City of Glendora
ENGINEERING DIVISION

WATER PLAN
SUBMITTAL CHECKLIST

WATER PLAN PREPARATION GUIDELINES

Items listed below are typically required on a Water Improvement Plan and may not be comprehensive for all projects. The Engineer / Designer shall evaluate the project and consult with the Water Division to determine any additional requirements.

Two complete sets of plans are required, *including but not limited to the following:*

I. General Items

1._____ For new construction, review Planning Department conditions of approval for specific requirements affecting the water system design.
2._____ Provide Engineer's Construction Estimate for review and approval with first submittal. Estimate shall include all Labor and Material cost.
3._____ Provide LACFD requirements and Map indicating new hydrant placements, if required. Verify LACFD requirements are met with plan design. Submittal shall be made separately to Water Division. Submittals to Building Division do not satisfy this requirement.
4._____ Check Street, Grading and other utility plans for conflicts with Water Improvements.
5._____ Consult with Water Division to verify proposed improvements are consistent with Master Plan or subsequent system planning.

II. Title Sheet (the following should be included on the Title Sheet)

1._____ Standard Title Block (see SD&S 6.01 – Type II)
2._____ Plan number in Title Block (City projects only)
3._____ Area and or Vicinity Map
4._____ Scale
5._____ Standard Notes for Water Construction (see SD&S 2.00)
6._____ Construction notes (numbered and referenced on plan)
7._____ Sheet Index
8._____ Legend of symbols and abbreviations
9._____ Bench mark information
10._____ Name/Address/Phone Number of Developer
11._____ Name/Address/Phone Number of Civil Engineer preparing plan
12._____ Civil Engineer's seal and signature
13._____ Detail Cross Reference to Sheets
14._____ Underground alert notice
15._____ Engineer Notice per SD&S 6.02 (not required on City plans)
16._____ Contractor Notice per SD&S 6.02
17._____ Soils Engineers' statement and signature / date per Appendix A (if required)
18._____ Pressure zone

III. **Plan Sheet** (the following should be included on Plan Sheets)

1. _____ Sheet layout with North to the top or left of page, unless approved by City Engineer.
2. _____ Street names, horizontally aligned along the street
3. _____ Stationing to conform to stationing on any existing plans on file.
4. _____ Identical stationing on consecutive sheets.
5. _____ Stationing of all street centerlines.
6. _____ Pipeline stationing along and perpendicular to street centerline.
7. _____ Stations at beginning and at end of improvements, Tee's, Bends (vertical and horizontal), Services and Main Line valves (except where connected to Tee or Bend).
8. _____ Sewer mains and laterals, indicate depths.
9. _____ Existing and proposed easements. Drawn accurately.
10. _____ City/County Jurisdictional Boundary lines. Drawn accurately.
11. _____ Existing pipelines, irrigation lines, sewer laterals, structures, power poles, or trees, etc. immediately adjacent to right-of-way or work area shown.
12. _____ All existing and proposed utilities labeled and dimensioned.
13. _____ Proposed and future right-of-way and improvement widths conform to street improvement plan
14. _____ Lot lines, frontage distances and lot numbers same as record map. Property and Map Boundary lines labeled.
15. _____ Existing improvements shown with dashed lines and proposed improvements shown with solid lines.
16. _____ All drawing references noted on plan.
17. _____ Show details of all improvements if not using City standard and obtain City Engineer approval. For all standard improvements, show standard drawing number. Check standard drawings for those dimensions to be shown on plans.
18. _____ Existing and proposed fire hydrants. Proposed hydrant locations comply with LACFD requirements.
19. _____ Construction notes shown and numbers checked against indicated improvements.
20. _____ All fittings should be labeled for both size and end connection type.
21. _____ Blow-offs at dead ends, including temporary dead ends, per City Standards unless system terminates at a fire hydrant.
22. _____ Design meets minimum separation requirements with all underground utilities per City Standards and Health Dept. requirements (specifically noting existing and proposed sewer mains).
23. _____ Design shows low or high points in system (including temporary dead ends) and provide air relief valves (for high points), relocation of fire hydrant, or blow-off valve (for low points).
24. _____ Pressure connections (Hot Taps) indicate size of tapping valve (with tap size) and tapping sleeve (welded nipple and flange in case of steel mains). Call outs indicate undersized tap for size on size connections.
25. _____ Plan shows trenching detail to be used per City Standard Designs and Specification.
26. _____ Where shut down of existing main is required, plan includes note, "All shut down of existing water mains to be done by and coordinated with the City Water Division. Contractors shall notify all affected water users 72 hours in advance of shut down".
27. _____ Water mains to be cast (ductile) iron pipe per GMC 20.16.080.
28. _____ Proposed location of all laterals checked for conflicts with other facilities (i.e. trees, light poles, sewer laterals, driveways, etc.).
29. _____ Valves spacing at a maximum 500' on long runs, at Tees and connections as required for adequate system control.
30. _____ Industrial/Commercial projects include reduced pressure backflow devises as required. Typically, RP's are required for all Industrial/Commercial applications.
31. _____ Driveways shown.
32. _____ "Restrained Pipe" limits shown and "restrained pipe note" included on plan.

33. _____ Polyethylene Encasement (PE) limits shown and PE note included on plan.
34._____ Verify horizontal clearances meet City minimum utility clearances standard and LA Country Health Department standards.
35._____ If property is in a high water pressure area (>84 PSI or per Building requirements) a pressure regulator is required.

IV. Profile (the following should be included on Profile Sheets)

1. _____ Scale, both horizontal and vertical.
2. _____ 100' stationing at bottom of profile.
3. _____ Names and centerline stationing of intersecting streets.
4. _____ Connections to existing water, existing elevation and grade. Existing elevations and grades shown in parenthesis.
5. _____ All profiles labeled.
6. _____ Profile shows finished centerline surface and pipe surface if significantly different.
7. _____ Proposed pipe slopes shown.
8. _____ Vertical and Horizontal angle points and Tees shown.
9. _____ Size and material of water main shown.
10. _____ Location and bottom or top elevations of all crossings, parallel pipes or structures that might enter into the design of the water main shown.
11. _____ Verify elevations in profile and plan section match.
12. _____ Verify profiles and elevations are the same on each sheet or section of match lines.
13. _____ Minimum depth of top water line is 36" unless approved by City Engineer.
14. _____ Compare design to existing plans and reference plan numbers on drawing.

Note: Where plan reviewer determines that plan view adequately provides all vertical information required for main installation and a profile would not provide needed information for construction, the profile view may be omitted at reviewer's discretion**.**

V. Details (the following should be included on Detail Sheets)

1. _____ Scales 1" = 20' and larger should be double line drawings to scale. Blow ups of small drawing with oversized symbols are not acceptable.
2. _____ Show scale.
3. _____ Scaled fittings and connections as required to provide conformation of design. Scaled fittings required for all plant designs.
4. _____ Dimensions.
5. _____ Location from Street Centerlines or Curbs as required.

VI. CAD

1. _____ Check all viewports are scaled as shown.
2. _____ Unless specific permissions given, xref's not allowed.
3. _____ AutoCAD version not to exceed the City's version of AutoCAD.
4. _____ Drawing shall comply with City drafting and layering conventions.

VII. Misc.

1. _____ Drawing sheet size shall be 24" x 36".
2. _____ Originals shall be submitted on 4 mil minimum Polyester Film.
3. _____ Printing shall be monochromatic (black) unless directed by the City Engineer.