

## **SECTION IV**

### **STREETS**

#### **IV-1. DESIGN GUIDELINES**

The Circulation Element of the General Plan establishes certain key City streets as Arterials. These streets are identified further as four-lane divided, two-lane divided and two-lane undivided arterials. Streets not designated arterial are established as Local. Their specifications may vary depending on their need for bike lanes and/or parking, location within specific plans, rural areas and/or hillside terrain.

Typical right-of-way widths are established in these Standard Details and Specifications. Variations to these standards may occur due to topography, or other constraints. These variations will be considered on a case by case basis.

##### **A. Classes of Streets**

Arterial Streets may be designed with either two or four lanes. Typical designs include landscape medians, separate lanes for turning movements, Class II bike lanes, and pedestrian paths separated by landscaped parkways. **Standard Details A-1 through A-3** provide examples.

Local streets provide direct access to all parcels in the City. **Standard Details No. A-4 through A-6** apply. Local street standards may be modified by specific plans where topography or other constraints warrant alternative designs.

##### **B. Geometrics and Profiles**

Where feasible, the minimum grade on new streets shall be one percent (1%). Portions of streets may be designed with a minimum grade of 0.50 percent where topographic constraints warrant.

Local streets may be designed with a maximum grade of up to 15 percent. The maximum grade on new arterial streets should be limited to eight percent (8%) subject to topographic constraints.

Vertical curves shall be designed in accordance with design speed and grade difference criteria as outlined in "A Policy on Geometric Design Of Urban Highways", published by the American Association of State Highway and Traffic Officials, latest edition (**See Standard Details B-1 and B-2**). For visibility and safety minimum design speeds shall be 35 miles per hour for arterial streets and 25 mph for local streets.

Traffic calming features are encouraged in the design of all new streets.

When two streets intersect, neither street shall have a grade greater than three percent (3%) for a minimum distance of 20 feet measured from the curb line of the intersected street. **Standard Detail B-3** provides profile information for use in hillside terrain.

Curb return radii may vary from 10 to 30 feet depending upon the width of the streets being accessed. Smaller radii are preferred; however, accommodations must be made for emergency services (and other large vehicles depending upon projected land uses).

### **C. Survey Monuments**

Survey monuments shall be shown on the plans in accordance with the final subdivision map and **Standard Detail C-14**. Street monuments shall be set at all street centerline intersections and on centerline at the beginning and end of all curves. Existing survey monuments shall be preserved and reset in accordance with **Standard Detail C-14** if necessary.

## **IV-2. MATERIALS**

All materials furnished and the methods of performing any proposed work shall be in conformance to the applicable portions of these Standard Details and Specifications and Caltrans Standard Specifications.

### **A. Asphalt Concrete**

Asphalt Concrete shall conform to the requirements for Type B Asphalt Concrete as specified in Section 39 of Caltrans Standard Specifications utilizing the 3/4 inch maximum aggregate.

### **B. Aggregate Base**

Aggregate base shall be Class II and shall conform to the requirements of Section 26 of Caltrans Standard Specifications.

### **C. Concrete**

All structures and surfaces subject to vehicle loads shall be shall be constructed with Class A Portland Concrete Cement (PCC), 6 sack, 3/4 inch crushed aggregate, 3,000 psi. Curbs and sidewalks may be constructed with Class B PCC, 5 sack, 2,500 psi. See standard details for specifications.

Expansion joints shall be placed with 1/2 inch material at 20-foot intervals in curbs and sidewalks, at the ends of all returns and transitions, storm drain inlets and driveways.

## **D. Street Lights**

All street light poles, lamps, wiring and circuits shall be installed, owned and operated by P. G. and E. Street light styles must be chosen from a catalog and supplier approved by P. G. and E. Proposed street light styles must be included in all entitlement applications where street improvements will be required. The proposed street light style must be approved by the Planning Commission prior to improvement plan approval.

### **IV-3. CONSTRUCTION GUIDELINES**

Unless otherwise modified in the following or approved by the Engineer, the roadbed shall be prepared and constructed in accordance with the applicable portions of Caltrans Standard Specifications.

#### **A. Pavement Structure Section**

The design of street structural sections shall be determined by Resistance ("R") Value testing of sub-grade and traffic indexes as outlined and updated in the Pavement Management Program adopted by the City Council in 2013. Traffic indexes shall be 8.0 for three and four lane arterial streets and streets subject to heavy truck traffic (industrial areas); 7.0 for two lane arterial streets and 6.0 for all other streets.

Relative compaction tests shall be made on sub-grade, base and asphalt material placed within streets as directed by the supervising Geotechnical Engineer.

### **IV-4 STREETS EXEMPT FROM IMPROVEMENTS, CODE SECTION 11.12.030**

With the adoption of these Standard Details and Specifications, the City Council has waived the requirements for street frontage improvements associated with building permits per Code Section 11.12.030. In lieu fees for construction of sidewalks apply in accordance with the Code.

**Orchard Bungalow** (with the exception of Shannon Hill Drive, Walnut Drive from Creston Road to Shannon Hill Drive, Tanner Drive and Palm Court)

**Hilltop Drive** - exemption applies to sidewalk only

**Olive Street** between 21<sup>st</sup> and 24 Streets – exemption applies to sidewalk only

**Tract 37 (Ridgeview Drive and Court, Greenwood Drive)** – exemption does not apply to frontages on 12<sup>th</sup> Street and Fresno Street

**Tract 95 (Glen Court Drive, Highland Park Drive and Piedmont Place)**

**Tract 103 (Glencrest Lane, Crestline Drive, Vista Court, Fairview Lane, Sunset Drive and Panorama Drive)**

**Tract 147 (Par Avenue, Country Club Drive, Niblick Road, Creston Road, Bogie Lane, Birdie Court, Fairway Drive, Eagle Court, Putter Avenue, Tee Court) – exemption applies to sidewalk only**

**Tract 1215 (21<sup>st</sup> Street, Almond Springs Drive, Burket Place, Almond Crest Court) – exemption applies to sidewalks only**

**Tract 1243 (Villa Drive)**

**Tract 1350 (28<sup>th</sup> Street) – exemption applies to sidewalk only**

**Tract 2521 (21<sup>st</sup> Street, Country View Lane) - exemption applies to sidewalk only**

**Experimental Station Road east of Buena Vista Drive (with the exception of Tentative Tract 2504)**