SECTION II

PREPARATION OF PLANS

II-1. GENERAL

Complete plans and specifications for all proposed streets, drainage facilities, sanitary sewers, water distribution systems and landscaping in public right-of-ways, shall be submitted to the City Engineer for approval.

The City's approval of any plans and specifications does not constitute approval of any feature of the plans that are contrary to, in conflict with or do not conform to any Federal or State law, City Ordinance or Resolution, or generally accepted engineering practice, in keeping with the standards of the profession, even though such errors, omissions or conflicts may have been overlooked in the review of the plans.

II-2. DESIGN ALTERNATIVES

Design alternatives will be considered by the City Engineer where the proposed alternate provides the same level of service, approximately the same estimated maintenance costs, and is not adverse to public health, safety and welfare.

II-3. TITLE SHEET AND PLAN PREPARTION

Title Sheet - A title sheet is required on all sets of improvement plans greater than four (4) sheets. The title sheet should include a key map of the entire project area; an index of sheets; the preparer's company name, professional registration stamp and signature; project identification (tract, parcel map, planned development number); vicinity map; and the blocks for the necessary approval of the City Engineer, Water Division, Wastewater Division and Emergency Services.

Sheet Size and Scale - Plans shall be prepared on 4 MIL Mylar. Sheets shall be 24 inches by 36 inches (24"" x 36") standard plan and profile. Desirable scales are 1" = 40' or 1" = 20 feet.

Vertical and Horizontal Control - Vertical datum reference shall be based on NAVD '88 using at least one permanent benchmark listed in the City of Paso Robles Benchmark System, or published by the National Geodetic Survey (NGS). A local temporary benchmark (TBM) should be established at the project site using the same basis of elevation as the permanent benchmark. Plans shall provide an accurate description and elevation of both permanent and temporary benchmarks referenced. Horizontal control shall be registered to the California State Plane – Zone 5 NAD 83 projected coordinate system.

Right-Of-Way - Right-of-way lines, the boundaries of lots fronting on the right-of-way lines, and all easements shall be accurately drawn and dimensioned.

Stationing and Orientation - The stationing on plan and profile sheets should read from left to right. When a previously designed project within or immediately adjacent to the new project is used as basis of design, plans should use the same stationing of the previous plan or provide an equation to said previous stationing. As practical, the plans should be arranged so that the north arrow is either pointed toward the top or to the right edge of the sheet. Lettering and dimensions should typically be read from the bottom or right margins.

Existing Features - All pertinent topographic features which may affect the design, construction, and operation of the improvement shall be shown on the plans including but not limited to the following: existing curbs, sidewalks, paving edges, utility structures, vaults, poles, underground utility lines, buildings, fences, trees and all other features on or adjacent to the project.

II-4. GRADING PLANS

Grading plans shall typically include the following:

Existing topography including property boundaries, easements, paving edges, curbs, utility poles, vaults, and boxes, buildings, trees, and the boundaries of any 100-year floodplain. The topography shall extend onto surrounding properties. In accordance with the City's oak tree ordinance, the exact location, trunk diameter (4 inches or larger), drip line and critical root zone of all Oak trees must be accurately identified.

Cross-sections between the property subject to development and adjoining properties.

Pad elevations, street elevations, typical lot grading sections and typical cross-sections between subdivision lots.

Volumes of earthwork including cubic yards of cut, fill, over-excavation and backfill, export and import.

II-5. COMPOSITE UTILITY PLAN

When required by the City Engineer a composite utility plan must be prepared and signed by a representative of each utility company providing power, gas, phone, cable television and internet service. The plan shall show comprehensively all utilities noted above along with water and sewer lines, fire hydrants, street lights, utility vaults, splice boxes and points of service to each subdivision lot.

II-6. STREET IMPROVEMENT PLANS

Street improvement plans shall include the following:

Dedicated right-of-ways, existing and proposed centerline profile, vertical curve data, and curb profiles where they vary from centerline information.

Street dimensions and typical street cross sections including curb, gutter and sidewalk in relation to construction centerline.

Plan view should include all curbs, gutters, cross-gutters and catch basins. The beginning and ends of horizontal curves shall be noted and stationed. Limits of paving shall be clearly indicated. Locations of existing and proposed survey monuments, street name signs, traffic signs and street lights shall be noted.

II-7. UNDERGROUND SEWER, WATER AND STORM DRAIN PLANS

Sewer, water and storm drain designs shall typically be combined on underground utility sheets separate from street improvement design sheets. Underground utility sheets shall include:

Profiles and design grades of sanitary sewer mains, water mains and appurtenances, storm drains and catch basins.

Water distribution plans shall indentify the locations of all services, gate valves, air vacuum release valves, blow-offs and fire hydrants.

Sanitary sewer plans shall indentify the locations of all laterals, manholes and clean-outs.

Plans for storm drains shall include locations of all catch basins, collection devices and manholes. Hydraulic grade-line profiles shall be provided where required by the City Engineer.

II-8. EROSION CONTROL PLANS

Where required, plan sets for public works construction shall include erosion control plans and specification. These plans and specifications shall reference the Storm Water Pollution Prevention Plan and Water Board Enrollment Identification Number.

II-9. RECORD DRAWINGS

During the progress of construction the design engineer shall maintain a record of all significant deviations from the approved plans. Prior to acceptance of the work by the City, the design engineer will provide one copy set of the improvement plans with all record changes noted for approval by the City Engineer. Upon approval of the draft Record Drawing set, the design engineer shall provide to the City Engineer a signed and stamped full size set of Record Drawings on Mylar, an electronic AutoCAD drawing file, and an Acrobat PDF file.

II-10. LANDSCAPE PLANS

Plans for landscaping of all medians, parkways, detention basins, open spaces, or other areas to be maintained by the City, or the Landscape and Lighting District, shall be prepared by a Landscape Architect and shall be submitted as part of the improvement plan set to the City Engineer.