

Standards for SDOT Utility Permit Plans

Drawings for utility permit applications for work in *Downtown Seattle (Denny Way to South Royal Brougham Way)* and the *University District* in the Principal arterial streets of Seattle, shall be drawn at a scale of 1 inch =10 feet. All existing utilities must be shown by two dimensional lines. A single line representing a utility is not acceptable.

Plans for streets outside of Downtown and for streets designated as Minor, Collector, or non-arterial streets, may be drawn at a scale of 1 inch =20 feet, including detail sheets of typical cross-sections for the conduit installations. All existing utilities must be shown by two dimensional lines. A single line representing a utility is not acceptable.

In addition, plans shall show existing sidewalks, curbs, and street pavement; street trees; utility poles; underground building structures (a.k.a. areaways); and above ground cabinets. Plans shall identify those areas in which conduit/maintenance holes will be placed in decorative sidewalks. (Replacement materials identical to those removed, must be either on the job site or in permittee's possession prior to the removal).

Plans for trenching over 240 feet in length must be submitted with the permit application. The plan shall show the extent of street pavement repairs. Cuts in concrete panels will, in most cases, require replacement of the entire panel.

Minimum clearances must be maintained from existing utilities:

Water Mains

- 1) five foot separation between edge of water main and proposed maintenance holes or conduits
- 2) a minimum of one foot separation between conduits and water mains
- 3) 10 foot separation between maintenance holes or conduits and concrete thrust blocks at bends and "tees" of water mains

Electrical Ducts and Maintenance holes

A two foot separation between edge of ducts and proposed manhole or conduits is required.

Sewers and Storm Pipes

A minimum clearance of 5 feet between the edge of any storm or sewer main and the proposed maintenance holes to be installed must be maintained. In the event the maintenance holes must be placed closer than 5 feet, subject storm or sewer main will have to be replaced with ductile-iron pipe at permittee's expense. The ductile-iron pipe shall be placed beyond the ends of the maintenance holes to a point at least 3 feet from the maintenance hole and/or at least 2 feet into undisturbed soil.

Inclusion of a public place security agreement in the permit may reduce the horizontal clearance between the edge of any storm/sewer main and the edge of the proposed conduits and maintenance holes to 3.5 feet.

Public Security Agreement Language: *"Permittee for and behalf of themselves, their successors and assigns, does hereby covenant and agree to forever hold and save the City of Seattle free and harmless from any and all claims, actions or damages of every kind and description which may accrue to or be suffered by the City of Seattle or any person by reason of the use of the (names of streets in which there will be 3.5 feet of clearance) rights-of-way for permittee's conduits and maintenance holes placed therein. Further, permittee also agrees to reimburse the City of Seattle for any additional costs associated with the City of Seattle having to excavate, tunnel, or hand dig around permittee's conduits and maintenance holes in said street rights-of-way to repair or replace any sewer mains located therein".*

Gas Mains

Puget Sound Energy (PSE) is required to follow Federal DOT standards as a minimum. However, PSE has its own interpretation of the standards which are on file with the Washington State Utility Commission. This commission holds PSE legally accountable to the standards on file.

DOT CFR#192.325: *12 inch minimum clearance and the operating utility must have room enough for maintenance and repair capabilities.*

PSE Standards 6.8 6.2: *requires 36 inches from any utilities on high pressure gas mains for enough clearance to install Plidco repair clamps if necessary.*

Maintenance Hole Placement

Maintenance holes are not to be placed in the sidewalk landing areas of street intersections. In addition, conduits are to have at least 36 inches of cover. Where conduits cross existing utilities, application drawings shall have a profile showing where the proposed conduits will be placed in relationship to the other utilities. The vertical scale for the profile shall be 1 inch = 5 feet.

Directional Boring Submittal Requirements

The use of directional boring to install conduits is subject to the approval of the Director of Transportation. Before consideration will be given to approving the directional boring, permittee shall submit horizontal (1 inch = 10 feet) and profile (1inch = 10 feet vertical scale) views of the proposed boring location. The views shall show locations of the boring pits, detail the method of capturing sludge run-off from the boring, and describe how it will avoid damaging other underground utilities in the streets.

The plans of the profile shall show all existing utilities that the bore will cross and those utilities located within fifteen feet (15 inches) of either side of the bore. (Dimensions shall be provided, showing the depth of the bore, clearance from existing utilities, and the location and size of the boring pits.) Except for utilities more than five feet (5 inches) from the bore, permittee shall "pothole" and expose all underground utilities that its bore route will be crossing or paralleling.

These plans shall be distributed to all the affected utilities for review and comment. Upon completion of the review, the Director of Transportation will consider allowing the directional bore. (Borings within five feet of any clay tile duct banks and electrical transmission lines will not be allowed under any conditions.)

Work in Pioneer Square Historical and International Special Review Districts

Work altering the appearance of the sidewalk or street surface in these districts (i.e., handhole or maintenance hole frames and lids) must have approval of the Pioneer Square Historical District or International Special Review District. Sidewalk pavement and/or brick paving cut or damaged by permittee shall be restored in-kind at permittee's expense.

Core-drilling through bulkheads

Before core drilling through any bulkhead walls, permittee will need to review Seattle Public Utility construction plans for said bulkhead. All rebars and counterforts shall be located before drilling; also, all rebar shall be missed by any coring activity. The interior of all cored holes shall be coated with epoxy. The criteria for installing utilities to roadway structures shall also be met:

Permittee shall submit to the Seattle Transportation Roadway Structures Division scaled drawings of the plan and profile for core drilling through the Seattle Transportation bulkheads; subject plans require approval by Seattle Transportation prior to any core drilling of its bulkheads. No flammable or explosive material may be in area (except gas or diesel fuel in tanks of construction equipment or parked vehicles). Any damage to bulkhead structures during and/or after installation of the conduits and vaults shall be permittee's responsibility to repair by procedures approved in writing by Seattle Transportation. If access by Seattle Transportation is required to the bulkhead structure, permittee shall move or remove its facilities through or attached to the bulkhead structure at no expense to Seattle Transportation. Conduit will not restrain existing horizontal or vertical clearances without Seattle Transportation written approval. Permittee is responsible for following all rules, regulations and laws governing the construction, maintenance and operation of the permitted work. Seattle Transportation makes no representation regarding the safety or integrity of the bulkhead structures. Further, if the structure is damaged or destroyed, Seattle Transportation will have no obligation to provide an alternative location for permittee's facilities attached thereto. Within seven days of substantial completion, permittee agrees to provide Seattle Transportation with two sets of as-built drawings of the utilities it installs through or attaches to the bulkhead structures.

Before drilling in concrete, all rebar shall be located with a pacometer within a 6 inch radius of any proposed wall anchors. Wall anchors shall miss all steel reinforcement in area of installation. Drilling through reinforcing steel will not be permitted. If steel is hit when drilling, the core hole or anchorage location must be moved and the abandoned hole filled with nonshrink grout, conforming to the requirements of the current version of the City of Seattle "*Standard Specifications for Road, Bridge and Municipal Construction*", Section 602.3(3) D. Any holes drilled for utilities, not filled with nonshrink grout, shall be entirely coated with epoxy. There shall be a minimum of three inches (3 inches) edge distance to the center line of holes in concrete.