Port Ludlow Drainage District Construction Projects

No.	Project	Completion Date	Construction Cost	
1	**North Bay Condos No. 2 Conveyance System** Surface drainage from Oak Bay Road discharged through the North Bay Condos No. 2 and caused flooding in the driveway, parking lot and outside two of the condominium buildings. A closed pipe connection between the existing culvert on Oak Bay Road and the downstream culvert between the buildings was installed.	2003	$12,000	
2	**Area 7 Detention Pond/Bioswale Rehabilitation** The detention pond and bioswale leading to the pond had been neglected for years. Vegetation and sediment was removed to restore the facilities to the original condition.	2003	$5,000	
3	**Libby Court Outfall (Oak Bay Road Phase I)** The outfall pipe east of Montgomery Lane north of Libby Court was rusted and the bottom of the pipe was eroded. The pipe discharged at the top of the steep bank. This project installed a 30-inch diameter storm pipe from Montgomery Lane to a concrete diffuser structure on the beach. The pipe transitions from underground to above ground at the face of the bluff.	2004	$120,500	

4	**Incised Ditch – Oak Bay Road to Montgomery (Oak Bay Road Phase II)** The channel located in the reserve area between Culvert No. 84 on Oak Bay Road and Culvert No. 64 at Montgomery Lane north of Libby Court was heavily incised and had migrated unto private property. This project regraded the channel between Oak Bay Road and Montgomery Lane, installed rip-rap and rock check dams to prevent erosion. The channel discharges to a 36-inch diameter pipe approximately 50 feet west of Montgomery Lane which discharges to the Libby Court Outfall (Project No. 3). Completion of this project eliminated further erosion of the bluff.	2004	$63,600	
5	**Oak Bay Road Ditch Modification (Oak Bay Road Phase III)** Flow from the west roadside ditches on Oak Bay Road in the vicinity of Montgomery Lane and Baldwin Lane were contributing to flooding east of Oak Bay Road. This project regraded the Oak Bay Road ditch to maximize discharge to drainage facilities with adequate capacity.	2004	$23,600 – District $11,600 - County	
6	**Adventurer Lane Cutoff Trench** Surface drainage from areas uphill of Adventurer Lane caused problems for the properties downhill of Adventurer Lane. A french drain was installed from the north cul-de-sac of Adventurer Lane toward Port Ludlow Park.	2005	$11,000	

7	**Olympic/Cascade Easement Cutoff Trench** Surface drainage from properties on the east side of Olympic Lane created drainage problems for properties on the west side of Cascade Lane. A french drain was installed in a utility easement between Olympic and Cascade Lanes to direct drainage to the ditch along Walker Way.	2006	$25,000	
8	**Foster Lane Drainage Improvements** Runoff from the north end of Foster Lane discharged to an adjacent property. The roadside ditches on Foster lane had been filled in or culverts installed by property owners with the result that surface drainage from the right-of-way and adjacent properties was not able to enter the drainage system and had caused a drainage problem for the property at the north end of the road. Jefferson County paid for the project that installed a piped drainage system to the natural point of discharge north of Foster Lane.	2007	$34,000 - County	
9	**Pope/Condon Lane Outfall Improvements** An existing storm drain that extended east from the intersection of Pope Way and Condon Lane discharged at the top of the bluff creating an erosion hazard. The existing drain was located on private property. The project obtained easement from Condon Lane to the bluff to allow install of a new 14-inch outfall, a portion of which was slip lined into the existing drain pipe. An HDPE above grade pipe extended from the drain at the top of the bluff and discharged into a 48-inch diameter catch basin/diffuser structure located on the beach below the bluff.	2007	$66,000	

10	**McCurdy Lane Cutoff Trench** Surface flow from the properties to the west of McCurdy Lane was discharging onto downstream properties. A french drain was installed to the west McCurdy Lane to capture and direct surface drainage to the north.	2008	$32,500	
11	**Montgomery Lane Redirection/Outfall Abandonment** Conveyance improvements in Montgomery Lane resulted in the elimination of a bank discharge and directed drainage from Montgomery Lane north of Libby Court to the Libby Court outfall (Project No. 3).	2008	$76,000 – District $40,300 – County	
12	**WWTP Ditch and Culvert Improvements** The ditch from Oak Bay Road on the north side of the PLA property that carries drainage from Oak Raod, Swansonville Road and the Rainier to Oak Bay Greenbelt had inadequate conveyance capacity. This project obtained an easement to install and maintain a new ditch with increased capacity to convey the drainage to the point of connection with the stormwater outfall to Ludlow Cove that starts at the Wastewater Treatment Plant. The ditch was lined with rock to prevent erosion and subsequent sediment deposition into Ludlow Bay.	2009	$139,000	

13	**Jackson-Foster/Machias Loop/Warbler Drainage Improvements** This project improved drainage in three locations. The Jackson-Foster drainage project installed a french drain in an easement between the properties on the east side of Foster Lane and the west side of Jackson Lane to direct surface drainage to the north. The Machias Loop improvement piped drainage from Machias Loop through existing drainage easements to its natural point of discharge in the greenbelt north of Oak Bay Road. The Warbler drainage project improved the severely eroded street end surface water discharge by regrading and installing rip rap armoring of the slope immediately downstream of the outfall.	2010	$88,000	
14	**North Bay No. 2 Drainage Improvements** This improvement directed surface drainage, a large percentage of which is generated from Oak Bay Road, to an existing outfall to Ludlow Cove. This improvement prevents bank sloughing from uncontrolled runoff.	2011	$27,000	
15	**Upper West Baldwin to Oak Bay Road Improvements** The drainage from the streets and properties tributary to Fleet Drive and Pioneer Drive south of Jackson Lane discharged to the east through a piped system from Wheeler Lane into a ditch in the greenbelt immediately west of Oak Bay Road and Baldwin Lane. The ditch was severely eroded and water in the ditch had caused voids in the roadway embankment on the west side of Oak Bay Road. This project installed a piped system in the greenbelt to direct all flow from the Fleet Dr/Pioneer Dr system to the existing ditch and pipe system (Project No. 4) and Libby Court outfall (Project No. 3).	2012	$37,000	

16	**Beach Club Drainage Improvements** (Financial Participant) LMC replaced the french drains around the north and northwest corner of the Beach Club. The project was designed and constructed by the LMC.	2014	$11,500 by District	
17	**Trader Lane Improvements** Discharge from an existing pond immediately east of the intersection of Swansonville Road and Rainer Lane flowed through the greenbelt and two private properties prior to discharging to the roadside ditch on Trader Lane. This project constructed a vegetated swale and piped system to direct drainage from the greenbelt directly to the Trader Lane ditches. The Trader Lane drainage system was improved to convey surface water to the Fleet Dr. drainage system.	2015	$40,000 – District $3,600 – County	
18	**Cascade Lane Flood Abatement** Drainage from Rainier Lane and Camano Lane discharges to the west portion of the large greenbelt between Rainier Lane and Oak Bay Road. The drainage from the western portion of the greenbelt discharged through private property to the ditch on Cascade Lane. During high flows the ditch on Cascade Lane was not able to handle the flow and excess water discharged to properties on the east side of Cascade Lane and continued to flow overland to Cressy Lane. The project installed an inlet in the greenbelt to collect the drainage from the west portion of the greenbelt and direct it through a piped system through easements in the greenbelt and two private properties to an existing utility easement between Olympic Lane and Cascade Lane. The drainage discharges to Oak Bay Road. The ditches on Rainier Lane and Oak Bay Road were improved to increase capacity and rock check dams were added to prevent erosion.	2016	$194,000