

SECTION 3

PLAN SHEET REQUIREMENTS

- 3-1 PAPER DETAILS - All improvement plans shall be prepared on plan and profile sheets 24" x 36" sheets, special professional engineer's sheets may be accepted by the County. Scales: Horizontal 1" = 20', 40', or 50'; Vertical 1" = 2', 4', or 5', but only the scale, horizontal or vertical, for which the sheet was intended shall be used.
- 3-2 DRAFTING STANDARDS - All plans approved by the County may be microfilmed. Therefore, certain drafting standards have become necessary to produce legible film and subsequent prints. All line work shall be clear, sharp and heavy. Letters and numerals shall be 1/8 inch minimum height, well formed and sharp. Numerals showing profile elevations shall not be bisected by station grid lines. Dimension lines shall be terminated by sharp solid arrowheads.
- 3-3 TITLE SHEET - On subdivision or improvement plans exceeding three sheets in a set, a title sheet shall be prepared showing the following:
- A. The entire subdivision or parcel and project*
 - B. Assessment district limits
 - C. City limits
 - D. Street names and widths
 - E. Section lines, grant lines and corners
 - F. Adjacent subdivision, including names, lot lines and lot numbers
 - G. Property lines
 - H. Public easements
 - I. Location map*
 - J. Scale of drawings
 - K. Index of sheets*
 - L. Legend of symbols
 - M. Signature block situated at the lower right hand corner of the sheet*
 - N. AC, AB, ASB quantities
 - O. California Coordinate System grid numbers in the upper right hand corner

*Shall be shown on the front sheet of encroachment plans and plans consisting of three or less sheets.

Improvement plans consisting of three or less sheets and encroachment plans shall not be required to provide a title sheet but shall be required to show all of the above in the plans.

- 3-4 TITLE BLOCK - Each sheet within the set of drawings shall have an approved title block showing the sheet title, number, date, scale and the Professional Engineer's name, signature, license number and expiration date; the name of the County maintenance, water agency or sanitation district, when applicable; and the name of the subdivision or assessment district. Samples may be obtained from the Department of Public Works.
- 3-5 DRAINAGE, SEWER, WATER AND GRADING LAYOUT - On all subdivision plans, the storm drainage, sanitary sewer and domestic water systems shall be shown on an overall plan layout at 1" = 100' scale. In addition, the storm drainage and sanitary sewer and water systems shall be shown on the street plans. Separate grading plans with storm drainage system will be required for all subdivisions. On all other plans, an overall plan layout will not be required, but the above facilities shall be shown within the development and on the street plans.

All plans showing the domestic water systems shall include signature blocks and be approved by the responsible water and fire districts and for encroachment approval by the Director. The signature block shall be situated near the lower right hand corner of the first sheet of the water plans.

Where wells are included as a part of the water system, the layout of the well site shall be drawn to a scale no smaller than 1 inch equals 5 feet, with the layout covering an area at least 50 feet in all directions from the well location.

- 3-6 PLAN DETAILS - In addition to the other requirements of these Design Standards, the following details shall be shown on plans submitted for approval. This does not in any way exempt the Professional Engineer preparing plans from the responsibility of preparing neat, accurate and comprehensive plans in keeping with the standards of the profession.
- A. Right-of-Way - Right-of-way lines, the boundaries of lots fronting on the street, drainage easements, utility easements, planting easements, section lines and corners, land grant lines and temporary construction easements, both existing and proposed, shall be shown on the plans. All right-of-way and easement lines shall be properly dimensioned.
 - B. Topography - All pertinent topographic features shall be shown, such as street lines, medians, driveways (on both sides of the street when within

40 feet of the median ending), curbs, sidewalks, shoulders, location and size of storm and sanitary sewer lines, high water and frequent inundation levels, water lines, gas lines, telephone conduits, other underground utilities, existing structures, houses, trees (9" and larger) and other foliage, traffic signals, street lights and pullboxes, underground electrical conduits, drainage ditches, utility poles, fire hydrants, retaining walls, masonry structures, and all other features of the area which may affect the design. When potential utility conflicts exist, "as-built" elevations of the utilities shall be verified by the Professional Engineer. For existing structural sections, the grade of the cross slope on the road and 20 feet into the property at driveways shall be shown.

- C. Contours and Elevations - Existing contours or supporting elevations shall be shown on all plans submitted for subdivision, commercial improvements, or planned unit developments and shall extend a minimum of 100 feet outside the project boundary.
- D. Profiles - The plans shall show the existing profile of all roadway centerline, edges of pavement, curb and gutter flow lines, drainage ditches, storm and sanitary sewers. All profiles of proposed improvements shall state centerline elevations at 50 foot intervals and rate of grades, vertical curves and other vertical alignment data. When curb and gutters are designed for reconstructed county roads, elevations shall be shown at the edge of the outside traveled way, or if the road has a full paved section, shall also be shown two feet from the proposed lip of gutter. Any warped surface and vertical curve shall set elevations at 25 foot intervals.
- E. The plans shall show the existing ground profile for a minimum distance of 200 feet beyond temporary street endings to facilitate setting proper vertical alignment within the proposed improvements limits. The 200 foot minimum shall be increased when requested by the Director.
- F. Stationing and Orientation - The stationing on plan and profile shall read from left to right. Stationing shall increase from south to north or from west to east. Plans shall be arranged with the north arrow pointing toward the top or upper 180 degrees, insofar as practical.
- G. Bench Marks - The bench marks and datum shall be clearly delineated on the plans, both as to location description and elevations. The datum shall be 1983 North American Datum (NAD 83) and 1988 North American Vertical Datum (NAVD 88) (U.S.G.S or U.S.C&G.S.). Professional

Engineers shall contact the County for location and elevation of the nearest official bench mark.

- H. California Coordinates System - The Director may require that the proposed improvements be tied into the California Coordinates System if monumented coordinate points are available within a reasonable distance (200 feet or less) of said improvements as determined by the Director.
 - I. Typical Sections - A typical section for each type of facility within the improvement, setting out the structural features, shall be a part of the plans.
 - J. Cross Sections - Cross sections shall be included in the plans, where determined necessary by the Director. When in limited areas, unusual topographic features or special conditions occur which would affect the work, individual cross sections may be shown on the pertinent plan sheet.
 - K. Special Notes - Special notes shall be clearly indicated, and it shall be conspicuously noted on the plans for all construction work and installations shall conform to the Caltrans Standard Specifications and all work is subject to the approval of the Director. Notes shall contain a statement regarding obtaining encroachment permits from other agencies when applicable.
- 3-7 REQUIRED NOTES - A list of County required notes shall be obtained from the Department of Public Works and shall be included on the original mylars for all development plans submitted to the County for approval.