STANDARD DETAILS

CREATED BY:
PUBLIC WORKS
DEPARTMENT

DATE ISSUED
December 2015
STREETS

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CITY OF ALBANY
ALAMEDA COUNTY, CALIFORNIA

STANDARD DETAILS
For use with the
City of Albany Standard Specifications

SANITARY SEWER
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SS 2  Standard Sewer Manhole
SS 3  Raised Manhole Ring and Cover
SS 4  Shallow Manhole
SS 5  New Pipe to Existing Manhole Connection
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SS 7  Typical Trench Section
SS 8  Standard Laterals and Cleanouts
SS 9  Standard Cleanouts and Backwater Prevention Device
SS 10 Backwater Shutoff and Check Valve System
SS 11 Main Sewer Protection Above Utility Crossing
SS 12 Main Sewer Protection Below Utility Crossing
SS 13 Side Sewer Reconstruction at Utility Crossing
SS 14 Standard Concrete Pipe Protection
SS 15 Standard Redwood Check Board

DRAINAGE
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SD 1.2  Type “A” Inlet - Notes
SD 2.1  Type “B” Inlet
SD 2.2  Type “B” Inlet - Notes
SD 3.1  Type “C” Inlet
SD 3.2  Type “C” Inlet - Notes
SD 4.1  Type “D” Inlet
SD 4.2  Type “D” Inlet - Notes
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SD 5.2  Type “E” Inlet - Notes
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SD 6.2  Inlet Frame and Grate For Type “A”, “B” & “C”
SD 7  Precast Manhole, Type I Base, Frame & Cover
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SD 9  Standard Inlet/Manhole Plan General Notes
SD 10 Edge Drain
SD 11 Reinforced Concrete Pipe Collar
SD 12 Standard Rip-Rap Installation

Rev. Issue Date: 12/15/2015  By: Ray Chan, City Engineer
RCE 56473, Exp. 6/30/2017
NOTE:

1. CONSTRUCT TYPE "A" CURB AND GUTTER WITH 10' BUFFER TO CONFORM GUTTER TO EXISTING CONDITIONS.

2. SAWCUT APPROXIMATELY 1' FROM THE EDGE OF CURB ON THE ROADWAY SIDE TO ALLOW SPACE FOR CONSTRUCTION. PLUG GAP WITH NEW ASPHALT CONCRETE.

3. WHEN POSSIBLE USE TYPE "A" CURB AND GUTTER WITH SIDEWALK AND TYPE "B" CURB WHEN CONSTRUCTING MEDIAN AT CENTER OF ROADWAY. AC BERM USED AT THE APPROVAL OF THE CITY ENGINEER.
NOTES:
1. CONSTRUCT DRIVEWAY TYPE 2 TO CONFORM TO EXISTING DRIVEWAY, SIDEWALK AND CURB AND GUTTER
2. CONFORM TO WIDTHS OF SIDEWALKS AND CURB AND GUTTER WIDTHS AND HEIGHTS. WHENEVER POSSIBLE MAINTAIN MINIMUM WIDTH OF 5' FOR SIDEWALKS, 1'-6" FOR GUTTERS AND 6" FOR CURB HEIGHTS.
NOTES:
1. CONSTRUCT DRIVEWAY TYPE 2 TO CONFORM TO EXISTING DRIVEWAY, SIDEWALK AND CURB AND GUTTER

2. CONFORM TO WIDTHS OF SIDEWALKS AND CURB AND GUTTER WIDTHS AND HEIGHTS. WHenever possible maintain minimum width of 5' for sidewalks, 1' - 6" for gutters and 6" for curb heights.

3. FOR DRIVEWAY CONFORM MATCH THE SAME MATERIAL AS THE EXISTING DRIVEWAY.
NOTES

1. FOR NEW SIDEWALK MINIMUM WIDTH IS 5' UNLESS APPROVED BY CITY ENGINEER. WHEN PLACING SIDEWALK CONFORM TO EXISTING WIDTH OF SIDEWALK. TYPE 1 WIDTH MEASURED FROM FRONT OF SIDEWALK TO BACK OF SIDEWALK. TYPE 2 WIDTH MEASURED FROM FACE OF CURB TO BACK OF SIDEWALK.
NOTES:

1. WEAKENED PLANE JOINTS SHALL BE USED FOR ALL JOINTS, EXCEPT EXPANSION JOINTS SHALL BE PLACED IN CURB, GUTTER AND SIDEWALK AT THE BCR AND ECR, AND AROUND UTILITY POLES LOCATED IN SIDEWALK AREAS AND AT 200' SPACING.

2. CURB AND GUTTER MAY BE CONSTRUCTED MONOLITHICALLY OR SEPARATELY FROM SIDEWALK.

3. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT REGULAR INTERVALS, NOT EXCEEDING 10 FEET IN WALKS OR 20 FEET IN GUTTERS. WALK AND CURB JOINTS SHALL BE ALIGNED.

4. SCORE MARKS TO MATCH EXISTING PATTERN.

5. IF SIDEWALK ABUTS EXISTING BUILDING PLACE EXPANSION JOINT.

6. ACCESS RAMPS SHALL CONFORM TO CALTRANS STANDARD PLAN ABB5A, ABB5B OR THE LATEST REVISION.

LEGEND:

--- WEAKENED PLANE JOINT
-- EXPANSION JOINT
--- SCORE MARK

BCR = BEGINING OF CURB RETURN
ECR = END OF CURB RETURN

WEAKENED PLANE JOINT (WPJ)
EXPANSION JOINT (EXP JT)
SCORE MARK

SCALE: NTS
#4 X 18" DOWELS @ 24" 2 MINIMUM PER NEW COLD JOINT (TYP)

SAW CUT OR EXISTING COLD JOINT

SCORE MARKS PER DETAIL ST 4 OR MATCH EXISTING SIDEWALK PATTERN

SAWCUT OR EXISTING COLD JOINT

EXISTING SIDEWALK (WIDTH VARIES BY STREET)

WEAKENED PLANE JOINT

LENGTH AS MARKED IN FIELD

EXISTING CURB & GUTTER

PLAN

SECTION B-B

SEE ST 1 FOR AC PLUG

FOR ALTERNATIVE TO DOWELS SEE DETAIL "A"

SUBGRADE

SECTION A-A

EXISTING SIDEWALK (SEE NOTE 2)

4" 14"

4" PCC

18" DOWEL (TYP.)

4" AB (SEE NOTE 1)

4" X 4" Key

EXISTING SIDEWALK

NEW SIDEWALK

NOTES:
1. IN LOCATIONS WHERE TREE ROOTS ARE WITHIN 8" OF FINISHED GRADE, DELETE 4" AB AND PLACE 6" X 6" X 10 GA WIRE MESH IN CONCRETE.
   WHEN EXISTING SIDEWALK IS LESS THAN 4" THICK, DETAIL A MAY BE SUBSTITUTED FOR DOWELS.

DETAIL "A" ALTERNATIVE KEY DETAIL

SCALE: NTS

CITY OF ALBANY, CALIFORNIA

STANDARD DETAIL

CURB, GUTTER & SIDEWALK REPAIRS

STD DETAIL No.

ST 6
SCORE LINES TO MATCH EXISTING PATTERN

#4 X 18" DOWELS @ 24" 2
MINIMUM PER NEW COLD JOINT (TYP)

EXISTING SIDEWALK

PLANTER STRIP (WIDTH VARIES)

2' MIN.-5' MAX.
FLARE (TYP)

NEW DRIVEWAY

WIDTH OF REPAIR AS MARKED IN THE FIELD

SEE DETAIL A, ST 5
FOR ALTERNATIVE TO DOWELS

PROPERTY LINE

VARIES BY STREET LOCATION

SIDEWALK DETAIL ST 4

SLOPE VARIES TO MATCH FIELD CONDITIONS

1/2" LIP

MATCH EXISTING AT SIDEWALK ALIGNMENT OR
CONFORM AT PROPERTY LINE WHEN MARKED BY
THE ENGINEER

SECTION A-A
NOTES

1. SUBGRADE SHALL BE NATIVE MATERIAL, 6” DEEP, 90% RELATIVE COMPACTION.

2. CUSHION MATERIAL SHALL BE CLASS 2 AGGREGATE BASE, PER CALTRANS STANDARD SPECIFICATIONS, SECTION 26; COMPACTED TO 95% R.C.

3. CONCRETE SHALL BE 520–C–2500, 4” MAXIMUM SLUMP.

4. CURB, GUTTER AND SIDEWALK TO BE PLACED MONOLITHICALLY WHERE POSSIBLE. WHERE NON–MONOLITHIC, PLACE Dowels AND/OR KEYWAY PER ST 1.

5. PLACE 1/2” EXPANSION JOINT AT 200’ SPACINGS AND AT RETURNS.

6. PLACE 3/4” DEEP WEAKENED PLANE JOINT AT 20’ MAXIMUM SPACINGS THROUGH CURB AND GUTTER, AND 10’ MAXIMUM SPACINGS THROUGH SIDEWALK, DRIVEWAY AND AT EDGES OF DRIVEWAYS AND AT 1/2 WIDTH FOR SIDEWALKS AND DRIVEWAYS OVER 10 FEET IN WIDTH.

7. PLACE SCORE LINES AT 5’ MINIMUM SPACING BETWEEN WEAKENED PLANE JOINTS AND ALONG BACK OF CURB. MATCH EXISTING PATTERN IN RESIDENTIAL NEIGHBORHOODS.

8. PLACE NO. 4 REINFORCING STEEL BARS AT 18 INCHES EACH WAY IN INDUSTRIAL, COMMERCIAL AND STREET LEVEL DRIVEWAYS.

9. CONCRETE TO HAVE A SOFT BROOM FINISH. CLEAR CURING COMPOUND TO BE APPLIED PER MANUFACTURER’S SPECIFICATIONS.

10. WHEN REPLACING CURB, GUTTER, SIDEWALK, AND DRIVEWAY, MATCH EXISTING WIDTH AND SCORING. SAWCUTS SHALL BE AT JOINTS OR SCORE LINES. INSERT NO. 4 BY 18” LONG STEEL Dowels AT 24” ON CENTER (2 MINIMUM FOR CURB AND GUTTER). ADD 1.5 LB. LAMPBLACK PER CUBIC YARD.

11. STAMP 3” HIGH LETTERS – "W"(WATER) AND "S"(SEWER) IN FACE OF CURB TO LOCATE LATERALS.

12. SAWCUT EXISTING A.C. PAVEMENT WITH POWER SAW.

13. ASPHALT CONCRETE SHALL BE 1/2” MAX AGGREGATE TYPE A PER CALTRANS SEC. 39, 3” MAXIMUM LIFTS.
CASE B

GUTTER FLOWLINE

TOP OF RAMP ROUNDED

SECTION B-B

DEPRESS ENTIRE SIDEWALK AS REQUIRED

RETAINING CURB IF NECESSARY

FOR NOTES SEE SHEET ST 9.11

CITY OF ALBANY, CALIFORNIA

STANDARD DETAIL

CURB RAMP DETAILS
(CASE B)

SCALE: NTS

ST 9.2
1. WHEN CONFORMING TO SIDEWALK MAINTAIN MAXIMUM SLOPE OF 7.5% FOR 10 FEET THEN USE NECESSARY SLOPE ON PROPOSED SIDEWALK FOR 10 FEET TO CONFORM TO EXISTING SIDEWALK.

2. ENGINEERING DESIGN OF THE MODIFIED CASE C TO BE APPROVED BY THE CITY ENGINEER.
IF NECESSARY, CONSTRUCT RETAINING CURB AT EDGE OF SIDEWALK

GROOVING, SEE NOTE 2

5'-0" MIN IF CROSSWALK PROVIDED
1.5% MAX

7.5% MAX

3'-0"
1.5% MAX

BCR CROSSWALK IF PROVIDED

CASE CM CURB RAMP

DETECTABLE WARNING SURFACE, SEE NOTES 3 AND 5.

RETAINING CURB IF NECESSARY

CUTTER FLOWLINE

SEE NOTE 9

SECTION A-A

FOR NOTES SEE SHEET ST 9.11

CITY OF ALBANY, CALIFORNIA
Curb Ramp Details (Case CM)

STANDARD DETAIL

ST 9.9

Ray Chan
December 2015

STD DETAIL No.

SCALE: NTS

K:\Standard Specifications and details\Details\CAD Drawings\ST 9 Curb Ramp Details.dwg
RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE
SEE NOTE 10

RAISED TRUNCATED DOME

LIMIT OF PAY
ROUNDED

RETROFIT PAY LIMITS
EXISTING CURB AND SIDEWALK

APPROXIMATELY 3/4"

GROOVING DETAIL

FOR NOTES SEE SHEET ST 9.11

CITY OF ALBANY, CALIFORNIA
STANDARD DETAIL
CURB RAMP DETAILS - GROOVING AND DOMES
STD DETAIL No.
ST 9.10
1. 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.

2. 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.

3. WHEN RAMP IS LOCATED IN CENTER OF CURB RETURN, CROSSWALK CONFIGURATION MUST BE SIMILAR TO THAT SHOWN FOR DETAIL B.


5. IF LOCATED ON A CURVE, THE SIDES OF THE RAMP NEED NOT BE PARALLEL, BUT THE MINIMUM WIDTH OF THE RAMP SHALL BE 4’-2”.

6. 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.

7. THE CURB RAMP SHALL BE OUTLINED, AS SHOWN, WITH A 1”-0” WIDE BORDER WITH” GROOVES APPROXIMATELY 3/4” ON CENTER. SEE GROOVING DETAIL.

8. TRANSITIONS FROM RAMPS AND LANDING TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH (NO LP) AND FREE OF ABRUPT CHANGES.

9. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO AND WITHIN 24 INCHES OF THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20 (5.0%). GUTTER PAN SLOPE SHALL NOT EXCEED 1” OF DEPTH FOR EACH 2’-0” OF WIDTH.

10. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3’-0” DEPTH OF THE RAMP. A 4’-0” WIDE DETECTABLE WARNING SURFACE MAY BE USED ON A 4’-2” WIDE CURB RAMP. DETECTABLE WARNING SURFACES SHALL CONFORM TO THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS.

11. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 6” AND 8” FROM THE GUTTER FLOWLINE.

12. 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.

13. DETECTABLE WARNING SURFACES MAY HAVE TO BE CUT TO ALLOW REMOVAL OF UTILITY COVERS WHILE MAINTAINING FULL DETECTABLE WARNING WIDTH AND DEPTH.
NOTES:

1. SIDEWALK, RAMPS AND PASSAGEWAY THICKNESS, "T", SHALL BE 3" MINIMUM.
2. FOR DETAILS OF GROOVING USED WITH CASE CM CURB RAMP, SEE STANDARD DETAIL ST 7A SHEET 8.
3. FOR DETAILS OF DETECTABLE WARNING SURFACES, SEE REVISED STANDARD DETAIL 7A.
4. 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. A 4'-0" WIDE DETECTABLE WARNING SURFACE MAY BE USED ON A 4'-2" WIDE ISLAND PASSAGEWAY.
5. FOR CASE CM CURB RAMP, THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 6" AND 8" FROM THE GUTTER FLOW LINE. REFER TO STANDARD DETAIL ST 7A, SHEET 8 FOR DETAILS.
6. TRANSITIONS FROM RAMPS TO WALKS, CUTTERS OR STREETS SHALL BE FLUSH (NO LIP) AND FREE OF ABRUPT CHANGES.
7. 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.
8. DETECTABLE WARNING SURFACE MAY HAVE TO BE CUT TO ALLOW REMOVAL OF UTILITY COVERS WHILE MAINTAINING FULL DETECTABLE WARNING WIDTH AND DEPTH. FOR ADDITIONAL CURB RAMP DETAILS, SEE STANDARD DETAIL ST 7A.
ALL OTHER SIGNS – MINIMUM 7’ FROM GROUND LEVEL TO BOTTOM EDGE OF SIGN

ALL SIGNS TO BE MOUNTED ON UNISTRUT TELESPAR OR WESTERN HIGHWAY 1–3/4” SQUARE TUBULAR SIGN POLES. COLOR: POWDER FINISH DARK GREEN. POLES TO BE SECURED IN GROUND USING UNISTRUT TELESPAR OR WESTERN HIGHWAY SYSTEM. SIGNS TO BE ATTACHED TO POLES, AND POLES ATTACHED TO ANCHORS AND COLLARS, USING UNISTRUT OR WESTERN HIGHWAY PLATED STEEL OR ALUMINUM RIVETS.
NOTE: ANCHOR SLEEVE + STIFFNER = ANCHOR ASSEMBLY
NOTES:

1. MATCH EXISTING ASPHALT THICKNESS PLUS 1” (3” THICK MINIMUM).

2. WHEN APPROVED BY THE ENGINEER CDF MAY BE USED AS AN ALTERNATE FOR AGG BASE FOR SHALLOW PIPE LINES PROVIDING MEASURES ARE TAKEN TO PREVENT PIPE FLOTATION.

3. THE FINAL LIFT OF AC IN STREETS SHALL BE COMPACTED WITH A ROLLER APPROVED BY THE ENGINEER.

4. WHEN THE TRENCH PARALLEL CURB AND THE NEAREST TRENCH LINE IS LESS THAN 2 FEET FROM THE GUTTER LIP OR CURB WHEN NO GUTTER EXISTS, ALL EXISTING ASPHALT CONCRETE SHALL BE REPLACED TO THE GUTTER LIP. FOR GUTTER LIP PAVING DETAIL SEE DETAIL “A”.

5. ASPHALT CONCRETE SHALL BE 3/4” TYPE A ASPHALT CONCRETE UNLESS OTHERWISE SPECIFIED OR DIRECTED BY THE CITY ENGINEER.

6. THE ASPHALT CONCRETE SHALL BE CUT THROUGH THE FULL DEPTH OF EXISTING ASPHALT CONCRETE TO A NEAT STRAIGHT LINE AT LEAST 6” OUTSIDE THE TRENCH LINE. PAVEMENT EDGES DAMAGED DURING CONSTRUCTION SHALL BE RE-CUT TO NEAT LINES PRIOR TO PAVING. POINT BINDER (TACK COAT) SHALL BE APPLIED TO ALL VERTICAL SURFACES IN ACCORDANCE WITH THE LATEST EDITION OF CALTRANS STANDARD SPECIFICATIONS.

7. THE EXISTING ASPHALT CONCRETE OUTSIDE THE TRENCH LINE MAY BE GROUND TO A MINIMUM DEPTH OF 0.20 FEET TO A NEAT STRAIGHT LINE AT LEAST 6” OUTSIDE THE TRENCH LINE. THE EXISTING ASPHALT CONCRETE AT THE TRENCH LINES SHALL BE CUT THROUGH THE FULL DEPTH OF THE EXISTING ASPHALT CONCRETE TO A NEAT STRAIGHT LINE. ANY PAVEMENT EDGES, INCLUDING GROUND EDGES, DAMAGED DURING CONSTRUCTION SHALL BE RE-CUT OR RE-GROUND TO NEAT LINES PRIOR TO PAVING. POINT BINDER (TACK COAT) SHALL BE APPLIED TO ALL VERTICAL SURFACES IN ACCORDANCE WITH LATEST EDITION OF CALTRANS STANDARD SPECIFICATIONS.
CITY OF ALBANY

POLK ST. AND MADISON ST.
SEWER REPLACEMENT PROJECT

TRAFFIC SUBJECT TO DELAY
THRU APRIL 2009

CONTACT CITY OF ALBANY
PUBLIC WORK TEL. NO.
510-524-9543

NOTES:

1. SIGNS SHALL HAVE SERIES D BLACK LETTERS ON REFLECTIVE WHITE
   BACKGROUND PLACE TYPE I SIGNS IN A VISIBLE LOCATION.

2. SIGN TO BE PLACED ON EITHER SIDE OF WORK AREA.

3. LOCATION OF SIGN SHALL BE AS APPROVED BY THE CITY ENGINEER.
GRIND AND REMOVE EXISTING CONCRETE UP TO A SMOOTH EVEN PLANE.

3" MIN

SIDEWALK ELEVATION VIEW

NOTES:

1. THE UNIT FOR PAYMENT SHALL BE INCH-FOOT (IN.-FT)

2. MEASUREMENT FOR PAYMENT SHALL BE MADE BY MULTIPLYING THE LENGTH OF THE CUT BY THE AVERAGE DEPTH OF THE CUT.

3. CUT SHALL EXTEND FOR FULL WIDTH OF SIDEWALK, EDGE TO EDGE

4. PROTECT CITIZENS AND ALL PRIVATE AND PUBLIC FACILITIES FROM DAMAGE OR HARM.

5. LEVEL AND RESHAPE EXISTING SOD AS NECESSARY.

6. SITE CLEAN-UP SHALL BE ACCOMPLISHED AS SOON AS SAWCUTTING OPERATION IS COMPLETE.

7. ONLY THOSE PANELS WHICH ARE IN GOOD CONDITION AND NOT SUBJECT TO REPLACEMENT IN ACCORDANCE WITH PLAN No. 291 (DEFECTIVE CONCRETE) OF THE APWA MANUAL OF STANDARD PLANS SHALL BE SAWCUT.
PLAN:

1. ORIENT MEDALLION TEXT TO BE READ FROM THE SIDEWALK. EPOXY MEDALLION WITH PREMIUM POLYURETHANE CONSTRUCTION ADHESIVE. ADHESIVE MUST DEVELOP FULL STRENGTH IN 24 HOURS OR LESS AND MEET ASTM C-557, DS498.

2. MEDALLION SHALL BE LOCATED BEHIND THE BACK OF CURB IN LOCATIONS WITH EXISTING OR PLANNED RED CURBS.
EXTEND SIDEWALK TO INLET

TRAFFIC TYPE GRATE

PL

PLAN

NON-TRAFFIC TYPE GRATE

BACK OF SIDEWALK OR PL. WEAKENED PLANE JOINT.

SEE DETAIL A

SLOPE TO DRAIN

NOTES

1. FOR ADDITIONAL CAPACITY, ADJACENT DRAINS MAY BE INSTALLED AND THE WIDTH OF INLET SHALL BE INCREASED AS REQUIRED. MINIMUM CLEAR DISTANCE BETWEEN DRAINS AT CURB FACE SHALL BE 6 INCHES.

2. ADJACENT DRAINS SHALL BE THE SAME TYPE

3. IN TRAFFIC AREAS, THE GRATE SHALL BE US CONCRETE PRECAST GROUP (CENTRAL PRECAST) HEAVY GRATE, OR APPROVED EQUAL.

4. IN NON-TRAFFIC AREAS THE GRATE SHALL BE US CONCRETE PRECAST GROUP (CENTRAL PRECAST) STANDARD GRATE, OR APPROVED EQUAL.

5. EACH GRATE SHALL BE PROVIDED WITH A MINIMUM OF TWO (2) LOCKING DEVICES.

SCALE: NTS

CITY OF ALBANY, CALIFORNIA

STANDARD DETAIL

SIDEWALK CROSS DRAIN

STD DETAIL No. ST 18

K:\Standard Specifications and details\Details\CAD Drawings\ST 18 Sidewalk Cross Drain.dwg
NOTES:
1. ALL NOTES AND DIMENSIONS SYMETRICAL ABOUT CENTERLINE
2. PROVIDE A SMOOTH TRANSITION FROM VALLEY TO END OF RETURN.
3. ALL INTERSECTIONS TO HAVE ACCESS RAMPS DESIGNED IN ACCORDANCE WITH ADA STANDARDS
NOTES:

1. RELOCATE SIDEWALK OBSTRUCTIONS BEHIND THE SIDEWALK AREA WITHIN A PUBLIC SERVICE EASEMENT

2. WHEN OBSTRUCTIONS CANNOT BE MOVED AND A 3-FOOT CLEAR AREA BETWEEN AN OBSTRUCTION AND THE EDGE OF SIDEWALK IS NOT AVAILABLE, A RETROFIT SIDEWALK FLARE MAY BE USED. FLARE CONSTRUCTION SHALL CONFORM TO STANDARD CITY SIDEWALK REQUIREMENTS.

3. USE OF THE SIDEWALK FLARE DETAIL SHALL BE APPROVED BY THE CITY ENGINEER FOR SPECIAL RETROFIT SITUATIONS ONLY. THIS DETAIL WILL NOT BE ALLOWED AS A CORRECTION IMPROPERLY PLACED FACILITIES.
NOTES:
MONUMENT FRAMES AND COVERS SHALL BE:
1. NEENAH FOUNDRY COMPANY, CATALOG NO. R-1975-B, LID TYPE C WITH MONUMENT ON THE LID.
2. CHIRSP CASTING PERT NO. 9279, +277M
3. OTHER MANUFACTURERS MODELS APPROVED BY THE CITY OF ALBANY DEPARTMENT OF PUBLIC WORKS SHALL BE EQUAL IN SERVICE AND FUNCTION. EACH COVER SHALL BE GROUND OR OTHERWISE FINISHED SO THAT IT WILL FIT IN ITS FRAME WITHOUT ROCKING. CONCRETE SHALL BE EITHER CLASS A OR CLASS B, POURED IN PLACE AGAINST THE EXISTING GROUND.

A. INSTALL 3 OR MORE 1/4” X 3” METAL DOWELS EXTENDING 1’ ABOVE SURFACE OF CONCRETE. BEND AS SHOWN.
B. PROVIDE A FORM OF SHEET METAL OR 3/32” THICK WAX-IMPREGNATED PAPER.
# Gate Post

<table>
<thead>
<tr>
<th>Fence Height</th>
<th>Gate Widths</th>
<th>Round OD Pipe</th>
<th>Weight (lb/ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6' - 0&quot; AND LESS</td>
<td>UP THRU 6' - 0&quot;</td>
<td>2.875&quot;</td>
<td>5.80</td>
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<tr>
<td></td>
<td>OVER 6' - 0&quot;</td>
<td>4.500&quot;</td>
<td>10.80</td>
</tr>
<tr>
<td></td>
<td>THRU 12' - 0&quot;</td>
<td>5.563&quot;</td>
<td>14.63</td>
</tr>
<tr>
<td></td>
<td>OVER 18' - 0&quot; TO 24' - 0&quot;</td>
<td>6.625&quot;</td>
<td>18.99</td>
</tr>
<tr>
<td></td>
<td>Max</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVER 6’ - 0&quot; TO 8’ - 0&quot; Max</td>
<td>UP THRU 6’ - 0&quot;</td>
<td>3.500&quot;</td>
<td>7.58</td>
</tr>
<tr>
<td></td>
<td>OVER 6' - 0&quot;</td>
<td>5.563&quot;</td>
<td>14.63</td>
</tr>
<tr>
<td></td>
<td>THRU 12' - 0&quot;</td>
<td>6.625&quot;</td>
<td>18.99</td>
</tr>
<tr>
<td></td>
<td>OVER 18' - 0&quot; TO 24' - 0&quot;</td>
<td>8.625&quot;</td>
<td>28.58</td>
</tr>
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Above post dimensions and weights are minimums. Larger sizes may be used upon approval.

# Typical Member Dimensions

<table>
<thead>
<tr>
<th>Fence Height</th>
<th>Line Posts</th>
<th>End, Latch and Corner Posts</th>
<th>Braces</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Round OD Pipe</td>
<td>Weight (lb/ft)</td>
<td>Roll Formed</td>
</tr>
<tr>
<td>6' - 0&quot; AND LESS</td>
<td>1.900&quot;</td>
<td>2.72</td>
<td>1.875&quot; x 1.625&quot;</td>
</tr>
<tr>
<td>OVER 6’ - 0” TO 8’ - 0” Max</td>
<td>2.375&quot;</td>
<td>3.65</td>
<td>2.25&quot; x 1.70&quot;</td>
</tr>
</tbody>
</table>

## Notes:

1. The table below shows minimum sized posts and braces complying with the specifications. Larger or heavier post and brace sizes may be used upon approval.
2. Sections shown in the tables must also comply with the strength requirements and other provisions of the specifications.
3. Other sections which comply with the strength requirements and other provisions of the specifications may be used upon approval.
4. Options exercised shall be uniform on any one project.
5. Offset to be 2’ - 0” at monument locations, measured at right angles to R/W lines. Taper to achieve offset to be at least 20’ - 0” long.
6. See revised standard plan RSP 4858 for brace, stretcher bar, and truss tighten details.

**Scale:** NTS

**City of Albany, California**

**Standard Detail**

**Chain Link Fence and Gate - Notes**

**STD. DETAIL No.** ST 22.2
NOTES:

1. MANHOLE FRAME AND COVER SHALL BE MANUFACTURED BY PHOENIX IRON WORKS, OAKLAND, NO.P-1090 OR APPROVED EQUIVALENT.

2. FOR MANHOLE LOCATED IN SIDEWALK AREAS USE PHOENIX NO. P-1067 FRAME AND COVER OR APPROVED EQUIVALENT.

3. MINIMUM WEIGHT OF FRAME IS 138 LBS.
   MINIMUM WEIGHT OF COVER IS 130 LBS.
NOTES:

1. MANHOLE BASE SHALL BE CLASS A (6-SACK) CONCRETE AND SHALL BE Poured AGAINST UNDISTURBED SOIL.

2. PRECAST CONCRETE CONE, BARREL AND GRADE RINGS SHALL CONFORM TO A.S.T.M. SPEC C-478, EXCEPT THAT TYPE II MODIFIED PORTLAND CEMENT SHALL BE USED.

3. ECCENTRIC CONE SECTION SHALL BE POSITIONED AS DIRECTED BY THE CITY.

4. RECESS IN MANHOLE BASE SHALL BE FORMED WITH AN APPROVED METAL FORMING RING TO RECEIVE PRECAST MANHOLE JOINT. PREFORMED PLASTIC SEAL GASKET SHALL BE INSTALLED BEFORE PLACING FIRST BARREL SECTION.

5. PRECAST MANHOLE BASES ARE NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY.
CITY OF ALBANY, CALIFORNIA

STANDARD DETAIL

RAISED MANHOLE RING AND COVER

SCALE: NTS

APPROVED BY:
Ray Chan

DATE: DECEMBER 2015

STD DETAIL No.
SS 3

ROAD SURFACE

REMOVAL & RETAIN EXISTING STD FRAME & COVER

REMOVE METAL RISER RING(S), IF PRESENT

REMOVE CONC COLLAR, IF PRESENT

12" DIA

INSTALL TEMPORARY BARRIER TO CATCH DEBRIS DURING CONSTRUCTION

EXISTING CONDITION

ROAD SURFACE

REUSE EXISTING STD FRAME & COVER

2" ABOVE CASTING

2" BELOW CASTING

#4 HOOPS

#4 @ 18"

POUR NEW CLASS A CONC COLLAR ALL AROUND

GRADE RINGS MAX 18"

INSTALL PREFORMED PLASTIC SEALING CASKETS (RAM-NEK OR EQ) PRIOR TO SETTING THE FRAME

RAISED RING CONDITION

48" Ø BARREL

* IF GRADE RINGS EXCEED 18" REMOVE CONE AND INSTALL NEW 48" DIAMETER BARREL SECTION
CAST IRON FRAME & COVER
TOP ELEVATION TO BE
DETERMINE IN FIELD

USE GRADE RINGS AS
NECESSARY - 6" MAX

ROAD SURFACE

A.C. SURFACING

#4 HOOPS

#4 @ 18"

15", 24" OR 30"
PRECAST CONCRETE
MANHOLE CONE SECTION

4# @ 12" FROM CENTER
EACH WAY

IF WATER OR SOFT GROUND IS
PRESENT PLACE COARSE BEDDING
MATERIAL IN GEOTEXTILE WRAP
WITH 12" MIN OVERLAP AT FABRIC
EDGES

CAST IRON FRAME & COVER
TOP ELEVATION TO BE
DETERMINE IN FIELD

USE GRADE RINGS AS
NECESSARY - 6" MAX

ROAD SURFACE

A.C. SURFACING

#4 HOOPS

#4 @ 18"

15", 24" OR 30"
PRECAST CONCRETE
MANHOLE CONE SECTION

4# @ 12" FROM CENTER
EACH WAY

IF WATER OR SOFT GROUND IS
PRESENT PLACE COARSE BEDDING
MATERIAL IN GEOTEXTILE WRAP
WITH 12" MIN OVERLAP AT FABRIC
EDGES

4' - 0"

NON-SHRINK
GROUT

4' - 0"

WATERSTOP

FORM OR CAST AGAINST
UNDISTURBED SOIL

VARYS

2'/6" MAX
1'/5" MIN

SCALE: NTS

CITY OF ALBANY, CALIFORNIA
STANDARD DETAIL

SHALLOW MANHOLE

NOTES:
1. THIS MANHOLE MAY BE USED WHERE DISTANCE FROM TOP OF BASE TO BOTTOM OF FRAME IS BETWEEN
1'-3" AND 2'-6".
2. ALL STEEL REINFORCEMENT SHALL HAVE 3" MINIMUM CONCRETE COVER.
NOTES:

1. CONTRACTOR SHALL REFER TO THIS DETAIL WHEN CONNECTING NEW SEWER PIPES TO EXISTING MANHOLES. THE NEW PIPE MAY BE INSTALLED FOR A POINT REPAIR, PIPE REPLACEMENT, PIPE BURSTING OR SERVICE LATERAL REPLACEMENT.
NOTES

1. WHERE SEWER MAIN IS 6.63" OD POLYETHYLENE PIPE, USE 6" C-900 LONG RADIUS BELL X BELL 45° BEND AND RUN TO CLEANOUT CASTING.

2. CONTRACTOR SHALL VERIFY COMPATIBILITY WITH SEWER PIPE USE FOR RODDING AND FLUSHING CLEANOUT.
NOTES:

1. INSTALL 4' LONG COMPACTED IMPERVIOUS CLAY OR SLURRY CEMENT PLUGS IN PIPE ZONE BACKFILL AND PIPE BEDDING AT 400' INTERVALS.

2. MATCH EXISTING ASPHALT THICKNESS PLUS 1" (3" THICK, MINIMUM).

3. CONTROLLED DENSITY FILL MAY BE USED AS AN ALTERNATE PROVIDING MEASURES ARE TAKEN TO PREVENT PIPE FLATTENING.

4. THE FINAL LIFT OF AC IN STREETS SHALL BE COMPACTED WITH A ROLLER APPROVED BY THE PUBLIC WORKS DEPARTMENT.
NOTES:

1. WHEN THE LOWER LATERAL SEWER IS INSTALLED IN ADVANCE OF THE UPPER LATERAL, IT SHALL BE TERMINATED AT OR NEAR THE PROPERTY LINE. THE END OF THE LOWER LATERAL SHALL BE MARKED WITH A 4'' X 4'' REDWOOD STAKE, PAINTED GREEN, FROM THE TOP OF THE PIPE TO A MINIMUM OF 6'' ABOVE THE FINISHED GROUND SURFACE.

2. WHERE CONCRETE CURBS AND GUTTERS EXIST OR ARE TO BE A PART OF AN IMPROVEMENT, EACH SIDE SEWER SHALL BE PERMANENTLY LOCATED BY IMPRINTING OR CHISELING AN "S" (3" SIZE) ON THE TOP OF THE CURB VERTICALLY ABOVE THE SEWER PIPE.

3. BACKFILL SHALL NOT BE PLACED UNTIL PIPE INSTALLATION HAS BEEN INSPECTED AND APPROVED BY THE CITY.


5. MINIMUM PIPE SLOPE OF LESS THAN WHAT IS SPECIFIED MUST BE APPROVED BY THE CITY ENGINEER.

6. THE SIDE SEWER SIZE IS FOUR (4) INCHES IN DIAMETER FOR SINGLE FAMILY RESIDENTIAL, SIX (6) cm INCHES OR LARGER IN DIAMETER SIDE SEWER SHALL BE INSTALLED WHERE USE IS TO BE INDUSTRIAL, COMMERCIAL, OR MULTI-FAMILY RESIDENTIAL.


8. ADDITIONAL CLEANOUTS SHALL BE INSTALLED AT CHANGES IN DIRECTION WHERE THE ACCUMULATIVE TOTAL OF DEFLECTION FROM ANOTHER CLEANOUT IS MORE THAN 45°. THE MAXIMUM DISTANCE BETWEEN CLEANOUTS SHOULD BE 100 FEET, PER THE UNIFORM PLUMBING CODE.

9. CLEANOUTS AND RISER PIPES SHALL BE THE SAME SIZE AS THE LATERAL.

10. WHEN LOWER LATERAL FALLS WITHIN A DRIVEWAY, THE TWO WAY CLEANOUT SHALL BE LOCATED AT THE SIDEWALK ELEVATION, CLEAR OF THE APRON.

SCALE: NTS
NOTES

1. A BACKWATER PREVENTION DEVICE OR A BACKWATER SHUTOFF AND CHECK VALVE SYSTEM SHALL BE INSTALLED ON ALL UPPER LATERALS. BACKWATER PREVENTION DEVICES WILL ONLY BE PERMITTED WHEN SEWER OVERFLOW FROM THE PREVENTION DEVICE WILL NOT CAUSE DAMAGE TO THE SURROUNDING AREA. WHEN SEWER OVERFLOW COULD CAUSE SERIOUS DAMAGE TO THE SURROUNDING AREA, A STANDARD BACKWATER SHUTOFF AND CHECK VALVE SYSTEM SHALL BE INSTALLED AS SHOWN ON SS 10.

2. IF THE DIFFERENCE IN ELEVATION BETWEEN THE LOWEST FLOOR WITH PLUMBING WASTE FIXTURES AND THE RIM OF THE BACKWATER PREVENTION DEVICE IS LESS THAN SIX (6) INCHES, A TYPE C OR D BACKWATER CHECK VALVE AND SHUTOFF SYSTEM SHALL BE INSTALLED AS SHOWN ON STANDARD DETAIL SS 8.

3. CONCRETE BOXES COVERS SHALL BE TRAFFIC RATED WHEN USED IN AREAS SUBJECT TO TRAFFIC SUCH AS DRIVEWAYS.

4. BOX SHALL BE CHIRSTY F8 OR EQUAL; USE F8D LID IN NON-TRAFFIC AREAS AND F8C FOR TRAFFIC AREAS.
1. SEWER PROTECTION, AS DETAILED HEREON, SHALL BE PROVIDED WHEN A NEW UTILITY PIPE IS INSTALLED BELOW AN EXISTING MAIN SEWER. TYPE I, TYPE II OR TYPE III MAY BE USED AT THE CONTRACTOR'S OPTION, UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE CITY.

2. WHEN THE CLEARANCE BETWEEN THE PIPES IS 1' OR LESS INSTALL A 4" x 4" PAD OF 35-45 DUROMETER RUBBER SNUGLY FIT BETWEEN THE PIPES.

3. MAXIMUM SPACING OF REINFORCING STEEL TO BE 4' CENTER TO CENTER.

4. CONCRETE TO BE CLASS A (6 SACK MIX)

5. BACKFILL SHALL NOT BE PLACED UNTIL PIPE INSTALLATION HAS BEEN INSPECTED AND APPROVED BY THE CITY.
NOTES:

1. SEWER PROTECTION, AS DETAILED HEREON, SHALL BE PROVIDED WHEN A NEW UTILITY PIPE, 12" OR LARGER, IS INSTALLED ABOVE AN EXISTING MAIN SEWER AND THE CLEARANCE IS LESS THAN 12".

2. WHEN THE OUTSIDE DIAMETER OF THE PIPES ARE WITHIN 1' OF THE OTHER THERE SHALL BE A 4" x 4" PAD OF 35-45 DUROMETER RUBBER PLACED SNUGLY BETWEEN PIPES.

3. EXISTING MATERIAL BETWEEN CRADLES TO MID DEPTH OF SEWER TO BE CAREFULLY EXCAVATED AND REPLACED WITH COMPACTED CLASS II MATERIAL.

4. BACKFILL SHALL NOT BE PLACED UNTIL PIPE INSTALLATION HAS BEEN INSPECTED AND APPROVED BY CITY.
NOTES:

1. WHEN ANY NEW UTILITY PIPE OR CONDUIT CONFLICTS WITH AN EXISTING SEWER LINE GRADE, THE UTILITY PIPE OR CONDUIT WRITTEN PERMISSION SHALL BE OBTAINED FROM THE CITY OF ALBANY, AND THE SEWER LINE SHALL BE RECONSTRUCTED IN SHALL BE RAISED OR LOWERED, IF POSSIBLE, TO MISS THE SEWER LINE. IF IT IS NOT POSSIBLE TO MOVE THE UTILITY LINE, ACCORDANCE WITH ONE OF THE DETAILS ABOVE AND THE STANDARD SPECIFICATIONS OF THE CITY.

2. WHEN THE CLEARANCE BETWEEN THE PIPES IS 1’ OR LESS, INSTALL A 4” X 4” PAD OF 35–45 DUROMETER RUBBER SNUGLY FIT BETWEEN THE PIPES.
**NOTES**

1. INSTALL OVER SEWER MAINS AND LOWER LATERALS WITH LESS THAN 30" COVER AND OVER UPPER LATERALS WITH LESS THAN 18" COVER.
NOTES:
1. CHECK BOARDS TO BE PLACED ON ALL SLOPES GREATER THAN 50% OR WHERE REQUIRED BY THE CITY.
2. ALL SLOPES 50% OR GREATER SHALL HAVE CLASS 150 C.I. BELL & SPIGOT PIPE.
3. ALL REDWOOD TO BE FOUNDATION GRADE
1. FOR GENERAL NOTES AND DETAILS, SEE STANDARD PLAN SD 9
2. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN, OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE PUBLIC WORKS DEPARTMENT. KEY DIMENSIONS — 3/4" x 3".
3. WHEN DIMENSION "H" EXCEED 6'-0", USE A MANHOLE BASE WITH TYPE "A" INLET TOP
4. IF EDGE DRAINS ARE SPECIFIED BY PUBLIC WORKS DEPARTMENT OR SHOWN ON THE PLANS, SEE STANDARD PLAN SD 9 FOR EDGE DRAIN (ED) DETAILS
5. SEE STANDARD PLAN SD 9 FOR WEEPHOLE DRAINAGE DETAILS UNLESS EDGE DRAIN IS SHOWN ON PLANS OR AS SPECIFIED BY PUBLIC WORKS DEPARTMENT. FOR EDGE DRAIN DETAILS, SEE STANDARD PLAN SD 10.1.
6. SEE STANDARD DETAIL SD 9 FOR WEEPHOLE DETAIL UNLESS EDGE DRAIN IS SHOWN ON PLAN OR SPECIFIED BY PUBLIC WORKS DEPARTMENT. FOR EDGE DRAIN DETAIL SEE SD 10

<table>
<thead>
<tr>
<th>CURB GRADE</th>
<th>&quot;A&quot; UPSTREAM</th>
<th>&quot;A&quot; DOWNSTREAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2% AND LESS</td>
<td>24</td>
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<tr>
<td>3%</td>
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<td>24</td>
</tr>
<tr>
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<td>9%</td>
<td>108</td>
<td>12</td>
</tr>
<tr>
<td>10% OR GREATER</td>
<td>120</td>
<td>12</td>
</tr>
</tbody>
</table>
GALV STEEL GRATE
FRAMES AND GRATES
(SEE SD 6.1 & SD 6.2)

WEAKENED PLANE
JT

3" DIAMETER
WEEPホール
3 TOTAL, TYP
SEE NOTES 5 AND 6

SLOPE 2" PER FT
TO OUTLET

OUTLET PIPE
SLOPE 2" PER FT
TO OUTLET

SECTION A--A

WEAKENED PLANE
JT

EXIST CURB
WEAKENED PLANE JT

SCOREMARK

WEAKENED PLANE
OR CONST JT

EDGE DRAIN
SEE NOTE 4
APRON
WEAKENED PLANE
OR CONST JT

PLAN B
GRATES NOT SHOWN

SEE "DETAIL FOR
STEEP CURB SLOPE"

SCALE: NTS

CITY OF ALBANY, CALIFORNIA
STANDARD DETAIL

TYPE "B" INLET

SD 2.1
### Dimensions "A" (IN)

<table>
<thead>
<tr>
<th>Curb Grade</th>
<th>&quot;A&quot; Upstream</th>
<th>&quot;A&quot; Downstream</th>
</tr>
</thead>
<tbody>
<tr>
<td>2% AND LESS</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>3%</td>
<td>36</td>
<td>24</td>
</tr>
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<td>9%</td>
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<td>12</td>
</tr>
<tr>
<td>10% AND GREATER</td>
<td>120</td>
<td>12</td>
</tr>
</tbody>
</table>

### Notes

1. For general notes and details, see standard plan SD 9.
2. Construction joints are optional where shown, other locations are subject to the approval of the public works department. Key dimensions - 3/4" x 3".
3. When dimension "H" exceed 12'-0", use a manhole base with type "B" inlet top.
4. If edge drains are specified by public works department or shown on the plans, see standard plan SD 10 for edge drain (ED) details.
5. See standard plan SD 9 for weep hole drainage details unless edge drain is shown on plans or as specified by public works department. For edge drain details, see standard plan SD 10.
GALVANIZED STEEL GRATE AND FRAMES SEE SD 6.1, SD 6.2 & SD 6.3

TWO #4 X 2' - 6" ACROSS SIDE OPENINGS

#4 BARS ACROSS OPENINGS AS REQUIRED FOR 6" VERTICAL CLEARANCE (MAX.)

6" MIN.

VARIABLES SEE NOTE 5

FLOW LINE
GRADE

SLOPE ARE 2" PER FT TO OUTLET

SECTION A-A

FLOW LINE
GRADE

OUTLET PIPE

'TH' Varies 4' MAX SEE NOTE 8

SECTION B-B

SIDE OPENING SEE NOTE 5

FRONT OPENING SEE NOTE 5

ROUND TO 4 INCH RADIUS WHEN AS CURB OPENING.

SEE NOTE 8

4' @ 12" EA WAY

SEE SD 9

5' SQUARE

TYPE "C" OPENING ON PRECAST MANHOLE BARREL
REFER TO STANDARD PLAN SD 7

SEE NOTE 8

#4 X 8" DOWELS @ 12"

TYPE "C" OPENING ON MANHOLE BASECRATE
REFER TO STANDARD PLAN SD 7

SCALE: NTS

CITY OF ALBANY, CALIFORNIA

STANDARD DETAIL

TYPE "C" INLET

STD DETAIL No.

SD 3.1

APPROVED BY: Ray Chan

DATE: DECEMBER 2015
NOTES:

1. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN. OTHER LOCATIONS ARE SUBJECT TO APPROVAL OF THE PUBLIC WORKS DEPARTMENT. KEY DIMENSIONS 3\(\frac{1}{2}\) x 2 \(\frac{1}{2}\)"

2. CLEARANCE SHALL BE 2" FOR ALL REINFORCING STEEL.

3. FOR INLET GENERAL NOTES AND DETAILS, SEE STANDARD PLAN SD 9

4. LOCATION, FLOWLINE ELEVATION AND SIZE OF OPENING TO BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE PUBLIC WORKS DEPARTMENT.

5. ALL INLETS SHALL BE CONSTRUCTED WITH GRATES. INLETS INSTALLED IN A PEDESTRIAN AREA SHALL BE TYPE "D".

6. PRECAST INLET CONFORMING TO SANTA ROSA CAST PRODUCT CO. DRAWING NO. TYPE C OR EQUIVALENT, CAN BE SUBSTITUTED FOR CAST IN-PLACE INLET UNLESS OTHERWISE SPECIFIED IN PROJECT SPECIAL PROVISIONS.

7. MAXIMUM DEPTH FOR TYPE "C" INLET SHALL BE 4'. FOR DEPTHS GREATER THAN 4' USE A MANHOLE BASE WITH A TYPE "C" TOP. THE TYPE "C" INSIDE WALL WITH STEPS SHALL BE FLUSH WITH MANHOLE BASE INSIDE WALL.

8. DETAILS APPLY TO ALL METAL, PLASTIC AND CONCRETE PIPE.
NOTES:

1. FOR INLET GENERAL NOTES AND DETAILS, SEE STANDARD PLAN SD 9.

2. TYPE D INLET NOT PERMITTED WHEN STREET GRADE EXCEEDS 6%. IF GRADE EXCEEDS 6% USE TYPE E INLET.

3. PRECAST CONCRETE CURB INLET SHALL BE CENRAL PRECAST MODEL 4 A OR CHRISTY CONCRETE PRODUCTS MODEL U-37, OR EQUIVALENT, AS APPROVED BY THE PUBLIC WORKS DEPARTMENT. SEE MANUFACTURER’S CATALOG FOR DETAILS OF INLET AND CIRCULAR COVER NOT SHOWN ON THIS PLAN. COVERS SHALL HAVE A PICK HOLE FOR ACCESS.

4. WHEN CURB AND SIDEWALK ARE EXTRUDED, CONSTRUCTION JOINTS SHALL BE PROVIDED AT LOCATION AS SHOWN IN PLAN VIEW.

5. CURB AND SIDEWALK SHALL BE CONSTRUCTED MONOLITHICALLY.

6. IF "H" EXCEEDS 6'-0", CONSTRUCT PRECAST INLET ON A TYPE II MANHOLE BASE AS SHOWN IN DETAIL "D" ON THIS PLAN. SEE STANDARD PLANS SD 7 AND SD 8 FOR MANHOLE AND TOP SLAB DETAILS.

7. A PIPE SHALL NOT ENTER THE INLET THROUGH A CORNER. IF PIPE EXCEEDS.

8. IF EDGE DRAINS ARE SPECIFIES BY PUBLIC WORKS DEPARTMENT OR SHOWN ON THE PLANS, SEE STANDARD PLAN SD 10 FOR EDGE DRAIN (ED) DETAILS.

9. SEE STANDARD PLAN SD 9 FOR WEEPHOLE DRAINAGE DETAILS UNLESS EDGE DRAIN IS SHOWN ON PLANS OR AS SPECIFIED BY PUBLIC WORKS DEPARTMENT. FOR EDGE DRAIN DETAILS, SEE STANDARD PLAN SD 10.
NOTES:

1. FOR INLET GENERAL NOTES AND DETAILS, SEE STANDARD PLAN SD 9.

2. THE PRE-CAST CONCRETE CURB INLET SHALL BE CENTRAL PRECAST MODEL MODEL 4A OR CHRISTY CONCRETE PROD. MODEL U-37, OR EQUIVALENT, AS APPROVED BY THE PUBLIC WORKS DEPARTMENT. SEE MANUFACTURER’S CATALOG FOR DETAILS OF INLET AND CIRCULAR COVER NOT SHOWN ON THIS PLAN. COVERS SHALL HAVE A HOLE FOR ACCESS.

3. FIBERGLASS LINER FOR GALLERY SHALL BE CENTRAL PRECAST PELICAN GALLERY MODEL 6Y, OR APPROVED EQUIVALENT.

4. WHEN CURB AND SIDEWALK ARE EXTRUDED, CONSTRUCTION JOINTS SHALL PROVIDED AT LOCATION AS SHOWN IN PLAN VIEW.

5. CURB AND GALLERY SECTION AND SIDEWALK SHALL BE CONSTRUCTED MONOLITHICALLY.

6. IF "H" EXCEEDS 6'-0", CONSTRUCT PRE-CAST INLET ON A TYPE II MANHOLE BASE AS SHOWN IN DETAIL D ON STANDARD PLAN SD 4, TYPE D INLET. SEE STANDARD PLANS SD 7 AND SD 8 FOR MANHOLE BASE AND TOP SLAB DETAILS.

7. A PIPE SHALL NOT ENTER THE INLET THROUGH A CORNER. IF PIPE EXCEEDS MAXIMUM DIAMETER ALLOWED OR THE SKEW ANGLE PREAVENTS THE PIPE OPENING FROM BEING MADE IN A SINGLE WALL, CONSTRUCT A TYPE II MANHOLE BASE TO ACCEPT STORM DRAIN LINES.

8. BLOCK OUT PORTION OF CAST-IN-PLACE BASE AS REQUIRED TO PERMIT CONSTRUCTION OF GALLERY TO INSIDE FACE OF BASE, AND FILL IN WHEN GALLERY CONCRETE IS PLACED.

9. IF EDGE DRAINS ARE SPECIFIED BY PUBLIC WORKS DEPARTMENT OR SHOWN ON THE PLANS, SEE STANDARD PLAN SD 10 FOR EDGE DRAIN (ED) DETAILS.

10. SEE STANDARD PLAN SD 9 FOR WEEP-HOLE DRAINAGE DETAILS UNLESS EDGE DRAIN IS SHOWN ON PLANS OR AS SPECIFIED BY PUBLIC WORKS DEPARTMENT. FOR EDGE DRAIN DETAILS, SEE STANDARD PLAN SD 10.

SCALE: NTS

CITY OF ALBANY, CALIFORNIA

STANDARD DETAIL

TYPE "E" INLET - NOTES

APPROVED BY: Ray Chan
DATE: DECEMBER 2015

STD DETAIL No.
SD 5.2
NOTES:

1. ALL MATERIALS, FABRICATION, GALVANIZING, AND SURFACE TREATMENT SHALL BE IN ACCORDANCE WITH SECTION 75 AND 95 OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS.

2. FRAMES AND COVERS SHALL FIT TOGETHER WITHOUT ROCKING.

3. FABRICATOR SHALL SUPPLY FASTENING SCREWS WITH FRAMES.

4. WEIGHTS: TYPE A GRATE FRAME 88 LBS., GRATE 86 LBS.

5. 1/2" X 5 3/4" NELSON-TYPE STUDS MAY BE USED IN LIEU OF 1/2" DIA X 5" 3" ANCHORS.

6. TYPE A, B AND C INLETS HAVE BEEN REPLACED WITH TYPE G, H AND J INLETS RESPECTIVELY. THESE DETAILS ARE TO BE USED FOR REPAIR MAINTENANCE OF EXISTING INLETS, NO NEW CONSTRUCTION.

SCALE: NTS
NOTES:

1. FOR INLET GENERAL NOTES AND DETAILS, SEE STANDARD PLAN SD 9.

2. ALL CONCRETE JOINTS SHALL BE CLEANED WETTED, AND MORTARED PRIOR TO SETTING NEXT SECTION. JOINTS SHALL THEN BE PATCHED, TROWELED, AND BRUSHED SMOOTH.

3. FRAME AND EXTENSION RINGS MUST BE SECURED BY CONCRETE BLOCK, UNLESS APPROVED OTHERWISE BY THE PUBLIC WORKS DEPARTMENT.

4. MANHOLE COVER FRAME SHALL BE ADJUSTED TO CONFORM TO GRADE AND CROSS SLOPE OF PAVEMENT

5. MANHOLE FRAME AND COVER SHALL BE PHOENIX IRON (OAKLAND) MODEL P- 1090 OR SOUTH BAY FOUNDRY NO. 1900 CPH OR APPROVED EQUIVALENT.

6. USE OF PRECAST GRADE RINGS ARE LIMITED BY 18" MAXIMUM MANHOLE THROAT LENGTH. CAST IRON EXTENSION RINGS ARE ALLOWED FOR CONFORMS TO PAVEMENT OVERLAYS ONLY.

7. THE PRECAST COMPONENTS SHALL CONFORM TO THE CENTRAL PRECAST (US CONCRETE PRECAST GROUP NORTHERN CALIFORNIA) DRAWING NOS. 20-48C,2048V AND 20-48 EC, OR EQUIVALENT.
NOTES

1. FOR MANHOLE GENERAL NOTES AND DETAILS, SEE STANDARD PLAN SD 9

2. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN. OTHER LOCATIONS ARE SUBJECT TO APPROVAL BY THE PUBLIC WORKS DEPARTMENT. KEY DIMENSIONS ARE 1 1/2" x 3"

3. FOR DETAILS OF MANHOLE FRAME AND COVER, SEE STANDARD PLAN SD 7. ORIENT FRAME DIRECTLY ABOVE STEPS.
NOTES

1. ALL INLETS SHALL HAVE THE CITY APPROVED "ANTI-POLLUTION" PLASTIC MARKER ATTACHED TO THE INLET AS DIRECTED BY THE INSPECTOR OR RESIDENT ENGINEER. THE MARKER SHALL BE APPLIED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. PCC SURFACES SHALL BE MECHANICALLY CLEANED JUST PRIOR TO ATTACHING THE MARKER AND ADHESIVE MAY BE FURNISHED BY THE PUBLIC WORKS DEPARTMENT, CHECK YOUR PERMIT CONDITIONS OR CONTRACT SPECIAL PROVISIONS.

2. STEPS SHALL BE REINFORCED POLYPROPYLENE PLASTIC, M.A. INDUSTRIES, INC. NO. PS2–PF OR EQUIVALENT. STEPS TO BE CAST IN PLACE OR PRESS FITTED INTO HOLES PER MANUFACTURER. INSTALL STEPS WITH LOWEST RUNG 12" MAXIMUM ABOVE THE FLOOR AND HIGHEST RUNG NOT MORE THAN 6" BELOW TOP INLET. THE SPACING BETWEEN STEPS SHALL NOT EXCEED 16"AND SHALL BE UNIFORM THROUGHOUT THE LENGTH OF THE WALL. NO STEPS REQUIRED WHERE DISTANCE FROM FLOOR OF INLET TO TOP OF GRATE IS 4' OR LESS. SEE "STEP DETAIL".

3. WEEPHOLE ELEVATION VARIES DEPENDING ON THE DEPTH OF THE ADJOINING PAVEMENT SECTION. IT SHALL BE AT, OR SLIGHTLY BELOW, THE PAVEMENT SECTION SUBGRADE ELEVATION WITH A MINIMUM DEPTH OF 18" BELOW THE CURB INLET GRATE ELEVATION. THE SIDE WEEPHOLE DETAIL SHALL BE USED AT ALL "SUMP" LOCATION. EDGE DRAIN STANDARD PLAN (SD 10), OR SIDE WEEP WEEPHOLE DRAINS DETAIL AT OTHER LOCATIONS MAY BE REQUIRED AS SHOWN ON THE CONSTRUCTION PLANS OR BY THE PUBLIC WORKS DEPARTMENT. WHERE THE SIDE WEEPHOLE DETAIL OR EDGE DRAINS ARE NOT REQUIRED, THESE WEEPHOLES SHALL CONFORM TO THE FRONT FACE WEEPHOLE DETAILS SHOWN ON THIS PLAN.

4. 3" EDGE DRAIN PER STANDARD PLAN SD 10 WHEN SHOWN ON THE PLANS OR SPECIFIED BY THE PUBLIC WORKS DEPARTMENT.

5. CONCRETE SHALL CONFORM TO SECTION 90, "CONCRETE", OF CALIFORNIA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS AND THE FOLLOWING.
   A. CONSTRUCTION JOINTS SHOWN ON STANDARD PLANS ARE PERMITTED WHEN TOP PORTION OF INLET IS TO BE CONSTRUCTED MONOLITHICALLY WITH CURB AND SIDEWALK. KEY DIMENSION – 3" x 3"
   B. CONCRETE CONSTRUCTION JOINT SHALL BE LOCATED 12" TO 18" BELOW TOP OF CURB ELEVATION.
   C. CONCRETE ABOVE CONSTRUCTION JOINT SHALL CONTAIN A MINIMUM OF 505 LBS OF CEMENTOUS MATERIAL PER CUBIC YARD, 1" MAXIMUM AGGREGATE GRADING.
   D. CONCRETE BELOW CONSTRUCTION JOINT SHALL CONTAIN A MINIMUM OF 590 LBS OF CEMENTOUS MATERIALS PER CUBIC YARD, 1" MAXIMUM AGGREGATE GRADING.
   E. WHEN INLET IS CONSTRUCTED AS A SINGLE UNIT CONCRETE SHALL COMPLY WITH ITEM D, DESCRIBED ABOVE.

6. UNLESS OTHERWISE NOTED ON STANDARD PLANS ALL CONCRETE SHALL CONTAIN NOT LESS THAN 590 LBS OF CEMENTOUS MATERIAL PER CUBIC YARD, 1" MAXIMUM GRADING IN CONFORMANCE WITH SECTION 90, "CONCRETE" OF CALIFORNIA DEPARTMENT OF TRANSPORTATION's STANDARD SPECIFICATIONS. OVERPAVING CONCRETE SHALL CONTAIN NOT LESS THAN 505 LBS PER CUBIC YARD OF CEMENTOUS MATERIAL, 1" MAXIMUM GRADING, IN CONFORMANCE WITH SAID STANDARD SPECIFICATIONS.

SCALE: NTS
NOTES

1. EDGE DRAINS SHALL BE INSTALLED TO THE LENGTHS (L) AS DIRECTED BY THE PUBLIC WORKS DEPARTMENT OR AS SHOWN ON PROJECT CONSTRUCTION PLANS.

2. PLACE CAP AT THE END WHEN DIMENSION "L" GREATER THAN 250', PLACE CLEANOUT EVERY 250' AND A CLEANOUT AT END OF EDGE DRAIN.

3. EDGE DRAIN PIPE SHALL CONFORM TO SECTION 68, "SUBSURFACE DRAINS, " OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, OR AS APPROVED BY THE PUBLIC WORKS DEPARTMENT.

4. EDGE DRAIN ELEVATION VARIES DEPENDING ON DEPTH OF THE ADJOINING PAVEMENT SECTION. IT SHALL BE AT, OR SLIGHTLY BELOW, THE PAVEMENT SECTION SUBGRADE ELEVATION WITH A MINIMUM

5. RECTANGULAR BOX (10 8" x 17 4") SHALL BE CHIRSTY, MODEL B9 OR EQUIVALENT.

6. NO SINGLE ELBOW SHALL BE INSTALLED WITH A BEND GREATER THAN 45 DEGREES.

7. ALTERNATE DESIGNS: OTHER PROPRIETARY SUBDRAIN PRODUCTS SUCH AS "MULTI-FLOW DRAINAGE SYSTEMS" MAY BE ALLOWED BY THE PUBLIC WORKS DEPARTMENT ON A CASE-BY-CASE BASIS. THESE ALTERNATE EDGE DRAIN SYSTEMS MUST BE PlACED AT THE SAME DEPTHS AS SHOWN ON THIS PLAN WITH ACCESS POINTS FOR FLUSHING LOCATED OUTSIDE ROAD PAVEMENT NO LESS THAN EVERY 250.'
NOTES:
1. CHECK BOARDS TO BE PLACED ON ALL SLOPES GREATER THAN 50% OR WHERE
   REQUIRED BY THE CITY. SEE SS 13.
2. ALL SLOPES 50% OR GREATER SHALL HAVE CLASS 150 C.I. BELL & SPIGOT PIPE.
3. CRUSHED ROCK SHALL COMPLY WITH ALBANY SPECIFICATIONS FOR PUBLIC WORKS
   CONSTRUCTION, PART 2 SEC 200 – 1.2