

<b>Project</b>	Loghouse Landing Options	<b>Date</b>	June 17, 2013
<b>To</b>	Jim Shaver, CMSCWD Administrator	<b>Contact Info</b>	
<b>Cc</b>		<b>Contact Info</b>	
<b>From</b>	Carl Almer, Brad Aldrich	<b>Contact Info</b>	
<b>Regarding</b>	Updating Cost Estimates for 3 Options		

### Preliminary Cost Estimates

EOR provided a Memo on May 9, 2013 identifying the erosion and water quality issues at Loghouse Landing and a potential Concept Design Solution. Schematic cost estimates were also provided for the concept design.

CMSCWD asked EOR to provide cost estimates for 3 options that incorporate greater detail and comments from City of Scandia. Preliminary Cost Estimates are included in this memo for the following 3 Options:

1. Full Access Option – This option will improve existing access to the landing while solving pervasive erosion issues. Main elements of this option include full width roadway including 12' paved drive lane, 10' porous parking lane on the south side of 205<sup>th</sup> Ave., curb and gutter on both sides of the road, 2 BMP's located ½ down the street and at the bottom, improved and stabilized boat ramp construction with flexible concrete mat, and stabilization of steep slopes along the boat ramp. Total Estimated Cost (including 15% Contingency) = \$241,502.
2. Canoe/ Kayak Access Option – This option limits boat traffic to canoes, kayaks, and emergency motor boat useage and incorporates the same road cross section along 205<sup>th</sup> Ave. that is outlined in the Full Access Option, the same BMP approach as option 1, a lockable gate at the bottom of 205<sup>th</sup> Ave. that would be open for emergency access, slightly reduced pavement adjacent to the boat ramp, and a lower impact stabilization for the boat ramp. Total Estimated Cost (including 15% Contingency) = \$231,906.
3. Decommissioned Access Option – This option eliminates boat access at the landing, provides minor interventions to erosion control on 205<sup>th</sup> Ave. (slope street to north), provides no water quality BMPs, and restores the boat landing to a natural slope and shoreline. Total Estimated Cost (including 15% Contingency) = \$61,985

Cost estimates for Options 1 and 2 are higher than the previously submitted cost estimates due to input from the City to maintain a wider road, provide full curb and gutter on both sides of the road, and provide costs for boat access ramp stabilization. Additional detail is also provided in the attached Preliminary Cost Estimates. Additionally, the attached graphic and cross section provide a representation of the general design approach for 205<sup>th</sup> Avenue North in the Full Access and Canoe/Kayak Access options.

**OPTION 1 - LOGHOUSE LANDING FEASIBILITY STUDY - FULL ACCESS**

Line No.	Base Bid Item	Units	Total Quantity	Unit Cost	Total Cost
1	Mobilization	LUMP	1.0	\$15,000.00	\$15,000
2	Site Clearing	LUMP	1.0	\$1,500.00	\$1,500
3	Erosion Control	LUMP	1.0	\$2,000.00	\$2,000
4	Ditch Grading	CY	200.0	\$15.00	\$3,000
5	Infiltration BMP Grading	CY	200.0	\$15.00	\$3,000
6	Bio Filtration BMP Grading	CY	100.0	\$15.00	\$1,500
7	Boat Launch Regrading	CY	100.0	\$15.00	\$1,500
8	Boat Launch Retaining Wall	SF	150.0	\$35.00	\$5,250
9	Cl 5 Aggregate Base	TON	100.0	\$30.00	\$3,000
10	2" Bituminous Base Course	TON	150.0	\$75.00	\$11,250
11	Tack Coat	GAL	128.0	\$10.00	\$1,280
12	2" Bituminous Wear Course	TON	150.0	\$85.00	\$12,750
13	Cellular Confinement with soil - seeding	SF	5880.0	\$6.00	\$35,280
14	B612 Concrete curb and gutter	LF	2000.0	\$32.00	\$64,000
15	27" Diameter Catchbasin w/ R-4341 Casting	EACH	2.0	\$1,500.00	\$3,000
16	Concrete Cable - Boat Launch	SF	800.0	\$22.00	\$17,600
17	12" Dual Wall HDPE Pipe	LF	50.0	\$35.00	\$1,750
18	12" HDPE Metal End Section	EACH	2.0	\$500.00	\$1,000
19	Rip Rap Class III	CY	20.0	\$65.00	\$1,300
20	Erosion Control Blanket - DeKoWe 700 or approved equal	SY	1000.0	\$3.00	\$3,000
21	BMP Planting Media	CY	300.0	\$50.00	\$15,000
22	Perennial Planting (Plug)	EACH	1500.0	\$2.00	\$3,000
23	Seeding	AC	0.5	\$2,000.00	\$1,000
24	Seed	LBS	20.0	\$30.00	\$600
25	Soil Tackifier	SY	888.0	\$2.75	\$2,442
				<b>SUB-TOTAL</b>	<b>\$210,002</b>
				<b>CONTINGENCY 15%</b>	<b>\$31,500</b>
				<b>TOTAL</b>	<b>\$241,502</b>

**OPTION 2- LOGHOUSE LANDING FEASIBILITY STUDY - CANOE/KAYAK ACCESS**

Line No.	Base Bid Item	Units	Total Quantity	Unit Cost	Total Cost
1	Mobilization	LUMP	1.0	\$15,000.00	\$15,000
2	Site Clearing	LUMP	1.0	\$1,500.00	\$1,500
3	Erosion Control	LUMP	1.0	\$2,000.00	\$2,000
4	Ditch Grading	CY	200.0	\$15.00	\$3,000
5	Infiltration BMP Grading	CY	200.0	\$15.00	\$3,000
6	Bio Filtration BMP Grading	CY	100.0	\$15.00	\$1,500
7	Boat Launch Regrading	CY	100.0	\$15.00	\$1,500
8	Boat Launch Retaining Wall	SF	150.0	\$35.00	\$5,250
9	Cl 5 Aggregate Base	TON	100.0	\$30.00	\$3,000
10	2" Bituminous Base Course	TON	125.0	\$75.00	\$9,375
11	Tack Coat	GAL	116.0	\$10.00	\$1,160
12	2" Bituminous Wear Course	TON	125.0	\$80.00	\$10,000
13	Cellular Confinement with soil - seeding	SF	5880.0	\$6.00	\$35,280
14	B612 Concrete curb and gutter	LF	2000.0	\$32.00	\$64,000
15	27" Diameter Catchbasin w/ R-4341 Casting	EACH	2.0	\$1,500.00	\$3,000
16	Cellular Confinement with Clean Gravel	SF	1000.0	\$11.00	\$11,000
17	Steel Driveway Gate	LS	1.0	\$3,000.00	\$3,000
18	12" Dual Wall HDPE Pipe	LF	50.0	\$35.00	\$1,750
19	12" HDPE Metal End Section	EACH	2.0	\$500.00	\$1,000
20	Rip Rap Class III	CY	20.0	\$65.00	\$1,300
21	Erosion Control Blanket - DeKoWe 700 or approved equal	SY	1000.0	\$3.00	\$3,000
22	BMP Planting Media	CY	300.0	\$50.00	\$15,000
23	Perennial Planting (Plug)	EACH	1500.0	\$2.00	\$3,000
24	Seeding	AC	0.5	\$2,000.00	\$1,000
25	Seed	LBS	20.0	\$30.00	\$600
26	Soil Tackifier	SY	888.0	\$2.75	\$2,442
<b>SUB-TOTAL</b>					<b>\$201,657</b>
<b>CONTINGENCY 15%</b>					<b>\$30,249</b>
<b>TOTAL</b>					<b>\$231,906</b>

**OPTION 3 - LOGHOUSE LANDING FEASIBILITY STUDY - DECOMMISSION**

Line No.	Base Bid Item	Units	Total Quantity	Unit Cost	Total Cost
1	Mobilization	LUMP	1.0	\$4,000.00	\$4,000
2	Site Clearing	LUMP	1.0	\$1,500.00	\$1,500
3	Erosion Control	LUMP	1.0	\$2,000.00	\$2,000
4	Boat Launch Regrading	CY	300.0	\$15.00	\$4,500
5	Road Regrading - C15	CY	250.0	\$15.00	\$3,750
6	C1 5 Aggregate Base - Export	TON	100.0	\$20.00	\$2,000
7	Limestone Boulder Vehicle Impediments	LS	1.0	\$3,000.00	\$3,000
8	Rip Rap Class III Stabilization	CY	75.0	\$65.00	\$4,875
9	Erosion Control Blanket	SY	1250.0	\$4.50	\$5,625
10	Erosion Control Blanket - Streambank	SY	100.0	\$12.00	\$1,200
10	Planting Soil - 3"	CY	110.0	\$30.00	\$3,300
11	Perennial Planting (Plug)	EACH	2500.0	\$2.00	\$5,000
12	Seeding	AC	0.8	\$2,000.00	\$1,500
13	Seed	LBS	40.0	\$30.00	\$1,200
14	Soil Tackifier	SY	3800.0	\$2.75	\$10,450
<b>SUB-TOTAL</b>					<b>\$53,900</b>
<b>CONTINGENCY 15%</b>					<b>\$8,085</b>
<b>TOTAL</b>					<b>\$61,985</b>