

**Guidance for Operating and  
Maintaining Your Grinder Pump System**

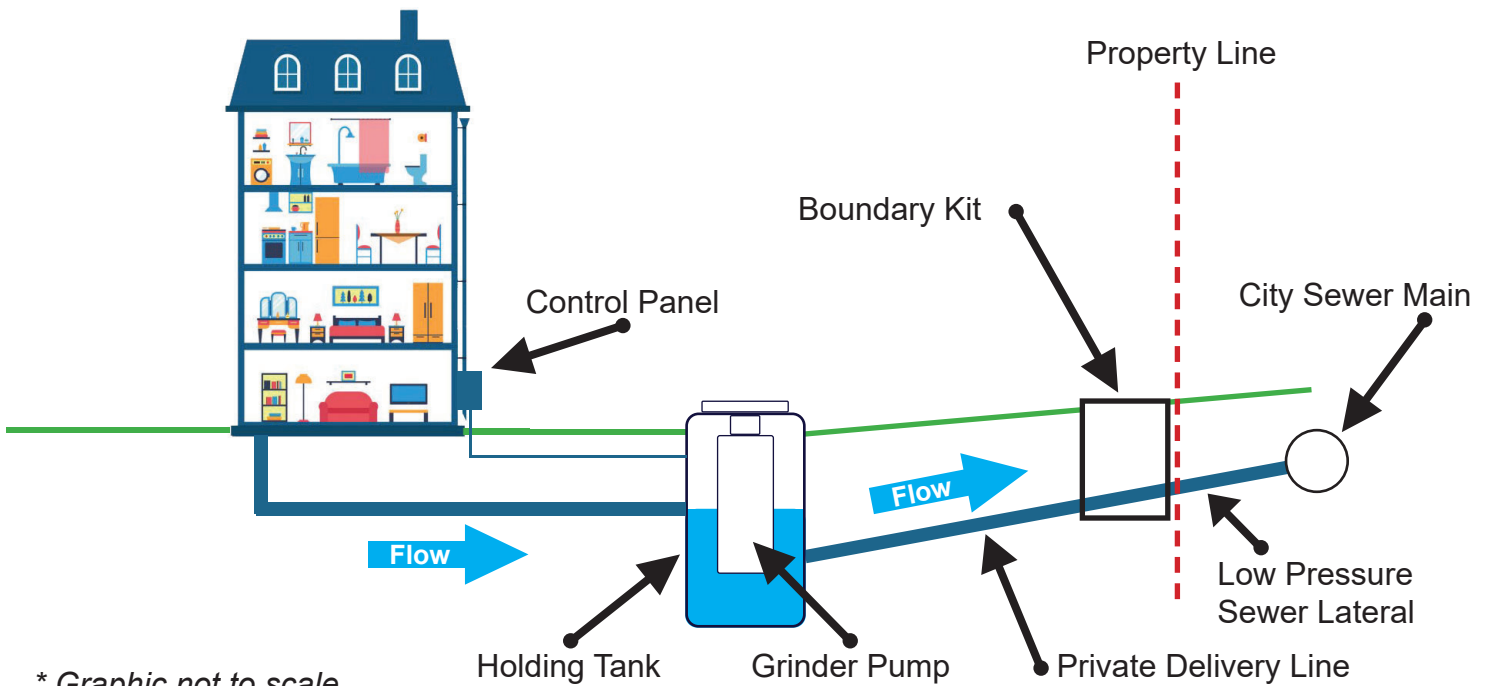


# What is a Grinder Pump System and why do I have one?

Have you ever wondered where the water goes when you flush your toilet? The water leaves the toilet bowl and enters a network of pipes inside your home before eventually exiting through an underground pipe. That underground pipe – known as a service lateral – connects your home’s plumbing to the City’s sewer system.

Building plumbing systems and the City’s sewer system are usually designed to transport sewage using gravity. Sometimes, like when a home is located at a lower elevation than the City’s sewer main, a pump is needed to raise the sewage from the home into the sewer main. That’s where a grinder pump system comes in!

The grinder pump system includes pumps, a collection vault, an inlet pipe, a pressurized discharge pipe, valves, and other electronics and control systems. A grinder pump system allows all of the sewage from your home to flow by gravity into a collection vault that is likely buried in your yard. Inside that vault are grinder pumps which will periodically turn on and pump sewage from the vault, into a pressurized discharge pipe, and eventually into a City sewer main. That sewer main transports the sewage to the City’s wastewater treatment plant.



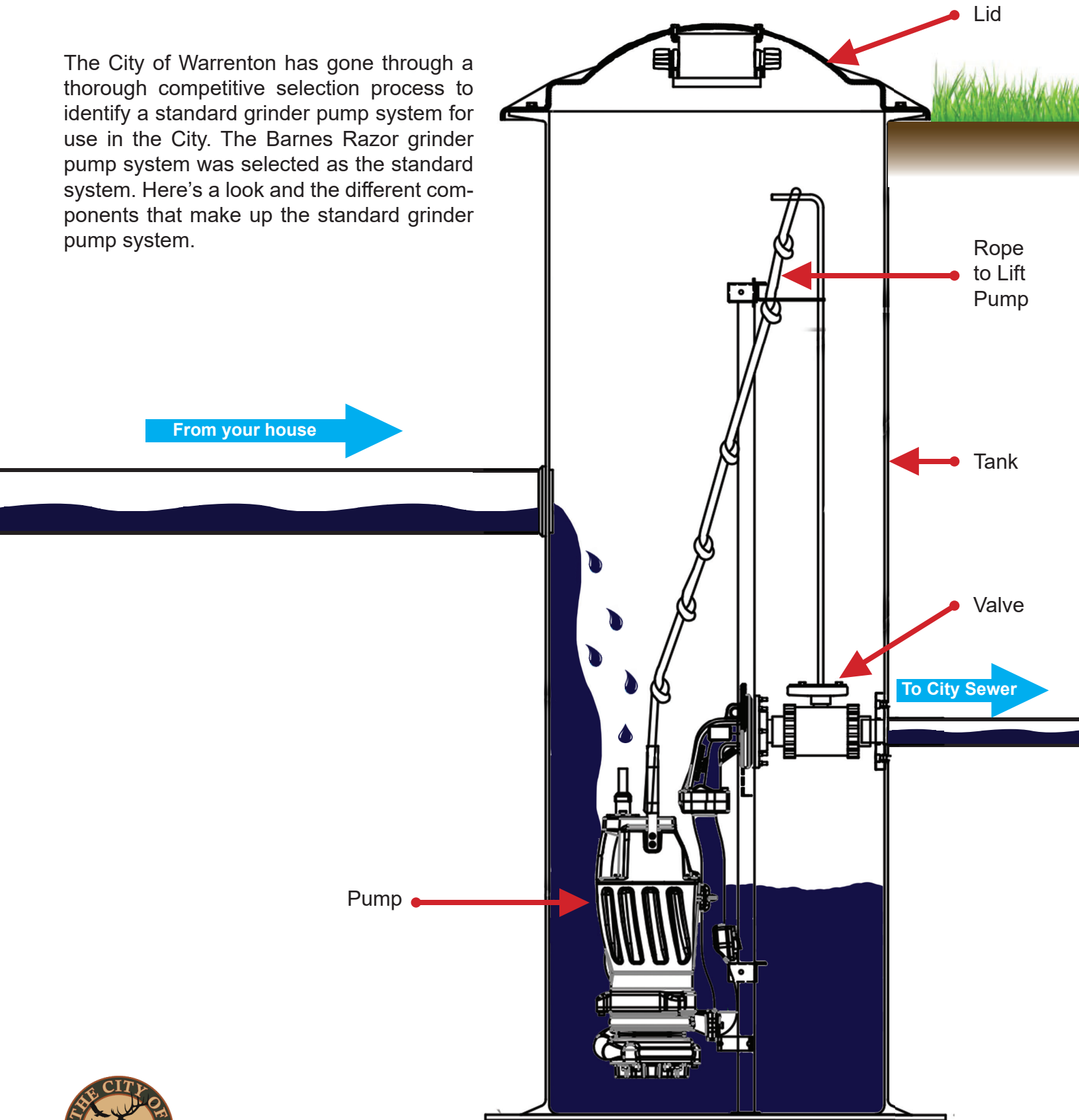
# Who Owns and Maintains the Grinder Pump System for my House?

You do! The grinder pump system serving your home is your property and your responsibility to operate/maintain. The City of Warrenton requires homeowners using grinder pump systems to have a service agreement with a qualified service provider to help properly maintain the systems. This document is intended to provide some tips to help you properly operate and maintain your grinder pump system and provides information about who you could contact if you need additional support.



# What is a Grinder Pump System and why do I have one?

The City of Warrenton has gone through a thorough competitive selection process to identify a standard grinder pump system for use in the City. The Barnes Razor grinder pump system was selected as the standard system. Here's a look and the different components that make up the standard grinder pump system.
















# Proper Use and Care of your Grinder Pump System

Proper use and maintenance of your grinder pump system can help extend the life of the system and reduce unanticipated/emergency maintenance. Below are answers to some commonly asked questions about what you should do as the owner of a grinder pump system.






## **QUESTION:** Is there anything I can't put down my drain?

**ANSWER:** The grinder pump system is only designed to handle routine domestic sewage. Solid waste should be thrown in the trash and not down the drain! You should avoid introducing the following into the sewer:

- |  |   |  |
|--|---|--|
|  Flushable wipes                       |  Cigarette butts |  Fats, Oils, and Grease |
|  Sanitary napkins, tampons, or condoms |  Cat litter      |  Tampon applicators     |
|  Diapers                               |  Plastic objects |  Food                   |
|  Rags, cloth, or socks                 |  Glass           |  Q-Tips                 |
|  Coffee grounds                        |  Metal           |  |

These items could clog or damage your grinder pump system, potentially resulting in a costly repair! While the above items may be particularly troublesome to a grinder system, all of these items shouldn't be put in the sewer regardless of your connection method.

Additionally, the following hazardous materials should never be poured down the drain:

- |  |  |
|--|--|
|  Explosives                |  Strong Chemicals |
|  Flammable Material        |  Gasoline         |
|  Lubricating Oil or Grease |  |

Please contact the Clatsop County Household Hazardous Waste Program at (503) 325-8500 for information about how you can properly dispose of these materials.

## **QUESTION:** What should I do if the power goes out?

**ANSWER:** The grinder pump and electronics inside your grinder pump system require electricity to operate. If a power outage occurs, your grinder pump system will not work nor will alarms sound to alert you to a problem. The most important step is to minimize the amount of water you send down your drain. The tank has a small amount of storage capacity but not enough for washing clothes or taking long showers. In the event of a prolonged power outage (greater than 24 hours), you may need to contact a local septage hauler to have the collection vault pumped empty to avoid an overflow or having sewage backup into your home. Systems are required to include a plug (NEMA L14-30) to allow for generators to provide electricity in the event of a power outage. A minimum 12 kW generator is needed to power the pumping unit.



## Proper Use and Care of your Grinder Pump System

**QUESTION:** There appears to be a wet spot near the collection vault. What should I do?

**ANSWER:** If it hasn't been raining, there is a possibility that the wet spot is caused by a leak in the grinder pump system or a break in one of the pipes connected to the grinder pump system. Immediately contact a qualified contractor to inspect and repair the system. You can find a list of qualified contractors able to service these systems at the end of this document.

**QUESTION:** I've found the lid to the collection vault in my yard. Can I take a look inside?

**ANSWER:** For your safety, you should not open or enter the collection vault in your yard. Sewage can produce toxic gases and only trained individuals should open or enter the collection vault where they may be exposed to these gases. If you see that the lid to the collection vault is damaged, contact a qualified service provider to purchase a replacement. You can find a list of qualified contractors able to service these systems at the end of this document.

**QUESTION:** I keep hearing an alarm from the grinder pump system. What should I do?

**ANSWER:** The alarm on your grinder pump station will sound when the wastewater in the tank reaches a certain level ("alarm level").

If the alarm is going off, the water in the tank is too high. If this occurs for more than a few minutes after a power outage or a heavy usage period, call your qualified service provider for help. In all cases, if the alarm is going off, limit water usage until the alarm has stopped, or a service professional has given the all-clear.

**QUESTION:** I'm thinking about doing some construction on my property. Will this impact my grinder pump system?

**ANSWER:** If your construction could potentially increase the volume of sewage you send to your grinder pump system, you will want to consult with an engineer or plumber prior to construction to determine if modifications to the grinder pump system are necessary.

**QUESTION:** Help! I see liquid coming up from around my grinder pump system. What do I do?

**ANSWER:** If you notice liquid coming from your grinder pump system, immediately turn off all appliances (washing machines, dish washers, etc.) that use water and limit showers, toilet flushing, and sink use. Call your contract qualified service provider to assist with system repairs. Call the City of Warrenton Public Works Department at 503-861-0912 to report the spill.



# Your Responsibilities as a Grinder Pump System Owner

1. Operate and maintain the grinder pump system in accordance with the installation and operations manual provided with your grinder pump system. Contact the contractor who installed the system to obtain a copy of the installation and operations manual if you do not have one.
2. If the grinder pump system has an alarm or overflows, have the system repaired immediately. Contact the service provider you entered into a service agreement with for assistance. Refer to the qualified contractor list at the end of this document for companies that are qualified to act as service providers for these systems. In the event of an overflow, contact the City of Warrenton Public Works Department immediately at (503) 861-0912.
3. If you are undertaking any modifications to your property that could increase the amount of sewage you generate, contact an engineer or plumber to discuss modifications to the grinder pump system that may be required. Property modifications that could necessitate a change to your grinder pump system include, but are not limited to:
  - Constructing an outbuilding or accessory dwelling unit which will produce sewage and be connected to the existing grinder pump system collection vault.
  - Renovating your home to include additional plumbing fixtures.
  - Installing a pool or hot tub which will have a drain needing to be connected to the sewer.
4. Complete and submit your annual Grinder Pump System Permit Application. Contact the City of Warrenton Public Works Department at (503) 861-0912 for a copy of the permit application.

*All property owners discharging wastewater to the City of Warrenton Sewer System are required to comply with all local, City, State, and Federal requirements pertaining to the discharge of wastes to a municipal sewer system. Homeowners with grinder pump systems agree to comply with those requirements and acknowledge that their grinder pump system is being operated and maintained in accordance with the City of Warrenton Low Pressure Sewer System policy. The City of Warrenton has the right to access the system for inspection and in case of emergency events. In the event of an imminent or active sanitary sewer overflow, the City may lock off the water meter. Homeowners must regularly review the City of Warrenton grinder pump system homeowner's manual titled "Guidance for Operating and Maintaining Your Grinder Pump System" and must comply with the requirements related to materials which can and cannot be discharged to the sewer system.*

## **For more information about using grinder pumps in the City of Warrenton, please contact:**

City of Warrenton  
Public Works Department  
(503) 861-0912

## **For more information about the City's standard grinder pump system (Barnes Razor by Crane Pumps), please visit the following locations:**

*City of Warrenton Low Pressure Sewer Systems Webpage*  
<https://www.ci.warrenton.or.us/publicworks/page/low-pressure-sewer-systems>

*Crane Pumps*  
<https://www.cranepumps.com/Products/Details/razor-grinder-pump>



# Looking for someone to maintain or repair your Grinder Pump System?

These companies have all indicated an ability to work with grinder pump systems. This list is only intended to help homeowners identify potential sources of assistance and should not be construed as a list which:

1. Endorses the work of these companies or
2. Limits homeowners to only working with the companies listed.

Homeowners are encouraged to research other companies that are capable of servicing grinder pump systems so that they can make an educated decision if they need outside assistance.

Company	Contact Information
<b>A &amp; B Septic Service/Septic Technologies Inc</b> Portland, OR	(541) 924-0851 (844) 571-2836
<b>Bob McEwan Construction</b> Gearhart, OR	Mike McEwan (503) 738-3569 (503) 440-0223
<b>Complete Septic Service</b> Astoria, OR	Jerry Lebo completesepoticservice@yahoo.com (503) 458-6870 (503) 338-8722
<b>Ed's Septic Tank Cleaning Service</b> Astoria, OR	Clyde McDonald info@edsseptictankcleaningservice.com (503) 458-6521
<b>Environmental Management System</b> Milwaukie, OR	(503) 353-9691
<b>Terry's Septic</b> Astoria, OR	Mike Oien info@terrysplumbingllc.com (503) 325-5180
<b>Veggie Scout</b> Boring, OR	(971) 349-3007
<b>Owens Pump &amp; Equipment**</b> Canby, OR	Rich Owens rich@owenspump.com (503) 642-4459

**\*\*Will not install**

# City of Warrenton- Low Pressure Sewer System Policy

## 1. Purpose

The City of Warrenton Commission has developed this policy statement to provide a clear guide as to where and how low pressure sewers can be used in the City of Warrenton.

## 2. Scope

The City of Warrenton Commission has a clear preference for its sewers to be conventional gravity systems, but it also recognizes that this is not always possible. Therefore, the City will permit the limited use of Low Pressure Sewer Systems (LPSS) within the City, where conventional gravity sewers are not environmentally or physically feasible.

## 3. Definitions

**Boundary Kit:** Valve at the property boundary incorporating an isolation valve, check valve and inspection tee piece, which allows the property to be isolated from the low pressure sewer main in the right-of-way.

**City:** City of Warrenton

**Commission:** City of Warrenton Commission

**Control Panel:** The box incorporating the electrical controls, high level alarms, switches for pumps, and telemetry.

**Emergency Storage:** The capacity in the storage vessel above the high-level alarm point.

**Equivalent Dwelling Unit (EDU):** An Equivalent Dwelling Unit (EDU) is the basic unit of measure used to quantify the demand or loading on water supply or sewer services, respectively. One EDU represents the equivalent demand or loading from a single-family residence.

**Low Pressure Sewer Lateral:** Line from the sewer main to the property boundary kit.

**Preferred Service Provider:** Service providers who are known to provide service to LPSS systems in the City.

**Private delivery line:** Pipeline connecting the property boundary kit to pump unit.

**Pump Unit:** Comprises of grinder pump, storage vessel, control panel, pressure switches, and ancillary equipment.

**Sanitary Sewer Overflow (SSO):** A condition in which untreated (raw) sewage is discharged from a sanitary sewer into the environment prior to reaching a treatment facility.

**Standard connection:** Single dwelling equivalent to 1 EDU.



## 4. Policy Statement

The purpose of this policy is to define where and when low pressure sewer systems will be allowed within the City boundary, who is responsible for the installation and maintenance, and what systems will be permissible.

## 5. Roles and Responsibilities

The Public Works Director, or their designee (authorized representative), will be responsible for approving all new low pressure sewer installations.

The Public Works Director or their designee (authorized representative) will be responsible for investigating if a landowner/tenant has inadvertently, through introducing banned substances (as set out in the homeowner's manual) or willfully, damaged a low pressure system, including downstream systems. They will also determine whether the landowner/tenant will be billed for the repairs to the unit and the relevant cost.

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## 6.2. Low Pressure Sewer Systems

### 6.2.1. *What is a Low Pressure Sewer System?*

A low pressure sewer system is broadly defined as a system where macerated sewage is conveyed under pressure generated by a pump unit located on each property to a low pressure sewer main.

A low pressure sewer system as covered in this Policy is defined as comprising of:

- A. A pumping unit containing a grinder pump, specifically designed for low pressure sewer applications, installed on each property to pump sewage from an individual property. These pumping units will only be those that have been approved by the City of Warrenton Public Works Department for that purpose. Currently, the Barnes Razor by Crane Pumps & Systems is the selected standard pumping unit to be used in the City.
- B. An alarm system built within the overall pumping unit to warn residents that the pump is no longer working and to allow maintenance to occur within an acceptable timeframe. Residents are required to contact the Service Provider under contract with the Homeowner to arrange for servicing immediately.
- C. Connections of these pumping units to City of Warrenton's public low pressure sewer main, via a specially designed Boundary Kit.
- D. A public sewer system specifically designed for low pressure sewer applications, and capable of supporting several individual pumping units to transport the sewer to the system discharge point.

### 6.2.2. *Where can Low Pressure Sewer Systems be used?*

Use of low pressure sewer systems will only occur where designated by the Public Works Department.

Low pressure sewer systems will only be considered where thorough studies of all alternatives clearly indicate that a gravity collection and disposal system with (or without) a central sewage pump station is not practical. No pressure sewer laterals shall be installed running parallel to and inside the right-of-way. Pressure sewer laterals must be connected to public pressure sewer main.

### 6.2.3. *Limited Low Pressure Sewer Pump Technologies*

When a new low pressure sewer system has been authorized by the City, only a grinder pump system will be allowed. A competitive selection process was used to evaluate multiple equipment suppliers and a Barnes Razor Grinder Pump by Crane Pumps & Systems was identified as the standard system approved for use in the City.

### 6.2.4. *Supporting Documentation*

Public Works Department has, in support of this Policy Statement, prepared the following supporting documentation:

- A. City Engineering Specifications and Design Criteria to regulate the nature of all low pressure sewer pumping units purchased and detailing the manner in which they are to be installed and maintained.
- B. A Homeowner's manual to inform the resident what is expected of them and what they can and cannot do in relation to the low pressure sewer system on their property. It will also contain instructions on what to do if their system should fail.

- C. A preferred service provider list with known service providers that have proven they provide a standard level of service within the City.

### 6.3. General Responsibilities

#### 6.3.1. Ownership of Residential Pumping Units

The basic configuration for approved pressure applications will be a separate single pumping unit provided for each separate property. The ownership of the pumping unit, in this standard configuration, will reside with the property owner and includes the following:

- A. Pump;
- B. Storage tank;
- C. Control panel and ancillary fittings;
- D. Private delivery lines;
- E. Boundary kit.

The hydraulic termination point for City ownership of the low pressure sewer system will be the boundary kit valve closest to the property boundary. All electrical and control system components shall be owned and operated by the property owner.

The City requires an access easement over any part of the “on-property” installation of the low pressure sewer system, to inspect safe ongoing operation of the system, the minimization of any health concerns, or the protection of any City property. This access easement will allow the city to provide emergency service in the event of an imminent or active SSO – fees will apply.

#### 6.3.2. Maintenance of the Residential Pumping Unit

Property owners with low pressure sewer systems will be responsible for the costs associated with repair and maintenance of the pumping unit. When the resident is not also the property owner, the responsibility nonetheless falls to the property owner.

It will be a condition of being connected to the City’s sewer system that the property owner enters into a service agreement with a preferred service provider. This agreement will define what is expected of both parties in the operation and maintenance of the low pressure sewer system.

#### 6.3.3. Power for the Pumping Unit

The pumping unit’s power connection will not be metered separately, and the residents will be responsible for the power costs for the low pressure sewer pumping unit. The pumping unit shall be installed on a separate electrical circuit breaker.

#### 6.3.4. Discovering the Property has a Low Pressure Sewer System

The property will be marked, by deed or other legal document, to indicate that the property is served by a low pressure sewer system. This is specifically required to allow a prospective purchaser to discover prior to their purchase that the property is serviced by a low pressure sewer unit.

In addition to this notification, an access easement reinforcing the City’s right of access to the property to inspect the unit will also be required.

## 6.4. Installing Low Pressure Sewers – General

### 6.4.1. Design Services

The design of low pressure sewer system shall be completed by a registered professional engineer, or other qualified and duly authorized representative of the applicant, with verification that the drawings, plans and specifications submitted with the application comply with applicable technical codes, rules and regulations and the City Engineering Specifications and Design Criteria. All improvements require review and approval by the Public Works Department. The low pressure sewer system must also be reviewed and approved by the Oregon Department of Environmental Quality (DEQ). Fees associated with the City and DEQ reviews are the responsibility of the developer.

For new systems or developments, the design shall also be reviewed by Crane Pumps & Systems (the manufacturer of the City's standard Low Pressure Sewer System pump units) or their regional design representative.

### 6.4.2. Number of Pumping Units per Property/Non-Standard Connections

Developments for commercial or industrial properties or residential properties which are greater than 1 EDU are classified as non-standard connections.

Any internal sewer system within the property boundary of the non-standard connection will be the responsibility of the property owner and will require City approval. The sizing of the pumping units and the overall design of these non-residential systems needs to be carried out by an experienced designer, based upon the actual anticipated sewer output and the capacity of the receiving sewer system.

The ownership of these systems including design, installation, replacement and payment of all City charges and fees will be the responsibility of the owner.

## 6.5. Installation on the Property

The units will be installed by an accredited installer of low pressure sewer systems to preserve the supplier's warranty. The units are to be installed to the requirements of the electric and plumbing codes.

Where a pressure unit is to be installed to service an existing dwelling, the accredited installer will first undertake a full audit of the existing dwelling electrical and sewer connections. The installer will then advise the property owner what needs to be done to upgrade these connections as necessary to allow a pumping unit to be installed. The property owner will be responsible for the costs associated with these upgrades.

## 6.6. Installation of the Sewer Mains

Prior to construction of the sewer system, the design of the low pressure sewer system shall be undertaken by an appropriately qualified engineer. The design plans shall be completed by a registered professional engineer and duly authorized representative of the applicant, with verification that the drawings, plans, and specifications submitted with the application comply with applicable technical codes, rules, and regulations.

Construction will then be in accordance with these plans and will be from acceptable materials and constructed in accordance with the City's Engineering Specifications and Design Criteria.

The low pressure sewer laterals will be extended from the public sewer main to just inside of the property boundaries. A valve arrangement known as the boundary kit will be placed at this termination point, to allow the connection of the property. The valving arrangement within the boundary kit should allow for the isolation of the property from the LPSS.

## 6.7. Application of the Technology

### 6.7.1. Existing On-Site Systems

Owners of properties that have existing on site systems on the fringe of a sewer system area are NOT covered in this policy.

Any existing property that discharges into a sewer main through a private pumping arrangement may continue to operate their private system. They remain the responsibility of the property owner and resident.

Any existing STEP systems shall not be allowed to connect to the low pressure sewer system. When an existing STEP system needs to be replaced, the property owner must comply with the requirements of this policy by installing the approved low pressure sewer system pump unit.

### 6.7.2. New On-Site Systems

Installation of a low pressure unit to service a new lot will be allowed only as described in Section 6.2.2. However, the installation, operating costs and maintenance will be the responsibility of the property owner. The City will not accept the asset or carry out any repairs or maintenance.

Developers will be required to pay System Development Charges (SDCs), connection charges, and any other applicable charge or fee prior to release of final plans the proposed development.

## 6.8. Operation and Maintenance of the Low Pressure Sewer System

### 6.8.1. City Responsibilities

The City is responsible for the public sewer system. The City will only respond to emergency conditions on the homeowner side of the boundary kit, such as:

- A. Imminent threats to human health and the environment.
- B. Sanitary Sewer Overflows (SSO) - these are required to be reported to DEQ.

The City may lock off water meter as a response to emergency conditions. Refer to Section 6.3 for information about access easements that allow the City to access properties with low pressure sewer systems in response to emergency conditions.

The City will also provide a homeowner's manual to the original developer – this manual will also be available online via the City's website.

### 6.8.2. Resident Responsibilities

The Resident's primary role is to notify their contracted Preferred Service Provider if their system's alarm sounds or if the system overflows. If the system overflows, the City must be notified immediately. The resident is also required to:

- A. Avoid discharging into the pumping unit any of those substances identified in the Homeowner's manual as inappropriate for low pressure sewers.
- B. Comply with the other requirements set out in the homeowner's manual.
- C. Not interfere with the electrical operation of the pumps in accordance with what is detailed in the homeowner's manual.
- D. Comply with the low pressure sewer permit and conditions.
- E. Properly maintain and operate the system.

### 6.8.3. Property Owner Responsibilities

Property owners will be required to acknowledge in the permit application (renewed annually) that they have read and agree to the terms set out in this policy and the homeowner's manual. The property owner is responsible to ensure that the resident (if different from the property owner), understands that the property is serviced by a low pressure sewer system and that the resident has a copy of the homeowner's manual.

### 6.8.4. Emergency Access for City Maintenance Employees

It will be a condition of being connected to the City low pressure sewer system that the property owner's consent will be given to allow the City or its agents to enter the property and inspect the pumping unit. The City will attempt to contact the homeowner prior to system inspections. The City may also respond in the event of an imminent or active SSO. In the event of an emergency, the City may lock off the water meter. Refer to Section 6.3 for information about access easements that allow the City to access properties with low pressure sewer systems in response to emergency conditions.

### 6.8.5. Identification of Maintenance Employees and Contractors

Any City employee (or contractor) entering private property should have photographic identification and appropriate authorization to enter the property.

## 6.9. Modifications or Household Additions

Building over the low pressure sewers system will not be allowed. Any modifications to the approved system must be completed with approval and permits from City Planning, Building and Public Works Departments and as such, meet the following scenarios:

- A. The hydraulics on the property allow for the pumping unit to be moved.
- B. There is a more suitable alternative route/s for the property delivery pipeline.
- C. The costs for the relocation work are being paid by the property owner.
- D. All technical requirements, as set out in City's Engineering Specifications and Design Criteria, being met.
- E. Full details of the "as constructed" works must be provided to the City.
- F. Any modifications being carried out by an accredited installer.

Residents wanting to relocate the pumping unit or property delivery line are required to contact the Public Works Department for advice on what will be required.

Residents interfering with delivery lines or pumping units without the City's approval may be subject to relevant fines. Residents will also be required to meet all costs arising from the loss of warranty on that pumping unit, and/or damage to that unit and/or, all other costs associated with such unauthorized work.

#### 6.10. Change of Ownership

Properties in low pressure sewer areas will be required to enter into an agreement for maintenance of the "on property" pumping system and be specified on the property deed or other legal document. The annual permit is not transferable to new property owners.

New property owners will be required to establish a new utility account and secure a low pressure sewer system annual permit.

#### 6.11. Annual Permit

Property owners connected to a low pressure sewer system will be required to apply for and pay a fee for an annual permit through the Public Works Department. If the property owner is found to be in violation of the permit or without a permit, the water service to the property will be locked-off until such time as the violation has been addressed to the satisfaction of the City. The permit shall be renewed annually with a copy of the operation records submitted at renewal. The annual permit is not transferable to new property owners.

##### 6.11.1. Operation Records

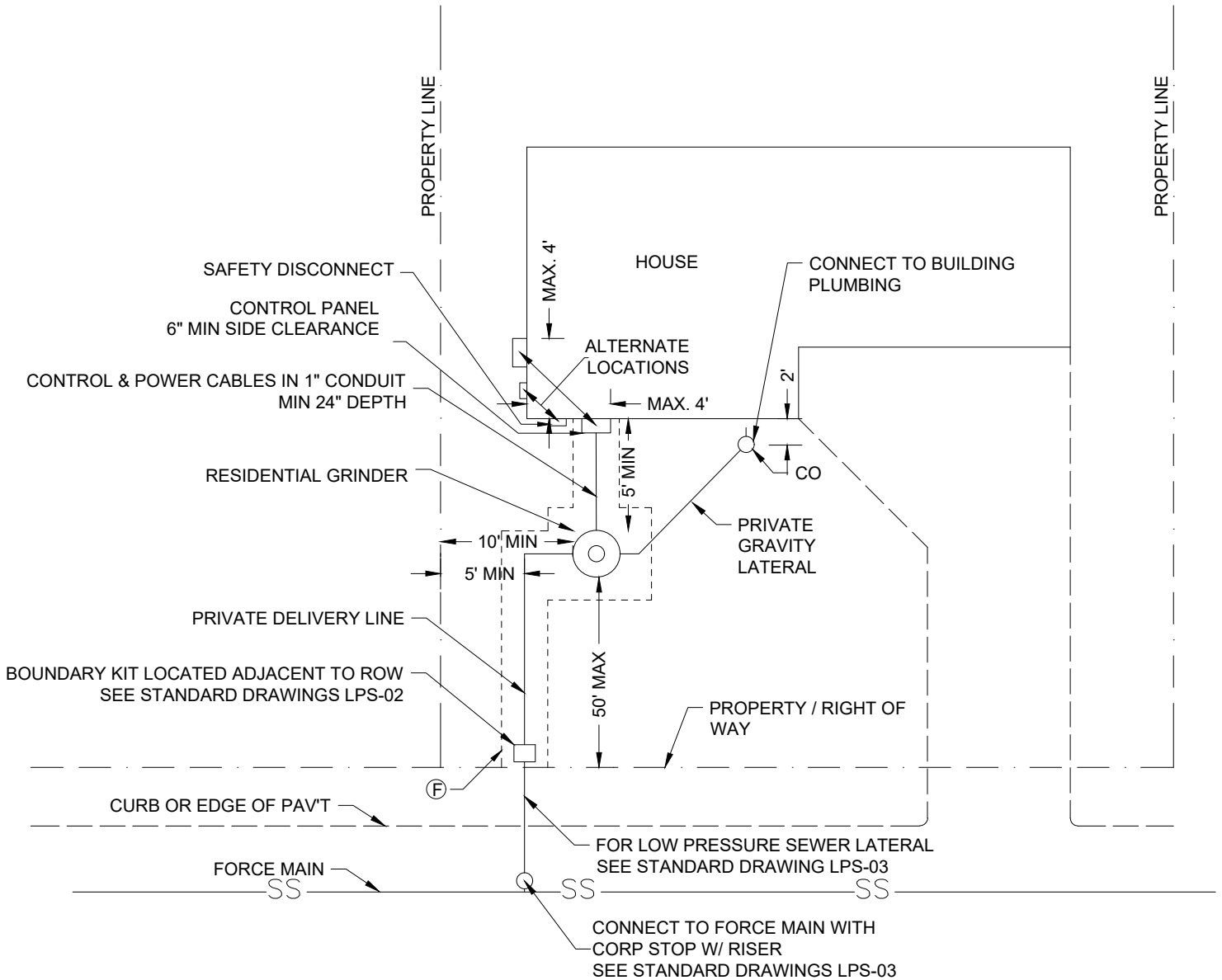
Property owners will maintain records of the operation of the low pressure sewer system and include them with the annual permit renewal. This requirement includes:

- A. All alarms on the system and the solution
- B. All sewer overflows and the response
- C. Any modifications to the system and the approval documentation
- D. All maintenance performed, including pump replacement
- E. Pump run time meter at time of application for permit renewal
- F. Verification of a service agreement
- G. Acknowledgment of review and compliance of homeowner's manual

##### 6.11.2. Property Diagrams

Property owners must maintain a copy of all house service details for their records and provide copies to the City when requested.





**NOTES:**

- A. LOCATE GRINDER TANK MIN OF 5' FROM BUILDING & AS CLOSE TO PUBLIC RIGHT-OF-WAY AS POSSIBLE.
- B. MAINTAIN CITY ACCESS TO GRINDER TANK, BOUNDARY KIT, CONTROL PANEL, & SAFETY DISCONNECT.
- C. CONTROL PANEL SHALL BE LOCATED WITH AN UNOBSTRUCTED LINE OF SIGHT TO THE GRINDER TANK.
- D. BOUNDARY KIT OR TANK SHALL NOT BE LOCATED IN DRIVEWAY WITHOUT WRITTEN CITY APPROVAL.
- E. OBTAIN WRITTEN CITY SITE PLAN APPROVAL PRIOR TO INSTALLATION.
- F. EASEMENT FOR ACCESS, OPERATION AND MAINTENANCE REQUIRED.
- G. EASEMENT SHALL EXTEND AT LEAST 5' ON EITHER SIDE OF PIPING OR CONDUIT AND A MINIMUM OF 5' AROUND THE RESIDENTIAL GRINDER TANK.



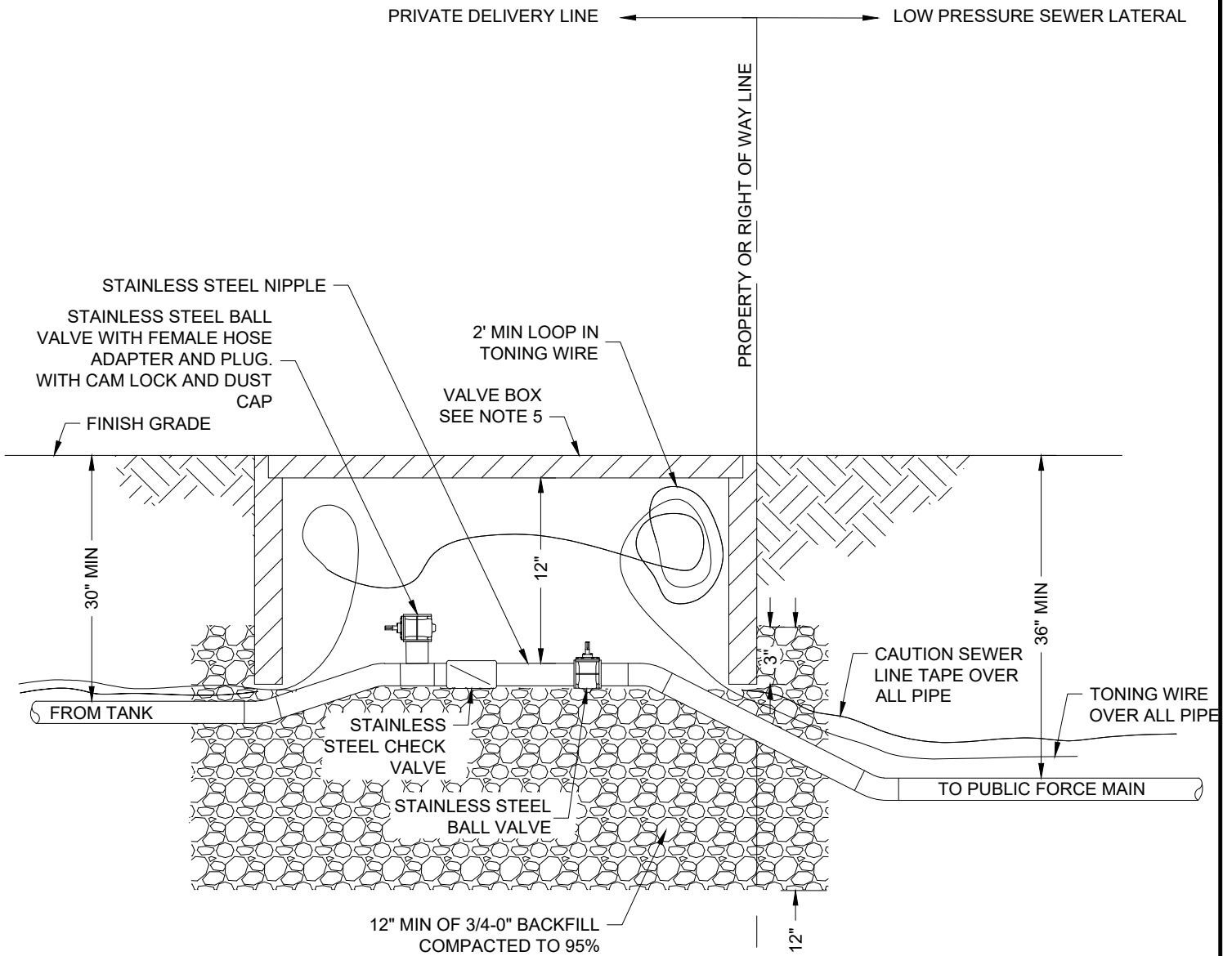
**CITY OF WARRENTON**  
 225 SOUTH MAIN STREET  
 WARRENTON, OREGON 97146  
 (503) 861-2233

# RESIDENTIAL GRINDER PUMP INSTALLATION

SHEET NO.

**LPS-01**

APPROVED: DRAFT



**NOTE:**

1. ALL PIPE FOR DELIVERY LINES SHALL BE HDPE (MINIMUM SDR 21 PRESSURE RATING).
2. LOW PRESSURE SEWER LATERALS SHALL BE CONSTRUCTED FROM HDPE (MINIMUM SDR 21 PRESSURE RATING).
3. FITTINGS & VALVES SHALL MATCH PIPE SIZE AND BE CONSTRUCTED OF STAINLESS STEEL.
4. NO CLOSE NIPPLES.
5. VALVE BOX SHALL BE CARSON IND. MOD# 1419 W/ BOLTED. NON-HINGED COVER & A # 1419E EXTENSION OR APPROVED EQUAL.



**CITY OF WARRENTON**  
 225 SOUTH MAIN STREET  
 WARRENTON, OREGON 97146  
 (503) 861-2233

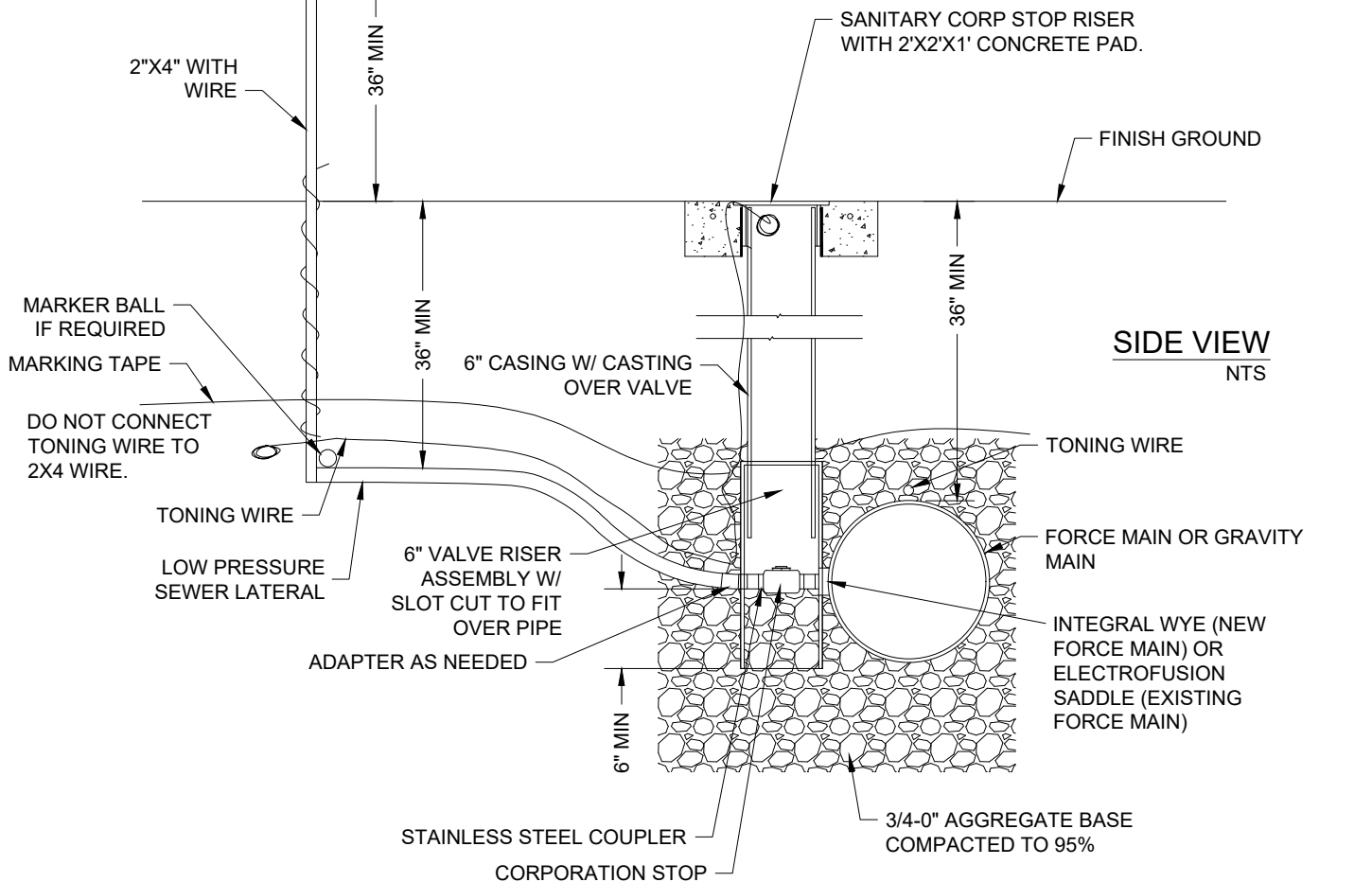
**RESIDENTIAL GRINDER  
 SYSTEM BOUNDARY KIT**

SHEET NO.

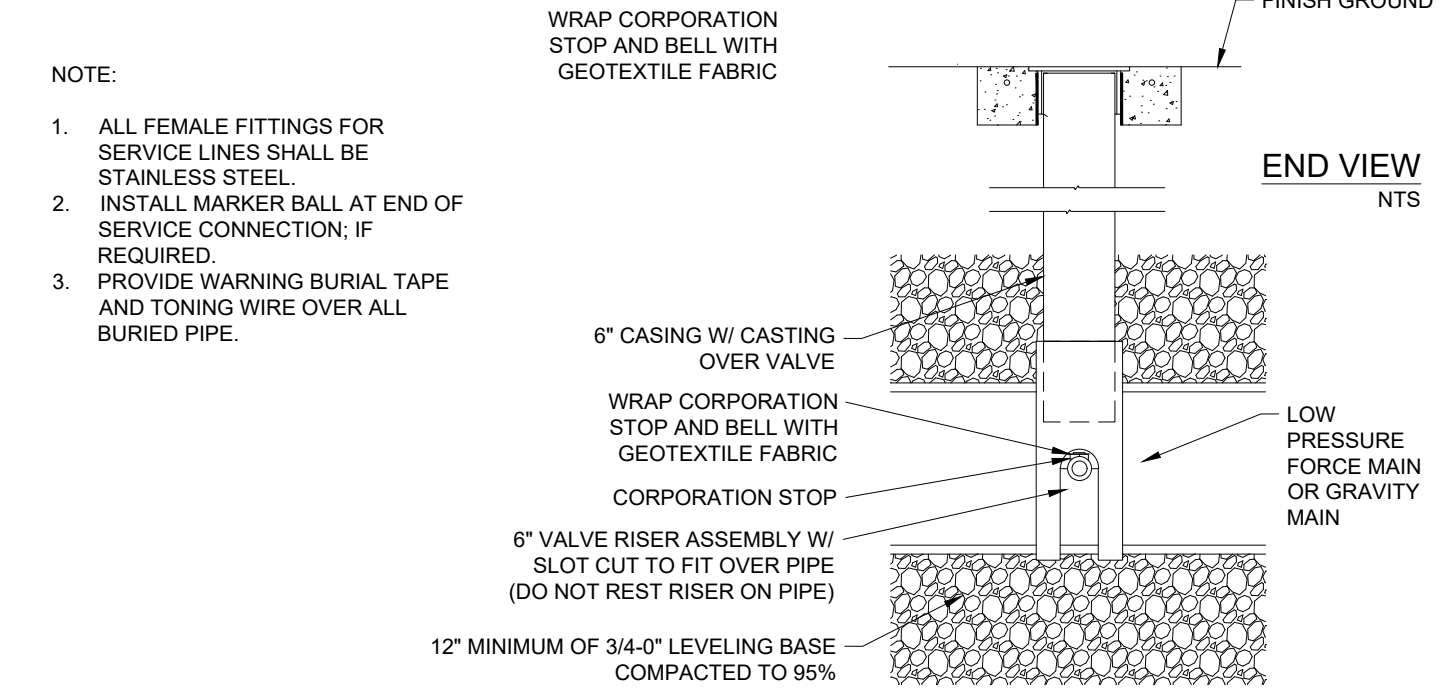
LPS-02

APPROVED: DRAFT

PLACE THE END PIPE MARKER & 10' 2"X4", AT THE END OF THE LATERAL. PAINT TOP 2' OF 2"X4" GREEN AND WRAP ENTIRE LENGTH WITH WIRE. DO NOT CONNECT 2"X4" WIRE W/ TONING WIRE END PIPE MARKER.



**SIDE VIEW**  
NTS



**END VIEW**  
NTS

**NOTE:**

1. ALL FEMALE FITTINGS FOR SERVICE LINES SHALL BE STAINLESS STEEL.
2. INSTALL MARKER BALL AT END OF SERVICE CONNECTION; IF REQUIRED.
3. PROVIDE WARNING BURIAL TAPE AND TONING WIRE OVER ALL BURIED PIPE.



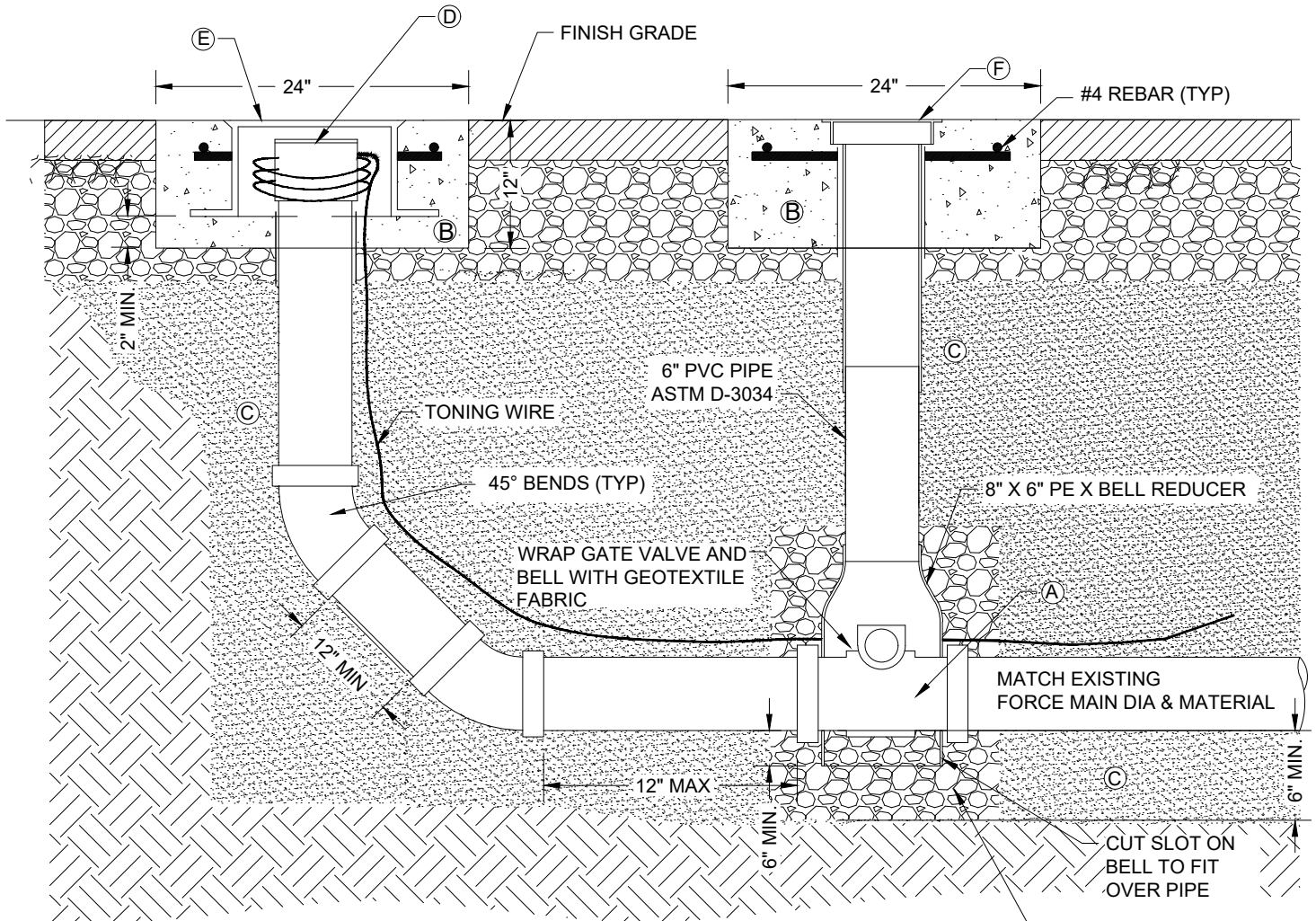
**CITY OF WARRENTON**  
225 SOUTH MAIN STREET  
WARRENTON, OREGON 97146  
(503) 861-2233

**RESIDENTIAL PRESSURE SERVICE CONNECTION**

SHEET NO.

**LPS-03**

APPROVED: DRAFT



**KEYED NOTES:**

- A. MJ GATE VALVE (AWWA C515) W/ NON RISING STEM W/ 2" SQUARE STAINLESS STEEL OPERATOR W/ RESTRAINED JOINTS (EACH SIDE).
- B. CONCRETE COLLAR TO BE INSTALLED WHEN LOCATED OUTSIDE OF PAVED AREAS W/ 50# FELT BETWEEN PIPE AND CONCRETE.
- C. BEDDING & BACKFILL TO CONFORM WITH MATERIALS. SPECIFIED IN THE SEWER LINE EXTENSION PLANS.
- D. INSTALL CAM LOCK WITH DUST CAP.
- E. STANDARD ADJUSTABLE CLEANOUT CAST IRON FRAME AND COVER MANUFACTURED BY EAST JORDAN IRON WORKS OR APPROVED EQUAL.
- F. VALVE BOX SHALL BE OLYMPIC FOUNDRY CAST IRON COVER TO READ "SEWER".

**NOTE:**

VALVE AND CLEANOUT SHALL BE THE SAME SIZE OR LARGER THAN THE FORCE MAIN.

ADD "CAUTION SEWER LINE" BURIAL TAPE TO ALL BURIED SEWER PIPE

3/4" COMPACTED TO 95%



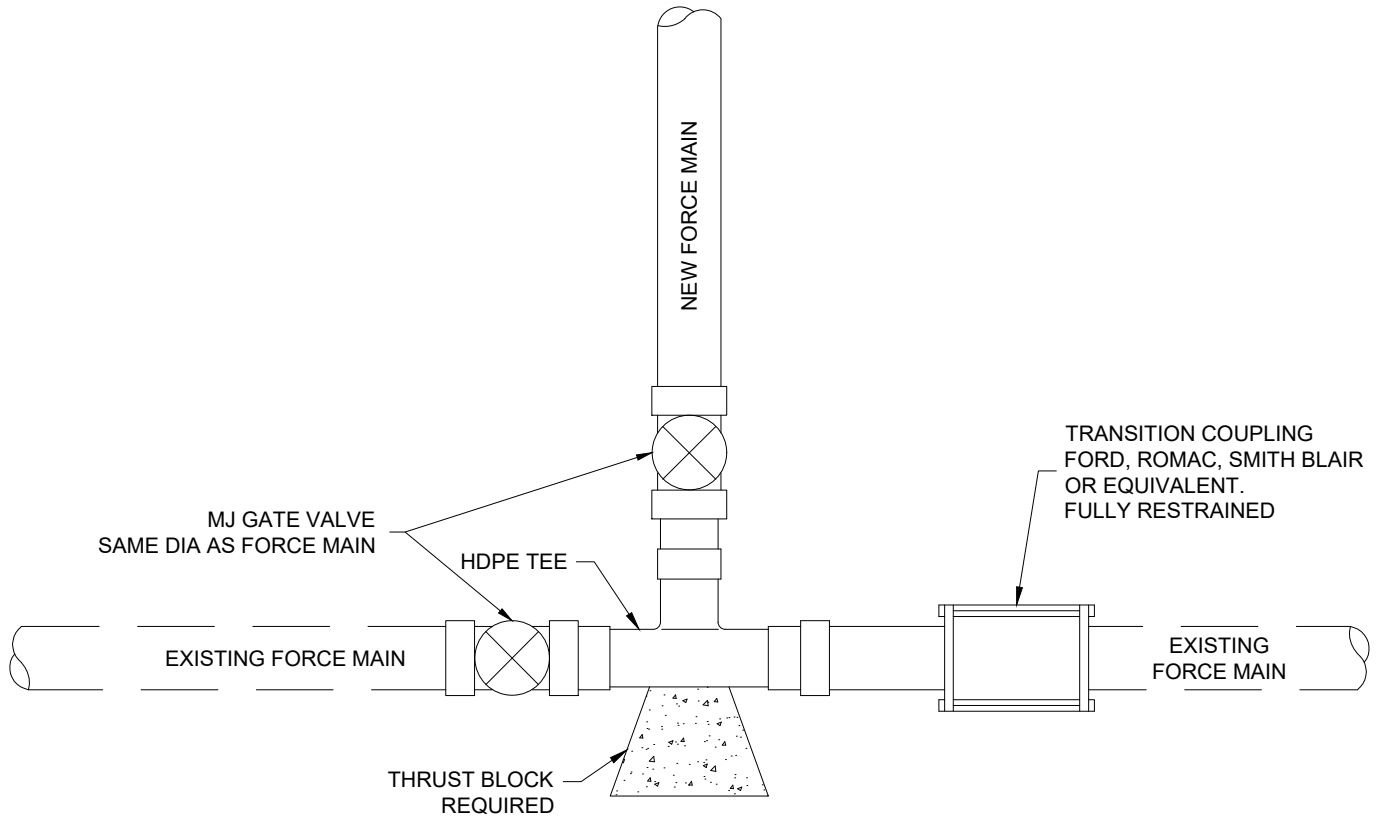
CITY OF WARRENTON  
225 SOUTH MAIN STREET  
WARRENTON, OREGON 97146  
(503) 861-2233

# FORCE MAIN FLUSHING CONNECTION

SHEET NO.

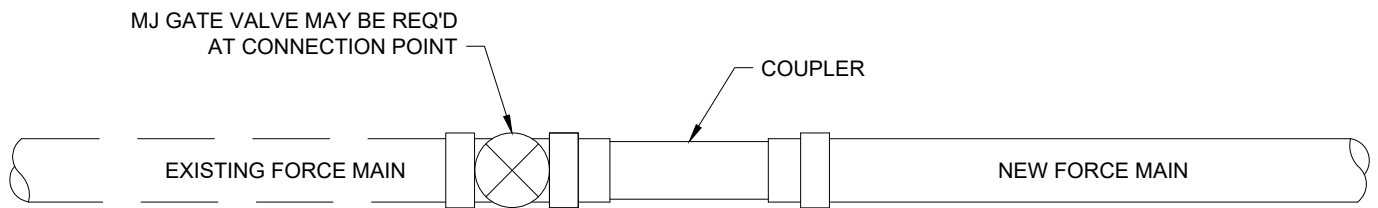
LPS-04

APPROVED: DRAFT



### TEE CONNECTION DETAIL

NTS



### IN LINE CONNECTION DETAIL

NTS

NOTE:  
ALL JOINTS MUST BE FULLY RESTRAINED



CITY OF WARRENTON  
225 SOUTH MAIN STREET  
WARRENTON, OREGON 97146  
(503) 861-2233

## LOW PRESSURE FORCE MAIN CONNECTION

SHEET NO.

LPS-05

APPROVED: DRAFT

## Utility Easement Agreement

The undersigned \_\_\_\_\_, (“Grantor” and “Owner”), does hereby grant unto the CITY OF WARRENTON, its successors and assigns (“Grantee” and the “City”), a perpetual utility easement (the “Easement”) on the property described as follows (as further described in Exhibit A attached hereto), referred to herein as the “Property,” together with the right of access to the Easement over the Property:

[INSERT PROPERTY DESCRIPTION HERE]

1. Purpose of Easement. The Easement is granted for providing low pressure sewer system service to the following: [INSERT ADDRESS]. The low pressure sewer system (“Equipment”) generally consists of piping, a boundary kit containing valves, a wet well, a pump, a control panel, and electrical service. The Easement allows access to inspect the Equipment and to operate or repair the Equipment if needed to minimize health concerns or protect City property. In addition to including all Equipment, the Easement shall extend to a public Right of Way to allow the City to access the Easement.
2. Maintenance of Easement Area. Owner shall be responsible for maintaining the Property and Easement area, provided, however, that the City shall have the right to (a) cut, trim, and control the growth of trees, shrubbery and other vegetation in the Easement area to the extent necessary to keep them clear of the Equipment, and (b) cut, down, trim, or control the growth of all dead, weak, leaning or other trees on or near the Property that the City reasonably believes may endanger or interfere with the Equipment and operation thereof. Owner shall not erect or maintain any structure upon, over, under, or within five feet of the Equipment which could endanger the operation or interfere with the operation or maintenance of the Equipment.
3. Nonexclusive. The Easement shall be nonexclusive to the City, such that the Owner may use the Easement area for purposes that do not impair the City’s rights hereunder, except that Owner shall not permit any other third party to impair or interfere with the Equipment and operation and maintenance thereof.
4. Location of the Easement Area. Upon installation of the Equipment, the Easement area shall be limited to the area reasonably necessary to exercise the City rights hereunder, but in any event, no less than 5 feet on either side of the Equipment. The Easement shall encompass all installed Equipment which form the functional low pressure sewer system, including but not limited to, the boundary kit, piping, wet well, pump, control panel, and electrical service to the control panel. Owner shall not unreasonably withhold its consent to a relocation of the Equipment and Easement area if the City determined that such relocation or expansion is necessary.
5. Ownership of Equipment; Damage. Owner agrees that all Equipment shall remain the property of the Owner. Owner shall be responsible for any damage to the Equipment caused by the Owner, its agents, invitees, or contractors. The City shall not be liable for any damages caused to Owner’s property caused by actions reasonably taken by the City in the exercise of its rights hereunder.

6. Right to Grant Easement. Owner covenants and warrants to the City that it is the sole owner of the Property and has the right to grant the Easement under this agreement.
7. Binding Effect. This Easement shall be binding on the Property and all owners of the Property.

Agreed this [Day] day of [Month] [Year] by:

Grantor/Owner:

\_\_\_\_\_  
Grantor Signature

\_\_\_\_\_  
Grantor Printed Name

STATE OF OREGON     )  
                                  ) ss.  
County of Clatsop     )

This instrument was acknowledged before me on this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_  
by \_\_\_\_\_.

\_\_\_\_\_  
Notary Public of Oregon

My Commission Expires: \_\_\_\_\_



# Public Works Low Pressure Sewer System Permit

**City of Warrenton – Public Works**  
45 SW 2<sup>nd</sup> Street, Warrenton, OR 97146  
**Phone:** (503) 861-0912 **Fax:** (503) 861-9661  
**Web:** [www.ci.warrenton.or.us](http://www.ci.warrenton.or.us)

<b>Permit Number:</b>	_____
<b>Date Submitted:</b>	_____
<b>Date Approved:</b>	_____
<b>User Permit Fee:</b>	_____

## PROPERTY & APPLICANT INFORMATION

Street Name(s)/Location <i>*attach site diagram or map:</i>		
Clatsop County Tax Lot Number:		
New Permit or Permit Renewal (circle one):	NEW PERMIT	PERMIT RENEWAL
Applicant Name:		
Applicant Mailing Address:		
Applicant City/State/ZIP:		
Applicant Phone:	Applicant Email:	
Property Owner Name (If different from Applicant):		
Property Owner Mailing Address (If different from Applicant):		
Property Owner Phone (If different from Applicant):		

## IF APPLYING FOR A NEW PERMIT, PLEASE COMPLETE THIS SECTION

Is this grinder pump system newly constructed or purchased from an existing property owner?	
<i>NEW CONSTRUCTION</i>	<i>PREVIOUSLY OWNED</i>
Provide the make, model, and date of installation of the grinder pump system.	
Make:	
Model:	
Date of Installation:	
Name of Installer:	
Provide the name and contact information for the service provider with whom the permit applicant has entered into a service agreement:	
Service Provider Name:	
Service Provider Phone Number:	



**IF RENEWING AN EXISTING PERMIT, PLEASE COMPLETE THIS SECTION**

Permit Number:

Previous Date of Permit Issuance:

Pump run time meter reading at the time of application:

Provide the name and contact information for the service provider with whom the permit applicant has entered into a service agreement:

Service Provider Name:

Service Provider Phone Number:

In the previous 12 months, have you completed the maintenance activities recommended by the manufacturer? (circle one)

YES

NO

List all maintenance activities performed in the previous 12 months:

In the previous 12 months, did the Service Provider conduct an inspection of the grinder pump system?

YES

NO

List any alarms that occurred during the previous 12 months and describe how each alarm was resolved.

In the previous 12 months, did sewage overflow from your grinder pump system? (circle one)

YES

NO

If so, when did this occur and how did you resolve the issue that caused the system to overflow?

In the previous 12 months, did you modify your grinder pump system or complete any construction activities on your property? If so, please describe in detail.

**CERTIFICATION STATEMENT**

*All property owners seeking authorization to discharge to the City of Warrenton Sewer System are required to comply with all local, City, State, and Federal requirements pertaining to the discharge of wastes to a municipal sewer system. By submitting this application, the applicant agrees to comply with those requirements and acknowledges that their grinder pump system is being operated and maintained in accordance with the City of Warrenton Low Pressure Sewer System policy. The applicant acknowledges that the City of Warrenton has the right to access the system for inspection and in case of emergency events. In the event of an imminent or active sanitary sewer overflow, the City may lock off the water meter. The applicant acknowledges that they have reviewed the City of Warrenton grinder pump system homeowner's manual titled "Guidance for Operating and Maintaining Your Grinder Pump System" and agree to comply with the requirements related to materials which can and cannot be discharged to the sewer system.*

*I HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS PERMIT APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF*

**Applicant's Signature:**

**Date:**