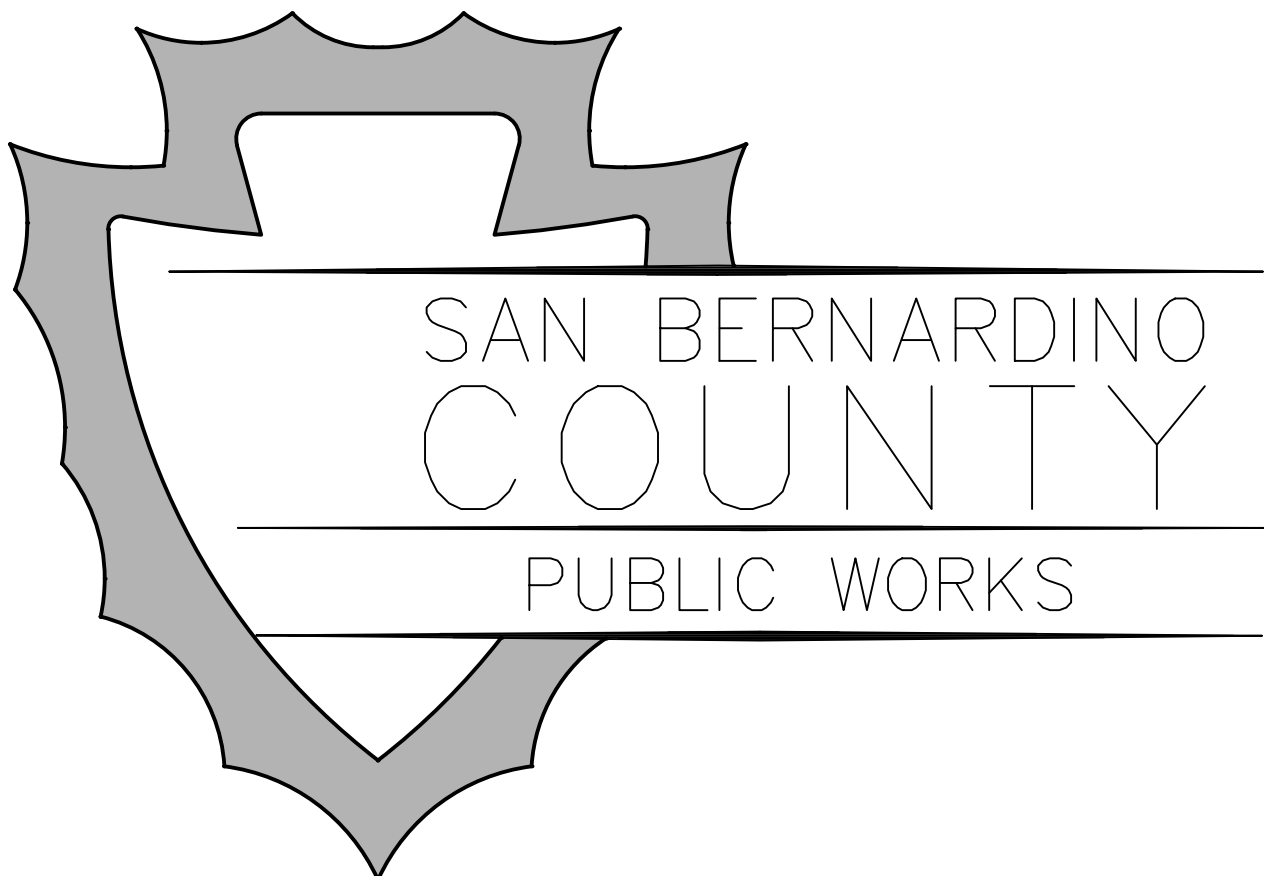


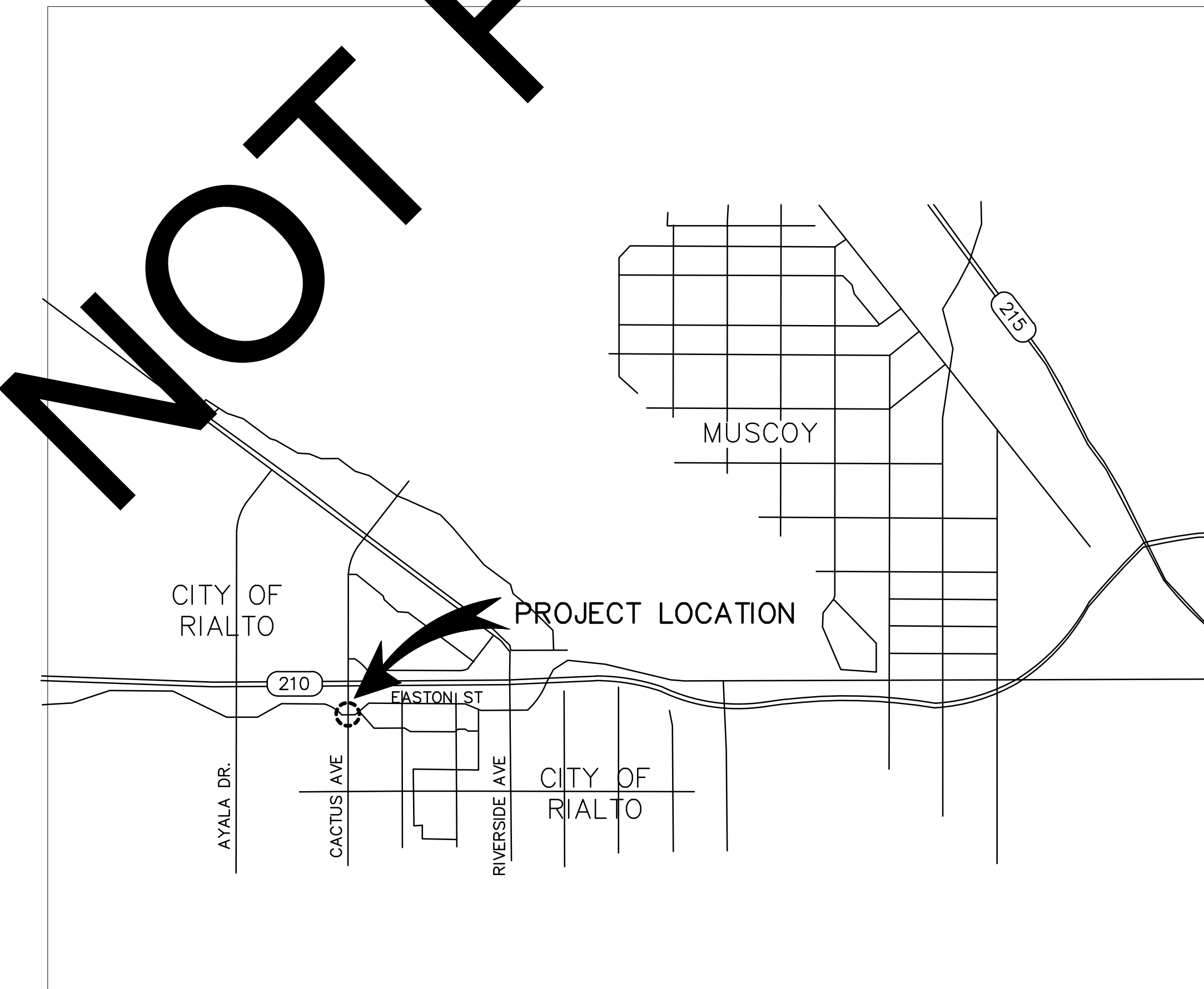
**WARNING:** ALL INDIVIDUALS INTERESTED IN BIDDING ON THIS PROJECT MUST OBTAIN THE FINAL PLANS AND SPECIFICATIONS FROM THE DEPARTMENT MANAGING THE PROJECT OR AS OTHERWISE STATED IN THE ADVERTISEMENT FOR BIDS FOR THE PROJECT. DO NOT USE THE PLANS AND SPECIFICATIONS POSTED ON THE CLERK OF THE BOARD'S WEBSITE FOR BIDDING ON THIS PROJECT.

# SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS



## TRANSPORTATION PLANS FOR CONSTRUCTION ON CACTUS AVENUE AND EASTON STREET RIALTO AREA ADA RAMPS, TRAFFIC SIGNAL PROJECT

WORK ORDER NO. H15228 ROAD NO. 197400 & 313000  
LENGTH - VARIOUS



LOCATION MAP  
NOT TO SCALE

SAN BERNARDINO COUNTY

APPROVED BY: *Brendon Biggs* 8/17/23  
BRENDON P. BIGGS, M.S., P.E., DIRECTOR OF PUBLIC WORKS R.C.E. 53095 DATE

APPROVED BY: *Noel Castillo* 8/17/23  
NOEL CASTILLO, P.E., ASSISTANT DIRECTOR OF PUBLIC WORKS R.C.E. 78044 DATE

100% PRELIMINARY PLANS  
SUBJECT TO REVISION

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		
FIELD CHANGES			
		SHT. NO.	TOT. SH'T'S.
		1	6

MARK	REVISIONS	APPR.	DATE

**INDEX OF SHEETS**

1	TITLE SHEET
2	PROJECT NOTES, INDEX OF SHEETS
3-4	NOTES AND LEGEND
5	CURB RAMP DETAILS
5	SIGNING AND STRIPING PLAN
6	TRAFFIC SIGNAL AND LIGHTING PLAN

TO BE SUPPLEMENTED BY THE FOLLOWING CALTRANS STANDARD PLANS DATED DECEMBER 31, 2019.

RSP A88A A88B

THE FOLLOWING COUNTY STANDARDS ARE ATTACHED TO THE SPECIAL PROVISIONS:

303A 303B 109 115 116 203 119

TO BE SUPPLEMENTED BY THE FOLLOWING CALTRANS 2018 STANDARD PLANS:

A20A	A24A	A24C	A24D	A24F
T9	T10	T11	T13	RSP ES-1A
RSP ES-1B	RSP ES-1C	ES-2C		
RSP ES-2F	RSP ES-3B	RSP ES-4B		
RSP ES-7A	RSP ES-7N	ES-7P	ES-7R	
RSP ES-8A	RSP ES-8B	ES-4E	RSP ES-5C	

TO BE SUPPLEMENTED BY THE FOLLOWING CALIFORNIA MUTCD DATED 2014 REV 6

FIGURE 2A-2(CA) SECTION 6D.01  
 FIGURE 3B-102(CA) SECTION 6D.02  
 FIGURE 6H-28 FIGURE 6H-29

**BASIS OF BEARINGS:**

CCS83 ZONE 5, NAD-83(2011) EPOCH 2010.0

**BENCHMARK:**

FD CHISEL BOX IN TOP OF CURB, 22' SOUTH & 80' EAST OF INT. STATE STREET & MALLORY STREET, PER CSFB 4050 1303.  
 NGVD-29 ELEVATION = 1297.827'

**GENERAL NOTES**

- U. THE FACT THAT ANY UTILITY FACILITY IS SHOWN OR NOT SHOWN UPON THE PLANS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY UNDER SECTION 5-1.36D "NON-HIGHWAY FACILITIES," OF THE CALTRANS STANDARD SPECIFICATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY, PURSUANT THERETO, TO ASCERTAIN THE LOCATION OF ANY UTILITY FACILITY WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF THE CONTRACTOR'S OPERATIONS.
- 1. DIMENSIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE CALTRANS STANDARD SPECIFICATIONS.
- 2. ALL PAVEMENT WIDTH DIMENSIONS SHOWN ON THE PLANS ARE TO THE EDGE OF PAVEMENT OR TO THE TOP OF CURB, UNLESS OTHERWISE NOTED.
- 3. TRANSITIONS AND WARPING SHALL BE AS SHOWN AND AS DETERMINED BY THE ENGINEER.
- 4. ASPHALT CONCRETE OVERLAYS SHALL BE FEATHERED TO MEET EXISTING AS SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.
- 5. ALL TREES & VEGETATION OUTSIDE THE LIMITS OF EXCAVATION AND EMBANKMENT SLOPE LINES, SHALL BE PROTECTED IN PLACE.

**SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES:**

- 1. ALL SIGNING, STRIPING AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE CALIFORNIA MUTCD LATEST EDITION.
- 2. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE PAINTED IN CONFORMANCE WITH THE 2018 CALTRANS STANDARD PLANS DATED MAY 31, 2018
- 3. ALL STRIPING (LONG LINE) AND PAVEMENT MARKINGS SHALL BE RETRO-REFLECTIVE PAINT.
- 4. ALL SIGNS SHALL BE OF HIGH INTENSITY (FHWA TYPE III/IV) RETRO-REFLECTIVE SHEETING EXCEPT:
  - A. "STOP" SIGNS SHALL BE DIAMOND GRADE (FHWA TYPE VII IN RURAL SETTINGS AND TYPE IX IN URBAN SETTINGS) RETRO-REFLECTIVE SHEETING.
  - B. "NO PARKING " SIGNS SHALL BE OF SUPER ENGINEERING GRADE (FHWA TYPE II) RETRO-REFLECTIVE SHEETING.
  - C. SCHOOL SIGNS SHALL BE OF DIAMOND GRADE (FHWA TYPE IX) FLUORESCENT YELLOW-GREEN (FYG) RETRO-REFLECTIVE SHEETING.
  - D. STREET NAME MARKERS SHALL BE OF DIAMOND GRADE (FHWA TYPE IX) RETRO-REFLECTIVE SHEETING AND CONFORM TO COUNTY STANDARD 303.
  - E. CONSTRUCTION SIGNS SHALL BE OF DIAMOND GRADE (FHWA TYPE IX) FLUORESCENT ORANGE RETRO-REFLECTIVE SHEETING.
- 5. ALL DELINEATORS, CHANNELIZERS, AND OBJECT MARKERS SHALL BE OF (FHWA TYPE VII) RETRO-REFLECTIVE SHEETING.
- 6. SIGNS SHALL BE MOUNTED ON METAL POSTS SIMILAR TO COUNTY STANDARDS 303(a) AND 303(b).
- 7. ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS NOT SHOWN ON PLANS SHALL BE REMOVED BY THE CONTRACTOR. REMOVAL SHALL BE ACCOMPLISHED BY SANDBLASTING, GRINDING, OR AS DIRECTED BY COUNTY REPRESENTATIVE.
- 8. ALL CONFLICTING SIGNS SHALL BE REMOVED, RELOCATED, OR COVERED BY THE CONTRACTOR. RELOCATABLE SIGNS SHALL BE INSTALLED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY COUNTY REPRESENTATIVE.
- 9. ALL UNPROTECTED LOCATIONS RESULTING IN ISOLATED ABRUPT DEPRESSIONS OR ELEVATED OBJECTS (i.e. CATCH BASINS, HEADWALLS, POWER POLES, END TREATMENT OF ASPHALT DIKES AND CONCRETE CURBS) SHALL BE PROTECTED BY DELINEATORS OR BARRIERS PER THE CALIFORNIA MUTCD LATEST EDITION.
- 10. ALL EXISTING SIGNING, STRIPING AND PAVEMENT MARKINGS (i.e. CROSS STREET STOP, STOP LIMIT LINE, AND CROSSWALK PAVEMENT MARKINGS) NOT SHOWN ON PLANS, IF REMOVED/OBLITERATED, SHALL BE REPLACED/RESTORED OF SAME KIND, AND IN CONFORMANCE WITH THE CALIFORNIA MUTCD LATEST EDITION.
- 11. THE CONTRACTOR SHALL NOTIFY COUNTY REPRESENTATIVE TO SCHEDULE A FINAL REVIEW (WALK THROUGH) WITH TRAFFIC DIVISION PERSONNEL FOR APPROVAL OF TRAFFIC CONTROL DEVICES PRIOR TO PROJECT ACCEPTANCE.

**ABBREVIATIONS LEGEND:**

Ave	AVENUE
Blvd	BOULEVARD
C&G	CURB AND GUTTER
CL	CENTER LINE
Dr	DRIVE
E	EAST
EX.	EXISTING
ELECT	ELECTRIC
HMA	HOT MIX ASPHALT
Hwy	HIGHWAY
	INTERSTATE
I.D.	INNER DIMENSION
LN	LANE
MH	MANHOLE
N	NORTH
NE	NORTHEAST
NW	NORTHWEST
OH	OVERHEAD
OHE	OUTSIDE HIGHWAY
OHW	OVER HIGHWAY
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE
PI	POINT OF INTERSECTION
Pkwy	PARKWAY
PP	POWER POLE
PT	POINT OF TANGENCY
SW	SOUTH
SE	SOUTH EAST
SNS	STREET NAME SIGN
St	STREET
SW	SOUTHWEST
Swr	SEWER
W	WEST
	WATER VALVE

**CONSTRUCTION NOTES:**

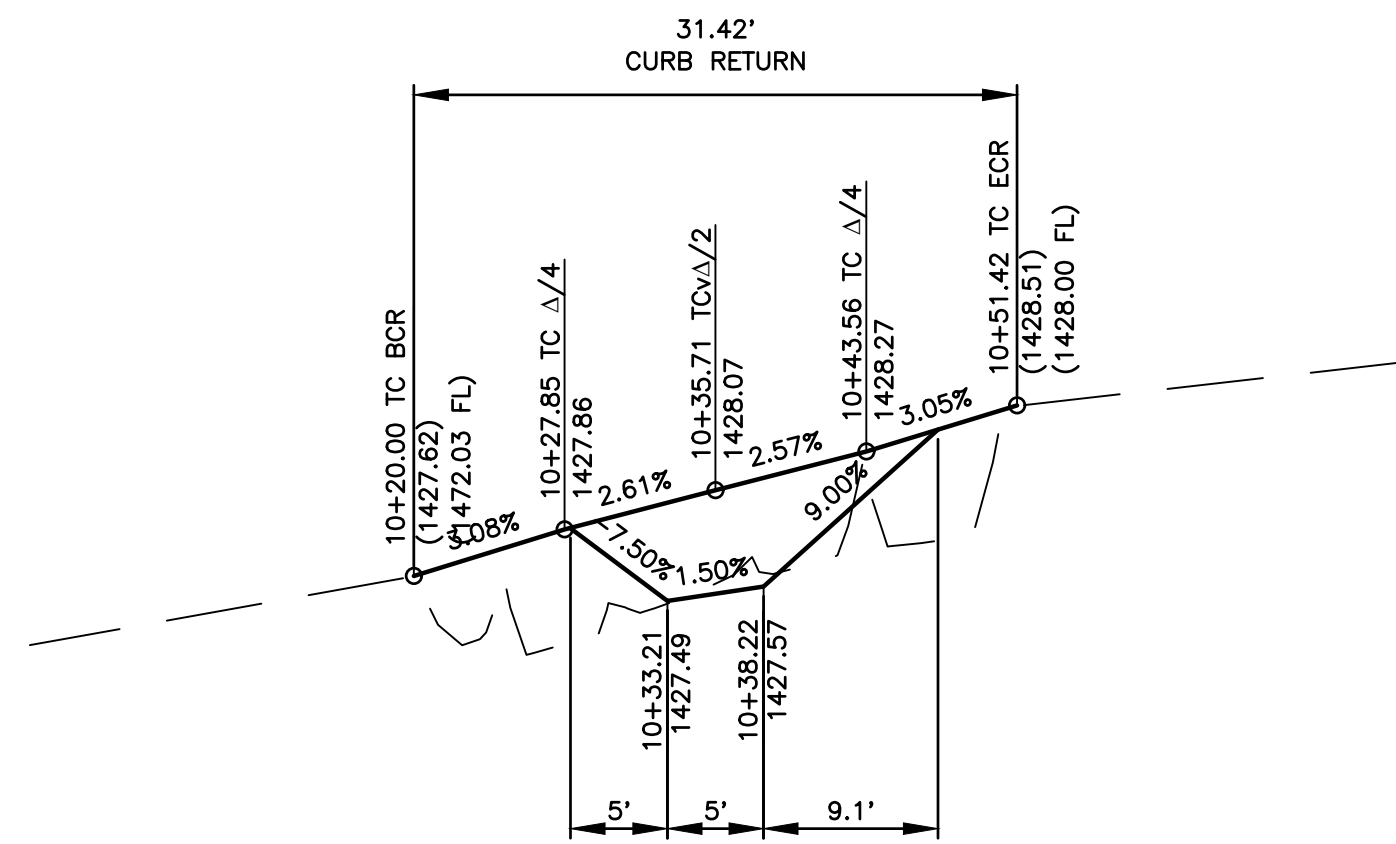
- P PROTECT IN PLACE
- R RELOCATE
- U UTILITIES TO BE RESET/REMOVED BY OTHERS
- 1 COLD PLANE (0.15' THK) EXISTING ASPHALT CONCRETE PAVEMENT AND PLACE (0.15' THK) ASPHALT CONCRETE OVERLAY, 2' WIDE MINIMUM.
- 2 SAW CUT & REMOVE EXISTING AC STRUCTURAL SECTION SURFACING, 2' WIDE MINIMUM.
- 3 SAW CUT & REMOVE EXISTING CONCRETE.
- 4 CONSTRUCT RAMP PER CALTRANS RSP A88A, CASE A, B, C, F, OR G, WHICHEVER APPLIES (SEE PLANS).
- 5 PLACE ASPHALT CONCRETE STRUCTURAL SECTION (0.30' TYPE A 1/2" AGGREGATE GRADATION, PG 64-10 HMA OVER 0.55' CLASS II BASE) OVER COMPACTED NATIVE SOIL.
- 6 CONSTRUCT 8" CURB & GUTTER PER COUNTY STD 115.
- 7 CONSTRUCT 6" CURB & GUTTER PER COUNTY STD 116.
- 8 CONSTRUCT SPANDREL AND/OR CROSS GUTTER PER COUNTY STD 119.
- 9 CONSTRUCT CONCRETE SIDEWALK PER COUNTY STD 109, TYPE B.
- 10 PLACE DETECTABLE WARNING SURFACE PER CALTRANS STD RSP A88A.
- 11 RESET EXISTING ROADSIDE SIGNAL IN PLACE PER THE CA MUTCD 2014, FIGURE 2A-2(CA)
- 12 CONSTRUCT CONCRETE PAD AROUND FIRE HYDRANT
- 13 CONSTRUCT CONCRETE SIDEWALK PER COUNTY STD 109 -TYPE B.
- 17 CONSTRUCT 5' LENGTH SW TRANSITION (1.5% TO EXISTING SLOPE)
- 50 PAINT 12-INCH WIDE YELLOW CROSSWALK LINES (LADDER TYPE)(2 FT PAINT, 2FT GAPS) PER CALTRANS 2022 STANDARD PLAN A24F
- 51 PAINT TYPE IV ARROW PER CALTRANS 2022 STANDARD PLAN A24A AS SHOWN ON PLAN
- 52 PAINT/REPAINT PAVEMENT MARKING PER CALTRANS 2022 STANDARD PLAN A24C
- 53 PAINT/REPAINT PAVEMENT MARKING PER CALTRANS 2022 STANDARD PLAN A24D
- 54 INSTALL NEW SIGN AS SHOWN ON PLAN AND PER THE CALIFORNIA MUTCD 2014 FIGURE 2A-2(CA)
- 55 REMOVE EXISTING STRIPING OR PAVEMENT MARKINGS
- 56 REMOVE EXISTING ROADSIDE SIGN
- 57 RELOCATE EXISTING ROADSIDE SIGN
- 58 REPAINT EXISTING PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24D
- 59 PAINT DOUBLE YELLOW LINE PER CALTRANS 2018 STANDARD PLAN A20A, DETAIL 22
- 60 PAINT 100FT SOLID 6" WIDE LANE LINE AS SHOWN ON PLAN
- 61 REMOVE EXISTING TREE

**CONSTRUCTION & UNDERGROUND UTILITY LEGEND**

	PORTLAND CEMENT CONCRETE (PLAN)
	PORTLAND CEMENT CONCRETE (SECTION)
	RUBBERIZED HMA PAVEMENT
	COLD PLANE/MILL AND OVERLAY
	CLASS 2 AGGREGATE BASE
	DETECTABLE WARNING SURFACE
	FLOW LINE
	WATER LINE
	Swr LINE
	SD LINE
	Elect LINE
	TELECOMM LINE
	GAS LINE

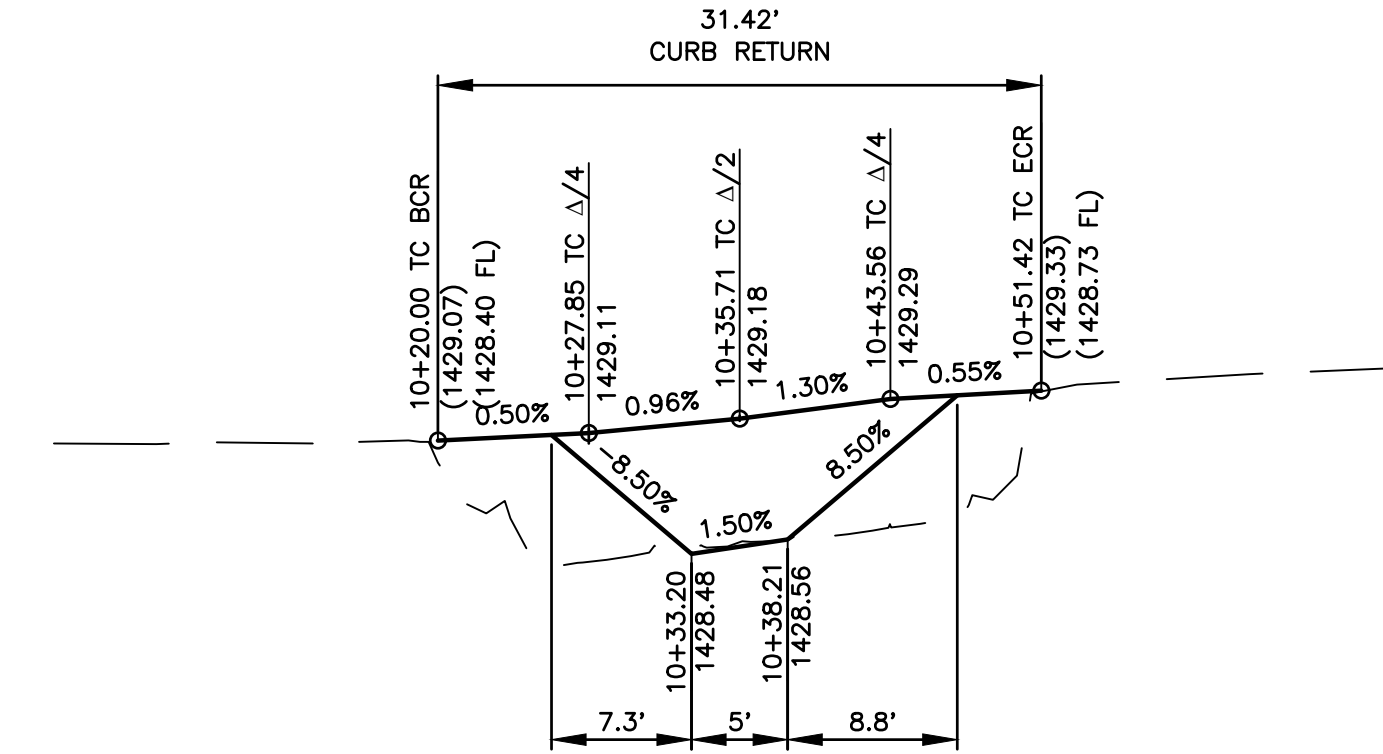
100% PRELIMINARY PLANS  
SUBJECT TO REVISION

		SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS		CACTUS AVENUE AND EASTON STREET PROJECT NOTES, INDEX OF SHEETS NOTES AND LEGEND RIALTO AREA	
DESIGNED BY: LL/JHC	DRAWN BY: LL/JHC	CHECKED BY: JJ	RECOMMENDED BY: CHRIS NGUYEN, P.E. ENGINEERING MANAGER	8/14/2023 DATE	
APPROVED BY: LEI LI, P.E. SUPERVISING ENGINEER		8/14/2023 DATE	APPROVED BY: MERYAN MESHALL, P.E. DEPUTY DIRECTOR		8/16/2023 DATE
FIELD CHANGES		J.L. REF. J.L.11811	W.O. NO. H15228	PLAN SCALE N/A	SHT. NO. TOT. SHT'S. 2 6



RAMP #5 - CASE B - PROFILE

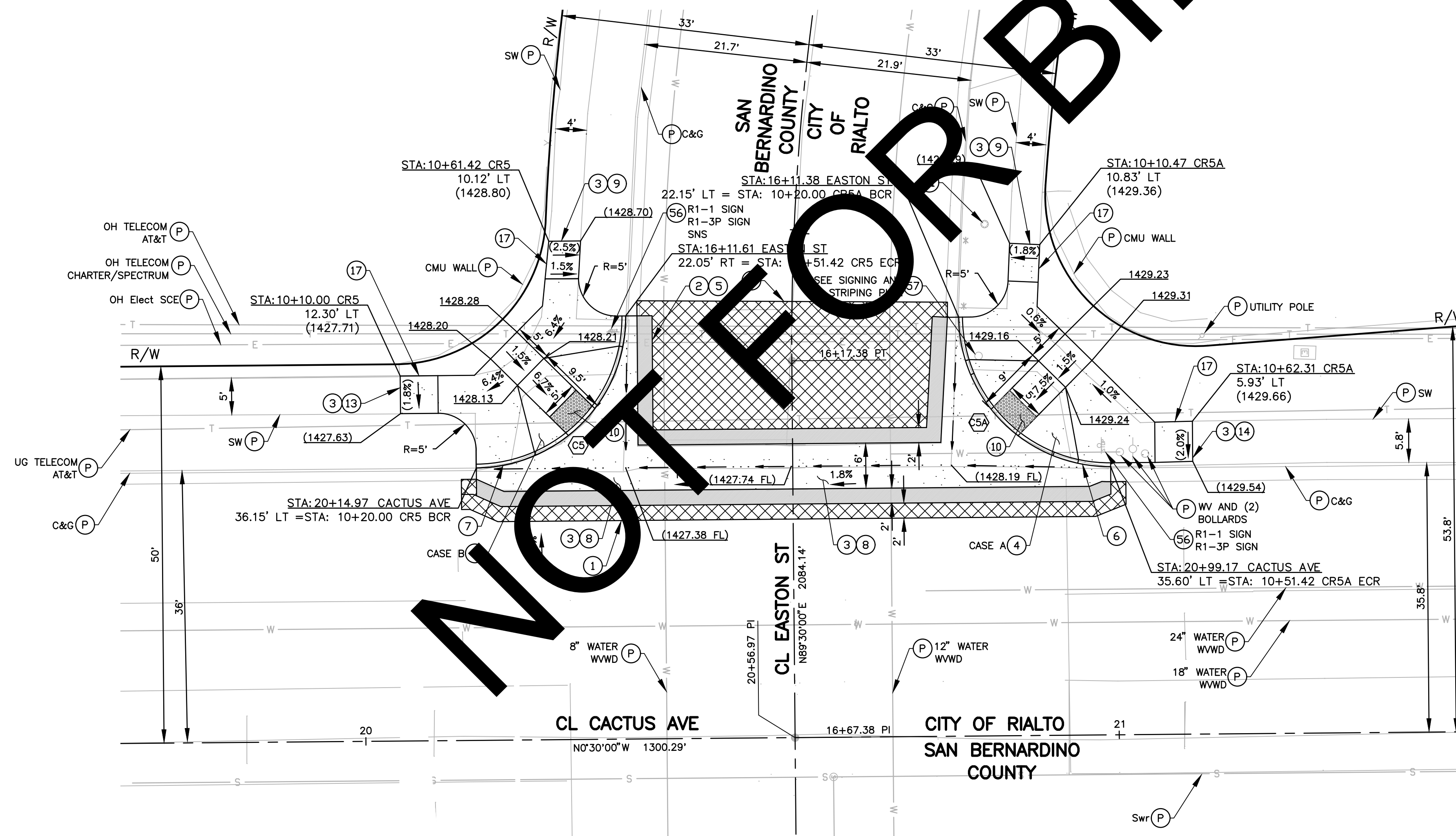
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1"=1' VERTICAL



RAMP #5A - CASE A - PROFILE

SCALE: 1"=10' HORIZONTAL  
1"=1' VERTICAL

CURVE TABLE (THIS SHEET ONLY)				
NO.	DELTA	RADIUS	LENGTH	TANGENT
C5	90°00'00"	20.00'	31.42'	20.00'
C5A	90°00'00"	20.00'	31.42'	20.00'

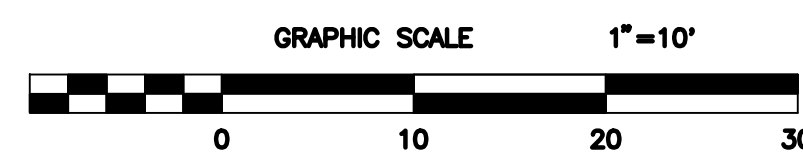


RAMP #5 - CASE B  
CACTUS AVE AND EASTON ST INTERSECTION (SW)

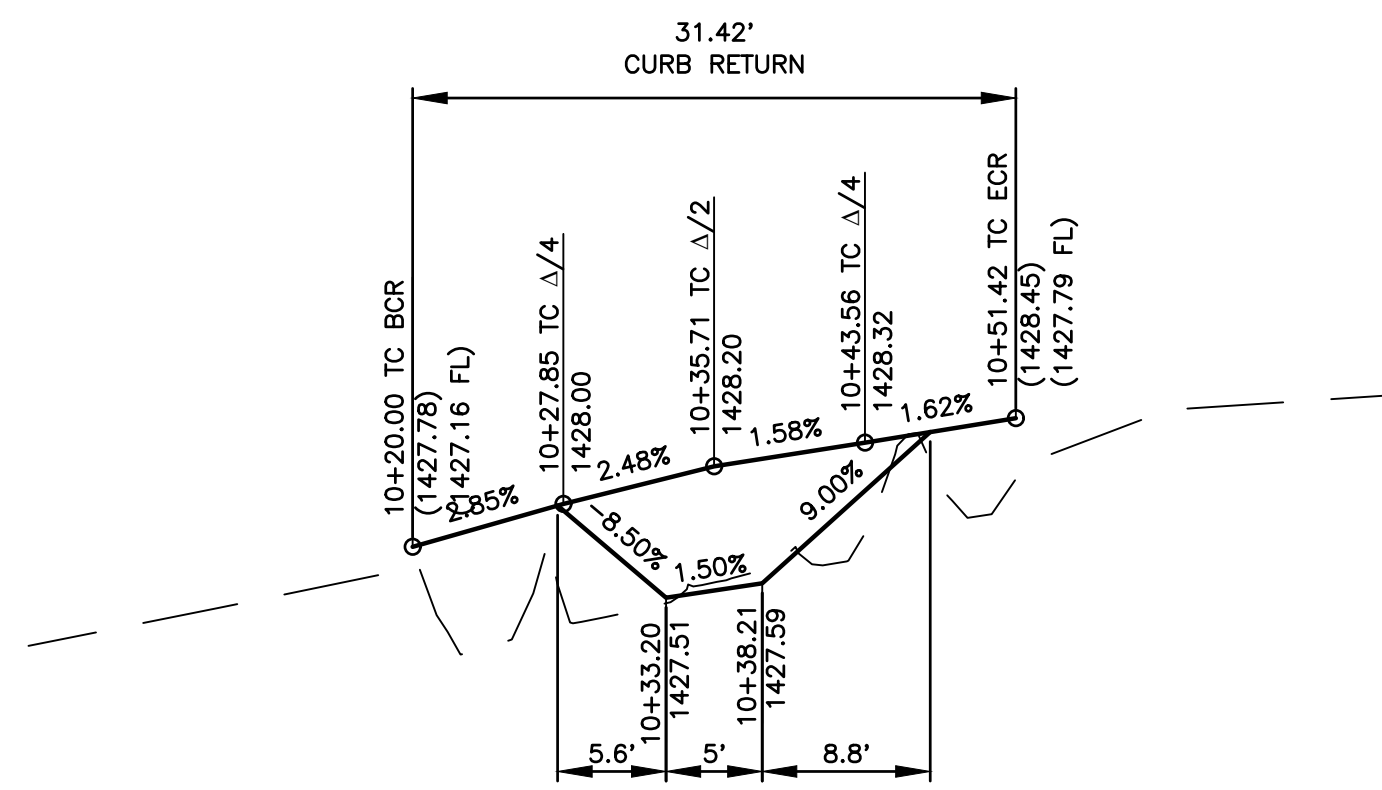
RAMP #5A - CASE A  
CACTUS AVE AND EASTON ST INTERSECTION (NW)

CONSTRUCTION NOTES:

- P PROTECT IN PLACE
- 1 COLD PLANE (0.15' THK) EXISTING ASPHALT CONCRETE PAVEMENT AND PLACE (0.15' THK) ASPHALT CONCRETE OVERLAY, 2' WIDE MINIMUM.
- 2 SAW CUT & REMOVE EXISTING AC STRUCTURAL SECTION SURFACING, 2' WIDE MINIMUM.
- 3 SAW CUT & REMOVE EXISTING CONCRETE.
- 4 CONSTRUCT RAMP PER CALTRANS RSP AB8A, CASE A, B, C, F, OR G, WHICHEVER APPLIES (SEE PLANS).
- 5 PLACE ASPHALT CONCRETE STRUCTURAL SECTION (0.30' TYPE A 1/2" AGGREGATE GRADATION, PG 64-10 HMA OVER 0.55' CLASS II BASE) OVER COMPACTED NATIVE SOIL.
- 6 CONSTRUCT 8" CURB & GUTTER PER COUNTY STD 115.
- 7 CONSTRUCT 6" CURB & GUTTER PER COUNTY STD 116.
- 8 CONSTRUCT SPANDREL AND/OR CROSS GUTTER PER COUNTY STD 119.
- 9 CONSTRUCT CONCRETE SIDEWALK PER COUNTY STD 109 - TYPE B.
- 10 PLACE DETECTABLE WARNING SURFACE PER CALTRANS STD RSP AB8A.
- 13 CONSTRUCT CONCRETE SIDEWALK PER COUNTY STD 109 - TYPE A.
- 14 CONSTRUCT CONCRETE SIDEWALK PER COUNTY STD 109 - TYPE C.
- 17 CONSTRUCT 5' LENGTH SW TRANSITION (1.5% TO EXISTING SLOPE).
- 56 REMOVE EXISTING ROADSIDE SIGN
- 57 RELOCATE EXISTING ROADSIDE SIGN
- 61 REMOVE EXISTING TREE

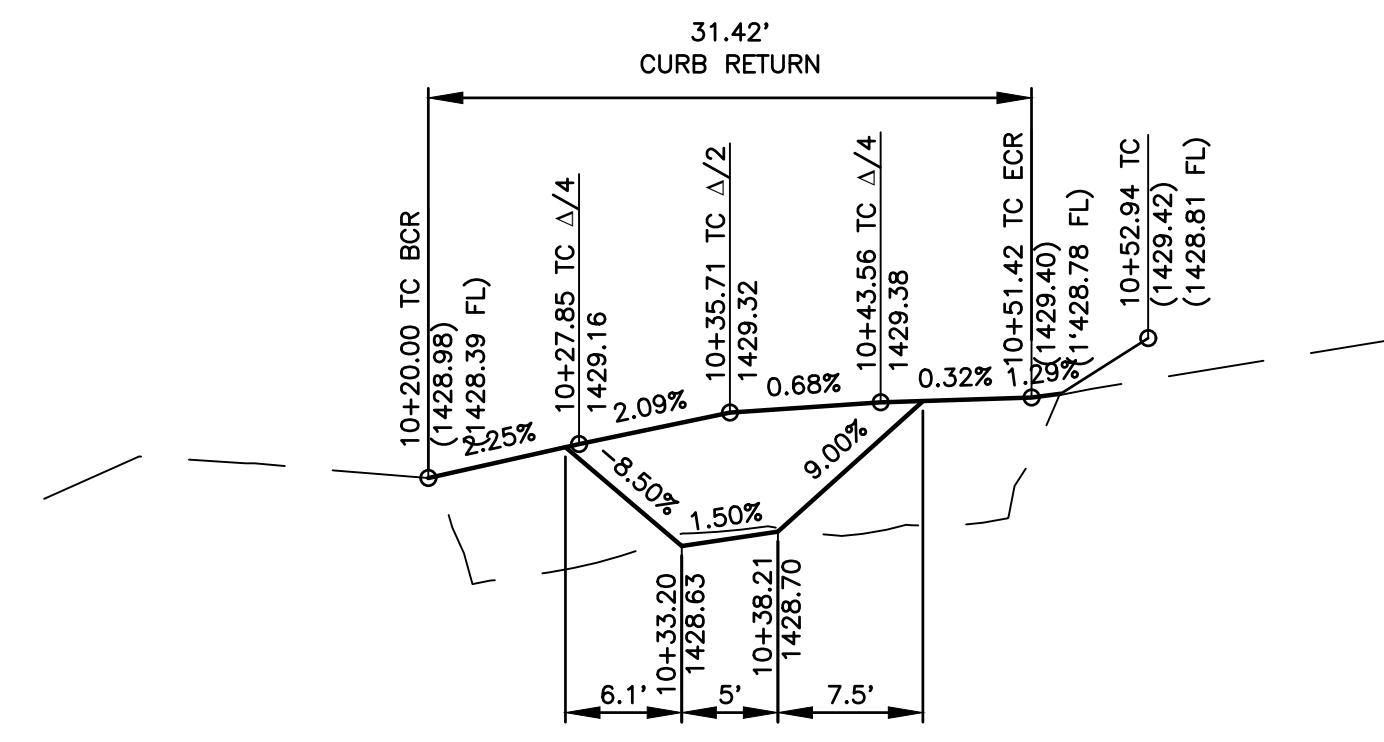


PREPARED BY:  1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92108-514-8377	FIELD CHANGES MARK CHANGES NO CHANGES RESIDENT ENGINEER DATE		SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS		CACTUS AVENUE AND EASTON STREET CURB RAMP DETAILS RAMPS 5 AND 5A RIALTO AREA
			DESIGNED BY: VM DRAWN BY: VM CHECKED BY: CP SUPERVISING ENGINEER	RECOMMENDED BY: Chris Nguyen, P.E., Engineering Manager APPROVED BY: Mervan M. Mughal, P.E., Deputy Director	



RAMP #4 - CASE A - PROFILE

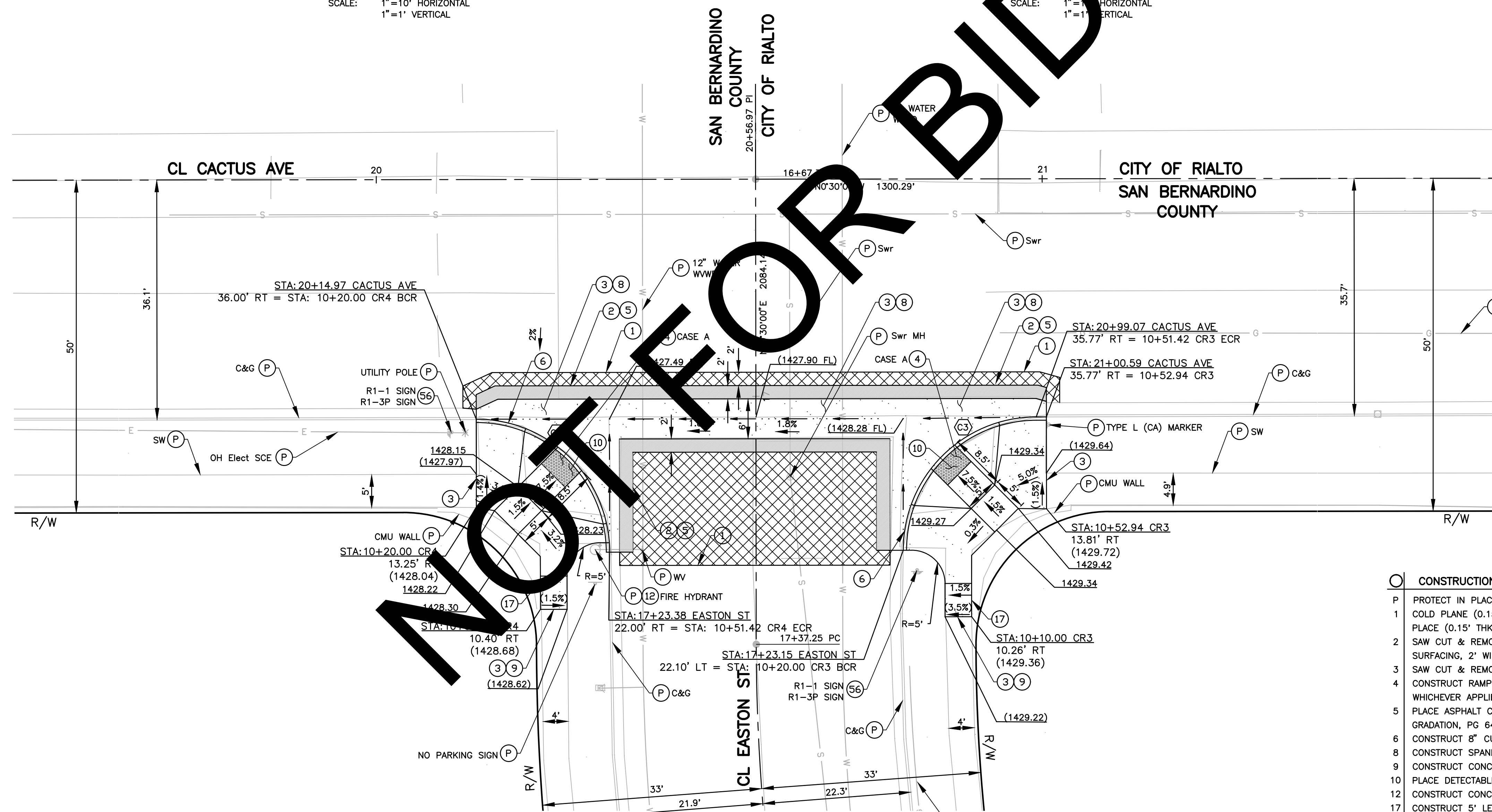
SCALE: 1"=10' HORIZONTAL  
1"=1' VERTICAL



RAMP #3 - CASE A - PROFILE

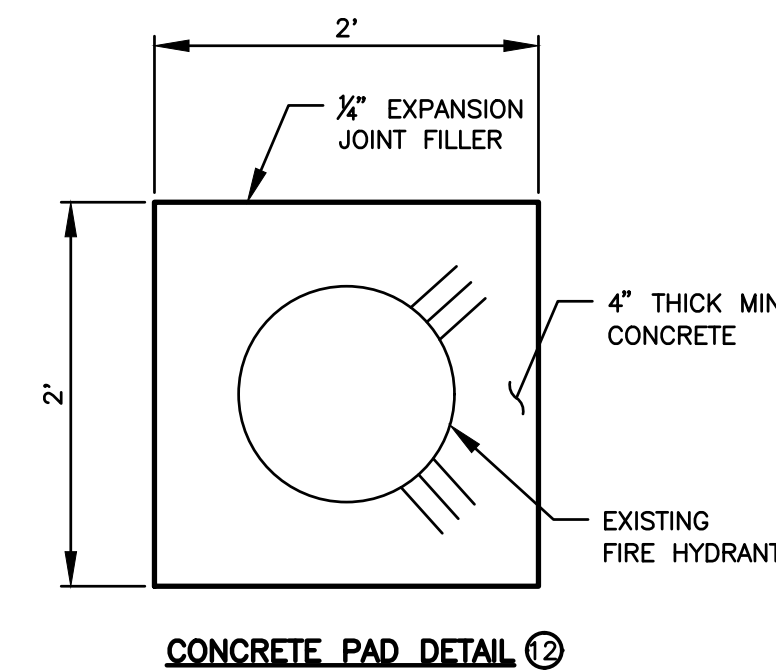
SCALE: 1"=10' HORIZONTAL  
1"=1' VERTICAL

CURVE TABLE (THIS SHEET ONLY)				
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C4	90°00'00"	20.00'	31.42'	20.00'

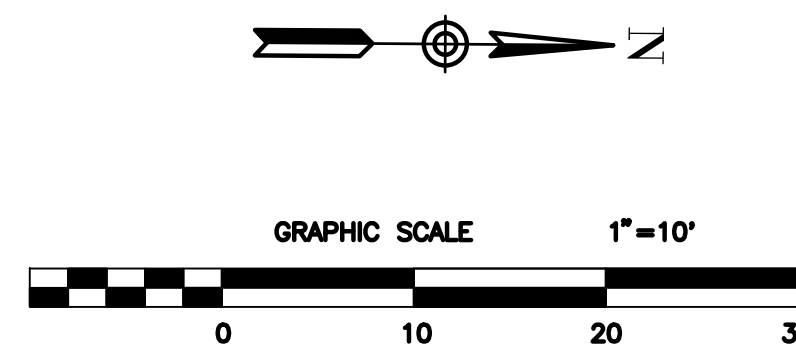


RAMP #4 - CASE A  
CACTUS AVE AND EASTON ST INTERSECTION (SE)

RAMP #3 - CASE A  
CACTUS AVE AND EASTON ST INTERSECTION (NE)



- CONSTRUCTION NOTES:**
- P PROTECT IN PLACE
  - 1 COLD PLANE (0.15' THK) EXISTING ASPHALT CONCRETE PAVEMENT AND PLACE (0.15' THK) ASPHALT CONCRETE OVERLAY, 2' WIDE MINIMUM.
  - 2 SAW CUT & REMOVE EXISTING AC STRUCTURAL SECTION SURFACING, 2' WIDE MINIMUM.
  - 3 SAW CUT & REMOVE EXISTING CONCRETE.
  - 4 CONSTRUCT RAMP PER CALTRANS RSP AB8A, CASE A, B, C, F, OR G, WHICHEVER APPLIES (SEE PLANS).
  - 5 PLACE ASPHALT CONCRETE STRUCTURAL SECTION (0.30' TYPE A 1/2" AGGREGATE GRADATION, PG 64-10 HMA OVER 0.55' CLASS II BASE) OVER COMPACTED NATIVE SOIL.
  - 6 CONSTRUCT 8" CURB & GUTTER PER COUNTY STD 115.
  - 8 CONSTRUCT SPANDREL AND/OR CROSS CUTTER PER COUNTY STD 119.
  - 9 CONSTRUCT CONCRETE SIDEWALK PER COUNTY STD 109 - TYPE B.
  - 10 PLACE DETECTABLE WARNING SURFACE PER CALTRANS STD RSP AB8A.
  - 12 CONSTRUCT CONCRETE PAD AROUND FIRE HYDRANT. SEE DETAIL THIS SHEET
  - 17 CONSTRUCT 5' LENGTH SW TRANSITION (1.5% TO EXISTING SLOPE)
  - 56 REMOVE EXISTING ROADSIDE SIGN



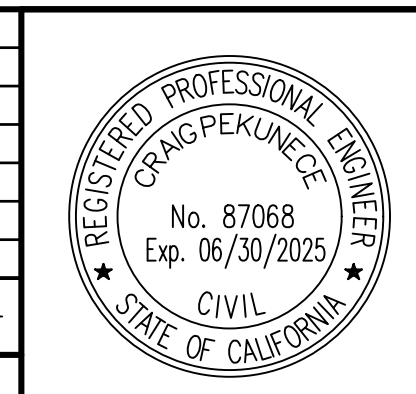
PREPARED BY:

**DOKKEN ENGINEERING**

1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92108-514-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

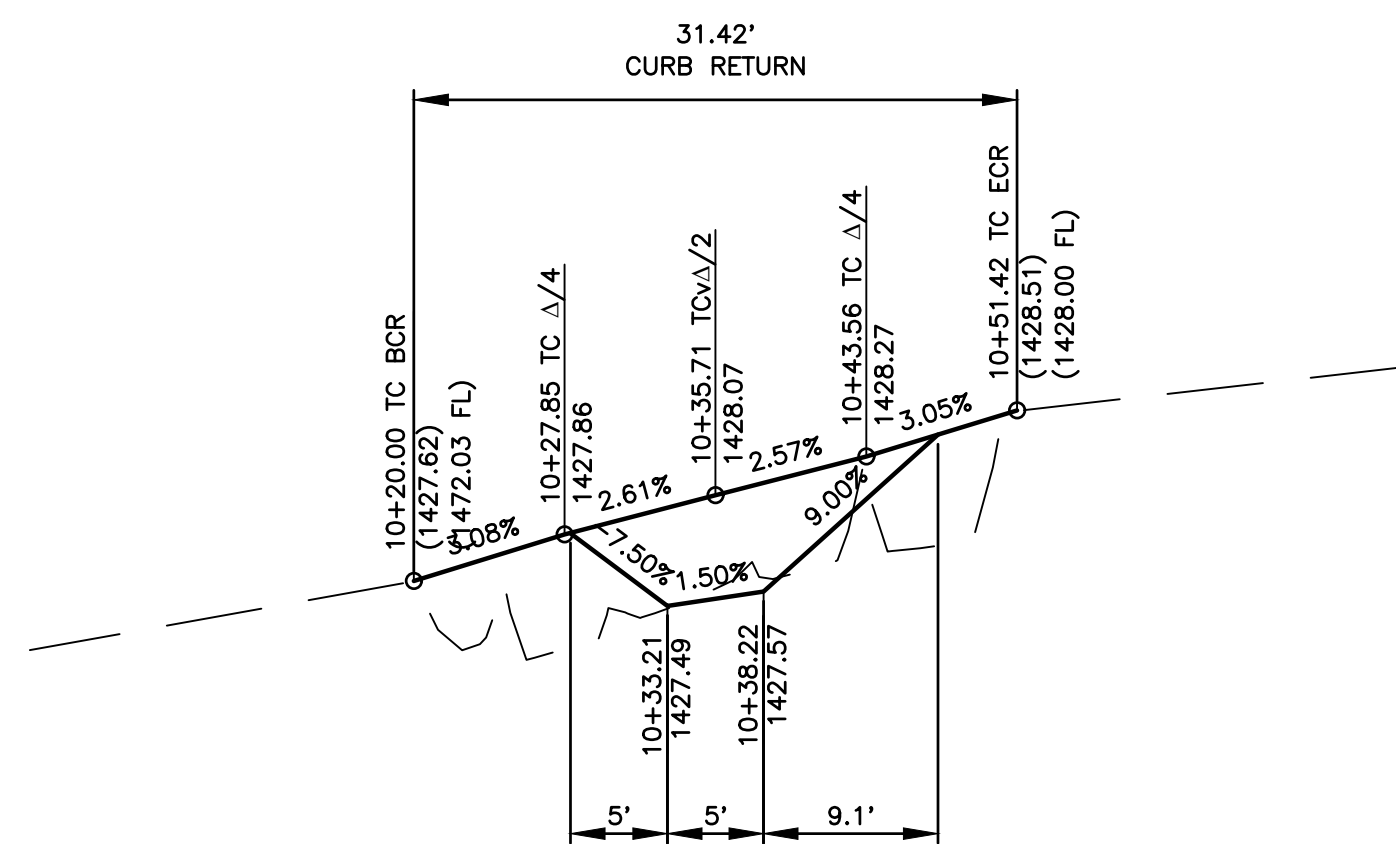


SAN BERNARDINO COUNTY  
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: VM  
DRAWN BY: VM  
CHECKED BY: CP  
RECOMMENDED BY: Chris Nguyen, P.E., Engineering Manager  
APPROVED BY: Mark N. Mikhail, P.E., Deputy Director  
DATE: 8/14/2023  
DATE: 8/16/2023

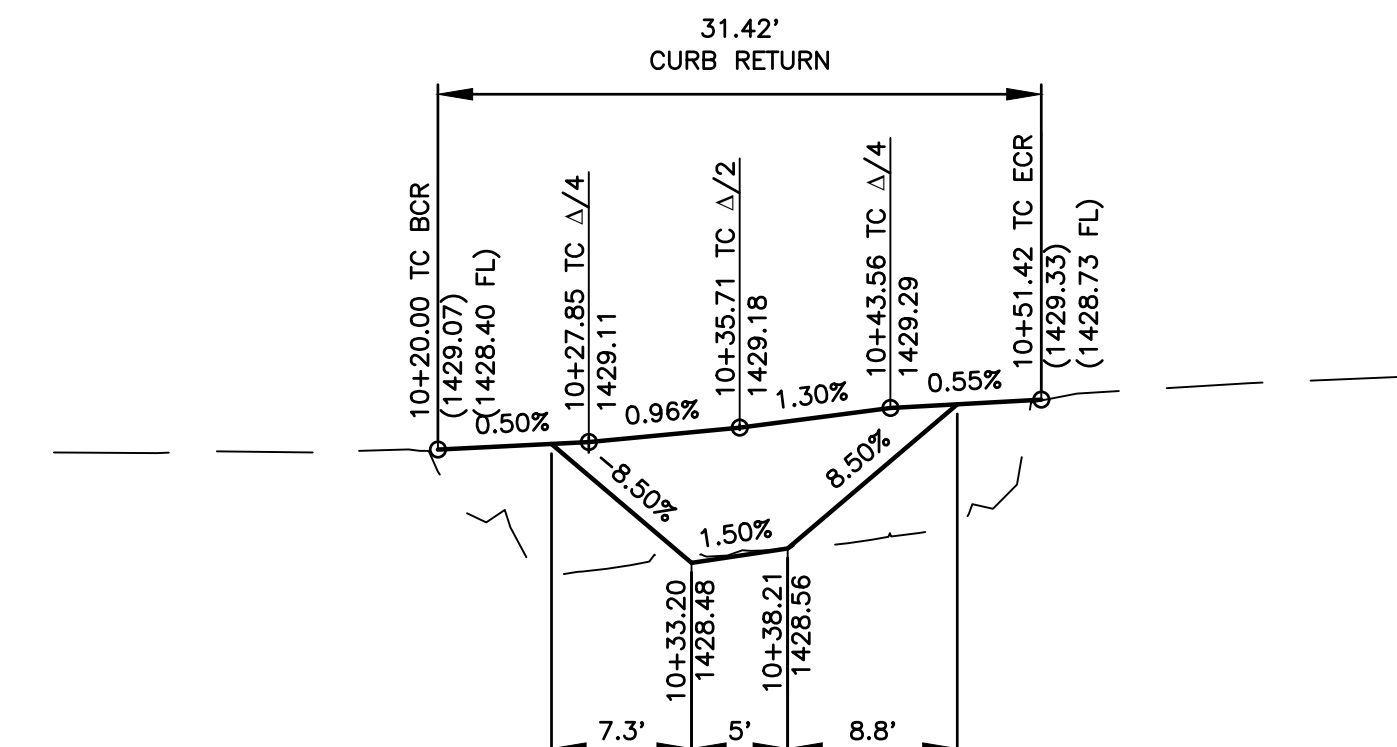
CACTUS AVENUE AND EASTON STREET  
CURB RAMP DETAILS  
RAMPS 3 AND 4  
RIALTO AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHTS.
J.L.11811	H15288	1"=10'	3	6



RAMP #5 - CASE B - PROFILE

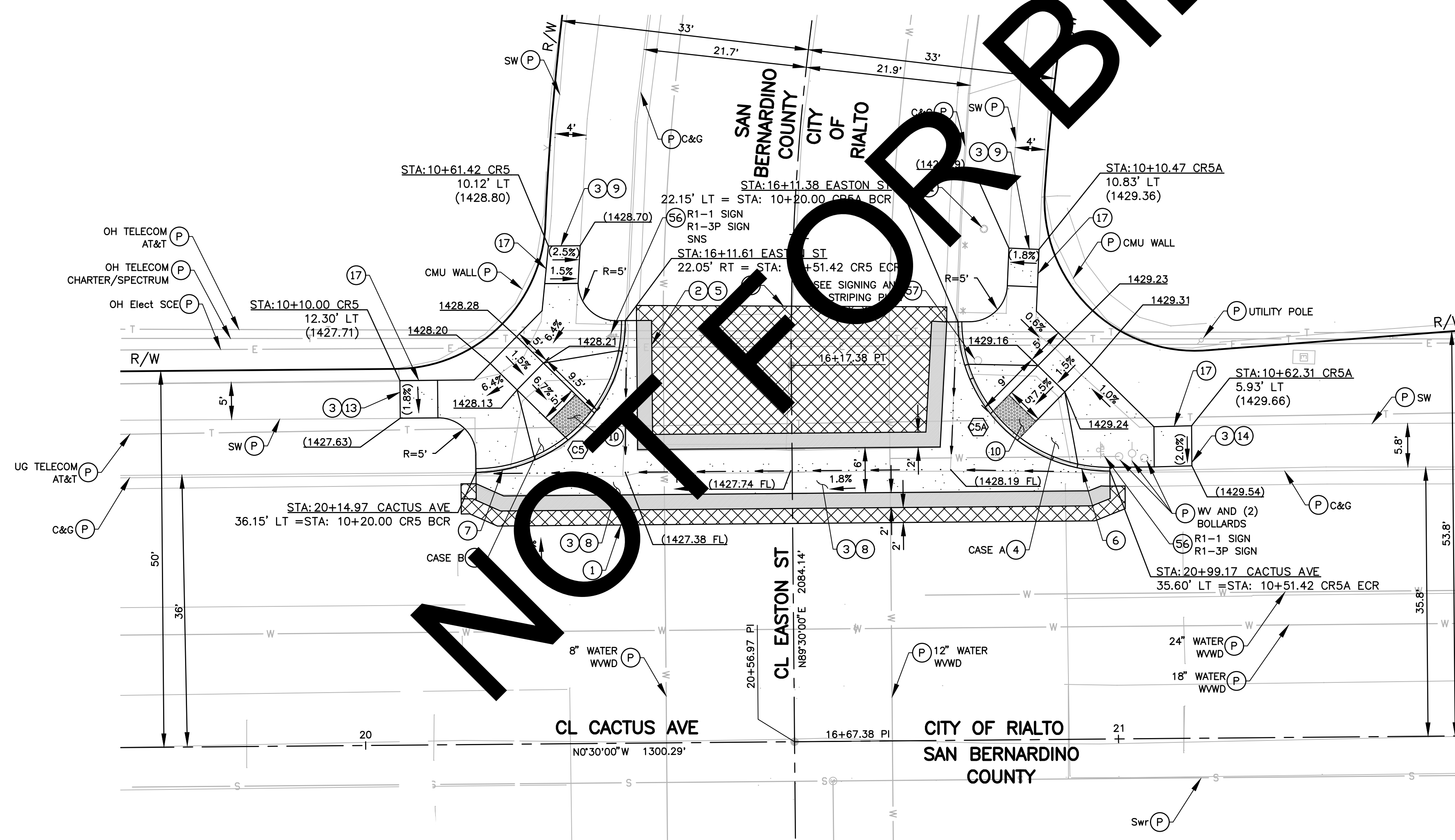
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1"=1' VERTICAL



RAMP #5A - CASE A - PROFILE

SCALE: 1"=10' HORIZONTAL  
1"=1' VERTICAL

CURVE TABLE (THIS SHEET ONLY)				
NO.	DELTA	RADIUS	LENGTH	TANGENT
C5	90°00'00"	20.00'	31.42'	20.00'
C5A	90°00'00"	20.00'	31.42'	20.00'

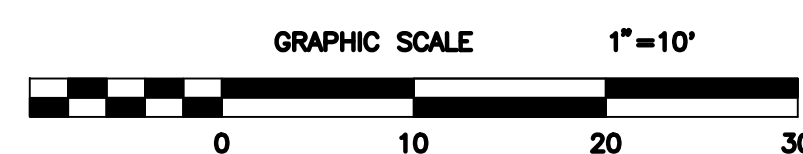


RAMP #5 - CASE B  
CACTUS AVE AND EASTON ST INTERSECTION (SW)

RAMP #5A - CASE A  
CACTUS AVE AND EASTON ST INTERSECTION (NW)

CONSTRUCTION NOTES:

- P PROTECT IN PLACE
- 1 COLD PLANE (0.15' THK) EXISTING ASPHALT CONCRETE PAVEMENT AND PLACE (0.15' THK) ASPHALT CONCRETE OVERLAY, 2' WIDE MINIMUM.
- 2 SAW CUT & REMOVE EXISTING AC STRUCTURAL SECTION SURFACING, 2' WIDE MINIMUM.
- 3 SAW CUT & REMOVE EXISTING CONCRETE.
- 4 CONSTRUCT RAMP PER CALTRANS RSP AB8A, CASE A, B, C, F, OR G, WHICHEVER APPLIES (SEE PLANS).
- 5 PLACE ASPHALT CONCRETE STRUCTURAL SECTION (0.30' TYPE A 1/2" AGGREGATE GRADATION, PG 64-10 HMA OVER 0.55' CLASS II BASE) OVER COMPACTED NATIVE SOIL.
- 6 CONSTRUCT 8" CURB & GUTTER PER COUNTY STD 115.
- 7 CONSTRUCT 6" CURB & GUTTER PER COUNTY STD 116.
- 8 CONSTRUCT SPANDREL AND/OR CROSS GUTTER PER COUNTY STD 119.
- 9 CONSTRUCT CONCRETE SIDEWALK PER COUNTY STD 109 - TYPE B.
- 10 PLACE DETECTABLE WARNING SURFACE PER CALTRANS STD RSP AB8A.
- 13 CONSTRUCT CONCRETE SIDEWALK PER COUNTY STD 109 - TYPE A.
- 14 CONSTRUCT CONCRETE SIDEWALK PER COUNTY STD 109 - TYPE C.
- 17 CONSTRUCT 5' LENGTH SW TRANSITION (1.5% TO EXISTING SLOPE).
- 56 REMOVE EXISTING ROADSIDE SIGN
- 57 RELOCATE EXISTING ROADSIDE SIGN
- 61 REMOVE EXISTING TREE



PREPARED BY:

1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92108-514-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

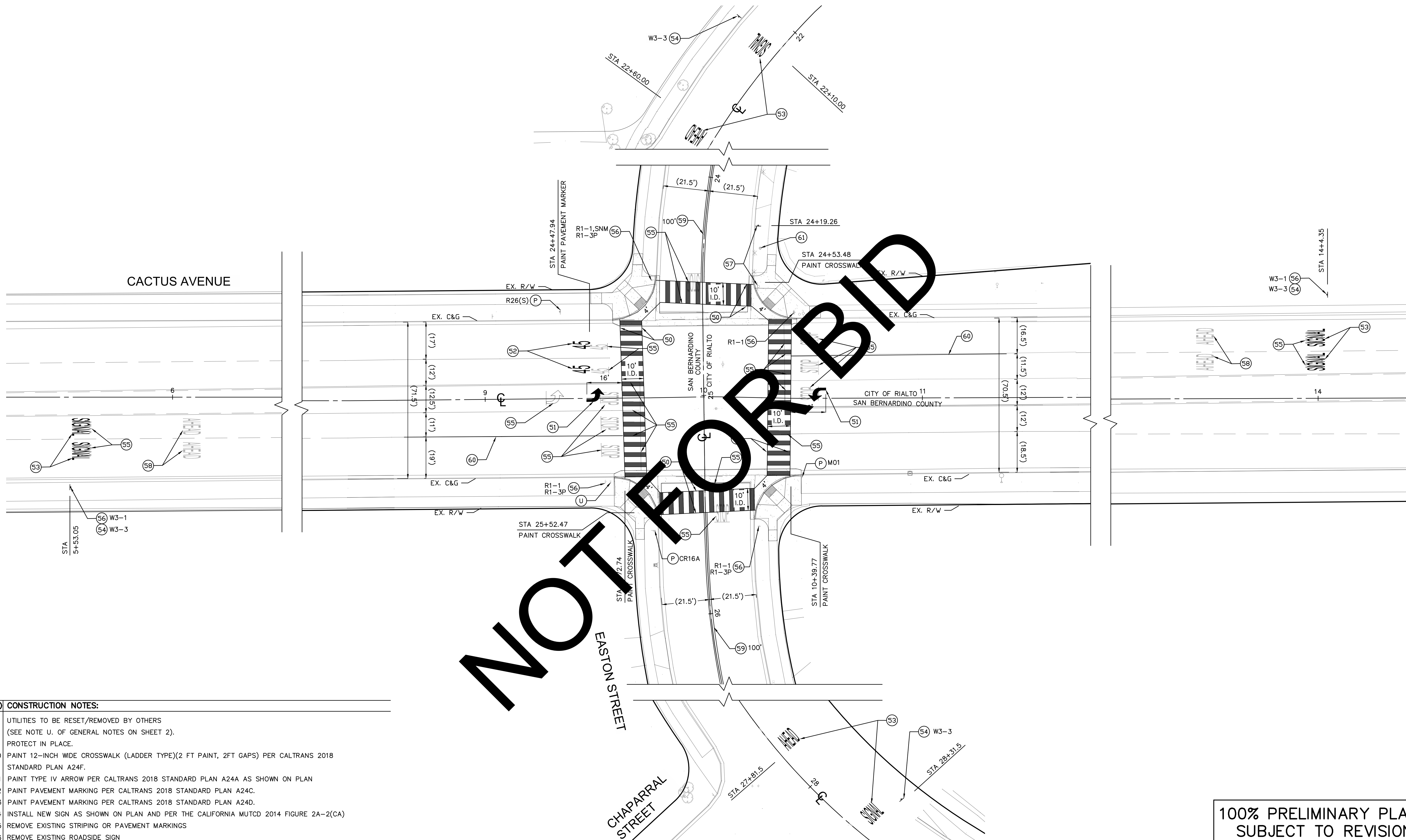


SAN BERNARDINO COUNTY  
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: VM  
DRAWN BY: VM  
CHECKED BY: CP  
RECOMMENDED BY: Chris Nguyen, P.E., Engineering Manager, 8/14/2023  
APPROVED BY: [Signature], 8/16/2023  
LEI LI, P.E., SUPERVISING ENGINEER

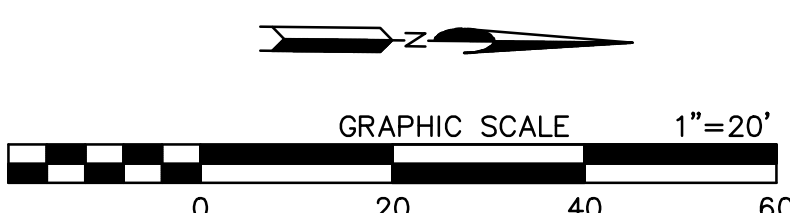
CACTUS AVENUE AND EASTON STREET  
CURB RAMP DETAILS  
RAMPS 5 AND 5A

PLAN SCALE: 1"=10'  
SHT. NO.: 4  
TOT. SHTS.: 6



**CONSTRUCTION NOTES:**

- U UTILITIES TO BE RESET/REMOVED BY OTHERS  
(SEE NOTE U. OF GENERAL NOTES ON SHEET 2).
- P PROTECT IN PLACE.
- 50 PAINT 12-INCH WIDE CROSSWALK (LADDER TYPE)(2 FT PAINT, 2FT GAPS) PER CALTRANS 2018 STANDARD PLAN A24F.
- 51 PAINT TYPE IV ARROW PER CALTRANS 2018 STANDARD PLAN A24A AS SHOWN ON PLAN
- 52 PAINT PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24C.
- 53 PAINT PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24D.
- 54 INSTALL NEW SIGN AS SHOWN ON PLAN AND PER THE CALIFORNIA MUTCD 2014 FIGURE 2A-2(CA)
- 55 REMOVE EXISTING STRIPING OR PAVEMENT MARKINGS
- 56 REMOVE EXISTING ROADSIDE SIGN
- 57 RELOCATE EXISTING ROADSIDE SIGN
- 58 REPAINT EXISTING PAVEMENT MARKING PER CALTRANS 2018 STANDARD PLAN A24D
- 59 PAINT DOUBLE YELLOW LINE PER CALTRANS 2018 STANDARD PLAN A20A, DETAIL 22
- 60 PAINT 100FT SOLID 6" WIDE LANE LINE AS SHOWN ON PLAN
- 61 REMOVE EXISTING TREE



100% PRELIMINARY PLANS  
SUBJECT TO REVISION

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

**FIELD CHANGES**



SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY: LL/JHC	DRAWN BY: LL/JHC	CHECKED BY: JJ	RECOMMENDED BY: DATE: 08/14/2023
APPROVED BY: GRANT MANN, P.E. SUPERVISING ENGINEER			DATE: 8/14/23

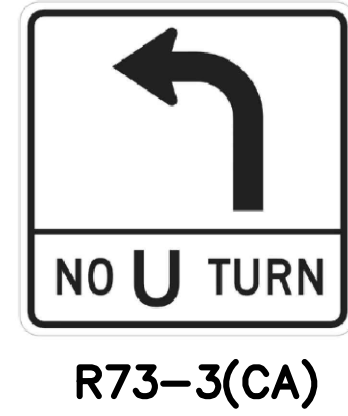
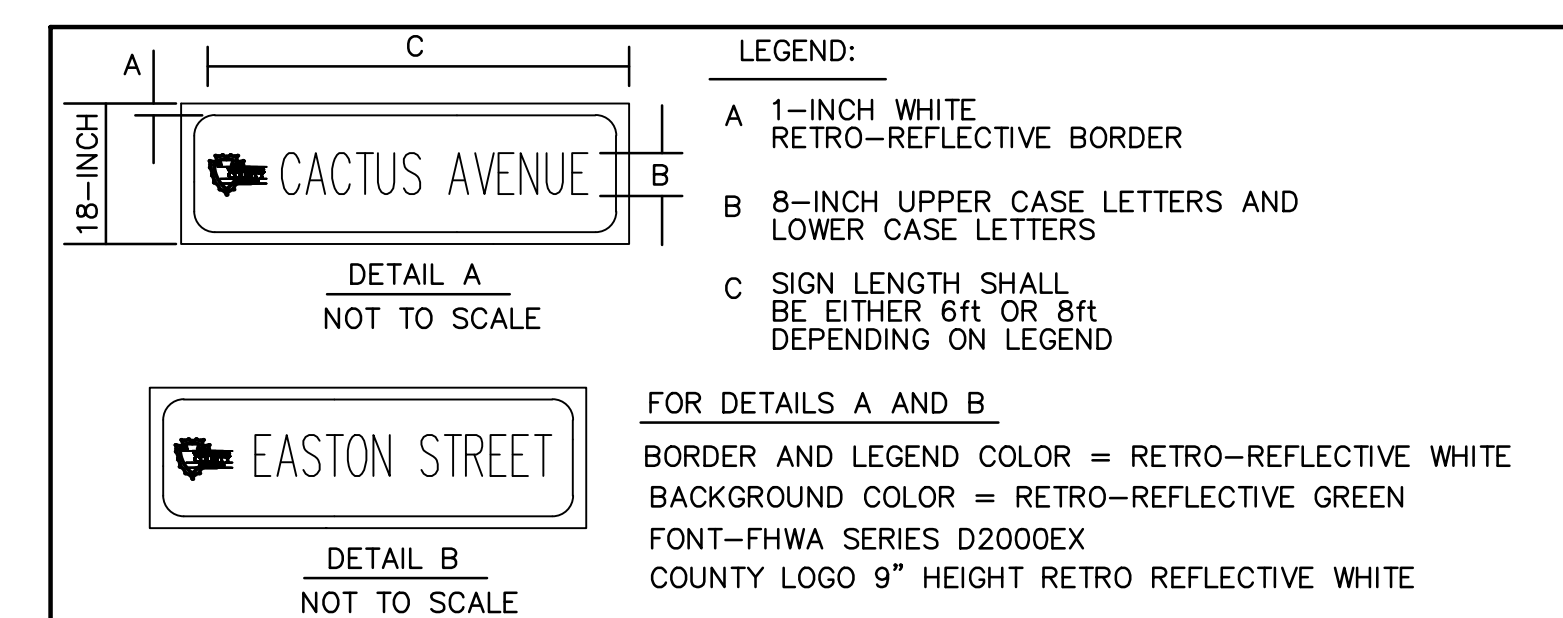
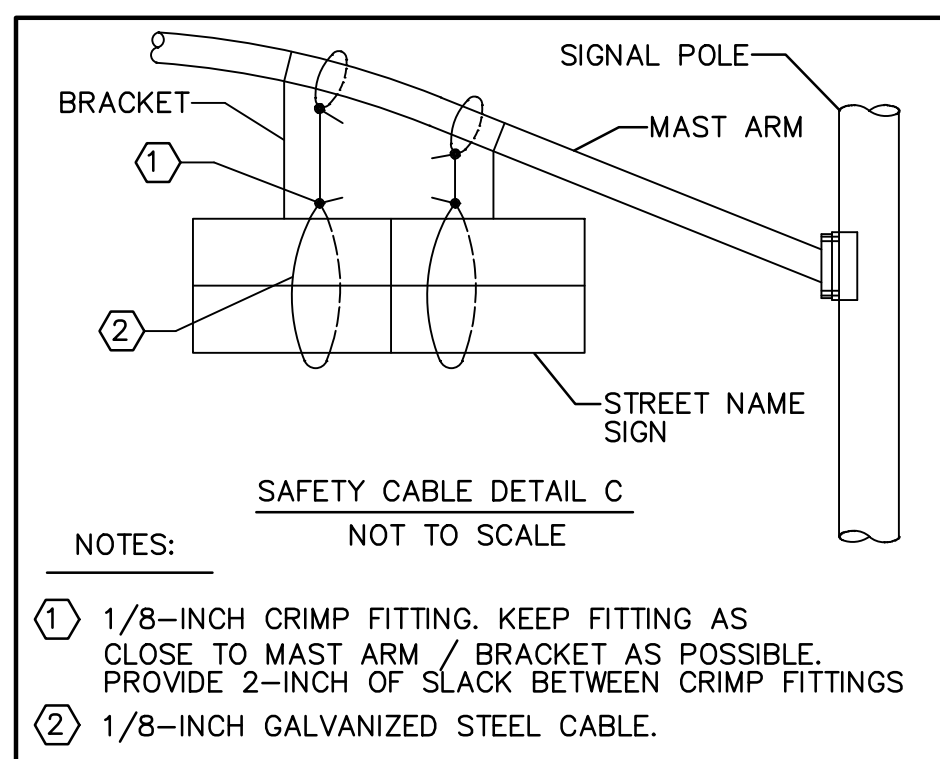
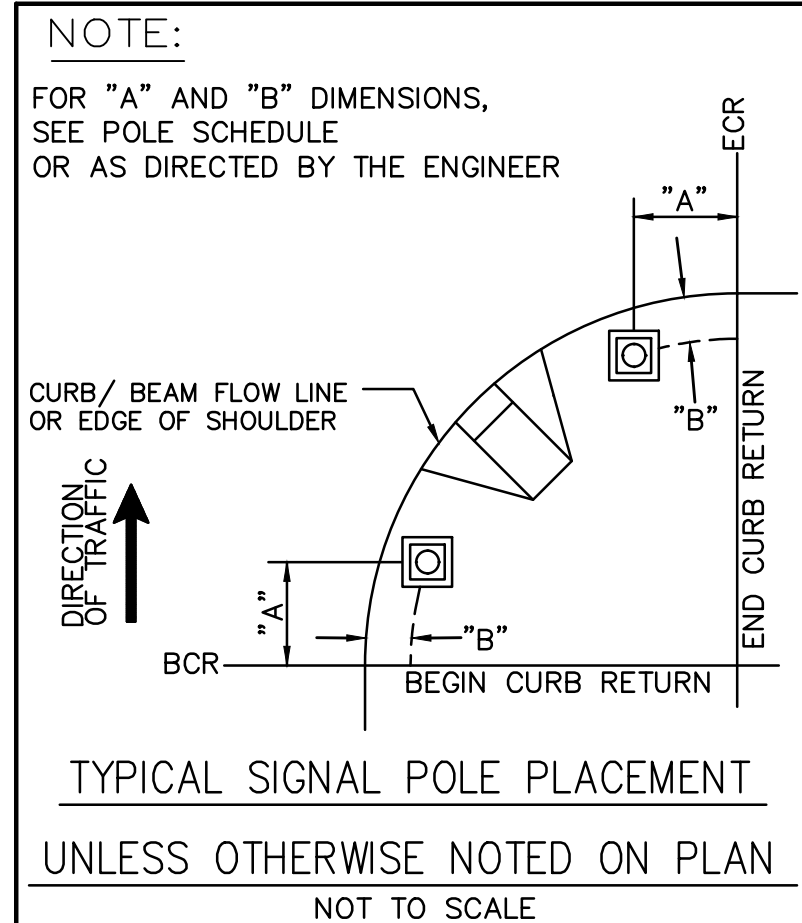
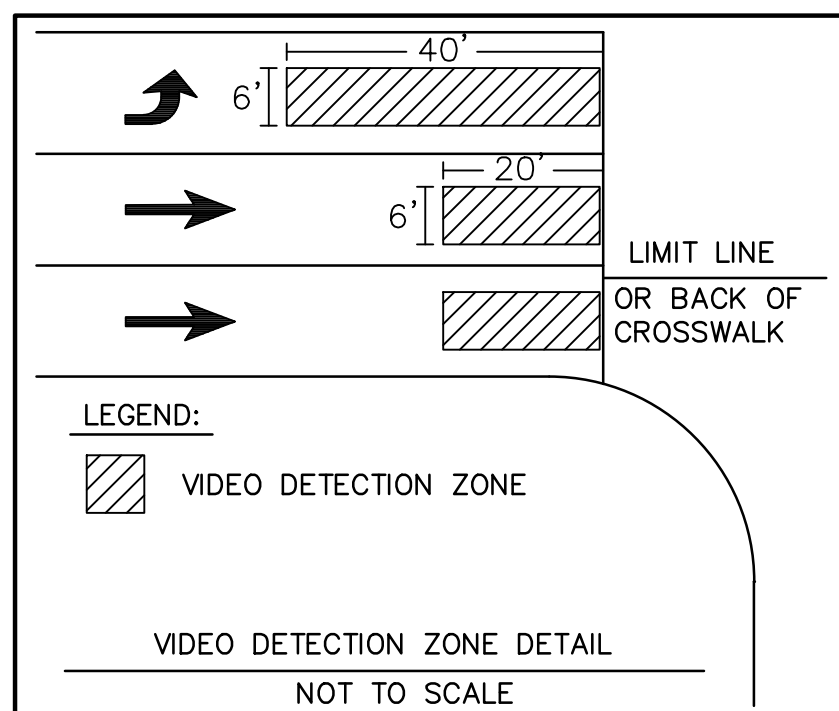
CACTUS AVENUE & EASTON STREET SIGNING AND STRIPING PLAN RIALTO AREA				
J.L. REF. J.L.12093	W.O. NO. H15228	PLAN SCALE 1"=20'	SHT. NO. 5	TOT. SHT'S. 6

CONDUCTOR AND CONDUIT TABLE

POLE	PHASE	CONDUIT RUN									
		1		2		3		4		5	
		CABLE TYPE	CABLE TYPE	CABLE TYPE	CABLE TYPE	CABLE TYPE	CABLE TYPE	CABLE TYPE	CABLE TYPE	CABLE TYPE	CABLE TYPE
SIGNAL CABLE	8,8P										
	5,6,6P										
	5,2,2P										
	4,8,8P										
	4,4P										
	2,1,2P										
	1,6,6P										
	4,8,4P										
	6PPB										
	4PPB										
4PPB											
TOTAL											

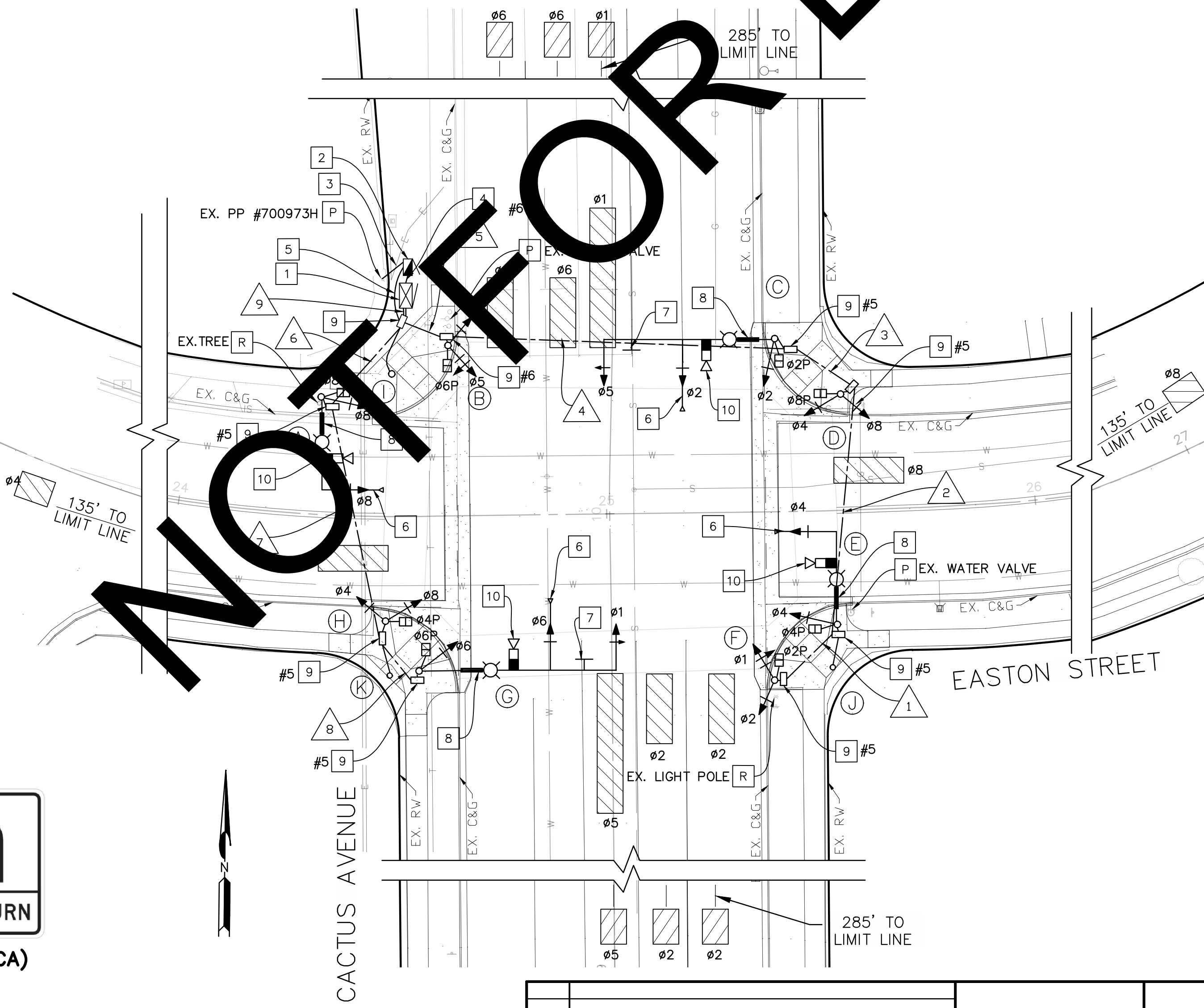
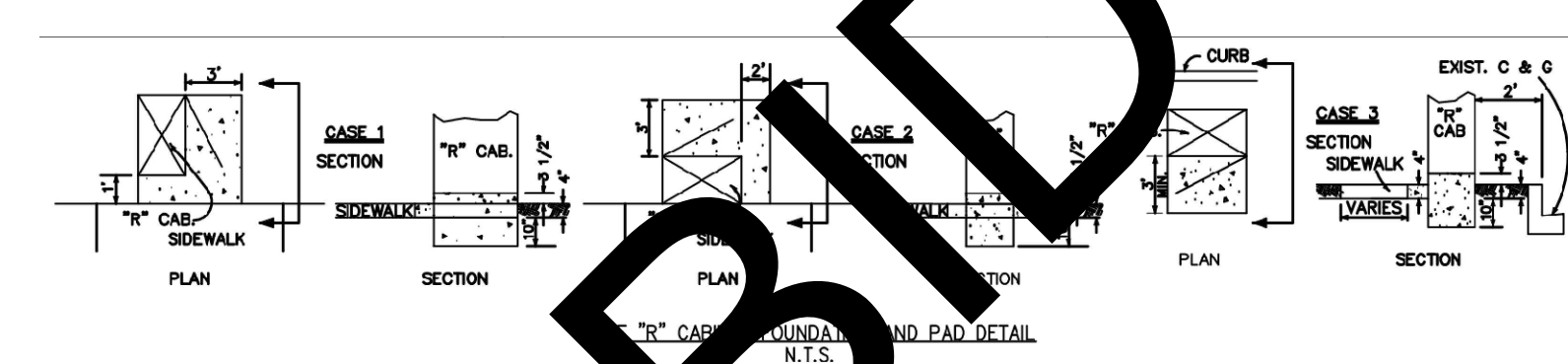
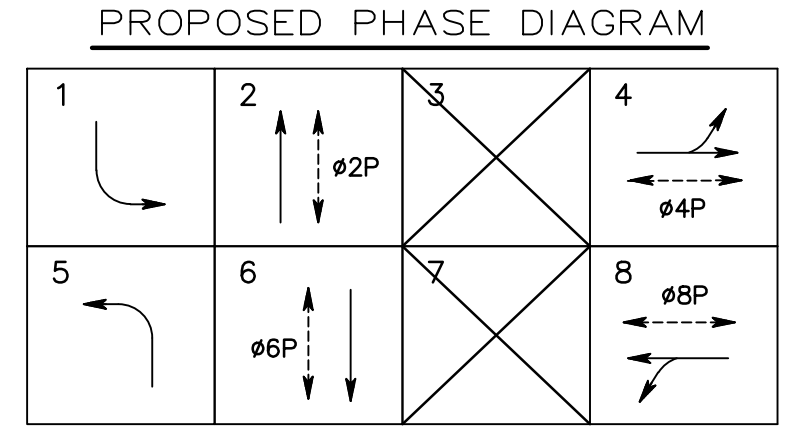
AWG SIZE	CIRCUIT	CONDUIT RUN									
#6	SERVICE										
#10	LUMINAIRE										
#8	SIGNAL COMMON WIRE BARE GROUNDING CONDUCTOR										
VIDEO DETECTION	VIDEO CABLE										
PREEMPTION CABLE	EMERGENCY VEHICLE DETECTOR										
** CONDUIT SIZE (INCHES)											
% FILLED											

ALL NEW CONDUIT SHALL BE MINIMUM 4INCH SCHEDULE 80 ELECTRICAL GRADE PVC AT A MINIMUM 36INCH DEPTH INCLUDING A 12INCH SAND ZONE COVERING  
 \*\* AT A MINIMUM 36INCH DEPTH INCLUDING A 12INCH SAND ZONE COVERING  
 ALL CABLES AND CONDUCTORS SHALL BE NEW UNLESS SPECIFIED OTHERWISE



POLE AND EQUIPMENT SCHEDULE

POLE NO.	STANDARD					POLE LOCATION		VEHICLE SIGNAL MOUNTING	PEDESTRIAN SIGNAL	PEDESTRIAN PUSH BUTTON		L.E.D. LUMINAIRE	RETRO-REFLECTIVE STREET NAME SIGN			
	TYPE	HEIGHT	SIGNAL MAST ARM	"F" SPACING	LUMINAIRE MAST ARM	"A"	"B"			QUADRANT	ARROW			PHASE		
A	17-2-100	30'	20'	---	12'	-10.7'	4.7'	MAS	SV-1-T	Ø8P	SP-1-T	---	---	250 WATT	CACTUS AVENUE	
B	1-A	10'	---	---	---	8.9'	2.0'	---	TV-2-T	Ø6P	SP-1-T	---	---	---	---	
C	26-4-100	30'	40'	18'	12'	3.8'	3.4'	2-MAS	SV-1-T	Ø2P	SP-1-T	SOUTH	←	Ø8PPB	250 WATT	EASTON STREET
D	1-A	10'	---	---	---	1.8'	4.5'	---	TV-2-T	Ø8P	SP-1-T	WEST	→	Ø2PPB	---	---
E	17-2-100	30'	20'	---	12'	2.3'	4.6'	MAS	SV-1-T	Ø4P	SP-1-T	---	---	250 WATT	CACTUS AVENUE	
F	1-A	10'	---	---	---	2.2'	2.7'	---	TV-2-T	Ø2P	SP-1-T	---	---	---	---	
G	26-4-100	30'	45'	15'	12'	5.2'	8.3'	2-MAS	SV-1-T	Ø6P	SP-1-T	---	---	250 WATT	EASTON STREET	
H	1-A	10'	---	---	---	4.2'	2.7'	---	TV-2-T	Ø4P	SP-1-T	---	---	---	---	
I	PPB	5'-7"	---	---	---	5.4'	8.8'	---	---	---	---	WEST NORTH	↙	Ø6PPB Ø8PPB	---	---
J	PPB	5'-7"	---	---	---	4.8'	12.0'	---	---	---	---	WEST NORTH	↙	Ø2PPB Ø4PPB	---	---
K	PPB	5'-7"	---	---	---	4.2'	13.7'	---	---	---	---	NORTH EAST	↗	Ø8PPB	---	---



- SAN BERNARDINO COUNTY TRAFFIC SIGNAL GENERAL NOTES:
- TRAFFIC SIGNAL AND LIGHTING SHALL CONFORM TO THE STATE OF CALIFORNIA 2018 REVISED STANDARD SPECIFICATIONS (DATED 2018) SECTIONS 86(ELECTRICAL WORK) AND 87(ELECTRICAL SYSTEMS) INCLUDING LATEST 2018 REVISED STANDARD SPECIFICATIONS AND STANDARD PLANS DATED 2018.
  - ALL VEHICLE SIGNAL INDICATIONS SHALL BE 12-INCH AND SHALL BE INSTALLED WITH "LED" SIGNAL MODULES.
  - ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE INSTALLED WITH "LED" PEDESTRIAN MODULES. PEDESTRIAN MODULES SHALL BE EQUIPPED WITH COUNTDOWN TIMERS PER THE CALTRANS 2018 STANDARD PLAN RSP ES-4B DETAIL B.
  - SIGNAL POLE LOCATIONS ARE APPROXIMATE.
  - ALL BACK PLATES SHALL BE LOUVERED.
  - ALL BACK PLATES AND VISORS SHALL BE METAL, NO PLASTIC PARTS WILL BE ALLOWED.
  - ALL PULL BOXES SHALL BE NUMBER 5 UNLESS OTHERWISE NOTED. THE TOP OF THE PULL BOXES SHALL BE FLUSH WITH FINISHED GRADE AS SHOWN ON THE CALTRANS 2018 STANDARD PLAN RSP ES-8A.
  - PULL BOXES SHALL BE INSTALLED PER THE CALTRANS 2018 STANDARD PLAN RSP ES-8A. AND SHALL NOT BE INSTALLED IN OR WITHIN A CURB ACCESS RAMP.
  - PULL BOXES LOCATED IN ROADWAYS OR SHOULDER AREAS SUBJECT TO TRAFFIC, SHALL BE TRAFFIC TYPE PER THE CALTRANS 2018 STANDARD PLAN RSP ES-8B.
  - COUPLING NUTS SHALL BE USED FOR ALL TYPE (1-A) POLES PER THE CALTRANS 2018 STANDARD PLAN RSP ES-7B.
  - PEDESTRIAN PUSH BUTTON SHALL BE WITH PLACARD R10-3 SIZE 9"x12" AND PER THE CALTRANS 2018 STANDARD PLANS RSP ES-7A AND RSP ES-5C (TYPE B).
  - ALL SIGNAL AND LIGHTING STANDARD FOUNDATIONS SHALL BE ADJUSTED TO PROPOSED FINISHED GRADE.
  - ALL UNUSED TENONS SHALL BE CAPPED.
  - ALL WIRING AND CABLES SHALL BE NEW UNLESS OTHERWISE NOTED.
  - ALL NEW CONDUIT SHALL BE MINIMUM 4-INCH SCHEDULE 80 ELECTRICAL GRADE PVC AT A MINIMUM 36-INCH DEPTH INCLUDING A 12-INCH SAND ZONE COVERING.
  - LOCATION OF ALL UNDERGROUND FACILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL POTHOLE TO DETERMINE THE EXACT LOCATIONS AND VERIFY ALL CONDITIONS ON THE JOB SITE. HAND DIG FOUNDATIONS UNTIL CLEAR OF ANY OBSTRUCTIONS. PHONE THE UNDERGROUND SERVICE ALERT AT (800) 227-2600, TWO WORKING DAYS BEFORE DIGGING.
  - THE CONTRACTOR SHALL NOTIFY THE COUNTY REPRESENTATIVE TO SCHEDULE A FIELD REVIEW WITH TRAFFIC DIVISION TO VERIFY THE LOCATION OF SIGNAL POLES, CONTROLLER CABINET, AND SERVICE.

- TRAFFIC SIGNAL CONSTRUCTION NOTES:
- INSTALL COUNTY FURNISHED TYPE NEMA TS2-1-R77 ASSEMBLY INCLUDING COBALT CONTROLLER WITH TOUCH SCREEN OPTION, TYPE "R" CABINET WITH 16-CHANNEL MMU, UNINTERRUPTIBLE POWER SUPPLY (UPS), NICKEL-ZINC BATTERIES, 1000 WATT MINIMUM BATTERY STORAGE, GPS RECEIVER FOR TIME REFERENCE AND APPURTENANCE EQUIPMENT. THE INTERNAL CABINET WILL INCLUDE SLIDE OUT DRAWER AND LED LIGHTING. INSTALL COUNTY FURNISHED EMERGENCY VEHICLE PRE-EMPTION SYSTEM PER SPECIAL PROVISIONS. THE CONTROLLER CABINET AND FOUNDATION SHALL BE INSTALLED PER CALTRANS 2018 STANDARD PLAN ES-3B. FURNISH AND INSTALL GROUND ROD (8ft MINIMUM) INTO EARTH EXCLUDING CONCRETE FOUNDATION. CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL ELECTRONIC EQUIPMENT REQUIRED TO PROVIDE THE DESIRED SIGNAL OPERATION AS SHOWN ON THE PLAN. REFER TO SPECIFICATIONS FOR ADDITIONAL EQUIPMENT CRITERIA AND DETAILS.
  - FURNISH AND INSTALL 120/240V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE PER CALTRANS 2018 STANDARD PLANS ES-2C AND RSP ES-2E. FURNISH AND INSTALL TIME DELAY PHOTO CELL FOR LUMINAIRES. THE BOTTOM OF SERVICE CABINET SHALL BE FLUSH ABOVE THE SIDEWALK FINISH GRADE.
  - FURNISH AND INSTALL SCHEDULE 80 ELECTRICAL GRADE PVC CONDUIT WITH PULL-ROPE FROM EXISTING POWER POLE #700973H TO THE SERVICE PEDESTAL PER SCE APPROVED DRAWINGS.
  - FURNISH AND INSTALL SCHEDULE 80 ELECTRICAL GRADE PVC CONDUIT WITH 2#6 CONDUCTORS FOR THE SIGNAL SERVICE AND 1#8 BARE FOR GROUND.
  - FURNISH AND INSTALL 4INCH SCHEDULE 80 ELECTRICAL GRADE PVC CONDUIT WITH 2#10 CONDUCTORS FOR THE LUMINAIRES.
  - FURNISH AND INSTALL EMERGENCY VEHICLE PREEMPTION DETECTOR WITH INFRARED DETECTION AT MINIMUM. THE DETECTOR SHALL BE INSTALLED PER THE MANUFACTURE'S SPECIFICATIONS AND CALTRANS 2018 STANDARD PLAN ES-4E.
  - FURNISH AND INSTALL R73-3(CA) (36INCHx36INCH) SIGN ON SIGNAL MAST ARM PER CALTRANS 2018 STANDARD PLAN RSP ES-7N, DETAIL U.
  - FURNISH AND INSTALL DOUBLE SIDED RETRO-REFLECTIVE STREET NAME SIGN PER DETAILS A OR B SHOWN ON PLAN. THE SIGN PANEL SHALL BE ALUMINUM BASE METAL SURFACED WITH RETRO-REFLECTIVE SHEETING DIAMOND GRADE (VIP). THE STREET NAME SIGN SHALL BE INSTALLED ON THE SIGNAL MAST ARM PER CALTRANS 2018 STANDARD PLAN ES-7P WITH A SAFETY CABLE PER DETAIL C AS SHOWN ON PLAN. SEE PROJECT SPECIAL PROVISIONS.
  - FURNISH AND INSTALL NEW PULL BOX AS SHOWN ON PLAN AND PER THE CALTRANS 2018 STANDARD PLAN RSP ES-8A.
  - INSTALL COUNTY FURNISHED AUTOSCOPE VISION VIDEO VEHICLE DETECTION SYSTEM OR AS APPROVED BY THE TRAFFIC DIVISION. THE CAMERA SHALL BE INSTALLED ON THE SIGNAL MAST ARM AS SHOWN ON PLAN AND THE CALTRANS 2018 STANDARD PLAN ES-7R ON 72-INCH PELCO OR SIMILAR RISER. PER THE MANUFACTURE'S SPECIFICATIONS. SEE PROJECT SPECIAL PROVISIONS. THE VIDEO DETECTION DATA PROCESSING SHALL BE WITHIN THE CAMERA TO MAXIMIZE CABINET SPACE.
  - TO BE REMOVED.

100% PRELIMINARY PLANS  
 SUBJECT TO REVISION

SERVICE ADDRESS: 19286 EASTON STREET, RIALTO

FILE NO. 216925-005

FIELD CHANGES

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		



SAN BERNARDINO COUNTY  
 DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
LL/JHC	LL/JHC	JJ	08/14/2023
			DATE
			JEREMY JOHNSON, P.E. ENGINEERING MANAGER, TRAFFIC DIVISION
APPROVED BY:			DATE
LEI LI, P.E. SUPERVISING ENGINEER			8/14/2023
			GRANT MANN, P.E. DEPUTY DIRECTOR
			8/14/23

CACTUS AVENUE &  
 EASTON STREET  
 TRAFFIC SIGNAL & LIGHTING PLAN  
 RIALTO AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHTS.
JL12093	H15228	1"=20'	6	6