

East Wenatchee Water District

Service Policies and Construction Standards

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REVISION HISTORY

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Grammatical corrections.

Revised the definition of an Equivalent Residential Unit.

Clarifications of multiple items in the Definitions section.

Added Dept. of Health Construction Completion Report to the *Process Overview* and *Appendices*.

Added subsection titled *Extensions and Improvements to the Water System* to the *District Policies* section. Mostly relocating and reorganizing text from other sections.

Added limitations on working days to Special Provisions 1-08.0(3).

January 2021

Grammatical corrections.

Add requirement for developer to provide water consumption estimates: *Process Overview*.

Add definition of a Critical Facility and applicable design standards.

Added options of cash bond and bank account for warranty bonds. *Special Provisions 1-05.10*.

Removed requirement to provide construction survey pins in asphalt. Added requirement for GPS rover. *Special Provisions 1-05.4*.

INTRODUCTION

The purpose of this document is to describe the East Wenatchee Water District's service policies, and standards for design and construction of water system improvements.

The District has adopted design and construction standards for all new construction projects. The District adopts the most current versions of the following agency and organizational standards as minimum requirements (in no particular order).

- East Wenatchee Water District Water System Plan
- Washington State Dept. of Health, Water System Design Manual
- Washington Administrative Code (WAC)
- Revised Code of Washington (RCW)
- Washington State Dept. of Transportation Standard Specifications
- American Water Works Association (AWWA) Standards
- International Building Code (IBC), International Fire Code (IFC), and International Plumbing Code (IPC)

Where any signed agreement exists between the District and the party requesting service, any standards or requirements outlined in said agreement shall take precedence over this document.

Legal and contractual requirements for Developers and projects may be outlined in a Developer Extension Agreement (DEA) provided by the District and are not repeated herein.

DEFINITIONS

Capitalizations of words in this section is for clarity only. It does not imply that the word must be capitalized within this document for the definition to apply.

Accessory Dwelling Unit

A small, self-contained residential unit located on the same lot as an existing single-family home.

Application or This Application

The request and forms for permission to construct an extension to the water system executed by the Developer and the District of which the provisions of this document are an integral part.

City

City of East Wenatchee, unless stated otherwise.

Commercial and Industrial Property

Includes, but not necessarily limited to, retail and wholesale stores, offices and office buildings, medical or dental clinics, mixed use structures, warehouses, service stations, manufacturing facilities, garages, theater, hotels, motels, restaurants, bars and taverns, banks, showrooms, barber and beauty shops, governmental services, and other structures or facilities not exclusively used for residential purposes.

Contract Drawings or Drawings

All drawings or plans prepared by the Engineer or prepared by the Developer and approved by the Engineer.

Contractor

A licensed and bonded construction company with experience in the proposed work. Refer to Section 1-02.1(1) of the Special Provisions in this document.

County

Douglas County, unless stated otherwise.

Critical Facility

Per District Resolution No. 739: A facility where the supply and storage requirements will exceed those for non-critical facilities. Examples include agricultural processing and storage, governmental facilities, hazardous materials facilities, health care medical buildings with multi-day patient rooms, and facilities housing computer or electronic systems that use water for cooling.

Designer

The individual or company responsible for producing the design of the infrastructure improvements. Typically a consultant for the Developer. The Designer must be a Washington State licensed Professional Engineer.

Details or Additional Drawings

All details or drawings prepared and issued by the Engineer subsequent to approval of the construction plans for further explanation or amplification of the contract documents or for revision of same, all as herein provided.

Developer

The party (person, partnership, firm, or corporation) having filed an application for extension and/or whom will be providing the new infrastructure. Employees, agents, contractors, subcontractors, and volunteers of said party shall be included under the name “Developer” and shall be bound to the same conditions outlined herein.

Developer's Equipment

All materials or equipment remaining in the Developer's ownership and removed from the site upon completion of the project.

Developer Extension Agreement

A contract between the District and Developer outlining the responsibilities for constructing extensions and improvements to the District’s system for the purpose of providing new domestic water service.

Diameter

Refers to the nominal dimension of a circular product, not necessarily the exact dimension, unless stated specifically otherwise.

District

The East Wenatchee Water District, its employees, contractors, and agents.

District Boundary

The area in which the District is approved to provide water service.

Dwelling Unit

A single family living area including a single family residence, an apartment unit, condominium, motel or hotel unit, trailer, or mobile or manufactured home.

Equipment

The machinery, accessories, appurtenances, and manufactured articles to be furnished and/or installed.

Equivalent Residential Unit (ERU)

A unit of measurement representing the water consumption of an average detached single-family residence. Generally calculated by summing the total single family residential water consumption of an area and dividing by the number of single family residences. The service area and timeframe used for calculating ERU values will be determined by the District for each applicable project or study.

Engineer

The licensed consulting or staff engineer or their duly authorized personnel acting as agents for the District, for the benefit of the District.

Extension Documents

The Developer Extension Agreement and documents referenced within the Developer Extension Agreement.

Extension

The system of water mains and appurtenances or other water system improvements to be constructed in whole or in part pursuant to an application for extension.

Material(s)

Machinery, manufactured articles, materials of construction (fabricated or otherwise), and any other classes of material to be furnished in connection with the construction.

Multiple-Unit Commercial Property

A single structure under one continuous roof and equipped for occupancy by more than one Commercial or Industrial Property.

Multiple-Unit Residential Property

An area for trailers, mobile or manufactured home sites or a single structure constructed under one continuous roof and equipped for occupancy by more than one dwelling unit. Synonymous with multi-family dwelling, high density dwelling, duplex, triplex, apartments, etc.

Or Equal

Manufactured article, material, method, or work which, in the opinion of the Engineer, is equally desirable or suitable for the purposes intended as compared with similar articles specifically mentioned in the project specifications or District standards.

Owner

The person, partnership, or corporation owning the premises to which water is being or is to be furnished. In project construction specifications, Owner may mean the District if so defined.

Parcel

An existing or proposed lot, tract, or property of record. Existing parcels are those contained in the Assessor's plat of Douglas County, which have been assigned descriptions and numbers for tax purposes by the County Assessor. Proposed parcels are those shown delineated or described in any proposed Plat, Short Plat, Site Plan, Planned Residential Development, or other form of subdivision, in process of being created.

Premises

The land and one building under one continuous roof together with such other service buildings as are used only by the occupants of the principal building, including rent-free guest houses occupied less than three months of the year.

“Premises” may be otherwise defined in writing in a special contract between the Owner and the District for the furnishing of water to such premises through a water meter.

Private Service-Line

A water line extending downstream from the District’s meter vault which is not owned by the District. Where such line passes through properties other than the property the line serves, the “private” line must be within a dedicated water or utility easement and recorded on the final Plats Recorded Documents.

Public Property

Includes street right of ways, civic buildings, public schools, playgrounds, public parks, and appurtenances.

Residential Property

Those properties or premises intended for human habitation.

Plans

Official drawings or reproductions of drawings made or to be made pertaining to the work provided for in the application or to any improvements connected therewith.

Points

Marks, bench marks, reference points, stakes, hubs, tacks, etc., established by the Engineer or Developer for maintaining horizontal and vertical control of the work.

Reference Specifications

The technical specifications of other agencies incorporated or referred to herein.

Shop Drawings

Shop details, structural steel, pipe, machinery, equipment, schedules, bending diagrams, reinforcing steel, and other detail drawings furnished by the Developer, as required and provided for in the specifications.

Specifications

The prescribed directions, requirements, explanations, terms, and provisions pertaining to the various features of work to be done or manner or method of performance and the manner and method of measurements and payments. They also include directions, requirements, and explanations as set forth in the plans

Supplemental Drawings and Instructions

The Engineer may furnish with reasonable promptness, at his sole discretion upon written request by the Developer, additional instructions by means of drawings or documents necessary, in the opinion of the Engineer, for the proper execution of the work. All such drawings and instructions shall be consistent with the contract documents.

Surety

A firm or corporation executing a surety bond or bonds payable to the District securing the performance of the contract, either in whole or in part.

Words and phrases

Wherever the words, "as directed", "as required", "as permitted", or words of like effect are used, it shall be understood that the direction, requirements, or permission of the District and the Engineer is intended. The words "sufficient", "necessary", "proper", and the like shall mean sufficient, necessary, or proper in the judgment of the District and the Engineer. The words "approved", "acceptable", "satisfactory", and the words of like import shall mean approval of or acceptable to the District and the Engineer.

Work

Equipment, labor, tools, drawings, and materials necessary for the construction of the improvements shown and called for in the plans, specifications, and application, and the act of constructing or erecting such improvements complete.

PROCESS OVERVIEW

The general process for application to develop within, and connect to, the EWWD system is outlined below and described in detail throughout this document.

1. Attend a pre-application (Pre-App) meeting, hosted by the County or City.
2. Provide an estimate of consumptive water needs for the project. The District will review if the consumptive estimate can be met with existing facilities. If it cannot, the District will, at the Developer's expense, prepare a capacity analysis to determine what facility improvements will be required.
3. For proposed development with large consumptive needs, the District may prepare a special water service agreement documenting how water use and charges will be calculated. The District will determine when such an agreement is required.
4. If water is available per the District's service policies and Duty to Serve, the District will prepare a certificate of water availability.
5. District provides a Developer Extension Agreement (DEA).
6. Developer completes all agreement(s), returns a copy to the District, and pays any deposits noted in the agreement(s).
7. For relevant projects (e.g. Pump stations and reservoirs. Not water mains.), prepare and submit a Project Report conforming to WA Dept. of Health standards.
8. Optional: Developer/Designer attends a pre-design meeting with the District. Encouraged for Designers that have not previously worked with the District.
9. If required, District Engineer performs hydraulic analysis to determine if additional system improvements are needed.
10. Designer submits design plans (1 full size hard copy, and PDF) for review. Submitted design plans shall be complete or nearly complete. Insufficiently complete plans will be rejected without review.
11. District reviews plans and returns comments.
12. Designer revises plans and resubmits. Process is repeated until comments are resolved.
13. Once all District comments are resolved, District will respond that final plans may be submitted for signature. Provide two full size hard copies and PDF.
14. Developer obtains signatures from required utility agencies and County or City.
15. A preconstruction meeting is held with the Developer, Contractor, and interested agency attendees (utilities and municipalities). See section 1-08.0(1) of the Special Provisions.
16. Developer or Contractor provides a performance bond for the value of work performed within existing right-of-way or District easements. See the appendices for a sample bond form.
17. Construction of improvements. Perform pressure testing in the presence of the District inspector.
18. District inspector takes purity samples. If passing, connect the new work to the District system.
19. District inspector provides a punch list. Contractor resolves punch list items.
20. Provide as-built plans in hard copy and Adobe PDF format to District.
21. Fill out and return the Bill of Sale to the District.
22. Record any easements with the County and provide copies to the District.

23. Developer or Contractor provides warranty (maintenance) bond. See *Appendices* for a sample form.
24. Prepare a WA DOH Construction Completion Report (CCR), signed by a Professional Engineer. Submit to the District. A copy of the CCR is in the *Appendices*, and available online from DOH.
25. The District can then provide service upon service request.
26. Optional: Prepare a latecomers (reimbursement) agreement for projects that can directly benefit future development.
27. District Commissioners accept project by resolution. This acceptance begins the warranty period.

The following section provides additional information on some of the process items listed above.

- (1) A pre-application (Pre-App) meeting between the proponent, County, City, District, and relevant agencies occurs prior to any design work so that the proponent is familiar with agency requirements. The District encourages but does not require a separate pre-design meeting with the proponent and designer.
- (5) If the project will require an extension to, or replacement of the water system, the District will provide the designer with a Developer Extension Agreement (DEA). The DEA includes fees for administration, hydraulic analysis, design reviews, and construction inspection. Other fees are less common and if relevant may include a legal deposit, charge in lieu of assessment, design services, or reimbursement agreements.
- (7) For pump station and reservoir projects, the District will determine if the design can be prepared by the Developer's designer or must be prepared by the District's Engineer. A project report per Washington Administrative Code (WAC) 246-290-110 must be prepared prior to design and submitted to the Washington State Department of Health (DOH) for review. Review fees will be paid by the Developer.
- (9) If applicable, the District's Engineer will perform a hydraulic analysis to determine the available domestic service and fire flow capability of the system to the proponent's site. If the existing infrastructure is deemed insufficient for the proponent's needs, the Engineer will define one or more system improvements to resolve the deficiencies. The Developer is responsible for constructing the improvements necessary to provide adequate service.
- (10) The designer shall coordinate locations of fire hydrants and the required fire flow with the Fire District. The Fire Marshal may choose to verify available fire flows in the area prior to construction of critical facilities and typically checks that fire hydrants are operational after improvements have been completed. The Developer must obtain written approval (letter or email) of proposed hydrant locations from the Fire District.
- (10) The Designer shall coordinate with other utility agencies when developing designs to identify and avoid potential conflicts. These agencies may include the following:
 - Douglas County or City of East Wenatchee (street, storm, and lighting systems);
 - Douglas County PUD;
 - Douglas County Sewer District;
 - Ziplly Fiber;
 - Sprint;
 - Cascade Natural Gas;
 - Greater Wenatchee Irrigation District; and
 - Wenatchee Reclamation District.

- (10) Prior to submittal of plans for review, the street layout shall be finalized with the transportation agency (City or County). Subsequent revisions to streets will require redesign and re-review of plans. The District may contact the City or County to verify that the plans have been received and are being reviewed.
- (10 through 14) Review and approval of construction plans are performed by staff assigned by the District Manager and Engineer. Signature on the plans by the District Manager constitutes acceptance of the construction plans.
- (14) Final approval of the construction is as specified in *Section 1-05.12* of the *Special Provisions*.
- (21) Once the final project is accepted by the District as complete, ownership of the facilities is transferred to the District via Bill of Sale. Upon acceptance of the title by the District, said extension shall be the property of the District and subject to the control, use, and operation of the District and all regulations applicable to service and charges as established by the District from time to time.
- (24) For applicable projects (Watermains, pump stations, and reservoirs.) a Department of Health *Construction Completion Report* is filled out and filed with DOH and the District. Installation of water services, fire hydrants, fire line connections, or replacement of existing mains with new mains one nominal diameter larger or less, do not require a *Construction Completion Report*. Installation of watermains does not require submittal to DOH. See WAC 246-290-120(5) and 246-290-125 for additional guidance. See the Appendices for a copy of the form for watermains (DOH form 331-147). A separate form is required for facility projects and can be obtained from DOH (DOH form 331-121). The District will determine if the District Engineer or Developer's Engineer will fill out the form.
- (26) The Developer must notify the District within 90 days after acceptance of an Extension if a Latecomer's Agreement (aka Reimbursement Agreement) pursuant to RCW 57.22 is desired. The proponent then has 12 months after formal acceptance of the Extension to prepare and submit an acceptable version of said agreement to the District. Additional requirements for preparation of said agreement can be found in the DEA document.
- (27) Formal acceptance of the completed project is accomplished by resolution at a District Commissioner's meeting. Acceptance also begins the warranty period. The warranty period is per *Section 1-05.10* of the *Special Provisions*, unless stated otherwise in the DEA.

DISTRICT POLICIES

Service Policies

The consumption and use of all water taken from the District water system will be metered at every connection to said water system. All water taken from the system at any point, or from any hydrant, on temporary or permanent basis, will also be metered.

Developers of new properties, subdivisions, single family, multi-family, commercial, or industrial developments, who desire connection to the District's water system are required to install all service connection lines and service assemblies to each existing or new parcel(s) (excluding meters) prior to construction and/or paving of streets or roads.

Single-family or multi-family housing projects, and non-residential projects shall minimally be served by one metered connection per existing or proposed lot or parcel of record. Within any one parcel, new non-residential or new multi-family projects may be serviced by metered connections only in such manner as determined and approved by the District. Options available to the District include, but are not limited to, the following:

1. One metered connection per parcel
2. Such number of meters, above the minimum of one per parcel, as allowed by the District
3. Sub-metered systems that will allow a landlord, property management firm, condominium, homeowner association, or other multi-tenant property to bill a tenant's usage will not be the responsibility of the District.

The following condition of service appears on page 1-23 of the District's 2014 Comprehensive Water System Plan. This condition of service is heretofore rescinded and no longer applicable.

~~(Rescinded) The District's general policy for providing water service to an existing lot of record (recorded prior to 1986) is that the meter may be installed within the District's boundary if the property is no farther away than two lots deep from fronting a water main and, if it is a long service line, the owner must sign a special service agreement.~~

Request for Service

Service requests shall be provided on the District's *Application for Service Account*, found in the appendices.

Discontinuance of Service and Penalties

The District may refuse or may discontinue service to any customer for violation of any provision of District policies, or for failure to pay bills when due. The District may limit, refuse or discontinue service to any customer who requires or uses such volume of water that water service to any other customer may be thereby impaired. The District will discontinue service to any customer who makes an unauthorized connection to the District water line, bypasses a District water meter, or in any other way, misappropriates District water, or fails to comply with District water conservation actions or orders. Tampering with valves, meters or connections made by unauthorized individuals is a crime punishable by law per RCW 9A.61.020-070 and RCW 80.28.240. Illegal connection fees of up to \$1,500.00 may be charged in addition to the estimated usage on any illegal connection.

Backflow and Cross-Contamination Prevention

It is the responsibility of every customer and the District to protect the water system from potential connections to non-potable sources of water. Accordingly, and as required by WAC 246-290-490, the District has adopted by resolution a Cross Connection Control program. The District may, at their discretion, require installation of a State approved backflow prevention device at any customer's service. All private fire line connections will also be isolated with an approved backflow prevention device. All backflow prevention devices will be installed and owned by the customer. The customer is required to have the device tested annually by a certified Backflow Assembly Tester. The District's Cross Connection Control program is available for viewing at the District office, or online at the following link.

<http://www.ewwd.org/backflow.html>

Extensions and Improvements to the Water System

Developer shall construct the required water mains, facilities, and related appurtenance to serve each existing parcel or new parcels that are proposed.

1. Where no water main currently exists within adjacent existing or future ROW, the Developer shall install a new main in the ROW to the farthest property boundary.
 - a. The District may waive or modify this requirement for extension of mains if, in the opinion of the District, the extension provides no benefit to the District and there is no likelihood of future development beyond the property.
2. Existing mains that are adjacent to properties under development shall be replaced to current standards by the Developer to the farthest property boundary in all directions if any of the following conditions exist:
 - a. The existing main is not large enough to provide service.
 - b. The existing main is steel and would be under new, or reconstructed, permanent surface improvements (roads, sidewalks, etc.).
 - c. The existing main is steel and, in the opinion of the District, could be detrimentally impacted by the Developer's construction activities.
 - d. The Developer's improvements may hinder operation and maintenance access to the existing main.
3. When existing mains are replaced, the following improvements to existing water services along the main are required;
 - a. Existing water services shall be reconnected to the new main(s) by the Developer.
 - b. For existing water services are not compliant with the District's current standard, the District will provide the materials for a complete service replacement and the Developer shall perform the installation.
 - c. For existing services compliant with current District standards (large vaults, HDPE service lines, setters), the service lines need only be reconnected at the new main.
 - d. For existing services with a copper or steel service pipe, the entire pipe shall be replaced with HDPE.
 - e. Service reconstructions shall be reconnected to the customer side private line.
 - f. See the section titled *Water Services* under *Design Standards* for additional requirements.

Easements

Parcels or future parcels may be served from the ROW through a private access and utility easement if in the District's judgment there is no likelihood of future development beyond the subject property.

Whenever the District allows District facilities to be located outside of public right-of-way, the Developer shall provide an easement of sufficient width to allow for future maintenance and replacement of the facility without damage to permanent adjacent improvements. The minimum easement width shall be 20 feet. Special circumstances may require additional easement widths. A graveled vehicular access road shall be provided over the easement, unless waived by the District. Easements must be shown on the water plan and recorded on the plat.

Easements shall be obtained by the Developer at his sole cost and expense, name the District as grantee, and a copy of such easement in a form acceptable to the District shall be delivered to the District prior to the time the Developer commences construction hereunder. Upon completion of construction and prior to acceptance of the extension by the District in accordance with the provision hereof, the easement shall be delivered to the District. The Developer shall provide and record all necessary easements at his sole cost regardless of changes in the Contract Plans, together with good and sufficient evidence of clear title.

A sample easement form is included in the *Appendices*.

DESIGN STANDARDS

The following standards are to be followed in the design of extensions to the water system of the District and in the preparation of plans and specifications for the construction of these extensions. These standards are to be followed except where specific deviations are approved by the District.

The design of water extensions shall be consistent with the District's approved Water System Plan, District's Standard Details, the regulations and standards of the Department of Ecology, Department of Health, Department of Social and Health Services, Douglas County Fire Marshall and all other applicable State, County, and Local agency standard regulations.

District Standard Details

1. District Standard Details (Details) for water system construction are posted on the District's website.
2. The Details are updated periodically. The current version of the Details shall be included in the construction plans submitted to the District for review and approval. If the Details are updated any time prior to construction, the designer shall incorporate the updated Details.
3. The Details are provided as-is and shall not be modified by the designer.
4. The Details are provided in Adobe PDF format, or Autodesk DWF format if requested.
5. AutoCAD .DWG format files will not be provided.
6. All Details must be included in the construction plans whether relevant to the project or not.
7. Detail sheets must maintain the layout provided by the District. Do not cut, crop, or reorganize. The designer may overlay their own project border if they wish.

System Pressure

1. Minimum pressure at the customer meter shall be no less than 35 psi during normal demand conditions and no less than 30 psi during peak hour demand.
2. Maximum pressure in the water mains shall be no greater than 100 psi unless approved otherwise by the District.
3. Each customer is responsible for providing and installing a pressure reducing valve (PRV) on their service to protect their plumbing. It is typical to install a PRV when system pressure may exceed 80 psi. Said PRV will be privately owned, maintained, and installed on the customer side of the District's meter chamber. The District has no responsibility for the PRV.

Water Mains

1. Water Main Sizing
 - a. Minimum diameter for all water mains shall be 8-inches except, at the discretion of the District, where the water main is permanently dead ended with no future potential for extension, is less than 300 feet in length, and does not include a fire hydrant.
 - b. Water mains in Commercial and Industrial land use areas shall be a minimum 12-inch diameter, unless waived by the District.

- c. 10-inch and 14-inch diameter mains are not commonly stocked sizes and, as such, are not allowed for new construction.
- d. The velocity of water in mains shall be no more than 5.0 feet per second (fps) during normal (non-emergency) peak hour demand periods.
- e. The velocity of water in mains, and laterals to private fire systems, shall be no more than 8.0 fps at the rated fire flow. Fire hydrant laterals are excluded from this requirement.
 - This limit is to mitigate the risk from water hammer and provide a margin of safety should actual emergency flow exceed the rated flow.
2. Where practical, as determined by the District, mains shall be looped to increase reliability and water quality. Looping means connecting to the District's system in at least two locations.
3. Mains within developing properties shall be extended to the property boundary for future extension and looping, at the discretion of the District.
4. Water mains shall be located at a uniform distance north and east of right-of-way centerline, as shown on the District's standard detail, unless otherwise approved by the District. Fittings will be used when necessary to maintain, as closely as possible, the uniform offset from centerline.
5. Water mains shall be located no closer than 7 feet from the face of curb. The District may elect to reduce this to 5 feet under special circumstances.
6. Water mains shall not be located under permanent concrete structures unless approved by the District and cased in a sleeve.
7. Depth of Bury
 - a. The bury for all waterlines shall be 48-inches minimum and 54-inches maximum as measured from the top of the pipe to top of the finished grade.
 - b. The District may direct shallower or deeper depths to accommodate field conditions.
 - c. When excavation or fill changes the cover over an existing waterline, the District may require the water main to be replaced by the Developer to the standard depth.
8. Separation from Other Utilities
 - a. Separation between domestic water mains and sanitary sewer or irrigation shall conform to DOH and Washington State Department of Ecology (Ecology) standards. For all other utilities, the water main shall have a minimum horizontal separation of 36-inches clear, unless waived by the District.
 - b. Vertical separation from utilities other than sanitary sewer and irrigation shall be 6-inches clear minimum. If this is not possible, the District may allow closer separation with the addition of "blueboard" insulation to prevent utilities from bearing directly on each other.
9. Extensions which are not to the benefit of the District shall be private and isolated from the system with an approved backflow prevention device.
10. Combination air release and vacuum valves shall be placed at all high points or "crowns" in all pipelines.

Isolation Valves

1. Isolation valves shall be located at all pressure zone interfaces to allow future pressure zone re-alignment without the need for additional pipe construction.
2. Isolation valves shall be located wherever necessary to allow individual pipelines to be shut down for repair or installing services.
3. Provide four valves per cross and three valves per tee unless otherwise approved by the District.
4. Valves shall be placed at a maximum of 1,000-foot intervals.

Fire Hydrants

1. Hydrant spacing shall be approved by the Fire District. Typical spacing is 500 feet for residential areas and within 250 feet of the building envelope for light commercial and multi-family. The Fire District may require more stringent criteria.
2. Hydrant spacing for other facilities shall be determined by the Fire District.
3. Hydrants shall be located at street intersections whenever possible.
4. Length of hydrant runs from the mainline to the hydrant shall not exceed 80 feet.
5. Hydrant runs shall be straight and perpendicular to the main, no intermediate bends.
6. A fire hydrant shall be installed at all dead-ends including cul-de-sacs to improve water quality and facilitate testing.
7. Public fire hydrants shall not be placed in inaccessible locations such as behind fences or on excessive embankments.
8. Hydrants shall be located on the same side of the road centerline as the watermain, when possible.
9. Hydrants shall be standard bury depth (5 feet ground surface to bottom of pipe). If the lateral must be deeper, bring it up to standard depth with vertical bends prior to the hydrant.
10. Separation from other utilities shall follow the same requirements as for water mains.

Water Services

1. Service lines shall only be connected to public distribution mains. Connection to hydrant runs, fire lines, private mains, or dedicated transmission mains is not allowed. The District may reconsider this standard at their discretion if there is public health benefit.
2. Dual (double) services shall be used whenever possible.
3. Locate water service lines and meter chambers along the street fronting the lot unless determined otherwise by the District.
4. Meter chambers shall be located within right-of-way and within sidewalks whenever possible. Where sidewalks do not exist and are not planned, the chambers shall be adjacent to the right-of-way line whenever possible.
5. Install service lines perpendicular to the water main and street centerline.
6. Install meter chambers with clearance from side sewers, transformers, pedestals, and other utility service equipment to provide for safe maintenance access and maintain water quality. Horizontal

clearance required is 10-ft from side sewers, 10-ft from irrigation, 10-ft from transformers, and 3-ft from other utilities. If the side sewer or irrigation is more than 18-inches below the water service, horizontal clearance may be reduced at the discretion of the District, but shall be no less than 5-ft.

7. The following design standard appears on page 7-4 of the District's 2014 Comprehensive Water System Plan. This standard is heretofore rescinded and no longer applicable.
 - a. ~~(Rescinded) If water service line lengths greater than 200 feet are required, the customer shall sign a special water service agreement with the District (See Appendix).~~

Pressure Reducing Stations

1. District Standard Detail for pressure reducing valve (PRV) stations shall be used for design. Prepackaged stations may be allowed at the discretion of the District.
2. Vaults are to be sized to provide adequate working space including standing head room and sufficient clearance to service and remove all equipment.
3. Vaults shall include drywell drains, daylight drains, or sump pumps.
4. If directed by the District, include a pressure relief valve for closed pressure zones to prevent over-pressurization if a PRV fails in the open position
5. Stations shall include a large valve for emergency flow and small bypass valve for domestic flows. Valve sizing will be determined by the District.
6. Only Cla-Val brand control valves are allowed.

Storage

1. Storage design shall comply with American Water Works Association (AWWA) D100, D110, or as otherwise approved by the District.
2. Tanks may be welded steel or reinforced concrete.
3. The minimum size for any new reservoir shall be 500,000 gallons.
4. Reservoir sites shall provide plumbing and land for a future pump station and future equal, or larger, sized tank, if in the opinion of the District, topography and costs are reasonable.
5. At a minimum, the following shall be recorded and transmitted to the master telemetry unit (MTU): water level, high water alarm, low water alarm, intrusion alarm.
6. Coating for the interior and exterior of welded steel tanks shall include a corrosion inhibiting agent, such as a zinc-rich primer.
7. Permanent ladders shall be provided on the interior and exterior of the tank. Vandal protection shall be provided for exterior ladders. Interior ladders shall be aluminum or stainless steel. Landings and cages for fall protection shall be incorporated in lieu of hoist or cable systems, unless waived by the District.
8. Water circulation systems shall be incorporated into new storage. Passive or mechanical systems will be reviewed.
9. Sites shall be fenced.

10. Standby storage shall comply with Resolution No. 739 for Critical Facilities, which is a volume no less than 24 hours at the facilities' maximum day water consumption rate.

Pump Stations

1. Structures shall be non-combustible and vandal proof, where practical.
2. Structures shall have adequate heating, cooling, ventilation, insulation, lighting and work space necessary for safe and efficient operations and maintenance.
3. Underground vaults shall be avoided if possible.
4. Sites shall be fenced.
5. Stations shall be fully equipped with instrumentation and alarms as necessary to assist personnel in operations and troubleshooting.
6. At a minimum, the following shall be recorded in real-time and transmitted to the remote control system: flow rate, flow total, discharge pressure, suction pressure, room temperature, check valve status, and control valve status.
7. At a minimum, the following shall be alarmed: intrusion, low flow, high discharge pressure, low discharge pressure, low suction pressure, pump fail, MCC fail, flood, loss of power, loss of communication, and fire (smoke).
8. A connection for emergency power shall be provided.
 - a. The standard generator connection shall be a Posi-Lok system as manufactured by Crouse-Hinds. Plugs with cords shall be stored at each facility.
9. Closed zone booster pump stations will only be allowed on a temporary basis. The period shall be three years or until 40 lots are connected, whichever comes first.
10. Fire pumps are allowed only if, in the opinion of the District, construction of storage is impractical, or is detrimental to water quality.
11. Stations shall be constructed with the ability to increase capacity in the future. This shall be accomplished by providing space for additional pumps and/or by over-sizing the facility to install larger pumps in place of the original pumps.
12. Stations shall include a control valve to pass water from the upper zone to the lower. Control valve shall include pressure relief functionality to permit operation of the station if the receiving reservoir is out of service.
13. Per Resolution No. 739, areas with a land use designation that includes "Industrial" in the name must have two or more water supplies. Refer to Resolution N. 739 for additional information.

Telemetry System

1. Pump stations and reservoirs shall each have a Remote Telemetry Unit (RTU) that monitors and displays local sensor and device status data and communicates with the District's master telemetry unit (MTU).
2. RTUs shall include backup power, surge and lightening protection, and be easily capable of expansion for additional input and output signals.

3. RTUs shall be programmed by an integrator of the District's choice. Preprogrammed "package" control units are not allowed.

Backup Power Requirements

1. Reliability standards per WAC 246-293-660 shall be followed.
2. Closed zone pump stations shall have permanent backup power installed on site with an automatic transfer switch.
3. All new pump stations shall include provisions for connecting a portable engine generator to run the facility in the event of a power failure. Equipment shall meet the District's standards.
4. All RTUs shall include an automatic battery backup.

Construction Drawing Format

1. Complete plan sets shall be provided to the District. Incomplete plan sets will not be reviewed. The following plans are the minimum required.
 - a. Plat Map – Project Overview
 - b. Street Plan and Profile
 - c. Water System Plan and Profile
 - d. Sanitary Sewer, Storm Sewer, Irrigation, and Dry Utility Plan and Profile
 - e. Water System Standard Details (obtain current set from District website)
2. Sheet size shall be ANSI D or 24"x36". Plans may be combined where practical.
3. Include an identified space on the cover sheet or first water system sheet for the District Manager signature.
4. The Developer shall furnish two (2) copies of the final plat map, contour map, and proposed roads profile sheets prior to the District's ordering of the engineering plans from its Engineer. Not required if Developer uses its own engineer. The contour elevation and road profile elevations shall be referenced to Douglas County Survey data. In the event the Developer's engineer prepares the construction plans and specifications, the above plans shall accompany the extension construction plan to be reviewed and approved by the District's Engineer.
5. Plat Map: The final plat map shall be to an appropriate standard engineering scale. The map must show enough of the project to clearly identify the project location, include street names and parcel numbers.
6. Water Plan: Provide at a scale of 1"=20', 30', or 40', showing all existing and proposed utilities, existing and proposed street surfacing and improvements, street centerline and stationing, street right-of-way margins, street names, legal identifications of properties such as lot number or tax lot number, section subdivision lines, all property lines and all water or other utility easements and rights-of-way.
7. All Water Plans shall show the following information:
 - a. Station line based on R.O.W. centerline. Other stationing methods require District approval.

- b. Size, material, location (offset), and length of each water main. Length measured between fittings or appurtenances.
 - c. Station and offset to all fittings and valves, and listing of each fitting and the type of connection, i.e., flanges (FL), mechanical joint (MJ), restrained joint (RJ), plane end (PE), etc.
 - d. Station and offset to all appurtenances such as fire hydrants, meter vaults, blow offs, and air valve assemblies.
 - e. Details showing how the connection to the existing water system is to be made and how the new mains are to be tested, flushed, and sampled for bacteriological analysis prior to connection.
 - f. Location and size of all water services and whether the service is a double or single.
 - g. Lot numbers and phasing, if applicable.
8. Water Profile: A drawing showing the vertical profile is required for water lines. The scale of these drawings shall be a standard engineering scale with an appropriate vertical exaggeration. Other utilities (sanitary sewer, storm drain, etc.) shall also be shown on the profile.
 9. As Built: See section 1-05.18 in the Special Provisions.

CONSTRUCTION STANDARDS

Where field inspection, direction and decisions are described hereafter, the terms Engineer and District Inspector shall be considered interchangeable. The District Inspector provides periodic inspection. The level of inspection depends on the complexity of the work and the experience of the contractor.

Pressure testing and disinfection are performed by the contractor to WSDOT/AWWA standards. The District Inspector verifies the results and performs the purity testing.

SPECIAL PROVISIONS TO THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION

The WSDOT Standard Specifications and Amendments, most current versions, will be followed except as revised herein.

References in the WSDOT Standard Specifications to bidding procedures are deleted whether noted as such in this document or not.

References in the WSDOT Standard Specifications to contract procedures are deleted whether noted as such in this document or not, and are herein replaced by the Developer Extension Agreement, District Work Order, or other contract executed between the District and the Developer.

References in the WSDOT Standard Specifications to payment procedures are deleted whether noted as such in this document or not. District will provide no payment for any work unless such payment has been established in a contract between the District and the Developer.

Division 1 General Requirements

1-01 Definitions and Terms

1-01.3 Definitions

This section is supplemented with the following

Deleted Section: This section of the Standard Specifications does not apply to this project.

Equal to: That the 'equal' product be the same or better than the product named in function, performance, reliability, quality, and general configuration. Determination of equality will be made by the Owner.

New Section: This section does not appear in the Standard Specifications.

Owner: The East Wenatchee Water District.

All references in the Standard Specifications, Amendments, or WSDOT General Special Provisions, to the terms "Department of Transportation", "Washington State Transportation Commission", "Commission", "Secretary of Transportation", "Secretary", "Headquarters", and "State Treasurer" shall be revised to read "**Owner**".

All references to the terms “State” or “state” shall be revised to read “**Owner**” unless the reference is to an administrative agency of the State of Washington, a State statute or regulation, or the context reasonably indicates otherwise.

Replacement Section: Portions of the Standard Specification section are replaced as described herein.

Supplemental Section: The Standard Specification is to be used in its entirety with the addition of the information provided herein.

1-02 Bid Procedures and Conditions

This section is deleted except as described below.

1-02.1(1) Contractor’s Qualifications

This section is new:

The District has a substantial interest in insuring the work be constructed and connected to the existing system of the District in a good workmanlike manner, and, therefore, the Developer agrees to submit the names and statement of qualifications for all contractors, subcontractors, material men, and suppliers; or in the event that the Developer is a contractor, a statement saying that said Developer will perform said improvement, and the District reserves the right to approve or disapprove of the same, which approval the District will not unreasonably withhold. In determining whether said Developer, contractor, subcontractor, material men, or laborer is or is not satisfactory, the District will take into consideration prior experience in constructing similar improvements, available manpower and equipment, financial ability, prior work performed by said party for or on behalf of the District, and the recommendation of the District’s Engineer. Said names shall be submitted prior to any construction being performed, and, if said party is not acceptable to the District, the District will notify the Developer within 15 days after notification is given to the District of the name of said party, whereupon the Developer shall re-submit alternates and said alternates shall likewise be subject to the same approval, upon the same criteria as the original party submitted, and notification will be given by the District within the same period of time specified.

Any contractor proposing to perform work on the District’s existing infrastructure or proposing to construct work that will be transferred to the District upon completion must be pre-approved by the District. Contractor must be licensed, bonded, and provide documentation of experience with similar municipal domestic water construction. Documentation must include at least three projects in the last 7 years. Provide project name, owner’s name, location, and inventory of work performed. The District reserves the right to require more stringent experience depending on the nature of the proposed work.

The District has the right to reject the work of any contractor that does not show relevant experience.

1-03 Award and Execution of Contract

This section is deleted except as described below.

1-03.4 Contract (Performance) Bond

This section is replaced with the following:

Prior to construction, the Developer shall provide an executed performance bond for the value of water system work being performed within existing public right-of-way or within an existing District easement. The Developer shall submit their estimated value to the District for review and approval. The bond shall:

1. Be on the form included in the Appendix, or other District approved form;
2. Be signed by an approved surety (or sureties) that:

- a. Is registered with the Washington State Insurance Commissioner, and
 - b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Developer will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the District against all losses and claims related directly or indirectly from any failure:
- a. Of the Developer (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
 - b. Of the Developer (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Developer empowered to sign official statements (sole proprietor or partner). If the Developer is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

1-04 Scope of the Work

1-04.1 Intent of the Contract

Supplement this section with the following:

Set forth herein are general conditions to all applications for extension of the District's water system by developers. Reference to, or requirements for, non-applicable conditions will be construed to have no meaning relative to the performance of such work. All other conditions shall be strictly followed.

The Developer shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work, except as otherwise stipulated in the extension documents.

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

Delete the first paragraph. Replace the numbered list after the second paragraph with the following:

The documents listed below complement each other in describing a complete work. Any requirement in one part binds as if stated in all parts. Provide all work clearly implied even if such work is not specifically mentioned.

The order of precedence for extensions shall be as follows (lower numbers preceding higher numbers):

1. Developer Extension Agreement
2. District Inspector's / Engineer's written instructions
3. East Wenatchee Water District Standard Details
4. East Wenatchee Water District Special Provisions to the Standard Specifications

5. Construction Plans and Specifications (internal order of precedence as defined by the designer)
6. Standard Specifications for Road, Bridge, and Municipal Construction, Washington State Department of Transportation. Most current version and amendments.
7. Reference specifications (e.g. AWWA, NSF, ANSI, etc.)
8. Performance bond

1-05 Control of Work

1-05.1 Authority of the Engineer

This section is replaced with the following:

The Engineer shall have general supervision and direction of the work, provided, however, nothing contained herein or elsewhere in the District's standards shall be construed as required the Engineer to direct the method or manner of performing any work by the Developer under this contract. The Engineer has the authority to stop work whenever, in his opinion, such stoppage may be necessary to ensure proper execution of the contract. The Engineer may also reject all work and materials which, in his opinion, do not conform to the District's standards.

It is understood and agreed by and between the parties hereto that the work (except the method or manner of performing the work) is to be done under the general supervision and to the complete satisfaction of the Engineer, or his duly authorized representative, and the decision of the Engineer as to the true interpretation and meaning of the application, plans, specifications, and standards and as to all questions arising as to proper performance of the work shall be final.

The Engineer shall decide any and all questions which may arise as to the quality or acceptability of materials furnished and work performed and all questions as to be acceptable fulfillment and performance of the application on the part of the Developer. The decision of the Engineer in such matters shall be final.

The Engineer may direct the sequence of conducting work when it is in locations where the District is doing work either by contract or by its own forces or where such other works may be affected by the contract, in order that conflict may be avoided and the work under these specifications be harmonized with that under other contracts, or with other work being done in connection with, or growing out of, operations of the District. Nothing herein contained, however, shall be taken to relieve the Developer of his legal obligations or liabilities.

Neither the Engineer nor his representatives have the authority to waive the obligation of the Developer to perform work in accordance with the developer extension agreement. Failure or omission on the part of the Engineer or his representatives to condemn unsuitable, inferior, or defective work and/or labor or material or equipment furnished under the application shall not release the Developer or his bond from performing the work in accordance with the developer extension agreement.

1-05.3 Working Drawings

This section is supplemented with the following:

Where shop drawings are required to be submitted for acceptance, one (1) copy of the approved shop drawings shall be kept constantly accessible at the construction site.

The Developer shall check and verify all field measurements. Submit with such promptness as to cause no delay in the work or in that of any other contractor three (3) copies, checked and approved by the Developer, of all shop or setting drawings and schedules (all collectively herein referred to as "shop drawings") required for the work of the various trades in the performance of the work or where requested by the Engineer and shall verify all field measurements or conditions to which the shop drawings are

applicable. The Engineer shall pass upon them with reasonable promptness making required corrections, including those related to design and artistic effect. The Developer shall make any corrections required by the Engineer and, within one week after receipt of the required corrections, shall file with the Engineer two (2) corrected copies and furnish such other copies as may be needed by the Engineer. The Engineer's acceptance of such drawings or schedules shall not relieve Developer from responsibility for deviation from drawings or specifications, unless the Developer has, in writing, called the Engineer's attention to such deviation at the time of submission and secured the Engineer's written approval, nor shall it relieve the Developer from responsibility for errors in shop drawings or schedules.

1-05.3(1) Drawings Prepared by the District

This section is new.

If the District prepares construction plans for the Developer, the following shall apply. This section does not apply to the District's standard construction details, nor plans prepared by the Developer's designer.

1. The Developer shall carefully study and compare all drawings and specifications and other instructions and shall, prior to ordering material or performing work, report in writing to the Engineer any error, inconsistency, or omission in respect to design, mode, or construction or cost which he may discover. If the Developer, in the course of this study or in the accomplishment of the work, finds any discrepancy between the drawings, or any such errors or omissions in respect to design, mode of construction, or cost in drawings or in the layout as given by points and instructions, it shall be his duty to inform the Engineer immediately in writing, and the Engineer shall promptly check the same. Any work done after such discovery will be done at the developer's risk.
2. The Developer shall be furnished three (3) copies of plans and specifications and shall keep at least one (1) copy of the same constantly accessible at the construction site.
3. All drawings, specifications and copies thereof prepared or furnished by the Engineer are his property. They are not to be used on other work.

1-05.4 Conformity with and Deviations from Plans and Stakes

Supplement this section with the following:

The Developer shall furnish all property boundary surveys. The Developer shall perform all property surveys necessary for placement of the construction stakes including surveys of easements. The Developer shall provide to the District drawings showing the bearing and dimensions of all property lines, ties to adjacent subdivisions and section control and the calculated closure of all control traverses. Surveying and construction staking shall be performed by a professional land surveyor licensed in the State of Washington.

The Developer shall furnish all construction points, stakes, and instructions necessary to control the horizontal and vertical placement of all facilities to be constructed by the Developer pursuant to the application. The Developer shall not proceed to place any construction points or stakes until written notification from the District or the engineer that the developer may proceed with construction under the application. Construction points, stakes and instructions to be provided by Developer shall meet the following minimum requirements:

- Offset stakes every 50-feet along the project alignment. At the District's discretion, provide a GPS rover available to the District in lieu of staking.
- Horizontal location of all water mains at 50-foot stations offset 10 feet from the water main location.
- The location of and 10-foot offsets to all pipe intersections, bends, valves, hydrants, blow off assemblies, meter vaults, and air valve assemblies.

- Sufficient horizontal and vertical reference marks to accurately locate and construct all other water facilities and structures such as pressure reducing stations.
- Grading slope stakes.
- Curb grade stakes, for establishing meter vault lid elevations.
- Provide a minimum of one bench mark, on the project site; and the elevation and location of the bench mark shall be indicated on the maps furnished by the Developer.

1-05.6 Inspection of Work and Materials

Supplement this section with the following:

Inspection of the work by the District and its authorized agents shall be strictly for the benefit of the District, and nothing contained herein shall be construed to relieve the Developer of his obligations under this application.

The Engineer and his representatives shall have access to the work for the purpose of inspecting and testing wherever it is in preparation or progress, and the Developer shall provide proper facilities for such access and for such inspection and testing.

If any work is covered up without approval or consent of the Engineer; it must, if required by the Engineer, be uncovered for inspection at the Developer's expense.

Re-examination of questioned work may be ordered by the Engineer; and, if so ordered, the work shall be uncovered by the Developer. If such work be found by the Engineer to be in accordance with the extension documents, the District shall pay the cost of re-examination and replacement. If such work be found not in accordance with the extension documents, the Developer shall pay such costs.

The Developer shall make tests of the work as required by the Engineer at the Developer's expense and shall maintain a record of such tests.

For a performance test to be observed by the Engineer, the Developer shall make whatever preliminary test are necessary to assure that the material and/or equipment are in accordance with the specifications. If the test observed by the Engineer is unsatisfactory, the Developer shall pay all costs incurred by the Engineer for the inspection and supervision of all further testing.

Where the specifications, the Engineer's instructions, laws, ordinances, or any government authority require any work to be specifically tested or inspected, the Developer shall give the Engineer timely notice of the date fixed for such inspection. Required certificates of inspection by other authority than the Engineer shall be secured by the Developer.

Inspection during construction will be provided as deemed necessary by the Engineer.

Written notice of deficiencies, adequately describing the same, shall be given to the Developer upon completion of each inspection, and the Developer shall correct these deficiencies before final inspection will be made by the Engineer.

A representative of the Developer or the Developer's Contractor shall arrange a time with and accompany the Engineer on the final inspection and subsequent inspections, if required, thereafter.

Deficiencies discovered at the final inspection shall be corrected by the Developer and, in no instance, shall service be provided until said deficiencies are corrected and the extension passes re-inspection.

Neither inspection nor acceptance by the District shall relieve the Developer of any responsibility or liability, whether to the District or others, provided in the extension documents.

1-05.6(1) Reimbursement for Inspection

This section is New.

All costs incurred by the District for inspection, including the fees and charges of its Engineer, shall be paid by the Developer, and a deposit, therefore, for this may be required in advance by the District.

Where work requiring inspection is performed on days identified in Special Provision 1-08.0(3), or outside of the hours of 7:00 am to 5:30 pm Monday through Thursday, the Developer shall pay additional costs of District for inspection and supervision.

1-05.10 Guarantees

Supplement this section with the following:

Upon completion of the extension work and approval thereof by the District and simultaneously with the acceptance of the title by the District, the Developer warrants to the District as follows:

1. That the Developer is the owner of the property and the same is free and clear of all encumbrances and that the Developer has good right and authority to transfer title thereto to the District and will defend the title of the District against the claims of all third parties claiming to own the same or claiming an encumbrance against the same; and
2. That the water extension is in proper working condition, order, and repair and that it is adequate and fit for the intended purpose of use as a water system and as an integral part of the water system of the District; and
3. That for a period of two years from the date of acceptance of the extension by the District Commissioners, all parts of the extension shall remain in proper working condition, order and repair except where abused or neglected by the District; and the Developer shall repair or replace, at its own expense, any work or material which may prove to be defective during the period of this warranty. The Developer shall obtain warranties and guaranties from its subcontractors and/or suppliers where such warranties or guaranties are specifically required herein and shall deliver copies to the District upon completion of the work. When corrections of defects occurring within the warranty period are made, the Developer shall further warrant correct work for one year after acceptance by the District.

Warranty shall be in the form of a maintenance bond, cash bond, or bank account, in the amount of either \$2,000 or 10% of the value of the work to be transferred to the District, whichever is greater. A bond shall:

- Be on a form approved by the District;
- Be signed by an approved surety (or sureties) that:
 - Is registered with the Washington State Insurance Commissioner, and
 - Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
- Guarantee that the Developer will perform and comply with all obligations, duties, and conditions of the District;
- Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
- Be signed by an officer of the Developer empowered to sign official statements.

When defects occurring within the warranty period are discovered, the Developer shall start work to remedy any such defects within seven (7) days of mailing notice of discovery thereof by the District and

shall complete such work within a reasonable time. In emergencies, where damage may result from delay and where loss of service may result, corrections may be made by the District immediately upon discovery; in which case the cost thereof shall be borne by the Developer. In the event the Developer does not commence and/or accomplish corrections within the time specified, the work shall be otherwise accomplished and the cost of same shall be paid by the Developer.

The Developer shall be responsible for any expenses incurred by the District resulting from defects in the Developer's work including actual damages, cost of materials, and labor expended by the District in making emergency repairs, cost of engineering, inspection, and supervision by the District or Engineer, as well as reasonable attorney's fees to be fixed by the court in any action which the District may commence against the Developer to enforce the provisions hereof.

1-05.11 Final Inspection

This section is deleted.

1-05.12 Final Acceptance

This section is replaced with the following.

The District will be the sole determiner if the work has been completed in conformance with the plans and District standards.

1-05.13 Superintendents, Labor, and Equipment of Contractor

The last paragraph and numbered list are deleted.

This section is supplemented with the following:

The Developer shall keep on the construction site during the progress of the work a competent superintendent and any necessary assistants, all satisfactory to the Engineer. The superintendent shall not be changed except with the consent of the Engineer unless the superintendent proves to be unsatisfactory to the Developer and ceases to be in his employ. The superintendent shall represent the Developer in his absence, and all directions given to the superintendent shall be as binding as though given to the Developer. Instructions to the Developer shall be confirmed in writing upon his request in each case. The Developer shall give efficient supervision to the work, using his best skill and attention.

The Developer shall enforce strict discipline and good order among his employees and shall not employ on the work any person unfit or not skilled in the work assigned to him. Employees or agents of the Developer who, in the opinion of the Engineer, may impair the quality of the work shall forthwith be discharged by the Developer upon the written request of the Engineer.

During the term of this application, neither party shall employ nor hire any employee of the other party, nor of the Engineer, without the written consent of the other party or of the Engineer. The Developer shall not use any work performed or any information obtained from any employee hired in violation of this provision in making a claim against the District or Engineer and shall be liable to the District, as liquidated damages, in an amount equal to double the amount of salary or wages paid to any such employees so hired in violation hereof.

1-05.14 Cooperation with Other Contractors

This section is supplemented with the following:

The District reserves the right to perform work with its own forces or to let contracts for work under similar general conditions in connection with this project or other projects. The Developer shall afford the

District and other contractors reasonable opportunity for the execution of their respective work and shall properly connect and coordinate his work with theirs.

1-05.18 Record (As-Built) Drawings

The following section is new.

Prior to acceptance by the District, the Contractor shall deliver a complete set of acceptable "As-Built" records to the District. Drawings shall be provided in Adobe PDF format.

Provide "as-built" information on all items and work shown on the plans showing details of the finished product including dimensions, locations, outlines, changes, etc. The information must be in sufficient detail to allow the District's personnel to locate, maintain, and operate the finished product and its various components.

Also show size, horizontal and vertical locations of all existing utilities encountered during construction. Water service will not be provided until an as-built record has been received.

1-06 Control of Material

1-06.1 Approval of Materials Prior To Use

This section is replaced with the following

Prior to construction the Developer shall provide to the District a list of all materials that will be installed on the project and transferred to the District upon completion. Materials that are not compliant with District standards shall be replaced by the Developer.

The Developer shall provide two (2) copies of materials and equipment list to the Engineer prior to proceeding with construction. Electronic (email) submittals are also acceptable. This list shall include the quantity, manufacturer and model number, if applicable, of materials and equipment to be installed under the application. This list will be checked by the Engineer as to conformity with the plans and specifications. The Engineer will pass upon the list with reasonable promptness, making required corrections.

The Developer shall make any required corrections and file two (2) corrected copies with the Engineer within one week after receipt of required corrections. The Engineer's review and acceptance of the lists shall not relieve the Developer from responsibility for deviations from the drawings and specifications or warranty for suitability for the intended purpose unless the developer has, in writing, called the Engineer's attention to such deviations at the time of submittal and secured the Engineer's written approval for such deviation.

The engineer shall be the sole judge of the questions of "or equal" of any supplies or materials proposed by the Developer. The developer shall pay to the District the cost of tests and evaluation by the Engineer to determine acceptability of alternatives proposed by the Developer, in accordance with the established rates of the Engineer for time and expense work.

Material and equipment shall be new and shall be specified in the plans or, if not specified, shall be of a quality approved by the Engineer. Materials and equipment furnished are warranted by the Developer as new and as in compliance with the plans and specifications, if specified therein, and as suitable for the intended purpose. The developer shall furnish the District with copies of the supplier's warranty and adopt the same as the warranty of the Developers and shall also be liable thereon to the District.

1-06.2(1) Samples and Tests for Acceptance

Supplement this section with the following:

Furnish for approval all samples as directed by the Engineer. The finished work shall be in accordance with approved samples. Approval of samples by the Engineer does not relieve the Developer of performance of the work in accordance with the extension documents.

1-07 Legal Relations and Responsibilities to the Public

1-07.1 Laws to be Observed

Supplement this section with the following:

The Developer shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the work required by the extension documents. If the Developer observed that the extension documents, or any part thereof, are inconsistent or at variance therewith, he shall promptly notify the Engineer in writing, and any necessary changes shall be made as provided in the application for changes in the work. If the Developer performs any work contrary to such laws, ordinances, rules and regulations, or prior to obtaining permits, permission under franchises, licenses, and/or bonds as required to be furnished by or obtained by the District, he does so at his own risk.

The Developer shall indemnify, defend, and save harmless the District and the Engineer from and against all losses and claims, demands, payments, suits, actions, recoveries, and judgments of every nature and description brought and recovered against the District and/or Engineer by reason of any act or omission of the Developer, the Developer's subcontractors, agents, and/or employees arising directly or indirectly from the performance of the work under the application or in guarding of the work. The Developer will, after reasonable notice of any such suit or action, defend and pay the expense of defending any such suit which may be commenced against the District or Engineer arising therefrom.

The Developer shall have sole responsibility for the safety, efficiency, and adequacy of the Developer's plant, appliances, and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The Developer shall be solely and completely responsible for the conditions of the project site, including safety for all persons and property in the performance of the work. This requirement shall apply continuously, and not be limited to normal working hours. The required or implied duty of the Engineer to conduct construction review of the Developer's performance does not, and shall not, be intended to include review and adequacy of the Developer's safety measures in, on, or near the project site.

1-07.1(1) Attorney's fees

This section is New.

In the event this application is referred to or placed in the hands of attorneys by the District for review and/or enforcement of any portion, or if suit is instituted with respect to this application, then, in either event; the Developer and additional owner(s) shall pay reasonable attorneys' fees as may be incurred by the District or awarded by the court, court costs, and all expenses in connection therewith as may be incurred by the District.

1-07.4(1) Sanitation - General

Supplement this section with the following:

Provide and maintain necessary sanitation conveniences for the use of employees on the job, properly secluded from public observation.

1-07.6 Permits and Licenses

Supplement this section with the following:

Permits, permission under franchises, licenses, and bonds of a temporary nature necessary for the prosecution of the work, and inspection fees in connection therewith shall be secured and paid for by the Developer. Where the District is required to secure such permits, permission under franchises, and licenses and bonds and to pay the fees, the costs incurred by the District shall be reimbursed to the District by the Developer.

The District shall not be required to appeal the denial of any such permit application, and the risk of obtaining all permits and approvals rests solely with the Developer.

1-07.18 Public Liability and Property Damage Insurance

Supplement this section with the following:

The Developer shall carry liability and property damage insurance covering all work under this application, including that done by Subcontractors. This insurance shall name the District and the Engineer as co-insureds and shall be primary coverage with any insurance carried by the District classified as additional coverage. The Developer shall provide proof of insurance on an ACORD form or other form acceptable to the District. Unless otherwise specified, this insurance shall be carried as follows:

- Bodily injury, each person - \$1,000,000
- Each accident - \$1,000,000
- Property damage, each accident - \$1,000,000

1-07.16 Protection and Restoration of Property

Supplement this section with the following:

Developer shall not enter upon or place materials on other private premises except by written consent of the individual owners, and he shall save district harmless from all suits and actions of every kind and description that may result from his use of private property.

Whenever it is necessary during construction to remove or disturb culverts, driveways, roadways, pipelines, monuments, property stakes, or other existing improvements, without limiting the generality thereof and whether on private or public property, they shall be replaced to a condition equal to that existing before they were so removed and disturbed.

Developer shall continuously maintain adequate protection of the work from damage and shall protect District's property from injury or loss arising in connection with or during the existence of this application. Developer shall make good any such damage, injury, or loss, except as may be directly due to errors in the extension documents or caused by agents or employees of the District. Adequately protect adjacent property from damage or loss occasioned by performance of the work. Provide and maintain all passageways, guard fences, lights, and other facilities for protection required by public authority or local conditions.

Developer shall bear the risk of loss or damage for all finished or partially finished work until the entire extension is accepted by the District.

1-07.17 Utilities and Similar Facilities

Supplement this section with the following:

Underground utilities of record shall be shown on the construction plans insofar as it is possible to do so. These, however, are shown for convenience only, and the District assumes no responsibility for improper locations or failure to show utility locations on the construction plans.

Developer shall take adequate precautions to protect existing lawns, trees, and shrubs outside rights-of-way, sidewalks, curbs, pavements, utilities, adjoining property, and structures, and to avoid damage thereto caused by his operations to the satisfaction of the engineer, except as otherwise provided in the extension documents.

The Contractor should expect to find live private irrigation systems along the project alignment. The Contractor should contact adjacent property owners to determine locations of existing systems within the construction area. Should irrigation systems be damaged during construction, they shall be repaired by the end of that working day by the Contractor. The Contractor shall have a dewatering pump available at all times to clear the trench should an irrigation line be damaged.

1-07.20 Patented Devices, Materials, and Processes

This section is Replaced.

The Developer shall defend, indemnify and hold the District harmless for all claims and/or suits brought against the District by reason of infringement of patent rights or license on any material, machine, appliance, or process used on the work or incorporated into the finished job except where specifically exempted by special provisions. Such indemnity shall include the costs of defense by an attorney of District's choice.

1-07.23 Public Convenience and Safety

Supplement this section with the following:

Developer shall take all necessary precautions for the safety of employees on the work site and shall comply with all applicable provisions of federal, state, and municipal safety laws and building codes. Erect and properly maintain, at all times, as required by the conditions and progress of the work, all necessary safeguards for protection of workmen and the public, shall post danger signs warning against known or unusual hazards; and designate a responsible member of Developer's organization on the construction site whose duty shall be the prevention of accidents. The name and position of such person so designated shall be reported in writing to the Engineer by the Developer.

1-7.23(1) Construction Under Traffic

This section is supplemented with the following

The Contractor shall obtain approvals for traffic revisions from the appropriate transportation agency (County, City or WSDOT). The Contractor shall prepare and distribute written traffic revision reports to local radio stations and the Owner. A report shall be prepared and distributed on days when traffic control is to be utilized. The report shall contain the location, time frame, and extent of the traffic revision. The report shall be distributed to KKRT, KKRK, KPQ, KWWW, KXYA, KYSN and KOHO radio stations.

1-08 Prosecution and Progress

1-08.0(1) Preconstruction Conference

This section is new.

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

- To review the initial progress schedule;
- To establish a working understanding among the various parties associated or affected by the work;

- To establish and review procedures for inspections, notifications, approvals, submittals, etc.;
- To establish normal working hours for the work;
- To review safety standards and traffic control; and
- To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

- A preliminary schedule of working drawing submittals; and
- A list of material sources for approval if applicable.

Typical attendees include District Engineer, District Inspector, District Operator, project designer, contractor superintendent, contractor foreman, Developer, County or City representative, and affected utility representatives.

Preconstruction conferences may only be held on Tuesdays, Wednesday afternoons, or Thursdays. Typically, the District will coordinate and conduct this meeting, but will allow other qualified individuals to do so.

1-08.0(3) Days of Work

This section is new.

No work that requires inspection, oversight, or input from the District will be allowed on the following days:

- New Years Day, Martin Luther King Jr., President's Day, Memorial Day, July 4th, Labor Day, Veteran's Day, Thanksgiving and the day after, Christmas and the day after.
- If any of the above days falls on a Friday, the preceding Thursday. If any of the above days falls on a Saturday, the preceding Friday. If any of the above days falls on a Sunday, the following Monday.
- All Fridays, Saturdays, and Sundays.

Requests to work on any of the days listed above must be made in writing to the Owner no less than one week prior to the event and include the reason for the request. Approval of any such request is not guaranteed.

1-08.1 Subcontracting

This section is replaced with the following:

The Developer agrees that he is fully responsible to the District for the acts and omissions of subcontractors and persons either directly or indirectly employed by subcontractors, as well as the acts and omissions of persons directly employed by the Developer. Consent to subcontracting part of the work shall in no way release the Developer from responsibility under the application, and he will be held, in all respects, accountable for the same as if no consent had been given. Nothing contained in the extension documents shall create any contractual relation between any subcontractor and the District.

1-08.4 Prosecution of the Work

The section is supplemented as follows:

The Contractor must give no less than 2 working days notice to District prior to beginning water system work.

The Contractor must give no less than 2 working days notice to District for any requested water system shutdowns. Shutdowns will not be performed on Mondays or Fridays.

The Contractor shall not operate existing District valves, or valves directly connected to the existing water system.

The existing water mains and appurtenances are to remain live through construction except for temporary outages to make connections. All existing mains and appurtenances being replaced shall be abandoned or removed by the Contractor by the end of the project.

No existing water system customer may be out of water service for longer than 8-hours at a time. The outage may only occur between 8:00 am and 5:00 pm. If, in the opinion of the District, the Contractor has not adequately coordinated the work to be completed within this timeframe, the District has the right to cancel the outage at any time. No compensation will be made for such cancellations.

1-08.4(1) Service Prior to Project Acceptance

This section is New.

At such time as the extension is partially completed but is not ready for acceptance of title by the District by reason of other incomplete plat improvements, and one or more residences to be served are in need of water service and the District is satisfied that the extension will be completed, the District may, but is not required to, accept the extension or a portion thereof on conditions it shall determine in its sole discretion for use and operation only and authorize temporary water service to designated residences. To insure that the Developer will complete the system in the entire subdivision or specific phase thereof for which this application is filed the District reserves the right to designate the number of residences or other structures which can be connected to the system for temporary service upon acceptance of a partially completed system for use and operation by the District, and also reserves the right to refuse to connection all residences or other structures to the water system as installed until the District can be assured that the system will be completed in accordance with this application.

Application for use and operation of the partially completed water extension shall be satisfactory completion of the following:

1. Pressure tests on all lines in the System; and
2. Sanitary testing and acceptable test results of water samples taken at representative points; and
3. Inspection and approval by the District Engineer of the system for use and operation in accordance with the approved plans and specifications.

After satisfactory completion of the testing and inspection provided for in the preceding paragraphs and acceptance of the water system for use and operation only, the District may allow connection of such extension to the water system and furnish temporary water service to such residences as it may designate, which residences shall be subject to the charges and subject to all resolutions, rules, regulations, and policies of the District.

1-09 Measurement and Payment

This section not used.

Division 2 Earthwork

2-01 Clearing, Grubbing, and Roadside Cleanup

2-01.3(1) Clearing

The section is supplemented as follows:

Removal of trees for utility trenching shall include removal of the stump and root ball within 3 feet of the pipe on all sides.

2-02 Removal of Structures and Obstructions

2-02.3 Construction Requirements

The section is supplemented as follows:

Where it is required that an existing utility pipe be abandoned in place, the pipe ends shall be plugged in accordance with Section 7-08.3(4). Otherwise, refer to Section 7-09.3(25).

2-02.3(1) Salvage of Removed Structure Items

The section is new:

Functional existing water system equipment (Valves, hydrants, meter boxes, etc. Not pipe.) removed or terminated during the work shall be removed intact and stored for inspection by the District. District will determine if they wish to salvage said materials.

Materials and items deemed of no value by the District shall be removed and become property of the Contractor.

2-06 Subgrade Preparation

2-06.3 Construction Requirements

This section is supplemented with the following:

The Developer shall grade all roads to the design subgrade elevation prior to the start of construction and shall advise the District in writing of any changes which may be contemplated during construction.

If the Developer changes the subgrade elevation or the road after completion of the extension of any part thereof, the Developer shall be responsible for all costs incurred to raise or lower the water lines due to said change in subgrade elevation.

2-07 Watering

2-07.2 Watering for Compaction

The section is new:

Contractor shall provide watering as necessary to achieve optimal moisture content for compaction. If requested by the Contractor, the Water District may provide a hydrant meter setup for construction water. The Contractor is responsible for rental and water charges. The maximum flow rate allowed from this meter may be restricted at the District's discretion. The Contractor is responsible for protection of the hydrant meter assembly from theft, vandalism, damage, and freezing.

Division 7 Drainage Structures, Storm Sewers, Sanitary Sewers, Water Mains, and Conduits

7-08 General Pipe Installation Requirements

7-08.1 Description

The section is supplemented as follows:

This section shall apply to domestic water construction except where superseded by Section 7-09.

7-08.3 Construction Requirements

The section is supplemented as follows:

Perform all cutting and fitting that may be required to make parts come together properly and fit to receive or be received by work of other developers or contractors shown or reasonably implied by the drawings and specifications for the completed work. Restore all surfaces damaged by cutting and fitting as the Engineer may direct.

Provide pipe, fittings and appurtenances necessary to make all piping systems complete, tested, and ready for operation as specified herein and as shown on the Plan and details. Some fittings that are necessary for proper piping system installation and operation may not have been shown. Provide fittings and appurtenances as necessary, whether shown or not shown on the Plans or details, to complete all piping systems.

Threaded pipe shall be screwed together with an application of approved sealing compound applied to all male threads. Once a joint has been tightened, it shall not be backed off unless threads are re-cleaned and new sealing compound applied.

7-08.3(1) Excavation and Preparation of Trench

The section is supplemented as follows:

Boulders, rocks, roots and other obstructions shall be entirely removed or cut out to the width of the trench and to a depth at least 4-inches below the bottom of the pipe to provide adequate bedding. The trench shall be kept free from water until complete. Surface water, nuisance flows, and stormwater runoff shall be diverted so as not to enter the trench. Maintain necessary pumping equipment on the job to ensure that these provisions are carried out.

Where material is removed from below subgrade, the trench shall be backfilled to grade with material satisfactory to the Engineer and compacted to 95% of maximum dry density within +/- 2% of optimum moisture content as defined by ASTM D1557. Compaction testing shall be performed, at a minimum of one (1) per 500 linear feet of trench per 2-feet of backfill and not less than one (1) per day's work when backfilling operations are under way unless approved by the Engineer.

The Contractor shall be responsible for meeting current Labor and Industry Trench and Shoring Protection and Washington State Safety Standards.

7-08.3(2)B Pipe Laying - General

The section is supplemented as follows:

Keep openings in pipe closed during the progress of work. Install plugs to prevent water and debris from entering pipe.

7-08.3(1)F Handling of Pipe

This section is new:

Pipe, materials, and accessories shall be new, unused and undamaged at the time of installation. Pipe shall be handled in such a manner as to ensure delivery to the trench in sound, undamaged condition. Pipes shall not be dropped, dragged, skidded, or rolled against any other pipe. Care shall be taken to prevent damage to any pipe markings. No other pipe or material of any kind shall be placed inside the pipe or fitting.

Damaged, out-of-round, or sun-bleached pipe shall be rejected and immediately removed from the jobsite and shall not be used on the project as part of the Work. Unless otherwise approved by the Engineer, the same manufacturer of each item shall be used.

Dirt and other foreign material shall be prevented from entering the pipe or fittings during handling or laying operations. During times when pipes are not being laid, stockpiled pipe will be covered with end caps, plugged with water tight fittings, or otherwise enclosed by a method approved by the Engineer. Prior to installation, the interior of the pipe shall be thoroughly cleaned of any pre-existing dirt or foreign matter before being lowered into the trench.

7-08.3(3) Backfilling

The section is supplemented as follows:

Equipment mounted compactors (hoe-pack, sheepsfoot, vibratory rollers, etc) shall not be used within 12-inches directly above the pipe.

Backfilling shall be performed only after inspection and approval of the installed pipe. Backfill material shall be carefully placed in strict accordance with this section of the Standard Specifications. The use of native material for backfill shall obtain approval from the Engineer prior to backfilling. Import select borrow to replace excavated material that is not suitable for backfill shall be incidental to the project.

Where a pipe crosses an existing utility with less than 6-inches of clearance, a sand or foam cushion acceptable to the Engineer shall be placed between the utilities.

7-08.3(4) Plugging Existing Pipe

This section is supplemented with the following:

All existing non-functional pipes 3-inch and larger, regardless of original purpose, cut or broken during construction shall be plugged.

7-08.3(8) Surface Restoration in Right of Way or District Easement

This section is new.

Existing surface improvements shall be restored to a condition equal or better than that prior to construction. Trenches shall be backfilled to a safe depth at the end of each day.

Coordinate with the local traffic agency to verify the restoration requirements. Where the surface requires reestablishment of traffic prior to final restoration, confirm with the traffic agency what method of temporary patching is acceptable.

Unless directed otherwise by the transportation agency, the following shall apply:

- On trenches parallel to the roadway, provide and maintain crushed surfacing base course to a smooth and level grade with the existing pavement until final patching is complete. Temporary crushed surfacing depth under traffic to be no less than 4 inches.

- On trenches crossing the roadway or intersections, install cold or hot mix asphalt no later than the second calendar day after asphalt removal. Maintain until final patching is complete.
- Patch all trenches installed within the existing pavement with Commercial Hot Mix no later than the second Friday following excavation for trenches parallel to the road.

Crushed surfacing used for temporary patching shall be continuously maintained including inspection, repairs, and dust control, including over weekends and other non-working periods.

If approved by the local traffic agency, contractor may plate trenches in lieu of temporary surfacing. Plates must be free of dents and bumps and be able to withstand legal weight loads. Plates shall be keyed into the trench or asphalt tapers installed to prevent movement. Provide appropriate signage when using plates.

7-09 Water Mains

7-09.3(5) Grade and Alignment

Replace the first sentence of the third paragraph with the following:

The depth of trenching for the water main shall be as shown on the District standard trench detail, unless superseded by dimension callouts on the plan or profile drawings.

7-09.3(7) Trench Excavation

The third sentence of the second paragraph is replaced with the following:

Trench shall be excavated to a sufficient width to allow for pipe installation, compaction equipment, and shoring when necessary.

7-09.3(9) Bedding the Pipe

Replace the first two sentences with the following:

See Water District Standard Trench Detail. District shall determine if native materials are acceptable for use as bedding. Bedding shall meet the following gradation or as approved by the District Inspector.

Sieve Size	% Passing by weight
1"	99-100
3/4"	75-100
5/8"	50-100
U.S. No. 4	20-100
U.S. No. 40	3-50
U.S. No. 200	10.0 max
Sand equivalent	35 min

Bedding for restrained joint pipe must be a fractured rock and sand. No poorly graded rounded rock such as drain rock or pea gravel. The following gradation may be used.

Sieve Size	% Passing by weight
1"	99-100
3/4"	75-100
5/8"	50-100
U.S. No. 4	40-100
U.S. No. 10	20-100
U.S. No. 40	5-50
U.S. No. 200	10.0 max
Sand equivalent	30 min

7-09.3(12)A Restrained Joint Pipe Installation

This section is new.

All bends, tees and crosses that utilize restrained joints shall be restrained on all legs. Set-screw style restraints are not allowed. Initial setting of wedge (tooth) style restraints may use any commonly used hand tools until the wedge touches the pipe surface. Impact tools are not allowed for wedge engagement and final torquing.

If wedge (tooth) style restraints are removed for any reason after the restraints have been engaged, the restraints shall be disposed of and not reused. The section of pipe to which the restraints were secured shall be cut off and disposed of.

Bedding material must include sufficient fines for proper soil-to-pipe adhesion. Compaction of bedding around restrained pipe shall be performed in maximum 9-inch lifts using mechanical compaction equipment.

7-09.3(14) Cutting Pipe

This section is supplemented with the following:

Pipe that has been cut and will be joined in a push-on joint connection shall be beveled by methods recommended by the pipe manufacturer.

7-09.3(15)A Laying Pipe on Curves-Ductile Iron Pipe

Replace the last sentence of the first paragraph with the following:

The amount of deflection at each pipe joint when pipe is laid on a horizontal or vertical curve shall not exceed 3 degrees per joint (11 inches over 18 feet) or the manufacturer’s printed recommended deflections, whichever is less.

Installation of restrained joint push-on pipe that will be deflected must be installed per the manufacturer’s instructions. In general, this requires the pipe to be inserted into the bell at a straight alignment, but not pushed home. The pipe can then be deflected. If the manufacturer’s instructions provide differing, or additional instructions, those instructions shall be followed.

7-09.3(19)A Connections to Existing Mains

This section is supplemented with the following:

Provide 48-hour notice to Owner prior to making connections. Connections to existing mains may only be performed on Tuesdays, Wednesdays or Thursdays unless permission is otherwise obtained from the Owner. Connections shall not be performed on Owner recognized holidays.

Pothole to verify the configuration, alignment, and size of the existing facilities. Potholing shall be done far enough in advance to procure required fittings without delaying the work.

When knowledge of the exact alignment of existing facilities is required, such as when laying new work to line up with existing pipe or fittings, expose enough of the existing facilities so that an accurate alignment can be determined. Do not construct new work until the existing configuration and alignment is confirmed.

If the alignment or configuration of the existing facilities varies significantly from the design plans, contact the Inspector for review prior to installing new work. Install the new work to align with the existing facilities.

Connections will not be made until the new main has been tested and approved by the District. An approved double check valve must be used between existing potable water sources and the new work. The Contractor shall size the double check valve as appropriate for the filling and flushing rates needed.

Flanged Epoxy Adapters shown on the plans are a FLxPE steel spool, epoxy or powder coated inside and out. Steel pipe is to be nominal O.D. size (e.g. 6" = 6.0" O.D.). Coating shall be NSF61 approved.

7-09.3(21) Concrete Thrust Blocking

This section is supplemented with the following:

Precast concrete blocking is allowed. The surface area of the block must be no less than shown in the District's Standard Detail for horizontal thrust blocking. Blocks shall be ecology-block style or as fabricated by H2 Precast using their EWWD specifications.

7-09.3(23) Hydrostatic Pressure Test

Replace the first sentence with the following:

All water mains and appurtenances (hydrants, service lines, etc) shall be tested in sections of convenient length, under a hydrostatic pressure equal to 250 psi at the low point of the test section, unless otherwise directed by the District Inspector.

Supplement this section as follows:

The following test method will be used unless otherwise directed by the District Inspector. Length of time for test will be 60-minutes or at the discretion of the District Inspector. Pressure drop shall not exceed 5-psi over 60-minutes, regardless of water loss quantity. District Inspector shall have the authority to require more stringent criteria if he determines that field conditions warrant such measures.

Pressure gauges shall be in good working order and scaled appropriately for the test. Scale range shall not exceed 160% of the test pressure. For example, for a 250-psi test, the gauge scale shall not exceed $1.6 \times 250 = 400$ psi. The District has the right to reject any gauges that are suspect in their accuracy.

Sections of pipe that cannot be pressure tested, such as connections to the existing system, shall be left exposed for a visual inspection under system pressure.

Customer service lines shall be tested from the main, through the setter, and out the tailpipe. At the District's discretion, the District will provide setter jumpers and tailpipe endcaps for testing.

7-09.3(23)D Valve Pressure Test

The following section is New.

All valves shall be pressure tested. Do not exceed the rated working pressure of the valve when operating the valve. Bleed off test pressure prior to operating.

Valve clusters shall be assembled outside of the trench and pressure tested separately prior to installation. All valves which will be installed on or adjacent to existing water mains and all butterfly and eccentric valves shall be pre-tested on both sides of the closed valve seat with zero pressure loss. Failing valves shall be replaced at the Contractor's expense.

Test all valve bonnets for tightness. Provide end plugs, blind flanges, assembly kits, and all appurtenances necessary for pressure testing. Pre-installation valve testing shall use the following procedure.

1. Close the valve.
2. Install plug or flange (with test port).
3. Connect test apparatus and pump.
4. Pressurize to test pressure. 250 psi for gate valves, 150 psi for butterfly and eccentric valves, or manufacturer's listed test pressure if less.
5. There shall be zero drop in pressure or visible leakage for ten minutes. This includes leaking through the stem packing.
6. If test fails, check for defects, correct, and retest. Valves that do not pass testing will be replaced by the Contractor at no additional cost to the Owner.

After installation, test all valves for water tightness under differential working pressure. To perform this test, pressurize pipe section with valve in place, close valve and relieve pressure on seat side of the valve. The valve shall not pass water during a 5-minute test period.

Operate all valves at least once from closed-to-open-to-closed positions while valve is under working (not test) pressure.

7-09.3(24) Disinfection of Water Mains

Supplement this section as follows:

Watermains used for fire supply lines, including those isolated with a backflow prevention assembly, shall be disinfected and tested in accordance with this section.

Local testing laboratories are not open on Fridays, therefore samples cannot be submitted on Fridays. Contractor shall schedule the work accordingly

7-09.3(24)A Flushing

Supplement this section as follows:

Provide a flushing plan at the preconstruction meeting or no less than 2 working days prior to flushing for the District's review. Flushing water must be dechlorinated if it will be discharged to the storm system or a water body.

If the existing water system cannot provide the required flow capacity, the contractor shall supply the source of water or shall "pig" the main. The following table shows minimum port sizes for flushing, assuming at least 40 psi is available on the supply side and less than 20 feet of hose is used unless stated otherwise.

Main size	Flow at 2.5 fps	Blowoff size	Hydrant ports (20 ft or less of hose)	Hydrant ports (up to 100 ft of hose)
8"	400 gpm	(2) 2", or (1) 3"	(2) 2.5"	(3) 2.5", or (1) 4"
12"	900 gpm	(4) 2", or (2) 3"	(2) 2.5"	(4) 2.5", or (1) 4"
16"	1600 gpm	(4) 2", or (2) 3", or (1) 4"	(2) 2.5" or (1) 4"	(1) 2.5" and (1) 4"

7-09.3(25) Abandonment of Terminated Water Facilities

The following section is new.

Water mains, hydrants, valves, valve boxes, meter boxes, air valves, and services terminated during the project shall be removed and/or abandoned in accordance with East Wenatchee Water District Standard Detail W-15.

7-12 Valves for Water Mains

7-12.3(1) Installation of Valve Marker Post

Replace this section in its entirety.

Where required by the inspector, to be expected when valves are outside of paved areas, a valve marker post shall be furnished and installed with each valve. Refer to the District Standard Detail.

7-12.3(2) Adjust Valve Box

The following section is new.

The Contractor shall maintain existing valve boxes at all times to allow the District access for operation. The Contractor shall notify the District of any existing valve boxes in a condition of disrepair.

Any existing valve box components that are broken during construction shall be replaced. If a valve box is blocked with debris, the Contractor shall remove such debris leaving the valve installation in a fully operable condition. Remove any asphalt or debris from valve box tops and lids so that lid and handle are loose and free.

Adjust all valve boxes as described below unless directed otherwise by the City or County. In travelled areas, including sidewalks and shoulders, the valve box shall be adjusted to between 0 and 1/8 – inch below finished grade. In untraveled areas the valve box shall be adjusted to between 0 and 1/2 – inch above finished grade.

Valve box adjustment within new paving shall be done per the following procedure:

1. Lower the box so the lid is below the finished surface by at least 1/4 inch.
2. Mark lid location with flexible indicator, 3-point measurement, or other method acceptable to the District.
3. Install paving.
4. Cut paving at least 6-inches clear around valve box and remove. Cuts must be made using a circular cutter, or other method that does not result in cut lines extending beyond the patch area.
5. Raise the valve box.
6. Install paving.

When valve boxes include lid ears (lugs), the ears shall be aligned with the flow direction of water through the valve. If uncertain of direction, contact the Inspector for clarification.

7-14 Hydrants

Throughout this section, replace the words “Standard Plans” with “Water District Standard Details”.

7-14.1 Description

This section is supplemented with the following:

Refer to Water District Standard Detail for additional requirements.

7-14.3(1) Setting Hydrants (Supplemental Section)

This section is supplemented with the following:

Contractor shall verify required hydrant bury depth for each individual hydrant location prior to ordering hydrants. Bury depth may vary along the project based on topography and water main depth.

7-14.3(2) Hydrant Connections

This section is supplemented with the following:

Refer to Water District Standard Detail if the distance between the auxiliary valve and hydrant is more than 16-feet, thereby requiring more than one stick of pipe.

7-14.3(2)C Hydrant Guard Post

The first sentence is replaced with the following:

Hydrant guard posts shall be constructed at the locations shown on the plans or as directed by the District Inspector.

7-14.3(4) Moving Existing Hydrants

Replace this section in its entirety.

Existing hydrants shall not be reused on this project unless approved by the District.

7-14.3(5) Reconnecting Existing Hydrants

Replace this section in its entirety.

Existing hydrants shall not be reused on this project unless specifically shown otherwise on the plans.

7-15 Service Connections

7-15.2 Materials

Replace this section in its entirety.

Refer to Water District Standard Details for construction materials.

7-15.3 Construction Requirements

Replace the first two sentences with the following:

All service connections to water mains shall be made using saddles as shown on the District Standard Details. Direct taps are not allowed.

Replace the first sentence of the second paragraph with the following:

The depth of trenching for service connection piping shall provide a minimum of 3.5 feet of cover over the top of the pipe.

Replace the first sentence of the fourth paragraph with the following:

All existing service connections along the project route shall be reconnected to the new main, unless specifically identified otherwise on the plans or directed otherwise by the District Inspector.

This section is supplemented with the following:

Restore all disturbed surfaces to original conditions or better, including that on private property. Landscaping shall be restored to original condition.

Water service shall be maintained at all times except when temporary outages are approved by the District.

Service tap hole size in mainline to be no smaller than 1/8" less than the nominal service pipe size.

- E.g. 1" service pipe, 7/8" hole minimum.

Division 9 Materials

9-06 Structural Steel and Related Materials

9-06.20 Utility Vault Hatch

This section is new:

Hatches, locks and operators shall operate freely with no binding. Hatches for vaults (other than taper-top meter chambers) shall meet the following requirements.

- Aluminum or galvanized steel frame and door(s) with diamond plate surface.
- Any aluminum in contact with concrete shall be coated with an appropriate corrosion protective coating prior to installation.
- Hold open locking arm or 180 degree opening arc.
- Full open clear space with no intermediate bracing.
- H20 rated.
- Spring assist opening.
- Stainless steel hinges and hardware.
- Recessed padlock hasp with cover.
- Channel frame for water collection with frame drain connection. Plumb hatch frame drain to vault drain using Sch 40 PVC, secured to walls and ceiling.
- Slam lock with un-keyed interior operator to prevent accidental entrapment.

9-30 Water Distribution Materials

9-30.1 Pipe

This section is supplemented with the following:

Only domestic made ductile iron and steel pipe are allowed. Pipe and fittings larger than 2-inch shall be of Ductile Iron construction, unless otherwise shown on the plans or details.

9-30.1(1) Ductile Iron Pipe

This section is supplemented with the following:

All pipe shall have a wall thickness at least equal to Class 50 unless a higher Class is shown on the plans or details. Pipe for fire hydrant runs and in areas where normal working pressure may exceed 150 psi shall have a wall thickness at least equal to Class 52.

9-30.1(4)B Steel Pipe (4 Inches and under)

Replace this section in its entirety.

Steel pipe 4 inches in diameter and smaller shall be per ASTM A53, be hot-dip galvanized inside and out, and wrapped with factory installed protective tar sheeting or District approved coating.

9-30.2(1) Fittings - Ductile Iron Pipe

This section is supplemented with the following:

All gaskets for flanged fittings shall be ring type. Full face type gaskets are not allowed. Gaskets must be minimum 1/8" thick. Gasket material may be neoprene, cloth inserted rubber, buna-n, or chlorinated butyl. Only domestic made ductile iron fittings are allowed.

Steel bolts, nuts and washers shall be zinc plated. Flange bolts to be ASTM A307 Grade A (or SAE J429 Grade 5); or ASTM A307 Grade B (or SAE J429 Grade 2).

9-30.2(6) Restrained Joints

Replace the first sentence with the following:

Refer to District Standard Detail for acceptable restrained joint systems. Bolted systems are not allowed.

Mechanical Joint restraints in all buried applications, and in exposed areas when not being field coated, shall be coated at the factory with fusion bonded polyester based coating (Romac Romabond, EBAA Mega-bond, Ford Armorguard E-Coat, or approved equal).

9-30.2(7) Bolted, Sleeve-Type Couplings for Plain End Pipe

This section is supplemented with the following:

Couplings shall be Romac Style 501 or approved equal.

Couplings for O.D. steel pipe shall be Romac Style 511 or approved equal.

Couplings for 3-inch and larger pipe shall have a center barrel no less than 7-inches long.

9-30.3(4) Valve Boxes

This section is supplemented with the following:

Refer to District Standard Detail for additional requirements.

9-30.3(5) Valve Marker Posts

Replace this section in its entirety.

Refer to District Standard Detail.

9-30.3(6) Valve Stem Extensions

This section is supplemented with the following:

Refer to District Standard Detail for additional requirements.

9-30.3(7) Combination Air Release/Vacuum Valves

This section is supplemented with the following:

Refer to District Standard Detail for additional requirements.

9-30.3(8) Tapping Sleeve and Valve Assembly

Replace the last three sentences with the following.

Valves shall meet the requirements of AWWA C509 or C515. Tapping valves shall be of the same type as other valves on the project. Sleeves shall be stainless steel or fusion bonded epoxy lined and coated steel. Tapping tee working pressure rating shall be no less than 150 psi. Higher pressure ratings may be required at the discretion of the District.

9-30.6(1) Saddles

Replace this section in its entirety.

Refer to District Standard Details. Select a saddle where the pipe outside diameter falls within the saddle fitting range. The pipe outside diameter must be larger than, not equal to, the smallest value of the saddle fitting range.

9-30.6(3)B Polyethylene Tubing

Replace this third paragraph with the following.

Tubing used for 2-inch and smaller shall be SDR9 CTS (copper tube size).

9-30.6(4) Service Fittings

This section is supplemented with the following:

Fittings for polyethylene tubing shall utilize Ford Quick Joint, Mueller 110, or approved equal. Pack-joints are not allowed.

9-30.6(5) Meter Setters

Replace this section in its entirety.

Refer to District Standard Details.

9-30.6(7) Meter Boxes

Replace this section in its entirety.

Refer to District Standard Details.

APPENDICES

Performance and Guarantee Bond

Maintenance Bond

Utility Easement

Application for Temporary Hydrant Valve Agreement

Application for Service Account

District Standard Construction Details

Dept. of Health Construction Completion Report

Name of Extension:

PERFORMANCE AND GUARANTEE BOND

(For DEVELOPER Projects)

KNOW ALL MEN BY THESE PRESENTS: That whereas, East Wenatchee Water District, Douglas County, Washington, a municipal corporation, hereinafter designated as the "DISTRICT", has entered into an application dated the _____ day of _____, 20____, with _____, hereinafter designated as the "DEVELOPER", whereby the DEVELOPER has applied to the DISTRICT for permission and authority to install water improvements consisting of extensions to the water system as therein described, which agreement is on file in the DISTRICT office and by this reference is made a part thereof; and

WHEREAS, said DEVELOPER and his contractor is required, under the terms of said agreement to furnish the DISTRICT a bond for the faithful performance of said agreement in accordance with the conditions hereafter set forth, NOW, THEREFORE,

We, the undersigned DEVELOPER and contractor, as principal, and _____, a corporation organized and existing by virtue of the laws of the State of _____, and duly authorized to do a surety business in the State of Washington, as surety, are held and firmly bound unto the State of Washington, and said DISTRICT in the sum of _____ (\$ _____), for the payment of which we do jointly and severally bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns by these presents.

THE CONDITIONS OF THIS OBLIGATION are such that if the said principal, or his (or its) representatives, heirs, successors, and assigns shall well and truly keep and observe all of the covenants and conditions and agreements in said contract and shall faithfully perform all the provisions of the contract and pay all laborers, mechanics, subcontractor, and material men and all persons who shall supply such person or subcontractors with provisions and supplies for carrying on such work and all legal, engineering and other professional fees and other costs and charges incurred or made by the DISTRICT and shall indemnify and save harmless the DISTRICT, its officers and agents, from any pecuniary loss resulting from the breach of any of said terms, covenants, and conditions to be performed by the principal;

AND FURTHER, that the principal will correct or replace any defective work or materials discovered by the said DISTRICT within a period of two years from the date of acceptance of such work by said DISTRICT, then become null and void; otherwise, it shall be and remain in full force and effect. No change, extension of time, alteration or addition to the work to be performed under the agreement shall, in any way, affect principal's or surety's obligation on this bond and surety does hereby waive notice of any change, extension of time, alteration or additions thereunder.

This bond is furnished pursuant to the requirements of Section 39.08.010 et. seq. of the Revised Code of Washington and, pursuant to the requirements of the aforesaid application and in addition to the requirements of the aforesaid sections of the Revised Code of Washington, is made, executed, and delivered by the principal and surety to the DISTRICT for the use and benefit of said DISTRICT, together with all laborers, mechanics, subcontractors, material men, and all persons who supply such person or subcontractors with provisions and supplies for the carrying on of the work covered by the agreement, irrespective of whether or not such work is deemed to be "public work", within the purview of said Revised Code of Washington.

IN WITNESS WHEREOF, the said principal and the said surety have caused this bond to be signed and sealed by their duly authorized officers this _____ day of _____, 20 _____.

By _____ Principal (DEVELOPER)	By _____ Contractor
By _____ Surety	

MAINTENANCE BOND
EAST WENATCHEE WATER DISTRICT

P.O. Box 7190
East Wenatchee, WA 98802



DEVELOPER: _____

Surety: _____

Amount: _____

Project Name: _____

KNOW ALL MEN BY THESE PRESENTS, that we _____ as Principal, and _____, as Surety, are held firmly bound unto the EAST WENATCHEE WATER DISTRICT, as Obligee, in the full and just sum of _____ dollars (\$_____), for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents. The above sum is certified to be equal to ten percent (10%) of the cost of said extension, or a minimum of Two Thousand Dollars (\$2,000.00), whichever is greater.

WHEREAS, the said construction of the extension has been completed, and the work was accepted on _____.

WHEREAS, said application and extension documents provide that the principal will furnish a bond conditioned to guarantee against all defects in workmanship and materials discovered by the DISTRICT for a period of two years after the date of final acceptance of said Water Extension by the DISTRICT, and

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if within two (2) years from the date of approval of the said water extension, the work done under the terms of said application and extension documents shall disclose defects in workmanship in the execution of said work, and the carrying out of the terms of said extension documents, or it shall appear that defective materials were furnished thereunder, then this obligation shall remain in full force and effect, otherwise this instrument shall be void.

Signed and sealed this _____ day of _____, 20_____.

_____ _____ _____ Surety	_____ _____ _____ Principal
-----------------------------------	--------------------------------------

By: _____
Attorney-in-Fact

UTILITY EASEMENT
(INDIVIDUAL)

THE GRANTOR(S), _____

For valuable consideration, in hand paid, receipt of which is hereby acknowledged, convey(s) and grant(s) to the Grantee, the EAST WENATCHEE WATER DISTRICT, its successors and assigns, a permanent, non-exclusive easement, over, under, in, along, across and upon, the following described property:

See Exhibit "A" attached hereto and made a part hereof by reference as though fully set forth.

For constructing, reconstructing, installing, repairing, replacing, operating, and maintaining water utilities and utility pipelines, together with the right of ingress and egress thereto without prior institution of any suit or proceedings of law and without incurring any legal obligation or liability therefore. This easement is granted subject to the following terms and conditions.

1. The Grantee shall, upon completion of any work within the property covered by the easement, restore the surface of the easement, and any private improvements disturbed or destroyed during execution of the work, as nearly as practicable to the condition they were in immediately before commencement of the work or entry by the Grantee.
2. Grantor shall retain the right to use the surface of the easement if such use does not interfere with the easement rights granted to the Grantee. Grantor shall not, however, have the right to:
 - a. Erect nor place any buildings nor structures within the easement (including retaining walls, foundation footings, and roof overhangs); nor
 - b. Plant vegetation having deep nor large roots which (in the District's opinion) may cause damage to or interfere with the District's facilities; nor trees; nor shrubs; nor
 - c. Develop, landscape, nor beautify the easement area in any way which would unreasonably increase the costs to the Grantee of restoring the easement area and any private improvements therein; nor
 - d. Install asphalt nor concrete surfaces greater than 4-inches thick (inclusive of future overlays); nor reinforced concrete surfaces of any thickness.

This easement shall be recorded with the Douglas County Auditor, shall run with the land described herein, and shall be binding upon the parties, their heirs, successors in interest, and assigns.

APPLICATION FOR TEMPORARY HYDRANT VALVE AGREEMENT

Name of Applicant: _____ Phone #: _____

Billing Address: _____

Location of Fire Hydrant: _____ Hyd #: _____

Contact Name & Phone # _____

Dates of Usage: Installed: _____ Removed: _____



****TO BE BILLED TO THE CUSTOMER ON THE FOLLOWING TERMS****

Note: Connection Fee will be required at the time of application. The Applicant is solely responsible for the hydrant, meter, backflow assembly and their use and condition while connected to the hydrant. Damage or theft of the meter assembly and/or any damages sustained while in the applicant's use is the sole responsibility of the applicant. All replacement costs and/or damages to the meter and/or backflow assembly will be billed to the applicant. Any outstanding unpaid balance shall be paid prior to a hydrant meter assembly being set.

****CHARGES****

Non-refundable Connection Fee = \$250.00 per connection (includes installation, removal, and testing of backflow device).

Daily Usage Charge = \$5.00

Water Consumption = Excess Rate

Water Consumption and Daily Usage charges will be billed monthly.

Daily Usage charge will apply until the District has been notified by the applicant to remove the device.

All connections to fire hydrants for construction related purposes are considered temporary (6 months). All District metered hydrant connections will be supplied with a Washington State Health Department approved Reduced Pressure Backflow assembly in good working order. No physical connection from the public potable water supply without a Backflow assembly will be permitted. Tampering with valves, meters or connections made by unauthorized individuals is a crime punishable by law per RCW 9A.61.020 and RCW 80.28.240. Illegal connections fees of up to \$1,500.00 may be charged in addition to the estimated usage on any illegal connection.

Indemnity: The applicant understands and by his signature to this application agrees to comply with all conditions as identified within this permit application as well as all State Ordinances, District Resolutions and laws pertaining to backflow prevention and hydrant usage. The applicant also agrees to indemnify, defend and hold harmless the East Wenatchee Water District, its agents and employees from and against any and all claims, losses or liability, including attorney's fees arising from any damage resulting from negligence, neglect, or improper usage of a fire hydrant.

By signing, I hereby agree to the terms and conditions set forth above.

Signature _____ Date _____

Print Name _____

APPLICATION FOR SERVICE ACCOUNT
EAST WENATCHEE WATER DISTRICT
692 EASTMONT AVE; E. WENATCHEE, WA 98802
PHONE 509-884-3569; FAX 509-886-0550



INSTRUCTIONS:

1. PRINT AND PRINT OUT FORM AND SIGN AT BOTTOM
2. YOU MAY FAX OR MAIL THIS FORM ONCE COMPLETED OR DROP IT OFF AT THE OFFICE AT 692 EASTMONT AVE.

SERVICE ADDRESS:

APPLICANT'S NAME	PHONE
------------------	-------

MAILING ADDRESS (if different than above)

Are you Buying? If so, please fill out the next line

SELLER	BUYER
--------	-------

Are you Renting? If so, please fill out the next line

OWNER	RENTER
-------	--------

EFFECTIVE DATE

SIGNATURE _____

The undersigned applicant hereby applies for a water connection to the above described property. The applicant is the owner or customer of the described property or the authorized agent of the owner. By signing this application, the applicant agrees, as a condition of the East Wenatchee Water District providing and continuing service to the above described property, to comply with all provisions of the District's cross connection control program, and other such rules and regulations now existing or which may be established from time to time governing the public water system. The applicant specifically agrees to install and maintain at all times their plumbing system in compliance with the most current edition of the plumbing code having jurisdiction as it pertains to the prevention of water system contamination, prevention of pressure surges and thermal expansion in their water piping. For thermal expansion, it shall be assumed that a check valve is installed by the East Wenatchee Water District on the water service. Further, the applicant agrees not to make a claim against the East Wenatchee Water District or its agents or employees for damages and/or loss of production, sales or service, in case of water pressure variations, or the disruption of the water supply for water system repair, routine maintenance, power outages, and other conditions normally expected in the operation of a water system.

The District does not guarantee the quality of water on the customer's side of the meter, in the customer's service line, or household plumbing, related to taste, odor, or to growth of bacteria.

The District is not responsible for installation, operation, maintenance or replacement of any plumbing or equipment on the customer's side of the meter vault.

DISTRICT STANDARD CONSTRUCTION DETAILS

The Standard Construction Details are updated regularly by the District and a newer version may be developed during preparation of the construction plans, prior to construction, or during construction. The Developer is responsible for constructing the improvements consistent with the most current version of the Standard Details, which can be downloaded from the District's website. The construction plans will not be approved for construction by the District unless the most current details are included.

If the Standard Construction Details are updated any time prior to or during construction on the water system improvements, the District Inspector will determine if the updates must be incorporated into the Developer's work. No compensation will be provided by the District for any such revisions.

<http://www.ewwd.org/forms.html>



CONSTRUCTION COMPLETION REPORT FORM FOR DISTRIBUTION MAIN PROJECTS

In accordance with WAC 246-290-120(5), a **Construction Completion Report** is required for all construction projects. Under the submittal exception process for distribution main projects, designed by a professional engineer but not submitted to the Department of Health (DOH) for approval, the report does not need to be submitted. **However, the purveyor must keep the Construction Completion Report on file and make it available for review upon request by DOH in accordance with WAC 246-290-125 (2)(b).** Furthermore:

- (1) The report form **must** bear the seal, date and signature of a professional engineer (PE) licensed in the state of Washington; and
- (2) Per WAC 246-290-120(5)(c), the amount of change in the physical capacity of a system must be documented, if the project results in a change in physical capacity.

East Wenatchee Water District _____

Name of Water System

DOH System ID No.: **21800 5** _____

East Wenatchee Water District _____

Name of Purveyor (Owner or System Contact)

Date Water System Plan that includes
Standard Construction Specifications

692 Eastmont Avenue _____

Mailing Address

Date Standard Specifications
Approved by DOH: **12 / 10 / 2014** _____

East Wenatchee, WA 98802-7190 _____

City State Zip

PROJECT NAME AND DESCRIPTIVE TITLE:

(Include the name of any development project and number of services.) _____

Date Project or Portions Thereof Completed _____

Professional Engineer's Acknowledgment

The undersigned professional engineer (PE), or his/her authorized agent, has inspected the above-described project that, as to layout, size and type of pipe, valves and materials, and other designed physical facilities, has been constructed and is substantially completed in accordance with construction documents reviewed by the purveyor's engineer. In the opinion of the undersigned engineer, the installation, physical testing procedures, water quality tests, and disinfection practices were carried out in accordance with state regulations and principles of standard engineering practice.

I have reviewed the disinfection procedures, pressure test results, and results of the bacteriological test(s) for this project and certify that they comply with the requirements of the construction standards/specifications approved by DOH.



Date Signed _____

Name of Engineering Firm _____

Name of PE Acknowledging Construction _____

Mailing Address _____

City State Zip _____

Engineer's Signature _____

State/Federal Funding Type (if any) _____

Please keep a completed, signed, and stamped copy on file.

Northwest Drinking Water
Department of Health
20425 72nd Ave S, Suite 310
Kent, WA 98032-2358
Phone: (253) 395-6750
Fax: (253) 395-6760

Southwest Drinking Water
Department of Health
PO Box 47823
Olympia, WA 98504-7823
Phone: (360) 236-3030
Fax: (360) 664-8058

Eastern Drinking Water
Department of Health
16201 E Indiana Ave, Suite 1500
Spokane Valley, WA 99216
Phone: (509) 329-2100
Fax: (509) 329-2104

If you need this publication in an alternate format, call (800) 525-0127. For TTY/TDD call (800) 833-6388.

DOH Form 331-147 (Updated 08/10)