



**APPENDIX C – COST ESTIMATES**



# Design Alaska

## COST ESTIMATE

PROJECT: Isberg Recreation Area Master Plan

19-June-07

LOCATION: Fairbanks

PHASE: Master Plan

DESCRIPTION: Cost Estimation for Site Construction

PREPARED BY: YYZ

FOR: NJD

### NOTES REGARDING THE PREPARATION OF THIS COST ESTIMATE

THIS ESTIMATE IS PREPARED USING QUANTITIES TAKEN FROM THE MASTER PLAN

THIS ESTIMATE IS PREPARED USING CURRENT CONSTRUCTION COSTS & ASSUMES WILL BE PUBLICALLY BID

THIS ESTIMATE DOES NOT CONTAIN AN ALLOWANCE FOR NEGOTIATED NON-COMPETITIVE CONTRACTS.

THIS ESTIMATE HAS AN ESCALATION ALLOWANCE = 6.63% MAY 07 TO MAY 08

THIS ESTIMATE DOES NOT HAVE AN ALLOWANCE TO TREAT / REMOVE ANY HAZARDOUS MATERIALS OR CONTAMINATED SOIL.

THIS ESTIMATE DOES NOT INCLUDE ANY PLAN CHECK FEES CHARGED BY THE STATE OF ALASKA OR ANY OTHER ENTITY CLAIMING JURISDICTION OVER THE WORK PAID DIRECTLY BY THE OWNER.

THIS ESTIMATE IS BASED ON A 6 DAY WORK WEEK - 10 HOUR WORK DAY WITH A FACTOR OF 1.35 OVER 40 HRS PROVISION FOR OVER TIME.

ESTIMATING CONTINGENCY - AN ALLOWANCE FOR CONSTRUCTION DOCUMENT REQUIREMENTS THAT ARE NOT INCLUDED IN THE ESTIMATE = 30.0%

COSTS TAKEN FROM RS MEANS AND RECENT BID OPENINGS FOR ADOT/PF

ESTIMATED CONSTRUCTION COST FOR:	INDEX	TOTALS
MAIN PARKING AREA		109,370
SECONDARY PARKING AREAS (3)		308,724
SITE IMPROVEMENTS		299,383
TRAIL SYSTEM		371,622
TOTAL		\$1,089,099



MAIN PARKING AREA

PROJECT: Isberg Recreation Area Master Plan  
 LOCATION: Fairbanks  
 PHASE: Master Plan  
 DESCRIPTION: Cost Estimation for Site Construction

	QUANTITY		UNIT	
	No.	UNITS	COST	COST
<b>DIRECT COSTS</b>				
<b>MAIN PARKING AREA</b>				
02310-AREA GRADING	3,700	SY	\$0.78	\$2,886
SUBBASE GRADING, B, COMPACTED IN-PLACE	407	CY	\$13.34	\$5,430
COMMON FILL, COMPACTED IN-PLACE	1,850	CY	\$9.98	\$18,458
STRUCTURAL FILL, COMPACT, IN-PLACE	1,850	CY	\$10.06	\$18,620
HAUL COMMON/STRUCTURAL (10CY DUMP)	370	TRIP	\$30.10	\$11,138
<b>SUBTOTAL</b>				<b>\$56,532</b>

DIRECT COST \$56,532  
**SUMMARY OF COSTS**

DESCRIPTION	%	
TOTAL DIRECT COST, MATL & LAB		\$56,532
		\$56,532
ENGINEERING DESIGN SERVICES	7%	\$3,960
CONSTRUCTION ADMINISTRATION	10%	\$5,653
<u>ESTIMATING CONTINGENCY</u>	30.0%	\$16,959
<u>CONTRACTOR OVER HEAD</u>	15.0%	\$8,480
SUBTOTAL		\$91,582
<u>CONTRACTOR PROFIT</u>	12.0%	\$10,990
SUBTOTAL		\$102,572
ESCALATION	6.6%	\$6,770
TOTAL ESTIMATED COST		\$109,342



SECONDARY PARKING AREA

PROJECT: Isberg Recreation Area Master Plan  
 LOCATION: Fairbanks  
 PHASE: Master Plan  
 DESCRIPTION: Cost Estimation for Site Construction

	QUANTITY		UNIT	COST
	No.	UNITS	COST	
<b>DIRECT COSTS</b>				
<b>SECONDARY PARKING AREAS -EACH</b>				
02310-AREA GRADING	2,250	SY	\$0.78	\$1,755
SUBBASE GRADING, B, COMPACTED IN-PLACE	247	CY	\$13.34	\$3,295
COMMON FILL, COMPACTED IN-PLACE	2,588	CY	\$9.98	\$25,821
STRUCTURAL FILL, COMPACT, IN-PLACE	1,111	CY	\$10.06	\$11,182
HAUL COMMON/STRUCTURAL (10CY DUMP)	370	TRIP	\$30.10	\$11,138
SUBTOTAL				\$53,191

DIRECT COST \$53,191  
**SUMMARY OF COSTS**

DESCRIPTION	%	
TOTAL DIRECT COST, MATL & LAB		\$53,191
		\$53,191
ENGINEERING DESIGN SERVICES		7% \$3,723
CONSTRUCTION ADMINISTRATION		10% \$5,319
<u>ESTIMATING CONTINGENCY</u>	30.0%	\$15,957
<u>CONTRACTOR OVER HEAD</u>	15.0%	\$7,979
SUBTOTAL		\$86,169
<u>CONTRACTOR PROFIT</u>	12.0%	\$10,340
SUBTOTAL		\$96,509
ESCALATION	6.63%	\$6,399
TOTAL ESTIMATED COST		\$102,908



SITE IMPROVEMENTS

PROJECT: Isberg Recreation Area Master Plan  
 LOCATION: Fairbanks  
 PHASE: Master Plan  
 DESCRIPTION: Cost Estimation for Site Construction

	QUANTITY		UNIT	
	No.	UNITS	COST	COST
<b>DIRECT COSTS</b>				
<b>SITE IMPROVEMENTS</b>				
RESTROOM	1	EA	\$60,000.00	\$60,000
BEAR PROOF TRASH DUMPSTER 200 GAL	3	EA	\$1,130.25	\$3,391
SHELTER	1	EA	\$30,000.00	\$30,000
PICNIC TABLES	4	EA	\$1,108.76	\$4,435
BOLLARDS	10	EA	\$371.87	\$3,719
LOADING RAMP	1	EA	\$3,200.00	\$3,200
PLAY AREA	1	EA	\$50,000.00	\$50,000
SUBTOTAL				\$154,744
DIRECT COST				\$154,744

DESCRIPTION	%	
TOTAL DIRECT COST, MATL & LAB		\$154,744
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		\$154,744
ENGINEERING DESIGN SERVICES	7%	\$10,832
CONSTRUCTION ADMINISTRATION	10%	\$15,474
<u>ESTIMATING CONTINGENCY</u>	30.0%	\$46,423
<u>CONTRACTOR OVER HEAD</u>	15.0%	\$23,212
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SUBTOTAL		\$250,686
<u>CONTRACTOR PROFIT</u>	12.0%	\$30,082
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SUBTOTAL		\$280,786
ESCALATION	6.63%	\$18,615
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TOTAL ESTIMATED COST		\$299,383



TRAIL SYSTEM

PROJECT: Isberg Recreation Area Master Plan  
 LOCATION: Fairbanks  
 PHASE: Master Plan  
 DESCRIPTION: Cost Estimation for Site Construction

	QUANTITY		UNIT		COST
	No.	UNITS	COST	COST	
<b>DIRECT COSTS</b>					
<b>TRAIL SYSTEM</b>					
MOTORIZED MULTI-USE	3.8	MI	\$10,000.00		\$38,000
NON-MOTORIZED MULTI-USE	8.7	MI	\$8,000.00		\$69,600
ACCESSIBLE TRAILS	1.6	MI	\$50,000.00		\$80,000
SIGNAGE	64	EA	\$46.61		\$2,983
KIOSKS	3	EA	\$500.00		\$1,500
SUBTOTAL					\$192,083

DIRECT COST \$192,083  
**SUMMARY OF COSTS**

DESCRIPTION	%	
TOTAL DIRECT COST, MATL & LAB		\$192,083
		\$192,083
ENGINEERING DESIGN SERVICES		7% \$13,446
CONSTRUCTION ADMINISTRATION		10% \$19,208
<u>ESTIMATING CONTINGENCY</u>	30.0%	\$57,625
<u>CONTRACTOR OVER HEAD</u>	15.0%	\$28,812
SUBTOTAL		\$311,175
<u>CONTRACTOR PROFIT</u>	12.0%	\$37,341
SUBTOTAL		\$348,516
ESCALATION	6.63%	\$23,107
TOTAL ESTIMATED COST		\$371,622



**Main Parking Area:** 33,000 sf footprint; 18” structural fill over 18” common fill; 3:1 side slopes. (See sketch, pg. 11.)

Area grading:  $300' \times 110' = 33,000 \text{ sf} = 3,667 \text{ sy} \approx 3,700 \text{ sy}$

Sub base grading:  $33,000 \text{ sf} \times 4'' \approx 11,000 \text{ cf} \div 27 = 407 \text{ cy}$

Common fill:  $33,000 \text{ sf} \times 18'' = 49,500 \text{ cf} \div 27 \approx 1,850 \text{ cy}$

Structural fill:  $33,000 \text{ sf} \times 18'' = 49,500 \text{ cf} \div 27 \approx 1,850 \text{ cy}$

Hauling:  $3,700 \text{ cy} \div 10 \text{ cy/trip} = 370 \text{ trips}$

**Secondary Parking Areas – Each:** Parking for (5) cars

Area grading:  $100' \times 200' = 20,000 \text{ sf} \div 9 \approx 2,250 \text{ sy}$

Sub base grading:  $20,000 \text{ sf} \times 4'' = 6,680 \text{ cf} \div 27 \approx 247 \text{ cy}$

Common fill:  $20,000 \text{ sf} \times 3.5' = 70,000 \text{ cf} \div 27 = 2,593 \text{ cy}$

Structural fill:  $20,000 \text{ sf} \times 18'' = 30,000 \text{ cf} \div 27 = 1,111 \text{ cy}$

Hauling:  $2,593 + 1,111 = 3,704 \text{ cy} \div 10 = 370 \text{ trips}$

### **Site Improvements**

Restroom:

Romtec 1018 restroom facility = \$32,000 \*\*

Freight, setup, foundation, etc.  $\approx$  \$28,000

(Creamer’s Field outhouse cost \$59,000 in 1996.)

Bear proof trash dumpster: 3 ea. X \$1,200 = \$3,600 \*\*



Shelter: Prefabricated shelter  $\approx$  \$30,000

(Creamer's Field shelter cost \$27,300 in 1996.)

Picnic tables: Barco Products maintenance free 4 ea x \$1,108.76 = \$4,435 \*\*

Bollards: 10 ea. X \$371.87 = \$3,719

Loading ramp: \$3,200 \*

Play area: \$50,000

Includes 3 swings, slide, play structure & play surfacing

Equipment = \$36,628

Edging = \$2,374

Sub-base = \$5,515

Play surface material = \$5,483

### **Trail System**

Motorized multi use: 3.8 mi. x \$10,000 / mi. = \$38,800 \*

Non-motorized multi use: 8.1 mi. x \$8,000 / mi. = \$64,800 \*

Accessible trails: 1.5 mi. x \$50,000 / mi. = \$75,000 \*

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\* Estimate from DOT / Bid tabs or DNR – Compeau Trail

\*\* Vendor supplied prices & installation cost

Note: All unit costs are from Design Alaska, Inc. cost estimate data, unless otherwise noted.