



Department of Permitting
 Environmental Review
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**Critical Areas Mitigation
 Bond Quantity Worksheet**

C24 03/18/2018
 Is-wks-sensareaBQ.xls
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Project Name: Parkwood Ltd. Partnership along West Mercer Way Date: 11/26/2018 Prepared By: Mark Rigos, Wetland Biologist; (425) 652-6013

Project Number: SFR 1709-196 (City of Mercer Island) Project Description: Provide wetland buffer restoration

Location: Tax Parcel # 192405-9324; 5236 West Mercer Way, MI, WA Applicant: Joseph Greif, Architect Phone: (206) 465-4201

PLANT MATERIALS (includes labor cost for plant installation)

Type	Unit Price	Unit	Quantity	Description	Cost
PLANTS: Potted, 4" diameter, medium	\$5.00	Each	0		\$ -
PLANTS: Container, 1 gallon, medium soil	\$11.50	Each	234	Shrubs and groundcover	\$ 2,691.00
PLANTS: Container, 2 gallon, medium soil	\$20.00	Each	368	Trees and shrubs	\$ 7,360.00
PLANTS: Container, 5 gallon, medium soil	\$36.00	Each	0		\$ -
PLANTS: Seeding, by hand	\$0.50	SY	0		\$ -
PLANTS: Slips (willow, red-osier)	\$2.00	Each	0		\$ -
PLANTS: Stakes (willow)	\$2.00	Each	0		\$ -
PLANTS: Stakes (willow)	\$2.00	Each	0		\$ -
PLANTS: Flats/plugs	\$2.00	Each	0		\$ -
TOTAL					\$ 10,051.00

INSTALLATION COSTS (LABOR, EQUIPMENT, & OVERHEAD)

Type	Unit Price	Unit	Quantity	Description	Cost
Compost, vegetable, delivered and spread	\$37.88	CY	0		\$ -
Decompacting till/hardpan, medium, to 6" depth	\$1.57	CY	336		\$ 527.52
Decompacting till/hardpan, medium, to 12" depth	\$1.57	CY	0		\$ -
Hydroseeding	\$0.51	SY	2013		\$ 1,026.63
Labor, general (landscaping other than plant installation)	\$40.00	HR	0		\$ -
Labor, general (construction)	\$40.00	HR	75		\$ 3,000.00
Labor: Consultant, supervising	\$55.00	HR	8		\$ 440.00
Labor: Consultant, on-site re-design	\$95.00	HR	4		\$ 380.00
Rental of decompacting machinery & operator	\$70.00	HR	16		\$ 1,120.00
Sand, coarse builder's, delivered and spread	\$42.00	CY	0		\$ -
Staking material (set per tree)	\$7.00	Each	45		\$ 315.00
Surveying, line & grade	\$250.00	HR	6		\$ 1,500.00
Surveying, topographical	\$250.00	HR	0		\$ -
Watering, 1" of water, 50' soaker hose	\$3.62	MSF	0		\$ -
Irrigation - temporary	\$3,000.00	Acre	0		\$ 1,260.00
Irrigation - buried	\$4,500.00	Acre	0		\$ -
Tilling topsoil, disk harrow, 20hp tractor, 4"-6" deep	\$1.02	SY	0		\$ -
TOTAL					\$ 9,569.15

HABITAT STRUCTURES*

ITEMS	Unit Cost	Unit	Quantity	Description	Cost
Fascines (willow)	\$ 2.00	Each	0		\$ -
Logs (cedar), w/ root wads, 16"-24" diam., 30' long	\$1,000.00	Each	0		\$ -
Logs (cedar) w/o root wads, 16"-24" diam., 30'	\$400.00	Each	0		\$ -
Logs, w/o root wads, 16"-24" diam., 30' long	\$245.00	Each	0		\$ -
Logs w/ root wads, 16"-24" diam., 30' long	\$460.00	Each	0		\$ -
Rocks, one-man	\$60.00	Each	0		\$ -
Rocks, two-man	\$120.00	Each	0		\$ -
Root wads	\$163.00	Each	0		\$ -
Spawning gravel, type A	\$22.00	CY	0		\$ -
Weir - log	\$1,500.00	Each	0		\$ -
Weir - adjustable	\$2,000.00	Each	0		\$ -
Woody debris, large	\$163.00	Each	0		\$ -
Snags - anchored	\$400.00	Each	0		\$ -
Snags - on site	\$50.00	Each	0		\$ -
Snags - imported	\$800.00	Each	0		\$ -
TOTAL					\$ -

* All costs include delivery and installation

EROSION CONTROL

ITEMS	Unit Cost	Unit	Quantity	Description	Cost
Backfill and Compaction-embankment	\$ 4.89	CY	0		\$ -
Crushed surfacing, 1 1/4" minus	\$30.00	CY	0		\$ -
Ditching	\$7.03	CY	0		\$ -
Excavation, bulk	\$4.00	CY	0		\$ -
Fence, silt	\$1.60	LF	340		\$ 544.00
Jute Mesh	\$1.26	SY	0		\$ -
Mulch, by hand, straw, 2" deep	\$1.27	SY	0		\$ -
Mulch, by hand, wood chips, 2" deep	\$3.25	SY	0		\$ -
Mulch, by machine, straw, 1" deep	\$0.32	SY	0		\$ -
Piping, temporary, CPP, 6"	\$9.30	LF	0		\$ -
Piping, temporary, CPP, 8"	\$14.00	LF	0		\$ -
Piping, temporary, CPP, 12"	\$18.00	LF	0		\$ -
Plastic covering, 6mm thick, sandbagged	\$2.00	SY	0		\$ -
Rip Rap, machine placed, slopes	\$33.98	CY	0		\$ -
Rock Constr. Entrance 100'x15'x1'	\$3,000.00	Each	1		\$ 3,000.00
Rock Constr. Entrance 50'x15'x1'	\$1,500.00	Each	0		\$ -
Sediment pond riser assembly	\$1,695.11	Each	0		\$ -
Sediment trap, 5' high berm	\$15.57	LF	0		\$ -
Sediment trap, 5' high berm w/spillway incl. riprap	\$59.60	LF	0		\$ -
Sodding, 1" deep, level ground	\$5.24	SY	0		\$ -
Sodding, 1" deep, sloped ground	\$6.48	SY	0		\$ -
Straw bales, place and remove	\$600.00	TON	0.5		\$ 300.00
Hauling and disposal	\$20.00	CY	503		\$ 10,060.00
Topsoil, delivered and spread	\$35.73	CY	112		\$ 4,001.76
TOTAL					\$ 17,905.76

GENERAL ITEMS					
ITEMS	Unit Cost	Unit			Cost
Fencing, chain link, 6' high	\$18.89	LF	0		\$ -
Fencing, chain link, corner posts	\$111.17	Each	0		\$ -
Fencing, chain link, gate	\$277.63	Each	0		\$ -
Fencing, split rail, 3' high (2-rail)	\$10.54	LF	400		\$ 4,216.00
Fencing, temporary (NGPE)	\$1.20	LF	340		\$ 408.00
Signs, sensitive area boundary (inc. backing, post, install)	\$28.50	Each	8		\$ 228.00
TOTAL					\$ 4,852.00
OTHER				(Construction Cost Subtotal)	\$ 42,377.91
ITEMS	Percentage of Construction Cost	Unit			Cost
Mobilization	10%	1			\$ 4,237.79
Contingency	30%	1			\$ 12,713.37
TOTAL					\$ 16,951.16
<p>MAINTENANCE AND MONITORING</p> <p>NOTE: Projects with multiple permit requirements may be required to have longer monitoring and maintenance terms. This will be evaluated on a case-by-case basis for development applications. Monitoring and maintenance ranges may be assessed anywhere from 5 to 10 years.</p>					
Maintenance, annual (by owner or consultant)					
Less than 1,000 sq.ft. and buffer mitigation only	\$ 1.08	SF		(3 X SF total for 3 annual events; Includes monitoring)	\$ -
Less than 1,000 sq.ft. with wetland or aquatic area mitigation	\$ 1.35	SF		(3 X SF total for 3 annual events; Includes monitoring)	\$ -
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of buffer mitigation	\$ 180.00	EACH		(4hr @ \$45/hr)	\$ -
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of wetland or aquatic area mitigation	\$ 270.00	EACH		(6hr @ \$45/hr)	\$ -
Larger than 5,000 sq.ft. but < 1 acre -buffer mitigation only	\$ 360.00	EACH		(8 hrs @ 45/hr)	\$ -
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area mitigation	\$ 450.00	EACH	5	(10 hrs @ \$45/hr)	\$ 2,250.00
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area mitigation	\$ 1,600.00	DAY		(WEC crew)	\$ -
Larger than 5 acres - buffer and / or wetland or aquatic area mitigation	\$ 2,000.00	DAY		(1.25 X WEC crew)	\$ -
Monitoring, annual (by owner or consultant)					
Larger than 1,000 sq.ft. but less than 5,000 wetland or buffer mitigation	\$ 720.00	EACH		(8 hrs @ 90/hr)	\$ -
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area impacts	\$ 900.00	EACH	5	(10 hrs @ \$90/hr)	\$ 4,500.00
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area impacts	\$ 1,440.00	DAY		(16 hrs @ \$90/hr)	\$ -
Larger than 5 acres - buffer and / or wetland or aquatic area impacts	\$ 2,160.00	DAY		(24 hrs @ \$90/hr)	\$ -
TOTAL					\$ 6,750.00
Total					\$66,079.07