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## MEMORANDUM

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**To:** Jay Sweeney, Chief Finance and Administrative Officer   
Stan Eliason, Harbormaster

**From:** Cliff Richter, P.E., Municipal Engineer   
Stephen Weatherman P.E. Senior Engineer

**Date:** September 5, 2018

**Subject:** Bond Ordinance  
Crescent Harbor Float Replacement – Phase I

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### Project Current Status

Public works entered into a contract with PND Engineering to determine the feasibility of the 2012 Harbor Master Plan improvements planned for Crescent Harbor. The report evaluated the harbor and planned improvements. The findings are:

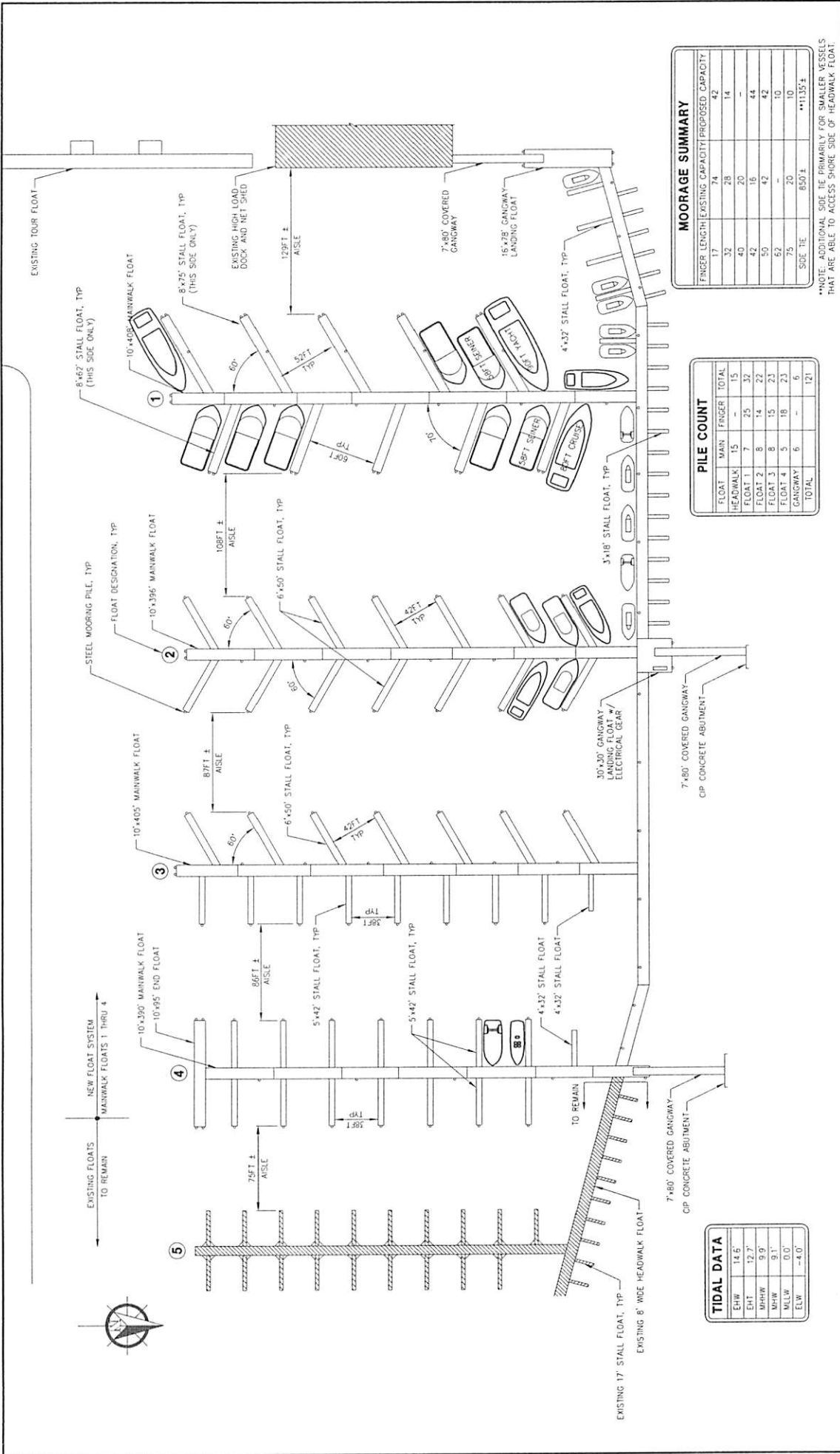
- The replacement of the harbor is required due to the existing floats and walk down ramps reaching the end of their useful life.
- The new layout replaces the existing with a layout similar to existing.
- The existing small finger floats between the walk down ramps are to be deleted because access under the ramps are limited to high tide only.
- The required ADA walk down ramps can be added to the project without loss of moorage slips.
- A robust electrical system is planned to meet current and future needs.
- The project includes domestic water, fire protection, lighting and a sewer pump out station.
- The project report by PND Engineering sets the project budget at \$13,000,000 per the 2012 Harbor Master Plan including a \$5,000,000 State of Alaska Harbor Matching Grant and \$8,000,000 in bonds for the project.

The proposed schedule for construction is to begin in fall 2019 and complete the project in spring 2020.









**MOORAGE SUMMARY**

FINGER	LENGTH	EXISTING CAPACITY	PROPOSED CAPACITY
17	74	42	
32	28	14	
40	20		
42	16	44	
50	42	42	
62		10	
75	20	10	
SIDE TIE	850' ±		11,35' ±

**PILE COUNT**

FLOAT	MAIN	FINGER	TOTAL
HEADWALK	15		15
FLOAT 1	7	25	32
FLOAT 2	8	14	22
FLOAT 3	8	15	23
FLOAT 4	5	18	23
GANGWAY	6		6
TOTAL			121

**TIDAL DATA**

EHW	14.6'
EXT	12.7'
MHW	9.9'
MWL	9.1'
MLLW	0.0'
ELW	-4.0'

NOTE: ADDITIONAL SPACE IS AVAILABLE FOR SMALLER VESSELS THAT ARE ABLE TO ACCESS SHORE SIDE OF HEADWALK FLOAT.

**SITKA, ALASKA**  
**CRESCENT HARBOR FLOAT**  
**REPLACEMENT - PHASE I**

SHEET TITLE: **CRESCENT HARBOR FLOAT PLAN CONCEPT NO. 2**

SHEET NO. **1** OF **1**

DATE: AUGUST 2018

DESIGN: **PND** CHECKED: **CRS** SCALE: **SCALE IN FEET**

DRAWN: **PND** APPROVED: **CRS** 0 40 80 FT.

1000 Glacier Highway, Ste 100  
 Sitka, Alaska 99801  
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**ENGINEERS, INC.**

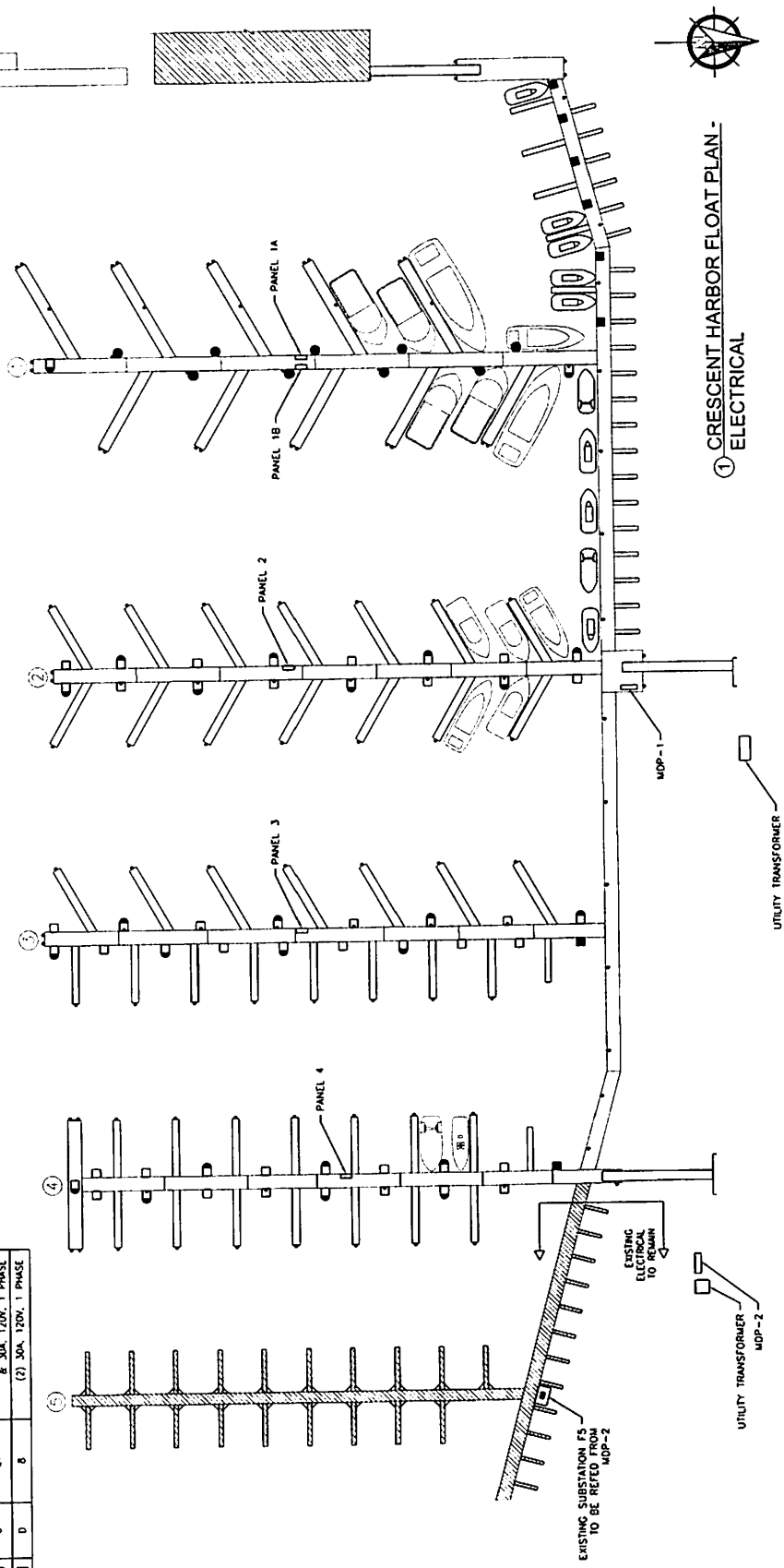
REV. DATE DESCRIPTION

REV.	DATE	DESCRIPTION

PROVISIONS

OWN	CRD	APP

PEDESTAL SCHEDULE		
TYPE	QUANTITY	DESCRIPTION
●	9	(2) 60A, 208V, 3 PHASE & 50A, 208V, 1 PHASE & 30A, 120V, 1 PHASE
□	25	(1) 60A, 208V, 3 PHASE & 50A, 208V, 1 PHASE & 30A, 120V, 1 PHASE
□	27	(2) 50A, 208V, 1 PHASE & 30A, 120V, 1 PHASE
■	8	(2) 30A, 120V, 1 PHASE



① CRESCENT HARBOR FLOAT PLAN - ELECTRICAL

REV. DATE DESCRIPTION DWN CWD APP


SIKA, ALASKA

CRESCENT HARBOR FLOAT REPLACEMENT - PHASE 1

SHEET 1 OF 1

PROJECT NO. 182081

DATE: AUGUST 2018

CRESCENT HARBOR FLOAT PLAN CONCEPT

SCALE: 1" = 40' FT

0 40 80 FT

DESIGN: MCM CHECKED: MCM SCALE: 1" = 40' FT

DRAWN: JRW APPROVED: MCM



**CRESCENT HARBOR FLOAT REPLACEMENT  
ROM BUDGET ESTIMATE  
August 31, 2018**

**P | N | D**

**BASE BID**

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization	LS	All Req'd	\$817,580	\$817,580
2060.1	Demolition and Disposal	LS	All Req'd	\$450,000	\$450,000
2410.1	Wastewater Pumpout System - Salvage & Replace	LS	All Req'd	\$30,000	\$30,000
2601.1	Combined Potable Water and Fire Suppression System	LS	All Req'd	\$425,000	\$425,000
2702.1	Construction Surveying	LS	All Req'd	\$50,000	\$50,000
2718.1	Signage and Assemblies	LS	All Req'd	\$4,000	\$4,000
2894.1	7' x 80' Covered Gangway	EA	3	\$125,000	\$375,000
2895.1	Headwalk Float, 10' x 788'	LS	All Req'd	\$906,200	\$906,200
2895.2	Mainwalk Float 1, 10' x 408'	LS	All Req'd	\$469,200	\$469,200
2895.3	Mainwalk Float 2, 10' x 396'	LS	All Req'd	\$455,400	\$455,400
2895.4	Mainwalk Float 3, 10' x 405'	LS	All Req'd	\$465,750	\$465,750
2895.5	Mainwalk Float 4, 10' x 390'	LS	All Req'd	\$448,500	\$448,500
2895.6	3' x 18' Finger Float	EA	21	\$10,000	\$210,000
2895.7	4' x 32' Finger Float	EA	7	\$18,000	\$126,000
2895.8	6' x 42' Finger Float	EA	22	\$32,000	\$704,000
2895.9	6' x 50' Finger Float	EA	21	\$37,000	\$777,000
2895.10	8' x 62' Finger Float	EA	5	\$57,000	\$285,000
2895.11	8' x 75' Finger Float	EA	5	\$70,000	\$350,000
2895.12	10' x 95' Tee Float	EA	1	\$110,000	\$110,000
2895.13	30' x 30' Gangway Landing Float	LS	All Req'd	\$108,000	\$108,000
2895.14	16' x 78' Gangway Landing Float	LS	All Req'd	\$145,000	\$145,000
2896.1	Steel Pipe Pile, 12 3/4" x 0.500"	EA	89	\$7,800	\$694,200
2896.2	Steel Pipe Pile, 16" x 0.500"	EA	33	\$9,500	\$313,500
2896.3	Pile Socket	EA	40	\$7,500	\$300,000
2897.1	Supply Floatation Billet	EA	50	\$400	\$20,000
2897.2	Install Floatation Billet	EA	50	\$500	\$25,000
2899.1	Life Ring Cabinet and Base	EA	12	\$1,200	\$14,400
2899.2	Fire Extinguisher Cabinet and Base	EA	12	\$1,200	\$14,400
2899.3	Hose Mount and Base	EA	24	\$800	\$19,200
3305.1	Concrete Gangway Abutment - Float 2	LS	All Req'd	\$75,000	\$75,000
3305.2	Concrete Gangway Abutment - Float 4	LS	All Req'd	\$75,000	\$75,000
16000.1	Electrical System - (Option 2)	LS	All Req'd	\$1,690,000	\$1,690,000
16052.1	Electrical Support Assemblies	LS	All Req'd	\$85,000	\$85,000
<b>ESTIMATED CONSTRUCTION BID PRICE</b>					<b>\$11,037,330</b>
<b>CONTINGENCY (6%)</b>					<b>\$662,240</b>
					<b>\$11,699,570</b>
<b>SURVEYING &amp; GEOTECH RESEARCH</b>					<b>\$50,000</b>
<b>PERMITTING, FINAL DESIGN, CONTRACT DOCUMENTS &amp; BID PHASE</b>					<b>\$794,688</b>
<b>CONTRACT ADMINISTRATION &amp; CONSTRUCTION INSPECTION</b>					<b>\$375,269</b>
<b>MARINE MAMMAL OBSERVATIONS</b>					<b>\$75,000</b>
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>					<b>\$12,994,527    \$12,994,527</b>

**ADDITIVE ALTERNATE A - Pile Anodes**

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1A	Mobilization	LS	All Req'd	\$9,615	\$9,615
2996.1A	Supply Pile Anode, Type I	EA	66	\$550	\$36,300
2996.2A	Supply Pile Anode, Type II	EA	178	\$300	\$53,400
2996.3A	Install Pile Anode, All Types	EA	244	\$400	\$97,600
2996.4A	Pile Anode Continuity Testing & Potential Readings	LS	All Req'd	\$5,000	\$5,000
<b>ESTIMATED CONSTRUCTION BID PRICE</b>					<b>\$201,915</b>
<b>CONTINGENCY (4%)</b>					<b>\$8,077</b>
<b>CONTRACT ADMINISTRATION &amp; CONSTRUCTION INSPECTION</b>					<b>\$10,500</b>
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>					<b>\$220,491    \$13,215,018</b>

**ADDITIVE ALTERNATE B - XXX**

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1B	Mobilization	LS	All Req'd	5%	\$0
		LS	All Req'd	\$0	\$0
<b>ESTIMATED CONSTRUCTION BID PRICE</b>					<b>\$0</b>
<b>CONTINGENCY (10%)</b>					<b>\$0</b>
<b>CONTRACT ADMINISTRATION &amp; CONSTRUCTION INSPECTION</b>					<b>\$0</b>
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>					<b>\$0    \$13,215,018</b>

Notes: No upland improvements included with exception of gangway abutments.