

CITY OF PORTERVILLE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

IMPROVEMENT PLANS CHECKLIST

Subdivision: \_\_\_\_\_ Date: \_\_\_\_\_

Owner: \_\_\_\_\_ Checked By: \_\_\_\_\_

Engineer: \_\_\_\_\_

OK  
 Needs Correction  
 No Requirement  
 Needs Clarification  
 Submittal Required

A. DOCUMENTS REQUIRED;

- \_\_\_\_\_ Engineer's estimate for cost of improvements.
- \_\_\_\_\_ Soils report (R-value and percolation data, where applicable).
- \_\_\_\_\_ Calculations for structural section of street pavement
- \_\_\_\_\_ Calculations for design of gutters, storm drains and drainage reservoirs.
- \_\_\_\_\_ Calculations for design of lift stations (sewer or drainage).
- \_\_\_\_\_ Calculations for the design of size of water mains.
- \_\_\_\_\_ Design calculation for retaining walls.
- \_\_\_\_\_ Calculations for design of size of sewer mains.

B. DESIGN AND CONSTRUCTION STANDARDS:

STREETS

- \_\_\_\_\_ Specifications for materials and construction methods.
- \_\_\_\_\_ Width based on street classification and/or conditions.
- \_\_\_\_\_ Name of streets and lot numbers conform with subdivision map.
- \_\_\_\_\_ Minimum and maximum slopes of streets.
- \_\_\_\_\_ Minimum and maximum cross slopes of streets.
- \_\_\_\_\_ Minimum slope of curb and gutter. Elevations conform with slopes as shown.
- \_\_\_\_\_ Structural street sections as drawn conform with design calculations.
- \_\_\_\_\_ Emergency access road designed properly.
- \_\_\_\_\_ Deadend streets adequately designed and barricaded.
- \_\_\_\_\_ New pavement must meet grade of existing pavement properly.
- \_\_\_\_\_ Centerlines of streets offset at least 150 feet from existing street if continuation is impractical.
- \_\_\_\_\_ Street intersections at right angle and no less than 60 degrees.
- \_\_\_\_\_ Minimum curb return radius; residential = 20 feet, commercial area, arterial or collector streets = 20 feet.

- \_\_\_\_\_ Cul-de-sac's – length must not exceed 600 feet.
- \_\_\_\_\_ Street center line radius; arterial streets must not be less than 600 feet, other streets not less than 200 feet.
- \_\_\_\_\_ Frontage street required if lots on any major arterial street, expressway or freeway are allowed ingress to and egress from such lots.

#### SEWER SYSTEM

- \_\_\_\_\_ Specifications for materials and construction methods.
- \_\_\_\_\_ Complete drawing and specifications of sewage lift station.
- \_\_\_\_\_ Size and slope of sewer mains conform with design calculations and slope complies with minimum slopes for pipe size.
- \_\_\_\_\_ Type of material to be used for sewer pipes.
- \_\_\_\_\_ Slope of sewer mains conforms with elevations shown.
- \_\_\_\_\_ Minimum cover of 32 inches for sewer mains is provided.
- \_\_\_\_\_ Maximum spanning of manholes is 550 feet.

#### WATER SYSTEM

- \_\_\_\_\_ Specifications for materials and construction methods.
- \_\_\_\_\_ Size of water mains to provide minimum fire flow of 1000 g.p.m. @ 20 p.s.i. min. residual pressure.
- \_\_\_\_\_ Type of material to be used for water pipe.
- \_\_\_\_\_ Spacing and proper location of water valves.
- \_\_\_\_\_ Maximum spacing and proper location of fire hydrants. (Residential – 500 feet; multiple residential – 450 feet; commercial/industrial – 300 feet) or per Tentative Subdivision Map.
- \_\_\_\_\_ Minimum cover of 32 inches for water mains is provided.
- \_\_\_\_\_ Minimum horizontal separation of 12 feet between water mains and sewer mains and vertical separation of 12 inches is provided.
- \_\_\_\_\_ Blow off assembly at deadends of water mains.

#### DRAINAGE SYSTEM

- \_\_\_\_\_ Specifications for materials and construction methods.
- \_\_\_\_\_ Grading plan of lots showing existing and finished grade elevations throughout and especially along perimeter of subdivision.
- \_\_\_\_\_ Drain inlets located so that depth of flow in gutters does not exceed 0.4 foot (4.8 inches).
- \_\_\_\_\_ Size and slope of storm drain based on design calculations.
- \_\_\_\_\_ Minimum cover of 32 inches for storm water pipe.
- \_\_\_\_\_ Type of material to be used for storm drain pipe.
- \_\_\_\_\_ Capacity of drainage reservoir base on design calculations.
- \_\_\_\_\_ Complete drawing and specification of storm water lift station.
- \_\_\_\_\_ Cross section of retaining walls conform with design specifications.
- \_\_\_\_\_ Project meets "Storm Water Management Plan" guidelines.

#### MISC.

- \_\_\_\_\_ Specifications for materials and construction methods.
- \_\_\_\_\_ Easements needed for sewer, water and storm drain pipes.
- \_\_\_\_\_ Location and intensity of street lights.
- \_\_\_\_\_ Railroad crossings, access allowed with improvements to be made.
- \_\_\_\_\_ North Arrow, scale, signature of engineer, title of drawing, sheet numbers, and legibility.
- \_\_\_\_\_ Benchmark used must be USGS NAVD88.

C. DESIGN BASED ON MASTER PLANS:

- \_\_\_\_\_ Verify that sewer pipes are sized according to Sewer Master Plan.
- \_\_\_\_\_ Verify that storm drain pipes are sized according to Storm Drain Master Plan.
- \_\_\_\_\_ Verify that water pipes are sized according to Water Master Plan.
- \_\_\_\_\_ Identify oversized facilities that need City's reimbursement for extra costs.

D. OTHER REQUIREMENTS:

- \_\_\_\_\_ 1. Permit/application for the abandonment of wells, septic tanks, house demolition, etc.
- \_\_\_\_\_ 2. Approval of other agency required.
- \_\_\_\_\_ 3. \_\_\_\_\_
- \_\_\_\_\_ 4. \_\_\_\_\_
- \_\_\_\_\_ 5. \_\_\_\_\_
- \_\_\_\_\_ 6. \_\_\_\_\_
- \_\_\_\_\_ 7. \_\_\_\_\_
- \_\_\_\_\_ 8. \_\_\_\_\_
- \_\_\_\_\_ 9. \_\_\_\_\_
- \_\_\_\_\_ 10. \_\_\_\_\_

