

**Ronald Wastewater District - Sanitary Sewer Rehabilitation**  
**Project Summary: Briarcrest CIP No. 1 (10-D)**

**Neighborhood:** Briarcrest

**Permits:** City of Shoreline Right-of-Way Permit

**Project Areas:** NE 148<sup>th</sup> St between 17<sup>th</sup> Ave NE and 20<sup>th</sup> Ave NE  
Easement between 20<sup>th</sup> Ave NE and 22<sup>nd</sup> Ave NE from NE 147<sup>th</sup> St to NE 150<sup>th</sup> St  
Easement between 22<sup>nd</sup> Ave NE and 23<sup>rd</sup> Ave NE from NE 147<sup>th</sup> St to NE 150<sup>th</sup> St  
NE 147<sup>th</sup> St between 20<sup>th</sup> Ave NE and 23<sup>rd</sup> Ave NE

**Condition Assessment:** Through the District's ongoing maintenance, TV inspection personnel assess the entire system once every six to eight years, noting the various types and severity of defects in the sewer mainlines. Pipe segments in the Briarcrest CIP No. 1 were selected for replacement due to root intrusion, pulled joints, and evidence of infiltration and inflow (I/I).

**Cost/Construction:**

Engineer's Estimate: \$637,555

Contractor's Bid Price: \$443,508

Change Order: none

Final Construction Cost: \$403,716.88

Cost per lineal foot main line: \$199.66 per LF

Engineer: Scott Christensen, P.E., Craig Christensen, CHS Engineers, LLC

Inspector: David Jensen, CHS Engineers

Contractor: Budget Sewer

Notes:

**Replacement/Rehabilitation:**

8" Concrete Sanitary Sewer Pipeburst with 8" HDPE: 2,022 LF

Cleanouts Installed: 44

Side Sewers Replaced (4" HDPE): 42

Side Sewers Replaced (6" HDPE): 3

Additional Side Sewer Connections/Replacements: 7

Manholes Rehabilitated (Frame, Cover and Neck): 9

Manholes Rehabilitated (Neck Only): 6

Side Sewer Stubs Replaced: 6

**Private Replacement/Participation:**

Number of private side sewers in project: 53

Number of property owners that signed up (signed ROE): 40

Number of side sewers not needing replacement (per video): 2

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House #	Street	ROE	Old Material	New Material	Replacement		Size	Notes
					Side Sewer	Stub (to edge of R/W)		
1756	NE 148 <sup>th</sup> St	Y	Unknown	HDPE	X		4"	SS replaced
1750	NE 148 <sup>th</sup> St	Y	Unknown	HDPE	X		4"	SS replaced
1753	NE 148 <sup>th</sup> St	Y	Clay	HDPE	X		4"	SS replaced
1747	NE 148 <sup>th</sup> St	Y	PVC/Conc	HDPE	X		4"	SS replaced
1746	NE 148 <sup>th</sup> St	Y	Unknown	HDPE	X		4"	SS replaced
1740	NE 148 <sup>th</sup> St	Y	Conc	HDPE	X		4"	SS replaced
1741	NE 148 <sup>th</sup> St	Y	Conc	HDPE	X		6"	SS replaced
1737	NE 148 <sup>th</sup> St	Y	Unknown					Not replaced
1732	NE 148 <sup>th</sup> St	Y	Unknown	HDPE	X		4"	SS replaced
1727	NE 148 <sup>th</sup> St	Y	Unknown	HDPE	X		4"	Mostly replaced then connected to unknown ex. pipe
1728	NE 148 <sup>th</sup> St	Y	Conc/CIP	HDPE	X		4"	Partly replaced then connected to ex. 4" HDPE
1723	NE 148 <sup>th</sup> St		Unknown	HDPE		X	4"	Stub connected to unknown ex. pipe
1720	NE 148 <sup>th</sup> St	Y	Unknown	HDPE	X		4"	SS connected with 1720 ½
1720 ½	NE 148 <sup>th</sup> St	Y	Unknown	HDPE	X		4"	SS connected with 1720. Mostly replaced then connected to ex. 4" Conc
1716	NE 148 <sup>th</sup> St	Y	Conc	HDPE	X		4"	SS replaced
1715	NE 148 <sup>th</sup> St	Y	Unknown	HDPE	X		4"	SS replaced
1709	NE 148 <sup>th</sup> St	Y	Conc	HDPE	X		4"	SS replaced
1701	NE 148 <sup>th</sup> St	Y	Unknown	HDPE	X		4"	SS replaced
1704	NE 148 <sup>th</sup> St	Y	Unknown	HDPE	X		4"	Mostly replaced then connected to unknown ex. pipe
1710	NE 148 <sup>th</sup> St		Conc	HDPE		X	4"	Stub connected to ex. 4" PVC
14705	22 <sup>nd</sup> Ave NE	Y	Conc					Not replaced
2010	NE 147 <sup>th</sup> St		Conc					Not replaced

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14711	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14717	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14723	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14729	22 <sup>nd</sup> Ave NE	Y	PVC	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14735	22 <sup>nd</sup> Ave NE	Y	Conc	PVC	X		4"	Mostly replaced then connected to ex. 4" Conc
14741	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14747	22 <sup>nd</sup> Ave NE		Conc					Not replaced
14753	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Additional ex. 3" ABS SS connected with wye to side of house.
14759	22 <sup>nd</sup> Ave NE	Y	Conc					Not replaced
2015	NE 150 <sup>th</sup> St		Conc					2 SS's. Not replaced
14704	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14705	23 <sup>rd</sup> Ave NE	Y	Conc	HDPE	X		4"	
14711	23 <sup>rd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14710	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	
14716	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14717	23 <sup>rd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc

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14723	23 <sup>rd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14722	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	
14728	22 <sup>nd</sup> Ave NE		Clay					Not replaced
14729	23 <sup>rd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14734	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14735	23 <sup>rd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14741	23 <sup>rd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14740	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14746	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14747	23 <sup>rd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14752	22 <sup>nd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14753	23 <sup>rd</sup> Ave NE	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
14759	23 <sup>rd</sup> Ave NE	Y	Conc	HDPE	X		4"	
14758	22 <sup>nd</sup> Ave NE		Conc					Not replaced
14559	NE 147 <sup>th</sup> St	Y	Conc	HDPE	X		4"	Mostly replaced then connected to ex. 4" Conc
2215	NE 147 <sup>th</sup> St		Unknown	HDPE		X	6"	Stub connected to ex. 6" PVC
2215	NE 147 <sup>th</sup> St		Unknown	HDPE		X	6"	Stub connected to ex. 6" Conc