

City of Brier
Standards for Utilities in the City Right of Way



December 2004
Adopted February 8, 2005

Prepared by:



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Utilities

3-700 Utilities

3-701 Franchising Policy and Permit Procedure

- A. Utilities to be located within existing and proposed City road right-of-way shall be constructed in accordance with current franchise and/or permit procedure and in compliance with these Standards. In their use of the right-of-way, utilities will be given consideration in concert with the traffic carrying requirements of the road, which are, namely, to provide safe, efficient and convenient passage for motor vehicles, pedestrians, and other transportation uses. Aesthetics shall be a consideration. As a matter of policy, undergrounding of electric utilities will be required. Also, utilities are subject to City policies relating to drainage, erosion/sedimentation control and sensitive areas as set forth in City Codes.
- B. Requests for exceptions to these Standards will be processed in accordance with variance procedure as referenced in Section 3-710.

3-702 Standard Utility Locations within the Right-of-Way

Utilities within the right-of-way on new roads or on roads where existing topography, utilities or storm drains are not in conflict, shall be located as indicated below. Where existing utilities or storm drains are in place, new utilities shall conform to these Standards as nearly as practicable and yet be compatible with the existing installations. Above ground utilities located within intersections shall be placed so as to avoid conflict with placement of curb ramps.

- A. Gas and Water Lines:
 1. Shoulder-and-Ditch Section:
If practical: Outside of ditch line.
Otherwise: In shoulder three feet from edge of traveled lane.
 2. Curb and Gutter Section:
One and one-half feet back of curb, or at distance which will clear root masses of street trees if these are present or anticipated.
Otherwise: In the street as close to the curb without encroaching on the storm drainage system. Mains and service connections to all lots shall be completed prior to placing of surface materials.
 3. Depth: 36 inches minimum cover from finished grade, ditch bottom or natural ground.
- B. Individual water service lines shall:
 1. Be placed with minimum 36-inch cover from finished grade, ditch bottom or natural ground.
 2. Use road right-of-way only as necessary to make side connections,
 3. For any one connection, not extend more than 60 feet along or through the right-of-way, or the minimum width of the existing right-of-way.
 4. Water meter boxes, when placed or re-placed, shall be located on the right-of-way line immediately adjacent to the property being served, unless otherwise approved by the Director of Community Development or

designee. Meter box locations within the right-of-way may be approved by the Director of Community Development or designee based on site conditions, which make routine, service access difficult or impractical.

- C. Sanitary Sewers: In the general case, five feet south and west of centerline; depth 36-inch minimum cover from finished grade, ditch bottom or natural ground,
- D. Sanitary and water lines shall be separated in accordance with good engineering practice such as the Criteria for Sewage Work Design, Washington Department of Ecology, latest edition.
- E. Gravity systems, whether sanitary or storm drainage, shall have precedence over other systems in planning and installation except where a non-gravity system has already been installed under previous approved permit and subject to applicable provisions of such permits or franchises.
- F. Electric utilities, power, telephone, cable TV: Preferable: Underground with 36 inch minimum cover, either side of road, at plan location and depth compatible with other utilities and storm drains. Otherwise: Every new placement and every replacement of existing utility poles and other utility structures above grade shall conform to the following:
 - 1. Utility poles or other obstacles may be placed within the right-of-way and shall be as far back from the traveled way or auxiliary lane as practicable. The utility pole shall be placed outside of the clear zone per the WSDOT Design Manual.
- G. Notwithstanding the other provisions regarding pole locations described in these standards, no pole shall be located so that it poses a hazard to the general public. Utilities shall place and replace poles with primary consideration given to public safety.
 - 1. Locations of poles shall also be compatible with driveways, intersections, and other road features (i.e., they shall not interfere with sight distances, road signing, traffic signals, culverts, etc.). To the extent possible, utilities shall share facilities so that a minimum number of poles are needed.
 - 2. Where road uses leave insufficient overhang, anchor, and tree-trimming space for overhead utilities, consideration will be given to variance from the Standards or to acquisition of additional easements and/or right-of-way for this purpose. Costs incurred for said acquisition shall be borne by the developer, builder, or other party initiating the road construction. However, the associated cost of relocating the utility shall not be borne by the City of Brier.
- H. Notwithstanding other provisions, underground systems shall be located at least five feet away from road centerline and where they will not otherwise disturb existing survey monumentation.

3-703 Underground Utility Installation

- A. General: The WSDOT/APWA Standard Specifications, particularly Section 7-08 will generally apply unless otherwise stated below.
- B. Utility Cuts On Existing Traveled Roads
 - 1. General Policy

- Trench restoration guidelines ensure that the condition of the pavement of existing and new public streets are not degraded by trenching and restoration activities. These guidelines shall be followed by City departments, utility companies and contractors when doing trench work within the paved portion of City right of way.
- Modifications or exemptions to these policies may be authorized by the Director of Community Development or designee per section 3-710 of these standards.
- Whenever a new street is completed or an overlay of an existing street is completed, a five (5) year moratorium on pavement trenching goes into effect.
- Pavement trenching may be allowed, under compelling circumstances, provided a more reasonable alternative does not exist.
- Boring under the roadway shall be by a guided boring equipment. A boring mole will not be allowed.
- Utility potholes that replace 25 square feet of existing asphalt surface or less will not require an overlay. Replacement of asphalt surface on-foot beyond the trench walls is required. Restoration shall be consistent with the City of Brier Standard Plan for Transverse cut.

2. Policy

Overlay is required

- If there are more than two (2) parallel, perpendicular or pothole patches proposed within 100 lineal feet of roadway.

3. Trench Restoration

Longitudinal Cut

- Trench restoration shall be per standard plan 3-703

Transverse Cut

- Trench restoration shall be per standard plan 3-702

4. General Information

Inspection

The City inspectors may determine in the field that a full street width or lane width overlay be required due to changes in the permit conditions such as the following:

- Trenches needed to be relocated in the field because of existing utilities.
- Additional damage to existing asphalt surface due to the contractors equipment.
- The trench width increases significantly.

- d. Significant problems that were not expected or are discovered during the construction.

Overlay

- Lane width or a full street width overlay will be determined based on the location of the proposed trench within the roadway cross section.
 - a. If the trenching is down the middle of a single lane then a lane width overlay will be required.
 - b. If the trenching is down the middle of the roadway a full width overlay will be required.
 - c. If the trenching is down the middle of two lanes in the same direction or is within three feet of any lane then the lanes affected will be overlaid.

1. All existing pavement shall receive a 2" grinding prior to the overlay.

2. All overlays shall extend ~~50~~ ²⁰ feet beyond the edge of the trench. 10' EACH SIDE

New Streets and Recent Overlay

PER MAYOR ON 12-10-15

- Whenever a new street is accepted from a developer or a new overlay is completed, a five (5) year moratorium on pavement excavation and trenching goes into effect. This could result in delaying further construction of utilities except in the event of an emergency.

Exceptions: Should a new street or a street with a new overlay be excavated or trenched, a full street width overlay will be required, regardless of pavement area disturbed. Full street overlay shall be consistent with Overlay requirements 1. and 2. above.

C. On Proposed Roads (e.g., New Subdivisions): Backfill compaction for trenches within the roadway shall be achieved throughout the entire depth of the trench, by mechanical compaction as described below.

D. Controlled Density Backfill:

As an alternative to mechanical compaction, trench backfill above the bedding and below the base course or ATB may be accomplished by use of controlled density backfill (CDF), also known as "flowable fill" in a design mixture approved by the Director of Community Development or designee. On crossings required to be opened to traffic prior to final trench restoration, steel plates may be used-as approved by the Director of Community Development or designee.

E. Testing:

1. Consistent with the above and prior to placing any surface materials on the roadway, it shall be the responsibility of the developer to provide density test reports certified by a professional Engineer. 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 Director of Community Development or designee. Compaction of laterals or service line trenches shall be tested

where directed by the Director of Community Development or designee. Testing of CDF shall be in accordance with ASTM D4832.

2. Whichever compaction method the installer elects, the backfill must test not less than 95 percent maximum density (modified proctor). Where this cannot be achieved, all affected backfill in the top four feet shall be removed and replaced by gravel base and mechanically compacted to 95 percent as in B.2 above.

F. Notification and Inspection:

1. Consistent with these Standards, any developers, utilities, or others intending to trench in existing or proposed traveled City streets shall notify City of Brier Public Works not less than one working day prior to doing the work. This notification shall include:
 - a. Location of the work
 - b. Method of compaction to be used
 - c. Day and hour when compaction is to be done
 - d. Day and hour when testing is to be done.
2. As set forth in these Standards, failure to notify may necessitate testing or retesting by City of Brier at the expense of the Developer or Utility. Furthermore, the work may be suspended pending satisfactory test results.

3-704 Final Utility Adjustment (To Finish Grade)

- A. All utility covers, which are located on proposed asphalt roadways, shall be temporarily placed at subgrade elevation prior to placing crushed surfacing material.
- B. Final adjustment of all covers and access entries shall be made following final paving by:
 1. Saw-cutting or neat-line jack hammering of the pavement around lids and covers. Opening should not be larger than 12 inches beyond the radius of the cover.
 2. Removing base material, surfacing course, and frame; adding raising bricks; replacing frame and cover no higher than finished grade of pavement and no lower than one-half inch below the pavement.
 3. Filling and mechanically compacting around the structure and frame with crushed surfacing material or ATB, or pouring in five-inch minimum thickness of cement concrete Class 3000 to within two inches of the top.
 4. Filling the remaining two inches with asphalt concrete Class B hot mix, compacted and sealed to provide a dense, uniform surface.
 5. Final adjustment of all covers and access entries shall be completed within 30 days of final paving.

3-705 Final Cleanup and Restoration

In addition to restoration of the road as described above, the responsible utility shall care for adjacent areas in compliance with these standards and 8-01 "Roadside Seeding" in the WSDOT/APWA Standard Specifications. In particular:

- A. Streets and roads shall be cleaned and swept both during and after the installation work. No blading of asphalt streets will be permitted.

- B. 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.
- C. Ditch lines with erodible soil and subject to rapid flows may require seeding, jute matting, netting, or rock lining to control erosion.
- D. 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.

3-710 Variances

- A. Variances from these Standards may be granted by the Director of Community Development or designee upon evidence that such variances are in the public interest and that requirements for safety, function, fire protection, appearance and maintainability based upon sound engineering judgment are fully met. Detailed procedures for requesting variances and appeals variance decisions are contained in the Brier Municipal Code. Any anticipated variances from these Standards, which do not meet the Uniform Fire Code, shall also require concurrence by the Fire Marshal.
- B. Questions regarding interpretation of these Standards may be directed to the Director of Community Development or designee.

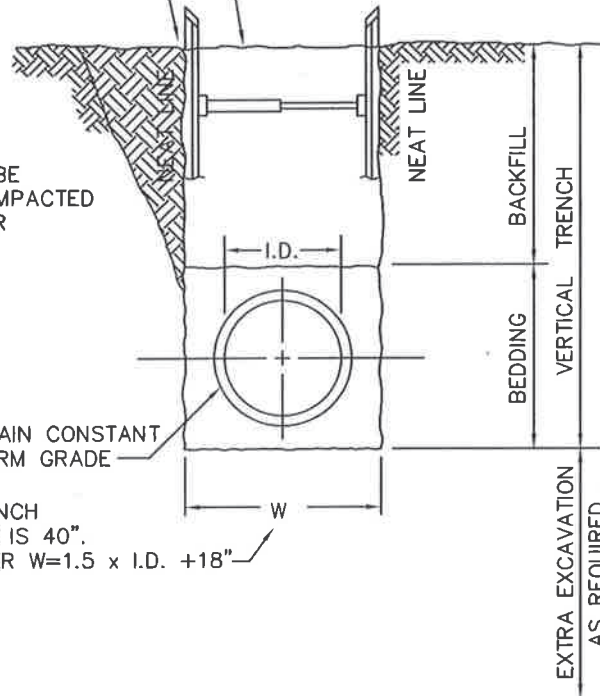
REPLACE DRIVEWAY, PAVEMENT,
SIDEWALK AND CURB & GUTTER
PER DETAIL 3-702 OR 3-703.

CRIBBING & SHEETING AS REQUIRED FOR TRENCH
DEPTH EXCEEDING 4'-0" PER WASHINGTON
INDUSTRIAL SAFETY AND HEALTH ACT.

TRENCH BACKFILL SHALL BE
5/8" TO 1 1/4" CSTC COMPACTED
TO 95% MAX. DENSITY PER
WSDOT 2-03.3(14)C OR
CONTROLLED DENSITY FILL.

MAINTAIN CONSTANT
UNIFORM GRADE

W = MAX. WIDTH OF TRENCH
FOR PIPES 15" Ø OR LESS IS 40".
FOR PIPES 18" OR GREATER $W=1.5 \times \text{I.D.} + 18"$

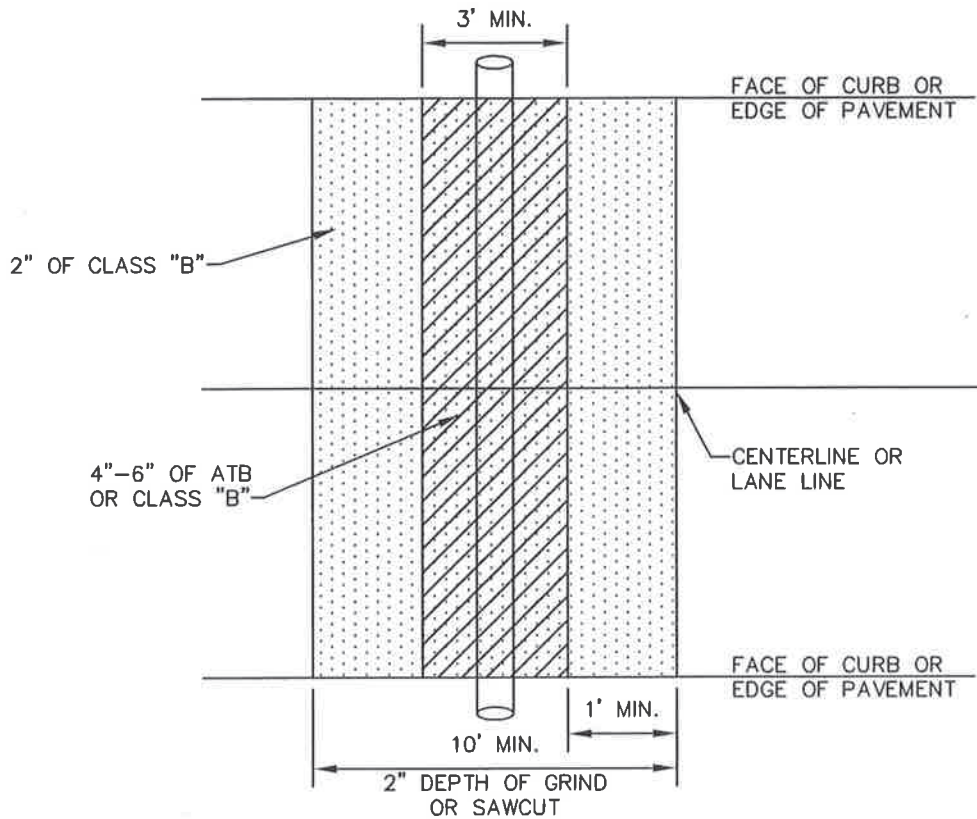


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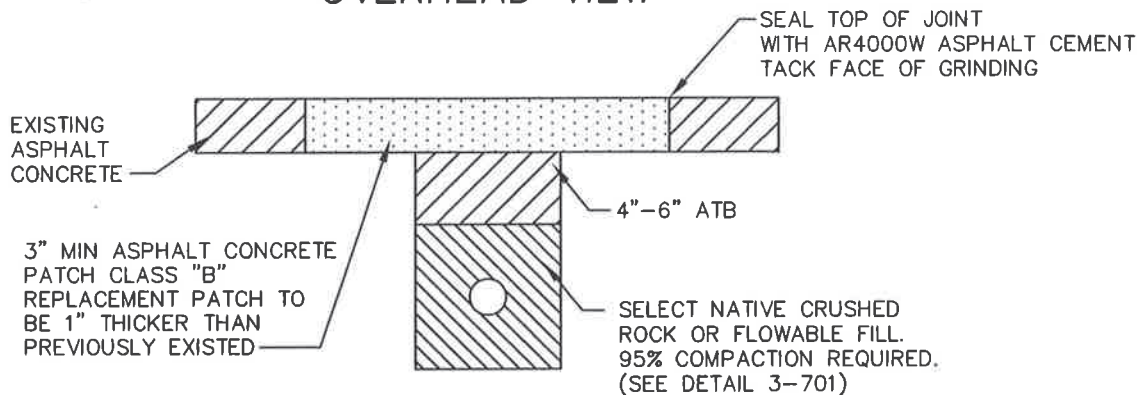
1. DEWATERING IS REQUIRED WHERE WATER IS ENCOUNTERED.
2. FOUNDATION GRAVEL IF REQUIRED BY THE ENGINEER TO REPLACE UNSUITABLE MATERIAL SHALL BE FOUNDATION MATERIAL CLASS A.
3. PIPE BEDDING PER WSDOT 7-08.3(1)C.



**TYPICAL TRENCH SECTION
STANDARD PLAN 3-701**



OVERHEAD VIEW



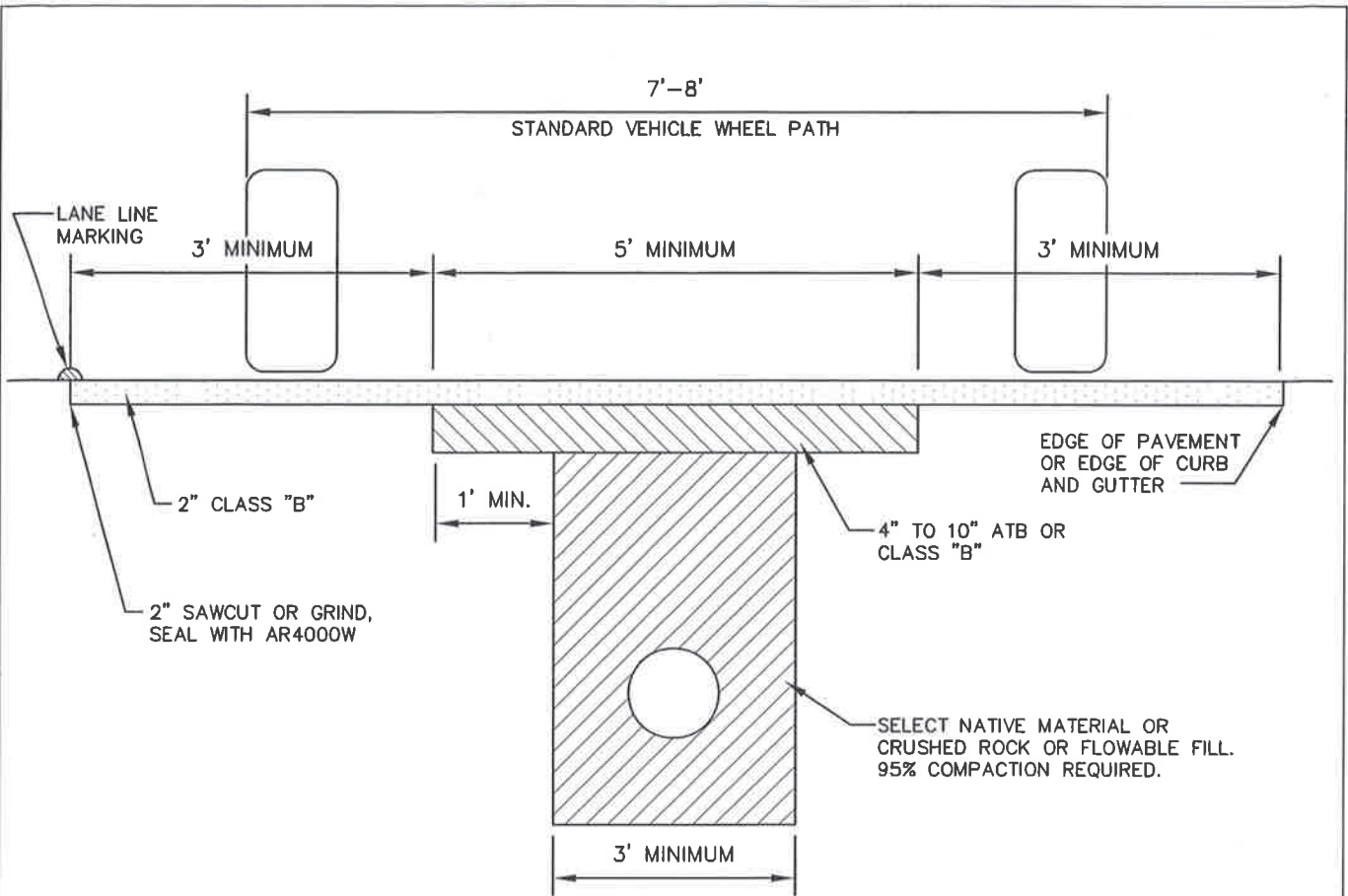
CROSS SECTION

NOTES:

1. ALL TRENCHES IN ROADWAY AREAS SHALL BE BACKFILLED AND PATCHED WITH TEMPORARY ASPHALT AT THE END OF EACH WORK DAY, UNLESS PERMISSION IS GRANTED TO DO OTHERWISE BY THE CITY.
2. ALL TEMPORARY PATCHES ON TRENCHES SHALL BE PERMANENTLY PATCHED AS SOON AS POSSIBLE UPON COMPLETION OF WORK WITHIN THE ROADWAY AREA.
3. REPLACE AND RESTORE ALL SURFACE IMPROVEMENTS (I.E. TRAFFIC BUTTONS, CURBING, STRIPING) AS DIRECTED BY THE CITY.
4. IF THERE ARE MORE THAN 2 PARALLEL OR PERPENDICULAR PATCHES PROPOSED WITHIN 100 LINEAL FEET OF ROADWAY, THE APPLICANT SHALL BE RESPONSIBLE TO GRIND OFF THE TOP TWO INCHES OF ASPHALT AND OVERLAY THE FULL STREET SECTION.



TRANSVERSE CUT
STANDARD PLAN 3-702



LESS THAN FULL WIDTH OVERLAY

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**SECTION OF LONGITUDINAL CUT
STANDARD PLAN 3-703**