



# Natural Gas Service Requirements



**August 2023**

**“Yellow Book”**



[myavista.com/construction](https://myavista.com/construction)

This booklet supersedes all previous editions.

This manual with the most current changes is available at [myavista.com/construction](https://myavista.com/construction)

## **Gas Service Requirements (“Yellow Book”)**

August 2023

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1411 E Mission Ave  
Spokane, WA 99202  
(800) 227-9187

[myavista.com/construction](https://myavista.com/construction)

This publication supersedes all previous editions. Requirements for service are subject to change without notice, including in-between publications. Please contact Avista prior to starting construction for latest requirements. Please be advised that this book is designed for reference only. Refer to current editions of codebooks for the applicable jurisdiction for specific language pertaining to code questions.

This publication does not include all applicable federal, state, and local codes and regulations. Avista assumes no liability for damages that may arise from the use of information contained herein, including that which may be in error. Consult your authority having jurisdiction for additional construction requirements.

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## PREFACE

**IMPORTANT:** Please contact **Avista Utilities at 1-800-227-9187** or [myavista.com/construction](https://myavista.com/construction) when planning, and prior to starting construction on your gas project.

If you are planning to install, repair, relocate, or upgrade your gas service or meter, you probably have some questions. This handbook includes several common gas project requirements which must be met before new gas service can be installed or a modified gas service can be connected.

It is important to know that this is not an all-inclusive document, so please call Avista Utilities prior to starting your project and we will put you in touch with your local Customer Project Coordinator (CPC) who, after some preliminary research, will help guide you through the specifics around your gas project.

Consult your authority having jurisdiction (typically your city or county) for additional requirements and permits.

Spending some extra time during your project's planning phase can save time and minimize confusion as your project moves forward.

## SAFETY

### DIGGING SAFETY

You're liable for dig-in related damages. **Call 811 before you dig**; it's the law and the service is free:

1. Mark proposed excavation in white paint (use pink if covered by snow).
2. Call 811 minimum two business days before digging.
3. Wait for all utilities on locate ticket to be marked before digging.
4. Maintain locate marks/flags until locate ticket expires.
5. Hand digging is required within 24-inches of all marked utilities.



**Know what's below.  
Call before you dig.**

#### Utility Marking Color Codes

**Electric: Red**

**Gas-Oil: Yellow**

**Communication: Orange**

**Water: Blue**

**Sewer: Green**

**Temporary Survey: Pink**

**Irrigation: Purple**

**Proposed Excavation: White**

Visit <https://www.myavista.com/safety/call-811-before-you-dig> for more information.

Only utility owned, and operated lines will be located through the 811 service. Privately owned lines (e.g., anything beyond the meter point) will not be marked. A private locator can be hired for a fee.

If you hit or nick an electric or natural gas line, immediately call Avista at **800-227-9187**.

## REPORTING A GAS EMERGENCY



**If you dig into, nick a line, and/or suspect a gas leak, follow these steps:**

- Evacuate everyone in the area and keep others away.
- From a safe distance, call 911 and then Avista on your cell phone at (800) 227-9187 from a safe location.
- Avoid using anything that might cause a spark, including flashlights, light switches, telephones, tobacco, lighters, and/or matches.
- Never try to repair a damaged natural gas line yourself or restrict the gas flow in any manner, including bending the pipe. It's crucial that we inspect the line.
- Stay away from the area until emergency personnel indicate it is safe to return.

## RESOURCE FOR MORE SAFETY INFORMATION

Please visit <https://www.myavista.com/safety/natural-gas-safety> for more information, including videos to help keep you and our community safe.

## CHECK LIST TO GET STARTED

- Call 811!**
- Contact Avista Utilities at 1-800-227-9187 for initial questions regarding availability of service, houseline stub out location, and meter set location.
- Consider contacting an HVAC dealer or plumber to discuss delivery pressure needs, houseline sizing, and to better understand the cost for downstream piping (piping from Avista meter to gas appliances) and appliance costs/options.
- Familiarize yourself with permitting and inspection requirements for your project and determine if you or your certified/licensed dealer will be coordinating this part of your project. See Section 1 General Service Requirements for more information.

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# 1. GENERAL SERVICE REQUIREMENTS

**IMPORTANT:** Please contact **Avista Utilities at 1-800-227-9187** or [myavista.com/construction](https://myavista.com/construction) when planning, and prior to starting construction on your gas project.

These guidelines are based on the typical utility practices necessary to supply reliable and safe natural gas service. All meter and service equipment required for the construction of new or remodeled installations must meet these guidelines. In addition, installations must conform to the rules and regulations of the inspection authorities having jurisdiction. These regulations include but are not limited to the current International Fuel Gas Code, State Rules and Regulations, City and County ordinances and codes, and rules on file with or issued by the Public Utility Commission.

## 1.1. UTILITY RATES & REGULATIONS

Copies of Avista's current effective rates, rules and regulations filed with the Public Utilities Commission are available to you upon request or at <https://www.myavista.com/about-us/our-rates-and-tariffs>.

## 1.2. ABILITY TO SERVE

It is important that Avista be provided, as soon as possible, the accurate total connected BTU load information, desired delivery pressure and other requested data to determine the availability of service, service location and available pressure.

## 1.3. GAS SERVICE AGREEMENT

For new installations and other customer requested work, a signed service agreement and payment (if applicable) is required before Avista's work can be scheduled. Gas Service Agreements will be provided to you by your Avista Customer Project Coordinator.

## 1.4. PERMIT & INSPECTIONS

The customer, authorized agent, or their licensed HVAC Dealer/Plumber is responsible for obtaining all permitting before work is started as well as having their completed work inspected by the authority having jurisdiction. The authority having jurisdiction may be a federal, state, local or other regional department having statutory authority.

## 1.5. GAS SERVICE CONNECTION REQUIREMENTS

Avista will only connect a new gas service meeting Avista's requirements to equipment which has passed local inspection and has a visible inspection tag attached on the house line.

When modifications are done to an existing gas service, it will be reconnected after verification of an inspection as required by your local jurisdiction. Please verify requirements prior to work being done.



- 1.5.1. Depending on requirements set forth by the local governing agency, if a service has been disconnected for one year or more, or if deemed necessary by Avista personnel, a new mechanical permit and inspection may be required and obtained from your local jurisdiction.

**Note:** Replacement of manufactured/mobile homes may constitute a major change and require both an Avista inspection and by the governing agency. For more information, please contact Avista.

- 1.5.2. Multi-Meter Manifolds must have a permanent label identifying each unit served. Please see the metering section 2.5.1 for more detail around multi-meter labeling.

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## 2. METER PLACEMENT AND STUB OUT LOCATION

**IMPORTANT:** Please contact Avista Utilities at 1-800-227-9187 when planning, and prior to starting construction on your gas project.

There are many things to consider when determining where your meter will be set, such as: the location of your inside house piping, the location of other utilities (e.g., electric, water, sewer, etc.), and the proximity of windows, vents, driveways, etc. We have listed several do's and don'ts within this section for guidance, but please reach out to your local Customer Project Coordinator early in your project to help determine the best meter placement and stub out location for your project.

### 2.1. GENERAL

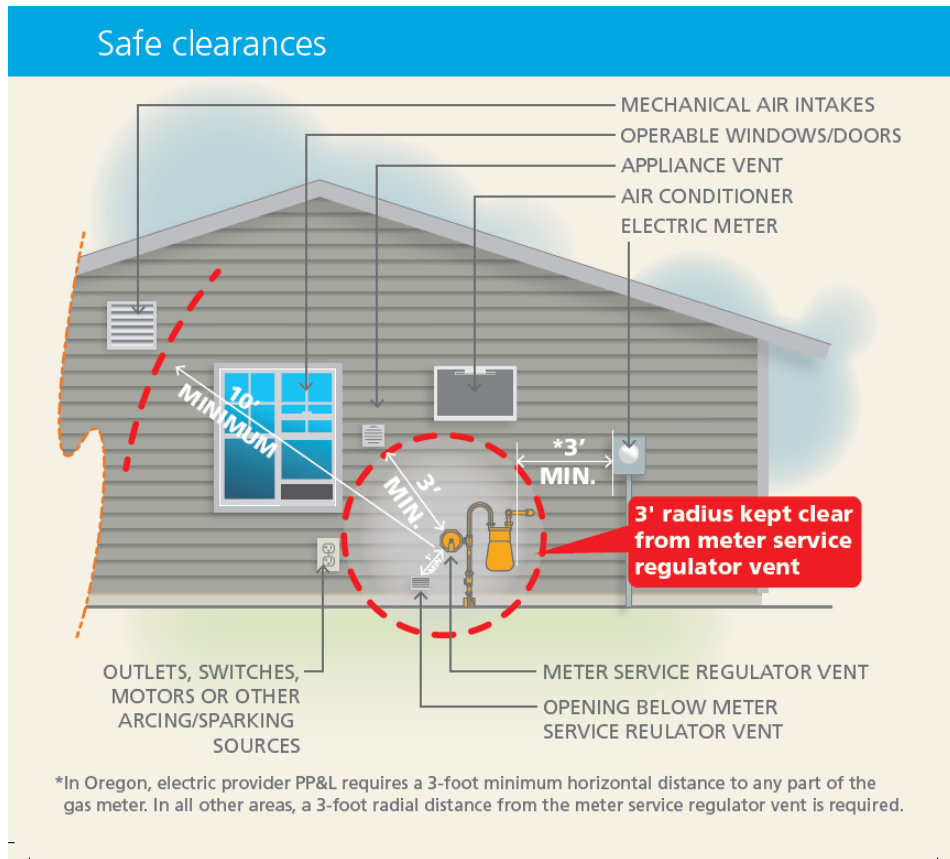
- 2.1.1. Only Avista owned metering equipment will be used to provide billing information.
- 2.1.2. The customer must provide Avista with access for meter reading, maintenance, installation, or removal per WAC 480-100-168.
- 2.1.3. Consideration shall be given to the safety of Avista employees who must install, test, and read the meters on a regular basis. The meter and service regulator must be installed in a location readily accessible for examination, reading, replacement, and maintenance.
- 2.1.4. The meter location shall provide protection from damage due to outside forces, including but not limited to, vehicles, animals, weather, snow, and ice. When proper meter protection cannot be provided by placement of the meter, secondary protection shall be provided. Customers may install protective fences around meters if they comply with Avista's requirement for access and maintenance.
- 2.1.5. Typically, only one service per building will be installed.
- 2.1.6. A typical meter install by Avista is to the right of the gas riser, 14-inches to 16-inches for the first meter and 14-inches for additional meters.

### 2.2. LOCATION

- 2.2.1. The meter set should be located so that the service line route is the shortest route between the gas main and the meter set location.
- 2.2.2. The meter and regulator must be located as close as practical to the delivery point, generally within 10' of the front corner of the building or attached to the front of the house. Please coordinate meter location with CPC.
- 2.2.3. Meter sets must be installed in one of the following locations (listed in order of preference):
  - 2.2.3.1. Outside, at or near ground level, adjacent to an exterior wall of the building. In heavy snow areas the meter shall be installed under a roof overhang of 12 inches (minimum) measured from the drip line to the front face of the meter or on the gable end of the building where possible. On new installations, if this is not possible, approved external meter protection and a breakaway fitting should be considered for installation to protect the meter from falling snow and ice.

- 2.2.3.2. In an alcove in the exterior wall of the building.
- 2.2.3.3. In a meter room within the interior of the building. (Location to be pre-approved by CPC/Avista).
- 2.2.4. Meter sets should not be installed in the following locations:
  - 2.2.4.1. Locations subject to snow or water shedding off a roof.
  - 2.2.4.2. Locations subject to corrosion.
  - 2.2.4.3. Location subject to vehicular damage such as adjacent to driveways.
  - 2.2.4.4. Locations subject to ground erosion or places subject to excessive vibration.
  - 2.2.4.5. Locations subject to condensation or where live steam, hot liquid, or corrosive gases or vapor are present or used.
  - 2.2.4.6. Locations under or within any porch, deck patio or similar enclosure where access is limited, and the free venting of gas is not assured.
  - 2.2.4.7. Locations under interior stairways.
  - 2.2.4.8. In engine, boiler heater, or electric meter rooms.
  - 2.2.4.9. Under outside fire escapes.
- 2.2.5. For outside meter set locations, at the time of installation of the meter, the vent of the service regulator should not be located within a 3-foot radius of the following:
  - 2.2.5.1. Any ignition source such as an electrical meter and associated enclosure, electric outlet, electric switch, light fixture, disconnect, circuit breaker, air conditioner condenser or heat pump, generator, and transformers.
  - 2.2.5.2. A direct-vent appliance vent, duct, or air intake.
  - 2.2.5.3. The combustion air vent to a 90+ efficiency heating appliance or the vent terminal.
  - 2.2.5.4. Any non-mechanical, free flow building air vent such as a foundation vent, window, dryer vent, door, etc. unless the regulator vents above the opening in which case a 12" radius of separation is acceptable.
  - 2.2.5.5. Combustion air vents to fireplaces.
  - 2.2.5.6. Any external building fire suppression system connection locations should not be within 3 feet of the closest component of the meter set (not necessarily the regulator vent).
  - 2.2.5.7. The opening part or side of any window that can be opened or any opening to a building or doorway.

- 2.2.6. For outside meter sets located in Non-Avista Electric territory, the gas meter assembly shall be located no closer than 3 feet from the electric meter and associated enclosure(s).
- 2.2.7. For outside meter set locations, the vent of the service regulator must be located at least 10 feet away from any active fresh air intake or combustion air vents into mechanical rooms.



### 2.3. ALCOVE INSTALLATIONS

An alcove is a recessed area in the building's exterior wall that is sealed from the building interior and is accessed from outside the building. An alcove must have a floor, sidewalls, and a ceiling with a minimum 1-hour fire rating.

#### 2.3.1. Alcove Meter Locations:

- 2.3.1.1. Must be dedicated to gas facilities only.
- 2.3.1.2. Must not obstruct a building entrance or exit.
- 2.3.1.3. Must be large enough to house the meter set(s) and/or pressure regulator assembly and provide adequate space for installation and maintenance.
- 2.3.1.4. Must be at or near ground level.
- 2.3.1.5. Must be accessible at all times to Avista service personnel.

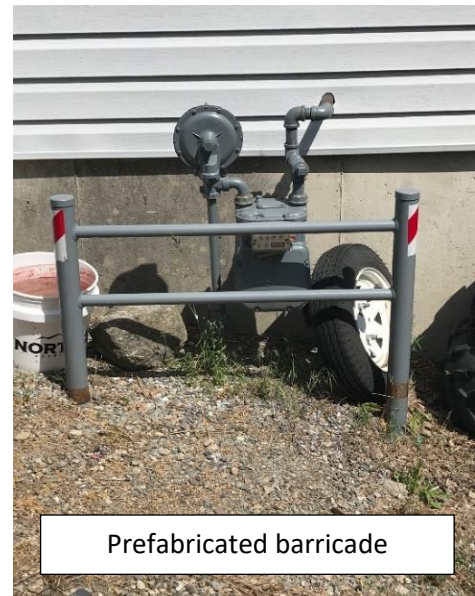
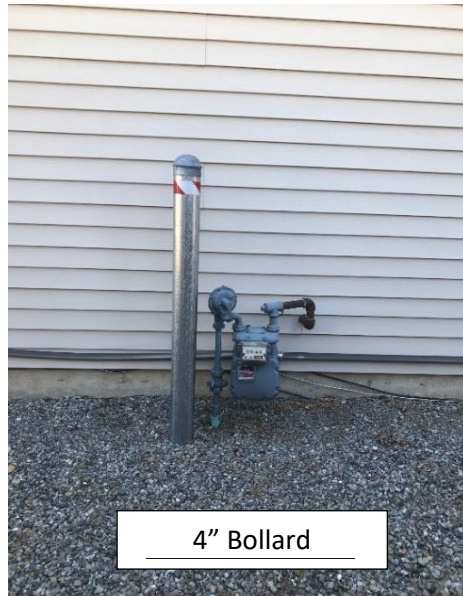
## 2.4. METER PROTECTION

### 2.4.1. Vehicle or Outside Force Damage

When protection from vehicle or other outside force damage (other than snow) cannot adequately be provided, secondary protection such as a meter barricade shall be installed by Avista.

2.4.1.1. A 2-inch diameter barricade may be used only in residential applications.

2.4.1.2. A 4-inch diameter barricade is used in commercial applications, in areas where two-way vehicle traffic is expected or when additional protection is deemed necessary based on site conditions.



2.4.1.3. It is preferred that barricades be installed at least 6 feet from primary voltage electric equipment (greater than 600 volts). The “swing radius” of equipment doors must be taken into consideration in the “6-foot-rule”. If a barricade is required within 6 feet of primary voltage electric equipment, the barricade shall be one of the following:

2.4.1.3.1. Non-conductive bollard.

2.4.1.3.2. Steel bollard with non-conductive sleeve.

2.4.1.3.3. Steel bollard bonded to electrical equipment ground.

## 2.4.2. Snow Protection

- 2.4.2.1. In areas that experience heavy snowfall the meter should be installed on the gable end of the building to protect the meter from falling snow and ice from the roof.
- 2.4.2.2. Areas that are prone to heavy snowfall include the following counties: Bonner (ID), Boundary (ID), Klamath (OR), Klickitat (WA), Kootenai (ID), Lake (OR), Latah (ID), Lincoln (WA), Shoshone (ID), Spokane (WA), Stevens (WA), Union (OR), and Whitman (WA).
- 2.4.2.3. If the meter cannot be installed on the gable end of the building or if the meter is located under a roof overhang whose drip line is less than 12 inches from the front face of the meter, a snow shed should be considered for installation to protect the meter.
- 2.4.2.4. Company provided “snow sheds” are the preferred option, but the customer may choose to install their own cover. Customers who elect to install their own cover are responsible for the design and construction of the cover. The design of the cover must be stamped by a professional engineer and approved by Avista. Covers shall be structurally sound and installed in a manner that does not interfere with the inspection, maintenance, and replacement of the meter. Design requirements for customer provided snow covers can be provided by the CPC.
- 2.4.2.5. Anchoring of the snow sheds in a “fixed foundation,” such as concrete, is strongly recommended.



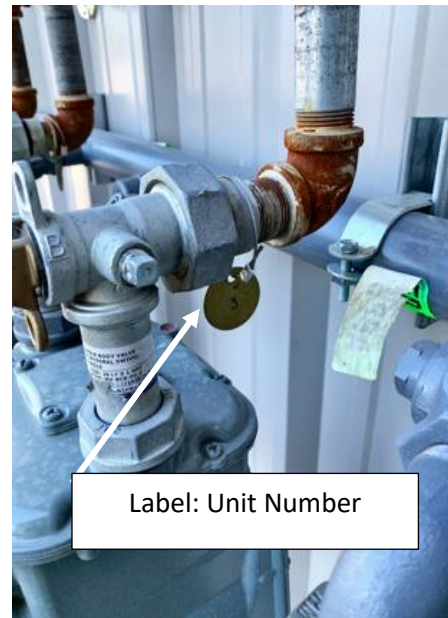
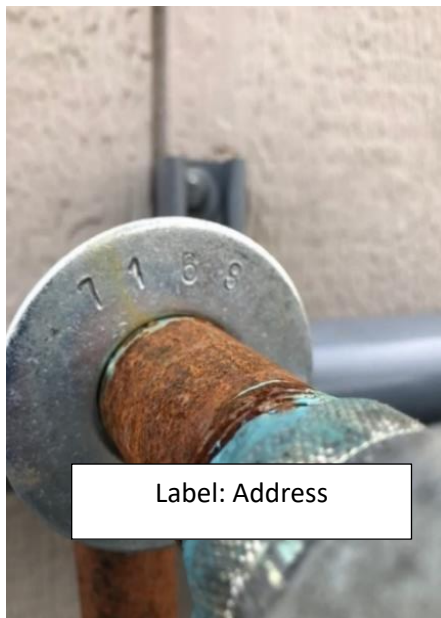
## 2.5. METER IDENTIFICATION

### 2.5.1. Multi-Meter Installations

Gas houseline piping at multiple meter installations shall be marked by a stamped metal washer or metal tag attached by the builder or developer so that the piping system supplied by each meter is easily identifiable per the International Fuel Gas Code (IFGC), Sec. 401.7.

2.5.1.1. The identifier shall be made of brass, galvanized steel, or other weather resistant metal that can be stamped with the unit number or other identification.

2.5.1.2. Identifiers made of soft metals (such as aluminum) that may be subject to bending or other damage are prohibited. All tags shall be secured to the downstream piping with a metal wire of sufficient strength to prevent tampering.



### 3. TRENCH REQUIREMENTS

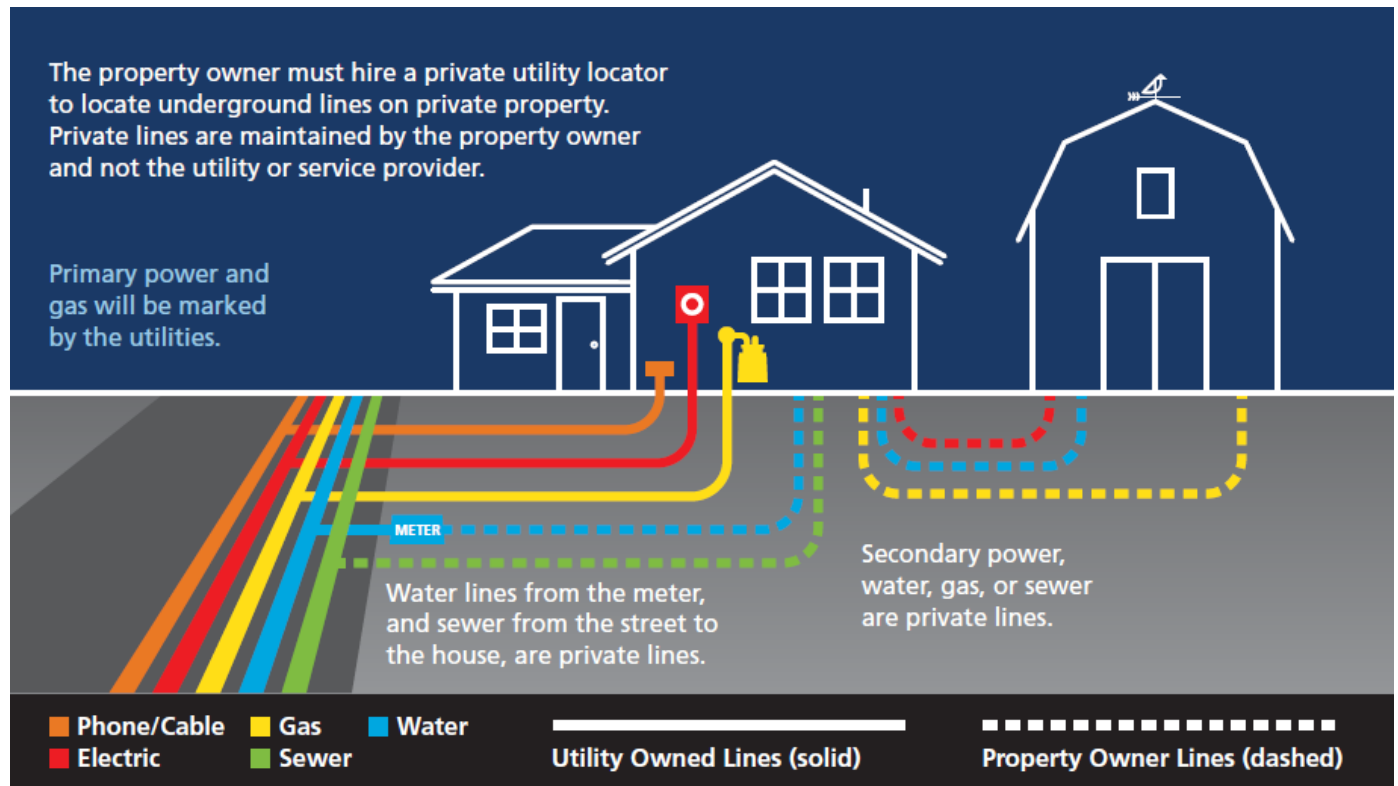
**IMPORTANT:** Before starting any excavation project you are required to call 811 at least two business days before you dig.

#### 3.1. CUSTOMER PROVIDED DITCH

3.1.1. Should you decide that you (our Customer) or a hired excavator (not Avista) will provide the necessary excavation, it is important to understand that the individual excavator is responsible to abide by the dig laws put forth by the state in which excavation occurs.

#### 3.2. LOCATING RESPONSIBILITIES AND DIG LAWS

3.2.1. Private buried lines on private property must too be located if within the excavation area. This includes irrigation lines.



3.2.2. More information regarding dig laws in your state can be found using the below links.

WA	<a href="https://apps.leg.wa.gov/rcw/default.aspx?cite=19.122">https://apps.leg.wa.gov/rcw/default.aspx?cite=19.122</a>
ID	<a href="https://legislature.idaho.gov/statutesrules/idstat/title55/t55ch22/">https://legislature.idaho.gov/statutesrules/idstat/title55/t55ch22/</a>
OR	<a href="https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=4223">https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=4223</a>





### 3.2.4. Padding/Bedding and Shading

3.2.5.1. When gas pipe is direct buried, sand may be required to be placed above (shading) and below (padding/bedding) our gas lines due to the native soil not being suitable to place pipe on or backfill the trench. Your local CPC can assist you in determining if the native soil is suitable or direct to a local provider for approved material.

### 3.2.5. Material Specifications

3.2.5.1 A minimum padding (sometimes referred to as bedding) of 6 inches of cohesive sand or native earth with a minimal amount of native rock with a maximum aggregate of 3/4-inch size shall be used.

3.2.5.2 This material may be obtained from screened native soil or by import.

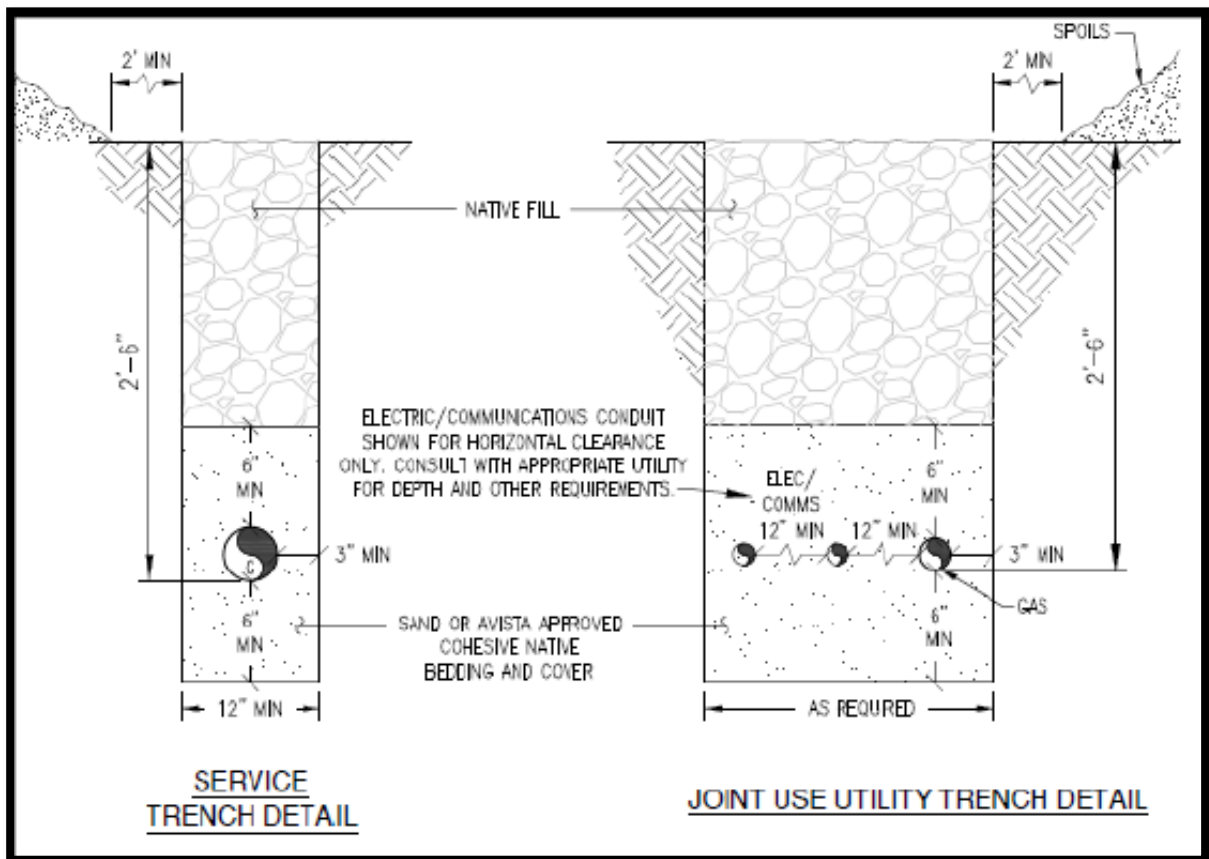
3.2.5.3 If using native soil, it must be free of rubbish, cinders, chemical refuse, rock larger than 4 inches, or other material that could cause damage to the pipe.

3.2.5.4 Soil should be of a nature to allow a firm compacted surface providing uniform support for pipe.

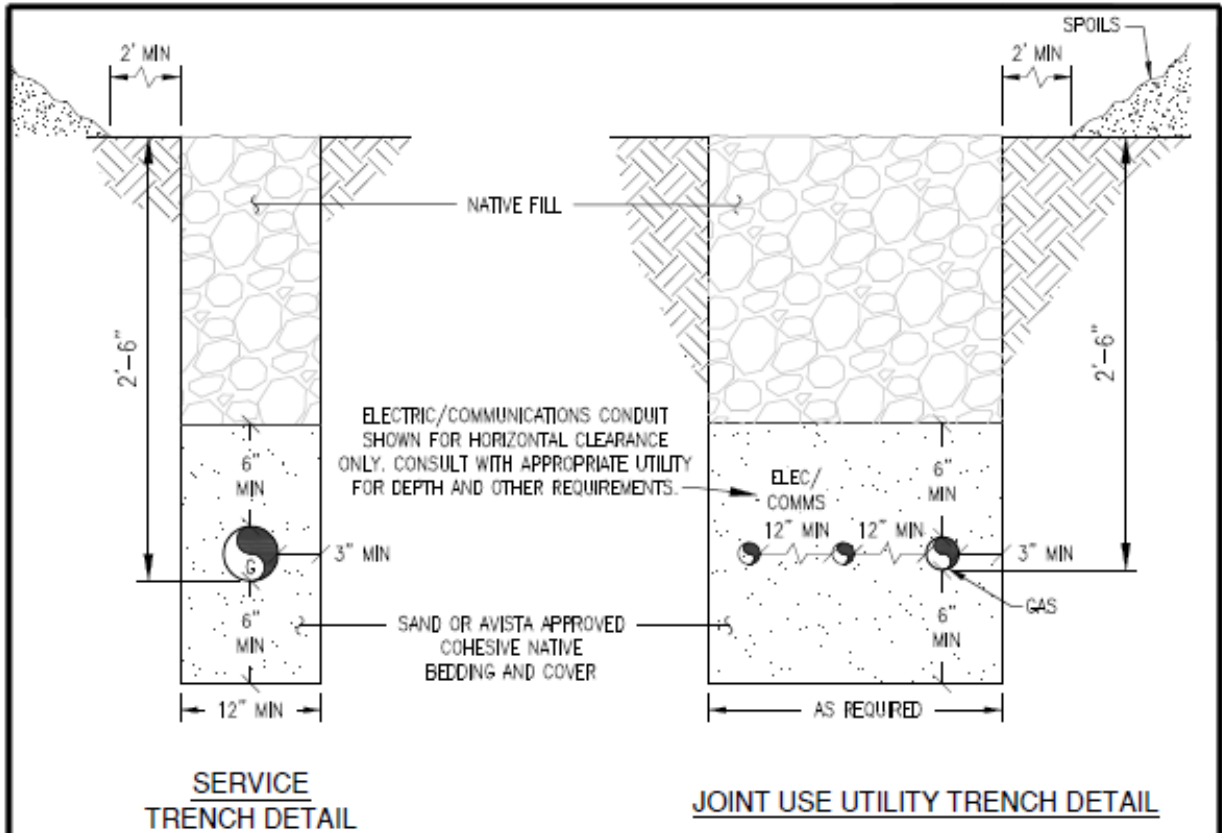
### 3.2.6. Material Location and Storage

3.2.6.1. Approved padding/bedding should be located in an area accessible to Avista equipment.

3.2.6.2. In cold environments, sand and spoils (dirt from ditch) should be covered as to not freeze so they are workable.



# APPENDIX A



**NOTES:**

1. CUSTOMER IS RESPONSIBLE TO CALL FOR LOCATES 2 BUSINESS DAYS IN ADVANCE OF DIGGING.
2. HAND DIG WITHIN 24 INCHES OF EXISTING UTILITY LOCATE MARKS.
3. ALL CUSTOMER DITCHES MUST PASS AVISTA INSPECTION.
4. A MINIMUM SEPARATION OF 10' (25' PREFERRED) FROM SEWER DRAIN LINES AND LEECH FIELDS SHOULD BE MAINTAINED. PLASTIC PIPE SHALL NOT BE INSTALLED THROUGH, ABOVE, OR BELOW DRAIN FIELDS.
5. GAS PIPE SHALL HAVE A MINIMUM OF 3' SEPARATION FROM WATER AND 5' SEPARATION FROM SEWER. GAS PIPING SHOULD NOT BE INSTALLED IN THE SAME TRENCH WITH WATER OR SEWER.
6. PLASTIC PIPE SHOULD BE INSTALLED WITH A MINIMUM OF 12" OF CLEARANCE FROM CULVERTS.
7. TRENCH SHALL ALLOW FOR AT LEAST 12" RADIAL SEPARATION FOR ANY UTILITY CROSSINGS.
8. A MINIMUM BEDDING AND PADDING OF 6" OF COHESIVE SAND SHALL BE USED WHEN NATIVE MATERIAL IS NOT SUITABLE (NATIVE MATERIAL MUST BE APPROVED BY AVISTA REPRESENTATIVE). NATIVE FILL SHALL BE FREE OF RUBBISH, CINDERS, CHEMICAL REFUSE, ROCK LARGER THAN 4", OR OTHER MATERIALS THAT COULD CAUSE DAMAGE TO THE PIPE.
9. SOIL/SAND SHOULD BE COVERED DURING WINTER MONTHS.
10. TRENCH SHOULD ALLOW A MINIMUM OF 5' SEPARATION FROM AN EXISTING BUILDING FOUNDATION.
11. FINAL GRADE SHOULD BE WITHIN 6" FROM TOP OF DITCH.
12. AVISTA RESERVES THE RIGHT TO INSPECT AND APPROVE ALL DITCHES PRIOR TO CREW INSTALL OF FACILITIES.

**DISTRIBUTION GAS  
CONSTRUCTION SPECIFICATION  
PE NATURAL GAS SERVICE  
CUSTOMER PROVIDED TRENCH DETAIL  
AVISTA CORP  
SPOKANE, WASHINGTON**

4	9-23-21	STANDARDS UPDATE	CGD	DRS
3	10-12-20	STANDARDS UPDATE	CGD	JAF
2	9-10-20	STANDARDS UPDATE	CGD	JAF
1	2-20-18	STANDARDS UPDATE	SLG	JAF
NO	DATE	REVISION	BY	CKD

AS SHOWN	9-25-17	APPROVED <i>JAF</i>
SCALE	DATE	
DSN	FORT	10-18-17
DR	MEREDITH	
CKD	JAF	SHT 2
		OF 2
		DATE
		<b>A-38315</b>

9/23/2021 9:44 AM

AUTOCAD DWG

## **CHANGES**

- August 2023 – Section 3.2.5.1. Changed minimal aggregate to maximum aggregate.
- August 2023 – Section 3.2.5.3. Fixed typo.