## Hartstene Pointe Water-Sewer District

Sewer System Rehabilitation Project





#### Who We Are





### Why Are We Rehabilitating the Sewer?

- Sewer Lines are old and failing
- Sewer Lines weren't properly installed







#### Why Are We Rehabilitating the Sewer?

- Why is Infiltration (leakage) a concern?
  - NPDES permit limitations

Maximum Month I	Design Flow (MMDF	) 186,000 gpd
THEATHRAIL INFORMATION	Design From (minute)	, 100,000 gpa

Peak Daily Design Flow 342,000 gpd

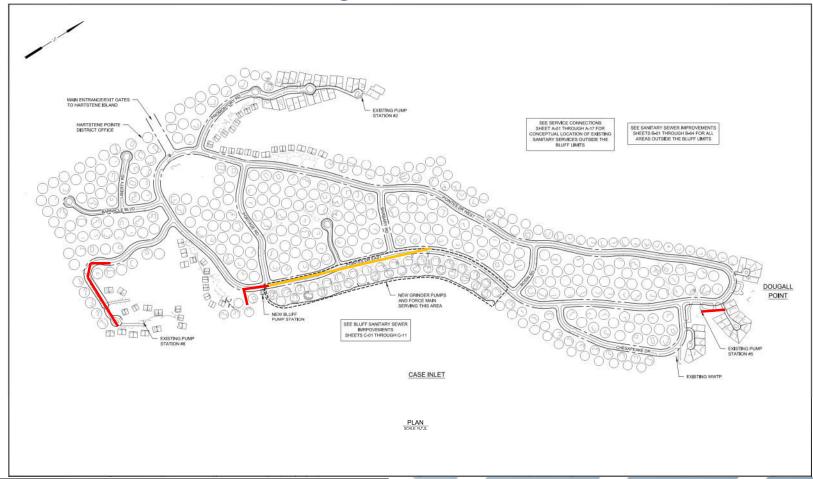
BOD<sub>5</sub> Influent Loading for Maximum Month 270 lbs/day

TSS Influent Loading for Maximum Month 270 lbs/day

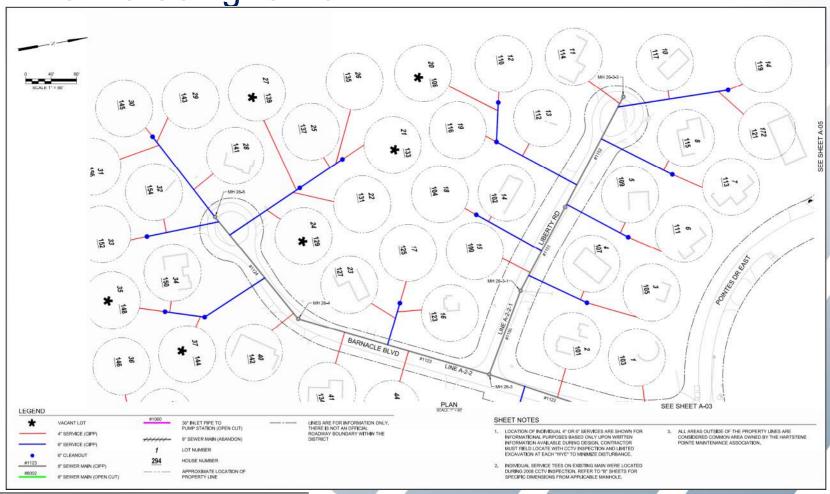
#### Why Are We Rehabilitating the Sewer?

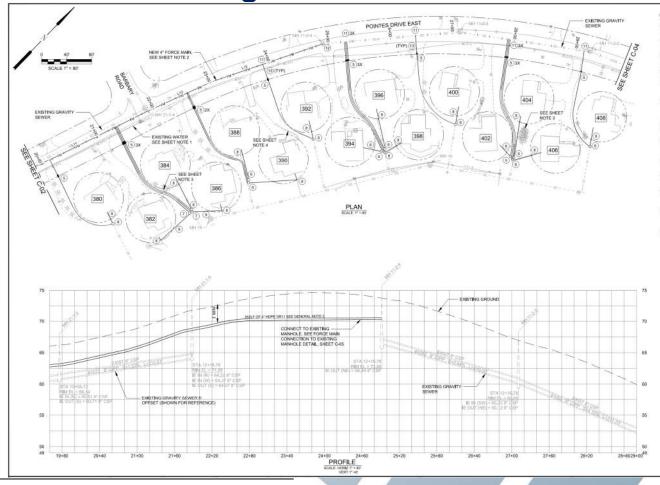
- Why are violations a concern?
  - Lawsuits due to Clean Water Act (CWA)
    - Waste Action Project filed an intent to sue under CWA in 2023
    - Lawsuits cost money to defend and settle or pay fines
- Secondary concern Bluff Sewer
  - Catastrophic failure of bluff would dump raw sewage into Puget Sound

- Two components of the project:
  - 1. Cured in Place Piping (CIPP) for majority of system
    - Potential for Pipe Bursting where CIPP not practical
  - 2. Bluff Sewer Realignment and Replacement
    - Replace bluff sewer with new pump station and force main in Pointes Drive
- Will also replace or install CIPP in service lines where necessary



Hartstene Pointe Water-Sewer District I Sewer System Rehabilitation





#### CONSTRUCTION NOTES

- INSTALL NEW LIFT STATION MANHOLE AND FORCE MAIN VALVE VAULT, SEE SHEET C-08.
- (2) INSTALL FITTING PER FITTING TABLE, SEE THRUST BLOCK DETAIL, SHEET C-05.
- 3 INSTALL TERMINAL FLUSHING ASSEMBLY WITH MANHOLE
- (4) INSTALL 4" PLUG VALVE PER MAIN VALVE TABLE.
- INSTALL PRESSURE SEWER SERVICE VALVE ASSEMBLY, SEE
   PRESSURE SEWER SERVICE VALVE ASSEMBLY DETAIL, SHEET
   G-04.
- (6) CONNECT TO EXISTING GRAVITY SEWER SERVICE WITH NEW WET WELL AND GRINDER PUMP ASSEMBLY, SEE SERVICE LINE WET WELL AND GRINDER PUMP DETAIL, SHEET C-08,
- INSTALL NEW WET WELL AND GRINDER PUMP ASSEMBLY, SEE
  SERVICE LINE WET WELL AND GRINDER PUMP DETAIL, SHEET
  C-06,
- (B) CONNECT TO EXISTING GRAVITY SEWER PIPE WITH NEW CLEANOUT, SEE CLEANOUT TO SERVICE CONNECTION DETAIL, SHEET CLOS.
- ® REALIGN AND INSTALL NEW SERVICE PIPE TO GRAVITY FLOW
- (6) REALIGN AND INSTALL NEW SERVICE PIPE TO GRAVITY FLOW TO NEW LIFT STATION,
- (1) CONNECT PRESSURE SEWER SERVICE TO EXISTING GRAVITY MAIN. SEE PRESSURE SEWER SERVICE CONNECTION TO GRAVITY MAIN DETAIL, SHEET C-05,
- (12) CORE DRILL EXISTING MANHOLE AND CONNECT NEW 4\* SEWER FORCE MAIN WITH INTERIOR OROP PIPE, FORCE MAIN CONNECTION TO EXISTING MANHOLE DETAIL, SHEET C-06.
- 6" WATER CROSSING, SEE PRESSURE SERVICE WATE CROSSING DETAIL, SHEET C-05.

#### SHEET NOTES

- MAINTAIN A MINIMUM OF 10" HORIZONTAL DISTANCE AND 18" VERTICAL DISTANCE FROM DOMESTIC WATER MAIN.
- MAINTAIN POSITIVE GRADE ON FORCE MAIN FROM NEW LIFT STATION TO EXISTING MANHOUS CONNECTION.
- IDENTIFY AND PROTECT DENSE TREES
   IDENTIFY AND PROTECT ROCK WALL

ALIGNMENT LINE DATA			
LENGTH	DIRECTION	START POINT	END POINT
212.49	N18" 29" 16"E	N: 723460,42 E: 1055484.09	N: 723660,70 E: 1055554,91
123.60	N211 25 40°E	N: 723660,70 E: 1056554.97	N: 723775,76 E: 1055900,12
180.31	N27" 01" 38"E	N: 729775,76 E: 1055600,12	N: 723896.37 E: 1055882.0
	212.49	LENGTH DIRECTION 21249 N18° 29 18°E 523.607 N21° 25' 40°E	LEWSTH DIRECTION START POINT  212.49' N18' 29' 18'E E 1025641.09  123.60' N21' 25' 40'E N 722862.70  100 011 N27' 07 0005 N 722375,76

# How is this Going to Impact Me?





#### **Proposed Bluff Sewer Services**



#### How is this Going to Impact Me?

- Replacement/Repair of Existing Service lines
  - Need to excavate from the existing sewer line to new grinder pump location
  - Need to install a cleanout on the existing service line where we change direction to the grinder pump
  - Would like to install this as close to the house as possible to eliminate as much old service line as possible
  - Service Line depth varies depending on if you have a basement or not

#### Schedule





## Questions?

