922385.11	6431689.83
#10 RH T.O.	PS	N41°03'27"W	266.86	487+71.20	1922586.33	6431514.56
	PITO	N41°03'27"W	31.41	488+02.61	1922610.02	6431493.92
#10 LH T.O.	PITO	N41°03'27"W	139.90	489+42.51	1922715.51	6431402.03
	PS	N41°03'27"W	31.41	489+73.93	1922739.20	6431381.40
	TS	N41°03'27"W	2891.1	518+65.03	1924919.24	6429482.48
	SC		60.00	519+25.03	1924964.53	6429443.12
R-2490	PI				1925027.63	6429388.54
	CS			520+91.89	1925091.76	6429335.17
	ST		60.00	521+51.89	1925137.98	6429296.90
	TS	N39°33'49"W	165.00	523+16.89	1925265.18	6429191.81
	SC		60.00	523+76.89	1925311.39	6429153.54
R-2495	PI				1925374.90	6429100.70
	CS			525+42.12	1925437.39	6429046.66
	ST		60.00	526+02.12	1925482.69	6429007.32
	TS	N41°02'48"W	444.00	530+46.12	1925817.54	6428715.75
	SC		50.00	530+96.12	1925855.19	6428682.86
R-2500	PI				1925898.30	6428644.94
	CS			532+10.93	1925940.53	6428606.05
	ST		50.00	532+60.93	1925977.19	6428572.05
	TS	N42°56'07"W	110.00	533+70.93	1926057.72	6428497.12
	SC		50.00	534+20.93	1926094.39	6428463.12
R-2505	PI				1926135.80	6428424.97
	CS			535+33.54	1926178.06	6428387.77
	ST		50.00	535+83.54	1926215.70	6428354.86
		N41°04'19"W	2182.13			

INPUT DATA / CURVE DATA

	DESC	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet
	TS										
	SC					65.00					
R-2440	PI	4°35'01"	1.50	2.26	35		3°30'57"	1250.00	0°32'11"	11.70	11.70
	CS										
	SS					65.00					
	SC					65.00					
R-2445	PI	4°35'01"	1.50	2.26	35		3°30'57"	1250.00	0°32'11"	11.70	11.70
	CS										
	ST					65.00					
	TS										
	SC					50.00					
R-2450	PI	2°59'59"	1.00	1.46	35		1°52'42"	1910.00	0°22'42"	12.61	12.61
	CS										
	SS					50.00					
	SC					50.00					
R-2455	PI	2°59'59"	1.00	1.46	35		1°52'42"	1910.00	0°22'42"	12.61	12.61
	CS										
	ST					50.00					
	TS										
	SC					100.00					
R-2460	PI	12°43'57"	2.75	2.58	25		30°38'37"	450.00	17°54'41"	140.68	140.10
	CS										
	ST					100.00					
	TS										
	SC					110.00					
R-2465	PI	16°22'13"	3.50	3.11	25		59°21'22"	350.00	41°20'56"	252.59	247.14
	CS										
	ST					110.00					
	PC										
R-2470	PI	0°06'53"	0.00	0.32	65		0°20'41"	50000.00	0°20'41"	300.87	300.87
	PT										
	PC										
R-2475	PI	0°06'53"	0.00	0.32	65		0°20'38"	50000.00	0°20'38"	300.00	300.00
	PT										
	PC										
R-2480	PI	0°06'53"	0.00	0.32	65		0°20'38"	50000.00	0°20'38"	300.02	300.02
	PT										
	PC										
R-2485	PI	0°06'53"	0.00	0.32	65		0°20'37"	50000.00	0°20'37"	299.94	299.93
	PT										
#10 RH T.O.	PS										
	PITO										
#10 LH T.O.	PITO										
	PS										
	TS										
	SC					60.00					
R-2490	PI	0°39'31"	0.75	0.58	55		1°29'38"	8700.00	1°05'56"	166.86	166.86
	CS										
	ST					60.00					
	TS										
	SC					60.00					
R-2495	PI	0°39'31"	0.75	0.58	55		1°28'59"	8700.00	1°05'17"	165.23	165.23
	CS										
	ST					60.00					
	TS										
	SC					50.00					
R-2500	PI	1°08'45"	0.75	0.19	35		1°53'18"	5000.00	1°18'56"	114.81	114.81
	CS										
	ST					50.00					
	TS										
	SC					50.00					
R-2505	PI	1°08'45"	0.75	0.19	35		1°51'47"	5000.00	1°17'25"	112.61	112.60
	CS										
	ST					50.00					

SPIRAL DATA / DESIGN VARIANCES

	DESC	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	DESIGN VARIANCES
	TS									
	SC	1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
R-2440	PI									
	CS									
	SS	1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	SEE NOTES 1, 2 & 5
	SC	1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67	---	
R-2445	PI									
	CS									
	ST	1°29'23"	65.00	0.56	0.14	32.50	43.33	21.67		
	TS									
	SC	0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
R-2450	PI									
	CS									
	SS	0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	SEE NOTES 1, 2 & 5
	SC	0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67	---	
R-2455	PI									
	CS									
	ST	0°45'00"	50.00	0.22	0.05	25.00	33.33	16.67		
	TS									
	SC	6°21'58"	99.88	3.70	0.93	49.98	66.71	33.37	173.52	
R-2460	PI									
	CS									
	ST	6°21'58"	99.88	3.70	0.93	49.98	66.71	33.37	173.52	
	TS									
	SC	9°00'13"	109.73	5.75	1.44	54.95	73.43	36.75	255.23	
R-2465	PI									
	CS									
	ST	9°00'13"	109.73	5.75	1.44	54.95	73.43	36.75	255.23	
	PC									
R-2470	PI									
	PT									
	PC									
R-2475	PI									
	PT									
	PC									
R-2480	PI									
	PT									
	PC									
R-2485	PI									
	PT									
#10 RH T.O.	PS									
	PITO									
#10 LH T.O.	PITO									
	PS									
	TS									
	SC	0°11'51"	60.00	0.07	0.02	30.00	40.00	20.00	143.60	
R-2490	PI									
	CS									
	ST	0°11'51"	60.00	0.07	0.02	30.00	40.00	20.00	143.27	
	TS									
	SC	0°11'51"	60.00	0.07	0.02	30.00	40.00	20.00	142.77	
R-2495	PI									
	CS									
	ST	0°11'51"	60.00	0.07	0.02	30.00	40.00	20.00	142.45	
	TS									
	SC	0°17'11"	50.00	0.08	0.02	25.00	33.33	16.67	107.50	
R-2500	PI									
	CS									
	ST	0°17'11"	50.00	0.08	0.02	25.00	33.33	16.67	107.32	
	TS									
	SC	0°17'11"	50.00	0.08	0.02	25.00	33.33	16.67	106.22	
R-2505	PI									
	CS									
	ST	0°17'11"	50.00	0.08	0.02	25.00	33.33	16.67	106.39	

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-2 HORIZONTAL GEOMETRY
SHEET 8 OF 9

CONTRACT NO
DRAWING NO TS-026
REV 0
SCALE NONE
SHEET NO 24 OF 89

LRT-2 TRACK GEOMETRY DATA

STATIONING DATA

	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING
		N41°04'19"W	2182.13			
#15 RH T.O.	PS			557+65.67	1927860.78	6426921.18
		N41°04'19"W	42.13			
	PITO			558+07.80	1927892.54	6426893.50
		N41°04'19"W	195.75			
#15 LH T.O.	PITO			560+03.56	1928040.11	6426764.89
		N41°04'19"W	42.13			
	PS			560+45.69	1928071.87	6426737.21
		N41°04'19"W	82.04			
R-2510	TS			561+27.74	1928133.73	6426683.30
			100.00			
	SC			562+27.74	1928208.64	6426617.06
	PI				1928257.51	6426572.56
	CS			563+59.88	1928303.74	6426525.33
			100.00			
	ST			564+59.88	1928372.65	6426452.87
		N46°51'18"W	1042.45			
#8 RH T.O.	PS			575+02.33	1929085.52	6425692.27
		N46°51'18"W	31.66			
	PITO			575+34.00	1929107.18	6425669.17
		N46°51'18"W	201.51			
#8 LH T.O.	PITO			577+35.52	1929244.99	6425522.13
		N46°51'18"W	31.67			
	PS			577+67.19	1929266.65	6425499.02
		N46°51'18"W	332.94			
	POE			581+00.14	1929494.33	6425256.10

INPUT DATA / CURVE DATA / SPIRAL DATA / DESIGN VARIANCES

DESC	Dc degrees	Ea inches	Eu inches	V mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet	DESIGN VARIANCES
#15 RH T.O. PS																			
PITO																			
#15 LH T.O. PITO																			
PS																			
R-2510 TS																			
SC					100.00						1°14'44"	100.00	0.72	0.18	50.00	66.67	33.33	166.16	
PI	2°29'28"	2.00	0.04	35		5°46'59"	2300.00	3°17'31"	132.14	132.13									
CS																			
ST					100.00						1°14'44"	100.00	0.72	0.18	50.00	66.67	33.33	166.19	
#8 RH T.O. PS																			
PITO																			
#8 LH T.O. PITO																			
PS																			
POE																			

DESIGN VARIANCES NOTES:

1. HORIZONTAL CURVE LENGTH LESS THAN 100'
2. NO TANGENT BETWEEN REVERSING CURVES
3. TANGENT LENGTH LESS THAN 3V
4. CURVE LESS THAN 50' FROM EDGE OF PLATFORM
5. TRANSITION SPIRAL LENGTH LESS THAN 1.22 x Eu x V (MINIMUM Ls = 0.82 x Eu x V).
6. TANGENT TO POINT OF SWITCH LESS THAN 50'.

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LAST SAVED: 3/8/2019 4:24:32 PM

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-2 HORIZONTAL GEOMETRY SHEET 9 OF 9

CONTRACT NO

DRAWING NO TS-027

REV 0

SCALE NONE

SHEET NO 25 OF 89

SCRRA MAIN TRACK GEOMETRY DATA

	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc degrees	Ea inches	Eu inches	V(PAS) mph	V(FRT) mph	LS feet	I degrees	RADIUS feet	△ degrees	L feet	T feet	θ degrees	X feet	Y feet	P feet	k feet	LT feet	ST feet	Ts feet
	STATIONING DATA						INPUT DATA							CURVE DATA				SPIRAL DATA							
	POB	N41°04′15″W	250.00	1013+58.39	1919049.73	6434622.04																			
	TS		100.00	1016+08.39	1919238.20	6434457.79																			
	SC			1017+08.39	1919313.78	6434392.31						100.00						0°30′00″	100.00	0.29	0.07	50.00	66.67	33.33	159.79
19.5-1	PI				1919359.32	6434353.32	1°00′00″	1.00	3.37	79	50		2°11′56″	5729.65	1°11′56″	119.89	119.89								
	CS		100.00	1018+28.28	1919405.66	6434315.29																			
	ST	N38°52′19″W	199.38	1019+28.28	1919483.34	6434252.31						100.00						0°30′00″	100.00	0.29	0.07	50.00	66.67	33.33	160.13
	TS		100.00	1021+27.66	1919638.56	6434127.18																			
	SC			1022+27.66	1919716.23	6434064.20						100.00						0°30′00″	100.00	0.29	0.07	50.00	66.67	33.33	159.25
19.6-1	PI				1919762.03	6434026.62	1°00′00″	1.00	3.37	79	50		2°11′05″	5729.65	1°11′05″	118.48	118.47								
	CS		100.00	1023+46.14	1919807.04	6433988.10																			
	ST	N41°03′24″W	1324.82	1024+46.14	1919882.63	6433922.64						100.00						0°30′00″	100.00	0.29	0.07	50.00	66.67	33.33	159.24
	TS		50.00	1037+70.96	1920881.63	6433052.49																			
	SC			1038+20.96	1920919.35	6433019.66						50.00						0°03′45″	50.00	0.02	0.00	25.00	33.33	16.67	106.68
19.8-1	PI				1920962.78	6432981.92	0°15′00″	0.50	0.59	79	50		0°24′46″	22918.33	0°17′16″	115.09	115.09								
	CS		50.00	1039+36.05	1921006.40	6432944.39																			
	ST	N40°38′38″W	199.25	1039+86.05	1921044.33	6432911.81						50.00						0°03′45″	50.00	0.02	0.00	25.00	33.33	16.67	108.40
	TS		50.00	1041+85.31	1921195.52	6432782.01																			
	SC			1042+35.31	1921233.45	6432749.43						50.00						0°03′45″	50.00	0.02	0.00	25.00	33.33	16.67	108.75
19.9-1	PI				1921277.22	6432711.77	0°15′00″	0.50	0.59	79	50		0°24′49″	22918.33	0°17′19″	115.48	115.48								
	CS		50.00	1043+50.79	1921320.80	6432673.89																			
	ST	N41°03′27″W	601.34	1044+00.79	1921358.52	6432641.07						50.00						0°03′45″	50.00	0.02	0.00	25.00	33.33	16.67	106.72
	TS		50.00	1050+02.13	1921811.96	6432246.10																			
	SC			1050+52.13	1921849.65	6432213.25						50.00						0°02′30″	50.00	0.01	0.00	25.00	33.33	16.67	100.96
20.1-1	PI				1921889.04	6432178.89	0°10′00″	0.00	0.73	79	50		0°15′28″	34354.59	0°10′28″	104.53	104.53								
	CS		50.00	1051+56.66	1921928.32	6432144.41																			
	ST	N41°18′55″W	287.47	1052+06.66	1921965.88	6432111.41						50.00						0°02′30″	50.00	0.01	0.00	25.00	33.33	16.67	103.57
#10 RH	PS	N41°18′55″W	32.91	1054+94.13	1922181.79	6431921.63																			
T.O.	PITO	N41°18′55″W	140.91	1055+27.05	1922206.52	6431899.89																			
	TS		50.00	1056+67.97	1922312.36	6431806.86																			
	SC			1057+17.97	1922349.92	6431773.85						50.00						0°02′30″	50.00	0.01	0.00	25.00	33.33	16.67	102.97
20.2-1	PI				1922389.23	6431739.36	0°10′00″	0.00	0.73	79	50		0°15′28″	34354.59	0°10′28″	104.59	104.59								
	CS		50.00	1058+22.56	1922428.63	6431704.98																			
	ST	N41°03′27″W	2035.34	1058+72.56	1922466.33	6431672.13						50.00						0°02′30″	50.00	0.01	0.00	25.00	33.33	16.67	101.62
	TS		50.00	1079+07.90	1924001.08	6430335.29																			
	SC			1079+57.90	1924038.76	6430302.42						50.00						0°07′30″	50.00	0.04	0.01	25.00	33.33	16.67	120.00
20.6-1	PI				1924091.71	6430256.09	0°30′00″	0.50	1.68	79	50		0°57′13″	11459.19	0°42′13″	140.71	140.71								
	CS		50.00	1080+98.61	1924144.09	6430209.12																			
	ST	N42°00′40″W	240.00	1081+48.61	1924181.26	6430175.68						50.00						0°07′30″	50.00	0.04	0.01	25.00	33.33	16.67	120.70
	TS		50.00	1083+88.61	1924359.59	6430015.06																			
	SC			1084+38.61	1924396.76	6429981.62						50.00						0°07′30″	50.00	0.04	0.01	25.00	33.33	16.67	120.70
20.8-1	PI				1924449.14	6429934.65	0°30′00″	0.50	1.68	79	50		0°57′13″	11459.19	0°42′13″	140.71	140.71								
	CS		50.00	1085+79.32	1924502.09	6429888.32																			
	ST	N41°03′27″W	326.38	1086+29.32	1924539.77	6429855.45						50.00						0°07′30″	50.00	0.04	0.01	25.00	33.33	16.67	120.00
	TS		100.00	1089+55.71	1924785.88	6429641.07																			
	SC			1090+55.71	1924861.43	6429575.56						100.00						0°22′30″	100.00	0.22	0.05	50.00	66.67	33.33	191.37
20.9-1	PI				1924930.91	6429515.83	0°45′00″	0.50	1.68	79	50		2°07′27″	7639.49	1°22′27″	183.24	183.23								
	CS		100.00	1092+38.95	1925001.81	6429457.79																			
	ST	N38°56′00″W	239.29	1093+38.95	1925079.46	6429394.78						100.00						0°22′30″	100.00	0.22	0.05	50.00	66.67	33.33	191.90
	TS		100.00	1095+78.24	1925265.60	6429244.40																			
	SC			1096+78.24	1925343.25	6429181.39						100.00						0°22′30″	100.00	0.22	0.05	50.00	66.67	33.33	190.73
21.0-1	PI				1925413.59	6429123.80	0°45′00″	1.00	2.28	79	50		2°06′49″	7639.49	1°21′49″	181.81	181.80								
	CS		100.00	1098+60.04	1925482.53	6429064.56																			
	ST	N41°02′48″W	355.00	1099+60.04	1925558.09	6428999.05						100.00						0°22′30″	100.00	0.22	0.05	50.00	66.67	33.33	191.09
	TS		85.00	1103+15.04	1925825.83	6428765.93																			
	SC			1104+00.04	1925889.79	6428709.96						85.00						0°25′30″	85.00	0.21	0.05	42.50	56.67	28.33	176.06
21.1-1	PI				1925957.99	6428649.68	1°00′00″	1.00	3.37	79	50		2°40′13″	5729.65	1°49′13″	182.02	182.01								
	CS		85.00	1105+82.06	1926024.24	6428587.27																			
	ST	N43°43′01″W	122.30	1106+67.06	1926085.82	6428528.68						85.00						0°25′30″	85.00	0.21	0.05	42.50	56.67	28.33	175.99
	TS		85.00	1107+89.36	1926174.21	6428444.16																			
	SC			1108+74.36	1926235.79	6428385.57						85.00						0°25′30″	85.00	0.21	0.05	42.50	56.67	28.33	174.71
21.2-1	PI				1926301.12	6428324.02	1°00′00″	1.00	3.37	79	50		2°38′42″	5729.65	1°47′42″	179.49	179.48								
	CS		85.00	1110+53.85	1926368.35	6428264.55																			
	ST	N41°04′19″W	2321.68	1111+38.85	1926432.29	6428208.55						85.00						0°25′30″	85.00	0.21	0.05	42.50	56.67	28.33	174.82
	TS		100.00	1134+60.54	1928182.57	6426683.18																			
	SC			1135+60.54	1928257.67	6426617.15						100.00						0°45′00″	100.00	0.44	0.11	50.00	66.67	33.33	242.98
21.7-1	PI				1928364.12	6426521.90	1°30′00″	1.00	3.44	65	50		5°46′59″	3819.83	4°16′59″	285.54	285.48								
	CS		100.00	1138+46.08	1928463.15	6426418.97																			
	ST	N46°51′18″W	158.30	1139+46.08	1928531.86	6426346.31						100.00						0°45′00″	100.00	0.44	0.11	50.00	66.67	33.33	242.90
	POE			1141+04.39	1928640.12	6426230.80																			

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION

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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR

METROLINK RELOCATION HORIZONTAL GEOMETRY
SHEET 1 OF 1

CONTRACT NO
DRAWING NO TS-028
REV 0
SCALE NONE
SHEET NO 26 OF 89

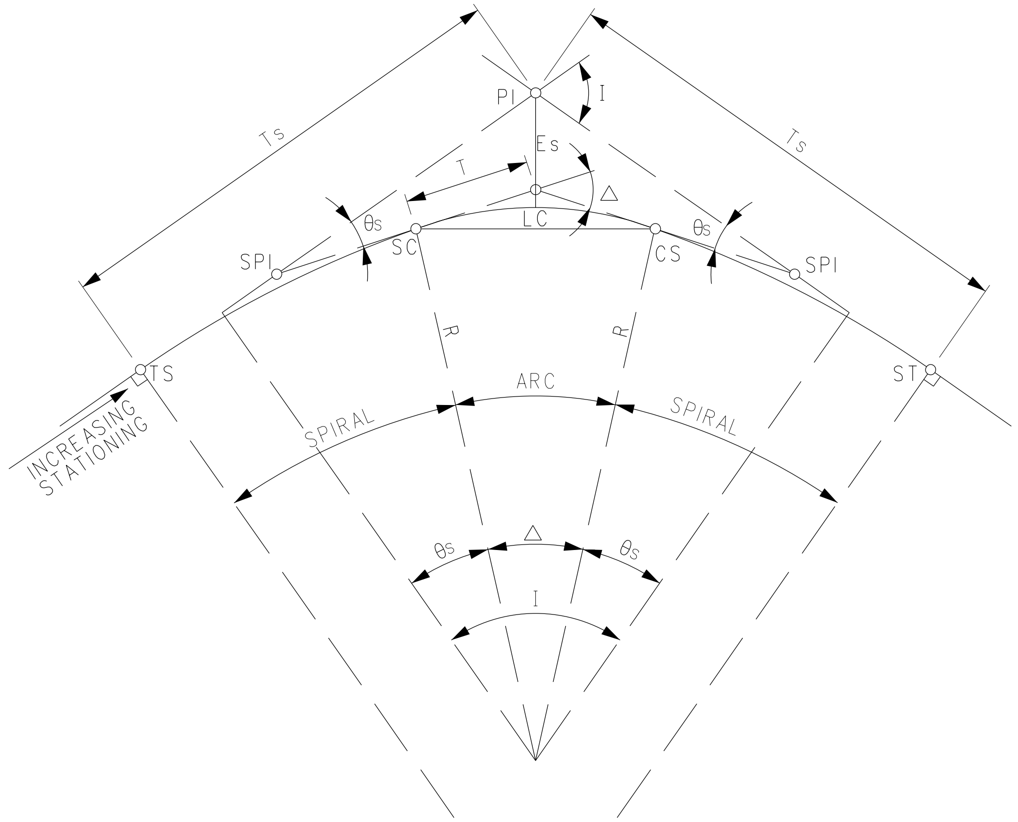

FIGURE A
CIRCULAR CURVE
WITH SPIRAL TRANSITIONS

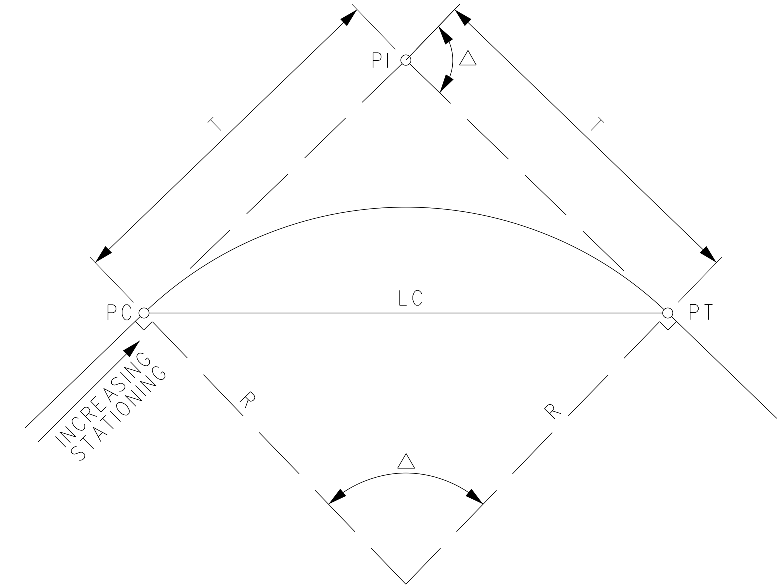

FIGURE B
SIMPLE CIRCULAR CURVE

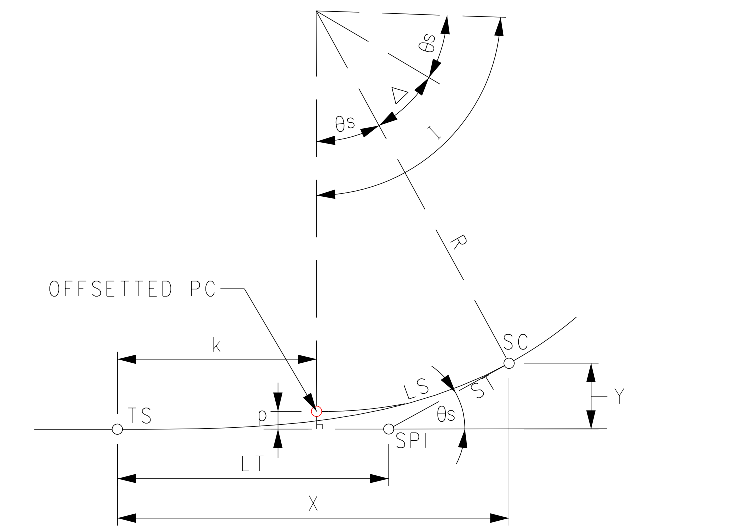

FIGURE C
SPIRAL TRANSITION CURVE

ABBREVIATIONS AND SYMBOLS

CC	COMPOUND CURVE
CS	CURVE TO SPIRAL
△	CENTRAL ANGLE OF CIRCULAR CURVE
Dc	DEGREE OF CURVATURE (CHORD DEFINITION)
E	EQUILIBRIUM ELEVATION (Ea + Eu)
Ea	ACTUAL ELEVATION
Es	EXTERNAL DISTANCE FROM PI TO CIRCULAR CURVE
Eu	UNBALANCED ELEVATION (CANT DEFICIENCY)
I	TOTAL INTERSECTION ANGLE (DEFLECTION ANGLE AT THE PI)
K	INCREASE IN DEGREES OF CURVATURE PER 100 FT STATIONS ALONG SPIRAL
k	TANGENT DISTANCE FROM THE TS TO THE OFFSETTED PC
L	CHORDED LENGTH OF CIRCULAR CURVE
LC	LONG CHORD
LS	LENGTH OF SPIRAL
LT	LONG TANGENT (DISTANCE FROM THE TS TO THE SPI)
p	ORDINATE OF THE OFFSETTED PC
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
R	RADIUS
S	LENGTH OF SPIRAL (LS) IN 100 FT STATIONS
SC	SPIRAL TO CURVE
SPI	POINT OF INTERSECTION BETWEEN TS AND SC
SS	SPIRAL TO SPIRAL
ST	SPIRAL TO TANGENT
ST	SHORT TANGENT (DISTANCE FROM SPI TO SC)
T	TANGENT LENGTH OF CIRCULAR CURVE
TS	TANGENT TO SPIRAL
Ts	TOTAL TANGENT DISTANCE OF A SPIRALED CURVE
θs	SPIRAL ANGLE
X	TANGENT DISTANCE FROM TS TO SC
Y	TANGENT OFFSET TO THE SC

KEY FORMULAE

$R = \frac{50'}{\mathrm{SIN}\left(\frac{Dc}{2}\right)}$

$\triangle = I - 2\theta s$

$L = \frac{\triangle}{Dc} \times 100$

$T = R\ \mathrm{TAN}\left(\frac{\triangle}{2}\right)$

$LC = 2R\ \mathrm{SIN}\left(\frac{\triangle}{2}\right)$

$LS = \frac{200\theta s}{Dc}$

$S = \frac{LS}{100}$

$\theta s = \frac{LS\ Dc}{200}$

$K = \frac{100\ Dc}{LS}$

$LT = X - \frac{Y}{\mathrm{TAN}\theta s}$

$ST = \frac{Y}{\mathrm{SIN}\theta s}$

$Ts = (R+p)\mathrm{TAN}\left(\frac{I}{2}\right)+k$

$Es = (R+p)\mathrm{EX\ SEC}\left(\frac{I}{2}\right)+p$

$X = 1 - 0.003048\theta s^2 s$

$Y = 0.582\theta sS - 0.00001264\theta s^3 s$

$k = \frac{LS}{2} - 0.000508\triangle^2 S$

$p = 0.1454\triangle S$

ACE SUBMITTAL
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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. LEWIS
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR

HORIZONTAL CURVE DATA

CONTRACT NO
DRAWING NO TS-029 REV 0
SCALE NONE
SHEET NO 27 OF 89

EAST SAN FERNANDO LRT TYPICAL SECTION CONDITIONS	
Section #	**Description**
Section 1	Standard Guideway, 100' ROW, 2 through lanes
Section 2	Standard Guideway, 110' ROW, 2 through lanes
Section 3	Standard Guideway, 130' ROW, 2 through lanes
Section 4	Standard Guideway, 100' ROW, 2 through lanes + NB Turn Lane
Section 5	Standard Guideway, 110' ROW, 2 through lanes + NB Turn Lane
Section 6	Standard Guideway, 130' ROW, 2 through lanes + NB Turn Lane
Section 7	Standard Guideway, 100' ROW, 2 through lanes + SB Turn Lane
Section 8	Standard Guideway, 110' ROW, 2 through lanes + SB Turn Lane
Section 9	Guideway, 110' ROW, 2 through + SB Turn Lane w/ Side Poles
Section 10	Island Platform at Van Nuys Metro Orange Line Station
Section 11	Island Platform at Victory Station
Section 12	Island Platform at Vanowen Station
Section 13	Island Platform at Sherman Way Station
Section 14	Island Platform at Metrolink Van Nuys Station
Section 15	Guideway under Metrolink Ventura County Line
Section 16	Island Platform at Roscoe Station
Section 17	Island Platform at Nordhoff Station
Section 18	Island Platform at Woodman Station
Section 19	Inline Siding at Canterbury Ave
Section 20	Island Platform at Arleta Station
Section 21	Guideway under Interstate 5
Section 22	Island Platform at Laurel Canyon Station
Section 23	Island Platform at San Fernando / Van Nuys Station
Section 24	Standard Guideway, Metrolink Corridor 100', With Bike Path
Section 25	Island Platform at Paxton Station
Section 26	Guideway under State Route 118
Section 27	Guideway over Pacoima Wash
Section 28	Island Platform at Maclay Station
Section 29	Guideway in Metrolink Corridor, Maclay Ave - Hubbard Ave, Reconstructed Bike Path
Section 30	Guideway in Metrolink Corridor, Maclay Ave - Hubbard Ave, Existing Bike Path
Section 31	Island Platform at Sylmar / San Fernando Metrolink Station
Section 32	Guideway Tail Tracks at Sylmar / San Fernando Metrolink Station

NOTE: 1. Typical Cross-Sections define the major elements, end conditions, and right-of-way limits.

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DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

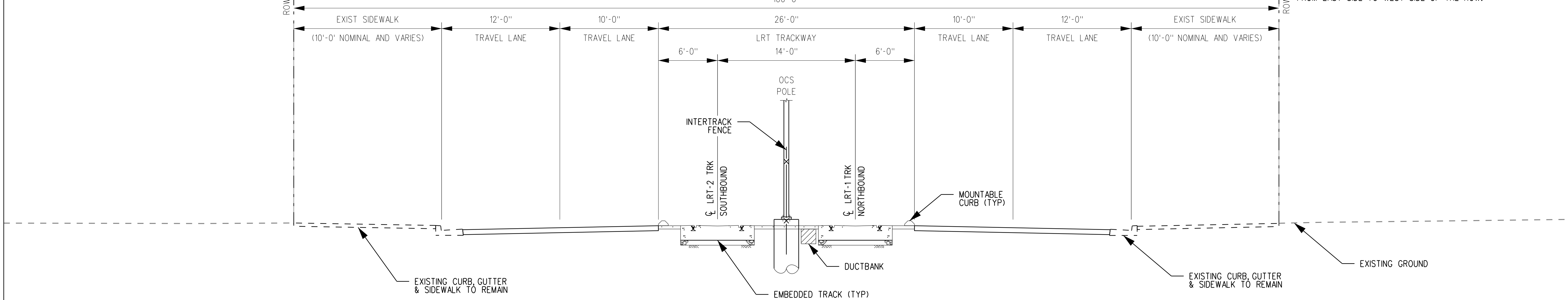
TYPICAL SECTIONS SUMMARY SHEET

CONTRACT NO
DRAWING NO TS-050
REV 0
SCALE AS SHOWN

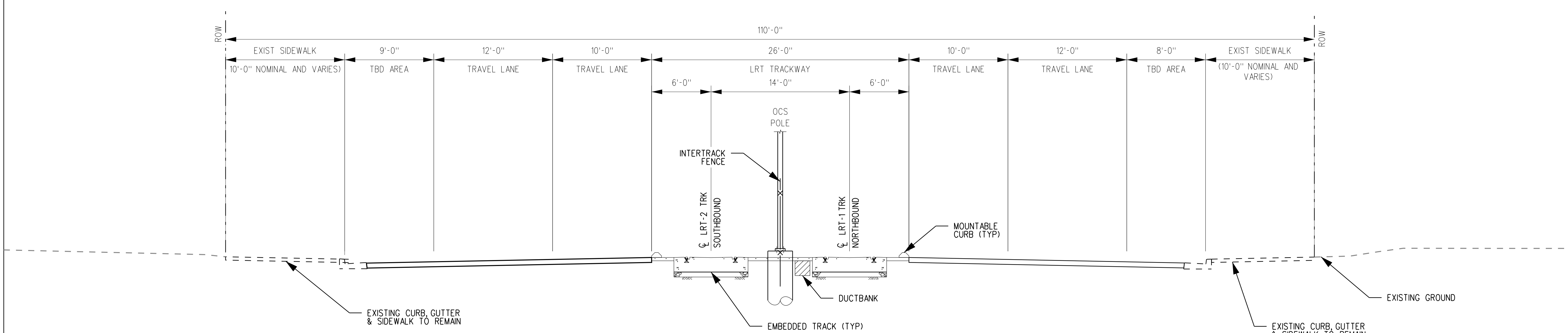
NOTES:

1. LANE AND MEDIAN DIMENSIONS SHOWN ARE REPRESENTATIVE OF AN IDEALIZED SECTION ONLY. ALONG THE ALIGNMENT, BOTH ARE DETERMINED BY ROADWAY TRANSITION GEOMETRY INCLUDING THE LADOT MINIMUM TAPER OF 20:1 AND THE MAXIMUM INTERSECTION OFFSET OF 2 FEET. REFER TO PLAN AND PROFILE FOR LANE DIMENSIONS AND MEDIAN CONFIGURATION.

2. WHERE OVERALL ROW WIDTH IS RESTRICTED, ALIGNMENT DESIGN IS GENERALLY BASED UPON HOLDING ONE CURB LINE (EAST OR WEST), AND THEN RECONSTRUCTING THE OPPOSITE CURB, GUTTER AND SIDEWALK. THE RECONSTRUCTED CURB, GUTTER AND SIDEWALK VARIES FROM EAST SIDE TO WEST SIDE OF THE ROW.



TYPICAL SECTION 1 - STANDARD GUIDEWAY, 100' ROW, 2 THROUGH LANES



TYPICAL SECTION 2 - STANDARD GUIDEWAY, 110' ROW, 2 THROUGH LANES

5 0 5 10
1"=5'

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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

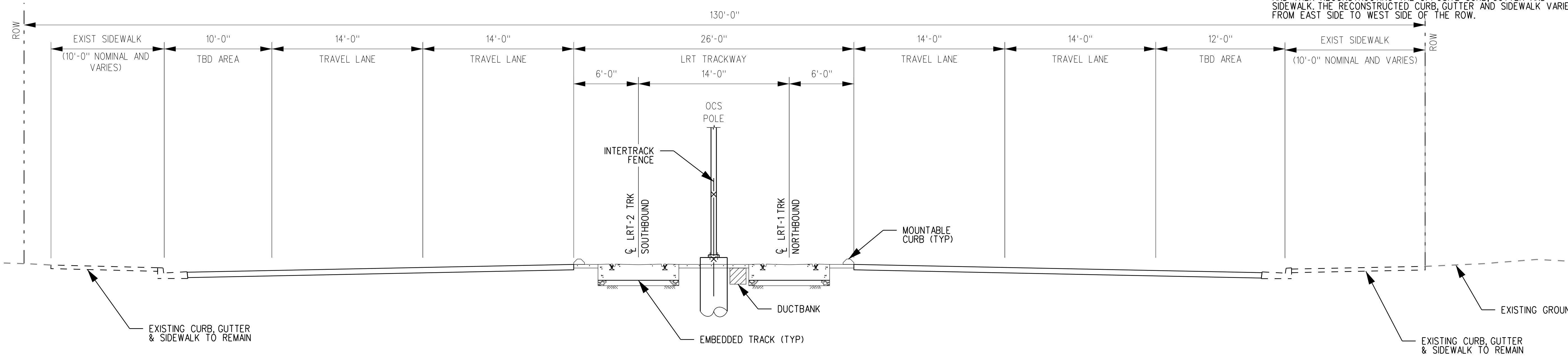
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

TYPICAL SECTIONS
SHEET 1 OF 16

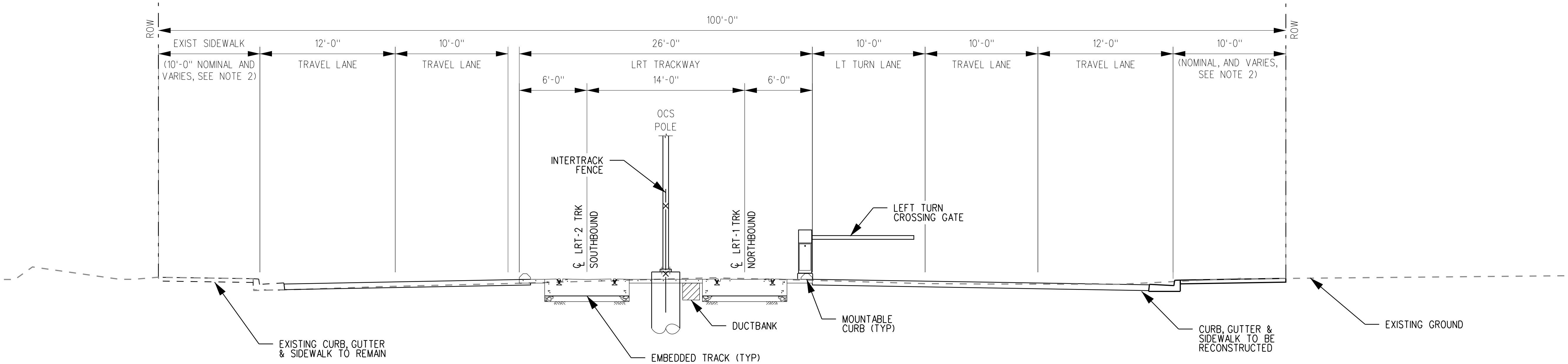
CONTRACT NO
DRAWING NO TS-051
REV 0
SCALE AS SHOWN
SHEET NO 29 OF 89

NOTES:

1. LANE AND MEDIAN DIMENSIONS SHOWN ARE REPRESENTATIVE OF AN IDEALIZED SECTION ONLY. ALONG THE ALIGNMENT, BOTH ARE DETERMINED BY ROADWAY TRANSITION GEOMETRY INCLUDING THE LADOT MINIMUM TAPER OF 20:1 AND THE MAXIMUM INTERSECTION OFFSET OF 2 FEET. REFER TO PLAN AND PROFILE FOR LANE DIMENSIONS AND MEDIAN CONFIGURATION.
2. WHERE OVERALL ROW WIDTH IS RESTRICTED, ALIGNMENT DESIGN IS GENERALLY BASED UPON HOLDING ONE CURB LINE (EAST OR WEST), AND THEN RECONSTRUCTING THE OPPOSITE CURB, GUTTER AND SIDEWALK. THE RECONSTRUCTED CURB, GUTTER AND SIDEWALK VARIES FROM EAST SIDE TO WEST SIDE OF THE ROW.



TYPICAL SECTION 3 - 130' ROW, 2 THROUGH LANES



TYPICAL SECTION 4 - STANDARD GUIDEWAY, 100' ROW, 2 THROUGH LANES + NB TURN LANE

5 0 5 10
1"=5'

4/3/2019 11:52:59 AM ChoiA
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DATE 3/15/2019

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EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

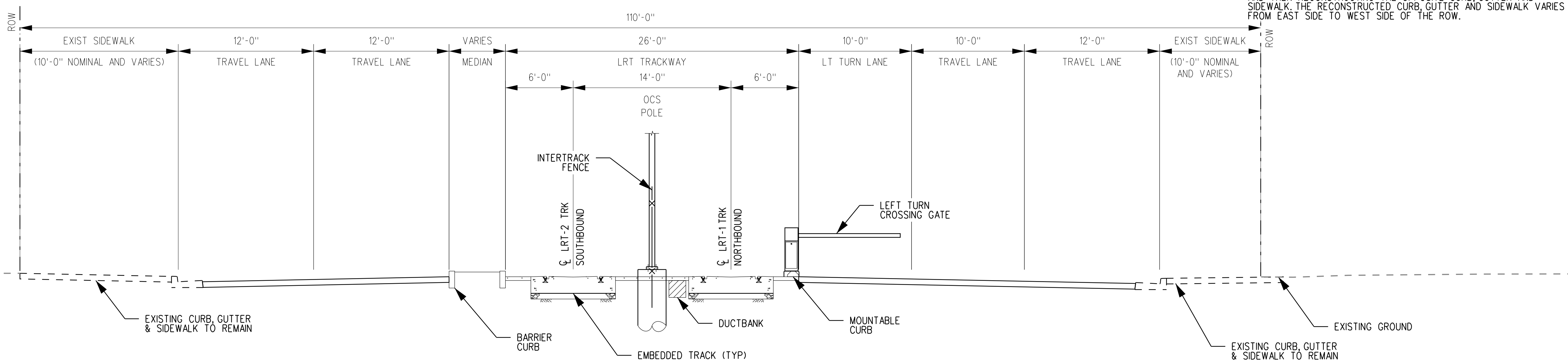
TYPICAL SECTIONS
SHEET 2 OF 16

CONTRACT NO
DRAWING NO TS-052
REV 0
SCALE AS SHOWN
SHEET NO 30 OF 89

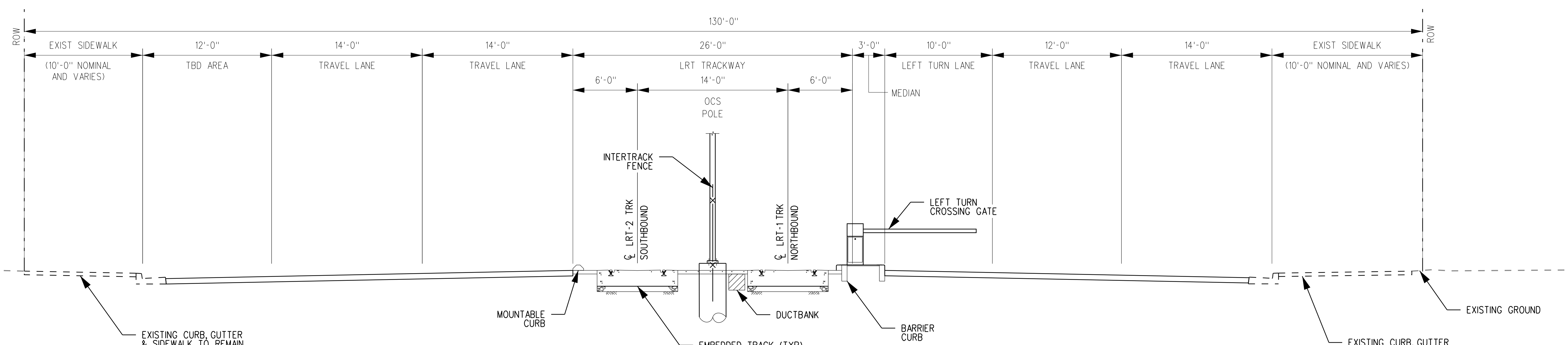
NOTES:

1. LANE AND MEDIAN DIMENSIONS SHOWN ARE REPRESENTATIVE OF AN IDEALIZED SECTION ONLY. ALONG THE ALIGNMENT, BOTH ARE DETERMINED BY ROADWAY TRANSITION GEOMETRY INCLUDING THE LADOT MINIMUM TAPER OF 20:1 AND THE MAXIMUM INTERSECTION OFFSET OF 2 FEET. REFER TO PLAN AND PROFILE FOR LANE DIMENSIONS AND MEDIAN CONFIGURATION.

2. WHERE OVERALL ROW WIDTH IS RESTRICTED, ALIGNMENT DESIGN IS GENERALLY BASED UPON HOLDING ONE CURB LINE (EAST OR WEST), AND THEN RECONSTRUCTING THE OPPOSITE CURB, GUTTER AND SIDEWALK. THE RECONSTRUCTED CURB, GUTTER AND SIDEWALK VARIES FROM EAST SIDE TO WEST SIDE OF THE ROW.



TYPICAL SECTION 5 - STANDARD GUIDEWAY, 110' ROW, 2 THROUGH LANES + NB TURN LANE



TYPICAL SECTION 6 - STANDARD GUIDEWAY 130' ROW, 2 THROUGH LANES + NB TURN LANE

5 0 5 10
1"=5'

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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

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EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

TYPICAL SECTIONS SHEET 3 OF 16

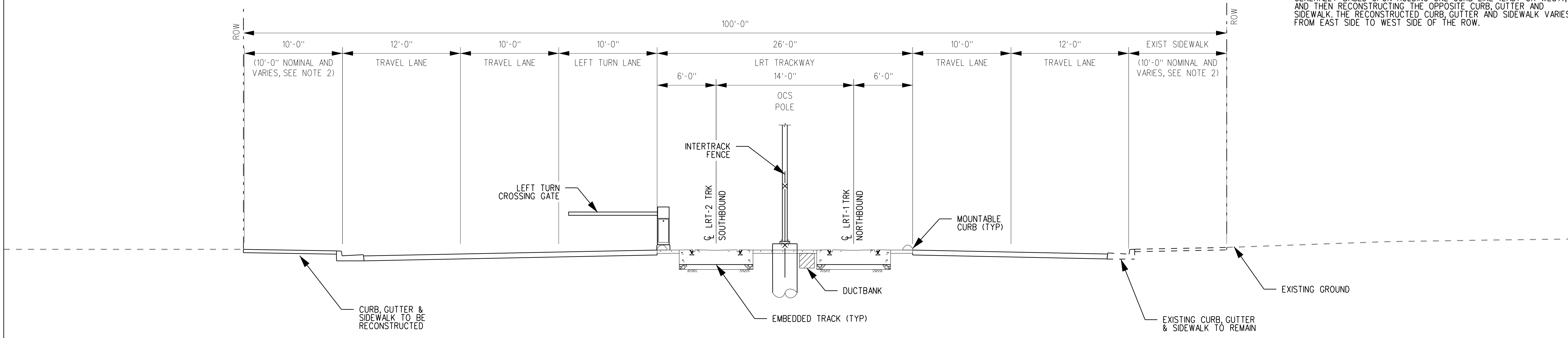
CONTRACT NO

DRAWING NO TS-053 REV 0

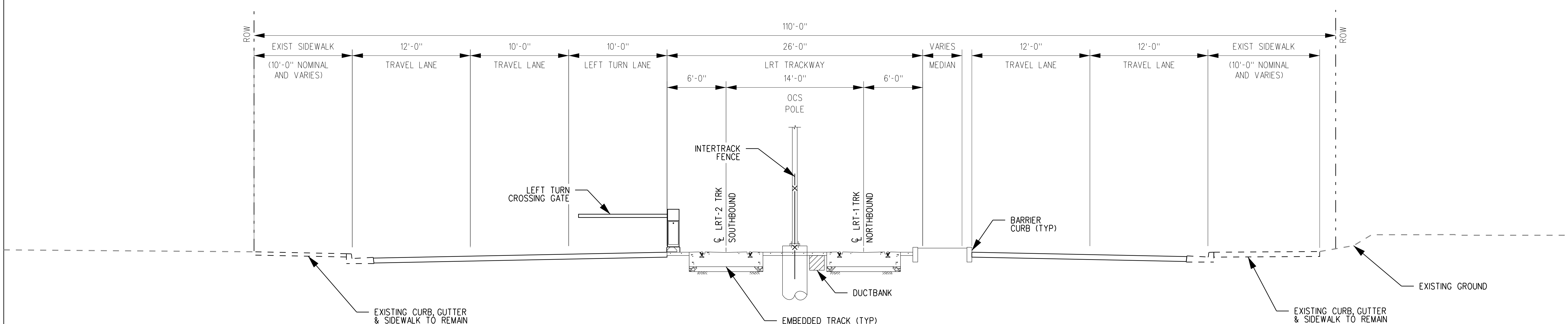
SCALE AS SHOWN

SHEET NO 31 OF 89

NOTES:
1. LANE AND MEDIAN DIMENSIONS SHOWN ARE REPRESENTATIVE OF AN IDEALIZED SECTION ONLY. ALONG THE ALIGNMENT, BOTH ARE DETERMINED BY ROADWAY TRANSITION GEOMETRY INCLUDING THE LADOT MINIMUM TAPER OF 20:1 AND THE MAXIMUM INTERSECTION OFFSET OF 2 FEET. REFER TO PLAN AND PROFILE FOR LANE DIMENSIONS AND MEDIAN CONFIGURATION.
2. WHERE OVERALL ROW WIDTH IS RESTRICTED, ALIGNMENT DESIGN IS GENERALLY BASED UPON HOLDING ONE CURB LINE (EAST OR WEST), AND THEN RECONSTRUCTING THE OPPOSITE CURB, GUTTER AND SIDEWALK. THE RECONSTRUCTED CURB, GUTTER AND SIDEWALK VARIES FROM EAST SIDE TO WEST SIDE OF THE ROW.



TYPICAL SECTION 7 - STANDARD GUIDEWAY, 100' ROW, 2 THROUGH LANES + SB TURN LANE



TYPICAL SECTION 8 - STANDARD GUIDEWAY, 110' ROW, 2 THROUGH LANES + SB TURN LANE

5 0 5 10
1"=5'

4/3/2019 11:53:01 AM ChoiA
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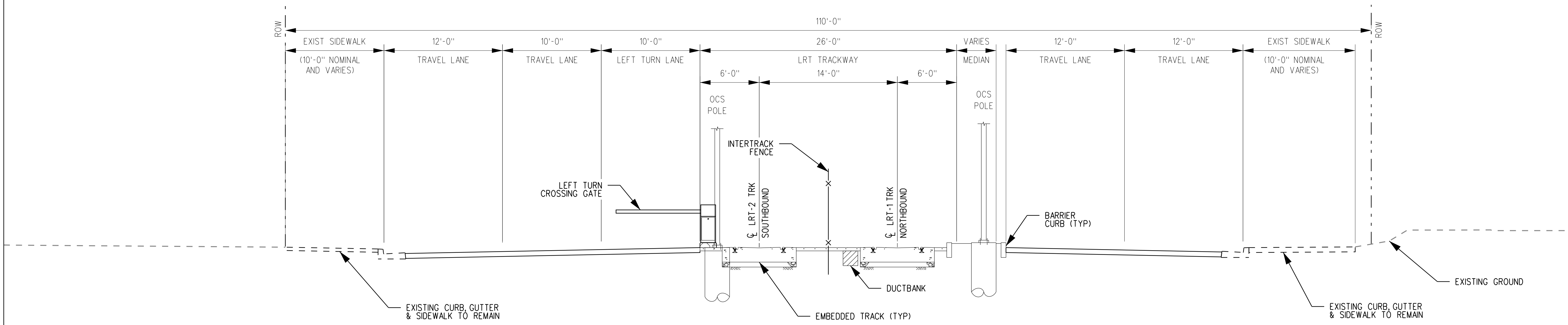
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

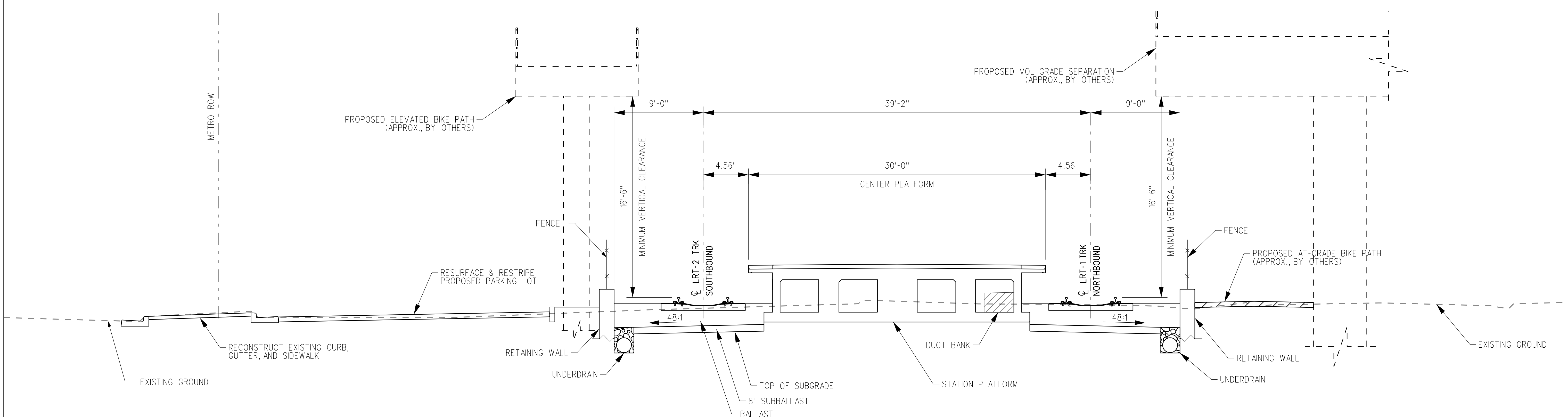
TYPICAL SECTIONS
SHEET 4 OF 16

CONTRACT NO
DRAWING NO TS-054
REV 0
SCALE AS SHOWN
SHEET NO 32 OF 89

NOTE:
1. SIDE OCS POLES SHOWN IN TYPICAL SECTION 9 MAY APPLY BETWEEN CALVERT ST AND VANOWEN ST AND MAY APPLY BETWEEN VOSE ST AND VALERIO STREET. OCS POLE LOCATION TO BE FINALIZED IN THE FOLLOWING PHASE.



TYPICAL SECTION 9 - STANDARD GUIDEWAY, 110' ROW, 2 THROUGH LANES + SB TURN LANE WITH SIDE OCS POLES



TYPICAL SECTION 10 - ISLAND PLATFORM AT VAN NUYS METRO ORANGE LINE STATION

5 0 5 10
1"=5'

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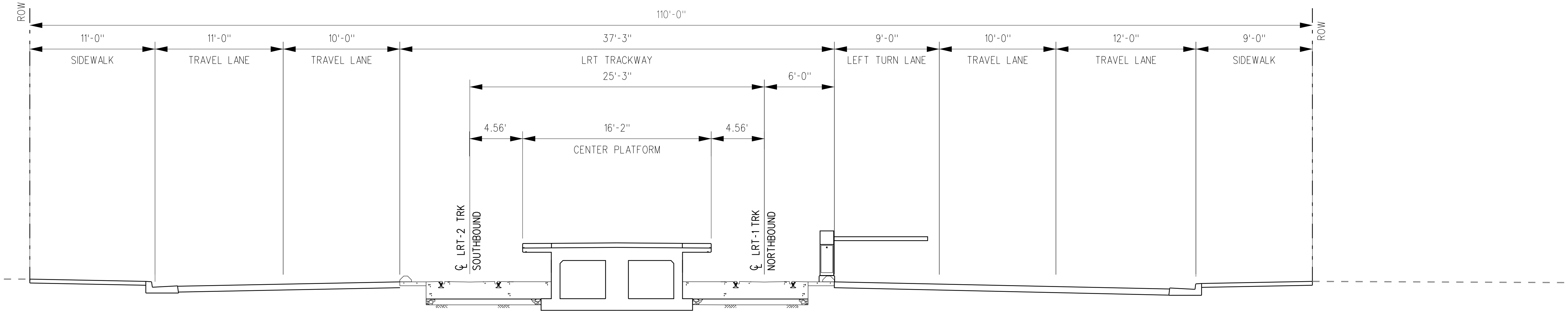
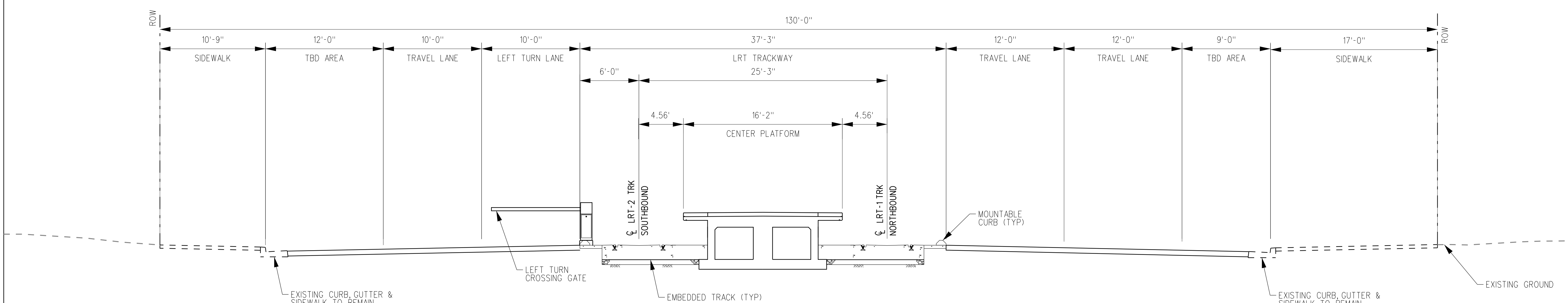
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

TYPICAL SECTIONS
SHEET 5 OF 16

CONTRACT NO
DRAWING NO TS-055
REV 0
SCALE AS SHOWN
SHEET NO 33 OF 89



TYPICAL SECTION 11 - ISLAND PLATFORM AT VICTORY STATION



TYPICAL SECTION 12 - ISLAND PLATFORM AT VANOWEN STATION

5 0 5 10
1"=5'

4/3/2019 11:53:03 AM ChoiA
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EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR

TYPICAL SECTIONS
SHEET 6 OF 16

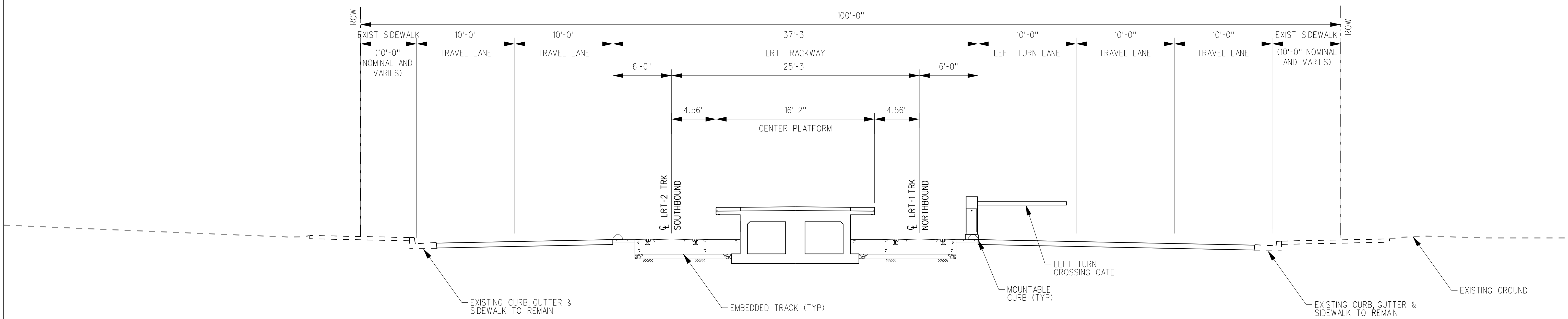
CONTRACT NO

DRAWING NO TS-056

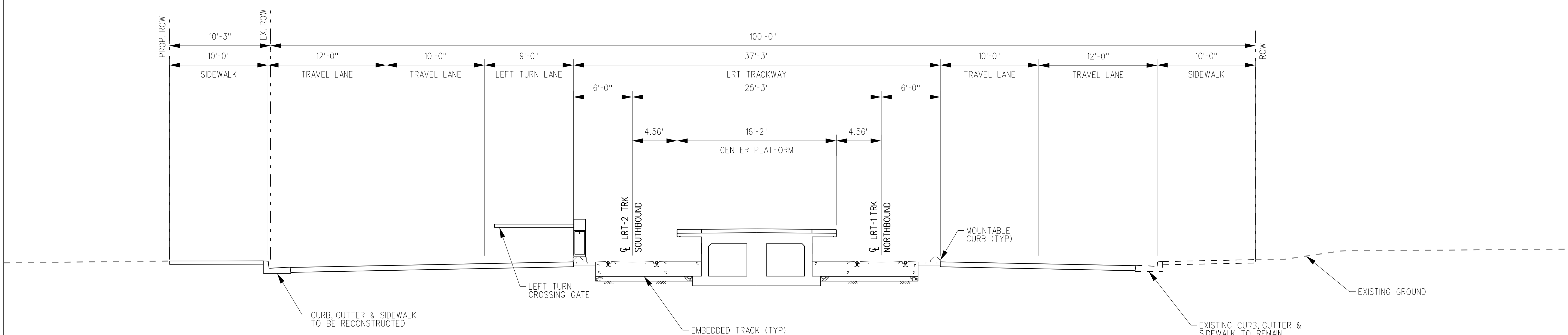
REV 0

SCALE AS SHOWN

SHEET NO 34 OF 89



TYPICAL SECTION 13 - ISLAND PLATFORM AT SHERMAN WAY STATION



TYPICAL SECTION 14 - ISLAND PLATFORM AT VAN NUYS METROLINK STATION

5 0 5 10
1"=5'

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EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

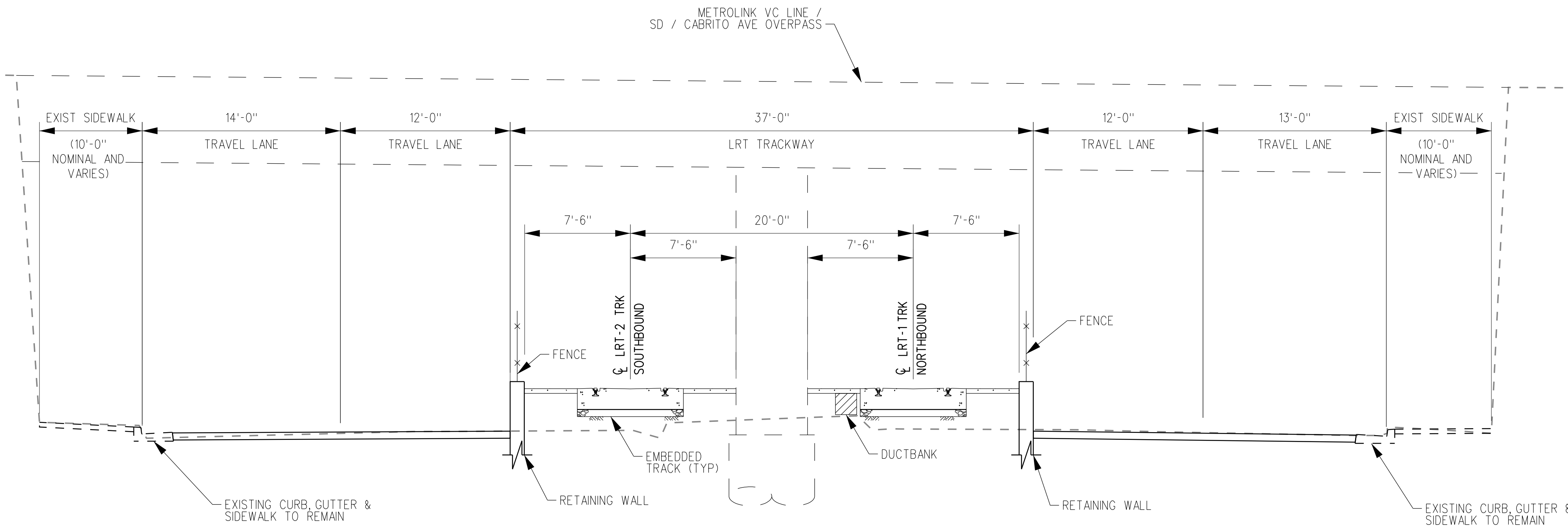
TYPICAL SECTIONS
SHEET 7 OF 16

CONTRACT NO

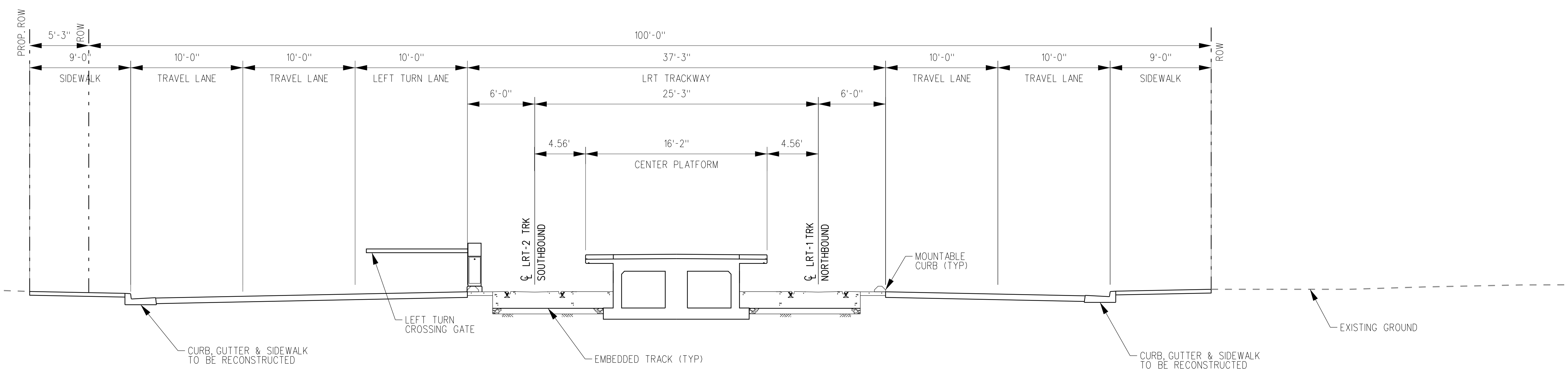
DRAWING NO TS-057 REV 0

SCALE AS SHOWN

SHEET NO 35 OF 89



TYPICAL SECTION 15 - GUIDEWAY UNDER METROLINK VENTURA COUNTY LINE



TYPICAL SECTION 16 - ISLAND PLATFORM AT ROSCOE STATION

5 0 5 10
1"=5'

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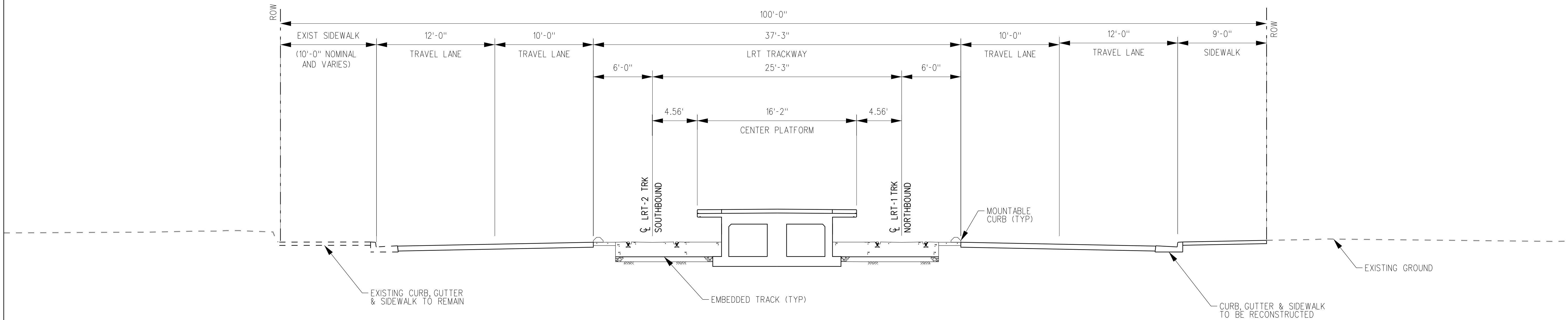
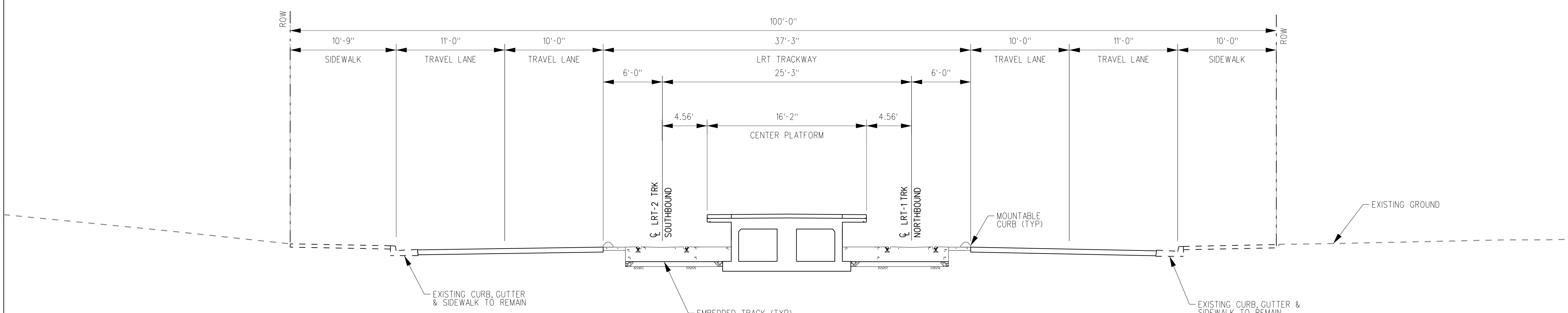
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

TYPICAL SECTIONS
SHEET 8 OF 16

CONTRACT NO
DRAWING NO TS-058
REV 0
SCALE AS SHOWN
SHEET NO 36 OF 89



TYPICAL SECTION 17 - ISLAND PLATFORM AT NORDHOFF STATION



TYPICAL SECTION 18 - ISLAND PLATFORM AT WOODMAN STATION

5 0 5 10
1"=5'

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EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

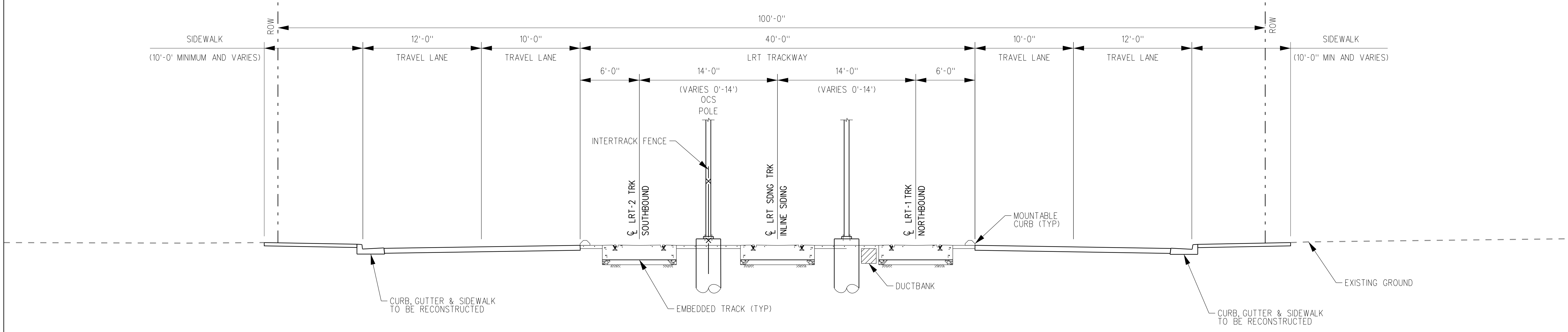
TYPICAL SECTIONS
SHEET 9 OF 16

CONTRACT NO

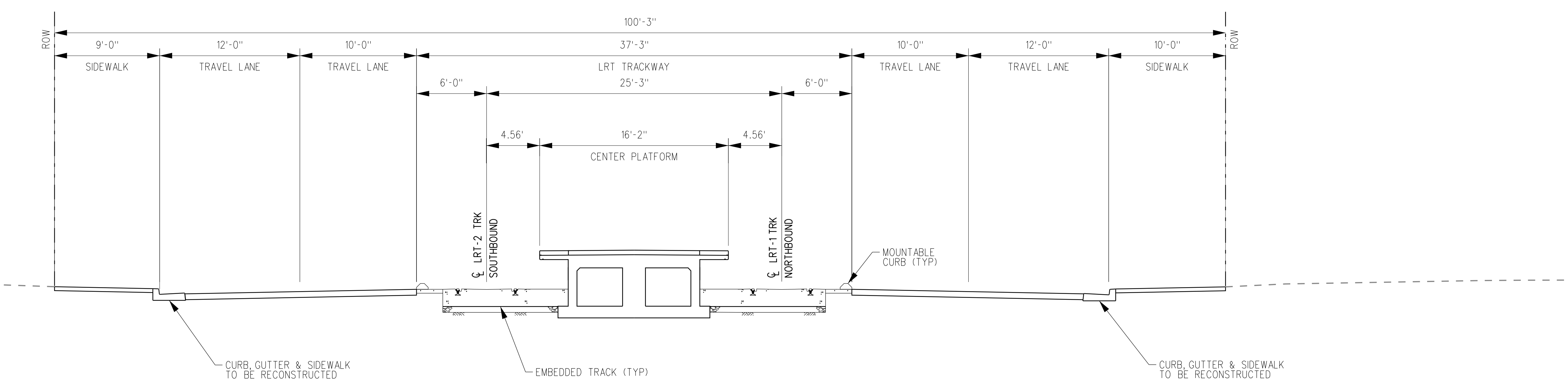
DRAWING NO TS-059
REV 0

SCALE AS SHOWN

SHEET NO 37 OF 89



TYPICAL SECTION 19 - INLINE SIDING AT CANTERBURY AVE



TYPICAL SECTION 20 - ISLAND PLATFORM AT ARLETA STATION

5 0 5 10
1"=5'

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STV 100 Years

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR

TYPICAL SECTIONS
SHEET 10 OF 16

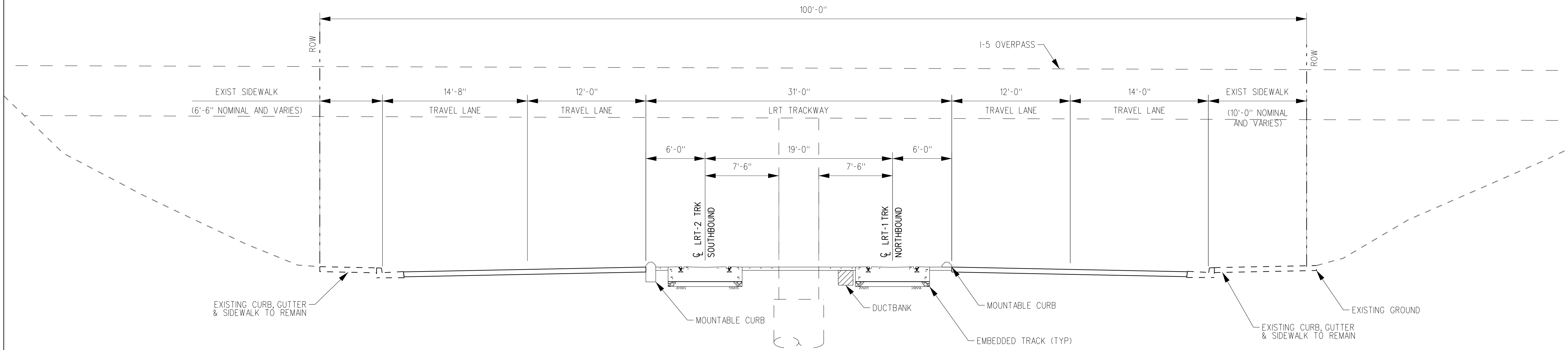
CONTRACT NO

DRAWING NO TS-060

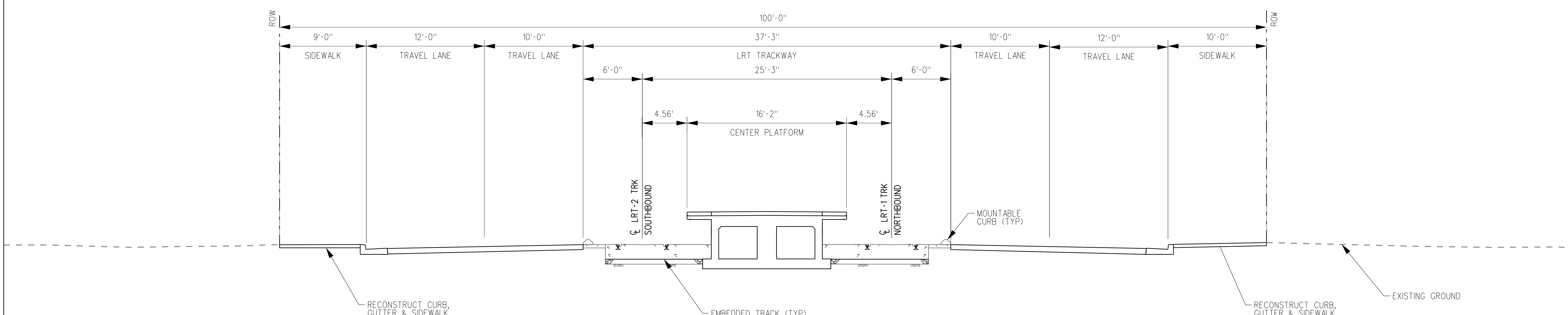
REV 0

SCALE AS SHOWN

SHEET NO 38 OF 89



TYPICAL SECTION 21 - GUIDEWAY UNDER INTERSTATE 5 OVERCROSSING



TYPICAL SECTION 22 - ISLAND PLATFORM AT LAUREL CANYON STATION

5 0 5 10
1"=5'

4/3/2019 11:53:08 AM ChoiA
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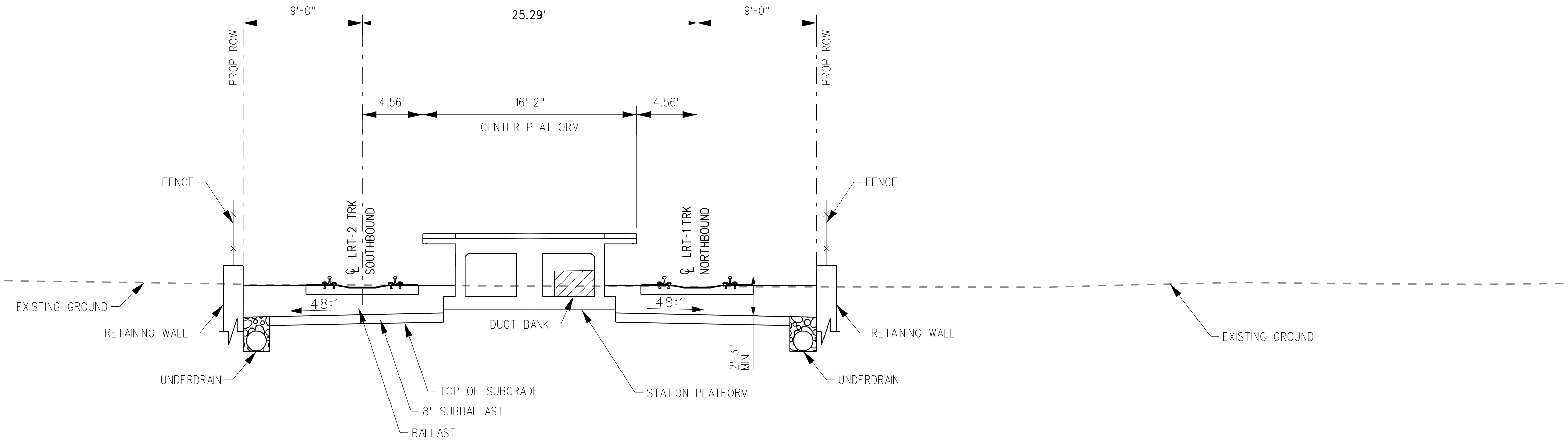
KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

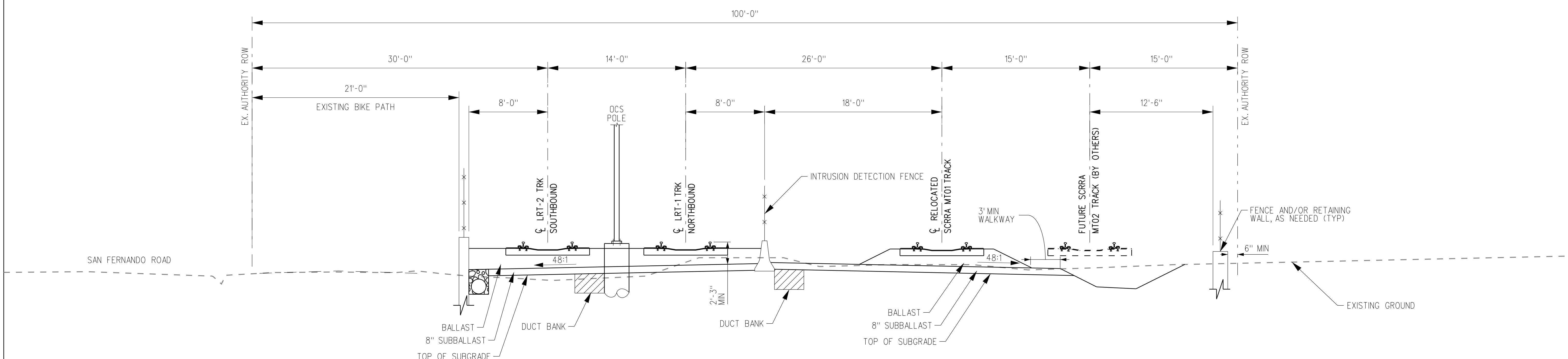
TYPICAL SECTIONS
SHEET 11 OF 16

CONTRACT NO
DRAWING NO TS-061
REV 0
SCALE AS SHOWN
SHEET NO 39 OF 89

NOTES:
1. INTRUSION DETECTION SHALL BE PROVIDED WITH INTER-TRACK FENCE.



TYPICAL SECTION 23 - ISLAND PLATFORM AT SAN FERNANDO ROAD/VAN NUYS STATION



TYPICAL SECTION 24 - STANDARD GUIDEWAY, METROLINK CORRIDOR 100' WITH BIKE PATH

5 0 5 10
1"=5'

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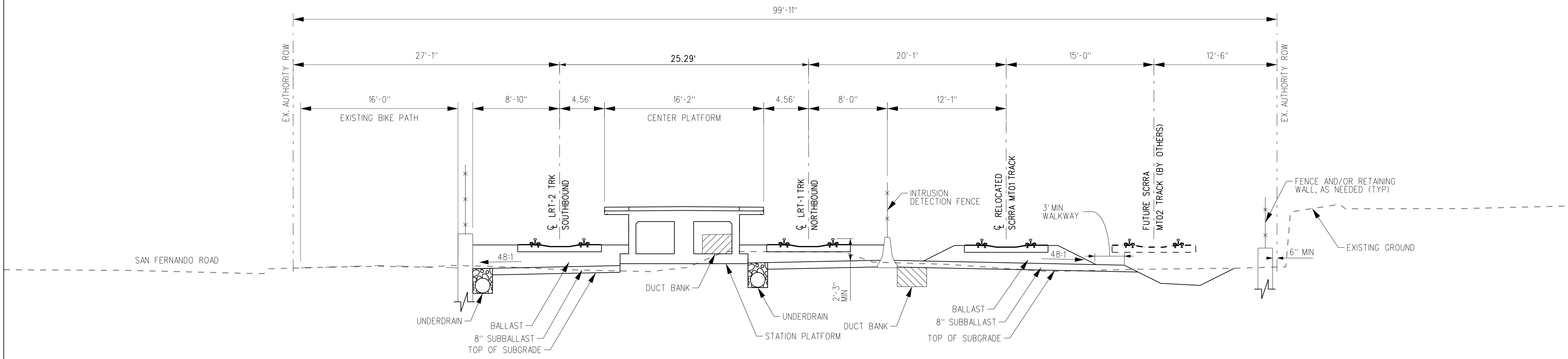
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

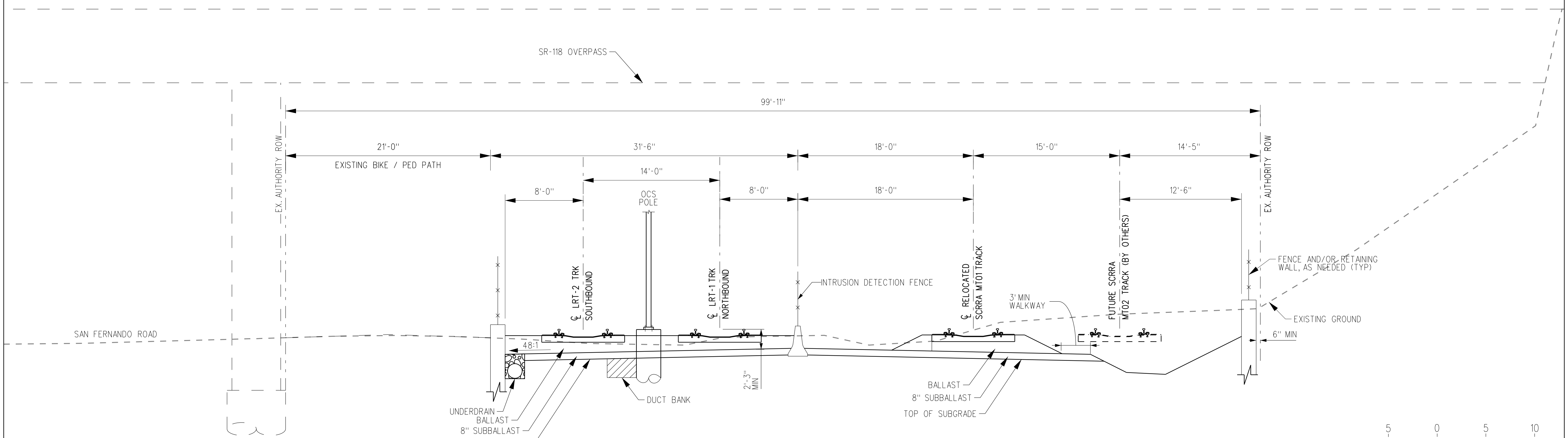
TYPICAL SECTIONS
SHEET 12 OF 16

CONTRACT NO
DRAWING NO TS-062
REV 0
SCALE AS SHOWN
SHEET NO 40 OF 89

NOTES:
1. INTRUSION DETECTION SHALL BE PROVIDED WITH INTER-TRACK FENCE.



TYPICAL SECTION 25 - ISLAND PLATFORM AT PAXTON STATION



TYPICAL SECTION 26 - GUIDEWAY UNDER STATE ROUTE 118

5 0 5 10
1"=5'

4/3/2019 11:53:11 AM ChoiA
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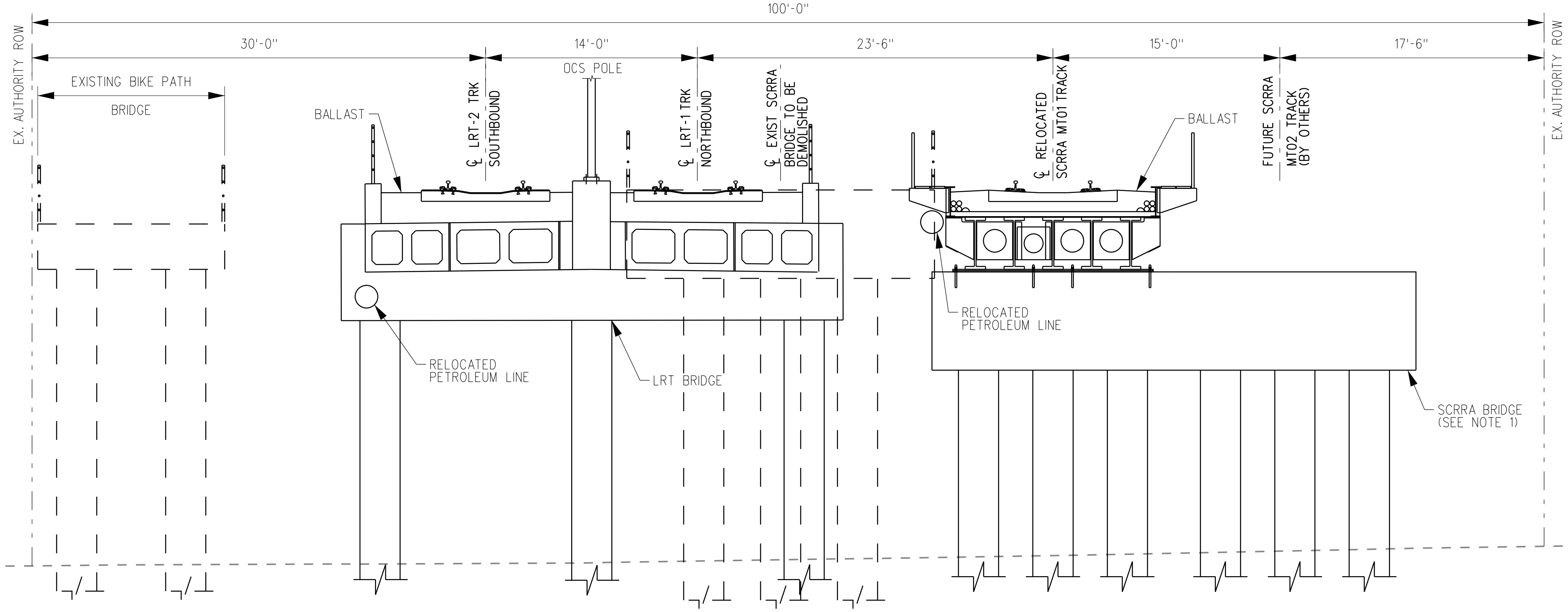
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

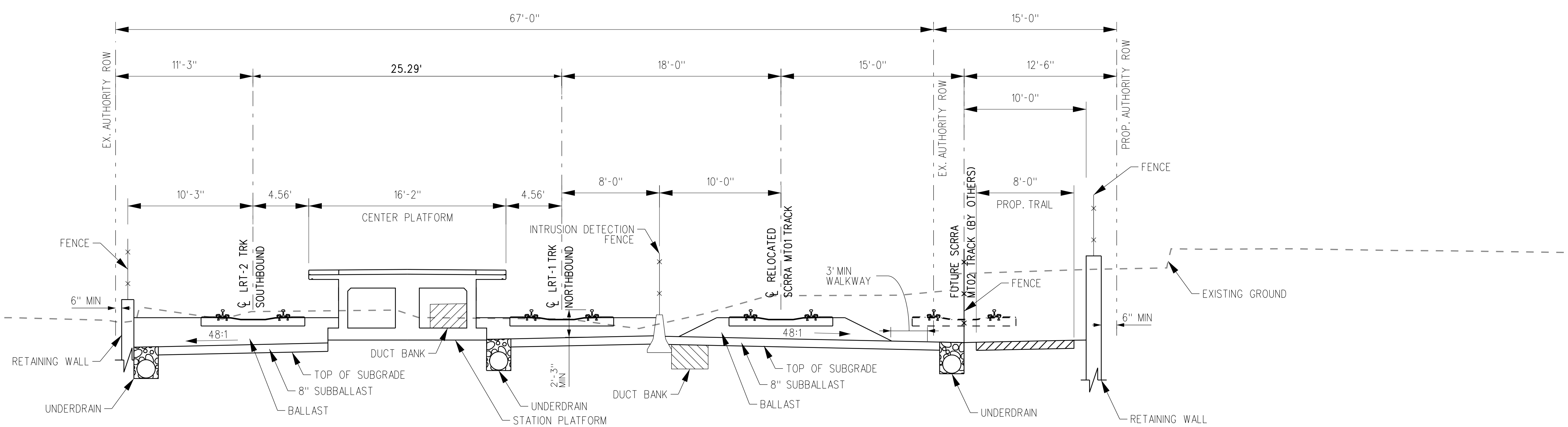
TYPICAL SECTIONS
SHEET 13 OF 16

CONTRACT NO
DRAWING NO TS-063
REV 0
SCALE AS SHOWN
SHEET NO 41 OF 89

NOTES:
1. INTRUSION DETECTION SHALL BE PROVIDED WITH INTER-TRACK FENCE.
2. SUBSTRUCTURE FOR DOUBLE TRACK SCRRA BRIDGE INCLUDED IN ESFVTC PROJECT. FUTURE TRACK AND SUPERSTRUCTURE BY OTHERS, PENDING FURTHER DISCUSSION.



TYPICAL SECTION 27 - GUIDEWAY OVER PACOIMA WASH



TYPICAL SECTION 28 - ISLAND PLATFORM AT MACLAY STATION

5 0 5 10
1"=5'

4/3/2019 11:53:12 AM ChoiA
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LAST SAVED: 3/26/2019 2:10:43 PM

ACE SUBMITTAL
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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. CHOI
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

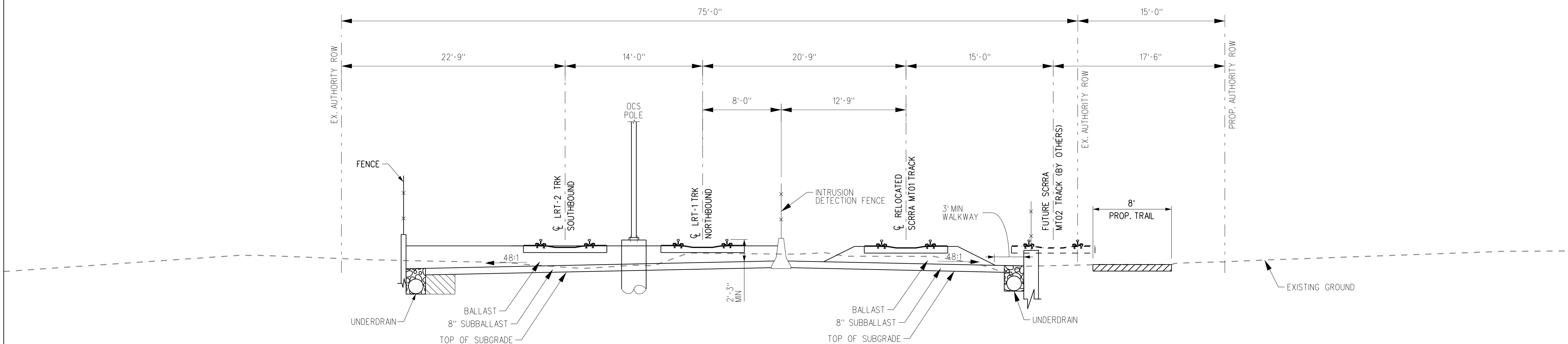
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

TYPICAL SECTIONS
SHEET 14 OF 16

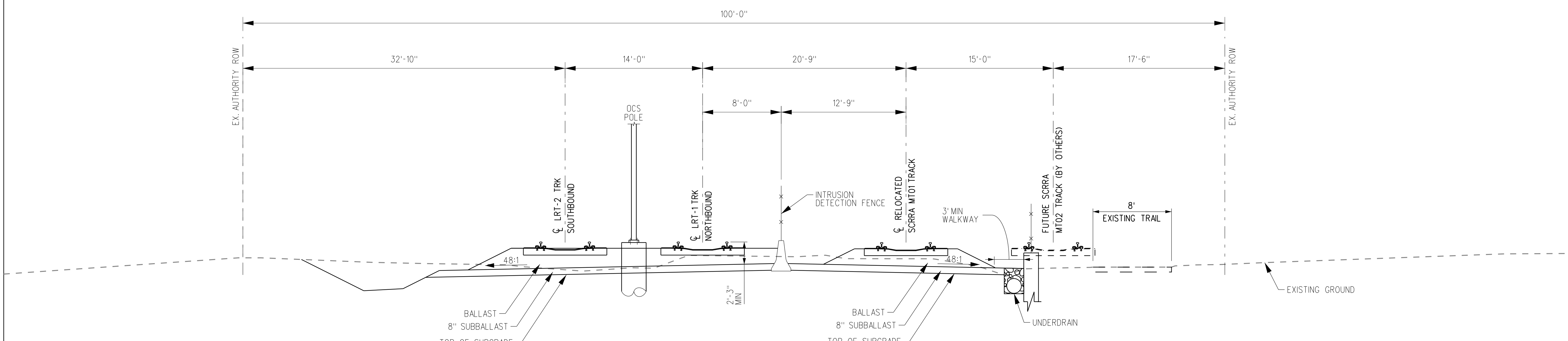
CONTRACT NO

DRAWING NO TS-064
REV 0
SCALE AS SHOWN
SHEET NO 42 OF 89

NOTES:
1. INTRUSION DETECTION SHALL BE PROVIDED WITH INTER-TRACK FENCE.



TYPICAL SECTION 29 - GUIDEWAY IN METROLINK CORRIDOR, MACLAY AVE-HUBBARD AVE, RECONSTRUCTED BIKE PATH



TYPICAL SECTION 30 - GUIDEWAY IN METROLINK CORRIDOR, MACLAY AVE-HUBBARD AVE, EXISTING BIKE PATH

5 0 5 10
1"=5'

4/3/2019 11:53:13 AM ChoiA
\\stvgroup.stvinc.com\V3\LACA\Vol3\projects\4015220\4015220_0001\90_CAD Models and Sheets\04_CK_Track_Rail\Sheets\TS-065.sht
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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

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CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

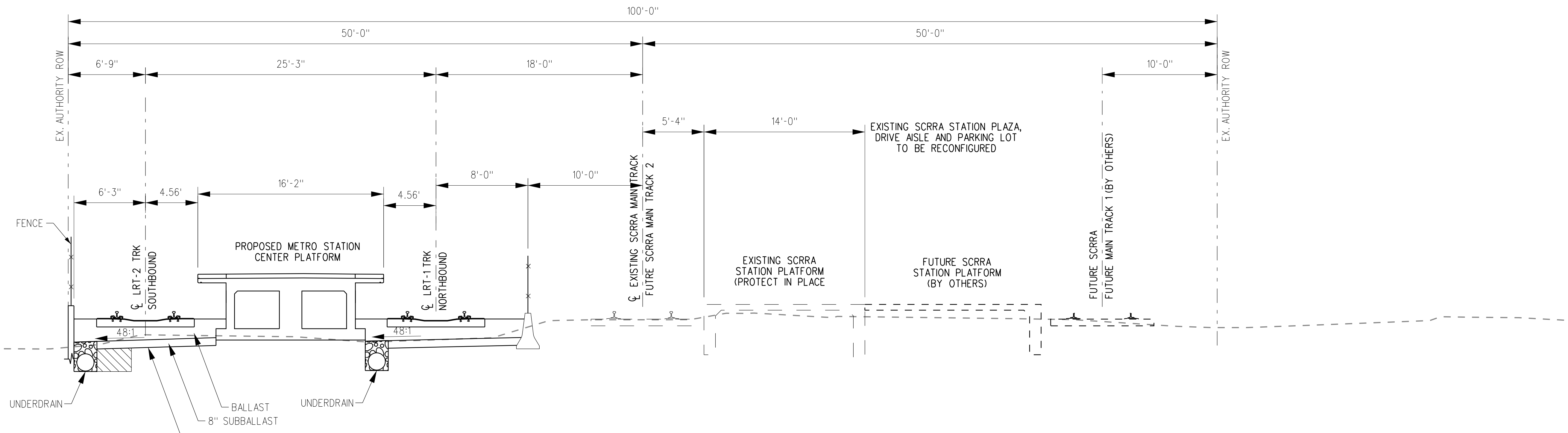
KOA
STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

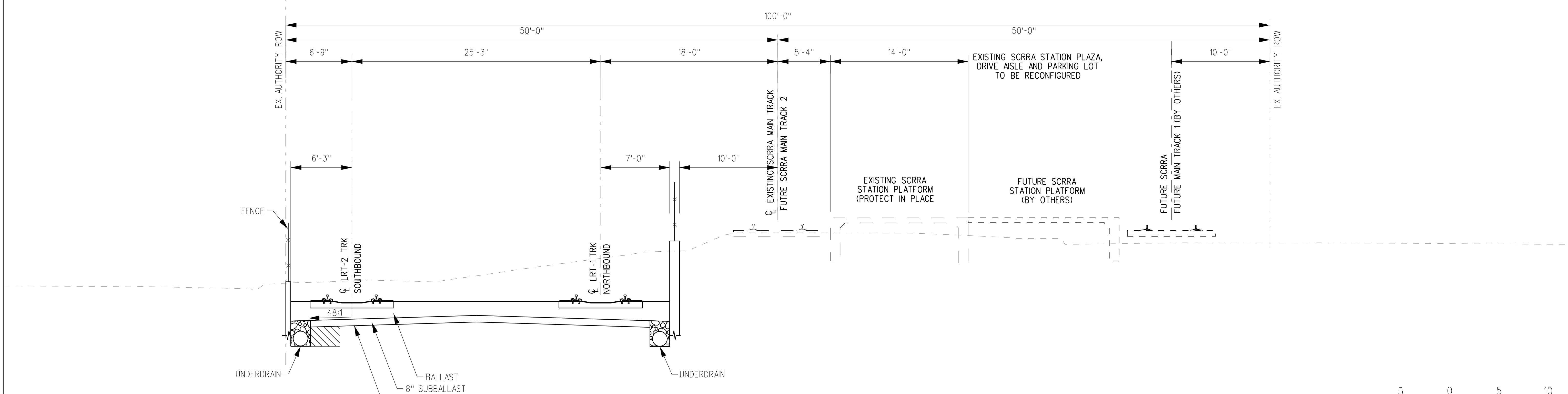
TYPICAL SECTIONS
SHEET 15 OF 16

CONTRACT NO
DRAWING NO TS-065
REV 0
SCALE AS SHOWN
SHEET NO 43 OF 89

NOTES:
1. INTRUSION DETECTION SHALL BE PROVIDED WITH INTER-TRACK FENCE.



TYPICAL SECTION 31 - ISLAND PLATFORM AT SYLMAR/SAN FERNANDO METROLINK STATION



TYPICAL SECTION 32 - GUIDEWAY TAIL TRACKS AT SYLMAR/SAN FERNANDO METROLINK STATION

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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

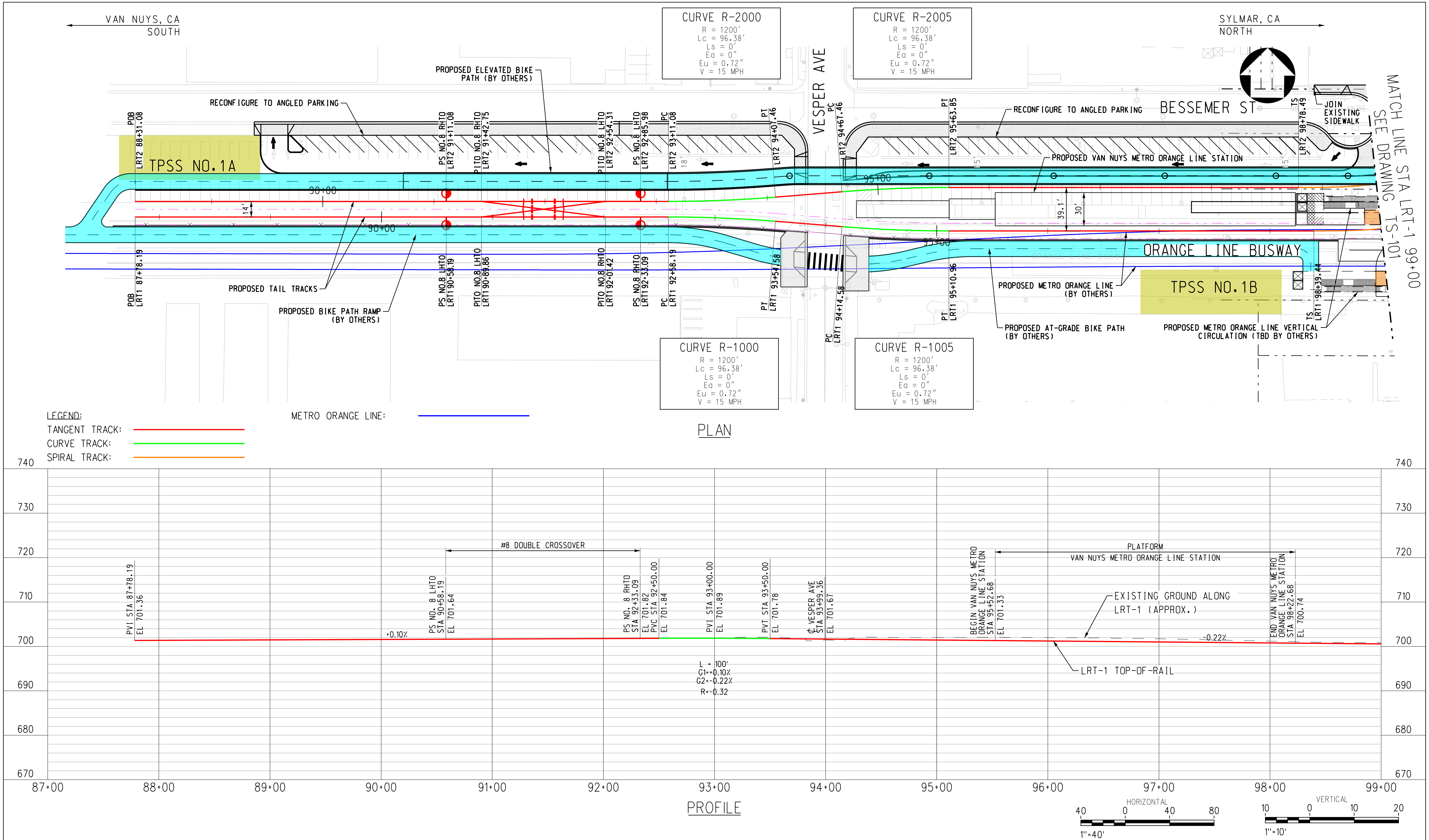
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

TYPICAL SECTIONS
SHEET 16 OF 16

CONTRACT NO
DRAWING NO TS-066
REV 0
SCALE AS SHOWN
SHEET NO 44 OF 89



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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 87+00 TO STA 99+00

CONTRACT NO

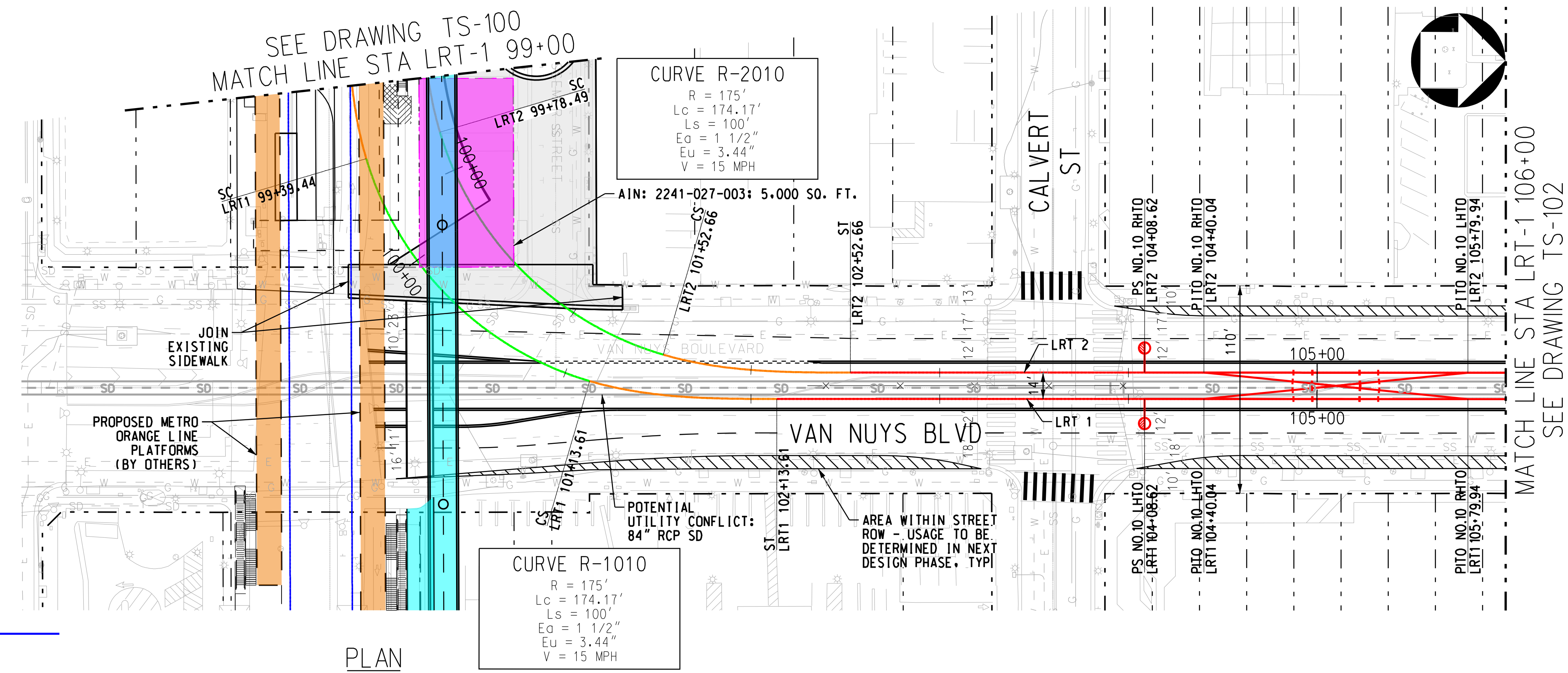
DRAWING NO TS-100 | REV 0

SCALE AS SHOWN

SHEET NO 45 OF 89

VAN NUYS, CA
SOUTH

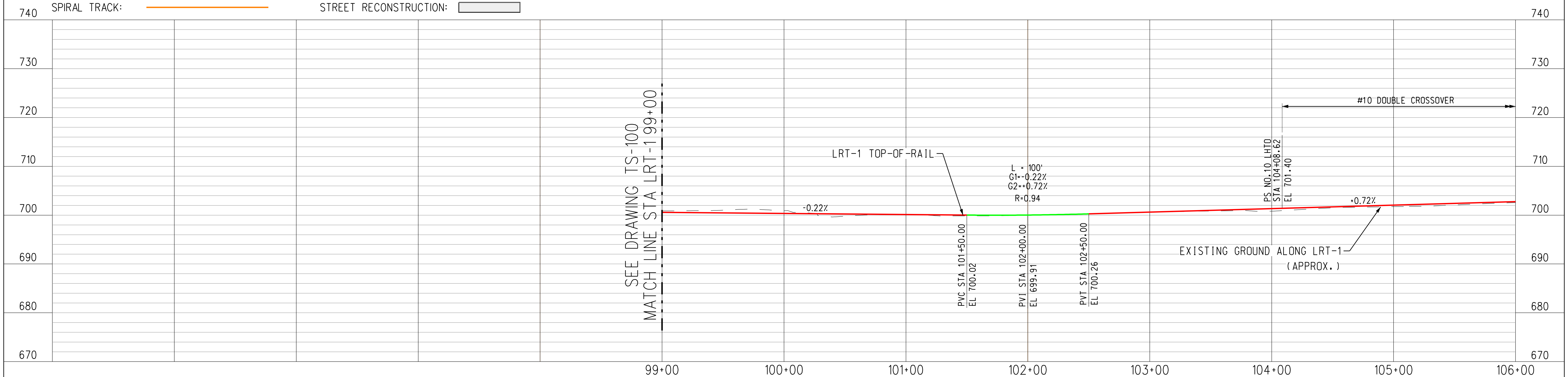
SYLMAR, CA
NORTH



PLAN

LEGEND:

- TANGENT TRACK:
- CURVE TRACK:
- SPIRAL TRACK:
- METRO ORANGE LINE:
- ROW FULL TAKE:
- ROW PARTIAL TAKE:
- STREET RECONSTRUCTION:



PROFILE

HORIZONTAL
40 0 40 80
1"=40'

VERTICAL
10 0 10 20
1"=10'

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 99+00 TO STA 106+00

CONTRACT NO
DRAWING NO TS-101
REV 0
SCALE AS SHOWN
SHEET NO 46 OF 89

4/3/2019 11:54:18 AM ChoiA
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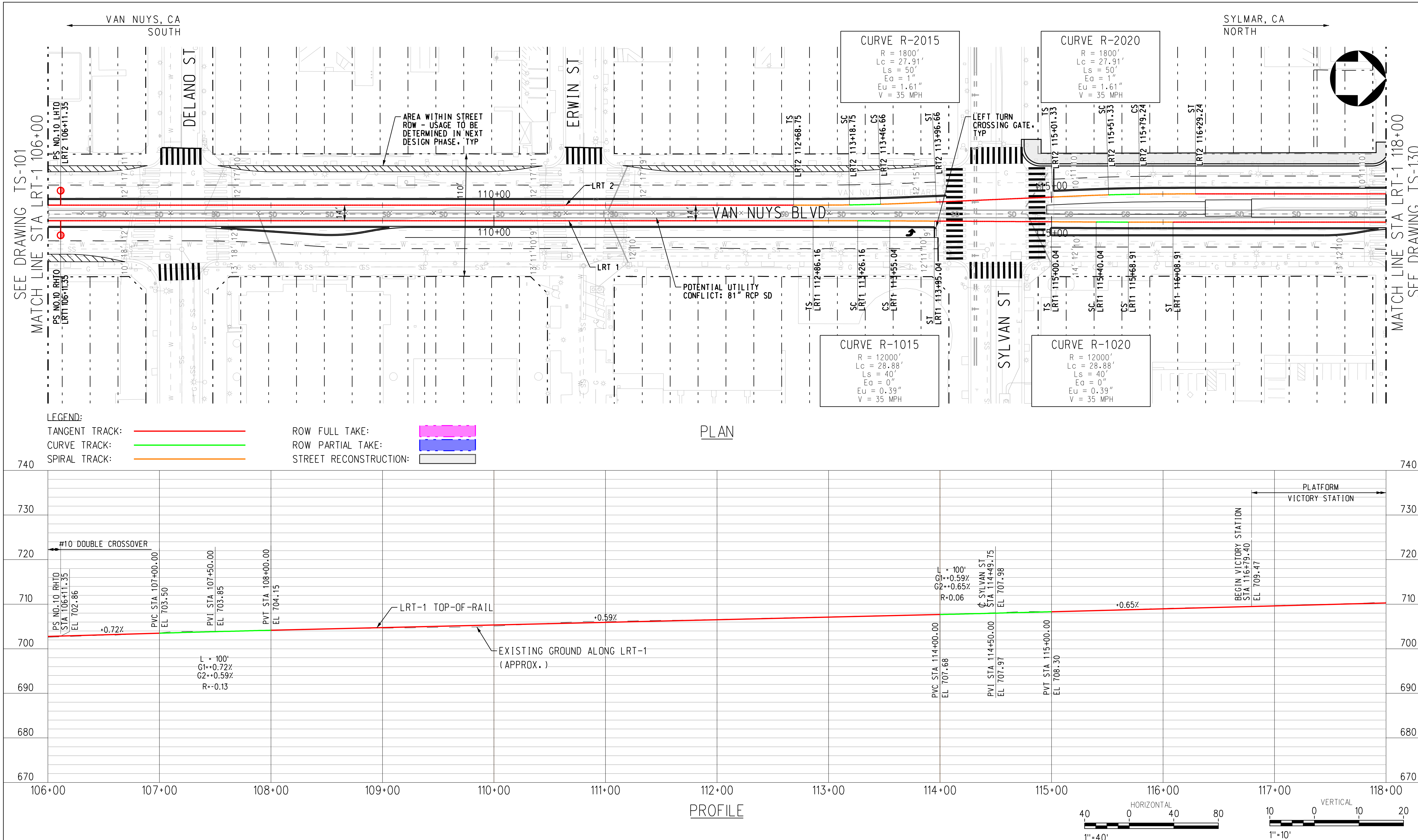

ACE SUBMITTAL
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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

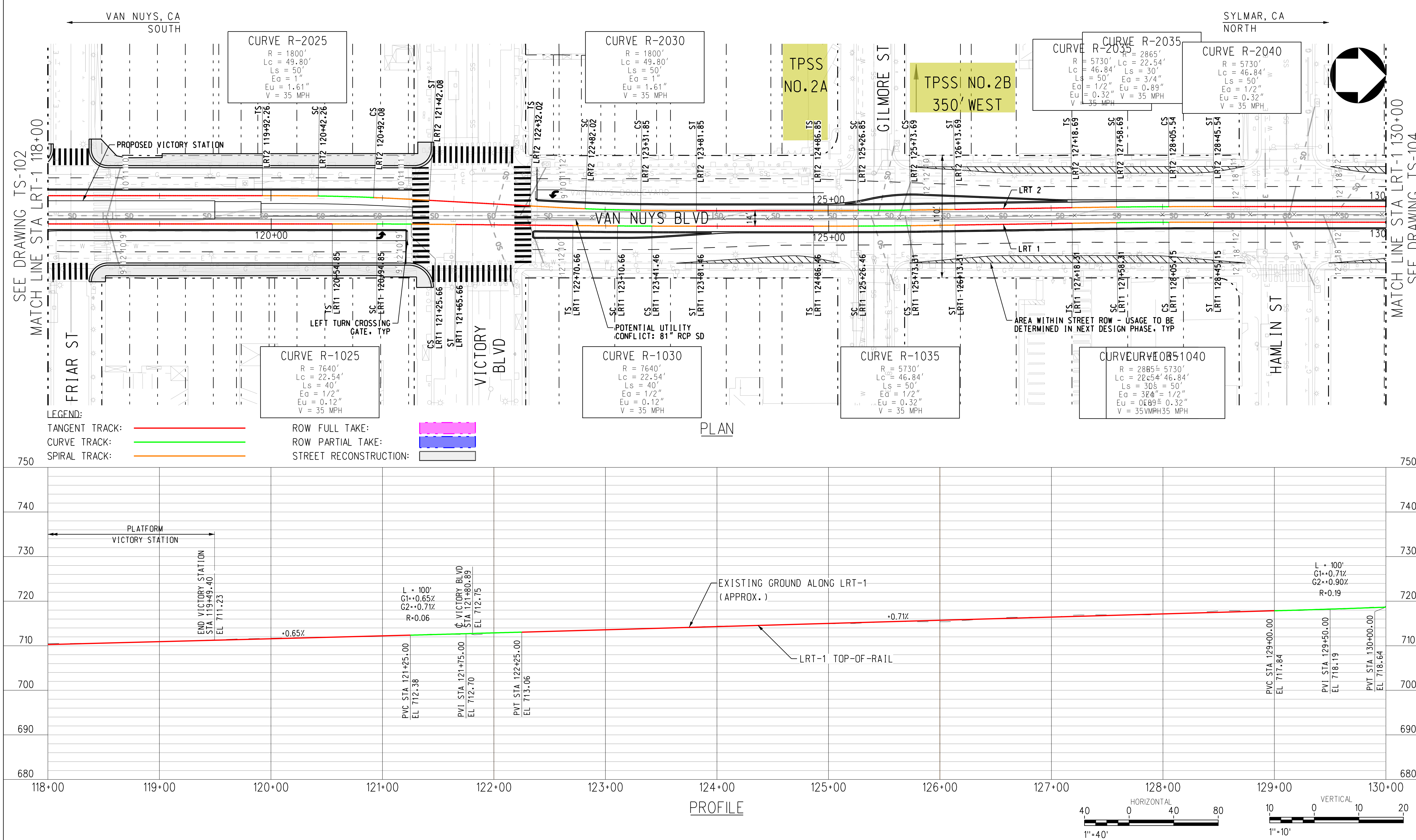
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 106+00 TO STA 118+00

CONTRACT NO
DRAWING NO TS-102
REV 0
SCALE AS SHOWN
SHEET NO 47 OF 89



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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 118+00 TO STA 130+00

CONTRACT NO
DRAWING NO TS-103
REV 0
SCALE AS SHOWN
SHEET NO 48 OF 89

4/3/2019 11:54:24 AM ChoiA
\\stvgroup.stvinc.com\V3\LACA\Vol3\projects\4015220\4015220_0001\90_CAD Models and Sheets\04_CK_Track_Rail\Sheets\TS-103.sht
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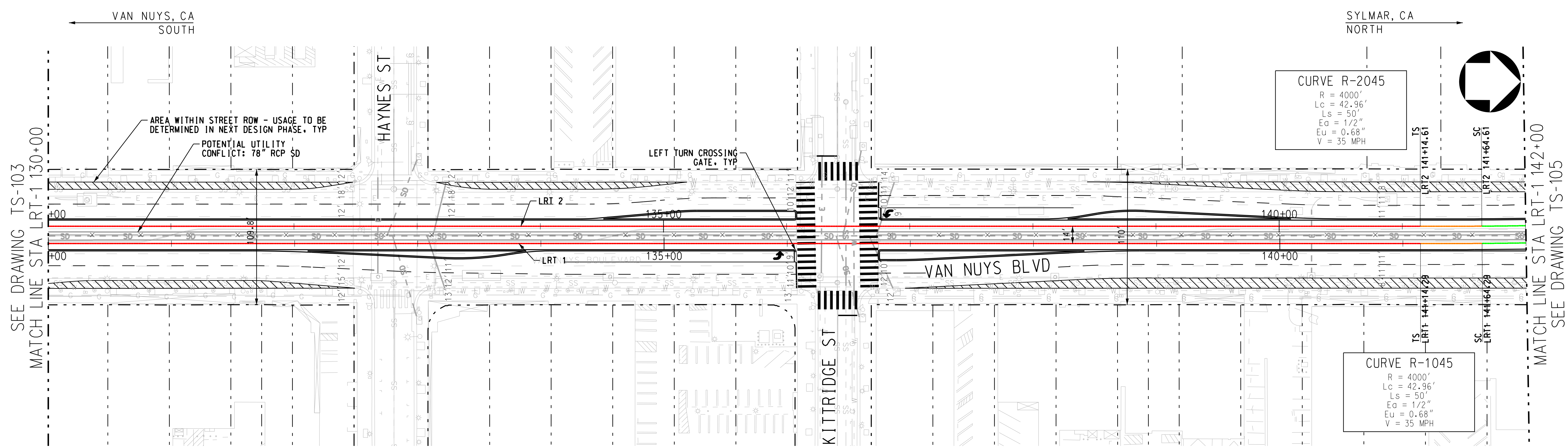
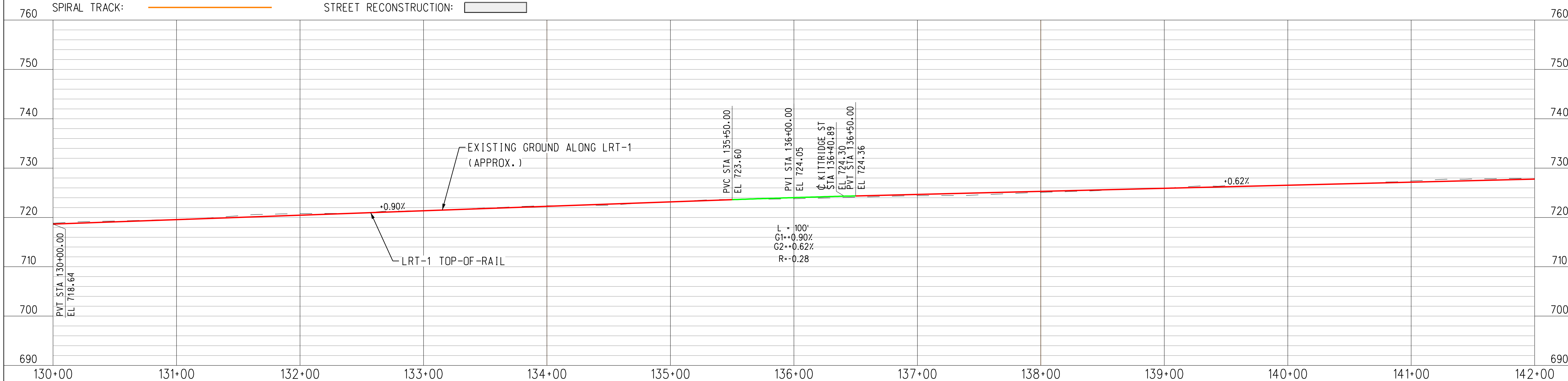


LEGEND:

TANGENT TRACK:	(red line)	ROW FULL TAKE:	(magenta)
CURVE TRACK:	(green line)	ROW PARTIAL TAKE:	(blue)
SPIRAL TRACK:	(orange line)	STREET RECONSTRUCTION:	(grey)

PLAN



PROFILE

HORIZONTAL 40 0 40 80 1"=40'

VERTICAL 10 0 10 20 1"=10'

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LAST SAVED: 3/29/2019 5:00:42 PM

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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY	A. LEWIS
DRAWN BY	A. CHOI
CHECKED BY	J. GONZALEZ
IN CHARGE	A. SOKOL
DATE	3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

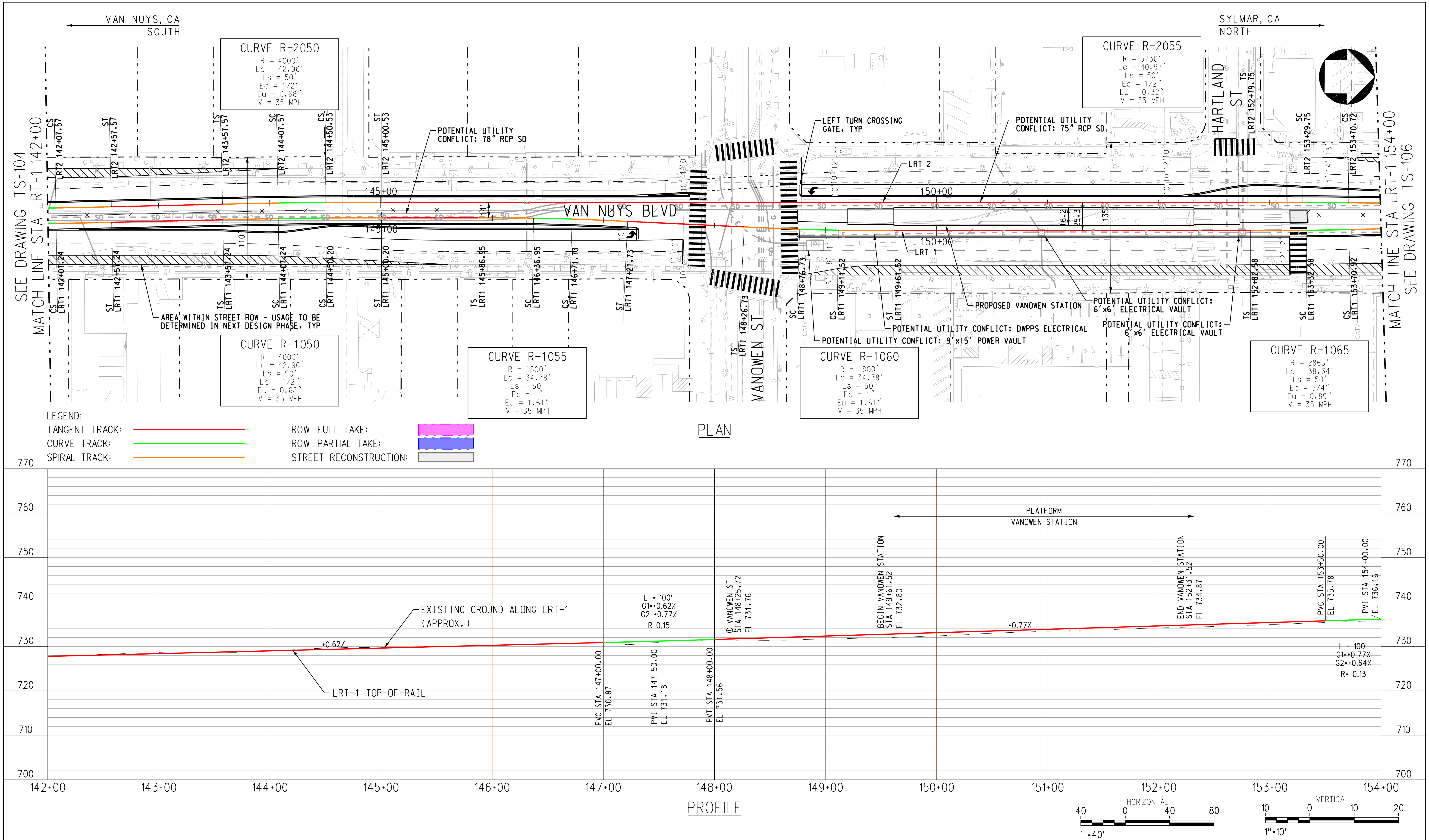
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 130+00 TO STA 142+00

CONTRACT NO	
DRAWING NO	TS-104
REV	0
SCALE	AS SHOWN
SHEET NO	49 OF 89



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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

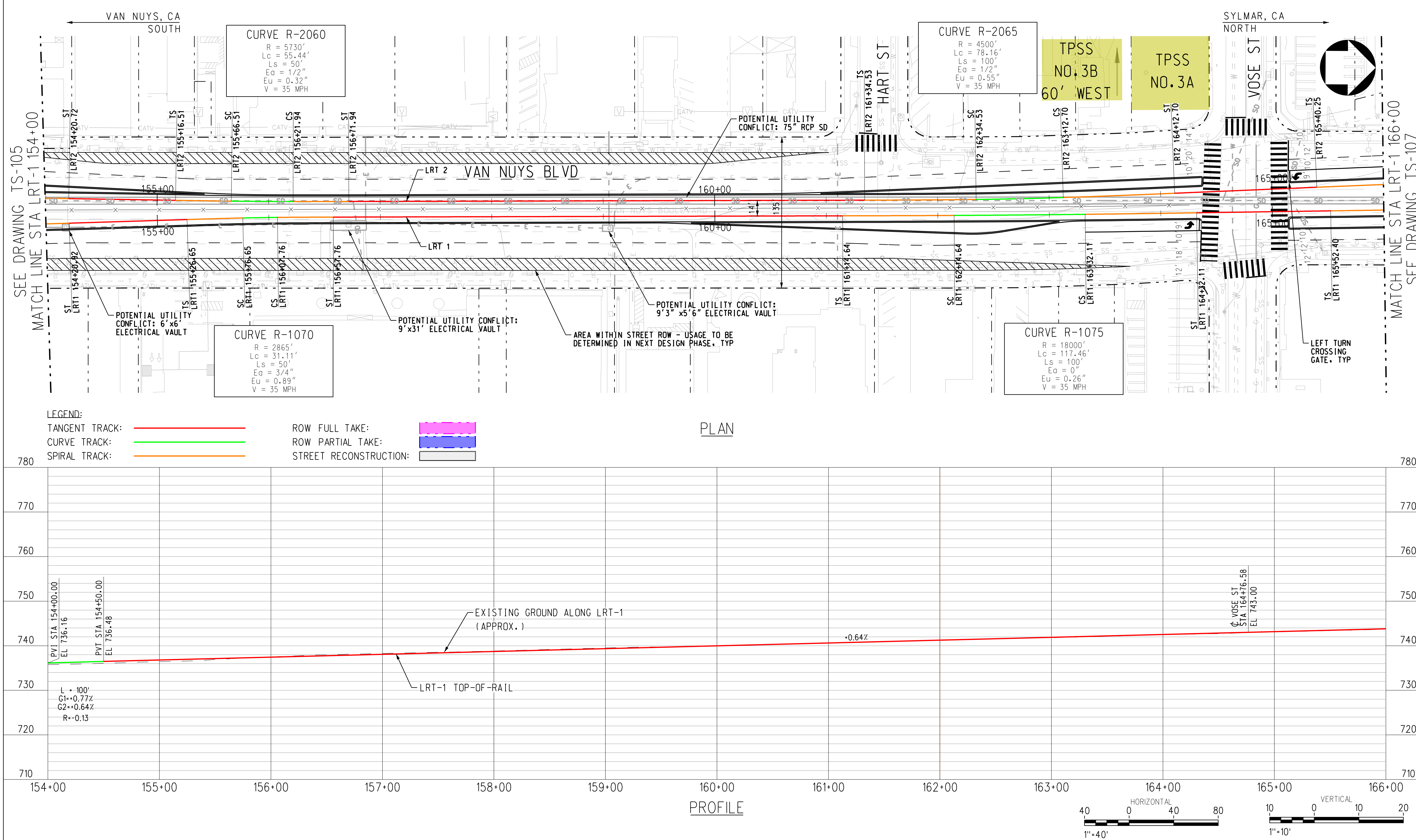
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 142+00 TO STA 154+00

CONTRACT NO
DRAWING NO TS-105
REV 0
SCALE AS SHOWN
SHEET NO 50 OF 89



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LAST SAVED: 3/29/2019 5:03:32 PM

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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
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IN CHARGE A. SOKOL
DATE 3/15/2019

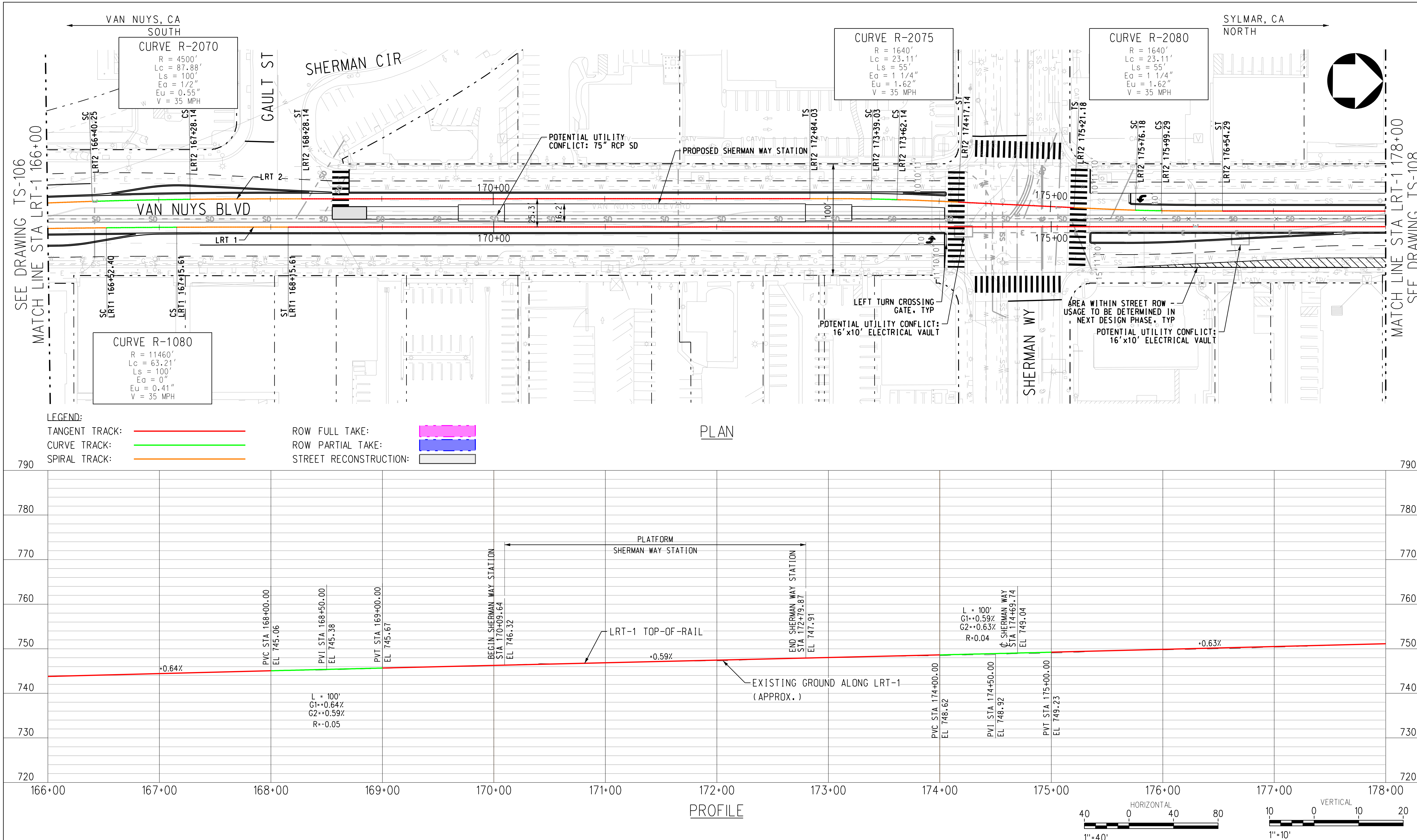
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 154+00 TO STA 166+00

CONTRACT NO
DRAWING NO TS-106
REV 0
SCALE AS SHOWN
SHEET NO 51 OF 89



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IN CHARGE A. SOKOL
DATE 3/15/2019

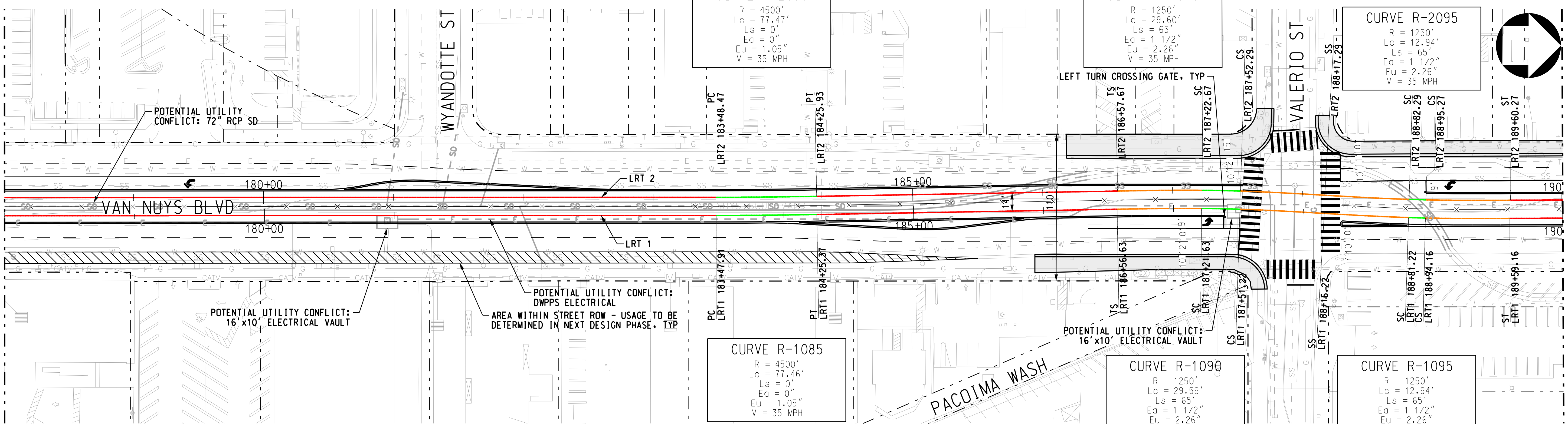
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA
STV 100 Years

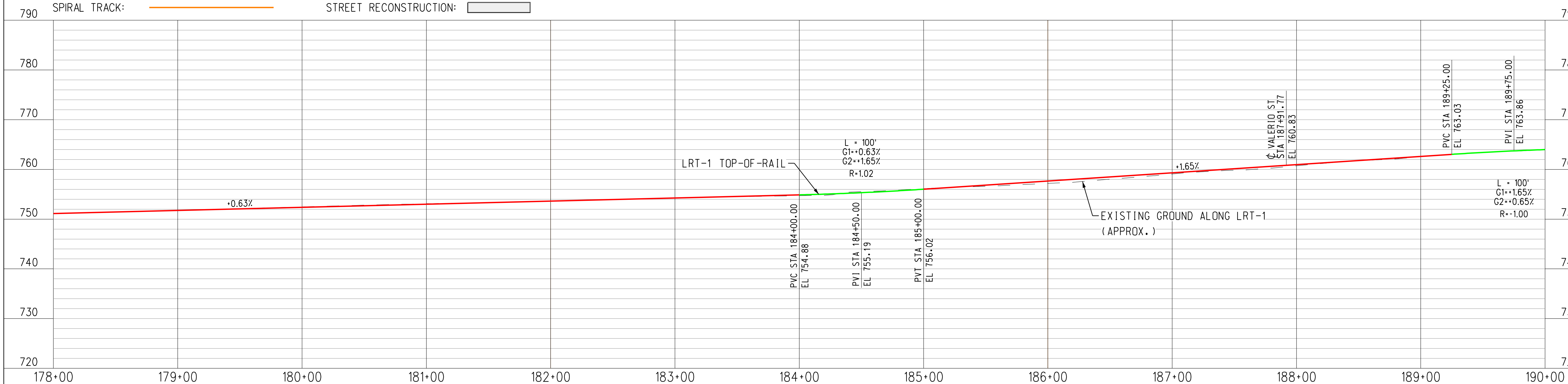
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 166+00 TO STA 178+00

CONTRACT NO
DRAWING NO TS-107
REV 0
SCALE AS SHOWN
SHEET NO 52 OF 89



PLAN



PROFILE

HORIZONTAL 40 0 40 80 1"=40'

VERTICAL 10 0 10 20 1"=10'

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ACE SUBMITTAL
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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

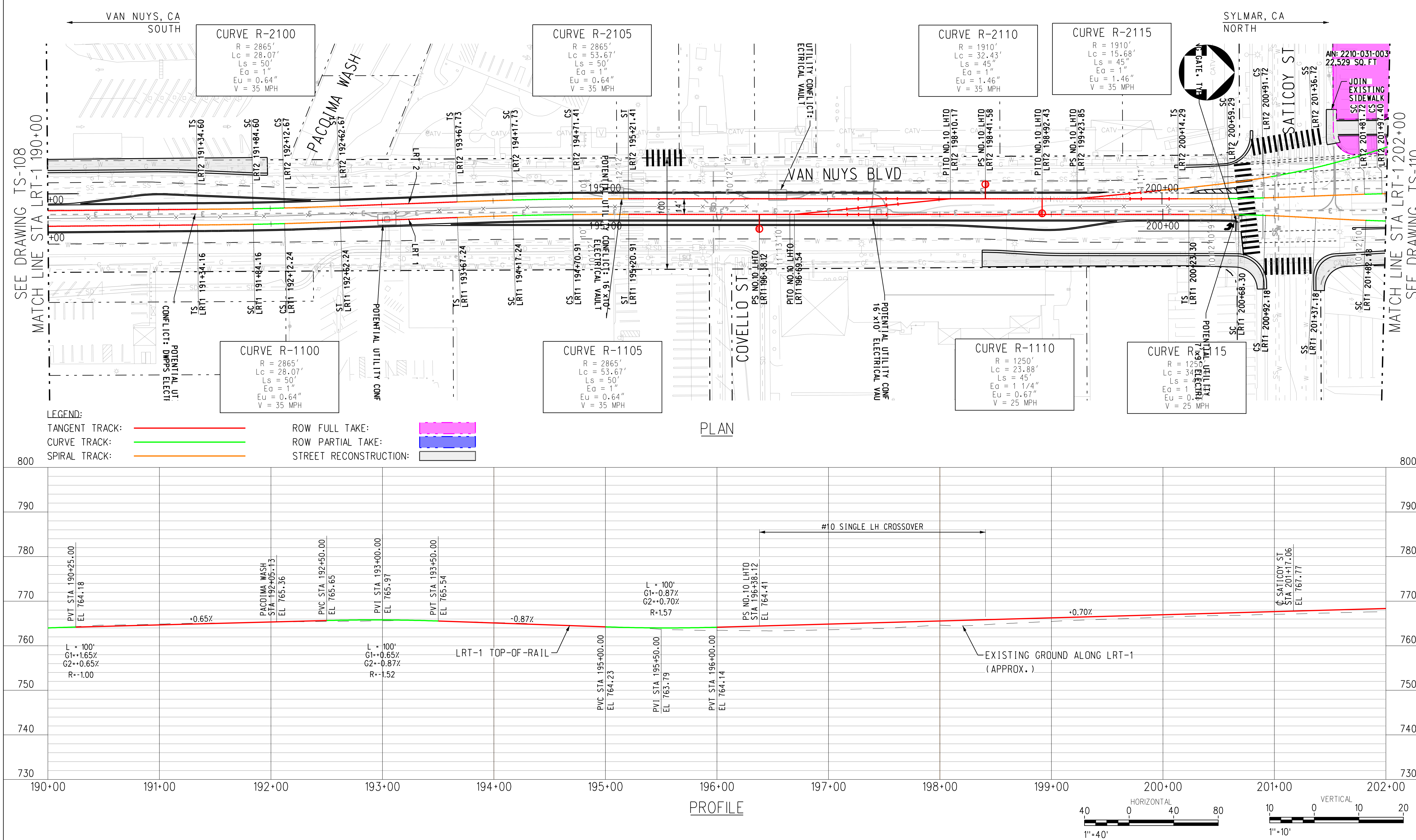
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 178+00 TO STA 190+00

CONTRACT NO
DRAWING NO TS-108
REV 0
SCALE AS SHOWN
SHEET NO 53 OF 89



ACE SUBMITTAL
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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

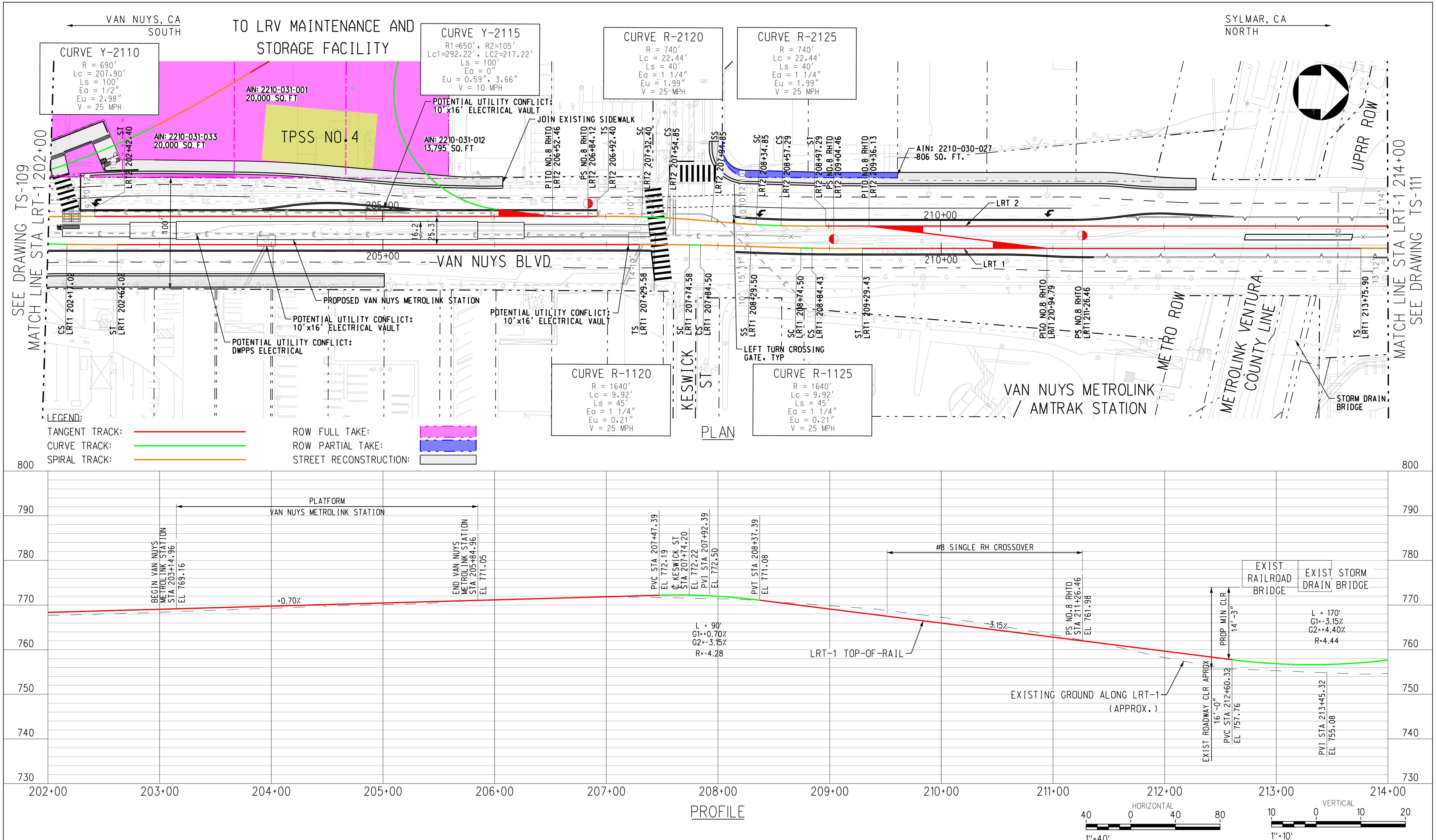
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 190+00 TO STA 202+00

CONTRACT NO
DRAWING NO TS-109
REV 0
SCALE AS SHOWN
SHEET NO 54 OF 89



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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

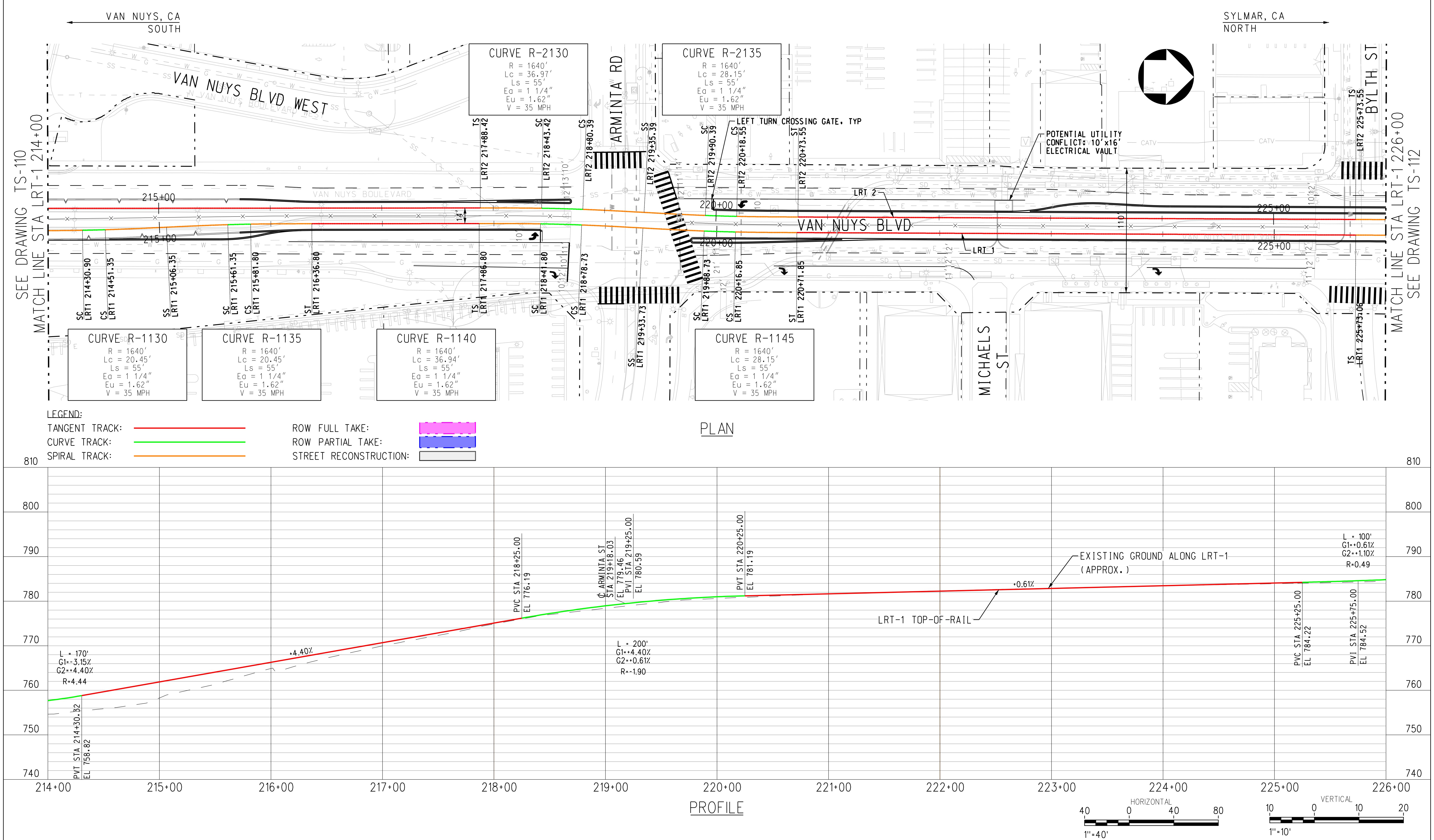
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 202+00 TO STA 214+00

CONTRACT NO
DRAWING NO TS-110
REV 0
SCALE AS SHOWN
SHEET NO 55 OF 89



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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY: A. LEWIS
DRAWN BY: A. CHOI
CHECKED BY: J. GONZALEZ
IN CHARGE: A. SOKOL
DATE: 3/15/2019

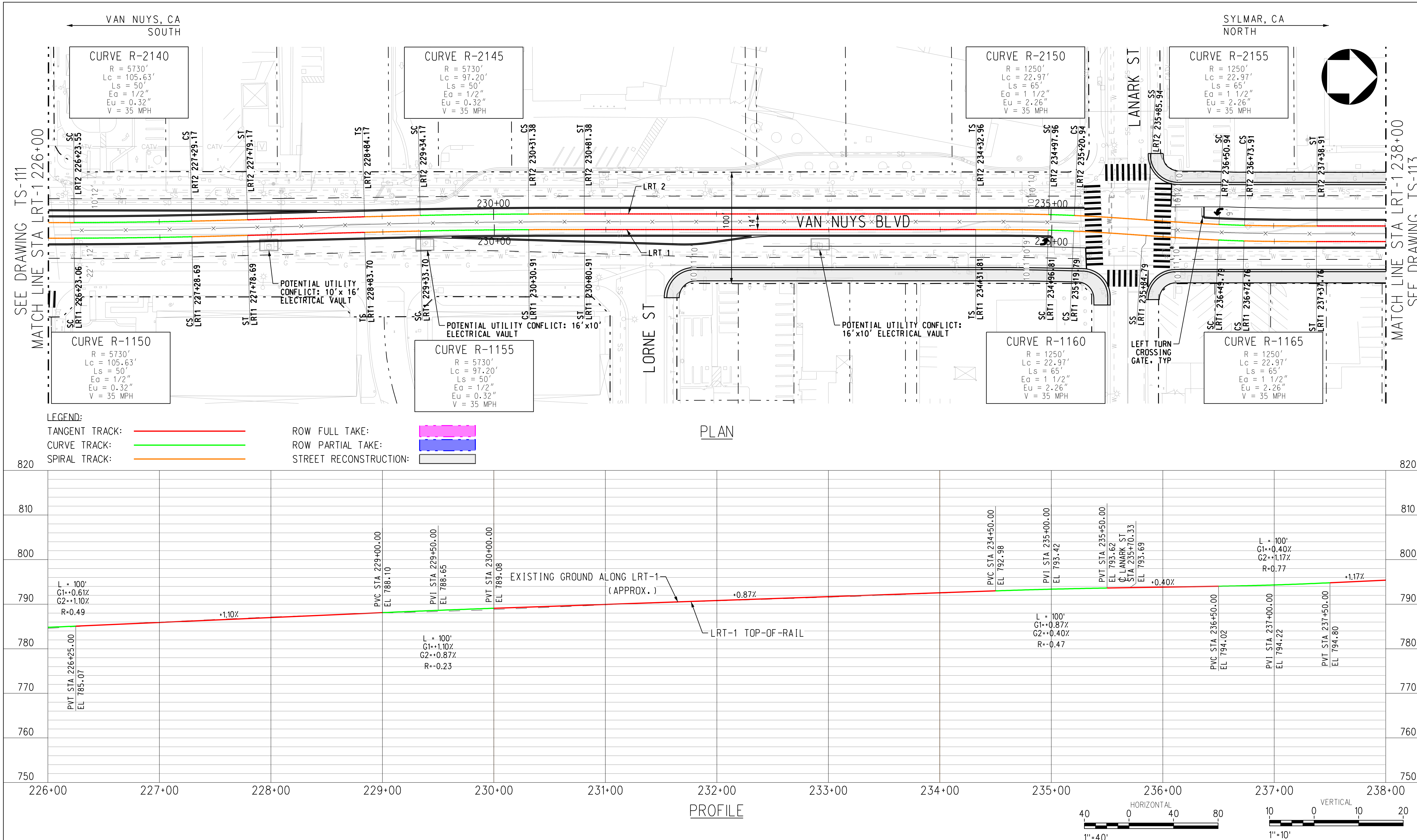
Metro — LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA — STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 214+00 TO STA 226+00

CONTRACT NO:
DRAWING NO: TS-111
REV: 0
SCALE: AS SHOWN
SHEET NO: 56 OF 89



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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
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IN CHARGE A. SOKOL
DATE 3/15/2019

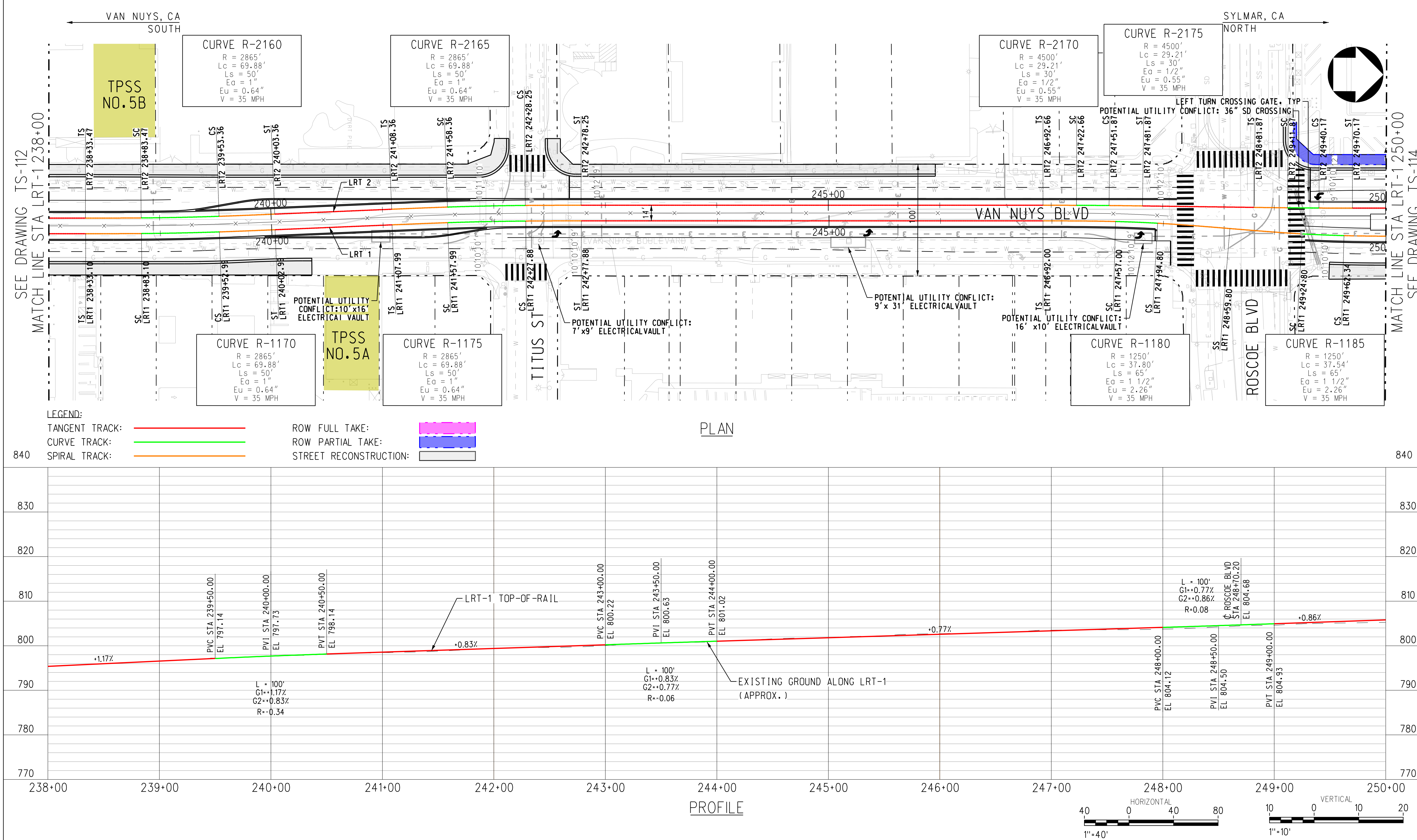
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA
STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 226+00 TO STA 238+00

CONTRACT NO
DRAWING NO TS-112
REV 0
SCALE AS SHOWN
SHEET NO 57 OF 89



ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

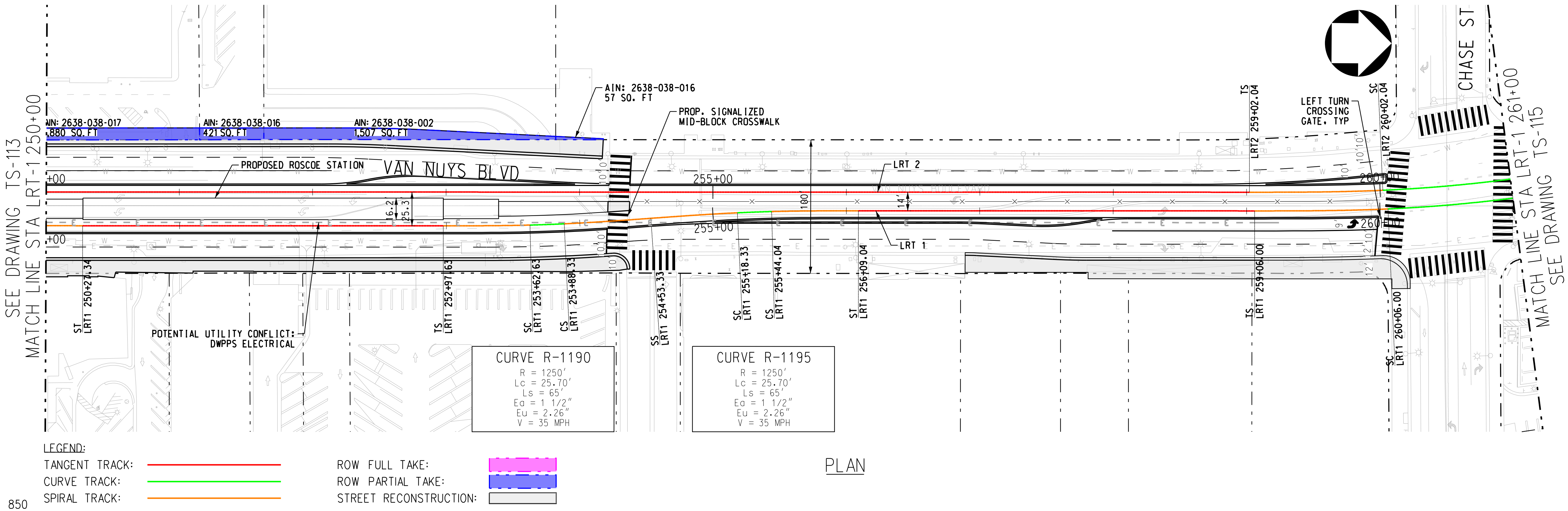
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA
STV 100 Years

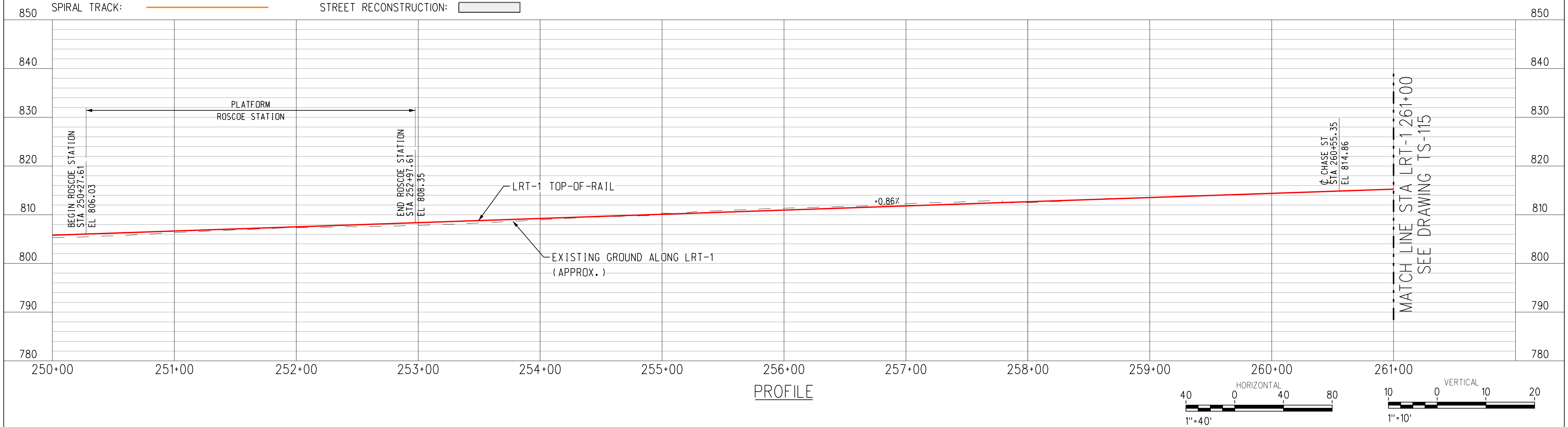
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 238+00 TO STA 250+00

CONTRACT NO
DRAWING NO TS-113
REV 0
SCALE AS SHOWN
SHEET NO 58 OF 89



PLAN



PROFILE

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

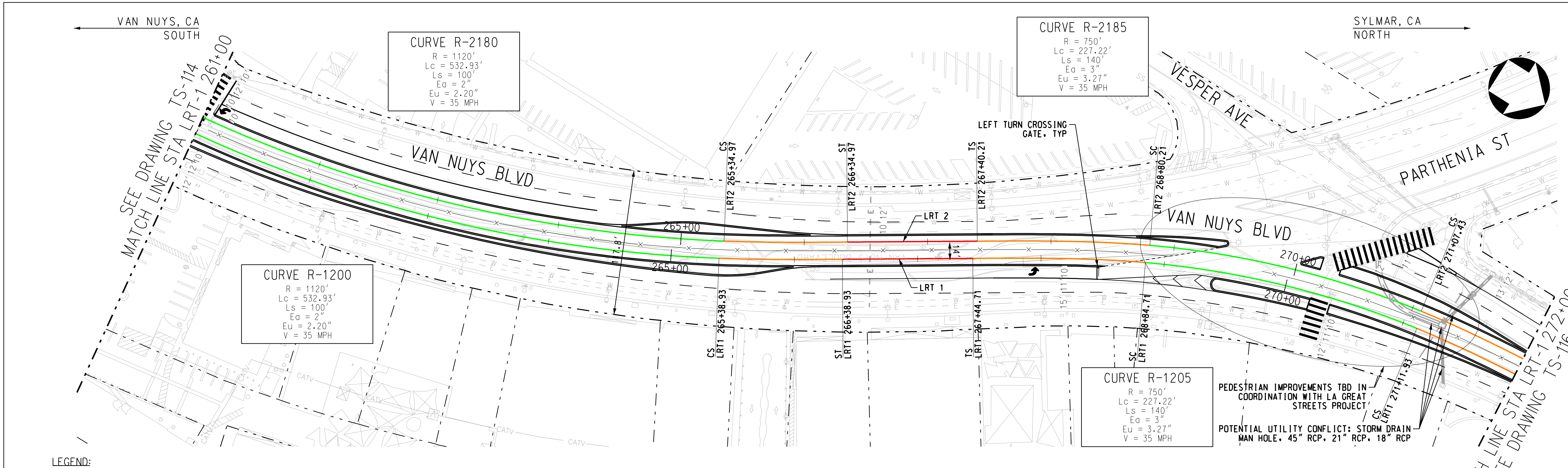
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 250+00 TO STA 261+00

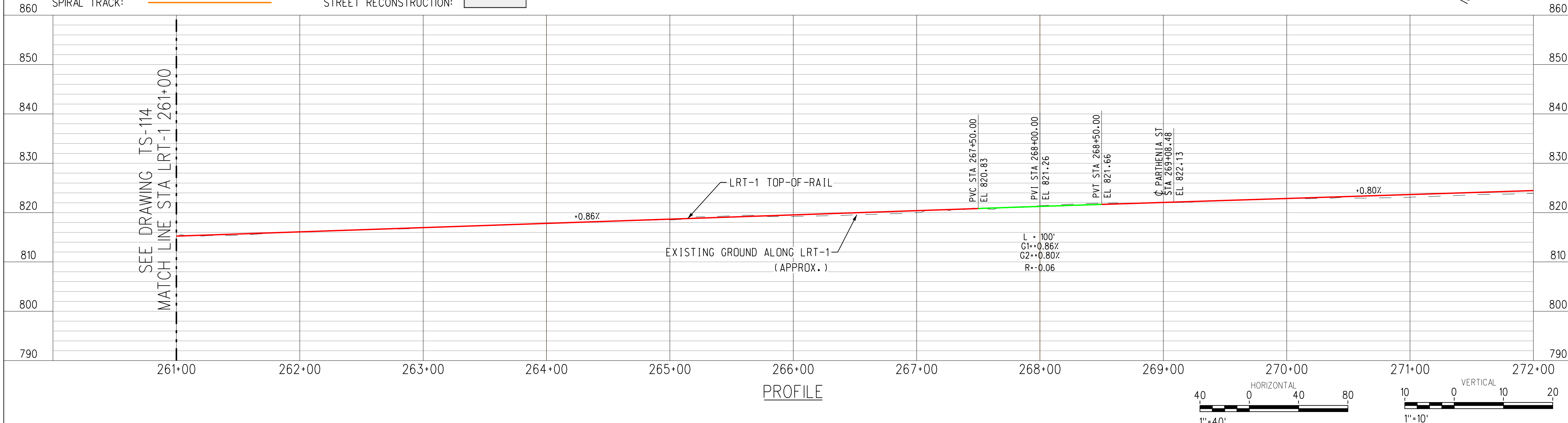
CONTRACT NO
DRAWING NO TS-114
REV 0
SCALE AS SHOWN
SHEET NO 59 OF 89



LEGEND:

TANGENT TRACK:	(red line)	ROW FULL TAKE:	(magenta)
CURVE TRACK:	(green line)	ROW PARTIAL TAKE:	(blue)
SPIRAL TRACK:	(orange line)	STREET RECONSTRUCTION:	(grey)

PLAN



PROFILE

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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

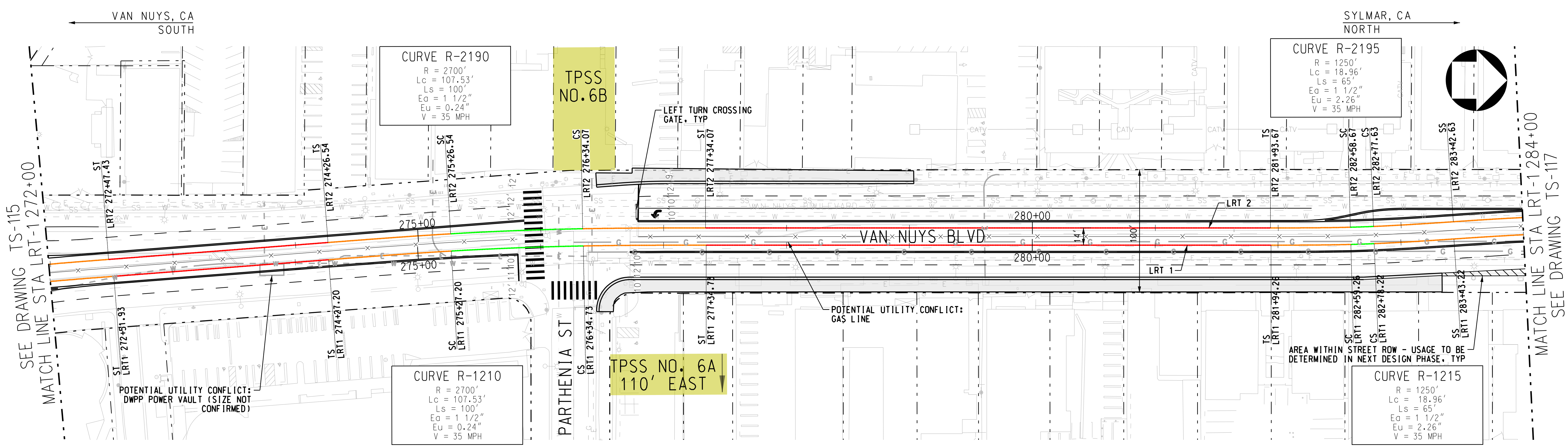
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA — STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 261+00 TO STA 272+00

CONTRACT NO
DRAWING NO TS-115
REV 0
SCALE AS SHOWN
SHEET NO 60 OF 89



LEGEND:

TANGENT TRACK:	(red line)	ROW FULL TAKE:	
CURVE TRACK:	(green line)	ROW PARTIAL TAKE:	
SPIRAL TRACK:	(orange line)	STREET RECONSTRUCTION:	

PLAN

PROFILE

HORIZONTAL 1"=40'
VERTICAL 1"=10'

4/3/2019 11:56:51 AM ChoiA
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LAST SAVED: 3/29/2019 5:31:51 PM

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 272+00 TO STA 284+00

CONTRACT NO

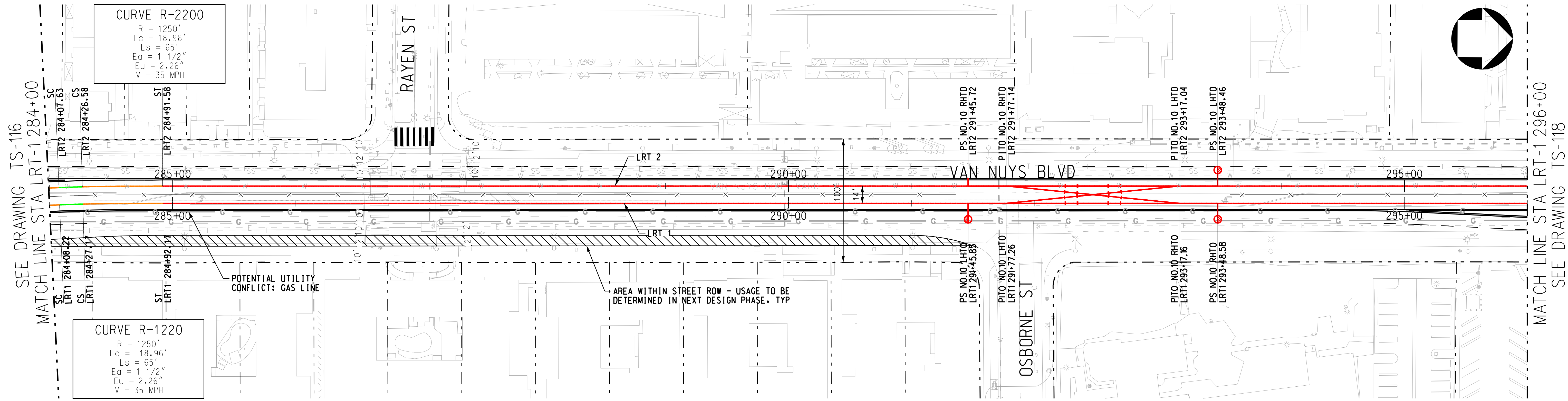
DRAWING NO TS-116 REV 0

SCALE AS SHOWN

SHEET NO 61 OF 89

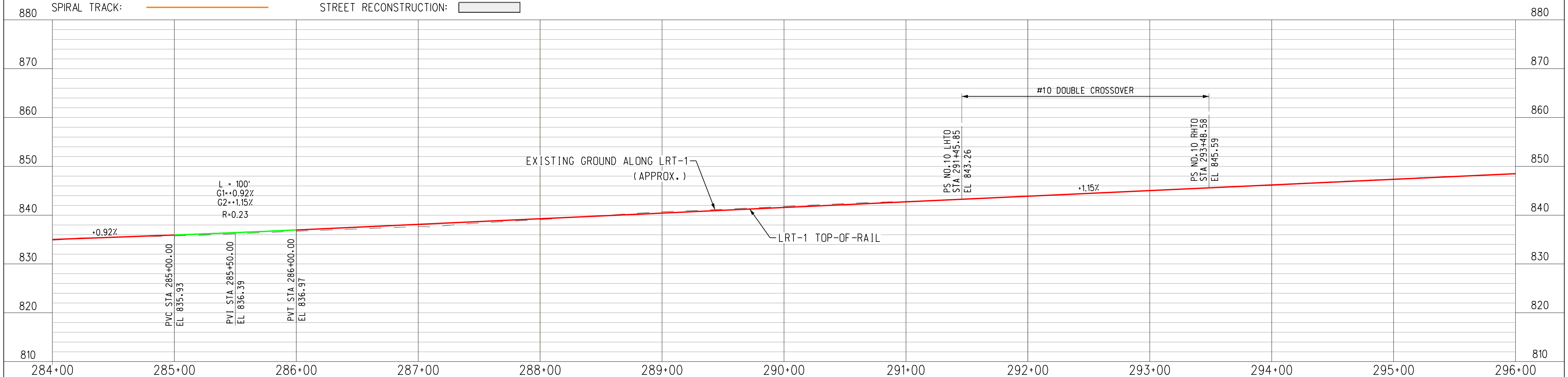
VAN NUYS, CA
SOUTH

SYLMAR, CA
NORTH



LEGEND:
TANGENT TRACK:
CURVE TRACK:
SPIRAL TRACK:
ROW FULL TAKE:
ROW PARTIAL TAKE:
STREET RECONSTRUCTION:

PLAN



PROFILE

HORIZONTAL 40 0 40 80
1"=40'

VERTICAL 10 0 10 20
1"=10'

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LAST SAVED: 3/29/2019 5:32:31 PM

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

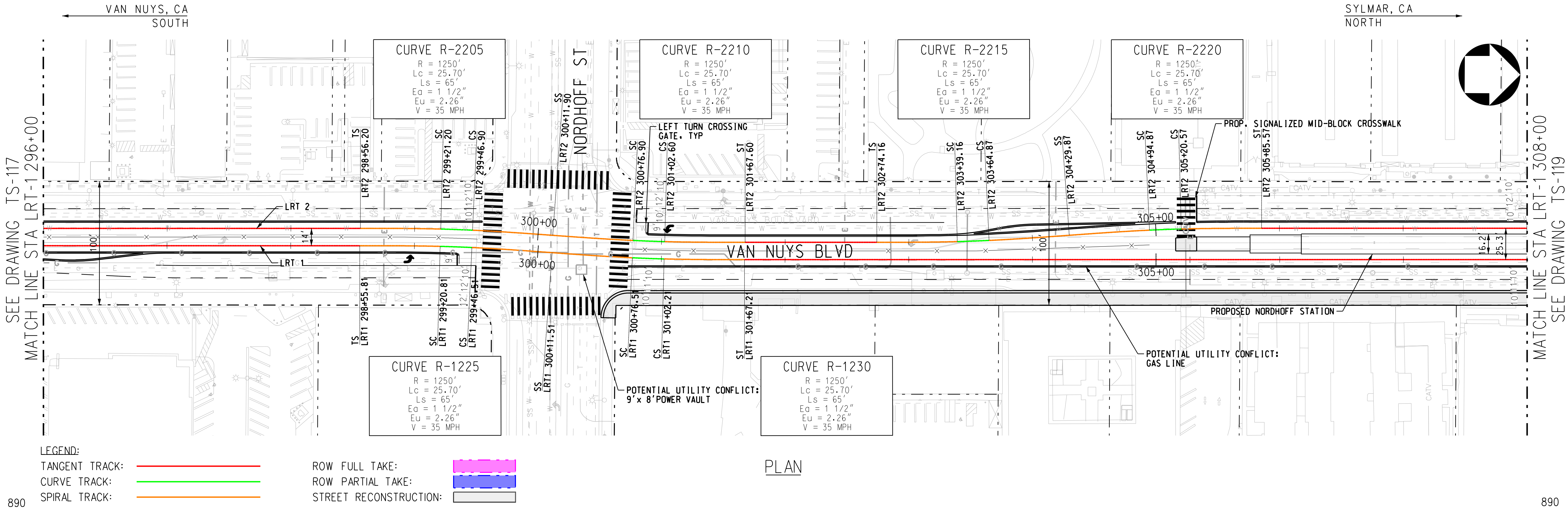
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA
STV 100 Years

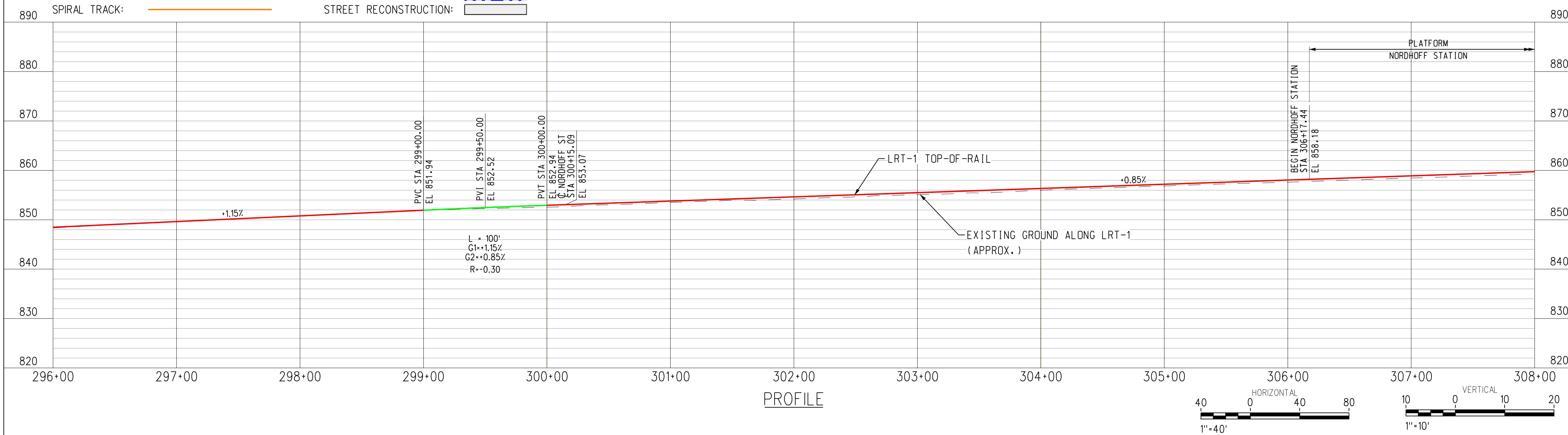
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 284+00 TO STA 296+00

CONTRACT NO
DRAWING NO TS-117
REV 0
SCALE AS SHOWN
SHEET NO 62 OF 89



PLAN



PROFILE

HORIZONTAL
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1"=40'

VERTICAL
10 0 10 20
1"=10'

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LAST SAVED: 3/29/2019 5:33:53 PM

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

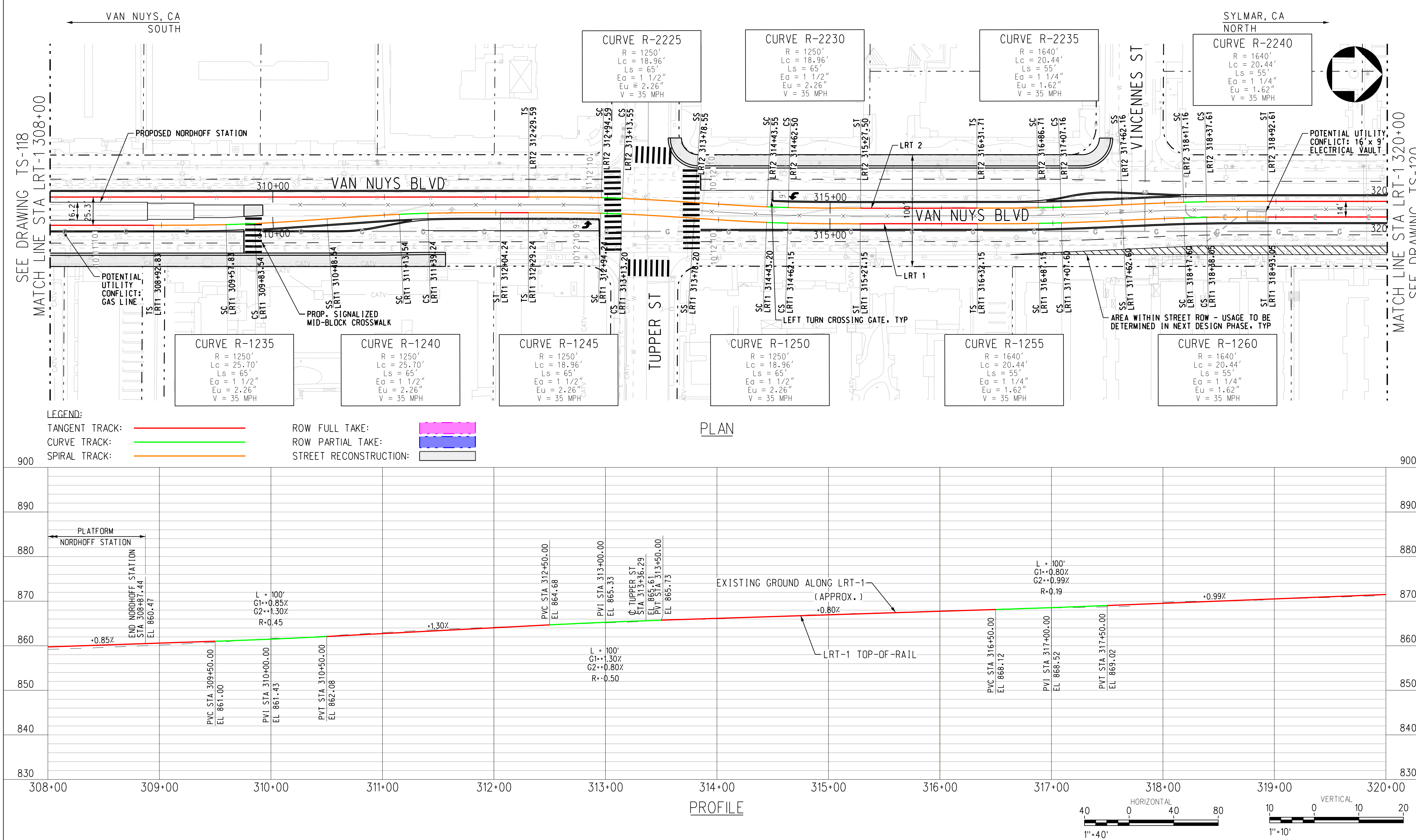
Metro
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA
STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 296+00 TO STA 308+00

CONTRACT NO
DRAWING NO TS-118
REV 0
SCALE AS SHOWN
SHEET NO 63 OF 89



ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 308+00 TO STA 320+00

CONTRACT NO

DRAWING NO TS-119
REV 0
SCALE AS SHOWN
SHEET NO 64 OF 89

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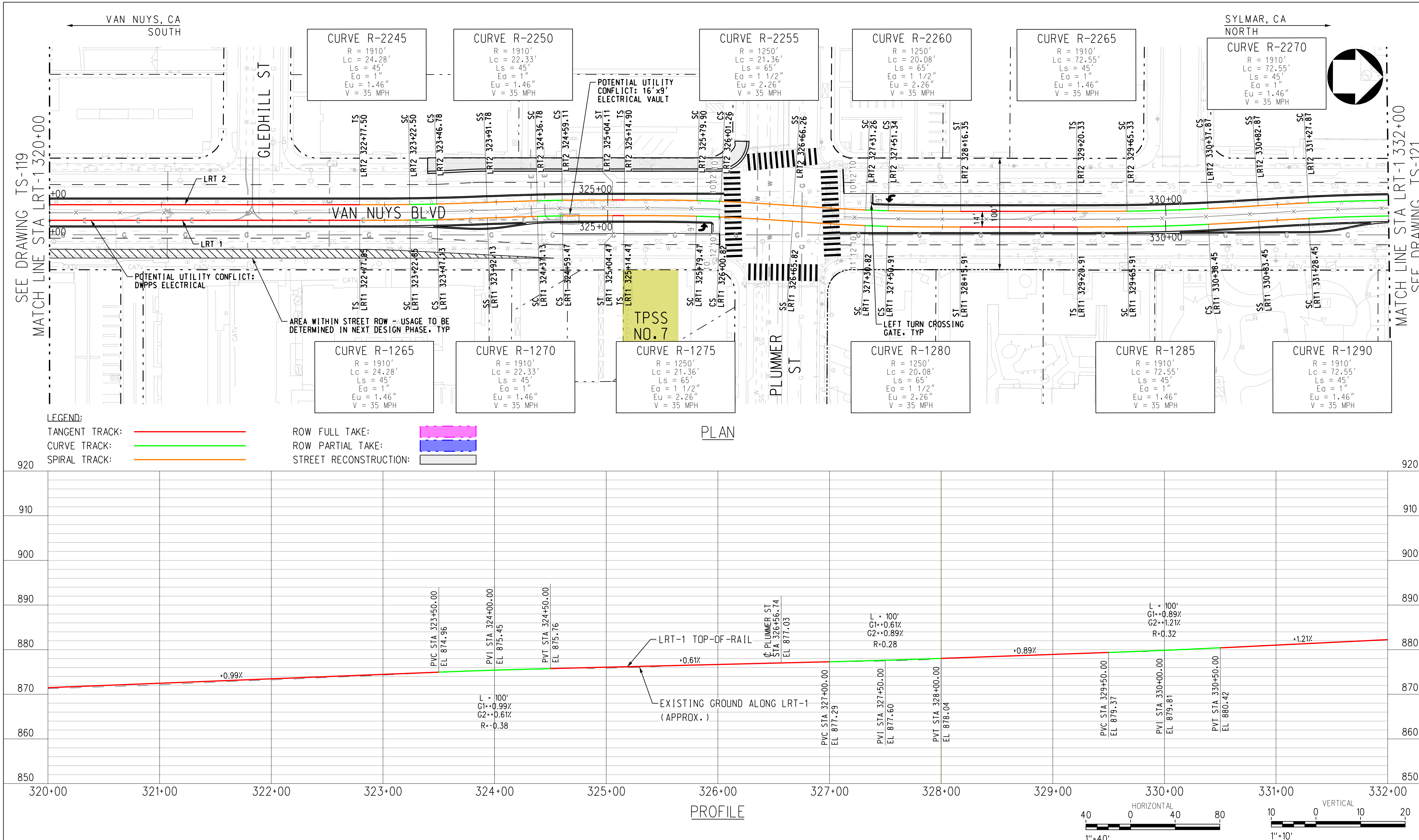


ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

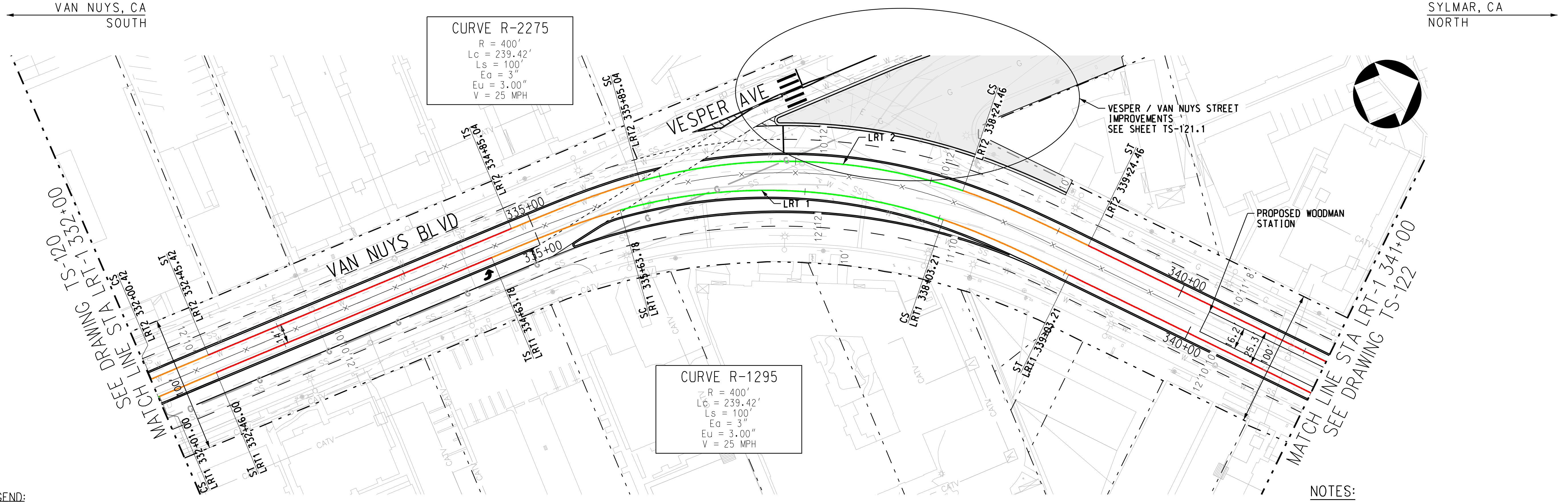
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA — STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 320+00 TO STA 332+00

CONTRACT NO
DRAWING NO TS-120
REV 0
SCALE AS SHOWN
SHEET NO 65 OF 89



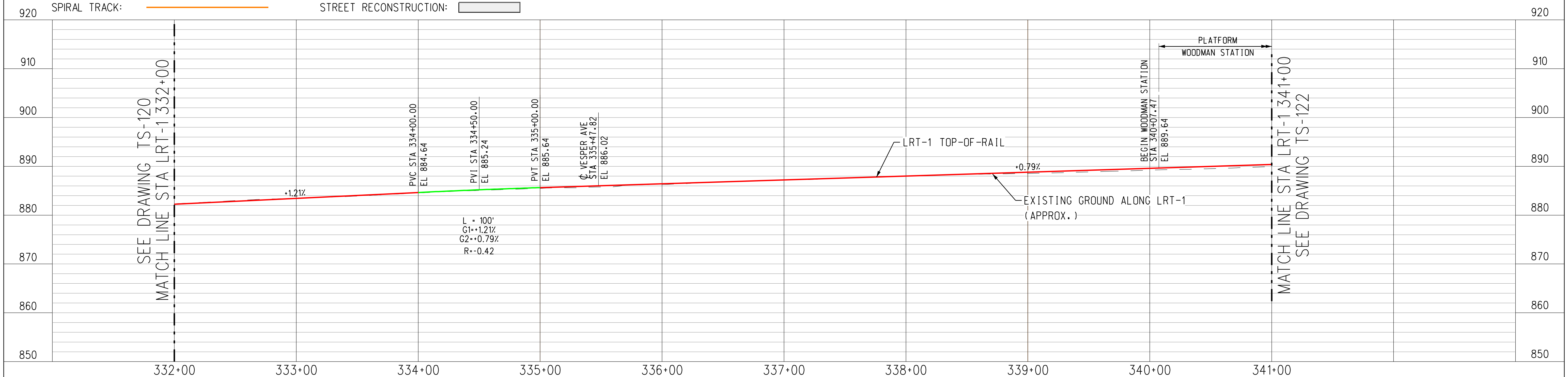
LEGEND:

TANGENT TRACK:		ROW FULL TAKE:	
CURVE TRACK:		ROW PARTIAL TAKE:	
SPIRAL TRACK:		STREET RECONSTRUCTION:	

PLAN

NOTES:

1. SEE TS-121-1 FOR STREET REALIGNMENT ON VESPER AVE.



PROFILE

HORIZONTAL 40 0 40 80 1"=40'

VERTICAL 10 0 10 20 1"=10'

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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

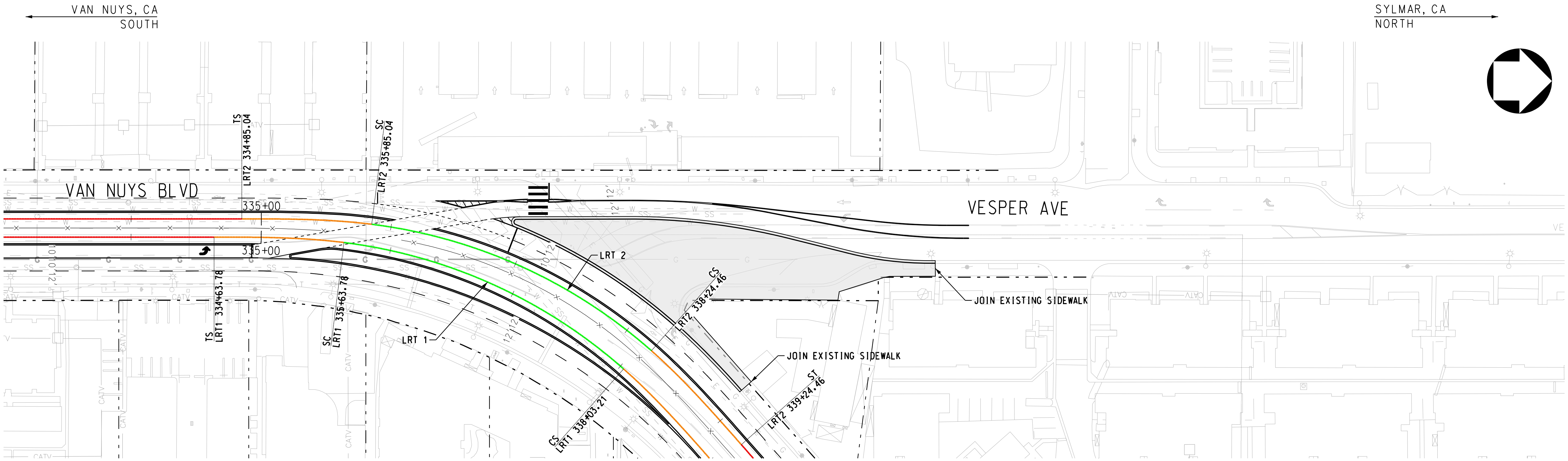
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 332+00 TO STA 341+00

CONTRACT NO
DRAWING NO TS-121
REV 0
SCALE AS SHOWN
SHEET NO 66 OF 89



LEGEND:

TANGENT TRACK:
CURVE TRACK:
SPIRAL TRACK:
ROW FULL TAKE:
ROW PARTIAL TAKE:
STREET RECONSTRUCTION:

PLAN

HORIZONTAL 40 0 40 80
1"=40'

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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 2/1/2019

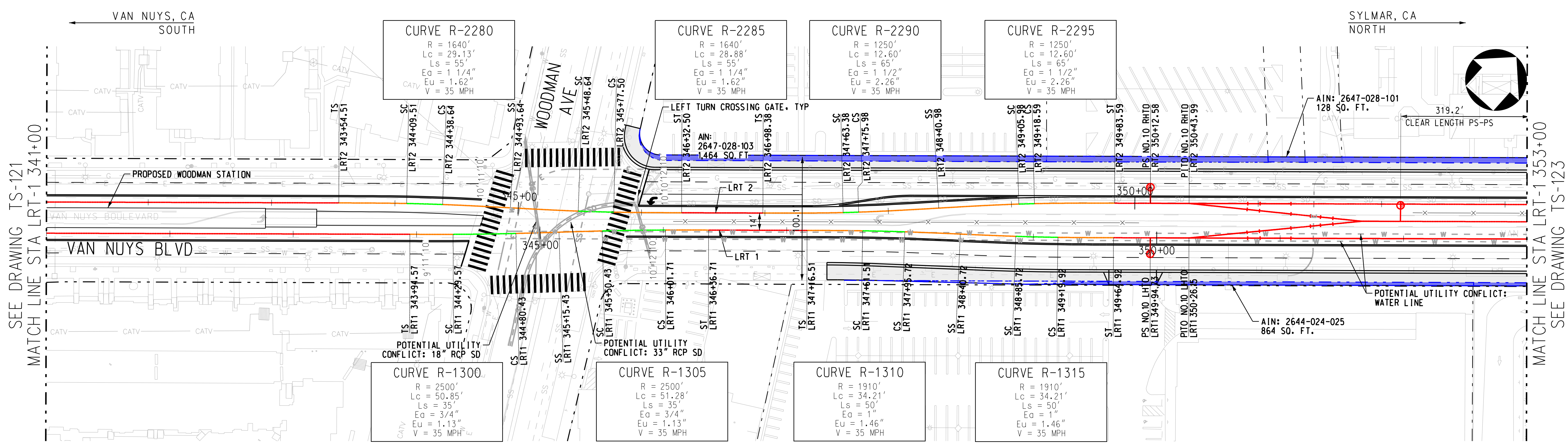
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

VESPER / VAN NUYS INTERSECTION SUPPLEMENTAL PLAN VIEW

CONTRACT NO
DRAWING NO TS-121.1
REV 0
SCALE AS SHOWN
SHEET NO 67 OF 89



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CURVE TRACK:
SPIRAL TRACK:
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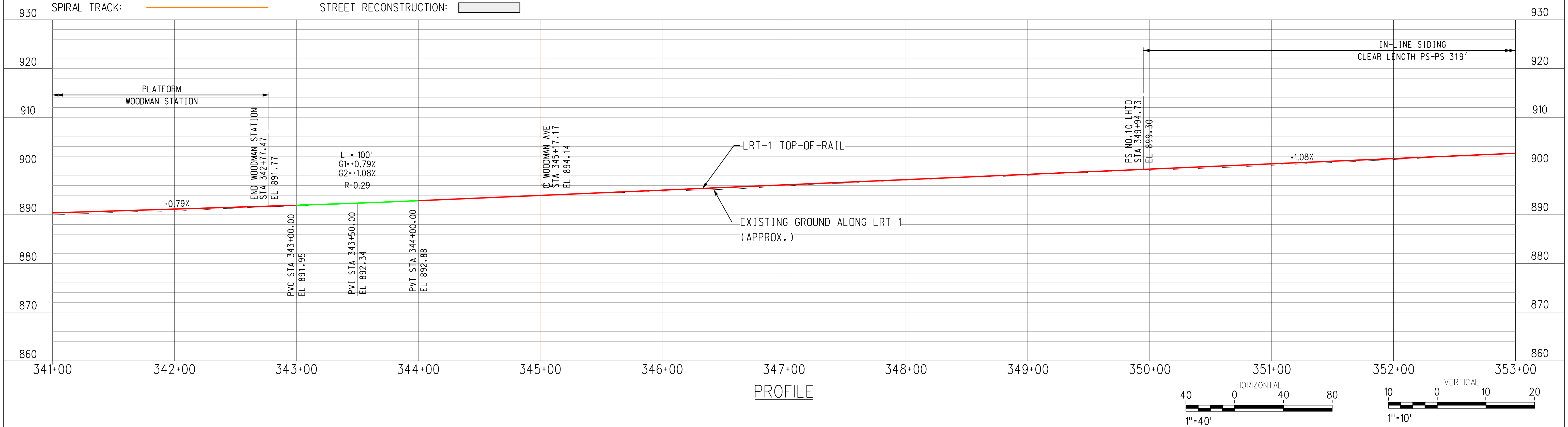
ROW PARTIAL TAKE:
STREET RECONSTRUCTION:

PLAN



PROFILE

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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 341+00 TO STA 353+00

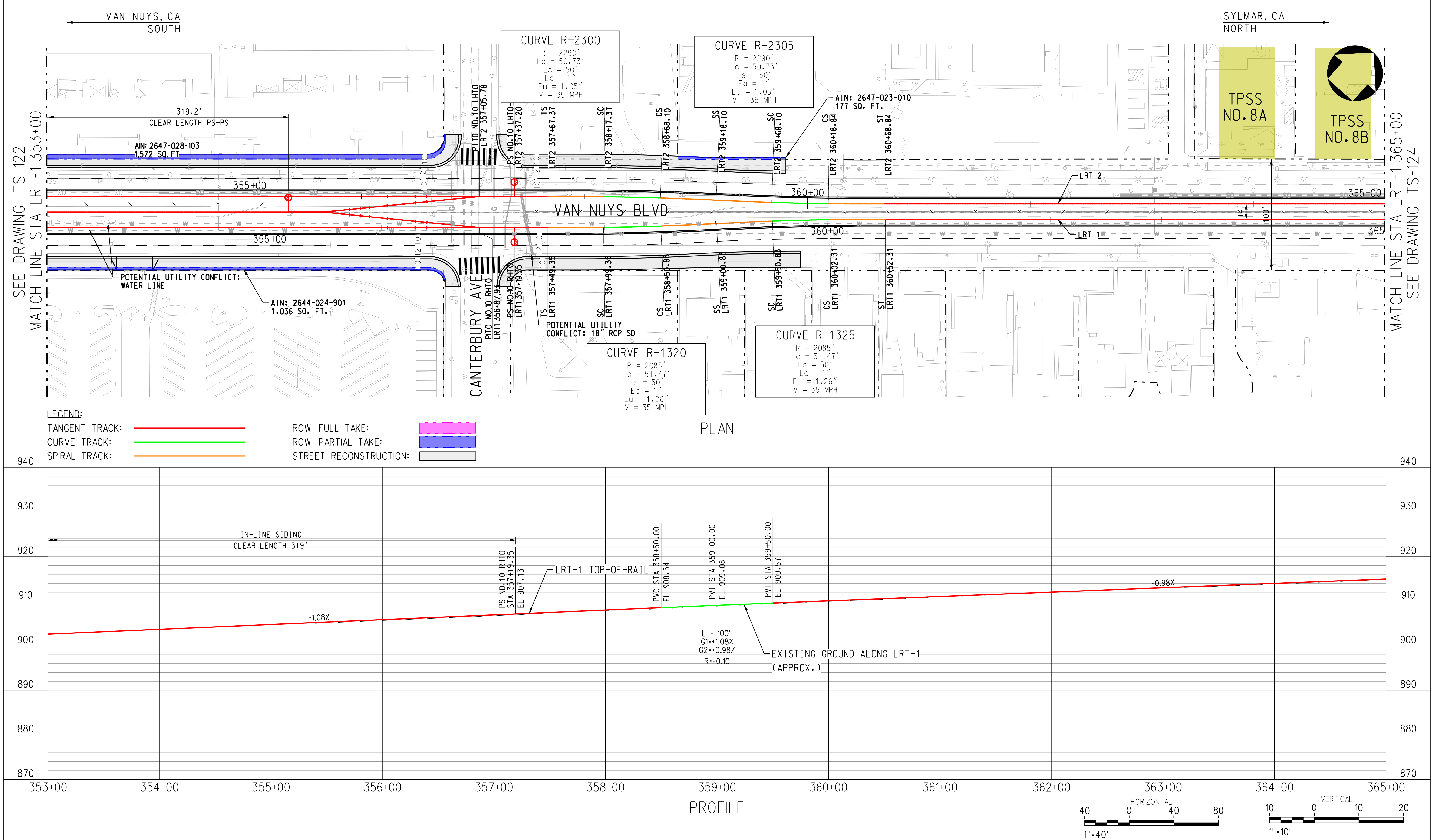
CONTRACT NO

DRAWING NO TS-122

REV 0

SCALE AS SHOWN

SHEET NO 68 OF 89



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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

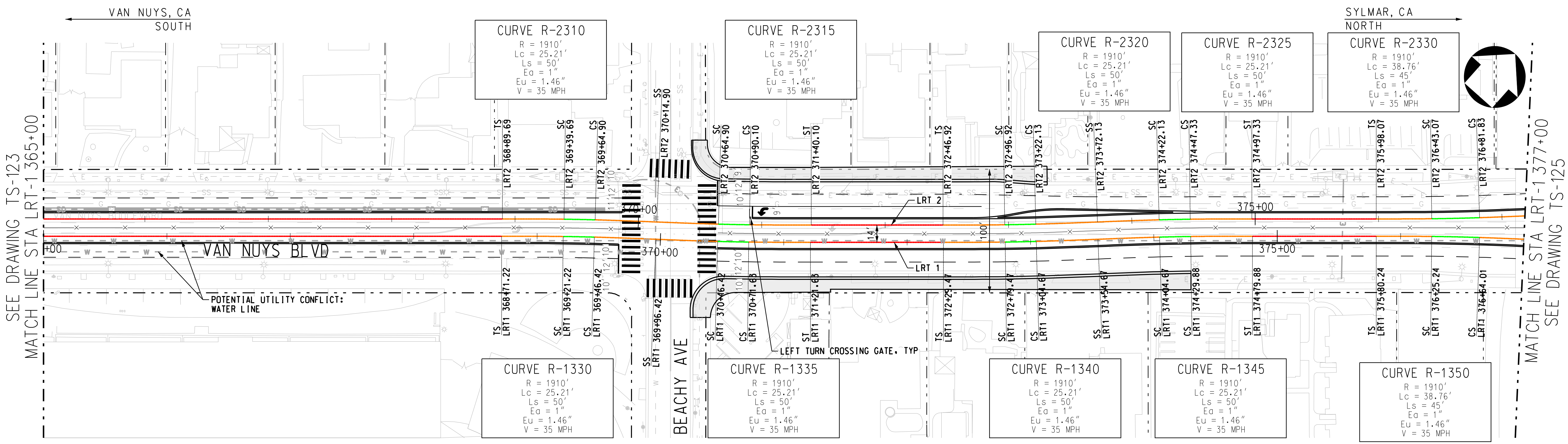
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 353+00 TO STA 365+00

CONTRACT NO
DRAWING NO TS-123
REV 0
SCALE AS SHOWN
SHEET NO 69 OF 89



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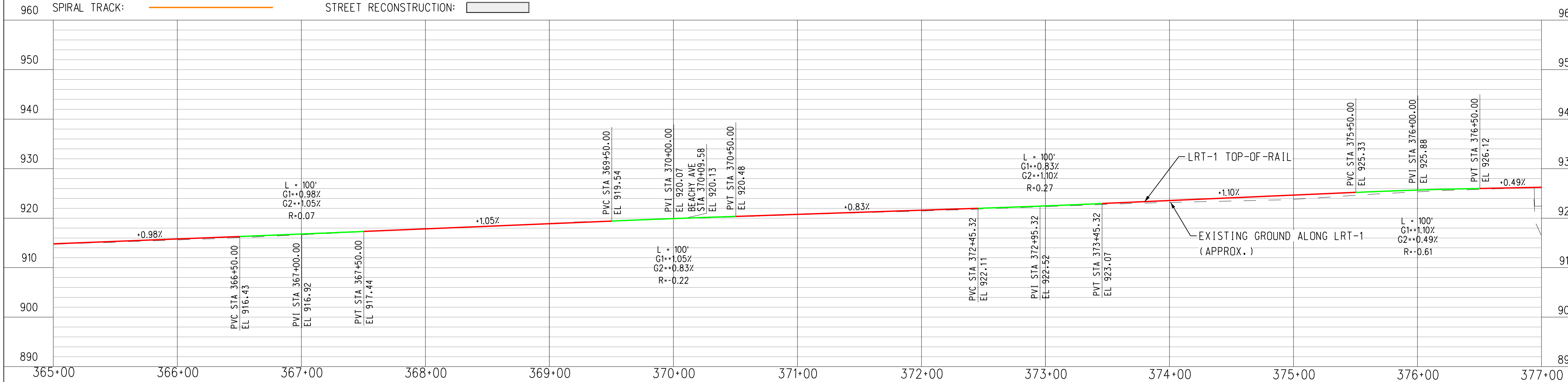
CURVE TRACK:
SPIRAL TRACK:
ROW FULL TAKE:
ROW PARTIAL TAKE:
STREET RECONSTRUCTION:

PLAN



PROFILE

HORIZONTAL 40 0 40 80 1"=40'

VERTICAL 10 0 10 20 1"=10'

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 365+00 TO STA 377+00

CONTRACT NO
DRAWING NO TS-124
REV 0
SCALE AS SHOWN
SHEET NO 70 OF 89

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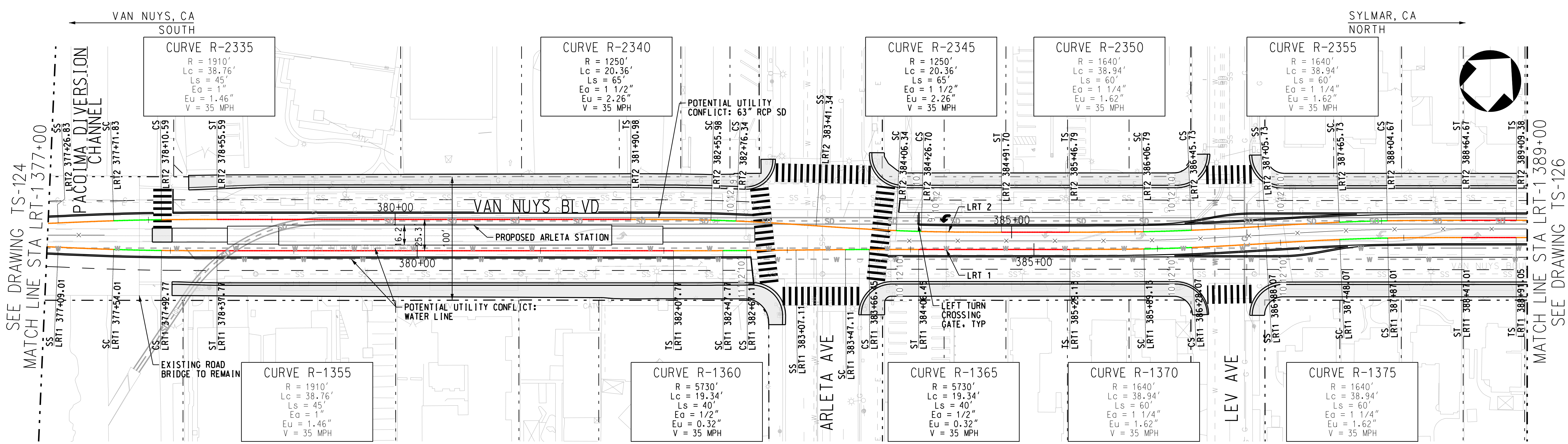

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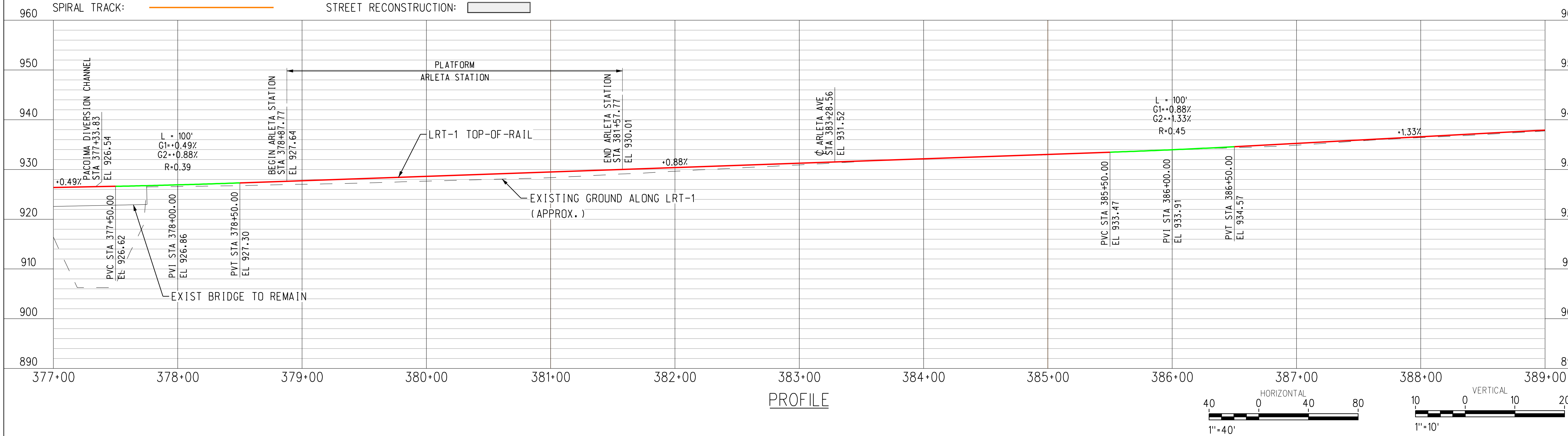
CURVE TRACK:	(green line)	ROW PARTIAL TAKE:	(blue)
SPIRAL TRACK:	(orange line)	STREET RECONSTRUCTION:	(grey)



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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

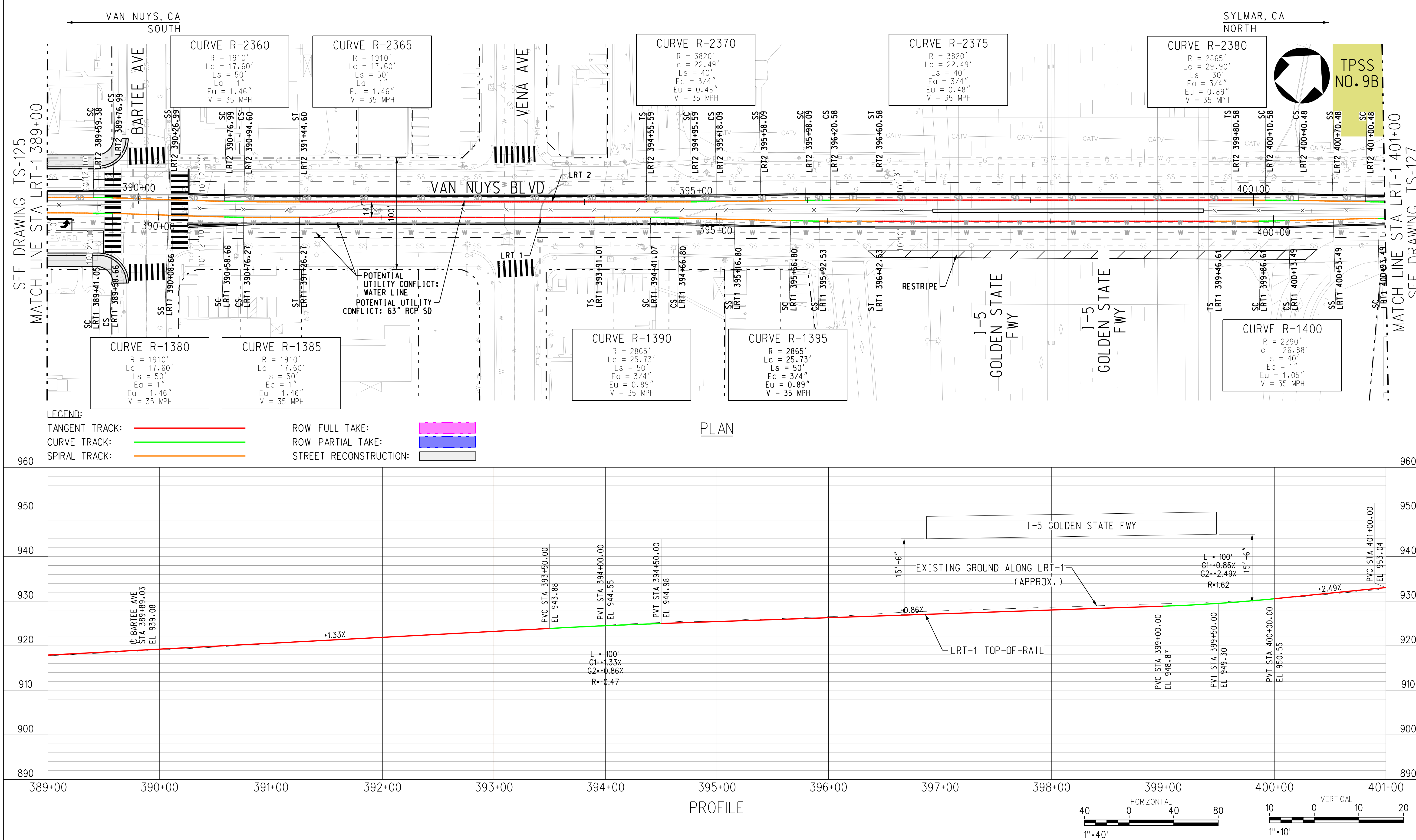
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 377+00 TO STA 389+00

CONTRACT NO
DRAWING NO TS-125
REV 0
SCALE AS SHOWN
SHEET NO 71 OF 89



ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 389+00 TO STA 401+00

CONTRACT NO
DRAWING NO TS-126 REV 0
SCALE AS SHOWN
SHEET NO 72 OF 89

4/3/2019 11:58:16 AM ChoiA
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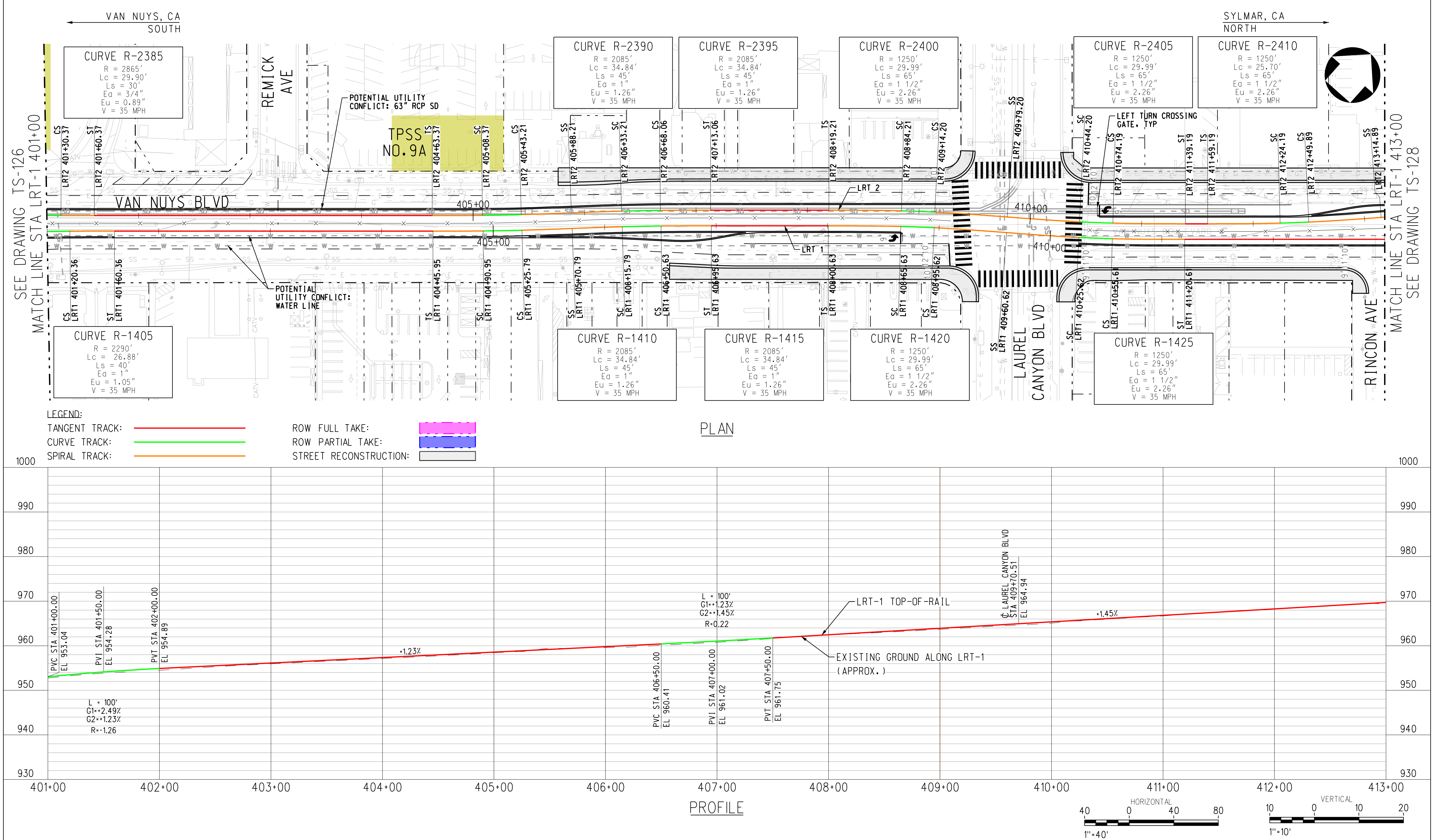

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LAST SAVED: 3/29/2019 5:40:22 PM

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

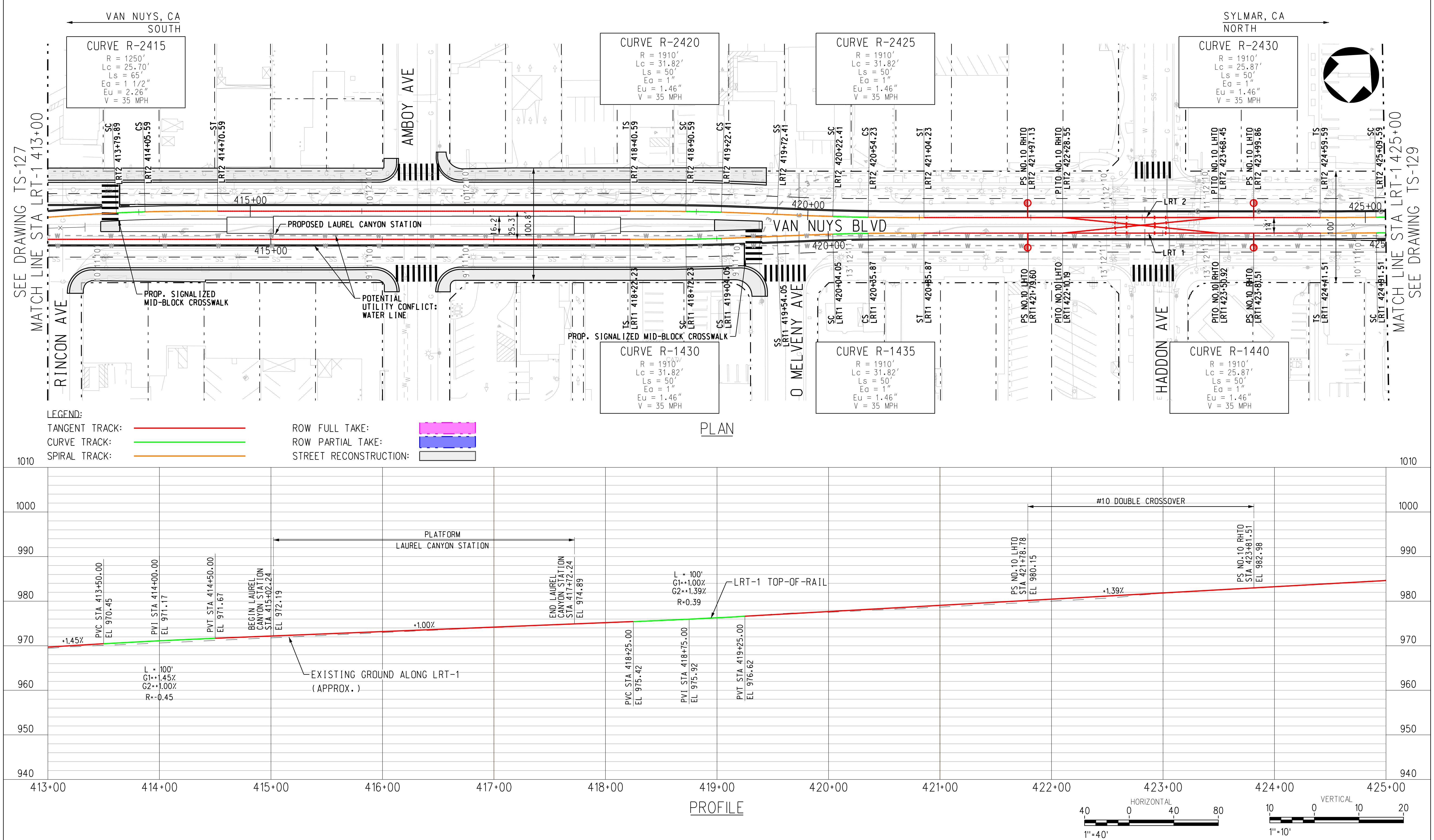
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 401+00 TO STA 413+00

CONTRACT NO
DRAWING NO TS-127
REV 0
SCALE AS SHOWN
SHEET NO 73 OF 89



ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 413+00 TO STA 425+00

CONTRACT NO
DRAWING NO TS-128
REV 0
SCALE AS SHOWN
SHEET NO 74 OF 89

4/3/2019 11:58:36 AM ChoiA
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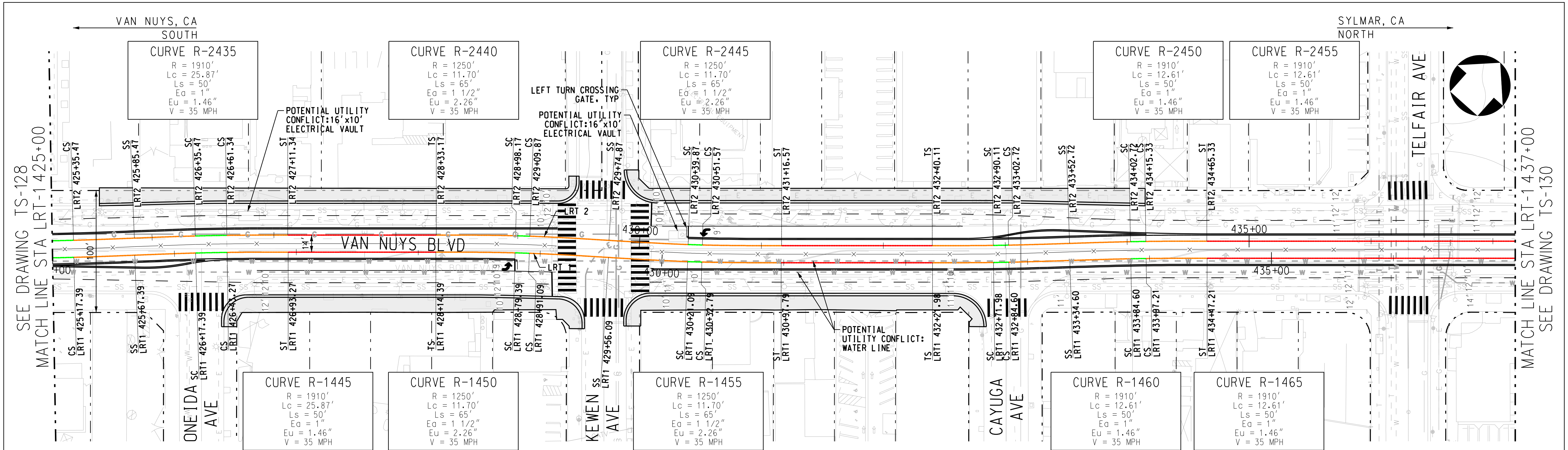
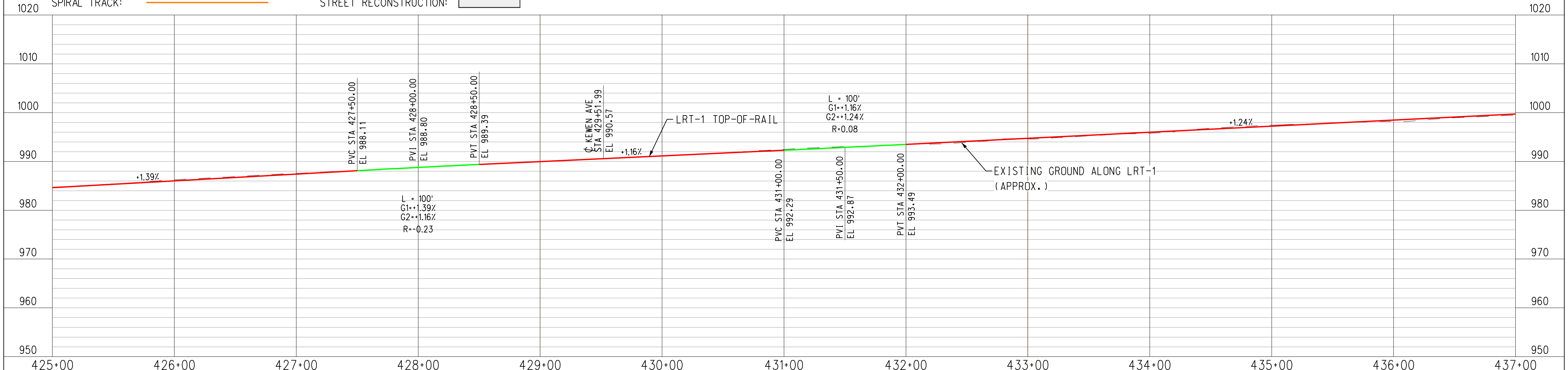


LEGEND:

TANGENT TRACK:
CURVE TRACK:
SPIRAL TRACK:
ROW FULL TAKE:
ROW PARTIAL TAKE:
STREET RECONSTRUCTION:

PLAN



PROFILE

HORIZONTAL
40 0 40 80
1"=40'

VERTICAL
10 0 10 20
1"=10'

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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

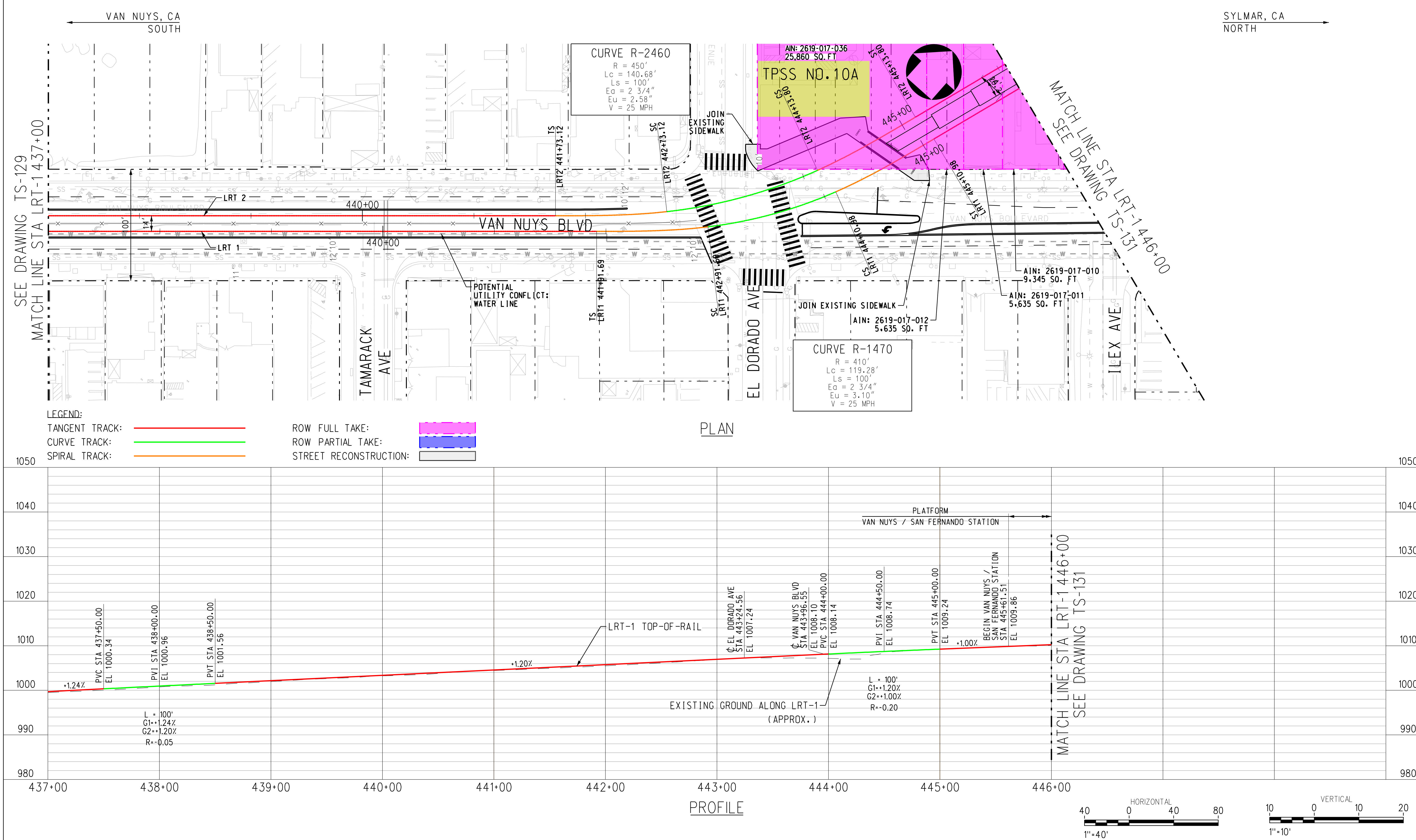
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 425+00 TO STA 437+00

CONTRACT NO
DRAWING NO TS-129
REV 0
SCALE AS SHOWN
SHEET NO 75 OF 89



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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

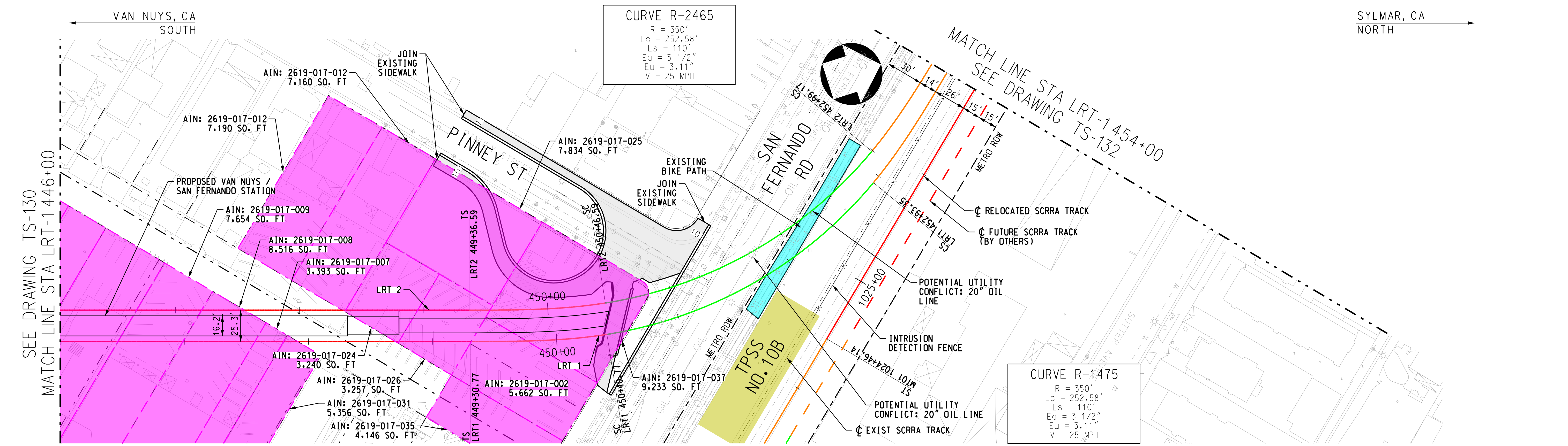
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 437+00 TO STA 446+00

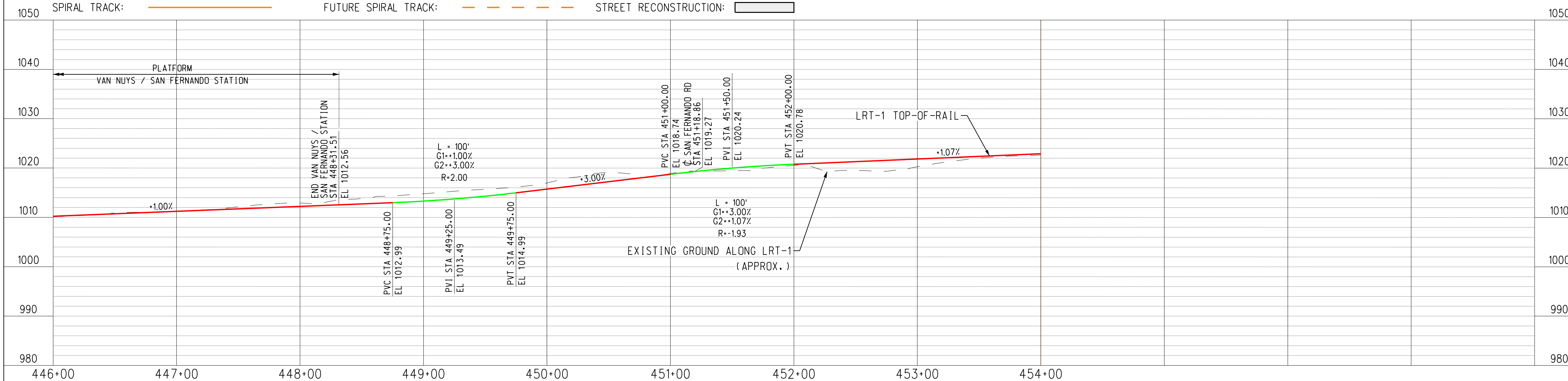
CONTRACT NO
DRAWING NO TS-130
REV 0
SCALE AS SHOWN
SHEET NO 76 OF 89



LEGEND:

TANGENT TRACK:		EXISTING TRACK:		ROW FULL TAKE:	
CURVE TRACK:		FUTURE TANGENT TRACK:		ROW PARTIAL TAKE:	
SPIRAL TRACK:		FUTURE CURVE TRACK:		STREET RECONSTRUCTION:	
		FUTURE SPIRAL TRACK:			

PLAN



PROFILE

HORIZONTAL 40 0 40 80 1"=40'

VERTICAL 10 0 10 20 1"=10'

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LAST SAVED: 4/1/2019 11:39:58 AM

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA | STV 100 Years

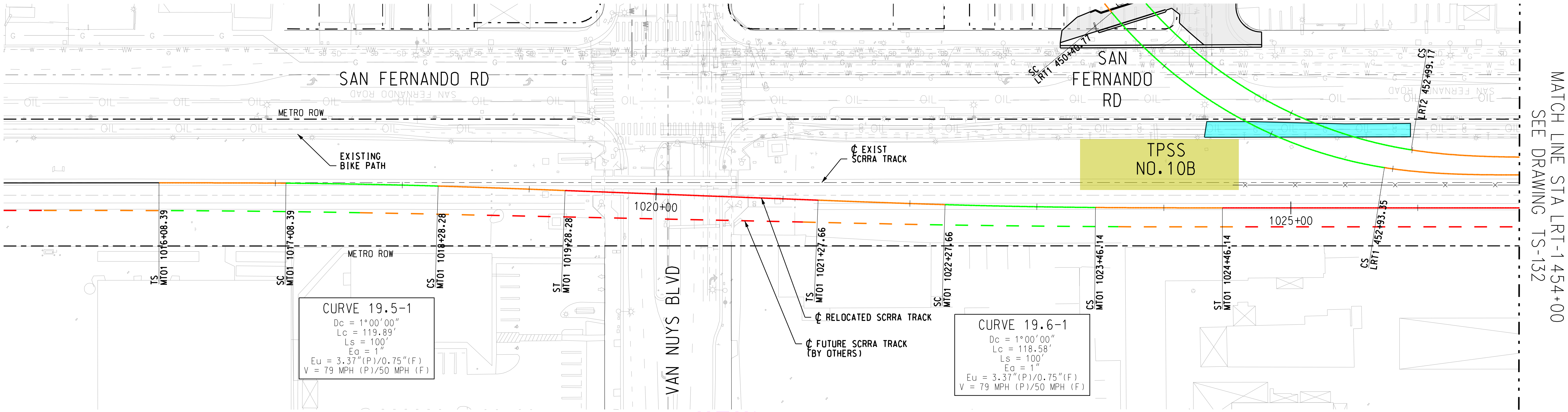
EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 446+00 TO STA 454+00

CONTRACT NO
DRAWING NO TS-131
REV 0
SCALE AS SHOWN
SHEET NO 77 OF 89

VAN NUYS, CA
SOUTH

SYLMAR, CA
NORTH



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CURVE TRACK:	(green solid line)	FUTURE TANGENT TRACK:	(red dashed line)	ROW PARTIAL TAKE:	(blue)
SPIRAL TRACK:	(orange solid line)	FUTURE CURVE TRACK:	(green dashed line)	STREET RECONSTRUCTION:	(grey)
		FUTURE SPIRAL TRACK:	(orange dashed line)		

PLAN

HORIZONTAL
40 0 40 80
1"=40'

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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE | BY | APP | REG NO | EXPIRES | SEAL HOLDER | DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 2/1/2019

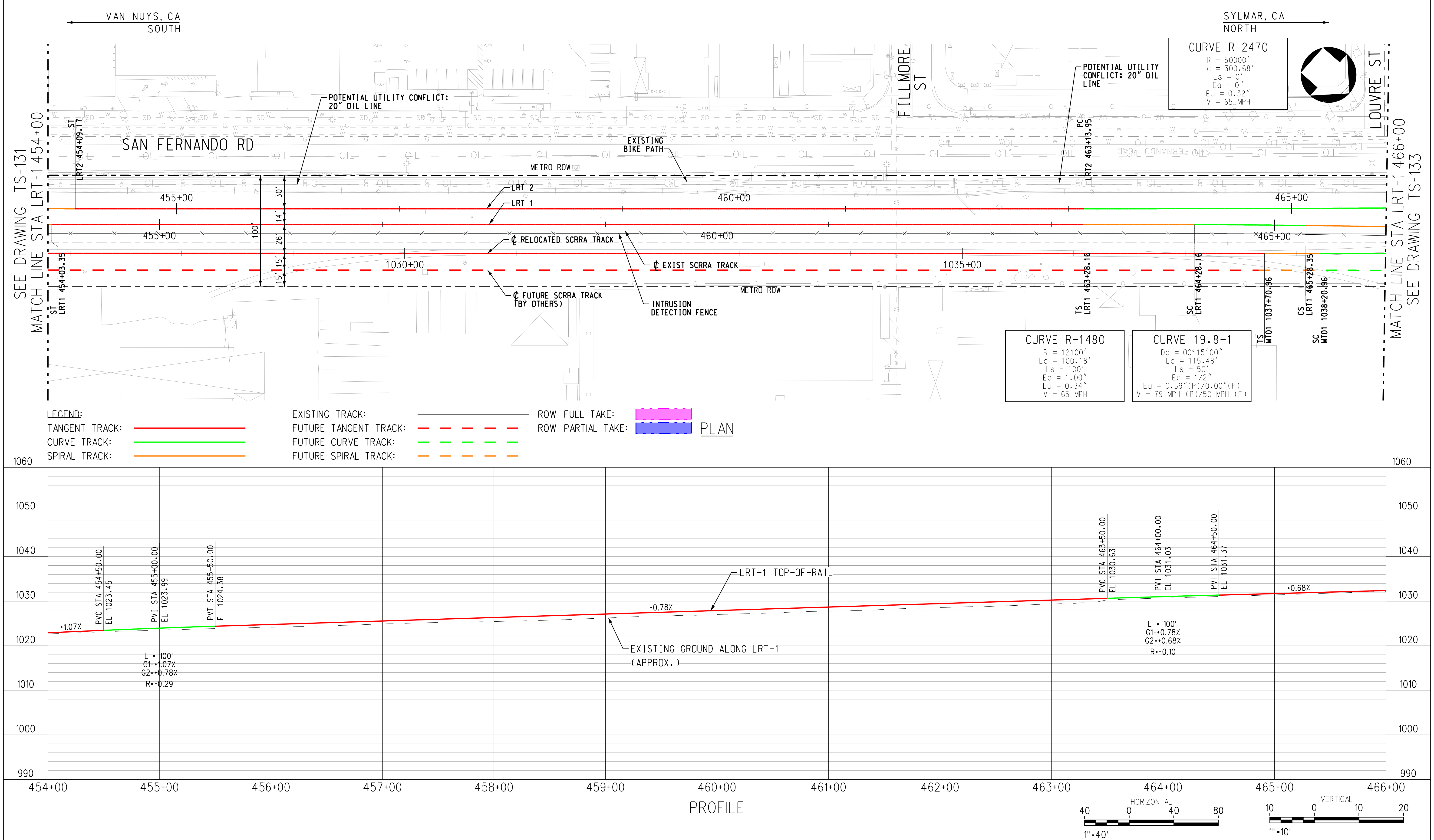
LOS ANGELES COUNTY
METROPOLITAN
TRANSPORTATION AUTHORITY

STV 100 Years

EAST SAN FERNANDO VALLEY
TRANSIT CORRIDOR

METROLINK RELOCATION
STA MT01 1015+00 TO STA MT01 1026+00

CONTRACT NO
DRAWING NO TS-131.1
REV 0
SCALE AS SHOWN
SHEET NO 78 OF 89



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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

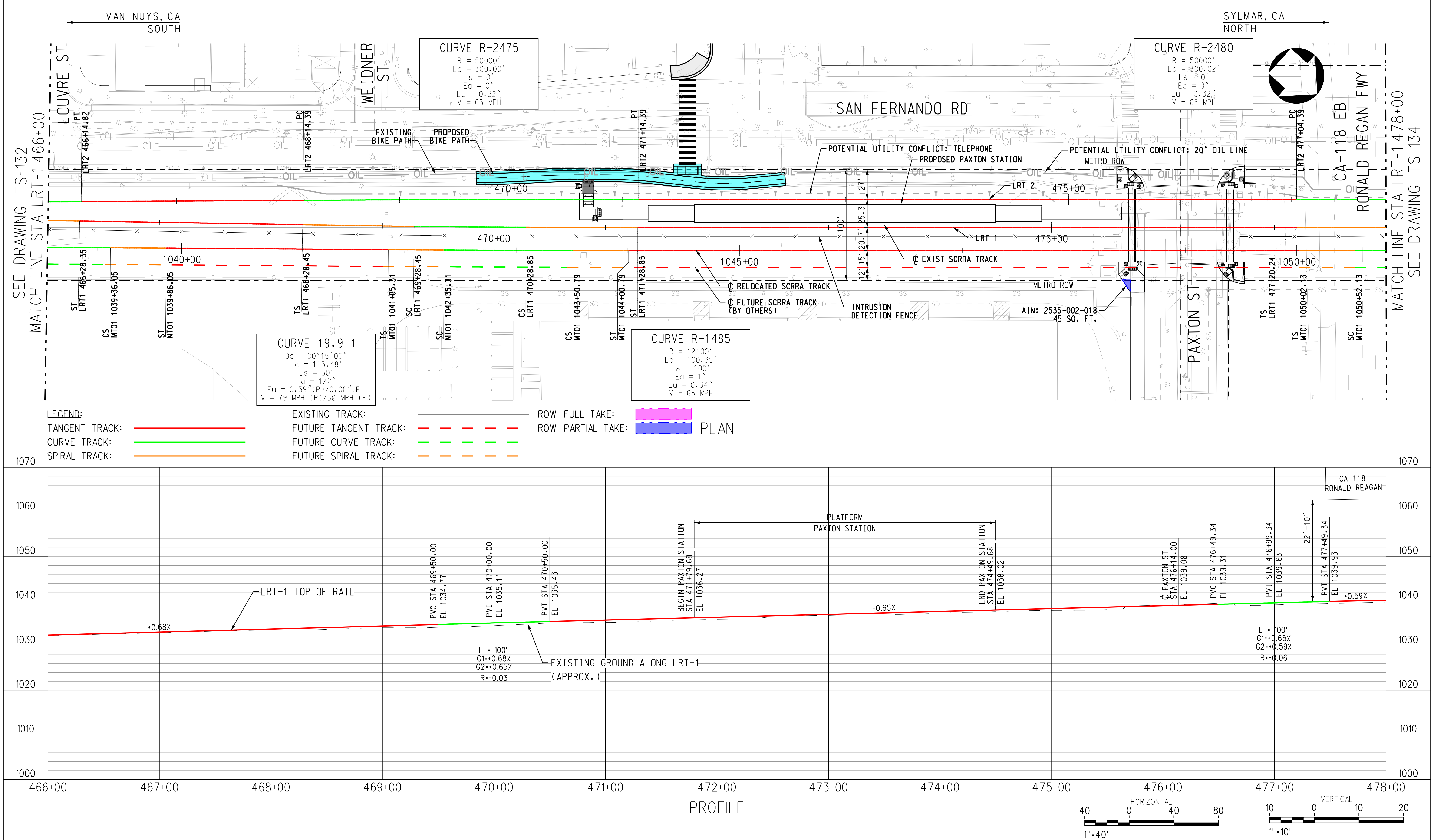
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 454+00 TO STA 466+00

CONTRACT NO
DRAWING NO TS-132
REV 0
SCALE AS SHOWN
SHEET NO 79 OF 89



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ACE SUBMITTAL
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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

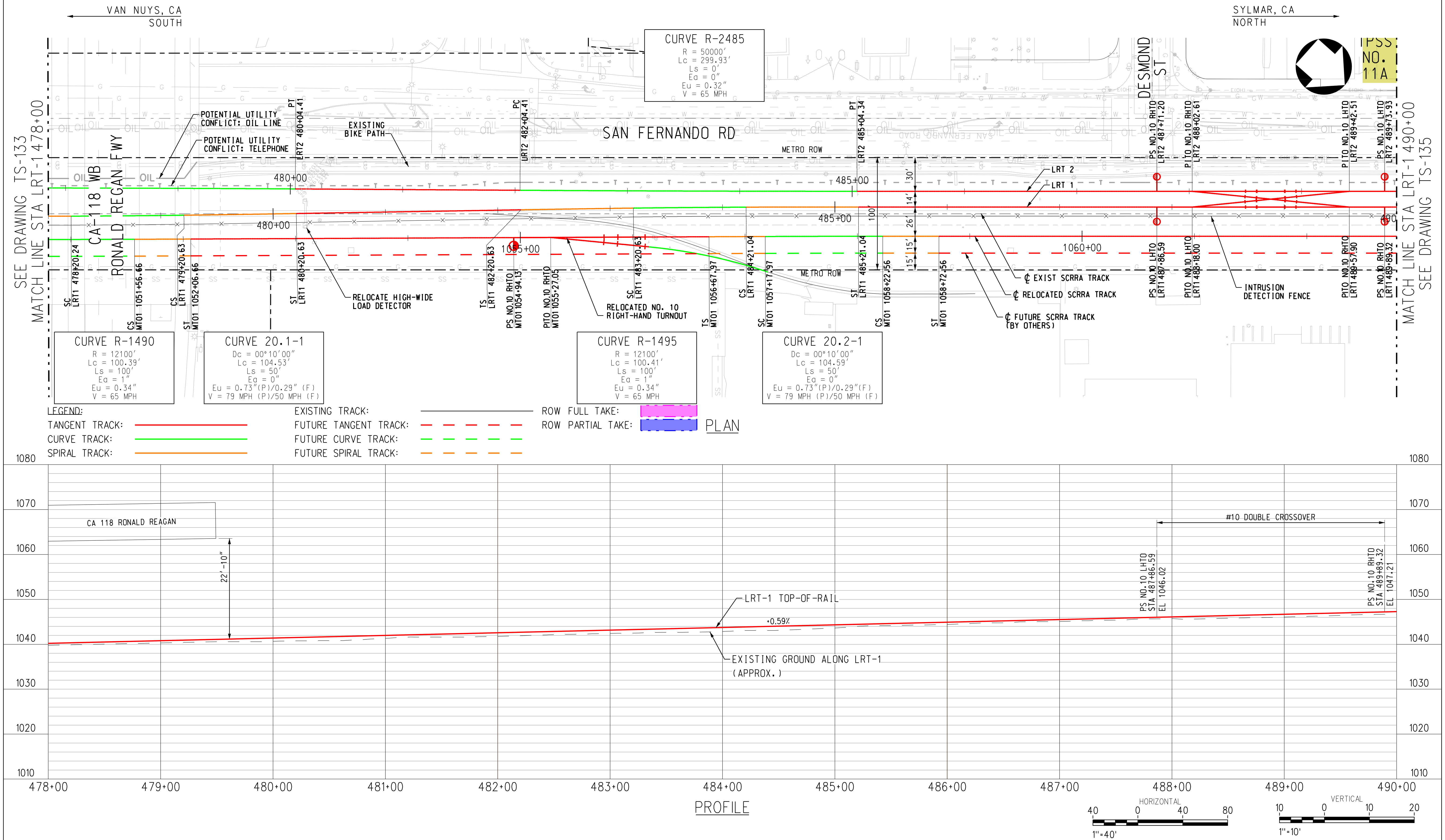
LRT-1 PLAN AND PROFILE
STA 466+00 TO STA 478+00

CONTRACT NO

DRAWING NO TS-133 REV 0

SCALE AS SHOWN

SHEET NO 80 OF 89



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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY: A. LEWIS
DRAWN BY: A. CHOI
CHECKED BY: J. GONZALEZ
IN CHARGE: A. SOKOL
DATE: 3/15/2019

Metro — LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

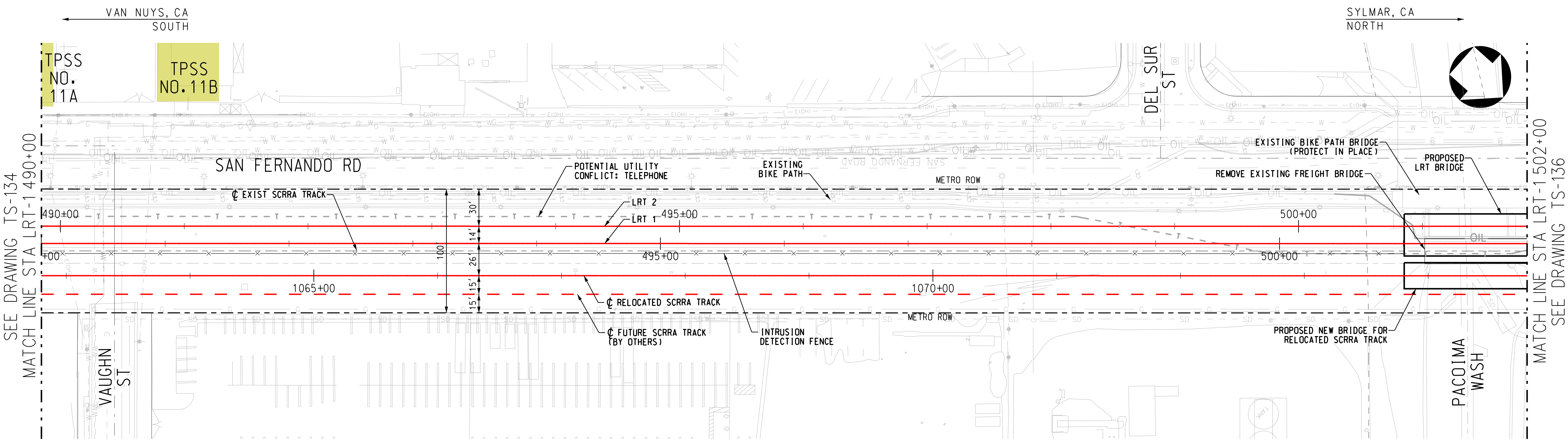
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 478+00 TO STA 490+00

CONTRACT NO:
DRAWING NO: TS-134
REV: 0
SCALE: AS SHOWN
SHEET NO: 81 OF 89



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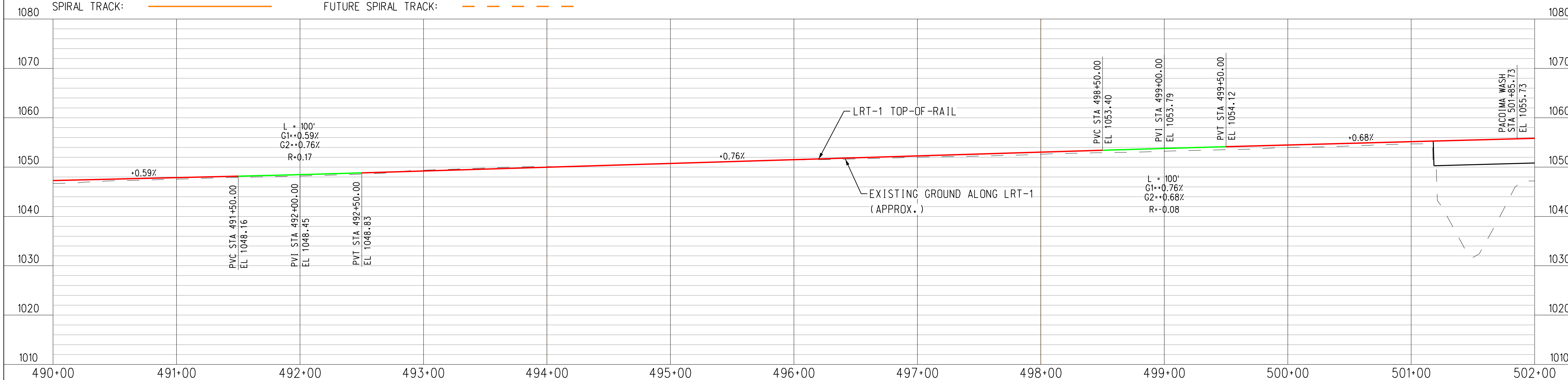
CURVE TRACK:	green solid line	FUTURE TANGENT TRACK:	red dashed line	ROW PARTIAL TAKE:	blue box
SPIRAL TRACK:	orange solid line	FUTURE CURVE TRACK:	green dashed line		
		FUTURE SPIRAL TRACK:	orange dashed line		

PLAN



PROFILE

HORIZONTAL 40 0 40 80 1"=40'

VERTICAL 10 0 10 20 1"=10'

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LAST SAVED: 3/13/2019 2:49:14 PM

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DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

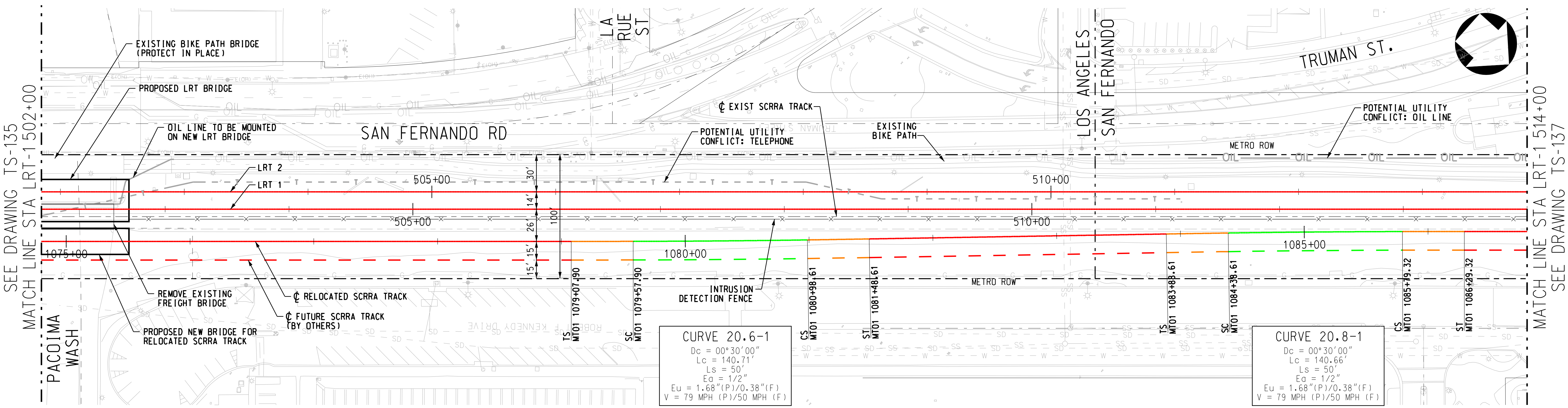
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 490+00 TO STA 502+00

CONTRACT NO
DRAWING NO TS-135
REV 0
SCALE AS SHOWN
SHEET NO 82 OF 89

VAN NUYS, CA
SOUTH

SYLMAR, CA
NORTH



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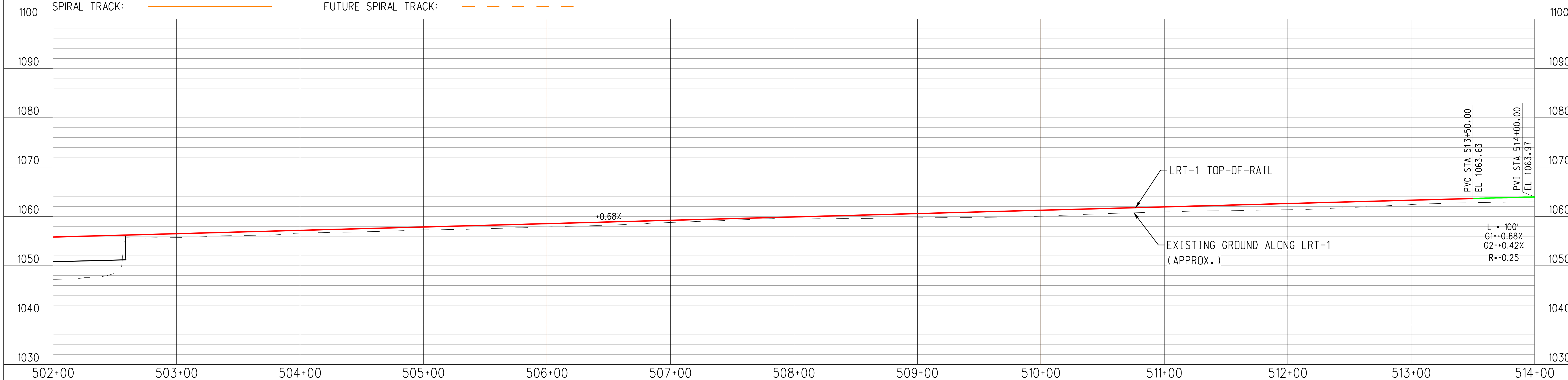
CURVE TRACK:
SPIRAL TRACK:
EXISTING TRACK:
FUTURE TANGENT TRACK:
FUTURE CURVE TRACK:
FUTURE SPIRAL TRACK:
ROW FULL TAKE:
ROW PARTIAL TAKE:

PLAN



PROFILE

HORIZONTAL 1"=40'

VERTICAL 1"=10'

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LAST SAVED: 4/3/2019 11:49:50 AM

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
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IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

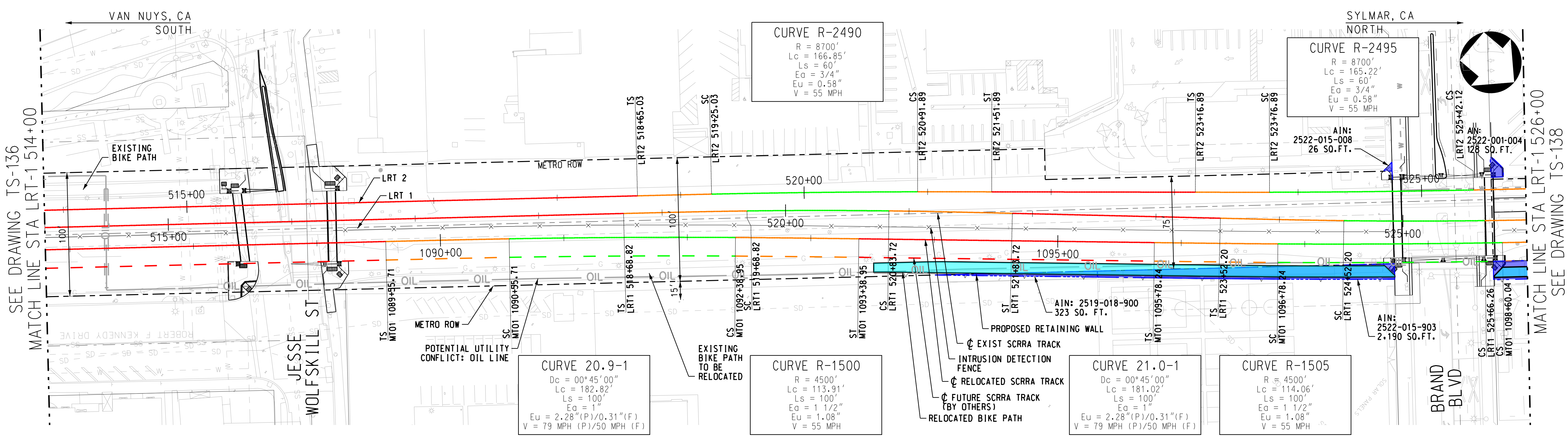
KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 502+00 TO STA 514+00

CONTRACT NO
DRAWING NO TS-136
REV 0
SCALE AS SHOWN
SHEET NO 83 OF 89



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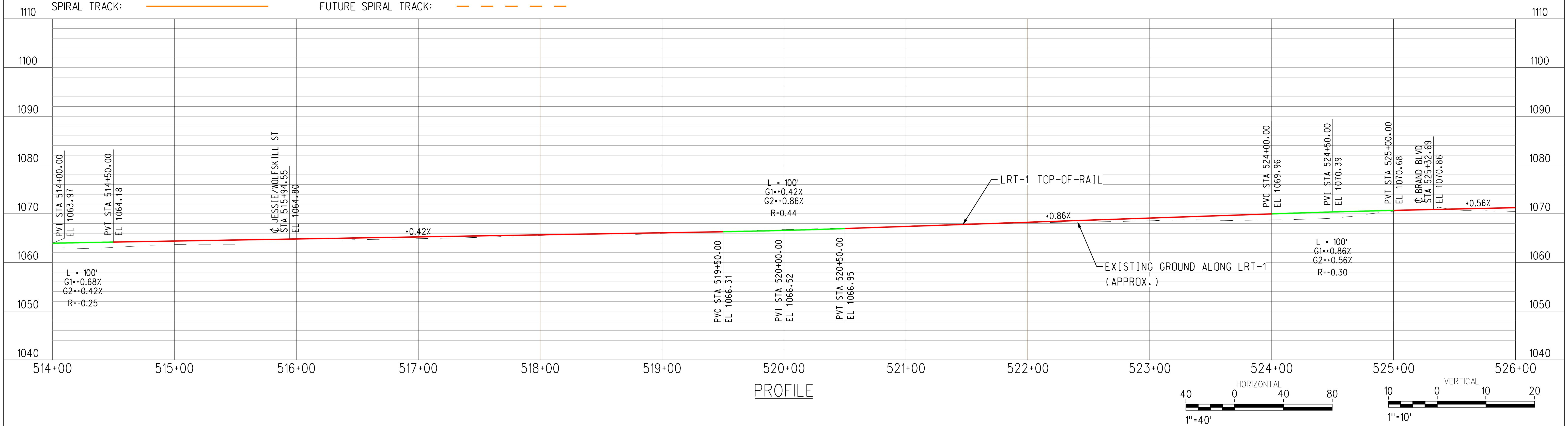
SPIRAL TRACK:	FUTURE CURVE TRACK:		
	FUTURE SPIRAL TRACK:		

PLAN



PROFILE

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ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 514+00 TO STA 526+00

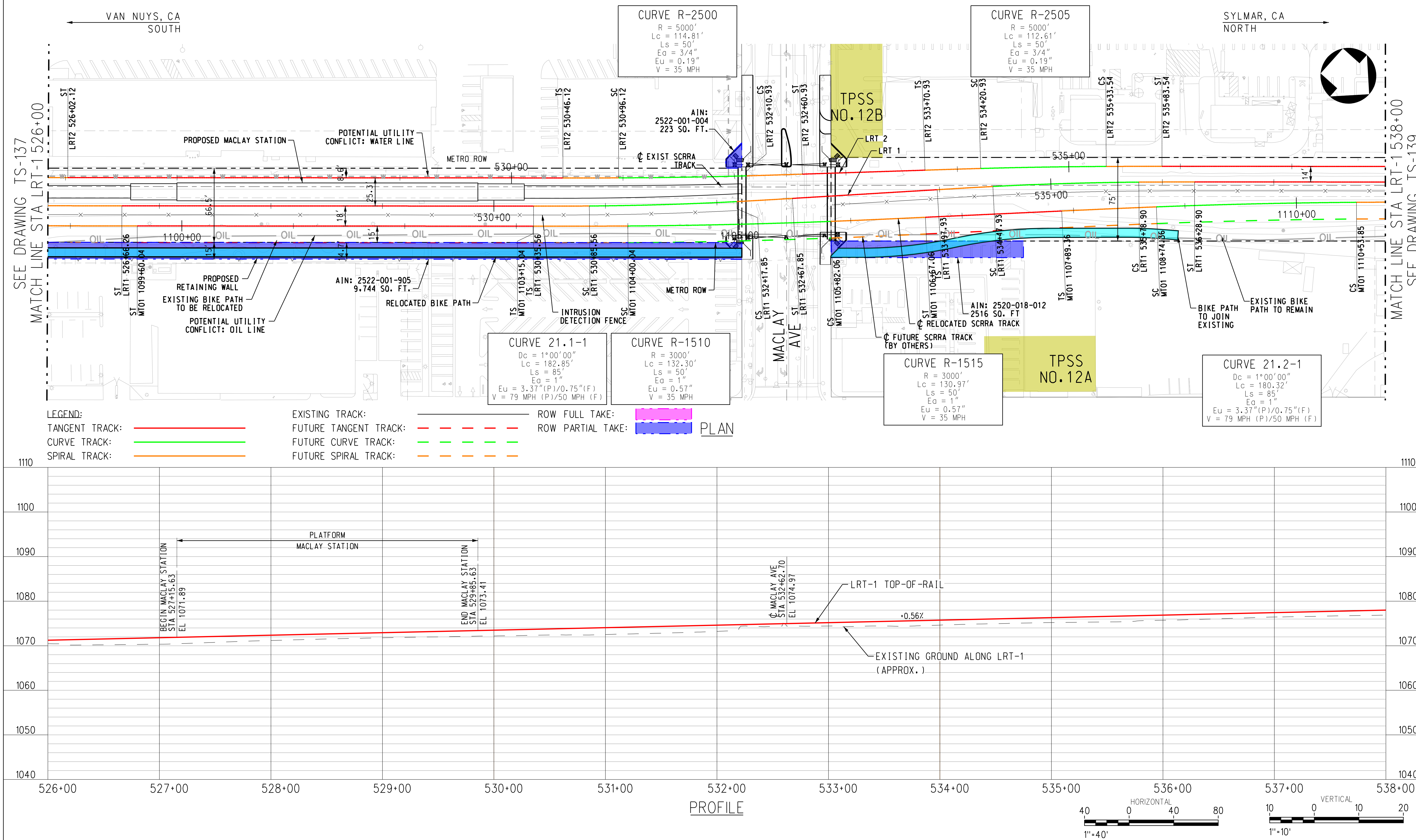
CONTRACT NO

DRAWING NO TS-137

REV 0

SCALE AS SHOWN

SHEET NO 84 OF 89



ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

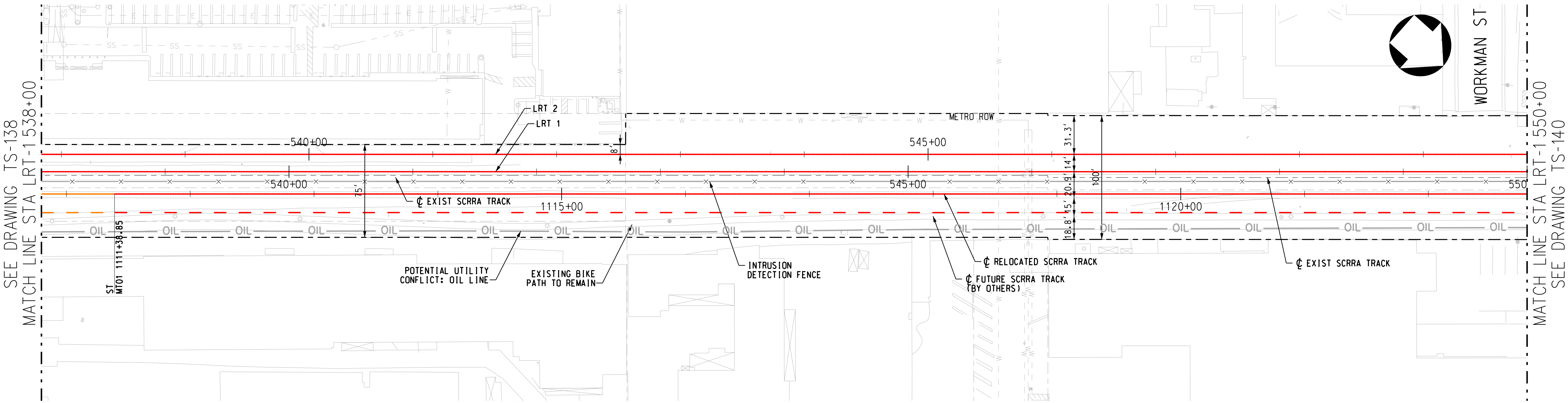
STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 526+00 TO STA 538+00

CONTRACT NO

DRAWING NO TS-138
REV 0
SCALE AS SHOWN
SHEET NO 85 OF 89



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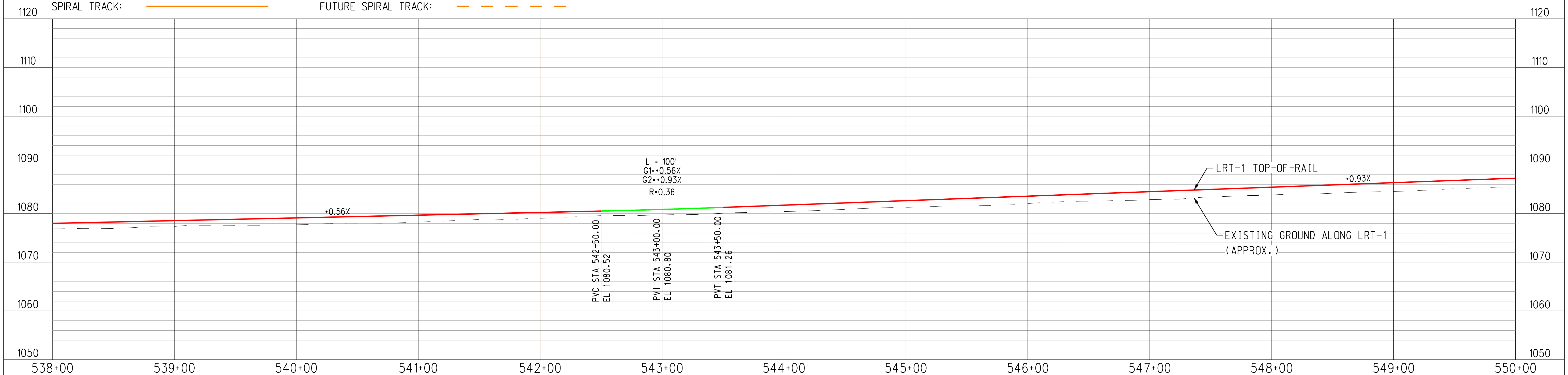
CURVE TRACK:		FUTURE TANGENT TRACK:		ROW PARTIAL TAKE:	
SPIRAL TRACK:		FUTURE CURVE TRACK:			
		FUTURE SPIRAL TRACK:			

PLAN



PROFILE

HORIZONTAL 40 0 40 80 1"=40'

VERTICAL 10 0 10 20 1"=10'

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LAST SAVED: 3/13/2019 5:19:04 PM

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

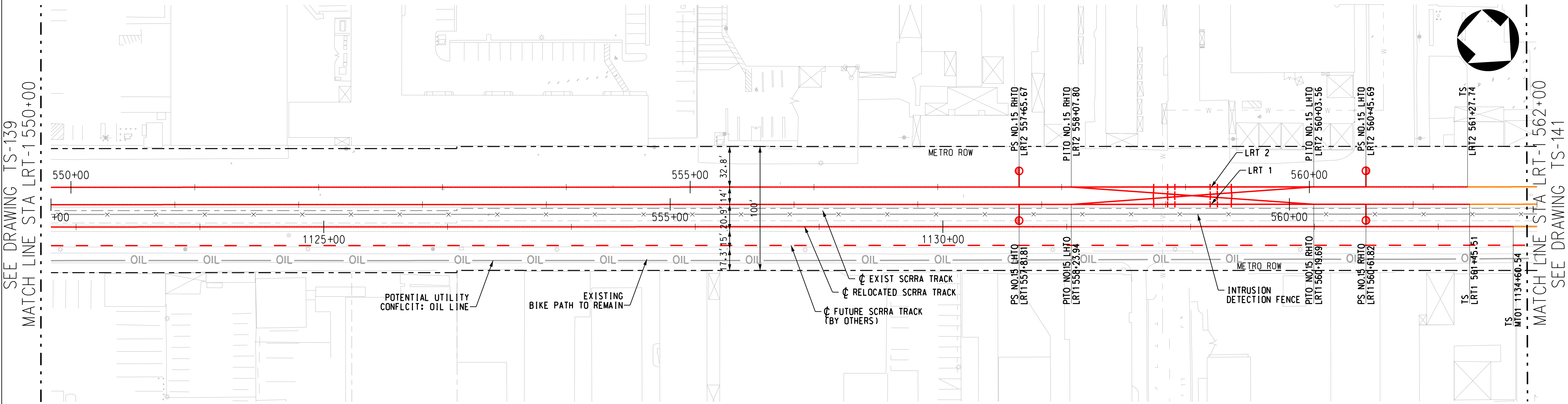
EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 538+00 TO STA 550+00

CONTRACT NO
DRAWING NO TS-139
REV 0
SCALE AS SHOWN
SHEET NO 86 OF 89

VAN NUYS, CA
SOUTH

SYLMAR, CA
NORTH



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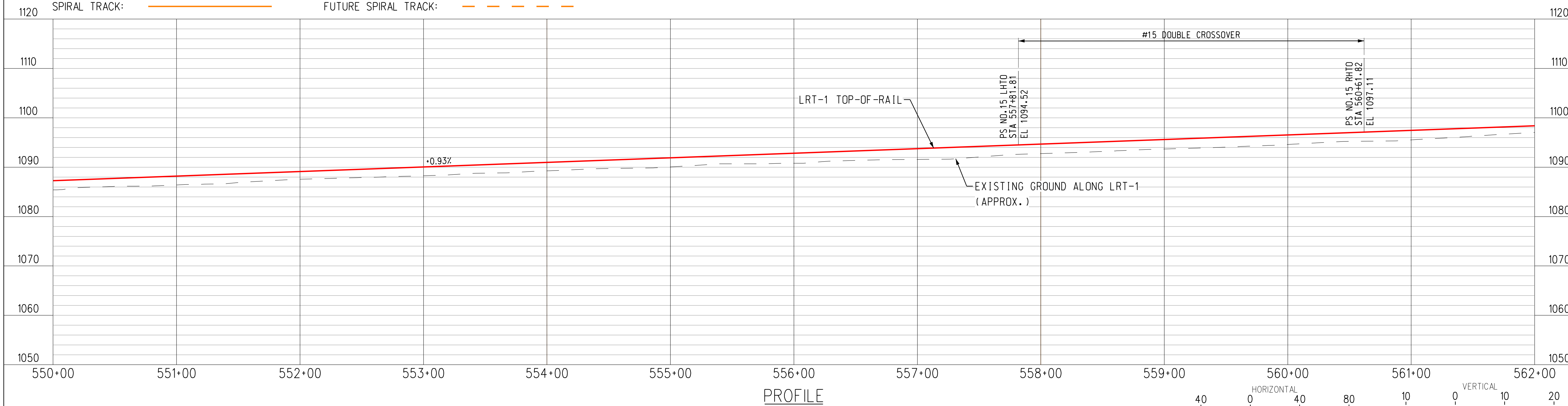
PLAN



PROFILE

HORIZONTAL 40 0 40 80 1"=40'

VERTICAL 10 0 10 20 1"=10'

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LAST SAVED: 3/12/2019 2:30:56 PM

ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

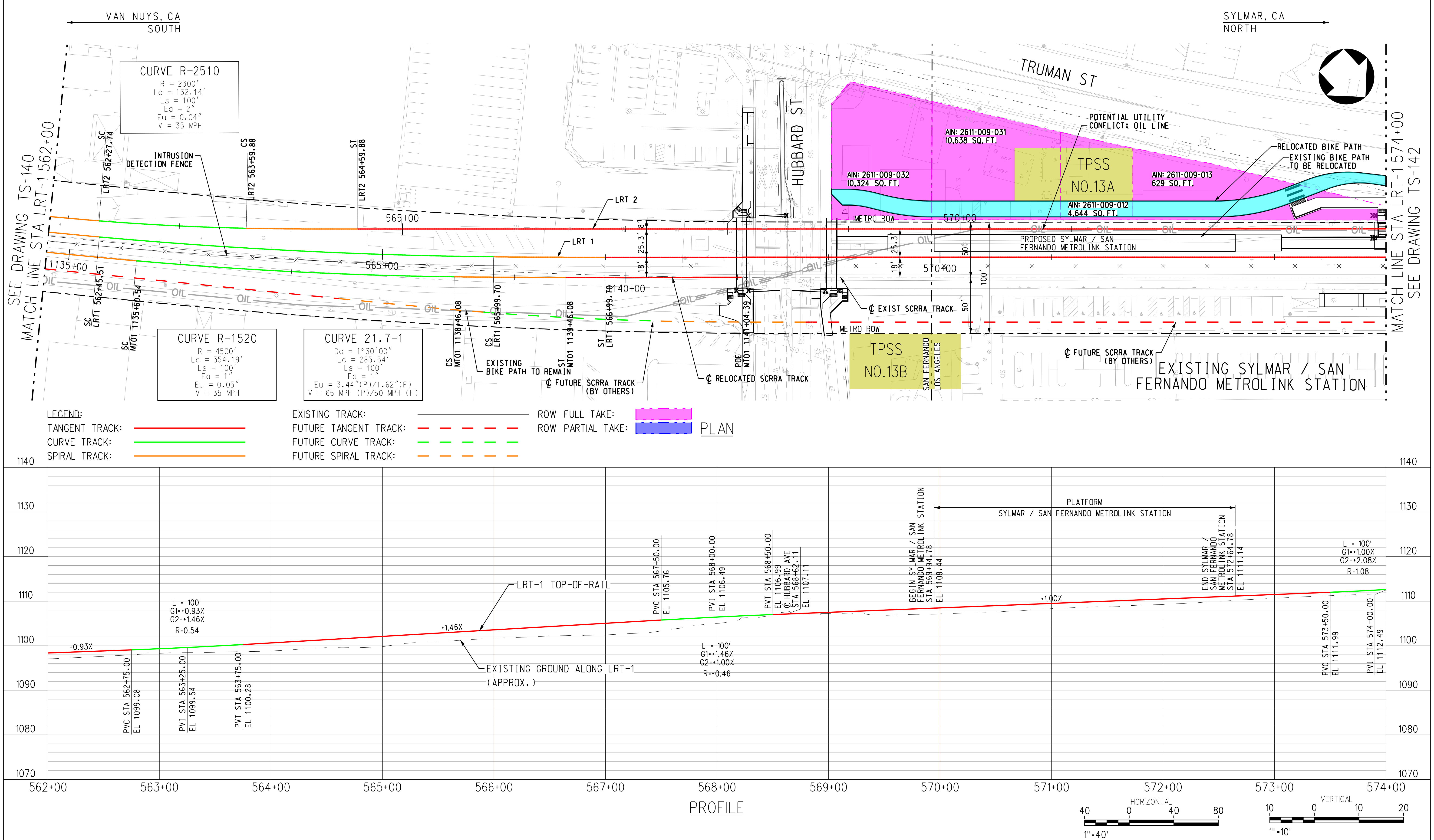
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA
STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 550+00 TO STA 562+00

CONTRACT NO
DRAWING NO TS-140
REV 0
SCALE AS SHOWN
SHEET NO 87 OF 89



ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

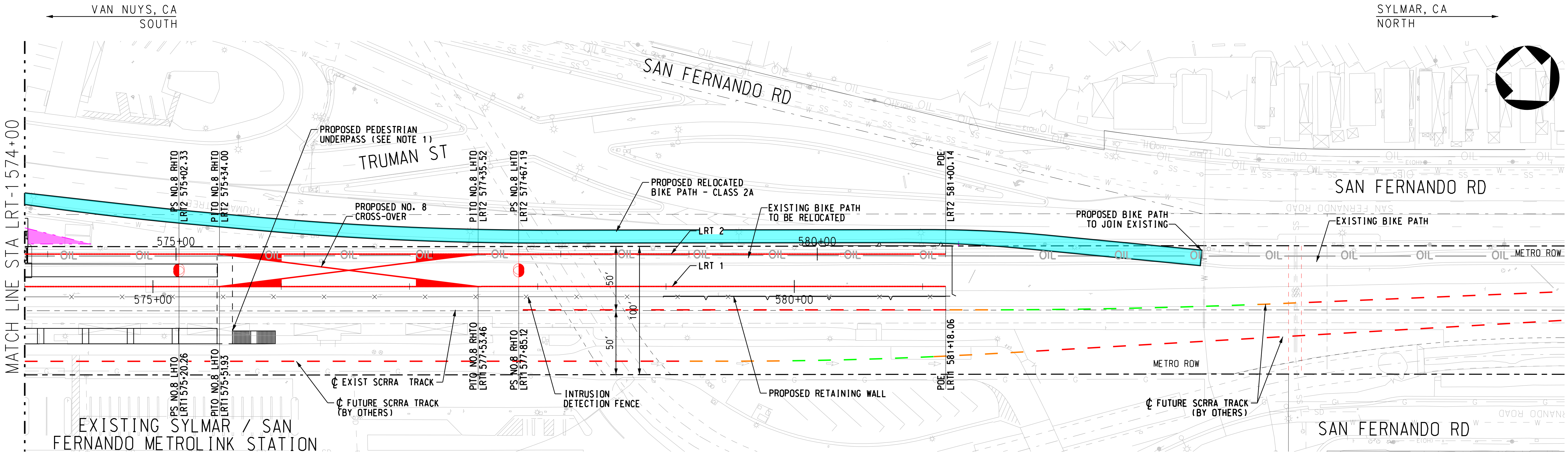
Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 562+00 TO STA 574+00

CONTRACT NO
DRAWING NO TS-141
REV 0
SCALE AS SHOWN
SHEET NO 88 OF 89



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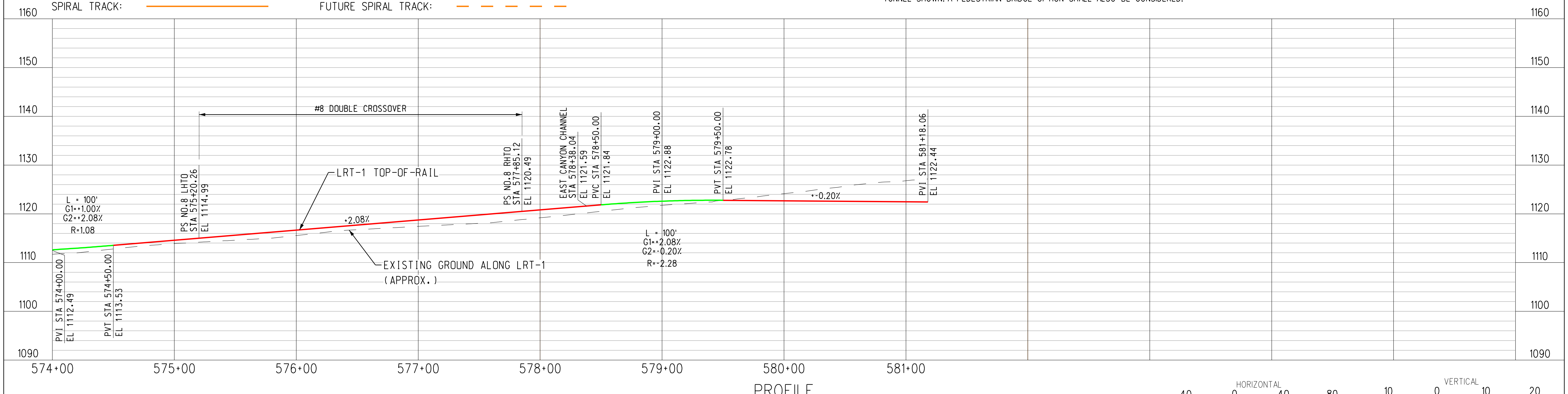
SPIRAL TRACK:
EXISTING TRACK:
FUTURE TANGENT TRACK:
FUTURE CURVE TRACK:
FUTURE SPIRAL TRACK:
ROW FULL TAKE:
ROW PARTIAL TAKE:

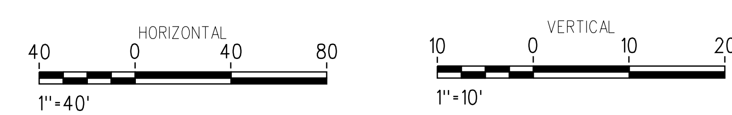
PLAN

NOTES:

1. A GRADE-SEPARATED PEDESTRIAN CROSSING IS REQUIRED BETWEEN THE PROPOSED LRT PLATFORM AND EXISTING STATION PARKING LOT. AN UNDERPASS OPTION WITH RAMPS AND TUNNEL SHOWN. A PEDESTRIAN BRIDGE OPTION SHALL ALSO BE CONSIDERED.



PROFILE



ACE SUBMITTAL
NOT FOR CONSTRUCTION

DATE	BY	APP	REG NO	EXPIRES	SEAL HOLDER	DESCRIPTION

DESIGNED BY A. LEWIS
DRAWN BY A. CHOI
CHECKED BY J. GONZALEZ
IN CHARGE A. SOKOL
DATE 3/15/2019

Metro LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

KOA

STV 100 Years

EAST SAN FERNANDO VALLEY TRANSIT CORRIDOR

LRT-1 PLAN AND PROFILE
STA 574+00 TO STA 580+22

CONTRACT NO
DRAWING NO TS-142
REV 0
SCALE AS SHOWN
SHEET NO 89 OF 89