

SEPTEMBER, 1997



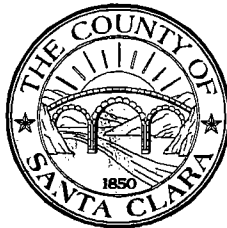
County of Santa Clara
Roads and Airports Department

STANDARD DETAILS MANUAL

SEPTEMBER, 1997

ISSUED BY

**ROADS AND AIRPORTS DEPARTMENT
COUNTY OF SANTA CLARA**



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9/30/97

County of Santa Clara

Roads and Airports Department



101 Skyport Drive
San Jose, California 95110-1302

September 30, 1997

FOREWORD

This September 1997 edition of the Santa Clara County Roads & Airports Department Standard Details Manual contains new and revised standard details. These standard details set forth minimum requirements for roadway improvements under the jurisdiction of the Santa Clara County Roads & Airports Department. They do not negate the use of higher standards if approved by the Road Commissioner. Metric values using the International System of Units (SI) are provided in addition to the U.S. Customary Units (English). The U.S. Customary Units are for reference use only during this transitional period and will be eliminated after a year or the next revision, whichever is later. Symbols for metric units are consistent with those used by Caltrans and are defined in Caltrans State Standard Plan No. A10A "Abbreviations", July 1995 edition.

On December 17, 1996, the Santa Clara County Board of Supervisors authorized the Road Commissioner to update the Standard Details Manual on an as-needed basis.

Sincerely,

A handwritten signature in black ink that reads "Rollo Parsons". The signature is written in a cursive style.

Rollo Parsons
Road Commissioner

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NOTES

A. GENERAL

1. The metric units as indicated shall be used. The US customary units are provided for reference purpose only.
2. All work performed within County-maintained right of way shall be in accordance with the latest edition of the County Standard Specifications and these County Standard Details.
3. The latest edition of the State of California Department of Transportation (Caltrans) Standard Plans is to supplement the Standard Details Manual. The Standard Details Manual shall govern over the State Standard Plans.
4. Work performed within county maintained right-of-way or right-of-way to be county maintained shall require an encroachment permit issued by the Santa Clara County Roads & Airports Department. For additional information, call 408-299-2198.
5. The current Santa Clara County's San Martin Intergrated Design Plan and Countywide Trails Master Plan manuals shall be referred to for design guidelines of roads within the limits of these special areas as defined in the said manuals. The standards to be used for design of roadways and improvements within road right-of-ways which are maintained or to be maintained by the Roads & Airports Department shall require approval of the Road Commissioner.
6. The latest edition of the Local Program Procedures LPP-02, Design Standards for Non National Highway System (Non-NHS) Projects, published by the State of California, Department of Transportation, Office of Local Program shall apply except as modified by the Ordinance Codes of the County of Santa Clara, the Standards and Policies Manual of the Environmental Management/General Services Agency, and the Engineering Policies & Procedures of the Santa Clara Valley Water District. Exceptions to the Design Standards for Non-NHS Projects will require justification for approval by the Road Commissioner. The specific minimum criteria contained in the Design Standards for Non-NHS Projects (Controlling Criteria) for highway projects are considered of primary importance for safety.
7. Storm water pollution prevention (SWPP) plans shall comply with the Clean Water Act for construction activities. The latest edition of the California Storm Water Best Management Practice Handbook and the Association of Bay Area Governments (ABAG) Manual of Standards for Erosion & Sediment Control Measures shall be used for the preparation of SWPP plans.
8. For details on bus stop facilities, see "Bus Stop Facilities Standards" published by the Santa Clara Valley Transportation Authority (VTA).
9. The Road Commissioner is the Director of Roads and Airports Department of Santa Clara County or the representative of the Director.
10. As-built drawings for work performed under a county encroachment permit shall be furnished to the County prior to work acceptance or permit sign-off by the County. As-built drawings shall be on reproducible mylar stamped and signed by a registered civil engineer and shall be provided along with a copy of the diskette containing the as-built files in Autocad Version 12.

B. ROAD CROSS SECTIONS

1. Unless specified otherwise, the aggregate for the surface course shall conform to the grading for 12.5 mm (1/2 in.) maximum as specified in the State Standard Specifications, Section 39 "Asphalt Concrete", under the column "Contract Compliance". Where the structural section calls for 100 mm (4 in.) AC total thickness, the surface course shall be 38 mm (1-1/2 in.) thick. The aggregate for the 64 mm (2-1/2 in.) base course shall conform to 19 mm (3/4 in.) maximum as specified in the State Standard Specifications, Section 39 "Asphalt Concrete", under the

column "Contract Compliance". Where the structural section calls for 64 mm (2-1/2 in.) AC total thickness, the surface course and base courses may be combined into one lift. The gradation of the aggregate shall conform to the gradation of the surface course. In the case of roadway resurfacing, the minimum thickness of the layer shall be 38 mm (1-1/2 in.) and the aggregate shall conform to the grading for 12.5 mm (1/2 in.).

2. Class 1 aggregate subbase may be substituted for Class 3 aggregate base.
3. Erosion control plantings and facilities on cut and fill slopes shall be included on the project plans or as required by the Road Commissioner.
4. Roadway drainage provisions shall be included on the project plans or as required by the Road Commissioner.
5. Slope easements shall be provided where necessary for cuts and fills extending beyond the right-of-way line.

C. ROADWAY CLASSIFICATION

The following are Santa Clara County roadway classifications:

Arterial - The part of the roadway system that serves as the principal network for through traffic flow. The routes connect areas of principal traffic generation and important rural highways entering the city. An expressway is a divided major arterial highway for through traffic with full or partial control of access and generally with interchanges at major crossroads. Expressways for non-commercial traffic within parks and parklike areas are generally known as parkways. All existing arterials are listed in the Official County Road Book.

Collector - The distributor and collector roadways serving traffic between major and local roadways. These are roadways used mainly for traffic movements within residential, commercial, and industrial areas. All existing collectors are listed in the Official County Road Book.

Minor - Roadways used primarily for direct access to residential, commercial, industrial areas or other abutting properties. They do not include roadways carrying through traffic. Long minor streets will generally be divided into short sections by collector roadway systems. All minor streets are listed in the Official County Road Book.

D. STORM WATER INLET

1. It shall be the responsibility of the Contractor to frame in place remainder of inlet box monolithically with the curb and gutter.
2. All fabricated steel shall be galvanized in accordance with Section 75-1.05 "Galvanizing" of the State Standard Specifications.
3. All concrete shall be Class A unless specified otherwise.

E. METRIC CONVERSION

The table on the next page is provided for reference. It lists the common conversion factors between the U.S. Customary Units and the SI Units. When multiplying the inch pound values by these factors and the resulting metric values are shown to the correct number of digits, the conversion is referred to as soft conversion. If the resulting metric values are then rationally converted to round numbers, the conversion is called as hard conversion.

Depending upon the type of improvements, the equivalent metric dimensions are specified in the following Details using either the soft or hard conversion from the corresponding inch pound values.

TABLE OF COMMON CONVERSION FACTORS TO METRIC

CLASS	MULTIPLY	BY	TO OBTAIN
AREA *	ft ²	0.0929	m ²
	yd ²	0.8361	m ²
	mi ²	2.590	km ²
LENGTH *	in	25.4	mm
	ft	0.3048	m
	yd	0.9144	m
	mi	1.6093	km
VOLUME	ft ³	0.0283	m ³
	yd ³	0.7646	m ³
	fl oz	29.574	mL **
	gal	3.785	L **
	acre-ft	1233.49	m ³
MASS	oz	28.35	g
	lb	0.4536	kg
	kip (1,000 lb)	0.4536	tonne(1000 kg)
	short ton (2,000 lb)	907.2	kg
	short ton	0.9072	tonne(1000 kg)
DENSITY	lb/yd ³	0.5933	kg/m ³
	lb/ft ³	16.0185	kg/m ³
PRESSURE	psi	6894.8	Pa
	ksi	6.8948	MPa (N/mm ²)
	lb _f /ft ²	47.88	Pa
VELOCITY	ft/s	0.3048	m/s
	mph	0.4470	m/s
	mph	1.6093	km/h
LIGHT	footcandle or lumen/ft ²	10.764	lux (lx) or lumen/m ²
TEMPERATURE	°F	$t_{°C} = (t_{°F} - 32)/1.8$	°C

Notes: * For land surveying, see Land Surveying Conversion Factors table.
 ** Use capital "L" for liter to eliminate confusion with the numeral "1".

