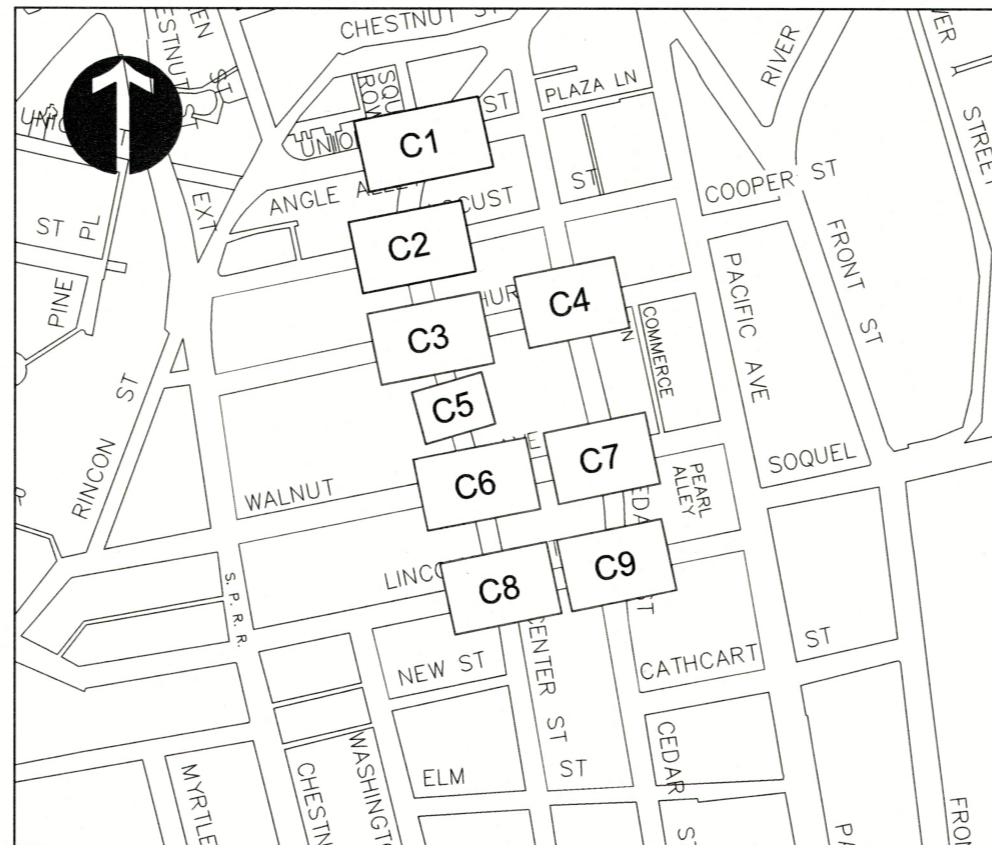




## PUBLIC WORKS DEPARTMENT

# DOWNTOWN CATCH BASIN REHABILITATION 2026 (PROJECT # c402602)



**LOCATION MAP**  
NOT TO SCALE

### INDEX

1. TITLE SHEET
2. LEGEND AND NOTES
3. PLANS - SITES C1 THROUGH C4
4. PLANS - SITE C5
5. PLANS - SITES C6 THROUGH C9
6. STRIPING PLANS - SITES C1 THROUGH C5
7. STRIPING PLANS - SITES C6, C8 & C9
- 8 - 9. CURB RAMP DETAIL SHEET (1) & (2)
- 10 - 14. DETAIL SHEET (1) TO (5)



APPROVED BY:

*Kevin J. Crossley*  
R.C.E. NO. 074847  
ASSISTANT DIRECTOR / CITY ENGINEER  
CITY OF SANTA CRUZ



SAFETY IS IN YOUR HANDS.  
EVERY ONE. EVERY TIME.

### CONTRACTOR NOTE:
















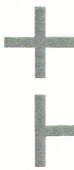

CONTRACTOR SHALL USE AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. ANY CONFLICT DISCOVERED SHALL BE REPORTED TO THE PROJECT ENGINEER.

REFERENCES	DATE	1/21/2026	SCALE	NOT TO SCALE
FIELD BOOK:	DRAWN	ADH	SHEET	1 OF 14
DRAWING #:	DESIGN	ADH / SG	VAULT NO.	# 9227
	CHECKED	KC		


**ABBREVIATIONS**

- |                                |                                       |                            |
|--------------------------------|---------------------------------------|----------------------------|
| <b>(E)</b> - EXISTING          | <b>E</b> - ELECTRICAL UTILITY         | <b>S</b> - SLOPE           |
| <b>(N)</b> - NEW               | <b>FL</b> - FLOWLINE                  | <b>SD</b> - STORM DRAIN    |
| <b>A.B.</b> - AGGREGATE BASE   | <b>I.D.</b> - INNER DIAMETER          | <b>SF</b> - SQUARE FEET    |
| <b>A.C.</b> - ASPHALT CONCRETE | <b>LF</b> - LINEAR FEET               | <b>SS</b> - SANITARY SEWER |
| <b>BCR</b> - BEGIN CURB RETURN | <b>MH</b> - MANHOLE                   | <b>TG</b> - TOP OF GRATE   |
| <b>C/L</b> - CENTERLINE        | <b>O.C.</b> - ON CENTER               | <b>TYP</b> - TYPICAL       |
| <b>CB</b> - CATCH BASIN        | <b>O.D.</b> - OUTER DIAMETER          | <b>W</b> - WATER UTILITY   |
| <b>COM</b> - COMCAST UTILITY   | <b>OH</b> - OVERHEAD UTILITY          | <b>WM</b> - WATER METER    |
| <b>D/S</b> - DOWNSTREAM        | <b>PCC</b> - PORTLAND CEMENT CONCRETE | <b>WV</b> - WATER VALVE    |
|                                | <b>R&amp;R</b> - REMOVE & REPLACE     |                            |

**LEGEND**

- |   |                       |  |                        |
|---|-----------------------|--|------------------------|
|    | (E) MANHOLE           |    | (E) GAS UTILITY        |
|    | (N) MANHOLE           |    | (E) STORM DRAIN        |
|   | (E) WATER VALVE       |    | (E) SANITARY SEWER     |
|  | (E) FIRE HYDRANT      |  | (E) WATER UTILITY      |
|  | (E) WATER METER       |  | (E) OVERHEAD UTILITY   |
|  | (E) STORM CATCH BASIN |  | (E) ELECTRICAL UTILITY |
|  | (N) STORM CATCH BASIN |  | (E) COMCAST UTILITY    |
|  | (N) PCC STRUCTURE     |   | (E) PARKING TEE        |
|  | (E) PCC STRUCTURE     |  |                        |

**CONSTRUCTION NOTES:**

1. THE CONTRACTOR IS RESPONSIBLE FOR THE INTENT OF THESE PLANS AND THEY SHALL REPORT ANY DISCREPANCIES FOUND IN THEM TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLAN PRIOR TO CONSTRUCTION FOR CITY REVIEW & APPROVAL.
3. UTILITY DEPTHS AND LOCATIONS UNCONFIRMED, CONTRACTOR SHALL POthOLE PRIOR TO CONSTRUCTION TO DETERMINE UTILITY DEPTHS & LOCATION.
4. CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING UTILITIES AND STRUCTURES.
5. DISTURBED UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED PER RESPECTIVE UTILITY PURVEYOR STANDARDS.
6. DISTURBED CURB, GUTTER, AND SIDEWALK SHALL BE RESTORED FROM NEAREST SCORE LINE TO THE NEXT NEAREST SCORE LINE PER DETAIL .
7. ELEVATIONS SHOWN ARE BASED ON REFERENCED DRAWINGS AND CONVERTED TO NAVD88. OTHER ELEVATIONS WERE FOUND BY DIFFERENTIAL LEVELING.
8. DISTURBED STRIPING AND MARKINGS SHALL BE RESTORED IN KIND UNLESS OTHERWISE INDICATED.
9. ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY CITY ENGINEER.
10. CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.
11. BUFFER ZONES AT FIRE HYDRANTS SHALL BE A MINIMUM OF 15 FEET ON BOTH SIDES OF FIRE HYDRANTS (30 FEET IN TOTAL) UNLESS OTHERWISE INDICATED BY CITY ENGINEER.
12. CONTRACTOR TO VERIFY GUTTER FLOW LINES INTO (N) CATCH BASINS WITH CITY ENGINEER.
13. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO START OF CONSTRUCTION REGARDING RELOCATION/ADJUSTMENT OF UTILITIES & UTILITY BOXES/COVERS.



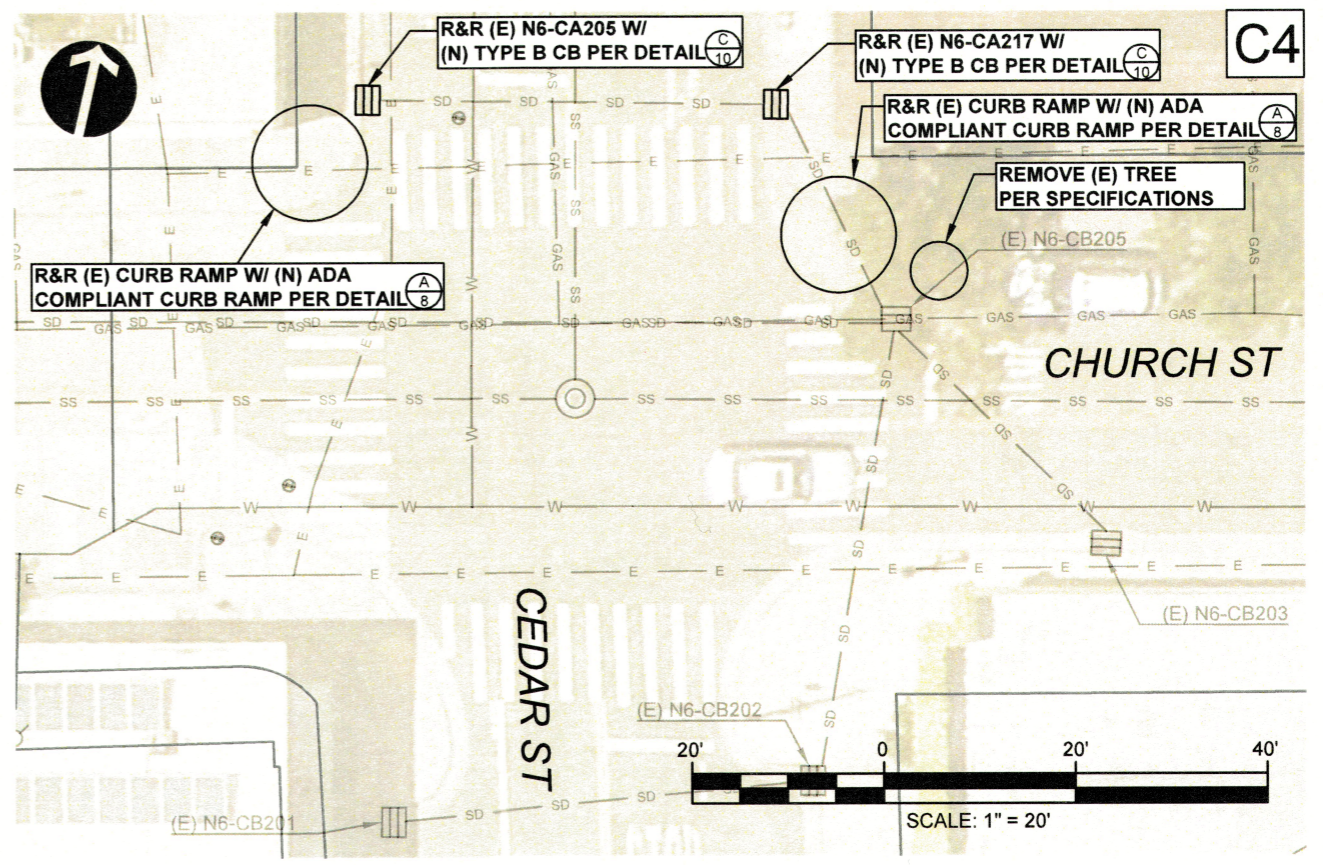
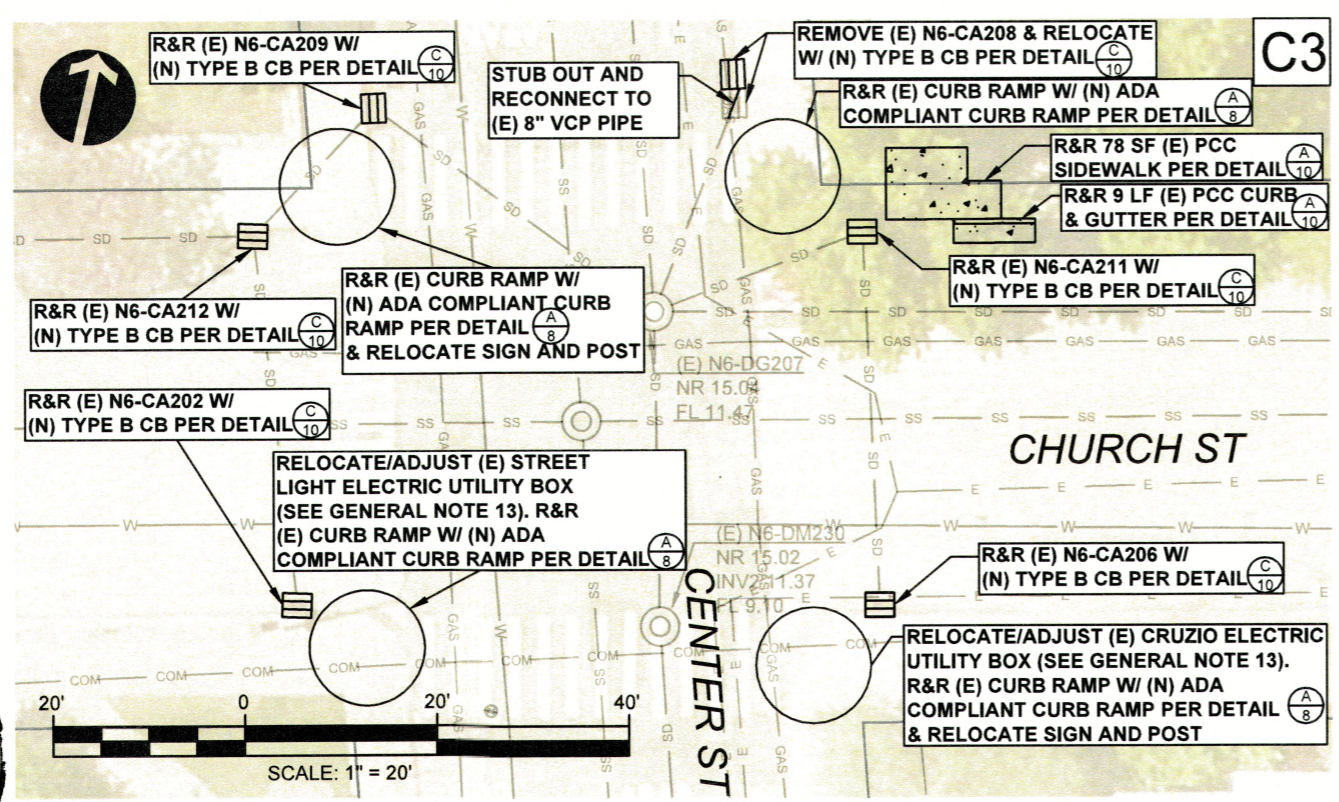
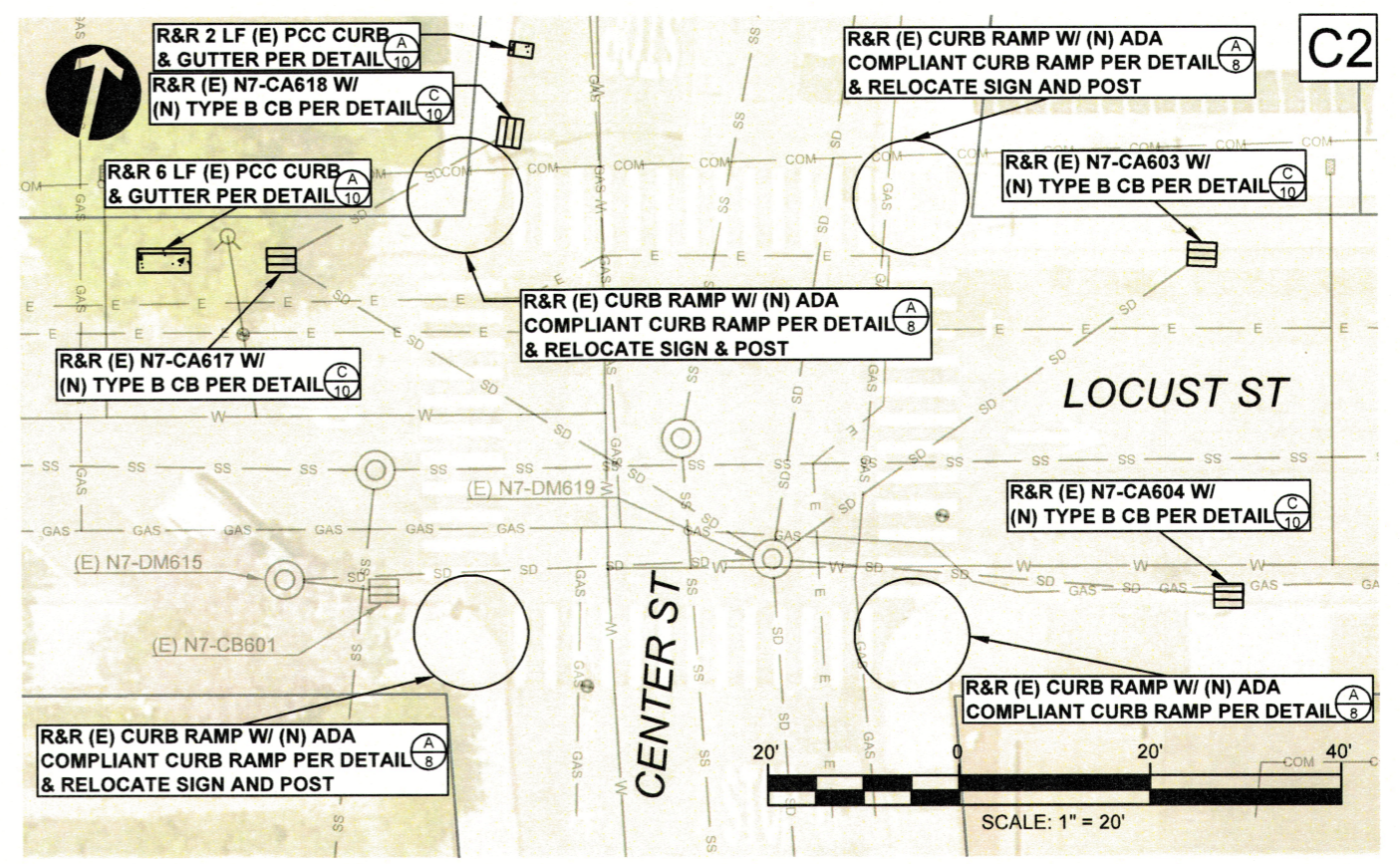
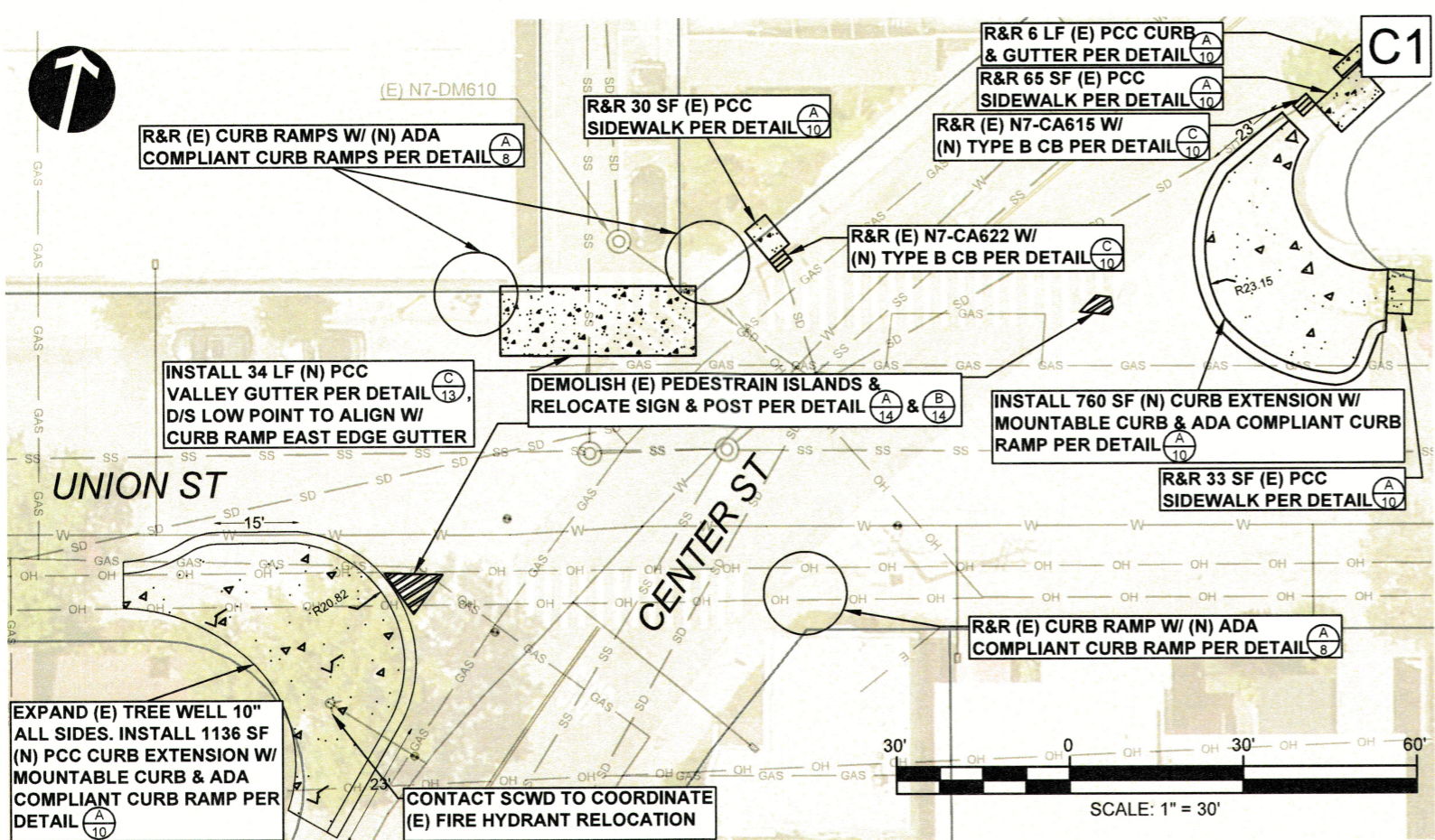
REVISIONS	



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PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201  
Santa Cruz, CA 95060

**DOWNTOWN CATCH BASIN  
REHABILITATION 2026**  
LEGEND AND NOTES

REFERENCES	DATE	1/21/2026	SCALE	AS SHOWN
FIELD BOOK: #	DRAWN	ADH	SHEET	2 OF 14
DRAWING #: #	DESIGN	ADH / SG	VAULT NO.	# 9227
	CHECKED	KC		



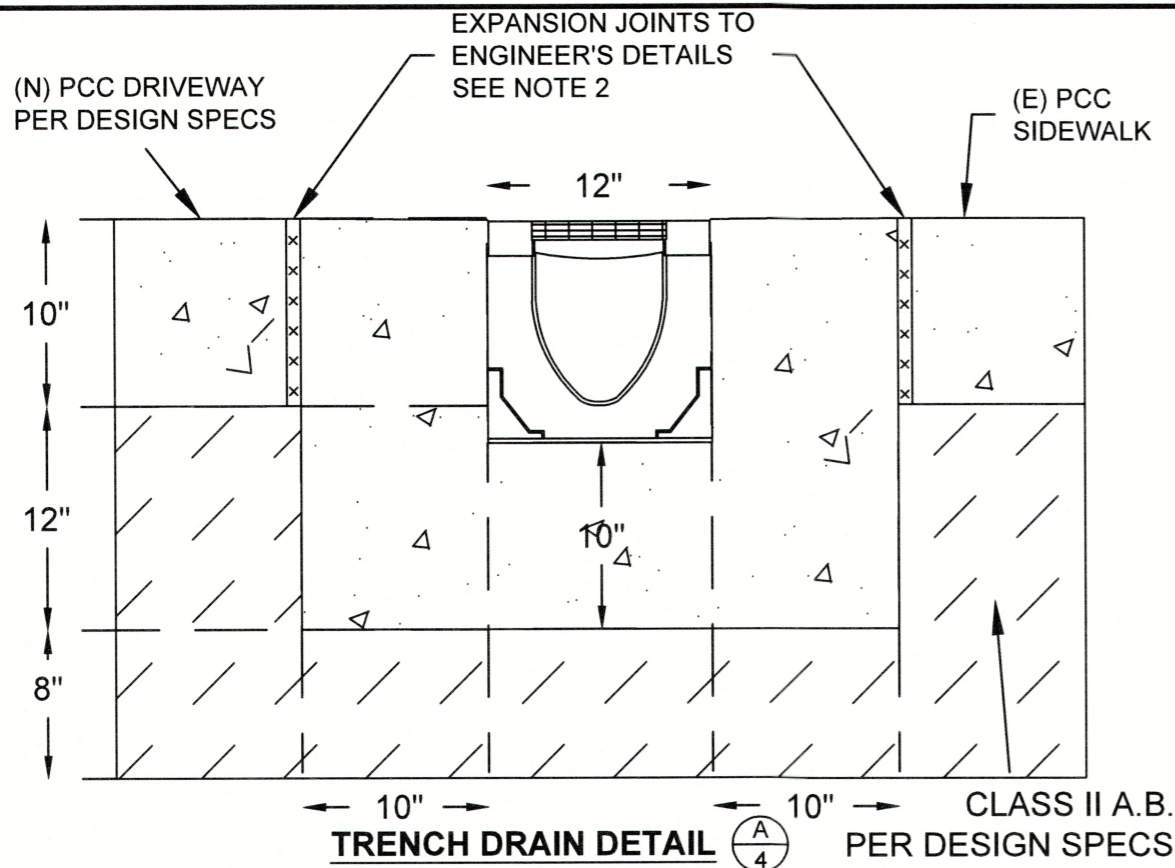
NO.	REVISIONS



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Santa Cruz, CA 95060

**DOWNTOWN CATCH BASIN  
REHABILITATION 2026**  
PLANS - SITES C1 THROUGH C4

REFERENCES	DATE	SCALE
FIELD BOOK: #	1/21/2026	AS SHOWN
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	DESIGN ADH / CM	Vault NO.
	CHECKED KC	<b># 9227</b>

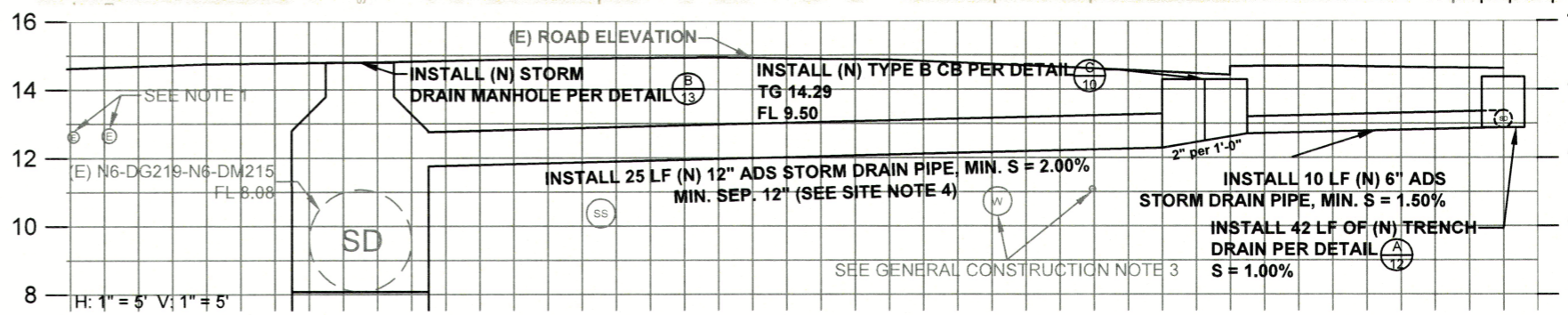
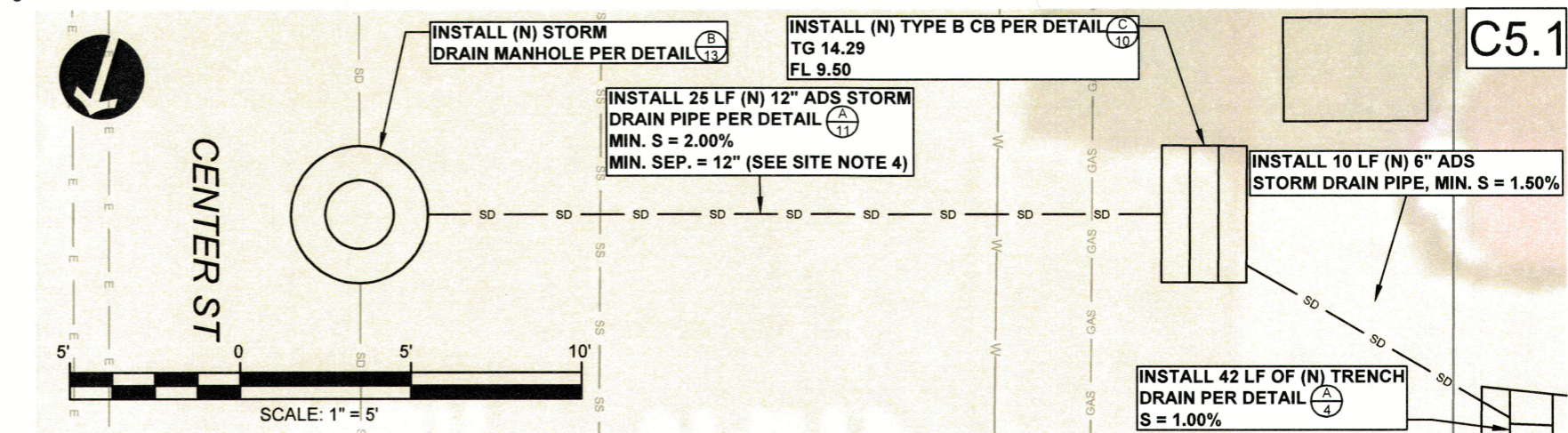
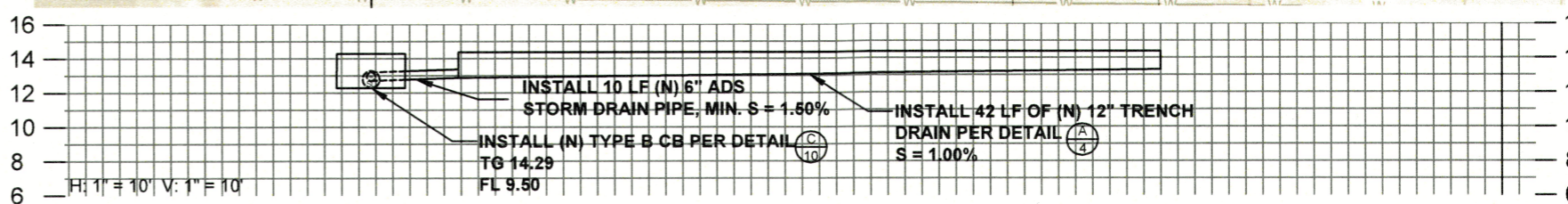
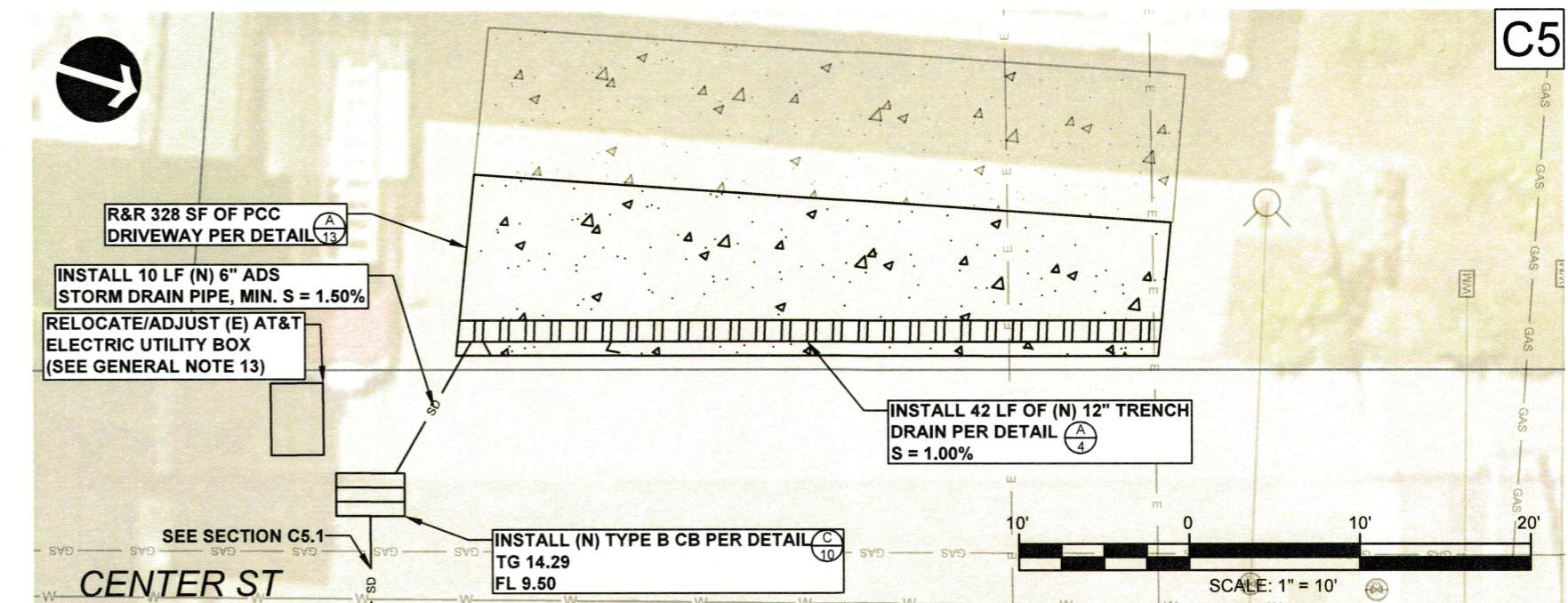


**TRENCH DRAIN NOTES:**

1. MINIMUM CONCRETE STRENGTH OF 5,000 PSI IS REQUIRED. CONCRETE SHALL BE VIBRATED TO ELIMINATE AIR POCKETS.
2. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE REQUIRED TO PROTECT CHANNEL AND CONCRETE SURROUND.
3. TRENCH DRAIN CONCRETE BASE THICKNESS SHALL MATCH INSTALLED DRIVEWAY PCC SLAB THICKNESS (10" PCC SLAB).
4. A.B. THICKNESS UNDER PCC SUPPORT SHALL BE 8" THICKNESS.
5. TRENCH DRAIN CHANNEL DEPTH PER DESIGN SPECS.
6. DRAIN GRATE SHALL BE BOLTED TO FRAME TO MINIMIZE ROCKING.

**SITE NOTES:**

1. CONTRACTOR SHALL COORDINATE W/ CITY STAFF STATIONED AT FIRE STATION 1 THROUGHOUT CONSTRUCTION OF THIS PORTION OF THE PROJECT TO LIMIT TIMEFRAME THAT EMERGENCY ACCESS IS IMPACTED.
2. STAFF SHALL BE INFORMED OF CONSTRUCTION SCHEDULE INVOLVING ALL COMPONENTS OF INFRASTRUCTURE INSTALLATION (DEMOLITION, INSTALLATION, AND NECESSARY CONCRETE CURING TIMELINES).
3. CONTRACTOR SHALL WORK DILIGENTLY ALONGSIDE CITY STAFF IN THE EVENT THAT EMPLOYEE VEHICLE ACCESS TO BAY DOORS IS REQUIRED.
4. NEW STORM DRAIN PIPE SHALL BE INSTALLED W/ MIN. ONE FOOT VERTICAL SEPARATION FROM SEWER/WATER UTILITY LINES.



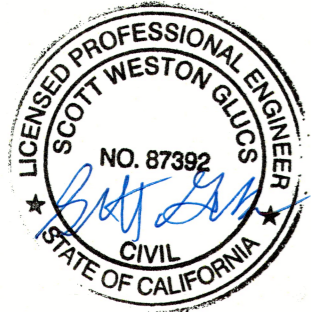
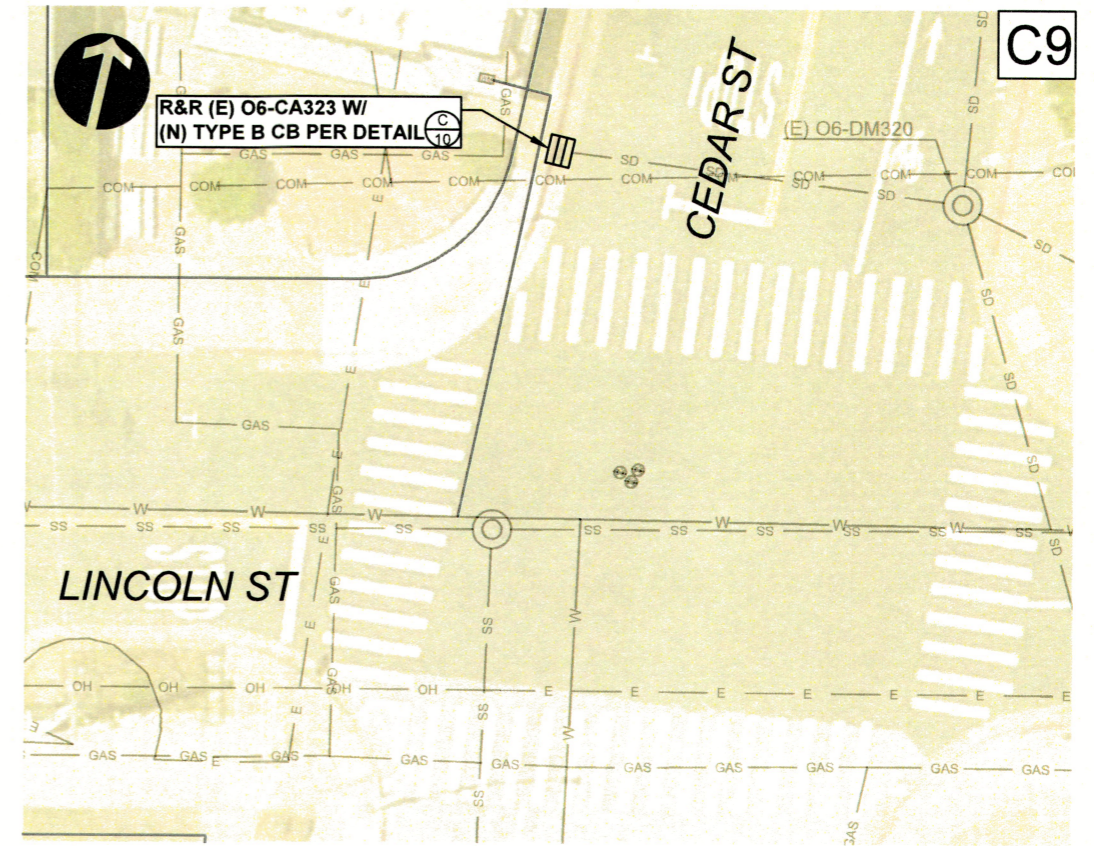
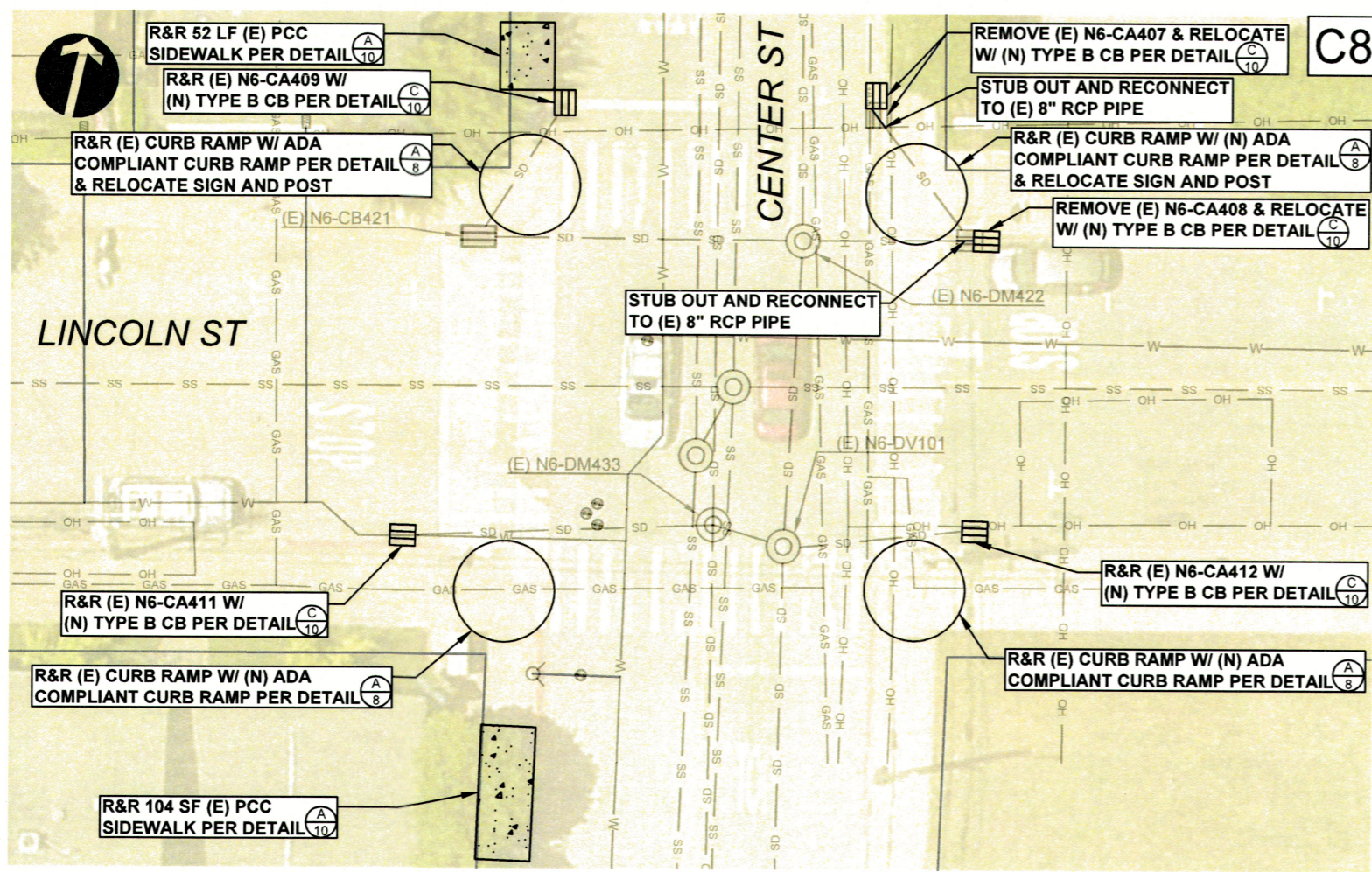
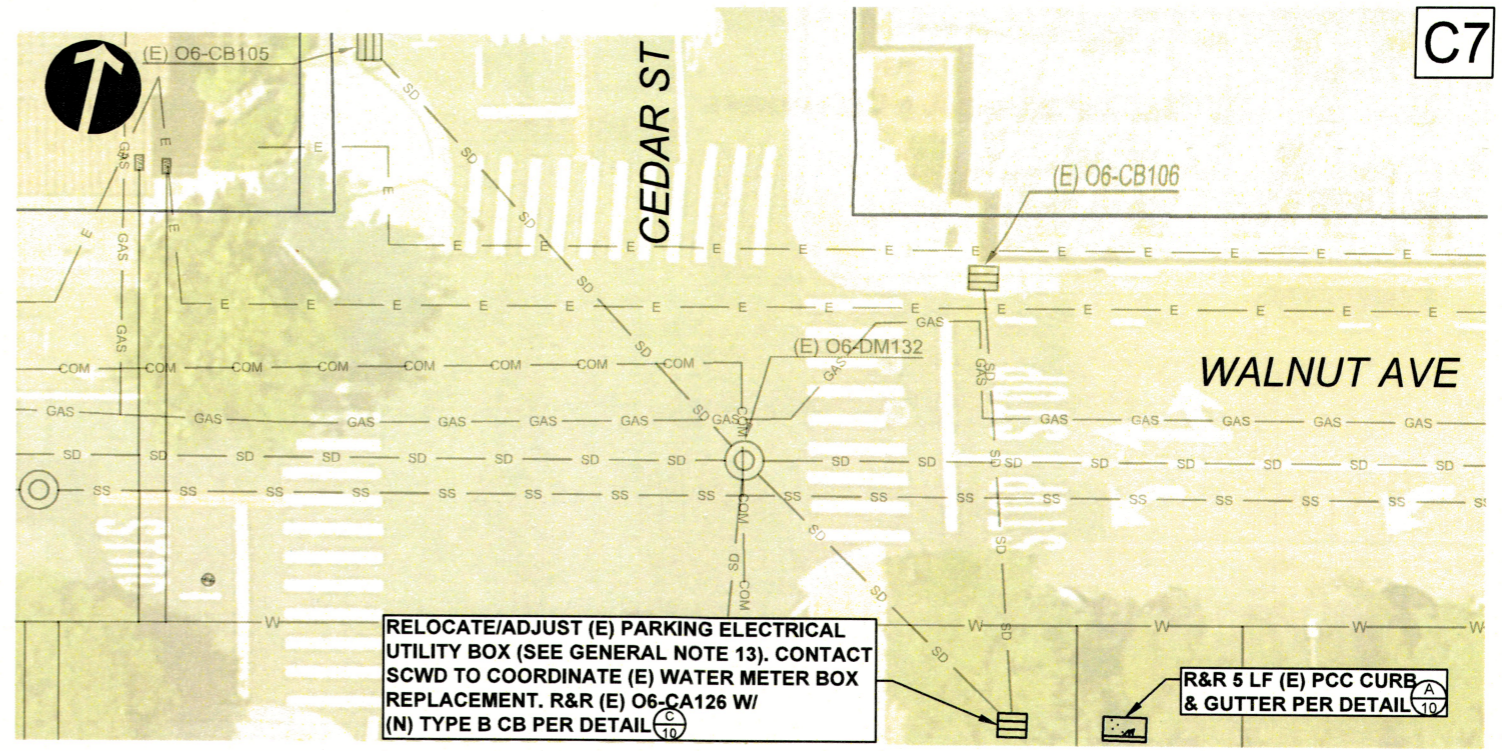
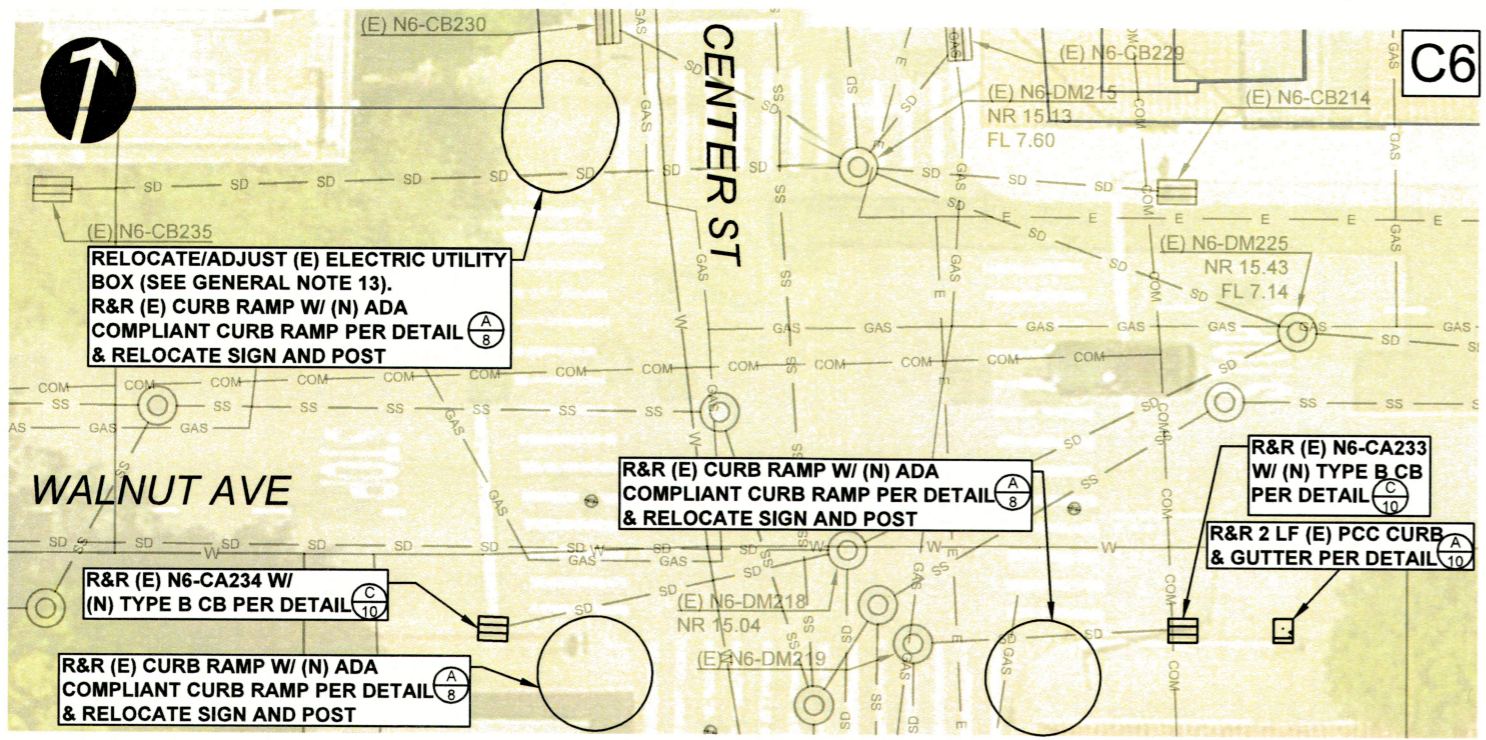
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**DOWNTOWN CATCH BASIN  
REHABILITATION 2026**  
PLANS - SITE C5

REFERENCES FIELD BOOK: # DRAWING #: # 6658	DATE	1/21/2026	SCALE	AS SHOWN
	DRAWN	ADH	SHEET	4 OF 14
	DESIGN	ADH / KS	VAULT NO.	# 9227
	CHECKED	KC		



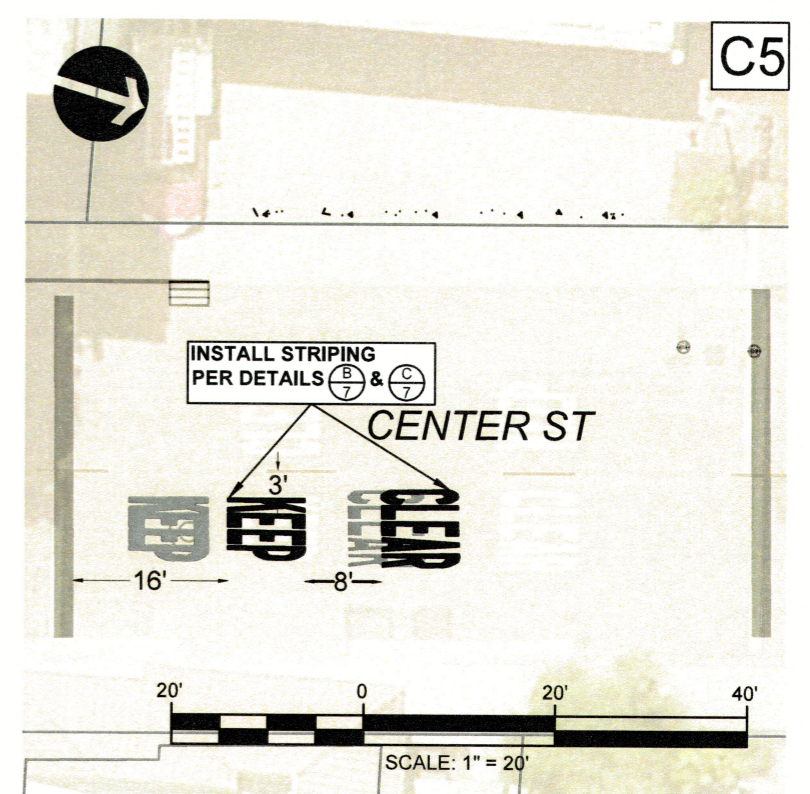
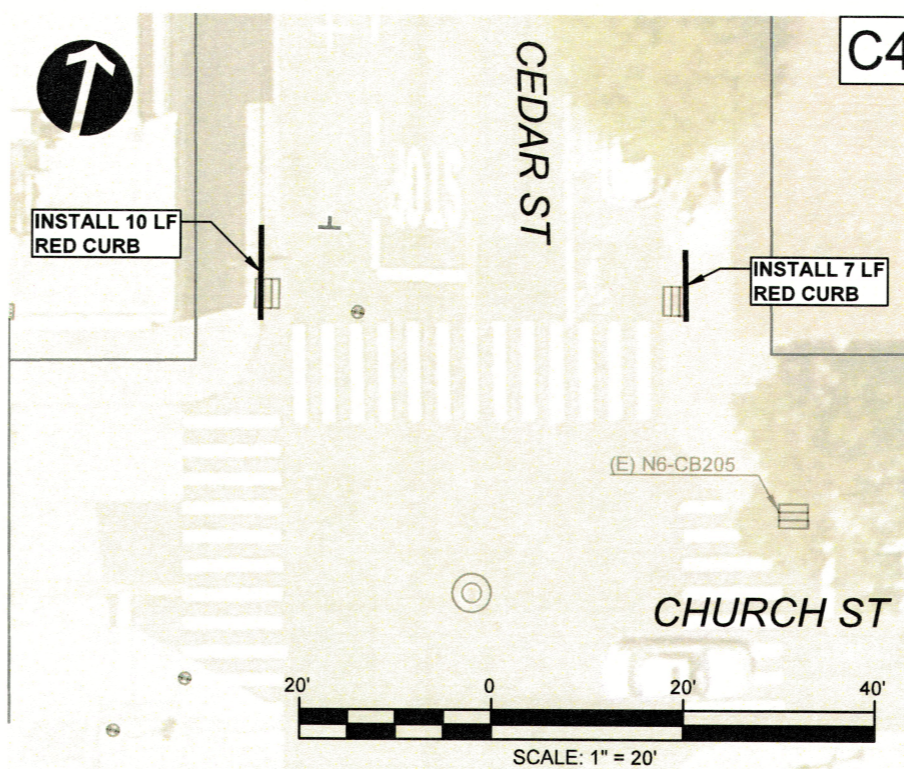
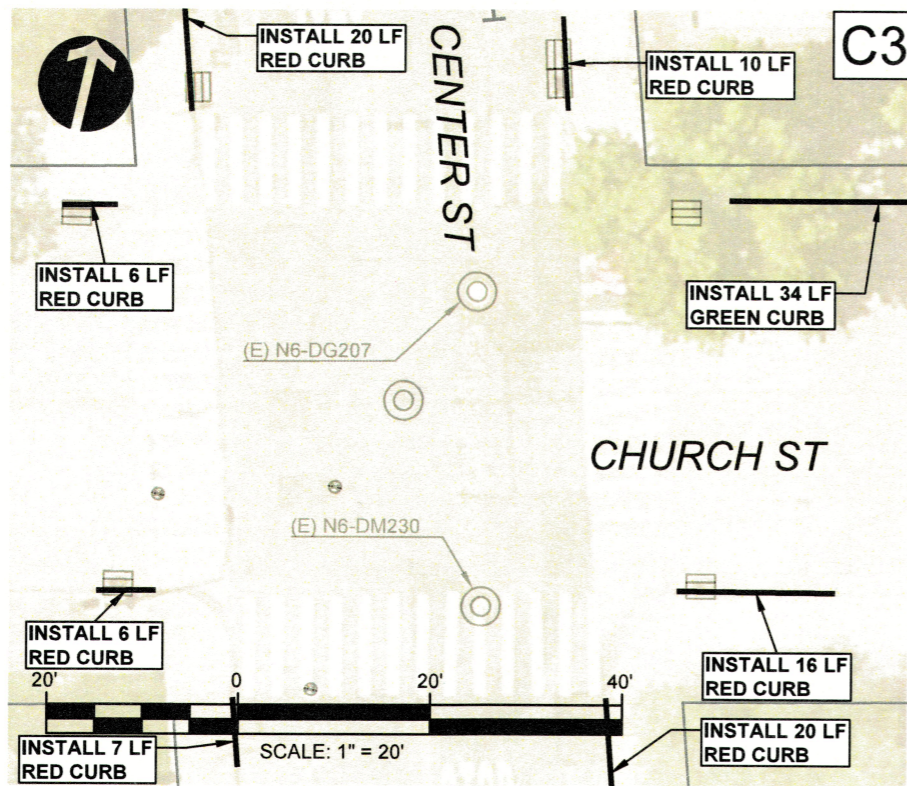
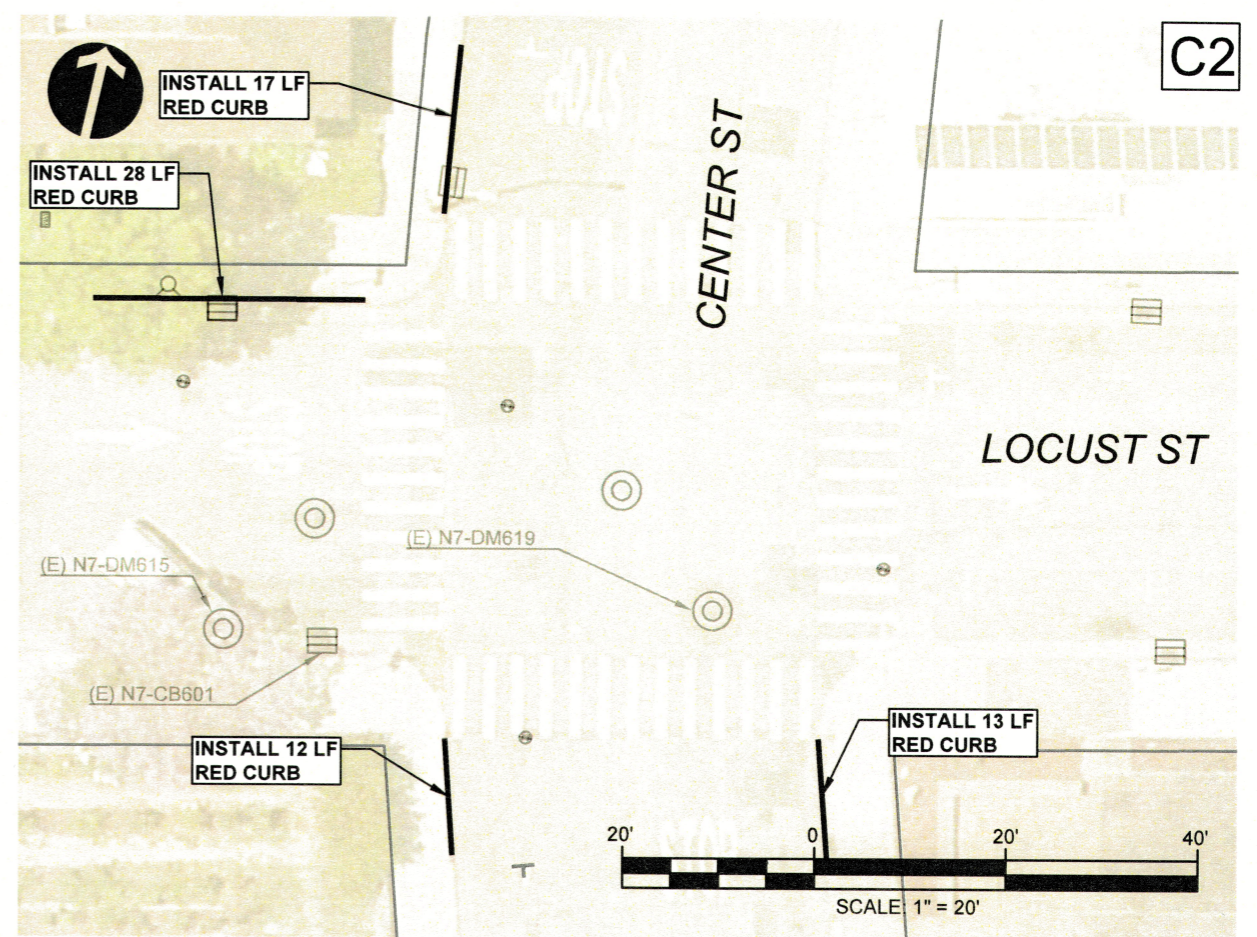
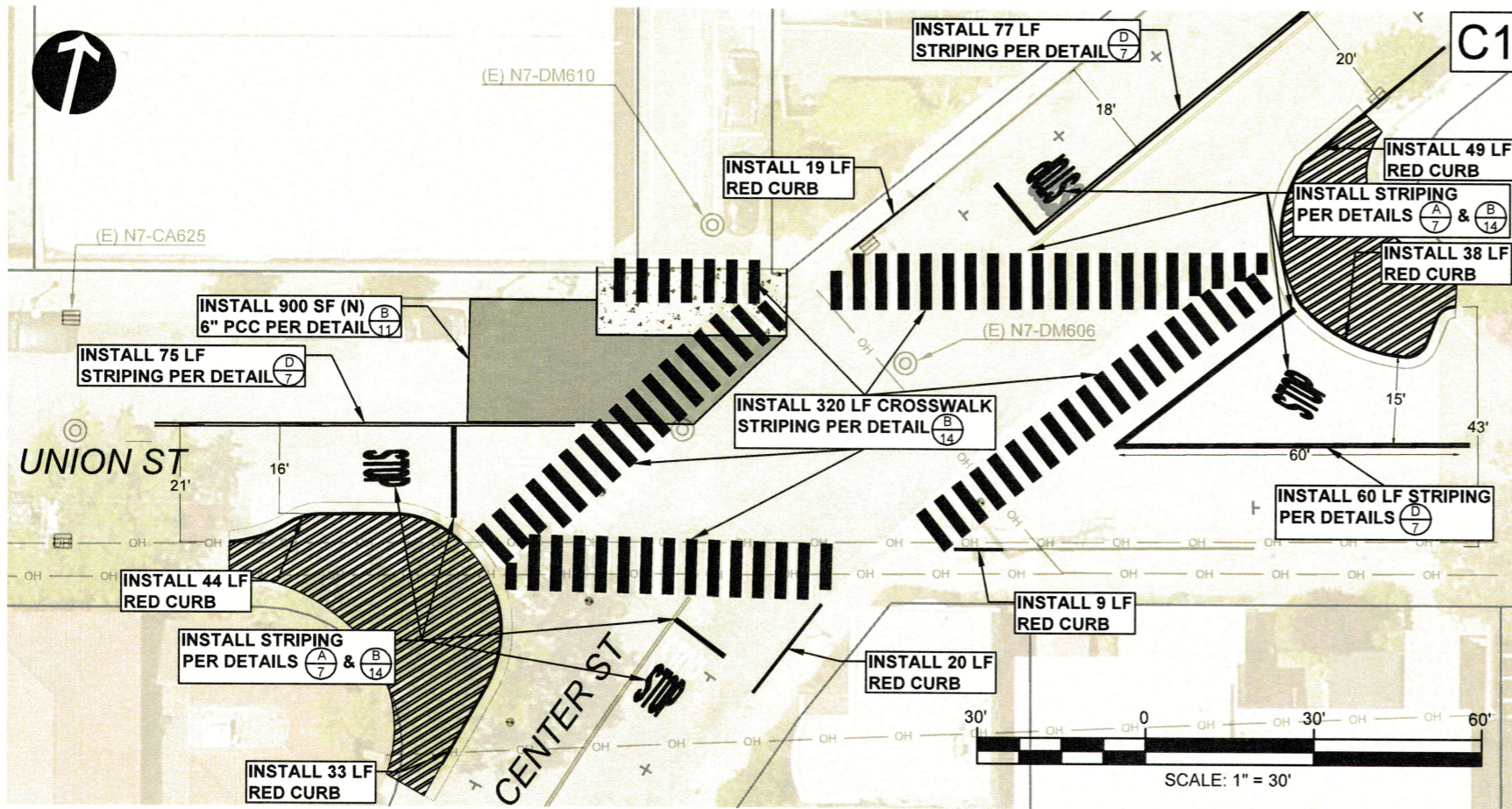
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**DOWNTOWN CATCH BASIN  
REHABILITATION 2026**  
PLANS - SITES C6 THROUGH C9

REFERENCES	DATE	1/21/2026	SCALE	1" = 20'
FIELD BOOK: #	DRAWN	ADH	SHEET	5 OF 14
DRAWING #: #	DESIGN	ADH / SG	VAULT NO.	
	CHECKED	KC	#	9227



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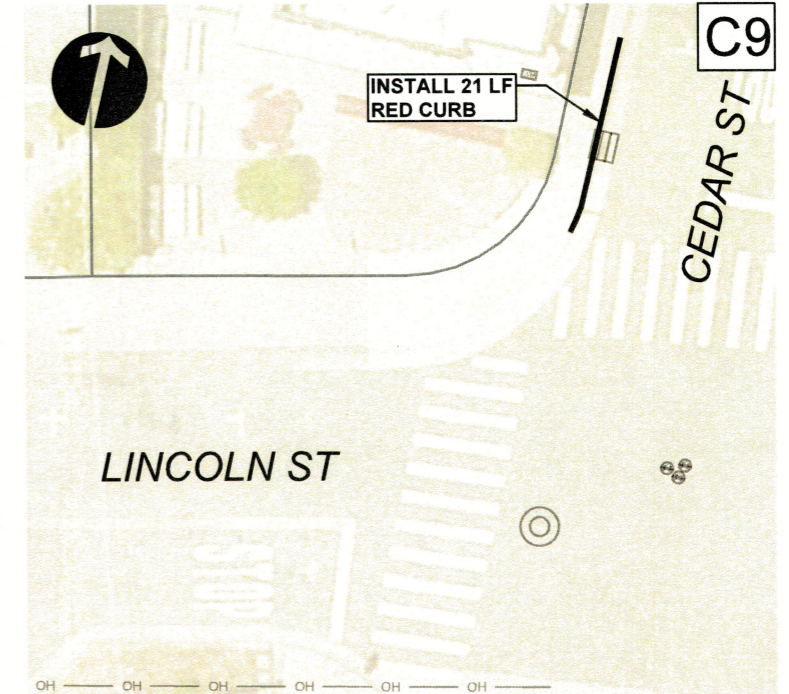
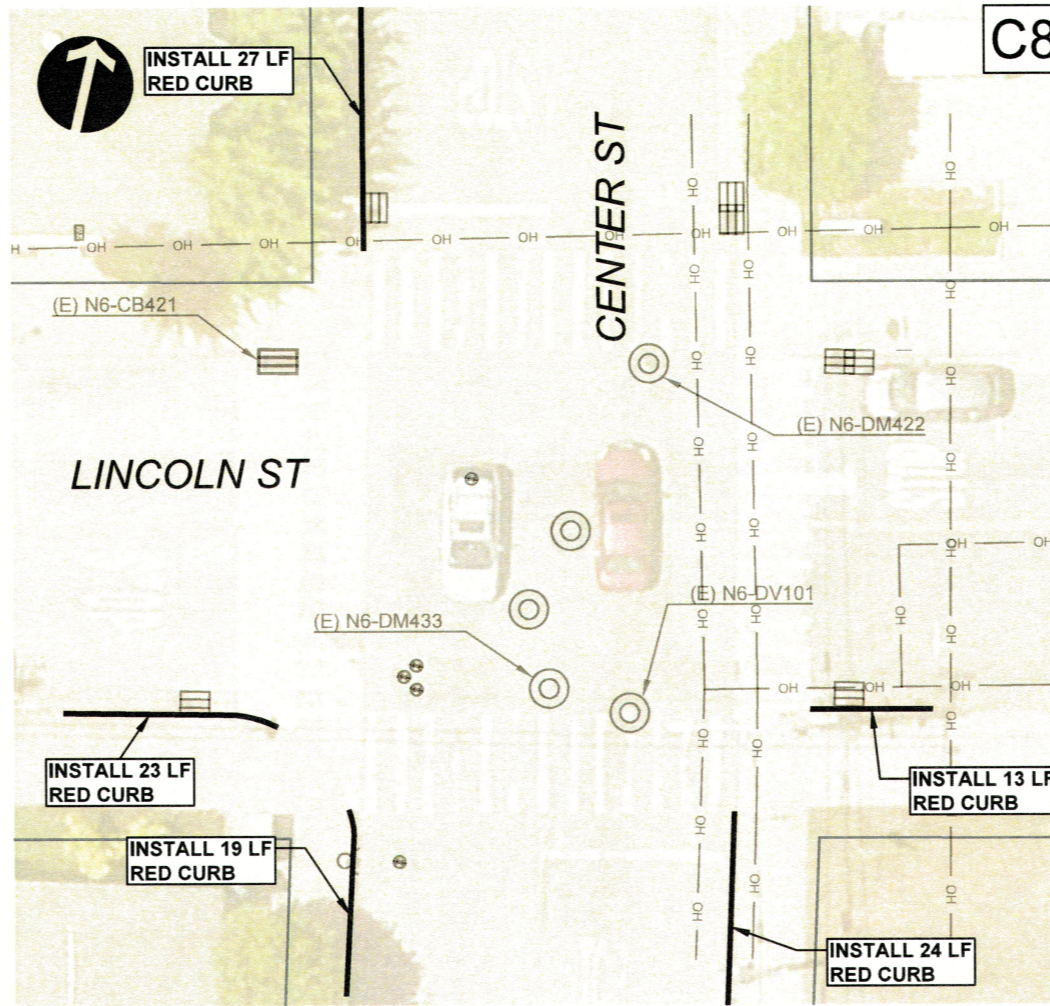
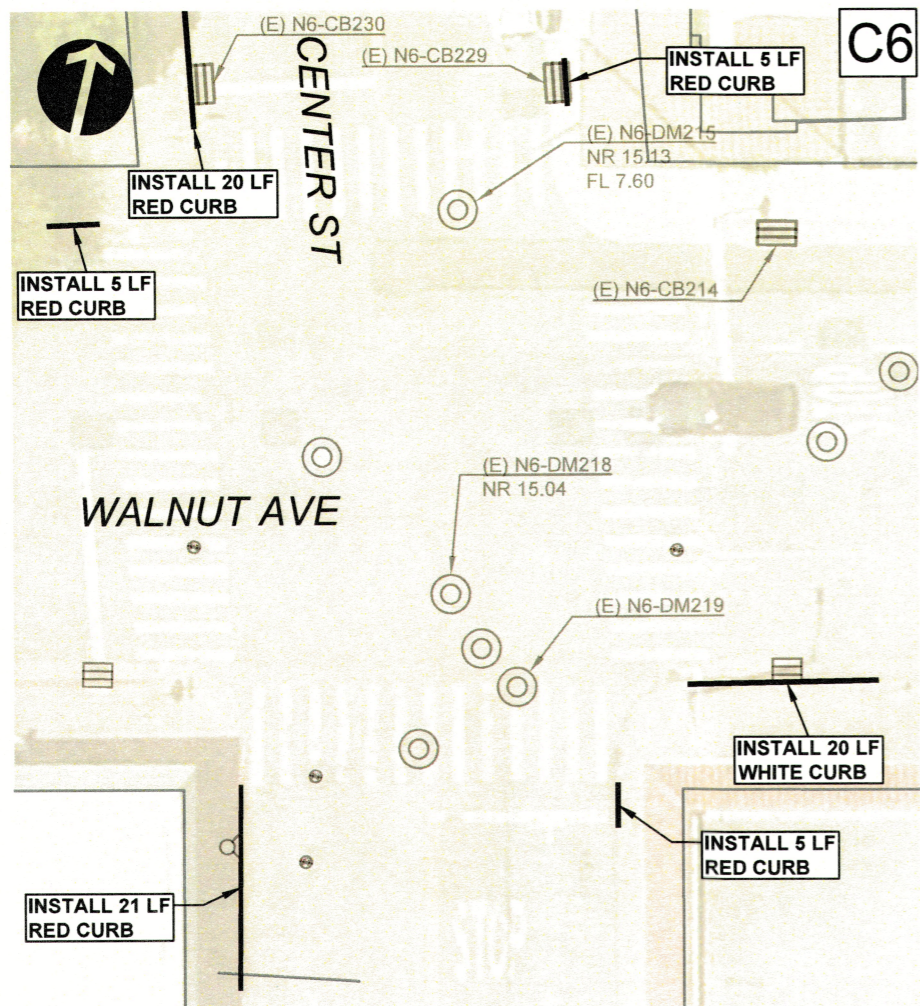
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**DOWNTOWN CATCH BASIN  
REHABILITATION 2026**  
STRIPING PLANS - SITES C1 THROUGH C5

REFERENCES  
FIELD BOOK:  
#  
DRAWING #:  
#

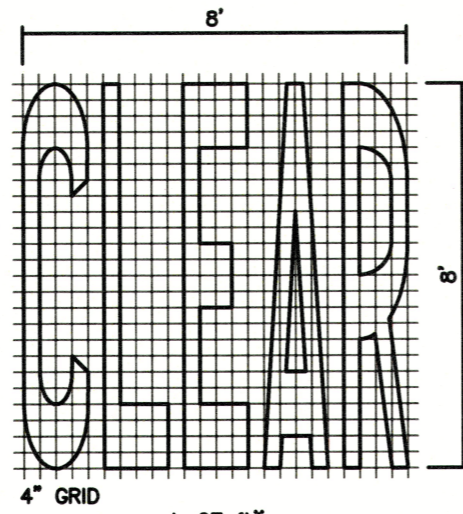
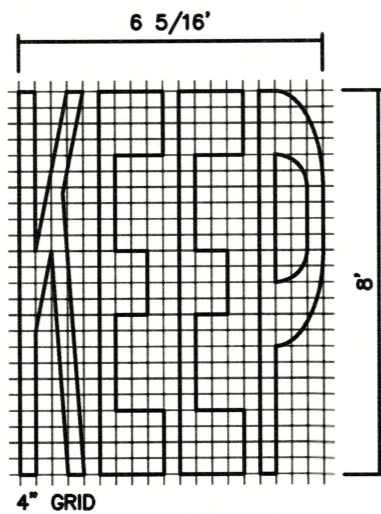
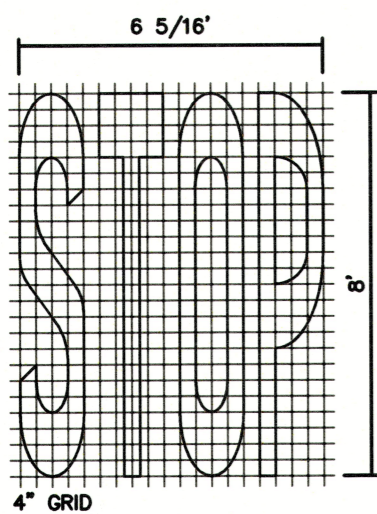
DATE 1/21/2026  
DRAWN ADH / CM  
DESIGN ADH / CM  
CHECKED KC

SCALE AS SHOWN  
SHEET 6 OF 14  
VAULT NO.  
# 9227



**STRIPING NOTES:**

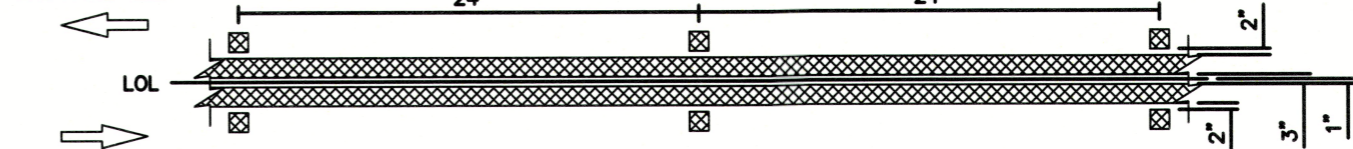
1. IF A MESSAGE CONSISTS OF MORE THAN ONE WORD, IT MUST READ "UP", I.E.. THE FIRST WORD MUST BE NEAREST THE DRIVER.
2. THE SPACE BETWEEN WORDS MUST BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTERS FOR LOW SPEED ROADS, BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTERS. THE SPACE MAY BE REDUCED APPROPRIATELY WHERE THERE IS LIMITED SPACE BECAUSE OF LOCAL CONDITIONS.
3. MINOR VARIATIONS IN DIMENSIONS MAY BE ACCEPTED BY THE ENGINEER.
4. PORTIONS OF A LETTER, NUMBER, OR SYMBOL MAY BE SEPARATED BY CONNECTING SEGMENTS NOT TO EXCEED 2" IN WIDTH.
5. THE WORDS "NO PARKING" PAVEMENT MARKING IS TO BE USED FOR PARKING FACILITIES. FOR TYPICAL LOCATIONS OF MARKINGS, SEE STANDARD PLANS A90A AND A90B.
6. THE WORDS "NO PARKING", SHALL BE PAINTED IN WHITE LETTERS NO LESS THAN 1'-0" HIGH ON A CONTRASTING BACKGROUND AND LOCATED SO THAT IT IS VISIBLE TO TRAFFIC ENFORCEMENT OFFICIALS.



**LEGEND:**

- TYPE C RED-CLEAR RETROREFLECTIVE MARKER
- TYPE D TWO-WAY YELLOW RETROREFLECTIVE MARKER
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE MARKER
- TYPE H ONE-WAY YELLOW RETROREFLECTIVE MARKER
- TYPE RY RED-YELLOW RETROREFLECTIVE MARKER
- 6" WHITE LINE
- 6" YELLOW LINE

**DETAIL 22**



**D** 7 AS SHOWN  
**DETAIL 22: NO PASSING ZONE - TWO DIRECTION**

**A** 7  
**"STOP" MARKING**

**B** 7 AS SHOWN  
**"KEEP" MARKING**

**C** 7 AS SHOWN  
**"CLEAR" MARKING**



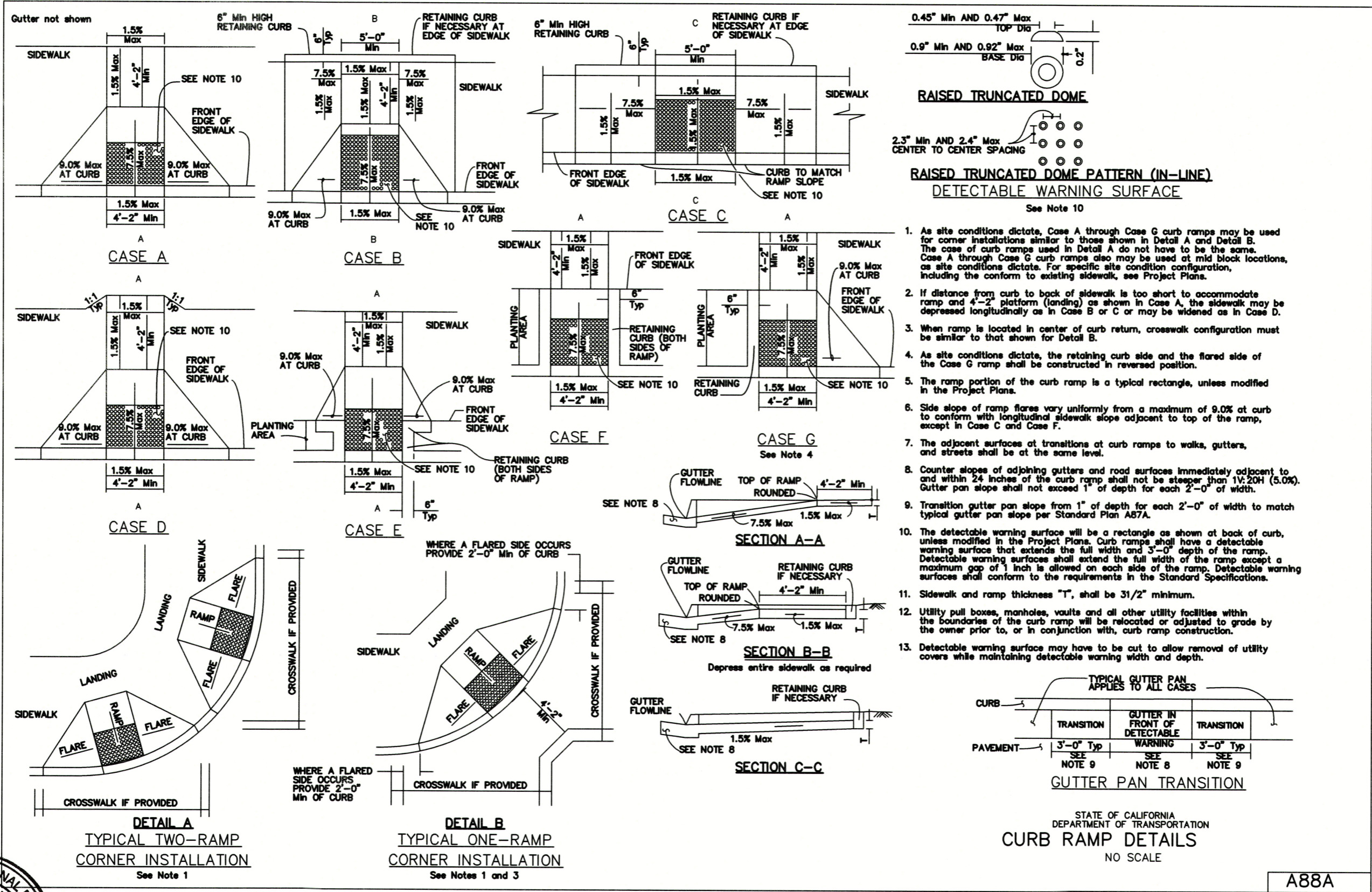
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Santa Cruz, CA 95060

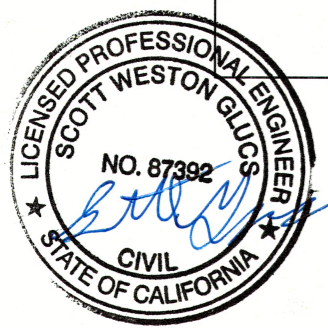
**DOWNTOWN CATCH BASIN REHABILITATION 2026**  
STRIPING PLANS - SITES C6, C8 & C9

REFERENCES FIELD BOOK: # DRAWING #: #	DATE	1/21/2026	SCALE	1" = 20'
	DRAWN	ADH / CM	SHEET	7 OF 14
	DESIGN	ADH / CM	VAULT NO.	
	CHECKED	KC		<b># 9227</b>



- As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate. For specific site condition configuration, including the conform to existing sidewalk, see Project Plans.
- If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B or C or may be widened as in Case D.
- When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
- As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
- The ramp portion of the curb ramp is a typical rectangle, unless modified in the Project Plans.
- Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
- The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
- Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1V:20H (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
- Transition gutter pan slope from 1" of depth for each 2'-0" of width to match typical gutter pan slope per Standard Plan A87A.
- The detectable warning surface will be a rectangle as shown at back of curb, unless modified in the Project Plans. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable warning surfaces shall extend the full width of the ramp except a maximum gap of 1 inch is allowed on each side of the ramp. Detectable warning surfaces shall conform to the requirements in the Standard Specifications.
- Sidewalk and ramp thickness "T", shall be 3 1/2" minimum.
- Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
- Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.

**A** TYPICAL CURB RAMP DETAIL  
 8 AS SHOWN



NO.	REVISIONS



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 PUBLIC WORKS DEPARTMENT  
 809 Center Street, Room 201  
 Santa Cruz, CA 95060

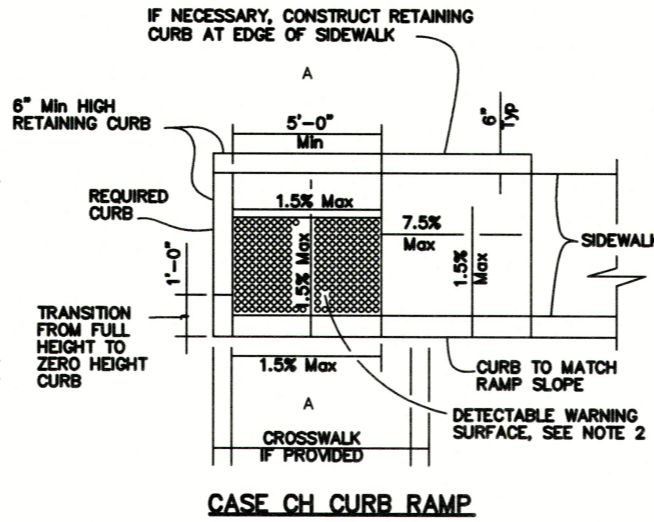
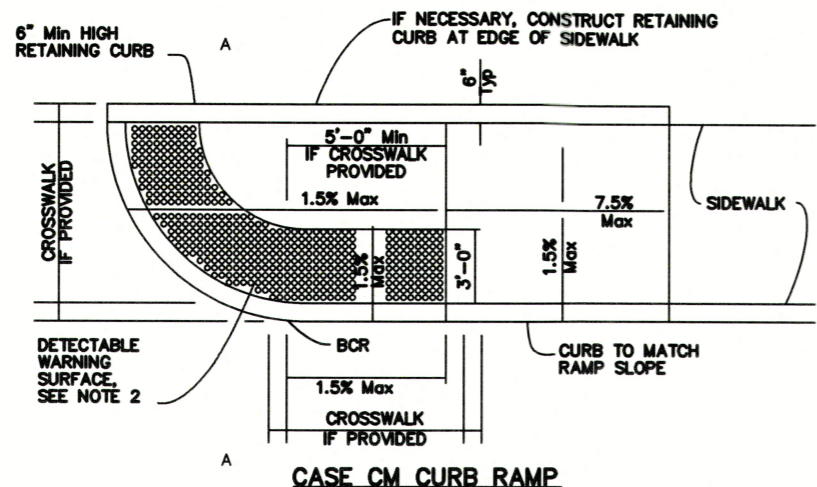
**DOWNTOWN CATCH BASIN REHABILITATION 2026**  
 CURB RAMP DETAIL SHEET (1)

REFERENCES	DATE	SCALE
FIELD BOOK: #	1/21/2026	AS SHOWN
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	DESIGN ADH / SG	VAULT NO.
	CHECKED KC	# 9227

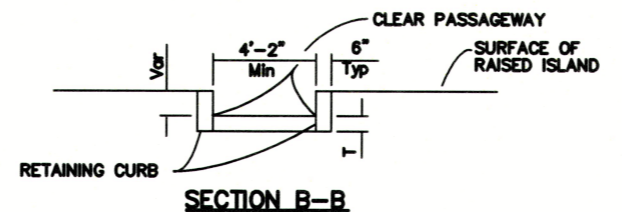
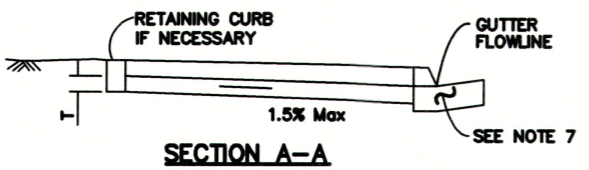
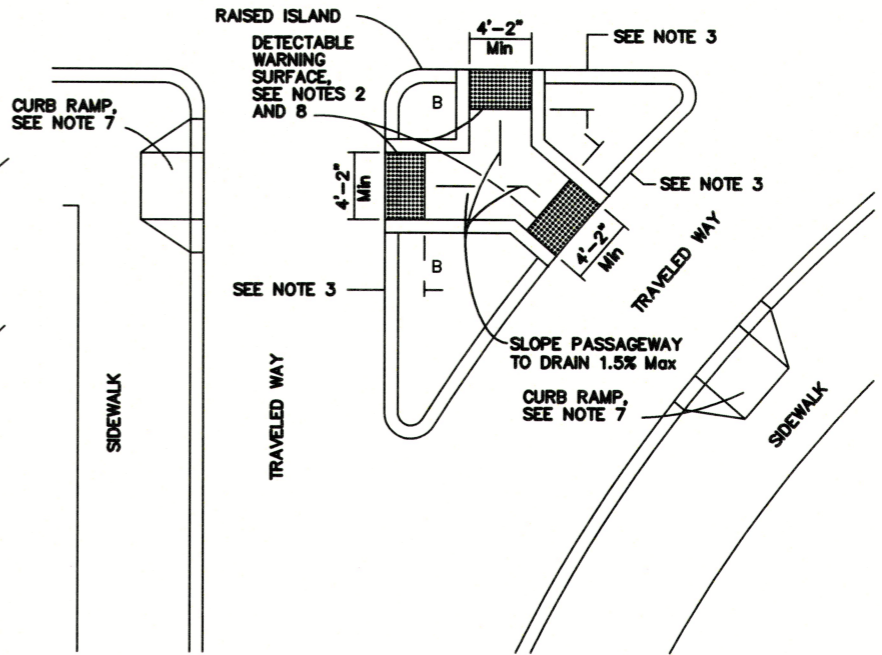
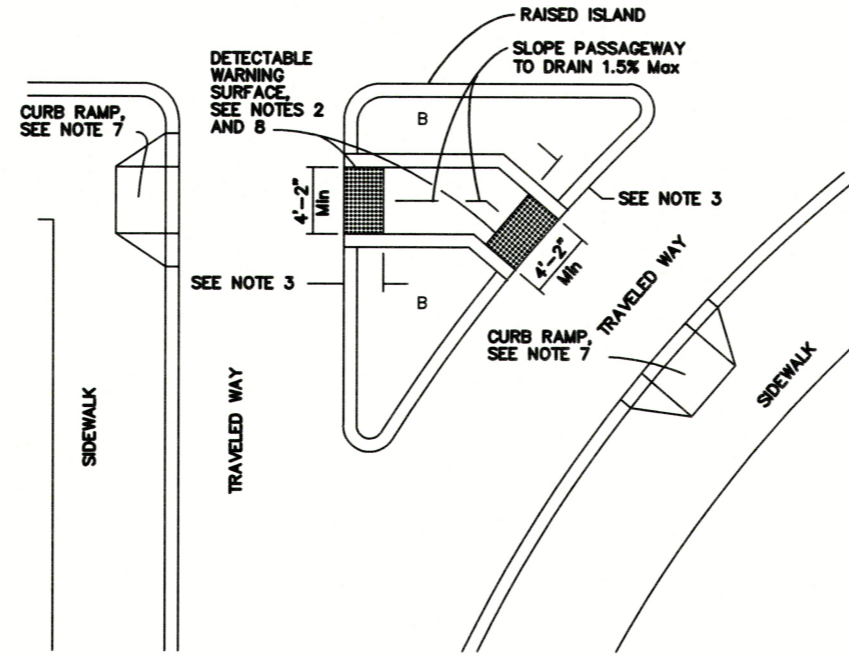
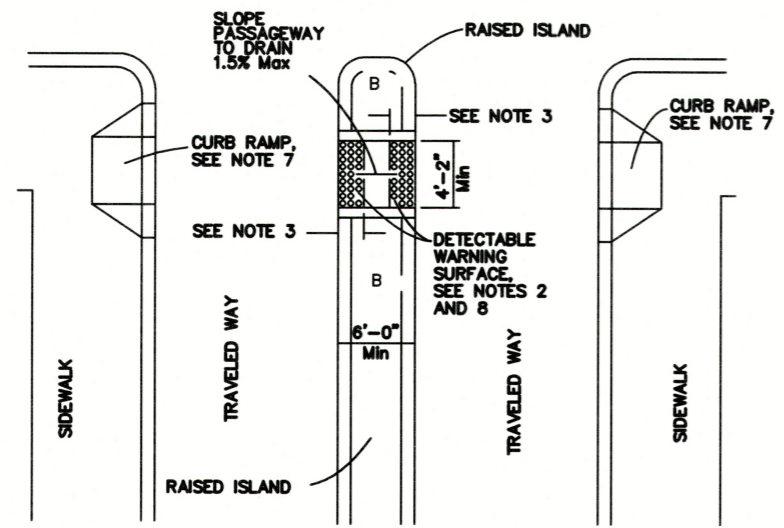
A88A

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CURB RAMP DETAILS**  
 NO SCALE

Gutter not shown



- NOTES:**
1. Sidewalk, ramp and passageway thickness "T", shall be 3 1/2" minimum.
  2. For details of detectable warning surfaces, see Standard Plan A88A.
  3. Where an island passageway length is greater than or equal to 6'-0", but less than 8'-0", each detectable warning surface shall extend the full width and 2'-0" depth of the passageway length. Where an island passageway length is greater than or equal to 8'-0", each detectable warning surface shall extend the full width and 3'-0" depth of the passageway length. Detectable warning surfaces shall extend the full width of the island passageway except a maximum gap of 1 inch is allowed on each side of the passageway.
  4. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
  5. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
  6. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.
  7. For additional curb ramp details, see Standard Plan A88A.
  8. The detectable warning surface will be a rectangle as shown at the face of curb, unless modified in the Project Plans.



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**CURB RAMP AND  
ISLAND PASSAGEWAY DETAILS**  
NO SCALE

A88B

A TYPICAL CURB RAMP DETAIL  
9 AS SHOWN



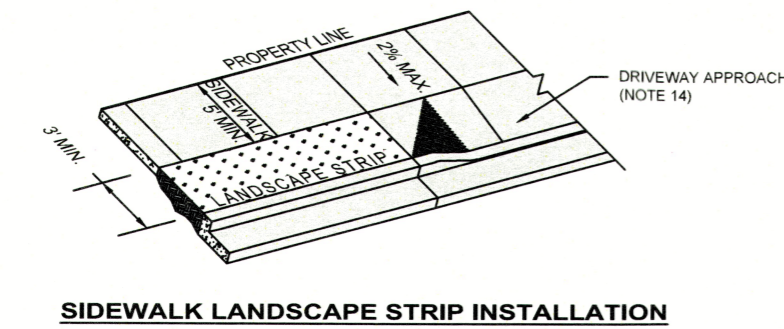
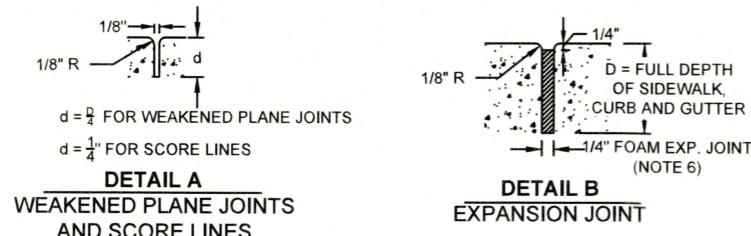
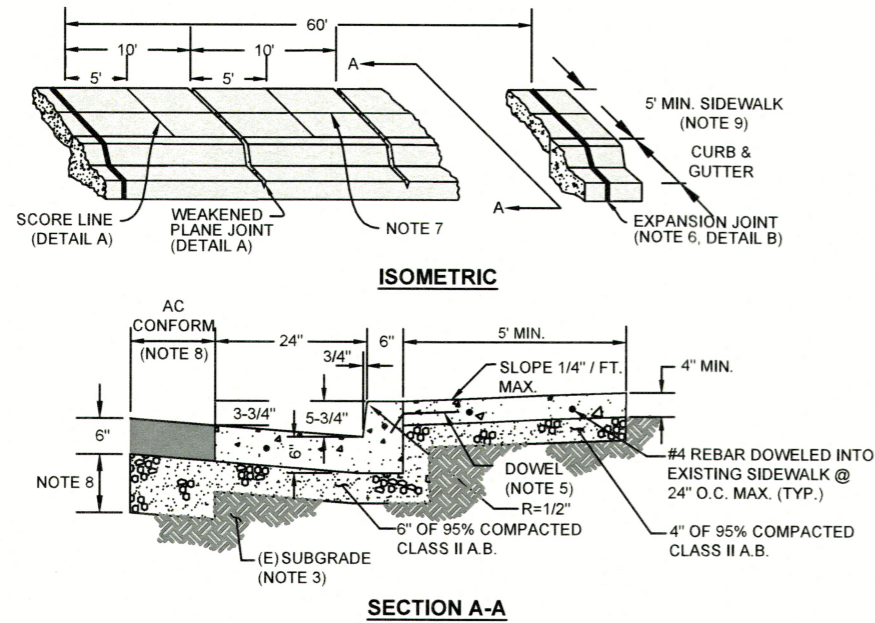
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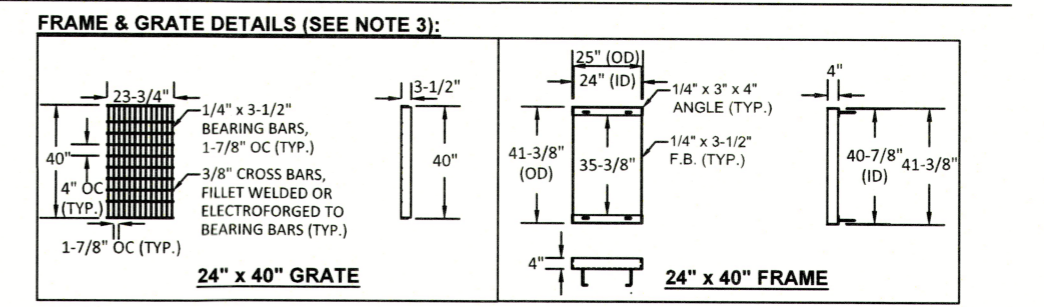
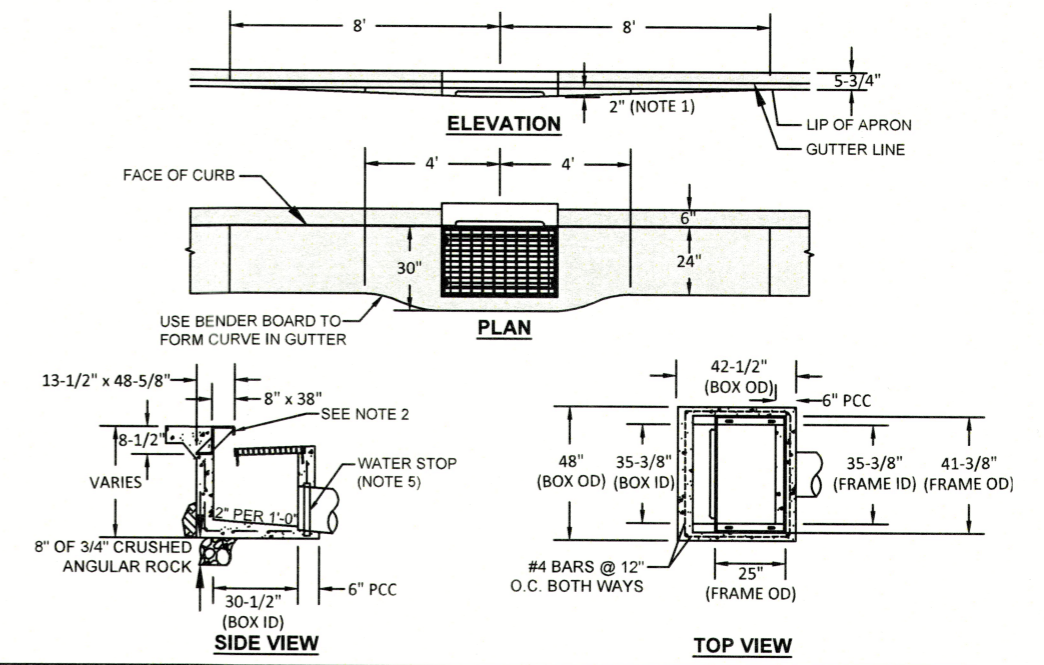
**DOWNTOWN CATCH BASIN  
REHABILITATION 2026**  
CURB RAMP DETAIL SHEET (2)

REFERENCES	DATE	SCALE
FIELD BOOK: #	1/21/2026	AS SHOWN
DRAWING #: #	ADH	SHEET 9 OF 14
CHECKED: KC	ADH / SG	VAULT NO. # 9227



- NOTES:**
- ALL CONCRETE TO BE SIX SACK, CLASS "A" CONCRETE, PER LATEST CALTRANS SPECIFICATIONS.
  - BROOM FINISH THE SURFACE OF SIDEWALK PERPENDICULAR TO THE PATH OF TRAVEL.
  - REMOVE SOFT OF SPONGY SUBGRADE MATERIAL TO A DEPTH OF 6 INCHES BELOW THE SUBGRADE ELEVATION FOR CURB AND GUTTER AND 3 INCHES FOR SIDEWALK.
  - STANDARD CURB, GUTTER AND SIDEWALK SHALL BE A MONOLITHIC POUR UNLESS CURB AND GUTTER ARE EXISTING.
  - IF ANY CURB, GUTTER OR SIDEWALK ARE EXISTING, DOWEL INTO EXISTING CONCRETE EVERY 24". USE 18" LONG #4 REBAR DOWELS, INSERT 4" INTO CURB. BEND DOWEL AT BACK OF CURB AS SHOWN.
  - EXPANSION JOINTS SHALL COMPLY WITH ASTM D1751. AS AN ALTERNATIVE, A SEMI-RIGID, CLOSED-CELL POLYPROPYLENE FOAM, PREFORMED JOINT FILLER THAT COMPLIES WITH ASTM D8139 MAY BE USED.
  - LONGITUDINAL SCORE LINES SHALL BE MADE ALONG THE CENTERLINE OF SIDEWALKS 8' OR MORE IN WIDTH.
  - WIDTH OF A.C. CONFORM SHALL BE A MINIMUM OF 2 FEET. A.C. CONFORM SHALL BE A MINIMUM OF 6" THICK, CLASS II A.B. BELOW CONFORM SHALL BE 6" FOR RESIDENTIAL ROADS AND 9" FOR COLLECTOR/ARTERIAL ROADS.
  - CITY ENGINEER MAY REQUIRE MODIFICATIONS OF MINIMUM WIDTH TO CONFORM TO SURROUNDING NEIGHBORHOOD.
  - SIDEWALK SHALL BE REPLACED UP TO AN EXISTING SCORE LINE OR JOINT. DO NOT REPLACE SIDEWALK IN-BETWEEN EXISTING SCORE LINES OR JOINTS.
  - FOR ALL UTILITY BOXES IN THE SIDEWALK, WEAKENED PLANE JOINT ON BOTH SIDES OF THE BOX. WEAKENED PLANE JOINT SHALL EXTEND THE ENTIRE WIDTH OF THE SIDEWALK.
  - PROPERTIES THAT HAVE A 8 FT. OR GREATER PROPERTY LINE SETBACK FROM THE BACK OF CURB WILL BE REQUIRED TO INSTALL A LANDSCAPE STRIP.
  - 4' WIDE LANDSCAPE STRIP REQUIRED FOR STANDARD STREET TREE INSTALLATION. IF A 4' WIDE LANDSCAPE STRIP CANNOT BE ACHIEVED, SMALLER STATURE STREET TREES MAY BE PLANTED FROM THE CITY APPROVED LIST. CONTACT THE CITY ARBORIST FOR MORE INFORMATION.
  - SLOPE SIDEWALK AND LANDSCAPING STRIP TOWARD CURB AT 1/4" / FT. (2%) MAX.
  - FOR DRIVEWAY APPROACH CONSTRUCTION SEE CITY STANDARD DETAIL G2 TYPE "A" DRIVEWAY WITH PLANTER.

**B** TYPICAL CURB, GUTTER AND SIDEWALK NOTES  
10 AS SHOWN



- NOTES:**
- GUTTER FLOWLINE SHALL DROP 2" MINIMUM FROM 8' ON EACH SIDE OF CATCH BASIN. BROOM FINISH GUTTER DEPRESSION PERPENDICULAR TO PATH OF TRAVEL. SIDEWALK TO BE CONSTRUCTED PER CITY STANDARD DETAIL G-1.
  - REAR-OPENING HOOD TO BE D&L SUPPLY #I-3602, OR APPROVED EQUIVALENT.
  - FRAME & GRATE TO BE SOUTH BAY FOUNDRY STEEL (ASTM A-36), HOT DIP GALVANIZED FINISH (ASTM 123), HEAVY TRAFFIC BICYCLE PROOF, GRATE ITEM # E2020, FRAME ITEM # E2060, OR APPROVED EQUIVALENT (PER CURRENT CALTRANS BICYCLE PROOF GRATE DETAILS, TYPE 24-13 GRATE & FRAME). ADA GRATE MAY BE REQUIRED IN ROADWAYS NEAR PEDESTRIAN PATHWAYS AND BIKE LANES (SOUTH BAY FOUNDRY ADA GRATE # E2021 ADA).
  - CONCRETE TO BE SIX SACK, CLASS "A" PLANT MIXED PCC.
  - PRESS-SEAL GASKET CORPORATION, WS SERIES WATERSTOP GROUTING RINGS OR APPROVED EQUAL.

**C** TYPICAL CATCH BASIN DETAIL (TYPE B)  
10 AS SHOWN



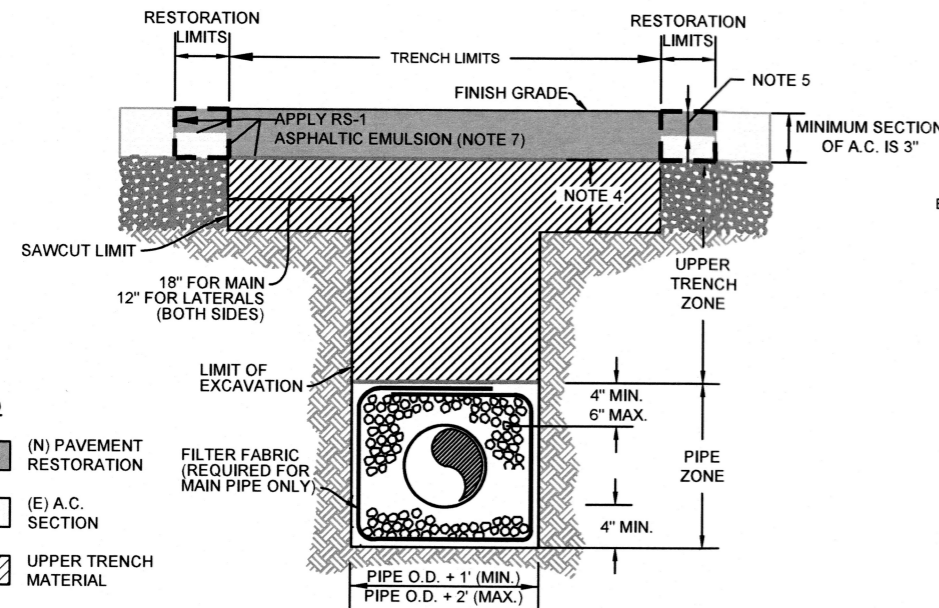
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**DOWNTOWN CATCH BASIN REHABILITATION 2026**  
DETAIL SHEET (1)

REFERENCES FIELD BOOK: # DRAWING #: #	DATE	1/21/2026	SCALE	AS SHOWN
	DRAWN	ADH	SHEET	10 OF 14
	DESIGN	ADH / SG	VAULT NO.	
	CHECKED	KC	#	9227



**LEGEND**

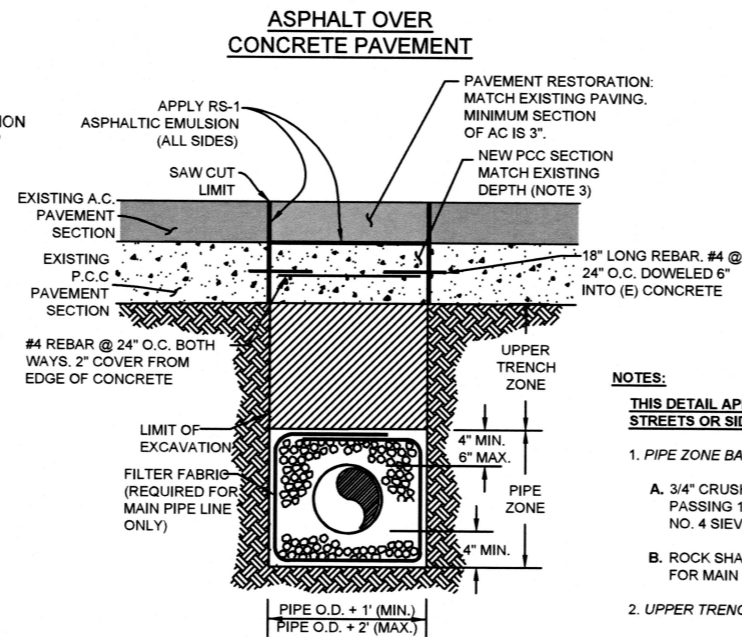
- (N) PAVEMENT RESTORATION
- (E) A.C. SECTION
- UPPER TRENCH MATERIAL

**NOTES:**

**THIS DETAIL APPLIES TO ALL EXCAVATIONS IN CITY STREETS OR SIDEWALK.**

1. PIPE ZONE BACK FILL SHALL BE:
  - A. 3/4" CRUSHED OR ANGULAR ROCK WITH 100% PASSING 1", 90-100% PASSING 3/4", 0-30% PASSING NO. 4 SIEVE, AND 0-10% PASSING NO. 8 SIEVE.
  - B. ROCK SHALL BE ENVELOPED WITH FILTER FABRIC FOR MAIN PIPE ONLY.
2. UPPER TRENCH MATERIAL SHALL BE:
  - A. CLSM (1 SACK CEMENT SAND SLURRY); OR
  - B. CLASS 2 AGGREGATE BASE PER CALTRANS SPECIFICATIONS.

IF AGGREGATE BASE IS USED, THE UPPER 2' SHALL BE COMPACTED TO 95% RELATIVE COMPACTION. REMAINING MATERIAL SHALL BE COMPACTED TO 90%. A CIVIL ENGINEER HIRED BY THE CONTRACTOR MUST CERTIFY THAT COMPACTION REQUIREMENTS ARE MET.
3. SHOVEL-SLICE PIPE BEDDING UNDER THE HAUNCHES OF THE PIPE.
4. T-CUT SECTION OF THE UPPER TRENCH ZONE SHALL HAVE 6" MINIMUM OF MATERIAL OR MATCH EXISTING SUBGRADE DEPTH, WHICHEVER IS GREATER.
5. IF EXISTING A.C. SECTION IS:
  - A. < 4" - REPLACE FULL DEPTH OF A.C. WITHIN THE RESTORATION LIMITS.
  - B. ≥ 4" - GRIND AND REPLACE 2" MIN. OF A.C. WITHIN THE RESTORATION LIMITS.
6. PAVEMENT RESTORATION SHALL FOLLOW CITY STANDARD DETAILS G-13.1 TO G-13.5.
7. ASPHALTIC EMULSION PER LATEST CALTRANS SPECIFICATIONS. ASPHALTIC EMULSION SHALL BE APPLIED TO EXISTING PAVEMENT, BETWEEN HMA LAYERS AND VERTICAL SURFACES OF CURBS GUTTERS AND CONSTRUCTION JOINTS.



**LEGEND**

- (N) PAVEMENT RESTORATION
- (E) A.C. SECTION
- UPPER TRENCH MATERIAL

**NOTES:**

1. PIPE ZONE BACK FILL SHALL BE:
  - A. 3/4" CRUSHED OR ANGULAR ROCK WITH 100% PASSING 1", 90-100% PASSING 3/4", 0-30% PASSING NO. 4 SIEVE, AND 0-10% PASSING NO. 8 SIEVE.
  - B. ROCK SHALL BE ENVELOPED WITH FILTER FABRIC FOR MAIN PIPE ONLY.
2. UPPER TRENCH MATERIAL SHALL BE:
  - A. CLSM (2 SACK CEMENT SAND SLURRY); OR
  - B. CLASS 2 AGGREGATE BASE PER CALTRANS SPECIFICATIONS.

IF AGGREGATE BASE IS USED THE UPPER 2' SHALL BE COMPACTED TO 95% RELATIVE COMPACTION. REMAINING MATERIAL SHALL BE COMPACTED TO 90%. A CIVIL ENGINEER HIRED BY THE CONTRACTOR MUST CERTIFY THAT COMPACTION REQUIREMENTS ARE MET.
3. NEW PCC SECTION SHALL BE 2" ROCK, SIX SACK, CLASS "A" PLANT MIXED PCC.
4. SHOVEL-SLICE PIPE BEDDING UNDER THE HAUNCHES OF THE PIPE.
5. ALL TRAFFIC STRIPING SHALL BE REINSTALLED PER CALTRANS STANDARDS.
6. MAKE BROOM FINISH PERPENDICULAR TO THE PATH OF TRAVEL.

**GENERAL NOTES:**

1. THIS DETAIL APPLIES TO ALL ASPHALT PAVEMENT RESTORATION IN CITY STREETS DUE TO STREET OPENING WORK. CONCRETE STREETS AND ASPHALT OVERLAY ON EXISTING CONCRETE STREETS ARE EXEMPT FROM THIS DETAIL. THE FINAL LIMITS OF RESTORATION ARE TO BE DETERMINED BY THE CITY INSPECTOR BASED ON EXISTING PAVEMENT CONDITIONS. THE MOST CURRENT PAVEMENT CONDITION INDEX (PCI) WILL BE PROVIDED BY THE PUBLIC WORKS DEPARTMENT.
2. EXISTING ASPHALT CONCRETE PAVEMENT TO BE REMOVED SHALL BE SAW CUT ALONG NEAT LINES AROUND THE PERIMETER TO THE DIMENSIONS DIRECTED PER THIS DETAIL. THE MATERIAL REMOVED FROM THE ROADWAY SURFACE AND REMNANTS OR SLIVERS OF OLD ASPHALT CONCRETE LIFT, INCLUDING MATERIAL DEPOSITED IN EXISTING GUTTERS, DRIVEWAYS, AROUND STRUCTURES, OR ON THE ADJACENT TRAVELED WAY, SHALL BE REMOVED AND DISPOSED OF APPROPRIATELY.
3. ASPHALT PAVEMENT RESTORATION TREATMENT AT THE INTERSECTION SHALL BE GOVERNED BY THE APPROACH WITH THE HIGHER PCI NUMBER.
4. TEMPORARY ASPHALT TAPERS SHALL BE PROVIDED WHERE TRANSVERSE JOINTS ARE PLANED IN THE PAVEMENT AT CONFORM LINES. NO DROP-OFF SHALL REMAIN BETWEEN THE EXISTING PAVEMENT AND THE PLANED AREA WHEN THE PAVEMENT IS OPENED TO PUBLIC TRAFFIC. ASPHALT CONCRETE FOR TEMPORARY TAPERS SHALL BE PLACED TO THE LEVEL OF THE EXISTING PAVEMENT AND TAPERED ON A SLOPE OF 1:30 (VERTICAL: HORIZONTAL) OR FLATTER TO THE LEVEL OF THE PLANED AREA.
5. TEMPORARY ASPHALT CONCRETE TAPERS SHALL BE COMPLETELY REMOVED, INCLUDING THE REMOVAL OF ALL LOOSE MATERIAL FROM THE UNDERLYING SURFACE, BEFORE PLACING THE PERMANENT SURFACING.
6. THE GRADE OF ASPHALT BINDER MIXED WITH AGGREGATE FOR HMA TYPE A MUST BE PG 64-10 ONLY. THE AGGREGATE FOR HMA TYPE A SHALL COMPLY WITH THE LATEST CALTRANS STANDARD SPECIFICATIONS.
7. THE AGGREGATE FOR HMA TYPE A FOR OVERLAYS MUST COMPLY WITH THE 1/2-INCH AGGREGATE GRADATION, AS SHOWN ON THE LATEST CALTRANS STANDARD SPECIFICATIONS. MAXIMUM COMPACTED LIFT THICKNESS SHALL BE 3", UNLESS OTHERWISE DIRECTED BY THE CITY INSPECTOR.
8. APPLY TACK COAT TO EXISTING PAVEMENT SURFACES PRIOR TO OVERLAY AND BETWEEN LIFTS OF NEW PAVEMENT.
9. ANY TRAFFIC STRIPING LINES REMOVED SHALL BE REPLACED IN KIND. ANY TRAFFIC MARKINGS PARTIALLY REMOVED SHALL HAVE THE ENTIRE MARKING GROUND AND FULLY REPLACED.
10. BIKE LANES SHALL BE REPAVED TO THEIR FULL WIDTH TO AVOID SEAM WITHIN THE BIKE LANE.

**C TYPICAL PAVEMENT RESTORATION LIMITS (GENERAL NOTES)**  
11 AS SHOWN

**A TYPICAL GENERAL TRENCH (ASPHALT ROADWAY) DETAIL**  
11 AS SHOWN

**B TYPICAL GENERAL TRENCH (CONCRETE ROADWAY) DETAIL**  
11 AS SHOWN



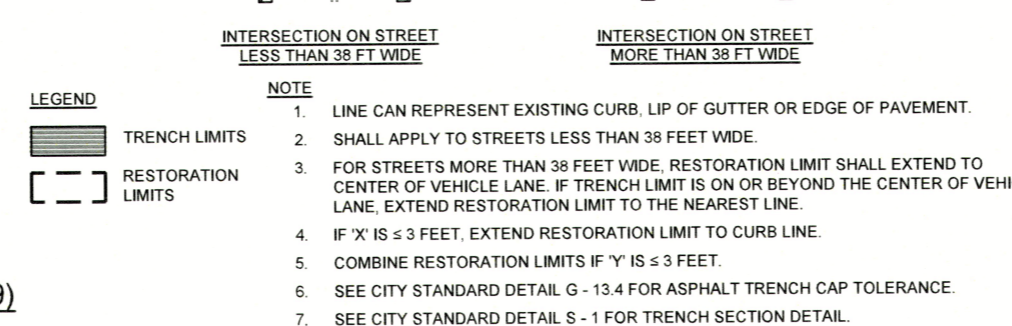
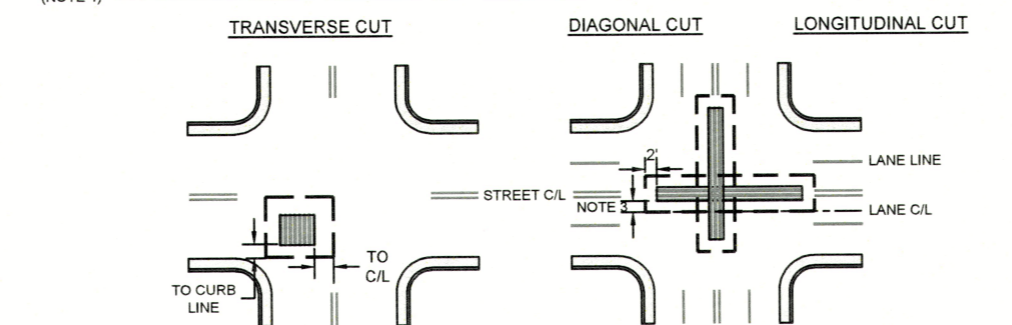
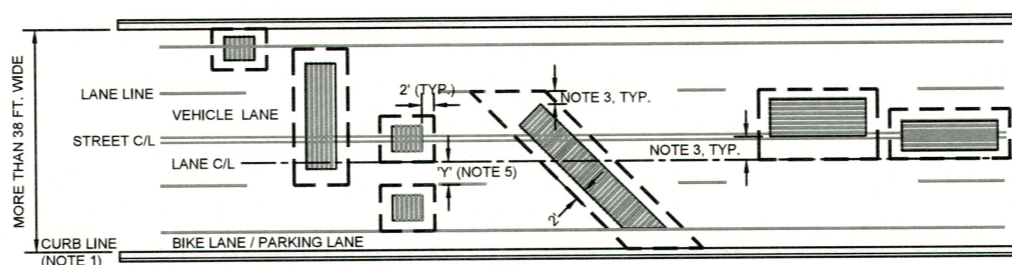
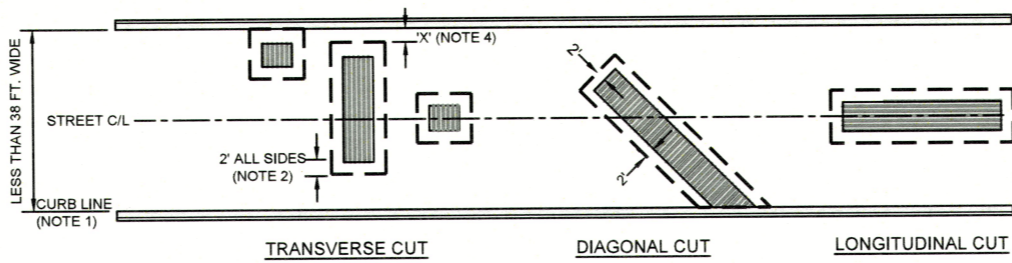
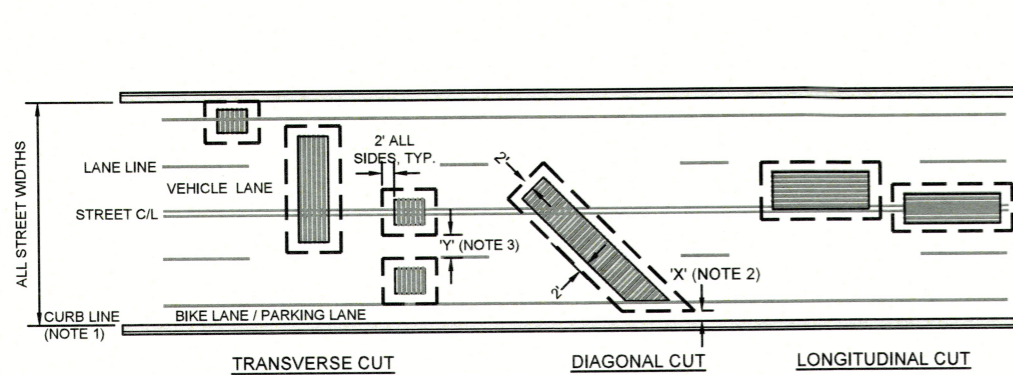
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PUBLIC WORKS DEPARTMENT  
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Santa Cruz, CA 95060

**DOWNTOWN CATCH BASIN REHABILITATION 2026**  
DETAIL SHEET (2)

REFERENCES	DATE	SCALE
FIELD BOOK: #	1/21/2026	AS SHOWN
DRAWING #: #	DRAWN ADH	SHEET 11 OF 14
	DESIGN ADH / SG	VAULT NO.
	CHECKED KC	# 9227



**LEGEND**  
 TRENCH LIMITS  
 RESTORATION LIMITS

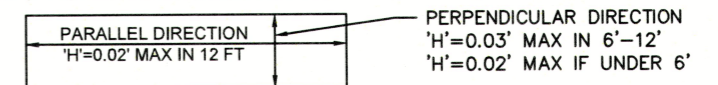
**NOTE**  
 1. LINE CAN REPRESENT EXISTING CURB, LIP OF GUTTER OR EDGE OF PAVEMENT.  
 2. IF 'X' IS ≤ 3 FEET, EXTEND RESTORATION LIMIT TO CURB LINE.  
 3. COMBINE RESTORATION LIMIT IF 'Y' IS ≤ 3 FEET.  
 4. SEE CITY STANDARD DETAIL G - 13.4 FOR ASPHALT TRENCH CAP TOLERANCE.  
 5. SEE CITY STANDARD DETAIL S - 1 FOR TRENCH SECTION DETAIL.

**LEGEND**  
 TRENCH LIMITS  
 RESTORATION LIMITS

**NOTE**  
 1. LINE CAN REPRESENT EXISTING CURB, LIP OF GUTTER OR EDGE OF PAVEMENT.  
 2. SHALL APPLY TO STREETS LESS THAN 38 FEET WIDE.  
 3. FOR STREETS MORE THAN 38 FEET WIDE, RESTORATION LIMIT SHALL EXTEND TO CENTER OF VEHICLE LANE. IF TRENCH LIMIT IS ON OR BEYOND THE CENTER OF VEHICLE LANE, EXTEND RESTORATION LIMIT TO THE NEAREST LINE.  
 4. IF 'X' IS ≤ 3 FEET, EXTEND RESTORATION LIMIT TO CURB LINE.  
 5. COMBINE RESTORATION LIMITS IF 'Y' IS ≤ 3 FEET.  
 6. SEE CITY STANDARD DETAIL G - 13.4 FOR ASPHALT TRENCH CAP TOLERANCE.  
 7. SEE CITY STANDARD DETAIL S - 1 FOR TRENCH SECTION DETAIL.

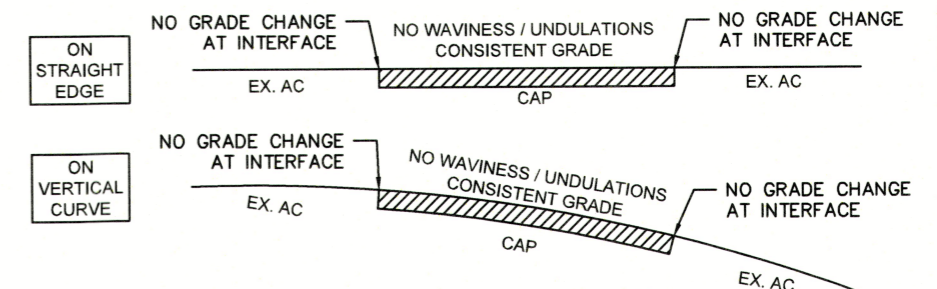
**ASPHALT TRENCH CAP TOLERANCE MEASUREMENT:**  
 1. PER CALTRANS SPECIFICATIONS, A 12' STRAIGHT EDGE IS TO BE USED FOR TOLERANCE MEASUREMENT, CAP AND ALL INTERFACES WITH EXISTING AC SHALL MEET TOLERANCES.  
 2. FOR THE PURPOSE OF THIS DETAIL, 'H' INDICATES GRADE DIFFERENCE (RAISE OR DROP)

'H' SHALL NOT EXCEED:  
 • PARALLEL WITH ROAD: 0.02' MAX (1/4"±) IN 12'  
 • PERPENDICULAR WITH THE ROAD: 0.03' MAX (3/8"±) IN 12'  
 OR 0.02' (1/4"±) FOR ANY DIMENSION UNDER 6'

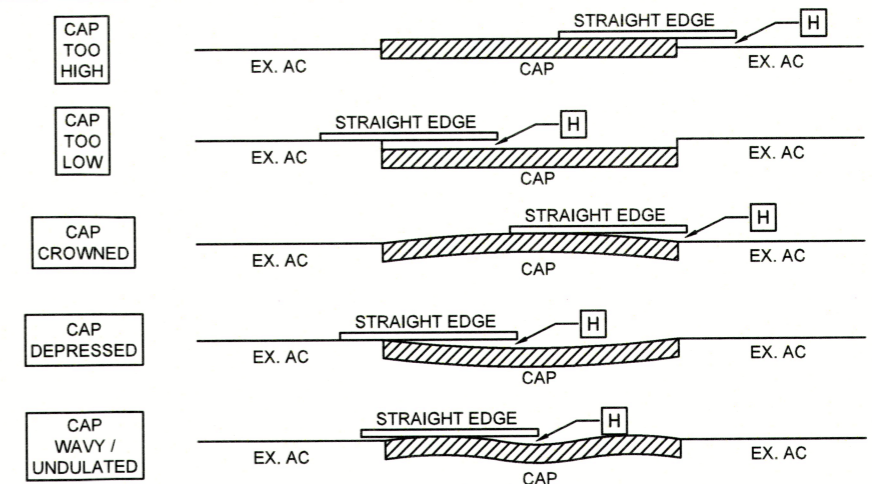


TIP: IF PAVEMENT SECTION CAN BE HEARD OR FELT WHEN DRIVING OVER INTERFACE, PAVEMENT IS OUT OF SPEC.

EXAMPLES OF CORRECTLY DONE TRENCH CAPS:



EXAMPLES OF INCORRECTLY DONE TRENCH CAPS ('H' EXCEEDS TOLERANCES):



**A** TYPICAL PAVEMENT RESTORATION LIMITS (PCI RANGE OF 0-49)  
 12 AS SHOWN

**B** TYPICAL PAVEMENT RESTORATION LIMITS (PCI RANGE OF 50-89)  
 12 AS SHOWN

**C** TYPICAL TRENCH CAP TOLERANCE  
 12 AS SHOWN



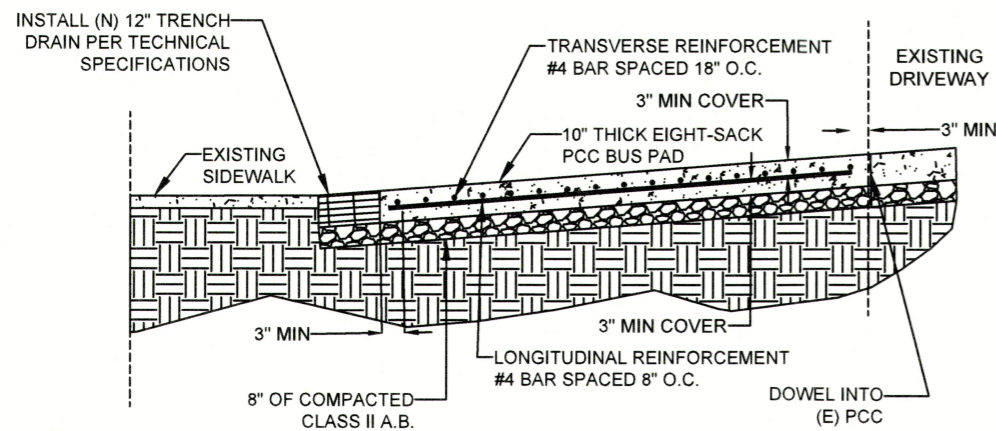
REVISIONS



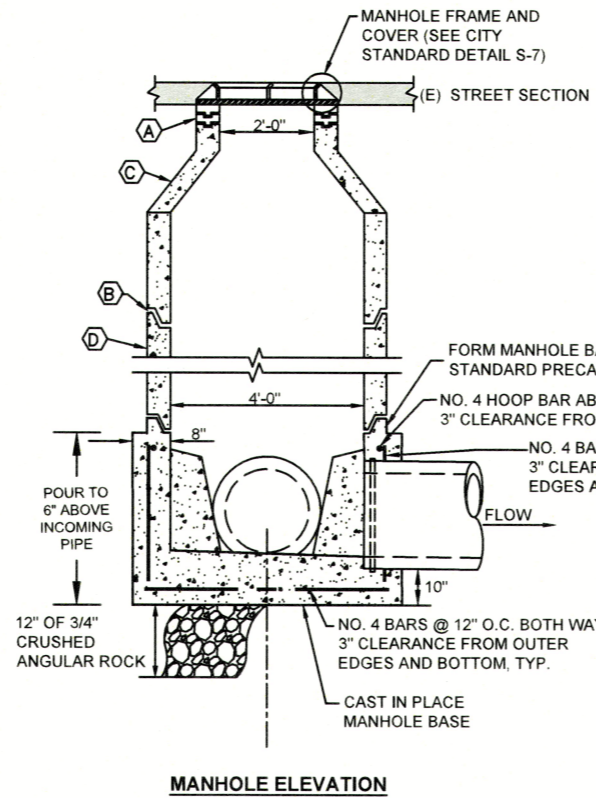
CITY OF  
**SANTA CRUZ**  
 PUBLIC WORKS DEPARTMENT  
 809 Center Street, Room 201  
 Santa Cruz, CA 95060

**DOWNTOWN CATCH BASIN  
 REHABILITATION 2026**  
 DETAIL SHEET (3)

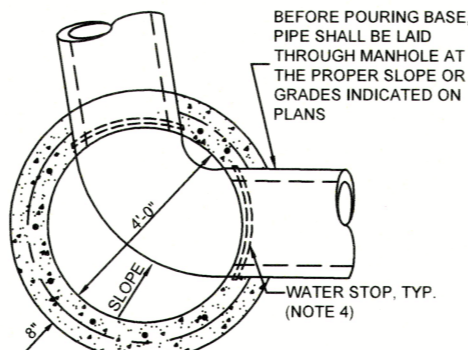
REFERENCES	DATE	SCALE
FIELD BOOK: #	1/21/2026	AS SHOWN
DRAWING #: #	DRAWN ADH	SHEET 12 OF 14
	DESIGN ADH / SG	VAULT NO.
	CHECKED KC	# 9227



**A** FIRE STATION DRIVEWAY DETAIL  
13 AS SHOWN



**MANHOLE ELEVATION**

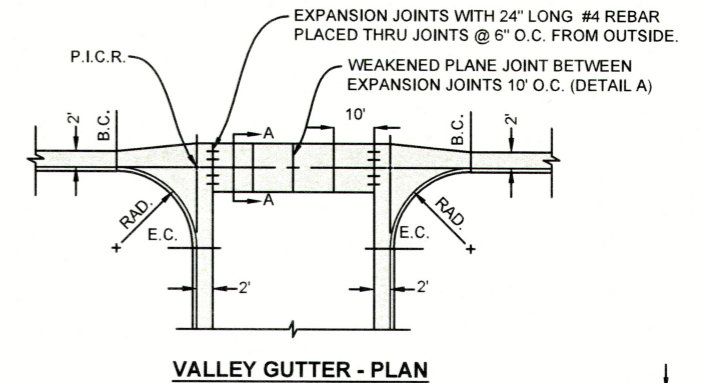


**DETAIL A - MANHOLE BASE PLAN**

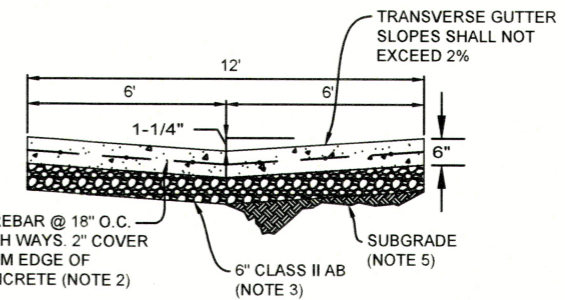
- (A) ADJUSTMENT RINGS, MIN 3" TO MAX 9" (NOTE 7)
- (B) 2" WIDE RAMNEK OR APPROVED EQUAL. GROUT INSIDE (TYP. ALL JOINTS)
- (C) PRECAST TAPERED SECTION
- (D) PRECAST RISER SECTION

**NOTES:**

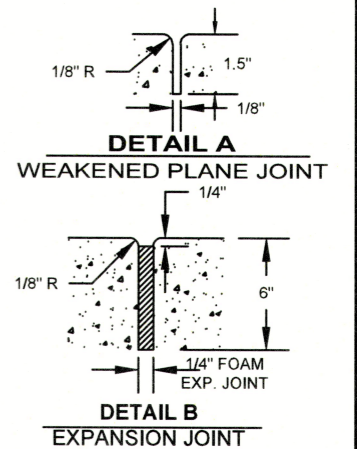
1. MANHOLE BASE SHALL BE CAST IN PLACE (SIX SACK 3/4" ROCK MIX) OR PRECAST REINFORCED CONCRETE. IF PRECAST BASE ALTERNATIVE IS USED, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF MANHOLE TO THE ENGINEER FOR APPROVAL.
2. MANHOLE BASES SHALL BE CAST OR PLACED AGAINST 12" OF CRUSHED STONE.
3. VERTICAL RISER AND TAPER SECTIONS TO BE REINFORCED CONCRETE PER ASTM C478.
4. PRESS-SEAL GASKET CORPORATION, WS SERIES WATERSTOP GASKET OR APPROVED EQUAL TO BE INSTALLED.
5. MANHOLES WITH PIPES GREATER THAN 36" SHALL HAVE DIAMETER OF 5'-0".
6. MAINTAIN SLOPE THROUGH MANHOLE CHANNEL TOWARDS OUTLET.
7. ADJUSTMENT RINGS SHALL BE:
  - A. EXPANDED POLYPROPYLENE (EPP) - CRETEX PRO-RING OR APPROVED EQUAL
  - B. PRECAST CONCRETE CONFORMING TO ASTM C-478



**VALLEY GUTTER - PLAN**



**VALLEY GUTTER - SECTION A-A**



**NOTES:**

1. FLOW LINE MUST BE CHECKED IN THE PRESENCE OF THE CITY ENGINEER OR THE CITY INSPECTOR.
2. INSTALL REBAR IN VALLEY GUTTER AND RETURN APRONS.
3. COMPACT CLASS II AB TO 95% RELATIVE COMPACTION
4. VALLEY GUTTER SHALL BE REPLACED UP TO AN EXISTING SCORE LINE. DO NOT REPLACE VALLEY GUTTER IN-BETWEEN EXISTING SCORE LINES.
5. EARTHWORK UNDER THE TRAVELED WAY SHALL BE COMPACTED TO 95% RELATIVE COMPACTION AT OPTIMUM MOISTURE CONTENT TO A DEPTH OF 2.5' BELOW FINISHED GRADE, PER LATEST CALTRANS SPECIFICATIONS. OTHERWISE EXCAVATE TO 12" BELOW TOP OF SUBGRADE AND REPLACE WITH CLASS II AGGREGATE BASE AND COMPACT.
6. DO NOT PLACE CONCRETE UNTIL FORMS HAVE BEEN INSPECTED AND APPROVED BY THE CITY ENGINEER, OR THE CITY INSPECTOR.
7. ALL CONCRETE TO BE SIX SACK, CLASS "A" CONCRETE, PER LATEST CALTRANS SPECIFICATIONS.
8. BROOM FINISH THE SURFACE OF VALLEY GUTTER AND RETURN APRON PERPENDICULAR TO PATH OF TRAVEL.

**B** TYPICAL STORM DRAIN MANHOLE DETAIL  
13 AS SHOWN

**C** TYPICAL VALLEY GUTTER DETAIL  
13 AS SHOWN



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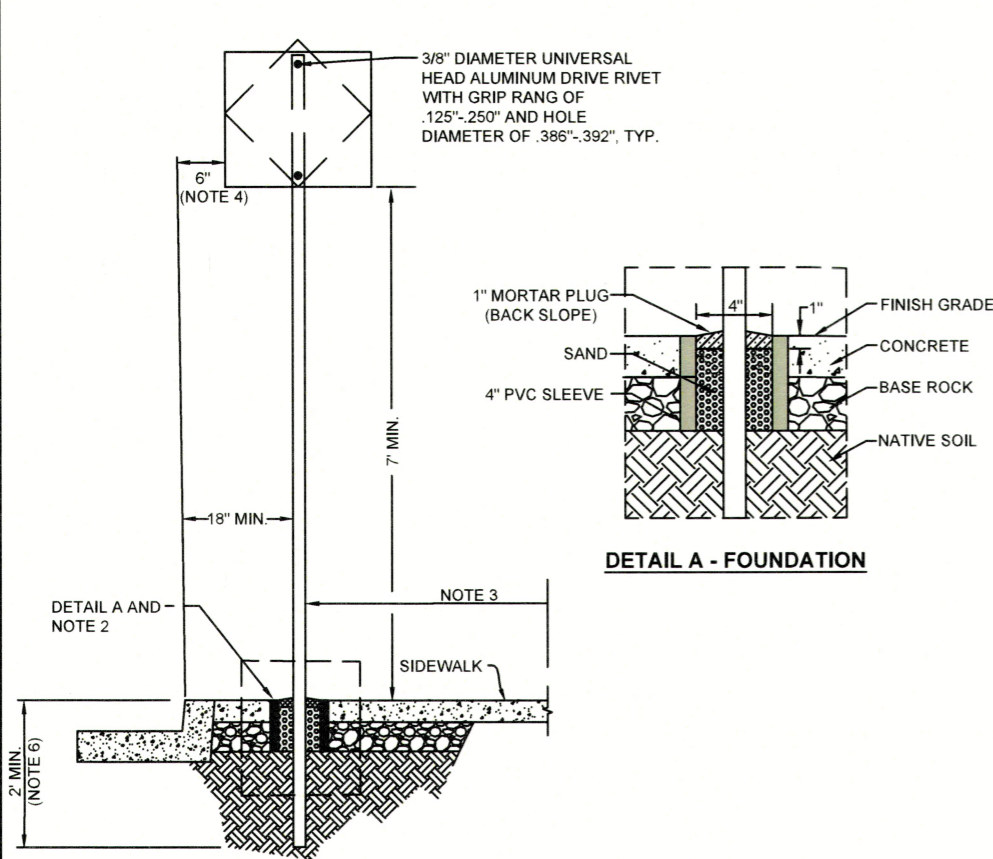
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PUBLIC WORKS DEPARTMENT  
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Santa Cruz, CA 95060

**DOWNTOWN CATCH BASIN REHABILITATION 2026**  
DETAIL SHEET (4)

REFERENCES  
FIELD BOOK: #  
DRAWING #: #

DATE 1/21/2026  
DRAWN ADH  
DESIGN ADH / SG  
CHECKED KC

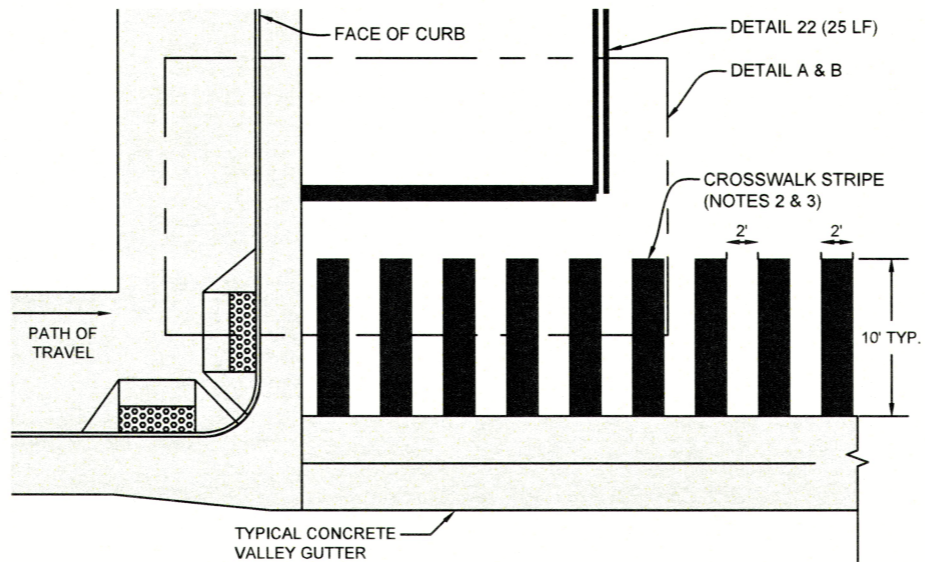
SCALE AS SHOWN  
SHEET 13 OF 14  
VAULT NO. # 9227



**POST ELEVATION**

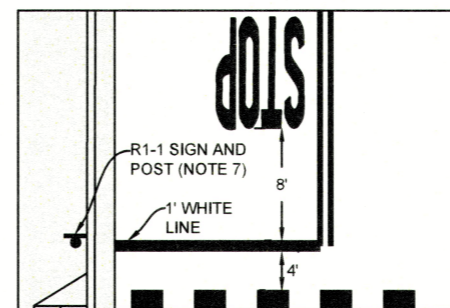
**NOTES:**

- CITY STANDARD POST SHALL BE 2" X 2" UNISTRUT "TELESPAR" PRE-DRILLED SQUARE TUBING OR APPROVED EQUAL.
- CONTRACTOR HAS THE OPTION TO:  
(A) 4" CORE DRILL TO NATIVE SOIL AFTER POURING CONCRETE OR  
(B) INSTALL 4" PVC SLEEVE PRIOR TO POURING CONCRETE.
- 4' MINIMUM CLEARANCE BETWEEN EDGE OF POST AND BACK OF WALK. POST MAY BE INSTALLED AT BACK OF WALK IF 4' CLEARANCE CAN NOT BE MET.
- SIGN MAY BE MOUNTED OFF CENTER FROM POST TO ACCOMMODATE THE 6" SETBACK.
- LOW PROFILE ALTERNATIVE IS 2' BELOW GRADE WITH 5' TO TOP OF SIGN (NOT ALLOWED IN PEDESTRIAN AREAS).
- POST INSTALLED IN THE MEDIAN OR CROSSING ISLAND SHALL BE INSTALLED 2' MIN. FROM TOP OF GRADE.

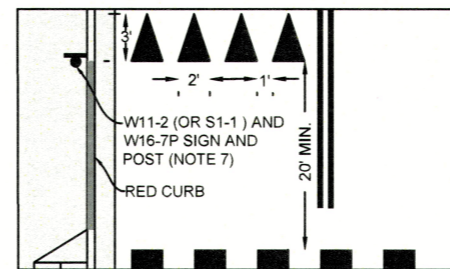


**NOTES:**

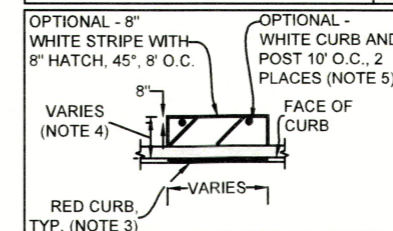
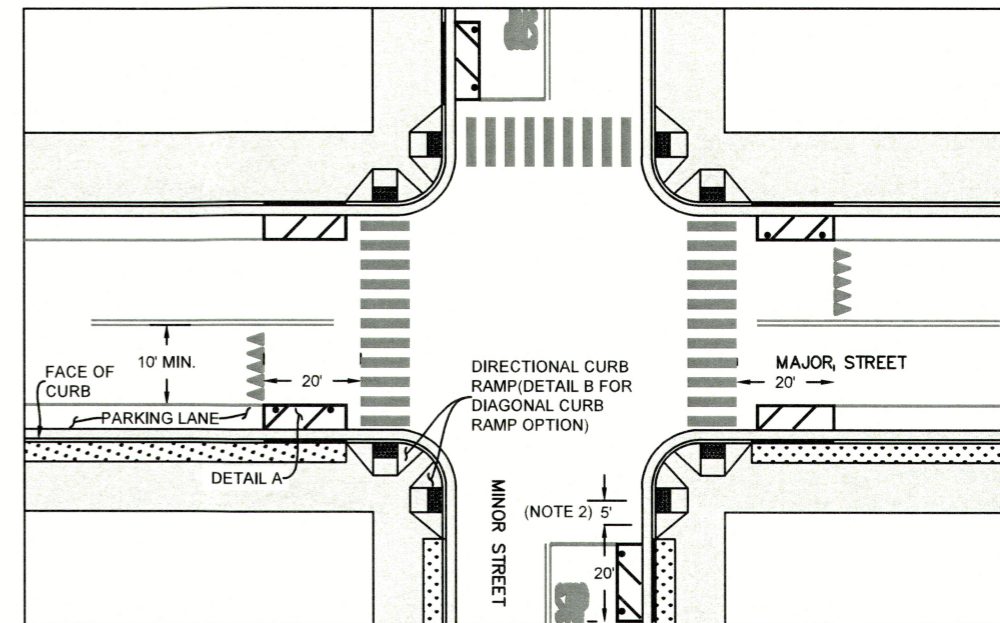
- ALL CROSSWALK MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
- PRIOR TO INSTALLING THERMOPLASTIC ON TO ANY CONCRETE, CLEAN AND APPLY PRIMER.
- TYPICAL CROSSWALK STRIPE SHALL BE 2 FOOT WIDE WITH 2 FOOT GAP.
- BEGIN STRIPE WITHIN 3 FEET OF FACE OF CURB RAMP. INSTALL PERPENDICULAR TO PATH OF TRAVEL OR AS DIRECTED BY THE CITY ENGINEER.
- TYPICAL CROSSWALK WIDTH IS 10 FEET BUT MAY VARY WIDER OR NARROWER BY LOCATION AND ON PLANS. NO CROSSWALK SHALL BE LESS THAN 8 FEET WIDE.
- ALL CROSSWALK MARKING MUST BE WHITE EXCEPT THOSE NEAR SCHOOLS. PER CA MUTCD - A MARKED PEDESTRIAN CROSSWALK MAY BE YELLOW IF THE NEAREST POINT OF THE CROSSWALK IS NOT MORE THAN 600 FEET FROM A SCHOOL. INSTALL YELLOW AS DIRECTED BY THE CITY ENGINEER.
- SEE CITY STANDARD DETAIL T-5 FOR SIGN AND POST INSTALLATION.
- CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.



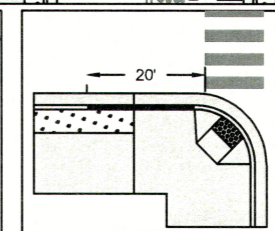
**DETAIL A - STOP LINE**



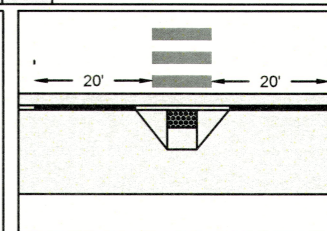
**DETAIL B - YIELD LINE**



**DETAIL A - DAYLIGHTING**



**DETAIL B - DIAGONAL CURB RAMP**



**DETAIL C - MIDBLOCK CROSSWALK**

**NOTES:**

- DAYLIGHTING SHALL BE A MINIMUM 20' (15' WITH A CURB EXTENSION PRESENT), BEGINNING AT THE MARKED CROSSWALK.
- IF THE CROSSWALK IS UNMARKED, DAYLIGHTING SHALL BEGIN 5' FROM THE MIDPOINT OF THE CURB RAMP.
- RED CURB SHALL BEGIN AT THE TOP OF CURB RAMP WING.
- WIDTH SHALL BE PER PLAN OR AS DIRECTED BY THE CITY ENGINEER. IF NOT SHOWN ON PLANS, WIDTH SHALL BE A MINIMUM 7'.
- INSTALL 4"x36" WHITE FLEXIBLE DELINEATOR (SHORT SQUEEZE WITH 2 RETROREFLECTIVE BANDS) ON SURFACE MOUNT FIXED BASE, IF SHOWN ON PLANS OR DIRECTED BY THE CITY ENGINEER. DELINEATOR SHALL BE IMPACT RECOVERY TUFF POST (TP4) OR APPROVED EQUAL.
- ALL STRIPING AND MARKINGS SHALL MEET LATEST CALTRANS THERMOPLASTIC SPECIFICATIONS, INCLUDING GLASS BEAD RETROREFLECTIVITY AND THICKNESS. PAINT SHALL ONLY BE USED IF APPROVED BY THE CITY ENGINEER.
- CAT TRACKING SHALL BE APPROVED BY THE CITY ENGINEER BEFORE INSTALLATION OF THERMOPLASTIC LINES AND MARKINGS.

**A** TYPICAL SIGN AND POST DETAIL  
14 AS SHOWN

**B** TYPICAL CONTINENTAL CROSSWALK DETAIL  
14 AS SHOWN

**C** TYPICAL DAYLIGHTING DETAIL  
14 AS SHOWN



REVISIONS	



CITY OF  
**SANTA CRUZ**  
PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201  
Santa Cruz, CA 95060

**DOWNTOWN CATCH BASIN  
REHABILITATION 2026**  
DETAIL SHEET (5)

REFERENCES	DATE	1/21/2026	SCALE	AS SHOWN
FIELD BOOK:	DRAWN	ADH	SHEET	14 OF 14
#	DESIGN	ADH / SG	VAULT NO.	# 9227
DRAWING #:	CHECKED	KC		
#				