

**HIGHLINE WATER DISTRICT
CONSTRUCTION SERVICES**

DRAFTING STANDARDS CHECKLIST FOR WATER MAIN/DEVELOPER EXTENSION

HWD Staff: _____

Date: _____

DISCLAIMER - This Drafting Standards Checklist is provided to Consulting Engineers for the express purpose of assisting them in compiling design plans for submittal to the Highline Water District. This checklist is merely a guide to assist the design engineer in providing the minimum information required for plan submittal. This checklist should be utilized in conjunction with the water main extension standard plans in completing the design. The complexity of the design may require additional information not included on this checklist. This checklist may be revised from time to time and the consulting engineer should insure that he/she has the most recent copy prior to compiling a design.

THIS CHECKLIST SHALL BE INCLUDED WITH THE 1ST DESIGN PLAN SUBMITTAL.

YES	NO	<u>(Items #1 - #10 must be on plans)</u>	
1.	_	_	Project Name: _____
2.	_	_	Project Address: _____
3.	_	_	Engineer Name: _____
4.	_	_	Address: _____
5.	_	_	Phone: _____
6.	_	_	Owner Name: _____
7.	_	_	Owner's Contact Person: _____
8.	_	_	Address: _____
9.	_	_	Phone: _____
10.	_	_	Parcel No.(s) & Area(s): _____ _____
11.	_	_	Field topography provided by the engineer or surveyor for the firm designing this project. Include when the survey was completed. If not, the currently licensed surveyor/engineer who provided the field topography is _____.

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	YES	NO	
12.	—	—	Vicinity Map, identify project location on map, provide a north arrow and identify the scale used.
13. WA.	—	—	Plans stamped, signed and dated by an Engineer licensed in the State of WA. Preliminary construction plans may only be stamped at the Engineer's discretion, however, these plans must also be stamped "Preliminary".
14.	—	—	Plan size is 24" x 36" with sheets numbered consecutively (1 of __, 2 of __, etc.).
15.	—	—	Approval signature block for HWD shall be in upper right hand corner. It shall be five (5) inches wide as shown on the District' standard plan.
16.	—	—	Place "Plan approval expires one (1) year from the date of approval", inside or under signature block.
17.	—	—	Engineering scale and north arrow, north arrow at top left or right of page.
18.	—	—	Adjacent roads identified. Include edge of pavement, road centerline, utilities, shoulder ditch, etc. Clearly identify roads as public or private.
19.	—	—	Project Description: Number of units/buildings/lots/seats/employees, etc. - identified on plans. Include the proposed use for each lot (SFR, Duplex, Mobile Home, etc.).
20.	—	—	Plan scale 1" = 50' and the profile scale shall be 1" = 5'. Both scale and bar scale are to be shown.
21.	—	—	The plan view will show all existing utilities, right-of-way lines, easements, lot lines, parcel numbers and street names. All existing/proposed utilities, and water main fittings and valves shall be shown in the plan and profile views.
22.	—	—	No combined sewer and water plans will be accepted.
23.	—	—	Two foot contour intervals - show the existing and proposed topography for entire property. If the property is flat, provide spot elevations. If plan requires a cover sheet, the existing topography shall be shown on the cover sheet and the proposed topography shall be shown on the design sheets.
24.	—	—	King County Datum (KCAS), benchmark number, location and elevation shown on the plan.
25.	—	—	Location of pipe, bends, valves, fire hydrants, etc., shall be shown in such a manner that the system can be staked for construction.
26.	—	—	All designs shall show plan and profile on the same sheet.

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	YES	NO	
27.	—	—	Include standard Highline Water District construction notes for water main extensions on the plans.
28.	—	—	Cover sheet showing entire property and location of improvements (if necessary). Scale 1" = 100' for general plan layout on cover sheet.
29.	—	—	Show all other utilities, proposed and existing, (sanitary and storm sewer, phone, power, etc.) on the plan and profile view as de-emphasized.
30.	—	—	Label existing utilities (water, sewer, power, etc) as dashed lines, and proposed water main lines as thick, solid lines.
31.	—	—	All water main pipe to be cement lined, ductile iron conforming to ANSI Standard A 21.51 (APWA C-151), minimum thickness Class 52 with polyethylene encasement conforming to ANSI/APWA C105-72, as required by the District.
32.	—	—	Minimum diameter for distribution water mains is 8 inches.
33.	—	—	Length, type and size of water main shown on the plan and profile view.
34.	—	—	Preferred location of all water mains is 5 feet south and west of centerline, however, the local jurisdiction shall be contacted to verify.
35.	—	—	Provide a roadway restoration detail. Any proposed improvements in existing roadways shall be determined by the local jurisdiction (Not HWD).
36.	—	—	Minimum cover over water main is 42 inches.
37.	—	—	All water main fittings are to be cement lined, ductile iron conforming to ANSI Standards A 21.10, A 21.11 and A 21.53.
38.	—	—	All utilities crossing water mains must have proper vertical clearance. The standard vertical separation for sewer lines is 1.5 feet above and below the water main line and 0.5 feet (minimum) for all other utilities (separation shall be measured from the outer wall of the pipes). Concrete encasement (CDF) will be allowed for water mains crossing sanitary sewers at less than 1.5 feet but no closer than 0.5 feet. The encasement shall be 3' wide and extend 10 feet past <u>each</u> side of the crossing.
39.	—	—	Parallel sewer and water lines must have ten (10) feet of horizontal separation (separation shall be measured from the outer wall of the pipes).
40.	—	—	The final design shall be provided to the District in an AutoCAD (R14 or 2000) format on a diskette or CD, in addition to five (5) hard copies and one (1) mylar copy.