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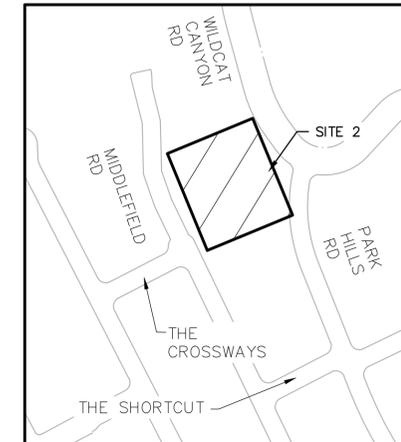
# CITY OF BERKELEY ALAMEDA COUNTY, CALIFORNIA FY 2024 STORM DRAIN IMPROVEMENTS SPECIFICATION NO. 25-11677-C



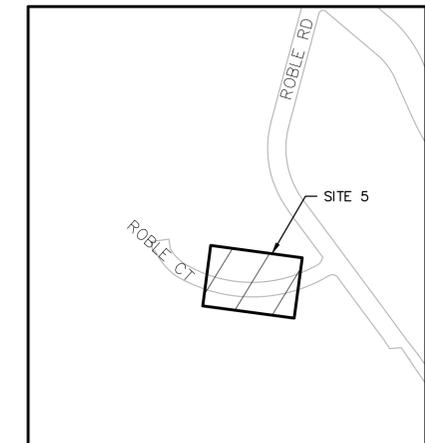
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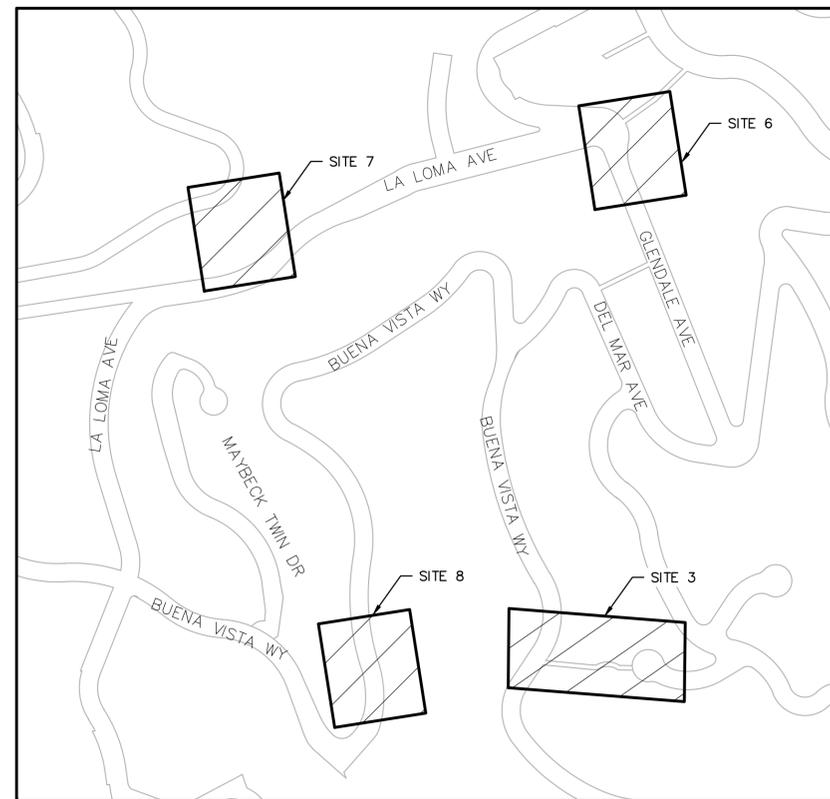
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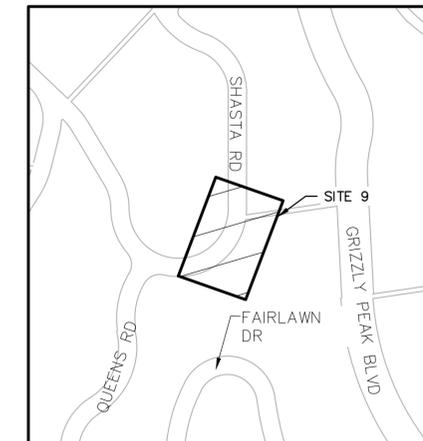
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LOCATION MAP - CITY OF BERKELEY  
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VICINITY MAP - SITES 3, 6, 7, & 8  
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VICINITY MAP - SITE 9  
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| REVISION | MARK | DATE | DESCRIPTION |
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PROJECT MANAGER: *David DeLatorre* DATE: 5/7/2025  
 DEPICTION OF MONUMENTS: DATE: \_\_\_\_\_  
 SURVEY PARTY CHIEF: \_\_\_\_\_  
 WATERSHED REVIEW: *David DeLatorre* DATE: 5/7/2025

SUBMITTED: *David DeLatorre* DATE: 5/7/2025  
 R.C.E. 83969  
 EXP. 9/30/2025  
 SUPERVISING CIVIL ENGINEER  
 APPROVED: *David DeLatorre* DATE: 5/9/2025  
 R.C.E. 62524  
 EXP. 9/30/2025  
 CITY ENGINEER

DESIGN: **MMV**  
 DRAWN: **JL**  
 CHECK: **CMP**  
 AS BUILT: \_\_\_\_\_

HORIZ. \_\_\_\_\_  
 VERT. \_\_\_\_\_  
 BOOK \_\_\_\_\_  
 DATE: 04/29/25

CITY OF BERKELEY  
 DEPARTMENT OF PUBLIC WORKS

FY 2024 STORM DRAIN IMPROVEMENTS  
 TITLE SHEET

PLAN: 8274  
 FILE: 502-718  
 T-1  
 SHEET: 1 OF 22





## ABBREVIATIONS

|        |                                 |        |                                 |          |                            |
|--------|---------------------------------|--------|---------------------------------|----------|----------------------------|
| AB     | AGGREGATE BASE                  | I.C.   | INTER COMM.                     | TC       | TOP OF CURB                |
| AC     | ASPHALT CONCRETE                | INV    | INVERT                          | TCDI     | TOP OF CURB AT DRAIN INLET |
| ADA    | AMERICANS WITH DISABILITIES ACT | IP     | IRON PIPE                       | TD       | TOP OF DIKE                |
| ADJ    | ADJUST                          | IRR    | IRRIGATION                      | TEL      | TELEPHONE                  |
| BC     | BEGIN CURVE                     | JP     | JOINT POLE                      | TW       | TOP OF WALL                |
| BLDG   | BUILDING                        | LF     | LINEAR FEET                     | TYP      | TYPICAL                    |
| BFP    | BACK FLOW PREVENTER             | LS     | LANDSCAPE AREA                  | U.G.     | UNDERGROUND                |
| B/W    | BACK OF WALK                    | LT     | LEFT                            | UNK      | UNKNOWN                    |
| C      | CONCRETE                        | LT     | LIGHT                           | (V)      | VERTICAL                   |
| C/L    | CENTER LINE                     | MAG NL | MAGNETIC NAIL                   | VCP      | VITRIFIED CLAY PIPE        |
| CB     | CATCH BASIN                     | MAX    | MAXIMUM                         | VERT     | VERTICAL                   |
| CLF    | CHAIN LINK FENCE                | MTL    | METAL                           | V.G.     | VALLEY GUTTER              |
| CMP    | CORRUGATED METAL PIPE           | MH     | MAINTENANCE HOLE                | VEH.     | VEHICLE                    |
| CMPA   | CORRUGATED METAL PIPE ARCH      | MIN    | MINIMUM                         | W        | WATER                      |
| COMP   | COMPACTION                      | MON    | SURVEY MONUMENT                 | W/       | WITH                       |
| CONC   | CONCRETE                        | MRK    | MARKER                          | WD       | WOOD                       |
| CONSTR | CONSTRUCT                       | OH     | OVERHEAD                        | WI       | WROUGHT IRON FENCE         |
| CP     | CONTROL POINT                   | O/H    | OVERHEAD                        | WM       | WATER METER                |
| CR     | CURB RAMP                       | P      | PAVEMENT                        | WW       | WATER VALVE                |
| D/W    | DRIVEWAY                        | PCC    | PORTLAND CEMENT CONCRETE        | w/       | WITH                       |
| DEMO   | DEMOLISH                        | PED    | PEDESTAL                        | X--DRAIN | CROSS DRAIN                |
| DI     | DRAIN INLET                     | P.L.   | PIPE LINE                       |          |                            |
| DWY    | DRIVEWAY                        | PRC    | POINT OF REVERSE CURVE          |          |                            |
| EA     | EACH                            | PVC    | POLYVINYLCHLORIDE PIPE          |          |                            |
| EL     | END CURVE                       | R      | RADIUS                          |          |                            |
| EC     | ELEVATION                       | RCB    | REINFORCED CONCRETE BOX         |          |                            |
| ELEC   | ELECTRICAL                      | RCP    | REINFORCED CONCRETE PIPE        |          |                            |
| ELEV   | ELEVATION                       | REL    | RELATIVE                        |          |                            |
| EP     | EDGE OF PAVEMENT                | RET    | RETAINING                       |          |                            |
| (E)    | EXISTING                        | RHMA   | RUBBERIZED HOT MIX ASPHALT      |          |                            |
| EX     | EXISTING                        | RT     | RETAINING                       |          |                            |
| EXIST  | EXISTING                        | RW     | REDWOOD TREE                    |          |                            |
| FD     | FOUND                           | S      | SLOPE OR SWALE                  |          |                            |
| FDR    | FULL-DEPTH RECLAMATION          | SDCO   | STORM DRAIN CLEAN OUT           |          |                            |
| FG     | FINISH GRADE                    | SDJB   | STORM DRAIN JUNCTION BOX        |          |                            |
| FH     | FIRE HYDRANT                    | SDDI   | STORM DRAIN DRAIN INTAKE        |          |                            |
| F/L    | FLOW LINE                       | SDMH   | STORM DRAIN MAINTENANCE HOLE    |          |                            |
| FL     | FLOW LINE                       | SO     | SIDE OPENING                    |          |                            |
| G      | GAS                             | SQ     | SQUARE                          |          |                            |
| GRT    | GRATE                           | SS     | SANITARY SEWER                  |          |                            |
| GUT    | FLOWLINE GUTTER                 | SSMH   | SANITARY SEWER MAINTENANCE HOLE |          |                            |
| GV     | GAS VALVE                       | SSCO   | SANITARY SEWER CLEAN OUT        |          |                            |
| (H)    | HORIZONTAL                      | STA    | STATION                         |          |                            |
| HMA    | HOT MIX ASPHALT                 | STD    | STANDARD                        |          |                            |
| HORIZ  | HORIZONTAL                      | STDS   | STANDARDS                       |          |                            |
| HSS    | HOLLOW STRUCTURAL SECTION       | S/W    | SIDEWALK                        |          |                            |
|        |                                 | T/C    | TOP OF CURB                     |          |                            |

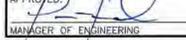
## CONCRETE WORK NOTES

- GENERAL NOTES FOR CONCRETE FLAT WORK**
- CURB RAMP SHALL CONFORM TO THE LATEST EDITION AND REVISED STANDARD PLAN (RSP) OF THE (CALIFORNIA DEPARTMENT OF TRANSPORTATION) STANDARD SPECIFICATIONS AND STANDARD PLAN A88A AND A88B.
  - PORTLAND CEMENT CONCRETE FOR SIDEWALK, CURB, DRIVEWAY, GUTTER AND VALLEY GUTTER SHALL BE MINOR CONCRETE CONFORMING TO THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF THE (CALIFORNIA DEPARTMENT OF TRANSPORTATION) STANDARD SPECIFICATIONS. NO BAGGED MIX IS PERMITTED.
  - BUS PAD CONCRETE SHALL BE DESIGNED WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AND SHALL BE SAMPLED (3 CYLINDERS REQ'D) AND TESTED.
  - EXISTING SUBGRADE SURFACE SHALL BE RE-GRADED (IF NECESSARY) AND RE-COMPACTED (MIN 95% RELATIVE COMPACTION) TO CONFORM TO THE GRADES SHOWN ON THE PLANS.
  - NEW CONCRETE WORK SHALL MATCH EXISTING IN FINISH, SCORE PATTERN, AND COLOR, OR AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
    - ROSE COLORED CONCRETE SHALL CONTAIN 6 POUNDS OF DAVIS #160 (ROSE) PER CUBIC YARD.
    - ALL OTHER CONCRETE SHALL CONTAIN 1.5 POUND OF LAMPBLACK PER CUBIC YARD.
  - NO ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF THE ENGINEER.
  - CURBS, SIDEWALKS, DRIVEWAYS, AND CURB RAMP SHALL HAVE FORMS REMOVED AND BE BACKFILLED WITHIN 3 DAYS AFTER PLACING CONCRETE. CONCRETE SHALL BE ALLOWED TO CURE FOR AT LEAST 48 HOURS PRIOR TO BACKFILLING.
  - MAXIMUM SLUMP OF FRESH CONCRETE PERMITTED IN THESE ITEMS SHALL BE 4 INCHES. SLUMP SHALL BE DETERMINED BY EITHER ASTM C-143 OR CALIFORNIA TEST METHOD NO. 520 AT THE ENGINEER'S DISCRETION. CONCRETE SHALL BE TRANSPORTED IN TRUCK MIXERS OR AGITATORS AND DISCHARGED WITHIN 70 MINUTES OF LEAVING THE PLANT.
  - WEAKENED PLANE JOINTS AT LEAST 1-1/2 INCHES DEEP AND 1/8 INCHES WIDE SHALL BE PLACED AT 10 FEET MAXIMUM SPACING.
  - EXPANSION JOINT FILLER FOR CONCRETE (BITUMINOUS TYPE) MUST BE IN COMPLIANCE WITH ASTM D 994.
  - ALL NEW CURB, SIDEWALK, VALLEY GUTTER AND DRIVEWAYS CONSTRUCTED ADJACENT TO EXISTING CONCRETE CURB OR SIDEWALK SHALL BE DOWELLED TO THE EXISTING CONCRETE. THE DOWELS SHALL BE #4 REBAR, 18 INCHES LONG AT 18 INCHES MAXIMUM SPACING. DOWELS SHALL BE EMBEDDED A MINIMUM OF 8-INCHES IN A 5/8 INCH DRILLED HOLE (EXIST. CONC.).
  - SIDEWALK SHALL BE CONSTRUCTED WITH EXPANSION JOINTS AT EACH BEGINNING OF CURVE (BC) AND END OF CURVE (EC).
  - CURB AND GUTTER, SIDEWALKS AND DRIVEWAYS SHALL BE GIVEN A MEDIUM BROOM FINISH. THE SURFACE SHALL FIRST BE GIVEN A FLOATED FINISH AND FINAL TROWELING SHALL BE DONE WITH A STEEL TROWEL. THE FINISHED SURFACE SHALL BE FREE OF ALL TROWEL MARKS AND SHALL BE UNIFORM IN TEXTURE AND APPEARANCE, BROOM TEXTURE SHALL BE IN THE LONGITUDINAL DIRECTION.
  - CLASS 2 AGGREGATE BASE (CL 2 AB) SHALL CONFORM TO THE CALTRANS STANDARD SPECIFICATIONS (LATEST EDITION) AND SHALL BE COMPACTED TO A MINIMUM DENSITY OF 95% RELATIVE COMPACTION.
  - EXISTING ASPHALT CONCRETE SHALL BE SAWCUT, REMOVED AND RECONSTRUCTED FOR A MINIMUM OF 2- FEET WITHIN EDGES OF CONCRETE WORK. HOT MIX ASPHALT SHALL BE A MINIMUM THICKNESS OF 8" AND CL 2 AB SHALL MATCH EXISTING THICKNESS. AS APPROVED BY THE CITY ENGINEER. SEE PLAN 8148 "CURB AND GUTTER RETROFIT" FOR ADDITIONAL REQUIREMENTS.

|   |                               |   |  |
|---|-------------------------------|---|--|
| <b>CITY OF BERKELEY</b><br>DEPARTMENT OF PUBLIC WORKS   |                               | <b>STANDARD DETAIL</b><br>CONCRETE WORK NOTES |  |
| SUBMITTED:<br><br>SUPERVISING CIVIL ENGINEER | DATE: 2/27/17<br>R.C.E. 64582 | DESIGN: HEI<br>DRAWN: HEI<br>CHECK: MS        | DATE: 01/26/17<br>SCALE: N.T.S.<br>BOOK: |
| APPROVED:<br><br>MANAGER OF ENGINEERING      | DATE: 2/28/17<br>R.C.E. 66014 | PLAN: 8144<br>FILE: 208-156<br>SHEET: 1 OF 1  |  |

## TRENCH EXCAVATION AND SURFACE RESTORATION NOTES

- NOTES:**
- TRENCH EXCAVATION IN THE PUBLIC RIGHT OF WAY SHALL CONFORM TO THE CITY OF BERKELEY GENERAL REGULATIONS FOR TRENCH EXCAVATION AND SURFACE RESTORATION IN THE PUBLIC RIGHT OF WAY. CUT THROUGH THE FULL DEPTH OF EXISTING SURFACING TO A NEAT STRAIGHT LINE AT LEAST 1.0 FOOT OUTSIDE THE TRENCH LINE. REPAIR PAVEMENT EDGES DAMAGED DURING CONSTRUCTION TO MEET LINES PRIOR TO PAVING. APPLY PAINT BINDER (TACK COAT) TO ALL VERTICAL SURFACES IN ACCORDANCE WITH THE LATEST EDITION OF CALTRANS STANDARD SPECIFICATIONS.
  - MINIMUM WIDTH OF TRENCH SHALL BE IN ACCORDANCE WITH THE DIMENSION SHOWN ON THE TRENCH BACKFILL DETAIL. DIMENSIONS "X" IS SHOWN BELOW FOR THE UTILITY "O.D."
- | UTILITY O.D. | "X" MIN |
|--------------|---------|
| UNDER 1.0'   | 0.5'    |
| 1.0' TO 4.5' | 1.0'    |
| OVER 4.5'    | 2.0'    |
- CLASS 2 AGGREGATE BASE (AB) SHALL BE INSTALLED IMMEDIATELY BELOW THE PAVEMENT SECTION TO BE REPLACED. THE AB QUALITY, GRADATION AND THE METHOD OF INSTALLATION SHALL BE IN CONFORMANCE WITH SECTION 20 OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. THE DEPTH OF THE AB SHALL BE IN ACCORDANCE WITH THE TRENCH BACKFILL DETAIL. 95% RELATIVE COMPACTION IS REQUIRED.
  - RELATIVE COMPACTION SHALL BE DETERMINED BY CALIFORNIA TEST NUMBER 231 (NUCLEAR GAUGE) OR APPROVED EQUAL. PERMITEE SHALL ARRANGE AND PAY FOR THE TEST FOR RELATIVE COMPACTION WHEN ORDERED BY THE ENGINEER. THE TEST SHALL BE PERFORMED BY A QUALIFIED MATERIAL TESTING LABORATORY AND TEST RESULTS BE SUBMITTED TO ENGINEERING FORTY-EIGHT (48) HOURS IN ADVANCE OF PERMANENT PAVING OPERATION.
  - PERMITEE SHALL PLACE TEMPORARY BITUMINOUS RESURFACING TWO (2) INCHES IN THICKNESS OVER THE COMPACTED BACKFILL AREAS. GREATER THICKNESS MAY BE REQUIRED FOR MAJOR INTERSECTIONS AND OTHER CRITICAL AREAS BY THE ENGINEER AS NECESSARY. STEEL PLATES MAY BE USED AS AN ALTERNATIVE IF APPROVED BY ENGINEER.
  - TEMPORARY BITUMINOUS RESURFACING (CUT-BACK) SHALL BE MECHANICALLY COMPACTION IN PLACE TO A UNIFORM, EVEN SURFACE AND SHALL BE TRUE TO STREET GRADE AND CROSS SECTION. THE PERMITEE SHALL REGULARLY INSPECT AND MAINTAIN THE TEMPORARY BITUMINOUS RESURFACING UNTIL THE EXCAVATION IS PERMANENTLY PAVED. THE SURFACING SHALL NOT VARY TO MORE THAN 1/2" FROM THE EDGE OF A 10 FOOT STRAIGHT EDGE. UPON NOTIFICATION, THE PERMITEE SHALL CORRECT THE SURFACE DEFICIENCY WITHIN 48 HOURS. LOOSE ROCKS AND OTHER DEBRIS GENERATED FROM TEMPORARY RESURFACING OPERATIONS SHALL BE IMMEDIATELY REMOVED FROM THE WORKSITE.
  - TEMPORARY BITUMINOUS RESURFACING SHALL BE REMOVED BEFORE PLACEMENT OF FINAL PAVING. FINAL PAVING SHALL BE MINIMUM FIVE (5) INCHES THICK OR SAME AS THE EXISTING PAVEMENT, WHICHEVER IS GREATER. THE PAVEMENT SHALL BE PLACED ON UNDISTURBED PREVIOUSLY COMPACTED BACKFILL AREAS.
  - PAVEMENT OUTSIDE OF THE FINAL CUT LINE DAMAGED BY THE PERMITEE'S OPERATIONS SHALL BE REMOVED BY SAW-CUTTING IN LINES PERPENDICULAR OR PARALLEL TO THE ORIGINAL TRENCH LINES. NO DIAGONAL CUTS WILL BE PERMITTED.
  - HOT MIX ASPHALT (HMA) SHALL BE TYPE A IN CONFORMANCE WITH SECTION 39 OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS UNLESS OTHER WISE SPECIFIED IN THE ENCROACHMENT PERMIT CONDITIONS OR AS DIRECTED BY THE PUBLIC WORKS DEPARTMENT. HMA SHALL BE COMPACTED TO 95% RELATIVE COMPACTION.
  - THE TOP 1 1/2" OF HMA SHALL HAVE A MAXIMUM AGGREGATE SIZE OF 1/2" UNLESS OTHERWISE SPECIFIED. THE HMA BENEATH THE TOP LAYER SHALL HAVE A MAXIMUM AGGREGATE SIZE OF 3/4".
  - UPON COMPLETION OF PAVING OPERATIONS THE PERMITEE SHALL IMMEDIATELY REPLACE ALL PAVEMENT MARKING AND TRAFFIC STRIPING DAMAGED OR REMOVED BY HIS OPERATIONS. PAVEMENT MARKINGS AND TRAFFIC STRIPINGS SHALL BE REPLACED IN KIND OR WITH SUBSTITUTE MATERIAL APPROVED BY THE ENGINEER.
  - WHEN ANY PORTION OF THE CURB AT A LEGAL PEDESTRIAN CROSSWALK OR ANY PORTION OF THE SIDEWALK IN IMMEDIATE CONTACT WITH SUCH CURB IS REMOVED BY THE PERMITEE OPERATIONS, THE PERMITEE SHALL CONSTRUCT, AS PART OF HIS REPLACEMENT OPERATIONS, A CURB RAMP AS SHOWN IN CITY OF BERKELEY STANDARD DETAIL NO. 6780.
  - EXCAVATION ON STREETS RECONSTRUCTED OR RESURFACED WITHIN THE LAST 5 YEARS WILL NOT BE PERMITTED EXCEPT FOR CONDITIONS ENUMERATED IN THE CITY OF BERKELEY GENERAL REGULATIONS AND FOR TRENCH EXCAVATION AND SURFACE RESTORATION IN THE PUBLIC RIGHT OF WAY.
  - MINIMUM COVER OVER UTILITIES IS GOVERNED BY THE CALIFORNIA PUBLIC UTILITIES COMMISSION. UTILITY OWNERS SHALL CONSIDER PLACING THEIR UTILITY LINE AT A GREATER DEPTH TO AVOID FUTURE RELOCATION DUE TO STREET/ROAD RECONSTRUCTION. THE INCREASED DEPTH SHOULD INCLUDE SUFFICIENT CLEARANCE BETWEEN THE UTILITY AND PAVEMENT STRUCTURAL SECTION UPGRADE TO PREVENT DAMAGE BY CONSTRUCTION EQUIPMENT. THE PUBLIC WORKS DEPARTMENT RECOMMENDS A MINIMUM OF 36 INCHES OF COVER BELOW THE PAVEMENT SURFACE IN ROADWAYS AND 24 INCHES BELOW FINISH GRADE IN SIDEWALKS AND OTHER PUBLIC RIGHT OF WAY.
  - RESTORATION OF THE TRENCH EXCAVATION ON CALTRANS RIGHT OF WAY (SAN PABLO AVE., ASHBY AVE. AND TUNNEL RD.) SHALL BE IN ACCORDANCE WITH CALTRANS ENCROACHMENT PERMIT.
  - RESTORE PAVEMENT AS FOLLOWS: FOR TRENCHES PARALLEL WITH THE CENTERLINE OF THE STREET, COLD PLANE AND REPAVE THE LANE IN WHICH THE TRENCH LIES. FOR TRANSVERSE TRENCHES, COLD PLANE AND REPAVE 1/2 LANE WITH ON EACH SIDE OF THE TRENCH. FOR BELL HOLES, COLD GRIND AND PAVE 1 LANE WIDTH ON EACH SIDE OF THE EXCAVATION. PRIOR TO COLD PLACING, THE TRENCH SHALL BE PAVED IN 3 INCH MAXIMUM LIFTS TO THE ORIGINAL SURFACE GRADES OR TO WITHIN 1 1/2 INCHES OF THE EXISTING SURFACE. IF THE CONTRACTOR ELECTS TO PAVE WITHIN 1 1/2 INCHES OF THE EXISTING SURFACE, THE REMAINING 1 1/2 INCHES MUST BE PAVED WITH CUT BACK ASPHALT UNTIL THE SURFACE IS PLACED. FINAL PAVING SHALL COMMENCE WITHIN 3 DAYS AFTER COLD DRIVING. ALL LOOSE MATERIAL SHALL BE REMOVED FROM THE AREA TO BE REPAVED PRIOR TO REPAVING.
  - BEDDING MATERIAL SHALL BE CLASS 2 AB OR CRUSHED ROCK PER 2015 GREENBOOK, TABLE 200-1.2.1(A). 3/4" SIZE OR LARGER ALTERNATIVE MATERIALS SHALL BE APPROVED BY THE PUBLIC WORKS DEPARTMENT. IN NO CASE SHALL "PEA" GRAVEL BE ALLOWED. A MAXIMUM OF 6 INCHES OF SAND MAY BE USED AS A BEDDING MATERIAL FOR COMMUNICATION, GAS AND ELECTRIC CONDUITS ONLY.
  - FOR GAS, ELECTRIC AND COMMUNICATION CONDUITS WITH AN OUTSIDE DIAMETER EQUAL TO OR LESS THAN 4 INCHES, THE TRENCH WIDTH MAY BE REDUCED TO NO LESS THAN 12 INCHES.
  - UNSATURABLE NATIVE MATERIAL SHALL BE EXCAVATED BELOW THE LIMIT OF EXCAVATION AND REPLACED WITH SUITABLE BACKFILL MATERIAL WHEN DIRECTED BY THE PUBLIC WORKS DEPARTMENT.
  - WHERE THE TRENCH PARALLELS CURB AND THE NEAREST TRENCH LINE IS LESS THAN 3 FEET FROM THE GUTTER LIP, ALL EXISTING HMA SHALL BE REPLACED TO THE GUTTER LIP.
  - SLURRY CEMENT BACKFILL SHALL COMPLY WITH SECTION 19-3.02E OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS.
  - APPLY PAINT BINDER (TACK COAT) TO ALL EXISTING AD AND CONCRETE SURFACES IN ACCORDANCE WITH THE LATEST EDITION OF CALIFORNIA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS.

|   |                               |   |                                  |
|---|-------------------------------|---|----------------------------------|
| <b>CITY OF BERKELEY</b><br>DEPARTMENT OF PUBLIC WORKS   |                               | <b>STANDARD DETAIL</b><br>TRENCH EXCAVATION AND SURFACE RESTORATION |                                  |
| SUBMITTED:<br><br>SUPERVISING CIVIL ENGINEER | DATE: 2/16/16<br>R.C.E. 66014 | DESIGN: HEI<br>DRAWN: HEI<br>CHECK:                                 | DATE: 06/2016<br>SCALE:<br>BOOK: |
| APPROVED:<br><br>MANAGER OF ENGINEERING      | DATE: 2/16/16<br>R.C.E. 66014 | PLAN: 8136<br>FILE: 20-B-155<br>SHEET: 2 OF 2                       |                                  |

## DEMO LEGEND

-  REMOVE EX. CONC & BASE AS REQUIRED FOR NEW IMPROVEMENTS.
-  REMOVE EX SD CROSS DRAIN OR DRAINLINE
-  REMOVE TREE AND ROOTS IMPACTING NEW IMPROVEMENTS.

## SITE LEGEND

-  HMA PLUG SEE DET 1 CD-1
-  NEW CONCRETE WALKWAY SEE DET 2 CD-3
-  NEW STORM DRAIN LINE, SIZE AND TYPE AS NOTED
-  NEW STORM DRAIN JUNCTION BOX
-  NEW STORM DRAIN CROSS DRAIN OUTLET
-  NEW CURB AND GUTTER SEE DET 2 CD-1



Know what's below.  
Call before you dig.



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| PROJECT MANAGER:    | DATE: | DEPICTION OF MONUMENTS: | DATE: |
| SURVEY PARTY CHIEF: | DATE: | WATERSHED REVIEW:       | DATE: |

|                            |              |         |               |
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| SUBMITTED:                 | DATE:        | DESIGN: | DATE:         |
| SUPERVISING CIVIL ENGINEER | R.C.E. 64582 | DRAWN:  | SCALE: N.T.S. |
| APPROVED:                  | DATE:        | CHECK:  | BOOK:         |
| MANAGER OF ENGINEERING     | R.C.E. 66014 | PLAN:   | FILE:         |
|                            |              | SHEET:  | 1 OF 1        |

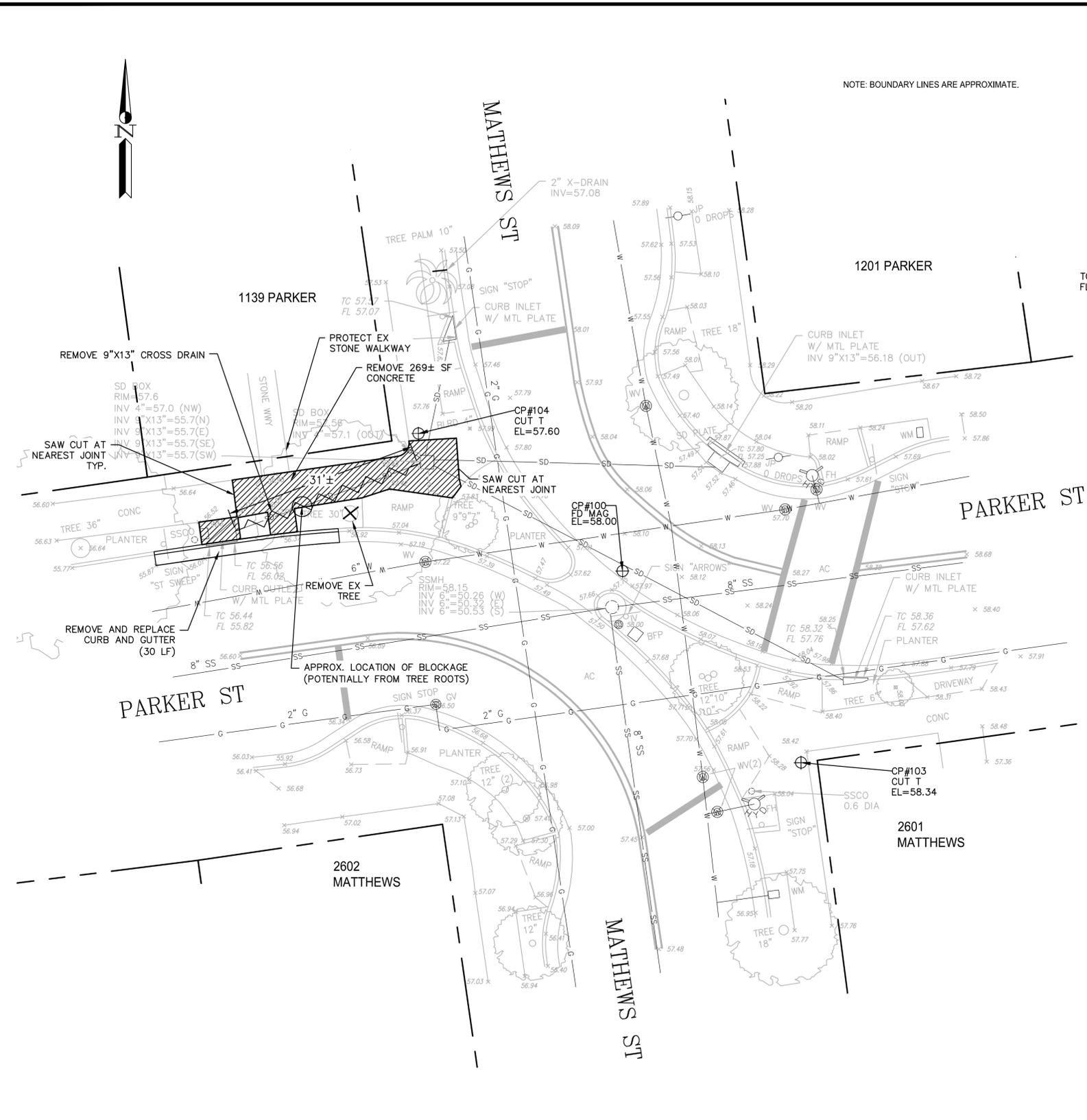
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| DESIGN:   | — | HORIZ. | —        |
| DRAWN:    | — | VERT.  | —        |
| CHECK:    | — | BOOK:  | —        |
| AS BUILT: | — | DATE:  | 04/29/25 |

**CITY OF BERKELEY**  
DEPARTMENT OF PUBLIC WORKS

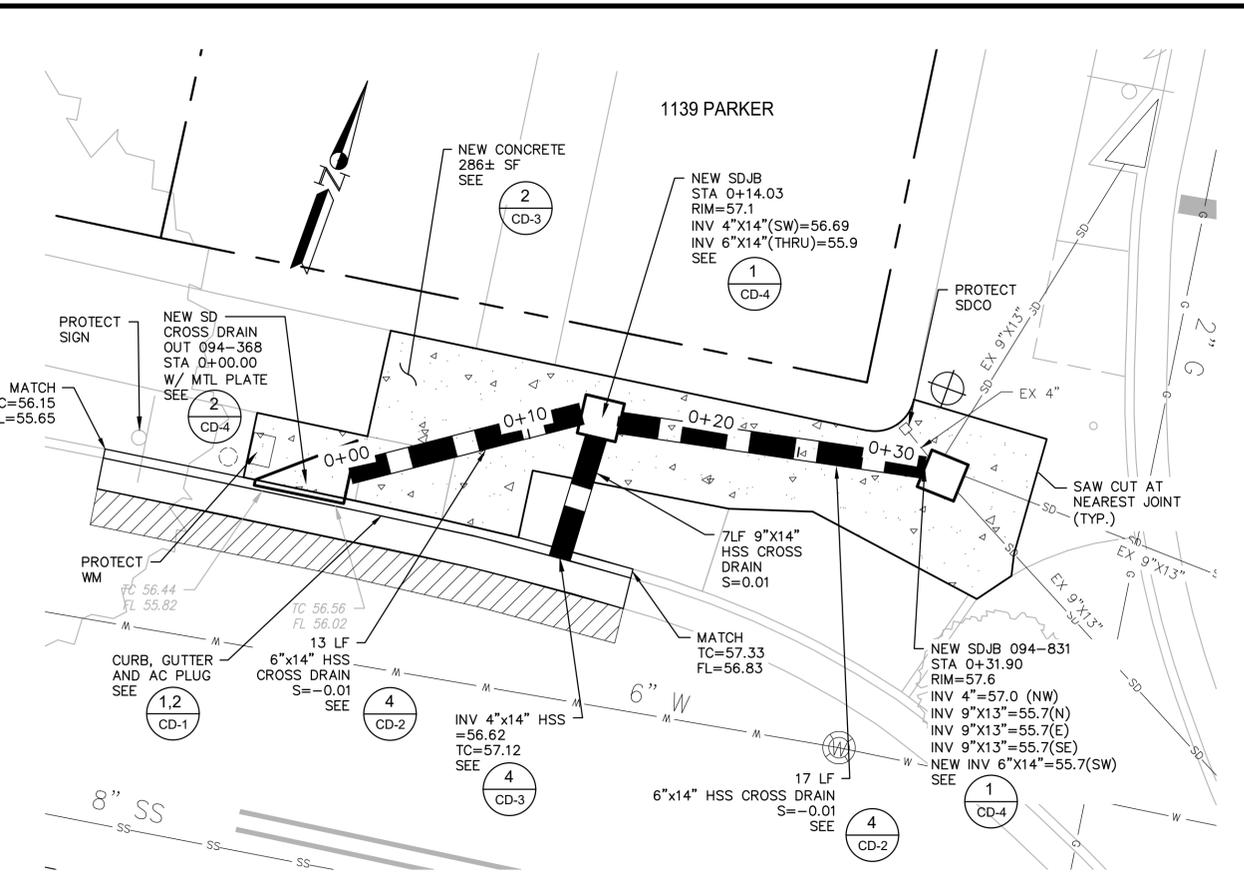
FY 2024 STORM DRAIN IMPROVEMENTS  
 SURVEY CONTROL, LEGEND AND ABBREVIATIONS

PLAN 8274  
 FILE 502-718  
 N-3  
 SHEET 4 OF 22

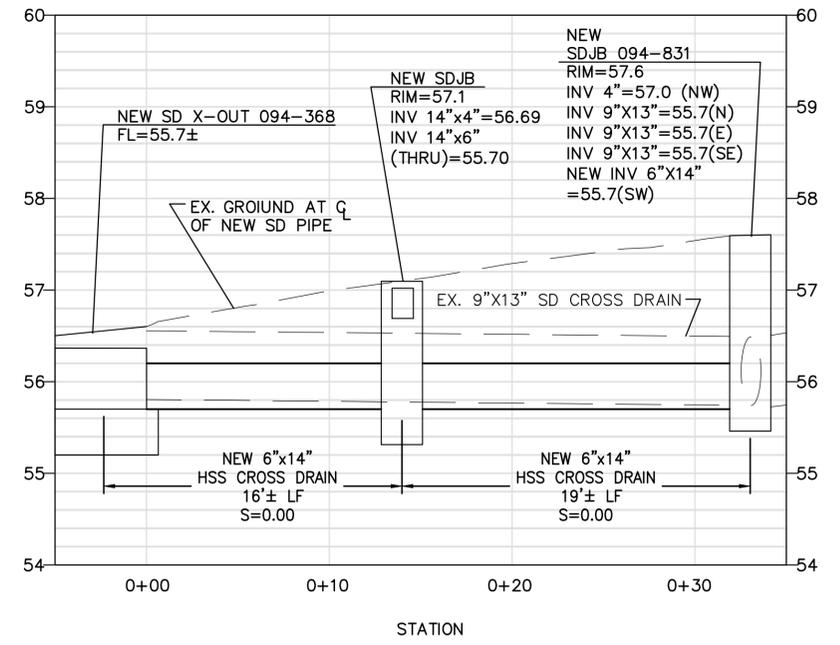
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| REVISION |  |



**DEMOLITION PLAN**  
SCALE: 1" = 10'



**PLAN VIEW**  
SCALE: 1" = 5'



**PROFILE VIEW**  
H. SCALE: 1" = 5'  
V. SCALE: 1" = 1'



**LCC** ENGINEERING & SURVEYING, INC.  
890 Estudillo Street  
Menlo Park, California 94025-1620  
(650) 228-4218 Fax (650) 228-4638  
www.lcc-inc.com

PROJECT MANAGER: \_\_\_\_\_ DATE \_\_\_\_\_  
SURVEY PARTY CHIEF \_\_\_\_\_  
WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_  
FOR REDUCED PLANS - ORIGINAL SCALE IS IN INCHES

DEPICTION OF MONUMENTS: \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
CITY ENGINEER

SUBMITTED: \_\_\_\_\_ DATE \_\_\_\_\_  
SUPERVISING CIVIL ENGINEER  
APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
CITY ENGINEER

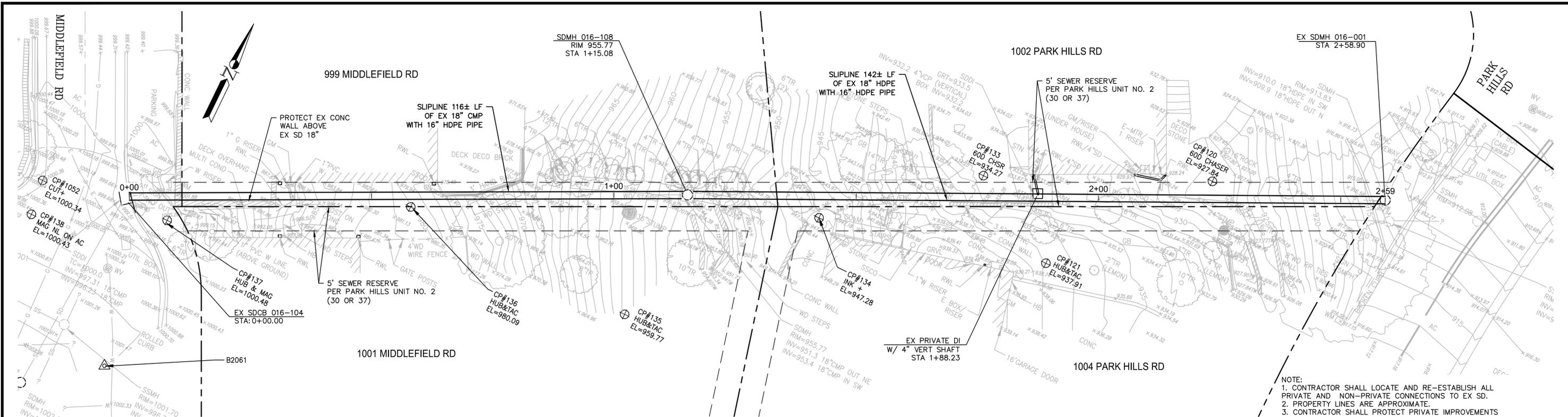
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DRAWN: **JL**  
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AS BUILT \_\_\_\_\_ DATE \_\_\_\_\_

**CITY OF BERKELEY**  
DEPARTMENT OF PUBLIC WORKS

FY 2024 STORM DRAIN IMPROVEMENTS  
SITE 1 - PARKER ST AND MATHEWS ST  
REPLACE CROSS DRAIN

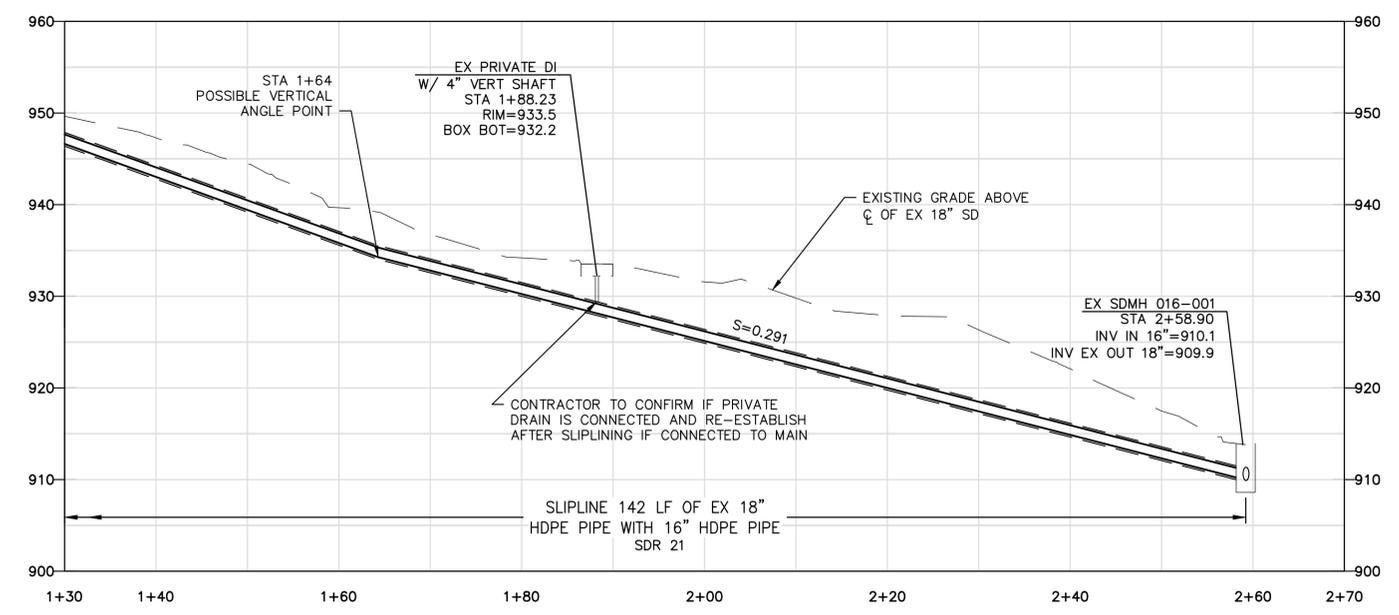
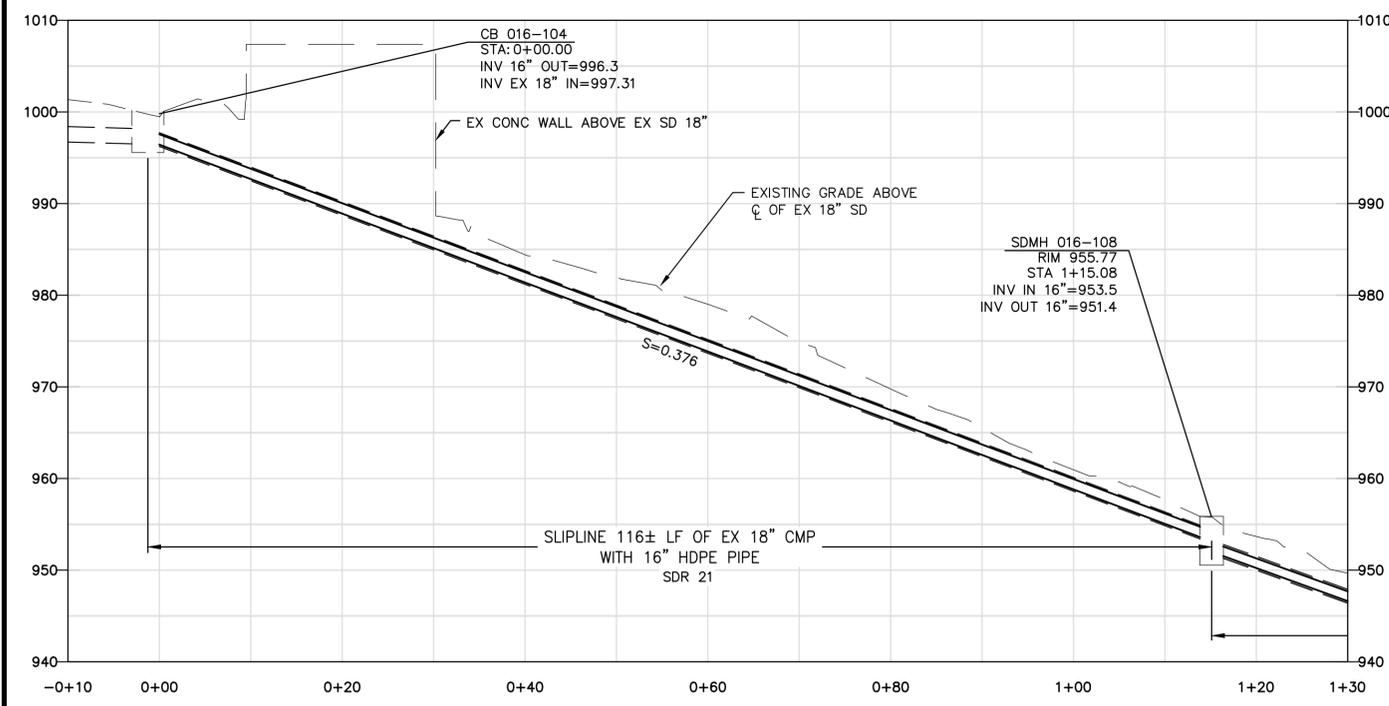
PLAN **8274**  
FILE **502-718**  
C-1  
SHEET **5** OF **22**

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**SITE PLAN**  
SCALE: 1" = 10'

NOTE:  
 1. CONTRACTOR SHALL LOCATE AND RE-ESTABLISH ALL PRIVATE AND NON-PRIVATE CONNECTIONS TO EX SD.  
 2. PROPERTY LINES ARE APPROXIMATE.  
 3. CONTRACTOR SHALL PROTECT PRIVATE IMPROVEMENTS AS REQUIRED BY PROJECT SPECIFICATIONS AND THE ENGINEER.  
 4. CONTRACTOR SHALL COORDINATE ACCESS WITH PRIVATE PROPERTY OWNERS AS REQUIRED BY PROJECT SPECIFICATIONS AND THE ENGINEER.



**PROFILE**  
SCALE: 1" = 10'



**L&C ENGINEERING & SURVEYING, INC.**  
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 Menlo Park, California 94025-1620  
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 www.lc-inc.com

PROJECT MANAGER: \_\_\_\_\_ DATE \_\_\_\_\_  
 SURVEY PARTY CHIEF \_\_\_\_\_  
 WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

DEPICTION OF MONUMENTS: \_\_\_\_\_ DATE \_\_\_\_\_  
 SUBMITTED: \_\_\_\_\_ DATE \_\_\_\_\_  
 SUPERVISING CIVIL ENGINEER: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
 CITY ENGINEER: \_\_\_\_\_

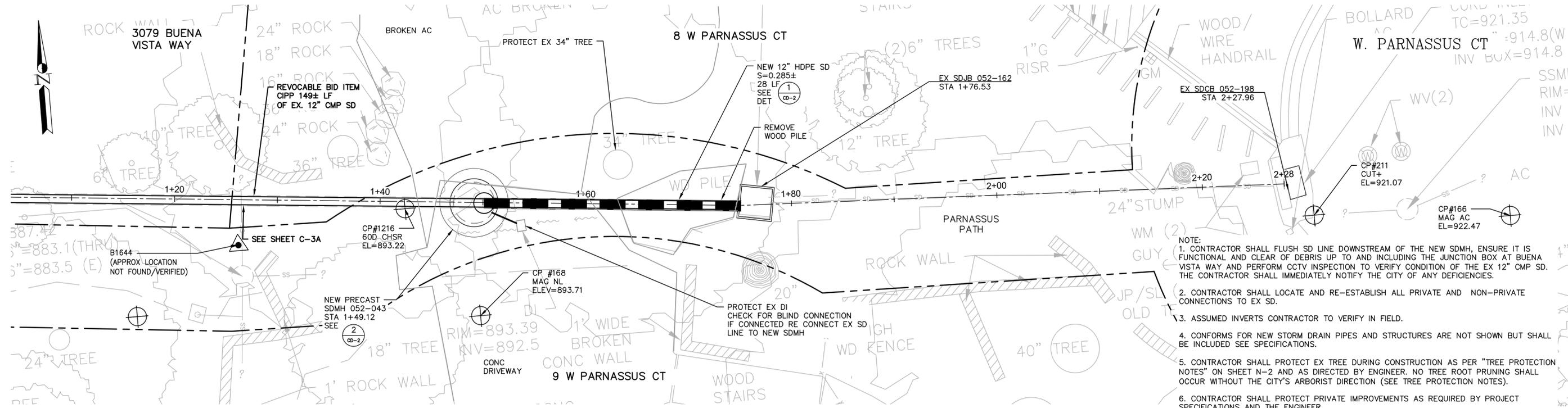
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HORIZ. \_\_\_\_\_  
 VERT. \_\_\_\_\_  
 BOOK \_\_\_\_\_  
 DATE: **04/29/25**

**CITY OF BERKELEY**  
 DEPARTMENT OF PUBLIC WORKS

FY 2024 STORM DRAIN IMPROVEMENTS  
**SITE 2 - MIDDLEFIELD RD AND  
 PARK HILLS RD EASEMENT**

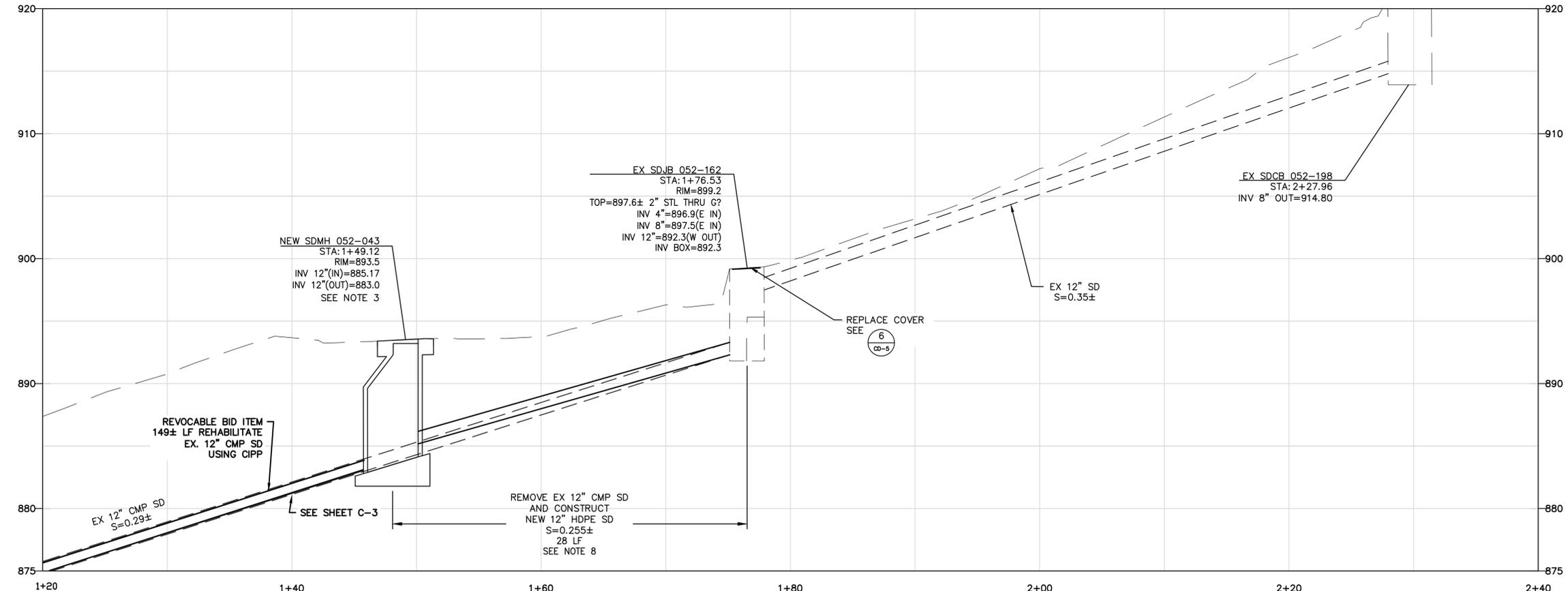
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**SITE PLAN**

SCALE: 1" = 5'

- NOTE:
1. CONTRACTOR SHALL FLUSH SD LINE DOWNSTREAM OF THE NEW SDMH. ENSURE IT IS FUNCTIONAL AND CLEAR OF DEBRIS UP TO AND INCLUDING THE JUNCTION BOX AT BUENA VISTA WAY AND PERFORM CCTV INSPECTION TO VERIFY CONDITION OF THE EX 12" CMP SD. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY OF ANY DEFICIENCIES.
  2. CONTRACTOR SHALL LOCATE AND RE-ESTABLISH ALL PRIVATE AND NON-PRIVATE CONNECTIONS TO EX SD.
  3. ASSUMED INVERTS CONTRACTOR TO VERIFY IN FIELD.
  4. CONFORMS FOR NEW STORM DRAIN PIPES AND STRUCTURES ARE NOT SHOWN BUT SHALL BE INCLUDED SEE SPECIFICATIONS.
  5. CONTRACTOR SHALL PROTECT EX TREE DURING CONSTRUCTION AS PER "TREE PROTECTION NOTES" ON SHEET N-2 AND AS DIRECTED BY ENGINEER. NO TREE ROOT PRUNING SHALL OCCUR WITHOUT THE CITY'S ARBORIST DIRECTION (SEE TREE PROTECTION NOTES).
  6. CONTRACTOR SHALL PROTECT PRIVATE IMPROVEMENTS AS REQUIRED BY PROJECT SPECIFICATIONS AND THE ENGINEER.
  7. CONTRACTOR SHALL COORDINATE ACCESS WITH PRIVATE PROPERTY OWNERS AS REQUIRED BY PROJECT SPECIFICATIONS AND THE ENGINEER.
  8. HDPE PIPE SHALL BE SOLID WALLED SDR-17 PER ASTM-F714



**PROFILE**

SCALE: 1" = 5'



**L&C** ENGINEERING & SURVEYING, INC.  
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 www.lc-inc.com

PROJECT MANAGER: \_\_\_\_\_ DATE \_\_\_\_\_  
 SURVEY PARTY CHIEF \_\_\_\_\_  
 WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

DEPICTION OF MONUMENTS: \_\_\_\_\_ DATE \_\_\_\_\_  
 SUBMITTED: \_\_\_\_\_ DATE \_\_\_\_\_  
 SUPERVISING CIVIL ENGINEER \_\_\_\_\_  
 APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
 CITY ENGINEER \_\_\_\_\_

DESIGN: MMV  
 DRAWN: JL  
 CHECK: CMP  
 AS BUILT: \_\_\_\_\_

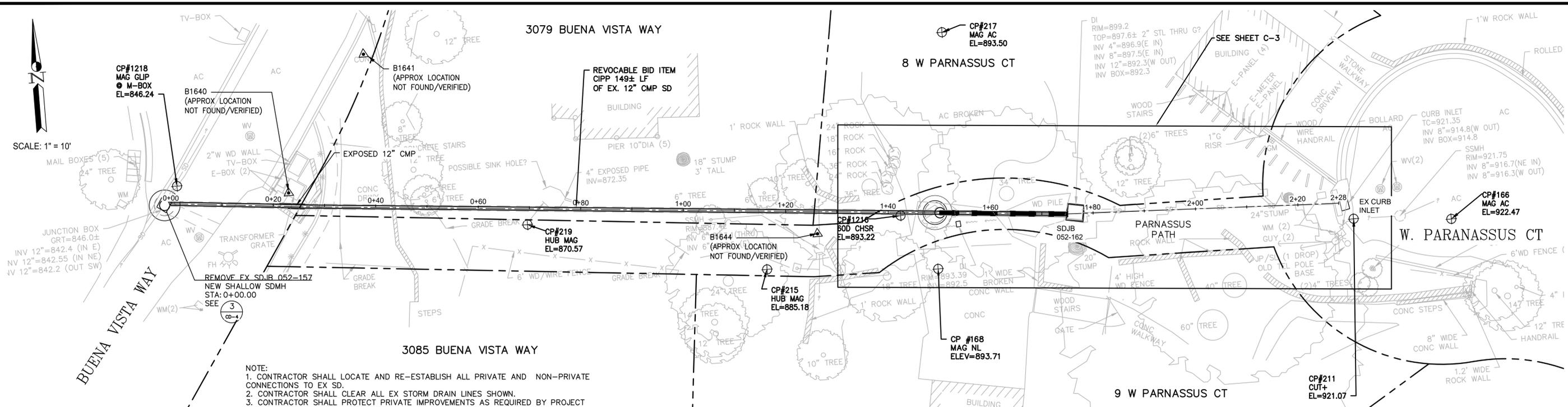
HORIZ: \_\_\_\_\_  
 VERT: \_\_\_\_\_  
 BOOK: \_\_\_\_\_  
 DATE: 04/29/25

**CITY OF BERKELEY**  
 DEPARTMENT OF PUBLIC WORKS

**FY 2024 STORM DRAIN IMPROVEMENTS**  
 SITE 3 - W. PARNASSUS CT & BUENA VISTA WAY  
 STORM DRAIN IMPROVEMENTS

PLAN 8274  
 FILE 502-718  
 C-3  
 SHEET 7 OF 22

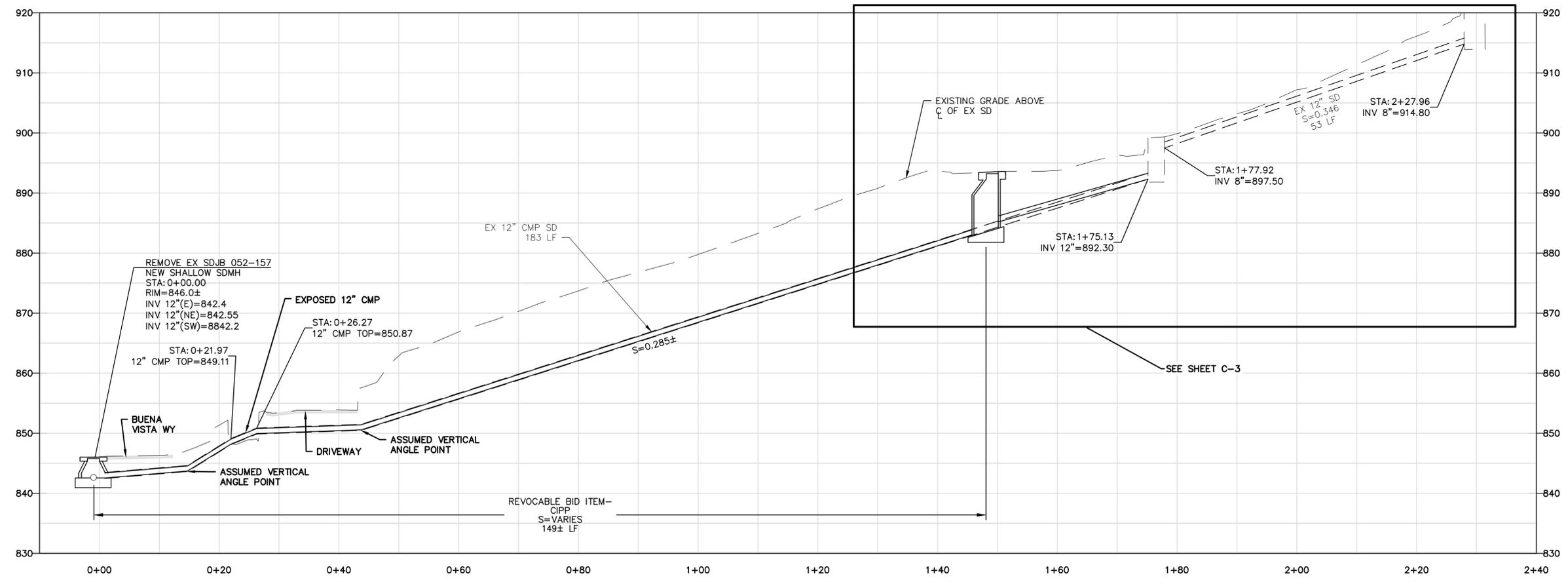
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NOTE:  
 1. CONTRACTOR SHALL LOCATE AND RE-ESTABLISH ALL PRIVATE AND NON-PRIVATE CONNECTIONS TO EX SD.  
 2. CONTRACTOR SHALL CLEAR ALL EX STORM DRAIN LINES SHOWN.  
 3. CONTRACTOR SHALL PROTECT PRIVATE IMPROVEMENTS AS REQUIRED BY PROJECT SPECIFICATIONS AND THE ENGINEER.  
 4. CONFORMS FOR NEW STORM DRAIN PIPES AND STRUCTURES ARE NOT SHOWN BUT SHALL BE INCLUDED SEE SPECIFICATIONS.

**SITE PLAN**

SCALE: 1" = 10'



**PROFILE**

SCALE: 1" = 10'



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PROJECT MANAGER: \_\_\_\_\_ DATE \_\_\_\_\_  
 SURVEY PARTY CHIEF \_\_\_\_\_ DATE \_\_\_\_\_  
 WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

DEPICTION OF MONUMENTS: \_\_\_\_\_ DATE \_\_\_\_\_  
 SUBMITTED: \_\_\_\_\_ DATE \_\_\_\_\_  
 SUPERVISING CIVIL ENGINEER: \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
 CITY ENGINEER: \_\_\_\_\_ DATE \_\_\_\_\_

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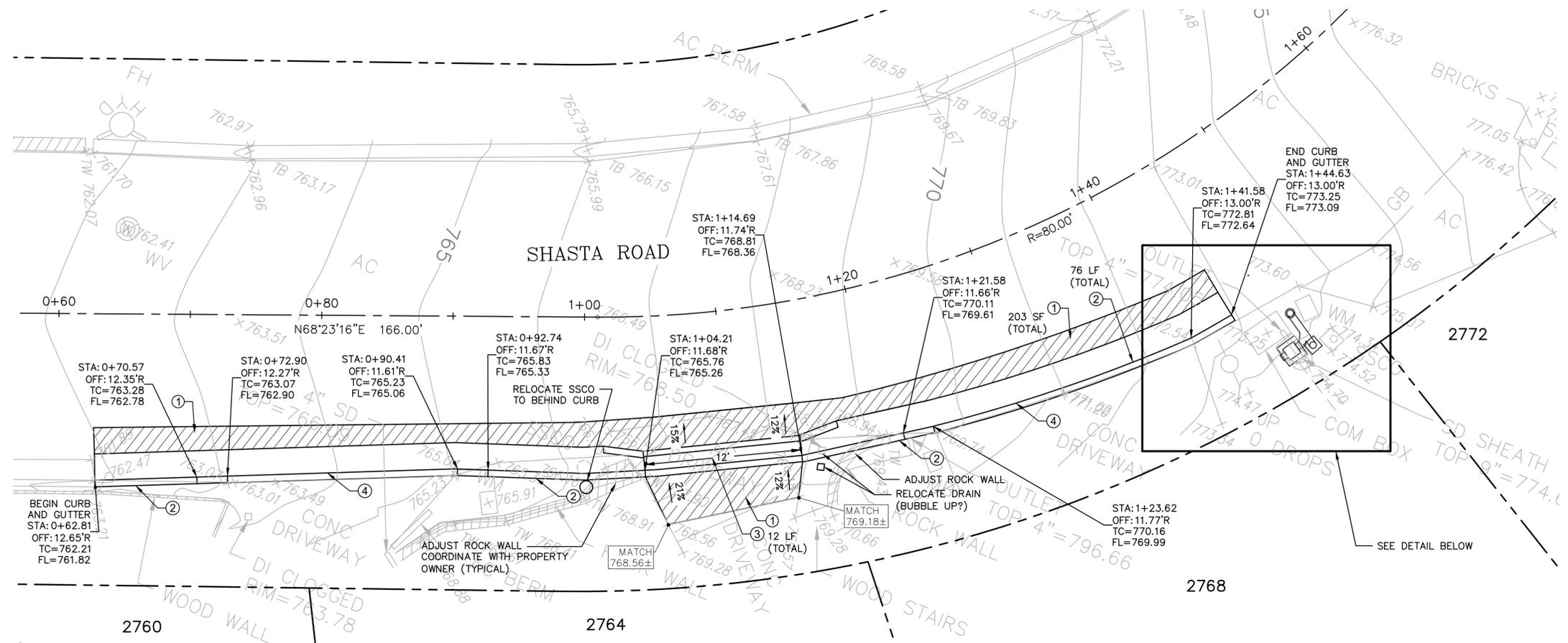
HORIZ. \_\_\_\_\_  
 VERT. \_\_\_\_\_  
 BOOK \_\_\_\_\_  
 DATE: **04/29/25**

**CITY OF BERKELEY**  
 DEPARTMENT OF PUBLIC WORKS

**FY 2024 STORM DRAIN IMPROVEMENTS**  
 SITE 3 - BUENA VISTA WAY & W. PARNASSUS CT  
 EASEMENT STORM DRAIN

PLAN **8274**  
 FILE **502-718**  
 SHEET **C-3A**  
 SHEET **8** OF **22**

| REVISION | MARK | DATE | DESCRIPTION | APPROVAL |
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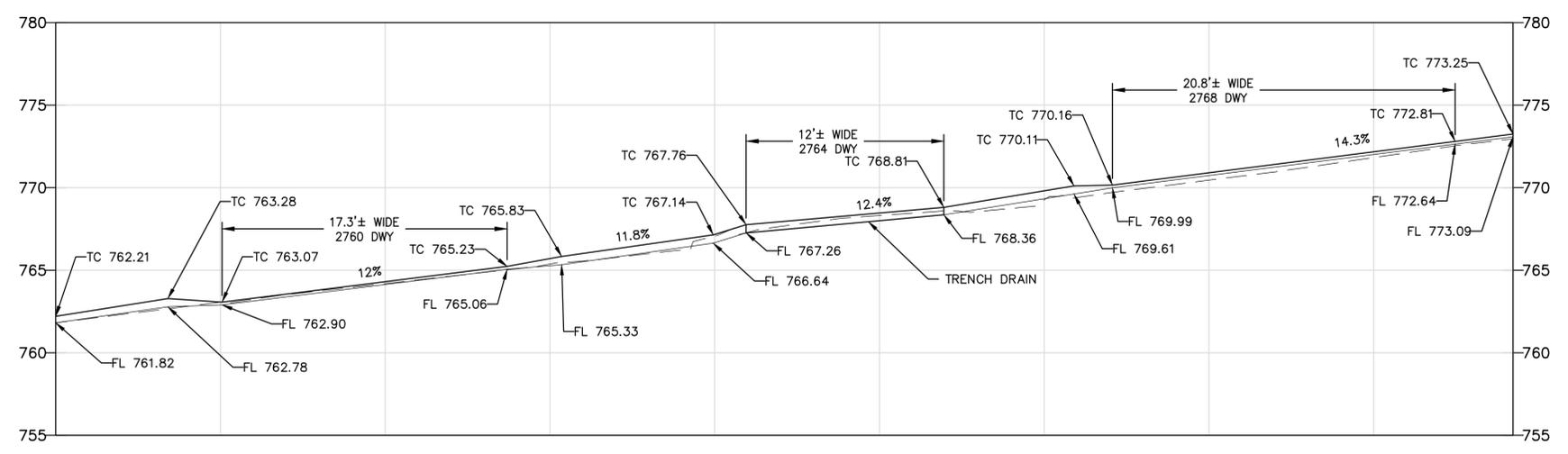
**CIVIL SITE NOTES**

- ① NEW HMA CONFORM AND GUTTER SEE DET 1/CD-1
- ② NEW 2'-6" CONCRETE CURB AND GUTTER SEE DET 2/CD-1
- ③ NEW THROUGH DRAIN AT HMA DRIVEWAY SEE SHEET C-4A
- ④ NEW CURB AT DRIVEWAY SEE DET 6/CD-1

- NOTES:**
- 1. BOUNDARY LINES ARE APPROXIMATE.
  - 2. SEE SHEET C-4A FOR CONTROL AND SECTION.
  - 3. CONTRACTOR SHALL PROTECT PRIVATE IMPROVEMENTS AS REQUIRED BY PROJECT SPECIFICATIONS AND THE ENGINEER.
  - 4. CONTRACTOR SHALL COORDINATE ACCESS WITH PRIVATE PROPERTY OWNERS AS REQUIRED BY PROJECT SPECIFICATIONS AND THE ENGINEER.

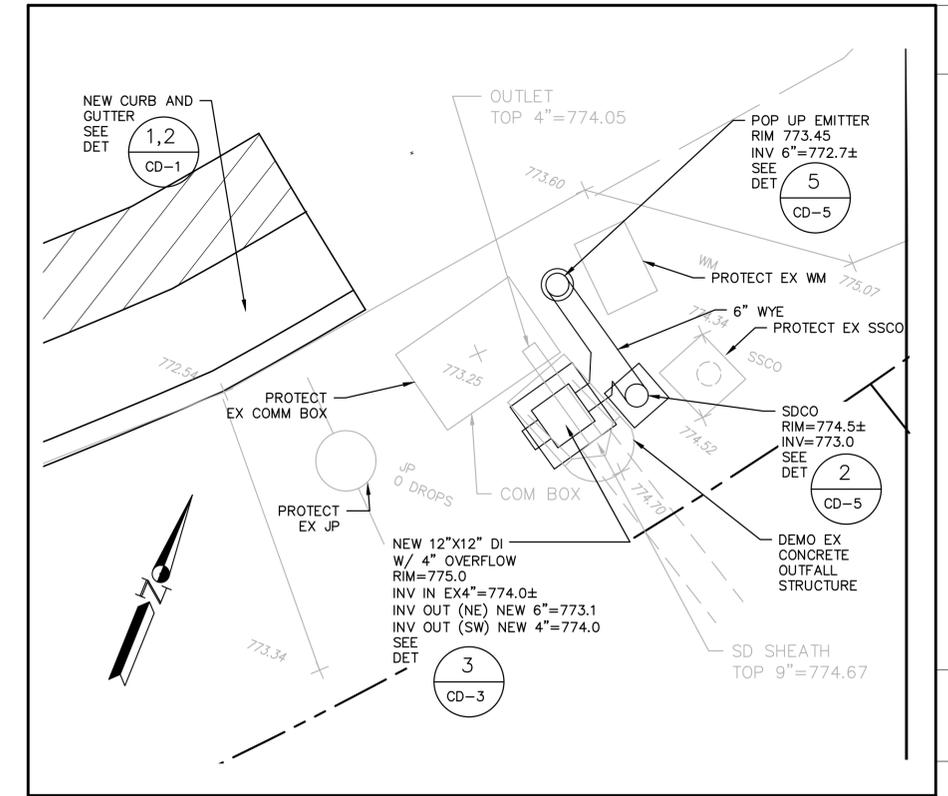
**SITE PLAN**

SCALE: 1" = 5'



**CURB FLOWLINE**

SCALE: 1" = 5'



**ENERGY DISSIPATION ASSEMBLY DETAIL**

SCALE: 1" = 2'



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 Martinez, California 94553-1620  
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PROJECT MANAGER: \_\_\_\_\_ DATE \_\_\_\_\_  
 SURVEY PARTY CHIEF \_\_\_\_\_  
 WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

DEPICTION OF MONUMENTS: \_\_\_\_\_ DATE \_\_\_\_\_  
 SUBMITTED: \_\_\_\_\_ DATE \_\_\_\_\_  
 SUPERVISING CIVIL ENGINEER: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
 CITY ENGINEER: \_\_\_\_\_

DESIGN: **MMV**  
 DRAWN: **JL**  
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HORIZ. \_\_\_\_\_  
 VERT. \_\_\_\_\_  
 BOOK \_\_\_\_\_  
 DATE: **04/29/25**

**CITY OF BERKELEY**  
 DEPARTMENT OF PUBLIC WORKS

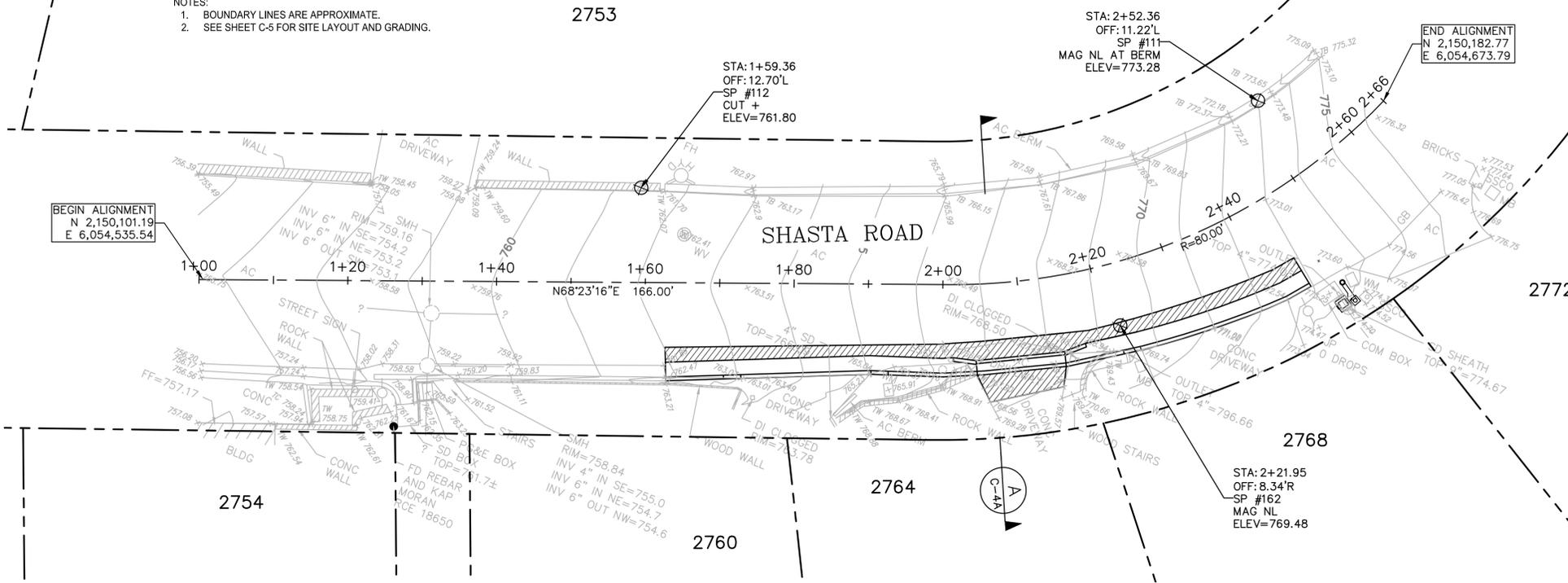
**FY 2024 STORM DRAIN IMPROVEMENTS**  
**SITE 4 - 2768 SHASTA ROAD**

PLAN **8274**  
 FILE **502-718**  
 C-4  
 SHEET **9** OF **22**

| REVISION | MARK | DATE | DESCRIPTION | APPROVAL |
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NOTES:  
 1. BOUNDARY LINES ARE APPROXIMATE.  
 2. SEE SHEET C-5 FOR SITE LAYOUT AND GRADING.



STA: 1+59.36  
 OFF: 12.70'L  
 SP #112  
 CUT +  
 ELEV=761.80

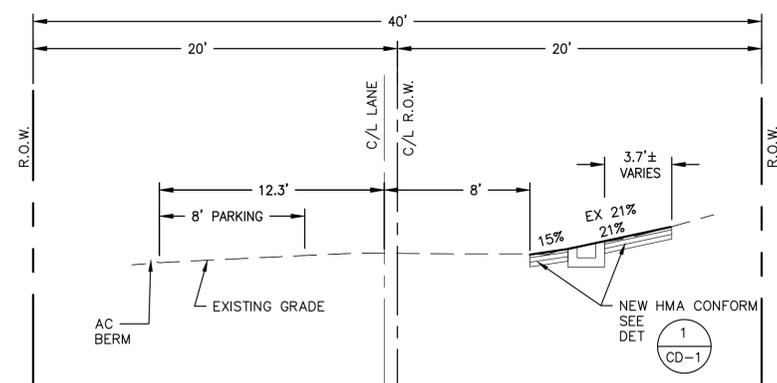
STA: 2+52.36  
 OFF: 11.22'L  
 SP #111  
 MAG NL AT BERM  
 ELEV=773.28

END ALIGNMENT  
 N 2,150,182.77  
 E 6,054,673.79

BEGIN ALIGNMENT  
 N 2,150,101.19  
 E 6,054,535.54

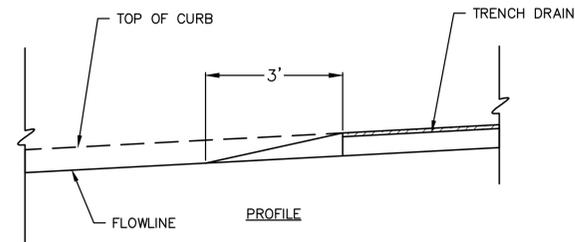
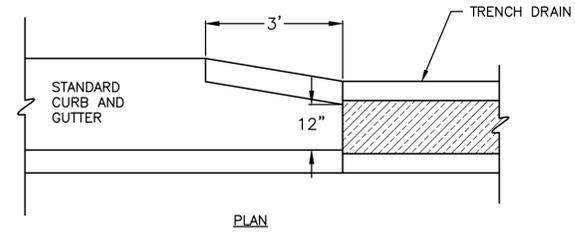
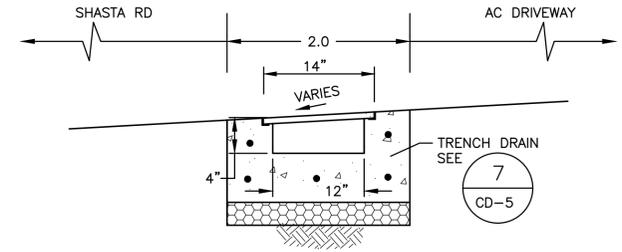
### CONTROL PLAN

SCALE: 1" = 5'



### SECTION A

SCALE: 1" = 5'



### 1 INLET/OUTLET TO TRENCH DRAIN

1 CD-4

SCALE: 1" = 2'



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PROJECT MANAGER: \_\_\_\_\_ DATE \_\_\_\_\_  
 SURVEY PARTY CHIEF \_\_\_\_\_  
 WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

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 SUPERVISING CIVIL ENGINEER: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
 CITY ENGINEER: \_\_\_\_\_

DESIGN: **MMV**  
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 CHECK: **CMP**  
 AS BUILT: \_\_\_\_\_

HORIZ. \_\_\_\_\_  
 VERT. \_\_\_\_\_  
 BOOK \_\_\_\_\_  
 DATE: **04/29/25**

**CITY OF BERKELEY**  
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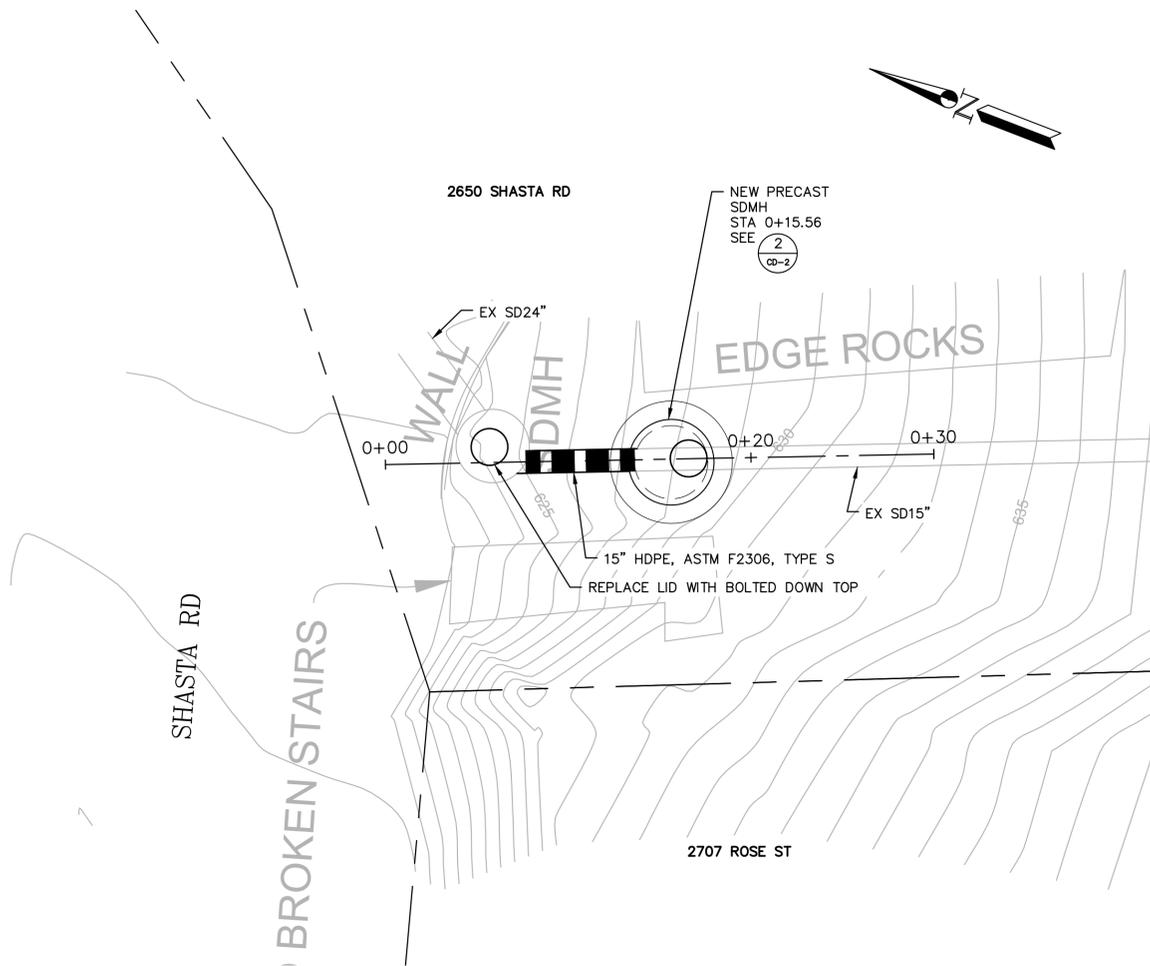
FY 2024 STORM DRAIN IMPROVEMENTS  
 SITE 4 - 2768 SHASTA ROAD

PLAN **8274**  
 FILE **502-718**  
 C-4A  
 SHEET **10** OF **22**

| REVISION | MARK | DATE | DESCRIPTION | APPROVAL |
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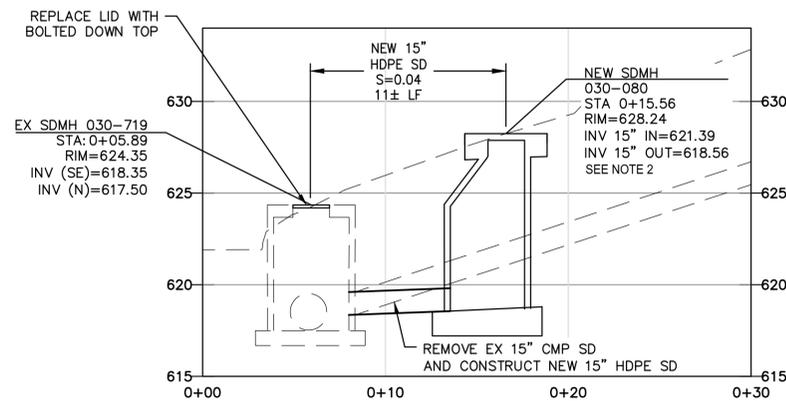




**PLAN**

SCALE: 1" = 5'

- NOTES:
- BOUNDARY LINES ARE APPROXIMATE.
  - ASSUMED INVERTS, CONTRACTOR TO VERIFY SIZE AND INVERTS.



4/29/2025

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PROJECT MANAGER: \_\_\_\_\_ DATE \_\_\_\_\_  
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 WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

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 SURVEY PARTY CHIEF \_\_\_\_\_  
 WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

SUBMITTED: \_\_\_\_\_ DATE \_\_\_\_\_  
 SUPERVISING CIVIL ENGINEER \_\_\_\_\_  
 APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
 CITY ENGINEER \_\_\_\_\_

DESIGN: MMV  
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 AS BUILT: \_\_\_\_\_  
 HORIZ.: \_\_\_\_\_  
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 BOOK: \_\_\_\_\_  
 DATE: 04/29/25

**CITY OF BERKELEY**  
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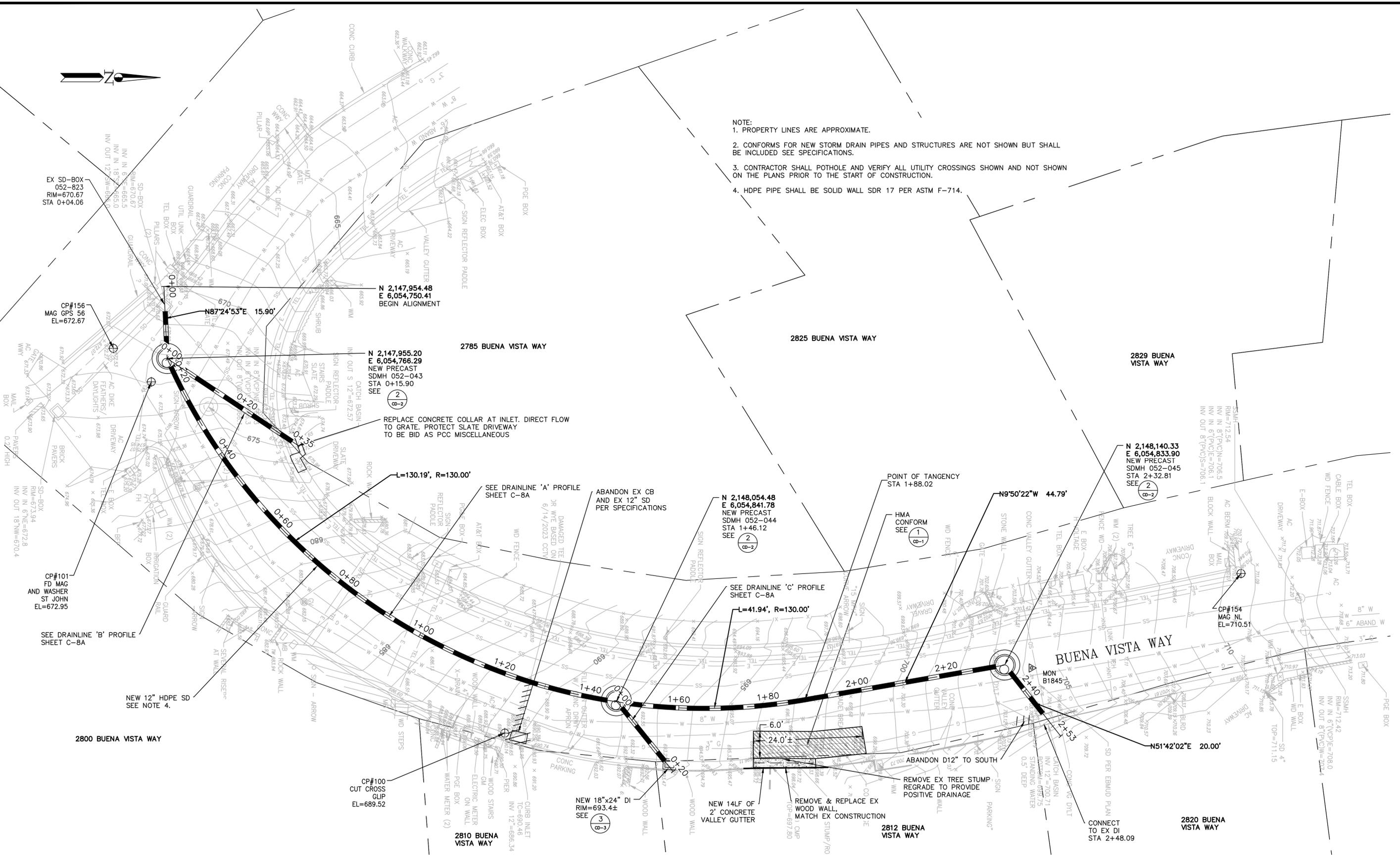
FY 2024 STORM DRAIN IMPROVEMENTS  
 SITE 7 - LA LOMA AVE AND SHASTA RD

PLAN 8274  
 FILE 502-718  
 C-7  
 SHEET 13 OF 22

| REVISION | MARK | DATE | DESCRIPTION | APPROVAL |
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- NOTE:
1. PROPERTY LINES ARE APPROXIMATE.
  2. CONFORMS FOR NEW STORM DRAIN PIPES AND STRUCTURES ARE NOT SHOWN BUT SHALL BE INCLUDED SEE SPECIFICATIONS.
  3. CONTRACTOR SHALL POTHOLE AND VERIFY ALL UTILITY CROSSINGS SHOWN AND NOT SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION.
  4. HDPE PIPE SHALL BE SOLID WALL SDR 17 PER ASTM F-714.



**SITE PLAN**  
SCALE: 1" = 10'



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PROJECT MANAGER: \_\_\_\_\_ DATE \_\_\_\_\_  
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WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

DEPICTION OF MONUMENTS: \_\_\_\_\_ DATE \_\_\_\_\_  
SUBMITTED: \_\_\_\_\_ DATE \_\_\_\_\_  
DRAWN: \_\_\_\_\_ DATE \_\_\_\_\_  
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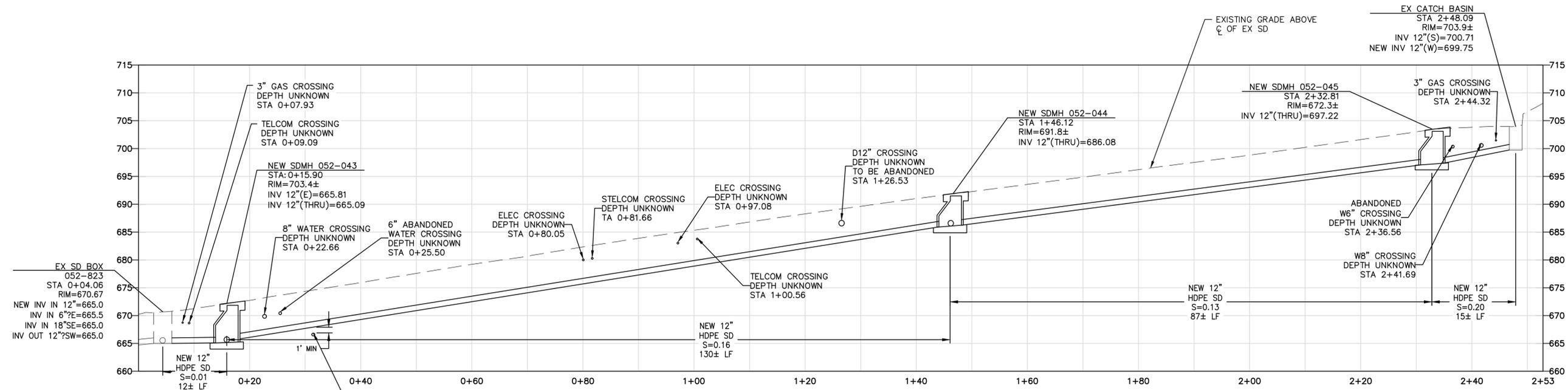
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DATE: **04/29/25**

**CITY OF BERKELEY**  
DEPARTMENT OF PUBLIC WORKS

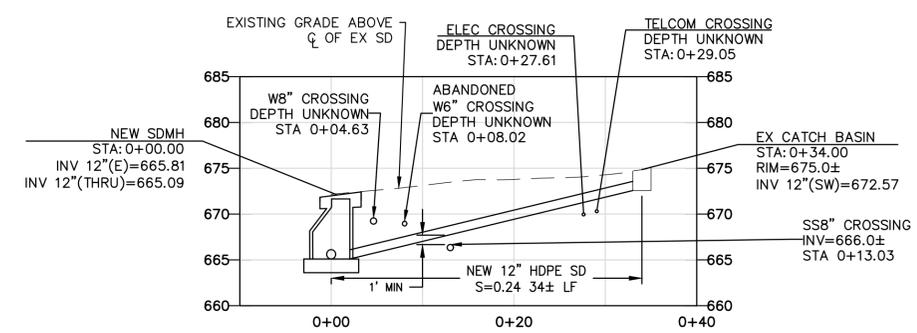
FY 2024 STORM DRAIN IMPROVEMENTS  
**SITE 8 - BUENA VISTA WAY**

PLAN **8274**  
FILE **502-718**  
C-8  
SHEET **14** OF **22**

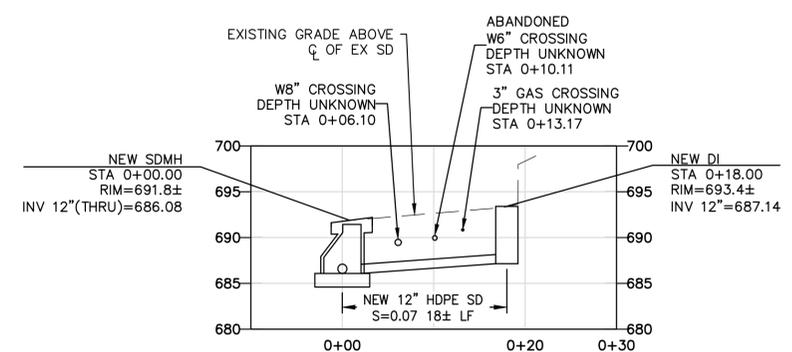
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**DRAINLINE 'A' PROFILE**  
SCALE: 1" = 10'



**DRAINLINE 'B' PROFILE**  
SCALE: 1" = 10'



**DRAINLINE 'C' PROFILE**  
SCALE: 1" = 10'

NOTE:  
1. NEW STORM DRAIN LINES WITH LESS THAN 3' OF COVER SHALL BE CONCRETE ENCASED, SEE SPECIFICATIONS.



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PROJECT MANAGER: \_\_\_\_\_ DATE \_\_\_\_\_  
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SURVEY PARTY CHIEF \_\_\_\_\_  
WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

SUBMITTED: \_\_\_\_\_ DATE \_\_\_\_\_  
R.C.E. \_\_\_\_\_  
SUPERVISING CIVIL ENGINEER EXP. \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
R.C.E. \_\_\_\_\_  
CITY ENGINEER EXP. \_\_\_\_\_

DESIGN: **MMV**  
DRAWN: **JL**  
CHECK: **CMP**  
AS BUILT: \_\_\_\_\_

HORIZ. \_\_\_\_\_  
VERT. \_\_\_\_\_  
BOOK \_\_\_\_\_  
DATE: **04/29/25**

**CITY OF BERKELEY**  
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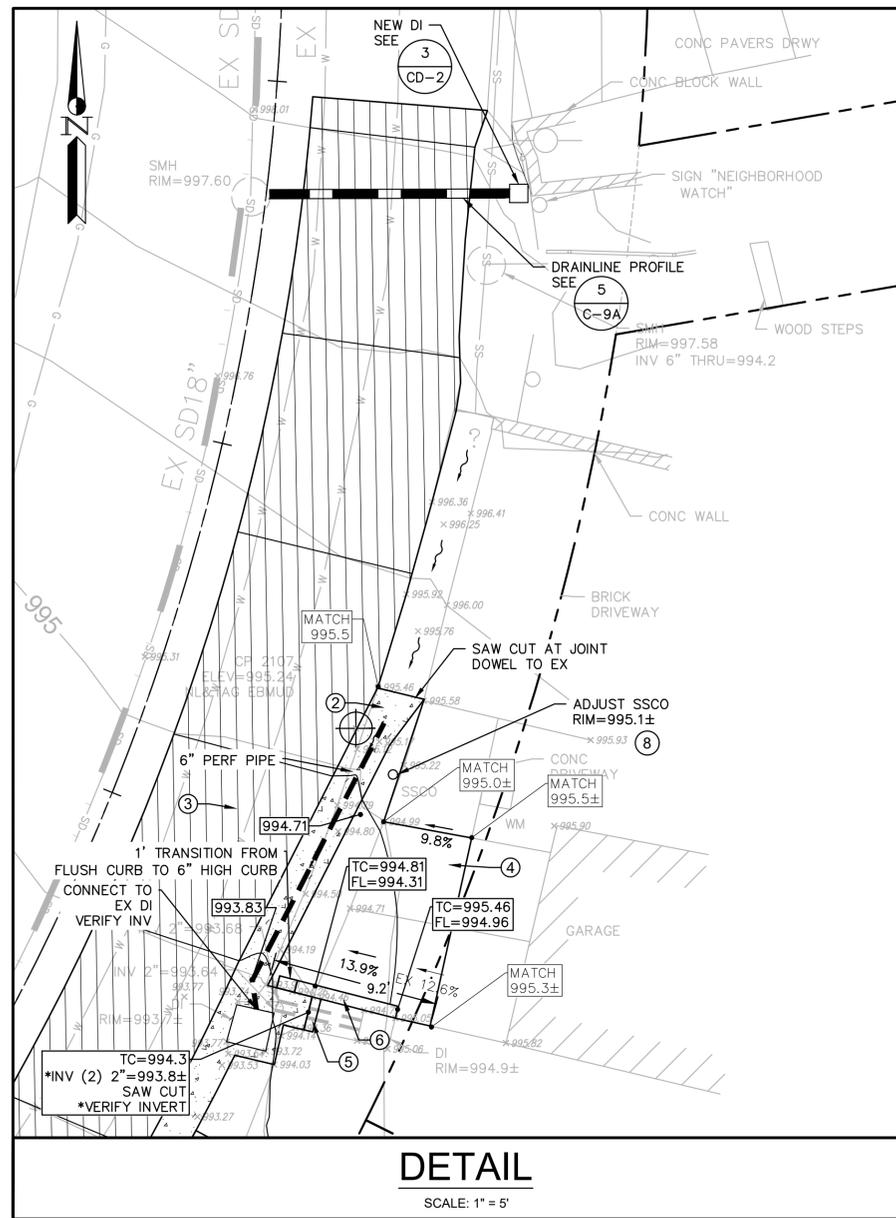
**FY 2024 STORM DRAIN IMPROVEMENTS**  
SITE 8 - BUENA VISTA WAY

PLAN **8274**  
FILE **502-718**  
C-8A  
SHEET **15** OF **22**

| REVISION | MARK | DATE | DESCRIPTION | APPROVAL |
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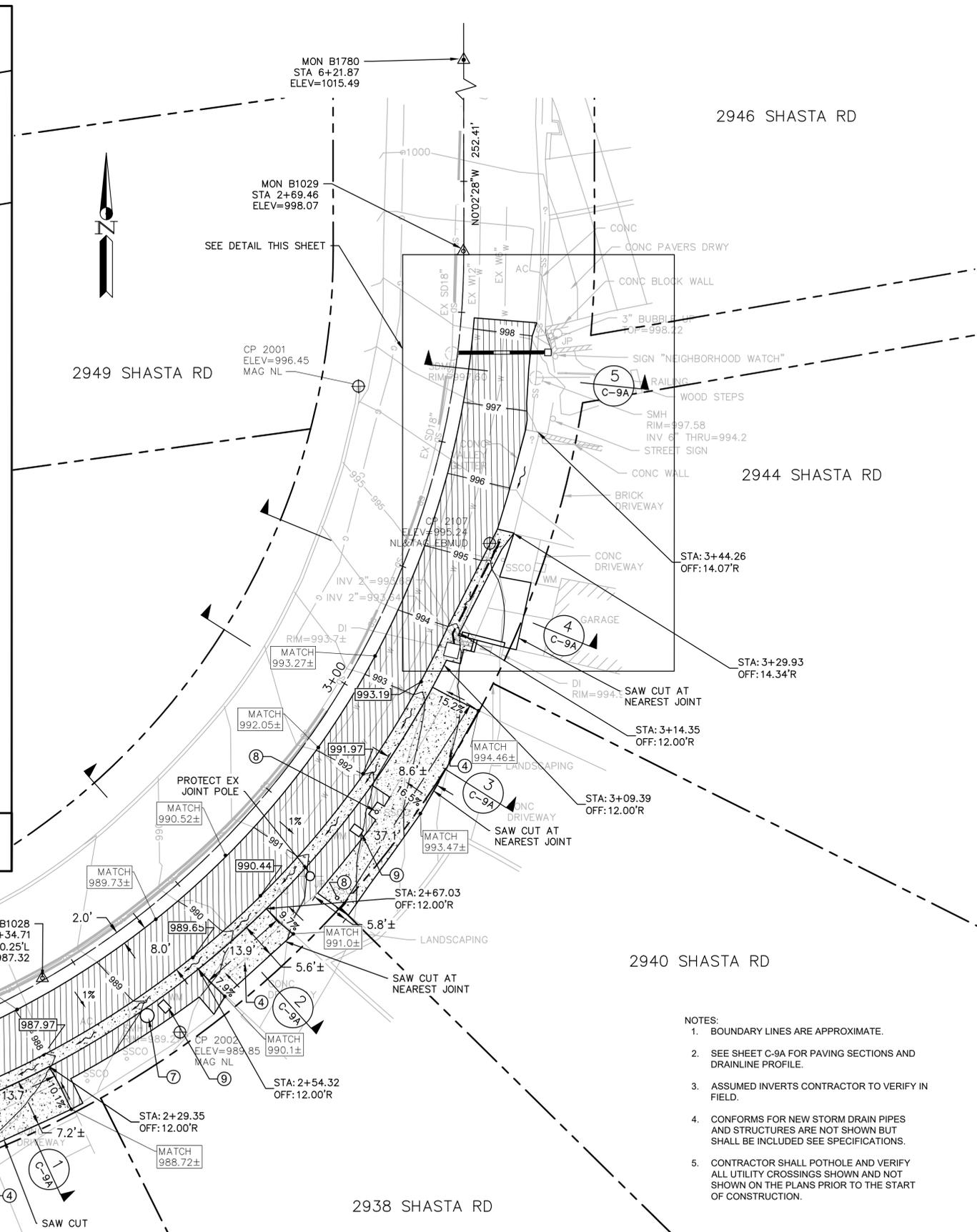
**CIVIL SITE NOTES**

- ① NEW VALLEY GUTTER  
SEE DET 5/CD-3
- ② NEW VALLEY GUTTER W/ PERF PIPE  
SEE DET 4/CD-5
- ③ NEW HMA CONFORM  
SEE DET 1/CD-1
- ④ NEW DRIVEWAY  
SEE DET 1/CD-3
- ⑤ NEW VERTICAL CURB  
SEE DET 4/CD-1
- ⑥ NEW RETAINING CURB  
SEE DET 3/CD-5
- ⑦ ADJUST EX SSMH TO FINISH GRADE  
SEE DET 1/CD-5
- ⑧ ADJUST SSCO TO FINISH GRADE  
SEE DET 2/CD-5
- ⑨ ADJUST WATER METER TO FINISH GRADE



**DETAIL**

SCALE: 1" = 5'



**SITE PLAN**

SCALE: 1" = 10'

- NOTES:
1. BOUNDARY LINES ARE APPROXIMATE.
  2. SEE SHEET C-9A FOR PAVING SECTIONS AND DRAINLINE PROFILE.
  3. ASSUMED INVERTS CONTRACTOR TO VERIFY IN FIELD.
  4. CONFORMS FOR NEW STORM DRAIN PIPES AND STRUCTURES ARE NOT SHOWN BUT SHALL BE INCLUDED SEE SPECIFICATIONS.
  5. CONTRACTOR SHALL POTHOLE AND VERIFY ALL UTILITY CROSSINGS SHOWN AND NOT SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION.



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PROJECT MANAGER: \_\_\_\_\_ DATE \_\_\_\_\_  
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 WATERSHED REVIEW: \_\_\_\_\_ DATE \_\_\_\_\_

DEPICTION OF MONUMENTS: \_\_\_\_\_ DATE \_\_\_\_\_  
 SUBMITTED: \_\_\_\_\_ DATE \_\_\_\_\_  
 DRAWN: \_\_\_\_\_ R.C.E. \_\_\_\_\_  
 SUPERVISING CIVIL ENGINEER: \_\_\_\_\_ EXP. \_\_\_\_\_  
 APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
 CITY ENGINEER: \_\_\_\_\_ EXP. \_\_\_\_\_

DESIGN: \_\_\_\_\_ MMV \_\_\_\_\_  
 DRAWN: \_\_\_\_\_ JL \_\_\_\_\_  
 CHECK: \_\_\_\_\_ CMP \_\_\_\_\_  
 AS BUILT: \_\_\_\_\_ DATE \_\_\_\_\_

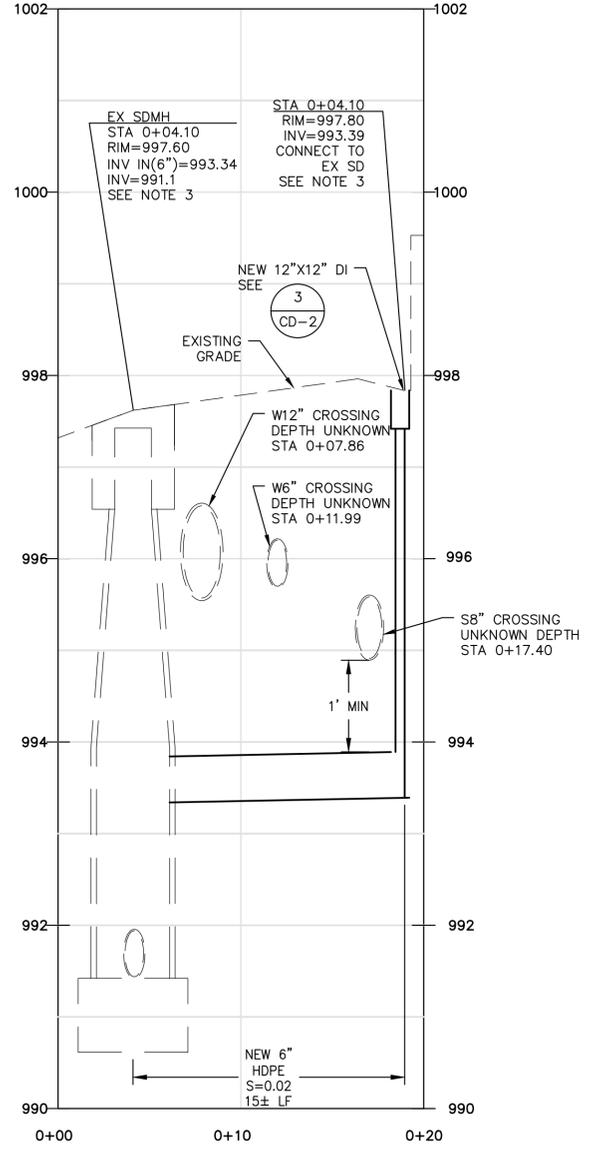
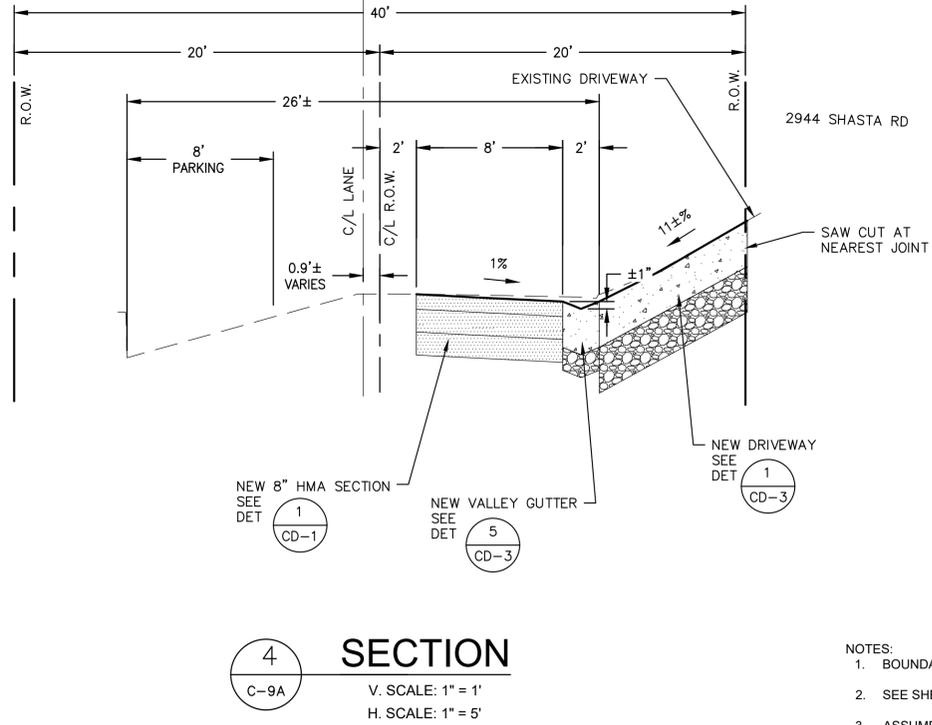
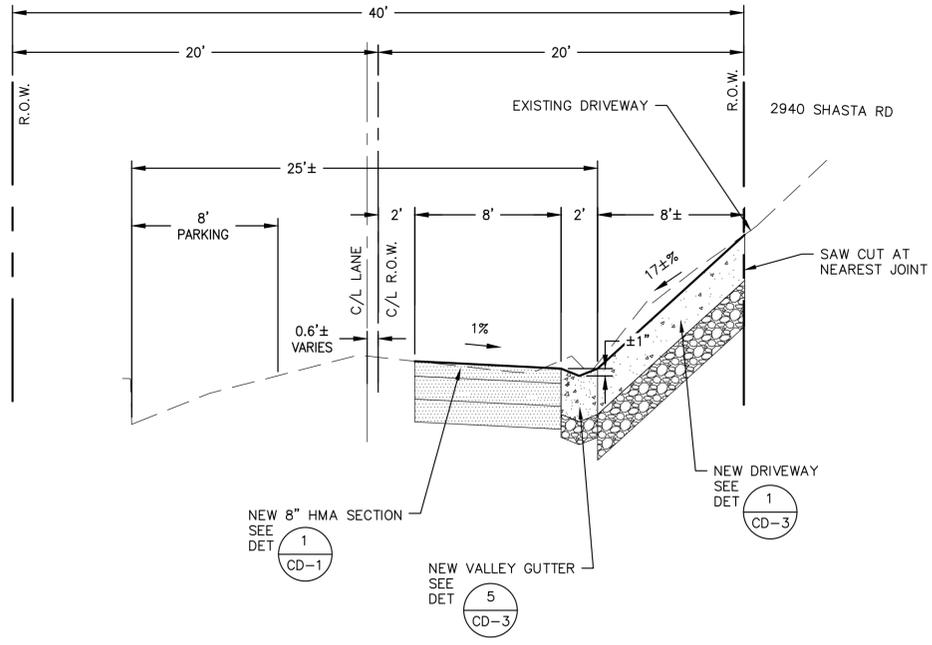
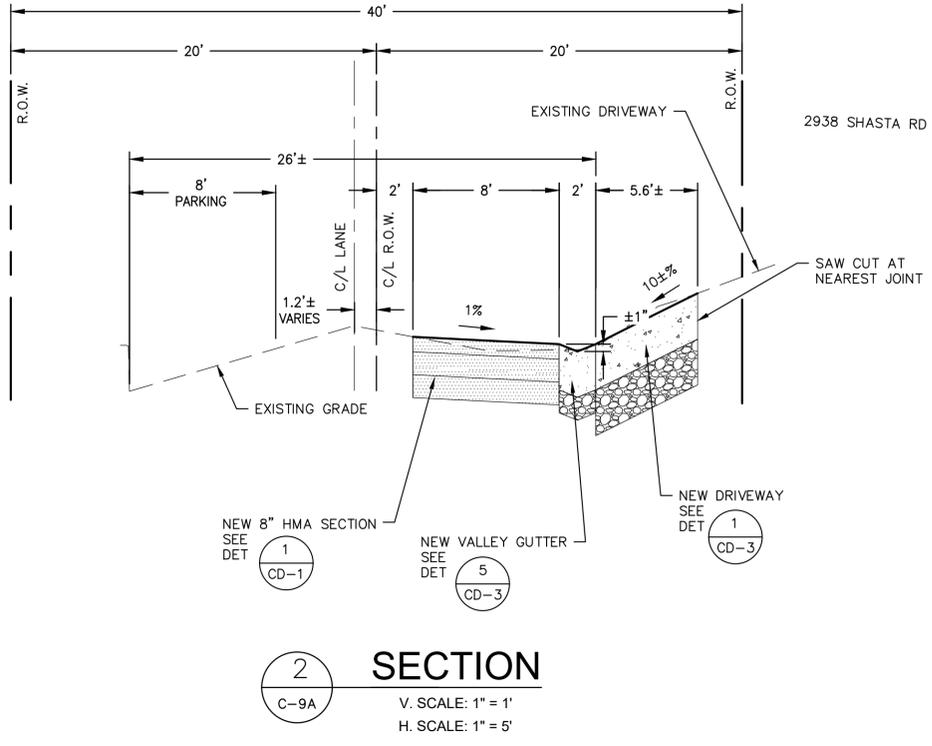
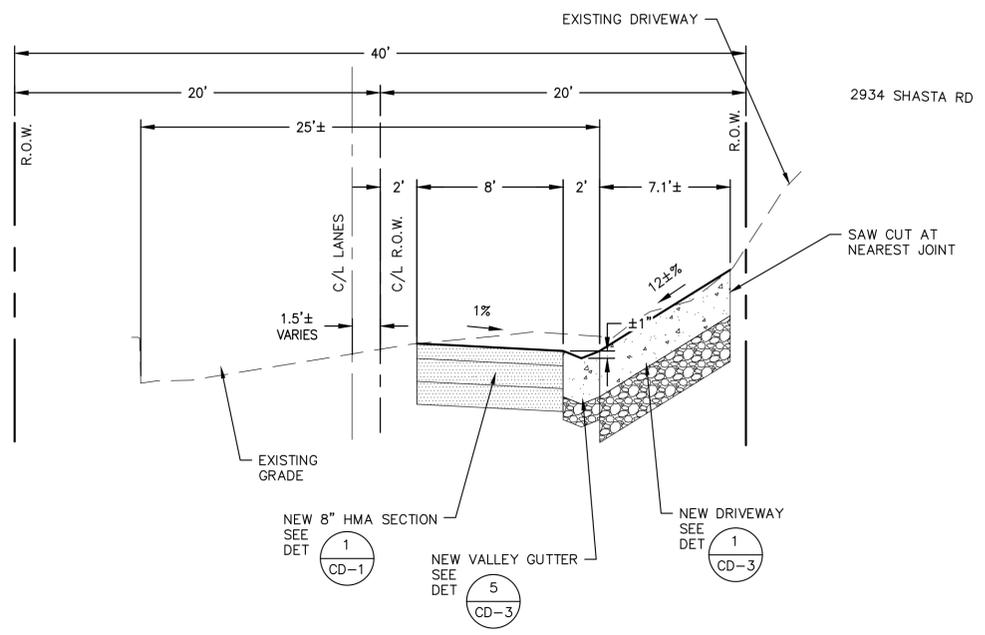
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 VERT. \_\_\_\_\_  
 BOOK \_\_\_\_\_  
 DATE 04/29/25

**CITY OF BERKELEY**  
 DEPARTMENT OF PUBLIC WORKS

FY 2024 STORM DRAIN IMPROVEMENTS  
 SITE 9 - SHASTA RD

PLAN 8274  
 FILE 502-718  
 C-9  
 SHEET 16 OF 22

| REVISION | MARK | DATE | DESCRIPTION | APPROVAL |
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- NOTES:
- BOUNDARY LINES ARE APPROXIMATE.
  - SEE SHEET C-9 FOR SITE LAYOUT AND GRADING PLAN.
  - ASSUMED INVERTS CONTRACTOR TO VERIFY IN FIELD.
  - CONTRACTOR SHALL POTHOLE AND VERIFY ALL UTILITY CROSSINGS SHOWN AND NOT SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION.



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 R.C.E. \_\_\_\_\_  
 EXP. \_\_\_\_\_  
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 R.C.E. \_\_\_\_\_  
 EXP. \_\_\_\_\_  
 CITY ENGINEER: \_\_\_\_\_

DESIGN: **MMV**  
 DRAWN: **JL**  
 CHECK: **CMF**  
 AS BUILT: \_\_\_\_\_  
 DATE: **04/29/25**

HORIZ. \_\_\_\_\_  
 VERT. \_\_\_\_\_  
 BOOK \_\_\_\_\_  
 DATE: **04/29/25**

**CITY OF BERKELEY**  
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**FY 2024 STORM DRAIN IMPROVEMENTS**  
**PLAN 8274**  
**FILE 502-718**  
**C-9A**  
**SHEET 17 OF 22**

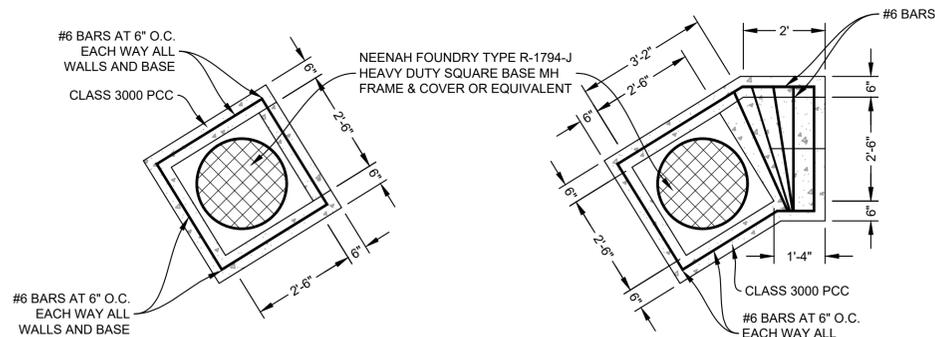
**SITE 9 - SHASTA RD**  
**PAVEMENT IMPROVEMENTS**

| REVISION | MARK | DATE | DESCRIPTION | APPROVAL |
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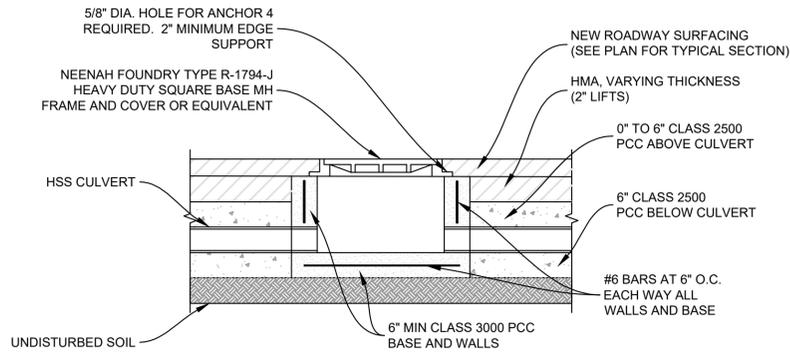




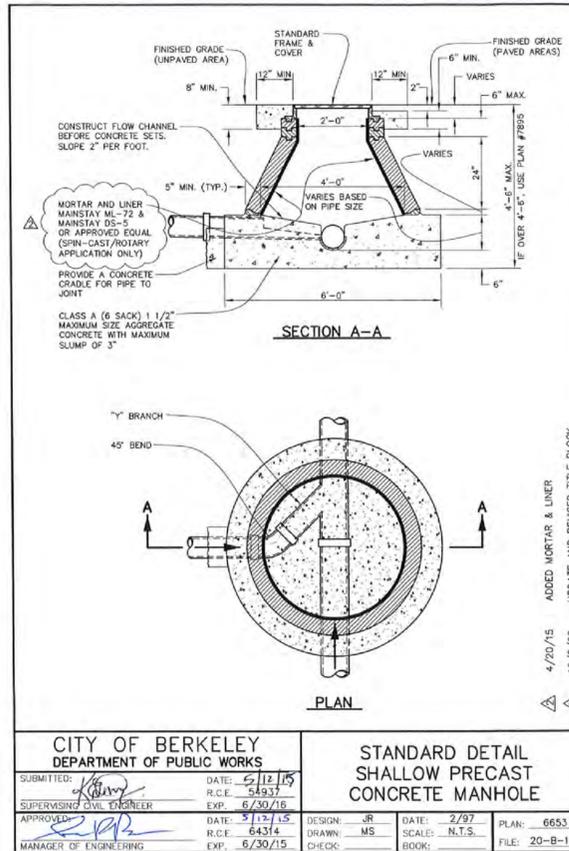


1-JB PLAN VIEW AND REBAR DETAILING

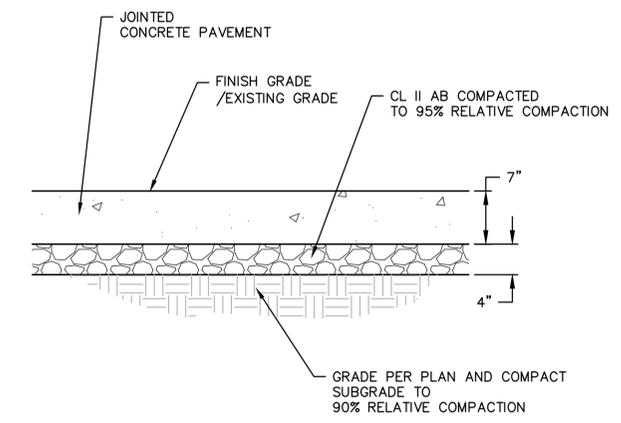
2-JB PLAN VIEW AND REBAR DETAILING



TYPICAL JB VERTICAL SECTION

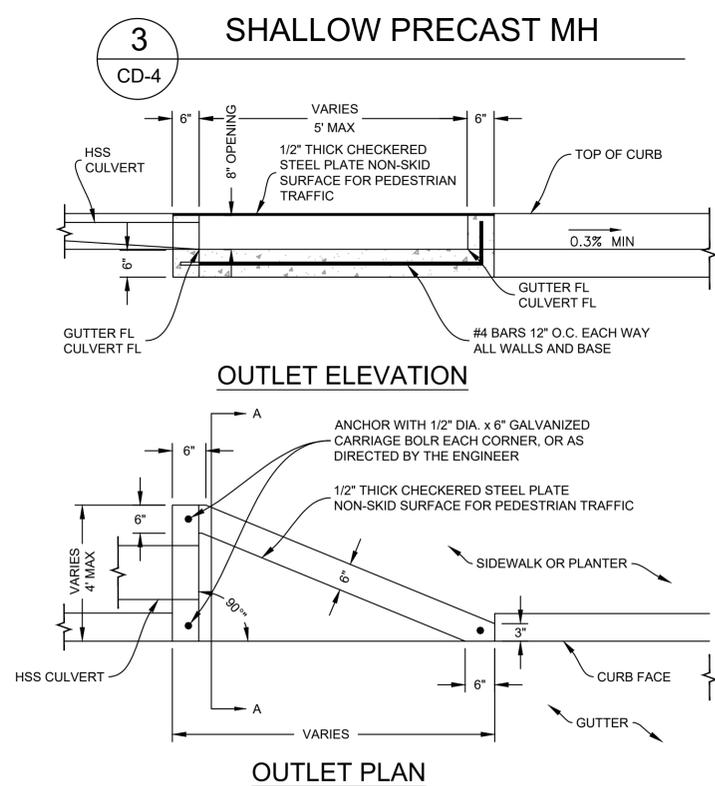
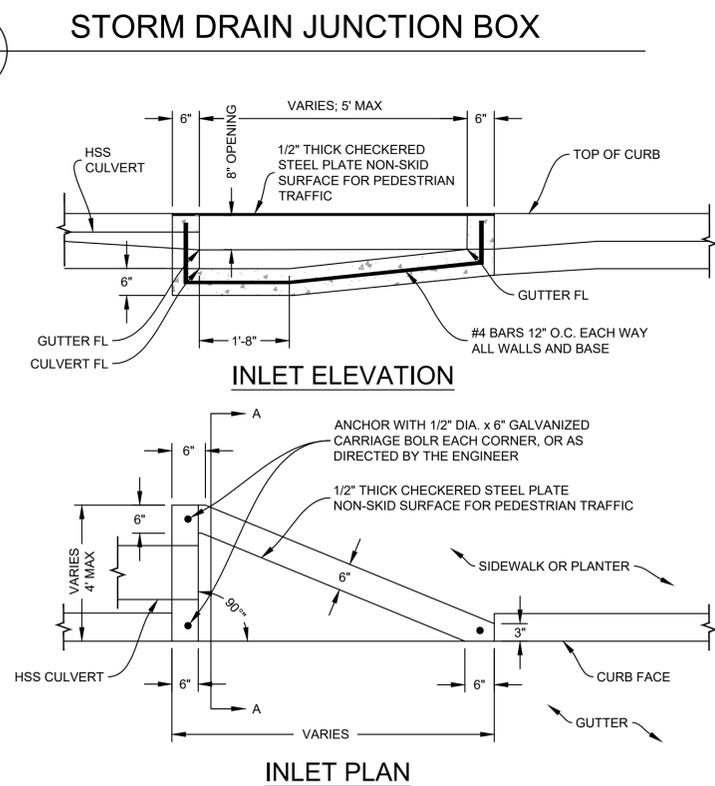


3 SHALLOW PRECAST MH CD-4

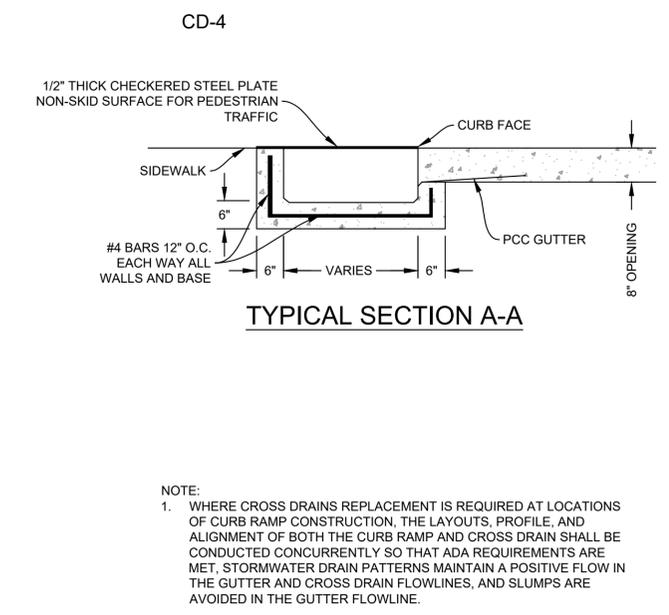


- NOTE:
1. REMOVE AND DISPOSE OF EXISTING PCC AND SUBGRADE (EX PCC DEPTH VARIES).
  2. PROVIDE CONSTRUCTION/EXPANSION JOINTS AT NO GREATER THAN 10'.
  3. DOWEL TO EXISTING PCC WHERE NEW PCC ABUTS THE EXISTING, WITH 18" #4 DOWELS AT 12' O.C.

4 CONCRETE PAVEMENT CD-4



2 CROSS DRAIN INLET AND OUTLET CD-4



- NOTE:
1. WHERE CROSS DRAINS REPLACEMENT IS REQUIRED AT LOCATIONS OF CURB RAMP CONSTRUCTION, THE LAYOUTS, PROFILE, AND ALIGNMENT OF BOTH THE CURB RAMP AND CROSS DRAIN SHALL BE CONDUCTED CONCURRENTLY SO THAT ADA REQUIREMENTS ARE MET, STORMWATER DRAIN PATTERNS MAINTAIN A POSITIVE FLOW IN THE GUTTER AND CROSS DRAIN FLOWLINES, AND SLUMPS ARE AVOIDED IN THE GUTTER FLOWLINE.



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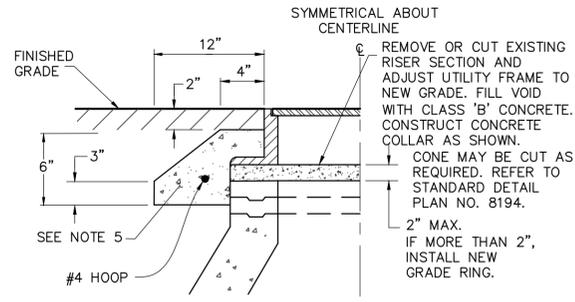
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CITY OF BERKELEY  
 DEPARTMENT OF PUBLIC WORKS

FY 2024 STORM DRAIN IMPROVEMENTS  
 DETAILS

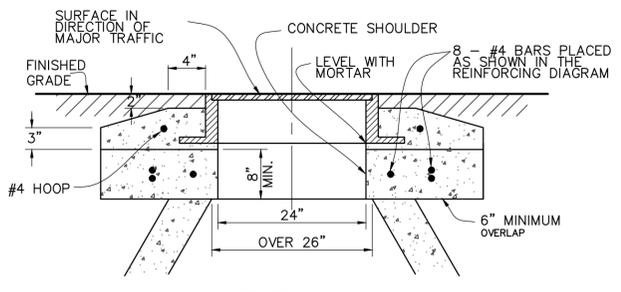
PLAN 8274  
 FILE 502-718  
 CD-4  
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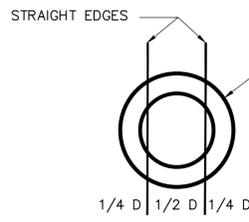
**NOTES FOR ADJUSTMENTS:**

1. ALL SURFACE STRUCTURES EXTENDING 2" ABOVE THE NEW SUBGRADE OR MILLING PLANE SHALL BE LOWERED BY CONTRACTOR OR UTILITY OWNER TO THE NEW SUBGRADE BEFORE PAVING. STRUCTURES PROJECTING LESS THAN 2" ABOVE THE SUBGRADE MAY BE PAVED OVER AND LATER ADJUSTED TO GRADE.
2. ADJUST FRAME AND COVER TO FINISHED GRADE AFTER FINAL LIFT OF PAVING.
3. TRAFFIC CONTROL APPROVAL IS REQUIRED PRIOR TO ANY TRAFFIC LANE OBSTRUCTION.
4. PLACE TEMPORARY AC (CUT BACK) AROUND UTILITY FRAME UNTILL PERMANENT PAVING IS IN PLACED.
5. CAST-IN-PLACE CONCRETE COLLARS SHALL CONFORM TO STANDARD SPECIFICATIONS (GREENBOOK) SECTION 201-1.1.2 AND BE CLASS 560-B-3250.

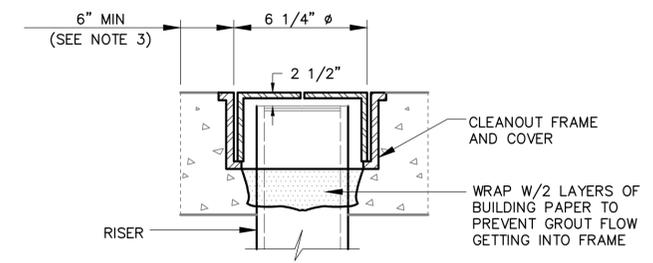


**NOTES FOR LOWERING:**

1. WHEN THE MANHOLE HAS TO BE CUT DOWN SO THAT THE TAPERED SECTION AT THE TOP OF THE EXISTING MANHOLE EXCEEDS 26 INCHES, A CONCRETE SHOULDER MUST BE CONSTRUCTED AS SHOWN ABOVE.
2. WHEN DIRECTED BY THE ENGINEER, THE EXISTING FRAME AND COVER SHALL BE SALVAGED AND RETURNED TO THE CITY CORPORATION YARD, 1326 ALLSTON WAY.
3. CAST-IN-PLACE CONCRETE COLLARS SHALL CONFORM TO SPECIFICATIONS (GREENBOOK) SECTION 201-1.1.2 AND BE CLASS 560-B-3250.



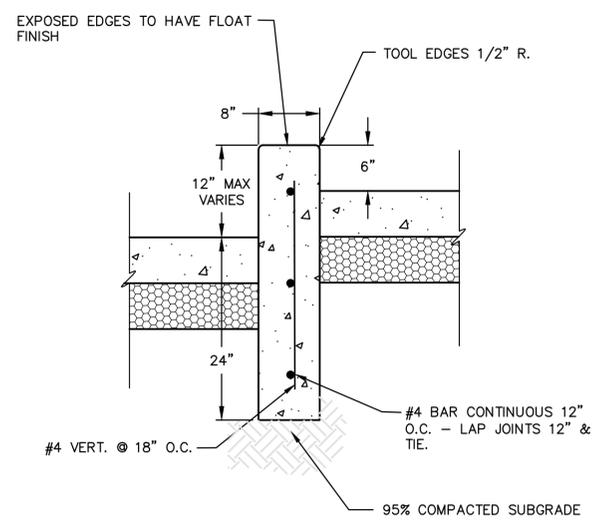
PARALLEL TO DIRECTION OF TRAVEL OR AS DIRECTED BY THE CITY ENGINEER



**NOTES:**

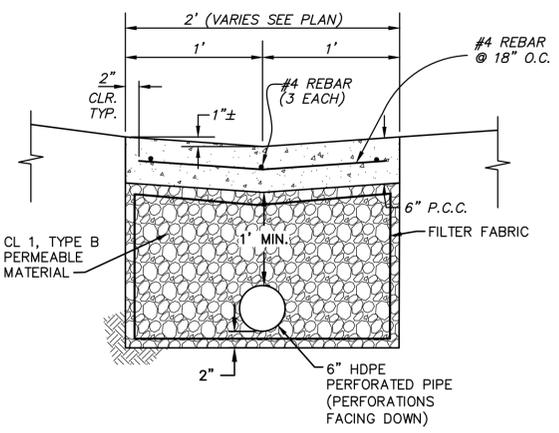
1. LOCATION AS SHOWN ON PLAN AND DIRECTED BY ENGINEER.
2. WHEN RISER IS NOT SURROUNDED BY SIDEWALK, A 2'X2'X8", 2000 PSI CONCRETE COLLAR SHALL BE INSTALLED.
3. EXIST SIDEWALK SHALL BE NEATLY SAWN TO A STRAIGHT AND SQUARE EDGE BEFORE 2000 PSI CONCRETE PATCH IS INSTALLED AROUND FRAME.

**2 CLEANOUT COVER (4" COVER)**  
CD-5

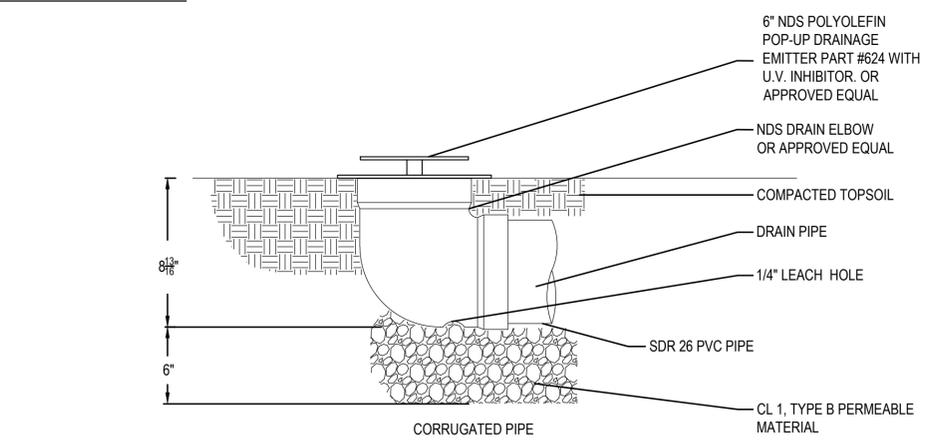


**3 RETAINING CURB**  
CD-5

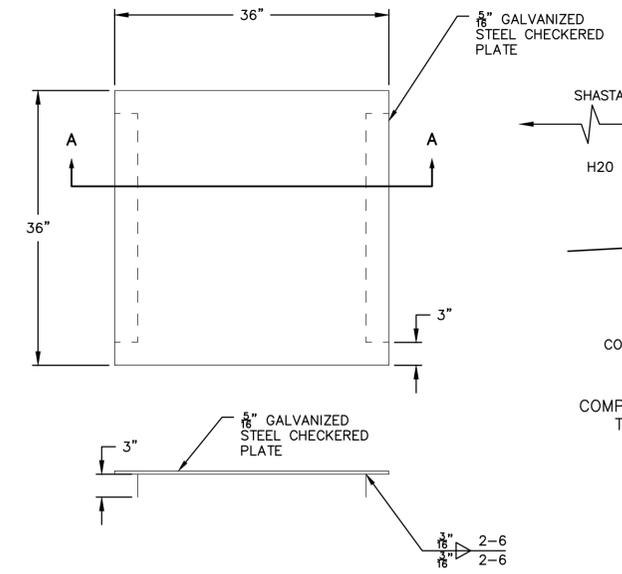
**1 MH FRAME AND COVER ADJUSTMENT**  
CD-5



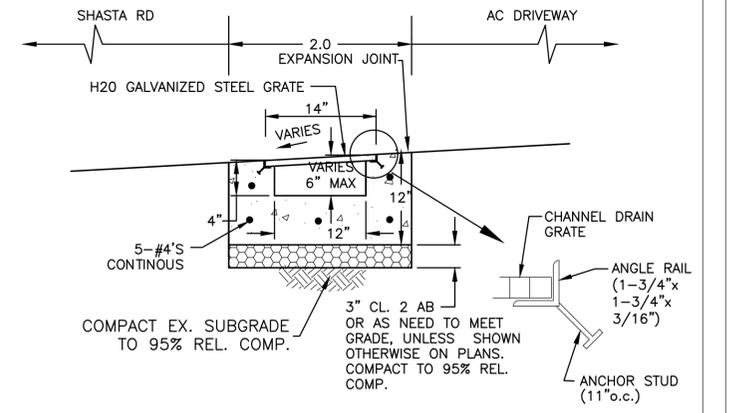
**4 VALLEY GUTTER W/ PERF PIPE**  
CD-5



**5 6" POP-UP EMITTER**  
CD-5



**6 GALVANIZED STEEL PLATE**  
CD-5



**7 CHANNEL DRAIN**  
CD-5



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CITY ENGINEER \_\_\_\_\_

DESIGN: **MMV**  
DRAWN: **JL**  
CHECK: **CMP**  
AS BUILT: \_\_\_\_\_

HORIZ. \_\_\_\_\_  
VERT. \_\_\_\_\_  
BOOK \_\_\_\_\_  
DATE: **04/29/25**

**CITY OF BERKELEY**  
DEPARTMENT OF PUBLIC WORKS

**FY 2024 STORM DRAIN IMPROVEMENTS**  
DETAILS

PLAN **8274**  
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CD-5  
SHEET **22** OF **22**

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