

Ronald Wastewater District - Sanitary Sewer Rehabilitation
Project Summary: Echo Lake Trunk Replacement (10-C)

Neighborhoods: Echo Lake

Permits: City of Shoreline Right-of-Way Permit

Project Areas: Along the west bank of Echo Lake between NE 195th St and N 199th St
Near Wallingford Ave N between N 204th Pl and N 205th St

Condition Assessment: The District conducted a special area study to identify areas of increased flow due to land use changes. This information was entered into the District's hydraulic model which predicted the lines that would be over capacity. The Echo Lake trunk was upsized to avoid overflows into Echo Lake.

Cost/Construction:

Engineer's Estimate: \$1,067,055 (w/o tax)

Engineer: Scott Christensen, P.E., Darrel Frame, P.E., CHS Engineers, LLC

Contractor's Bid Price: \$812,539 (w/o tax)

Inspector: David Jensen, CHS Engineers

Change Orders: \$89,910.71

Contractor: Buno Construction, LLC

Final Construction Cost: \$805,433.74 (w/o tax)

Cost per lineal foot main line: \$365.77 per LF

Replacement/Rehabilitation:

14" Concrete Sanitary Sewer Pipeburst with 20" HDPE: 1,038 LF

Sanitary Sewer Replacement with PVC: 865 LF

14" Concrete Sanitary Sewer Slipline with 12" HDPE: 347 LF

Manholes Rehabilitated (HDPE Riser): 2

Cleanouts Installed: 9

Side Sewers Replaced (4"): 8

Side Sewers Replaced (6"): 2

Side Sewer Stubs Replaced: 11

Private Replacement/Participation:

Number of private side sewers in project: 25

Number of property owners that signed up (signed ROE): 9

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House #	Street/Location	ROE	Old Material	New Material	Replacement		Size	Notes
					Side Sewer	Stub (to edge of R/W)		
19414	Aurora Ave N	Y	Conc	PVC	X		6"	Replace by open trench due to short length
19428	Aurora Ave N	Y	Unknown	PVC	X		6"	Install Tee and stub by open trench. Replace SS to building connection and reconnect
1132	N 195 th St	Y	Conc/Clay	HDPE	X		4"	Install Tee and SS stub to edge of easement. Replace SS to building connection and reconnect
19502	Echo Lake PI N	Y	Unknown	PVC	X		4"	Replace SS with 4" PVC
19508	Echo Lake PI N	Y	Conc	PVC	X		4"	Relocate and replace SS by open trench
19512	Echo Lake PI N	N				X		Install tee and SS stub by open trench. Cap at edge of easement
19524	Echo Lake PI N	N	PVC	HDPE		X	6"	Replaced by open trench due to short length. Stub connected to ex. 6" PVC
19528	Echo Lake PI N	N	PVC	HDPE		X	6"	Replaced by open trench due to short length. Stub connected to ex. 6" PVC
19542 & 19542 ½	Echo Lake PI N	Y	Conc	HDPE		X	6"	Install tee and SS stub by open trench. Cap at edge of easement
1150	N 198 th St	N	PVC	HDPE		X	6"	Stub connected to ex. 6" PVC
Various	Echo Lake Village Townhomes	N	PVC					Not replaced
1313	King County Housing Authority	Y	Conc	HDPE	X		6"	Install Tee and stub by open trench. Replace SS to building connection and reconnect
1409	N 200 th St	N	PVC	PVC		X	6"	Stub connected to ex. 6" PVC
1411	N 200 th St	N	PVC	PVC		X	6"	Stub connected to ex. 6" PVC

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					Side Sewer	Stub (to edge of R/W)		
1413	N 200 th St	N	PVC	HDPE		X	6"	Stub connected to ex. 6" PVC
1415	N 200 th St	N	PVC	PVC		X	6"	Stub connected to ex. 6" PVC
1417	N 200 th St	N	PVC	HDPE		X	6"	Stub connected to ex. 6" PVC
1475	N 200 th St	N	PVC	PVC			4"	Installed cleanout only
1501 Garage	N 200 th St	Y	PVC	HDPE	X		6"	Install Tee and stub by open trench. Replace SS to building connection and reconnect
1501 House	N 200 th St	Y	PVC	HDPE		X	6"	Stub connected to ex. 6" PVC
-	Echo Lake Park	N	PVC					Not replaced
-	Seattle City Light	N	PVC					Not replaced
1719	N 204 th PI	N	PVC	HDPE	X		4"	SS replaced
1705	N 204 th PI	N	Conc	HDPE	X		4"	SS replaced
1708	N 204 th PI	N	Conc/PVC	HDPE	X		4"	Connect to ex. 4" PVC
1714	N 204 th PI	N	Conc	HDPE	X		4"	SS replaced
1722	N 204 th PI	Y	Conc	HDPE	X		4"	Replaced ex. 4" Conc with 4" PVC by open cut