



ESTABLISHED 1850

# City of Vacaville

## Standard Specifications and Standard Drawings

ADOPTED: September 11, 1990  
with Revisions through March 11, 2008

**CITY OF VACAVILLE  
DEPARTMENT OF PUBLIC WORKS**

**STANDARD SPECIFICATIONS & STANDARD DRAWINGS**

**TABLE OF CONTENTS**

**DESIGN STANDARDS**

<b><u>Section</u></b>	<b><u>Description</u></b>	<b><u>Page No.</u></b>
DS 1	General.....	DS 1-1 to DS 1-3
DS 2	Project Plans; Preparation, Submittal and Processing .....	DS 2-1 to DS 2-8
DS 3	Streets .....	DS 3-1 to DS 3-13
DS 4	Storm Drain .....	DS 4-1 to DS 4-30
DS 5	Potable Water System .....	DS 5-1 to DS 5-8
DS 6	Sanitary Sewer System .....	DS 6-1 to DS 6-15
DS 7	Street Lighting .....	DS 7-1 to DS 7-6
DS 8	Masonry Wall Design .....	DS 8-1
DS 9	Survey Monuments .....	DS 9-1 to DS 9-2
DS 10	Signing, Striping and Pavement Markings .....	DS 10-1 to DS 10-4
DS 11	Grading Plan .....	DS 11-1 to DS 11-7

**CONSTRUCTION STANDARDS**

<b><u>Section</u></b>	<b><u>Description</u></b>	<b><u>Page No.</u></b>
CS 1	General.....	CS 1-1 to CS 1-8
CS 2	Trench Excavation .....	CS 2-1 to CS 2-5
CS 3	Trench Foundation, Bedding and Backfill.....	CS 3-1 to CS 3-5

## CONSTRUCTION STANDARDS (Cont'd)

<u>Section</u>	<u>Description</u>	<u>Page No.</u>
CS 4	Aggregate Base .....	CS 4-1
CS 5	Asphalt Concrete.....	CS 5-1 to CS 5-7
CS 6	Portland Cement Concrete .....	CS 6-1 to CS 6-2
CS 7	Geotextile Fabrics .....	CS 7-1 to CS 7-8
CS 8	Potable Water Systems .....	CS 8-1 to CS 8-12
CS 9	Sanitary Sewer .....	CS 9-1 to CS 9-23
CS 10	Storm Drain.....	CS 10-1 to CS 10-14
CS 11	Existing Utilities .....	CS 11-1
CS 12	Traffic Stripes, Pavement Markings and Pavement Markers .....	CS 12-1 to CS 12-3
CS 13	Street Name and Traffic Signs.....	CS 13-1 to CS 13-2
CS 14	Markers and Delineators .....	CS 14-1
CS 15	Street Lighting .....	CS 15-1 to CS 15-6
CS 16	Slurry Seal.....	CS 16-1 to CS 16-11

## STANDARD DRAWINGS

<u>Drawing No.</u>	<u>Description</u>
2-01	Standard Title Sheet for Private Development Project Plans
3-01	Typical Utility Locations
3-02A	Expanded Corner
3-02B	Expanded Corner Design Stopping Sight Distance Triangle
3-03	Cul De Sac
3-04A	Intersection Stopping Sight Distance (Right Angled Intersection)
3-04B	Intersection Stopping Sight Distance (Skewed Intersection)
3-05	Sight Distance at Private Driveways
3-06	Bus Turnout
3-07	Standard Street Sections
3-08	Standard Street Sections
3-09	Median Curb
3-10	Vertical Curb, Gutter & Sidewalk
3-11	Residential Driveway with Separated Sidewalk and Planter

## STANDARD DRAWINGS (Cont'd)

<u>Drawing No.</u>	<u>Description</u>
3-12A	Residential Low Profile Curb, Gutter & Sidewalk
3-12B	Curb Transition Between Standard Low Profile Curb and Standard Vertical Curb
3-12C	Residential Driveway Retrofit – Type 1 (Adjoining Vertical Curb and Gutter)
3-12D	Residential Driveway Retrofit – Type 2 (Adjoining Vertical Curb and Gutter)
3-12E	Residential Driveway Retrofit – Type 3
3-13A	Commercial Driveway
3-13B	Commercial Driveway Retrofit
3-14	Valley Gutter
3-15A	Accessible Ramp Type A
3-15B	Alternate Accessible Ramp Type “B”
3-15C	Accessible Ramp Corner Installation
3-15D	Detectable Warning Surface
3-16	Traffic Signs
3-17	End of Sidewalk Barricade
3-18	End of Street Barricade
3-19	Access Gate
3-20A	Trench Backfill in Existing Paved Areas
3-20B	Trench Backfill New Paved Areas and Unpaved Areas
3-21	Utility Company Conduit Trench Backfill
3-22	Standard Monument
3-23	Bollard
3-24	Crosswalk & Stop Bar
4-01	Hydraulic Grade Line Location
4-02	Storm Drain Manhole 54” R.C.P. and Smaller
4-03	Storm Drain Manhole for CIPCP and Saddle Manhole
4-04	Standard Slab Top Precast Manhole – Drainage
4-05	Curb Inlet Top
4-06	Curb Inlet Base
4-07	Sidewalk Cross Drain Rectangular Duct
4-08	Sidewalk Cross Drain Round Pipe Drain
4-09	Permanent Ditches
4-10	Storm Drain Inlet Bollards
5-01	Combination Fire and Domestic Water Service
5-02	Thrust Block Bearing Surface Dimensions
5-03	Standard Thrust Block for Horizontal and Downward Force Bends
5-04	Standard Thrust Block for Upward Force Vertical Bends in Water Line
5-05	Standard 1” Water Service
5-06	1½” and 2” Water Service
5-07	Standard 3” Water Service

## STANDARD DRAWINGS (Cont'd)

<u>Drawing No.</u>	<u>Description</u>
5-08	Standard 4" Water Service
5-09	Standard Water Service 6" and 8"
5-10	2" Air Release Valve
5-11	2" Blowoff Valve
5-12	Standard Fire Hydrant Assembly (Public)
5-13	Gate Water Valve Installation
5-14	Butterfly Valve
5-15	Locating Wire Installation
5-16	Tapping Sleeve & Valve 3" thru 8" Service
5-17	Water Main Cut-In Connection Detail
5-18	Reduced Pressure Backflow Preventer Installation 3/4" - 2"
5-19	Double Check Backflow Preventer Installation 3/4" - 2"
5-20	Manifold Assembly Reduced Pressure Backflow Device 3" to 10"
5-21	Reduced Pressure Backflow Preventer Device 3" to 10"
5-22	Double Check and Detector Check Valve Installation 3" to 10"
5-23	Single Detector Check Valve
5-24	Backflow Assembly Cage
5-25	Screening of Backflow Preventor, Detector Check Valve and Manifold Backflow Devices
5-26	Water Quality Sampling Station (Standard Installation Combined with 1" Domestic Service)
5-27	Water Quality Sampling Station (Isolated Service)
5-28	Water Quality Sampling Station Connection (Standard Installation Combined with 1" Domestic Service)
5-29	Separation of Water and Sewer Lines
5-30	Water Line Warning Marker
6-01	Standard Sanitary Sewer Eccentric Manhole (Maximum Sewer Size of 24" Diameter)
6-02	Manhole Frame and Cover
6-03	Allowable Drop in Sanitary Sewer Manhole
6-04	Inside Drop Connection for Sanitary Sewer Manhole
6-05	Standard Sanitary Sewer Lateral
6-06	Standard Sanitary Sewer Lateral Cleanout
6-07	Sanitary Sewer Main Taps
7-01A	Street Light Locations at Four Way Intersection
7-01B	Street Light Locations at Expanded Corners, Tee Intersections and at End of Cul De Sac
7-02A	Cobra Head Mounted Electrolier
7-02B	Decorative Post Top Mounted Electrolier
7-02C	Decorative Tear Drop Mounted Electrolier
7-03	Cobra Head Mounted Electrolier Single and Double Arm Pole
7-04	Electrolier Identification Number
7-05A	Drilled Pier Foundation Closed Tie Option

7-05B Drilled Pier Foundation Spiral Tie Option  
7-05C Drilled Pier Foundation Notes & Schedule  
7-06 Street Lighting Pull Box #3½