

Engineering & Capital Projects Department

Curb Ramp Improvement Group 1701 (B-17114)

Presented By:

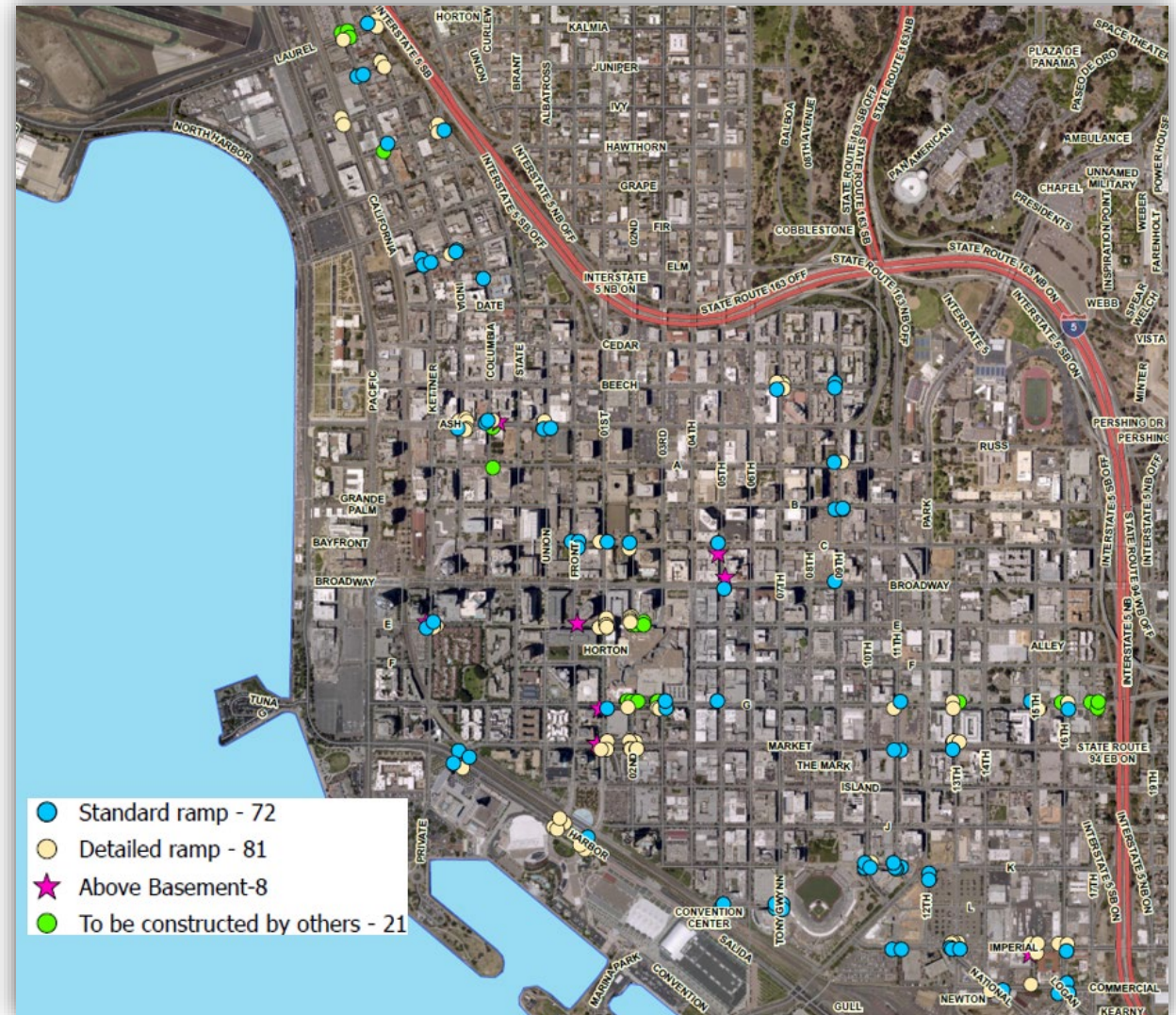
Aveen Saleh, Associate Engineer- Civil

Accessibility Advisory Board
April 2022



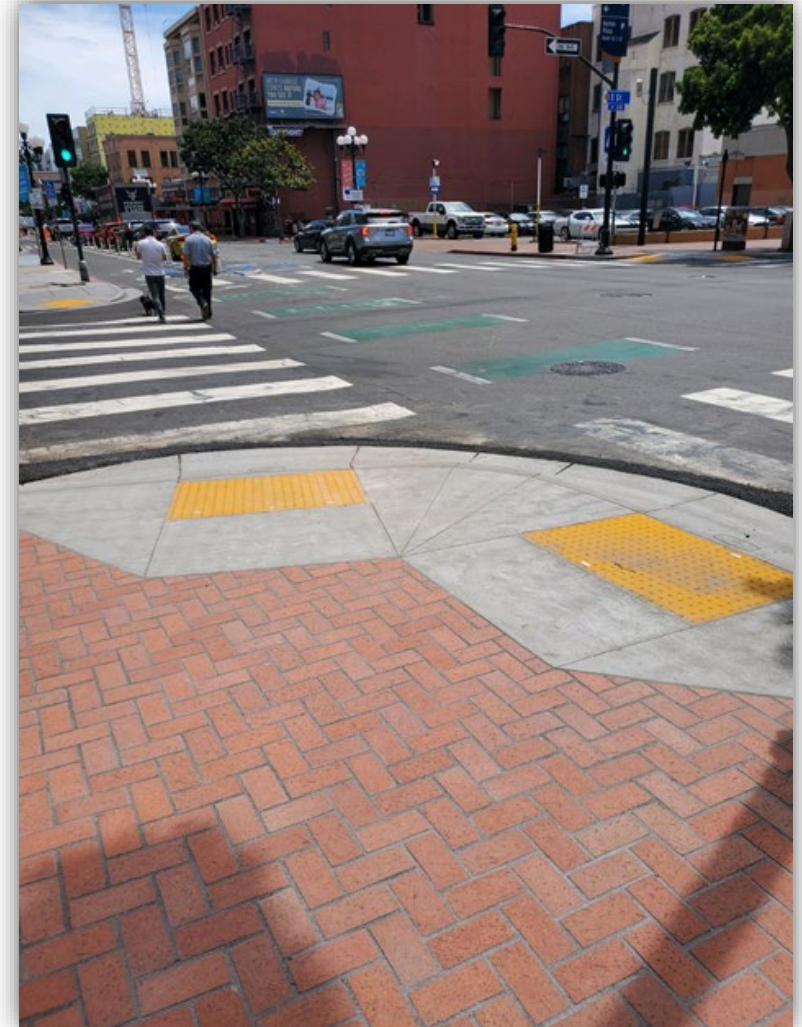
Project Location

- Downtown Community Area
- Council Districts 3 and 8



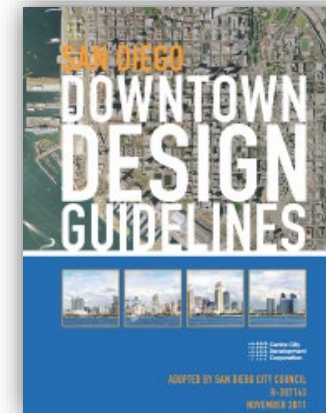
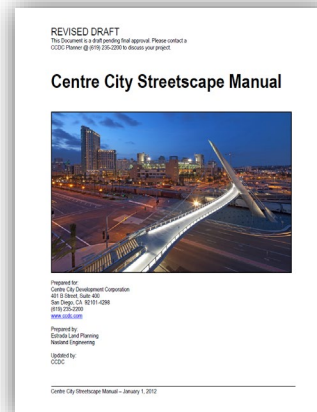
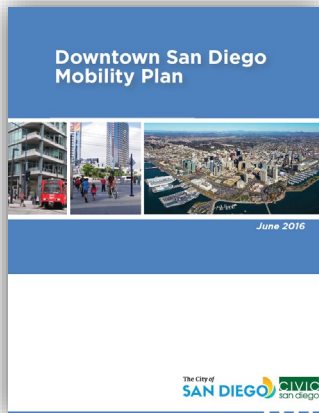
Project Scope

- Installation of new directional curb ramps with detectable warning tiles to replace non-compliant corners
 - 54 intersections
 - 161 curb ramps
- Demolition and removal of existing curb and gutter, non-compliant ramps, and sidewalks
- Installation/replacement of traffic signal push button poles as they relate to installation of directional curb ramps and continental crosswalks
 - 46 new pedestrian push buttons
 - 15 push button upgrades
 - 53 new continental crosswalks



Project Objectives

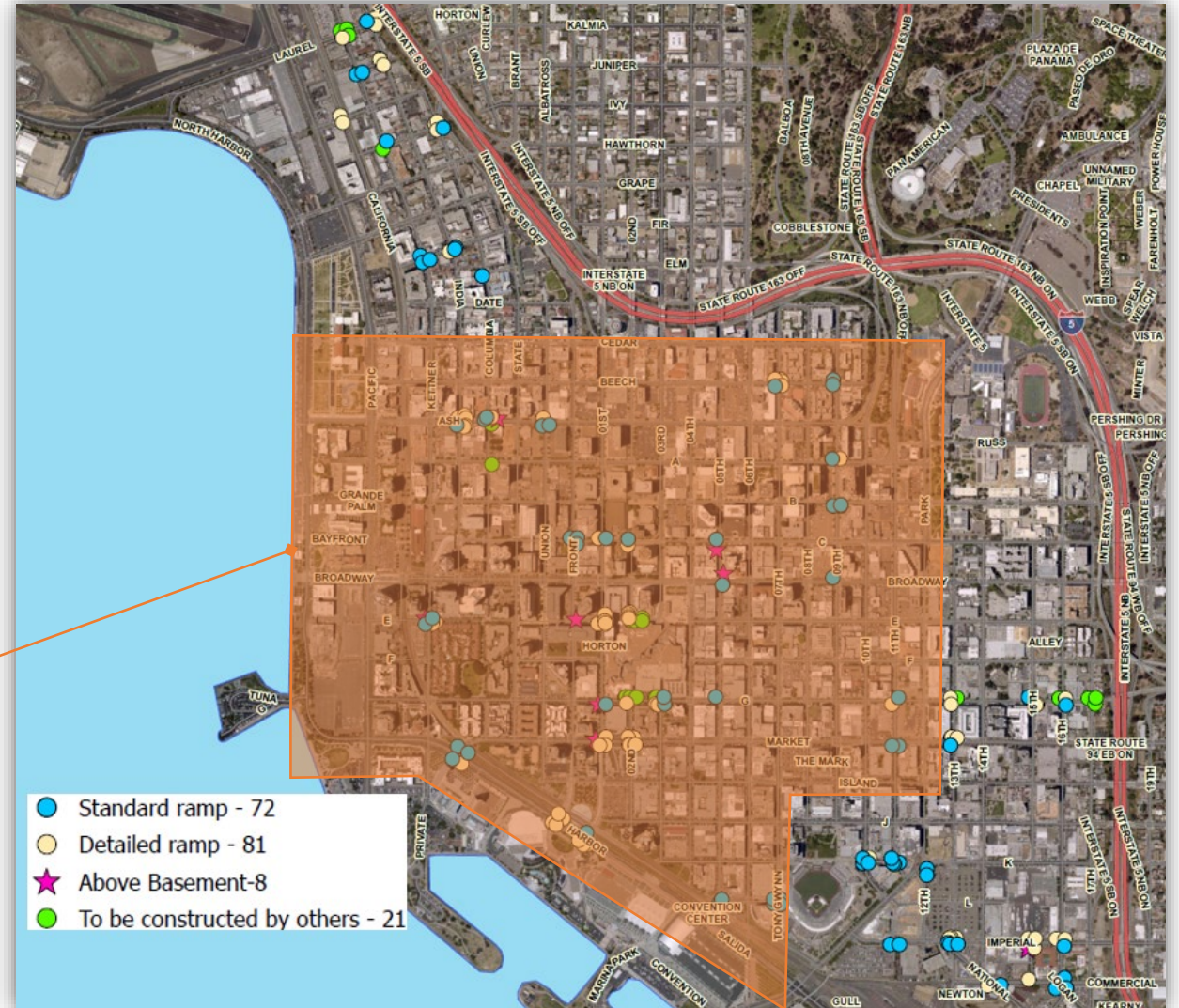
- Walkable communities
 - Create safe and comfortable pedestrian environment
 - Create a complete, functional, and interconnected pedestrian network accessible to pedestrians of all abilities
 - Achieve greater walkability through pedestrian-friendly street designs
- Streets and Freeway Systems
 - Keep well-maintained streets
 - Create safe and efficient street design that minimizes environmental and neighborhood impacts



Project Schedule

Schedule			
Project Phase	Start Date	End Date	Duration
Design	December 2020	November 2021	11 months
Bid/Award	December 2021	June 2022	6 months
Construction	August 2022	April 2023	9 months

Downtown Holiday Moratorium
Thanksgiving Day to New Years Day



Construction Cost

- Construction Contract: \$1.5 million
- Contractor: LC Paving & Sealing, Inc.

Curb Ramp Costs per Type	
Type A	\$4,435.84
Type B	\$3,518.81
Type C1	\$5,879.60
Blended Transition	\$7,616.95
Curb Ramps Above Basements	\$6,254.53 - \$8,064.53
DWT Retrofit	\$522.78

Challenges

Constraints

- Limited ROW
- Existing obstructions
 - Pullboxes
 - Vaults
 - Traffic signals
 - Streetlights
 - Fire hydrants
 - Retaining walls
 - Stormwater inlets
 - Gate valves
- Existing steep slopes
- Drainage
- Sight Distance
- Curb ramps above basements

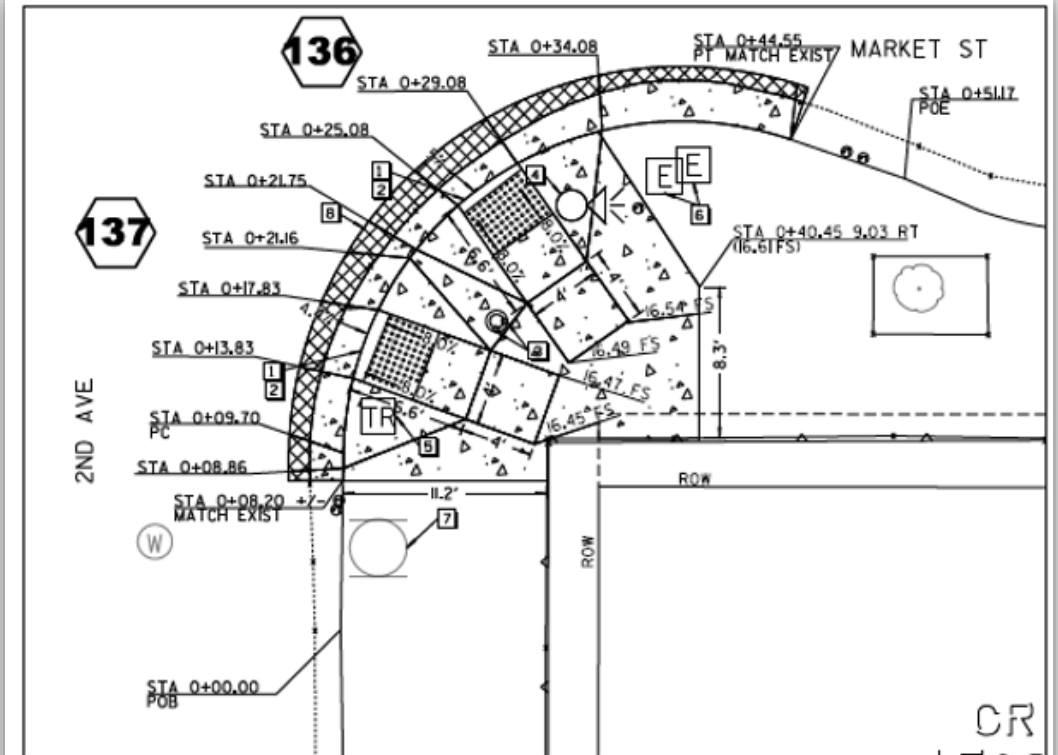


Examples

Market & 2nd



Proposed Design



CONSTRUCTION NOTES

1. CONSTRUCT TYPE "A" CURB RAMP PER SDG-132, SDG-134 AND DETAIL 1.
2. CONTRACTOR SHALL ADHERE TO THE CENTRE CITY STREETSCAPE MANUAL (CCSM) FOR "MARKET STREET PAVING" SIDEWALK PATTERN AND TREATMENT.
3. REMOVE EXIST PEDESTRIAN PUSH BUTTONS, FURNISH AND INSTALL NEW ADA STANDARD PUSH BUTTON (2) AND PUSH BUTTON ASSEMBLY POST DETAIL "B" PER CAL TRANS 2018 STANDARD PLAN ES-7A.
4. PROTECT EXIST TRAFFIC SIGNAL POLE IN PLACE.
5. PROTECT EXIST UTILITY BOX IN PLACE, ADJUST TO GRADE.
6. PROTECT EXIST UTILITY BOX IN PLACE.
7. PROTECT EXIST FIRE HYDRANT IN PLACE.
8. SAWCUT 18" FROM PROPOSED LIP OF GUTTER, AC BACKFILL TO MATCH GRADE.

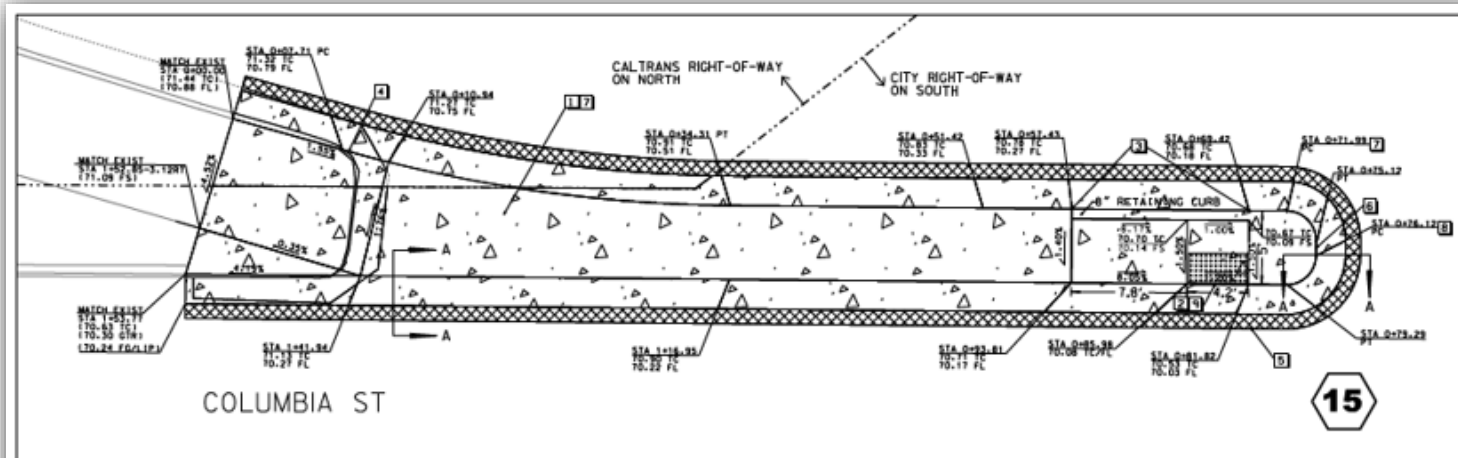
Examples

Columbia & Ivy (Before)



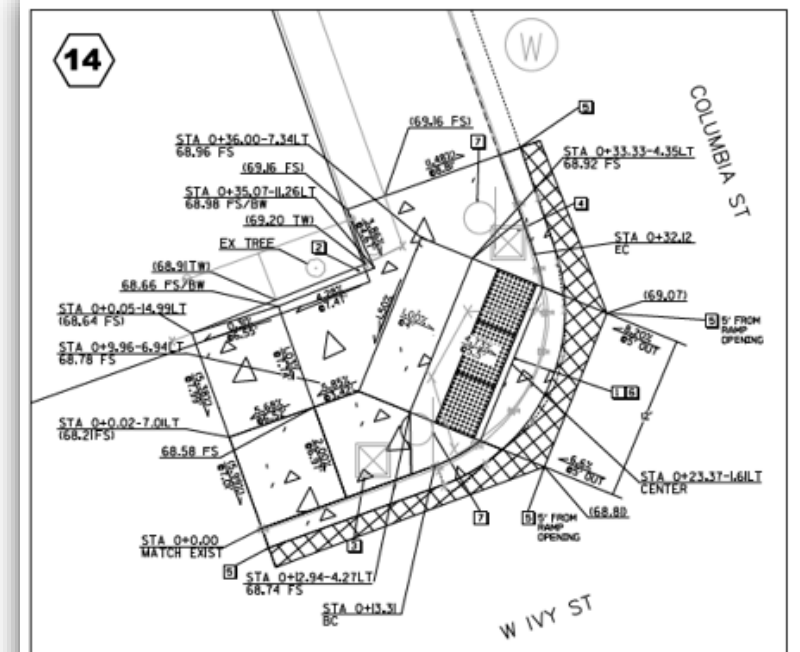
Examples

Columbia & Ivy (Proposed Design)



CONSTRUCTION NOTES

1. CONSTRUCT CONTIGUOUS MEDIAN SIDEWALK PER CITY OF SAN DIEGO STANDARD DRAWING SDG-155 AND DETAIL AS SHOWN ON PLAN.
2. INSTALL TYPE C1 RAMP SINGLE RAMP RUN NORTH RETAINING CURB SOUTH PER SAN DIEGO STANDARD DRAWING SDG-135. INSTALL 4'x2' DWT PER CITY A.M.
3. CONSTRUCT 8' WIDE RETAINING CURB AND INSTALL PROTECTIVE RAILING - TYPE A PER SAN DIEGO STANDARD DRAWING SDG-140 BETWEEN STATION LIMITS 0+57.43 AND 0+69.42.
4. CONSTRUCT TYPE H CURB & GUTTER PER CITY OF SAN DIEGO STANDARD DRAWINGS SDG-151.
5. SAWCUT 18" FROM PROPOSED LIP OF GUTTER. AC PATCH TO MATCH GRADE.
6. PAINT MEDIAN NOSE YELLOW.
7. BEGIN TRANSITION OF GUTTER PAN TO MATCH EXIST CROSS SECTION SLOPE OF ROADWAY PER SECTION A-A THIS SHEET.
8. END TRANSITION OF GUTTER PAN TO MATCH EXIST CROSS SECTION SLOPE OF ROADWAY PER SECTION A-A THIS SHEET.
9. CONTRACTOR SHALL MATCH EXIST COLOR, PATTERN AND TEXTURE FOR REPLACED OR DISTURBED SIDEWALK PANELS.

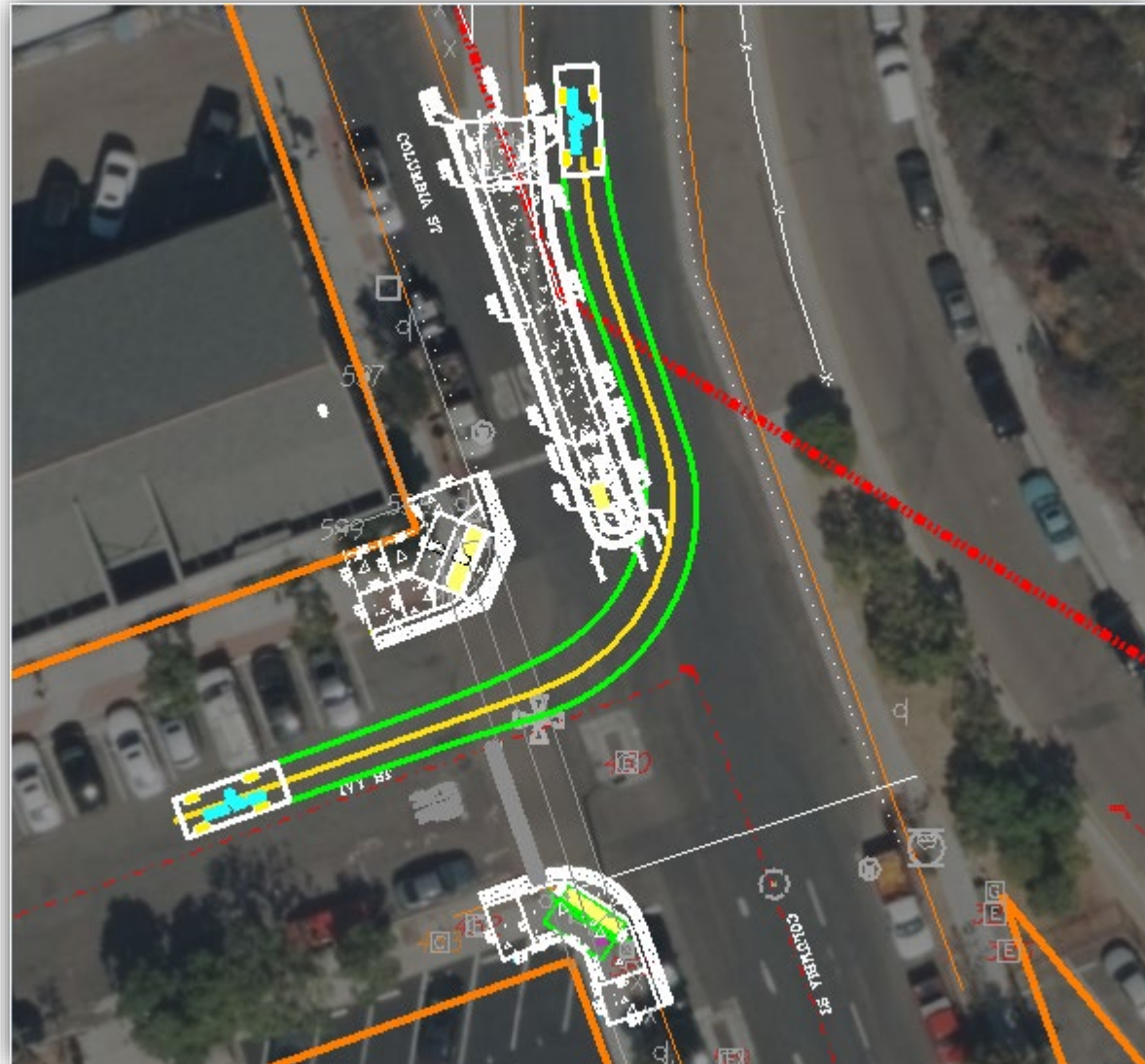


CONSTRUCTION NOTES

1. CONSTRUCT TYPE 'A' CURB RAMP PER SDG-132 WITH 12' WIDE RAMP OPENING AS SHOWN IN DETAIL, AND CALTRANS STANDARD DRAWINGS FOR CURB RAMPS IN CALTRANS RIGHT-OF-WAY. ENSURE THE FACE AND BACK OF CURB SHALL BE A STRAIGHT EDGE ACROSS THE RAMP OPENING. CONTRACTOR TO COORDINATE WITH BUILDING PROPERTY OWNER TO KEEP ADJACENT BUILDING ENTRANCE ACCESSIBLE.
2. CONSTRUCT 6' WIDE RETAINING CURB. PROTECT ADJACENT LANDSCAPE AND BUILDING IN PLACE.
3. RELOCATE EXISTING LANDSCAPE OUT OF NEW RAMP FLARE. REPLACE EXISTING SIGN POST PER SDM-104. SALVAGE EXISTING SIGN(S) AND REINSTALL ON NEW POST.
4. RELOCATE EXISTING TRASH RECEPTACLE OUT OF NEW RAMP FLARE.
5. SAWCUT 18" FROM PROPOSED LIP OF GUTTER UNLESS SHOWN OTHERWISE. AC PATCH TO MATCH GRADE.
6. CONTRACTOR SHALL MATCH EXIST COLOR, PATTERN AND TEXTURE FOR REPLACED OR DISTURBED SIDEWALK PANELS.
7. REPLACE EXISTING SIGN POST PER SDM-104. SALVAGE EXISTING SIGN(S) AND REINSTALL ON NEW SIGN POST.

Examples

Columbia & Ivy (Proposed Design)

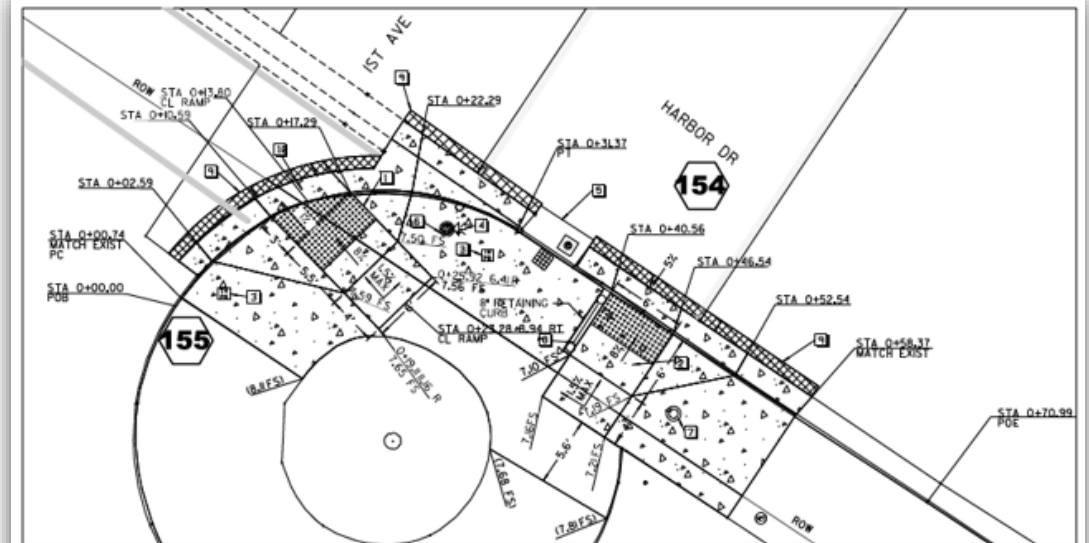


Examples

Harbor & 1st



Proposed Design



CONSTRUCTION NOTES

1. CONSTRUCT TYPE "B" DIRECTIONAL CURB RAMP WITH 6' WIDE OPENING PER DETAIL. CONTRACTOR SHALL MATCH EXIST CURB COLOR, PATTERN AND TEXTURE FOR REPLACED OR DISTURBED SIDEWALK PANELS.
2. CONSTRUCT TYPE "B" RAMP WITH 6' WIDE OPENING. SINGLE FLARE PER SOG-143 AND DETAIL. CONTRACTOR SHALL MATCH EXIST CURB COLOR, PATTERN AND TEXTURE FOR REPLACED OR DISTURBED SIDEWALK PANELS.
3. PROTECT EXIST UTILITY BOX IN PLACE, ADJUST TO GRADE.
4. PROTECT EXIST TRAFFIC SIGNAL POLE IN PLACE.
5. PROTECT IN PLACE EXIST STORM DRAIN INLET.
6. INSTALL NEW PUSH BUTTON HOUSING ASSEMBLY TO COLOR NO. 33538 OF FED-STD-595, RELOCATE OTHER PUSH BUTTON TO NEW POST, SEE NOTE 7.
7. INSTALL NEW PUSH BUTTON HOUSING ASSEMBLY TO COLOR NO. 33538 OF FED-STD-595 AND PUSH BUTTON ASSEMBLY POST DETAIL "B" PER CAL TRANS 2018 STANDARD PLAN ES-7A.
8. INSTALL PROTECTIVE RAILING AT CURB RAMP PER SOG-140.
9. SAWCUT 18" FROM PROPOSED LIP OF GUTTER. PATCH EXIST PAVEMENT MATERIAL TO MATCH GRADE.
10. MAINTAIN 4' X 4' MIN LEVEL LANDING AT MIN 1% SLOPE FOR DRAINAGE.

Curb Ramps Above Basements

- Ensure curb ramps can be constructed without effecting the structural integrity and historic character of the existing building
- Demolition work to be performed with hand tools
 - Jack Hammering is prohibited
 - Concrete surface to be slowly chipped
- Depth of saw cut limited to 2 inches each pass
- Special concrete mixture
 - High strength concrete (4,000 psi)
- DWT retrofit
 - Demolition area limited to 6 inches beyond perimeter of new DWT footprint
 - Edges of new DWT to be flushed, sealed and anchored

Curb Ramps Above Basements





Questions?

Thank You!