Section 3
General Utilities

3.0 GENERAL UTILITIES

Design of utilities shall be performed by a professional engineer licensed in the State of Washington. All utility installations shall be designed in accordance with the industry standards, codes, and regulations applicable to the type of utility including applicable environmental and erosion control regulations. The Project General Notes, Dwg. U-0, shall be placed on all project plans that are constructed within the Town's rights-of-way and not funded by the Town.

3.1 Standard Utility Locations Within the Right-of-Way

Utilities within the existing or proposed right-of-way shall be installed in the following locations:

Utility	Designated Side of Center Line
Sanitary Sewer	5 ft. south or west
Water	5 ft. north or east
Storm Drainage	south or west
Telephone	north or east
Power	north or east
Cable	north or east

Dwg. U-1 and U-3 show the typical utility locations.

Where existing utilities or storm drains are in place, new utilities shall conform to these Standards as nearly as practical and yet be compatible with the existing installations. Exceptions may be approved by the Town when necessary to meet special requirements only if the public's best interest is served.

3.2 Underground Utility Installation

A. Buried Utilities

1. All buried utilities installed within the public right-of-way shall have the minimum cover shown on Dwgs. U-2, U-4, and U-5 unless written approval by the Town is secured prior to actual construction.

2 All dry utilities shall be installed in conduit within the right-of-way. Piping used as conduit shall be appropriately sized and shall be at least Schedule 40 PVC where other regulations do not exist and/or take precedence.

B. Trenching Requirements

1. All final asphalt cuts will be made by sawcutting; wheel or jackhammer cuts will not be allowed unless the entire street is to be overlaid. Pavement cutting wastes shall not be discharged to the Town's storm drainage system.

2. Backfill
   a. All backfill under asphalt and concrete pavement shall be suitable native material or crushed surfacing top course for trench backfill meeting WSDOT Standard Specifications.
   b. All backfill under asphalt paving will be placed horizontal layers not more than 6 inches and each layer will be mechanically compacted using vibratory compactors capable of attaining the required compaction. Minimum compaction for all trenches under asphalt and concrete pavement shall be 95 percent of the Standard Proctor Density. Minimum density for all other

areas within the public right-of-way shall be 90 percent of the Standard Proctor Density. See Dwg. U-2 for trench requirements.

C. Utility Cuts on Streets

1. No pavement or surface treatments shall not be cut for a period of 5 years after the pavement has been constructed or resurfaced. Untrenched construction techniques such as pushing, jacking or boring shall be explored on all new or existing pavement crossings. In cases of emergency or construction failures or if all alternatives to pavement cutting have been exhausted, provisions to allow cutting of the pavement may be obtained if approved by the Town.

2. If the Town allows a longitudinal utility installation, on an asphalt pavement section that is less than 5 years old, a one half street 2-inch grind and overlay shall be required. For concrete pavement the entire concrete panel that is cut shall be removed and replaced.

3. If the Town allows a transverse utility installation, on an asphalt pavement section that is less than 5 years old, a standard trench patch and a minimum 150 linear foot grind and overlay shall be required. The grind and overlay shall be installed 75 linear feet on each side of the trench section or as approved by the Director. See Dwg. U-7. For concrete pavements the entire concrete panels that are cut shall be removed and replaced.

D. Restoration

(See Drawings U-6 and U-7)

1. A temporary patch of cold mix asphalt shall be installed on all asphalt cuts at the completion of the backfill and compaction process and at the end of each day during which a project is ongoing. Patches shall be maintained to conform to the original cross section and grades of the surrounding road. Required repairs to trench patches must be made within 24 hours when repairs are required to maintain the safety of the public roadway. Where applicants, their agents or employees fail to make repairs required by the Town within 24 hours, the Town may cause the repairs to be made and the total cost of those repairs together with the Town's overhead and attorney fees shall be borne by the applicant. No new permits will be issued and no work will be allowed on other existing permits while any person, company, or entity is in default of any of the provisions of this ordinance.

2. Final restoration must be completed as soon as possible using four-inch minimum thickness of HMA. All patches will be constructed using best practices and are required to meet or exceed Town's Standard Specifications for thickness of asphalt, smoothness, and compaction. Sealing of all patch edges with hot asphalt sealant following completion of each patch is required.

3. Overlay's will be constructed of HMA meeting the Town's HMA specification and will be at least 2 inches in thickness.

4. On crossings required to be opened to traffic prior to final trench restoration, steel plates may be used as approved by the Town.

E. On Proposed Streets

(e.g., New Subdivisions)

Backfill compaction for trenches within the streets not open to public travel shall be achieved throughout the entire depth of the trench by mechanical compaction as described in Section 3.2 B unless controlled density fill is placed in accordance with Section 3.2 F.

F. Controlled Density Fill

As an alternative to mechanical compaction, trench backfill above the bedding and below the pavement section base course may be accomplished by use of controlled density backfill (CDF) in a design mixture approved by the Town.

G. Testing

1. Consistent with the above and prior to placing any surface materials on the roadway, it shall be the responsibility of the applicant to provide density test reports certified by an accredited material lab. A minimum of one test shall be taken within every 500 feet of trench length and at depths up to 50 percent of trench depth, or as directed by the Town. Where the trench is shorter than 500 LF, then three tests shall be taken (beginning, middle and end). Compaction of laterals or service line trenches shall be tested where directed by the Town. Testing of CDF shall be in accordance with ASTM D4832.

2. Whichever compaction method the installer elects, the backfill below four feet must test to be not less than 90 percent maximum density and the upper four feet of backfill must test not less than 95 percent maximum density. Where this cannot be achieved, all affected backfill in the top 4 feet shall be removed and replaced by gravel base and mechanically compacted to 95 percent.

3. The Town will hire the materials lab for the testing of the HMA. The Applicant shall reimburse the Town for this testing.

H. Notification and Inspection

1. Applicants with permits for trenching in existing or proposed Town streets shall notify the Town not less than 2 business days prior to doing the work. This notification shall include:
   a. Location of the work.
   b. Documentation that utility locates have been notified.
   c. Name of accredited materials lab that will provide compaction testing.
   d. Method of compaction to be used.

2. The applicant's contractor shall notify the Town at least 1 business day prior to when compaction or testing will be completed. Failure to notify may necessitate testing or retesting by the applicant at the expense of the applicant. Furthermore, the work may be suspended pending satisfactory test results.

I. Final Utility Adjustment to Finish Grade

1. All utility covers that are located on proposed streets shall be temporarily placed at subgrade elevation prior to placing of crushed surfacing material.

2. Utility structures shall not be located within sidewalks, driveway approaches or

driveway unless specifically approved by the Town.

3. Final adjustment of all covers and access entries shall be made following paving.
   a. Sawcutting of pavement openings shall not be larger then 12 inches beyond the radius of the cover.
   b. Remove crushed surfacing material, and frame; add risers/rings, replace frame and cover no higher than the finished grade and no lower than 1/2 inch below the pavement.
   c. Final adjustment of all covers and access entries shall be completed within 14 days of final paving.

J. Final Cleanup, Restoration of Surface Drainage and Erosion Control

In addition to restoration of the street as described above, the responsible utility shall care for adjacent areas in compliance with Sections 1-04.11 “Final Cleanup” and 8-02 “Roadside Restoration” in the WSDOT Standard Specifications. In particular:

1. Streets shall be cleaned and swept both during and after the installation work.

2. Disturbed soils shall be final graded, seeded and mulched after installation of utility. In limited areas, seeding and mulching by hand using approved methods will be acceptable.

3. Ditch lines with erodible soil and subject to rapid flows may require hydroseeding, seeding, jute matting, netting, or rock lining to control erosion.

4. Any silting of downstream drainage facilities, whether ditches or pipe and catch basins, which results from the utility installation shall be cleaned out and the work site restored to a stable condition as part of site cleanup.