

Southeast Alaska Mid-Region Access Unit Cost Technical Memorandum

Prepared for

Federal Highway Administration

Prepared by

Robert Peccia and Associates, Inc.

825 Custer Avenue
Helena, Montana 59604
(406) 447-5000
www.rpa-hln.com

CITATION

Robert Peccia and Associates, Inc. 2011.
Southeast Alaska Mid-Region Access
Unit Cost Technical Memorandum.
Prepared by Robert Peccia and Associates, Inc.,
Helena, Montana. April 2011.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ES-1
Overview	ES-1
Methodology	ES-1
Assumptions and Research Summary	ES-1
Average Cost Comparison	ES-2
Conclusions	ES-2
Recommendations	ES-2
1 OVERVIEW	1-1
2 METHODOLOGY	2-1
3 ASSUMPTIONS AND RESEARCH SUMMARY	3-1
4 AVERAGE COST COMPARISON.....	4-1
5 CONCLUSIONS.....	5-1
6 RECOMMENDATIONS.....	6-1
6.1 Project Requirements	6-2
6.2 Construction Camps	6-2
6.3 Erosion Control.....	6-2
6.4 Clearing and Grubbing	6-2
6.5 Excavation	6-3
6.6 Subexcavation.....	6-3
6.7 Asphalt	6-3
6.8 Aggregate Base	6-3
6.9 Select Material	6-3
6.10 Tunnel	6-4
6.11 Bridges	6-4
6.12 Large Culverts	6-4
6.13 Riprap.....	6-4
6.14 Wetland Mitigation	6-4
6.15 MSE Walls	6-5
6.16 Miscellaneous Drainage	6-5
6.17 Landscaping/Seeding	6-5
6.18 Guardrail.....	6-5
6.19 Signing	6-5
6.20 Striping.....	6-5
6.21 Port Development	6-6
6.22 Design/Construction Engineering	6-6
6.23 Contingency.....	6-6
6.24 Average Per-Mile Construction Cost	6-6

List of Tables

Table ES-1. Recommended Cost Changes	ES-3
Table 3-1. Research Summary	3-3
Table 4-1. Average Cost Comparison.....	4-1
Table 6-1. Recommended Cost Changes	6-1

List of Appendices

Appendix A	Juneau Access Reports
Appendix A.1	Juneau Access Improvements 2009 FFY Cost Report
Appendix A.2	Juneau Access Improvements Financial Plan 2007 Annual Update
Appendix A.3	Juneau Access Improvements FEIS Appendix W – Addendum to Appendix D Technical Alignment Report
Appendix B	DOT&PF Bid Tabulations
Appendix C	FHWA-WFLHD Bid Tabulations

List of Acronyms and Abbreviations

ACV	air-cushion vehicle
cuyd	cubic yard
DOT&PF	Alaska Department of Transportation and Public Facilities
ICE	independent contractor estimate
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
lnft	linear foot
MP	milepost
MRA	mid-region access
MSE	mechanically stabilized earth
NEPA	National Environmental Policy Act
sqft	square foot
WFLHD	Western Federal Lands Highway Division

This Page Intentionally Left Blank

EXECUTIVE SUMMARY

Overview

The purpose of this memorandum is to provide further analysis and support for the pricing information used in the development of transportation corridor cost estimates within the Southeast Alaska Mid-Region Access Engineering Technical Memorandum (MRA Engineering Memorandum). Additional pricing support information was desired for the cost estimates, preferably from projects requiring some new roadway construction, work camps, and port development.

Methodology

An internet survey of available bid tabulation information was conducted to identify possible projects that could be used to refine the pricing information in the MRA Engineering Memorandum. The Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration (FHWA) provides bid tabulations for past Alaska projects on its website. Three additional FHWA-WFLHD projects from Southeast Alaska were selected to add to the Unit Cost Technical Memorandum. The Alaska Department of Transportation and Public Facilities' (DOT&PF's) web site was reviewed, and bid tabulations for one available project were added to the technical memorandum. Since DOT&PF only provides bid tabulations for recently bid projects, there likely are projects that are more representative of the type of work involved in the MRA Engineering Memorandum.

One of the most comparable projects currently under development in the state of Alaska is the Juneau Access Improvements Project (Juneau Access Highway). A 51-mile new roadway is proposed to be built from Juneau north along Lynn Canal to a new conventional ferry terminal that would provide ferry service to the communities of Haines and Skagway. The new roadway would include complicated bridge structures and tunnel sections, and would require substantial earthwork to build the road along the steep mountain slopes adjacent to Lynn Canal. Work camps would be necessary to complete the roadway. Numerous costing reports for the Juneau Access Highway were added to this Unit Cost Technical Memorandum, including engineer's estimates, an independent contractor estimate (ICE), and previous unit cost analyses for the project.

Assumptions and Research Summary

Costing information from each of the sources was compiled and compared to the MRA Engineering Memorandum costing items. The costing information contained in the compiled bid tabulations and report estimates were converted into the same format used for each work item in the MRA Engineering Memorandum so that the costs could be directly compared. Since most of the

comparable projects were bid or estimated in previous years, the prices were adjusted by 3% per year for inflation, as was done for the MRA Engineering Memorandum, to get to 2009 prices.

Average Cost Comparison

The additional cost information was used to generate an average unit cost, percentage, or per-mile cost for each construction item. For reference purposes, averages were compared to FHWA-WFLHD projects, DOT&PF projects, the Juneau Access documents, the 2005 FHWA-WFLHD Bradfield River Road Final Scoping and Pre-NEPA Feasibility Study (Bradfield River Road Study), and the MRA Engineering Memorandum.

Conclusions

When the pricing information used for the MRA Engineering Memorandum is compared to the average prices developed during this study, the costs generally appear to be reasonable. Most of the unit prices, percentages, and per-mile costs used in the MRA Engineering Memorandum are within 10 to 20% of the average prices calculated for this memorandum. The average per-mile costs for total construction are substantially different, but that is due to the inclusion of rehabilitation project per-mile costs. No costs for work camps were included in the MRA Engineering Memorandum; such costs would have to be added to the estimate at a percentage of total construction cost similar to that used for the Juneau Access Highway.

Recommendations

The average unit costs, percentages of total construction, and per-mile costs used in the development of the MRA Engineering Memorandum transportation corridor cost estimates hold up reasonably well when compared to the average costs calculated for this study. However, it was decided that, based on expanded pricing information, the costs should be adjusted to better fit the information compiled. The recommended changes are shown in Table ES-1. The new average costs shown represent road construction costs within Southeast Alaska based on both DOT&PF and FHWA projects.

Table ES-1. Recommended Cost Changes

Item		Average Unit Cost	MRA Eng. Study	Recommended
Project Requirements (%)		12%	16%	13%
Construction Camps (%)		8%	-	10%
Erosion Control (%)		2%	4%	3%
Clearing & Grubbing (per acre)		\$4,695	\$4,500	\$5,500
Excavation (per cuyd)		\$8	\$9	\$9
Subexcavation (per cuyd)		\$7	\$8	\$8
Asphalt (per cuyd)		\$173	\$197	\$220
Aggregate Base (per cuyd)		\$43	\$35	\$40
Select Material (per cuyd)		\$24	\$25	\$25
Tunnel (per lft)		\$10,102	\$10,500	\$10,000
Bridge (per sqft):	Low	\$208	\$205	\$210
	Medium	\$259	\$235	\$260
	High	\$380	\$320	\$380
Large Culverts (>10') (per lft)		\$1,489	\$1,280	\$2,000
Riprap (per cuyd)		\$40	\$60	\$30
Wetland Mitigation (per acre)		\$24,701	\$27,100	\$25,000
Mechanically Stabilized Earth (MSE) Walls (per sqft)		\$46	\$45	\$45
Misc. Drainage (per mile)		\$109,767	\$115,000	\$115,000
Landscape/Seeding (per acre)		\$4,519	\$6,300	\$7,000
Guardrail (per lft)		\$34	\$47	\$30
Signing (per mile)		\$3,517	\$3,200	\$3,500
Striping (per mile)		\$16,714	\$13,500	\$16,000
Port Development (each)		\$13.5M	\$10M	\$15M
Design/Construction Engineering (%)		18%	21%	20%
Contingency (%)		15%	25%	25%

This Page Intentionally Left Blank

1 OVERVIEW

The purpose of this memorandum is to provide further study and support for the pricing information used in the development of transportation corridor cost estimates within the Southeast Alaska Mid-Region Access Engineering Technical Memorandum (MRA Engineering Memorandum).

The MRA Engineering Memorandum contains order-of-magnitude cost estimates for the following three transportation corridors that would potentially connect Southeast Alaska to the continental highway system in British Columbia: Bradfield Canal, Stikine River, and Aaron Creek. The Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration (FHWA) completed an in-depth cost study for the Bradfield Canal Corridor in the 2005 Bradfield River Road Final Scoping and Pre-NEPA Feasibility Study (Bradfield River Road Study). The cost estimates for the Bradfield River Road Study were developed using a combination of three basic methods: calculated quantities and average bid prices, assumed percentages of total construction cost, and average per-mile costs. The bid prices, percentages, and per-mile costs used in the report were based primarily on bid tabulations from recent FHWA-WFLHD projects within Southeast Alaska.

The projects used in the development of these cost estimates were the most representative FHWA projects constructed in Southeast Alaska at the time of the studies. However, the projects only represented project costs in one location of Southeast Alaska, consisted of reconstructing existing roadways and not building new roadways, and did not contain costs for work camps or port development. The alignments within the MRA Engineering Memorandum require predominantly new roadway construction and would require substantial port development and work camps to complete adequate transportation corridors. As a result, it was deemed necessary to attempt to find additional pricing support for the cost estimates, preferably projects with portions of new roadway construction, work camps, and port development.

This Page Intentionally Left Blank

2 METHODOLOGY

An internet survey of available bid tabulation information was conducted to identify possible projects that could be used to refine the pricing information used in the MRA Engineering Memorandum. FHWA-WFLHD provides bid tabulations for past Alaska projects on its website. Bid tabulations for previous projects in Alaska were reviewed, and three additional projects from Southeast Alaska were selected to add to the Unit Cost Technical Memorandum. The additional projects selected were the following:

- AK PFH 9-1(9), Big Salt Lake Road, 1999: approximately 3 miles of reconstruction near Klawock on Prince of Wales Island
- AK PFH 42-1(5), 43-1(6), Control Lake-Thorne Bay Road and North Prince of Wales Road, 2002: approximately 31 miles of rehabilitation and paving for an existing gravel road between Thorne Bay and Klawock on Prince of Wales Island
- AK PFH 44-1(1), Coffman Cove Road, Schedule B, 2003: approximately 10 miles of realignment and reconstruction of an existing gravel road on Prince of Wales Island

The Alaska Department of Transportation and Public Facilities' (DOT&PF's) web site was reviewed, and bid tabulations for one available project were considered somewhat applicable to the MRA Engineering Memorandum, although mainly for the portions of the study being rehabilitated and paved. This project is shown below:

- Project 62680, Dalton Highway milepost (MP) 175 to 197 Rehabilitation, 2009: approximately 22 miles of rehabilitation and paving of the existing gravel North Slope Haul Road, including a work camp due to the remote nature of the project

One of the most comparable projects currently under development in the state of Alaska is the Juneau Access Improvements Project, otherwise known as the East Lynn Canal Highway. For the purpose of this memorandum, the project is referred to as the Juneau Access Highway. Building a 51-mile new roadway is proposed, extending from Juneau north along Lynn Canal to a new conventional ferry terminal that would provide ferry service to Haines and Skagway. The new roadway would be two lanes, would be paved, would include complicated bridge structures and tunnel sections, and would require substantial earthwork to build the road along the steep mountain slopes next to Lynn Canal.

Work camps would be necessary to complete the roadway. The following information was used:

- Alaska DOT&PF Engineer's Estimates
- Unit prices from the November 2006 bid opening, contained in the Juneau Access Improvements Financial Plan 2007 Annual Update (2007 Financial Plan)
- Unit prices from an independent contractor estimate (ICE) completed for FHWA-WFLHD
- Unit cost analysis from the Final Environment Impact Statement (FEIS) for the Juneau Access Improvement Project completed in January of 2006

The Juneau Access Highway reports used in the Unit Cost Technical Memorandum are included as Appendix A. The DOT&PF and FHWA bid tabulations added to the memorandum are included as Appendix B and Appendix C, respectively.

3 ASSUMPTIONS AND RESEARCH SUMMARY

Costing information from each of the sources was compiled and compared to the MRA Engineering Memorandum costing items. The costing information contained in the compiled bid tabulations and report estimates first had to be converted into the same format used for each work item in the MRA Engineering Memorandum so that the costs could be directly compared. For some items, this could be accomplished by simply converting units from metric to English. However, for other items, assumptions had to be made that would allow for comparable costs.

The resulting average unit costs, percentages of total construction cost, and per-mile costs for all MRA Engineering Memorandum work items are shown in Table 3-1 on the following page. For those items without any information or in a format that could not be converted, a cost was omitted from the analysis. Since most of the comparable projects were bid or estimated in previous years previous, the prices were adjusted for inflation by 3% per year, as was done for the MRA Engineering Memorandum, to get to 2009 prices.

This Page Intentionally Left Blank

Table 3-1. Research Summary

Item	MRA Eng. Study	Bradfield River Road Study	Juneau Access Highway Reports								DOT&PF Bid Tabs	FHWA-WFLHD Bid Tabs				
	1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
Project Requirements (%)	16%	9%	12%	13%	11%	7%	-	8%	7%	-	6%	18%	17%	14%	15%	13%
Construction Camps (%)	-	-	11%	-	-	-	-	-	-	-	4%	-	-	-	-	-
Erosion Control (%)	4%	4%	2%	1%	1%	-	-	-	-	-	1%	1%	3%	4%	3%	2%
Clearing & Grubbing (per acre)	\$4,500	\$4,057	\$4,057	\$6,116	\$6,788	\$8,602	-	\$2,215	\$1,367	-	-	-	\$7,073	\$4,407	\$3,715	\$3,448
Excavation (per cuyd)	\$9	\$9	\$10	\$10	\$11	\$7	-	\$5	\$6	-	\$6	-	\$9	\$8	\$7	\$6
Subexcavation (per cuyd)	\$8	\$9	-	-	-	-	-	-	-	-	-	-	\$7	\$10	\$5	\$3
Asphalt (per cuyd)	\$197	\$93	\$203	\$235	\$237	\$298	-	\$84	\$105	-	\$183	\$223	-	\$142	\$113	\$131
Aggregate Base (per cuyd)	\$35	\$23	\$31	\$49	\$49	\$91	-	-	-	-	\$66	\$39	-	\$27	\$27	\$35
Select Material (per cuyd)	\$25	\$23	-	-	-	-	-	-	-	-	-	-	\$25	\$22	-	-
Tunnel (per lnft)	\$10,500	\$10,607	-	-	\$9,200	-	-	-	-	-	-	-	-	-	-	-
Bridge (per sqft):	Low	\$205	\$174	\$220-270 (avg.)	\$250	-	-	\$148	\$162	-	-	-	\$213	\$245	-	-
	Medium	\$235	\$232		\$350	-	-	-	-	-	-	-	-	-	-	-
	High	\$320	\$319		\$500	-	-	-	-	-	-	-	-	-	-	-
Large Culverts (>10') (per lnft)	\$1,280	\$696	\$1,775	\$1,796	\$2,942	-	-	-	-	-	\$1,833	-	\$1,276	\$802	-	\$1,002
Riprap (per cuyd)	\$60	\$46	\$48	\$10	\$10	-	-	-	-	-	\$59	-	\$47	\$42	-	\$38
Wetland Mitigation (per acre)	\$27,100	\$28,982	-	-	-	-	-	-	-	-	-	-	\$27,082	\$15,640	-	-
MSE Walls (per sqft)	\$45	\$35	\$85	\$50	\$50	\$76	\$38	\$37	\$39	\$35	-	-	-	\$34	-	\$25
Misc. Drainage (per mile)	\$115,000	\$92,742	\$66,680	\$108,670	\$123,011	\$129,757	\$146,882	-	-	-	\$124,712	-	\$110,475	\$75,702	\$1,218	\$113,803
Landscape/Seeding (per acre)	\$6,300	\$290	\$6,342	\$2,150	\$2,150	-	-	-	-	-	-	-	\$2,253	\$7,462	\$7,914	\$1,581
Guardrail (per lnft)	\$47	\$58	\$34	\$28	\$28	\$41	-	\$21	\$19	\$21	\$34	-	\$47	\$33	\$29	\$31
Signing (per mile)	\$3,200	\$5,796	\$2,173	\$4,411	\$4,004	-	-	-	-	-	\$4,050	\$474	\$3,226	\$5,277	\$1,551	\$1,484
Striping (per mile)	\$13,500	\$28,982	\$4,645	\$5,315	\$4,823	-	-	-	-	-	\$3,324	\$24,162	-	\$31,903	\$21,788	\$28,702
Port Development (each)	\$10M	-	-	-	\$17M	-	-	-	-	-	-	-	-	-	-	-
Design/Constr. Eng. (%)	21%	21%	15%	16%	16%	-	-	-	-	-	-	-	-	-	-	-
Contingency (%)	25%	25%	5%	5%	14%	-	-	-	-	-	-	-	-	-	-	-
Per-mile Constr. Cost:	\$6,221,477	\$7,081,097	\$6,269,966	\$5,214,359	\$8,119,323	-	-	-	-	-	\$1,184,144	\$601,919	\$2,730,524	\$2,447,990	\$386,617	\$4,047,671

The costing information shown in Table 1 was divided into groups by the source of the information as shown below and on the following pages:

- 1 Southeast Alaska Mid-Region Access Engineering Technical Memorandum
- 2 Bradfield River Road Final Scoping and Pre- National Environmental Policy Act (NEPA) Feasibility Study
- 3 Juneau Access Reports, Independent Contractor's Estimate, Zones 1-3
- 4 Juneau Access Reports, Alaska DOT&PF Engineer's Estimate, Zones 1-3
- 5 Juneau Access Reports, Alaska DOT&PF Engineer's Estimate, Zones 4-5
- 6 Juneau Access Reports, Unit Price Analysis Project #1
- 7 Juneau Access Reports, Unit Price Analysis Project #2
- 8 Juneau Access Reports, Unit Price Analysis Project #1, Juneau Access Improvements Final Environmental Impact Statement
- 9 Juneau Access Reports, Unit Price Analysis Project #2, Juneau Access Improvements Final Environmental Impact Statement
- 10 Juneau Access Reports, Unit Price Analysis Project #3, Juneau Access Improvements Final Environmental Impact Statement
- 11 Alaska DOT&PF Project 62860, Dalton Highway
- 12 FHWA-WFLHD Project, AK PFH 44-1(4), Coffman Cove Road, Paving
- 13 FHWA-WFLHD Project, AK PFH 44-1(2), Coffman Cove Road, Phase 2
- 14 FHWA-WFLHD Project, AK PFH 44-1(1), Coffman Cove Road, Schedule B
- 15 FHWA-WFLHD Project, AK PFH 42-1(5), 43-1(6), Control Lake – Thorne Bay Road and North Prince of Wales Road
- 16 FHWA-WFLHD Project, AK PFH 9-1(9), Big Salt Lake Road

This Page Intentionally Left Blank

Southeast Alaska Mid-Region Access Engineering Technical Memorandum

1. April 2009 Draft Cost Information

Bradfield River Road Final Scoping and Pre-NEPA Feasibility Study

2. January 2005 Cost Information

Juneau Access Reports (Appendix A)

3. Independent Contractor's Estimate, Zones 1-3, Juneau Access Improvements 2009 FFY Cost Report, Attachment D, 2009.
4. Alaska DOT&PF Engineer's Estimate, Zones 1-3, Juneau Access Improvements 2009 FFY Cost Report, Attachment B, 2009.
5. Alaska DOT&PF Engineer's Estimate, Zones 4-5, Juneau Access Improvements 2009 FFY Cost Report, Attachment B, 2009.
6. Unit Price Analysis Project #1, Juneau Access Improvements Financial Plan, 2007 Annual Update, Attachment B, Updated Engineer's Estimate – Unit Price Analysis, 2007.
 - a. Mobilization, Asphalt Treated Base, Asphalt Concrete, Asphalt Cement, MSE Walls, and W-beam Guardrail: Juneau Sunny Point Intersection Intersections Improvements Project, 2006.
 - b. Clearing: Juneau – Lynn Canal Highway, Echo Cove to Antler River, 2006.
 - c. Rock Excavation: Ketchikan Airport Runway Safety Area Expansion and Runway Overlay Project, 2007.
 - d. Unclassified Excavation: Wrangell Airport RSA Extension Project, 2006.
 - e. Drainage Pipes: Lynn Canal Highway, Echo Cove to Antler River, 2006, with Zones 1-3 quantities.
7. Unit Price Analysis Project #2, Juneau Access Improvements Financial Plan, 2007 Annual Update, Attachment B, Updated Engineer's Estimate – Unit Price Analysis, 2007
 - a. MSE Walls: South Tongass Highway Project, 2006.
 - b. Drainage Pipes: Lynn Canal Highway, Echo Cove to Antler River, 2006, with Zones 4-5 quantities.

8. Unit Price Analysis Project #1, Juneau Access Improvements Final Environmental Impact Statement, Appendix W - Addendum to Appendix D, Technical Alignment Report, 2006.
 - a. Mobilization, Demobilization, and Bridge Structure: Project 60751, Valdez – Dayville Road Reconstruction, 2004.
 - b. Clearing and Unclassified Excavation: Project 69844, Juneau Glacier Highway – Indian Point to Point Louisa, 1998.
 - c. Borrow Embankment: Project 68035, Ketchikan Airport – West Taxiway Construction, 2002.
 - d. Unclassified Excavation, Asphalt Concrete Pavement, and W-beam Guardrail: Project 71483, Haines Highway – MP 25.5 to Little Boulder Creek, 1998.
 - e. Rock Excavation: Project 71811, Ketchikan 3rd Avenue Extension, 1999.
 - f. Unclassified Excavation: Project 52685, Glenn Highway – MP 61-67 Rehabilitation, 2000.
 - g. Unclassified Excavation and MSE Wall: Project 52921, Palmer-Wasilla Extension, 2001.
 - h. Unclassified Excavation: Project 53989, Parks Highway – MP 37-39, 2001.
 - i. Asphalt Concrete Pavement: Project 71874, Haines Highway – Big Boulder Creek to the Border, 1999.
 - j. Asphalt Concrete Pavement: Project 52312, Parks Highway – MP 57-67, 2001.
 - k. Asphalt Cement: Project 56583, Kenai Peninsula Resurfacing Program, 2004.
 - l. Asphalt Cement: Project 56567, North Kenai Spur – MP 22.0-29.7, 2004.
 - m. Asphalt Cement: Project 55620, Hope Road Pavement Rehabilitation, 2004.
 - n. Drainage Pipes: Project Juneau – Cascade Point Road, 2004.
 - o. Drainage Pipes: Project Juneau – Glacier Highway and Trailhead, 2005.

9. Unit Price Analysis Project #2, Juneau Access Improvements Final Environmental Impact Statement, Appendix W - Addendum to Appendix D, Technical Alignment Report, 2006.
 - a. Mobilization and Demobilization: Project 68096, Juneau – Glacier Highway and Trailhead, 2005.
 - b. Clearing and Asphalt Concrete Pavement: Project 52312, Parks Highway – MP 57-67, 2001.
 - c. Unclassified Excavation: Project 69844, Juneau Glacier Highway – Indian Point to Point Louisa, 1998.
 - d. Borrow Embankment: Project 68035, Ketchikan Airport – West Taxiway Construction, 2002.
 - e. Unclassified Excavation: Project 71483, Haines Highway – MP 25.5 to Little Boulder Creek, 1998.
 - f. Rock Excavation: Project 71811, Ketchikan 3rd Avenue Extension, 1999.
 - g. Unclassified Excavation: Project 52685, Glenn Highway – MP 61-67 Rehabilitation, 2000.
 - h. Unclassified Excavation: Project 52921, Palmer-Wasilla Extension, 2001.
 - i. Unclassified Excavation and MSE Wall: Project 53989, Parks Highway – MP 37-39, 2001.
 - j. Asphalt Concrete Pavement: Project 71483, Haines Highway – MP 25.5 to Little Boulder Creek, 1998.
 - k. Asphalt Concrete Pavement and W-beam Guardrail: Project 71874, Haines Highway – Big Boulder Creek to the Border, 1999.
 - l. Asphalt Cement: Project 56583, Kenai Peninsula Resurfacing Program, 2004.
 - m. Asphalt Cement: Project 56567, North Kenai Spur – MP 22.0-29.7, 2004.
 - n. Asphalt Cement: Project 55620, Hope Road Pavement Rehabilitation, 2004.
 - o. Bridge Structure: San Mateo-Hayward Bridge, San Francisco, California, 2002.

- p. Drainage Pipes: Project Juneau – Cascade Point Road, 2004.
 - q. Drainage Pipes: Project Juneau – Glacier Highway and Trailhead, 2005.
10. Unit Price Analysis Project #3, Juneau Access Improvements Final Environmental Impact Statement, Appendix W - Addendum to Appendix D, Technical Alignment Report, 2006.
- a. MSE Wall: Project 55264, Glenn Highway – MP 100-109; Caribou Creek, 2002.
 - b. W-beam Guardrail: Project 56571, Old Glenn Highway – Glenn Highway to Plumley Road, 2004.
 - c. Drainage Pipes: Project Juneau – Cascade Point Road, 2004.
 - d. Drainage Pipes: Project Juneau – Glacier Highway and Trailhead, 2005.

DOT&PF Projects (Appendix B)

- 11. Project 62860, Dalton Highway MP 175 to 197 Rehabilitation, 2009.

FHWA-WFLHD Projects (Appendix C)

- 12. AK PFH 44-1(4), Coffman Cove Road, Paving, 2007.
- 13. AK PFH 44-1(2), Coffman Cove Road, Phase 2, 2006.
- 14. AK PFH 44-1(1), Coffman Cove Road, Schedule B, 2003.
- 15. AK PFH 42-1(5), 43-1(6), Control Lake – Thorne Bay Road and North Prince of Wales Road, 2002.
- 16. AK PFH 9-1(9), Big Salt Lake Road, 1999.

4 AVERAGE COST COMPARISON

The cost information shown in Table 3-1 can be used to generate an average cost for each construction item. The average unit cost, percentage, or per-mile cost based on the information compiled is shown in Table 4-1. For reference purposes, separate averages are also provided for FHWA-WFLHD projects, DOT&PF projects, the Juneau Access documents, the Bradfield River Road Study, and the MRA Engineering Memorandum.

Table 4-1. Average Cost Comparison

Item	Average Unit Cost	MRA Eng. Study	Bradfield River Road Study	Juneau Access Reports	DOT&PF Bid Tabs	FHWA-WFLHD Bid Tabs	
Project Requirements (%)	12%	16%	9%	10%	6%	15%	
Construction Camps (%)	8%	-	-	11%	4%	-	
Erosion Control (%)	2%	4%	4%	1%	1%	2%	
Clearing & Grubbing (per acre)	\$4,695	\$4,500	\$4,057	\$4,858	-	\$4,661	
Excavation (per cuyd)	\$8	\$9	\$9	\$8	\$6	\$8	
Subexcavation (per cuyd)	\$7	\$8	\$9	-	-	\$6	
Asphalt (per cuyd)	\$173	\$197	\$93	\$194	\$183	\$152	
Aggregate Base (per cuyd)	\$43	\$35	\$23	\$55	\$66	\$32	
Select Material (per cuyd)	\$24	\$25	\$23	-	-	\$23	
Tunnel (per lft)	\$10,102	\$10,500	\$10,607	\$9,200	-	-	
Bridge (per sqft):	Low	\$208	\$205	\$174	\$208	-	\$229
	Medium	\$259	\$235	\$232	\$276	-	-
	High	\$380	\$320	\$319	\$500	-	-
Large Culverts (>10') (per lft)	\$1,489	\$1,280	\$696	\$2,171	\$1,833	\$1,027	
Riprap (per cuyd)	\$40	\$60	\$46	\$23	\$59	\$42	
Wetland Mitigation (per acre)	\$24,701	\$27,100	\$28,982	-	-	\$21,361	
MSE Walls (per sqft)	\$46	\$45	\$35	\$51	-	\$30	
Misc. Drainage (per mile)	\$109,767	\$115,000	\$92,742	\$115,000	\$124,712	\$99,993	
Landscape/Seeding (per acre)	\$4,519	\$6,300	\$290	\$3,547	-	\$4,802	
Guardrail (per lft)	\$34	\$47	\$58	\$27	\$34	\$35	
Signing (per mile)	\$3,517	\$3,200	\$5,796	\$3,529	\$4,050	\$2,885	
Striping (per mile)	\$16,714	\$13,500	\$28,982	\$4,928	\$3,324	\$26,639	
Port Development (each)	\$13.5M	\$10M	-	\$17M	-	-	
Design/Construction Engineering (%)	18%	21%	21%	15%	-	-	
Contingency (%)	15%	25%	25%	8%	-	-	
Average Per-mile Construction Cost:	\$4,027,735	\$6,221,477	\$7,081,097	\$6,534,549	\$1,184,144	\$2,042,944	

This Page Intentionally Left Blank

5 CONCLUSIONS

The FHWA projects chosen for inclusion in the study were all located near the MRA study area on Prince of Wales Island within Southeast Alaska. In general, the FHWA projects are considered representative of recent construction prices within Southeast Alaska. However, none of the projects involve all the types of work proposed within the MRA Engineering Memorandum, such as construction of new roadways and the development of port facilities. The DOT&PF project included in the analysis was located in northern Alaska and was only a rehabilitation and pave project. It was included in the study mainly due to the inclusion of a work camp cost item. Since DOT&PF only provides bid tabulations for recently bid projects, there likely are projects that are more representative of the type of work involved in the MRA Engineering Memorandum.

The Juneau Access Improvements Project is likely the most comparable project currently under development within the state of Alaska. The work involved in the Juneau Access Highway closely mirrors the work needed to complete any one of the transportation corridors within the MRA Engineering Memorandum. A new two-lane, paved roadway would be built that would include complex bridges, sections of tunnel, and port facilities. The roadway would be located along the rugged slopes of Lynn Canal. The remoteness of the project would require that work camps be set up, and most of the construction materials not generated on site would have to be barged to the construction site. The average prices based on FHWA-WFLHD and DOT&PF projects are beneficial for unit cost support, but the pricing information within the Juneau Access Highway engineers' estimates, FHWA-WFLHD ICE, and 2007 Financial Plan are especially significant.

When the pricing information used for the MRA Engineering Memorandum is compared to the average prices developed during this analysis, the costs generally appear to be reasonable. Most of the unit prices, percentages, and per-mile costs used in the MRA Engineering Memorandum are within 10 to 20% of the average prices calculated for this memorandum. The average per-mile costs for total construction are substantially different, but that is due to the inclusion of rehabilitation project per-mile costs. No costs for work camps were included in the MRA Engineering Memorandum and would have to be added to the estimate at a percentage of total construction cost similar to that used for the Juneau Access Highway.

This Page Intentionally Left Blank

6 RECOMMENDATIONS

The average unit costs, percentages of total construction, and per-mile costs used in the development of the MRA Engineering Memorandum transportation corridor cost estimates hold up reasonably well when compared to the average costs calculated for this study. However, it was decided that, with expanded pricing information available, the costs should be adjusted for a better fit with the information compiled. The recommended changes are shown in Table 6-1 below. The new average costs shown represent road construction costs within Southeast Alaska based on both DOT&PF and FHWA projects. The rationalization of each adjustment is described in the sections following the table. In general, the amount of adjustment depended particularly on the difference between the MRA Engineering Memorandum price and the Juneau Access Highway price.

Table 6-1. Recommended Cost Changes

Item		Average Unit Cost	MRA Eng. Study	Recommended
Project Requirements (%)		12%	16%	13%
Construction Camps (%)		8%	-	10%
Erosion Control (%)		2%	4%	3%
Clearing & Grubbing (per acre)		\$4,695	\$4,500	\$5,500
Excavation (per cuyd)		\$8	\$9	\$9
Subexcavation (per cuyd)		\$7	\$8	\$8
Asphalt (per cuyd)		\$173	\$197	\$220
Aggregate Base (per cuyd)		\$43	\$35	\$40
Select Material (per cuyd)		\$24	\$25	\$25
Tunnel (per lft)		\$10,102	\$10,500	\$10,000
Bridge (per sqft):	Low	\$208	\$205	\$210
	Medium	\$259	\$235	\$260
	High	\$380	\$320	\$380
Large Culverts (>10') (per lft)		\$1,489	\$1,280	\$2,000
Riprap (per cuyd)		\$40	\$60	\$30
Wetland Mitigation (per acre)		\$24,701	\$27,100	\$25,000
MSE Walls (per sqft)		\$46	\$45	\$45
Misc. Drainage (per mile)		\$109,767	\$115,000	\$115,000
Landscape/Seeding (per acre)		\$4,519	\$6,300	\$7,000
Guardrail (per lft)		\$34	\$47	\$30
Signing (per mile)		\$3,517	\$3,200	\$3,500
Striping (per mile)		\$16,714	\$13,500	\$16,000
Port Development (each)		\$13.5M	\$10M	\$15M
Design/Construction Engineering (%)		18%	21%	20%
Contingency (%)		15%	25%	25%
Average Per-mile Construction Cost:		\$4,027,735	\$6,221,477	\$6,700,000

6.1 Project Requirements

The FHWA-WFLHD average percentage for the project requirements work item was approximately 15%. However, the DOT&PF average percentage was closer to 10%, resulting in an overall average percentage of 12%. If the percentages included from the FEIS and the 2007 Financial Plan are excluded because they are missing work items, the new average percentage is 13%. This percentage was the adjusted price recommended.

6.2 Construction Camps

The Juneau Access Highway and the DOT&PF Dalton Highway rehabilitation project were the only two sources of information on construction camps. Of the two, the Juneau Access Highway documents provide a much better representation of the type, number, and difficulty of work camps on a project where a road is being pioneered. The percentage of total construction based on the FHWA-WFLHD ICE was calculated to be approximately 11%. Most, but not all, of the work camps needed for the MRA Engineering Memorandum are likely to be work camps on land. As a result, the recommended percentage was lowered to an even 10%.

6.3 Erosion Control

The average percentage based on FHWA-WFLHD bid tabulations was calculated to be 2%, but the DOT&PF documents led to a percentage of closer to 1%. With that in mind, the 4% used in the MRA Engineering Memorandum is likely a little high. The DOT&PF projects may be more representative of large projects within Alaska, but it was decided only to recommend dropping the percentage to 3%. The MRA project is likely to be an environmentally sensitive project, and it was assumed that the erosion control measures needed may be substantial.

6.4 Clearing and Grubbing

The average clearing and grubbing costs calculated were fairly close in magnitude and resulted in an overall average of \$4,695 per acre. However, the average 2006 bid price for the Juneau Access Highway project was \$8,602 per acre. The 2006 bids for the Juneau Access Highway were rejected, but they do represent the amount the contractors felt the work would cost. Since clearing and grubbing is a front-end work item, the bids may be a bit high due to the difficult project mobilization and the high risk involved. However, it was still decided that the recommended price for clearing and grubbing should be increased to \$5,500 per acre.

6.5 Excavation

The overall average cost per cubic yard calculated for excavation was about \$8. However, all costs used for excavation in the 2009 Juneau Access Highway engineer's estimates and ICE were at least \$9 per cubic yard. The recommendation for this work item was that the \$9 per cubic yard used in the MRA Engineering Memorandum was accurate and should be preserved.

6.6 Subexcavation

The only projects with a subexcavation work item were the FHWA-WFLHD projects. If these projects are averaged alone, excluding the MRA Engineering and Bradfield River Road Studies, then the average unit cost is \$6 per cubic yard. However, the average cost for the Coffman Cove Road projects, which are the most recent FHWA-WFLHD projects, was closer to \$8. Since this is the cost used in the MRA Engineering Memorandum, the recommendation for this work item was to keep the subexcavation cost at \$8 per cubic yard.

6.7 Asphalt

The overall average cost per cubic yard for asphalt pavement was calculated as \$173, which is substantially lower than the \$197 used in the MRA Engineering Memorandum. However, when the costs for the Juneau Access Highway are consulted alone, all asphalt costs are \$200 per cubic yard or higher. The newest project looked at was the DOT&PF Dalton Highway rehabilitation project and the asphalt cost for that project was about \$183 per cubic yard. If any cost less than \$183 is excluded, the average jumps up to about \$230. The recommended cost per cubic yard for asphalt was increased to \$220 as a result.

6.8 Aggregate Base

The overall average cost calculated for the aggregate base work item was approximately \$43 per cubic yard. However, asphalt treated aggregate was included in this cost. If the costs for those projects with asphalt treated base are excluded, the average is approximately \$37. The recommended cost for aggregate base was increased to \$40 per cubic yard.

6.9 Select Material

Like the subexcavation work item, only FHWA-WFLHD projects had select material costing information. The average cost for those projects with select material was calculated at \$23 per cubic yard. The cost used for the MRA Engineering Memorandum was \$25, and it is recommended that this cost be preserved.

6.10 Tunnel

The cost per linear foot for the tunnel in the MRA Engineering Memorandum was \$10,500. The Bradfield River Road Study essentially had an identical cost at \$10,607. However, the tunnel sections for the Juneau Access Highway were estimated at \$9,200 per linear foot. The recommended cost was, thus, reduced to \$10,000 per linear foot to bring the price closer to the Juneau Access cost.

6.11 Bridges

The costs for bridges were broken into three categories for the MRA Engineering Memorandum: low, medium, and high complexity. Most projects did not differentiate between bridges in the same fashion, so most unit costs surveyed were considered low complexity. The average cost for low complexity bridges was about \$208 per square foot. The recommendation for this complexity was to increase the MRA cost to \$210 per square foot. Only the Bradfield River Road Study and the Juneau Access Highway estimate (Zones 4 to 5) had medium and high complexity bridge costs. The average cost calculated for these two categories were \$259 and \$380 per square foot, respectively. As a result, the recommended costs for medium and high complexity bridges were increased to \$260 and \$380.

6.12 Large Culverts

The average cost per linear foot for culverts with a diameter greater than 10 feet was calculated to be \$1,489. However, when the Juneau Access Highway estimates are consulted alone, the average cost for these is about \$2,200 per linear foot. Considering that the Juneau Access project is more representative of the type of large drainage channels a new roadway would be crossing, the recommended price for large culverts was increased to \$2,000 per linear foot.

6.13 Riprap

The big difference in pricing encountered for riprap work was mainly due to the Juneau Access Highway engineer's estimates. For these estimates, the riprap cost was low (\$10 per cubic yard) based on the assumption that riprap will be generated on site. This assumption is likely valid for the MRA project as well. The FHWA-WFLHD project average was around \$40 per cubic yard, and the Juneau Access ICE cost was \$48 per cubic yard. The recommended cost for riprap was decreased to \$30 per cubic yard based on the assumption that riprap will be generated on site.

6.14 Wetland Mitigation

Only FHWA-WFLHD projects had the roadway obliteration bid item used to develop the wetland mitigation costs in the MRA Engineering Memorandum. The recommendation for this work item was to adjust the cost to the average calculated, which was roughly \$25,000 per acre.

6.15 MSE Walls

The average cost calculated for MSE walls was \$46 per square foot. That average cost included Juneau Access Highway costs, which assume a concrete-faced MSE wall. If those costs are excluded, the average becomes about \$40 per square foot. Given this, the MRA Engineering Memorandum cost of \$45 per square foot was preserved.

6.16 Miscellaneous Drainage

The miscellaneous drainage work item is a difficult item to estimate, given that the projects reviewed do not have the same size and type of drainage structures. The overall average per-mile cost calculated for this analysis was \$109,767. If the Juneau Access Highway documents are consulted alone, the average cost for miscellaneous drainage is about \$115,000. The recommendation for this work item was to keep the MRA cost at \$115,000 per mile.

6.17 Landscaping/Seeding

The average seeding cost based on the information compiled was \$4,519 per acre. However, this average cost included projects without any type of topsoil salvaging and placing work. It was assumed that this type of work would be needed for the MRA project, so any projects missing topsoil work were excluded. When this was done, the average per acre cost was about \$7,250. This cost was considered a little high, so the recommended cost was determined to be \$7,000 per acre.

6.18 Guardrail

The average cost per linear foot of guardrail was calculated to be \$34. If the higher costs used for the MRA Engineering Memorandum and Bradfield River Road Study are excluded, the average unit cost decreases to about \$30 per linear foot. The recommended cost was thus set at \$30.

6.19 Signing

The signing per-mile cost based on all the information surveyed was an average of \$3,517. The average from the Juneau Access Highway estimates was also around \$3,500 per mile. Thus, the recommended cost was increased to \$3,500 per mile.

6.20 Striping

The striping work item produced the most variable per-mile costs of the study. The FHWA-WFLHD projects had an average per-mile cost of roughly \$27,000, while the Juneau Access Highway and DOT&PF projects averaged about \$4,500 per mile. The substantial difference must be due to a different philosophy for striping between the two agencies. The two extremes were averaged to arrive at a recommended per-mile cost of \$16,000.

6.21 Port Development

The \$10 million cost per ferry terminal estimated for port development in the MRA Engineering Memorandum was a conceptual number. The exact location and nature of the terminals and their associated facilities were not generally known. As a result, one cost was applied to all terminal locations. A cost of \$17 million is estimated for the Katzehin conventional ferry terminal that is part of the Juneau Access Highway. The Juneau Access project is further along in development and should represent a more accurate port development cost. The recommended cost per conventional ferry terminal for the MRA Engineering Memorandum was increased to an even \$15 million. The cost per air-cushion vehicle (ACV) ferry terminal was kept at \$10 million due to the lack of additional cost support available for this work item.

6.22 Design/Construction Engineering

The average percentage for design and construction engineering was calculated as 18%. The 21% used in the MRA Engineering Memorandum was based on FHWA-WFLHD standard percentages. Similarly, the 15% used for the Juneau Access Highway estimates was based on standard DOT&PF percentages. The MRA project is highly complex and will require extensive up-front engineering, including thorough geotechnical and environmental assessments. With limited access to the study area, the costs of these actions may be substantial and are assumed similar to the FHWA-WFLHD percentage. The recommended percentage was reduced to an even 20%.

6.23 Contingency

The average contingency calculated was about 15%. However, due to the conceptual nature of the engineering and estimating done for the MRA Engineering Memorandum, the recommended contingency percentage was kept at 25%. The roadway alignments of the MRA study are at a very preliminary stage of development and need the larger contingency to account for this fact.

6.24 Average Per-Mile Construction Cost

The average total per-mile construction cost calculated for this analysis included rehabilitation and paving projects that brought the average down to just above \$4 million per mile. If only those projects that involve new roadway construction are reviewed, then the average per-mile cost calculates to about \$6.7 million per mile. This recommended per-mile cost will be used to check the new transportation corridor costs of the MRA Engineering Memorandum once the newly recommended unit costs, percentages, and per-mile costs are applied.

APPENDIX A

Juneau Access Reports

Appendix A.1 – Juneau Access Improvements 2009 FFY Cost Report	A-3
Appendix A.2 – Juneau Access Improvements Financial Plan 2007 Update.....	A-103
Appendix A.3 – Juneau Access Improvements FEIS Appendix W	A-183

This Page Intentionally Left Blank

APPENDIX A.1

Juneau Access Improvements 2009 FFY Cost Report

Juneau Access Improvements 2009 FFY Cost Report	A-5
Attachment A – Zone Locations and Mile Points	A-17
Attachment B – DOT&PF Updated Engineer’s Estimate	A-19
Attachment C – DOT&PF Updated Engineer’s Estimate – Unit Price Analysis.....	A-37
Attachment D – WFLHD Independent Estimate of Highway Costs.....	A-47
Attachment E – DOT&PF Bridge Cost Analysis Memorandum	A-99

This Page Intentionally Left Blank

**Juneau Access Improvements
2009 FFY Cost Report**

July, 2009

**State Project No.: 71100
Federal Project Number: STP-000S(131)**

Table of Contents

Introduction

Cost Report Sections

1. DOT&PF Cost Estimate
2. WFLHD Independent Cost Estimate
3. Estimate Similarities and Differences
4. Conclusion

Attachments

Attachment A – Zone Locations and Mile Points

Attachment B – DOT&PF Updated Engineer's Estimate

Attachment C – DOT&PF Updated Engineer's Estimate – Unit Price Analysis

Attachment D – WFLHD Independent Estimate of Highway Costs

Attachment E – DOT&PF Bridge Cost Analysis Memorandum

Introduction

The Alaska Department of Transportation and Public Facilities (DOT&PF) prepared a Juneau Access Improvements Project Initial Financial Plan in March 2006 to satisfy the requirement for \$100-500 million projects established in the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This plan was based on the April 2006 Federal Highway Administration (FHWA) Record of Decision (ROD) which selected Alternative 2B, East Lynn Canal Highway to Katzechin with shuttles to Haines and Skagway, as the proposed action. The selected alternative would construct a 50.8 mile highway from the end of Glacier Highway at Echo Cove around Berners Bay to Katzechin, construct a ferry terminal at the end of the new highway, and run shuttle ferries to both Haines and Skagway from the Katzechin Ferry Terminal.

The FHWA ROD and the US Department of Agriculture Forest Service (USFS) non-objection to right-of-way appropriation were challenged in the United States District Court for the District of Alaska by Southeast Alaska Conservation Council, et al. on August 16, 2006. Briefing on the merits of the complaint was not concluded until June 30, 2008. A 2007 Financial Plan Update was prepared in October 2007 in accordance with the Federal Highway Administration (FHWA) March 22, 2007 Guidance, however little additional design work occurred as the project was put on hold pending the outcome of the litigation.

DOT&PF began preparing a 2008 Update in October of 2008 by conducting a new Unit Price Analysis. DOT&PF and FHWA recognized that a new cost estimate would have marginal value if based on a preliminary alignment that was inconsistent with the latest geotechnical information for the project. Therefore DOT&PF and FHWA agreed to delay the 2008 Update (for Federal Fiscal Year 2009) until early 2009 so that design work sessions could be held with DOT&PF engineers and geologists and the consultant team that prepared the Zone 4 (see Attachment A, Zone map) geology report. These work sessions were held in November and December 2008 and resulted in a new Zone 4 preliminary alignment that was consistent with the known surface geology data. This alignment was used to develop the February 2009 DOT&PF cost estimate included in this report.

In October 2008 DOT&PF decided that it would be beneficial to obtain an independent cost estimate for the highway portion of the project, to be included in the new Financial Plan Update.

An independent estimate would address the request from several state legislators as well as members of the public who expressed concern that the highway, particularly Zone 4, could cost much more than DOT&PF has estimated. The independent estimate would be based on the DOT&PF preliminary alignment and the preparers of the independent estimate would be given the DOT&PF plans, specifications, and quantity estimates, but the latest DOT&PF cost estimates would not be made available. For that reason the DOT&PF estimate completed in February was held until the independent estimate was completed and both are being released as attachments to this report.

On February 13, 2009 the Alaska District Court issued an Order and Opinion concluding the Juneau Access Improvements Project FEIS was inadequate because it did not evaluate an alternative that improved transportation in Lynn Canal solely through the increased use of existing assets. On March 3, 2009 the District Court issued a Judgment vacating the ROD. Although the Court action setting aside the ROD negated the SAFETEA-LU requirement for a Financial Plan update, FHWA and DOT&PF determined that the independent cost effort should continue and both estimates should be released in a cost estimate report.

On June 4, 2009 the State of Alaska filed a Notice of Appeal with the District Court, appealing the District Court Judgment to the Ninth Circuit Court of Appeals. The following day FHWA and the USFS filed a similar Notice of Appeal.

1. Cost Estimate

With the exception of Zone 4 work described below, little additional design work has been completed on the project since the release of the 2007 Financial Plan Update. DOT&PF had elected to place design and related geotechnical work on hold pending the outcome of the lawsuit. For Zones 1 through 3 and Zone 5, the unit quantities for the 2009 cost estimate are based on the same Lynn Canal Highway design documents detailed in the 2007 Update with only minor revisions. The unit prices have been revised to reflect the most recent applicable cost information (See Attachments B and C).

The 2007 preliminary alignment for Zone 4 has been revised in response to geologic conditions identified in the December 2006 Phase 1 Zone 4 Geotechnical Investigation by Golder Associates. A team of DOT&PF engineers and geologists worked with Golder staff in November and December 2008 and adjusted the alignment to address remaining major stability and hazard issues. The resulting alignment and quantity estimates include changes to retaining walls, more bridge structures, and the addition of two short tunnel segments. To address the potential for increased cost due to unknowns, the estimate now contains a stand alone contingency item for each zone in addition to potential contingency amounts contained within major bid items due to cost comparison differences. Also, the Vessel Design and Construction Cost item now includes a single shuttle, rather than two, as explained below.

The current updated estimate for Alternative 2B, for costs to be incurred after September 30, 2008 is as follows:

Highway Design Engineering	\$14,500,000
Mitigation	900,000
ROW Acquisition	1,500,000
Highway ICAP (4.66%)	16,200,000
Highway Construction Engineering (6.0%)	19,700,000
Avalanche CIP	3,200,000
Maintenance Building	1,100,000
Highway Construction	327,700,000
Katzehin Ferry Terminal	17,000,000
Vessel Design & Construction	13,400,000
SUBTOTAL	415,200,000
Contingency	34,100,000
FFY 2009 ESTIMATED COMPLETION COST	\$449,300,000

Total project costs, including approximately \$25.2 million spent to date for preliminary design, EIS preparation, mitigation, litigation, and final design, are now estimated at \$474 million.

Changes from 2007 estimate by Zone

The Zone starting and ending points for the 2009 estimate are the same as described for the 2007 Update, as shown below. The location and mile points for each Zone are shown on Attachment A.

Zone Descriptions:

Zone 1: Echo Cove to Antler Slough

Zone 2: Berners Bay Crossing

Zone 3: Lace River to Sweeny Creek

Zone 4: Sweeny Creek to Katzehin River

Zone 5: Katzehin River to Katzehin Ferry Terminal

The current construction cost estimate for each zone, including contingency, are shown below with 2007 Update figures for comparison.

<u>Zone</u>	<u>FFY 2009 Update</u>	<u>2007 Update</u>
Zone 1	\$ 43,000,000	\$ 29,400,000
Zone 2	65,000,000	50,200,000
Zone 3	33,100,000	21,600,000
Zone 4*	228,500,000	127,000,000
Zone 5 Highway	33,800,000	24,400,000
Katzehin Ferry Terminal	17,000,000	16,000,000
Shuttle Ferries	13,400,000	65,000,000
Total Construction	\$ 433,800,000	\$ 333,600,000

*Zone 4 FFY 2009 Update includes \$1.5 million for right-of-way acquisition at Comet, \$1.1 million for a maintenance building and rest stop to be constructed at Comet, and \$3.2 million for avalanche program capital costs.

The change in costs for Zones 1-3 and 5 are due primarily to increases in unit prices (cost inflation) captured by an October 2008 price analysis of recent bids but also reflect inclusion of a five percent contingency for each zone. The Zone 4 estimated cost reflects the recent period (2007-08) of high inflation in construction costs but also the inclusion of additional bridges,

retaining walls, and tunnel segments that were added to the preliminary design in 2008. Also, to address the more preliminary nature of the design for Zone 4 combined with the more complex geology, a contingency was set at 15 percent.

The construction cost of the Katzehin ferry terminal, the Comet rest stop/ maintenance facility, and the avalanche control equipment were all adjusted for inflation. No additional design work has been conducted for these project elements.

The number of project specific shuttles included in the estimate has changed. The Final Environmental Impact Statement (FEIS) estimated that two new shuttles would be required for the East Lynn Canal Highway alternative (in addition to the M/V Aurora), as other existing vessels that could become available, such as the M/V Malaspina, would not function efficiently as short run shuttles. The Katzehin-Skagway shuttle would have a 53-vehicle capacity, while the Haines-Skagway shuttle would have a 16-vehicle capacity. Consequently the 2006 and 2007 project cost estimates included the cost of these two new ferries.

Currently the Alaska Marine Highway System (AMHS) vessel replacement plan calls for a total of three identical 60-vehicle vessels to replace both the Malaspina and the Taku. In the summer one shuttle would operate on the Ketchikan-Prince Rupert run and two would operate in Lynn Canal; in the event of a breakdown two vessels could still cover the two runs. In winter only one of these vessels would operate in Lynn Canal as each shuttle is rotated into winter layup. When the East Lynn Canal Highway is constructed the Lynn Canal vessels would provide service first to Slate Cove and ultimately to the Katzehin terminal. Because existing vessels will be replaced as Lynn Canal shuttles independent of the Juneau Access project (and have features not required by this project in order to be able to function in other areas), the replacement costs are not included in the cost to complete the East Lynn Canal Highway project. Therefore this estimate only includes the cost of the small Haines/Skagway shuttle, adjusted for inflation in steel vessel construction costs.

2. WFLHD Independent Cost Estimate

In order to obtain an independent assessment of the probable cost of the highway portion of the project, DOT&PF developed a work agreement with the Western Federal Lands Highway Division (WFLHD) of the FHWA. This Division is separate from the Alaskan Division of the FHWA and has had no previous involvement with the project. WFLHD designs and constructs transportation projects on federal lands in the northwestern states, including roads in National Parks and in the National Forest. As such they have extensive experience in constructing remote roads in Alaska and have both in-house staff and consultant teams with road and bridge design and construction experience.

WFLHD utilized an existing WFLHD contract with the engineering firm David Evans and Associates, Inc. (DEA), including some of its construction subcontractors, to obtain a contractor's perspective on the cost of highway construction. The DEA assessment resulted in an estimated construction cost for Zones 1-3 and a project approach with risk identification for Zones 4-5. WFLHD then did a cost per mile cost estimate for Zones 4-5 and set a contingency percentage for these two zones based on topography, geology, and level of current design. WFLHD's analysis of the cost of highway construction, including DEA's contractor based assessment, is included as Attachment D of this report.

WFLHD estimates the construction cost of Zones 1-3 to be \$153.3 million, including a 5 percent contingency. They estimate the construction cost of Zones 4-5 at \$249.3 million, including a 30 percent contingency. Based on these estimates the total cost of highway construction contracts would be \$402.6 million. As with the DOT&PF estimate, construction engineering and inspection costs (CE), as well as Indirect Cost Allocation Plan (ICAP) costs, can then be calculated using standard percentages for the project. The resulting costs to complete the entire project, based on WFLHD's highway cost estimate, are shown on the following page.

Highway Design Engineering*	\$14,500,000
Mitigation*	900,000
ROW Acquisition*	1,500,000
Highway ICAP (4.66%)	16,700,000
Highway CE (6.0%)	20,300,000
Avalanche CIP*	3,200,000
Maintenance Building*	1,100,000
Highway Construction	337,800,000
Katzehin Ferry Terminal*	17,000,000
Vessel Design & Construction*	13,400,000
SUBTOTAL	426,400,000
Contingency	64,800,000
FFY 2009 ESTIMATED COMPLETION COST	\$491,200,000

*non-highway costs supplied by DOT&PF

3. Estimate Similarities and Differences

In general, the WFLHD estimate corroborates the DOT&PF estimate as it is within nine percent of it. While differences in individual unit items are to be expected due to the differences in estimate methods, in most areas the differences are not significant. The DOT&PF estimate is based on unit price analysis, which relies on actual past bids submitted for specific items required to complete highway construction projects. This method does not anticipate future price changes, and adjustments to the past unit price data to account for different construction conditions (e.g. more difficult access, remote location, greater quantities) are necessarily subjective. The WFLHD Zone 1-3 costs are based on a likely contractor's bid, which involves calculating the costs of materials, shipping, labor, fuel, equipment, and profit. This provides a single contractor's assessment of probable costs, and often identifies project specific

parameters that affect costs. However, as a single contractor's perspective, it does not fully capture the cost suppressing effect of competitive bidding. The WFLHD costs for Zones 4-5 are based on costs per mile incurred on similar projects. This approach acknowledges the lower level of design information but cannot capture all the information currently known and therefore a larger contingency is required.

A side by side comparison of zone costs, including contingency, ICAP, and CE but no right-of-way, avalanche capital or maintenance station costs, is shown below.

<u>Zones</u>	<u>DOT&PF Estimate</u>	<u>WFLHD Estimate</u>
Zones 1-3	\$ 141,100,000	\$ 169,300,000
Zones 4-5	256,600,000	270,300,000
Total Highway Construction Cost	\$ 397,700,000	\$ 439,600,000

This comparison shows that while the WFLHD estimate for Zones 4-5 is within 5 percent of DOT&PF's estimate, the Zone 1-3 estimate is 20 percent higher than the DOT&PF estimate. The small percentage difference between the Zones 4-5 estimates is the result of WFLHD's use of a higher contingency percentage (30%) than that used by DOT&PF (15%). This is not true of the Zone 1-3 estimates; both use a five percent contingency based on the relatively complete nature of the plans and less complex geology of this segment.

A comparison of the individual unit price estimates for Zones 1-3 indicates that much of the \$28.2 million difference between the zone totals is due to estimated bridge costs and the inclusion of camp costs in the WFLHD estimate. The bridge girder items 501(7A-C) account for \$6.9 million of the estimate difference. Temporary work bridges for the Lace and Antler river bridges (identified as stand-alone costs in the WFLHD estimate for clarity) account for another \$6.1 million. Camp and per diem costs identified in the WFLHD estimate account for \$14.4 million of the difference.

4. Conclusion

The two 2009 estimates of total costs to complete the project are \$449 million and \$491 million. The resulting \$42 million difference between the two estimates is within ten percent of either estimate. DOT&PF Southeast Region staff reviewed the WFLHD independent estimate and found no fatal flaws, nor anything that would indicate that the DOT&PF estimate had a fatal flaw. Furthermore, a combination of information from both estimates would likely result in an estimate close to the middle of the range. The DOT&PF estimating team agrees that WFLHD has identified some costs that the DOT&PF estimate may not have adequately captured, which could raise the overall DOT&PF estimate. Conversely, there are unit items where the DOT&PF team believes its estimate may have the more likely unit costs, which could lower the WFLHD estimate. Two specific instances are discussed below.

The current DOT&PF estimate does not identify stand alone camp costs for any of the project zones. For Zones 1-3 this was based in part on the fact that the construction project could be developed primarily from the Glacier Highway end with workers housed on the road system. (The current Alaska Department of Labor and Workforce Development policy does not require meals and lodging or per diem for workers that were living within 65 road miles of the project midpoint for a year before the project began.) For all zones DOT&PF estimators considered that camp costs would be offset, and therefore covered within certain unit prices, by the economy of scale for many of the unit items. Through WFLHD's contractor bidding approach it is clear that for at least Zones 3 and 4, a camp would be necessary for efficient construction, and camp costs would not be inconsequential. Therefore DOT&PF recognizes that camp costs of several million dollars should be identified within future estimates for these zones.

On the other hand, DOT&PF bridge engineers believe that the WFLHD estimated costs for constructing the Lace and Antler river bridges are too high based on recent prices paid for similar bridge construction throughout the state (see Attachment E, DOT&PF Bridge Cost Analysis Memorandum). Normally DOT&PF does not pay for temporary work bridges as a separate item, although most multi span bridges require them. The contractor puts the cost of a temporary work bridge within the bridge unit bid prices. Therefore, the bridge unit prices used in DOT&PF's unit price analysis already have temporary bridge costs included. As explained in the attached bridge memorandum, bridge girder prices seem too high in the WFLDH estimate,

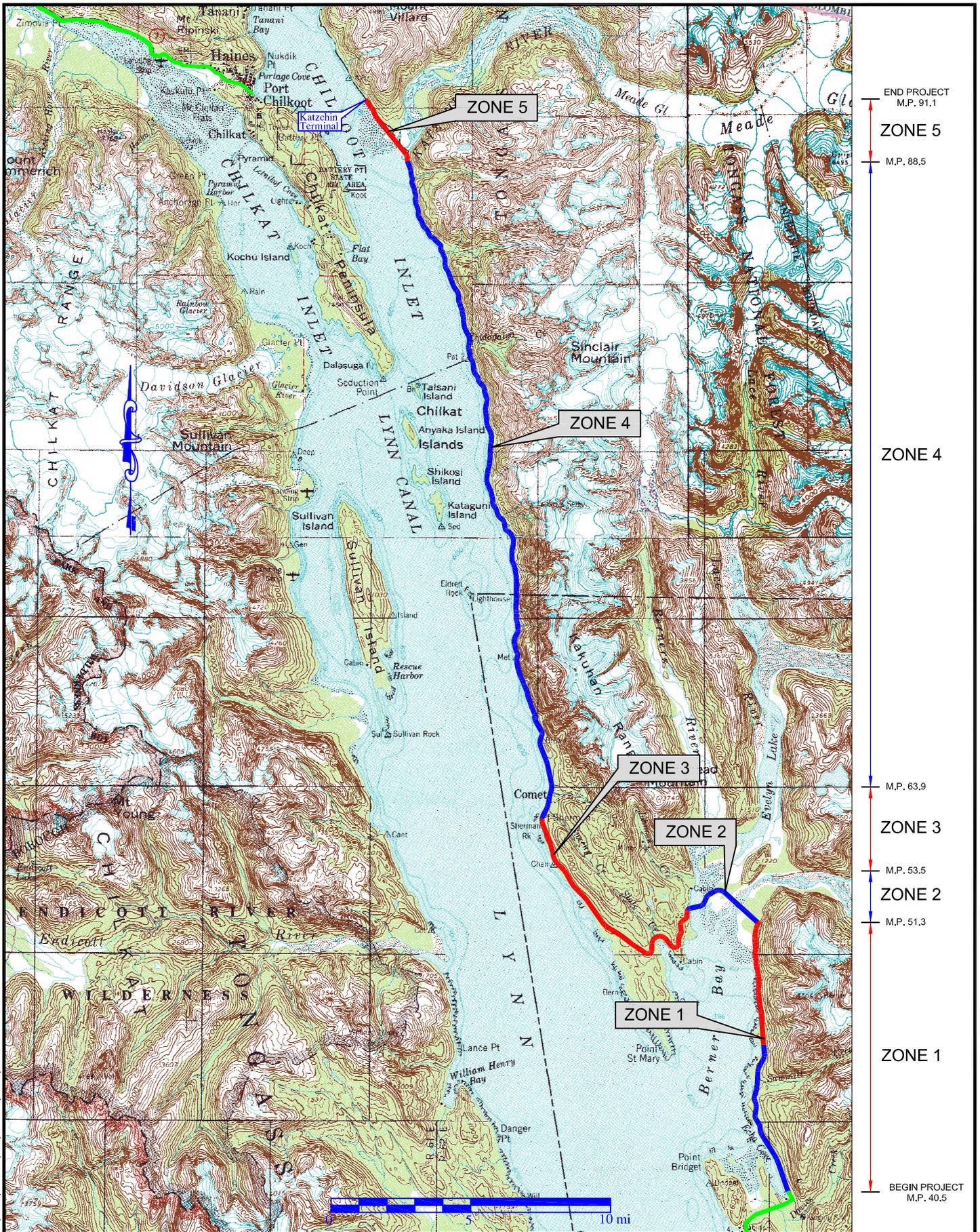
even with the temporary bridge costs separated out. While the Lace and Antler bridge sites are not on the current road system, they are less remote than some of the bridge projects considered in the unit price analysis. Based on years of experience with bridges throughout the state, the DOT&PF Bridge Section does not believe these bridges would be uniquely difficult to construct. Therefore the overall Lace and Antler bridge prices in the independent estimate may not be representative of competitive bid prices.

The purpose of this report is to provide FHWA and the public the latest information on the likely capital cost of the East Lynn Canal Highway and Katzehin shuttle system. Until a new or reinstated ROD is in place, there is no requirement for a single official estimate of the cost to complete the project. In the interim the cost can be stated as a range of \$449 million to \$491 million created by the two estimates. For those desiring a single estimate number, the midpoint of \$470 million is reasonable at this time.

ATTACHMENT A

ZONE LOCATIONS AND MILE POINTS

G:\JUN\6801\0\RE\ZONE1\DWG\CONSTRUCTION_STAGING_for_Reuben_10-29-07.DWG



ATTACHMENT B

UPDATED ENGINEER'S ESTIMATE

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT 2008	AKSAS No.: 68519 Federal No.: Version ID: 17352 Printed: 1/26/2009 4:22:50 PM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	150	Acre	6,900.00	1,035,000.00
201 (6)	Selective Tree Removal	150	Each	320.00	48,000.00
202 (4)	Removal of Culvert Pipe	530	Linear Foot	15.00	7,950.00
203 (2)	Rock Excavation	1,209,100	Cubic Yard	12.00	14,509,200.00
203 (3)	Unclassified Excavation	132,100	Cubic Yard	5.00	660,500.00
203 (10)	Controlled Blasting	80,000	Square Yard	19.00	1,520,000.00
203 (12)	Drain Holes	6,000	Linear Foot	3.25	19,500.00
203 (13)	Stabilization - Rock Bolt	1,800	Each	1,500.00	2,700,000.00
205 (3)	Foundation Fill	1,911	Cubic Yard	25.00	47,775.00
301 (1)	Aggregate Base Course, Grading ____	48,075	Ton	25.00	1,201,875.00
306 (1)	Asphalt Treated Base	23,500	Ton	42.00	987,000.00
401 (1)	Asphalt Concrete, Type II; Class B	24,260	Ton	50.00	1,213,000.00
401 (2)	Asphalt Cement, Grade 58-28	2,517	Ton	700.00	1,761,900.00
402 (1)	STE-1 Asphalt for Tack Coat	59	Ton	700.00	41,300.00
501 (1)	Class A Concrete	All required	Lump Sum	491,880.00	491,880.00
501 (2)	Class A-A Concrete	All required	Lump Sum	179,400.00	179,400.00
501 (7A)	Precast Concrete Member (128' Decked Bulb Tee)	12	Each	60,000.00	720,000.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	6	Each	70,000.00	420,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (11)	Precast Concrete Headwall	5	Each	5,000.00	25,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	156,590.00	156,590.00
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	126,440.00	126,440.00
505 (5)	Furnish Structural Steel Pipe Piles - 24 in dia	1,656	Linear Foot	125.00	207,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT 2008	AKSAS No.: 68519 Federal No.: Version ID: 17352 Printed: 1/26/2009 4:22:50 PM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
505 (6b)	Drive Structural Steel Pipe Piles - 24 in dia	24	Each	7,500.00	180,000.00
507 (1)	Steel Bridge Railing	1,048	Linear Foot	225.00	235,800.00
507 (6)	Safety Railing	1,553	Linear Foot	3.50	5,435.50
511 (1)	Mechanically Stabilized Earth Wall	22,306	Square Foot	50.00	1,115,300.00
602 (3A)	Structural Plate Arch 20' Span, 8'3 1/2" Rise, 7 Gage	50	Linear Foot	2,120.00	106,000.00
602 (3B)	Structural Plate Arch 35' 4" Span, 11' 5' Rise, 7 Gage	52	Linear Foot	3,900.00	202,800.00
603 (17-24)	24 Inch Pipe	5,097	Linear Foot	80.00	407,760.00
603 (17-36)	36 Inch Pipe	2,704	Linear Foot	140.00	378,560.00
603 (17-48)	48 Inch Pipe	874	Linear Foot	190.00	166,060.00
603 (17-60)	60 Inch Pipe	324	Linear Foot	290.00	93,960.00
603 (17-72)	72 Inch Pipe	114	Linear Foot	350.00	39,900.00
603 (17-144)	144 Inch Pipe	120	Linear Foot	750.00	90,000.00
606 (1)	W-beam Guardrail	1,800	Linear Foot	27.50	49,500.00
606 (11)	Extruder Terminal (ET-2000)	12	Each	2,750.00	33,000.00
606 (12)	Guardrail/bridge Rail Connection	12	Each	3,000.00	36,000.00
611 (1A)	Riprap, Class II	1,385	Cubic Yard	10.00	13,850.00
611 (3)	Riprap Slope Stabilization	1,716	Square Yard	10.50	18,018.00
615 (1)	Standard Sign	880	Square Foot	55.00	48,400.00
618 (1)	Seeding	50	Acre	2,150.00	107,500.00
619 (2)	Matting	1,000	Square Yard	2.50	2,500.00
630 (1)	Geotextile, Separation	2,000	Square Yard	2.50	5,000.00
631 (2)	Geotextile, Erosion Control, Class 1	1,240	Square Yard	2.00	2,480.00
633 (1)	Silt Fence	5,000	Linear Foot	4.00	20,000.00
637 (1)	Reinforced Soil Slope	500	Square Foot	20.00	10,000.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	3,780,490.00	3,780,490.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	10,600.00	10,600.00

Prepared By: Lester, Geary, Hakari	Checked By: C. Howard	1/26/2009	Page 2 of 3
------------------------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT 2008	AKSAS No.: 68519 Federal No.: Version ID: 17352 Printed: 1/26/2009 4:22:50 PM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	176,470.00	176,470.00
641 (5)	Preliminary Seeding	25	Acre	2,500.00	62,500.00
641 (6)	Temporary Rock Check Dam	171	Each	100.00	17,100.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
641 (8)	Settling Pool	2	Each	530.00	1,060.00
642 (1)	Construction Surveying	All required	Lump Sum	500,000.00	500,000.00
642 (3)	Three Person Survey Party	450	Hour	250.00	112,500.00
644 (1)	Field Office	1	Each	25,000.00	25,000.00
644 (2)	Field Laboratory	1	Each	25,000.00	25,000.00
644 (3)	Curing Shed	All required	Lump Sum	5,300.00	5,300.00
644 (4)	Meal	All required	Contingent Sum	424,000.00	424,000.00
644 (5)	Lodging	All required	Contingent Sum	318,000.00	318,000.00
644 (8a)	Vehicle, 4X4 SUV	108	Each/Month	400.00	43,200.00
644 (8b)	Vehicle, 4X4 ATV	144	Each/Month	150.00	21,600.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	26,500.00	26,500.00
644 (16)	Storage Container	All required	Lump Sum	5,333.00	5,333.00
645 (1)	Training Program, 2 Trainees/Apprentices	1,000	Labor Hour	10.00	10,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	10,600.00	10,600.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	58,300.00	58,300.00
PROJECT Summary	Pay Items:	68 Items		Subtotal:	37,080,686.50
	Construction Engineering (Percentage)	6%		CENG Subtotal	2,224,841.19
	Indirect Cost Allocation Plan (ICAP)	4.66%			1,831,637.59
	TOTAL PARTICIPATING				41,137,165.28
	ADDED COSTS (Not part of the Contract)				
	Construction Contingency (5%)				1,854,034.30
	PROJECT TOTAL				42,991,199.58

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, BERNERS BAY CROSSING FULL BUILDOUT 2008	AKSAS No.: 68501 Federal No.: Version ID: 17374 Printed: 1/26/2009 4:24:15 PM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1B)	Clearing - Zones 2,3 & 5	18	Acre	5,300.00	95,400.00
201 (6)	Selective Tree Removal	50	Each	320.00	16,000.00
203 (5)	Borrow	242,500	Cubic Yard	4.00	970,000.00
203 (19)	Barrier Rocks	4,000	Linear Foot	8.00	32,000.00
205 (3)	Foundation Fill	4,740	Cubic Yard	25.00	118,500.00
301 (1)	Aggregate Base Course, Grading ____	4,590	Ton	25.00	114,750.00
306 (1)	Asphalt Treated Base	2,225	Ton	42.00	93,450.00
401 (1)	Asphalt Concrete, Type II; Class B	4,640	Ton	50.00	232,000.00
401 (2)	Asphalt Cement, Grade 58-28	380	Ton	700.00	266,000.00
402 (1)	STE-1 Asphalt for Tack Coat	12	Ton	700.00	8,400.00
501 (1)	Class A Concrete	All required	Lump Sum	9,141,360.00	9,141,360.00
501 (2)	Class A-A Concrete	All required	Lump Sum	1,064,960.00	1,064,960.00
501 (7A)	Precast Concrete Member (128' Decked Bulb Tee)	6	Each	60,000.00	360,000.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	210	Each	70,000.00	14,700,000.00
501 (7C)	Precast Concrete Member (118' Decked Bulb Tee)	12	Each	60,000.00	720,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (9)	Bridge Expansion Joint	660	Linear Foot	1,100.00	726,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	2,684,130.00	2,684,130.00
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	1,153,320.00	1,153,320.00
504 (2)	Structural Steel	1,150,000	Pound	2.50	2,875,000.00
505 (5B)	Furnish Structural Steel Piles - 24 in	5,012	Linear Foot	125.00	626,500.00
505 (5C)	Furnish Structural Steel Pipe Piles - 48 in dia	14,865	Linear Foot	500.00	7,432,500.00
505 (6B)	Drive Structural Steel Pipe Piles - 24 in dia	54	Each	7,500.00	405,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, BERNERS BAY CROSSING FULL BUILDOUT 2008	AKSAS No.: 68501 Federal No.: Version ID: 17374 Printed: 1/26/2009 4:24:15 PM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
505 (6C)	Drive Structural Steel Pipe Piles - 48 in dia	108	Each	25,000.00	2,700,000.00
505 (9)	Structural Steel Sheet Piles	3,200	Square Foot	45.00	144,000.00
507 (1)	Steel Bridge Railing	12,427	Linear Foot	225.00	2,796,075.00
606 (1)	W-beam Guardrail	2,000	Linear Foot	27.50	55,000.00
606 (11)	Extruder Terminal (ET-2000)	20	Each	2,750.00	55,000.00
606 (12)	Guardrail/bridge Rail Connection	20	Each	3,000.00	60,000.00
611 (1A)	Riprap, Class II	2,500	Cubic Yard	10.00	25,000.00
615 (1)	Standard Sign	176	Square Foot	55.00	9,680.00
618 (1)	Seeding		Acre	2,150.00	0.00
631 (2)	Geotextile, Erosion Control, Class 1	2,500	Square Yard	2.00	5,000.00
633 (1)	Silt Fence	2,000	Linear Foot	4.00	8,000.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	6,048,780.00	6,048,780.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	5,300.00	5,300.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	58,820.00	58,820.00
641 (5)	Preliminary Seeding		Acre	2,150.00	0.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
642 (1)	Construction Surveying	All required	Lump Sum	100,000.00	100,000.00
642 (3)	Three Person Survey Party	50	Hour	250.00	12,500.00
644 (1)	Field Office	1	Each	25,000.00	25,000.00
644 (2)	Field Laboratory	1	Each	25,000.00	25,000.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	26,500.00	26,500.00
644 (16)	Storage Container	All required	Lump Sum	5,333.00	5,333.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, BERNERS BAY CROSSING FULL BUILDOUT 2008	AKSAS No.: 68501 Federal No.: Version ID: 17374 Printed: 1/26/2009 4:24:15 PM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
645 (1)	Training Program, 2 Trainees/Apprentices	1,000	Labor Hour	10.00	10,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	10,600.00	10,600.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	11,660.00	11,660.00
PROJECT Summary	Pay Items:	48 Items		Subtotal:	56,032,518.00
	Construction Engineering (Percentage)	6%		CENG Subtotal	3,361,951.08 59,394,469.08
	Indirect Cost Allocation Plan (ICAP)	4.66%			2,767,782.26
	TOTAL PARTICIPATING				62,162,251.34
	ADDED COSTS (Not part of the Contract) CONSTRUCTION CONTINGENCY (5%)				2,801,625.90
	PROJECT TOTAL				64,963,877.24

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, LACE RIVER TO SWEENEY CREEK FULL BUILDOUT 2008	AKSAS No.: 68501 Federal No.: Version ID: 17375 Printed: 1/26/2009 3:09:27 PM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1B)	Clearing - Zones 2,3 & 5	126	Acre	5,300.00	667,800.00
201 (6)	Selective Tree Removal	150	Each	320.00	48,000.00
203 (2)	Rock Excavation	595,600	Cubic Yard	12.00	7,147,200.00
203 (3)	Unclassified Excavation	654,800	Cubic Yard	5.00	3,274,000.00
203 (10)	Controlled Blasting	68,000	Square Yard	19.00	1,292,000.00
203 (12)	Drain Holes	5,000	Linear Foot	3.25	16,250.00
203 (13)	Stabilization - Rock Bolt	1,530	Each	1,500.00	2,295,000.00
205 (3)	Foundation Fill	1,300	Cubic Yard	25.00	32,500.00
301 (1)	Aggregate Base Course, Grading ____	44,455	Ton	25.00	1,111,375.00
306 (1)	Asphalt Treated Base	21,800	Ton	42.00	915,600.00
401 (1)	Asphalt Concrete, Type II; Class B	22,460	Ton	50.00	1,123,000.00
401 (2)	Asphalt Cement, Grade 58-28	2,335	Ton	700.00	1,634,500.00
402 (1)	STE-1 Asphalt for Tack Coat	54	Ton	700.00	37,800.00
501 (1)	Class A Concrete	All required	Lump Sum	339,840.00	339,840.00
501 (2)	Class A-A Concrete	All required	Lump Sum	59,800.00	59,800.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	12	Each	70,000.00	840,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (11)	Precast Concrete Headwall	9	Each	5,000.00	45,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	101,270.00	101,270.00
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	52,730.00	52,730.00
505 (5A)	Furnish Structural Steel Piles - HP14X117	787.5	Linear Foot	65.00	51,187.50
505 (5C)	Furnish Structural Steel Pipe Piles - 48 in dia	296.4	Linear Foot	500.00	148,200.00
505 (6A)	Drive Structural Steel Piles - HP14X117	6	Each	5,000.00	30,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, LACE RIVER TO SWEENEY CREEK FULL BUILDOUT 2008	AKSAS No.: 68501 Federal No.: Version ID: 17375 Printed: 1/26/2009 3:09:27 PM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
505 (6C)	Drive Structural Steel Pipe Piles - 48 in dia	3	Each	25,000.00	75,000.00
507 (1)	Steel Bridge Railing	660	Linear Foot	225.00	148,500.00
603 (17-24)	24 Inch Pipe	5,780	Linear Foot	80.00	462,400.00
603 (17-36)	36 Inch Pipe	4,608	Linear Foot	140.00	645,120.00
603 (17-48)	48 Inch Pipe	560	Linear Foot	190.00	106,400.00
603 (17-60)	60 Inch Pipe	340	Linear Foot	290.00	98,600.00
603 (17-72)	72 Inch Pipe	390	Linear Foot	350.00	136,500.00
606 (1)	W-beam Guardrail	600	Linear Foot	27.50	16,500.00
606 (11)	Extruder Terminal (ET-2000)	4	Each	2,750.00	11,000.00
606 (12)	Guardrail/bridge Rail Connection	4	Each	3,000.00	12,000.00
610 (3)	Ditch Lining	25	Station	750.00	18,750.00
611 (3)	Riprap Slope Stabilization	1,506	Square Yard	10.50	15,813.00
615 (1)	Standard Sign	816	Square Foot	55.00	44,880.00
618 (1)	Seeding	44	Acre	2,150.00	94,600.00
619 (2)	Matting	58,000	Square Yard	2.50	145,000.00
630 (1)	Geotextile, Separation	128,000	Square Yard	2.50	320,000.00
633 (1)	Silt Fence	50,000	Linear Foot	4.00	200,000.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	3,024,390.00	3,024,390.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	10,600.00	10,600.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	294,120.00	294,120.00
641 (5)	Preliminary Seeding	22	Acre	2,500.00	55,000.00
641 (6)	Temporary Rock Check Dam	369	Each	100.00	36,900.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
641 (8)	Settling Pool	6	Each	530.00	3,180.00
642 (1)	Construction Surveying	All required	Lump Sum	265,000.00	265,000.00
642 (3)	Three Person Survey Party	200	Hour	250.00	50,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, LACE RIVER TO SWEENEY CREEK FULL BUILDOUT 2008	AKSAS No.: 68501 Federal No.: Version ID: 17375 Printed: 1/26/2009 3:09:27 PM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
644 (1)	Field Office	1	Each	25,000.00	25,000.00
644 (2)	Field Laboratory	1	Each	25,000.00	25,000.00
644 (4)	Meal	All required	Contingent Sum	424,000.00	424,000.00
644 (5)	Lodging	All required	Contingent Sum	318,000.00	318,000.00
644 (8a)	Vehicle, 4X4 SUV	108	Each/Month	400.00	43,200.00
644 (8b)	Vehicle, 4X4 ATV	144	Each/Month	150.00	21,600.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	26,500.00	26,500.00
644 (16)	Storage Container	All required	Lump Sum	5,334.00	5,334.00
645 (1)	Training Program, 2 Trainees/Apprentices	1,000	Labor Hour	10.00	10,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	31,800.00	31,800.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	54,050.00	54,050.00
PROJECT Summary	Pay Items:	60 Items		Subtotal:	28,537,789.50
	Construction Engineering (Percentage)	6%		CENG Subtotal	1,712,267.37
	Indirect Cost Allocation Plan (ICAP)	4.66%			30,250,056.87
	TOTAL PARTICIPATING				1,409,652.65
	ADDED COSTS (Not part of the Contract)				31,659,709.52
	CONSTRUCTION CONTINGENCY				1,426,889.48
	PROJECT TOTAL				33,086,599.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, SWEENEY CK TO KATZ RIVER, FULL BUILDOUT 2008 2008 PRELIMINARY ESTIMATE	AKSAS No.: 68967 Federal No.: Version ID: 18912 Printed: 1/29/2009 1:17:09 PM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	333	Acre	6,900.00	2,297,700.00
203 (2)	Rock Excavation	2,983,460	Cubic Yard	12.00	35,801,520.00
203 (3)	Unclassified Excavation	315,210	Cubic Yard	5.00	1,576,050.00
203 (10)	Controlled Blasting	84,610	Square Yard	19.00	1,607,590.00
203 (12)	Drain Holes	16,850	Linear Foot	3.25	54,762.50
203 (13)	Stabilization - Rock Bolt	1,910	Each	1,500.00	2,865,000.00
301 (1)	Aggregate Base Course, Grading ____	114,120	Ton	25.00	2,853,000.00
306 (1)	Asphalt Treated Base	50,980	Ton	42.00	2,141,160.00
401 (1)	Asphalt Concrete, Type II; Class B	52,260	Ton	50.00	2,613,000.00
401 (2)	Asphalt Cement, Grade 58-28	5,430	Ton	700.00	3,801,000.00
402 (1)	STE-1 Asphalt For Tack Coat	120	Ton	700.00	84,000.00
501 (10)	Screening Structure	6,510	Linear Foot	145.00	943,950.00
501 (13a)	Zone 4 Bridges, Standard	2,015	Linear Foot	8,250.00	16,623,750.00
501 (13b)	Zone 4 Bridges, Special	789	Linear Foot	11,550.00	9,112,950.00
501 (13c)	Zone 4 Bridges, Heavy Duty	400	Linear Foot	16,500.00	6,600,000.00
507 (6)	Safety Railing	37,262	Linear Foot	3.50	130,417.00
511 (1)	Mechanically Stabilized Earth Wall	832,920	Square Foot	50.00	41,646,000.00
514 (1)	Tunnel, Dual Lane/Bi-Directional (300' to <800')	1,250	Linear Foot	9,200.00	11,500,000.00
515 (1)	Debris Flow Mitigation Structure	18	Each	250,000.00	4,500,000.00
602 (3B)	Structural Plate Arch 31'9" Span, 10'2" Rise, 7 Gage	572	Linear Foot	3,900.00	2,230,800.00
603 (17-24)	24 Inch Pipe	14,840	Linear Foot	80.00	1,187,200.00
603 (17-36)	36 Inch Pipe	7,930	Linear Foot	140.00	1,110,200.00

Prepared By: GEARY, LESTER, HAKERI	Checked By: C. HOWARD	1/29/2009	Page 1 of 2
---------------------------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, SWEENEY CK TO KATZ RIVER, FULL BUILDOUT 2008 2008 PRELIMINARY ESTIMATE	AKSAS No.: 68967 Federal No.: Version ID: 18912 Printed: 1/29/2009 1:17:09 PM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
603 (17-48)	48 Inch Pipe	2,300	Linear Foot	190.00	437,000.00
603 (17-60)	60 Inch Pipe	990	Linear Foot	290.00	287,100.00
603 (17-72)	72 Inch Pipe	250	Linear Foot	350.00	87,500.00
603 (17-144)	144 Inch Pipe	250	Linear Foot	750.00	187,500.00
606 (1)	W-beam Guardrail	86,807	Linear Foot	27.50	2,387,192.50
606 (11)	Extruder Terminal (ET-2000)	128	Each	2,750.00	352,000.00
611 (1B)	Riprap, Class IV	105,380	Cubic Yard	10.00	1,053,800.00
611 (3)	Riprap Slope Stabilization	28,800	Square Yard	10.50	302,400.00
614 (1a)	Monumentation with case	169	Each	530.00	89,570.00
615 (1)	Standard Sign	1,780	Square Foot	55.00	97,900.00
618 (1)	Seeding	100	Acre	2,150.00	215,000.00
630 (1)	Geotextile, Separation	40,940	Square Yard	2.50	102,350.00
633 (1)	Silt Fence	13,350	Linear Foot	4.00	53,400.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	17,800,000.00	17,800,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	47,170.00	47,170.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	1,335,000.00	1,335,000.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
642 (1)	Construction Surveying	All required	Lump Sum	623,000.00	623,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	117,920.00	117,920.00
PROJECT Summary	Pay Items:	41 Items		Subtotal:	176,855,852.00
	Construction Engineering (Percentage)	6%		CENG	10,611,351.12
				Subtotal	187,467,203.12
	Indirect Cost Allocation Plan (ICAP)	4.66%			8,735,971.67
	TOTAL PARTICIPATING				196,203,174.79
	ADDED COSTS (Not part of the Contract)				
	CONSTRUCTION CONTINGENCY (15%)				26,528,377.80
	PROJECT TOTAL				222,731,552.59

Prepared By: GEARY, LESTER, HAKERI	Checked By: C. HOWARD	1/29/2009	Page 2 of 2
---------------------------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, KATZ RIVER TO KATZ TERMINAL, FULL BUILDOUT 2008 PRELIMINARY ESTIMATE	AKSAS No.: 68967 Federal No.: Version ID: 18932 Printed: 1/29/2009 1:15:47 PM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1B)	Clearing	25	Acre	5,300.00	132,500.00
203 (2)	Rock Excavation	122,350	Cubic Yard	12.00	1,468,200.00
203 (3)	Unclassified Excavation	2,350	Cubic Yard	5.00	11,750.00
203 (10)	Controlled Blasting	6,170	Square Yard	19.00	117,230.00
203 (12)	Drain Holes	1,227	Linear Foot	3.25	3,987.75
203 (13)	Stabilization - Rock Bolt	138	Each	1,500.00	207,000.00
301 (1)	Aggregate Base Course, Grading ____	10,555	Ton	25.00	263,875.00
306 (1)	Asphalt Treated Base	5,084	Ton	42.00	213,528.00
401 (1)	Asphalt Concrete, Type II; Class B	6,120	Ton	50.00	306,000.00
401 (2)	Asphalt Cement, Grade 58-28	596	Ton	700.00	417,200.00
402 (1)	STE-1 Asphalt For Tack Coat	14	Ton	700.00	9,800.00
501 (13a)	Zone 4 Bridges, Standard	130	Linear Foot	8,250.00	1,072,500.00
501 (14)	Katzehin Bridge	2,590	Linear Foot	8,250.00	21,367,500.00
507 (6)	Safety Railing	650	Linear Foot	3.50	2,275.00
511 (1)	Mechanically Stabilized Earth Wall	5,310	Square Foot	50.00	265,500.00
603 (17-24)	24 Inch Pipe	1,160	Linear Foot	80.00	92,800.00
603 (17-36)	36 Inch Pipe	610	Linear Foot	140.00	85,400.00
603 (17-48)	48 Inch Pipe	190	Linear Foot	190.00	36,100.00
603 (17-60)	60 Inch Pipe	120	Linear Foot	290.00	34,800.00
603 (17-72)	72 Inch Pipe	60	Linear Foot	350.00	21,000.00
606 (1)	W-beam Guardrail	10,850	Linear Foot	27.50	298,375.00
606 (11)	Extruder Terminal (ET-2000)	21	Each	2,750.00	57,750.00

Prepared By: GEARY, LESTER, HAKERI	Checked By: C. HOWARD	1/26/2009	Page 1 of 2
---------------------------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, KATZ RIVER TO KATZ TERMINAL, FULL BUILDOUT 2008 PRELIMINARY ESTIMATE	AKSAS No.: 68967 Federal No.: Version ID: 18932 Printed: 1/29/2009 1:15:47 PM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
611 (1B)	Riprap, Class IV	16,620	Cubic Yard	10.00	166,200.00
611 (3)	Riprap Slope Stabilization		Square Yard	10.50	0.00
614 (1a)	Monumentation with case	21	Each	530.00	11,130.00
615 (1)	Standard Sign	220	Square Foot	55.00	12,100.00
618 (1)	Seeding	12	Acre	2,150.00	25,800.00
630 (1)	Geotextile, Separation	5,060	Square Yard	2.50	12,650.00
633 (1)	Silt Fence	1,650	Linear Foot	4.00	6,600.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	2,200,000.00	2,200,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	5,830.00	5,830.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	165,000.00	165,000.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
642 (1)	Construction Surveying	All required	Lump Sum	77,000.00	77,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	14,580.00	14,580.00
PROJECT Summary	Pay Items:	35 Items		Subtotal:	29,181,960.75
	Construction Engineering (Percentage)	6%		CENG Subtotal:	1,750,917.65 30,932,878.40
	Indirect Cost Allocation Plan (ICAP)	4.66%			1,441,472.13
	TOTAL PARTICIPATING				32,374,350.53
	ADDED COSTS (Not part of the Contract) CONSTRUCTION CONTINGENCY (5%)				1,459,098.04
	PROJECT TOTAL				33,833,448.57

Prepared By: GEARY, LESTER, HAKERI	Checked By: C. HOWARD	1/26/2009	Page 2 of 2
---------------------------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO KATZEHIN TERMINAL, FULL BUILDOUT 2008 PRELIMINARY ESTIMATE	AKSAS No.: 71100 Federal No.: Version ID: 18993 Printed: 1/29/2009 1:24:15 PM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	483	Acre	6,900.00	3,332,700.00
201 (1B)	Clearing - Zones 2,3 & 5	169	Acre	5,300.00	895,700.00
201 (6)	Selective Tree Removal	350	Each	320.00	112,000.00
202 (4)	Removal of Culvert Pipe	530	Linear Foot	15.00	7,950.00
203 (2)	Rock Excavation	4,910,510	Cubic Yard	12.00	58,926,120.00
203 (3)	Unclassified Excavation	1,104,460	Cubic Yard	5.00	5,522,300.00
203 (5)	Borrow	242,500	Cubic Yard	4.00	970,000.00
203 (10)	Controlled Blasting	238,780	Square Yard	19.00	4,536,820.00
203 (12)	Drain Holes	29,077	Linear Foot	3.25	94,500.25
203 (13)	Stabilization - Rock Bolt	5,378	Each	1,500.00	8,067,000.00
203 (19)	Barrier Rocks	4,000	Linear Foot	8.00	32,000.00
205 (3)	Foundation Fill	7,951	Cubic Yard	25.00	198,775.00
301 (1)	Aggregate Base Course, Grading ____	221,795	Ton	25.00	5,544,875.00
306 (1)	Asphalt Treated Base	103,589	Ton	42.00	4,350,738.00
401 (1)	Asphalt Concrete, Type II; Class B	109,740	Ton	50.00	5,487,000.00
401 (2)	Asphalt Cement, Grade 58-28	11,258	Ton	700.00	7,880,600.00
402 (1)	STE-1 Asphalt for Tack Coat	259	Ton	700.00	181,300.00
501 (1)	Class A Concrete	All required	Lump Sum	9,973,080.00	9,973,080.00
501 (2)	Class A-A Concrete	All required	Lump Sum	1,304,160.00	1,304,160.00
501 (7A)	Precast Concrete Member (128' Decked Bulb Tee)	18	Each	60,000.00	1,080,000.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	228	Each	70,000.00	15,960,000.00
501 (7C)	Precast Concrete Member (118' Decked Bulb Tee)	12	Each	60,000.00	720,000.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO KATZEHIN TERMINAL, FULL BUILDOUT 2008 PRELIMINARY ESTIMATE	AKSAS No.: 71100 Federal No.: Version ID: 18993 Printed: 1/29/2009 1:24:15 PM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (9)	Bridge Expansion Joint	660	Linear Foot	1,100.00	726,000.00
501 (10)	Screening Structure	6,510	Linear Foot	145.00	943,950.00
501 (11)	Precast Concrete Headwall	14	Each	5,000.00	70,000.00
501 (13a)	Zone 4 Bridges, Standard	2,145	Linear Foot	8,250.00	17,696,250.00
501 (13b)	Zone 4 Bridges, Special	789	Linear Foot	11,550.00	9,112,950.00
501 (13c)	Zone 4 Bridges, Heavy Duty	400	Linear Foot	16,500.00	6,600,000.00
501 (14)	Katzehin Bridge	2,590	Linear Foot	8,250.00	21,367,500.00
503 (1)	Reinforcing Steel	All required	Lump Sum	2,941,990.00	2,941,990.00
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	1,332,490.00	1,332,490.00
504 (2)	Structural Steel	1,150,000	Pound	2.50	2,875,000.00
505 (5A)	Furnish Structural Steel Piles - HP14X117	787.5	Linear Foot	65.00	51,187.50
505 (5B)	Furnish Structural Steel Pipe Piles - 24 in	6,668	Linear Foot	125.00	833,500.00
505 (5C)	Furnish Structural Steel Pipe Piles - 48 in dia	15,161.4	Linear Foot	500.00	7,580,700.00
505 (6A)	Drive Structural Steel Piles - HP14X117	6	Each	5,000.00	30,000.00
505 (6b)	Drive Structural Steel Pipe Piles - 24 in dia	78	Each	7,500.00	585,000.00
505 (6C)	Drive Structural Steel Pipe Piles - 48 in dia	111	Each	25,000.00	2,775,000.00
505 (9)	Structural Steel Sheet Piles	3,200	Square Foot	45.00	144,000.00
507 (1)	Steel Bridge Railing	14,135	Linear Foot	225.00	3,180,375.00
507 (6)	Safety Railing	39,465	Linear Foot	3.50	138,127.50
511 (1)	Mechanically Stabilized Earth Wall	860,536	Square Foot	50.00	43,026,800.00
514 (1)	Tunnel, Dual Lane/Bi-Directional (300' to <800')	1,250	Linear Foot	9,200.00	11,500,000.00
515 (1)	Debris Flow Mitigation Structure	18	Each	250,000.00	4,500,000.00
602 (3A)	Structural Plate Arch 20' Span, 8'3 1/2" Rise, 7 Gage	50	Linear Foot	2,120.00	106,000.00
602 (3B)	Structural Plate Arch 31'9" Span, 10'2" Rise, 7 Gage	624	Linear Foot	3,900.00	2,433,600.00

Prepared By: Lester, Geary, Hakari	Checked By: C. Howard	1/29/2009	Page 2 of 4
------------------------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO KATZEHIN TERMINAL, FULL BUILDOUT 2008 PRELIMINARY ESTIMATE	AKSAS No.: 71100 Federal No.: Version ID: 18993 Printed: 1/29/2009 1:24:15 PM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
603 (17-24)	24 Inch Pipe	26,877	Linear Foot	80.00	2,150,160.00
603 (17-36)	36 Inch Pipe	15,852	Linear Foot	140.00	2,219,280.00
603 (17-48)	48 Inch Pipe	3,924	Linear Foot	190.00	745,560.00
603 (17-60)	60 Inch Pipe	1,774	Linear Foot	290.00	514,460.00
603 (17-72)	72 Inch Pipe	814	Linear Foot	350.00	284,900.00
603 (17-144)	144 Inch Pipe	370	Linear Foot	750.00	277,500.00
606 (1)	W-beam Guardrail	102,057	Linear Foot	27.50	2,806,567.50
606 (11)	Extruder Terminal (ET-2000)	185	Each	2,750.00	508,750.00
606 (12)	Guardrail/bridge Rail Connection	36	Each	3,000.00	108,000.00
610 (3)	Ditch Lining	25	Station	750.00	18,750.00
611 (1A)	Riprap, Class II	3,885	Cubic Yard	10.00	38,850.00
611 (1B)	Riprap, Class IV	122,000	Cubic Yard	10.00	1,220,000.00
611 (3)	Riprap Slope Stabilization	32,022	Square Yard	10.50	336,231.00
614 (1a)	Monumentation with case	190	Each	530.00	100,700.00
615 (1)	Standard Sign	3,872	Square Foot	55.00	212,960.00
618 (1)	Seeding	206	Acre	2,150.00	442,900.00
619 (2)	Matting	59,000	Square Yard	2.50	147,500.00
630 (1)	Geotextile, Separation	176,000	Square Yard	2.50	440,000.00
631 (2)	Geotextile, Erosion Control, Class 1	3,740	Square Yard	2.00	7,480.00
633 (1)	Silt Fence	72,000	Linear Foot	4.00	288,000.00
637 (1)	Reinforced Soil Slope	500	Square Foot	20.00	10,000.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	32,853,660.00	32,853,660.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	79,500.00	79,500.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	2,029,410.00	2,029,410.00
641 (5)	Preliminary Seeding	47	Acre	2,500.00	117,500.00

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO KATZEHIN TERMINAL, FULL BUILDOUT 2008 PRELIMINARY ESTIMATE	AKSAS No.: 71100 Federal No.: Version ID: 18993 Printed: 1/29/2009 1:24:15 PM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
641 (6)	Temporary Rock Check Dam	540	Each	100.00	54,000.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
641 (8)	Settling Pool	8	Each	530.00	4,240.00
642 (1)	Construction Surveying	All required	Lump Sum	1,565,000.00	1,565,000.00
642 (3)	Three Person Survey Party	700	Hour	250.00	175,000.00
644 (1)	Field Office	3	Each	25,000.00	75,000.00
644 (2)	Field Laboratory	3	Each	25,000.00	75,000.00
644 (3)	Curing Shed	All required	Lump Sum	5,300.00	5,300.00
644 (4)	Meal	All required	Contingent Sum	848,000.00	848,000.00
644 (5)	Lodging	All required	Contingent Sum	636,000.00	636,000.00
644 (8a)	Vehicle, 4X4 SUV	216	Each/Month	400.00	86,400.00
644 (8b)	Vehicle, 4X4 ATV	288	Each/Month	150.00	43,200.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	79,500.00	79,500.00
644 (16)	Storage Container	All required	Lump Sum	16,000.00	16,000.00
645 (1)	Training Program, 2 Trainees/Apprentices	3,000	Labor Hour	10.00	30,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	53,000.00	53,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	256,510.00	256,510.00
PROJECT Summary	Pay Items:	89 Items		Subtotal:	327,688,806.75
	Construction Engineering (Percentage)	6%		CENG Subtotal	19,661,328.41
	Indirect Cost Allocation Plan (ICAP)	4.66%			16,186,516.30
	TOTAL PARTICIPATING				363,536,651.46
	ADDED COSTS (Not part of the Contract)				
	CONSTRUCTION CONTINGENCY				34,070,025.54
	PROJECT TOTAL				397,606,677.00

ATTACHMENT C
UPDATED ENGINEER'S ESTIMATE -- UNIT PRICE ANALYSIS

Juneau Access
Engineer's Estimate – Unit Price Analysis Update

Prepared by



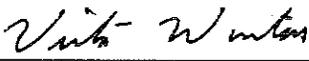
Chad Howard, P.E.

Project Engineering Manager

2/2/09

Date

Approved by



Victor M. Winters, P.E.

Preconstruction Engineer

2 FEB 2009

Date

SE Region Department of Transportation & Public Facilities

January 2009

Project Update

The 2007 Engineer's Estimate – Unit Price Analysis (Analysis) was for Juneau Access Alternatives 2B. Since the date of the Record of Decision all engineering has focused on the Selected Alternative 2B. This 2009 Engineer's Estimate – Unit Price Analysis Update (Update) is for Alternative 2B only and supersedes the 2007 Engineer's Estimate.

Since October of 2007 when the last engineering estimate was released, the construction industry experienced rapid cost increases due to increased prices for petroleum products and raw materials which dramatically increased infrastructure construction costs. Over the last several months, construction costs began declining due to material and labor cost decreases associated with the U.S. economic recession and global economic slowdown.

These cost decreases have not yet been fully realized in Alaska, and many of the numbers in this estimate reflect collections of bid prices received during the last construction season. Therefore, this cost estimate may prove overly conservative for 2009 because of its inability to predict imminent cost decreases associated with the following factors:

- Crude oil prices spiked in mid year 2008 resulting in significant inflation of overall costs for construction. Crude oil has since dropped to near 2004 levels.
- Diesel fuel prices have fallen which should lead to reduced equipment operating costs.
- A global recession will reduce demand for steel which should cause a decline in steel prices.
- Nationwide residential construction starts have decreased relieving demand for related materials and labor.
- Fewer project starts are occurring and competition among contractors should increase.

Estimate of Quantities Update

The estimate of quantities for Zones 1,2,3, & 5 remain essentially the same as the 2007 update. No additional engineering was completed on these areas. In order to develop a more accurate cost estimate, additional preliminary engineering occurred during the months of November – December 2008 to refine the alignment through Zone 4. A team of engineers and geologists from DOT&PF and Golder & Associates, Inc. reviewed segments of the Zone 4 alignment. Through collaboration the project team developed a preferred preliminary alignment for the entire route. The resulting alignment reduced excavation, eliminated rock cuts much greater than 200 feet in height, identified additional bridge locations, and added two short tunnels. Major changes to the estimate of quantities for Zone 4 are summarized below:

Item Number	Description	Unit	2007 Quantity	2009 Quantity
203 (2)	Rock Excavation	Cubic Yard	4,118,500	3,098,880
Total =			4,118,500	3,098,880

The 2007 update differentiated between general and difficult rock excavation. All rock excavation is now included under the Rock Excavation pay item.

Item Number	Description	Unit	2007 Quantity	2009 Quantity
203 (3)	Unclassified Excavation	Cubic Yard	954,200	317,560
Total =			954,200	317,560

The 2009 update includes an overall reduction in the excavation quantity. The addition of bridges, two short tunnels, and grade changes has eliminated several sizeable areas of excavation.

Item Number	Description	Unit	2007 Quantity	2009 Quantity
203 (13)	Stabilization - Rock Bolt	Each	-	2,050
Total =			0	2,050

Rock bolts were not included in the 2007 Zone 4 estimate of quantities; this update has added them as a pay item. The estimate of rock bolts was generated using a conservative bolting pattern (20 foot centers for cuts greater than 30 feet in height).

Item Number	Description	Unit	2007 Quantity	2009 Quantity
301 (1)	Aggregate Base Course	Ton	-	115,450
Total =			0	115,450

Aggregate base course was not included as a separate pay item in the 2007 estimate of quantities; this update has added it as a pay item. The revised typical section includes 4" of aggregate base course, overlain by 2" of asphalt treated base and 2" of asphalt concrete.

Item Number	Description	Unit	2007 Quantity	2009 Quantity
501 (13)	Zone 4 Bridges	Linear Foot	2,000	-
501 (13a)	Zone 4 Bridges, Standard	Linear Foot	-	2,145
501 (13b)	Zone 4 Bridges, Special	Linear Foot	-	789
501 (13c)	Zone 4 Bridges, Heavy Duty	Linear Foot	-	400
Total =			2,000	3,334

The 2007 estimate identified a single bridge type. The current estimate identifies three different bridge types to reflect site conditions and anticipated bridge requirements. Zone 4 Bridges, Standard represent standard bridge construction. Zone 4 Bridges, Special represent bridges with more difficult substructure construction or span lengths greater than 145'. Zone 4 Bridges, Heavy Duty represent bridges with both more difficult substructure construction and greater span lengths. These changes are in addition to the overall increase in estimated bridge lengths due to additional bridge locations.

Item Number	Description	Unit	2007 Quantity	2009 Quantity
514 (1)	Tunnel, Dual Lane/Bi-Directional (300' to <800')	Linear Foot	-	1,250
Total =			0	1,250

As a result of the additional alignment review for Zone 4, the new preliminary alignment includes two tunnel locations identified to eliminate extreme height rock cuts and avoid mega talus areas.

Unit Price Update

This update adjusts the unit prices from the 2007 Engineer’s Estimate for inflation and uses recent bid data where applicable. The analysis looks at trends in materials cost increases, labor cost increases, and equipment cost increases (including operating costs), shipping cost increases, and overhead and profit costs. The unit price was then broken down into the component percentages for material, labor, equipment, overhead and profit based on the *RS Means 2008 Heavy Construction* as applicable. For items not covered by the RS Means document, engineering judgment was used to determine the percentages. The percentage change for the year in material and labor cost was obtained from *Engineering News Record* (July-September, 2008) published data. An additional shipping cost was added to items with a large shipping component for materials. The overall cost increase was then applied to the 2007 unit price and rounded as appropriate. Major items were analyzed in detail and minor items were adjusted for an approximate 6-10% increase in overall construction costs. The unit prices for the January 2009 Unit Price Analysis are based in part on bid prices from the summer of 2008. Both this data and data from the 2008 RS Means document may be conservative in light of recent economic events. Major changes are identified below:

Item Number	Description	Unit	2007 Unit Price	2009 Unit Price
203 (2)	Rock Excavation	Cubic Yard	\$7	\$12

The increased unit price for rock excavation includes the effect of the reduced quantities estimated.

Item Number	Description	Unit	2007 Unit Price	2009 Unit Price
203 (3)	Unclassified Excavation	Cubic Yard	\$4	\$5

The increased unit price for unclassified excavation includes the effect of the reduced quantities estimated.

Item Number	Description	Unit	2007 Unit Price	2009 Unit Price
203 (13a)	15-foot Rock Bolt	Each	\$2,500	-
203 (13b)	25-foot Rock Bolt	Each	\$3,500	-
203 (13)	Stabilization - Rock Bolt	Each	-	\$1,500

The estimated unit price for rock bolts was determined by DOT&PF geotechnical staff by considering the rock bolt requirements, length, quantity, and other considerations required to complete the work.

Item Number	Description	Unit	2007 Unit Price	2009 Unit Price
301 (1)	Aggregate Base Course	Ton	-	\$25

The unit price for aggregate base course is based on previous bids and the expectation this item will generate some reduced cost from economy of scale due to the large quantity involved.

Item Number	Description	Unit	2007 Unit Price	2009 Unit Price
501 (13)	Zone 4 Bridges	Linear Foot	\$5,000	-
501 (13a)	Zone 4 Bridges, Standard	Linear Foot	-	\$8,250
501 (13b)	Zone 4 Bridges, Special	Linear Foot	-	\$11,500
501 (13c)	Zone 4 Bridges, Heavy Duty	Linear Foot	-	\$16,500

Differing bridge types were identified to account for anticipated site conditions and bridge requirements. Zone 4 Bridges, Standard represent standard bridge construction and are based on a cost of \$250/square foot. Zone 4 Bridges, Special represent bridge costs with more difficult substructure construction or span lengths greater than 145' and are based on a cost of \$350/square foot. Zone 4 Bridges, Heavy Duty represent bridge costs with both more difficult substructure construction and greater span lengths and are based on a cost of \$500/square foot.

Item Number	Description	Unit	2007 Unit Price	2009 Unit Price
511 (1)	MSE Wall	Square Foot	\$35	\$50

The unit price for mechanically stabilized earth (MSE) walls was increased to account for the difficult access and foundation preparation required to begin wall construction.

Item Number	Description	Unit	2007 Unit Price	2009 Unit Price
514 (1)	Tunnel, Dual Lane/Bi-Directional (300' to <800')	Linear Foot	-	\$9,200

The unit price for tunnel construction has been set at \$9,200 per Linear Foot. The unit price reflects the estimated cost for tunneling through competent rock. Based on consideration of all available information the rock for the project area is considered to be competent.

Contingency

The contingencies used for the different project zones are based on the amount of available information and the level of engineering design.

The construction contingency for Zones 1-3 has been set at 5% and represents an appropriate level given the near final design and existing geotechnical information.

The Transportation Research Board publication *Guidance for Cost Estimation and Management for Highway Projects During Planning, Programming, and Preconstruction* recognizes that contingency percentages should be higher for projects in the planning stages and decrease as the project progresses through design. Example post feasibility study percentages (from *Caltrans Project Development Procedures Manual*) range from 10 to 25 percent. The construction contingency for Zone 4 has been set at 15% due to the preliminary nature of the design, the complex geology and difficult terrain involved, and the cost estimate methodology. While the preliminary engineering to date has been based

primarily on surficial geology and field observation, the current design methodology for this segment represents a relatively conservative cost approach, in that the estimate reflects the higher end of anticipated costs. Therefore a 15 percent contingency provides a sufficient amount to cover remaining unknowns.

The construction contingency for Zone 5 has been set at 5% due to its apparent simple geology, flat terrain, and straightforward construction design.

This Page Intentionally Left Blank

ATTACHMENT D
WFLHD INDEPENDENT ESTIMATE OF HIGHWAY COSTS

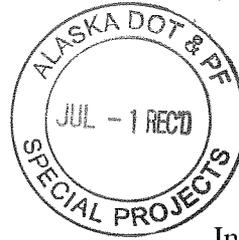


U.S. Department
of Transportation
**Federal Highway
Administration**

Western Federal Lands Highway Division

610 East Fifth Street
Vancouver, WA 98661-3801
(360) 619-7700 FAX: (360) 619-7846

June 25, 2009



Mr. Reuben Yost, Juneau Access Project Manager

In Reply Refer To: HFL-
#28063L_MST

Dear Mr. Yost:

Independent Cost Assessment of the Juneau Access Project
AK STA 2009(1)

Background

Western Federal Lands Highway Division (WFLHD) has been requested by Alaska Department of Transportation to perform an independent construction cost estimate. This independent estimate is intended to provide a reasonable forecast of what WFLHD would estimate for this project in 2009 dollars. The East Lynn Canal Highway, also known as the Juneau Access Improvements Project, has been broken into five zones and is described in the Financial Plan 2007 Annual Update prepared by Alaska Department of Transportation and Public Facilities (AKDOT & PF) as follows:

“The April 2006 FHWA ROD for the Juneau Access Improvements Project selected Alternative 2B, East Lynn Cannel Highway to Katzehin with shuttle to Haines and Skagway as the proposed action. This alternative will construct a 50.8 mile highway from the end of the existing Glacier Highway at Echo Cove around Berners Bay to Katzehin, construct a ferry terminal at the end of the new highway and run shuttle ferries.”

In an effort to better analyze the cost of the whole project for planning purposes, the AKDOT&PF has decided that it would be advantageous to prepare an independent construction cost estimate. The costs related to the risks on the project will be addressed separately as a contingency for the project, not in the unit prices.

Approach

WFL has retained the services of David Evans and Associates (DEA) with subconsultants Aadland Evans Contractors LLC (AECI) and Elting NW (Elting) to perform this independent estimate of Zones 1, 2, and 3 with a narrative assessment being performed on Zones 4 and 5. The method used for estimating Zones 1, 2 and 3 cost is from a contractor bidding perspective and bid tab data is only used where pricing can't be determined. WFL with the DEA Team additionally provided a contractor based narrative assessment of Zones 4 and 5, but cost is

forecasted based on per mile cost perspective. WFL elected to use national data of similar large scale projects, other large similar terrain planning projects in SE Alaska, and recently completed projects by WFL within the five state regions our office manages to provide a forecasted estimate on Zones 4 and 5, given that Zones 4 and 5 are in an early development level of completeness. The DEA Team independent cost assessment and narrative assessments for both forecasted construction packages are attached. WFL developed (for some cost driver items-see below) an additional independent bid tab assessment to verify the estimate provided by the DEA team (zones 1, 2, & 3) is within reason.

Zones 1, 2, and 3 WFL Consultant Validation Findings

WFLHD has evaluated many items from the DEA team estimate that had an item total price above \$3,000,000 through a bid tab verification process. This included the following items:

Item Number	Item Description
203 (2)	Rock Excavation
203 (3)	Unclassified Excavation
401 (2)	Asphalt Cement, Grade 58-28
501 (1)	Class A Concrete
501 (2)	Class A-A Concrete
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)
503 (1)	Reinforcing Steel
504 (2)	Structural Steel
507 (1)	Steel Bridge Railing
511 (1)	Mechanically Stabilized Earth Wall
640 (1)	Mobilization And Demobilization
642 (1)	Construction Surveying

In researching these items on a bid tab basis, three different data sets were researched; 1) Projects within Alaska and contracted by WFL, 2) Any projects within WFL (average unit price found), 3) Large projects within the Federal Highway System nationwide. These sources provided a reasonable cross section for pricing and a basis for comparison for the unit price data generated by DEA. After the information was generated, each item was compared in depth to the DEA pricing (zones 1, 2, & 3) to verify if there were any differences and why those differences occurred.

Item Number and Description	Unit	Unit Costs	
		WFL	DEA
203(2) Rock Excavation	CY	\$ 12.50	\$ 12.03
203(3) Unclassified Excavation	CY	\$ 9.00	\$ 4.12
401(2) Asphalt Cement, Grade 58-28	T	\$ 641.00	\$ 691.56
501(1) Class A Concrete	CY*	\$ 1,200.00	\$ 926.33
501(2) Class A-A Concrete	CY*	\$ 1,600.00	\$ 1249.98
501(7B) Precast Concrete Member (143' Decked Bulb Tee)	LF	\$ 750.00	\$ 674.94
503(1) Reinforcing Steel	LB	\$ 1.85	\$ 1.72
504(2) Structural Steel	LB	\$ 3.00	\$ 2.90
507(1) Steel Bridge Railing	LF	\$ 180.00	\$ 181.76
511(1) Mechanically Stabilized Earth Wall	SF**	\$ 72.00	\$ 85.15
640(1) Mobilization And Demobilization	LS	\$13,000,000.00	\$10,790,670.33
642(1) Construction Surveying	LS	\$ 3,250,000.00	\$ 3,944,475.38

* Lump sum converted to cubic yard

** Costs is for MSE with welded wire face

203(2) Rock Excavation – Rock that cannot be excavated without blasting or ripping.

This item is defined by AKDOT&PF Standard Specifications for Highway Construction as 'Rock that cannot be excavated without blasting or ripping.' The item WFLHD used in this case assumed blasting was required; as a result WFL costs are significantly higher. In developing the WFL estimate, roadway excavation unit prices were used (+40% for possible ripping and location) because the description of work better matched the AKDOT&PF work description. WFL unit prices for this item ranged from \$4.50/cy to \$16.00/cy with an average of \$12.50/cy.

- o Cost Increase - \$840,000

203(3) Unclassified Excavation – All materials of whatever character encountered in the work. May include rock, common, or muck.

This item is similar to the FP-03 Section 204 Excavation and Embankment definition of Unclassified Borrow. WFL estimates for similar items have assumed an average haul of 15 to 20 miles. This could account for the increase in cost if waste sites are readily available in segments 1, 2 and 3. WFL prices have averaged out to about \$9/cy.

- o Cost Increase - \$3,840,000

401(2) Asphalt Cement – Grade 58-28

In today's economy, asphalt cement is a product with volatile prices. The current price WFLHD is using is \$641 per ton. Comparing this to Alaska Asphalt Material Price Index seems to indicate that prices are increasing. The WFLHD price is a combined total from the quotes given for the asphalt binder by US Oil in Tacoma, WA and shipping rates by Alaska Marine Lines.

- Cost Reduction - \$265,000

501(1) Class A Concrete – Reinforced and non-reinforced concrete structures

These items consist of work that furnishes, places, finishes and cures concrete. WFL had three projects in the last three years that had quantities ranging from 70 cy to 664 cy. In addition, unit prices were pulled from other Federal Lands projects; these unit prices ranged from \$800/cy to \$1600/cy with the average being \$1200/cy.

- Cost Increase - \$2,265,000

501(2) Class AA Concrete – Cast-in-place bridge decks

This item was compared to Concrete Class C(AE) that Federal Lands would typically use. The unit prices pulled were from Federal Lands projects in California and Colorado. These quantities ranged from 4 cy to 105 cy. The unit prices ranged from \$400/cy to \$2800/cy with the average being \$1600/cy. Given the small amount of concrete the estimate was weighted to reduce the unit cost. Average price used = \$1600/cy.

- Cost Increase - \$350,000

501(7 B) Precast Concrete Member (143' Decked Bulb Tee)

This cost also differed between WFL and DEA. WFL bid results on similar girders are between \$570 and \$1300/lf. The \$1000/lf cost was on a small project with reasonable access and the low of \$570/lf was on a larger scale project with more difficult access. Based on our understanding of the proposed project, WFL would estimate the per lf girder cost at \$750/lf

- Cost Increase - \$2,450,000

503(1) Reinforcing Steel

WFL had unit prices ranging from \$0.68/lb to \$12.00/lb (WFL Project AK PFH 40(3) Slo Duc Bridge-constructed in 2008 in Kake SE Alaska) with an average coming in at \$2.12/lb. Taking into consideration the location and the quantity, the average unit price would be \$1.85/lb.

- Cost Increase - \$190,000

504(2) Structural Steel

WFL had unit prices ranging from \$2.11/lb to \$5.36/lb with an average coming in at \$3.00/lb. WFL quantities were limited to 3 bridges in the last 3 years.

- Cost Increase - \$127,000

507(1) Steel Bridge Railing

WFL had unit prices ranging from \$85.50/lf to \$500/lf with an average coming in at \$180/lf. WFL quantities were from several projects in Alaska that consisted of only one bridge and several multi-bridge projects in Idaho.

- Cost Reduction - \$25,000

511(1) Mechanically Stabilized Earth Wall

WFL and Federal Lands has data for Hilfiker type (welded wire faced MSE walls) and unit cost on the low end was approximately \$40/sf and up to \$110/sf on the high end. The average yielded a unit price of \$72/sf. If the project walls are anticipated to be concrete faced, the cost would be higher than that of the welded wire walls by approximately 25% (\$90/lf).

- Cost Reduction - \$295,000

640(1) – Mobilization and Demobilization

WFL has found on our SE Alaska Projects that mobilization costs are 10% of the construction item total. This however doesn't reflect large (> \$100million) which might require larger contractor overhead, and camp development costs. WFL would estimate the project mobilization amount at \$13,000,000.

- Cost Increase - \$2,210,000

642(1) – Construction Surveying

WFL has found on our SE Alaska project that surveying costs are running 2.5% of the cost of the construction. This would amount to approximately \$3,250,000.

- Cost Reduction - \$695,000

The total from WFL would show an increase to the DEA bid items of approximately \$11,000,000. If WFLHD were to estimate these zones as one contract, we would increase the DEA Team price for Zones 1, 2 and 3 by the \$11M, but our verification process was limited to a few items and didn't assess camp costs, length of the contract, etc. The unit price analysis did not reveal any substantial discrepancies therefore we recommend using the DEA Team independent estimate number.

Zones 4 and 5 Cost Forecast Development

WFL with its consultant team (DEA team) conducted in an in-depth assessment of the plans and reports prepared for Zones 4 and 5. Based on this review an assessment was develop which describes issues, concerns, and opportunities for what our team observed as well as suggesting how WFL would cost a project in similar terrain and level of completeness. For this WFL elected to use national data of similar large scale projects, other large similar terrain planning projects in WFL is developing in SE Alaska, and recently completed projects by WFL within the five state regions our office manages to provide a forecasted estimate on Zones 4 and 5.

➤ *Comparison of Similar Contract Dollar Road Project*

WFL gathered two similar Federal Lands construction contracts for comparisons. The first project is Hoover Dam By-Pass and the second was the Saddle Road Highway on the Big Island of Hawaii. A third project was researched, the Woodrow Wilson Bridge Rehabilitation. This project was selected due to the same type of piling used (48" dia with 1" wall thickness) and \$100 million dollar contract value. Each project had an Engineers Estimate over \$100 million in expected value.

The design teams were interviewed on the first two projects to see how bid prices were determined and to see what type of range of bid prices were received from contractors for this dollar value contract.

<i>Project</i>	<i>Eng Est</i>	<i>Low</i>	<i>Range</i>
Hoover Dam By-Pass	\$106M	\$123M	\$123M-\$165M or 16% to 56% High
Saddle Road Hawaii	\$72M	\$87M	\$87-\$95M; 21% - 32% High
Woodrow Wilson	unavailable	\$125M	\$125M-\$187M 50% Range

The first two projects employed bid tab assessment with market research to determine the engineers estimate. Both project teams felt comfortable with the pricing developed, believed they have managed the risk by supplementing the higher risk items with market research and did do reasonably well with the forecast compared to the low bid. When compared to the average bidder's costs, the agencies numbers were underestimated by applying bid tab numbers from smaller contract with similar work efforts. Although this information doesn't factor directly into a suggested cost per mile forecast, it does provide insight that, as the design effort is furthered, expanding beyond bid tab assessment to better capture large scale project costs would be beneficial.

➤ *Similar Geographically Located Planning Cost Estimates for a Two-Lane Paved facility*

The Bradfield Planning Project or SE AK Mid Region Access Study has recently completed planning level estimates for a variety of routes which have similar terrain and project length to the Juneau Access Project. We have summarized the cost on a per mile basis for a global assessment.

Corridor	Cost	Length	Cost/Mile
Bradfield Alignment w/Duck Pt segment	\$718,000,000	112 miles	\$6.4M/mile* \$12M/mile*
Aaron Creek Alignment	\$1,055,000,000	143 miles	\$7.4M/mile*
Stikine River Alignment	\$1,141,000,000	173 miles	\$6.6M/mile*

*w/25% contingency

➤ *Similar Geographically Located Completed Roadway Project for a Two-Lane Paved facility*

WFL recently completed a multi-year project on Prince of Whales Islands called the Coffman Cove Road. Construction for this project began in 2004 and was completed in 2008. It was advertised in multiple phases with different contractors completing the work for each phase. This project scope was to re-build an existing logging road to a 2 lane paved road through rock cuts, muskeg bogs, and over fish streams. Access to the project was limited but was sufficient to allow all necessary field investigation to take place prior to advertisement of contract packages. The completed project including contract growth was approximately \$3M/mile.

➤ Constructor Work up estimating (DEA team work effort)

See "DEA Final Report Dated June 18th, 2009"

Zones 1, 2 and 3 Average Cost per mile = \$6.1M/mile

WFL review of the completed plans to date, combined with similar on-going planning level estimates, and utilizing the DEA Team assessment (Zones 4 & 5) and cost per mile for Zones 1, 2, and 3 leads WFL to suggest a reasonable price to assume for forecasting a project (Zones 4 & 5) of this magnitude, length, features, and terrain would be \$7 M/mile.

Contingency Factor Suggestions

WFL Project Design Development Manual (PDDM) defines WFL policy for contingency of project at various phases of development. WFL team has studied the plans as compared to plan packages our office routinely advertises, for all zones and made the following assessment:

Project	Suggested Contingency
➤ Zones 1, 2 , and 3	5%
➤ Zone 4 and 5	30%

Conclusions

Based on our research both through bid tabs and national research, the DEA estimate for zones 1, 2 and 3 appears to be within a reasonable range of the anticipated cost. Some of the individual items may be either high or low, but the overall cost was reasonable given the situation with large bonding requirement, remote location, multi-year construction and recent bidding trends on major projects. Some overall reductions in cost could be applied from WFL Bid Tab and similar in-kind project research, and if the project were bid this year, WFL is seeing bids 15% on average lower than the engineers estimate. This is due to the current economic environment and through direct discussion with Associated General Contractor organization they anticipate that these trends will continue, returning to past levels once the economy has fully recovered. WFL estimated cost with contingency for Zones 1, 2, and 3 is \$153.3 million

The DEA team provided a written assessment of issues and opportunities for Zone 4 and 5. The Zone 4 and 5 project includes many logistical concerns still to be address by AKDOT, but in researching similar projects throughout the country and the FWHA system, the maximum costs that could be found for non-bridge only projects were around 7.2 million per mile on average (specifically for the Bradfield alignment). The Bradfield only has a 1/3 of the bridges as Zone 4, no avalanche structures estimated, but has 80% more tunnel. One segment (dropped from further study) of the Bradfield did extend south to Duck Point; this segment is more extreme than Zone 4 and follows the coast line. This segment's cost per mile is \$12.5M/mile with a 25% contingency applied. Without more certain plans, staging, bridge design, tunnel designs, material development, retaining wall assessments, geotechnical investigation we have determined that the Zone 4 and 5 construction cost should be forecasted at \$9.1 million per mile (7.0 million per mile with a 30% contingency factor applied) until more time is invested to optimize and investigate the alignment. Therefore the forecasted cost for Zones 4 and 5 is \$249.3 million.

Total cost for all zones with contingency estimated by WFLHD is \$402.6 million if the entire project was bid and awarded in 2009. Note that this is an estimated construction contract cost; no DOT&PF construction engineering (CE) or indirect cost allocation plan (ICAP) costs have been included. Should you have any questions or comments, please don't hesitate to contact me at 360-619-7787.

Sincerely yours,



Michael S. Traffalis
Project Manager

Enclosures: WFLHD Backup Development Notebook- 1 copy
DEA Final Report Volume 1 dated June 24th, 2009- 3 copies
DEA Final Report Volume 2 dated June 18th, 2009- 3 copies

Final Report

Juneau Access Improvements Project

Independent Estimate for Zones 1, 2, and 3

Project Approach and Risks for Zones 4 and 5

June 18, 2009

Prepared for:

**Western Federal Lands Highway Division
and
Alaska Department of Transportation and Public Facilities**

Prepared by:

David Evans and Associates, Inc.

This Page Intentionally Left Blank

TABLE OF CONTENTS

1 INTRODUCTION AND PROJECT APPROACH	1
1.1 BACKGROUND.....	1
1.2 PROJECT DESCRIPTION	2
1.3 SUMMARY OF FINDINGS.....	3
1.4 GENERAL APPROACH FOR INDEPENDENT ESTIMATE	4
1.5 PROJECT GENERAL ASSUMPTIONS.....	5
1.6 RISKS COMMON TO BOTH PROJECTS	7
1.7 OVERALL PROJECT SUGGESTIONS.....	8
2 ZONES 1, 2, AND 3	11
2.1 CONSTRUCTION PROJECT APPROACH.....	11
2.2 ZONES 1, 2, AND 3 ASSUMPTIONS.....	17
2.3 ZONES 1, 2, AND 3 CONSTRUCTION BID SCHEDULE.....	19
2.4 RISKS FOR ZONES 1, 2, AND 3.....	23
2.5 CONTINGENCY FACTOR CONSIDERATIONS	23
2.6 SUGGESTIONS FOR ZONES 1, 2, AND 3.....	24
3 ZONES 4 AND 5	25
3.1 CONSTRUCTION PROJECT APPROACH.....	25
3.2 ZONES 4 AND 5 ASSUMPTIONS.....	33
3.3 RISKS FOR ZONES 4 AND 5	34
3.4 CONTINGENCY FACTOR CONSIDERATIONS	35
3.5 SUGGESTIONS FOR ZONES 4 AND 5.....	36
4 APPENDIX - COSTS	39

This Page Intentionally Left Blank

1 INTRODUCTION AND PROJECT APPROACH

1.1 BACKGROUND

The Western Federal Lands Highway Division (WFLHD) has been requested by Alaska Department of Transportation & Public Facilities (AKDOT & PF) to perform an independent construction cost estimate for the highway portion of the Juneau Access Improvements Project, also known as the East Lynn Canal Highway. The project has been broken into five zones and is described in the *Financial Plan 2007 Annual Update* prepared by AKDOT & PF as follows:

The April 2006 FHWA ROD for the Juneau Access Improvements Project selected Alternative 2B, East Lynn Cannel Highway to Katzehin with shuttle to Haines and Skagway as the proposed action. This alternative will construct a 50.8-mile highway from the end of the existing Glacier Highway at Echo Cove around Berners Bay to Katzehin, construct a ferry terminal at the end of the new highway and run shuttle ferries.

Zones 1, 2, and 3 of the Juneau Access Improvements Project, from Echo Cove to Sweeny Creek, are an approximately 24-mile-long section of highway that was advertised for construction bids in May of 2006. However, the project was not to be awarded until all agency permits were in hand. Due to a delay in the permitting process and a desire to begin construction, the project was reduced in scope to the construction of a pioneer road and associated work bridges. The pioneer road and work bridges work could be funded solely by the State of Alaska and did not require a U.S. Army Corps of Engineers (USACE) permit before award. Because the State of Alaska possessed sufficient funding in its general fund, the project moved forward: Two bids (with Base Bid and Alternate A) were received and opened on November 22, 2006, but the results were well above the AKDOT & PF \$30,000,000 budget, which was the available funding at that time, and the bids were rejected. The project was again scaled back by reducing a portion of the pioneer road and including fewer work bridges. Subsequently, two bids were received and opened on November 24, 2006. AKDOT & PF awarded the pioneer road Base Bid portion of the November 24, 2006, bid results to Southeast Road Builders of Haines, Alaska. Shortly thereafter, the AKDOT & PF's administration elected to terminate the contract.

In an effort to better analyze the potential highway cost, the AKDOT & PF has decided that it would be advantageous to obtain an independent construction cost estimate. The costs related to the risks on the project will be addressed separately as a contingency for the project, by others, and will not be reflected in the unit prices.

While the design for Zones 1 through 3 is fairly complete, the design for the Zones 4 and 5 is in the preliminary stages and is not at an appropriate point of development for the preparation of a construction contractor's detailed estimate. A review of the project from the construction contractor's perspective would generate a project approach, based on assumptions as indicated, and identify the risks associated with this grouping of zones. A preliminary plan and profile indicating bridge, tunnel, and wall locations, with only limited design beyond that level of detail has been completed. Therefore, a detailed contractor estimate was prepared for Zones 1, 2, and 3, but not for Zones 4 and 5.

David Evans and Associates, Inc. (DEA), in association with Aadland Evans Constructors LLC (AECI) and Elting NW (collectively referred to as the Consultant) has been retained by the Federal Highway Administration – Western Federal Lands Highway Division, to review and prepare a report on the Juneau Access Improvement project. The report will focus on the following items in the two zone groupings:

Zones 1, 2, and 3 review will include the following:

1. Review existing AKDOT & PF provided documents
2. Travel to the proposed project location and review of the proposed alignment
3. Develop a project approach
4. Prepare a contractor's type estimate for the project
5. Provide a list of project risks
6. Develop a list of contingency considerations

Zone 4 and 5 review will include the following:

1. Review existing AKDOT & PF provided documents
2. Travel to the proposed project location and review of the proposed alignment
3. Develop a project approach
4. Provide a list of project risks
5. Develop a list of contingency considerations

1.2 PROJECT DESCRIPTION

The proposed Juneau Access Improvements Project would add a 50.8-mile section of new highway extending from the north end of the existing Glacier Highway at Echo Cove, which is approximately 40 miles north and west of Juneau, Alaska, to the proposed ferry terminal north of the Katzehin River across the Lynn Canal from Haines, Alaska. There are currently 33 bridges contemplated for the project, three of which are major bridge structures each approximately a half-mile long.

Project plans and specification have been prepared for Zones 1, 2, and 3, which is the first zone grouping for the project. This zone grouping, from Echo Cove to Sweeny Creek, is a nearly 24-mile-long section of highway with two long bridges over the Antler River and Lace River, which would be approximately 2,763 feet and 2,677 feet in length, respectively. There are seven shorter bridges scattered throughout Zones 1, 2, and 3 that vary in length from 120 feet to 290 feet in length. Rock and other excavation quantities for this zone grouping total approximately 2.6-million cubic yards.

At this time, the preliminary design for Zones 4 and 5, the second zone grouping for the project, is in the conceptual phase and “on hold” awaiting the outcome of pending litigation before continuing site investigation and design work. This section of the proposed highway is over 27 miles long, with one major bridge over the Katzehin River that is approximately 2,590 feet long and 23 shorter bridges varying in length from 90 feet to 400 feet long. The 400-foot-long bridge at station 1732+00 (also referred to as the “1740 Cliffs”) is arguably the

most challenging bridge among the group, because it is to be built over the water and around an existing cliff feature. Rock and other excavation quantities total more than 3.4-million cubic yards combined with nearly 840,000 square feet of MSE wall.

The mountainous terrain in Zone 4 offers many more construction challenges. These challenges include:

- Difficulty of moving of materials, equipment, and workers along the roadway when multiple activities have to be concurrently ongoing,
- Access to material, material processing (crushing and screening of shot rock), and equipment staging logistics conditions,
- Potentially long haul distances, up to 14 miles, from material sources to placement locations,
- Road construction on 45+-degree rock slopes that extend up to 300 feet high, most of which may require work from rappelling ropes to access the work area,
- Sideslopes are typically very steep over long distances,
- Two extremely difficult bridges at the “1740 Cliffs” and Clay Creek, in addition to the 20 other bridges required along this section of road,
- Pattern rockbolting on controlled blasted faces of rock slow the production of rock excavation,
- Two tunnels totaling 1,250 lineal feet,
- Environmental constraints related to sea lions and a much higher concentration of eagle nests,
- Approximately 840,000 square feet of MSE wall construction,
- The average MSE wall heights are nearly twice that of those in Zones 1, 2, and 3 and the cost per square foot increases based on the height of the wall, and
- Average worker travel time to the workface, as work progresses, reduces labor productivity up 10 percent to 15 percent.

The costs associated with negotiating these challenges would likely result in a higher cost of this zone grouping as compared to the cost of Zones 1, 2, and 3, based on the current preliminary design.

1.3 SUMMARY OF FINDINGS

The independent estimate amount is shown below for Zones 1, 2, and 3. Since the design is only in the conceptual stage for Zones 4 and 5, as explained earlier, it is not appropriate to prepare a detailed contractor based estimate at this time.

Description	Amount ¹
Zones 1, 2, and 3	\$ 146,000,000

¹ The amount column does not include contingency

1.4 GENERAL APPROACH FOR INDEPENDENT ESTIMATE

1.4.1 Independent Estimate for Zones 1, 2, and 3

The independent estimate for Zones 1, 2, and 3 was built from the ground up as a contractor would do in preparing a bid for a construction project. This estimate, generated from a contractor's perspective, takes into consideration the actual logistics of building the project, how to negotiate the actual field conditions anticipated, and where the excavation and embankment quantities exist with respect to processing for the final use and placement on the project.

Upon preliminary review of the bid documents, a general project approach was developed to determine how the project would be constructed in the most economical manner. This approach was modified slightly as less expensive means and methods were identified that would reduce the cost of the project. Relying on the quantities indicated on the bid document drawings and the Bid Schedule for Zones 1, 2, and 3, the estimates were built by determining crew sizes, labor classification and rates, equipment types and rates, and production rates for the work to be performed. Once the direct cost estimating proceeded to a point where project duration could be estimated, the field overhead and construction camp costs were developed.

1.4.2 Material Quotes

Material and equipment quotes were obtained from local and national suppliers. It was recognized that many of the suppliers likely were not providing their best price for the purposes of an independent estimate as opposed to an actual contractor's bid. Therefore, all material and subcontractor pricing was reduced by 10%, with the exception of fuel, to address this concern and to provide a more representative independent estimate. Fuel was not included as it is expected that fuel costs will continue to rise with time.

1.4.3 Effect of Current Economic Conditions

The current economic conditions, arguably the worst recession seen in the United States since the Great Depression, may have an impact on contractor pricing for the project. To assess that effect, one must consider the project's size and duration, geographic size, complexity, and remote location. The projects for Zone 1, 2, and 3 and for Zones 4 and 5 are estimated to have project durations of 3 1/2 and 7 1/2 years, respectively. If the past is any indication of the future, recessions are generally shorter in duration than either of these projects. Therefore, there may be minimal favorable price impact to this project if the recession turns in 2009 or before a project is put out to bid. The cost estimate for Zones 1-3 in this report does not reflect possible temporary 2009 lower prices

However, if the U.S. economy does remain depressed and the Zones 1, 2, and 3 projects were awarded with a Notice to Proceed (NTP) issued sometime during the current recession, then there could be some reduction in bid prices as a result. Based on the dollar amount and geographic expanse of the project, the labor and equipment rates will likely stay relatively constant, the overall material costs may drop, and the contractor mark-ups may drop, resulting in an estimated overall 7-percent to 9-percent minimum reduction from bid pricing than might have been seen under more normal economic conditions. There would likely be no effect on the Zones 4 and 5 project, because it is

projected to begin at some point after the completion of Zones 1-3 and the recession will likely have subsided by the start of that project.

1.5 PROJECT GENERAL ASSUMPTIONS

In order to prepare the independent construction cost estimate, the following general assumptions were made:

1.5.1 Information and Data Provided

1. Consultant shall place reliance on the information, quantities, and design work provided by AKDOT & PF in preparing the independent construction estimate.
2. Consultant shall rely on updated design information (plan and profile drawings, cross sections, AutoCAD design files and Land Development Desktop project information) on Zones 4 and 5 provided by AKDOT & PF.
3. Consultant shall rely on updated design information (plan, profile, and cross sections) for the change to Zone 2 required by the USACE permit as provided by AKDOT & PF.
4. The Consultant shall use the Juneau Access Permit Drawings, dated February 2006, as required, to translate the location of bridge, culvert size and lengths, excess fill locations and other design features not currently shown on the Zone 1, 2, and 3 plans. The Consultant shall use the Zones 4 and 5 roadway plans and profiles for bridge, tunnel, and MSE Wall locations, and in conjunction with and translated from the USACE permit drawings, for culvert size, lengths, and locations in these zones.
5. AKDOT & PF will provide the bid item quantities for the grouping of Zones 1, 2, and 3 on a Bid Schedule prepared by AKDOT & PF.
6. The AKDOT & PF quantity breakouts for Zones 4 and 5 includes:
 - a. Length, area, and general location for earth retaining structures. The height of the earth retaining structures was obtained from the cross-sections.
 - b. Bridge locations, lengths, and quantities, as available.
7. Zones 1, 2, and 3 typical section and pavement section shall be used on Zones 4 and 5, with assumptions as noted in paragraph 1.5.3.3 below.
8. Zones 4 and 5 shall use similar retaining walls, with exception of welded wire facing for those walls above Elevation 50, and bridge structures as shown on the Zones 1, 2, and 3 plan set, where applicable.
9. In general, the details for work shown on the Drawings for Zones 1, 2, and 3 will be the same or similar for Zones 4 and 5.

1.5.2 General Estimating Guidelines

1. When soliciting pricing from contractors, suppliers, and service providers for this project, the Consultant shall not provide any project information other than that shown publicly on the Juneau-Access website for Zones 1, 2, and 3. No information other than selected Zone 5 geotechnical information is available on the website for Zones 4 and 5.

2. The Zones 1, 2, and 3 project will be completed before beginning work on the Zones 4 and 5 project.
3. The remote location dictated the necessity for some of the construction operations to be supported by on-site self-sufficient camp facilities for a portion of the staff and construction workforce, providing all necessary facilities and services for the project.
4. The construction season will be eight months long, from April through November. Only limited activities will occur from December through March. The crews will generally work six 10-hour days a week during the construction season.
5. Schedule logistics are based on on-site mobilization and construction beginning on or about April 1, 2009.
6. Costs will be based on current year (2009) and project escalation costs are excluded.

1.5.3 Roadway and Bridge Work

1. An on-site concrete batch plant will produce concrete for the project from on-site concrete aggregate sources.
2. The in-situ rock encountered in excavation sections will be suitable, both structurally and chemically (so as not to damage MSE wall anchor systems) and in sufficient quantities to use as asphalt paving rock, concrete aggregate, aggregate base, and MSE wall backfill.
3. Based on the bid quantities, it was assumed that the roadway section will consist of 2 inches of asphalt concrete /2 inches of asphalt treated base/4 inches of aggregate base.
4. The Special Provisions for Zones 1, 2 and 3 indicated that the MSE walls could be concrete-faced or welded wire-faced and gave the contractor six approved MSE wall manufacturers as options. Five of those six options presented were concrete-faced walls, with the sixth one being an optional concrete or wire-faced system. Details on sheet J2 would indicate that a concrete-faced wall was intended. Investigating the cost difference of changing that to a wire-faced wall shows that the deletion of Cast-in-Place (CIP) coping and precast concrete facing will save approximately \$13 per square foot in direct costs. Based on sheet J2 Zone 1-3, MSE wall costs were estimated as concrete faced.
5. Equipment rates were developed to approximate those that a large contractor would use as internal rates for company-owned equipment. The rates were calculated by taking 80 percent of the local monthly rental rates offered by NC Rentals and Construction Machinery, Inc. (CMI), both local rental companies operating in southeast Alaska. The discounted monthly rate was then divided by the number of equipment hours allowed per month at that rate (200 hours) and added fuel costs based on \$2.00 per gallon.
6. The pricing for furnishing the 48-inch diameter piles would be the same as that obtained by AKDOT & PF in their procurement of 48-inch diameter piles in late 2006, as current prices are anticipated to be very close to this pricing.
7. The shot rock shall only require minimal processing in order to be used for road embankment and may be coarser than standard specifications.

1.5.4 Other

1. No delays from avalanches will occur in November and April of each year.
2. Cost and schedule issues will be addressed in a timely manner (resolve issues as the project proceeds rather than wait until end of project to resolve these issues) so as to alleviate cash flow issues for the contractor.
3. There will be no interference from third parties besides those who are part of a contractual agreement for the duration of the construction project.
4. Consultant shall not address any right-of-way (ROW) issue on this project.
5. Government-furnished materials are not included in the construction cost estimate pricing.
6. A construction schedule will not be prepared as a deliverable for this Juneau Access Improvements Project cost estimate.
7. Consultant will not be using “Unit Price Analysis or Bid Tab Analysis” for preparing the independent estimate, except where necessary as a last resort.
8. Consultant shall not be required to estimate ROW costs, Indirect Cost Allocation Plan (ICAP) percentage, mitigation costs, or other costs not directly associated with a construction cost estimate per the Bid Schedule.
9. Consultant shall not be required to estimate permits and fees, except as required for construction camps and drawing water from existing waters.

1.6 RISKS COMMON TO BOTH PROJECTS

Several risks are common to both the Zones 1, 2, and 3 project and the Zones 4 and 5 project:

1.6.1 Geotechnical

1. Swell factor assumed by AKDOT & PF for excavated rock that will be placed as embankment or backfill should be reviewed for adequacy, as underestimating this factor could lead to more material left over than anticipated.
2. If the in-situ rock proves to be chemically incompatible with MSE wall anchor systems, backfill material would need to be found elsewhere on the project, adding cost and time for disposal of unsuitable excavated material and the import of suitable material.

1.6.2 Survey

1. Potential LIDAR (Light Detection and Ranging) survey inaccuracy could lead to significant quantity increases of excavation bid item and increases in length and height dimensions for retaining walls.
2. Tie-in between above water survey work and water subsurface survey work has not been completed and could impact the project.

1.6.3 Design

1. The quantity of rock bolting may be low if it is determined that pattern rock bolting is required and the quantity of spot rock bolting is significant. Spot rock bolting may increase significantly if used to stabilize rock formations other than those described under controlled blasting surfaces, for example, construction worker safety purposes.

1.6.4 Contractor

1. Pushing the project forward when, or if, litigation against the project is pending would create uncertainty in the project for potential bidders that would likely be reflected in increased bid prices.
2. The current difficult bond market, ability of contractors and subcontractors to maintain the dollar amount of bonding capacity, may reduce competition for bidding this project.
3. For projects of this size, the ability of contractors to bond such a project will be limited and therefore, competition may be limited to three or four contractors or less, as some may choose to joint venture on such a large project.

1.7 OVERALL PROJECT SUGGESTIONS

There is a general project need for considerably more geotechnical investigation work in order to fully understand the geotechnical character of the soil and rock and the subsurface conditions within the general scope of work of the project. The confidence in the accuracy of survey work should be confirmed to reduce project risk for significant increases in excavation quantities that result from the vertical and horizontal tolerance levels. The potential geotechnical and survey uncertainties affect both zone groupings, but are likely more uncertain for Zones 4 and 5.

From the construction contractor's perspective, if the risks and the responsibility for risks associated with a given project are clear and well understood, the contingency factor will tend to be lower. When the risks are not well understood and the responsibilities for assuming specific risk are not known, the contingency factor will be higher. Examples of areas where clarification could be provided include:

1. Describe whether contractor or owner is responsible for costs associated with changing from vibratory hammer pile driving, if vibratory hammer does not work or is not effective.
2. Delineate who is responsible for repairing avalanche, debris flow, spring run-off, and other geotechnical hazard related damage to existing work during construction.
3. Define the responsibility for safety measures (rock bolting, rock doweling, rock netting, etc...) required to protect the construction workers from rock falls, avalanches, debris flows, and other geotechnical hazards.

1.7.1 Other suggestions include:

1. Provide for at least a 4-month bid period for projects that are large and logistically challenging like these.
2. Award contract and issue NTP in the spring, before subsequent construction season (i.e., award in April or May 2009 for a May/June 2010 construction start) to allow for proper planning, coordination, and mobilization of materials and equipment for barge shipment from Seattle to Juneau. Crowley Marine indicated that it would not be able to support this project for this coming summer (2009) due to 16 barge shipments heading to Prudhoe Bay.
3. Revise the Standard Specification Section 640, Mobilization and Demobilization, to allow for more upfront payment for first season work.
4. Confined right-of way access limits a contractor's ability to stockpile materials effectively throughout the project. Increase the contractor's access to the full 300-foot Right-of-Way width to allow for adequate space for temporary turnouts, temporary storage of materials and processing of excavated materials for embankment.
5. Test chemical properties of soil and rock to be sure that they do not adversely affect the building materials (MSE wall straps/anchors) to be used on the project.
6. Break the project into smaller pieces that would allow more contractors to bid, generate more competitive pricing with more competition, and address a growing inability, aggravated by the current financial crisis, of contractors to bond projects.
7. Fuel/oil, steel, and cement escalation costs clause could be added to specifications to reduce risk to Contractor for pricing work. In bidding a 3 1/2-year Zones 1, 2, and 3 project, it is likely that a Contractor would include an escalation factor of about 1.5 to 1.7 times the current price of fuel into a project with a duration of approximately four years and then add a risk factor to that number. A longer project, such as the 7 1/2-year Zones 4 and 5 project, would likely increase the escalation factor accordingly.
8. Provide for a special bid item for daily field overhead that would provide a contract administration tool to more easily negotiate/settle time issues related to changes that increase contract performance period.
9. Add a separate bid item for "Construction Camp" to the Bid Schedule, if the project is to be bid with the zone grouping of Zones 1, 2, and 3 or any project breakout where a construction camp is needed.
10. Requirements for stabilization rockbolting are not clear in Zones 1, 2, and 3 plans and specifications. Providing rockbolt size, length, double corrosion protection requirements, and test loads would be extremely useful information to bidders. The Specifications should also specify that AKDOT does not permit the use of an epoxy grout if it is not acceptable for encapsulating rockbolts. In general, it would be helpful to bidders to clarify the spot bolting versus the pattern bolting schemes desired. Rock dowels may be a good alternative to rockbolting in some scenarios and would save costs.

11. Implement a pile driving load test program, performed by the contractor, so that the piles driven to the required tip elevation with a vibratory hammer (required to try this method by permit) can be verified, by impact hammer, that they will hold the design loads required. It could potentially verify that the vibratory hammer system could be used for the entire driven depth, possibly eliminating the need to use the impact hammer on each pile, thereby reducing set-up time from vibratory hammer to impact hammer for each pile. The test pile program would be in effect until subsurface conditions change significantly warranting additional proof testing. Suggested language could be, "Pile are to be set with a vibratory hammer to within 10 feet of the proposed tip elevation with final set to be driven with an impact hammer. Engineer, at his discretion, may allow the contractor to set the pile to tip elevation with the vibratory hammer and proofed with an impact hammer. The Engineer, at his discretion, may waive proofing the pile with the impact hammer, if the pile driven solely with the vibratory hammer meets the design loading requirements."
12. Consider having Contractor order extra materials (i.e. culverts, MSE walls, and piling) to minimize delays when the owner wants to make changes that increase quantities. Provide clear means for payments for materials not incorporated into the work.

2 ZONES 1, 2, AND 3

2.1 CONSTRUCTION PROJECT APPROACH

2.1.1 General Schedule

For purposes of this estimate it was assumed that the Zones 1, 2, and 3 project would start in the spring of 2009. On-site mobilization would begin on or about April 1, 2009, and would take approximately three months. The projected on-site construction start date would be on or about July 1, 2009, with a completion date of November 30, 2012, making the project duration roughly 3 1/2 years.

A majority of the construction equipment and permanent materials for the project will be delivered by barge from Seattle. The on-site construction activities that begin in 2009 generally do not need permanent materials that would be shipped from Seattle, but require substantial number of workers in all zones to pioneer roads, rock excavation, modify existing roads, create staging areas, and mob bridge erection equipment. The construction equipment needed, to begin work in 2009, would be rented from Juneau. During the period from June 1, 2009 to April 1, 2010, a portion of the staff would be consumed with project preplanning and permanent materials approval, fabrication, and delivery to Seattle for barge shipment to the project location. For a project this size, the barge services request a minimum notice of approximately eight months to ensure that a contractor would get delivery by the dates needed to support the on-site materials mobilization date of April 2010.

2.1.2 Work Sequence

Beginning the summer of 2009, work would start on three different fronts nearly concurrently, after mobilization and construction camp and office setup. Site cleanup and demobilization would be completed by the end of November 2012. A four-month winter shutdown period from December through March each construction season is figured into the work schedule.

The work fronts pursued initially would include:

2.1.2.1 Zone 1 roadwork starting from the south end of Zone 1 and working north.

1. The first season of work would construct roadway to subgrade from approximately STA 58+00 (at end of existing Glacier Highway) to STA 400+00 (at Boulder Creek).
2. The second season of work would include finishing the embankment section from approximately STA 400+00 (Boulder Creek) to STA 665+00 (at south edge of Antler River), and then move on to Zone 2 embankment over the Antler River on grade roads and two work bridges to STA 727+00 (south end of Lace River Bridge).
3. The third season of work would construct roadway to near finish grade along the entire Zone 3 section in preparation for AC paving the following summer.
4. AC paving, guardrail, signage, and striping would occur the summer of 2012.

2.1.2.2 Zone 3 roadwork starting from the north side of the Lace River Bridge heading north.

1. During the first season, the first priority would be to realign and improve the existing Jualin Road from the Slate Cove dock to where the new alignment deviates towards the north end of the Lace River Bridge in order to transport bridge materials and equipment. Then a road would be constructed along the new alignment from Jualin Road to the north end of the Lace River. A staging area for bridge materials and equipment would be constructed near the north abutment.
2. Once the bridge support work is completed, the first year of work would construct roadway to subgrade from approximately STA 753+00 (north end of Lace River Bridge) to approximately STA 932+00 (north and west of Slate Creek Cove). Some probing and excavation work behind the pioneer road would be performed in the glacial till areas to determine the working conditions of that material.
3. The second season of work would construct roadway to subgrade from approximately STA 932+00 (north and west of Slate Creek Cove) to approximately STA 1150+00.
4. The third season of work would finish constructing roadway to subgrade from approximately STA 1150+00 (north and west of Slate Creek Cove) to approximately STA 1290+00 (south of Sweeny Creek). Then roadway would be constructed to near finish grade along the entire Zone 3 section in preparation for AC paving the following summer.
5. AC paving, guardrail, signage, and striping would occur the summer of 2012.

2.1.2.3 Zone 2 bridge work starting at the north abutment of the Lace River Bridge heading south.

1. The first season work would include mobilization of bridge equipment and temporary bridgework materials to the north abutment area. The concrete aggregate could be identified and a concrete batch plant, minus cement, would be set up.
2. The second season work would include mobilization of permanent bridge materials and construction of the bridge from the north abutment. Temporary traveling piles would be used in front of the work elements of the permanent structure, because the bridge is effectively built on itself. No separate work bridge would be constructed for this bridge.
3. Once the Lace River Bridge is completed, a temporary road and work bridges over the two active channels in Antler River would be constructed. The temporary road and work bridges would serve as support for building the Antler River Bridge, as well as provide a route to haul embankment material for constructing the Zone 2 roadway.
4. The Antler River Bridge would be constructed during the third season of work. The crews for the Lace and Antler river bridges would comprise the "Long Bridge" Crew constructing the two major bridges of the project.

5. With at least a construction season lag, a “Short Bridge” Crew would likely begin at Sawmill Creek Bridge in Zone 1 and work north, building all the seven short bridges that would end at Slate Creek Bridge in Zone 3.

2.1.3 Construction Camps and Offices

The number of staff and construction workers projected for the project varies from approximately 125 persons the first season, peaking at 175 during the second season, and tapering off to the end of the project. It is estimated that approximately 50 to 70 staff and construction workers would be required for Zone 1 roadway and bridge work. The number of Zone 2 and 3 staff and construction workers is estimated to be approximately 75 to 105 persons.

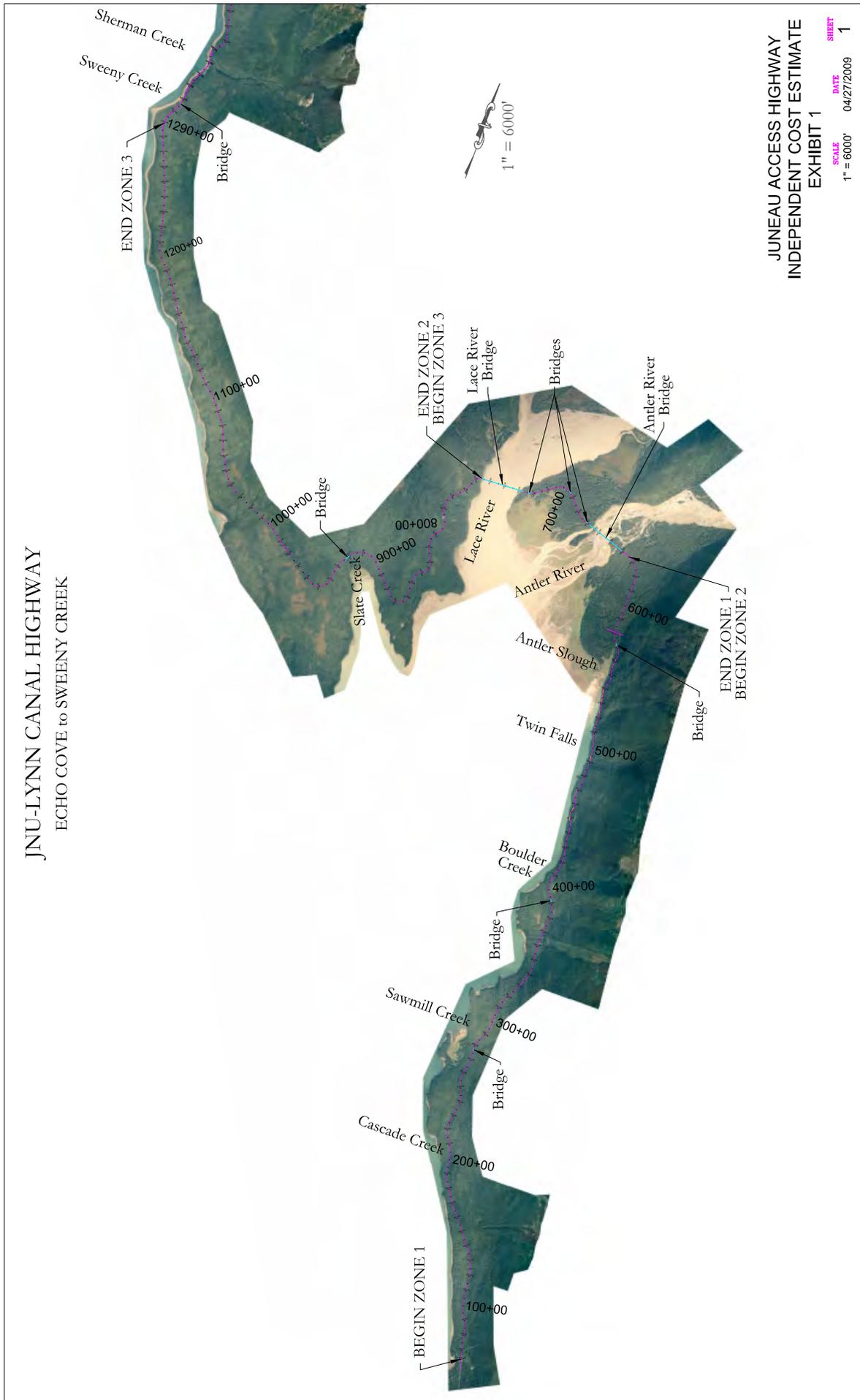
The Zone 1 roadway workers (and later the Zone 1 bridge workers) would be supported from Juneau. A trailer park would be constructed on the south end of Echo Cove (assuming that permission is granted by Goldbelt Inc.) so that workers could live in either the trailer camp or town and commute to the jobsite each day. These workers would be paid a daily per diem. The estimated maximum capacity of the trailer park would be approximately 80 construction-related personnel.

The Zone 2 and Zone 3 work would be supported primarily by a floating construction camp and offices located at Slate Creek Cove. The Coeur Mine facilities and the facilities near Comet, to be purchased by AKDOT & PF, at the southern end of Zone 4 were considered as possible locations, but for the purposes of this estimate, we thought it would be the most cost-effective to assume that these facilities would be located at Slate Creek Cove. Command and control of the project and the transportation time to and from Zone 2 and 3 work areas for the Slate Creek Cove location were thought to be optimal compared to the other options. Those workers and staff who live at the camp would not receive a per diem, because room and board would be provided by the camp. This camp would be supported by air and water transportation. We do envision that some workers may live in town and commute by passenger vehicle to a point where they could be transported by boat to the camp and office location. We have estimated a per diem cost for these workers. The estimated maximum capacity of the construction camp would be approximately 105 persons and would include capacity for AKDOT and project visitors. A floating camp with a capacity for approximately 90 persons would be staged at or near Slate Creek Cove and any overruns would be addressed by land facilities.

Based on price and the ease with which they can be brought on line for a project, we assumed that floating camp facilities would be the most cost-effective means of providing camp services with the least impact on the land. However, land-based office facilities seemed more appropriate for the project, as adequate available floating camp office space is severely limited.

This page left blank on purpose

JNU-LYNN CANAL HIGHWAY
ECHO COVE to SWEENEY CREEK



JUNEAU ACCESS HIGHWAY
INDEPENDENT COST ESTIMATE
EXHIBIT 1

SCALE 1" = 6000'
DATE 04/27/2009
SHEET 1

This Page Intentionally Left Blank

2.1.4 Avalanche Mitigation

At this time we do not anticipate that avalanches will impede the construction efforts in Zones 1, 2, and 3, both because of the minimal avalanche exposure in these zones and because a winter shutdown period will be implemented each construction season. It is the intent to shut down most construction activities for four months, from December through March, each season, as snow and colder weather would slow production, thereby increasing costs and risks for the project.

2.1.5 General Fuel Distribution

The fueling operation would consist of the following elements:

1. Zone 1 roadway and bridgework from Juneau: by truck tanker with some possible smaller fuel tank storage at construction locations.
2. Zones 2 and 3 roadway and bridgework: either by fuel tanks on a barge or a land-based tank farm. Fuel trucks would shuttle fuel from the larger fuel tanks near the shore to the construction equipment and possibly smaller fuel storage tanks at construction locations, maintenance shops, and field office facilities.

2.2 ZONES 1, 2, AND 3 ASSUMPTIONS

The following section outlines the assumptions that were made for the Zones 1, 2, and 3 project as a whole, as well as for the Zones 1, 2, and 3 roadway work and bridge work.

2.2.1 Project Assumptions

1. Goldbelt Inc. will allow the construction of a 120-person trailer park on its property on the south end of Echo Cove that will be capable of handling 80 construction staff and workers, along with an estimated 40 of their dependents or others.
2. The Contractor will be permitted by Coeur Alaska, Inc. to construct and operate a temporary construction camp at Slate Creek Cove for the duration of the project.
3. The Contractor will be permitted by Goldbelt Inc. to use private land along the south end of Zone 1 to stage equipment and materials for the duration of the project at no cost to the project.
4. The Contractor will be permitted to use and develop existing quarries on Coeur Alaska, Inc. and Goldbelt Inc. private land for the duration of the project.
5. It will be acceptable to construct a temporary road over the Antler River delta in lieu of a work bridge, with exception of two river channel crossings, for the construction of the Antler River Bridge.
6. Consultant shall estimate the finished project items listed as “future work” (i.e., 2 “AC, Guardrail, etc.) on the Project drawings, based on quantities provided by AKDOT & PF.

2.2.2 Roadway Assumptions

1. The northern portion of Zones 1 and 3 excavated rock will be suitable after processing for use as asphalt paving aggregate, structural backfill, aggregate base, and MSE wall backfill.

2. Any phyllite material encountered will be suitable for embankment if the embankment is constructed during dry conditions and encapsulated with either rock or common material. It is our understanding that this material becomes unsuitable only when exposed to water.
3. AKDOT & PF will work with the contractor to make minor grade and alignment adjustments where such adjustments would benefit the construction of the roadway.
4. A suitable disposal site for glacial till will be available within a one-mile haul from where it is encountered.

2.2.3 Bridge Assumptions

1. For driving the piles for the Antler River and Lace River bridge foundations, the vibratory hammer will be tried initially in order to meet the requirements of the permit, but the cost of driving the majority of the pile with an impact hammer is included.
2. Approximately the top 40 feet of each foundation pipe pile will be galvanized on the exterior wall of the pipe.
3. The access to bridge sites varies; some sites require road construction, including fills, even to access the site. Others are within the influence of the tidal zone and require work bridge construction either for the total length or for some smaller portion. With the exception of the Lace and Antler river bridges, we have included the work bridge cost as part of the pile driving, based on the belief that the work bridge is necessary for that work activity.
4. Short temporary work bridges over the two anadromous fish water channels will be constructed to facilitate building the Antler River Bridge. The balance of the Antler River Bridge construction work will be serviced by a temporary road constructed of 18 inches of crushed rock over soil filter fabric. Culverts will be strategically placed in an effort to maintain the road during the high runoff periods. Reconstruction costs for seasonal damage to the road during and after the high runoff periods are included.
5. The length and weight of the precast bridge beams require the use of special handling equipment (steering dolly in the back) and roads and work bridges that are capable of supporting the heavy loads. The existing Jualin Road, from Slate Cove to the junction with the highway (approximately 1,000 feet) will be modified to accommodate the transportation of bridge materials and equipment, and costs for that modification are included.
6. Existing rock sources are suitable to produce concrete aggregates for the project.

2.3 ZONES 1, 2, AND 3 CONSTRUCTION BID SCHEDULE

AKDOT BID SCHEDULE
Soft Costs Distributed Throughout All Bid Items
JAI - Zones 1, 2, and 3
Echo Cove to Sweeny Creek

Item Number	Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
201 (1A)	Clearing	Acre	150	\$3,822.63	\$573,394.26
201 (1B)	Clearing - Zones 1, 2, & 3	Acre	144	\$4,300.43	\$619,262.63
201 (6)	Selective Tree Removal	Each	350	\$93.04	\$32,562.32
202 (4)	Removal of Culvert Pipe	Linear Foot	530	\$13.90	\$7,369.36
203 (2)	Rock Excavation	Cubic Yard	1,804,700	\$12.03	\$21,718,244.02
203 (3)	Unclassified Excavation	Cubic Yard	786,900	\$4.12	\$3,241,901.78
203 (5)	Borrow	Cubic Yard	242,500	\$3.39	\$821,596.30
203 (10)	Controlled Blasting	Square Yard	148,000	\$16.06	\$2,376,767.99
203 (12)	Drain Holes	Linear Foot	11,000	\$71.83	\$790,087.66
203 (13)	Stabilization - Rock Bolt	Each	3,330	\$1,158.70	\$3,858,487.28
203 (19)	Barrier Rocks	Linear Foot	4,000	\$16.51	\$66,025.85
205 (3)	Foundation Fill	Cubic Yard	7,951	\$53.31	\$423,899.43
301 (1)	Aggregate Base Course, Grading ____	Ton	97,120	\$15.65	\$1,520,188.29
306 (1)	Asphalt Treated Base	Ton	47,525	\$31.44	\$1,494,227.88
401 (1)	Asphalt Concrete, Type II; Class B	Ton	51,360	\$34.15	\$1,754,010.87
401 (2)	Asphalt Cement, Grade 58-28	Ton	5,232	\$691.56	\$3,618,262.14
402 (1)	STE-1 Asphalt for Tack Coat	Ton	125	\$691.56	\$86,445.48
	Temporary Work Bridges & Road- Antler River	Lump Sum	All Required	\$1,080,643.73	\$1,080,643.73
	Traveling Work Bridge - Lace River	Lump Sum	All Required	\$5,045,509.80	\$5,045,509.80
501 (1)	Class A Concrete	Lump Sum	All Required	\$7,664,989.84	\$7,664,989.84
501 (2)	Class A-A Concrete	Lump Sum	All Required	\$1,253,977.36	\$1,253,977.36
501 (7A)	Precast Concrete Member (128' Decked Bulb Tee)	Each	18	\$92,926.94	\$1,672,684.91
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	Each	228	\$96,516.91	\$22,005,854.42
501 (7C)	Precast Concrete Member (118' Decked Bulb Tee)	Each	12	\$85,101.49	\$1,021,217.93
501 (8)	Concrete Price Adjustment	Contingent Sum	All Required	\$0.00	\$0.00
501 (9)	Bridge Expansion Joint	Linear Foot	660	\$871.75	\$575,356.74
501 (11)	Precast Concrete Headwall	Each	14	\$0.00	\$0.00
503 (1)	Reinforcing Steel	Lump Sum	All Required	\$2,511,192.10	\$2,511,192.10
503 (2)	Epoxy-Coated Reinforcing Steel	Lump Sum	All Required	\$906,925.02	\$906,925.02
504 (2)	Structural Steel	Pound	1,150,000	\$2.90	\$3,335,172.78
505 (5A)	Furnish Structural Steel Piles - HP14X117	Linear Foot	787.5	\$114.04	\$89,807.25
505 (5B)	Furnish Structural Steel Pipe Piles - 24 in	Linear Foot	6,668	\$169.73	\$1,131,736.63
505 (5C)	Furnish Structural Steel Pipe Piles - 48 in dia	Linear Foot	15,161.40	\$526.49	\$7,982,260.09
505 (6A)	Drive Structural Steel Piles - HP14X117	Each	6	\$4,964.70	\$29,788.23
505 (6B)	Drive Structural Steel Pipe Piles - 24 in dia	Each	78	\$6,110.41	\$476,612.24
505 (6C)	Drive Structural Steel Pipe Piles - 48 in dia	Each	111	\$14,576.40	\$1,617,980.30

AKDOT BID SCHEDULE
Soft Costs Distributed Throughout All Bid Items
JAI - Zones 1, 2, and 3
Echo Cove to Sweeny Creek

Item Number	Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
505 (9)	Structural Steel Sheet Piles	Square Foot	3,200	\$57.84	\$185,089.21
507 (1)	Steel Bridge Railing	Linear Foot	14,135	\$181.76	\$2,569,189.17
507 (6)	Safety Railing	Linear Foot	1,553	\$8.54	\$13,259.24
511 (1)	Mechanically Stabilized Earth Wall	Square Foot	22,306	\$85.15	\$1,899,308.37
602 (3A)	Structural Plate Arch 20' Span, 8'3 1/2" Rise, 7 Gage	Linear Foot	50	\$2,207.72	\$110,385.95
602 (3B)	Structural Plate Arch 35' 4" Span, 11' 5" Rise, 7 Gage	Linear Foot	52	\$3,880.56	\$201,789.31
603 (17-24)	24 Inch Pipe	Linear Foot	10,877	\$54.61	\$594,047.13
603 (17-36)	36 Inch Pipe	Linear Foot	7,312	\$74.75	\$546,596.90
603 (17-48)	48 Inch Pipe	Linear Foot	1,434	\$104.76	\$150,222.63
603 (17-60)	60 Inch Pipe	Linear Foot	664	\$193.43	\$128,436.98
603 (17-72)	72 Inch Pipe	Linear Foot	504	\$270.65	\$136,407.13
603 (17-144)	144 Inch Pipe	Linear Foot	120	\$683.19	\$81,982.64
606 (1)	W-beam Guardrail	Linear Foot	4,400	\$33.88	\$149,073.14
606 (11)	Extruder Terminal (ET-2000)	Each	36	\$3,049.22	\$109,772.04
606 (12)	Guardrail/bridge Rail Connection	Each	36	\$4,065.63	\$146,362.72
610 (3)	Ditch Lining	Station	25	\$1,036.51	\$25,912.64
611 (1A)	Riprap, Class II	Cubic Yard	3,885	\$48.38	\$187,960.23
611 (3)	Riprap Slope Stabilization	Square Yard	3,222	\$2.36	\$7,597.69
615 (1)	Standard Sign	Square Foot	1,872	\$27.10	\$50,739.08
618 (1)	Seeding	Acre	94	\$6,342.10	\$596,157.41
619 (2)	Matting	Square Yard	59,000	\$1.34	\$79,157.84
630 (1)	Geotextile, Separation	Square Yard	130,000	\$1.11	\$144,465.43
631 (2)	Geotextile, Erosion Control, Class 1	Square Yard	3,740	\$2.51	\$9,376.70
633 (1)	Silt Fence	Linear Foot	57,000	\$3.05	\$173,805.73
637 (1)	Reinforced Soil Slope	Square Foot	500	\$37.20	\$18,600.26
640 (1)	Mobilization And Demobilization	Lump Sum	All Required	\$10,790,670.33	\$10,790,670.33
641 (1)	Erosion And Pollution Control Administration	Lump Sum	All Required	\$976,662.36	\$976,662.36
641 (2)	Temporary Erosion And Pollution Control	Contingent Sum	All Required	\$717,461.94	\$717,461.94
641 (5)	Preliminary Seeding	Acre	47	\$5,219.00	\$245,292.84
641 (6)	Temporary Rock Check Dam	Each	540	\$67.76	\$36,590.68
641 (7)	Erosion And Pollution Control Price Adjustment	Contingent Sum	All Required	\$0.00	\$0.00
641 (8)	Settling Pool	Each	8	\$767.39	\$6,139.10
642 (1)	Construction Surveying	Lump Sum	All Required	\$3,944,475.38	\$3,944,475.38
642 (3)	Three Person Survey Party	Hour	700	\$311.70	\$218,188.87
644 (1)	Field Office	Each	3	\$231,740.98	\$695,222.93
644 (2)	Field Laboratory	Each	3	\$66,856.59	\$200,569.78

AKDOT BID SCHEDULE
Soft Costs Distributed Throughout All Bid Items
JAI - Zones 1, 2, and 3
Echo Cove to Sweeny Creek

Item Number	Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
644 (3)	Curing Shed	Lump Sum	All Required	\$51,498.00	\$51,498.00
	Construction Camp and Per Diem	Lump Sum	All Required	\$14,427,807.03	\$14,427,807.03
644 (4)	Meal	Contingent Sum	All Required	\$655,176.47	\$655,176.47
644 (5)	Lodging	Contingent Sum	All Required	\$1,012,545.45	\$1,012,545.45
644 (8a)	Vehicle, 4X4 SUV	Each/Month	216	\$4,309.57	\$930,866.92
644 (8b)	Vehicle, 4X4 ATV	Each/Month	288	\$3,306.71	\$952,333.45
644 (15)	Nuclear Testing Equipment Storage Shed	Lump Sum	All Required	\$39,301.10	\$39,301.10
644 (16)	Storage Container	Lump Sum	All Required	\$10,299.60	\$10,299.60
645 (1)	Training Program, 2 Trainees/Apprentices	Labor Hour	3,000	\$67.76	\$203,281.56
646 (1)	CPM Scheduling	Lump Sum	All Required	\$335,414.57	\$335,414.57
670 (1)	Painted Traffic Markings	Lump Sum	All Required	\$108,370.21	\$108,370.21

TOTAL ESTIMATED BID AMOUNT \$146,278,307.05

DIRECT COST SUBTOTAL	107,937,710.29	
Field Overhead (FOH) Estimated Cost	22,667,921.00	% of Direct Cost 121.00%
Subtotal	130,605,631.29	
Home Office Overhead & Profit 12%	15,672,675.75	114.52%
TOTAL	146,278,307.05	
Amount to Distribute	38,340,596.75	135.52%

NOTES:

1. The Construction Camp & Per Diem is an extra cost compared to projects close to town.
2. The bold Bid Items are those that were added to the original Bid Schedule provided by AKDOT & PF for clarity.

2.4 RISKS FOR ZONES 1, 2, AND 3

The following risks were determined for the Zones 1, 2, and 3 project:

1. The project could find unsuitable material during excavation in the northern section of Zone 1, where currently no subsurface geotechnical investigation work has been performed. If unsuitable material is found, then there will be additional costs associated with disposing of that unsuitable material somewhere on the project and with processing and hauling in suitable materials.
2. The geotechnical information currently available for the Antler River and Lace River bridge foundation piles does not cover every pile location. Using a vibratory hammer to install piles may prove difficult or impossible at some locations. In our view, the specifications are not clear about whether the contractor is to assume risk for the additional cost of impact driving if the use of a vibratory hammer is not effective.
3. The requirement that the top 20 feet of the 48-inch pipe piles be galvanized may prove difficult to manage in the field because the galvanizing would have to be performed in the shop, but the actual driving depths may either increase or decrease based on soil conditions.
4. The assumed Zone 3 glacial till quantities may be light. If so, there will be additional costs associated with disposing of that material somewhere on the project and possibly for replacing with suitable material for embankment, if necessary.
5. It is anticipated that there will be excess suitable embankment material from Zone 3 and that the excess will be stockpiled at the north end of Zone 3 for use in Zone 4 embankment. Otherwise, a place would need to be found to dispose of this excess material, estimated to be approximately 300,000 bank cubic yards (BCY).
6. If the phyllite material that is encountered is unsuitable for embankment, then suitable material will need to be identified for embankment and a location for disposal of the unsuitable phyllite identified.

2.5 CONTINGENCY FACTOR CONSIDERATIONS

When developing the project contingency, many factors should be taken into consideration either individually or in combination with others to fully assess and develop an appropriate project contingency. Below are some of the issues that have been identified for consideration.

The level of design development and the risks to the project with respect to cost and schedule have a significant impact on the contingency factor for a project. Other factors, such as the size of project, the duration of the project, environmental impacts, and public scrutiny and/or opposition, also affect the contingency factor.

This independent contractor based cost estimate for the project does not address the risks associated with Zones 1, 2, and 3. Those risks are:

1. Anticipated cost growth during the construction due to change orders,

2. The level of geotechnical information currently available for non-bridge locations. More geotechnical investigation work along the alignment would be useful to clearly understand the character of the materials to be excavated and subsurface conditions,
3. The accuracy of the LIDAR survey through existing tree canopy, where applicable,
4. The requirements necessary for rockbolting, and
5. The bonding capability of contractors for a job this large.

2.6 SUGGESTIONS FOR ZONES 1, 2, AND 3

The following are suggestions for the Zones 1, 2, and 3 project:

1. The separate work bridge bid items shown on the Bid Schedule included with this report are for clarity only and not recommended as separate bid items in an actual bid situation.
2. Coordinate logistics (potential quarry, dock, and construction camp availability during project) with Coeur Alaska and Goldbelt Inc.
3. Break this project zone grouping into several projects. It would likely generate more competition because more contractors could potentially bid it and local contractors familiar with AKDOT procedures and practices may be able to provide lower bid prices.
4. A suggested zone construction sequence could be as follows:
 - Zone 1 – Start from the south end of Zone 1 and work north so that a construction camp would not be necessary. However, materials necessary for road embankment in Zone 2 would need to be stockpiled for later use, if another source cannot be identified for use from Zone 2 in Zone 2.
 - Zone 3 – Start from the north end of Zone 3 and work south so that a Contractor would need to use the existing Comet facilities, provided by AKDOT & PF for Contractor use, as a construction camp for the workforce, thereby reducing overall camp costs.
 - Zone 2 – Once Zones 1 and 3 are completed; construct Zone 2 road embankment and bridges. Access will be generally good from Juneau and a construction camp may not be necessary.
 - Lay AC pavement under separate contract after all the Zones 1, 2, and 3 roadway and bridgework are completed.

3 ZONES 4 AND 5

3.1 CONSTRUCTION PROJECT APPROACH

3.1.1 Approach for Zones 4 and 5

Because the design for Zones 4 and 5 is only at the conceptual stage, it was assumed that details similar to those shown on the Zones 1, 2, and 3 bid document drawings would be used for Zones 4 and 5. After a preliminary review of the conceptual design documents, a general project approach was developed to determine how the project might be constructed based on the limited design documents provided by AKDOT & PF.

3.1.2 General Schedule

For project approach and identification of project risk purposes it was assumed that the Zones 4 and 5 project would be awarded and a Notice to Proceed issued no later than the end of March 2009. On-site mobilization would begin on or about April 1, 2009, and would take approximately three months. The projected on-site construction start date would be on or about July 1, 2010, with a completion date of November 30, 2016, making a project duration of approximately 7 1/2 years.

A majority of the construction equipment and permanent materials for the project would likely be delivered by barge from Seattle. The on-site construction activities that begin in 2009 generally do not need permanent materials that would be shipped from Seattle, but require a substantial number of workers in all zones to clear and pioneer roads, excavate rock, create staging areas, and mobilize bridge erection equipment. The construction equipment needed to begin work in 2009 would be rented from Juneau and/or Haines. During the period from June 1, 2009 to April 1, 2010, a portion of the staff would be consumed with project preplanning and permanent materials approval, fabrication, and delivery to Seattle for barge shipment to the project location. For a project this size, the barge services request a minimum notice of approximately eight months to ensure that a contractor would get delivery by the dates needed to support the on-site materials mobilization date of April 2010.

3.1.3 Work Sequence

Beginning the summer of 2009, work would start at one work face the first season of work, after mobilization and construction camp and office setup. Work would begin on three other work faces during the second season. Site cleanup and demobilization would be completed by the end of November 2016. A four-month winter shutdown period from December through March each construction season is figured into the work schedule.

The first season work face would be:

3.1.3.1 Zone 4 roadwork starting from the south end of Zone 4 and working to the north.

1. The first season of work would begin pioneer road operations from approximately STA 1290+00.

2. The second season of work would construct the roadway to near subgrade from approximately STA 1290+00 to STA 1460+00. The cut and fill quantities are closely matched in this section of the roadway.
3. The third through seventh season of work would construct roadway to near subgrade from approximately STA 1460+00 to STA 2200+00. The cut and fill quantities on the mass diagram prepared for the project strongly indicate the need for embankment material for this section and will be constrained by how quickly the material from the tunnel area can be excavated, processed, and transported to the middle and southern sections of Zone 4. This section of roadway would be constructed to a temporary subgrade well below the actual road subgrade to allow construction traffic of materials and equipment to the work face. Once the material at the tunnels can be accessed, it will be transported south, either by barge or truck, to this section for embankment.
4. The next zone of work would construct roadway to near subgrade from approximately STA 1460+00 to STA 1640+00, where there is marginally more embankment than excavation. The subsequent station grouping activities (STA 1640+00 to STA 1800+00, STA 1800+00 to STA 2000+00, and STA 2000 to STA 2200+00) will be temporarily constructed at grades significantly lower than final grade. This is necessary until the material source for embankment, located primarily on the north side of the north tunnel (in the vicinity of STA 2380+00) of this section of the highway, can be accessed to bring back material from the tunnel area. The end of the 2015 and the beginning of the 2016 construction seasons would include bringing the roadway to its final subgrade. AC paving, guardrail, signage, and striping would occur the summer of 2017.
5. The three work faces added during the second season would include:

3.1.3.2 Zone 4 roadwork starting from the north end of Zone 4 working to the south.

1. This second season work would construct the embankment roadway section to subgrade from approximately STA 2609+00 (at south side of Katzehin River) to STA 2520+00 using material from the pioneer road work.
2. The third and fourth season work would construct the road to subgrade from approximately STA 2520+00 to approximately STA 2400+00, the north portal location of the north tunnel.
3. The excess excavated material (the material that is not needed to go south to embank the south end of Zone 4) from the first work section would be transported across the Katzehin River work bridge to begin constructing embankment road in Zone 5 from north side of Katzehin River at STA 2629+00 to STA 2772+00, the location of the proposed Katzehin Ferry Terminal at the end of the proposed highway.
4. The tunnels, the North Tunnel from STA 2381+50 to 2377+00 and the South Tunnel from STA 2370+00 to STA 2362+00, would be excavated and lined during the fourth and fifth seasons of work. During the sixth season, the road would be constructed to subgrade from approximately STA 2362+00 to

approximately STA 2200+00, where it would meet up with the roadway work from the south end of the project.

5. The seventh season work would bring the roadway to final subgrade.
6. The AC paving, guardrail, signage, and striping would occur the summer of 2017.

3.1.3.3 Zone 5 Work Bridge at the Katzehin River.

1. Permanent materials would be mobilized to the north side of the Katzehin River delta at the beginning of the second work season. The Katzehin River Bridge would begin construction from the north abutment heading south.
2. Once the Katzehin River Bridge is completed, it can be used as a haul road for materials to be embanked north of the bridge in Zone 5, towards the end of the third work season.

3.1.3.4 Zone 4 “STA 1740 Cliffs” bridge.

1. Work would begin on possibly the most difficult bridge on the project. In the vicinity of STA 1734+00, a 400-lineal-foot heavy duty bridge over the water and around a vertical rock face will be constructed from an anchored barge. Permanent materials would be mobilized to Comet near the south end of Zone 4 and then reloaded on a smaller barge to be delivered to the work site at the beginning of the second work season.
2. This bridge would be completed during the third work season.
3. This bridge needs to be constructed to gain access to the roadway work between this bridge and the South Tunnel. It needs to be completed before the roadway work heading up from the south reaches this location, because there is no way around the bridge location within the ROW of work.

The small bridge work, 23 individual bridges, would typically lag the roadwork by approximately one season in most instances, but up to two years in mid-Zone 4 due to the number of bridges that need to be constructed in that area. The quantity of MSE wall construction in the middle and north sections of Zone 4 will likely slow normal road construction progress.

3.1.4 Construction Camps and Offices

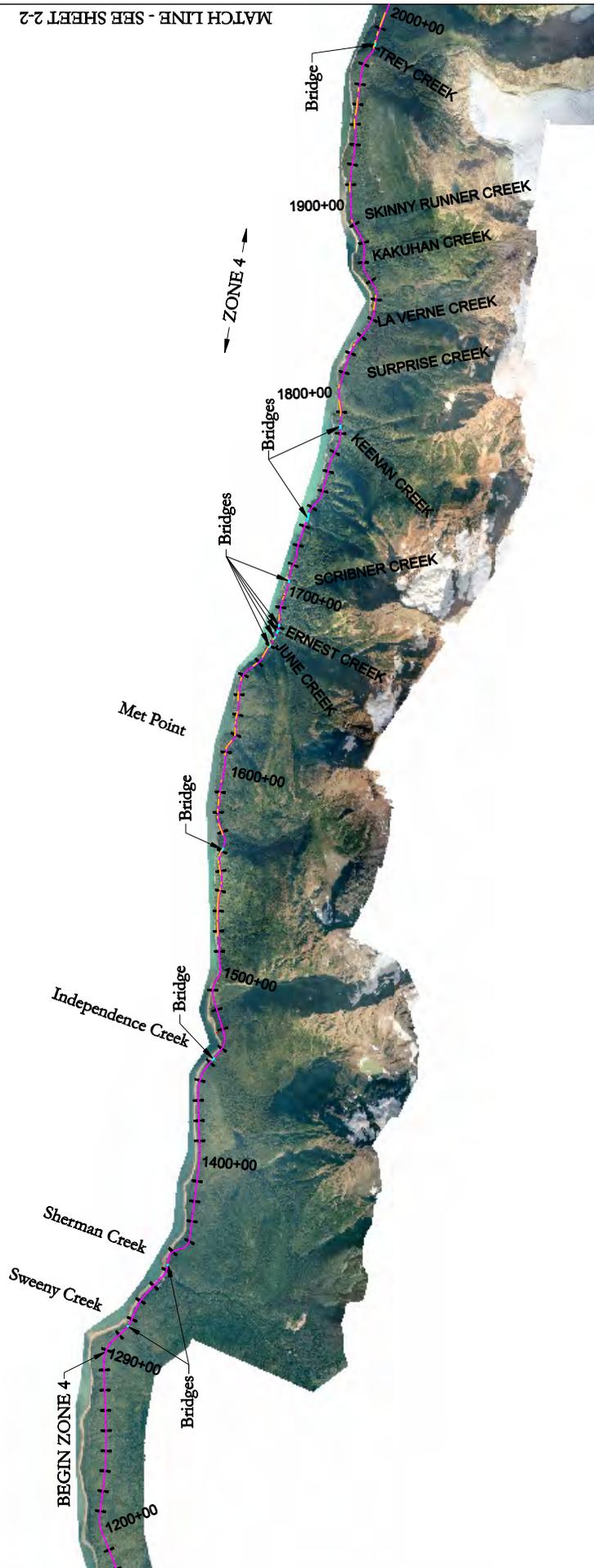
The range of the number of staff and construction workers projected for the project varies between approximately 100 and 220 persons. It is estimated that approximately 45 to 110 staff and construction workers would be required for roadway and bridge work at the south and middle sections of Zone 4. The number of staff and construction workers for Zone 5 and the north section of Zone 4 is estimated to be approximately 60 to 130 persons.

The south Zone 4 work would be supported from the construction camp, supplemented by a floating camp (as required), and offices located in the Comet area (between Sweeny Creek and Sherman Creek). The construction camp could be supported from Juneau, once the road reaches the camp from Sweeny Creek. However, it would be approximately

65 miles one way from Juneau, a distance that could be prohibitive to drive daily if workers are on a six 10s work schedule.

The workforce on the north end of the project would live in Haines, Alaska, and be transported by boat to the north end of the project each day. A construction office would be located in Haines. Minimal field office facilities, emergency housing, and substantial maintenance capabilities, would be located on the north and/or south side of the Katzehin River, as required, to support field construction activities.

JNU-LYNN CANAL HIGHWAY
SWEENEY CREEK to KATZEHIN FERRY TERMINAL



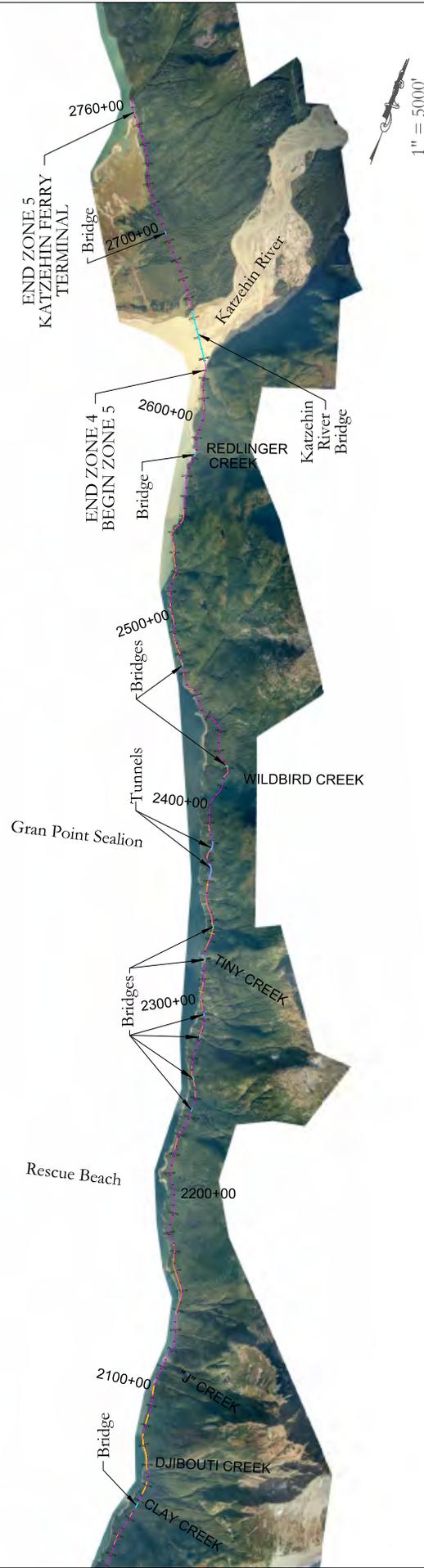
JUNEAU ACCESS HIGHWAY
INDEPENDENT COST ESTIMATE
EXHIBIT 2

SCALE 1" = 5000'
 DATE 04/27/2009
 SUBJECT 1-2

This Page Intentionally Left Blank

JNU-LYNN CANAL HIGHWAY
SWEENEY CREEK to KATZEHIN FERRY TERMINAL

MATCH LINE - SEE SHEET 1-2



JUNEAU ACCESS HIGHWAY
INDEPENDENT COST ESTIMATE
EXHIBIT 2

SCALE 1" = 5000'
DATE 04/27/2009
SUBSET 2-2

This Page Intentionally Left Blank

3.1.5 Avalanche Mitigation

Avalanche season, typically from November to April each winter, would encroach on the construction work. All but minimal construction activity would be shut down from December through March, four months each year and maybe longer since the current roadway alignment is located at higher elevation and affected by winter conditions for a longer period of time, due to snow and colder weather that would slow production rates, thereby increasing the costs and risks to the project. Therefore, the periods a month before and a month after the planned shutdown during avalanche season would need to be addressed with avalanche forecasting and mitigation measures, to include snow removal after a minor avalanche event. It is assumed that avalanches will not cause damage to the roadway and bridge work that is completed at the time they occur.

3.1.6 General Fuel Distribution

The fueling operation would consist of the following elements:

1. The most likely scenario for providing fuel to the south Zone 4 area would be to barge the fuel into Comet Camp. A backup option for providing fuel to south Zone 4 roadway and bridgework would be by road from Juneau, by truck tanker, with some possible smaller fuel tank storage at construction locations.
2. For Zone 5 and north Zone 4 roadway and bridge work, fuel would be provided either by fuel tanks on a barge or by a land-based tank farm. Fuel trucks would shuttle fuel from the larger fuel tanks near the shore to the construction equipment and possibly smaller fuel storage tanks at construction locations, maintenance shops, and field office facilities.

3.2 ZONES 4 AND 5 ASSUMPTIONS

The following section outlines the assumptions that were made for the Zones 4 and 5 project roadway work and bridge work.

3.2.1 Roadway Assumptions

1. AKDOT & PF will work with the contractor to make minor grade and alignment adjustments where such adjustments would benefit the construction of the roadway.
2. The structural plate arch culverts will be easily oriented and placed in the locations where they are to be placed.
3. It was determined during the estimating for Zones 1, 2, and 3 that there will likely be a surplus of material from Zone 3 that can be used for embankment construction in Zone 4. The surplus is estimated to be approximately 300,000 cubic yards and it will be stockpiled from the Zones 1, 2, and 3 project for use on the south end of Zone 4.
4. Not all design features needed to address avalanche hazards have been developed for the current alignment of the roadway.
5. Concrete facing panels for the MSE walls, to be used at locations that are at Elevation 50 and below, will be cast on site instead of cast off site and delivered to the jobsite by barge from Seattle.

6. Excavation through talus zones will be similar to those through other rock conditions and that no slope stabilization measures will be required for installation of the roadway and/or MSE walls.
7. The tunnels will be lined with a minimum 8-inch thick concrete liner with temperature steel. No tunnel waterproofing measures will be provided.

3.2.2 Bridge Assumptions

1. The access to bridge sites varies. Some require road construction, including fills, to access the site. Others are over steep channels with limited access at both ends. Many of the bridges cannot be accessed until after major road work has been completed.
2. Guidelines for bridge foundation type were used based on the e-mail information provided by AKDOT & PF, dated April 10, 2009. It identified which bridges would require piles and which would require shallow foundations or possibly both.
3. Because the bridges would be located in steep mountainside channels, debris fields, and avalanche zones, the State will assume responsibility for repair of damage to any bridge or portion of a bridge during the life of the construction project.
4. The protection of work zones must be a major consideration in rock fall areas. Work zone protection such as rockbolting, scaling, and other measures that are needed to protect the crews and the bridges would be compensated for by AKDOT.
5. Some bridge locations will require special consideration for delivery of materials because of several factors, such as how much room is available to turn trucks around.

3.3 RISKS FOR ZONES 4 AND 5

The following risks were determined for the Zones 4 and 5 projects:

1. The uncertainty of the roadwork in Zone 4 talus areas is a very significant project cost risk. Bridge work through talus areas, especially in Zone 4, has the potential for significant cost and schedule impacts. MSE wall work through talus areas, especially in Zone 4, could potentially have significant cost and schedule impacts. The work required to stabilize the talus slope areas adequately to allow excavation for roadway and/or MSE walls varies based on actual conditions, and the engineering solutions are not known at this time.
2. The use of structural plate arch culverts may not be viable options in most of Zone 4 due to the exceedingly steep cross-slope, possibly requiring more expensive drainage structures.
3. Debris flow mitigation structures are not defined and, in many cases, they may need to be placed well above the highway in order to be effective, thereby increasing the cost of installation.
4. The cost and time associated with seasonal debris flow and damage to roads and bridges caused by avalanches during construction is a project risk. It should be clarified as to who is responsible for this risk to the project.
5. The cost and time associated with avalanche control measures to minimize or avoid damage to roads and bridges during the seasonal avalanche season is a project risk.

6. The safety of the work zone will be an issue. The contractor will need to work outside of the 150-foot zone from the road centerline to address geological and avalanche hazards.
7. Mitigation measures for potential rockfall areas next to the road and bridges could occur well outside of the ROW.
8. The potential need for covered roadway structures to protect sections of roadway or bridges could present significant cost and schedule issues for the project and were not considered for the project approach.
9. Strike, dip, and jointing of rock will affect how the rock breaks during controlled blasting and may increase the amount of rock quantity for the project.
10. Loss of rock during initial benching operations may go beyond the ROW limits, and the rock may be cost prohibitive to retrieve. Cost to retain the shot rock is also significant. Further information is needed to address this issue.
11. The sea lion haul-out area at Gran Point may have a substantial impact on tunnel and rock excavation operations in its vicinity. Specifications will need to be written to address specifically this particular area, which coincides with tunnel excavation, steep rock excavations, and tall (up to approximately 70 feet high) MSE wall construction.
12. “STA 1740 Cliffs” bridge construction offers significant risk in foundation design and protection of the permanent bridge from falling rock from adjacent cliffs.

3.4 CONTINGENCY FACTOR CONSIDERATIONS

The level of design development and the risks to the project with respect to cost and schedule have a significant impact on the contingency factor for a project. Other factors such as size of a project, duration of a project, environmental impacts, and public scrutiny and/or opposition, also affect the contingency factor.

The limited design information developed at this point creates the need for a larger project contingency for zone grouping.

The risks associated with Zones 4 and 5 include the following:

1. The areas where the roadway traverses talus slopes,
2. The lack of sufficient geotechnical investigation work along the alignment to address the actual ground conditions,
3. Debris flow, rock falls, and avalanche damage to the roadway and bridges during construction of the projects,
4. Safety during construction activities along rockfall and avalanche areas,
5. The tunnel work,
6. The accuracy of the LIDAR survey through the existing tree canopy, where applicable,
7. The requirements necessary for rockbolting,

8. The ability of a vibratory hammer to drive 24-inch and 48-inch pipe piles for bridge foundations at the Katzehin River, and
9. The bonding capability of contractors for a job this large.

3.5 SUGGESTIONS FOR ZONES 4 AND 5

1. Award contract at least one year ahead of intended construction project start so that planning, coordination, and barge business capacity can accommodate the demand for a project of this scale. Crawley Marine indicated that it would not be able to support this project for this coming summer (2009) due to 16 barge shipments heading to Prudhoe Bay.
2. Design a single longer tunnel (approximately 2,500 lineal feet) that combines both the North and South Tunnels. This approach would eliminate the need for the MSE wall in between. It would still be possible to get sufficient excavated material from south end of the tunnel for embankment locations in middle and south end of Zone 4.
3. Another option would be to decrease the length of the South Tunnel from 800 feet to 450 feet and increase length of the North Tunnel from 450 feet to 800 feet so that borrowed material necessary for the middle and southern portion of Zone 4 will be easier to move to the locations where it is needed. Currently, the bulk of the material is north of the North Tunnel, making it much more costly and logistically difficult to get south across the two tunnels and the draw between the tunnels, which requires that a 65-foot-high MSE wall be built.
4. Modify road alignment in the middle and south end of Zone 4 to better balance the cut and fill in this area within two- to three-mile work zones and to find a way to reduce the area of MSE walls.
5. Be proactive with mitigation of rockfall and avalanche areas well outside the ROW, which ends 150 feet from the road centerline. Being proactive will hopefully reduce the number of road closures during the duration of the construction project.
6. Break this project zone grouping into several projects. It would likely generate more competition because more contractors could potentially bid it and local contractors familiar with AKDOT procedures and practices may be able to provide lower bid prices.
7. A suggested sequence of work might consist of the following:
 - a. Due to the similar topography of the section of road between Sweeny Creek and Independence Creek being more like Zone 3 than Zone 4, add this section to Zone 3. This revision would also help balance the overage in excavated material from Zone 3. This work could be supported from Juneau and with the AKDOT & PF Comet Camp.
 - b. Construct Zone 5 and either get embankment material for the roadway for Zone 5 from a Zone 5 source or add an appropriate amount of the north end of Zone 4 to the project which would provide the necessary source of material for the Zone 5 embankment. This project could be supported from Haines without a construction camp.

- c. Build a section of highway, 5-miles or less, north of Independence Creek in Zone 4 as a pilot project to learn how to adequately design and gain experience with construction techniques before tackling the rest of the Zone 4 highway. The section of roadway in Zone 4 from Independence Creek to the Katzehin River is the most difficult section of roadway on the entire five zones of the project.
- d. With experience gained from the previous item, devise a strategy for breaking the rest of Zone 4 into smaller pieces that make sense for the project.
- e. Lay AC pavement under separate contract after all the Zones 4 and 5 roadway, tunnel, and bridgework are completed.

This page left blank on purpose

4 APPENDIX - COSTS

ATTACHMENT E

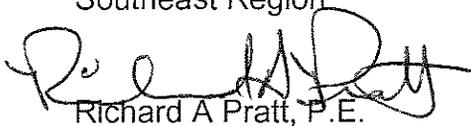
DOT&PF BRIDGE COST ANALYSIS MEMORANDUM

MEMORANDUM

State of Alaska

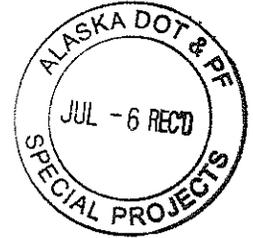
Department of Transportation & Public Facilities
Statewide Design & Engineering Services Division /Bridge Section

TO: Reuben Yost
Project Manager
Southeast Region

FROM: 
Richard A Pratt, P.E.
Chief Bridge Engineer

DATE: June 30, 2009

BRIDGE NO: 2162-2171
TELEPHONE NO: 465-2975
FAX NUMBER: 465-6947
TEXT: 465-3652
TELEPHONE:



CONTACT: Elmer E. Marx, P.E.
907-465-6941
elmer.marx@alaska.gov

RE: Lynn Canal Highway /
Juneau Access Road
Zones 1, 2 and 3

SUBJECT: Pay Item 501(7) Precast
Concrete Member cost
estimate

The Alaska DOT&PF Bridge Section prepares plans, specifications and cost estimates (PS&E) for bridge related projects throughout the state. The Bridge Section has a complete collection of the historic unit bid price data for bridge projects. Bridge cost data from previously constructed projects are one of the primary tools used to estimate future bridge construction costs. Like most other projects in the State, the bridge construction cost estimate for the Lynn Canal Highway project was prepared using the historic bridge cost bid data.

The Lynn Canal Highway project has been experiencing construction delays. We have been updating the bridge construction cost estimate on an annual basis. The bridge construction cost estimate for the project was last updated in March 2009 using the historic bridge cost data up to and including the 2008 construction season.

On May 19, 2009, we received the Draft Final Report for the *Juneau Access Improvements Project* prepared by FHWA Western Federal Lands Highway Division and David Evans and Associates, Inc. The report provides an Independent Cost Estimate (ICE) that may be used for comparison to the project cost estimate prepared by the Department. According the report authors, the ICE was prepared from a contractor's perspective rather than a historic unit bid price approach. The contractor-based cost data was summarized in the standard Department bid format – that is, in the standard bid tab format with unit bid prices for each pay item. By presenting the project cost in this manner, it allows us to compare the ICE values directly to our historic unit price bid tab data.

We have reviewed the bridge related pay items presented ICE. In general, the bridge related unit bid prices presented in the ICE are within reasonable limits of the historic bid tab data. However, the precast concrete member pay item 501(7), the decked bulb tee girders, is about 40% greater than we would expect to see for this project.

"Providing for the safe movement of people and goods and the delivery of state services."

Consistent with FHWA requirements, we collect and retain the bid tab data for the three low project bidders. We have summarized the bid tab data for the last five years of decked bulb tee girder bridges (including recently awarded projects for the 2009 construction season) on the following sheet. This data represents 32 bridges located throughout the state. In our office, we estimate the girder cost as a function of girder weight. The unit cost of the girders has been inflated to reflect 2009 dollars. Please note that the precast concrete member pay item includes all material and labor to fabricate, transport, and install the decked bulb tee girders.

Based upon a statistical analysis of the historic bid tab data, the average unit cost of the girders is about \$0.49 per pound with a standard deviation of about \$0.13 per pound. For a normal bell curve distribution, we would expect current girder bid prices to be between \$0.36 and \$0.62 per pound about 68% of the time – one standard deviation to either side of the average value – and in fact, 68% of the values are within this range.

In preparing the bridge portion of the Engineer's Cost Estimate, we used a unit cost of \$0.45 per pound which is about \$0.04 per pound less than the average. We believe that this value is appropriate considering past bid history and the large number of girders (about 250) that will be purchased as part of this project. In general, projects that contained a larger number of girders resulted in lower unit girder cost. For example, the adjusted unit bid price for the Dayville Road Project (bridge numbers 1203-1208 on the following sheet) was about \$0.34 per pound. Our observation has been that larger construction projects are often more competitively bid than smaller projects and that projects with more girders experience some "economy of scale." The Lynn Canal Highway project is both large and includes a large number of bridge girders.

The ICE report assumes a value of about \$0.63 per pound of precast girder. Based upon the statistical analysis, we expect that the girder cost would be less than \$0.63 per pound about 84% of the time (i.e., 16% of the time the girder cost would be higher). In fact, of the five years of adjusted historic bridge tab data, the ICE value was exceeded only 12% of the time. Although the ICE value falls within the statistical limits of the historic bid tab data, we believe that it is too high for this project.

In preparing the bridge cost estimate, we aim for the low bidder to be lower than our cost estimate and the second low bidder to be higher than our estimate. In a competitive bid situation, using a value of \$0.63 per pound for the precast concrete members would likely result in our cost estimate being higher than the second low bidder.

The precast girder costs are a large portion of the total bridge cost for this project. The bridge cost estimate is sensitive to changes in this pay item. As presented, the ICE bridge cost estimate includes about \$24.7M for the precast girders. The Department's cost estimate includes about \$17.8M for the precast girders. The total bridge cost estimate presented in the ICE is about 24% than the Department's estimate. If the ICE precast girder costs were assumed to be \$0.45 per pound (the Department's value) then the difference between the ICE bridge cost and the Department's bridge cost estimate is reduced to about 10% which is a reasonable value for comparison purposes.

Please do not hesitate to contact Elmer if you have any questions.

EEM/bm

501(7) DECKED BULB-TEE COST SUMMARY

BRIDGE NAME	GIRDER		YEAR	LOW (\$/EA)	2nd (\$/EA)	3rd (\$/EA)	LOW (\$/LBS)	2nd (\$/LBS)	3rd (\$/LBS)	TIME ADJUSTED		
	AREA	LENGTH								WEIGHT	LOW (2009-\$/LBS)	2nd (2009-\$/LBS)
1 Eielson Ramps #2133	7.1625	119.0000	132,965	2004	65,000	61,000	0.49	0.45	0.46	0.55	0.51	0.52
2 C St. U.C. - EB #2081	7.0064	110.2231	120,474	2004	35,000	50,000	0.29	0.29	0.42	0.33	0.33	0.47
3 C St U.C. - WB #2082	7.0064	110.2231	120,474	2004	35,000	50,000	0.29	0.29	0.42	0.33	0.33	0.47
4 Sinona Ck. #648	6.4959	90.0000	91,202	2004	30,000	31,000	0.33	0.38	0.34	0.37	0.43	0.38
5 Christochina River #649	6.9959	113.3333	123,687	2004	40,000	44,000	0.32	0.35	0.36	0.37	0.39	0.40
6 Boston Ck. #2098	7.7698	114.1667	138,380	2004	55,000	58,825	0.40	0.40	0.43	0.45	0.45	0.48
7 Granite Ck. #2099	7.2698	74.1667	84,112	2004	55,000	41,066	0.65	0.48	0.49	0.74	0.54	0.55
8 Solomon Gulch #1203	6.6417	125.0000	129,513	2004	55,000	35,000	0.42	0.39	0.27	0.48	0.44	0.31
9 Abercrombie Ck. #1204	6.5793	125.0000	128,296	2004	35,000	35,000	0.27	0.31	0.27	0.31	0.35	0.31
10 No Name Ck. #1205	6.5793	125.0000	128,296	2004	35,000	35,000	0.27	0.31	0.27	0.31	0.35	0.31
11 Lowe River Main #1207	6.5793	125.0000	128,296	2004	35,000	35,000	0.27	0.31	0.27	0.31	0.35	0.31
12 Lowe River N Ch. #1208	6.5793	125.0000	128,296	2004	35,000	35,000	0.27	0.31	0.27	0.31	0.35	0.31
13 Summit R.R. O.C. #2084	6.9331	140.0000	151,419	2005	70,000	60,000	0.46	0.33	0.40	0.51	0.36	0.44
14 Rex R.R. O.H. #1993	6.6000	69.7500	71,815	2005	50,000	45,000	0.70	0.70	0.63	0.77	0.77	0.69
15 Indian River # 865	7.0270	141.5000	155,114	2005	82,500	112,000	0.53	0.72	0.63	0.59	0.80	0.42
16 Clearwater Ck. #2102	7.3345	103.9635	118,953	2005	60,323	65,000	0.51	0.55	0.38	0.56	0.60	0.42
17 Slana Ck. #655	7.0167	120.1667	131,535	2005	66,000	50,000	0.50	0.46	0.38	0.55	0.50	0.42
18 Mable Ck. #656	7.0167	120.1667	131,535	2005	66,000	50,000	0.50	0.46	0.38	0.55	0.50	0.42
19 Washington Ck. #838	7.1625	144.6667	161,643	2006	100,000	85,000	0.62	0.53	0.53	0.67	0.57	0.57
20 Hicks Ck. #547	6.9432	118.1102	127,930	2006	55,277	55,555	0.43	0.43	0.48	0.47	0.47	0.51
21 Stariski Ck. #667	7.8290	129.1667	157,754	2006	90,000	71,100	0.57	0.47	0.45	0.61	0.51	0.49
22 Sunny Pt. Dr. U.C.-NB	7.0270	58.5000	64,128	2006	27,000	30,000	0.42	0.47	0.45	0.45	0.50	
23 Sunny Pt. Dr. U.C.-SB	7.0270	58.5000	64,128	2006	27,000	30,000	0.42	0.47	0.45	0.45	0.50	
24 W Lemon Valley U.C. NB	6.5897	119.5000	122,845	2006	60,000	50,000	0.49	0.41	0.44	0.53	0.44	
25 W Lemon Valley U.C. SB	6.5897	119.5000	122,845	2006	60,000	50,000	0.49	0.41	0.44	0.53	0.44	
26 Julius Ck. #317	6.8291	84.0000	89,489	2006	55,000	47,000	0.61	0.45	0.53	0.66	0.48	0.57
27 Ohmer Ck. #388	7.0480	113.1667	124,425	2006	65,297	60,000	0.52	0.48	0.88	0.57	0.52	0.95
28 California Ck. #1027	6.3501	79.0000	78,259	2007	40,000	35,000	0.51	0.58	0.45	0.54	0.60	0.47
29 South Channel #1386	7.3657	136.2500	156,558	2007	55,000	104,323	0.35	0.64	0.67	0.37	0.67	0.70
30 Dawson Rd. U.C. #2147	7.6417	129.9792	154,949	2007	70,000	65,000	0.45	0.44	0.42	0.47	0.46	0.44
31 Gakona River #646	6.9959	110.5000	120,595	2009	80,000	69,000	0.66	0.55	0.57	0.66	0.55	0.57
32 Tanana River #505	6.9335	148.3750	160,486	2009	114,000	80,000	0.71	0.59	0.50	0.71	0.59	0.50

Average adjusted cost (three low bidders)= \$0.49 per pound
Standard Deviation = \$0.13 per pound

APPENDIX A.2

Juneau Access Improvements Financial Plan 2007 Annual Update

This Page Intentionally Left Blank

STATE OF ALASKA

SARAH PALIN, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SOUTHEAST REGIONAL DIRECTOR'S OFFICE

PO Box 112506
JUNEAU, AK 99801-7996

PHONE: (907) 465-1763
TTY/TDD: (907) 465-4647
FAX: (907) 465-2016

October 29, 2007

Mr. David C. Miller
Division Administrator
US Department of Transportation
Federal Highway Administration
Alaska Division
PO Box 21648
Juneau, AK 99802

Re: Juneau Access Improvements Financial Plan Update

Dear Mr. Miller,

Enclosed is the 2007 Annual Financial Plan Update (Update) for the Juneau Access Improvements project. The Update was prepared in accordance with the most recent Federal Highway Administration Financial Plan Guidance.

As I explained in my July 25, 2007 letter, this Update is effective September 30, 2007 to coincide with the federal fiscal year. Future updates will be submitted at this time each year.

Sincerely,
DOT & PF-Southeast Region



Malcolm A. Menzies, P.E., L.S.
Regional Director

s/m

encl:

cc: Jack Beedle, PE, Preconstruction Engineer
Reuben Yost, Special Projects Manager

"Providing for the movement of people and goods and the delivery of state services"

**Juneau Access Improvements
Financial Plan
2007 Annual Update
October 2007**

**State Project No.: 71100
Federal Project Number: STP-000S(131)**

Table of Contents

Introduction

Project Description
Project Timeline

Financial Plan Update Sections

1. Cost Estimate
2. Implementation Plan
3. Financing and Revenues
4. Cash Flow
5. Risk Identification and Mitigation Factors

Attachments

Attachment A – Updated Engineer’s Estimate

Attachment B – Updated Engineer’s Estimate – Unit Price Analysis

Attachment C – Updated Zone Locations and Mile Points

Attachment D – 2006-2009 STIP Amendment 13 Need ID 19214

Attachment E – 2006-2009 STIP Amendment 13 Need ID 18359

Attachment F – Financial Plan Update Letter of Certification

Introduction:

This Financial Plan – 2007 Annual Update (Update) is prepared by the Alaska Department of Transportation and Public Facilities (DOT&PF) to satisfy the Project Financial Plan Requirement for \$100-500 million projects established in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The 2006 Initial Financial Plan was prepared in accordance with the May 2000 Federal Highway Administration (FHWA) Financial Plan Guidance and the December 8, 2005 FHWA Memorandum titled “Project Financial Plan Requirements under SAFETEA-LU”. This Update is prepared in accordance with the March 22, 2007 Guidance (2007 Guidance) which superseded the May 2000 Guidance and the December 8, 2005 Memorandum. This Update is in effect for the 2008 Federal Fiscal Year (FFY), October 1, 2007 to September 30, 2008.

Project Description

The April 2006 FHWA Record of Decision (ROD) for the Juneau Access Improvements Project selected Alternative 2B, East Lynn Canal Highway to Katzehin with shuttles to Haines and Skagway, as the proposed action. This alternative will construct a 50.8 mile highway from the end of Glacier highway at Echo Cove around Berners Bay to Katzehin, construct a ferry terminal at the end of the new highway, and run shuttle ferries to both Haines and Skagway from the Katzehin Ferry Terminal.

Project Timeline

An Environmental Impact Statement (EIS) was prepared for the project to satisfy the requirements of the National Environmental Policy Act (NEPA). A Draft EIS was issued in June 1997. A Supplemental Draft EIS was released in January 2005. The Final EIS was released in January 2006. The FHWA issued a ROD on April 3, 2006. A notice of final federal agency actions was published in the Federal Register on April 27, 2006.

The FHWA ROD and the US Department of Agriculture Forest Service (USFS) non-objection to right of way appropriation were challenged in the United States District Court for the District of Alaska by Southeast Alaska Conservation Council, et al. on August 16, 2006. The Project Administrative Record (AR) was filed with the Court on January 29, 2007. After the AR was

filed, all parties agreed to a briefing schedule. Subsequent to establishing a briefing schedule the plaintiffs filed a motion to vacate the briefing schedule until after the required Corps of Engineers (COE) permit is issued and filed a motion to add numerous documents to the AR. On the schedule vacation motion, the Court ruled that briefing on the merits of the case would begin 45 days after the AR issue is resolved. The final brief on the AR was filed July 2, 2007; the Court has yet to rule on the AR motion. Briefing on the merits of the overall complaint will last approximately 150 days, therefore a decision is unlikely before January 2008.

DOT&PF submitted a COE permit application on March 3, 2006. Although the COE was a cooperating agency during preparation of the EIS, it has yet to reach a permit decision. DOT&PF continues to respond to COE questions and currently a permit is expected by the end of 2007. After the permit is received, legal action against the COE is possible, and a request for a temporary injunction by the plaintiffs in the current litigation is likely.

For the purpose of this Update construction is anticipated to begin in Spring of 2008 with completion of the last construction segment in 2020.

1. Cost Estimate

As part of the Final EIS, an Engineer's Estimate and Engineer's Estimate-Unit Price Analysis were prepared for Alternative 2B. These documents were included in the Initial Financial Plan. The Engineers Estimate was based on LIDAR aerial survey data and alignment plan and profile information from the Final EIS Technical Alignment Report.

This Update incorporates the following new information:

- May 2006 Zones 1 through 3 Final Design line and grade adjustments with updated quantities and typical sections as advertised for Project 68937, JNU-Lynn Canal Highway, Echo Cove to Sweeny Creek
- Project 68937, Lynn Canal Highway, Echo Cove to Antler River, Compilation of Bids November 22, 2006 (18 foot wide pioneer road with temporary work bridges)
- Project 68937, Lynn Canal Highway, Echo Cove to Antler River, Compilation of Bids November 24, 2006 (18 foot wide pioneer road without Berners Bay work bridges)

- DOT&PF Lynn Canal Highway Bridge Piles, Materials Supply Contract, December 2006
- DOT&PF Lynn Canal Highway Concrete Girders Materials Supply Contract, December 2006
- DOT&PF Lynn Canal Highway Steel Culverts Materials Supply Contract, December 2006
- Lynn Canal Highway, Phase I, Zone 4 Geotechnical Investigation dated December 2006.
- Zone 4 Preliminary line and grade adjustments with updated quantities and typical sections, May 2007
- 2006-2009 Statewide Transportation Improvement Program (STIP) Amendment #13 (Major), June 2007

In May 2006 DOT&PF advertised for bids to construct a 23 mile section of the Lynn Canal Highway. DOT&PF received approval from FHWA to advertise the project with the agreement that bid proposals would not be opened nor the project awarded until all agency permits were in hand. At the time of that agreement DOT&PF anticipated the remaining permits would be issued by July 2006 which meant field work could begin in the fall. The COE permitting process had several delays such that in August 2006 a permit did not appear imminent. With increasing concern that the 2006 construction season would be lost, Governor Murkowski directed the scope of the first construction project be changed from a full width roadway to a pioneer road. The narrower pioneer road was to be state funded so that permits would not be required to open bids and have the project awarded. The pioneer road contract was awarded in late November under Governor Murkowski's outgoing administration but newly elected Governor Palin ordered the contract terminated shortly after taking office, with direction to advertise the project as a full width facility after a permit is issued. Modifying the scope of the project was a radical change to contracting process, but the bids received gave DOT&PF information as to how contractors perceived the work and a better estimate of what it would cost in the current market.

Also in December 2006 DOT&PF requested and received proposals to furnish materials for three major components of the 23 mile segment. These components were Bridge Piles, Steel Culverts, and Concrete Girders. All three materials supply contracts were awarded although the Concrete Girders contract was terminated for convenience after the award.

The Initial Financial Plan estimate breakdown for Alternative 2B, for costs incurring after the ROD, were as follows:

Highway Design Engineering	\$ 8,000,000
Mitigation	3,000,000
ROW Acquisition	45,000
Highway ICAP	7,183,000
Highway Construction Engineering & Inspection	12,374,000
Highway Contingencies	11,457,000
Avalanche CIP	2,670,000
Maintenance Building	1,000,000
Highway Construction	143,215,000
Katzehin Ferry Terminal	15,700,000
Vessel Construction	53,000,000
SUBTOTAL	\$ 257,644,000
Additional Contingency & Rounding	356,000
INITIAL ESTIMATED COMPLETION COST	\$ 258,000,000

As stated in the Final EIS, the total project cost, including the \$15 million for Preliminary Design, was estimated at \$273 million.

The current updated estimate for Alternative 2B, for costs to be incurred after September 30, 2007 is as follows:

Highway Design Engineering	\$ 14,400,000
Mitigation	1,603,000
ROW Acquisition	1,500,000
Highway ICAP	11,495,000
Highway Construction Engineering & Inspection	13,334,000
Avalanche CIP	3,000,000
Maintenance Building	1,000,000
Highway Construction	222,228,000
Katzehin Ferry Terminal	16,000,000
Vessel Design & Construction	65,000,000
SUBTOTAL	\$ 349,560,000
Rounding	440,000
2007 ESTIMATED COMPLETION COST	\$ 350,000,000

Total project costs, including approximately \$24 million spent to date for Preliminary Design and Final Design, are now estimated at \$374 million.

2. Implementation Plan

In order to facilitate project development the total project was initially broken into 5 zones plus the new shuttle ferries. For this Update the Zone 3 ending point and Zone 4 starting point are changed to reflect current project development plans. This reduces the length of Zone 3 (with a corresponding decrease in cost) and increases the length of Zone 4.

The Initial Zone Descriptions were:

Zone 1: Echo Cove to Antler Slough
 Zone 2: Berners Bay Crossing

Update Zone Descriptions are:

Zone 1: Echo Cove to Antler Slough
 Zone 2: Berners Bay Crossing

Zone 3: Lace River to Independence Lake
 Zone 4: Independence Lake to Katzehin River
 Zone 5: Katzehin River to Katzehin Ferry
 Terminal

Zone 3: Lace River to Sweeny Creek
 Zone 4: Sweeny Creek to Katzehin River
 Zone 5: Katzehin River to Katzehin Ferry
 Terminal

The location and mile points for each Zone are shown on Attachment C. The Initial cost estimates and Update for constructing each zone are:

<u>Zone</u>	<u>Initial Financial Plan</u>	<u>2007 Update</u>
Zone 1	\$ 20,000,000	\$ 29,440,000
Zone 2	32,000,000	50,170,000
Zone 3	25,000,000	21,600,000
Zone 4*	80,000,000	127,000,000
Zone 5 Highway	21,000,000	24,360,000
Zone 5 Ferry Terminal	16,000,000	16,000,000
Shuttle Ferries	53,000,000	65,000,000
Total Construction	\$ 247,000,000	\$ 333,570,000
Preliminary Engineering, Mitigation & Rounding	11,000,000	16,430,000
Total Cost to Complete Estimate	\$ 258,000,000	\$ 350,000,000

*2007 Zone 4 Update includes \$1.5 million for right-of-way acquisition at Comet, \$1 million for a maintenance building and rest stop to be constructed at Comet, and \$3 million for avalanche program capital costs.

The Initial and Updated estimated advertising year and construction completion year for each zone are:

<u>Initial Financial Plan</u>			<u>2007 Update</u>	
Zone	Advertising Year	Construction Completion Year	Advertising Year	Construction Completion Year
Zone 1	2006	2008	2008	2010
Zone 2	2006	2008	2008	2010
Zone 3	2006	2008	2008	2010
Zone 4A	2007	2010	2011	2013
Zone 4B	NA	NA	2014	2017
Zone 5 Highway	2007	2010	2018	2020
Zone 5 Terminal	2008	2010	2018	2020
1 st Shuttle Ferry	2006	2010	2010	2011
2 nd Shuttle ferry	NA	NA	2018	2019

Note: Zone 4 is shown in two parts for funding purposes as explained below. If this zone is advertised as two separate projects, the actual length of each segment will be determined during final design, based upon available funding and material volumes.

3. Financing and Revenues

The Initial Financial Plan relied on the Funding Considerations section (Section 2.5, pages 2-26 to 2-28) of the Final EIS for financing information, as no funding changes had occurred between release of the Final EIS and submittal of the Initial Financial Plan to FHWA. The 2006-2008 Final Statewide Transportation Improvement Program (STIP) approved in February 2006 contained essentially the same funding information as the Final EIS with regard to the years covered by the STIP.

Both the Final EIS and the Final 2006-2008 STIP anticipated a \$45 million Alaska General Fund (GF) appropriation, separate from state match for federal funds, from the Alaska Legislature for the 2007 state fiscal year. This appropriation ultimately was approved, however prior to its enactment DOT&PF submitted an Authorization for Advance Construction (AC) in order to use

\$88.3 million in federal aid to advertise a construction project from Echo Cove to Sweeny Creek, as explained earlier in this Update. The AC funding request approved by FHWA in May 2006 identified the \$88.3 million would come from the following funding sources: \$13.6 million, project specific federal earmark (HPRL); \$26.5 million, National Highway System (NHS) funding; and \$48.2 Section 144 Bridge (144M) funding. The approved construction funding was in addition to an approved funding request for \$8 million for final design.

The AC funding approval combined with the design funding approval represented two changes to the anticipated funding scenario portrayed in the Final EIS and Initial Financial Plan. First, the AC estimate did not include use of the \$45 million GF appropriation for the first construction project, as those funds were not yet available (although the use of these funds for part of the AC payback was not precluded). Second, a correspondingly higher amount of NHS funds (\$34.5 million rather than \$15 million) was identified for use on the project. As described below, the current plan for highway and terminal financing as documented in the 2006-2009 STIP returns to the plan in the Final EIS to the extent possible by incorporating the GF amount appropriated in the 2007 State Capital Budget.

The 2006-2009 STIP Amendment 13 Juneau Access entry, Need ID 19214 Glacier Highway MP 40.5-91.1 (Attachment D), shows no project funding for highway design or construction in FFY 07. Pre-existing design funds were sufficient to cover the limited amount of design, permit application, and litigation support effort that occurred during the remainder of FFY 07. The current construction funds programmed are sufficient to advertise a project as soon as a COE permit is issued. No construction funds were actually expended in FFY07, therefore AC conversion (ACC, also know as payback) will not begin until FFY08 at the earliest. The STIP shows \$16 million in design funds for FFY08, consisting of \$11.5 million in earmarked federal funds (including state match) and \$4.5 million from the \$45 million 2006 state GF appropriation.

DOT&PF programmed approximately \$23.5 million of the GF funds for project material purchases, with \$9.2 million under contract for culverts and bridge piling. The remaining funds from the 2006 GF appropriation, combined with most of a \$5 million 2005 GF appropriation, will be used to provide \$21.3 million in ACC. Section 144M Bridge funds will provide \$34 million in ACC during 08 and 09, and the federal aid earmark will provide \$2.3 million in ACC in 09. Assuming a project is advertised using the \$88.3 million AC approval, all but \$30.7 million of the AC amount will be converted by the end of FFY09. State furnished materials will be

incorporated into the project as state matching funds (SM); the un-obligated \$14.3 million in state funds programmed for material purchase can be used to fund construction or be used as AC payback. The total funding available for Zones 1-3 construction is \$111.8 million; if the contract amount matches the \$101.2 million estimate, an additional \$10.6 million will be available for ACC.

The Final EIS estimated that two new shuttles for the selected alternative (in addition to the M/V Aurora) would cost \$53 million and the Katzehin terminal would cost \$16 million (in 2005 dollars). The 2006-2008 STIP reflected this with a separate AMHS Need ID (#19215); showing \$5 million available for design in FFY 2008. In May 2006 AMHS began the design of a shuttle ferry that could be used as a day boat in Southeast Alaska, including Lynn Canal as an interim measure, until needed as the Katzehin-Haines shuttle. The preliminary design for the Southeast Shuttle Ferry Project was begun under the AMHS Construct/Lease/Purchase Ferryboats & Terminals (Need ID 18359) funding in the 2006-2008 STIP. Because the vessel will be designed to be capable of use throughout Southeast and may be constructed before it is needed as the Katzehin-Haines shuttle, the 2006-2009 STIP shows the shuttle funding under the AMHS Need ID 18359 (Attachment E) rather than under a separate Juneau Access Need ID. This is consistent with AMHS' general practice of designing vessels for maximum utility and reflects the fact (as explained in the Final EIS) that NEPA documents project likely AMHS operations, but do not dictate them. Because this vessel will ultimately be used as part of the Lynn Canal Highway system, its cost and funding are included in this Update regardless of its separate STIP Need ID.

Based on the new project estimate in Section 1 of this Update, the remaining cost to complete the project is \$350 million. The 2006-2009 STIP identifies \$73.6 million in state and federal aid funds for the highway and terminal, and \$8.5 million for shuttle ferries. Combined with the \$23.5 million in funds programmed for state purchased materials, there is a total of \$105.6 million in identified funding. This leaves a balance of approximately \$244.4 million that will be identified in future STIPs after 2009.

The Final EIS and the Initial Financial Plan envisioned the use of approximately \$111 million of USC Section 218) (Shakwak or SHAK) funds for the construction of the project: \$57 million for the highway; \$16 million for the Katzehin terminal; and \$38 million for shuttles. The current Shakwak balance was exhausted by September 30, 2007, however future Shakwak funds may

become available. At this point DOT&PF is not relying on Shakwak as a funding source for the project. The \$244.4 million additional funds required for the project must now come from FFY 2010 and beyond Surface Transportation Program (STP) and other STP-like flexible funds (FF), Section 144M Bridge, Ferry Boat Discretionary (FBDA), and State GF funds.

The Final EIS identified \$7.5 million in additional expected state GF appropriations in 2008 and 2009; with the 2006-2008 STIP showing an anticipated \$3.6 million in 2008. The 2006-2009 STIP does not show additional GF funds anticipated in 2008 or 2009. This reflects that the project is delayed by both litigation and permitting and not all GF funds already appropriated have been used. While future state funds other than match for federal aid are not assured, it is reasonable to assume the state would continue to supplement the federal aid funding for the project, providing \$20 million (in 2007 dollars) spread over the construction period. Given the amount of the state's projected 2009 federal aid program for highways and ferries of approximately \$375 million (2006-2009 STIP Intro page 22), the unpredictability of significant increases in the federal aid program after 2009, and the absence of a state highway program to rehabilitate existing highways, the Department at this time can commit a minimum of \$20 million per year (2007 dollars) to the project from the regular program after 2009. With this level of funding, completion of the project will not occur until 2020, as detailed in the Implementation Plan in Section 2 of this Update.

Sufficient funding is available for construction of Zones 1-3 as soon as permits are issued. Construction of Zones 1, 2, and the first half of Zone 3 will provide access to the dock at Slate Cove. As explained in the Final EIS, DOT&PF may provide interim ferry service from Slate Cove to Haines and Skagway while waiting for funding and construction to proceed to the Katzehin terminal.

Shuttle design and construction will require approximately \$65 million. The design of the first vessel will be completed in late 2008 or early 2009 with currently available funds. The AMHS has indicated it would like to have this vessel for use as a Southeast shuttle including interim Lynn Canal service, therefore construction of the first new shuttle may begin as early as 2010, depending on funding availability. If a new shuttle is not available at the time construction reaches Slate Cove, an existing ferry, likely the M/V Malaspina, can be used for the interim service.

Project Financing Summary (in millions of 2007 \$)

Funds Available for Additional Design:

STIP HPRL*	\$10.5		* highway and ferry terminal
STIP OSF*	4.5		
STIP SM	2.6		
STIP FBDA**	6.6		**shuttle ferry
STIP SHAK**	0.3	Total \$24.5	

Funds Available for Construction:

AC approval	\$88.3	
State materials	23.5	Total \$111.8

AC Conversion:

STIP 144M	\$34.0	
STIP HPRL	2.3	
STIP OSF	21.3	
Post 09 144M	18.1	
Post 09 NHS	9.8	
Post 09 SM	2.8	Total \$88.3

Funds to Complete Project (For Cost to Complete of \$350):

Current STIP Funds	\$82.1
Current Other State GF	23.5
Future State GF	20.0
Future FBDA	45.0
Future 114M	67.5
Future STP & FF	111.9

4. Cash Flow

Section 3 of this Update provides funding information for completion of all design and construction of Zones 1-3, with more than sufficient funds to cover costs. The cost to complete highway design and mitigation is estimated at \$16 million in 2007 dollars; there is \$16 million provided in the STIP in FFY 08. The design cost for shuttles is now estimated at \$6.5 million (10% of total cost); the STIP provides \$7 million in FFY 07 with an additional \$1.4 million available in later years. The cost estimate for Zones 1-3 (which will be advertised in 2008), is \$101.2 million; the available funding including AC is \$111.8 million, with all but \$30.7 million of

the required ACC coming from 2006-2009 STIP or state GF monies. Based on the funding flow described below, this remaining AC would be converted during FFY 2010 and 2011.

Future construction projects will be advertised to coincide with anticipated future funding. As stated above, STIP federal aid funding is anticipated to be available at the rate of \$20 million (\$3.5 M 144M, \$6.5 M FBDA, \$10 M STP, in 2007 dollars) per year from 2010 to mid-2021, with state GF funds averaging \$1.7 million per year during the same period. At this rate, assuming STIP and GF totals increase at the same rate as the inflation in construction costs (estimated at 4-5 percent long term), the first half of Zone 4 can be constructed in 2011-2013, the remainder of Zone 4 in 2014-2017, and Zone 5 and the Katzehin terminal can be constructed in 2018-2020. This represents a moderate use of AC, based on ACC during and immediately after construction. Construction of the second shuttle can occur at the end of the construction schedule, assuming the first shuttle is constructed during 2010-2011 for use as an interim Southeast vessel.

<u>Construction Schedule</u>			<u>ACC Schedule</u>	
Zone and 2007 Cost in millions	Advertising Year	Construction Completion Year	Beginning FFY	Completion FFY
Zone 1 29.4	2008	2010	2008	2008
Zone 2 50.2	2008	2010	2008	2010
Zone 3 21.6	2008	2010	2010	2011
Zone 4A 63.5	2011	2013	2011	2014
Zone 4B 63.5	2014	2017	2015	2019
Zone 5* 40.4	2018	2020	2019	2021
1 st Shuttle 45.6	2010	2011	2010	2017
2 nd Shuttle 12.9	2018	2019	2018	2020

*including ferry terminal

5. Risk Identification and Mitigation Factors

Several factors could negatively affect completion of the project by changing the funding plan. These include cost increases, funding shortfalls, and competition from other major projects. Also, potential funding increases could shorten the completion schedule.

Potential Cost Increases

With the design of Zones 1 through 3 complete, and the cost estimate based on recent unit bid prices, the risk with these construction projects is that delay could cause costs to inflate beyond the funds available (approximately \$112 million). A delay greater than two years would increase costs beyond the available funds even if inflation is at the estimated long term rate of 4-5 percent rather than the higher inflation experienced in the past two years. The potential for delay is fairly high, given the litigation on the FHWA and USFS actions and the possibility of a preliminary injunction once a COE permit is issued. A higher contract price for any of the Zones 1 to 3 projects would require additional use of funds from beyond 2009, which would delay the Zone 4 projects.

The risk of construction cost increases exceeding the rate of increases in project funding is greatest for the two Zone 4 projects. In addition to being further out in years, which could make differences between construction costs and general inflation greater, Zone 4 has the highest potential for cost increases during design due to possible further geotechnical considerations. The design for Zone 4 is still preliminary; changes have been made to the existing preliminary design based upon the geotechnical information to date, however subsurface investigations will need to be conducted and could cause further upward revisions to the estimate during final design. Conversely, better geotechnical information may lead to alignment changes that reduce quantities of excavation and/or embankment, reducing cost estimates.

The preliminary design for Zone 4 has been based on meeting all applicable design standards. During final design of Zone 4, potential increases in construction costs due to difficulty avoiding expensive stabilization techniques may be minimized by location specific design exceptions as well as other design-to-available-funding measures.

Potential Funding Shortfalls

The construction funding plan for Zones 1 through 3 includes the use of materials already purchased: culverts and bridge pilings. The original decision to order these materials was based in part on the concept that these materials could be used on other state projects if delay on this project became too great. The 2007 State capital appropriations bill reflected this by amending \$9.2 million of the original \$45 million to read "Statewide: Road and Bridge Construction Materials". If sufficient delay occurs on the project (no deadline has been set) the Commissioner (current or future) may decide to allocate up to \$9.2 million of materials to other projects. If this were to happen the Juneau Access project would need to replace those materials with other funds, potentially delaying the project further.

Funding for Zones 4 and 5, as well as the shuttle ferries is dependant on future STIPs, which in turn will rely on future federal aid legislation. While it is reasonable to assume that Alaska will continue to receive a similar level of STP and other formula funds (in fact the 2007 Guidance recommends this assumption), future transportation bills may not keep up with the rate of inflation, and/or they may not provide Alaska the same proportional funding. If funding in the years after 2009 is lower than the 2009 baseline of \$375 million, adjusted for inflation, this project, as well as other projects in the state, would be constructed at a slower pace unless additional state funds are made available.

The yearly amounts of 144M, FBDA, and STP funds projected to be allocated to the project, while not inconsequential, would not place too much strain on the state's highway and vessel rehabilitation program. The \$3.5 million per year 144M allocation represents a third of the state's anticipated funds in this category, but is less than a tenth of all bridge funds. The \$6.5 million per year from FBDA represent two thirds of the Alaska set-a-side for this category, however other funds such as Shakwak and/or FTA New Start funds may become available for vessel construction. Also, the AMHS may decide to use more than one existing vessel as a shuttle in the Lynn Canal Highway system, reducing the initial capital outlay required. The \$10 million per year from STP represents less than one sixth of these funds, and may be supplemented by Transportation Enhancement (TE) funds for pullouts, trailheads and rest stops to be included in the project design.

Potential Funding Increases

The anticipated federal funding described in this Update is based on the current Highway Trust Fund situation, with construction costs escalating while federal gas tax revenues lag behind. Up to the present there has not been a consensus in Congress on how to address this issue, so large increases in federal aid have not seemed likely. Current events have led to increased discussion by key members of Congress on the need to raise the federal gas tax to address inflation. A significant increase in federal transportation funding appropriated for state use would enable DOT&PF to commit a greater level of funding to the project, thereby shortening the time to complete construction.

Potential Major Project Competition

The two other large projects requiring construction funds, the Gravina Access Project and the Knik Arm Bridge, have already been allocated the full amount of federal aid shown in their spending plans. Gravina's spending plan relied on supplemental state general funds, however the Governor has indicated the state cannot provide these funds and has directed DOT&PF to identify a lower cost solution. Knik Arm's spending plan relies on private investment. Neither of these projects should be in competition for future funds from the state's federal aid program.

The Glenn Highway to Seward Highway Connection is a major project with the potential to compete for future federal aid funds. This project is currently in the reconnaissance phase, with the 2006-09 STIP showing a post 2009 cost of \$712 million. If this project proceeds through the environmental phase and goes to construction, it may require funds during the same time period as that outlined for the Juneau Access project. The Highway to Highway Connection would be eligible for AMATS Roadway funds as well as NHS funds. Although the Juneau Access project is eligible for NHS funds, the funding plan does not rely on NHS construction funds in order to reduce the likelihood of competition from major NHS upgrade projects.

This Update is based on a conservative estimate of the financial resources DOT&PF will have at its disposal during the next decade. The project completion schedule has been lengthened considerably to be in concert with this conservative financial outlook. The state and/or federal transportation funding situations may change in the near future. Future Financial Plan Updates

will not only revisit costs estimates but will assess the likelihood of greater or lesser levels of project funding.

ATTACHMENT A

UPDATED ENGINEER'S ESTIMATE

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, FULL BUILDOUT Complete 2007 Estimate, Echo to Katz Terminal	AKSAS No.: 71100 Federal No.: Version ID: 12032 Printed: 10/4/2007 10:10:56 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	470	Acre	6,500.00	3,055,000.00
201 (1B)	Clearing - Zones 2,3 & 5	162	Acre	5,000.00	810,000.00
201 (6)	Selective Tree Removal	350	Each	300.00	105,000.00
202 (4)	Removal of Culvert Pipe	530	Linear Foot	10.00	5,300.00
203 (2a)	Rock Excavation, General	5,225,300	Cubic Yard	7.00	36,577,100.00
203 (2b)	Rock Excavation, Station 437+00 to 555+00	742,700	Cubic Yard	10.00	7,427,000.00
203 (3)	Unclassified Excavation	1,752,300	Cubic Yard	4.00	7,009,200.00
203 (5)	Borrow	242,500	Cubic Yard	4.00	970,000.00
203 (10)	Controlled Blasting	414,100	Square Yard	15.00	6,211,500.00
203 (12)	Drain Holes	11,000	Linear Foot	3.00	33,000.00
203 (13a)	15-foot Rock Bolt	110	Each	2,500.00	275,000.00
203 (13b)	25-foot Rock Bolt	110	Each	3,500.00	385,000.00
203 (19)	Barrier Rocks	4,000	Linear Foot	5.00	20,000.00
205 (3)	Foundation Fill	7,261	Cubic Yard	15.00	108,915.00
306(1)	Asphalt Treated Base	103,525	Ton	35.00	3,623,375.00
401 (1)	Asphalt Concrete, Type II; Class B	109,390	Ton	40.00	4,375,600.00
401 (2)	Asphalt Cement, Grade 58-28	11,242	Ton	625.00	7,026,250.00
402 (1)	STE-1 Asphalt for Tack Coat	257	Ton	625.00	160,625.00
501 (1)	Class A Concrete	All required	Lump Sum	6,475,922.00	6,475,922.00
501 (2)	Class A-A Concrete	All required	Lump Sum	850,440.00	850,440.00
501 (7A)	Precast Concrete Member (128' Decked Bulb Tee)	18	Each	64,000.00	1,152,000.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	228	Each	70,000.00	15,960,000.00

Prepared By: Hakari	Checked By: J. Beedle	10/3/2007	Page 1 of 4
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, FULL BUILDOUT Complete 2007 Estimate, Echo to Katz Terminal	AKSAS No.: 71100 Federal No.: Version ID: 12032 Printed: 10/4/2007 10:10:56 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
501 (7C)	Precast Concrete Member (118' Decked Bulb Tee)	6	Each	60,000.00	360,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (11)	Precast Concrete Headwall	14	Each	2,000.00	28,000.00
501 (12)	Beaver Slough Bridge - Complete	All required	Lump Sum	1,000,000.00	1,000,000.00
501 (13)	Zone 4 Bridges	2,000	Linear Foot	5,000.00	10,000,000.00
501 (14)	Katzehin R. Bridge	2,730	Linear Foot	6,600.00	18,018,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	2,842,856.00	2,842,856.00
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	1,049,967.00	1,049,967.00
501 (9)	Screening Structure	9,800	Linear Foot	135.00	1,323,000.00
505 (5)	Furnish Structural Steel Pipe Piles - 24 in dia	7,246	Linear Foot	110.00	797,060.00
505 (5A)	Furnish Structural Steel Piles - HP14X117	788	Linear Foot	71.00	55,948.00
505 (5C)	Furnish Structural Steel Pipe Piles - 48 in dia	15,462	Linear Foot	520.00	8,040,240.00
505 (6A)	Drive Structural Steel Piles - HP14X117	6	Each	6,000.00	36,000.00
505 (6B)	Drive Structural Steel Pipe Piles - 24 in dia	66	Each	7,500.00	495,000.00
505 (6C)	Drive Structural Steel Pipe Piles - 48 in dia	111	Each	25,000.00	2,775,000.00
501 (9)	Bridge Expansion Joint	726	Linear Foot	1,000.00	726,000.00
507 (1)	Steel Bridge Railing	3,048	Linear Foot	150.00	457,200.00
507 (6)	Safety Railing	1,553	Linear Foot	3.00	4,659.00
511 (1)	Mechanically Stabilized Earth Wall	878,306	Square Foot	35.00	30,740,710.00
602 (3A)	Structural Plate Arch 20' Span, 8'3 1/2" Rise, 7 Gage	1,300	Linear Foot	2,000.00	2,600,000.00
602 (3B)	Structural Plate Arch 35' 4" Span, 11' 5' Rise, 7 Gage	202	Linear Foot	3,500.00	707,000.00
603 (17-24)	24 Inch Pipe	26,877	Linear Foot	80.00	2,150,160.00
603 (17-36)	36 Inch Pipe	15,852	Linear Foot	140.00	2,219,280.00
603 (17-48)	48 Inch Pipe	3,924	Linear Foot	190.00	745,560.00
603 (17-60)	60 Inch Pipe	1,774	Linear Foot	290.00	514,460.00

Prepared By: Hakari	Checked By: J. Beedle	10/3/2007	Page 2 of 4
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, FULL BUILDOUT Complete 2007 Estimate, Echo to Katz Terminal	AKSAS No.: 71100 Federal No.: Version ID: 12032 Printed: 10/4/2007 10:10:56 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
603 (17-72)	72 Inch Pipe	814	Linear Foot	350.00	284,900.00
603 (17-144)	144 Inch Pipe	370	Linear Foot	750.00	277,500.00
606 (1)	W-beam Guardrail	101,700	Linear Foot	25.00	2,542,500.00
606 (11)	Extruder Terminal (ET-2000)	142	Each	2,500.00	355,000.00
606 (12)	Guardrail/bridge Rail Connection	36	Each	2,000.00	72,000.00
610 (3)	Ditch Lining	25	Station	750.00	18,750.00
611 (1A)	Riprap, Class II	4,385	Cubic Yard	10.00	43,850.00
611 (1B)	Riprap, Class IV	187,500	Cubic Yard	8.00	1,500,000.00
611 (3)	Riprap Slope Stabilization	3,222	Square Yard	10.00	32,220.00
614 (1a)	Monumentation with case	198	Each	500.00	99,000.00
615 (1)	Standard Sign	4,072	Square Foot	50.00	203,600.00
618 (1)	Seeding	212	Acre	2,000.00	424,000.00
619 (2)	Matting	59,000	Square Yard	2.00	118,000.00
630 (1)	Geotextile, Separation	178,800	Square Yard	2.00	357,600.00
631 (2)	Geotextile, Erosion Control, Class 1	4,240	Square Yard	2.00	8,480.00
633 (1)	Silt Fence	74,500	Linear Foot	3.65	271,925.00
637 (1)	Reinforced Soil Slope	500	Square Foot	20.00	10,000.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	20,500,000.00	20,500,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	85,000.00	85,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	850,000.00	850,000.00
641 (5)	Preliminary Seeding	47	Acre	2,000.00	94,000.00
641 (6)	Temporary Rock Check Dam	540	Each	50.00	27,000.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
641 (8)	Settling Pool	8	Each	500.00	4,000.00
642 (1)	Construction Surveying	All required	Lump Sum	1,450,000.00	1,450,000.00

Prepared By: Hakari	Checked By: J. Beedle	10/3/2007	Page 3 of 4
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, FULL BUILDOUT Complete 2007 Estimate, Echo to Katz Terminal	AKSAS No.: 71100 Federal No.: Version ID: 12032 Printed: 10/4/2007 10:10:56 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
642 (3)	Three Person Survey Party	700	Hour	250.00	175,000.00
644 (1)	Field Office	3	Each	25,000.00	75,000.00
644 (2)	Field Laboratory	3	Each	25,000.00	75,000.00
644 (3)	Curing Shed	All required	Lump Sum	5,000.00	5,000.00
644 (4)	Meal	All required	Contingent Sum	800,000.00	800,000.00
644 (5)	Lodging	All required	Contingent Sum	600,000.00	600,000.00
644 (8a)	Vehicle, 4X4 SUV	216	Each/Month	400.00	86,400.00
644 (8b)	Vehicle, 4X4 ATV	288	Each/Month	150.00	43,200.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	75,000.00	75,000.00
644 (16)	Storage Container	All required	Lump Sum	15,000.00	15,000.00
645 (1)	Training Program, 2 Trainees/Apprentices	3,000	Labor Hour	10.00	30,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	50,000.00	50,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	267,000.00	267,000.00
PROJECT Summary	Pay Items:	85 Items		Subtotal:	222,228,252.00
	Construction Engineering (Percentage)	6%		CENG Subtotal	13,333,695.12
	Indirect Cost Allocation Plan (ICAP)	4.88 %			11,495,423.02
	TOTAL PARTICIPATING				247,057,370.14
	ADDED COSTS (Not part of the Contract)				
	PROJECT TOTAL				247,057,370.14

Prepared By: Hakari	Checked By: J. Beedle	10/3/2007	Page 4 of 4
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT	AKSAS No.: 68519 Federal No.: Version ID: 8363 Printed: 10/4/2007 9:45:01 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	150	Acre	6,500.00	975,000.00
201 (6)	Selective Tree Removal	150	Each	300.00	45,000.00
202 (4)	Removal of Culvert Pipe	530	Linear Foot	10.00	5,300.00
203 (2a)	Rock Excavation, General	466,400	Cubic Yard	7.00	3,264,800.00
203 (2b)	Rock Excavation, Station 437+00 to 555+00	742,700	Cubic Yard	10.00	7,427,000.00
203 (3)	Unclassified Excavation	132,100	Cubic Yard	4.00	528,400.00
203 (10)	Controlled Blasting	80,000	Square Yard	15.00	1,200,000.00
203 (12)	Drain Holes	6,000	Linear Foot	3.00	18,000.00
203 (13a)	15-foot Rock Bolt	60	Each	2,500.00	150,000.00
203 (13b)	25-foot Rock Bolt	60	Each	3,500.00	210,000.00
205 (3)	Foundation Fill	1,911	Cubic Yard	15.00	28,665.00
306(1)	Asphalt Treated Base	23,500	Ton	35.00	822,500.00
401 (1)	Asphalt Concrete, Type II; Class B	24,260	Ton	40.00	970,400.00
401 (2)	Asphalt Cement, Grade 58-28	2,517	Ton	625.00	1,573,125.00
402 (1)	STE-1 Asphalt for Tack Coat	59	Ton	625.00	36,875.00
501 (1)	Class A Concrete	All required	Lump Sum	321,362.00	321,362.00
501 (2)	Class A-A Concrete	All required	Lump Sum	117,300.00	117,300.00
501 (7A)	Precast Concrete Member (128' Decked Bulb Tee)	12	Each	64,000.00	768,000.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	6	Each	70,000.00	420,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (11)	Precast Concrete Headwall	5	Each	2,000.00	10,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	156,590.00	156,590.00

Prepared By: Hakari	Checked By: J. Beedle	10/2/2007	Page 1 of 4
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT	AKSAS No.: 68519 Federal No.: Version ID: 8363 Printed: 10/4/2007 9:45:01 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	103,448.25	103,448.25
505 (5)	Furnish Structural Steel Pipe Piles - 24 in dia	1,656	Linear Foot	110.00	182,160.00
505 (6)	Drive Structural Steel Pipe Piles - 24 in dia	24	Each	7,500.00	180,000.00
507 (1)	Steel Bridge Railing	1,048	Linear Foot	150.00	157,200.00
507 (6)	Safety Railing	1,553	Linear Foot	3.00	4,659.00
511 (1)	Mechanically Stabilized Earth Wall	22,306	Square Foot	35.00	780,710.00
602 (3A)	Structural Plate Arch 20' Span, 8'3 1/2" Rise, 7 Gage	50	Linear Foot	2,000.00	100,000.00
602 (3B)	Structural Plate Arch 35' 4" Span, 11' 5' Rise, 7 Gage	52	Linear Foot	3,500.00	182,000.00
603 (17-24)	24 Inch Pipe	5,097	Linear Foot	80.00	407,760.00
603 (17-36)	36 Inch Pipe	2,704	Linear Foot	140.00	378,560.00
603 (17-48)	48 Inch Pipe	874	Linear Foot	190.00	166,060.00
603 (17-60)	60 Inch Pipe	324	Linear Foot	290.00	93,960.00
603 (17-72)	72 Inch Pipe	114	Linear Foot	350.00	39,900.00
603 (17-144)	144 Inch Pipe	120	Linear Foot	750.00	90,000.00
606 (1)	W-beam Guardrail	1,800	Linear Foot	25.00	45,000.00
606 (11)	Extruder Terminal (ET-2000)	12	Each	2,500.00	30,000.00
606 (12)	Guardrail/bridge Rail Connection	12	Each	2,000.00	24,000.00
611 (1A)	Riprap, Class II	1,385	Cubic Yard	10.00	13,850.00
611 (3)	Riprap Slope Stabilization	1,716	Square Yard	10.00	17,160.00
615 (1)	Standard Sign	880	Square Foot	50.00	44,000.00
618 (1)	Seeding	50	Acre	2,000.00	100,000.00
619 (2)	Matting	1,000	Square Yard	2.00	2,000.00
630 (1)	Geotextile, Separation	2,000	Square Yard	2.00	4,000.00
631 (2)	Geotextile, Erosion Control, Class 1	1,240	Square Yard	2.00	2,480.00
633 (1)	Silt Fence	5,000	Linear Foot	3.65	18,250.00

Prepared By: Hakari	Checked By: J. Beedle	10/2/2007	Page 2 of 4
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT	AKSAS No.: 68519 Federal No.: Version ID: 8363 Printed: 10/4/2007 9:45:01 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
637 (1)	Reinforced Soil Slope	500	Square Foot	20.00	10,000.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	2,500,000.00	2,500,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	10,000.00	10,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	150,000.00	150,000.00
641 (5)	Preliminary Seeding	25	Acre	2,000.00	50,000.00
641 (6)	Temporary Rock Check Dam	171	Each	50.00	8,550.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
641 (8)	Settling Pool	2	Each	500.00	1,000.00
642 (1)	Construction Surveying	All required	Lump Sum	500,000.00	500,000.00
642 (3)	Three Person Survey Party	450	Hour	250.00	112,500.00
644 (1)	Field Office	1	Each	25,000.00	25,000.00
644 (2)	Field Laboratory	1	Each	25,000.00	25,000.00
644 (3)	Curing Shed	All required	Lump Sum	5,000.00	5,000.00
644 (4)	Meal	All required	Contingent Sum	400,000.00	400,000.00
644 (5)	Lodging	All required	Contingent Sum	300,000.00	300,000.00
644 (8a)	Vehicle, 4X4 SUV	108	Each/Month	400.00	43,200.00
644 (8b)	Vehicle, 4X4 ATV	144	Each/Month	150.00	21,600.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	25,000.00	25,000.00
644 (16)	Storage Container	All required	Lump Sum	5,000.00	5,000.00
645 (1)	Training Program, 2 Trainees/Apprentices	1,000	Labor Hour	10.00	10,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	10,000.00	10,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	55,000.00	55,000.00
PROJECT Summary	Pay Items:	69 Items		Subtotal:	26,482,324.25
	Construction Engineering (Percentage)	6%		CENG Subtotal	1,588,939.46 28,071,263.71
	Indirect Cost Allocation Plan (ICAP)	4.88 %			1,369,877.67
	TOTAL PARTICIPATING				29,441,141.38
	ADDED COSTS (Not part of the Contract)				

Prepared By: Hakari	Checked By: J. Beedle	10/2/2007	Page 3 of 4
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, ECHO COVE TO ANTLER RIVER, FULL BUILDOUT	AKSAS No.: 68519 Federal No.: Version ID: 8363 Printed: 10/4/2007 9:45:01 AM
--	--	---

Basic Bid

<i>Item Number</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Price</i>	<i>Amount</i>
	PROJECT TOTAL				29,441,141.38

Prepared By: Hakari	Checked By: <i>J. Beedle</i>	10/2/2007	Page 4 of 4
---------------------	------------------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, BERNERS BAY CROSSING FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8422 Printed: 10/4/2007 9:38:44 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	18	Acre	5,000.00	90,000.00
201 (6)	Selective Tree Removal	50	Each	300.00	15,000.00
203 (5)	Borrow	242,500	Cubic Yard	4.00	970,000.00
203 (19)	Barrier Rocks	4,000	Linear Foot	5.00	20,000.00
205 (3)	Foundation Fill	4,050	Cubic Yard	15.00	60,750.00
306(1)	Asphalt Treated Base	2,225	Ton	35.00	77,875.00
401 (1)	Asphalt Concrete, Type II; Class B	4,640	Ton	40.00	185,600.00
401 (2)	Asphalt Cement, Grade 58-28	380	Ton	625.00	237,500.00
402 (1)	STE-1 Asphalt for Tack Coat	12	Ton	625.00	7,500.00
501 (1)	Class A Concrete	All required	Lump Sum	5,928,000.00	5,928,000.00
501 (2)	Class A-A Concrete	All required	Lump Sum	691,740.00	691,740.00
501 (7A)	Precast Concrete Member (128' Decked Bulb Tee)	6	Each	64,000.00	384,000.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	210	Each	70,000.00	14,700,000.00
501 (7C)	Precast Concrete Member (118' Decked Bulb Tee)	6	Each	60,000.00	360,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (12)	Beaver Slough Bridge - Complete	All required	Lump Sum	1,000,000.00	1,000,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	2,585,000.00	2,585,000.00
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	903,375.00	903,375.00
505 (5)	Furnish Structural Steel Pipe Piles - 24 in dia	5,590	Linear Foot	110.00	614,900.00
505 (5C)	Furnish Structural Steel Pipe Piles - 48 in dia	15,162	Linear Foot	520.00	7,884,240.00
505 (6B)	Drive Structural Steel Pipe Piles - 24 in dia	42	Each	7,500.00	315,000.00
505 (6C)	Drive Structural Steel Pipe Piles - 48 in dia	108	Each	25,000.00	2,700,000.00

Prepared By: Hakari	Checked By: J. Beedle	10/2/2007	Page 1 of 3
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, BERNERS BAY CROSSING FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8422 Printed: 10/4/2007 9:38:44 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
501 (9)	Bridge Expansion Joint	726	Linear Foot	1,000.00	726,000.00
507 (1)	Steel Bridge Railing	1,340	Linear Foot	150.00	201,000.00
606 (1)	W-beam Guardrail	2,000	Linear Foot	25.00	50,000.00
606 (11)	Extruder Terminal (ET-2000)	20	Each	2,500.00	50,000.00
606 (12)	Guardrail/bridge Rail Connection	20	Each	2,000.00	40,000.00
611 (1A)	Riprap, Class II	3,000	Cubic Yard	10.00	30,000.00
615 (1)	Standard Sign	176	Square Foot	50.00	8,800.00
618 (1)	Seeding		Acre	2,000.00	0.00
631 (2)	Geotextile, erosion Control, Class 1	3,000	Square Yard	2.00	6,000.00
633 (1)	Silt Fence	2,000	Linear Foot	3.65	7,300.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	4,000,000.00	4,000,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	5,000.00	5,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	50,000.00	50,000.00
641 (5)	Preliminary Seeding		Acre	2,000.00	0.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
642 (1)	Construction Surveying	All required	Lump Sum	100,000.00	100,000.00
642 (3)	Three Person Survey Party	50	Hour	250.00	12,500.00
644 (1)	Field Office	1	Each	25,000.00	25,000.00
644 (2)	Field Laboratory	1	Each	25,000.00	25,000.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	25,000.00	25,000.00
644 (16)	Storage Container	All required	Lump Sum	5,000.00	5,000.00
645 (1)	Training Program, 2 Trainees/Apprentices	1,000	Labor Hour	10.00	10,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	10,000.00	10,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	11,000.00	11,000.00

Prepared By: Hakari	Checked By: J. Beedle	10/2/2007	Page 2 of 3
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, BERNERS BAY CROSSING FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8422 Printed: 10/4/2007 9:38:44 AM
--	---	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
PROJECT Summary	Pay Items:	46 Items		Subtotal:	45,128,080.00
	Construction Engineering (Percentage)	6%		CENG Subtotal	2,707,684.80 47,835,764.80
	Indirect Cost Allocation Plan (ICAP)	4.88 %			2,334,385.32
	TOTAL PARTICIPATING				50,170,150.12
	ADDED COSTS (Not part of the Contract)				
	PROJECT TOTAL				50,170,150.12

Prepared By: Hakari	Checked By: J. Beedle	10/2/2007	Page 3 of 3
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, LACE RIVER TO SWEENEY CREEK FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8162 Printed: 10/4/2007 9:39:32 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	126	Acre	5,000.00	630,000.00
201 (6)	Selective Tree Removal	150	Each	300.00	45,000.00
203 (2a)	Rock Excavation, General	595,600	Cubic Yard	7.00	4,169,200.00
203 (3)	Unclassified Excavation	654,800	Cubic Yard	4.00	2,619,200.00
203 (10)	Controlled Blasting	68,000	Square Yard	15.00	1,020,000.00
203 (12)	Drain Holes	5,000	Linear Foot	3.00	15,000.00
203 (13a)	15-foot Rock Bolt	50	Each	2,500.00	125,000.00
203 (13b)	25-foot Rock Bolt	50	Each	3,500.00	175,000.00
205 (3)	Foundation Fill	1,300	Cubic Yard	15.00	19,500.00
306(1)	Asphalt Treated Base	21,800	Ton	35.00	763,000.00
401 (1)	Asphalt Concrete, Type II; Class B	22,460	Ton	40.00	898,400.00
401 (2)	Asphalt Cement, Grade 58-28	2,335	Ton	625.00	1,459,375.00
402 (1)	STE-1 Asphalt for Tack Coat	54	Ton	625.00	33,750.00
501 (1)	Class A Concrete	All required	Lump Sum	226,560.00	226,560.00
501 (2)	Class A-A Concrete	All required	Lump Sum	41,400.00	41,400.00
501 (7B)	Precast Concrete Member (143' Decked Bulb Tee)	12	Each	70,000.00	840,000.00
501 (8)	Concrete Price Adjustment	All required	Contingent Sum	0.00	0.00
501 (11)	Precast Concrete Headwall	9	Each	2,000.00	18,000.00
503 (1)	Reinforcing Steel	All required	Lump Sum	101,266.00	101,266.00
503 (2)	Epoxy-Coated Reinforcing Steel	All required	Lump Sum	43,143.75	43,143.75
505 (5A)	Furnish Structural Steel Piles - HP14X117	788	Linear Foot	71.00	55,948.00
505 (5C)	Furnish Structural Steel Pipe Piles - 48 in dia	300	Linear Foot	520.00	156,000.00

Prepared By: Hakari	Checked By: J. Beedle	10/2/2007	Page 1 of 3
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, LACE RIVER TO SWEENEY CREEK FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8162 Printed: 10/4/2007 9:39:32 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
505 (6A)	Drive Structural Steel Piles - HP14X117	6	Each	6,000.00	36,000.00
505 (6C)	Drive Structural Steel Pipe Piles - 48 in dia	3	Each	25,000.00	75,000.00
507 (1)	Steel Bridge Railing	660	Linear Foot	150.00	99,000.00
603 (17-24)	24 Inch Pipe	5,780	Linear Foot	80.00	462,400.00
603 (17-36)	36 Inch Pipe	4,608	Linear Foot	140.00	645,120.00
603 (17-48)	48 Inch Pipe	560	Linear Foot	190.00	106,400.00
603 (17-60)	60 Inch Pipe	340	Linear Foot	290.00	98,600.00
603 (17-72)	72 Inch Pipe	390	Linear Foot	350.00	136,500.00
606 (1)	W-beam Guardrail	600	Linear Foot	25.00	15,000.00
606 (11)	Extruder Terminal (ET-2000)	4	Each	2,500.00	10,000.00
606 (12)	Guardrail/bridge Rail Connection	4	Each	2,000.00	8,000.00
610 (3)	Ditch Lining	25	Station	750.00	18,750.00
611 (3)	Riprap Slope Stabilization	1,506	Square Yard	10.00	15,060.00
615 (1)	Standard Sign	816	Square Foot	50.00	40,800.00
618 (1)	Seeding	44	Acre	2,000.00	88,000.00
619 (2)	Matting	58,000	Square Yard	2.00	116,000.00
630 (1)	Geotextile, Separation	128,000	Square Yard	2.00	256,000.00
633 (1)	Silt Fence	50,000	Linear Foot	3.65	182,500.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	2,000,000.00	2,000,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	10,000.00	10,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	250,000.00	250,000.00
641 (5)	Preliminary Seeding	22	Acre	2,000.00	44,000.00
641 (6)	Temporary Rock Check Dam	369	Each	50.00	18,450.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
641 (8)	Settling Pool	6	Each	500.00	3,000.00

Prepared By: Hakari	Checked By: J. Beedle	10/2/2007	Page 2 of 3
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - LYNN CANAL HIGHWAY, LACE RIVER TO SWEENEY CREEK FULL BUILDOUT	AKSAS No.: 68501 Federal No.: Version ID: 8162 Printed: 10/4/2007 9:39:32 AM
--	--	---

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
642 (1)	Construction Surveying	All required	Lump Sum	250,000.00	250,000.00
642 (3)	Three Person Survey Party	200	Hour	250.00	50,000.00
644 (1)	Field Office	1	Each	25,000.00	25,000.00
644 (2)	Field Laboratory	1	Each	25,000.00	25,000.00
644 (4)	Meal	All required	Contingent Sum	400,000.00	400,000.00
644 (5)	Lodging	All required	Contingent Sum	300,000.00	300,000.00
644 (8a)	Vehicle, 4X4 SUV	108	Each/Month	400.00	43,200.00
644 (8b)	Vehicle, 4X4 ATV	144	Each/Month	150.00	21,600.00
644 (15)	Nuclear Testing Equipment Storage Shed	All required	Lump Sum	25,000.00	25,000.00
644 (16)	Storage Container	All required	Lump Sum	5,000.00	5,000.00
645 (1)	Training Program, 2 Trainees/Apprentices	1,000	Labor Hour	10.00	10,000.00
646 (1)	CPM Scheduling	All required	Lump Sum	30,000.00	30,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	51,000.00	51,000.00
PROJECT Summary	Pay Items:	60 Items		Subtotal:	19,425,122.75
	Construction Engineering (Percentage)	6%		CENG Subtotal	1,165,507.37
	Indirect Cost Allocation Plan (ICAP)	4.88 %			20,590,630.12
	TOTAL PARTICIPATING				1,004,822.75
	ADDED COSTS (Not part of the Contract)				
	PROJECT TOTAL				21,595,452.87

Prepared By: Hakari	Checked By: J. Beedle	10/2/2007	Page 3 of 3
---------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - ZONE 4, SWEENEY CK TO KATZ R., FULL BUILDOUT 2007 Preliminary Estimate	AKSAS No.: 68967 Federal No.: Version ID: 11275 Printed: 10/4/2007 9:40:22 AM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	320	Acre	6,500.00	2,080,000.00
203 (2a)	Rock Excavation, General	4,118,500	Cubic Yard	7.00	28,829,500.00
203 (3)	Unclassified Excavation	954,200	Cubic Yard	4.00	3,816,800.00
203 (10)	Controlled Blasting	264,000	Square Yard	15.00	3,960,000.00
306(1)	Asphalt Treated Base	51,850	Ton	35.00	1,814,750.00
401 (1)	Asphalt Concrete, Type II; Class B	52,660	Ton	40.00	2,106,400.00
401 (2)	Asphalt Cement, Grade 58-28	5,500	Ton	625.00	3,437,500.00
402 (1)	STE-1 Asphalt For Tack Coat	120	Ton	625.00	75,000.00
501 (13)	Zone 4 Bridges	2,000	Linear Foot	5,000.00	10,000,000.00
501 (9)	Screening Structure	9,800	Linear Foot	135.00	1,323,000.00
511 (1)	Mechanically Stabilized Earth Wall	856,000	Square Foot	35.00	29,960,000.00
602 (3A)	Structural Plate Arch 20' Span, 8'3 1/2" Rise, 7 Gage	1,250	Linear Foot	2,000.00	2,500,000.00
602 (3B)	Structural Plate Arch 35' 4" Span, 11' 5' Rise, 7 Gage	150	Linear Foot	3,500.00	525,000.00
603 (17-24)	24 Inch Pipe	14,840	Linear Foot	80.00	1,187,200.00
603 (17-36)	36 Inch Pipe	7,930	Linear Foot	140.00	1,110,200.00
603 (17-48)	48 Inch Pipe	2,300	Linear Foot	190.00	437,000.00
603 (17-60)	60 Inch Pipe	990	Linear Foot	290.00	287,100.00
603 (17-72)	72 Inch Pipe	250	Linear Foot	350.00	87,500.00
603 (17-144)	144 Inch Pipe	250	Linear Foot	750.00	187,500.00
606 (1)	W-beam Guardrail	92,200	Linear Foot	25.00	2,305,000.00
606 (11)	Extruder Terminal (ET-2000)	95	Each	2,500.00	237,500.00
611 (1B)	Riprap, Class IV	184,500	Cubic Yard	8.00	1,476,000.00

Prepared By: D. LESTER	Checked By: J. Beedle	10/3/2007	Page 1 of 2
------------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - ZONE 4, SWEENEY CK TO KATZ R., FULL BUILDOUT 2007 Preliminary Estimate	AKSAS No.: 68967 Federal No.: Version ID: 11275 Printed: 10/4/2007 9:40:22 AM
--	---	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
614 (1a)	Monumentation with case	190	Each	500.00	95,000.00
615(1)	Standard Sign	2,000	Square Foot	50.00	100,000.00
618 (1)	Seeding	112	Acre	2,000.00	224,000.00
630 (1)	Geotextile, Separation	46,000	Square Yard	2.00	92,000.00
633 (1)	Silt Fence	15,000	Linear Foot	3.65	54,750.00
640 (1)	Mobilization And Demobilization	All required	Lump Sum	10,000,000.00	10,000,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	50,000.00	50,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	300,000.00	300,000.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
642 (1)	Construction Surveying	All required	Lump Sum	500,000.00	500,000.00
670(1)	Painted Traffic Markings	All required	Lump Sum	125,000.00	125,000.00
PROJECT Summary	Pay Items:	33 Items		Subtotal:	109,283,700.00
	Construction Engineering (Percentage)	6%		CENG Subtotal	6,557,022.00
	Indirect Cost Allocation Plan (ICAP)	4.88 %			5,653,027.23
	TOTAL PARTICIPATING				121,493,749.23
	ADDED COSTS (Not part of the Contract)				
	PROJECT TOTAL				121,493,749.23

Prepared By: D. LESTER	Checked By: J. Beedle	10/3/2007	Page 2 of 2
------------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - ZONE 5, KATZEHIN R TO FERRY TERMINAL, FULL BUILDOUT 2007 Preliminary Estimate	AKSAS No.: 68967 Federal No.: Version ID: 11374 Printed: 10/4/2007 9:41:32 AM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
201 (1A)	Clearing	18	Acre	5,000.00	90,000.00
203 (2a)	Rock Excavation, General	44,800	Cubic Yard	7.00	313,600.00
203 (3)	Unclassified Excavation	11,200	Cubic Yard	4.00	44,800.00
203 (10)	Controlled Blasting	2,100	Square Yard	15.00	31,500.00
306(1)	Asphalt Treated Base	4,150	Ton	35.00	145,250.00
401 (1)	Asphalt Concrete, Type II; Class B	5,370	Ton	40.00	214,800.00
401 (2)	Asphalt Cement, Grade 58-28	510	Ton	625.00	318,750.00
402 (1)	STE-1 Asphalt For Tack Coat	12	Ton	625.00	7,500.00
501 (14)	Katzehin R. Bridge	2,730	Linear Foot	6,600.00	18,018,000.00
603 (17-24)	24 Inch Pipe	1,160	Linear Foot	80.00	92,800.00
603 (17-36)	36 Inch Pipe	610	Linear Foot	140.00	85,400.00
603 (17-48)	48 Inch Pipe	190	Linear Foot	190.00	36,100.00
603 (17-60)	60 Inch Pipe	120	Linear Foot	290.00	34,800.00
603 (17-72)	72 Inch Pipe	60	Linear Foot	350.00	21,000.00
606 (1)	W-beam Guardrail	5,100	Linear Foot	25.00	127,500.00
606 (11)	Extruder Terminal (ET-2000)	11	Each	2,500.00	27,500.00
611 (1B)	Riprap, Class IV	3,000	Cubic Yard	8.00	24,000.00
614 (1a)	Monumentation with case	8	Each	500.00	4,000.00
615 (1)	Standard Sign	200	Square Foot	50.00	10,000.00
618 (1)	Seeding	6	Acre	2,000.00	12,000.00
630 (1)	Geotextile, Separation	2,800	Square Yard	2.00	5,600.00
633 (1)	Silt Fence	2,500	Linear Foot	3.65	9,125.00

Prepared By: D. LESTER	Checked By: J. Beedle	10/3/2007	Page 1 of 2
------------------------	-----------------------	-----------	-------------

State of Alaska Department of Transportation & Public Facilities Southeast Region	Engineer's Estimate JNU - ZONE 5, KATZEHIN R TO FERRY TERMINAL, FULL BUILDOUT 2007 Preliminary Estimate	AKSAS No.: 68967 Federal No.: Version ID: 11374 Printed: 10/4/2007 9:41:32 AM
--	--	--

Basic Bid

Item Number	Description	Quantity	Unit	Unit Price	Amount
640 (1)	Mobilization And Demobilization	All required	Lump Sum	2,000,000.00	2,000,000.00
641 (1)	Erosion And Pollution Control Administration	All required	Lump Sum	10,000.00	10,000.00
641 (2)	Temporary Erosion And Pollution Control	All required	Contingent Sum	100,000.00	100,000.00
641 (7)	Erosion And Pollution Control Price Adjustment	All required	Contingent Sum	0.00	0.00
642 (1)	Construction Surveying	All required	Lump Sum	100,000.00	100,000.00
670 (1)	Painted Traffic Markings	All required	Lump Sum	25,000.00	25,000.00
PROJECT Summary	Pay Items:	28 Items		Subtotal:	21,909,025.00
	Construction Engineering (Percentage)	6%		CENG Subtotal	1,314,541.50 23,223,566.50
	Indirect Cost Allocation Plan (ICAP)	4.88 %			1,133,310.05
	TOTAL PARTICIPATING				24,356,876.55
	ADDED COSTS (Not part of the Contract)				
	PROJECT TOTAL				24,356,876.55

Prepared By: D. LESTER	Checked By: <i>J. Beedle</i>	10/3/2007	Page 2 of 2
------------------------	------------------------------	-----------	-------------

ATTACHMENT B

UPDATED ENGINEER'S ESTIMATE -- UNIT PRICE ANALYSIS

Juneau Access
Engineer's Estimate – Unit Price Analysis Update

Prepared by
Jack D. Beedle, P.E.
Preconstruction Engineer
SE Region Department of Transportation & Public Facilities

September 2007

Update

The 2005 Engineer's Estimate – Unit Price Analysis (Analysis) was for Juneau Access Alternatives 2B and 3. Since the date of the Record of Decision all engineering has focused on the Selected Alternative 2B. This 2007 Engineer's Estimate – Unit Price Analysis Update (Update) is for Alternative 2B only.

The following events have occurred since the 2005 Analysis and are factored into this 2007 Update:

- DOT&PF completed design for the portion of the Lynn Canal Highway from Echo Cove to Sweeny Creek.
- October 20, 2006, Bid Opening for Juneau Sunny Point Intersection Improvements.
- November 22, 2006, Bid Opening for Juneau – Lynn Canal Highway, Echo Cove to Antler River. (18' wide Pioneer Road with work bridges).
- November 24, 2006, Bid Opening for Juneau – Lynn Canal Highway, Echo Cove to Antler River. (18' wide Pioneer Road without Berners Bay work bridges).
- November 27, 2006, Bid Opening for Lynn Canal Highway / Bridge Materials – Precast Concrete.
- November 27, 2006, Bid Opening for Lynn Canal Highway / Bridge Materials – Steel Culvert.
- November 29, 2006, Bid Opening for Lynn Canal Highway / Bridge Materials – Steel Piles.
- December 2006 Lynn Canal Highway, Phase 1, Zone 4, Geotechnical Investigation completed.

These events are important for the following reasons:

- Completion of the design from Echo Cove to Sweeny Creek provided accurate quantities for estimating and bidding purposes.

- The Bid Opening for Sunny Point provided information on unit costs for a large project in Juneau with the construction work occurring in 2007 and 2008.
- For the Lynn Canal Highway Bid Openings; the bids were rejected for the November 22 Bid Opening; bids were awarded and later cancelled for the November 24 Bid Opening as well as the November 27 Precast Concrete Bid Opening; and bids were awarded for the November 27 Steel Culverts and the November 29 Steel Pile Bid Openings. All of these Bid Openings provided actual unit prices for the Lynn Canal Highway for construction activities that would have occurred in 2007 and 2008.
- The December 2006 Geotechnical Investigation resulted in changed quantity estimates for Zone 4. Some quantities such as rock excavation decreased while other quantities such as MSE walls increased.

Overview

There are several factors that affect estimated unit bid prices for large remote construction projects like the Juneau Access project.

1. Large quantities will provide economies of scale that can result in unit prices significantly lower than usual Southeast Alaska unit prices.
2. Unlimited use of off road equipment can result in lower unit prices.
3. Numerous access points from which to construct the project can result in lower unit prices.
4. Barge access points at Slate Cove near Berner's/Lace and Antler/Gilkey River Crossings and at Katzehin Ferry Terminal near the Katzehin River Crossing allows use of economical over length and overweight components in construction of the major river crossings.
5. Perhaps the most significant factor is that there will be no public access or utility conflicts that usually slow down construction during the duration of the project. This will result in lower unit prices for almost every bid item on the project.

Working around buildings and maintaining traffic flow generally can impact efficiency, productivity and unit bid prices by 50% or more. The Juneau Access Project will not contend with private vehicle traffic or work in proximity to buildings any time during construction.

The importance of this last factor is demonstrated by the Juneau Cascade Point Road Project. Bid in December 2004 and constructed in 2005; this 20 foot wide by 3.2 mile long project's total price was \$810,000, approximately \$250,000 per mile. The project was constructed in the same area as the Juneau Access Project and had no private vehicle traffic, utilities, or buildings to contend with. The Cascade Point Road Project included clearing, culverts, excavation and embankment. It did not include base, pavement, and guardrail. A similar project being built while maintaining traffic control would be expected to cost over \$500,000 per mile.

Methodology

Quantities were calculated for each pay item for Juneau Access Alternative 2B. Unit prices are primarily based on the October 20, 2006 Bid Opening for Juneau Sunny Point Intersection Improvements Project and on the five Juneau Access Lynn Canal Highway Projects which had bid openings in November 2006. The Juneau Access Alternative 2B quantities (updated to reflect current quantity estimates) were multiplied by the established unit price to obtain each pay item's estimated cost.

Item 201 (1A) Clearing Per Acre

The 2005 Analysis was for a lump sum bid item. For this 2007 Update, the clearing bid item has been converted to the acre to be consistent with the November 2006 Juneau Access Bids.

Both the November 22, 2006 and November 24, 2006 Bid Openings contained clearing per acre as a bid item. The November 24, 2006 bid is used in this Update since the unit prices remained essentially the same and it is the later of the two bids.

The November 24, 2006 Bid Opening contained 152 Acres of Clearing from Echo Cove to Antler River included in the Basic Bid and 130 acres of clearing from Lace River to Sweeny Creek included in the Additive Alternate. The low bids per acre were \$6,535 for the Basic Bid and \$5,000 for the Additive Alternate. One bidder bid \$6,533 for the Basic Bid and \$6,535 for the Additive Alternate; the other bid \$15,000 and \$5,000 for this same work.

Based on these bids, the unit price was established as \$6,500 per acre.

Depending on the ROW transfer agreement with USFS, the value of timber harvested within the ROW (estimated at \$400,000 in the Socioeconomic Report) could reduce the bids for this item in the future.

Item 203 (2) Rock Excavation Per Cubic Yard

The 2005 Analysis also included rock excavation per cubic yard.

Based on current design and additional geotechnical investigations since the 2005 Analysis; the quantity of Item 203 (2) Rock Excavation has decreased from 6,475,600 cubic yards to 5,968,000 cubic yards and the quantity for Item 203 (3) Unclassified Excavation has increased from 933,300 cubic yards to 1,752,300 cubic yards during this Update.

The 2006 Lynn Canal Highway bids did not include Item 203 (2) Rock Excavation as a bid item.

For the purpose of this Update the 2005 Analysis was reviewed and the August 2002 Ketchikan Airport- West Taxiway Construction Project was considered to be still valid, but needed to be revised to reflect inflation in the interim. The average of the three low bids was \$5.46 per cubic yard (see the 2005 Analysis).

A recent project considered as a valid comparison project is the Ketchikan Airport Runway Safety Area Expansion and Runway Overlay Project which had a bid opening on January 16, 2007. This project included 1,379,500 cubic yards of embankment. This embankment had to come from a designated rock obstruction and be embanked into the project. Some limitations were placed on the size and timing of blasting shots to maintain operation of the adjacent Ketchikan International Airport. The three low bids for this bid item were \$5, \$6.75, and \$7.50 for an average of \$6.42 per cubic yard.

The 2005 Analysis established a unit price of \$6.50 per cubic yard for all rock excavation and did not distinguish between normal rock excavation and more difficult rock excavation situations.

Item 203 (2) Rock Excavation
Per Cubic Yard (cont.)

For this Update based on the 2002 and 2007 Ketchikan Airport Projects the unit price for general rock excavation has been set at \$7 per cubic yard. Additionally approximately 742,700 cubic yards of rock excavation in the most difficult section has been estimated at \$10 per cubic yard.

Therefore this Update includes 5,225,300 cubic yards of rock excavation at \$7 per cubic yard and 742,700 cubic yards of rock excavation at \$10 per cubic yard for an average price of \$7.37 per cubic yard or \$.87 per cubic yard more than the unit price from the 2005 Analysis.

Additionally to compensate for the extra cost to haul and embank the rock excavation from elsewhere on the Project between the two Berner's Bay Bridges, 242,500 cubic yards of Borrow at \$4 per cubic yard is included in this Update. This effectively increases the unit price of rock excavation for this Update to \$7.54 per cubic yard.

Item 203 (3) Unclassified Excavation Per Cubic Yard

The 2005 Analysis also included unclassified excavation per cubic yard.

Based on current design and additional geotechnical investigations since the 2005 Analysis, the quantity of Item 203 (3) Unclassified Excavation has increased from 933,300 cubic yards to 1,752,300 cubic yards.

The 2006 Lynn Canal Highway bids did not include unclassified excavation per cubic yard. The 2006 Sunny Point Project included 37,765 cubic yards of unclassified excavation however the two bids were \$10 and \$1 per cubic yard which is too big of a variation to establish a unit price and the work was not similar to the Juneau Access work. The projects from the 2005 Analysis are still considered valid comparison projects however they are now six to seven years old. The January 2007 Ketchikan Airport project included 760,000 cubic yards of unclassified excavation however this item also required rock excavation and special grading.

Looking at additional recent projects in Southeast Alaska, the Wrangell Airport RSA Extension Project which bid on May 11, 2006 and is currently under construction was determined to be a valid comparison project for this bid item. The Wrangell Project included 245,000 cubic yards of unclassified excavation. The three low bids were \$4, \$6, and \$7 for this bid item. While the average of these three bids is \$5.67 per cubic yard the Wrangell Airport work includes 1/7 the volume of Juneau Access and also must be accomplished while working within the restrictions of an operating jet airport.

Based on the Wrangell Project the unit price for unclassified excavation for this item was set at \$4 per cubic yard which is the unit price bid by the low bidder who is currently building the Wrangell Airport Project.

This represents a \$1.50 per cubic yard increase from the 2005 Analysis for this bid item.

Item 203 (10) Controlled Blasting Per Square Yard

The 2005 Analysis also included controlled blasting per square yard as a bid item.

Based on current design and additional geotechnical investigations since the 2005 Analysis the quantity of Item 203 (10) Controlled Blasting has decreased from 594,500 square yards to 414,100 square yards.

The 2006 Lynn Canal Highway bids did not include Item 203 (10) Controlled Blasting as a bid item. The Projects used in the 2005 Analysis are now eight to nine years old. There are no recent projects in Southeast Alaska that included controlled blasting as a major bid item.

There are however two smaller projects that included controlled blasting (per linear foot) as minor pay items. They are the January 20, 2005 Glacier Highway and Trail Head Project which included 53,000 linear foot (21,200 square yards) and the June 27, 2006 South Tongass Highway Project which included 20,480 linear foot (8,192 square yards) as pay items. Both of these projects included working with short traffic closures and in close proximity to houses and utilities. The Ketchikan Project had only one bidder at \$17.50 per square yard. The Glacier Highway Project had three bidders at \$30, \$18.75, and \$16.25 per square yard.

Based on the Juneau Access Project being twenty times larger with no traffic or utilities the unit price for this Update was set at \$15 per square yard. This is a \$5 per square yard increase from the 2005 Analysis.

Item 306 (1) Asphalt Treated Base Per Ton

The 2005 Analysis included Item 307 (3) EATB per square yard as the treated base. This Update instead uses 103,525 tons of Asphalt Treated Base (ATB) to reflect the current design.

The November 2006 Lynn Canal Highway Bid Openings did not include Asphalt Treated Base as a bid item.

For the purpose of this Update, the Juneau Sunny Point Intersection Improvements Project was considered a valid comparison project for this pay item. The Sunny Point Project's Bid Opening was in October 2006 however the majority of the Asphalt Treated Base will not be placed until the 2008 construction season.

The Sunny Point Project included 13,900 tons of ATB and the bids were \$45 and \$40 per ton. This ATB must be placed while dealing with an ADT of 30,000 vehicles per day.

The \$42.50 average per ton for the Sunny Point Project was reduced by approximately 15% to account for the additional cost of dealing with the heavy traffic in the delivery and placement of the ATB to arrive at the \$35 per ton unit price included in this Update.

Item 401 (1) Asphalt Concrete Pavement Per Ton

The November 2006 Lynn Canal Highway Pioneer Road bid openings did not include Asphalt Concrete Pavement as a bid item.

The 2005 Analysis included 104,397 tons of Asphalt Concrete Pavement whereas this Update includes 109,390 tons.

For the purpose of this Update the Juneau Sunny Point Intersection Improvements Project was considered a valid comparison project for this bid item. The Sunny Point Intersection Improvements Project's Bid Opening was in October 2006 however the majority of the paving will not take place until 2008.

The Sunny Point Project included 8,180 tons of Asphalt Concrete, SP, Type B Pavement and the bids were \$58 and \$55 per ton. This pavement includes a special durable aggregate that must be imported from out of town. It must also be placed while dealing with an ADT of 30,000 vehicles per day.

The \$56.5 average per ton bid for the Sunny Point Project was reduced by 15% for the cost of importing the aggregate and by 15% for the increased cost of dealing with heavy traffic in the delivery and placement of the pavement to arrive at the \$40 per ton unit price included in this Update.

This represents a \$17 per ton increase over the 2005 Analysis.

Item 401 (2) Asphalt Cement Per Ton

Since the 2005 Analysis, prices for oil products have increased substantially. The 2005 Analysis included 6,264 tons of Asphalt Cement. This Update includes 11,242 tons of Asphalt Cement. The increase is primarily attributed to changing from EATB to ATB.

The November 2006 Lynn Canal Highway Bid Openings did not include Asphalt Cement as a bid item. For the purpose of this Update, the Juneau Sunny Point Intersection Improvements Project was considered a valid comparison project for this bid item. The Project is located in Juneau so mobilization and handling costs are similar. The Sunny Point Project Bid Opening was in October 2006 however the majority of the paving will not take place until 2008.

The Sunny Point Project included 1,120 tons of Asphalt Cement and the two bids were \$630 and \$600 per ton.

Based on the Sunny Point Project, the Update has set the unit price for Asphalt Cement at \$625 per ton.

Since the price of the Asphalt Cement is for materials supply only and is not impacted by traffic impacts during construction (these impacts are taken into account in the Asphalt Concrete Pavement Item), a reduction is not calculated into this bid item.

This represents a \$375 per ton increase over the 2005 Analysis.

Item 501 (7A, 7B, 7C) Precast Concrete Member

Per Each

The 2005 Analysis established a per linear foot cost for all Lynn Canal Highway Bridges. Section 501 (12) of this Update establishes linear foot estimates for bridges within the Sweeny Creek to Katzechin River and Katzechin River to Katzechin Ferry Terminal sections.

With the completion of the design for the Lynn Canal Highway from Echo Cove to Sweeny Creek, quantities were established for the individual bridge components. The November 22 and 24 Lynn Canal Highway Bid Openings only included contractor furnished "Work Bridges" which were to provide construction equipment access. They are not comparable bridges to the permanent bridges and cannot be used for this Update.

The November 27, 2006 Lynn Canal Highway/Bridge Materials – Precast Concrete Bid Opening plus the October 2006 Sunny Point Intersection Improvements Bid Opening can be used to establish the unit price for these items.

Item 501 (7C) Precast Concrete Member (118' Decked Bulb Tee). The November 27, 2006 Lynn Canal Highway/Bridge Materials – Precast Concrete included six of these members for \$221,680.00 total or \$36,946.67 per each.

This price was for 118' Decked Bulb Tees furnished to Juneau but not installed.

The October 2006 Sunny Point Project included 14 each Precast Concrete Members (119'x4'-6" Girders). The two bids for these girders furnished and installed was \$60,000 and \$50,000 per each. These girders are 1' longer however there were 14 compared to the six in the Lynn Canal Highway bid. These Sunny Point girders will be installed in late 2007 or early 2008.

Item 501 (7A, 7B, 7C) Precast Concrete Member

Per Each (cont.)

Taking a conservative approach, the \$60,000 installed price was established as the unit price for the Lynn Canal Highway 118' Decked Bulb Tees.

Dividing the installed price (\$60,000) by the furnished price (\$36,946.67) resulted in a multiplier of 1.6. This multiplier can be used to establish the installed price for different length girders.

Item 501 (7A) Precast Concrete Member (128' Decked Bulb Tee). The November 27, 2006 bid included six each for a total of \$239,840 or \$39,973.33 each. Installed price is $\$39,973.33 \times 1.6 = \$63,957.33 = \$64,000$ per each.

Item 501 (7B) Precast Concrete Member (143' Decked Bulb Tee). The November 27, 2006 bid included 120 each for a total of \$5,293,318 or \$44,110.98 each. Installed price is $\$44,110.98 \times 1.6 = \$70,517.56$, for the Update we use \$70,000. The slight rounding down is due to the large number of girders (120) in Juneau Access compared to the number (14) used to calculate the 1.6 multiplier.

Item 501 (9) Screening Structure Per Linear Foot

The 2005 Analysis included Item 637 (2) Screening Structure per Lump Sum. This Update contains Item 501 (9) Screening Structure per Linear Foot. This change reflects current design quantities and incorporates preliminary recommendations of the December 2006 Lynn Canal Highway, Phase 1, Zone 4, Geotechnical Investigation.

The purpose of the screening structures is to restrict the Gran Point and Met Point Sea Lion Haulouts from access and view. The area to be restricted extends 3000' either side from the main haulout areas. Where the roadway is in a thru-cut within the 3000' restricted areas it will not require separate screening structures and the cost is included in the rock excavation item. The screening structures will consist of a concrete jersey barrier with a 3-4' high screening fence on top or an 8' high chain link fence with screening fabric. Since final design is not completed to determine the length of jersey barrier with screening fence or screening fence, all screening structures are estimated at the higher jersey barrier with screening fence unit price.

This Update includes an increased amount of screening structure compared to the 2005 Analysis. This increase is based on preliminary design and recommendations from the Geotechnical Investigation in the vicinity of the haulouts.

For the purpose of this Update the Juneau Sunny Point Intersection Improvements Project was considered a valid comparison project for this pay item. The Sunny Point Project's bid opening was in October 2006; however the barriers and fences will not be installed until 2008. Therefore this bid was considered to reflect 2008 unit prices.

**Item 501 (9) Screening Structure
Per Linear Foot (cont.)**

The Sunny Point Project included 1,698 linear foot of concrete barrier. This barrier is 42” high, compared to the usual 32” height and will serve as a visual as well as a sound barrier. The Sunny Point bids for this item were \$90 and \$40 per linear foot. The average of the two bids is \$65 per linear foot. This estimate establishes \$75 per linear foot as the price for the concrete jersey barrier.

The Sunny Point Project also included 880’ of 6’ high chain link fence and the bids were \$30 and \$20 per linear foot, for an average of \$25 per linear foot.

The Sunny Point fence is 6’ high whereas the fence on top of the concrete jersey barrier is only 3-4’ high. To be conservative, the chain link fence was established as \$25 per linear foot. Adding the screening fabric was established as \$10 per square foot or \$35 per linear foot. Therefore the estimated price for the screening structures is:

Jersey Barrier (\$75) + Chain Link Fence (\$25) + Screening Fabric (\$35) = \$135 per linear foot.

Item 501 (12) Bridge

Linear Foot

The 2005 Analysis used an estimated linear foot length for all bridges from Echo Cove to Katzehin Ferry Terminal.

This Update uses the completed design quantities plus the November 27 and 29, 2006 Lynn Canal Highway Bridge Materials Bid Openings and October 2006 Sunny Point Bid Opening results to establish unit prices for all bridges with completed designs between Echo Cove and Sweeny Creek. (See Sections 501 (7A, 7B, 7C) and 505 (5, 5A, 5C)).

For the Lynn Canal Highway Sections between Sweeny Creek and Katzehin River and from Katzehin River to Katzehin Ferry Terminal, linear foot estimates were prepared based on similar bridges in the Echo Cove to Sweeny Creek Section.

For the Sweeny Creek to Katzehin River section the bridges are mostly single span with cast in place footings. These bridges are estimated at \$5,000 per linear foot. This is a \$600 per linear foot increase from the 2005 analysis.

For the Katzehin River to Katzehin Ferry Terminal bridges (including the Katzehin River Bridge) the cost per linear foot are estimated at \$6,600. This is a \$2,200 per linear foot increase from the 2005 analysis.

**Item 505 (5, 5A, 5C) Furnish Structural Steel Piles
Per Linear Foot**

The November 29, 2006 Lynn Canal Highway/Bridge Materials – Steel Piles Contract purchased all the steel piling for all bridges from Echo Cove to Sweeny Creek. This contract is for furnishing and delivering the piles to Juneau.

Item 505 (5) Furnish Structural Steel Pipe Piles – 24 inch Diameter. The November 29, 2006 Bid included 5,628 linear feet for \$628,929 or \$110 per linear foot, and this price is used for this item in the Update.

Item 505 (5A) Furnish Structured Steel Piles – HP 14x117. The November 29, 2006 Bid included 788 linear feet for \$55,554 or \$71 per linear foot, and this price is used for this item in the Update.

Item 505 (5C) Furnish Structured Steel Pipe Piles – 48 inch Diameter. The November 29, 2006 Bid included 15,160 linear feet for \$7,366,244 or \$486 per linear foot for the bare pipe. Since some of the piles are galvanized an average unit price is included in this Update. The extra cost for galvanizing is \$480,556.17 which brings the average unit price to \$517.60. For the purpose of this Update a unit price of \$520 per linear foot was used.

Item 511 (1) Mechanically Stabilized Earth Wall Per Square Foot

The 2005 Analysis included Item 637 (1) MSE Wall, 543,790 square foot. Based on current design and additional geotechnical investigations, this Update includes 878,306 square foot of MSE Wall. This represents a 62% increase in the quantity of MSE Wall.

The 2005 Analysis for MSE Walls was reviewed and the projects are still considered valid for comparison purposes. These projects were all bid five to six years ago. The 2005 Analysis established the unit price for MSE Wall at \$31 per square foot.

Two recent SE Region projects with MSE Walls were also reviewed. The October 2006 Sunny Point Intersection Improvements Project in Juneau had 37,905 square foot of MSE Wall – Pattern Finish bid at \$50 and \$90 per square foot. The June 2006 South Tongass Highway Project in Ketchikan had 4,993 square foot of MSE Wall at \$35 per square foot (only one bidder).

The Sunny Point Project had higher per square foot costs, however its footings were on soil and some footings required working below the water table which required dewatering. The Sunny Point Project also had some relatively low walls so that the foundation contributed to higher unit prices.

Based on the 2005 Analysis Projects and the 2006 Ketchikan South Tongass Project, the unit price for MSE Wall is established at \$35 per square foot, a \$4 per square foot increase from 2005.

Items 603 (17-24), (17-36), (17-48), (17-60), (17-72), (17-144)
24", 36", 48", 60", 72", and 144" Pipe
Per Linear Foot

Both the November 22, 2006 and November 24, 2006 Lynn Canal Highway Bid Openings included Pipe per linear foot as a bid item. The contractors bid the same amounts for these items on both of their bids.

All pipe for the portion of the Lynn Canal Highway from Echo Cove to Sweeny Creek was purchased under the November 27, 2006 Lynn Canal Highway/Bridge Materials – Steel Culvert. These materials will be furnished to the contractor for the Lynn Canal Highway, and therefore the materials prices will not change.

From the November 22 and 24, 2006 Bid Openings the average price bid for the two bidders, for pipe, was from 6 – 22% lower for the Additive Alternate Pipe (Lace River to Sweeny Creek) than for the same quantity of pipe in the Basic Bid (Echo Cove to Antler River). This reflects the easier construction in the Additive Alternative portion of the project.

Since the terrain from Sweeny Creek to the Katzehin Ferry Terminal is similar to the Basic Bid terrain, this Update has set the unit prices for pipe at the average of the two bids for the Basic Bid for each item. This higher unit price was even used for the section of work between Lace River and Sweeny Creek which represents an increase of \$220,174 over the average price actually bid for pipe work within this section.

Unit Price Comparison between the 2005 Analysis and the 2007 Update are as follows:

	<u>2005 Analysis</u>	<u>2007 Update</u>
24" Pipe	\$45/LF	\$80/LF
36" Pipe	\$59.50/LF	\$140/LF
48" Pipe	\$76.50/LF	\$190/LF
60" Pipe	N/A	\$290/LF
72" Pipe	\$108/LF	\$350/LF
144" Pipe	N/A	\$750/LF

Item 606 (1) W-Beam Guardrail
Per Linear Foot

The 2006 Lynn Canal Highway Bid Openings were for a Pioneer Road only and did not include W-Beam Guardrail as a bid item.

For the purpose of this Update the Juneau Sunny Point Intersection Improvements Project was considered a valid comparison project for this pay item.

The Sunny Point Project's Bid Opening was in October 2006 for W-Beam Guardrail to be installed in the 2008 construction season.

The Sunny Point Project included 12,101 linear foot of W-Beam Guardrail and the bids were \$25 and \$50 per linear foot.

This guardrail will be installed in 2008 while dealing with 30,000 ADT.

This Update established a unit price of \$25 per linear foot for the East Lynn Canal Highway because the contractor will not have to deal with traffic during installation, and this item is for a much larger volume of work.

This represents a \$9 per linear foot increase over the 2005 analysis.

Item 611 (1) Riprap Per Cubic Yard

The 2005 Analysis also included riprap per cubic yard as a bid item.

Based on current design and additional geotechnical investigations, since the 2005 Analysis, the quantity of riprap has decreased from 574,500 cubic yards to 191,885 cubic yards.

The riprap for the Juneau Access Project will be generated onsite from Project Rock Excavation quantities. The rock excavation bid item includes drilling, shooting, and embanking or disposing of the rock and the rock excavation quantity includes more than enough rock to meet the Project's riprap requirements. Therefore the unit price for riprap only needs to include any additional cost for sorting and placing the riprap on the slopes.

This Update includes 187,500 cubic yards of Class IV Riprap and 4,385 cubic yards of Class II Riprap. For this Update the cost of sorting riprap has been estimated at \$4 per cubic yard and the additional cost of placing riprap at \$4 per cubic yard or \$8 total to sort and place all classes of riprap. All of the Class II Riprap is between the Berner's Bay bridges which require some additional haul from the rock cut. This additional cost is estimated at \$2 per cubic yard.

Therefore for this Update Class II Riprap is estimated at \$10 per cubic yard and Class IV Riprap at \$8 per cubic yard. For the 2005 Analysis all riprap was estimated at \$6 per cubic yard.

Item 640 (1) Mobilization and Demobilization Per Lump Sum

The 2005 Analysis established the Mobilization and Demobilization at approximately 7.5% of the total Engineer's estimate for all bid items.

This value is confirmed by the October 2006 Sunny Point Project where the average for the two bidders for this item was 7.4%.

The November 22 and 24, 2006 Lynn Canal Highway Project bid Mobilization and Demobilization separately for the Basic Bid and Additive Alternate work. Bids for this work ranged from 3.4% to over 39% with no apparent pattern to the bids. Due to the nature of the bid conditions it is felt that some of this is front loading and/or covering uncertainties.

This Update has increased the Mobilization and Demobilization to approximately 10% to cover the uncertainties reflected in the November 22 and 24 Lynn Canal Highway bids for this item.

Item – Highway Contingency

The first half of the project from Echo Cove to Sweeny Creek has been completely designed and all culvert pipe and bridge support piles have been purchased so the cost to acquire them has been set. For the entire project, the estimate relies primarily on much smaller projects where the work will be completed in 2007 and 2008. These comparison projects are being constructed while maintaining traffic and while working in close proximity to residential areas.

The 2005 Analysis used comparison projects from all over the State in an attempt to find similar items with similar quantities. In most cases the projects were many times smaller than Juneau Access and the estimate applied factors to arrive at a Juneau Access estimate. While the thinking that Juneau Access will receive lower unit prices due to the large volumes of work, ability to use large off-road vehicles, and work with no traffic or residential impacts is still considered valid, it is felt that these factors will have to wait to be applied to later Annual Updates. This will allow the bids generally received for final build-out of the first sections to confirm that these factors have resulted in reduced costs. For this Update, it was decided to use November 2006 Juneau Access bids on unit prices that applied and to use unit prices for other projects in SE Alaska that are currently under construction. This methodology resulted in higher unit prices and an additional contingency is not required.

Additionally, for all projects beyond 2008 future STIPs will include an inflation factor such that the inflation is built into the funding flow. Therefore project funding should be adequate regardless of the year a particular segment is constructed.

Item – Construction Engineering

This item covers the cost for state forces to inspect, monitor and document the Contractor's construction activities. This project will not require traffic control monitoring or utility construction inspection. On large projects the Construction Engineering is a lower percent

of the Engineer's Estimate than on smaller projects. Construction engineering for this Update is estimated at 6%. While the percentage is lower than in the 2005 Analysis, the total amount is higher due to the increase in the estimate for the construction contract work.

Item – 4.88% ICAP

The indirect Cost Allocation Plan (ICAP) is an overhead rate assessed by DOT&PF on all capital projects. For State Fiscal Year 2008 the rate for FHWA Highway projects has been set at 4.88%. This rate is .58% higher than for the 2005 Analysis and is applied to the higher Update estimate.

Item – Preliminary Development

This item is to cover the cost of project development, State legal expenses, design and final permitting. The design from Echo Cove to Sweeny Creek has been completed. The final design from Sweeny Creek to the Katzehin Ferry Terminal will be completed with these funds. This includes ongoing legal support, final design, Geotechnical investigations, and final permitting.

Item – Mitigation

Structural Items:

The FEIS provided itemized mitigation costs totaling approximately \$10 million, with \$7 million in structural features to meet FEIS commitments, and \$3 million for monitoring, fee in lieu payments, and a replacement recreational cabin. The structural features (bridges over anadromous fish streams, bridge extensions over the banks of three rivers, wildlife underpasses on the Antler/Lace peninsula, and 9,800 feet of screening structures at sea lion haulouts) are included as pay items in the Engineer's Estimate and as such are captured in the project construction costs.

After the FEIS and Record of Decision two bridges were added to the design, and have been added to the overall project cost. The Record of Decision included a commitment to bridge all anadromous fish streams. In the spring of 2006 field studies in the Antler/Lace peninsula identified a new tributary of the Lace River that contains rearing Coho salmon. Also, EPA asked, as part of its elevation of the ACOE permit application, that all wetlands adjacent to anadromous fish streams in the Berners Bay area be bridged. Consequently DOT&PF has included a bridge over this stream and adjacent wetlands in its revised ACOE application. The cost of this bridge is included in this Update as Item 501 (12) Beaver Slough Bridge – Complete, \$1,000,000.

During the permit application review period agencies requested we consider locating a wildlife underpass in the Katzehin flats area, and during summer 2006 soil and hydraulic field studies DOT&PF design staff identified an appropriate location. The cost of this bridge is included in Item 501 (12) Bridge Per Linear Foot.

Non-structural items:

The FEIS committed to approximately \$1.7 million for detailed bear, goat, moose, and wolverine population monitoring. These studies are in progress and the funds are encumbered. The FEIS also committed to ongoing bald eagle nests surveys and video monitoring of Gran Point sea lion haulout, with both to continue for five years after construction. Given that construction has been delayed, and funding for project completion will be over a greater period, an additional \$62,000 per year needed to be added to the original estimate. This Item now allows ten years or \$620,000 for this commitment.

The FEIS committed to \$780,000 in fee in lieu for impacts to intertidal and sub tidal habitat, and established a list of priority mitigation projects to be funded. This commitment was the result of the EFH consultation with NMFS. The two highest priority projects are acquisition of a privately held parcel on Pt Bridget peninsula and a sub tidal enhancement. An RSA has been executed with UAF for design, site selection, and post

construction monitoring of the marine enhancement; \$172,000 has been encumbered. The enhancement, estimated to cost between \$50,000 and \$70,000, will be constructed as soon as NMFS is issued a permit. The Southeast Alaska Land Trust is negotiating for the mitigation parcel, estimated to cost approximately \$400,000. At this time \$608,000 is included for this commitment.

The FEIS did not include fee in lieu for forested palustrine wetlands, as no compensatory wetland restoration or protection projects within the affected watersheds were identified, and wildlife underpasses were considered as adequate wetland mitigation. However, during permit application review EPA and the USF&WS requested fee in lieu for offsite wetland conservation acquisition, and the USFS has identified private parcels within the National Forest that meet agency requirements. Based on this DOT&PF included an additional \$315,210 in its revised permit application, which is included in this Update to meet this commitment for sub tidal enhancement and land acquisition.

The commitment to provide a new prefabricated recreational cabin in Berners Bay to replace the loss of remote recreation remains. The USFS estimated this cost to be \$50,000 in 2005. \$60,000 is included in this Update to meet this commitment.

This Update includes a total of \$1,603,210 (rounded to \$1,603,000) to meet mitigation commitments.

Item – Right of Way

This item is to cover the estimated cost of acquiring right of way to construct the State Highway Maintenance Station and public rest area. The estimate has increased for this Update to reflect the intention of purchasing the Comet Camp and Existing Maintenance Building. The current estimate is \$1,500,000.

Item – Maintenance Building and Public Rest Stop

This item covers the cost of constructing a Maintenance Station and Public Rest Stop at Comet for Alternative 2B. The Comet Maintenance Station is estimated at \$1,000,000 to include public restroom facilities.

Item – Avalanche Control CIP

This item is to cover the cost of constructing ammunition storage units, weather stations, and repeaters and to obtain all avalanche maintenance equipment. Costs are taken from the Snow Avalanche Report and increased from \$2,670,000 in the 2005 Analysis to \$3,000,000 in this Update.

Item - Highway Construction Total

The cumulative effect of new Pay items, different Pay Units, Revised Unit Prices and Quantities and current ICAP, over the 2005 Analysis – Engineer’s Estimate is to increase the Alternative 2B Highway Construction Total estimate by approximately \$67,565,000.

Items – Terminal Construction and Vessel Construction

The Terminal Construction estimate has changed from \$15,700,000 in the 2005 Analysis to \$16,000,000 in this Update.

The 2005 Analysis estimated the Katzehin Ferry Terminal as a stand alone project which was consistent with the approved STIP. The 2005 Analysis included the design of the Katzehin Ferry Terminal Construction Estimate. This Update includes the Katzehin Ferry Terminal design costs in the overall project design engineering estimate which is consistent with the current STIP which includes the Ferry Terminal with the Highway.

The Vessel Construction Estimate has increased from \$53,000,000 in the 2005 Analysis to \$65,000,000 in this Update, based on AMHS preliminary estimates for the first shuttle and a steel vessel construction cost increase estimate prepared by the original FEIS Marine Segments Report consultant.

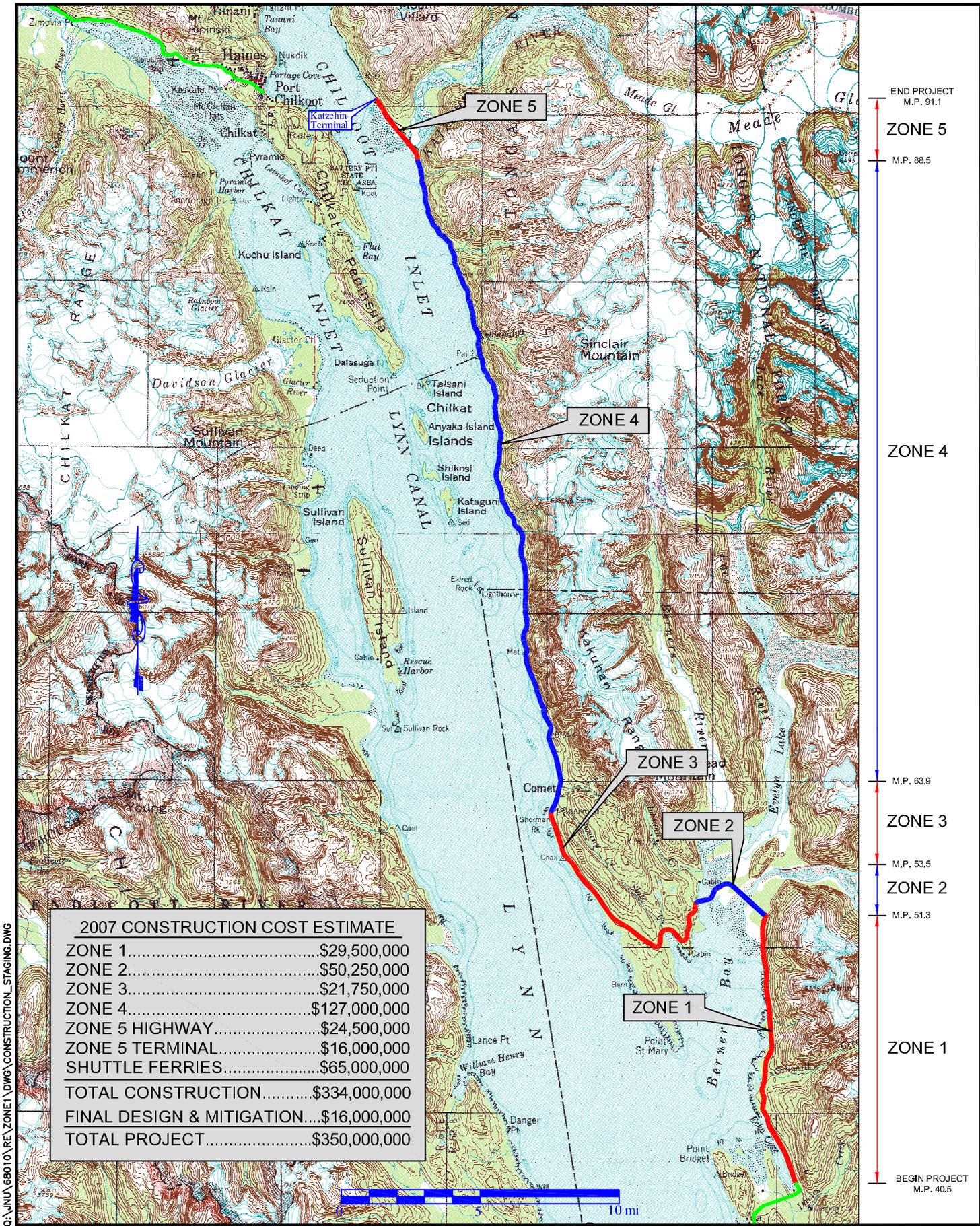
Estimate Summary

The current updated estimate for Alternative 2B, for costs to be incurred after September 30, 2007 is as follows:

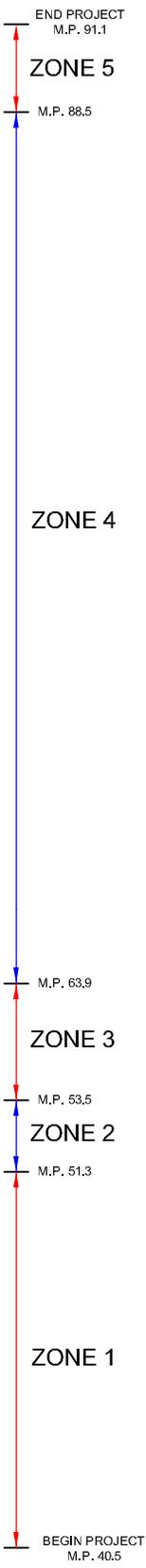
Highway and Ferry Terminal Design Engineering	\$14,400,000
Mitigation	\$1,603,000
ROW Acquisition	\$1,500,000
Highway Construction ICAP	\$11,495,000
Highway Construction Engineering & Inspection	\$13,334,000
Avalanche CIP	\$3,000,000
Maintenance Building & Public Rest Stop	\$1,000,000
Highway Construction	\$222,228,000
Katzehin Ferry Terminal	\$16,000,000
Vessel Design & Construction	\$65,000,000
SUBTOTAL	\$349,560,000
Rounding	\$440,000
<u>TOTAL</u>	<u>\$350,000,000</u>

Note: The value of culvert and pipe materials purchased (\$9,157,386) has not been subtracted from this Update Estimate.

ATTACHMENT C
UPDATED ZONE LOCATIONS AND MILE POINTS



2007 CONSTRUCTION COST ESTIMATE	
ZONE 1.....	\$29,500,000
ZONE 2.....	\$50,250,000
ZONE 3.....	\$21,750,000
ZONE 4.....	\$127,000,000
ZONE 5 HIGHWAY.....	\$24,500,000
ZONE 5 TERMINAL.....	\$16,000,000
SHUTTLE FERRIES.....	\$65,000,000
TOTAL CONSTRUCTION.....	\$334,000,000
FINAL DESIGN & MITIGATION....	\$16,000,000
TOTAL PROJECT.....	\$350,000,000



G:\JUN\6801\0\RE\ZONE1\DWG\CONSTRUCTION_STAGING.DWG

ATTACHMENT D

2006-2009 STIP AMENDMENT 13 NEED ID 19214

2006-2009 Alaska Statewide Transportation Improvement Program Amendment 13 (Major) Approved

Need ID: 19214 Region: Southeast

Place Name:

Title:

Juneau Access: Glacier Highway MP 40.5-91.1

Project Description:

Extend State Route 7 northward from its current terminus to the north side of the Katzehin River delta, in a series of stages, per the preferred alternative in the Final Environmental Impact Statement (EIS) and construct terminal near Katzehin River.



PHASE	FUNDING	FFY07	FFY08	FFY09	After FFY09
All amounts x1,000 dollars					
Design	HPRL	0	10,465.4	0	
Design	NHS	0.0	0	0	
Design	OSF	0	4,495.7	0	
Design	SM	0.0	1,038.8	0	
Construction	144M	0	24,000.0	10,000.0	
Construction	218A	0.0	0.0	0.0	
Construction	ACC	0	-45,304.3	-12,250.0	
Construction	HPRL	0.0	0.0	2,250.0	
Construction	NHS	0	0	0.0	
Construction	OSF	0	21,304.3	0	
Construction	PSF	0	0.0	0.0	
Construction	SM	0.0	0.0	0	
Totals:		0.0	16,000.0	0.0	100,715.0



ATTACHMENT E

2006-2009 STIP AMENDMENT 13 NEED ID 18359

2006-2009 Alaska Statewide Transportation Improvement Program Amendment 13 (Major) Approved

Need ID: 18359 Region: Marine Highways

Place Name:

Title:

MARINE HIGHWAY Ferry:

Design/Construct/Lease/Purchase Ferryboats & Terminals

Project Description:

Design/construct/lease/purchase ferryboats and terminals for the Southeast Alaska Transportation Plan (SATP) implementation.



PHASE	FUNDING	FFY07	FFY08	FFY09	After FFY09
All amounts x1,000 dollars					
Design	FBDA	5,378.9	557.8	633.3	
Design	SHAK	275.0	0	0	
Design	SM	1,344.7	139.4	158.3	
Totals:		6,998.6	697.2	791.6	65,000.0

<p>Program Type: FERR Primary Work: Ferry Boats Secondary Work: Special Financial:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">Project Status</td> <td style="width: 30%;">Year</td> </tr> <tr> <td>Project Start:</td> <td>2006</td> </tr> <tr> <td>Environmental Clearance:</td> <td></td> </tr> <tr> <td>Construction Funded:</td> <td></td> </tr> <tr> <td>Right of Way Authorized:</td> <td></td> </tr> </table>	Project Status	Year	Project Start:	2006	Environmental Clearance:		Construction Funded:		Right of Way Authorized:		<p>Election District(s): 99</p> <p>PEB Score: Criteria: N/A</p> <p>Borough/Census Area: VARIOUS BOROUGHS</p> <p>Municipal Planning Organization (MPO): non-MPO</p>
Project Status	Year										
Project Start:	2006										
Environmental Clearance:											
Construction Funded:											
Right of Way Authorized:											

Average AADT: Sponsor: ADOT/PF
 Pavement Rating: N/A Predominant Functional Class: Unclassified

ATTACHMENT F

FINANCIAL PLAN UPDATE– LETTER OF CERTIFICATION

3132 Channel Drive
Juneau, Alaska 99801

PHONE: (907) 465-3900
TEXT: (907) 465-3652
FAX: (907) 586-8365

OFFICE OF THE COMMISSIONER

Juneau Access Improvements
Alternative 2B
Financial Plan
2007 Annual Update

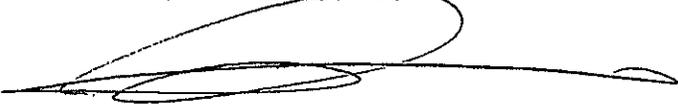
Letter of Certification

The State of Alaska Department of Transportation & Public Facilities (DOT&PF) has developed the 2007 Financial Plan Annual Update (Update) for Juneau Access Improvement Alternative 2B, Project Number STP-000S(131), in accordance with the requirements of Section 106, Title 23, and the Financial Plan guidance issued by the Federal Highway Administration (FHWA). The plan provides detailed cost estimates to complete the project and the estimates of financial resources to be utilized to fully finance the project.

The cost data in the Update include a realistic estimate of future costs based on engineers' estimates and the expected construction cost escalation. While the estimates of financial resources rely upon assumptions regarding future economic conditions and demographic variables, they represent realistic estimates of monies to fully fund the project.

We believe the Update provides an accurate basis upon which to schedule and fund Juneau Access Improvements Alternative 2B. The Department will continue to review and update the financial plan for each Federal Fiscal Year, as explained in the July 25, 2007 letter from DOT&PF Southeast Regional Director Menzies to FHWA Alaska Division Administrator Miller.

To the best of our knowledge and belief, the Update as submitted herewith, fairly and accurately presents the financial position of Juneau Access Improvements Alternative 2B cash flows, and expected conditions for the project's construction. The financial forecasts in the Update are based on our judgment of the expected project conditions and our expected course of action. We believe that the assumptions underlying the Update are reasonable and appropriate. Further, we have made available all significant information that we believe is relevant to the Update and, to the best of our knowledge and belief, the documents and records supporting the assumptions are appropriate.



Leo von Scheben, P.E., L.S., M.B.A Commissioner

Oct 26, 2007

Date

This Page Intentionally Left Blank

APPENDIX A.3

Juneau Access Improvements FEIS Appendix W – Addendum to Appendix D Technical Alignment Report

This Page Intentionally Left Blank

Addendum to Appendix D

Technical Alignment Report

OCTOBER 2005

Prepared by
Alaska Department of Transportation and Public Facilities
6860 Glacier Highway
Juneau, Alaska 99801-7999

This Page Intentionally Left Blank

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.0	INTRODUCTION.....	W-17
2.0	DESIGN STANDARDS	W-19
2.1	Highway Design Criteria.....	W-19
2.2	Design Exceptions.....	W-19
3.0	RECOMMENDED DESIGN	W-21
3.1	Typical Sections	W-21
3.2	Alignment Discussion Overview	W-28
3.2.1	East Lynn Canal Discussion.....	W-28
3.3	Drainage and Bridges.....	W-29

TABLES

<u>Section</u>	<u>Title</u>	<u>Page</u>
Table 3-1	East Lynn Canal Bridge Summary	W-30

ATTACHMENTS

	<u>Page</u>
REVISIONS TO ATTACHMENT A – EAST LYNN CANAL REVISED PLAN AND PROFILE SHEETS.....	W-33
REVISIONS TO ATTACHMENT D – MARINE TERMINAL CONCEPTS	W-69
REVISED ATTACHMENT E – ENGINEER’S ESTIMATES.....	W-89
NEW ATTACHMENT F – ENGINEER’S ESTIMATE – UNIT PRICE ANALYSIS.....	W-101
NEW ATTACHMENT G – VESSEL CONSTRUCTION COST UPDATE.....	W-127

This page intentionally left blank.

1.0 INTRODUCTION

In September 2004, the Juneau Access Improvements Project *Technical Alignment Report* (Appendix D) was completed. Since the *Technical Alignment Report* was completed, public comment has been taken on the Juneau Access Improvements Project Supplemental Draft EIS and the public Comment Analysis Report has been completed. This addendum adds supplemental information, in part, to address substantive issues raised in the public comment process.

This addendum outlines changes to the design criteria, updates the alignment discussion where changes have occurred, provides updated bridge summaries, provides updated plan and profile sheets where changes have occurred, updates ferry terminal layouts and cost estimates, updates the Engineer's Estimate, and provides an errata sheet for the original technical report.

This addendum generally reports changes or additional analysis only. The information reported in the 2004 *Technical Alignment Report* still stands unless new information is presented in this addendum.

This page intentionally left blank.

2.0 DESIGN STANDARDS

2.1 Highway Design Criteria

Table 2-1, Roadway Design Criteria. Make the following correction:

Criteria Descriptions	Design Criteria
Minimum Allowable Radius of Horizontal Curve – ft	510

Reason: To match 2001 AASHTO.

2.2 Design Exceptions

Replace the table with the following:

AK State National Highway System (NHS) Standard

Criteria Description	AASHTO Standard	Juneau Access Improvements Project
Width of Shoulder	6 Ft.	4 Ft.

Reason: The State of Alaska has adopted the American Association of State Highway and Transportation Officials (AASHTO) Standard as its standard; therefore, these standards are listed together under one column.

Shoulder Widths: AASHTO Standards indicate that a 4-foot-wide usable shoulder should be considered for rural arterials with average daily traffic (ADT) less than 400, that have travel lanes 11 feet wide and Design Speeds from 40 to 55 mph. For ADTs between 400 and 1,500 a 6-foot-wide usable shoulder should be considered.

AASHTO states: “Usable shoulders on arterials should be paved; however, where volumes are low or a narrow section is needed to reduce construction impacts, the paved shoulder may be reduced to 2 feet.”

AASHTO also states: “Where bicyclists and pedestrians are to be accommodated on the shoulders, a minimum usable shoulder width of 4 feet should be used.”

Department of Transportation and Public Facilities (DOT&PF) has elected to use the 4-foot paved usable shoulder width to minimize construction impacts while still providing for bicyclists and pedestrians.

This page intentionally left blank.

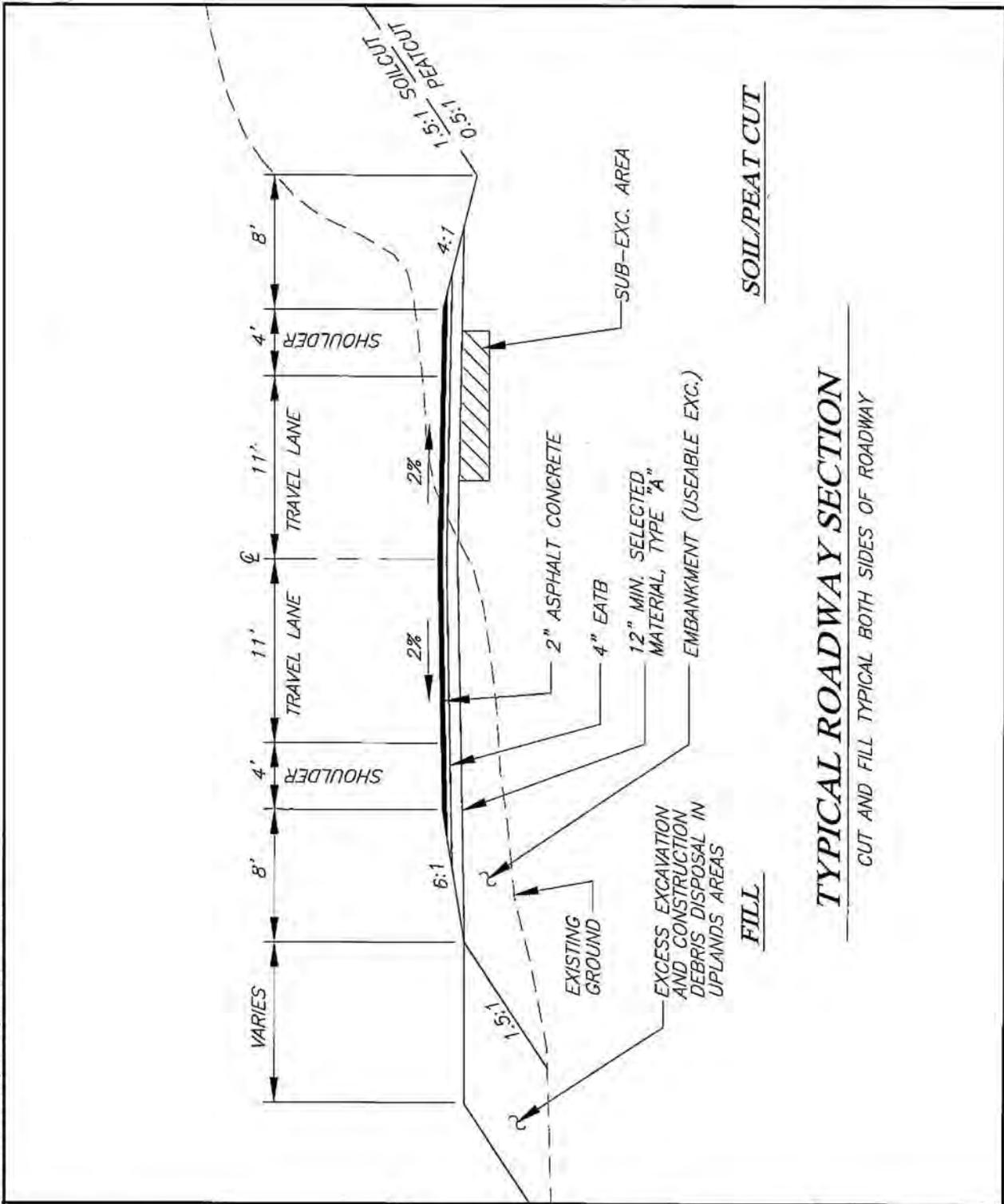
3.0 RECOMMENDED DESIGN

3.1 Typical Sections

The highway typical section has been revised to replace the 6-inch-thick layer of Base Course with a 4-inch-thick layer of Emulsified Asphalt Treated Base (EATB). The EATB will provide a more durable Structural section. The EATB was included in the Supplemental Draft EIS Engineer's Estimates for all alternatives, but was not correctly shown on the typical sections.

The attached Figures 3-1 through 3-6 and 3-8 reflect this change.

C:\JUN71100\REF\TECHNICAL ALIGNMENT REPORT\TYPICALS\TYPICALS_R-19-05.DWG

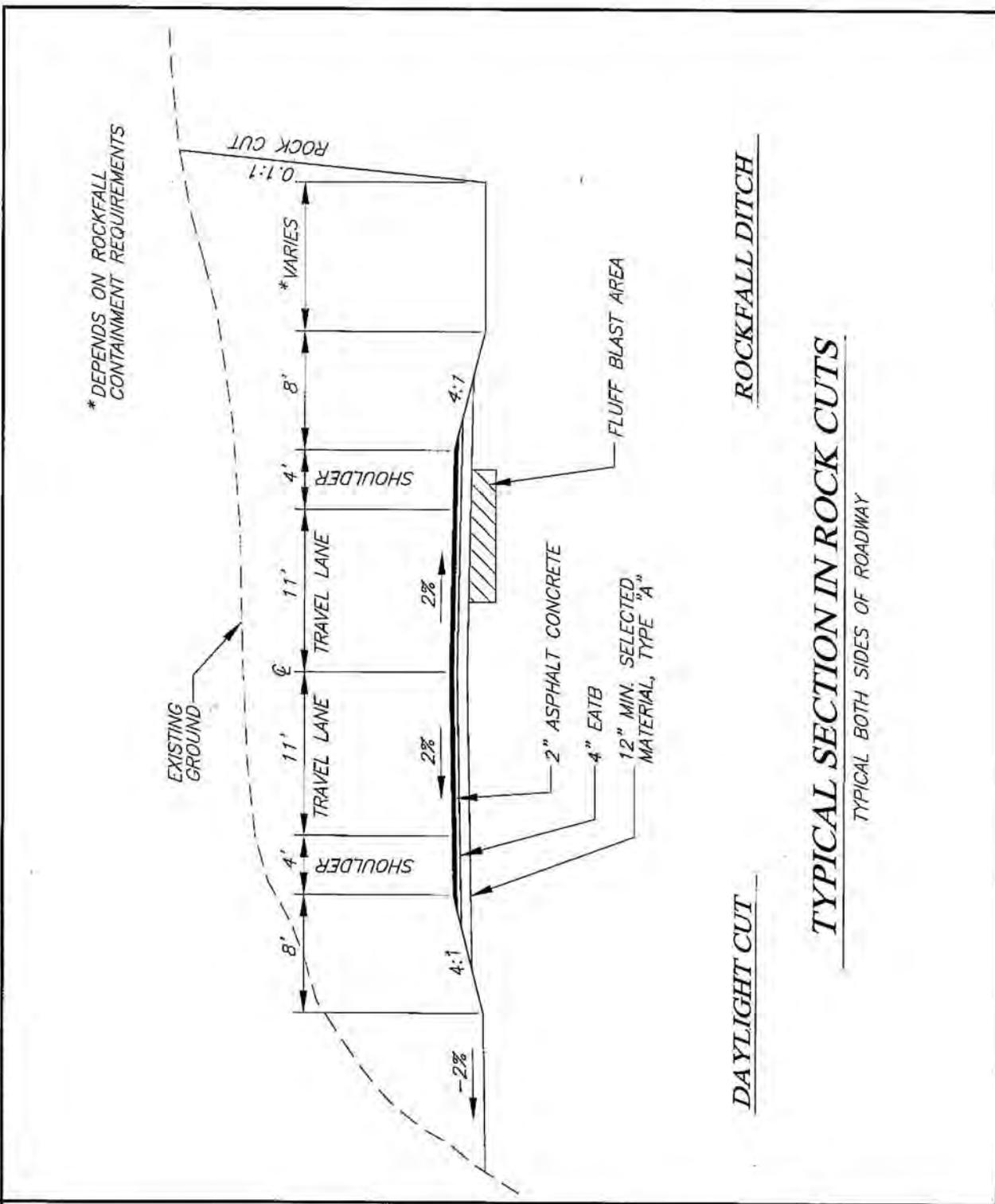


STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION

JUNEAU ACCESS IMPROVEMENTS
PROJECT NO.: 71100
TYPICAL ROADWAY SECTION

FIGURE
3-1

D:\JUNEAU\71100\REV\TECHNICAL ALIGNMENT REPORT\TYPICALS\TYPICALS B-19-05.DWG

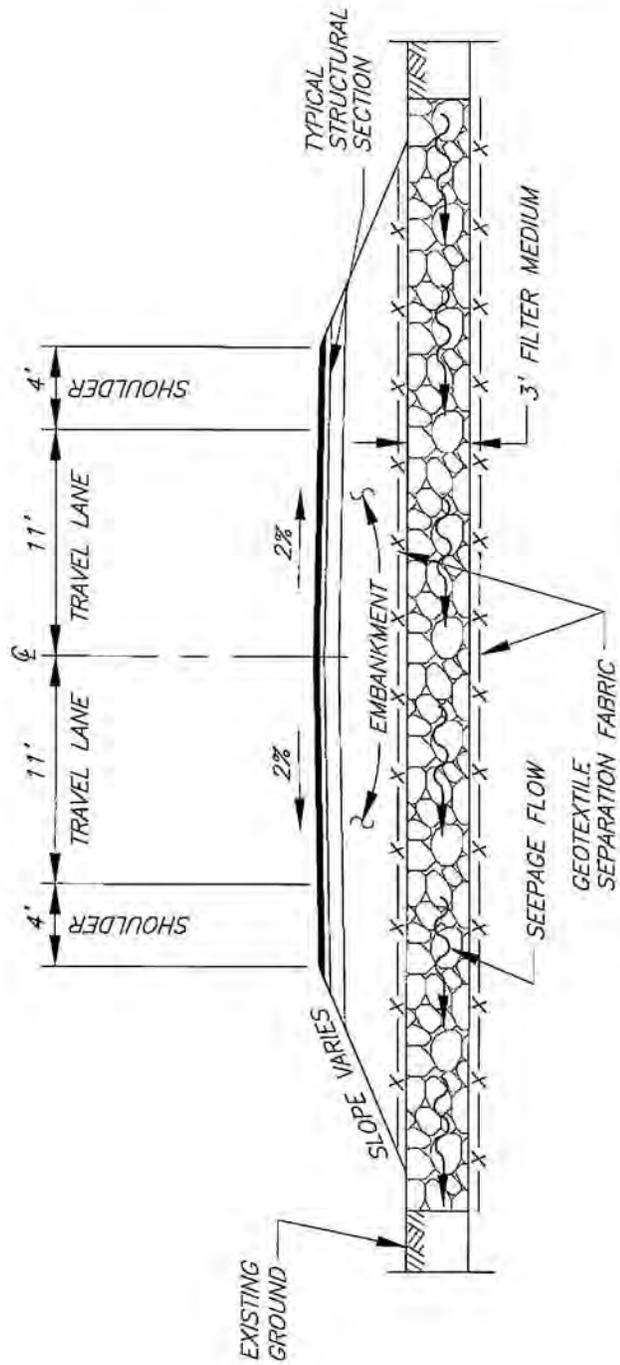


STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 & PUBLIC FACILITIES
 S.E. REGION

JUNEAU ACCESS IMPROVEMENTS
 PROJECT NO.: 71100
 TYPICAL SECTION IN ROCK CUTS

FIGURE
 3-2

C:\JUN17\1100\REV\TECHNICAL REPORT\TYPICALS\TYPICALS_0-19-05.PWG



TYPICAL ROADWAY SECTION THROUGH SEEP AREAS

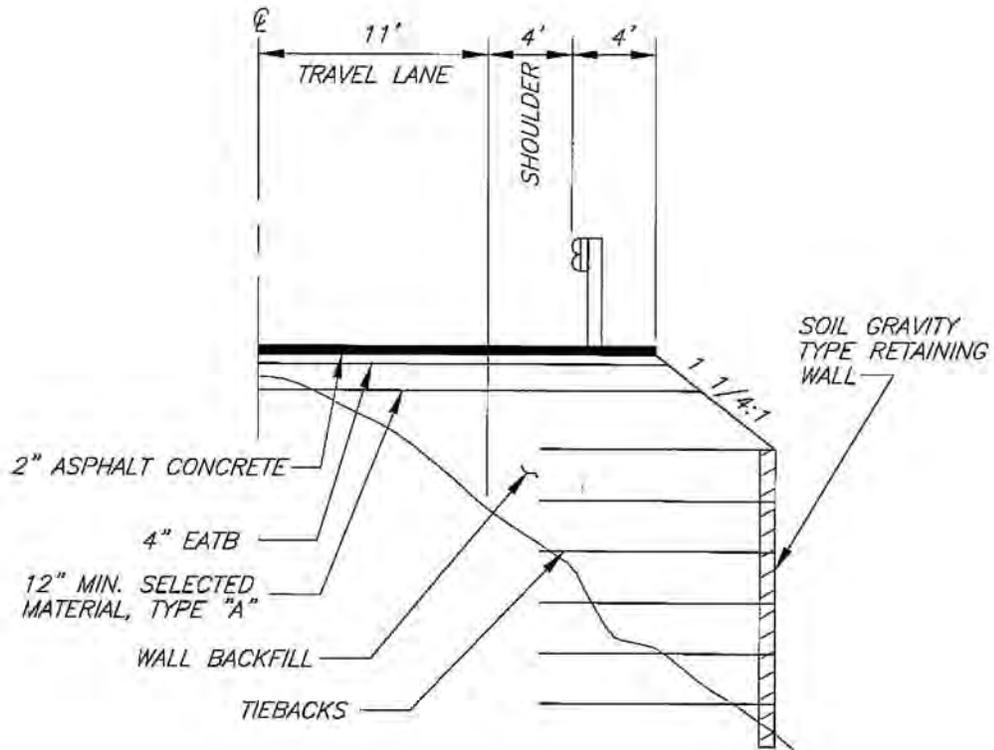
NOTES:

1. ALL TREES BRUSH AND ORGANIC DEBRIS SHALL BE REMOVED.
2. CLEAN SHOT ROCK, (SCREENED TO A UNIFORM SIZE) SHALL BE USED FOR FILTER MEDIUM.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION

JUNEAU ACCESS IMPROVEMENTS
PROJECT NO.: 71100
TYPICAL ROADWAY SECTION
THROUGH SEEP AREAS

FIGURE
3-3

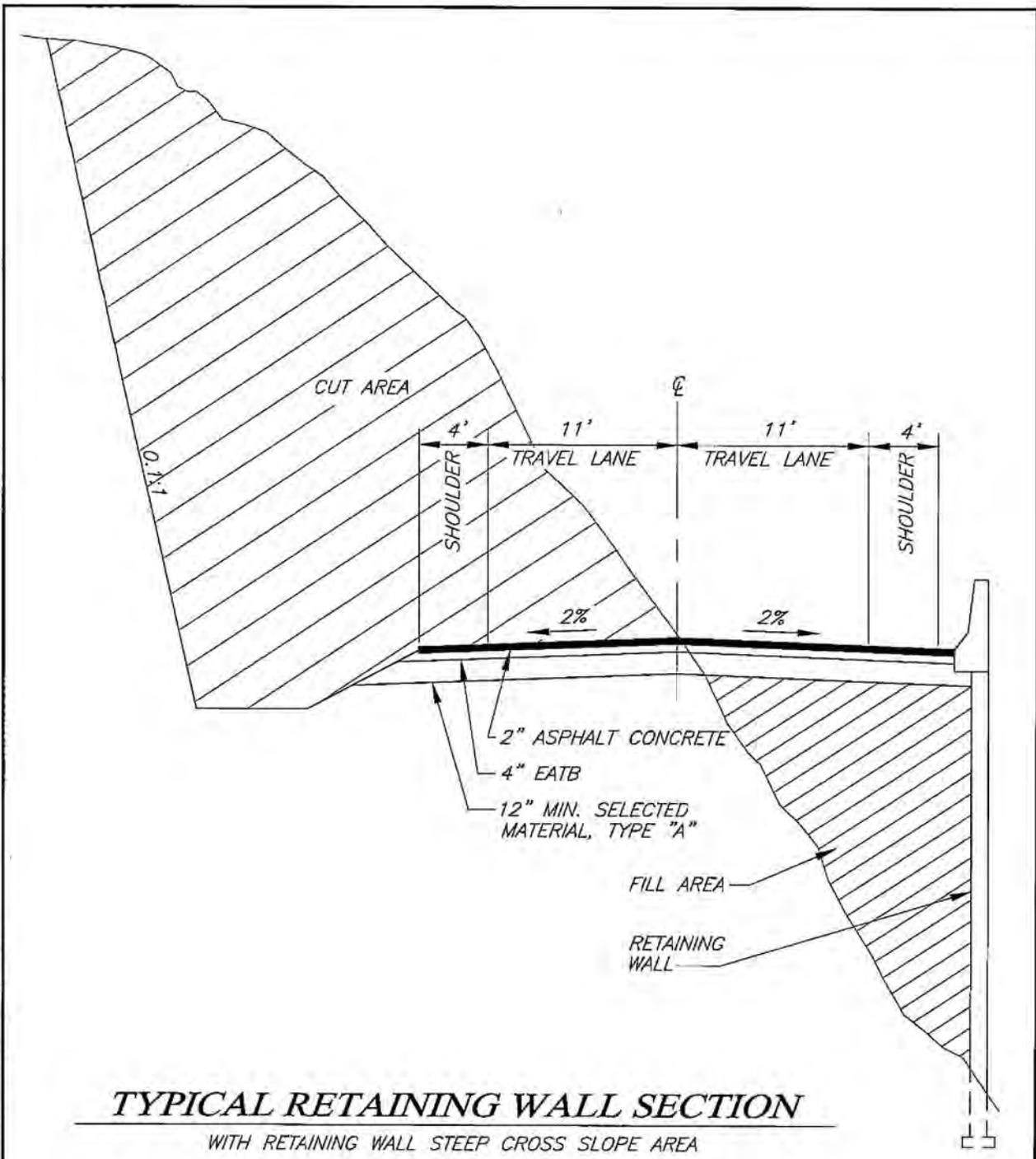


TYPICAL RETAINING WALL SECTION

WITH RETAINING WALL MODERATE TO STEEP CROSS SLOPE AREA

G:\JUNEAU\71100\REF\TECHNICAL_ALIGNMENT_REPORT\TYPICALS\TYPICALS_B-19-05.DWG

<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION</p>	<p><i>JUNEAU ACCESS IMPROVEMENTS</i> PROJECT NO.: 71100 <i>TYPICAL RETAINING WALL SECTION</i></p>	<p>FIGURE 3-4</p>
---	--	------------------------------

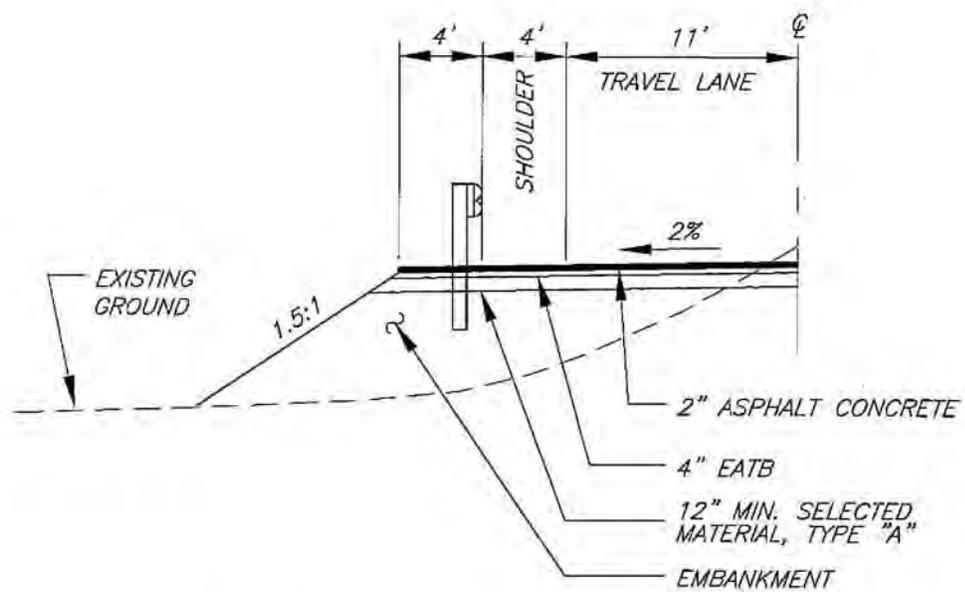


D:\ALASKA\71100\REF\TECHNICAL ALIGNMENT REPORT\TYPICAL\TYPICAL S.W. 8 - TB - 05.DWG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
& PUBLIC FACILITIES
S.E. REGION

JUNEAU ACCESS IMPROVEMENTS
PROJECT NO.: 71100
TYPICAL RETAINING
WALL SECTION

FIGURE
3-5



GUARDRAIL TYPICAL

C:\JUN71100\RE\TECHNICAL\ALIGNMENT\REPORT\TYPICALS\TYPICALS_8-19-05.DWG

<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION</p>	<p>JUNEAU ACCESS IMPROVEMENTS PROJECT NO.: 71100 GUARDRAIL TYPICAL SECTION</p>	<p>FIGURE 3-6</p>
---	--	-----------------------

3.2 Alignment Discussion Overview

3.2.1 East Lynn Canal Discussion

Note: The stationing along this route has changed due to the numerous alignment revisions. The most significant change is in the first two segments, where the stationing was backed in from the Berners/Lace River bridge after the Berners Bay Crossing alignment revisions were completed.

Station 64+75 (MP 40.5) to Station 561+00 (MP 49.9) - Echo Cove to Berners Bay Crossing – This segment was shortened to 9.4 miles due to alignment revisions on the Berners Bay Crossing segment.

The alignment was shifted uphill between Station 64+75 and Station 207+00 to straddle the Goldbelt Cascade Point Road alignment footprint. Additional adjustments to the alignment were made between Station 207+00 and Station 410+00 to avoid emergent wetlands and minimize impacts to lower value wetlands, as well as to provide a more perpendicular bridge crossing over Sawmill Creek. The nature of the terrain remains unchanged.

From Station 477+00 forward, the alignment was optimized by making minor downhill shifts where possible, and by following the curvature of the terrain more closely. This downhill adjustment was required at the end of the segment to provide a suitable approach to the first bridge on the Berners Bay Crossing Segment.

By entering the timbered uplands at Station 561+00, 4,100 feet of steep sidehill cuts were eliminated. This reduced the rock excavation quantities and removed the visual impact of large cut backslopes. This new alignment eliminates potential water quality impacts that an uphill alignment could have to the stream in this area.

Revised Plan and Profile Sheets for this segment (Sheets 2-8) are included in Attachment A.

Station 561+00 (MP 49.9) to Station 754+50 (MP 53.6) - Berners Bay Crossing – This segment was lengthened to 3.7 miles as a result of major alignment revisions, the first of which was outlined in the preceding segment description. This revision moved the alignment off of steep slopes onto relatively flat, timbered uplands.

This realignment also provided a more desirable crossing over the anadromous fish stream here by reducing the skew of the bridge in relation to the stream channel. The bridge length remains at 130 feet.

The crossings over the Antler/Gilkey River and the Berners/Lace River were revised to address resource agency concerns. These revisions increased the bridge lengths to 2,600 feet and 2,750 feet, respectively.

Two new bridges were added to span high use bear trails. The first bridge, located at Station 669+08, crosses an Anter/Gilkey River overflow channel and associated bear trail, and has a preliminary length of 146 feet. The second bridge is a 100-foot-long structure that crosses a bear trail near Station 692+50.

Revised Plan and Profile Sheets for this segment (Sheets 8-9) are included in Attachment A.

Station 754+50 (MP 53.6) to Station 1390+00 (MP 65.6) - Berners Bay Crossing to Independence Lake – This 12.0-mile segment was revised at multiple points to minimize or eliminate impacts to wetlands along the segment. The Revised Plan and Profile Sheets (Sheets 9-13) are included in Attachment A.

Station 1390+00 (MP 65.6) to Station 1503+00 (MP 67.7) - Independence Lake North

Station 1503+00 (MP 67.7) to Station 1640+00 (MP 70.3) - Met Point South

Station 1640+00 (MP 70.3) to Station 2150+00 (MP 80.0) - Met Point North to Level Point

Station 2150+00 (MP 80.0) to Station 2610+00 (MP 88.7) - Level Point to Katzehin River – A new eagle nest at Station 2321+59 forced a downhill shift of the alignment at this location.

The alignment was also moved slightly uphill between Station 2574+00 and Station 2610+00 to eliminate marine wetlands impacts in some areas, and minimize them in others.

The Revised Plan and Profile Sheet for this segment (Sheets 25 and 28) are included in Attachment A.

Station 2610+00 (MP 88.7) to Station 2747+00 (MP 91.3) – South Katzehin River to Katzehin Ferry Terminal – The alignment on this segment was shifted to the northeast between Station 2610+00 and Station 2740+00 to eliminate estuarine wetlands impacts between Station 2700+00 and Station 2720+00. This shift required a reorientation of the Katzehin River Bridge. This reorientation, and an adjustment in the bridge abutment location to satisfy resource agency concerns, resulted in the bridge length being increased to 2,500 feet.

Revised Plan and Profile Sheets for this segment (Sheets 28-30) are included in Attachment A.

3.3 Drainage and Bridges

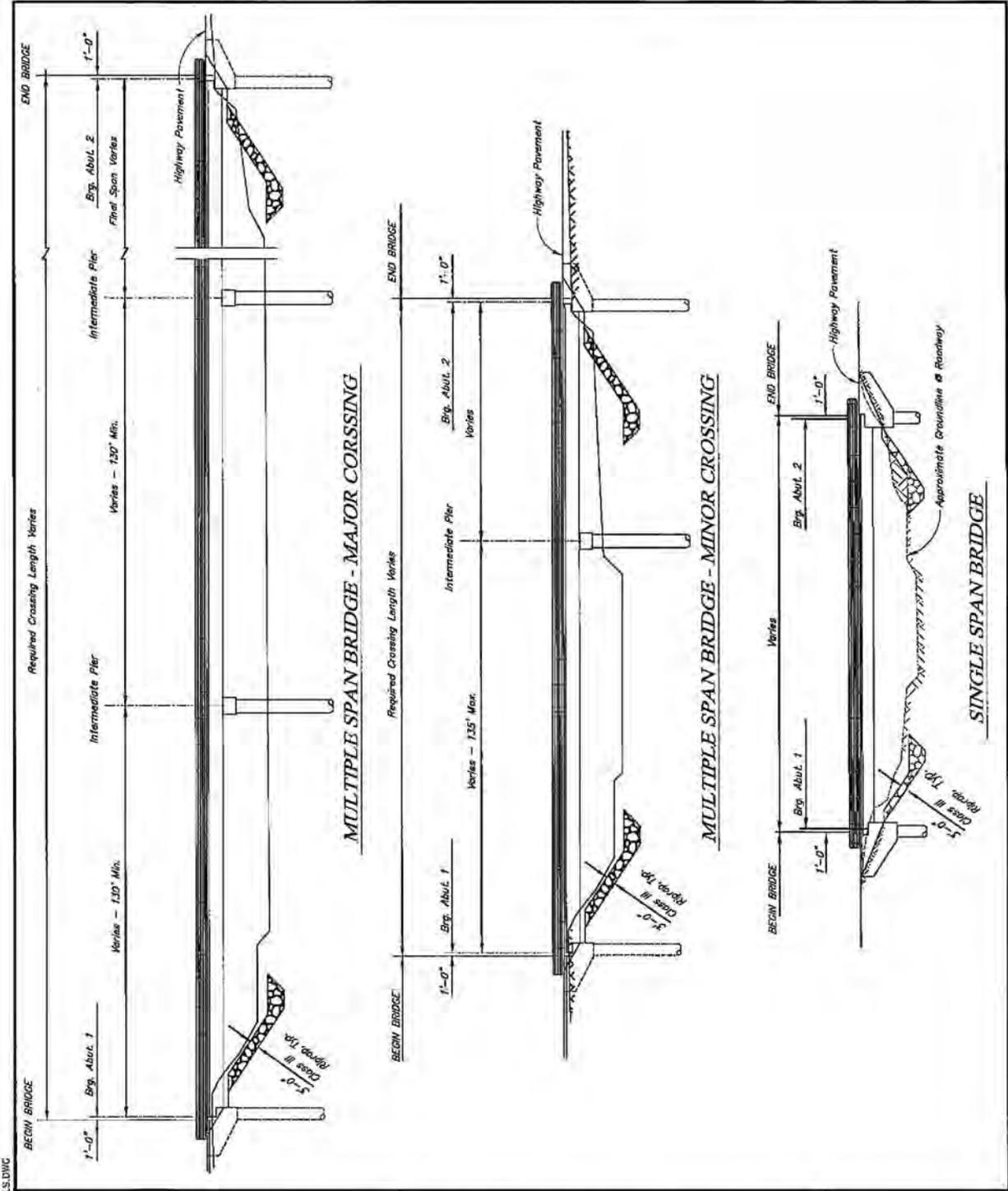
Table 3-1, East Lynn Canal Bridge Summary, has been updated to include the Alternative 2B bridges, the updated Berners Bay and Katzehin River Bridge lengths, and the two Berners Bay Bear Trail Bridges.

Figure 3-8, “Bridge Elevations,” has been updated to distinguish between Multiple Span Bridges for Major and Minor Crossings. Figure 3-7, “Bridge Typical Section,” from the 2004 Supplemental Draft EIS *Appendix O Technical Alignment Report* remained unchanged and is therefore not included in this addendum.

**Table 3-1
East Lynn Canal Bridge Summary**

Bridge No.	Begin Station	Highway Milepost	Length (ft)	Intermediate Piers	Name
1E	277+50	44.4	100	0	Sawmill Creek (A)
2E	421+53	47.2	110	0	unnamed
3E	567+00	49.9	130	0	unnamed (A)
4Ea	640+00	51.3	2,600	19	Antler/Gilkey Rivers (A)
4Eb	669+08	51.9	146	1	Overflow Channel/Bear Trail
4Ec	692+50	52.3	100	0	Bear Trail
5E	727+00	52.9	2,750	20	Berners/Lace Rivers (A)
6E	908+03	56.4	270	1	Slate Creek (A)
7E	1294+18	63.7	180	1	Sweeny Creek (A)
8E	1328+78	64.3	250	1	Sherman Creek (A)
9E	1439+58	66.4	90	0	Independence Creek (A)
10E	1546+08	68.5	100	0	unnamed
11E	1767+88	72.7	70	0	unnamed
12E	2025+88	77.5	80	0	unnamed
13E	2229+58	81.4	60	0	Yeldagalga Creek
14E	2305+48	82.8	120	0	unnamed
15E	2322+50	83.2	120	0	unnamed
16E	2403+38	84.7	120	0	unnamed
17E	2442+98	85.4	200	1	unnamed
18E	2564+92	87.8	160	1	unnamed
19E	2614+00	88.7	2,500	18	Katzehin River (A)
Total Bridges 21		Total Length 10,256			

Note: (A) = Anadromous fish stream



<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES S.E. REGION</p>	<p>JUNEAU ACCESS IMPROVEMENTS PROJECT NO.: 71100 BRIDGE ELEVATIONS</p>	<p>FIGURE 3-8</p>
---	--	-----------------------

This page intentionally left blank.

**REVISIONS TO ATTACHMENT A
EAST LYNN CANAL REVISED PLAN AND PROFILE SHEETS**

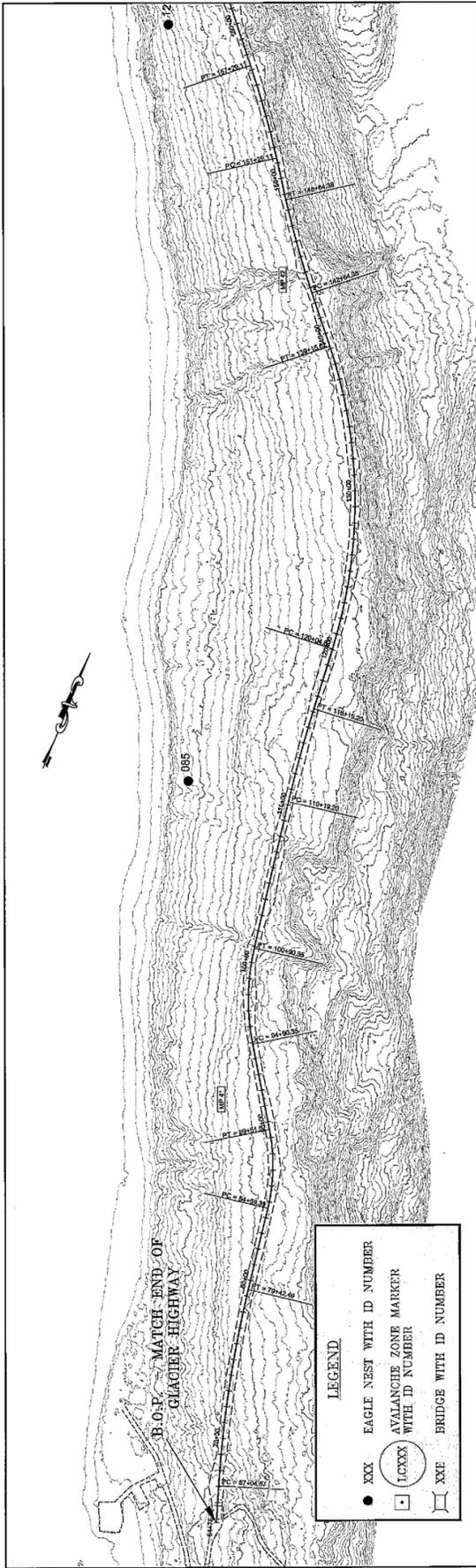
Attachment A has been updated to reflect alignment changes. This alignment incorporates resource agency comments and concerns voiced during the comment period for the Supplemental Draft EIS. It also includes new eagle nest locations and the current highway stationing. Revised Plan and Profile Sheets are included.

This page intentionally left blank.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

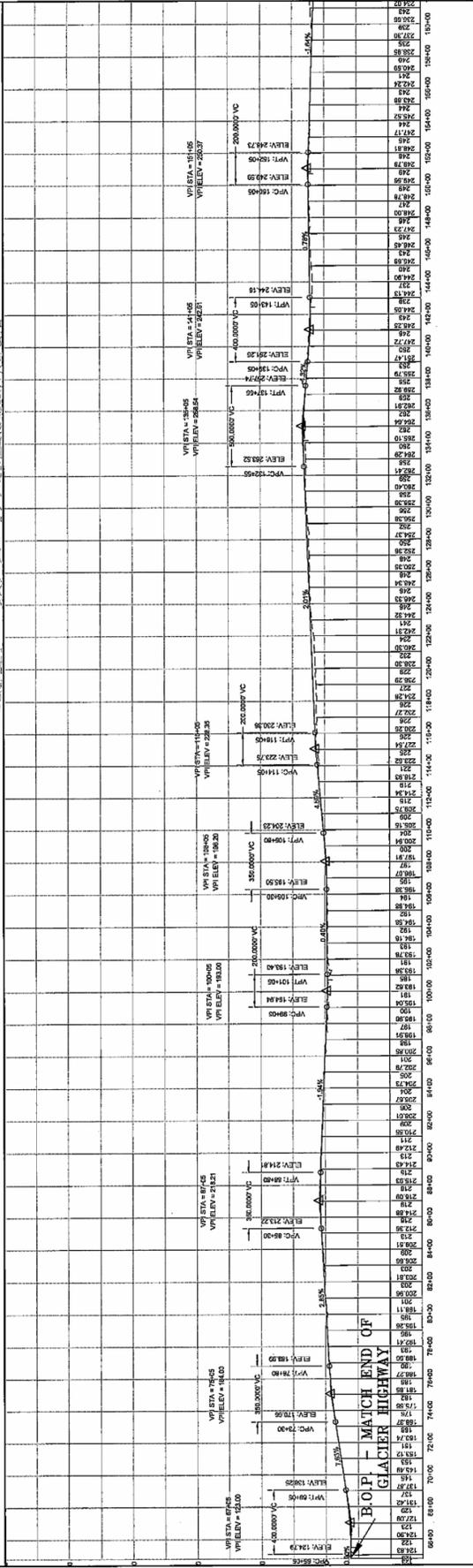
PROJECT NO. 71100
JUNEAU ACCESS IMPROVEMENTS
ECHO COVE TO KATZEHIN FERRY TERMINAL
1" = 600' PLANS

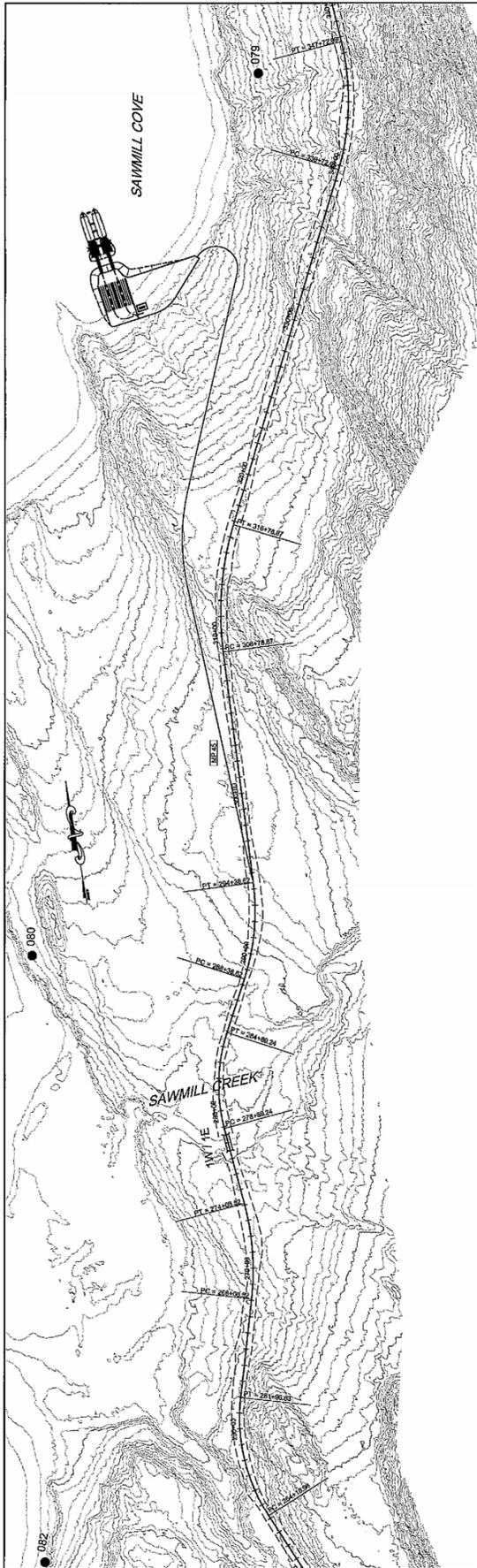




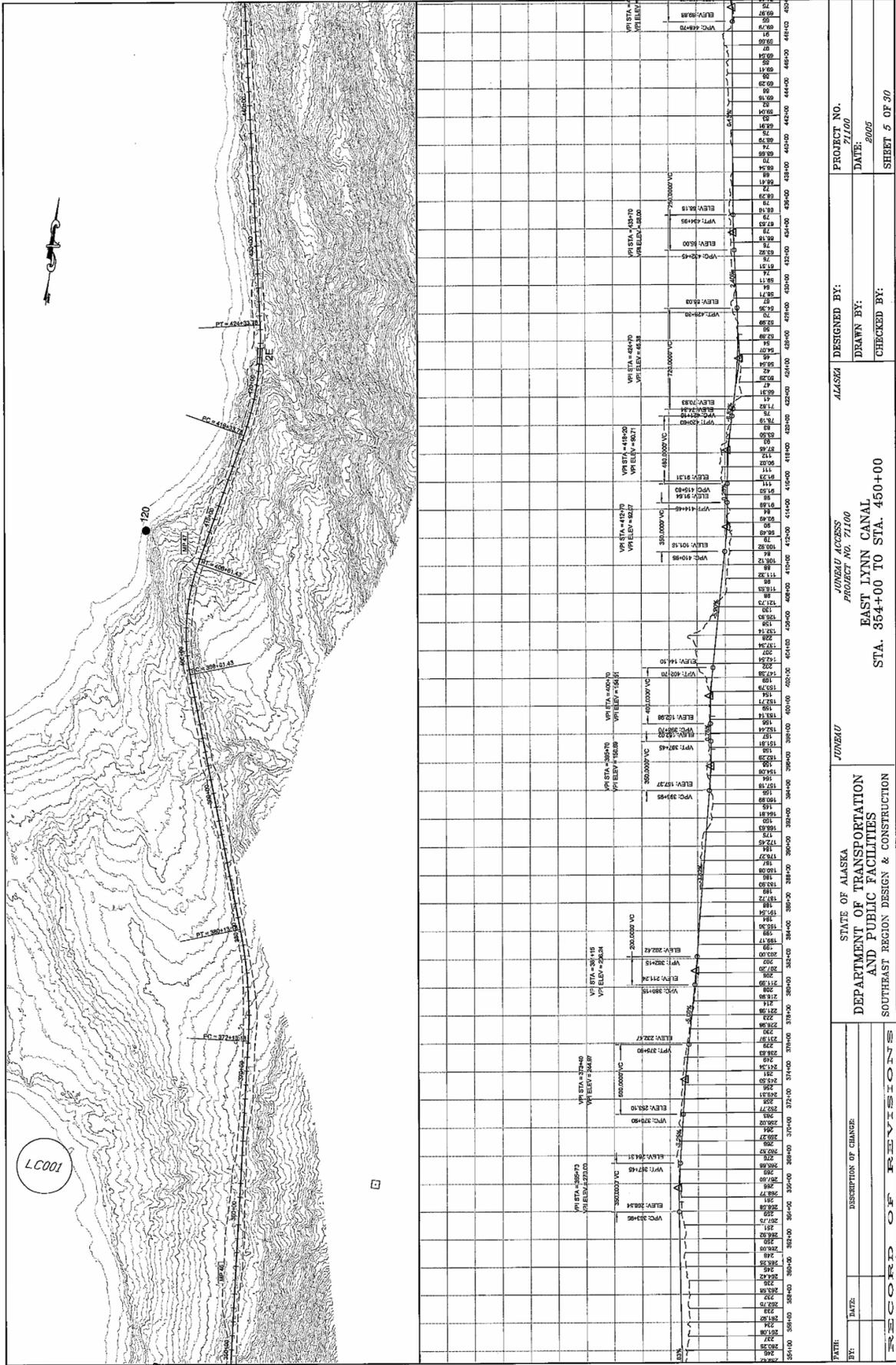
LEGEND

- EAGLE NEST WITH ID NUMBER
- AVAILANCIE ZONE MARKER
- BRIDGE WITH ID NUMBER





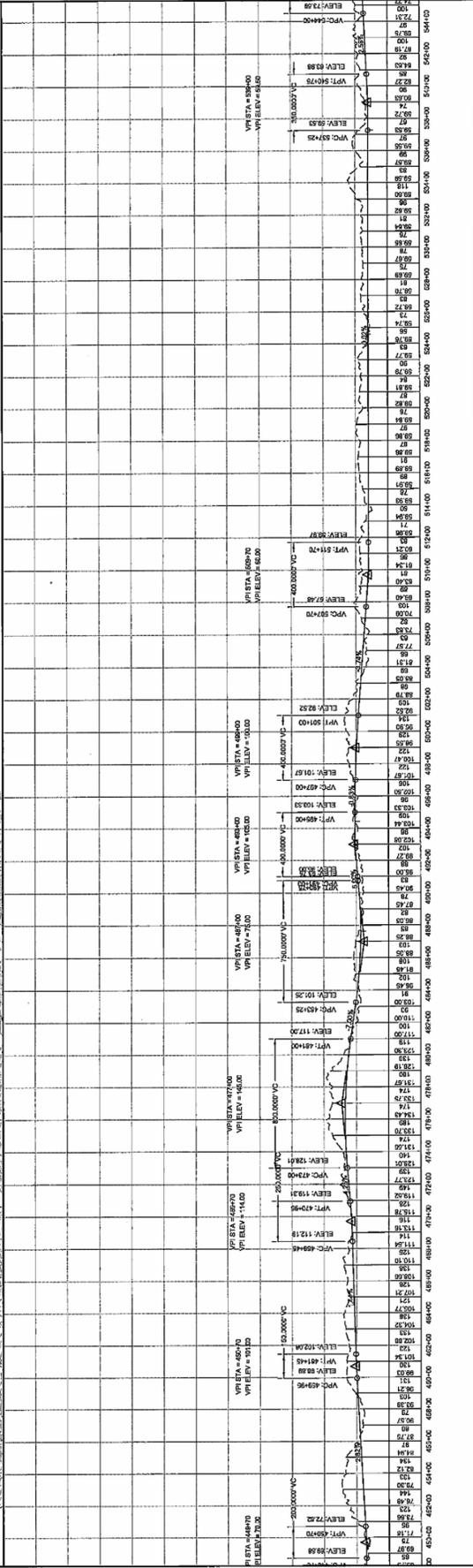
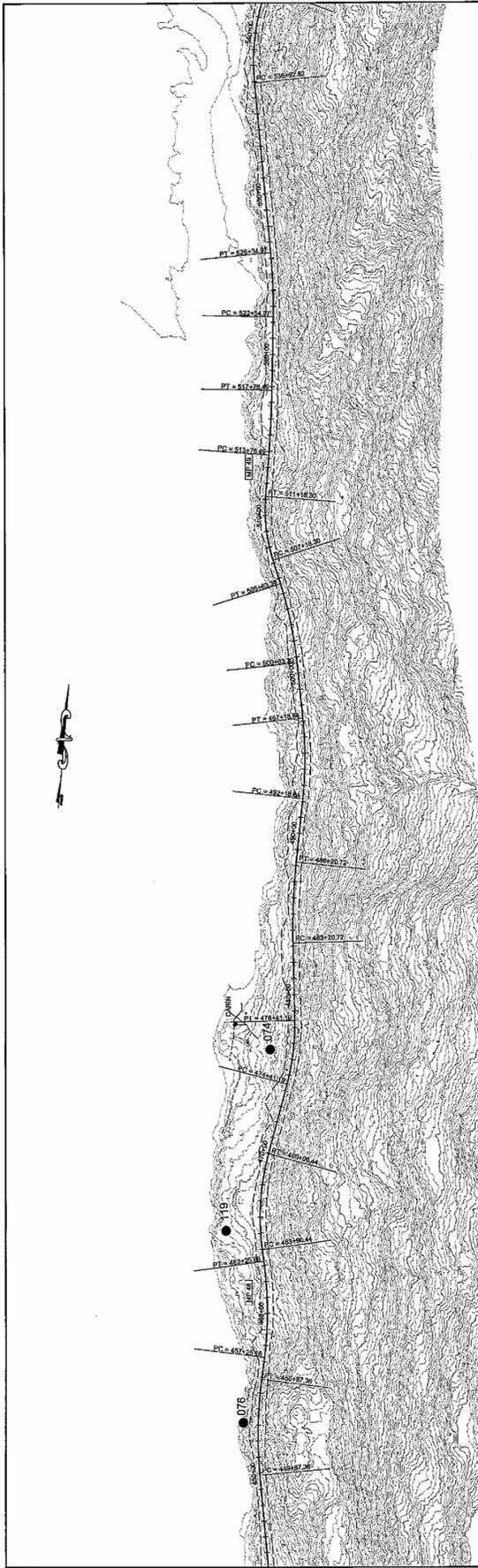
STATION	VERTICAL CURVE DATA	ELEVATION	PROPOSED ELEVATION	DIFFERENCE
258+00		183.00	183.00	0.00
258+10		182.00	182.00	0.00
258+20		181.00	181.00	0.00
258+30		180.00	180.00	0.00
258+40		179.00	179.00	0.00
258+50		178.00	178.00	0.00
258+60		177.00	177.00	0.00
258+70		176.00	176.00	0.00
258+80		175.00	175.00	0.00
258+90		174.00	174.00	0.00
259+00		173.00	173.00	0.00
259+10		172.00	172.00	0.00
259+20		171.00	171.00	0.00
259+30		170.00	170.00	0.00
259+40		169.00	169.00	0.00
259+50		168.00	168.00	0.00
259+60		167.00	167.00	0.00
259+70		166.00	166.00	0.00
259+80		165.00	165.00	0.00
259+90		164.00	164.00	0.00
260+00		163.00	163.00	0.00
260+10		162.00	162.00	0.00
260+20		161.00	161.00	0.00
260+30		160.00	160.00	0.00
260+40		159.00	159.00	0.00
260+50		158.00	158.00	0.00
260+60		157.00	157.00	0.00
260+70		156.00	156.00	0.00
260+80		155.00	155.00	0.00
260+90		154.00	154.00	0.00
261+00		153.00	153.00	0.00
261+10		152.00	152.00	0.00
261+20		151.00	151.00	0.00
261+30		150.00	150.00	0.00
261+40		149.00	149.00	0.00
261+50		148.00	148.00	0.00
261+60		147.00	147.00	0.00
261+70		146.00	146.00	0.00
261+80		145.00	145.00	0.00
261+90		144.00	144.00	0.00
262+00		143.00	143.00	0.00
262+10		142.00	142.00	0.00
262+20		141.00	141.00	0.00
262+30		140.00	140.00	0.00
262+40		139.00	139.00	0.00
262+50		138.00	138.00	0.00
262+60		137.00	137.00	0.00
262+70		136.00	136.00	0.00
262+80		135.00	135.00	0.00
262+90		134.00	134.00	0.00
263+00		133.00	133.00	0.00
263+10		132.00	132.00	0.00
263+20		131.00	131.00	0.00
263+30		130.00	130.00	0.00
263+40		129.00	129.00	0.00
263+50		128.00	128.00	0.00
263+60		127.00	127.00	0.00
263+70		126.00	126.00	0.00
263+80		125.00	125.00	0.00
263+90		124.00	124.00	0.00
264+00		123.00	123.00	0.00
264+10		122.00	122.00	0.00
264+20		121.00	121.00	0.00
264+30		120.00	120.00	0.00
264+40		119.00	119.00	0.00
264+50		118.00	118.00	0.00
264+60		117.00	117.00	0.00
264+70		116.00	116.00	0.00
264+80		115.00	115.00	0.00
264+90		114.00	114.00	0.00
265+00		113.00	113.00	0.00
265+10		112.00	112.00	0.00
265+20		111.00	111.00	0.00
265+30		110.00	110.00	0.00
265+40		109.00	109.00	0.00
265+50		108.00	108.00	0.00
265+60		107.00	107.00	0.00
265+70		106.00	106.00	0.00
265+80		105.00	105.00	0.00
265+90		104.00	104.00	0.00
266+00		103.00	103.00	0.00
266+10		102.00	102.00	0.00
266+20		101.00	101.00	0.00
266+30		100.00	100.00	0.00
266+40		99.00	99.00	0.00
266+50		98.00	98.00	0.00
266+60		97.00	97.00	0.00
266+70		96.00	96.00	0.00
266+80		95.00	95.00	0.00
266+90		94.00	94.00	0.00
267+00		93.00	93.00	0.00
267+10		92.00	92.00	0.00
267+20		91.00	91.00	0.00
267+30		90.00	90.00	0.00
267+40		89.00	89.00	0.00
267+50		88.00	88.00	0.00
267+60		87.00	87.00	0.00
267+70		86.00	86.00	0.00
267+80		85.00	85.00	0.00
267+90		84.00	84.00	0.00
268+00		83.00	83.00	0.00
268+10		82.00	82.00	0.00
268+20		81.00	81.00	0.00
268+30		80.00	80.00	0.00
268+40		79.00	79.00	0.00
268+50		78.00	78.00	0.00
268+60		77.00	77.00	0.00
268+70		76.00	76.00	0.00
268+80		75.00	75.00	0.00
268+90		74.00	74.00	0.00
269+00		73.00	73.00	0.00
269+10		72.00	72.00	0.00
269+20		71.00	71.00	0.00
269+30		70.00	70.00	0.00
269+40		69.00	69.00	0.00
269+50		68.00	68.00	0.00
269+60		67.00	67.00	0.00
269+70		66.00	66.00	0.00
269+80		65.00	65.00	0.00
269+90		64.00	64.00	0.00
270+00		63.00	63.00	0.00
270+10		62.00	62.00	0.00
270+20		61.00	61.00	0.00
270+30		60.00	60.00	0.00
270+40		59.00	59.00	0.00
270+50		58.00	58.00	0.00
270+60		57.00	57.00	0.00
270+70		56.00	56.00	0.00
270+80		55.00	55.00	0.00
270+90		54.00	54.00	0.00
271+00		53.00	53.00	0.00
271+10		52.00	52.00	0.00
271+20		51.00	51.00	0.00
271+30		50.00	50.00	0.00
271+40		49.00	49.00	0.00
271+50		48.00	48.00	0.00
271+60		47.00	47.00	0.00
271+70		46.00	46.00	0.00
271+80		45.00	45.00	0.00
271+90		44.00	44.00	0.00
272+00		43.00	43.00	0.00
272+10		42.00	42.00	0.00
272+20		41.00	41.00	0.00
272+30		40.00	40.00	0.00
272+40		39.00	39.00	0.00
272+50		38.00	38.00	0.00
272+60		37.00	37.00	0.00
272+70		36.00	36.00	0.00
272+80		35.00	35.00	0.00
272+90		34.00	34.00	0.00
273+00		33.00	33.00	0.00
273+10		32.00	32.00	0.00
273+20		31.00	31.00	0.00
273+30		30.00	30.00	0.00
273+40		29.00	29.00	0.00
273+50		28.00	28.00	0.00
273+60		27.00	27.00	0.00
273+70		26.00	26.00	0.00
273+80		25.00	25.00	0.00
273+90		24.00	24.00	0.00
274+00		23.00	23.00	0.00
274+10		22.00	22.00	0.00
274+20		21.00	21.00	0.00
274+30		20.00	20.00	0.00
274+40		19.00	19.00	0.00
274+50		18.00	18.00	0.00
274+60		17.00	17.00	0.00
274+70		16.00	16.00	0.00
274+80		15.00	15.00	0.00
274+90		14.00	14.00	0.00
275+00		13.00	13.00	0.00
275+10		12.00	12.00	0.00
275+20		11.00	11.00	0.00
275+30		10.00	10.00	0.00
275+40		9.00	9.00	0.00
275+50		8.00	8.00	0.00
275+60		7.00	7.00	0.00
275+70		6.00	6.00	0.00
275+80		5.00	5.00	0.00
275+90		4.00	4.00	0.00
276+00		3.00	3.00	0.00
276+10		2.00	2.00	0.00
276+20		1.00	1.00	0.00
276+30		0.00	0.00	0.00
276+40		-1.00	-1.00	0.00
276+50		-2.00	-2.00	0.00
276+60		-3.00	-3.00	0.00
276+70		-4.00	-4.00	0.00
276+80		-5.00	-5.00	0.00
276+90		-6.00	-6.00	0.00
277+00		-7.00	-7.00	0.00
277+10		-8.00	-8.00	0.00
277+20		-9.00	-9.00	0.00
277+30		-10.00	-10.00	0.00
277+40		-11.00	-11.00	0.00
277+50		-12.00	-12.00	0.00
277+60		-13.00	-13.00	0.00
277+70		-14.00	-14.00	0.00
277+80		-15.00	-15.00	0.00
277+90		-16.00	-16.00	0.00
278+00		-17.00	-17.00	0.00
278+10		-18.00	-18.00	0.00
278+20		-19.00	-19.00	0.00
278+30		-20.00	-20.00	0.00
278+40		-21.00	-21.00	0.00
278+50		-22.00	-22.00	0.00
278+60		-23.00	-23.00	0.00
278+70		-24.00	-24.00	0.00
278+80		-25.00	-25.00	0.00
278+90		-26.00	-26.00	0.00
279+00		-27.00	-27.00	0.00
279+10		-28.00	-28.00	0.00
279+20		-29.00	-29.00	0.00
279+30		-30.00	-30.00	0.00
279+40		-31.00	-31.00	0.00
279+50		-32.00	-32.00	0.00
279+60		-33.00	-33.00	0.00
279+70		-34.00	-34.00	0.00
279+80		-35.00	-35.00	0.00
279+90		-36.00	-36.00	0.00
280+00		-37.00	-37.00	0.00
280+10		-38.00	-38.00	0.00
280+20		-39.00	-39.00	0.00
280+30		-40.00	-40.00	0.00
280+40		-41.00	-41.00	0.00
280+50		-42.00	-42.00	0.00
280+60		-43.00	-43.00	0.00
280+70		-44.00	-44.00	0.00
280+80		-45.00	-45.00	0.00
280+90		-46.00	-46.00	0.00
281+00		-47.00	-47.00	0.00
281+10		-48.00	-48.00	0.00
281+20		-49.00	-49.00	0.00
281+30		-50.00	-50.00	0.00
281+40		-51.00	-51.00	0.00
281+50		-52.00	-52.00	0.00
281+60		-53.00	-53.00	0.00
281+70		-54.00	-54.00	0.00
281+80		-55.00	-55.00	0.00
281+90		-56.00	-56.00	0.00
282+00		-57.00	-57.00	0.00
282+10		-58.00	-58.00	0.00
282+20		-59.00	-59.00	0.00
282+30		-60.00	-60.00	0.00
282				



DATE:	DESCRIPTION OF CHANGE:	DESIGNED BY:	PROJECT NO.:
2005		ALASKA	71100
		DRAWN BY:	
		CHECKED BY:	
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES SOUTHEAST REGION DESIGN & CONSTRUCTION		JUNEAU ACCESS PROJECT NO. 71100 EAST LYNN CANAL STA. 354+00 TO STA. 450+00	

NO.	DATE	DESCRIPTION OF CHANGE

RECORD OF REVISIONS



DATE	REVISIONS	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES SOUTHEAST REGION DESIGN & CONSTRUCTION	JUNEAU	JUNEAU ACCESS PROJECT NO. 71100	ALASKA	DESIGNED BY:	PROJECT NO.
							71100
							DATE:
							2005
							CHECKED BY:
							SHEET 6 OF 30

Appendix W - Technical Report Addenda

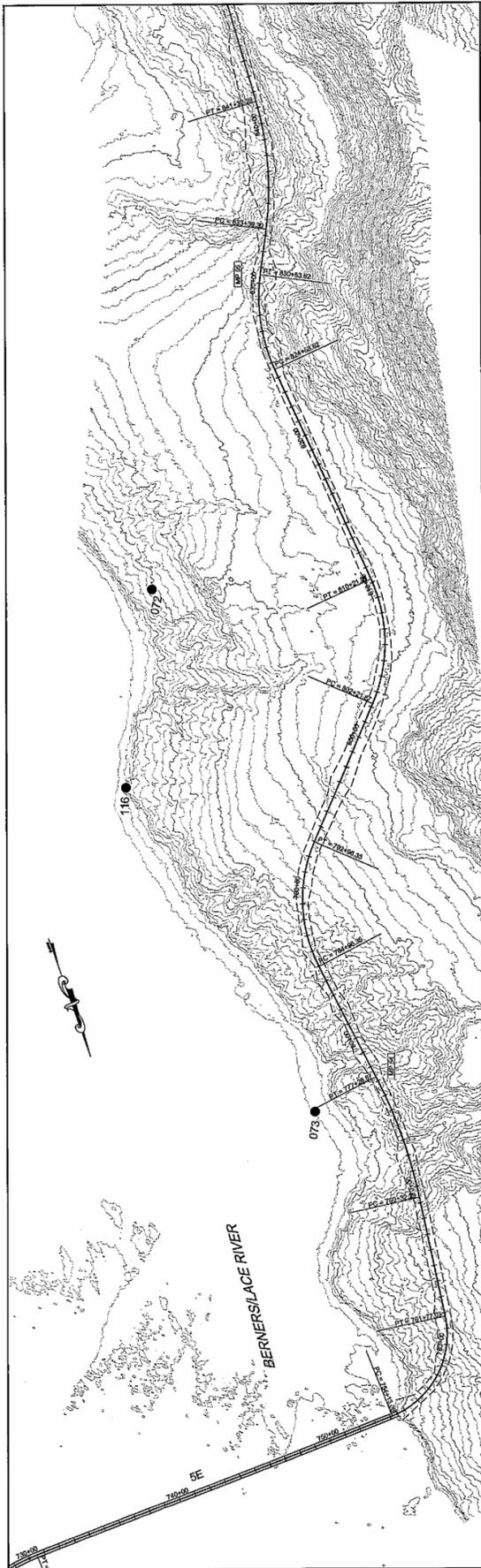
W-45

January 2006



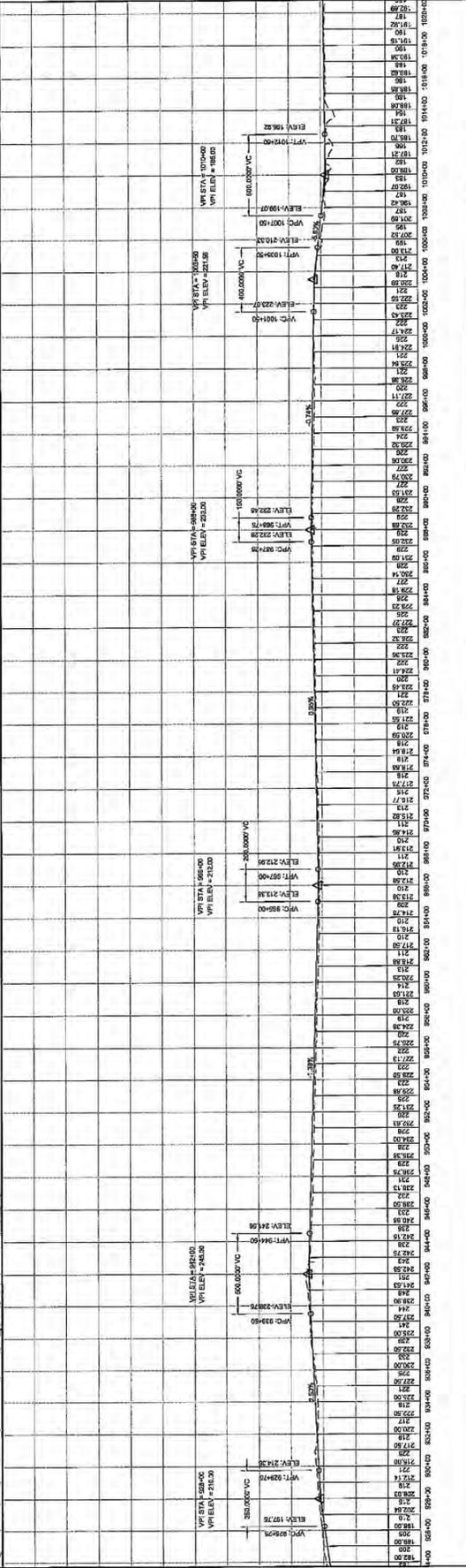
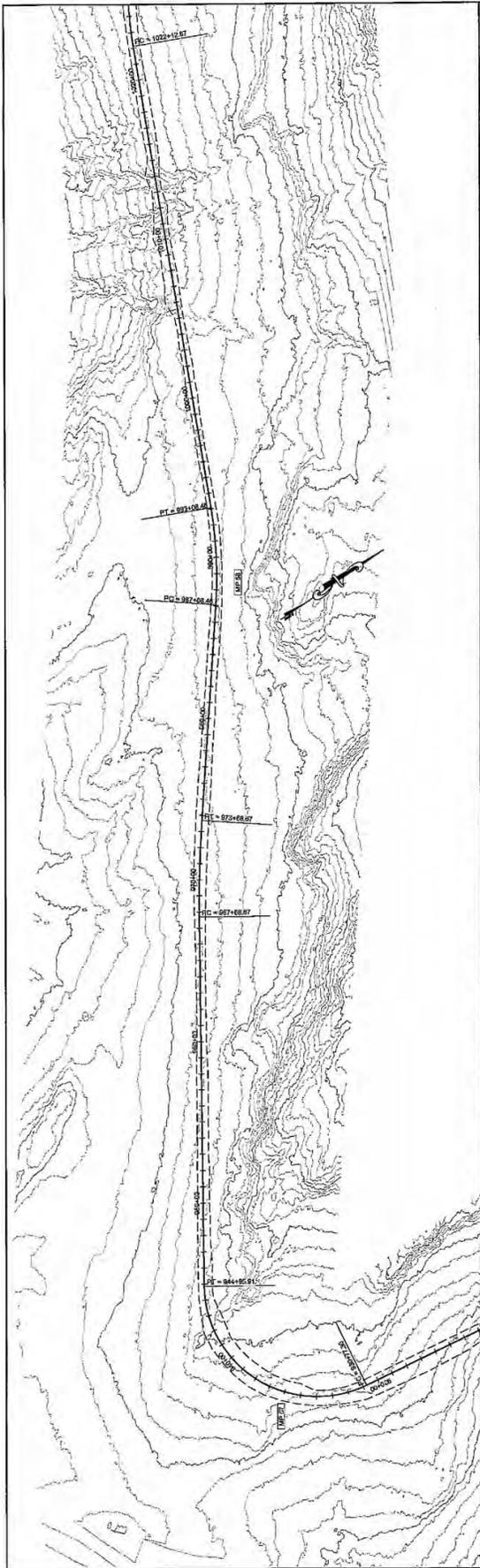
STATION	ELEVATION	VERTICAL CURVE DATA
640+00	64.00	
641+00	64.00	
642+00	64.00	
643+00	64.00	
644+00	64.00	
645+00	64.00	
646+00	64.00	
647+00	64.00	
648+00	64.00	
649+00	64.00	
650+00	64.00	
651+00	64.00	
652+00	64.00	
653+00	64.00	
654+00	64.00	
655+00	64.00	
656+00	64.00	
657+00	64.00	
658+00	64.00	
659+00	64.00	
660+00	64.00	
661+00	64.00	
662+00	64.00	
663+00	64.00	
664+00	64.00	
665+00	64.00	
666+00	64.00	
667+00	64.00	
668+00	64.00	
669+00	64.00	
670+00	64.00	
671+00	64.00	
672+00	64.00	
673+00	64.00	
674+00	64.00	
675+00	64.00	
676+00	64.00	
677+00	64.00	
678+00	64.00	
679+00	64.00	
680+00	64.00	
681+00	64.00	
682+00	64.00	
683+00	64.00	
684+00	64.00	
685+00	64.00	
686+00	64.00	
687+00	64.00	
688+00	64.00	
689+00	64.00	
690+00	64.00	
691+00	64.00	
692+00	64.00	
693+00	64.00	
694+00	64.00	
695+00	64.00	
696+00	64.00	
697+00	64.00	
698+00	64.00	
699+00	64.00	
700+00	64.00	
701+00	64.00	
702+00	64.00	
703+00	64.00	
704+00	64.00	
705+00	64.00	
706+00	64.00	
707+00	64.00	
708+00	64.00	
709+00	64.00	
710+00	64.00	
711+00	64.00	
712+00	64.00	
713+00	64.00	
714+00	64.00	
715+00	64.00	
716+00	64.00	
717+00	64.00	
718+00	64.00	
719+00	64.00	
720+00	64.00	
721+00	64.00	
722+00	64.00	
723+00	64.00	
724+00	64.00	
725+00	64.00	
726+00	64.00	
727+00	64.00	
728+00	64.00	
729+00	64.00	
730+00	64.00	
731+00	64.00	
732+00	64.00	
733+00	64.00	
734+00	64.00	
735+00	64.00	

STATE OF ALASKA		JUNEAU		ALASKA	
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES		JUNEAU ACCESS PROJECT No. 71100		DESIGNED BY:	
SOUTHEAST REGION DESIGN & CONSTRUCTION		EAST LYNN CANAL STA. 640+00 TO STA. 735+00		DRAWN BY:	
RECORD OF REVISIONS				CHECKED BY:	
NO.	DATE	DESCRIPTION OF CHANGE	PROJECT NO.	DATE	SHEET # OF 40
1			71100		2005



STATION	ELEVATION	DESCRIPTION
735+00	81.00	GRADE
736+00	81.00	GRADE
737+00	81.00	GRADE
738+00	81.00	GRADE
739+00	81.00	GRADE
740+00	81.00	GRADE
741+00	81.00	GRADE
742+00	81.00	GRADE
743+00	81.00	GRADE
744+00	81.00	GRADE
745+00	81.00	GRADE
746+00	81.00	GRADE
747+00	81.00	GRADE
748+00	81.00	GRADE
749+00	81.00	GRADE
750+00	81.00	GRADE
751+00	81.00	GRADE
752+00	81.00	GRADE
753+00	81.00	GRADE
754+00	81.00	GRADE
755+00	81.00	GRADE
756+00	81.00	GRADE
757+00	81.00	GRADE
758+00	81.00	GRADE
759+00	81.00	GRADE
760+00	81.00	GRADE
761+00	81.00	GRADE
762+00	81.00	GRADE
763+00	81.00	GRADE
764+00	81.00	GRADE
765+00	81.00	GRADE
766+00	81.00	GRADE
767+00	81.00	GRADE
768+00	81.00	GRADE
769+00	81.00	GRADE
770+00	81.00	GRADE
771+00	81.00	GRADE
772+00	81.00	GRADE
773+00	81.00	GRADE
774+00	81.00	GRADE
775+00	81.00	GRADE
776+00	81.00	GRADE
777+00	81.00	GRADE
778+00	81.00	GRADE
779+00	81.00	GRADE
780+00	81.00	GRADE
781+00	81.00	GRADE
782+00	81.00	GRADE
783+00	81.00	GRADE
784+00	81.00	GRADE
785+00	81.00	GRADE
786+00	81.00	GRADE
787+00	81.00	GRADE
788+00	81.00	GRADE
789+00	81.00	GRADE
790+00	81.00	GRADE
791+00	81.00	GRADE
792+00	81.00	GRADE
793+00	81.00	GRADE
794+00	81.00	GRADE
795+00	81.00	GRADE
796+00	81.00	GRADE
797+00	81.00	GRADE
798+00	81.00	GRADE
799+00	81.00	GRADE
800+00	81.00	GRADE
801+00	81.00	GRADE
802+00	81.00	GRADE
803+00	81.00	GRADE
804+00	81.00	GRADE
805+00	81.00	GRADE
806+00	81.00	GRADE
807+00	81.00	GRADE
808+00	81.00	GRADE
809+00	81.00	GRADE
810+00	81.00	GRADE
811+00	81.00	GRADE
812+00	81.00	GRADE
813+00	81.00	GRADE
814+00	81.00	GRADE
815+00	81.00	GRADE
816+00	81.00	GRADE
817+00	81.00	GRADE
818+00	81.00	GRADE
819+00	81.00	GRADE
820+00	81.00	GRADE
821+00	81.00	GRADE
822+00	81.00	GRADE
823+00	81.00	GRADE
824+00	81.00	GRADE
825+00	81.00	GRADE
826+00	81.00	GRADE
827+00	81.00	GRADE
828+00	81.00	GRADE
829+00	81.00	GRADE
830+00	81.00	GRADE
831+00	81.00	GRADE
832+00	81.00	GRADE
833+00	81.00	GRADE
834+00	81.00	GRADE
835+00	81.00	GRADE
836+00	81.00	GRADE
837+00	81.00	GRADE
838+00	81.00	GRADE
839+00	81.00	GRADE
840+00	81.00	GRADE
841+00	81.00	GRADE
842+00	81.00	GRADE
843+00	81.00	GRADE
844+00	81.00	GRADE
845+00	81.00	GRADE
846+00	81.00	GRADE
847+00	81.00	GRADE
848+00	81.00	GRADE
849+00	81.00	GRADE
850+00	81.00	GRADE
851+00	81.00	GRADE
852+00	81.00	GRADE
853+00	81.00	GRADE
854+00	81.00	GRADE
855+00	81.00	GRADE
856+00	81.00	GRADE
857+00	81.00	GRADE
858+00	81.00	GRADE
859+00	81.00	GRADE
860+00	81.00	GRADE
861+00	81.00	GRADE
862+00	81.00	GRADE
863+00	81.00	GRADE
864+00	81.00	GRADE
865+00	81.00	GRADE
866+00	81.00	GRADE
867+00	81.00	GRADE
868+00	81.00	GRADE
869+00	81.00	GRADE
870+00	81.00	GRADE
871+00	81.00	GRADE
872+00	81.00	GRADE
873+00	81.00	GRADE
874+00	81.00	GRADE
875+00	81.00	GRADE
876+00	81.00	GRADE
877+00	81.00	GRADE
878+00	81.00	GRADE
879+00	81.00	GRADE
880+00	81.00	GRADE
881+00	81.00	GRADE
882+00	81.00	GRADE
883+00	81.00	GRADE
884+00	81.00	GRADE
885+00	81.00	GRADE
886+00	81.00	GRADE
887+00	81.00	GRADE
888+00	81.00	GRADE
889+00	81.00	GRADE
890+00	81.00	GRADE
891+00	81.00	GRADE
892+00	81.00	GRADE
893+00	81.00	GRADE
894+00	81.00	GRADE
895+00	81.00	GRADE
896+00	81.00	GRADE
897+00	81.00	GRADE
898+00	81.00	GRADE
899+00	81.00	GRADE
900+00	81.00	GRADE

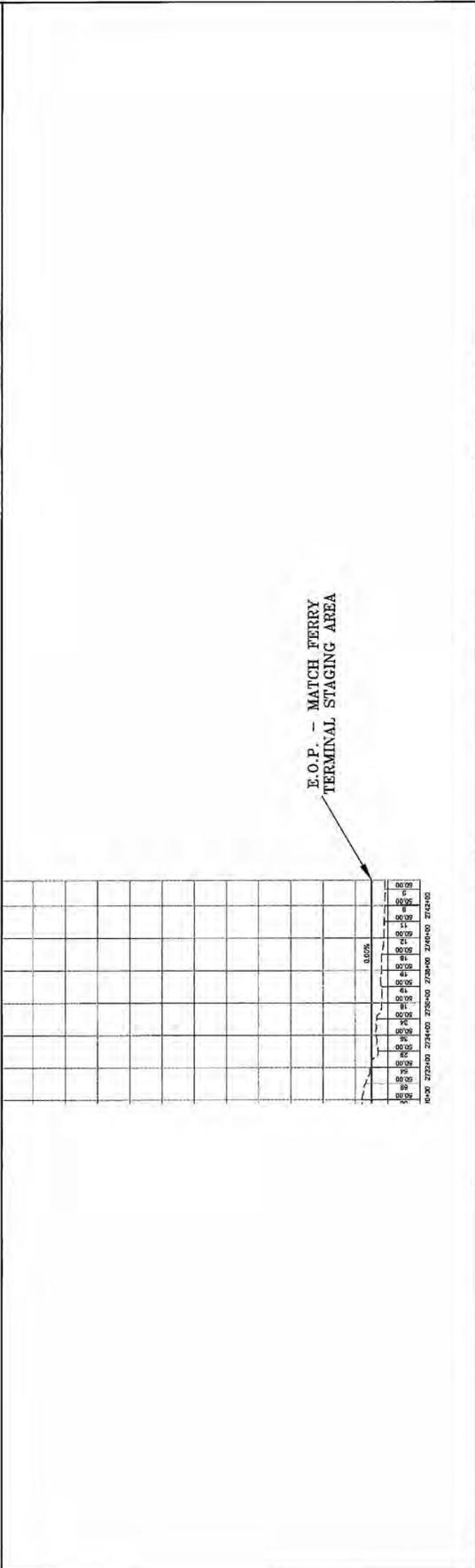
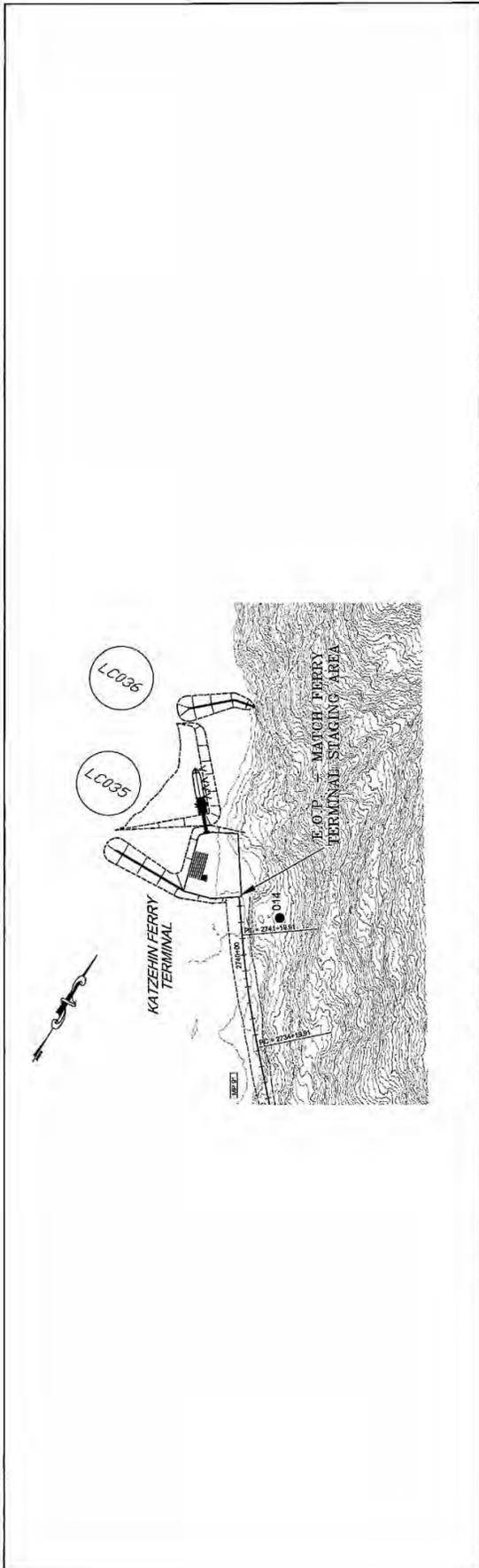
DATE:	DESIGNED BY:	ALASKA	PROJECT NO. 71100
BY:	DRAWN BY:	JUNEAU	DATE: 2/05
	CHECKED BY:	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES SOUTHEAST REGION DESIGN & CONSTRUCTION	
		JUNEAU ACCESS PROJECT NO. 71100 EAST LYNN CANAL STA. 735+00 TO STA. 831+00	
RECORD OF REVISIONS		SHEET 9 OF 30	



DATE	DESCRIPTION OF CHANGE	DESIGNED BY:	PROJECT NO.
		ALASKA	71100
		DRAWN BY:	DATE:
		CHECKED BY:	2005
			SHEET 11 OF 30

STATE OF ALASKA
 JUNEAU
 JUNEAU ACCESS
 PROJECT NO. 71100
 EAST LYNN CANAL
 STA. 925+00 TO STA. 1020+00

RECORD OF REVISIONS



DATE:		DESCRIPTION OF CHANGE:		STATE OF ALASKA		GENERAL ACCESS		DESIGNED BY:		PROJECT NO.	
BY:	DATE:			DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES		PROJECT NO. 71100		DRAWN BY:		71100	
				SOUTHEAST REGION DESIGN & CONSTRUCTION		EAST LYNN CANAL		CHECKED BY:		2609	
RECORD OF REVISIONS				STA. 2732+00 TO E.O.P.						SHEET 36 OF 50	

This page intentionally left blank.

REVISIONS TO ATTACHMENT D MARINE TERMINAL CONCEPTS

Attachment D has been updated to include the latest DOT&PF estimates. All estimates include the current ICAP rate of 4.3 percent. The Auke Bay Ferry Terminal Estimate and Layout reflect the current AMHS terminal concept for Auke Bay (see attached figure). The Sawmill Cove Ferry Terminal estimate has been reduced by the amount of the Access Road construction costs, which are included in the Alternative 2B Highway Cost Estimate. The Sawmill Cove Ferry Terminal and William Henry Bay Ferry Terminal estimates have been updated to include the latest cost estimates for the General Construction items.

Some printed copies of the Supplemental Draft EIS Appendix D Attachment D were missing one or more of Figures 1 through 8. Therefore, all eight figures are reprinted at the end of this attachment.

This page intentionally left blank.

SE Region - Marine Engineering

Project Construction Cost Estimate

PROJECT NUMBER: 71100

PROJECT TITLE: Juneau Access Ferry Terminals

DESCRIPTION: Sawmill Cove Ferry Terminal - Twin Stern Berth

Item No.	Item	Units	Unit Price	Quantity	Amount
1	General				
	Mobilization/Demobilization	LS	\$700,000	1	\$700,000
	Temporary Erosion and Pollution Control	CS	\$250,000	1	\$250,000
	Constr. Surveying by the Contractor	LS	\$50,000	1	\$50,000
	Construction Camp Facilities	LS	\$75,000	1	\$75,000
2	Dredged Mooring Basin				
	Dredged Mooring Basin (Includes placement as upland fill or disposal)	CY	\$8.00	16,000	\$128,000
3	Marine Facilities				
	Pile Supported Bridge Approach Abutment	EA	\$80,000	2	\$160,000
	20'x142' Steel Transfer Bridge	EA	\$800,000	2	\$1,600,000
	50'x80' Steel Bridge Float (w/ Intermediate Ramp, Apron & Fenders)	EA	\$1,600,000	2	\$3,200,000
	4-Pile Bridge Float Restraint Dolphins	EA	\$250,000	3	\$750,000
	6-Pile Double Sided Breasting Dolphins	EA	\$350,000	4	\$1,400,000
	Electrical Power and Lighting System (Terminal)	LS	\$300,000	1	\$300,000
	Upland Improvements (Access/Staging Area)				
	Embankment (Local Excavation)	CY	\$6.00	68,000	\$408,000
	Riprap Slope Protection	CY	\$40	5,500	\$220,000
12" Aggregate Surface Course (Approx 135,000sf)	CY	\$20.00	5,000	\$100,000	
Asphalt Concrete Surfacing (2" thick) (Approx 135,000 sf)	Ton	\$60.00	1,500	\$90,000	
Metal Beam Guardrail	LF	\$40	950	\$38,000	
Potable Water Supply (Well & Piping)	LS	\$200,000	1	\$200,000	
Sanitary Sewer (Pkg Treatment Plant/Outfall)	LS	\$300,000	1	\$300,000	
Diesel Generator System, Bldg & Fuel Storage Tank	LS	\$600,000	1	\$600,000	
Electrical Power Supply & Area Lighting System	LS	\$300,000	1	\$300,000	
5	Building Structures				
	Terminal Building (24'x40')	SF	\$450	960.00	\$432,000

Item Totals \$11,301,000
 Estimating & Construction Contingencies @ 10% \$1,130,100

Construction Subtotal \$12,431,100

6% Design & Permitting \$745,866
 8% Construction Admin \$994,488
 4.3% ICAP \$534,537.30

Project Total = \$14,705,991

Prepared by: KDM
 Checked by: JDB

Date: 10/05/05
 Date:

SE Region - Marine Engineering

Project Construction Cost Estimate

PROJECT NUMBER: 71100

PROJECT TITLE: Juneau Access Ferry Terminals

DESCRIPTION: Katzehin Ferry Terminal Option 1 (Unprotected)

Item No.	Item	Units	Unit Price	Quantity	Amount
1	General				
	Mobilization/Demobilization	LS	\$700,000	1	\$700,000
	Temporary Erosion and Pollution Control	CS	\$200,000	1	\$200,000
	Constr. Surveying by the Contractor	LS	\$125,000	1	\$125,000
	Construction Camp Facilities	LS	\$350,000	1	\$350,000
2	Marine Facilities				
	Pile Supported Bridge Approach Abutment	LS	\$100,000	1	\$100,000
	20'x150' Steel Transfer Bridge	LS	\$900,000	1	\$900,000
	Syncro Lift or Counterweight Lift Towers	EA	\$1,000,000	2	\$2,000,000
	Stern Breasting Dolphins	EA	\$325,000	2	\$650,000
	5-Pile Breasting Dolphins	EA	\$300,000	4	\$1,200,000
	Electrical Power and Lighting System (Terminal)	LS	\$350,000	1	\$350,000
3	Upland Improvements (Access/Staging Area)				
	Import Embankment - Borrow (Classified Materials)	CY	\$12.00	90,000	\$1,080,000
	Riprap Slope Protection (Class IV)	CY	\$30	16,500	\$495,000
	12" Aggregate Surface Course (Approx 80,500 sf)	CY	\$20.00	3,000	\$60,000
	Asphalt Concrete Surfacing (2" thick) (Approx 80,500 sf)	Ton	\$60.00	1,000	\$60,000
	Metal Beam Guardrail	LF	\$40	1,200	\$48,000
	Potable Water Supply (Well & Piping)	LS	\$200,000	1	\$200,000
	Sanitary Sewer (Pkg Treatment Plant/Outfall)	LS	\$300,000	1	\$300,000
	Diesel Generator System, Bldg & Fuel Storage Tank	LS	\$600,000	1	\$600,000
	Electrical Power Supply & Area Lighting System	LS	\$300,000	1	\$300,000
4	Building Structures				
Terminal Building	SF	\$450	960.00	\$432,000	

Item Totals \$10,150,000
 Estimating & Construction Contingencies @ 10% \$1,015,000

Construction Subtotal \$11,165,000

8% Design & Permitting \$893,200
 8% Construction Admin \$893,200
 4.3% ICAP \$480,095

Project Total = \$13,431,495

Prepared by: KDM
 Checked by:

Date: 10/29/03
 Date:

SE Region - Marine Engineering

Project Construction Cost Estimate

PROJECT NUMBER: 71100

PROJECT TITLE: Juneau Access Ferry Terminals

DESCRIPTION: Katzehin Ferry Terminal Option 2 (North & South Breakwaters)

Item No.	Item	Units	Unit Price	Quantity	Amount
1	General				
	Mobilization/Demobilization	LS	\$700,000	1	\$700,000
	Temporary Erosion and Pollution Control	CS	\$350,000	1	\$350,000
	Constr. Surveying by the Contractor	LS	\$150,000	1	\$150,000
	Construction Camp Facilities	LS	\$350,000	1	\$350,000
2	Mooring Basin & Breakwaters				
	Dredged Mooring Basin	CY	\$8.00	40,000	\$320,000
	(Includes placement as upland/breakwater fill where usable)				
	North Rubble Mound Breakwater	LF	\$1,800	400	\$720,000
	North Sheet Pile Wave Barrier	LF	\$1,500	110	\$165,000
	Protection Dolphin at Wave Barrier End	EA	\$200,000	1	\$200,000
	South Rubble Mound Breakwater	LF	\$1,800	500	\$900,000
	Navigational Aids	EA	\$10,000	2	\$20,000
3	Marine Facilities				
	Pile Supported Bridge Approach Abutment	LS	\$100,000	1	\$100,000
	20'x150' Steel Transfer Bridge	LS	\$900,000	1	\$900,000
	50'x80' Steel Bridge Float	LS	\$1,600,000	1	\$1,600,000
	(w/ Intermediate Ramp & Apron)				
	4-Pile Bridge Float Restraint Dolphins	EA	\$250,000	2	\$500,000
	5-Pile Breasting Dolphins	EA	\$300,000	6	\$1,800,000
	Electrical Power and Lighting System (Terminal)	LS	\$300,000	1	\$300,000
3	Upland Improvements (Access/Staging Area)				
	Import Embankment - Borrow	CY	\$12.00	50,000	\$600,000
	(Classified Materials)				
	Riprap Slope Protection (NIC Breakwaters)	CY	\$30	6,000	\$180,000
	12" Aggregate Surface Course	CY	\$20.00	4,000	\$80,000
	(Approx 103,000 sf)				
	Asphalt Concrete Surfacing (2" thick)	Ton	\$60.00	1,200	\$72,000
	(Approx 103,000 sf)				
	Metal Beam Guardrail	LF	\$40	850	\$34,000
		Potable Water Supply (Well & Piping)	LS	\$200,000	1
	Sanitary Sewer (Pkg Treatment Plant/Outfall)	LS	\$300,000	1	\$300,000
	Diesel Generator System, Bldg & Fuel Storage Tank	LS	\$600,000	1	\$600,000
	Electrical Power Supply & Area Lighting System	LS	\$300,000	1	\$300,000
4	Building Structures				
Terminal Building (24'x40')	SF	\$450	960.00	\$432,000	

Item Totals **\$11,873,000**
 Estimating & Construction Contingencies @ 10% **\$1,187,300**

Construction Subtotal \$13,060,300

8% Design & Permitting **\$1,044,824**
 8% Construction Adm'n **\$1,044,824**
 4.3% ICAP **\$561,592.90**

Project Total = \$15,711,541

Prepared by: KDM
 Checked by: JDB

Date: 10/05/05
 Date:

SE Region - Marine Engineering

Project Construction Cost Estimate

PROJECT NUMBER: 71100

PROJECT TITLE: Juneau Access Ferry Terminals

DESCRIPTION: Katzehin Mooring Basin - Option 3

Item No.	Item	Units	Unit Price	Quantity	Amount
1	General				
	Mobilization/Demobilization	LS	\$2,500,000	1	\$2,500,000
	Temporary Erosion and Pollution Control	CS	\$750,000	1	\$750,000
	Constr. Surveying by the Contractor	LS	\$225,000	1	\$225,000
	Construction Camp Facilities	LS	\$650,000	1	\$650,000
2	Mooring Basin & Breakwaters				
	Dredged Mooring Basin	CY	\$4.00	2,400,000	\$9,600,000
	(Includes placement as upland/breakwater fill where usable)				
	North Rubble Mound Breakwater	LF	\$1,200	2,600	\$3,120,000
	South Rubble Mound Breakwater	LF	\$1,200	1,500	\$1,800,000
	Entrance Channel Markers/Guide Dolphins	EA	\$150,000	4	\$600,000
	Navigational Aids	EA	\$10,000	4	\$40,000
3	Marine Facilities				
	Pile Supported Bridge Approach Abutment	LS	\$100,000	1	\$100,000
	20'x150' Steel Transfer Bridge	LS	\$900,000	1	\$900,000
	50'x80' Steel Bridge Float	LS	\$1,600,000	1	\$1,600,000
	(w/ Intermediate Ramp & Apron)				
	4-Pile Bridge Float Restraint Dolphins	EA	\$250,000	2	\$500,000
	5-Pile Breasting Dolphins	EA	\$300,000	4	\$1,200,000
	Electrical Power and Lighting System (Terminal)	LS	\$300,000	1	\$300,000
4	Upland Improvements (Staging Area)				
	Misc. Import Embankment - Borrow	CY	\$12.00	50,000	\$600,000
	(Classified Materials)				
	Riprap Slope Protection (Class IV)	CY	\$25	4,000	\$100,000
	12" Aggregate Surface Course - Grading E	CY	\$15.00	21,000	\$315,000
	(Approx 600,000 sf)				
	Asphalt Concrete Surfacing (2" thick)	Ton	\$60.00	7,000	\$420,000
	(Approx 600,000 sf)				
	Metal Beam Guardrail	LF	\$40	3,600	\$144,000
		Potable Water Supply (Well & Piping)	LS	\$200,000	1
	Sanitary Sewer (Pkg Treatment Plant/Outfall)	LS	\$300,000	1	\$300,000
	Diesel Generator System, Bldg & Fuel Storage Tank	LS	\$600,000	1	\$600,000
	Electrical Power Supply & Area Lighting System	LS	\$300,000	1	\$300,000
5	Building Structures				
	Terminal Building	SF	\$450	960.00	\$432,000

Item Totals \$27,296,000
 Estimating & Construction Contingencies @ 10% \$2,729,600

Construction Subtotal \$30,025,600

8% Design & Permitting \$2,402,048

8% Construction Admin \$2,402,048

4.3% ICAP \$1,291,100.80

Project Total = \$36,120,797

Prepared by: KDM
 Checked by:

Date: 10/29/03
 Date:

SE Region - Marine Engineering

Project Construction Cost Estimate

PROJECT NUMBER: 71100

PROJECT TITLE: Juneau Access Ferry Terminals

DESCRIPTION: William Henry Bay Ferry Terminal - Side Berth w/ Lift Bridge

Item No.	Item	Units	Unit Price	Quantity	Amount
1	General				
	Mobilization/Demobilization	LS	\$700,000	1	\$700,000
	Temporary Erosion and Pollution Control	CS	\$25,000	1	\$25,000
	Constr. Surveying by the Contractor	LS	\$50,000	1	\$50,000
	Construction Camp Facilities	LS	\$200,000	1	\$200,000
2	Marine Facilities				
	Pile Supported Bridge Approach Abutment	LS	\$80,000	1	\$80,000
	24' x 360' Pile Supported Approach Trestle	SF	\$225	8,640	\$1,944,000
	20'x142' Steel Transfer Bridge	LS	\$800,000	1	\$800,000
	Bridge Lift Towers & Syncro Lift or Counter Wt	EA	\$1,000,000	2	\$2,000,000
	5-Pile Breasting Dolphins	EA	\$250,000	3	\$750,000
	Electrical Power and Lighting System (Terminal)	LS	\$425,000	1	\$425,000
3	Upland Improvements (Access/Staging Area)				
	Clearing & Grubbing	LS	\$60,000	1	\$60,000
	Embankment (Local Excavation)	CY	\$10.00	30,000	\$300,000
	Riprap Slope Protection	CY	\$40	6,200	\$248,000
	12" Aggregate Surface Course (Approx 96,500 sf)	CY	\$20.00	3,600	\$72,000
	Asphalt Concrete Surfacing (2" thick) (Approx 96,500 sf)	Ton	\$65.00	1,200	\$78,000
	Metal Beam Guardrail	LF	\$45	750	\$33,750
	Potable Water Supply (Well & Piping)	LS	\$225,000	1	\$225,000
	Sanitary Sewer (Pkg Treatment Plant/Outfall)	LS	\$325,000	1	\$325,000
	Diesel Generator System, Bldg & Fuel Storage Tank	LS	\$625,000	1	\$625,000
	Electrical Power Supply & Area Lighting System	LS	\$350,000	1	\$350,000
4	Building Structures				
	Terminal Building (24'x40')	SF	\$450	960.00	\$432,000

Item Totals **\$9,722,750**

Estimating & Construction Contingencies @ 10% **\$972,275**

Construction Subtotal \$10,695,025

8% Design & Permitting **\$855,602.00**

8% Construction Admin **\$855,602**

4.3% ICAP **\$459,886.08**

Project Total = \$12,866,115

Prepared by: KDM
Checked by: JDB

Date: 10/05/05
Date:

SE Region - Marine Engineering

Project Construction Cost Estimate

PROJECT NUMBER: 71100

PROJECT TITLE: Auke Bay Ultimate Buildout - West Side

DESCRIPTION: Two Stern Berths & One Side Berth

Note: Use approx 75% of total project cost for Juneau Access Project.

Item No.	Item	Unit	Unit Price	Quantity	Amount
	General				
110	Mobilization	LS	\$700,000	All Req'd.	\$700,000
111(1)	Temporary Erosion and Pollution Control	CS	\$25,000	All Req'd.	\$25,000
112	Constr. Surveying by the Contractor	LS	\$25,000	All Req'd.	\$25,000
114	Traffic Maintenance and Control	LS	\$12,500	All Req'd.	\$12,500
116	Furnish and Maintain Field Office	LS	\$25,000	All Req'd.	\$25,000
201	Demolition & Removal	LS	\$500,000	All Req'd.	\$500,000
	Marine Facilities				
302(1)	140' Steel Transfer Bridge w/ Apron	EA	\$900,000	2	\$1,800,000
302(5a)	4-Pile Stern Float Restraint Dolphins	EA	\$185,000	7	\$1,295,000
302(5b)	3-Pile Float Restraint Dolphins	EA	\$160,000	8	\$1,280,000
302(6)	Lead In Stern Dolphin w/ Fender System	EA	\$245,000	1	\$245,000
302(7)	Berth Separation Dolphins w/ Fender System	EA	\$265,000	1	\$265,000
302(8)	60'x200' Mooring Float	SF	\$185	12,000	\$2,220,000
302(12)	4-Pile, Mooring Float Restraint Dolphins	EA	\$175,000	8	\$1,400,000
502	Pile Supported Bridge Access Docks (2 ea) Steel Piles / Prestressed Concrete Deck	SF	\$180	10,500	\$1,890,000
626(1)	Sanitary Sewer Pumpout Piping	LF	\$168	600	\$100,500
627	Potable Water Supply Piping (Heat Trace, Arctic Pipe)	LF	\$125	600	\$75,000
680	Fuel Supply Piping (Welded Steel/Corrosion Control Wrapped)	LF	\$125	600	\$75,000
690	Electrical Power and Lighting System (Terminal)	LS	\$500,000	All Req'd	\$500,000

Item Totals \$12,433,000
 Estimating & Construction Contingencies @ 10% \$1,243,300.00

Subtotal \$13,676,300

8% Design & Permitting \$1,094,104
 8% Construction Admin \$1,094,104
 4.3% ICAP \$588,080.90

Project Total = \$16,452,589

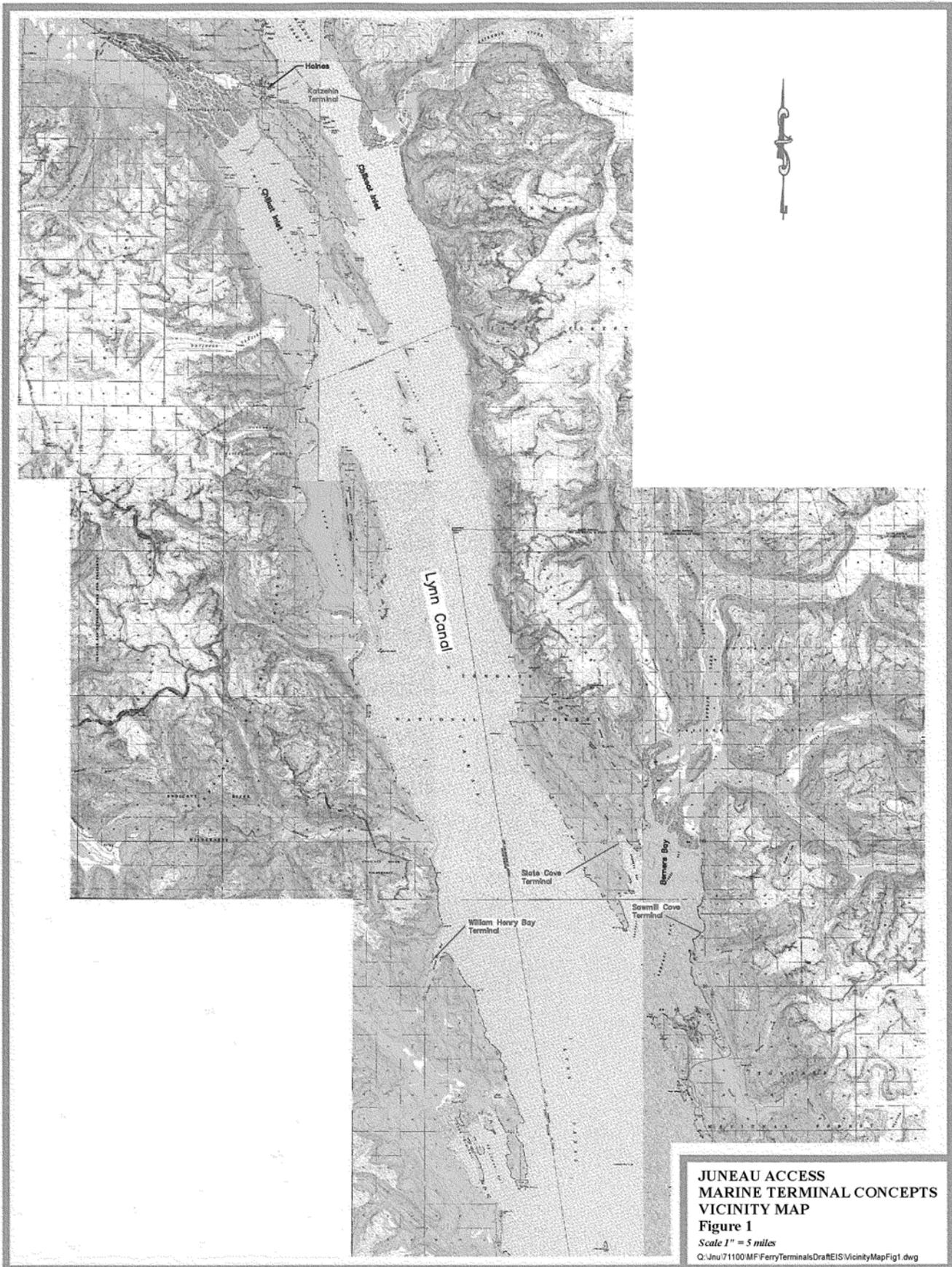
75% Attributable to Juneau Access = \$12,339,442

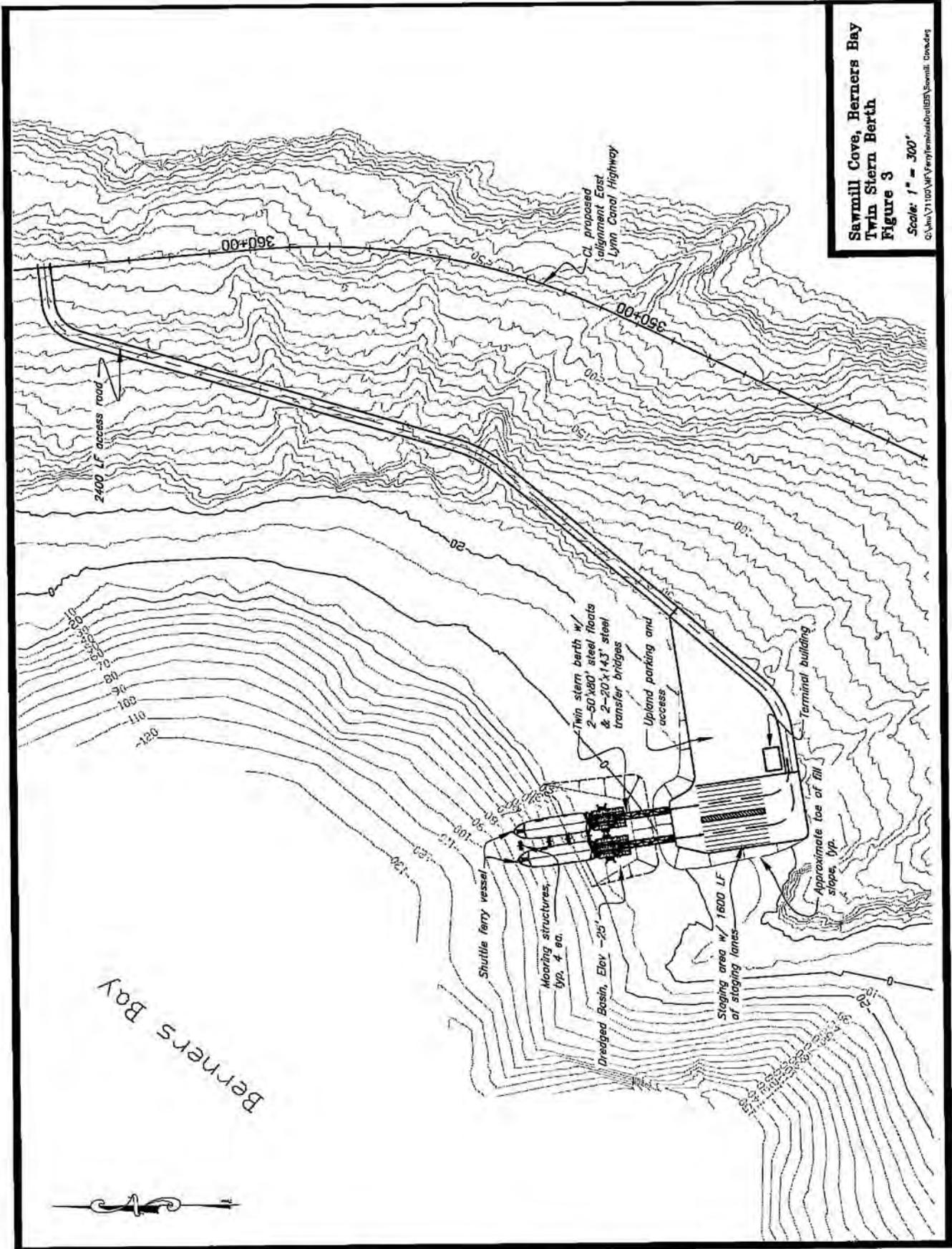
Prepared by: KDM
 Checked by: JDB

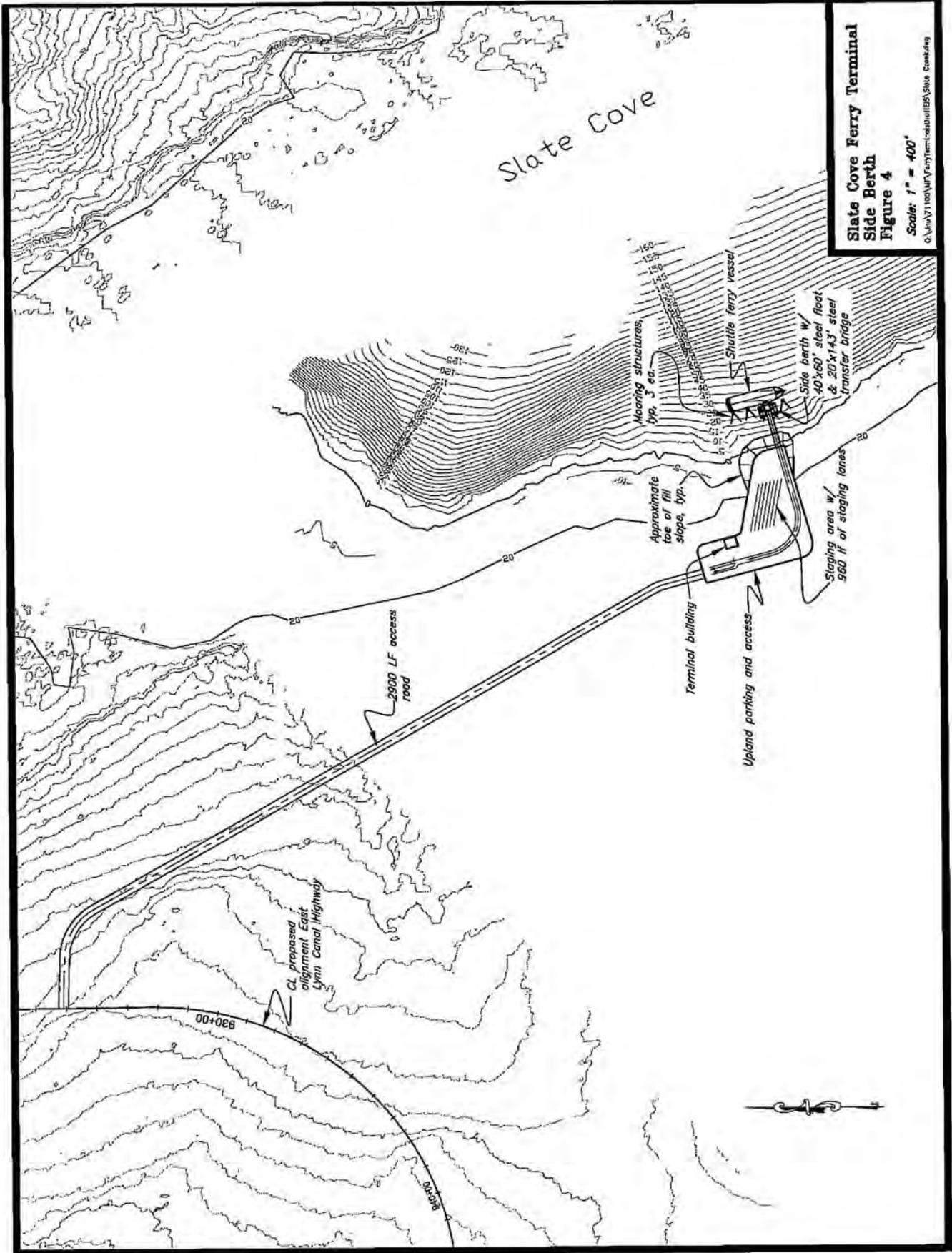
Date: 10/05/05
 Date:

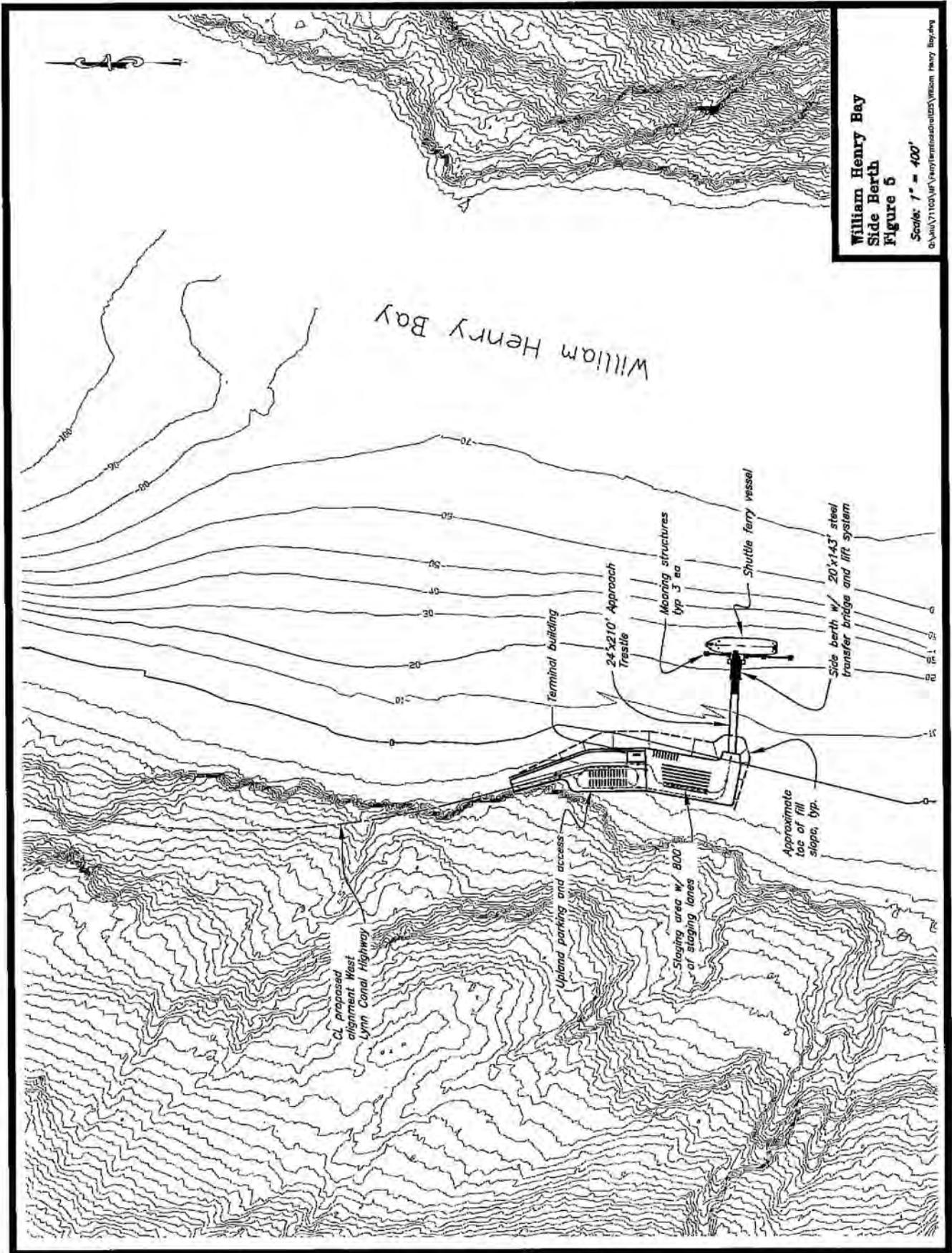
FIGURES

This page intentionally left blank.



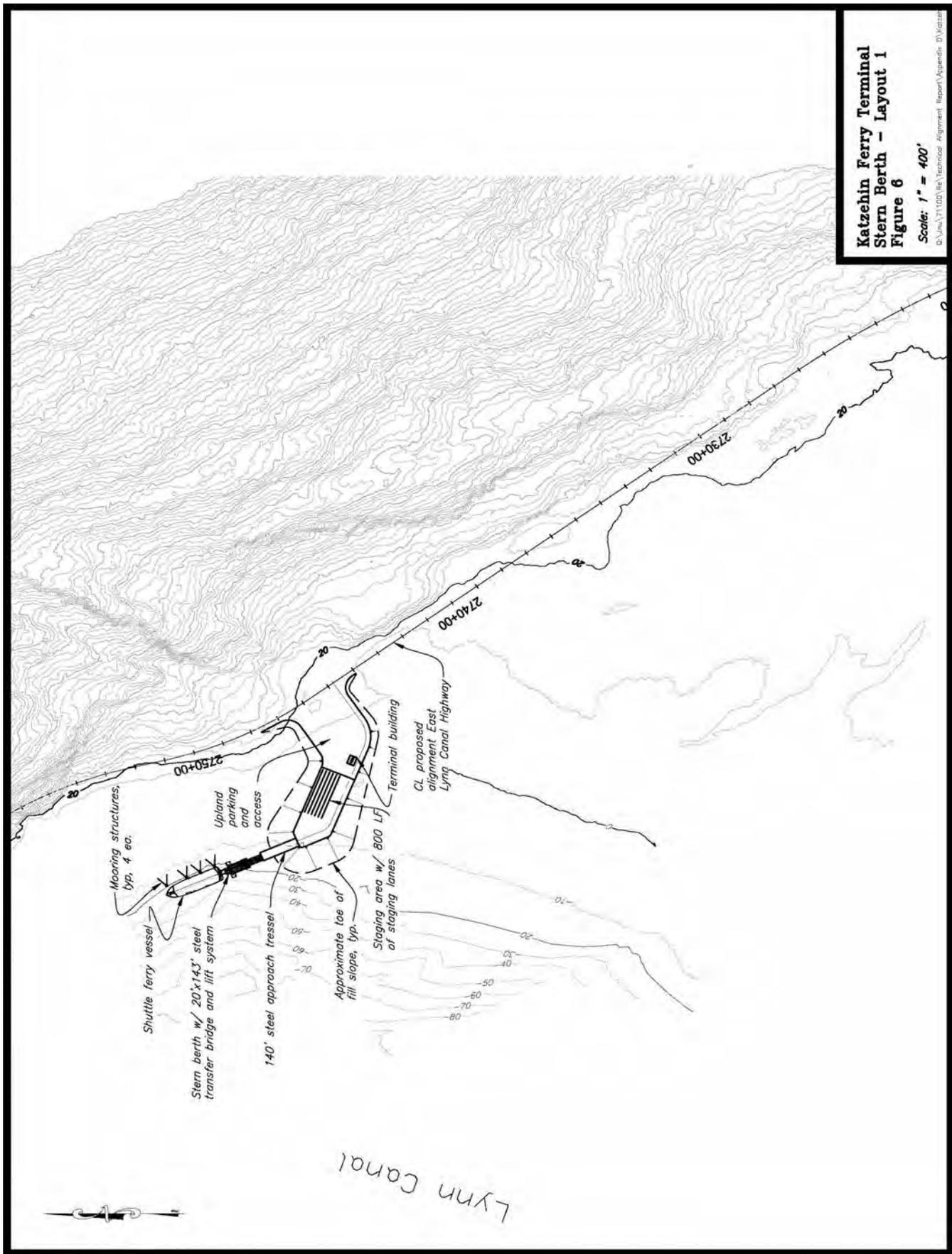


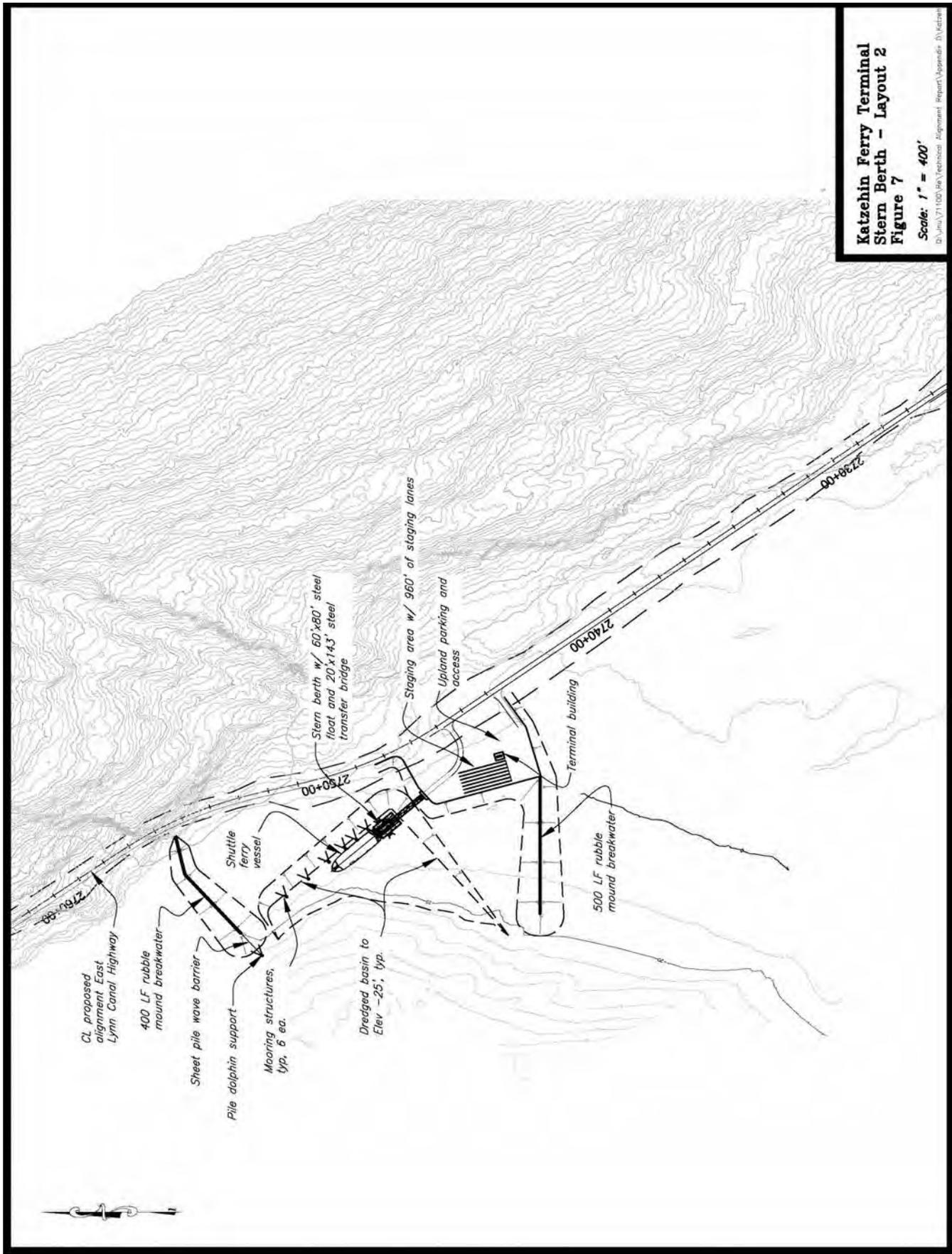




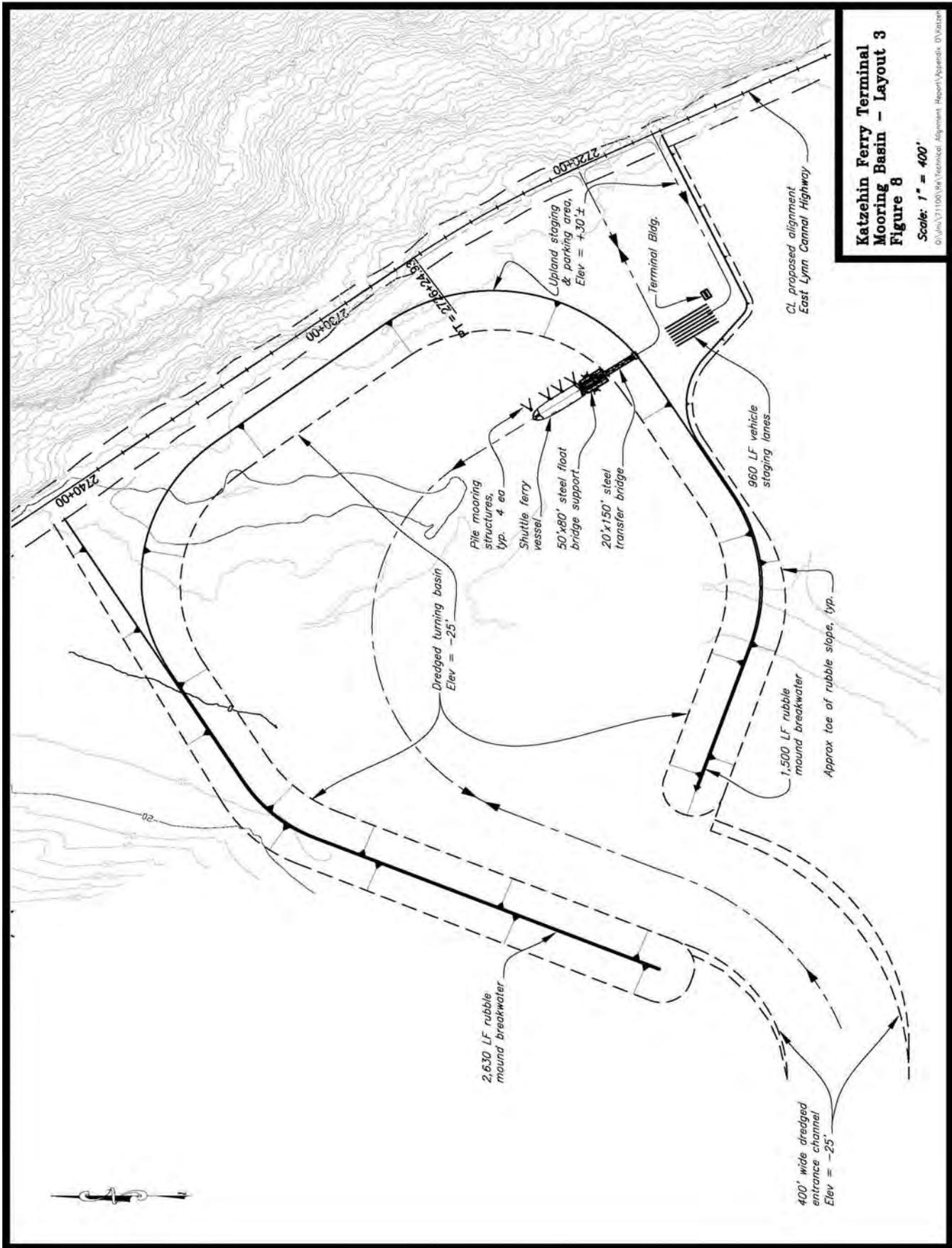
**William Henry Bay
Side Berth
Figure 6**
Scale: 1" = 400'
© 2006 by the U.S. Army Corps of Engineers, Vicksburg, MS

**Katzechin Ferry Terminal
Stern Berth - Layout 1
Figure 6**
Scale: 1" = 400'





Katzehin Ferry Terminal Stern Berth - Layout 2
Figure 7
 Scale: 1" = 400'
 D:\Juni\71100\PA\Technical Alignment Report\Appendix D\Katzehin



Katzehin Ferry Terminal Mooring Basin - Layout 3
Figure 8

Scale: 1" = 400'
 0:\ms\71100\TK\Technical Alignment Report\Appendix D\Watson

This page intentionally left blank.

REVISED ATTACHMENT E ENGINEER'S ESTIMATES

The engineer's estimates for Alternatives 2B, 3, 4B, and 4D have been updated to reflect the current layouts, quantities, and unit prices.

Updated earthwork tables are also provided for Alternatives 2B, 3, 4B, and 4D.

This page intentionally left blank.

Engineers Estimate

State of Alaska -- Department of Transportation and Public Facilities -- Southeast Region

Project Name:

Juneau Access

Project Number:

71100-alt2b_Final

Item No	Pay Item	Pay Unit	Unit Price	Quantity	Amount
Basic Bid					
201(1A)	Clearing	Lump Sum	\$575,000.00	All Required	\$575,000.00
203 (2)	Rock Excavation	Cubic Yard	\$6.50	6475600	\$42,091,400.00
203 (3)	Unclassified Excavation	Cubic Yard	\$2.50	993300	\$2,483,250.00
203 (10)	Controlled Blasting	Square Yard	\$10.00	594500	\$5,945,000.00
301(2)	Crushed Aggregate Base	Cubic Yard	\$20.00	10600	\$212,000.00
307(3)	EATB	Square Yard	\$5.11	858100	\$4,384,891.00
401(1)	Asphalt Concrete Pavement	Ton	\$23.00	104397	\$2,401,131.00
401(2)	Asphalt Cement	Ton	\$250.00	6264	\$1,566,000.00
501(1)	Bridge Structure	Linear Foot	\$4,400.00	10256	\$45,126,400.00
602(2)	Structural Plate Pipe	Linear Foot	\$600.00	80	\$48,000.00
603(17-24)	24-inch pipe	Linear Foot	\$45.00	20708	\$931,860.00
603(17-36)	36-inch pipe	Linear Foot	\$59.50	7862	\$467,789.00
603(17-48)	48-Inch Pipe	Linear Foot	\$76.50	3600	\$275,400.00
603(17-72)	72-Inch Pipe	Linear Foot	\$108.00	2304	\$248,832.00
606(1)	W-beam guardrail	Linear Foot	\$16.00	29266	\$468,256.00
606(11)	Terminal End Section	Each	\$2,000.00	182	\$364,000.00
611(1)	Riprap	Cubic Yard	\$6.00	574500	\$3,447,000.00
614(1a)	Monumentation with cases	Each	\$500.00	370	\$185,000.00
615(1)	Standard Sign	Square Foot	\$50.00	4000	\$200,000.00
618(1)	Seeding	Lump Sum	\$80,000.00	All Required	\$80,000.00
633(1)	Silt Fence	Linear Foot	\$1.00	186000	\$186,000.00
637(1)	MSE Wall	Square Foot	\$31.00	543790	\$16,857,490.00
637(2)	Screening Structure	Lump Sum	\$584,000	All Required	\$584,000
640 (4)	Worker Meals and Lodging, or Per Diem	Lump Sum	\$1,000,000.00	All Required	\$1,000,000.00
640(1)	Mobilization and Demobilization	Lump Sum	\$10,975,000.00	All Required	\$10,975,000.00
641(1)	Erosion and Pollution Control	Contingent Sum	\$370,000.00	All Required	\$370,000.00

Prepared by Chuck Hakari

Date 09/06/05

Checked by Jack Beedle

Date 09/06/05

Engineers Estimate

State of Alaska -- Department of Transportation and Public Facilities -- Southeast Region

Project Name:

Project Number:

Juneau Access

71100-alt2b_Final

Item No	Pay Item	Pay Unit	Unit Price	Quantity	Amount
642(1)	Construction Surveying	Lump Sum	\$1,400,000.00	All Required	\$1,400,000.00
670 (1)	Painted Pavement Markings	Lump Sum	\$177,500.00	All Required	\$177,500.00
670 (8)	Recessed Pavement Marker	Each	\$25.00	6566	\$164,150.00
Basic Bid Subtotal:					\$143,215,349.00

*****Project Summary*****

Project Subtotal: \$143,215,349.00

Contingencies @ 8.00%	\$11,457,227.92
Construction Engineering @ 8.00 %	\$12,373,806.15
Construction Subtotal:	\$167,046,383.07

4.30 % ICAP	\$7,182,994.47
Highway Construction Total	\$174,229,377.54

Preliminary Development	\$8,000,000.00
Mitigation	\$3,000,000.00
Right of Way	\$45,000.00
Maintenance Building	\$1,000,000.00
Avalanche Control CIP	\$2,670,000.00
Highway Sub Total	\$189,000,000.00
Terminal Construction	\$15,700,000.00
Highway & Terminal Sub Total	\$204,700,000.00
Vessel Construction	\$53,000,000.00
Project Total	\$257,700,000.00

Prepared by Chuck Hakari

Date 09/06/05

Checked by Jack Beedle

Date 09/06/05

Engineers Estimate

State of Alaska -- Department of Transportation and Public Facilities -- Southeast Region

Project Name:

Juneau Access

Project Number:

71100-alt3_Final

Item No	Pay Item	Pay Unit	Unit Price	Quantity	Amount
Basic Bid					
201(1A)	Clearing	Lump Sum	\$530,000.00	All Required	\$530,000.00
203 (2)	Rock Excavation	Cubic Yard	\$6.50	4060000	\$26,390,000.00
203 (3)	Unclassified Excavation	Cubic Yard	\$2.50	2118000	\$5,295,000.00
203(10)	Controlled Blasting	Square Yard	\$10.00	77918	\$779,180.00
301(2)	Crushed Aggregate Base	Cubic Yard	\$20.00	8943	\$178,860.00
307(3)	EATB	Square Yard	\$5.11	724383	\$3,701,597.13
401(1)	Asphalt Concrete Pavement	Ton	\$23.00	90948	\$2,091,804.00
401(2)	Asphalt Cement	Ton	\$250.00	5460	\$1,365,000.00
501(1)	Bridge Structure	Linear Foot	\$4,400.00	15885	\$69,894,000.00
602(2)	Structural Plate Pipe	Linear Foot	\$600.00	2232	\$1,339,200.00
603(17-24)	24-inch pipe	Linear Foot	\$45.00	14088	\$633,960.00
603(17-36)	36-inch pipe	Linear Foot	\$59.50	13026	\$775,047.00
603(17-48)	48-Inch Pipe	Linear Foot	\$76.50	3560	\$272,340.00
603(17-72)	72-Inch Pipe	Linear Foot	\$108.00	3844	\$415,152.00
606(1)	W-beam guardrail	Linear Foot	\$16.00	8900	\$142,400.00
606(11)	Terminal End Section	Each	\$2,000.00	130	\$260,000.00
611(1)	Riprap	Cubic Yard	\$6.00	164500	\$987,000.00
614(1a)	Monumentation with cases	Each	\$500.00	208	\$104,000.00
615(1)	Standard Sign	Square Foot	\$50.00	3400	\$170,000.00
618(1)	Seeding	Lump Sum	\$200,000.00	All Required	\$200,000.00
633(1)	Silt Fence	Linear Foot	\$1.00	206000	\$206,000.00
637(1)	MSE Wall	Square Foot	\$31.00	77446	\$2,400,826.00
640 (4)	Worker Meals and Lodging, or Per Diem	Lump Sum	\$1,000,000.00	All Required	\$1,000,000.00
640(1)	Mobilization and Demobilization	Lump Sum	\$9,950,000.00	All Required	\$9,950,000.00
641(1)	Erosion and Pollution Control	Contingent Sum	\$350,000.00	All Required	\$350,000.00

Prepared by Chuck Hakari Date 09/06/05 Checked by Jack Beedle Date 09/06/05

Engineers Estimate

State of Alaska -- Department of Transportation and Public Facilities -- Southeast Region

Project Name:

Project Number:

Juneau Access

71100-alt3_Final

Item No	Pay Item	Pay Unit	Unit Price	Quantity	Amount
642(1)	Construction Surveying	Lump Sum	\$1,300,000.00	All Required	\$1,300,000.00
670 (1)	Painted Pavement Markings	Lump Sum	\$155,000.00	All Required	\$155,000.00
670 (8)	Recessed Pavement Marker	Each	\$25.00	4052	\$101,300.00
Basic Bid Subtotal:					\$130,987,666.13

*****Project Summary*****

Project Subtotal: \$131,987,666.13

Contingencies @ 8.00%	\$10,479,013.29
Construction Engineering @ 8.00 %	\$11,317,334.35
Construction Subtotal:	\$152,784,013.77

4.30 % ICAP	\$6,569,712.59
Highway Construction Total	\$159,353,726.36

Preliminary Development	\$8,500,000.00
Mitigation	\$3,000,000.00
Right of Way	\$1,255,000.00
Maintenance Building	\$500,000.00
Avalanche Control CIP	\$2,640,000.00
Highway Sub Total	\$175,250,000.00
Terminal Construction	\$27,600,000.00
Highway & Terminal Sub Total	\$202,850,000.00
Vessel Construction	\$65,000,000.00
Project Total	\$267,850,000.00

Prepared by Chuck Hakari Date 09/06/05 Checked by Jack Beedle Date 09/06/05

Engineers Estimate

State of Alaska -- Department of Transportation and Public Facilities -- Southeast Region

Project Name:

Juneau Access

Project Number:

71100-alt4b,d_Final

Item No	Pay Item	Pay Unit	Unit Price	Quantity	Amount
Basic Bid					
201(1A)	Clearing	Lump Sum	\$10,000.00	All Required	\$10,000.00
203 (2)	Rock Excavation	Cubic Yard	\$6.50	270500	\$1,758,250.00
203 (3)	Unclassified Excavation	Cubic Yard	\$2.50	270500	\$676,250.00
203(10)	Controlled Blasting	Squard Yard	\$10.00	15400	\$154,000.00
301(2)	Crushed Aggregate Base	Cubic Yard	\$20.00	1100	\$22,000.00
307(3)	EATB	Square Yard	\$5.11	73000	\$373,030.00
401(1)	Asphalt Concrete Pavement	Ton	\$23.00	8500	\$195,500.00
401(2)	Asphalt Cement	Ton	\$250.00	510	\$127,500.00
501(1)	Bridge Structure	Linear Foot	\$4,400.00	100	\$440,000.00
603(17-24)	24-inch pipe	Linear Foot	\$45.00	2560	\$115,200.00
603(17-36)	36-Inch Pipe	Linear Foot	\$59.50	908	\$54,026.00
603(17-48)	48-inch pipe	Linear Foot	\$76.50	444	\$33,966.00
603(17-72)	72-Inch Pipe	Linear Foot	\$108.00	132	\$14,256.00
606 (1)	W-beam guardrail	Linear Foot	\$16.00	630	\$10,080.00
606(11)	Terminal End Section	Each	\$2,000.00	6	\$12,000.00
611 (1)	Riprap	Cubic Yard	\$6.00	1000	\$6,000.00
614(1a)	Monumentation with cases	Each	\$500.00	30	\$15,000.00
615 (1)	Standard Sign	Square Foot	\$50.00	200	\$10,000.00
618 (1)	Seeding	Lump Sum	\$10,000.00	All Required	\$10,000.00
633 (1)	Silt Fence	Linear Foot	\$1.00	20000	\$20,000.00
637 (1)	MSE Wall	Square Foot	\$31.00	350	\$10,850.00
640 (1)	Mobilization and Demobilization	Lump Sum	\$170,000.00	All Required	\$170,000.00
640 (4)	Worker Meals and Lodging, or Per Diem	Lump Sum	\$100,000.00	All Required	\$100,000.00
641 (1)	Erosion and Pollution Control	Contingent Sum	\$20,000.00	All Required	\$20,000.00
642 (1)	Construction Surveying	Lump Sum	\$20,000.00	All Required	\$20,000.00

Prepared by Chuck Hakari

Date: 09/06/05

Checked by Jack Beedle

Date: 09/06/05

East Lynn Canal Alternative 2B

Segment	Total Volume of Excavation	% Rock	Rock Excavation	Unclassified Excavation	Embankment	Processed Materials	Select "A"	Total Volume of Embankment
Echo Cove to Bemers Bay Crossing Station 73+14 to Station 560+00	1,330,608	91.00%	1,210,853	119,755	347,949	32,214	81,611	461,774
Bemers Bay Crossing Station 560+00 to Station 761+00	1,588	0.00%	0	1,588	472,910	7,680	17,231	497,822
Bemers Bay Crossing to Independence Lake Station 761+00 to Station 1390+00	1,158,405	34.00%	393,858	764,547	880,350	38,127	96,385	1,014,862
Independence Lake North Station 1390+00 to Station 1503+00	39,942	95.00%	37,945	1,997	316,990	6,865	17,371	341,226
Met Point South Station 1503+00 to Station 1640+00	667,583	97.00%	647,556	20,027	129,588	8,327	21,074	158,989
Met Point North to Level Point Station 1640+00 to Station 2150+00	1,411,380	96.00%	1,363,152	28,228	1,250,097	31,092	78,797	1,359,985
Level Point to Katzeihin River Station 2150+00 to Station 2590+00	2,843,528	98.00%	2,786,755	56,873	410,393	26,547	66,973	503,914
South Katzeihin River to Katzeihin Point Station 2590+00 to Station 2754+00	15,791	98.00%	15,475	316	820,682	9,040	21,849	851,572
TOTAL	7,468,925	-	6,475,594	993,331	4,628,959	159,892	401,292	5,190,143

West Lynn Canal Alternative 3

Segment	Total Volume of Excavation	% Rock	Rock Excavation	Unclassified Excavation	Embankment	Processed Materials	Select "A"	Total Volume of Embankment
Echo Cove to Sawmill Cove Station 73+14 to Station 343+00	541,000	50%	270,500	270,500	136,700	21,998	55,748	214,446
William Henry Bay to Endicott River Crossing Station 4025+00 to Station 4293+00	1,161,928	71%	824,969	336,959	290,517	16,072	40,438	347,028
Endicott River Crossing Station 4293+00 to Station 4346+00	2,574	56%	1,441	1,133	337,576	2,770	6,508	346,854
Endicott River Crossing to the Sullivan River Crossing Station 4346+00 to Station 4757+00	1,915,360	56%	1,072,602	842,758	650,934	24,682	62,139	737,755
Sullivan River Crossing Station 4757+00 to Station 4910+00	303,553	50%	151,777	151,777	417,444	9,026	22,540	449,010
Sullivan River Crossing North Station 4910+00 to Station 5107+00	397,009	50%	198,505	198,505	160,624	11,992	30,372	202,988
Glacier Point S Base South Station 5107+00 to Station 5412+00	642,449	81%	520,384	122,065	512,754	18,239	45,829	576,822
Davidson Glacier Station 5412+00 to Station 5660+00	122,512	84%	102,910	19,602	494,915	14,767	37,035	546,718
South Chilkat River Station 5660+00 to Station 5970+00	1,091,544	84%	916,897	174,647	547,987	18,473	46,345	612,805
Chilkat River Crossing Station 5970+00 to Station 6078+00	106	100%	106	0	139,978	2,685	2,479	145,142
TOTAL	5,637,035	-	4,060,090	2,117,945	3,352,729	140,704	349,435	4,179,567

East Lynn Canal Alternative 4B and 4D

Segment	Total Volume of Excavation	% Rock	Rock Excavation	Unclassified Excavation	Embankment	Processed Materials	Select "A"	Total Volume of Embankment
Echo Cove to Sawmill Cove Station 73+14 to Station 343+00	541,000	50.00%	270,500	270,500	136,700	21,998	55,748	214,446
TOTAL	541,000	-	270,500	270,500	136,700	21,998	55,748	214,446

This page intentionally left blank.

**NEW ATTACHMENT F
ENGINEER'S ESTIMATE – UNIT PRICE ANALYSIS**

This is a new attachment that explains how the unit prices for major items were established.

This page intentionally left blank.

Overview

There are several factors that affect the estimated unit bid prices for the Juneau Access Improvements Project:

1. Large quantities will provide economies of scale that will result in unit prices significantly lower than usual Southeast Alaska unit prices.
2. Unlimited use of off-road equipment will result in lower unit prices.
3. Numerous access points from which to construct the project will result in lower unit prices.
4. Barge access points at Slate Cove near the Berner's/Lace and Antler/Gilkey River Crossings and at Katzehin Ferry Terminal near the Katzehin River Crossing allows use of economical over length and overweight components in construction of the major river crossings.
5. Perhaps the most significant factor is that there will be no public access conflicts, which usually slow down construction, during the duration of the project. This will result in lower unit prices for almost every bid item on the project.

Working around buildings and maintaining traffic flow can impact efficiency, productivity and unit bid prices by 50 percent or more. The Juneau Access Improvements Project will not contend with private vehicle traffic or work in proximity to buildings any time during construction.

The importance of this last factor is demonstrated by the Juneau Cascade Point Road Project. Bid in December 2004 and currently under construction, this 20-foot-wide by 3.2-mile-long project's total price was \$810,000 or approximately \$250,000 per mile. The project is being constructed in the same area as the Juneau Access Improvements Project and had no private vehicle traffic or buildings to contend with. The Cascade Point Road Project included clearing, culverts, excavation and embankment. It did not include base, pavement, and guardrail. A similar project being built while maintaining traffic control would be expected to cost over \$500,000 per mile.

Methodology

Quantities were calculated for each Pay Item for each Juneau Access Improvements Project Alternative. Bid Tabulations for projects bid statewide were reviewed for similar pay items and quantities. Unit prices were adjusted up or down to take into account Juneau Access estimating factors and inflation. The Juneau Access Improvements Project Alternative quantities were multiplied by the established unit price to obtain each pay item's estimated cost.

Inflation

Estimated inflation since the time the similar projects were bid was based on data from the Federal Bureau of Labor Statistics summarized in the following table:

Year Bid	Anchorage CPI	CPI Adjustment Factor	Producer Price Index	PPI Adjustment Factor
1998	146.9	1.135	146.8	1.134
1999	148.4	1.123	148.9	1.118
2000	151.0	1.104	150.7	1.104
2001	155.2	1.074	150.6	1.104
2002	158.2	1.054	151.3	1.100
2003	162.5	1.026	153.6	1.083
2004	166.7	1.000	166.4	1.000

The Anchorage Consumer Price Index (CPI) identifies inflation in the Anchorage area. The Producer Price Index (PPI) is a measure of inflation on national materials and components of construction. The Anchorage CPI and the PPI show a strong correlation in inflation. The PPI was used in this unit price analysis.

In order to obtain the approximate 2004 cost of items bid in a prior year, the unit price was multiplied by the Year Bid PPI Adjustment Factor. As noted in the item narratives the unit prices are set higher than this amount to allow for 2005 prices.

Item 201 (1A) Clearing Per Lump Sum

This is a lump sum bid item; however, there are approximately 428 vegetated acres for Juneau Access Alternative 2B and 395 vegetated acres for Alternative 3 that will require clearing. According to the Juneau Access Socioeconomic Report there is approximately \$400,000 worth of harvestable timber within the Alternative 2B clearing limits and \$450,000 worth of harvestable timber within Alternative 3 clearing limits.

The clearing for Juneau Access will be a large quantity of work, completed with large equipment, and include no traffic interruptions.

The following comparison projects were used:

- Project 69844 Juneau Glacier Highway – Indian Point to Point Louisa. Bid April 1998. Work was clearing 35 acres. New alignment full width clearing similar to Juneau Access, however with a much smaller quantity. The minimum amount bid was \$1,200 per acre. The average of the 2 low bids was \$1,600 per acre.
- Project 52312 Parks Highway – MP 57-67. Bid May 2001. Work was clearing 181 acres. Low bid \$809.40 per Acre. Average of 3 low bids \$1,079.20.

The Glacier Highway project was 1/13 the size of Juneau Access and the Parks Highway project 40 percent of Juneau Access. Averaging all bids for the two projects results in \$1,340 per acre (low bids only average \$1,005 per acre). The \$1,340 per acre average is 65 percent higher than the 2001 low bid for this work. Efficiencies in the Juneau Access Improvements Project from large quantities, and no public access conflicts, plus the use of a unit price 65 percent higher than the 2001 project will more than offset the PPI inflation of approximately 10.4 percent since 2001.

Based on these projects the Juneau Access clearing bid item was estimated at \$1,340 per acre and rounded up to the nearest \$5,000 for the lump sum amount. Depending on the right-of-way (ROW) transfer agreement with the USFS the value of timber harvested within the ROW could reduce the bids.

The net effect on the Supplemental Draft EIS Engineer's Estimate for this item is to decrease Alternative 2B by approximately \$55,000 and to decrease Alternative 3 by approximately \$10,000.

Item 203(2) Rock Excavation Per Cubic Yard

The estimated quantity of rock excavation for Juneau Access Alternative 2B is 6,475,600 cubic yards. The quantity for Alternative 3 is 4,060,000 cubic yards.

The following comparison projects were used:

- Project 68035 Ketchikan Airport – West Taxiway Construction. Bid August 2002. Item is Borrow Embankment. Work was to drill, shoot, load, haul and embank 600,000 cubic meters (784,770 cubic yards) of rock at the Ketchikan Airport. Shooting and hauling operations were limited by scheduled airlines operations. Low bid \$4.95 per cubic yard. Average of 3 low bids \$5.46 per cubic yard.

Many DOT & PF projects utilize Item 203(3) Unclassified Excavation, which includes rock as well as common excavation. The rock excavation work under this pay item will not show up in a search of rock excavation Items only. Two large SE Region projects with a significant amount of rock excavation included in the Unclassified Excavation are:

- Project 69844 Juneau Glacier Highway – Indian Point to Point Louisa. Bid April 1998. Work was Unclassified Excavation 339,500 cubic yards of which approximately 50 percent was rock excavation. This work included hauling and embanking. Hauling was performed with street legal trucks. New alignment so traffic control issues were minimal. Some residences nearby. Low bid \$3.20 per cubic yard. Average of 3 low bids \$3.23 per cubic yard.
- Project 71483 Haines Highway – M.P. 25.5 to Little Boulder Creek. Bid September 1998. Work was Unclassified Excavation 511,700 cubic yards of which approximately 50 percent was rock excavation. This work included hauling and embanking. Widening and realignment with traffic flow maintained during construction. Low bid \$1.95 per cubic yard. Average of 3 low bids \$3.48 per cubic yard.

There has been only one project recently advertised in SE Region that contained a significant amount of rock excavation as a bid item.

- Project No. 71811 Ketchikan 3rd Avenue Extension. Bid December 1999. Work was rock excavation 151,000 cubic yards. New alignment; extremely close proximity to residential neighborhoods; limitations on fly rock, size of shot, hours of operation, and extensive preblast surveys. Significant penalties for fly rock events. Low bid \$11.00 per cubic yard. Average of 3 low bids \$11.67 per cubic yard.

The Ketchikan Airport Project was considered the most reasonable basis of estimate for Juneau Access and was confirmed by the other projects listed. The basic unit price of \$5.50 per cubic yard (average of 3 low bids) was adjusted to \$6.50 per cubic yard to account for additional expense for preparation work on the steeper areas. Haul has been minimized by the allowance of sidcasting and deep water disposal. The Ketchikan Airport project was constructed in 2003 and 2004. Efficiency was reduced approximately 20 percent due to operational limitations from aircraft traffic. Efficiencies in the Juneau Access Improvements Project from the use of large off road equipment, minimal restrictions on work, and no public access conflicts or other work restrictions, plus the inefficiencies included in the Ketchikan Airport project will more than offset the PPI inflation of approximately 10 percent since this project was bid in 2002.

The unit price for rock excavation is increased \$.25 per cubic yard over the Supplemental Draft EIS unit price and the quantities for rock excavation are reduced for both Alternative 2B and 3 based on minor alignment changes. The net effect on the Supplemental Draft EIS Engineer's Estimate for this item is to decrease Alternative 2B by approximately \$3,165,000 and to increase Alternative 3 by approximately \$475,000.

Item 203(3) Unclassified Excavation Per Cubic Yard

The estimated quantity of Unclassified Excavation (common excavation only, includes no rock) for Juneau Access Improvements Project Alternative 2B is 993,300 cubic yards. The estimated quantity for Alternative 3 is 2,118,000 cubic yards.

The following comparison projects were used:

- Project 52685 Glenn Highway – MP 61-67 Rehabilitation. Bid September 2000. Work was Unclassified Excavation 86,317 cubic meters (112,212 cubic yards). Traffic flow maintained during construction. Low bid \$2.28 per cubic yard. Average of 3 low bids \$2.42 per cubic yard.
- Project 52921 Palmer-Wasilla Extension. Bid June 2001. Work was Unclassified Excavation 96,722 cubic meters (125,739 cubic yards). Traffic impacts during construction. Low bid \$2.18 per cubic yard. Average of 3 low bids \$2.60 per cubic yard.
- Project 53989 Parks Highway – MP 37-39. Bid September 2001. Work was Unclassified Excavation 651,570 cubic meters (847,041 cubic yards). Traffic flow maintained during construction. Low bidder \$2.47 per cubic yard. Average of 3 low bids \$2.29 per cubic yard.

These three projects all include large quantities of work, but lower quantities than Juneau Access. The low bids for these three projects averaged \$2.31 per cubic yard. The averages of the 3 low bidders on each project was \$2.44 per cubic yard. All of these projects included traffic maintenance impacts. Inflation from the time these projects were bid is more than offset by no public access conflicts. The Juneau Access Unclassified Excavation unit price was conservatively set at \$2.50 per cubic yard.

The unit price is the same as used in the Supplemental Draft EIS, however the quantities of Unclassified Excavation are reduced for both Alternative 2B and 3, based on alignment changes. The net effect on the Supplemental Draft EIS Engineer's Estimate is to decrease Alternative 2B by approximately \$1,150,000 and to decrease Alternative 3 by approximately \$215,000.

Item 203(10) Controlled Blasting Per Square Yard

The estimated quantity of Controlled Blasting for Juneau Access Alternative 2B is 594,500 square yards and the estimated quantity for Alternative 3 is 77,918 square yards.

The work to be completed involves large quantities of work and will be completed without public access conflicts during construction.

The following comparison projects were used:

- Project 71483 Haines Highway – MP 25.5 to Little Boulder Creek. Bid September 1998. Work was Controlled Blasting 63,000 square yard. Work completed while maintaining traffic. Low bidder \$10 per square yard. Second low bidder \$8 per square yard.
- Project 71874 Haines Highway – Big Boulder Creek to the Border. Bid December 1999. Work was Controlled Blasting 4,500 square yards. Work completed while maintaining traffic. Low bidder \$10 per square yard. Second low bidder \$20 per square yard. Third low bidder \$8 per square yard.

Inflation will be offset by large quantities and primarily by no public access conflicts during construction. Based on these two projects the Juneau Access Controlled Blasting unit price was established as \$10 per square yard.

The pay unit for Controlled Blasting was changed from station in the Supplemental Draft EIS to square yard to more accurately account for the height of the rock cut on the estimated cost for this item. The net effect on the Supplemental Draft EIS Engineer's Estimate is to increase Alternative 2B by approximately \$2,585,000 and to decrease Alternative 3 by approximately \$1,325,000.

**Item 307(3) Emulsified Asphalt Treated Base
Per Square Yard**

The estimated quantity of EATB for Juneau Access Improvements Project Alternative 2B is 858,100 square yards. The estimated quantity for Alternative 3 is 724,383 square yards.

This work will be completed prior to opening the highway to traffic. No traffic control conflicts combined with a large quantity of work will result in competitive pricing.

The estimate for EATB includes the oil, Portland Cement, Crushed Aggregate Base, and EATB processing. The unit price was established as \$5.11 per square yard based on the attached project comparison and price extensions for all work incorporated into this item. Oil prices were based on 2005 construction project unit prices and are included in the unit price of \$5.11 per square yard.

The unit price for the EATB is increased \$1.36 per square yard over the Supplemental Draft EIS unit price and the quantities are adjusted to account for alignment changes. The net effect on the Supplemental Draft EIS Engineer's Estimate for this item is to increase Alternative 2B by approximately \$1,027,000 and to increase Alternative 3 by approximately \$1,137,000.

#	NAME	EATB YEAR	QUANTITY (s.y.)	LOW	2ND	3RD	AVG.
55005	N. KENAI SPUR MP 22.0-29.7	2001	161400	\$1.01	\$0.63	\$1.05	\$0.90
55068	SEWARD HWY. RUT AND FROST HEAVE REPAIR	2001	490486	\$0.84	\$0.84	\$0.67	\$0.78
55657B	DIAMOND BLVD. AND HOME DRIVE REHAB	2002	32501	\$0.70	\$0.50		\$0.60
56583	KENAI PENINSULA RESURFACING PROGRAM	2004	148000	\$1.00	\$0.68	\$1.00	\$0.89
	AVERAGES			\$0.89			\$0.79

PORTLAND CEMENT

#	NAME	YEAR	QUANTITY (ton)	LOW	2ND	3RD	AVG.
67948	WRG AIRPORT ACCESS RD/ZIMOVIA HWY	2005	40	\$173.60	\$150.00	\$225.00	\$182.87
68096	JNU-GLACIER HWY & TRAILHEAD	2005	315	\$150.00	\$250.00	\$350.00	\$250.00
68165	MITKOF HWY COASTAL PATH AND HWY	2005	170	\$150.00	\$175.00	\$250.00	\$191.67
	AVERAGES			\$157.97			\$208.18

CSS-1

THE UNIT PRICE FOR CSS-1 GENERALLY IS THE SAME A ASPHALT CEMENT. SEE ASPHALTCONC. TAB.

USE \$235.50

Length of Project	73+15	to	2750+00	267685 ft.	
Length of Bridges				0 ft.	
EATB Length				267685 ft.	
Width of Roadway				30 ft.	
EATB Area				8030550 s.f.	892283.3 S.Y.
CSS-1					
Portland Cement				\$235.50 per ton	
Portland Cement Application Rate for 4-inch depth				\$157.87 per ton	
CAB				4.5 lbs./s.y.	
CSS-1 Application Rate for 4-inch depth				\$20.60 per c.y.	
CSS-1 Estimating Factor				1.7 gal. per s.y.	
CAB per S.Y. 4-inch depth				240 gal. per ton	
				0.111 c.y.	
Cost per S.Y. for CSS-1				\$1.67	
Cost per S.Y. for Portland Cement				\$0.36	
EATB Processing per S.Y.				\$0.79	
Cost per S.Y. for CAB				\$2.29	
Cost per S.Y. of EATB				\$5.11	
TOTAL COST FOR EATB					\$4,555,594.69

Item 401(1) Asphalt Concrete Pavement Per Ton

The estimated quantity of Asphalt Concrete Pavement for Juneau Access Alternative 2B is 104,397 tons. The estimated quantity for Alternative 3 is 90,948 tons.

It is estimated that this work will be accomplished in large segments, possibly as much as one half the entire project prior to allowing the public on the highway. A large quantity of work combined with no traffic impacts will result in bids significantly lower than normal.

The following comparison projects were used:

- Project 71483 Haines Highway – MP 25.5 to Little Boulder Creek. Bid September 1998. Work was Asphalt Concrete Pavement, Type II, Class B, 16,900 tons. Work completed while maintaining traffic. Low bid \$20.00 per ton. Average of 3 low bids \$25.38 per ton.
- Project 71874 Haines Highway – Big Boulder Creek to the Border. Bid December 1999. Work was Asphalt Concrete Pavement, Type II, Class B, 17,500 tons. Work completed while maintaining traffic. Low bid \$18.00 per ton. Average of 3 low bids \$23.33 per ton.
- Project 52312 Parks Highway – MP 57-67. Bid May 2001. Work was Asphalt Concrete, Type II, Class A, 66,256 tons. Work completed while maintaining traffic. Low bid \$18.14 per ton. Average of 3 low bids \$19.35 per ton.

The Juneau Access Improvements Project is over 5 times as large as the Haines projects, however, the bids verify that economical paving prices have occurred in large projects near the project area. The Parks Highway Project is the closest in size and more recently completed project and was used for the Juneau Access estimates. The Parks Highway Project was bid in 2001. The increase in asphalt cement oil prices is covered under Item 401(2) Asphalt Cement, which uses prices for 2005 construction projects. The Parks Highway Project's average unit price for Asphalt Concrete Pavement was increased by approximately 20 percent to cover increased equipment fuel costs for this equipment intensive item. (Note that the PPI inflation since 2001 was approximately 10.4 percent.) The Juneau Access unit price for Concrete Asphalt Pavement was set at \$23.00 per ton based on this comparison.

The unit price for Concrete Asphalt Pavement is decreased \$2.00 per ton from the Supplemental Draft EIS unit price and the quantities are adjusted to account for alignment changes. The net effect on the Supplemental Draft EIS Engineer's Estimate for this item is to decrease Alternative 2B by approximately \$150,000 and to increase Alternative 3 by approximately \$90,000.

Item 401(2) Asphalt Cement Per Ton

The estimated quantity of Asphalt Cement for Juneau Access Improvements Project Alternative 2B is 6,264 tons. The estimated quantity for Alternative 3 is 5,460 tons.

The work to be completed involves large quantities and will be completed without public access conflicts during construction.

The following comparison projects were used:

- Project 56583 Kenai Peninsula Resurfacing Program. Bid May 2004. Work was Asphalt Cement Grade PG 52-28 1,300 ton. Work completed while maintaining traffic. Low bidder \$1 per ton (discounted*). Second and third low bids \$230 and \$195 per ton.
- Project 56567 North Kenai Spur – MP 22.0-29.7. Bid December 2004. Work was Asphalt Cement Grade PG 52-28 1,400 ton. Work completed while maintaining traffic. Low bid \$230. per ton. Second bid \$1 per ton (discounted*). Third bid \$270 per ton.
- Project 55620 Hope Road Pavement Rehabilitation. Bid September 2004. Work was Asphalt Cement Grade PG 52-28 1,750 ton. Work completed while maintaining traffic. Low bid \$222 per ton. Second bid \$1 per ton (discounted*). Third bid \$220 per ton.

Based on these three recently bid projects, the Juneau Access Asphalt Cement unit price was established as \$250 per ton. Inflation is not a factor as bids were for work to be completed in 2005. Savings from no traffic impacts are accounted for in Item 401(1) Asphalt Concrete Pavement. Unit prices increased by approximately 10 percent for extra delivery cost.

The unit price for Asphalt Cement is decreased by \$100 per ton from the Supplemental Draft EIS unit price and the quantities are adjusted to account for alignment changes. The net effect on the Supplemental Draft EIS Engineer's Estimate for this item is to decrease Alternative 2B by approximately \$570,000 and to decrease Alternative 3 by approximately \$315,000.

* discounted means that this unit price bid was not included in setting this item's unit price estimate. These discounted unit prices reflect a bidding strategy instead of a realistic unit price bid.

Item 501(1) Bridge Structure Per Linear Foot

The estimated quantity of Bridge structure for Juneau Access Improvements Project Alternative 2B is 10,256 linear feet. The estimated quantity for Alternative 3 is 15,885 linear feet.

The Juneau Access bridges will be 33 feet wide and all multi-span bridges will utilize approximately 130-foot-long bulb-tee girders.

To date in Alaska there have not been any projects constructed that have similar quantities and construction logistics. The vicinity of major river crossings along the Juneau Access alignments are accessible by barge which allows the use of overlength and overweight components. And as mentioned previously there will be no public access conflicts.

Two projects were used to establish the unit price for Juneau Access:

- Project 60751 Valdez – Dayville Road. Bid June 2004. Work was bridge replacement. Traffic access was maintained during construction to the Alaska Pipeline terminal and to industrial and recreation sites. Bid unit prices are not comparable because of the traffic delay impacts on construction, however the quantity of bulb-tee girders (100 girders) was sufficient to obtain a comparison for girder fabrication costs. A price quoted to the contractor for girders delivered to the barge in the Seattle area was \$32 per square foot. The cost to transport the bulb-tee girders to Lynn Canal, construct the substructure including piling and caps, install the girders, and bridge railing is estimated to be 4 times the girder fabrication cost. This results in a unit price of \$128 per square foot or \$4,224 per linear foot for the Juneau Access bridges.
- A project completed in 2002 to construct the San Mateo-Hayward Bridge in San Francisco, CA has similarities to the major Juneau Access bridges. The bridge was constructed across a shallow (0 to 15-foot-deep) environmentally sensitive bay. The project was constructed with precast, prestressed bulb-tee girders. The San Mateo-Hayward bridge was 4.6 miles long and 60-foot wide. An adjacent bridge was kept open at all times during construction. This bridge's total in-place cost was \$73 per square foot. To adjust this unit price to Juneau Access prices, the \$73 per square foot construction cost was increased by 25 percent for quantity, 20 percent for weather and 20 percent for proximity to fabrication facilities. This results in a unit price of approximately \$132 per square foot for \$4,356 per linear foot.
- Based on these two projects Item 501(1) Bridge Structure was estimated at \$4,400 per linear foot or \$133 per square foot.

Check for Reasonableness:

The average bridge costs for 2000-2003 from the Federal Highways – Bridge Construction Unit Cost per square foot for Federal-Aid Highways in Alaska was \$165 per square foot. This average is compiled from several projects having independent bridges with very little economy of scale. They also required maintaining traffic during construction. It is anticipated that the Berners Bay (5,350 linear feet) and Katzehin River (2,500 linear feet) bridges will experience a much lower unit price because of the quantity. Many of the remaining bridges will bear on rock or roller compacted concrete and will not require a pile foundation. The Juneau Access bridges will also not encounter public access conflicts during construction. Applying a 20 percent savings to the statewide average, which is generated from ease of access to the bridge sites, quantity savings, and no public access conflicts results in unit price of \$132 per square foot.

The unit price for Bridge Structure is unchanged from the Supplemental Draft EIS. The quantity increased for Alternative 2B due to alignment changes in the Berners Bay area. The quantity for Alternative 3 is unchanged. The net effect on the Supplemental Draft EIS Engineer's Estimate is to increase Alternative 2B by approximately \$5,000,000.

**Items 603(17-24), (17-36), (17-48) & (17-72)
24-inch, 36-inch, 48-inch and 72-inch Pipe**

For Juneau Access Improvements Project Alternative 2B the estimated quantity of 24-inch pipe is 20,708 linear feet, for 36-inch pipe is 7,862 linear foot, for 48-inch pipe is 3,600 linear feet, and for 72-inch pipe is 2,304 linear feet.

For Alternative 3 the estimated quantity of 24-inch pipe is 14,088 linear feet, for 36-inch pipe is 13,026 linear feet, for 48-inch pipe is 3,560 linear feet, and for 72-inch pipe is 3,844 linear feet.

The effect that not having to contend with traffic conflict issues is demonstrated by two projects recently bid in Juneau that are currently under construction.

- Project 67471 Juneau – Cascade Point Road. Bid December 2004. Work was 24-inch pipe, 2,268 linear feet at \$48 per linear foot, 36-inch pipe, 126 linear feet at \$70 per linear foot, 48-inch pipe 68 linear feet at \$90 per linear foot, and 72-inch pipe, 64 linear feet at \$135 per linear foot.
- Project 68097 Juneau – Glacier Highway & Trailhead. Bid January 2005. Work was 24-inch CSP, 80 linear feet at \$55 per linear foot, 30-inch CSP, 20 linear feet at \$65 per linear foot, 48-inch corrugated aluminum pipe, 34 linear feet at \$250 per linear foot, and 72-inch corrugated aluminum pipe, 62 linear feet at \$275 per linear foot.

The Cascade Point Road is similar to the Juneau Access project in that there are no traffic control issues. The project is completely blocked off to the public and only accessible to contractor forces. The Glacier Highway project must accommodate 780 ADT with minimum roadway closures. Comparing these two projects for 48-inch and 72-inch pipe with similar quantities reveals that the project with no traffic to contend with and no pipes to dig up is approximately ½ as expensive to build.

For the Juneau Access Improvements Project, the Cascade Point Road Project was used as the basis of the estimate. The bid prices are current, the construction conditions are similar and the unit prices only need to be adjusted for quantity.

Unit prices established for Juneau Access are:

24-inch pipe: \$45 per linear foot
36-inch pipe: \$59.50 per linear foot
48-inch pipe: \$76.50 per linear foot
72-inch pipe: \$108 per linear foot

Prices based on \$3 per linear foot savings on 24-inch pipe, 15 percent savings on 36-inch and 48-inch pipe and 20 percent savings on 72-inch pipe since quantities are so small compared to Juneau Access for the last 3 items.

The unit prices for 24-inch pipe and 48-inch pipe are increased by approximately 50 percent over the Supplemental Draft EIS unit prices. Bid items are added for 36-inch pipe and 72-inch pipe. All quantities are updated to reflect the current alignments. The net effect on the Supplemental Draft EIS Engineer's Estimate from all 603 pipe items is to increase Alternative 2B by approximately \$1,140,000 and to increase Alternative 3 by approximately \$905,000.

Item 606(1) W-beam Guardrail Per Linear Foot

The estimated quantity of W-beam guardrail for Juneau Access Improvements Project Alternative 2B is 29,266 linear feet and for Alternative 3 is 8,900 linear feet.

This work will be completed prior to opening the highway to traffic. Minimum conflicts combined with a large quantity of work will result in significantly lower prices than normal.

The following comparison projects were used:

- Project 71483 Haines Highway – M.P. 25.5 to Little Boulder Creek. Bid September 1998. Work was W-beam guardrail 20,475 linear feet. Work completed while maintaining traffic. Low bid \$14 per linear foot. Average of 3 low bids \$15.04 per linear foot.
- Project 71874 Haines Highway – Big Boulder Creek to the Border. Bid December 1999. Work was W-beam guardrail 2,662.5 linear feet. Work completed while maintaining traffic. Low bid \$12 per linear foot. Average of 3 low bids \$14.50 per linear foot.
- Project 56547 Anchorage International Airport Terminal Expansion. Bid June 2003. Work was W-beam guardrail 7,650 linear feet. Work completed while maintaining traffic. Low bid \$14 per linear foot. Average of 3 low bids \$14.50 per linear foot.
- Project 56571 Old Glenn Highway: Glenn Highway to Plumley Road. Bid April 2004. Work was W-beam guardrail 14,375 linear feet. Work completed while maintaining traffic. Low bid \$16.30 per linear foot. Average of 3 low bids \$17.77 per linear foot.

Juneau Access will have a much larger quantity than these projects and no traffic control conflicts or delays. Based on these projects a unit price of \$16 per linear foot was established for Juneau Access W-beam guardrail.

The unit price for W-beam guardrail is decreased \$6 per linear foot from the Supplemental Draft EIS unit price and quantities are adjusted to reflect current alignments and guardrail warrants. The reason for the \$6 per linear foot decrease is that the Supplemental Draft EIS unit price included terminal end sections in the unit price for W-beam guardrail. The current estimate has separate bid items for W-beam guardrail and terminal end section. The net effect on the Supplemental Draft EIS Engineer's Estimate is to decrease Alternative 2B by approximately \$1,235,000 and to decrease Alternative 3 by approximately \$235,000.

Item 611(1) Riprap Per Cubic Yard

The estimated quantity of riprap for Juneau Access Improvements Project Alternative 2B is 574,500 cubic yards. The estimated quantity for Alternative 3 is 164,500 cubic yards.

The riprap for the Juneau Access Improvements Project will be generated on site from rock excavation. The rock excavation item includes drilling, shooting, and embanking or disposing of the rock and the rock excavation quantity includes the necessary riprap quantities. Therefore the unit price for riprap only needs to include any additional cost for sorting and placing the riprap on the slopes.

Based on their being no public access conflicts during construction and the large quantities, the extra cost for sorting and placing the riprap was set at \$6 per cubic yard.

The unit price for riprap is decreased by \$ 9 per cubic yard from the Supplemental Draft EIS unit price. The Supplemental Draft EIS Engineer's Estimates did not account for the riprap being generated from rock excavation. The quantities remain unchanged from the Supplemental Draft EIS. The net effect on the Supplemental Draft EIS Engineer's Estimate is to decrease Alternative 2B by approximately \$5,170,000 and to decrease Alternative 3 by approximately \$1,480,000.

Item 637(1) MSE Wall Per Square Foot

The estimated quantity of MSE wall for Juneau Access Improvements Project Alternative 2B is 543,790 square feet. The estimated quantity for Alternative 3 is 77,446 square feet.

The work to be completed involves large quantities and will be completed without public access conflicts during construction.

The following comparison projects were used:

- Project 52921 Palmer-Wasilla Extension. Bid June 2001. Work was mechanically stabilized embankment retaining walls 1,640 square meters (17,712 square feet). Work completed while maintaining traffic. Low bidder \$30.93 per square foot. Average of 3 low bids \$29.14 per square foot.
- Project 53989 Parks Highway – MP 37-39. Bid September 2001. Work was mechanically stabilized embankment retaining walls 2,360 square meters (25,488 square foot). Work completed while maintaining traffic. Low bidder \$32.41 per square foot. Average of 3 low bids \$30.93 per square foot.
- Project 55264 Glenn Highway – MP 100-109; Caribou Creek. Bid November 2002. Work was mechanically stabilized embankment retaining walls 3,225 square meter (34,830 square feet). Work completed while maintaining traffic. Low bidder \$23.15 per square foot. Average of 3 low bids \$28.55 per square foot.

Inflation will be offset by large quantities and no public access conflicts during construction. Based on these three projects the Juneau Access MSE wall unit price was established as \$31 per square foot.

Two bid items, gabions and reinforced earth wall, in the Supplemental Draft EIS Engineer's Estimate are replaced by one item MSE wall. Quantities are recalculated to reflect current design and alignments. The net effect on the Supplemental Draft EIS Engineer's Estimate is to increase Alternative 2B by approximately \$5,632,000 and to decrease Alternative 3 by approximately \$1,724,000.

Item 637(2) Screening Structure Per Lump Sum

This item was not included in the Supplemental Draft EIS Engineer's Estimate. The purpose of the screening structure is to restrict the Gran Point and Met Point Sea Lion Haulouts from access and view. The area to be restricted extends 3,000 feet either side from the main haulout area. The screening structures will consist of sections of rock thru-cuts, sections of concrete barrier with screening fence on top, and sections of 8-foot-high screening fence. For Gran Point there are 3,750 feet of rock thru-cut, 1,300 feet of concrete barrier with screening fence and 950 feet of 8-foot-high screening fence. For Met Point there are 1,200 feet of rock thru-cut, 1,500 feet of concrete barrier with screening fence, 1,800 feet of 8-foot-high screening fence and approximately 1,500 feet where natural screening and restricted access do not require screening.

For rock thru-cuts the cost is included in the rock excavation item. For estimating the cost of concrete barrier with screening fence the barrier is estimated to be a concrete jersey barrier with a 3 to 4-foot-high screening fence on top. For estimating the cost of the 8-foot-high screening fence; the fence is estimated to be an 8-foot-high chain link fence with screening fabric.

The following comparison projects were used:

- Project 67408 Skagway – Klondike Highway jersey barrier. Bid August 2004. Work was lump sum to mobilize and remove 1,000 feet of guardrail and replace with concrete jersey barrier. Work completed while maintaining traffic. Low bid \$99,890 lump sum or approximately \$100 per linear foot including mobilization and removing guardrail.
- Project 73652 Valdez – Ferry Terminal Improvements. Bid May 2003. Work was 8-foot chain link fence, 1,776 linear feet. Low bid \$60 per linear foot. Average of 3 Low bids \$60.33 per linear foot.

Based on these two projects the estimated cost for the concrete jersey barrier with 3 to 4-foot-high screening fence is \$135 per linear foot (\$75 for jersey barrier and \$60 for fence). The cost of the 8-foot-high screening fence is estimated at \$75 per linear foot including screening fabric. Lump sum estimate is based on 2,800 linear feet of concrete barrier with screening fence and 2,750 linear feet of 8-foot-high screening fence.

The net effect on the Supplemental Draft EIS Engineer's Estimate is to increase Alternative 2B by approximately \$584,000.

**Item 640(1) Mobilization and Demobilization
Per Lump Sum**

There are no quantities associated with mobilization and demobilization. This item covers the cost to move personnel, equipment, supplies and incidentals to and from the project site.

The following comparison projects were used:

- Project 60751 Valdez – Dayville Road Reconstruction. Bid June 2004. Work was mobilization and demobilization per lump sum. Low bid for mobilization and demobilization was \$2,619,000 or 8.8 percent of the total bid of \$29,643,055.50. Second low bidder was \$2,150,000 or 7.3 percent of their total bid of \$29,643,598.00.
- Project 68096 Juneau – Glacier Highway and Trailhead. Bid January 2005. Work was mobilization and demobilization per lump sum. Low bid for mobilization and demobilization was \$700,000 or 7 percent of their total bid of \$9,966,670. Second low bidder was \$675,000 or 6.5 percent of their total bid of \$10,342,564.

Based on these projects, mobilization and demobilization was set at approximately 7.5 percent of the total engineer's estimate for all bid items.

The net effect on the Supplemental Draft EIS Engineer's Estimate is to decrease Alternative 2B by approximately \$1,025,000 and to decrease Alternative 3 by approximately \$3,050,000.

**Item 640(4) Worker Meals and Lodging, or Per Diem
Lump Sum**

This bid item was not included in the Supplemental Draft EIS Engineer's Estimate. This bid item was added to state contracts after October 2004 to comply with Alaska Department of Labor and Workforce Development requirements.

The net effect on the Supplemental Draft EIS Engineer's Estimate is to increase both Alternative 2B and Alternative 3 by approximately \$1,000,000.

Item – Highway Contingency

Most of the items included in the engineer's estimate are sufficiently accurate that a contingency is not warranted. The only items that could change based on field geotechnical work are the backslopes in the rock cut areas and the depths of foundation piling at the major river crossings. To cover any overruns due to field changes an 8 percent contingency was applied to the total project estimate. This means that either the rock excavation or the Bridge Structure could overrun by approximately 25 percent and still be within the estimate or that they could both overrun by approximately 12 percent and still be within the estimate.

Item – Construction Engineering

This item covers the cost for state forces to inspect, monitor and document the Contractor's construction activities. This project will not require traffic control monitoring or utility construction inspection. On large projects the Construction Engineering is a lower percent of the Engineer's Estimate than on smaller projects. Construction Engineering at 8 percent was also used in the Supplemental Draft EIS Engineer's Estimate.

Item – 4.3 Percent ICAP

The Indirect Cost Allocation Plan (ICAP) is an overhead rate assessed by DOT&PF, on all capital projects. For State Fiscal Year 2006 the rate for FHWA Highway projects has been set at 4.3 percent. The rate at the time of the Supplemental Draft EIS Engineer's Estimate was 3.55 percent. The net effect on the Supplemental Draft EIS Engineer's Estimate is to increase Alternative 2B by approximately \$1,390,000 and to increase Alternative 3 by approximately \$945,000.

Item – Preliminary Development

This item is to cover the cost of project development, design and final permitting. The estimated amounts for this item are the same as used in the Supplemental Draft EIS Engineer's Estimate.

Item – Mitigation

This item is to cover the cost to mitigate for the construction impacts of the alternatives. Some of each alternative's mitigation is included in bid items that cover on site mitigation. The mitigation item is to cover off site mitigation or fee in lieu of mitigation. The amounts shown are based on preliminary discussions with resource agencies.

Item – Right of Way

This item is to cover the estimated cost of acquiring right of way to construct each alternative. Amounts shown are the same as used in the Supplemental Draft EIS Engineer's Estimate.

Item – Maintenance Building

This item covers the cost of constructing a Maintenance Station at Comet for Alternative 2B and Equipment and sand storage at William Henry Bay for Alternative 3. Amounts shown are the same as used in the Supplemental Draft EIS Engineer's Estimate. The \$500,000 estimate for the William Henry Bay Building is confirmed by the May 2005 bid to construct the Skagway Klondike Highway Storage Building. This 5,000-square-foot building was bid at \$482,000 for a similar remote location building. The Comet Maintenance Station is estimated at \$1,000,000 to include public restroom facilities.

Item – Avalanche Control CIP

This item is to cover the cost of constructing ammunition storage units, weather stations, and repeaters and to obtain all avalanche maintenance equipment. Costs are taken from the Snow Avalanche Report. Amounts used are the same as used in the Supplemental Draft EIS, however are broken out as an item to allow for easier identification.

Item – Road Assistance

This item was included in the Supplemental Draft EIS Engineer's Estimate. It was to account for the improvements to be constructed by Goldbelt and Coeur on the Cascade Point Road. This item has been deleted since the roadway has been constructed and each alternative's quantities have been reduced by the actual amount of construction that has occurred.

Highway Construction Total

The cumulative effect of new Pay items, different Pay Units, Revised Unit Prices and Quantities and current ICAP, over the Supplemental Draft EIS Engineer's Estimate is to increase the Alternative 2B Highway Construction Total estimate by approximately \$5,345,000 and to decrease the Alternative 3 Highway Construction Total estimate by approximately \$4,850,000.

Items – Terminal Construction and Vessel Construction

These items are added to the Engineer's Estimate so that each alternative's total estimated cost is provided in one document. For changes from the Supplemental Draft EIS estimates for these items see the updated Terminal Construction Cost Estimates and the Vessel Construction Cost Update.

This page intentionally left blank.

**NEW ATTACHMENT G
VESSEL CONSTRUCTION COST UPDATE**

This is a new attachment that explains how vessel construction costs changed between the Supplemental Draft EIS estimate in January 2004 and the Final EIS estimates in August 2005.

This page intentionally left blank.

PO Box 22223
Juneau, AK 99802
907-586-3148

August 29, 2005

Mr. Reuben Yost
Special Projects Manager
SE Region, DOT&PF
Juneau, AK 99801

Subject: JAI Marine Segments CIP Cost Update

Dear Mr. Yost:

At your request, we have examined the difference in cost of vessel construction over the period January 2004 to August 2005 for the purpose of updating the vessel acquisition costs in the 2003 JAI Marine Segments Report.

The time period in question was marked by a large increase in the cost of steel, a minor increase in general economic inflation, and a large increase in the cost of petroleum products.

Over this period the cost of American Bureau of Shipping certified, wheeled and primed, structural steel went from about .25 \$ per pound to about .90 \$ per pound. In order to accurately account for this increase in raw material cost, we isolated and quantified the amount and cost of steel, as a portion of the total vessel construction cost. Although a normal day-boat ferry contains about 75 percent steel by weight, we calculated that the increase in the total vessel cost, due solely to the increase in price of steel, would have been about 6.2 percent over this period.

Aluminum costs have not increased to the extent of steel costs. Aluminum prices vary with thickness, grade, and availability and are quoted on specific lots. Based on standard size (6'x20') 5086 marine grade aluminum plate, the price of aluminum increased from about 1.65 \$ per pound to about 2.23 \$ per pound, over the period January 2004 to August 2005. Assuming an average cost of aluminum plates and shapes and assuming high speed aluminum day-boats are about 55 percent aluminum by weight, the increase in total vessel cost due solely to the increase in aluminum cost over this period, was about 2.1 percent.

A general economic inflation factor must be applied to the overall vessel cost because of the increase in cost of manufactured components (like main engines)



Coastwise Corporation

Naval Architects • Marine Engineers
Juneau, Alaska

and the increase in cost of services and utilities. Our analysis indicated that most vessel construction costs (other than hull material) increased by a small and somewhat uniform amount. The increase in general economic inflation was measured primarily by Consumer Price Index (CPI) calculations both nationally and in Alaska. National CPI data indicates an overall inflation increase of 5.1 percent for the period January 2004 to August 2005, and was slightly less in Alaska.

Also, we separately investigated average earnings and personal income figures in shipbuilding areas to determine the impact of the cost of labor. Earnings and wages varied, but in general they outpaced the CPI by less than 1 percent. We believe that the 5.1 percent general inflation cost is an accurate measure of the general vessel construction cost increase and should be applied to our 2003 vessel cost calculations.

Based on our analysis, the construction cost for the steel vessels in the JAI Marine Segments Report has increased by 11.1 percent over the time period January 2004 to August 2005. This figure reflects the general inflation cost for all items excluding steel and the increase due to the cost of steel.

Based on our analysis, the construction cost for aluminum high speed vessels in the JAI Marine Segments Report has increased by 6.8 percent over the time period January 2004 to August 2005. This figure reflects the general inflation cost for all items excluding aluminum and the increase due to the cost of aluminum.

Vessel acquisitions costs in the Marine Segments report include a program management cost equal to 20 percent of the vessel construction cost. Based on the fact that a large portion of program costs are also subject to general economic inflation, we believe that the calculation of program management cost should remain at 20 percent of the increased vessel cost.

Our analysis is based on general economic trends and costs and is intended to be applied only to the limited vessel types and sizes in the 2003 Marine Segments Report. This information is being supplied for the purpose of transportation planning. If you need information on a specific route or vessel size/type, we would be happy to provide a more detailed analysis. Please advise us, if you have any questions.

Sincerely,



Patrick Eberhardt, PE
Principal
Coastwise Corporation
(907) 586-3148

APPENDIX B

DOT&PF Bid Tabulations

Project 62860, Dalton Highway MP 175 to 197 Rehabilitation, 2009.....B-3

This Page Intentionally Left Blank



COMPILATION OF BIDS

STATE OF ALASKA -- DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES -- NORTHERN REGION

Project Number: IM-065-4(10) / 62860
Project Name: Dalton Highway Mp 175 To 197 Rehabilitation
Project Location: Mile Post 175 -197

Opened at: Fairbanks, AK
Date: Thursday, October 22, 2009
By: David T. Bloom, P.E.

Certified True and Correct: Janet Brown 10/22/09, Acting Contracts Engineer
Janet L. Brown, P.E. DATE

Compiled By: PYL 19 Checked By: JP CE

Order of Bidders Based on: Basic Bid											
	State of Alaska DOT & PF Design Section Northern Region				GNI/ROGER HICKEL CONTRACTING INC.		PRUHS CONSTRUCTION COMPANY, LLC 2193 VIKING DRIVE ANCHORAGE, AK 99501		QAP 240 W. 68TH AVE. ANCHORAGE, AK 99518		
Basic Bid	ENGINEER'S ESTIMATE				LOW BIDDER		BIDDER 2		BIDDER 3		
Item No.	Description	Quantity	Pay Unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
106 (1)	Material Site Reclamation										
	All Required Contingent Sum		C.S.		75,000.00	C.S.	75,000.00	C.S.	75,000.00	C.S.	75,000.00
201 (3B)	Clearing And Grubbing										
	All Required Lump Sum		L.S.		250,000.00	L.S.	220,000.00	L.S.	345,000.00	L.S.	500,000.00
201 (4B)	Hand Clearing										
	All Required Lump Sum		L.S.		116,280.00	L.S.	220,000.00	L.S.	135,000.00	L.S.	500,000.00
202 (4)	Removal Of Culvert Pipe										
	6,897 Linear Foot			5.00	34,485.00	24.00	165,528.00	11.00	75,867.00	10.00	68,970.00
202 (13)	Debris Removal										
	All Required Contingent Sum		C.S.		15,000.00	C.S.	15,000.00	C.S.	15,000.00	C.S.	15,000.00
203 (3)	Unclassified Excavation										
	88,800 Cubic Yard			5.00	444,000.00	5.00	444,000.00	5.00	444,000.00	8.00	710,400.00
203 (6)	Borrow										
	748,000 Ton			7.40	5,535,200.00	7.00	5,236,000.00	7.50	5,610,000.00	5.00	3,740,000.00
203 (20)	Access Road Borrow										
	7,000 Ton			6.00	42,000.00	9.00	63,000.00	10.00	70,000.00	5.00	35,000.00
306 (1)	ATB										
	91,550 Ton			35.00	3,204,250.00	30.00	2,746,500.00	34.00	3,112,700.00	35.00	3,204,250.00
306 (2)	Asphalt Cement, Type PG 52-28										
	3,845 Ton			550.00	2,114,750.00	690.00	2,653,050.00	700.00	2,691,500.00	700.00	2,691,500.00
401 (1)	Asphalt Concrete, Type II ; Class B										
	45,800 Ton			50.00	2,290,000.00	35.00	1,603,000.00	42.00	1,923,600.00	40.00	1,832,000.00
401 (2)	Asphalt Cement, Grade PG 52-40										
	2,520 Ton			550.00	1,386,000.00	1,285.00	3,238,200.00	1,000.00	2,520,000.00	1,300.00	3,276,000.00
401 (6)	Asphalt Price Adjustment										
	All Required Contingent Sum		C.S.		241,000.00	C.S.	241,000.00	C.S.	241,000.00	C.S.	241,000.00
401 (10)	Asphalt Material Price Adjustment										
	All Required Contingent Sum		C.S.		100,000.00	C.S.	100,000.00	C.S.	100,000.00	C.S.	100,000.00
402 (1)	STE-1 Asphalt For Tack Coat										
	161 Ton			550.00	88,550.00	1,000.00	161,000.00	800.00	128,800.00	1,000.00	161,000.00
513 (2)	Pressure Washing										
	All Required Lump Sum		L.S.		229,500.00	L.S.	200,000.00	L.S.	347,000.00	L.S.	100,000.00
514 (1)	Silicone Joint Sealant										
	357.5 Linear Foot			100.00	35,750.00	100.00	35,750.00	120.00	42,900.00	100.00	35,750.00
514 (2)	Expansion Joint Compression Seal										
	192.5 Linear Foot			75.00	14,437.50	100.00	19,250.00	90.00	17,325.00	200.00	38,500.00



COMPILATION OF BIDS

STATE OF ALASKA -- DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES -- NORTHERN REGION

Project Number: IM-065-4(10) / 62860
 Project Name: Dalton Highway Mp 175 To 197 Rehabilitation
 Project Location: Mile Post 175 -197

Opened at: Fairbanks, AK
 Date: Thursday, October 22, 2009
 By: David T. Bloom, P.E.

State of Alaska DOT & PF Design Section Northern Region				GNI/ROGER HICKEL CONTRACTING INC.		PRUHS CONSTRUCTION COMPANY, LLC 2193 VIKING DRIVE ANCHORAGE, AK 99501		QAP 240 W. 68TH AVE. ANCHORAGE, AK 99518			
Basic Bid				ENGINEER'S ESTIMATE		LOW BIDDER		BIDDER 2		BIDDER 3	
Item No.	Description	Quantity	Pay Unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
602 (1-60)A	Structural Plate Pipe 60" Diameter, 12 Gage	183	Linear Foot	850.00	155,550.00	810.00	148,230.00	515.00	94,245.00	1,500.00	274,500.00
602 (1-60)B	Structural Plate Pipe 60" Diameter, 10 Gage	118	Linear Foot	1,000.00	118,000.00	840.00	99,120.00	570.00	67,260.00	1,600.00	188,800.00
602 (1-72)A	Structural Plate Pipe 72" Diameter, 12 Gage	322	Linear Foot	1,300.00	418,600.00	820.00	264,040.00	500.00	161,000.00	1,600.00	515,200.00
602 (1-72)B	Structural Plate Pipe 72" Diameter, 10 Gage	100	Linear Foot	1,500.00	150,000.00	800.00	80,000.00	620.00	62,000.00	1,700.00	170,000.00
602 (1-84)	Structural Plate Pipe 84" Diameter, 10 Gage	213	Linear Foot	1,800.00	383,400.00	970.00	206,610.00	650.00	138,450.00	2,000.00	426,000.00
602 (1-108)	Structural Plate Pipe 108" Diameter, 10 Gage	80	Linear Foot	2,200.00	176,000.00	980.00	78,400.00	900.00	72,000.00	3,000.00	240,000.00
602 (2-13)	Structural Plate Pipe-Arch 13'-3" Span, 9'-4" Rise, 8 Gage	86	Linear Foot	2,500.00	215,000.00	1,470.00	126,420.00	1,200.00	103,200.00	1,500.00	129,000.00
602 (2-15)	Structural Plate Pipe-Arch 15'-4" Span, 10'-4" Rise, 8 Gage	110	Linear Foot	3,000.00	330,000.00	1,600.00	176,000.00	1,250.00	137,500.00	2,000.00	220,000.00
602 (5)	Deadman	9	Each	7,500.00	67,500.00	16,000.00	144,000.00	8,000.00	72,000.00	12,000.00	108,000.00
603 (1-24)	24 Inch CSP	164	Linear Foot	120.00	19,680.00	120.00	19,680.00	110.00	18,040.00	130.00	21,320.00
603 (1-36)	36 Inch CSP	7,181	Linear Foot	160.00	1,148,960.00	180.00	1,292,580.00	160.00	1,148,960.00	160.00	1,148,960.00
603 (1-48)	48 Inch CSP	398	Linear Foot	350.00	139,300.00	490.00	195,020.00	225.00	89,550.00	400.00	159,200.00
603 (1-60)	60 Inch CSP	428	Linear Foot	600.00	256,800.00	570.00	243,960.00	300.00	128,400.00	600.00	256,800.00
606 (1)	W-beam Guardrail	2,448	Linear Foot	35.00	85,680.00	30.00	73,440.00	34.00	83,232.00	35.00	85,680.00
606 (6)	Removing And Disposing Of Guardrail	2,451	Linear Foot	5.00	12,255.00	8.00	19,608.00	9.00	22,059.00	10.00	24,510.00
606 (10)	Slotted Rail Terminal (SRT-350)	18	Each	4,000.00	72,000.00	2,600.00	46,800.00	3,000.00	54,000.00	5,000.00	90,000.00
611 (1-I)	Riprap, Class I	1,065	Cubic Yard	30.00	31,950.00	88.00	93,720.00	70.00	74,550.00	60.00	63,900.00
611 (1-II)	Riprap, Class II	4,168	Cubic Yard	50.00	208,400.00	68.00	283,424.00	56.00	233,408.00	60.00	250,080.00
613 (2)	Culvert Marker Post	272	Each	200.00	54,400.00	85.00	23,120.00	100.00	27,200.00	100.00	27,200.00
615 (1)	Standard Sign	766.38	Square Foot	115.00	88,133.70	100.00	76,638.00	150.00	114,957.00	100.00	76,638.00



COMPILATION OF BIDS

STATE OF ALASKA -- DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES -- NORTHERN REGION

Project Number: IM-065-4(10) / 62860
 Project Name: Dalton Highway Mp 175 To 197 Rehabilitation
 Project Location: Mile Post 175 -197

Opened at: Fairbanks, AK
 Date: Thursday, October 22, 2009
 By: David T. Bloom, P.E.

		State of Alaska DOT & PF Design Section Northern Region		GNI/ROGER HICKEL CONTRACTING INC.		PRUHS CONSTRUCTION COMPANY, LLC 2193 VIKING DRIVE ANCHORAGE, AK 99501		QAP 240 W. 68TH AVE. ANCHORAGE, AK 99518			
Basic Bid		ENGINEER'S ESTIMATE		LOW BIDDER		BIDDER 2		BIDDER 3			
<i>Item No.</i>	<i>Description</i>	<i>Quantity</i>	<i>Pay Unit</i>	<i>Unit Price</i>	<i>Amount</i>	<i>Unit Price</i>	<i>Amount</i>	<i>Unit Price</i>	<i>Amount</i>		
616 (2)	3/4 Inch Diameter Thaw Pipe	92	Each	2,000.00	184,000.00	1,300.00	119,600.00	1,000.00	92,000.00	1,500.00	138,000.00
618 (2)	Seeding	7,050	Pound	60.00	423,000.00	25.00	176,250.00	33.00	232,650.00	40.00	282,000.00
639 (3)	Approaches	33	Each	750.00	24,750.00	1,500.00	49,500.00	1,000.00	33,000.00	500.00	16,500.00
640 (1)	Mobilization And Demobilization										
	All Required Lump Sum			L.S.	2,300,000.00	L.S.	800,000.00	L.S.	700,000.00	L.S.	400,000.00
640 (2)	Contractor Camp										
	All Required Lump Sum			L.S.	768,750.00	L.S.	1,000,000.00	L.S.	1,300,000.00	L.S.	1,000,000.00
641 (1)	Erosion, Sediment And Pollution Control Administration										
	All Required Lump Sum			L.S.	75,000.00	L.S.	5,000.00	L.S.	25,000.00	L.S.	10,000.00
641 (3)	Temporary Erosion Sediment, And Pollution Control										
	All Required Lump Sum			L.S.	290,000.00	L.S.	200,000.00	L.S.	300,000.00	L.S.	150,000.00
641 (4)	Temporary Erosion, Sediment And Pollution Control Modification										
	All Required Contingent Sum			C.S.	50,000.00	C.S.	50,000.00	C.S.	50,000.00	C.S.	50,000.00
641 (5)	Erosion, Sediment And Pollution Control Price Adjustment										
	All Required Contingent Sum			C.S.	0.00	C.S.	0.00	C.S.	0.00	C.S.	0.00
642 (1)	Construction Surveying										
	All Required Lump Sum			L.S.	450,000.00	L.S.	230,000.00	L.S.	300,000.00	L.S.	350,000.00
642 (3A)	Three Person Survey Party										
	All Required Contingent Sum			C.S.	30,000.00	C.S.	30,000.00	C.S.	30,000.00	C.S.	30,000.00
642 (13)	Cross Sections										
	All Required Lump Sum			L.S.	40,000.00	L.S.	25,000.00	L.S.	28,000.00	L.S.	50,000.00
643 (2)	Traffic Maintenance										
	All Required Lump Sum			L.S.	300,000.00	L.S.	360,000.00	L.S.	300,000.00	L.S.	200,000.00
643 (3)	Permanent Construction Signs										
	All Required Lump Sum			L.S.	5,000.00	L.S.	3,000.00	L.S.	10,000.00	L.S.	20,000.00
643 (23)	Traffic Price Adjustment										
	All Required Contingent Sum			C.S.	0.00	C.S.	0.00	C.S.	0.00	C.S.	0.00
643 (25)	Traffic Control										
	All Required Contingent Sum			C.S.	1,200,000.00	C.S.	1,200,000.00	C.S.	1,200,000.00	C.S.	1,200,000.00
644 (1)	Field Office										
	All Required Lump Sum			L.S.	50,000.00	L.S.	40,000.00	L.S.	60,000.00	L.S.	50,000.00
644 (2)	Field Laboratory										
	All Required Lump Sum			L.S.	30,000.00	L.S.	10,000.00	L.S.	30,000.00	L.S.	20,000.00
644 (6)	Vehicles										
	All Required Lump Sum			L.S.	150,000.00	L.S.	150,000.00	L.S.	180,000.00	L.S.	150,000.00



COMPILATION OF BIDS

STATE OF ALASKA -- DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES -- NORTHERN REGION

Project Number: 1M-065-4(10) / 62860
 Project Name: Dalton Highway Mp 175 To 197 Rehabilitation
 Project Location: Mile Post 175 -197

Opened at: Fairbanks, AK
 Date: Thursday, October 22, 2009
 By: David T. Bloom, P.E.

		State of Alaska DOT & PF Design Section Northern Region		GNI/ROGER HICKEL CONTRACTING INC.		PRUHS CONSTRUCTION COMPANY, LLC 2193 VIKING DRIVE ANCHORAGE, AK 99501		QAP 240 W. 68TH AVE. ANCHORAGE, AK 99518	
Basic Bid		ENGINEER'S ESTIMATE		LOW BIDDER		BIDDER 2		BIDDER 3	
<i>Item No.</i>	<i>Description</i>	<i>Quantity</i>	<i>Pay Unit</i>	<i>Unit Price</i>	<i>Amount</i>	<i>Unit Price</i>	<i>Amount</i>	<i>Unit Price</i>	<i>Amount</i>
644 (15)	Nuclear Testing Equipment Storage Shed								
	1 Each			3,000.00	3,000.00	2,300.00	2,300.00	2,000.00	2,000.00
645 (1)	Training Program, 3 Trainees/Apprentices								
	1,775 Labor Hour			1.00	1,775.00	1.00	1,775.00	1.00	1,775.00
670 (1)	Painted Traffic Markings								
	All Required Lump Sum			L.S.	99,500.00	L.S.	63,000.00	L.S.	70,000.00
Total Basic Bid				26,822,586.20		25,642,513.00		25,741,128.00	

Project Summary: Includes Basic Bid

	ENGINEER'S ESTIMATE	LOW BIDDER	BIDDER 2	BIDDER 3
Bid Total:	26,822,586.20	25,642,513.00	25,741,128.00	25,998,433.00

Other Bidders: Includes Basic Bid

		GRANITE CONSTRUCTION COMPANY 11301 LANG STREET ANCHORAGE, AK 99515		AIC (ALASKA INTERSTATE CONSTRUCTION LLC) 601 W 5TH AVE STE 400 ANCHORAGE, AK 99501		HC CONTRACTORS, INC P.O. BOX 80688 FAIRBANKS, AK 99708	
Bid Total:		26,970,038.72		27,092,384.60		27,853,155.00	

Other Bidders: Includes Basic Bid

		KIEWIT PACIFIC CO 1577 C STREET, STE 101 ANCHORAGE, AK 99501	
Bid Total:		36,909,393.00	

APPENDIX C

FHWA-WFLHD Bid Tabulations

AK PFH 44-1(4), Coffman Cove Road, Paving, 2007	C-3
AK PFH 44-1(2), Coffman Cove Road, Phase 2, 2006.....	C-13
AK PFH 44-1(1), Coffman Cove Road, Phase 1, Schedule B, 2003	C-27
AK PFH 42-1(5), 43-1(6), Control Lake – Thorne Bay Road and North Prince of Wales Road, 2002 ..	C-47
AK PFH 9-1(9), Big Salt Lake Road, 1999	C-61

This Page Intentionally Left Blank

TABULATION OF BIDS

Bid Schedule A

Project No.: AK PFH 44-1(4)

Project Name: COFFMAN COVE ROAD, PAVING

State: AK
 County: PRINCE OF WALES ISLD
 TONGASS NATIONAL FOREST

Opened at: VANCOUVER, WA
 By: JULEE MCTAGGART
 Date: 11/15/07

I certify that this Bid Tabulation accurately reflects the bids received and publicly opened for this solicitation.

Signed: _____

Title: _____ Date: _____

Contract Awarded to: _____ Date: _____

Contractor	Bid Amount	Responsive
BICKNELL, INC. P.O. BOX 33517 JUNEAU, AK 99803	10,391,135.00	
SOUTHEAST ROAD BUILDERS INC. HC60 BOX 4800 HAINES, AK 99827	11,042,748.93	
WILDER CONSTRUCTION COMPANY 11301 LANG STREET ANCHORAGE, AK 99515-3006	12,021,299.00	
ALASKA INTERSTATE CONSTRUCTION, LL 601 W. 5TH AVE SUITE 400 ANCHORAGE, AK 99501	14,342,610.25	
KIEWIT PACIFIC CO. P.O. BOX 1769 VANCOUVER, WA 98668	16,651,812.00	
Engineer's Estimate	12,388,049.00	

TABULATION OF BIDS

Date: 11/16/07

Bid Schedule A

Project No.: AK PFH 44-1(4)

Project Name: COFFMAN COVE ROAD, PAVING

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15101-0000	LPSM	Mobilization			
		BICKNELL, INC.	ALL	990,000.00	990,000.00
		SOUTHEAST ROAD BUILDERS INC.		1,647,200.00	1,647,200.00
		WILDER CONSTRUCTION COMPANY		1,070,000.00	1,070,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		1,400,000.00	1,400,000.00
		KIEWIT PACIFIC CO.		1,650,000.00	1,650,000.00
		ENGINEER'S ESTIMATE		1,023,000.00	1,023,000.00
15201-0000	LPSM	Construction survey and staking			
		BICKNELL, INC.	ALL	140,000.00	140,000.00
		SOUTHEAST ROAD BUILDERS INC.		212,900.00	212,900.00
		WILDER CONSTRUCTION COMPANY		450,000.00	450,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		433,000.00	433,000.00
		KIEWIT PACIFIC CO.		300,000.00	300,000.00
		ENGINEER'S ESTIMATE		175,000.00	175,000.00
15301-0000	LPSM	Contractor quality control			
		BICKNELL, INC.	ALL	115,000.00	115,000.00
		SOUTHEAST ROAD BUILDERS INC.		369,500.00	369,500.00
		WILDER CONSTRUCTION COMPANY		250,000.00	250,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		300,000.00	300,000.00
		KIEWIT PACIFIC CO.		175,000.00	175,000.00
		ENGINEER'S ESTIMATE		360,000.00	360,000.00
15401-0000	LPSM	Contractor testing			
		BICKNELL, INC.	ALL	100,000.00	100,000.00
		SOUTHEAST ROAD BUILDERS INC.		221,400.00	221,400.00
		WILDER CONSTRUCTION COMPANY		25,000.00	25,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		300,000.00	300,000.00
		KIEWIT PACIFIC CO.		275,000.00	275,000.00
		ENGINEER'S ESTIMATE		125,000.00	125,000.00
15501-0000	LPSM	Construction schedule			
		BICKNELL, INC.	ALL	25,000.00	25,000.00
		SOUTHEAST ROAD BUILDERS INC.		18,200.00	18,200.00
		WILDER CONSTRUCTION COMPANY		10,000.00	10,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		72,000.00	72,000.00
		KIEWIT PACIFIC CO.		5,000.00	5,000.00
		ENGINEER'S ESTIMATE		20,000.00	20,000.00

TABULATION OF BIDS

Date: 11/16/07

Bid Schedule A

Project No.: AK PFH 44-1(4)

Project Name: COFFMAN COVE ROAD, PAVING

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15705-0100	m	Soil erosion control, silt fence			
		BICKNELL, INC.	1,150	28.00	32,200.00
		SOUTHEAST ROAD BUILDERS INC.		9.00	10,350.00
		WILDER CONSTRUCTION COMPANY		20.00	23,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		17.00	19,550.00
		KIEWIT PACIFIC CO.		17.50	20,125.00
		ENGINEER'S ESTIMATE		8.00	9,200.00
15705-1500	m	Soil erosion control, sediment wattle			
		BICKNELL, INC.	200	56.00	11,200.00
		SOUTHEAST ROAD BUILDERS INC.		43.00	8,600.00
		WILDER CONSTRUCTION COMPANY		30.00	6,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		50.00	10,000.00
		KIEWIT PACIFIC CO.		20.00	4,000.00
		ENGINEER'S ESTIMATE		26.00	5,200.00
15801-0000	m3	Watering for dust control			
		BICKNELL, INC.	3000	12.00	36,000.00
		SOUTHEAST ROAD BUILDERS INC.		9.30	27,900.00
		WILDER CONSTRUCTION COMPANY		12.50	37,500.00
		ALASKA INTERSTATE CONSTRUCTION, LL		15.00	45,000.00
		KIEWIT PACIFIC CO.		15.00	45,000.00
		ENGINEER'S ESTIMATE		7.00	21,000.00
20301-2400	Each	Removal of signs			
		BICKNELL, INC.	6	415.00	2,490.00
		SOUTHEAST ROAD BUILDERS INC.		125.00	750.00
		WILDER CONSTRUCTION COMPANY		250.00	1,500.00
		ALASKA INTERSTATE CONSTRUCTION, LL		530.00	3,180.00
		KIEWIT PACIFIC CO.		300.00	1,800.00
		ENGINEER'S ESTIMATE		65.00	390.00
30101-2000	t	Aggregate base grading D			
		BICKNELL, INC.	136,500.00	15.20	2,074,800.00
		SOUTHEAST ROAD BUILDERS INC.		12.00	1,638,000.00
		WILDER CONSTRUCTION COMPANY		27.00	3,685,500.00
		ALASKA INTERSTATE CONSTRUCTION, LL		28.00	3,822,000.00
		KIEWIT PACIFIC CO.		35.00	4,777,500.00
		ENGINEER'S ESTIMATE		20.50	2,798,250.00

TABULATION OF BIDS

Date: 11/16/07

Bid Schedule A

Project No.: AK PFH 44-1(4)

Project Name: COFFMAN COVE ROAD, PAVING

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
30301-6000	km	Roadway reconditioning			
		BICKNELL, INC.	32.508	15,000.00	487,620.00
		SOUTHEAST ROAD BUILDERS INC.		3,860.00	125,480.88
		WILDER CONSTRUCTION COMPANY		5,500.00	178,794.00
		ALASKA INTERSTATE CONSTRUCTION, LL		40,000.00	1,300,320.00
		KIEWIT PACIFIC CO.		20,000.00	650,160.00
		ENGINEER'S ESTIMATE		3,000.00	97,524.00
40101-1000	t	Superpave pavement, 19mm nominal maximum size aggregate, 0.3 to <3 million ESAL , type III pavement roughness			
		BICKNELL, INC.	52,500.00	94.00	4,935,000.00
		SOUTHEAST ROAD BUILDERS INC.		108.00	5,670,000.00
		WILDER CONSTRUCTION COMPANY		100.00	5,250,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		95.00	4,987,500.00
		KIEWIT PACIFIC CO.		141.00	7,402,500.00
		ENGINEER'S ESTIMATE		110.00	5,775,000.00
40105-3000	t	Antistrip additive, type 3			
		BICKNELL, INC.	525.00	350.00	183,750.00
		SOUTHEAST ROAD BUILDERS INC.		424.20	222,705.00
		WILDER CONSTRUCTION COMPANY		300.00	157,500.00
		ALASKA INTERSTATE CONSTRUCTION, LL		0.01	5.25
		KIEWIT PACIFIC CO.		750.00	393,750.00
		ENGINEER'S ESTIMATE		315.00	165,375.00
41201-1000	t	Tack coat grade CSS-1, CSS-1h, SS-1, or SS-1h			
		BICKNELL, INC.	105.00	940.00	98,700.00
		SOUTHEAST ROAD BUILDERS INC.		800.00	84,000.00
		WILDER CONSTRUCTION COMPANY		10.00	1,050.00
		ALASKA INTERSTATE CONSTRUCTION, LL		1,250.00	131,250.00
		KIEWIT PACIFIC CO.		600.00	63,000.00
		ENGINEER'S ESTIMATE		575.00	60,375.00
55901-0000	m2	Membrane waterproofing			
		BICKNELL, INC.	735	87.00	63,945.00
		SOUTHEAST ROAD BUILDERS INC.		50.00	36,750.00
		WILDER CONSTRUCTION COMPANY		26.00	19,110.00
		ALASKA INTERSTATE CONSTRUCTION, LL		100.00	73,500.00
		KIEWIT PACIFIC CO.		25.00	18,375.00
		ENGINEER'S ESTIMATE		50.00	36,750.00

TABULATION OF BIDS

Date: 11/16/07

Bid Schedule A

Project No.: AK PFH 44-1(4)

Project Name: COFFMAN COVE ROAD, PAVING

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
62101-0000	Each	Monument			
		BICKNELL, INC.	40	1,100.00	44,000.00
		SOUTHEAST ROAD BUILDERS INC.		750.00	30,000.00
		WILDER CONSTRUCTION COMPANY		850.00	34,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		800.00	32,000.00
		KIEWIT PACIFIC CO.		1,500.00	60,000.00
		ENGINEER'S ESTIMATE		500.00	20,000.00
62201-0200	Hour	Dump truck, 8 cubic meter minimum capacity			
		BICKNELL, INC.	160	125.00	20,000.00
		SOUTHEAST ROAD BUILDERS INC.		90.00	14,400.00
		WILDER CONSTRUCTION COMPANY		125.00	20,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		143.00	22,880.00
		KIEWIT PACIFIC CO.		125.00	20,000.00
		ENGINEER'S ESTIMATE		105.00	16,800.00
62201-0400	Hour	Backhoe loader, 60 liter minimum rated capacity bucket, 300mm width			
		BICKNELL, INC.	80	185.00	14,800.00
		SOUTHEAST ROAD BUILDERS INC.		85.00	6,800.00
		WILDER CONSTRUCTION COMPANY		150.00	12,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		130.00	10,400.00
		KIEWIT PACIFIC CO.		120.00	9,600.00
		ENGINEER'S ESTIMATE		145.00	11,600.00
62201-2850	Hour	Motor grader, 3.6 meter minimum blade			
		BICKNELL, INC.	240	200.00	48,000.00
		SOUTHEAST ROAD BUILDERS INC.		200.00	48,000.00
		WILDER CONSTRUCTION COMPANY		200.00	48,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		190.00	45,600.00
		KIEWIT PACIFIC CO.		200.00	48,000.00
		ENGINEER'S ESTIMATE		195.00	46,800.00
62201-3150	Hour	Hydraulic excavator, crawler mounted, 0.7m3 minimum capacity with thumb attachment			
		BICKNELL, INC.	160	120.00	19,200.00
		SOUTHEAST ROAD BUILDERS INC.		200.00	32,000.00
		WILDER CONSTRUCTION COMPANY		150.00	24,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		240.00	38,400.00
		KIEWIT PACIFIC CO.		160.00	25,600.00
		ENGINEER'S ESTIMATE		150.00	24,000.00

TABULATION OF BIDS

Date: 11/16/07

Bid Schedule A

Project No.: AK PFH 44-1(4)

Project Name: COFFMAN COVE ROAD, PAVING

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
62201-3750	Hour	Chain Saw , gasoline powered, 600 mm bar length, with operator			
		BICKNELL, INC.	80	140.00	11,200.00
		SOUTHEAST ROAD BUILDERS INC.		60.00	4,800.00
		WILDER CONSTRUCTION COMPANY		70.00	5,600.00
		ALASKA INTERSTATE CONSTRUCTION, LL		73.00	5,840.00
		KIEWIT PACIFIC CO.		50.00	4,000.00
		ENGINEER'S ESTIMATE		65.00	5,200.00
62301-0000	Hour	General labor			
		BICKNELL, INC.	160	77.00	12,320.00
		SOUTHEAST ROAD BUILDERS INC.		38.75	6,200.00
		WILDER CONSTRUCTION COMPANY		60.00	9,600.00
		ALASKA INTERSTATE CONSTRUCTION, LL		70.00	11,200.00
		KIEWIT PACIFIC CO.		50.00	8,000.00
		ENGINEER'S ESTIMATE		60.00	9,600.00
63302-0000	m2	Sign system			
		BICKNELL, INC.	7.05	2,500.00	17,625.00
		SOUTHEAST ROAD BUILDERS INC.		1,100.00	7,755.00
		WILDER CONSTRUCTION COMPANY		950.00	6,697.50
		ALASKA INTERSTATE CONSTRUCTION, LL		3,000.00	21,150.00
		KIEWIT PACIFIC CO.		3,600.00	25,380.00
		ENGINEER'S ESTIMATE		650.00	4,582.50
63315-0000	m2	Rumble strip			
		BICKNELL, INC.	15	250.00	3,750.00
		SOUTHEAST ROAD BUILDERS INC.		185.00	2,775.00
		WILDER CONSTRUCTION COMPANY		200.00	3,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		120.00	1,800.00
		KIEWIT PACIFIC CO.		175.00	2,625.00
		ENGINEER'S ESTIMATE		65.00	975.00
63401-0300	m	Pavement markings, type B, solid white			
		BICKNELL, INC.	129,000	1.20	154,800.00
		SOUTHEAST ROAD BUILDERS INC.		0.56	72,240.00
		WILDER CONSTRUCTION COMPANY		0.50	64,500.00
		ALASKA INTERSTATE CONSTRUCTION, LL		1.10	141,900.00
		KIEWIT PACIFIC CO.		0.50	64,500.00
		ENGINEER'S ESTIMATE		3.50	451,500.00

TABULATION OF BIDS

Date: 11/16/07

Bid Schedule A

Project No.: AK PFH 44-1(4)

Project Name: COFFMAN COVE ROAD, PAVING

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63401-0300	m	Pavement markings, type B, solid yellow			
		BICKNELL, INC.	118,000	1.20	141,600.00
		SOUTHEAST ROAD BUILDERS INC.		0.56	66,080.00
		WILDER CONSTRUCTION COMPANY		0.50	59,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		1.10	129,800.00
		KIEWIT PACIFIC CO.		0.50	59,000.00
		ENGINEER'S ESTIMATE		3.50	413,000.00
63401-0400	m	Pavement markings, type B, broken yellow			
		BICKNELL, INC.	10,500	1.10	11,550.00
		SOUTHEAST ROAD BUILDERS INC.		0.58	6,090.00
		WILDER CONSTRUCTION COMPANY		0.50	5,250.00
		ALASKA INTERSTATE CONSTRUCTION, LL		1.00	10,500.00
		KIEWIT PACIFIC CO.		0.50	5,250.00
		ENGINEER'S ESTIMATE		3.50	36,750.00
63401-0450	m	Pavement markings, type B, dotted white			
		BICKNELL, INC.	2,025	2.00	4,050.00
		SOUTHEAST ROAD BUILDERS INC.		0.60	1,215.00
		WILDER CONSTRUCTION COMPANY		0.50	1,012.50
		ALASKA INTERSTATE CONSTRUCTION, LL		1.00	2,025.00
		KIEWIT PACIFIC CO.		0.50	1,012.50
		ENGINEER'S ESTIMATE		3.50	7,087.50
63407-0000	Each	Recessed pavement marker			
		BICKNELL, INC.	2,750	30.00	82,500.00
		SOUTHEAST ROAD BUILDERS INC.		30.00	82,500.00
		WILDER CONSTRUCTION COMPANY		20.00	55,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		32.00	88,000.00
		KIEWIT PACIFIC CO.		25.00	68,750.00
		ENGINEER'S ESTIMATE		35.00	96,250.00
63502-0400	Each	Temporary traffic control, barricade type 1			
		BICKNELL, INC.	40	200.00	8,000.00
		SOUTHEAST ROAD BUILDERS INC.		100.00	4,000.00
		WILDER CONSTRUCTION COMPANY		150.00	6,000.00
		ALASKA INTERSTATE CONSTRUCTION, LL		200.00	8,000.00
		KIEWIT PACIFIC CO.		60.00	2,400.00
		ENGINEER'S ESTIMATE		130.00	5,200.00

TABULATION OF BIDS

Date: 11/16/07

Bid Schedule A

Project No.: AK PFH 44-1(4)

Project Name: COFFMAN COVE ROAD, PAVING

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63502-0600	Each	Temporary traffic control, barricade type 3			
		BICKNELL, INC.	6	1,200.00	7,200.00
		SOUTHEAST ROAD BUILDERS INC.		400.00	2,400.00
		WILDER CONSTRUCTION COMPANY		240.00	1,440.00
		ALASKA INTERSTATE CONSTRUCTION, LL		400.00	2,400.00
		KIEWIT PACIFIC CO.		1,500.00	9,000.00
		ENGINEER'S ESTIMATE		450.00	2,700.00
63502-0900	Each	Temporary traffic control, cone, type 700mm			
		BICKNELL, INC.	120	75.00	9,000.00
		SOUTHEAST ROAD BUILDERS INC.		30.00	3,600.00
		WILDER CONSTRUCTION COMPANY		30.00	3,600.00
		ALASKA INTERSTATE CONSTRUCTION, LL		150.00	18,000.00
		KIEWIT PACIFIC CO.		185.00	22,200.00
		ENGINEER'S ESTIMATE		60.00	7,200.00
63503-0700	m	Temporary traffic control, pavement markings			
		BICKNELL, INC.	30,835.0	1.00	30,835.00
		SOUTHEAST ROAD BUILDERS INC.		0.63	19,426.05
		WILDER CONSTRUCTION COMPANY		3.00	92,505.00
		ALASKA INTERSTATE CONSTRUCTION, LL		6.00	185,010.00
		KIEWIT PACIFIC CO.		0.70	21,584.50
		ENGINEER'S ESTIMATE		4.00	123,340.00
63504-1000	m2	Temporary traffic control, construction sign			
		BICKNELL, INC.	88.00	1,000.00	88,000.00
		SOUTHEAST ROAD BUILDERS INC.		214.00	18,832.00
		WILDER CONSTRUCTION COMPANY		405.00	35,640.00
		ALASKA INTERSTATE CONSTRUCTION, LL		550.00	48,400.00
		KIEWIT PACIFIC CO.		900.00	79,200.00
		ENGINEER'S ESTIMATE		175.00	15,400.00
63506-0600	Hour	Temporary traffic control, pilot car			
		BICKNELL, INC.	500	100.00	50,000.00
		SOUTHEAST ROAD BUILDERS INC.		61.00	30,500.00
		WILDER CONSTRUCTION COMPANY		75.00	37,500.00
		ALASKA INTERSTATE CONSTRUCTION, LL		140.00	70,000.00
		KIEWIT PACIFIC CO.		85.00	42,500.00
		ENGINEER'S ESTIMATE		60.00	30,000.00

TABULATION OF BIDS

Date: 11/16/07

Bid Schedule A

Project No.: AK PFH 44-1(4)

Project Name: COFFMAN COVE ROAD, PAVING

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63507-0700	Day	Temporary traffic control, traffic and safety supervisor			
	BICKNELL, INC.		100	770.00	77,000.00
	SOUTHEAST ROAD BUILDERS INC.			734.00	73,400.00
	WILDER CONSTRUCTION COMPANY			1,000.00	100,000.00
	ALASKA INTERSTATE CONSTRUCTION, LL			1,600.00	160,000.00
	KIEWIT PACIFIC CO.			400.00	40,000.00
	ENGINEER'S ESTIMATE			760.00	76,000.00
63509-1000	Fix hr rate	Temporary traffic control, flagger			
	BICKNELL, INC.		4,000	38.00	152,000.00
	SOUTHEAST ROAD BUILDERS INC.			38.00	152,000.00
	WILDER CONSTRUCTION COMPANY			38.00	152,000.00
	ALASKA INTERSTATE CONSTRUCTION, LL			38.00	152,000.00
	KIEWIT PACIFIC CO.			38.00	152,000.00
	ENGINEER'S ESTIMATE			38.00	152,000.00
63704-0000	Each	Vehicle			
	BICKNELL, INC.		4	22,000.00	88,000.00
	SOUTHEAST ROAD BUILDERS INC.			16,000.00	64,000.00
	WILDER CONSTRUCTION COMPANY			20,000.00	80,000.00
	ALASKA INTERSTATE CONSTRUCTION, LL			60,000.00	240,000.00
	KIEWIT PACIFIC CO.			25,000.00	100,000.00
	ENGINEER'S ESTIMATE			40,000.00	160,000.00

This Page Intentionally Left Blank

TABULATION OF BIDS

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

State: AK
 County:
 TONGASS NATIONAL FOREST

Opened at: VANCOUVER, WA
 By: BARB ALLEN
 Date: 04/25/06

I certify that this Bid Tabulation accurately reflects the bids received and publicly opened for this solicitation.

Signed: Julee McTaggart

Title: Contracting Officer Date: 04/26/2006

Contract Awarded to: Southeast Road Builders, Inc. Date: 05/18/2006

Contractor	Bid Amount	Responsive
Southeast Road builders, Inc. HC60 Box 4800 Haines, AK 99827	17,581,026.48	
Kiewit Pacific Co. PO Box 1769 Vancouver, WA 98668	23,793,473.20	
Engineer's Estimate	15,745,450.40	

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15101-0000	LPSM	Mobilization			
		Southeast Road builders, Inc.	ALL	1,809,000.00	1,809,000.00
		Kiewit Pacific Co.		2,370,000.00	2,370,000.00
		ENGINEER'S ESTIMATE		1,845,000.00	1,845,000.00
15201-0000	LPSM	Construction survey and staking			
		Southeast Road builders, Inc.	ALL	294,000.00	294,000.00
		Kiewit Pacific Co.		500,000.00	500,000.00
		ENGINEER'S ESTIMATE		220,000.00	220,000.00
15301-0000	LPSM	Contractor quality control			
		Southeast Road builders, Inc.	ALL	379,000.00	379,000.00
		Kiewit Pacific Co.		400,000.00	400,000.00
		ENGINEER'S ESTIMATE		214,000.00	214,000.00
15401-0000	LPSM	Contractor testing			
		Southeast Road builders, Inc.	ALL	41,200.00	41,200.00
		Kiewit Pacific Co.		400,000.00	400,000.00
		ENGINEER'S ESTIMATE		150,000.00	150,000.00
15501-0000	LPSM	Construction schedule			
		Southeast Road builders, Inc.	ALL	33,300.00	33,300.00
		Kiewit Pacific Co.		10,000.00	10,000.00
		ENGINEER'S ESTIMATE		32,000.00	32,000.00
15701-0000	LPSM	Soil erosion control , monitoring system			
		Southeast Road builders, Inc.	ALL	169,500.00	169,500.00
		Kiewit Pacific Co.		10,000.00	10,000.00
		ENGINEER'S ESTIMATE		100,000.00	100,000.00
15705-0100	m	Soil erosion control, silt fence			
		Southeast Road builders, Inc.	14,000	5.27	73,780.00
		Kiewit Pacific Co.		9.00	126,000.00
		ENGINEER'S ESTIMATE		7.00	98,000.00
15705-0700	m	Soil erosion control, temporary 750mm culvert pipe			
		Southeast Road builders, Inc.	35.0	90.00	3,150.00
		Kiewit Pacific Co.		200.00	7,000.00
		ENGINEER'S ESTIMATE		100.00	3,500.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15705-1000	m	Soil erosion control, temporary 1200mm culvert pipe			
		Southeast Road builders, Inc.	60.0	140.00	8,400.00
		Kiewit Pacific Co.		230.00	13,800.00
		ENGINEER'S ESTIMATE		150.00	9,000.00
15705-1200	m	Soil erosion control, temporary 1800mm culvert pipe			
		Southeast Road builders, Inc.	35.0	190.00	6,650.00
		Kiewit Pacific Co.		500.00	17,500.00
		ENGINEER'S ESTIMATE		250.00	8,750.00
15705-1300	m	Soil erosion control, temporary diversion channel			
		Southeast Road builders, Inc.	800	30.89	24,712.00
		Kiewit Pacific Co.		80.00	64,000.00
		ENGINEER'S ESTIMATE		40.00	32,000.00
15705-1400	m	Soil erosion control, sediment log			
		Southeast Road builders, Inc.	1,700	24.71	42,007.00
		Kiewit Pacific Co.		12.00	20,400.00
		ENGINEER'S ESTIMATE		40.00	68,000.00
15705-1900	m	Soil erosion control, soil wrap			
		Southeast Road builders, Inc.	60	69.00	4,140.00
		Kiewit Pacific Co.		23.00	1,380.00
		ENGINEER'S ESTIMATE		50.00	3,000.00
15706-0200	Each	Soil erosion control, check dam , sandbags			
		Southeast Road builders, Inc.	8	705.00	5,640.00
		Kiewit Pacific Co.		400.00	3,200.00
		ENGINEER'S ESTIMATE		80.00	640.00
15706-0200	Each	Soil erosion control, check dam , riprap			
		Southeast Road builders, Inc.	230	79.00	18,170.00
		Kiewit Pacific Co.		250.00	57,500.00
		ENGINEER'S ESTIMATE		80.00	18,400.00
15706-0200	Each	Soil erosion control, check dam (silt dike)			
		Southeast Road builders, Inc.	250	75.00	18,750.00
		Kiewit Pacific Co.		400.00	100,000.00
		ENGINEER'S ESTIMATE		80.00	20,000.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15706-2000	Each	Soil erosion control, chitosan gel sock			
		Southeast Road builders, Inc.	8	750.00	6,000.00
		Kiewit Pacific Co.		1,000.00	8,000.00
		ENGINEER'S ESTIMATE		700.00	5,600.00
15707-1000	slry	Soil erosion control, temporary turf establishment			
		Southeast Road builders, Inc.	580	319.24	185,159.20
		Kiewit Pacific Co.		555.00	321,900.00
		ENGINEER'S ESTIMATE		240.00	139,200.00
15801-0000	m3	Watering for dust control			
		Southeast Road builders, Inc.	7,520	5.50	41,360.00
		Kiewit Pacific Co.		4.00	30,080.00
		ENGINEER'S ESTIMATE		5.50	41,360.00
20101-0000	ha	Clearing and grubbing			
		Southeast Road builders, Inc.	35.752	10,160.00	363,240.32
		Kiewit Pacific Co.		30,600.00	1,094,011.20
		ENGINEER'S ESTIMATE		7,200.00	257,414.40
20301-2400	Each	Removal of signs			
		Southeast Road builders, Inc.	30	60.00	1,800.00
		Kiewit Pacific Co.		100.00	3,000.00
		ENGINEER'S ESTIMATE		60.00	1,800.00
20401-0000	m3	Roadway excavation			
		Southeast Road builders, Inc.	473,820	8.14	3,856,894.80
		Kiewit Pacific Co.		14.00	6,633,480.00
		ENGINEER'S ESTIMATE		10.00	4,738,200.00
20401-0000	m3	Roadway excavation (surcharge removal)			
		Southeast Road builders, Inc.	58,934	3.62	213,341.08
		Kiewit Pacific Co.		7.00	412,538.00
		ENGINEER'S ESTIMATE		4.00	235,736.00
20402-0000	m3	Subexcavation			
		Southeast Road builders, Inc.	308,000	11.07	3,409,560.00
		Kiewit Pacific Co.		9.00	2,772,000.00
		ENGINEER'S ESTIMATE		6.00	1,848,000.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
20416-0000	t	Select topping			
		Southeast Road builders, Inc.	81,269	11.90	967,101.10
		Kiewit Pacific Co.		14.00	1,137,766.00
		ENGINEER'S ESTIMATE		12.00	975,228.00
20416-0000	t	Select topping (Stockpiled)			
		Southeast Road builders, Inc.	8500	6.66	56,610.00
		Kiewit Pacific Co.		11.00	93,500.00
		ENGINEER'S ESTIMATE		10.00	85,000.00
20450-1000	m3	Borrow, rock			
		Southeast Road builders, Inc.	133,000	12.47	1,658,510.00
		Kiewit Pacific Co.		14.00	1,862,000.00
		ENGINEER'S ESTIMATE		8.00	1,064,000.00
20501-0000	m	Controlled blast hole			
		Southeast Road builders, Inc.	20,500	13.39	274,495.00
		Kiewit Pacific Co.		17.00	348,500.00
		ENGINEER'S ESTIMATE		13.00	266,500.00
20801-0000	m3	Structure excavation			
		Southeast Road builders, Inc.	180	115.00	20,700.00
		Kiewit Pacific Co.		55.00	9,900.00
		ENGINEER'S ESTIMATE		35.00	6,300.00
21101-1000	m2	Roadway obliteration, method 1			
		Southeast Road builders, Inc.	8,500	3.41	28,985.00
		Kiewit Pacific Co.		5.00	42,500.00
		ENGINEER'S ESTIMATE		1.50	12,750.00
21101-2000	m2	Roadway obliteration, method 2 (embankments)			
		Southeast Road builders, Inc.	22,000	3.59	78,980.00
		Kiewit Pacific Co.		5.00	110,000.00
		ENGINEER'S ESTIMATE		3.00	66,000.00
21101-2000	m2	Roadway obliteration, method 2 (excavations)			
		Southeast Road builders, Inc.	11,000	2.87	31,570.00
		Kiewit Pacific Co.		5.00	55,000.00
		ENGINEER'S ESTIMATE		2.00	22,000.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
21101-2000	m2	Roadway obliteration, method 2 (buried logs)			
		Southeast Road builders, Inc.	3,000	5.34	16,020.00
		Kiewit Pacific Co.		8.00	24,000.00
		ENGINEER'S ESTIMATE		5.00	15,000.00
25101-4000	m3	Placed riprap, class 4 (riprap headwall)			
		Southeast Road builders, Inc.	700.0	43.27	30,289.00
		Kiewit Pacific Co.		80.00	56,000.00
		ENGINEER'S ESTIMATE		18.00	12,600.00
25101-4000	m3	Placed riprap, class 4 (energy dissipator)			
		Southeast Road builders, Inc.	100.0	61.00	6,100.00
		Kiewit Pacific Co.		60.00	6,000.00
		ENGINEER'S ESTIMATE		240.00	24,000.00
25101-4000	m3	Placed riprap, class 4 (culvert outlet control system)			
		Southeast Road builders, Inc.	90.0	77.00	6,930.00
		Kiewit Pacific Co.		60.00	5,400.00
		ENGINEER'S ESTIMATE		180.00	16,200.00
25101-5000	m3	Placed riprap, class 5 (bridge protection)			
		Southeast Road builders, Inc.	880	30.00	26,400.00
		Kiewit Pacific Co.		80.00	70,400.00
		ENGINEER'S ESTIMATE		45.00	39,600.00
25105-4000	m3	Keyed riprap, class 4 (riprap blanket)			
		Southeast Road builders, Inc.	8,500	19.80	168,300.00
		Kiewit Pacific Co.		75.00	637,500.00
		ENGINEER'S ESTIMATE		15.00	127,500.00
25120-1000	m	Riprap ditch, class 1			
		Southeast Road builders, Inc.	1,100	17.70	19,470.00
		Kiewit Pacific Co.		55.00	60,500.00
		ENGINEER'S ESTIMATE		25.00	27,500.00
25210-0000	m2	Rockery wall			
		Southeast Road builders, Inc.	200	80.00	16,000.00
		Kiewit Pacific Co.		130.00	26,000.00
		ENGINEER'S ESTIMATE		150.00	30,000.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
55101-1600	m	Steel H-piles 310 x 110, in place			
		Southeast Road builders, Inc.	62	820.00	50,840.00
		Kiewit Pacific Co.		2,000.00	124,000.00
		ENGINEER'S ESTIMATE		300.00	18,600.00
55201-0200	m3	Structural concrete, class A (AE)			
		Southeast Road builders, Inc.	95	2,666.00	253,270.00
		Kiewit Pacific Co.		4,000.00	380,000.00
		ENGINEER'S ESTIMATE		1,200.00	114,000.00
55302-3700	m	Precast, prestressed concrete decked bulb tee girders			
		Southeast Road builders, Inc.	169	1,861.40	314,576.60
		Kiewit Pacific Co.		3,000.00	507,000.00
		ENGINEER'S ESTIMATE		1,250.00	211,250.00
55401-1000	kg	Reinforcing steel			
		Southeast Road builders, Inc.	5,200	4.37	22,724.00
		Kiewit Pacific Co.		6.00	31,200.00
		ENGINEER'S ESTIMATE		3.50	18,200.00
55401-2000	kg	Reinforcing steel, epoxy coated			
		Southeast Road builders, Inc.	2,064	2.61	5,387.04
		Kiewit Pacific Co.		7.00	14,448.00
		ENGINEER'S ESTIMATE		4.20	8,668.80
55601-0900	m	Bridge railing, steel			
		Southeast Road builders, Inc.	55	340.00	18,700.00
		Kiewit Pacific Co.		750.00	41,250.00
		ENGINEER'S ESTIMATE		450.00	24,750.00
55601-0900	m	Bridge railing, steel (retrofit)			
		Southeast Road builders, Inc.	95.0	575.00	54,625.00
		Kiewit Pacific Co.		500.00	47,500.00
		ENGINEER'S ESTIMATE		400.00	38,000.00
60103-0000	Each	Concrete, headwall			
		Southeast Road builders, Inc.	4	22,500.00	90,000.00
		Kiewit Pacific Co.		10,000.00	40,000.00
		ENGINEER'S ESTIMATE		12,000.00	48,000.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
60201-0600	m	450mm pipe culvert			
		Southeast Road builders, Inc.	300.0	117.36	35,208.00
		Kiewit Pacific Co.		200.00	60,000.00
		ENGINEER'S ESTIMATE		120.00	36,000.00
60201-0800	m	600mm pipe culvert			
		Southeast Road builders, Inc.	1,000.0	177.05	177,050.00
		Kiewit Pacific Co.		220.00	220,000.00
		ENGINEER'S ESTIMATE		200.00	200,000.00
60201-0900	m	750mm pipe culvert			
		Southeast Road builders, Inc.	180.0	333.93	60,107.40
		Kiewit Pacific Co.		250.00	45,000.00
		ENGINEER'S ESTIMATE		320.00	57,600.00
60201-1000	m	900mm pipe culvert			
		Southeast Road builders, Inc.	60.0	425.00	25,500.00
		Kiewit Pacific Co.		320.00	19,200.00
		ENGINEER'S ESTIMATE		350.00	21,000.00
60201-1200	m	1200mm pipe culvert			
		Southeast Road builders, Inc.	67.0	666.23	44,637.41
		Kiewit Pacific Co.		400.00	26,800.00
		ENGINEER'S ESTIMATE		500.00	33,500.00
60201-1600	m	1800mm pipe culvert			
		Southeast Road builders, Inc.	100.0	1,005.49	100,549.00
		Kiewit Pacific Co.		975.00	97,500.00
		ENGINEER'S ESTIMATE		950.00	95,000.00
60201-1800	m	2100mm pipe culvert			
		Southeast Road builders, Inc.	132.0	1,658.20	218,882.40
		Kiewit Pacific Co.		1,750.00	231,000.00
		ENGINEER'S ESTIMATE		1,000.00	132,000.00
60201-2000	m	2400mm pipe culvert			
		Southeast Road builders, Inc.	45.0	1,615.36	72,691.20
		Kiewit Pacific Co.		1,400.00	63,000.00
		ENGINEER'S ESTIMATE		1,300.00	58,500.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
60201-2250	m	2850mm pipe culvert			
		Southeast Road builders, Inc.	26.0	2,047.97	53,247.22
		Kiewit Pacific Co.		1,800.00	46,800.00
		ENGINEER'S ESTIMATE		1,600.00	41,600.00
60201-2300	m	3000mm pipe culvert			
		Southeast Road builders, Inc.	58.0	1,939.00	112,462.00
		Kiewit Pacific Co.		2,000.00	116,000.00
		ENGINEER'S ESTIMATE		2,100.00	121,800.00
60211-0600	Each	End section for 450mm equivalent diameter arch or elliptical pipe culvert			
		Southeast Road builders, Inc.	24	235.00	5,640.00
		Kiewit Pacific Co.		200.00	4,800.00
		ENGINEER'S ESTIMATE		200.00	4,800.00
60211-0800	Each	End section for 600mm equivalent diameter arch or elliptical pipe culvert			
		Southeast Road builders, Inc.	24	237.00	5,688.00
		Kiewit Pacific Co.		250.00	6,000.00
		ENGINEER'S ESTIMATE		250.00	6,000.00
60211-0900	Each	End section for 750mm equivalent diameter arch or elliptical pipe culvert			
		Southeast Road builders, Inc.	4	562.00	2,248.00
		Kiewit Pacific Co.		300.00	1,200.00
		ENGINEER'S ESTIMATE		600.00	2,400.00
60301-0250	m	3825mm structural plate pipe			
		Southeast Road builders, Inc.	43.1	3,722.52	160,440.61
		Kiewit Pacific Co.		4,000.00	172,400.00
		ENGINEER'S ESTIMATE		3,800.00	163,780.00
60302-0200	m	5030mm span, 3350mm rise, structural plate pipe-arch			
		Southeast Road builders, Inc.	56.5	4,564.54	257,896.51
		Kiewit Pacific Co.		4,500.00	254,250.00
		ENGINEER'S ESTIMATE		5,100.00	288,150.00
60302-0300	m	5510mm span, 3610mm rise, structural plate pipe-arch			
		Southeast Road builders, Inc.	36.9	4,976.38	183,628.42
		Kiewit Pacific Co.		5,000.00	184,500.00
		ENGINEER'S ESTIMATE		5,200.00	191,880.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
60810-0000	m	Drainage chutes (type 6)			
		Southeast Road builders, Inc.	20	47.00	940.00
		Kiewit Pacific Co.		200.00	4,000.00
		ENGINEER'S ESTIMATE		65.00	1,300.00
61701-1250	m	Guardrail system G4, type 2, class A wood posts			
		Southeast Road builders, Inc.	190.00	199.84	37,969.60
		Kiewit Pacific Co.		100.00	19,000.00
		ENGINEER'S ESTIMATE		120.00	22,800.00
61702-0800	Each	Terminal section type tangent			
		Southeast Road builders, Inc.	12	3,951.50	47,418.00
		Kiewit Pacific Co.		4,000.00	48,000.00
		ENGINEER'S ESTIMATE		3,000.00	36,000.00
61707-0000	m	Structure transition railing			
		Southeast Road builders, Inc.	72.74	398.62	28,995.62
		Kiewit Pacific Co.		500.00	36,370.00
		ENGINEER'S ESTIMATE		180.00	13,093.20
62201-0200	Hour	Dump truck, 8 cubic meter minimum capacity			
		Southeast Road builders, Inc.	320	95.00	30,400.00
		Kiewit Pacific Co.		100.00	32,000.00
		ENGINEER'S ESTIMATE		90.00	28,800.00
62201-0950	Hour	Wheel loader, 3 cubic meter minimum rated capacity			
		Southeast Road builders, Inc.	800	100.00	80,000.00
		Kiewit Pacific Co.		200.00	160,000.00
		ENGINEER'S ESTIMATE		120.00	96,000.00
62201-1950	Hour	Bulldozer, universal blade, 225kW minimum			
		Southeast Road builders, Inc.	160	125.00	20,000.00
		Kiewit Pacific Co.		200.00	32,000.00
		ENGINEER'S ESTIMATE		150.00	24,000.00
62201-2050	Hour	Roller , smooth drum			
		Southeast Road builders, Inc.	600	120.00	72,000.00
		Kiewit Pacific Co.		150.00	90,000.00
		ENGINEER'S ESTIMATE		150.00	90,000.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
62201-2850	Hour	Motor grader, 3.6 meter minimum blade			
		Southeast Road builders, Inc.	600	175.00	105,000.00
		Kiewit Pacific Co.		200.00	120,000.00
		ENGINEER'S ESTIMATE		150.00	90,000.00
62201-3400	Hour	Hydraulic excavator, 1.1 cubic meter minimum capacity with thumb attachment			
		Southeast Road builders, Inc.	160	175.00	28,000.00
		Kiewit Pacific Co.		210.00	33,600.00
		ENGINEER'S ESTIMATE		155.00	24,800.00
62201-4150	Hour	Power tool, saw, chain, gasoline powered, 600 mm bar length (without operator)			
		Southeast Road builders, Inc.	40	50.00	2,000.00
		Kiewit Pacific Co.		15.00	600.00
		ENGINEER'S ESTIMATE		20.00	800.00
62301-0000	Hour	General labor			
		Southeast Road builders, Inc.	320	55.00	17,600.00
		Kiewit Pacific Co.		70.00	22,400.00
		ENGINEER'S ESTIMATE		45.00	14,400.00
62503-0000	slry	Turf establishment			
		Southeast Road builders, Inc.	280.00	319.24	89,387.20
		Kiewit Pacific Co.		555.00	155,400.00
		ENGINEER'S ESTIMATE		650.00	182,000.00
62635-0100	Each	Cuttings, alder			
		Southeast Road builders, Inc.	1,300	4.64	6,032.00
		Kiewit Pacific Co.		5.00	6,500.00
		ENGINEER'S ESTIMATE		5.00	6,500.00
62636-1000	Each	Bundles, alder			
		Southeast Road builders, Inc.	120	29.00	3,480.00
		Kiewit Pacific Co.		10.00	1,200.00
		ENGINEER'S ESTIMATE		50.00	6,000.00
63302-0000	m2	Sign system			
		Southeast Road builders, Inc.	55.00	525.85	28,921.75
		Kiewit Pacific Co.		200.00	11,000.00
		ENGINEER'S ESTIMATE		500.00	27,500.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63502-0600	Each	Temporary traffic control, barricade type 3			
		Southeast Road builders, Inc.	6	751.00	4,506.00
		Kiewit Pacific Co.		250.00	1,500.00
		ENGINEER'S ESTIMATE		400.00	2,400.00
63502-0900	Each	Temporary traffic control, cone, type 700mm			
		Southeast Road builders, Inc.	100	50.00	5,000.00
		Kiewit Pacific Co.		25.00	2,500.00
		ENGINEER'S ESTIMATE		30.00	3,000.00
63502-1300	Each	Temporary traffic control, drum			
		Southeast Road builders, Inc.	20	200.00	4,000.00
		Kiewit Pacific Co.		100.00	2,000.00
		ENGINEER'S ESTIMATE		85.00	1,700.00
63504-1000	m2	Temporary traffic control, construction sign			
		Southeast Road builders, Inc.	56.00	178.00	9,968.00
		Kiewit Pacific Co.		100.00	5,600.00
		ENGINEER'S ESTIMATE		150.00	8,400.00
63507-0700	Day	Temporary traffic control, traffic and safety supervisor			
		Southeast Road builders, Inc.	40	700.00	28,000.00
		Kiewit Pacific Co.		750.00	30,000.00
		ENGINEER'S ESTIMATE		500.00	20,000.00
63509-1000	Fix hr rate	Temporary traffic control, flagger			
		Southeast Road builders, Inc.	1,280	40.00	51,200.00
		Kiewit Pacific Co.		40.00	51,200.00
		ENGINEER'S ESTIMATE		40.00	51,200.00
63704-0000	Each	Vehicle			
		Southeast Road builders, Inc.	5	20,000.00	100,000.00
		Kiewit Pacific Co.		35,000.00	175,000.00
		ENGINEER'S ESTIMATE		30,000.00	150,000.00
64631-0000	m	Roadside development (trail)			
		Southeast Road builders, Inc.	20	95.00	1,900.00
		Kiewit Pacific Co.		200.00	4,000.00
		ENGINEER'S ESTIMATE		150.00	3,000.00

TABULATION OF BIDS

Date: 04/26/06

Bid Schedule A

Project No.: AK PFH 44-1(2)

Project Name: COFFMAN COVE ROAD, PHASE 2

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
64703-3000	Each	Mitigation, log weir (sill)			
		Southeast Road builders, Inc.	30	231.00	6,930.00
		Kiewit Pacific Co.		1,500.00	45,000.00
		ENGINEER'S ESTIMATE		400.00	12,000.00
64703-3010	Each	Mitigation, rock weir (sill)			
		Southeast Road builders, Inc.	5	513.00	2,565.00
		Kiewit Pacific Co.		400.00	2,000.00
		ENGINEER'S ESTIMATE		500.00	2,500.00
64703-5000	Each	Mitigation, root wad			
		Southeast Road builders, Inc.	120	230.00	27,600.00
		Kiewit Pacific Co.		400.00	48,000.00
		ENGINEER'S ESTIMATE		100.00	12,000.00

This Page Intentionally Left Blank

TABULATION OF BIDS

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

State: AK

County:

TONGASS NATIONAL FOREST

Opened at: VANCOUVER, WA

By: BARBARA ALLEN

Date: 04/01/03

I certify that this Bid Tabulation accurately reflects the bids received and publicly opened for this solicitation.

Signed: _____

Title: _____ Date: _____

Contract Awarded to: Schedule B Not Awarded Date: _____

Contractor	Bid Amount	Responsive
SOUTHEAST ROAD BUILDERS, INC. HC60 BOX 4800 HAINES, AK 99827	20,374,700.53	
KIEWIT PACIFIC CO. P O BOX 1769 VANCOUVER, WA 98668	20,749,772.00	
SECON P O BOX 32159 JUNEAU, AK 99803	21,713,815.00	
Engineer's Estimate	17,527,698.73	

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15101	LPSM	Mobilization			
		SOUTHEAST ROAD BUILDERS, INC.	ALL	2,017,998.00	2,017,998.00
		KIEWIT PACIFIC CO.		1,600,000.00	1,600,000.00
		SECON		2,130,000.00	2,130,000.00
		ENGINEER'S ESTIMATE		1,447,000.00	1,447,000.00
15201	LPSM	Construction survey and staking			
		SOUTHEAST ROAD BUILDERS, INC.	ALL	237,700.00	237,700.00
		KIEWIT PACIFIC CO.		300,000.00	300,000.00
		SECON		200,000.00	200,000.00
		ENGINEER'S ESTIMATE		290,000.00	290,000.00
15301	LPSM	Contractor quality control			
		SOUTHEAST ROAD BUILDERS, INC.	ALL	444,800.00	444,800.00
		KIEWIT PACIFIC CO.		220,000.00	220,000.00
		SECON		200,000.00	200,000.00
		ENGINEER'S ESTIMATE		135,000.00	135,000.00
15401	LPSM	Contractor testing			
		SOUTHEAST ROAD BUILDERS, INC.	ALL	86,105.00	86,105.00
		KIEWIT PACIFIC CO.		220,000.00	220,000.00
		SECON		200,000.00	200,000.00
		ENGINEER'S ESTIMATE		180,000.00	180,000.00
15501	LPSM	Construction schedule			
		SOUTHEAST ROAD BUILDERS, INC.	ALL	31,000.00	31,000.00
		KIEWIT PACIFIC CO.		7,500.00	7,500.00
		SECON		5,000.00	5,000.00
		ENGINEER'S ESTIMATE		102,000.00	102,000.00
15703	m	Silt fence			
		SOUTHEAST ROAD BUILDERS, INC.	6,000	5.00	30,000.00
		KIEWIT PACIFIC CO.		11.00	66,000.00
		SECON		6.00	36,000.00
		ENGINEER'S ESTIMATE		11.00	66,000.00
15705	m	Slope drains			
		SOUTHEAST ROAD BUILDERS, INC.	110	47.00	5,170.00
		KIEWIT PACIFIC CO.		30.00	3,300.00
		SECON		60.00	6,600.00
		ENGINEER'S ESTIMATE		40.00	4,400.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B
 Project No.: AK PFH 44-1(1)
 Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15707 A	m	Temporary 600 millimeter culvert pipe			
		SOUTHEAST ROAD BUILDERS, INC.	380.0	60.00	22,800.00
		KIEWIT PACIFIC CO.		150.00	57,000.00
		SECON		150.00	57,000.00
		ENGINEER'S ESTIMATE		100.00	38,000.00
15707 B	m	Temporary 900 millimeter culvert pipe			
		SOUTHEAST ROAD BUILDERS, INC.	70.0	70.00	4,900.00
		KIEWIT PACIFIC CO.		205.00	14,350.00
		SECON		200.00	14,000.00
		ENGINEER'S ESTIMATE		125.00	8,750.00
15708	each	Bales, straw			
		SOUTHEAST ROAD BUILDERS, INC.	150	50.00	7,500.00
		KIEWIT PACIFIC CO.		14.00	2,100.00
		SECON		30.00	4,500.00
		ENGINEER'S ESTIMATE		30.00	4,500.00
15709 A	each	Check dams , riprap			
		SOUTHEAST ROAD BUILDERS, INC.	170	68.00	11,560.00
		KIEWIT PACIFIC CO.		100.00	17,000.00
		SECON		100.00	17,000.00
		ENGINEER'S ESTIMATE		75.00	12,750.00
15709 B	each	Check dams , sandbag			
		SOUTHEAST ROAD BUILDERS, INC.	140	25.50	3,570.00
		KIEWIT PACIFIC CO.		130.00	18,200.00
		SECON		20.00	2,800.00
		ENGINEER'S ESTIMATE		75.00	10,500.00
15718 A	m	Diversion channel , plastic lined			
		SOUTHEAST ROAD BUILDERS, INC.	500	30.00	15,000.00
		KIEWIT PACIFIC CO.		7.00	3,500.00
		SECON		40.00	20,000.00
		ENGINEER'S ESTIMATE		55.00	27,500.00
15718 B	m	Diversion channel , riprap lined			
		SOUTHEAST ROAD BUILDERS, INC.	220	50.00	11,000.00
		KIEWIT PACIFIC CO.		27.00	5,940.00
		SECON		120.00	26,400.00
		ENGINEER'S ESTIMATE		70.00	15,400.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15724	m	Wattle , straw			
		SOUTHEAST ROAD BUILDERS, INC.	3,100	10.42	32,302.00
		KIEWIT PACIFIC CO.		9.00	27,900.00
		SECON		7.00	21,700.00
		ENGINEER'S ESTIMATE		25.00	77,500.00
15729	slry unit	Soil stabilization			
		SOUTHEAST ROAD BUILDERS, INC.	600.00	320.61	192,366.00
		KIEWIT PACIFIC CO.		525.00	315,000.00
		SECON		400.00	240,000.00
		ENGINEER'S ESTIMATE		250.00	150,000.00
15749	m	Turbidity curtain			
		SOUTHEAST ROAD BUILDERS, INC.	60	112.00	6,720.00
		KIEWIT PACIFIC CO.		50.00	3,000.00
		SECON		150.00	9,000.00
		ENGINEER'S ESTIMATE		120.00	7,200.00
15761	Each	Chitosan gel sock			
		SOUTHEAST ROAD BUILDERS, INC.	10	403.00	4,030.00
		KIEWIT PACIFIC CO.		1,000.00	10,000.00
		SECON		1,250.00	12,500.00
		ENGINEER'S ESTIMATE		625.00	6,250.00
15780	day	Erosion control supervisor			
		SOUTHEAST ROAD BUILDERS, INC.	450	565.50	254,475.00
		KIEWIT PACIFIC CO.		100.00	45,000.00
		SECON		500.00	225,000.00
		ENGINEER'S ESTIMATE		300.00	135,000.00
15801	m3	Watering for dust control			
		SOUTHEAST ROAD BUILDERS, INC.	15,000	5.51	82,650.00
		KIEWIT PACIFIC CO.		5.00	75,000.00
		SECON		6.00	90,000.00
		ENGINEER'S ESTIMATE		5.00	75,000.00
20101	ha	Clearing and grubbing			
		SOUTHEAST ROAD BUILDERS, INC.	50.000	8,482.50	424,125.00
		KIEWIT PACIFIC CO.		15,000.00	750,000.00
		SECON		6,000.00	300,000.00
		ENGINEER'S ESTIMATE		7,000.00	350,000.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
20301	each	Removal and stockpiling of sign/marker			
		SOUTHEAST ROAD BUILDERS, INC.	40	26.00	1,040.00
		KIEWIT PACIFIC CO.		100.00	4,000.00
		SECON		60.00	2,400.00
		ENGINEER'S ESTIMATE		60.00	2,400.00
20401 A	m3	Roadway excavation			
		SOUTHEAST ROAD BUILDERS, INC.	528,752	7.99	4,224,728.48
		KIEWIT PACIFIC CO.		9.50	5,023,144.00
		SECON		13.00	6,873,776.00
		ENGINEER'S ESTIMATE		5.50	2,908,136.00
20401 B	m3	Roadway excavation , surcharge removal			
		SOUTHEAST ROAD BUILDERS, INC.	23,900	2.06	49,234.00
		KIEWIT PACIFIC CO.		6.00	143,400.00
		SECON		15.00	358,500.00
		ENGINEER'S ESTIMATE		5.00	119,500.00
20402	m3	Subexcavation			
		SOUTHEAST ROAD BUILDERS, INC.	280,000	13.28	3,718,400.00
		KIEWIT PACIFIC CO.		12.00	3,360,000.00
		SECON		7.00	1,960,000.00
		ENGINEER'S ESTIMATE		12.00	3,360,000.00
20408	t	Select topping			
		SOUTHEAST ROAD BUILDERS, INC.	97,589.0	10.25	1,000,287.25
		KIEWIT PACIFIC CO.		12.00	1,171,068.00
		SECON		11.00	1,073,479.00
		ENGINEER'S ESTIMATE		8.50	829,506.50
20410	m	Furrow ditches			
		SOUTHEAST ROAD BUILDERS, INC.	1,600	3.96	6,336.00
		KIEWIT PACIFIC CO.		10.00	16,000.00
		SECON		2.00	3,200.00
		ENGINEER'S ESTIMATE		3.00	4,800.00
20501	m	Controlled blast hole			
		SOUTHEAST ROAD BUILDERS, INC.	16,000	11.53	184,480.00
		KIEWIT PACIFIC CO.		12.00	192,000.00
		SECON		15.00	240,000.00
		ENGINEER'S ESTIMATE		8.00	128,000.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
20701	m2	Earthwork geotextile type II-C			
		SOUTHEAST ROAD BUILDERS, INC.	500	5.38	2,690.00
		KIEWIT PACIFIC CO.		4.00	2,000.00
		SECON		2.00	1,000.00
		ENGINEER'S ESTIMATE		5.00	2,500.00
20801	m3	Structure excavation			
		SOUTHEAST ROAD BUILDERS, INC.	620	29.10	18,042.00
		KIEWIT PACIFIC CO.		75.00	46,500.00
		SECON		25.00	15,500.00
		ENGINEER'S ESTIMATE		35.00	21,700.00
21101 A	m2	Roadway obliteration , type 1			
		SOUTHEAST ROAD BUILDERS, INC.	24,000	1.54	36,960.00
		KIEWIT PACIFIC CO.		1.00	24,000.00
		SECON		3.00	72,000.00
		ENGINEER'S ESTIMATE		2.00	48,000.00
21101 B	m2	Roadway obliteration , type 2			
		SOUTHEAST ROAD BUILDERS, INC.	46,000	2.45	112,700.00
		KIEWIT PACIFIC CO.		1.00	46,000.00
		SECON		5.00	230,000.00
		ENGINEER'S ESTIMATE		4.50	207,000.00
25101	m3	Placed riprap, class 2			
		SOUTHEAST ROAD BUILDERS, INC.	100	172.67	17,267.00
		KIEWIT PACIFIC CO.		40.00	4,000.00
		SECON		30.00	3,000.00
		ENGINEER'S ESTIMATE		25.00	2,500.00
25103	m3	Keyed riprap, class 5			
		SOUTHEAST ROAD BUILDERS, INC.	400	22.97	9,188.00
		KIEWIT PACIFIC CO.		40.00	16,000.00
		SECON		50.00	20,000.00
		ENGINEER'S ESTIMATE		50.00	20,000.00
25107	m	Riprap lined ditch			
		SOUTHEAST ROAD BUILDERS, INC.	1,800	19.73	35,514.00
		KIEWIT PACIFIC CO.		15.00	27,000.00
		SECON		30.00	54,000.00
		ENGINEER'S ESTIMATE		25.00	45,000.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
25110	each	Culvert outlet control system			
		SOUTHEAST ROAD BUILDERS, INC.	17	425.00	7,225.00
		KIEWIT PACIFIC CO.		800.00	13,600.00
		SECON		2,000.00	34,000.00
		ENGINEER'S ESTIMATE		3,000.00	51,000.00
25112	each	Riprap headwall			
		SOUTHEAST ROAD BUILDERS, INC.	50	222.50	11,125.00
		KIEWIT PACIFIC CO.		400.00	20,000.00
		SECON		500.00	25,000.00
		ENGINEER'S ESTIMATE		1,000.00	50,000.00
25116	m	Energy dissipator			
		SOUTHEAST ROAD BUILDERS, INC.	65.0	132.00	8,580.00
		KIEWIT PACIFIC CO.		125.00	8,125.00
		SECON		250.00	16,250.00
		ENGINEER'S ESTIMATE		175.00	11,375.00
25119	m2	Riprap blanket			
		SOUTHEAST ROAD BUILDERS, INC.	11,000	13.47	148,170.00
		KIEWIT PACIFIC CO.		11.50	126,500.00
		SECON		15.00	165,000.00
		ENGINEER'S ESTIMATE		20.00	220,000.00
25203	m3	Rock buttress, mechanically-placed			
		SOUTHEAST ROAD BUILDERS, INC.	3,500	12.34	43,190.00
		KIEWIT PACIFIC CO.		15.00	52,500.00
		SECON		30.00	105,000.00
		ENGINEER'S ESTIMATE		40.00	140,000.00
25504	m2	Geogrid wall			
		SOUTHEAST ROAD BUILDERS, INC.	180	290.00	52,200.00
		KIEWIT PACIFIC CO.		300.00	54,000.00
		SECON		350.00	63,000.00
		ENGINEER'S ESTIMATE		300.00	54,000.00
26201	m2	Rockery wall			
		SOUTHEAST ROAD BUILDERS, INC.	900	61.00	54,900.00
		KIEWIT PACIFIC CO.		175.00	157,500.00
		SECON		100.00	90,000.00
		ENGINEER'S ESTIMATE		225.00	202,500.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
30101	t	Aggregate base grading D			
		SOUTHEAST ROAD BUILDERS, INC.	84,000.0	11.29	948,360.00
		KIEWIT PACIFIC CO.		12.00	1,008,000.00
		SECON		12.00	1,008,000.00
		ENGINEER'S ESTIMATE		11.00	924,000.00
30701	t	Stockpiled aggregate			
		SOUTHEAST ROAD BUILDERS, INC.	3,000	8.56	25,680.00
		KIEWIT PACIFIC CO.		10.00	30,000.00
		SECON		8.00	24,000.00
		ENGINEER'S ESTIMATE		3.00	9,000.00
40101	t	Hot asphalt concrete pavement class B, grading C, type I pavement smoothness			
		SOUTHEAST ROAD BUILDERS, INC.	22,300	45.00	1,003,500.00
		KIEWIT PACIFIC CO.		34.00	758,200.00
		SECON		40.00	892,000.00
		ENGINEER'S ESTIMATE		38.00	847,400.00
40103	t	Asphalt cement grade SHRP PG 58-28			
		SOUTHEAST ROAD BUILDERS, INC.	1,200.0	475.00	570,000.00
		KIEWIT PACIFIC CO.		400.00	480,000.00
		SECON		400.00	480,000.00
		ENGINEER'S ESTIMATE		350.00	420,000.00
40104	t	Mineral filler (hydrated lime)			
		SOUTHEAST ROAD BUILDERS, INC.	220.0	317.80	69,916.00
		KIEWIT PACIFIC CO.		350.00	77,000.00
		SECON		350.00	77,000.00
		ENGINEER'S ESTIMATE		160.00	35,200.00
41201	t	Tack coat grade CSS-1			
		SOUTHEAST ROAD BUILDERS, INC.	40.0	458.00	18,320.00
		KIEWIT PACIFIC CO.		500.00	20,000.00
		SECON		500.00	20,000.00
		ENGINEER'S ESTIMATE		250.00	10,000.00
55201	m3	Structural concrete class A (AE)			
		SOUTHEAST ROAD BUILDERS, INC.	282.00	1,100.00	310,200.00
		KIEWIT PACIFIC CO.		1,200.00	338,400.00
		SECON		1,000.00	282,000.00
		ENGINEER'S ESTIMATE		1,200.00	338,400.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
55301	each	Precast, prestressed concrete structural members, Bulb Tee Girder			
		SOUTHEAST ROAD BUILDERS, INC.	6	25,931.00	155,586.00
		KIEWIT PACIFIC CO.		50,000.00	300,000.00
		SECON		30,000.00	180,000.00
		ENGINEER'S ESTIMATE		27,000.00	162,000.00
55401	kg	Reinforcing steel			
		SOUTHEAST ROAD BUILDERS, INC.	21,070	1.50	31,605.00
		KIEWIT PACIFIC CO.		3.00	63,210.00
		SECON		2.00	42,140.00
		ENGINEER'S ESTIMATE		2.75	57,942.50
55402	kg	Epoxy coated reinforcing steel			
		SOUTHEAST ROAD BUILDERS, INC.	1,770	2.90	5,133.00
		KIEWIT PACIFIC CO.		4.00	7,080.00
		SECON		4.00	7,080.00
		ENGINEER'S ESTIMATE		3.00	5,310.00
55601 A	m	Steel bridge railing			
		SOUTHEAST ROAD BUILDERS, INC.	48.1	324.00	15,584.40
		KIEWIT PACIFIC CO.		450.00	21,645.00
		SECON		400.00	19,240.00
		ENGINEER'S ESTIMATE		300.00	14,430.00
55601 B	m	Steel bridge railing (retrofit)			
		SOUTHEAST ROAD BUILDERS, INC.	132.7	168.63	22,377.20
		KIEWIT PACIFIC CO.		400.00	53,080.00
		SECON		150.00	19,905.00
		ENGINEER'S ESTIMATE		350.00	46,445.00
55901	m2	Membrane waterproofing , class C			
		SOUTHEAST ROAD BUILDERS, INC.	260	75.00	19,500.00
		KIEWIT PACIFIC CO.		20.00	5,200.00
		SECON		40.00	10,400.00
		ENGINEER'S ESTIMATE		25.00	6,500.00
60104	each	Concrete, headwall for 4270 millimeter span, 1410 millimeter rise structural plate pipe arch culvert			
		SOUTHEAST ROAD BUILDERS, INC.	2	38,176.00	76,352.00
		KIEWIT PACIFIC CO.		12,000.00	24,000.00
		SECON		50,000.00	100,000.00
		ENGINEER'S ESTIMATE		12,000.00	24,000.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B
 Project No.: AK PFH 44-1(1)
 Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
60201 A	m	450 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	240	64.00	15,360.00
		KIEWIT PACIFIC CO.		150.00	36,000.00
		SECON		100.00	24,000.00
		ENGINEER'S ESTIMATE		90.00	21,600.00
60201 B	m	600 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	1,800	125.17	225,306.00
		KIEWIT PACIFIC CO.		180.00	324,000.00
		SECON		110.00	198,000.00
		ENGINEER'S ESTIMATE		100.00	180,000.00
60201 C	m	900 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	120	208.00	24,960.00
		KIEWIT PACIFIC CO.		260.00	31,200.00
		SECON		150.00	18,000.00
		ENGINEER'S ESTIMATE		150.00	18,000.00
60201 D	m	1050 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	55	250.00	13,750.00
		KIEWIT PACIFIC CO.		300.00	16,500.00
		SECON		175.00	9,625.00
		ENGINEER'S ESTIMATE		200.00	11,000.00
60201 E	m	1200 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	51	400.00	20,400.00
		KIEWIT PACIFIC CO.		320.00	16,320.00
		SECON		250.00	12,750.00
		ENGINEER'S ESTIMATE		325.00	16,575.00
60201 F	m	1650 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	73	419.00	30,587.00
		KIEWIT PACIFIC CO.		750.00	54,750.00
		SECON		350.00	25,550.00
		ENGINEER'S ESTIMATE		375.00	27,375.00
60201 G	m	1800 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	35.9	772.00	27,714.80
		KIEWIT PACIFIC CO.		850.00	30,515.00
		SECON		800.00	28,720.00
		ENGINEER'S ESTIMATE		400.00	14,360.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
60201 H	m	2100 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	59.1	936.00	55,317.60
		KIEWIT PACIFIC CO.		800.00	47,280.00
		SECON		900.00	53,190.00
		ENGINEER'S ESTIMATE		700.00	41,370.00
60201 I	m	2400 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	103.7	996.00	103,285.20
		KIEWIT PACIFIC CO.		850.00	88,145.00
		SECON		1,000.00	103,700.00
		ENGINEER'S ESTIMATE		725.00	75,182.50
60201 J	m	2700 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	80.5	1,222.00	98,371.00
		KIEWIT PACIFIC CO.		1,150.00	92,575.00
		SECON		1,600.00	128,800.00
		ENGINEER'S ESTIMATE		800.00	64,400.00
60201 K	m	3000 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	82.4	1,554.00	128,049.60
		KIEWIT PACIFIC CO.		1,300.00	107,120.00
		SECON		1,800.00	148,320.00
		ENGINEER'S ESTIMATE		825.00	67,980.00
60201 L	m	3600 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	63.3	2,445.00	154,768.50
		KIEWIT PACIFIC CO.		2,100.00	132,930.00
		SECON		3,200.00	202,560.00
		ENGINEER'S ESTIMATE		2,300.00	145,590.00
60206 A	each	End section for 450 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	7	192.00	1,344.00
		KIEWIT PACIFIC CO.		150.00	1,050.00
		SECON		300.00	2,100.00
		ENGINEER'S ESTIMATE		150.00	1,050.00
60206 B	each	End section for 600 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	55	233.00	12,815.00
		KIEWIT PACIFIC CO.		175.00	9,625.00
		SECON		350.00	19,250.00
		ENGINEER'S ESTIMATE		200.00	11,000.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
60206 C	each	End section for 900 millimeter pipe culvert			
		SOUTHEAST ROAD BUILDERS, INC.	2	750.00	1,500.00
		KIEWIT PACIFIC CO.		500.00	1,000.00
		SECON		700.00	1,400.00
		ENGINEER'S ESTIMATE		350.00	700.00
60301 A	m	3980 millimeter structural plate pipe			
		SOUTHEAST ROAD BUILDERS, INC.	25.0	2,897.00	72,425.00
		KIEWIT PACIFIC CO.		3,000.00	75,000.00
		SECON		3,200.00	80,000.00
		ENGINEER'S ESTIMATE		2,500.00	62,500.00
60301 B	m	4290 millimeter structural plate pipe			
		SOUTHEAST ROAD BUILDERS, INC.	29.3	2,515.00	73,689.50
		KIEWIT PACIFIC CO.		3,100.00	90,830.00
		SECON		3,200.00	93,760.00
		ENGINEER'S ESTIMATE		3,000.00	87,900.00
60304	m	4270 millimeter span, 1410 millimeter rise structural plate arch, 2.77 millimeter			
		SOUTHEAST ROAD BUILDERS, INC.	14.6	2,540.00	37,084.00
		KIEWIT PACIFIC CO.		5,000.00	73,000.00
		SECON		1,000.00	14,600.00
		ENGINEER'S ESTIMATE		3,000.00	43,800.00
61701	m	Guardrail system G4, type I, class A (wood posts)			
		SOUTHEAST ROAD BUILDERS, INC.	430.0	112.00	48,160.00
		KIEWIT PACIFIC CO.		70.00	30,100.00
		SECON		100.00	43,000.00
		ENGINEER'S ESTIMATE		80.00	34,400.00
61702 A	each	Terminal section type G4-BAT			
		SOUTHEAST ROAD BUILDERS, INC.	6	2,977.00	17,862.00
		KIEWIT PACIFIC CO.		2,500.00	15,000.00
		SECON		3,000.00	18,000.00
		ENGINEER'S ESTIMATE		2,000.00	12,000.00
61702 B	each	Terminal section type tangent			
		SOUTHEAST ROAD BUILDERS, INC.	12	2,988.00	35,856.00
		KIEWIT PACIFIC CO.		2,500.00	30,000.00
		SECON		2,500.00	30,000.00
		ENGINEER'S ESTIMATE		2,500.00	30,000.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
61713	m	Bridge transition railing			
		SOUTHEAST ROAD BUILDERS, INC.	72.8	150.00	10,920.00
		KIEWIT PACIFIC CO.		300.00	21,840.00
		SECON		400.00	29,120.00
		ENGINEER'S ESTIMATE		180.00	13,104.00
62101	each	Monument			
		SOUTHEAST ROAD BUILDERS, INC.	1	1,000.00	1,000.00
		KIEWIT PACIFIC CO.		500.00	500.00
		SECON		500.00	500.00
		ENGINEER'S ESTIMATE		310.00	310.00
62201 A	hour	Grader, motor, 90 kW minimum			
		SOUTHEAST ROAD BUILDERS, INC.	160.0	120.00	19,200.00
		KIEWIT PACIFIC CO.		160.00	25,600.00
		SECON		150.00	24,000.00
		ENGINEER'S ESTIMATE		90.00	14,400.00
62201 B	hour	Hydraulic excavator, crawler mounted, 0.7 m3 minimum capacity with thumb attachment			
		SOUTHEAST ROAD BUILDERS, INC.	160.0	125.00	20,000.00
		KIEWIT PACIFIC CO.		160.00	25,600.00
		SECON		150.00	24,000.00
		ENGINEER'S ESTIMATE		155.00	24,800.00
62201 C	hour	Loader/backhoe, wheel type tractor, 35 kW minimum			
		SOUTHEAST ROAD BUILDERS, INC.	160	85.00	13,600.00
		KIEWIT PACIFIC CO.		110.00	17,600.00
		SECON		125.00	20,000.00
		ENGINEER'S ESTIMATE		160.00	25,600.00
62201 D	hour	Power tool, chain saw, gasoline powered, 600 mm bar			
		SOUTHEAST ROAD BUILDERS, INC.	160.0	60.00	9,600.00
		KIEWIT PACIFIC CO.		10.00	1,600.00
		SECON		60.00	9,600.00
		ENGINEER'S ESTIMATE		55.00	8,800.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
62201 E	hour	Tractor, crawler (dozer), 150 kW minimum			
		SOUTHEAST ROAD BUILDERS, INC.	160.0	130.00	20,800.00
		KIEWIT PACIFIC CO.		150.00	24,000.00
		SECON		150.00	24,000.00
		ENGINEER'S ESTIMATE		175.00	28,000.00
62201 F	hour	Truck, highway, dump body, rear, 9.1 m3 minimum capacity			
		SOUTHEAST ROAD BUILDERS, INC.	320.0	85.00	27,200.00
		KIEWIT PACIFIC CO.		75.00	24,000.00
		SECON		80.00	25,600.00
		ENGINEER'S ESTIMATE		90.00	28,800.00
62204	hour	Pump, water, trash, 150 mm			
		SOUTHEAST ROAD BUILDERS, INC.	200	50.00	10,000.00
		KIEWIT PACIFIC CO.		20.00	4,000.00
		SECON		60.00	12,000.00
		ENGINEER'S ESTIMATE		20.00	4,000.00
62301	hour	General labor			
		SOUTHEAST ROAD BUILDERS, INC.	320	42.00	13,440.00
		KIEWIT PACIFIC CO.		55.00	17,600.00
		SECON		50.00	16,000.00
		ENGINEER'S ESTIMATE		45.00	14,400.00
62407 A	m2	Placing conserved topsoil , 300 millimeters depth			
		SOUTHEAST ROAD BUILDERS, INC.	46,000	2.88	132,480.00
		KIEWIT PACIFIC CO.		1.25	57,500.00
		SECON		3.00	138,000.00
		ENGINEER'S ESTIMATE		3.00	138,000.00
62407 B	m2	Placing conserved topsoil , 600 millimeter depth			
		SOUTHEAST ROAD BUILDERS, INC.	1,900	14.86	28,234.00
		KIEWIT PACIFIC CO.		2.50	4,750.00
		SECON		5.00	9,500.00
		ENGINEER'S ESTIMATE		4.00	7,600.00
62514	slry unit	Turf establishment			
		SOUTHEAST ROAD BUILDERS, INC.	300.00	621.15	186,345.00
		KIEWIT PACIFIC CO.		850.00	255,000.00
		SECON		550.00	165,000.00
		ENGINEER'S ESTIMATE		700.00	210,000.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
62603	each	Cuttings, alder			
		SOUTHEAST ROAD BUILDERS, INC.	630	5.00	3,150.00
		KIEWIT PACIFIC CO.		10.00	6,300.00
		SECON		5.00	3,150.00
		ENGINEER'S ESTIMATE		2.00	1,260.00
62604	each	Bundle, alder			
		SOUTHEAST ROAD BUILDERS, INC.	50	67.00	3,350.00
		KIEWIT PACIFIC CO.		30.00	1,500.00
		SECON		25.00	1,250.00
		ENGINEER'S ESTIMATE		5.00	250.00
62901	m2	Erosion control mat type 1			
		SOUTHEAST ROAD BUILDERS, INC.	1,700	3.23	5,491.00
		KIEWIT PACIFIC CO.		8.00	13,600.00
		SECON		2.00	3,400.00
		ENGINEER'S ESTIMATE		3.00	5,100.00
63302	m2	Sign installation			
		SOUTHEAST ROAD BUILDERS, INC.	70.00	494.00	34,580.00
		KIEWIT PACIFIC CO.		1,000.00	70,000.00
		SECON		500.00	35,000.00
		ENGINEER'S ESTIMATE		500.00	35,000.00
63308	each	Removing and resetting signs			
		SOUTHEAST ROAD BUILDERS, INC.	1	1,000.00	1,000.00
		KIEWIT PACIFIC CO.		150.00	150.00
		SECON		500.00	500.00
		ENGINEER'S ESTIMATE		200.00	200.00
63319	m	Rumble strip			
		SOUTHEAST ROAD BUILDERS, INC.	3.0	400.00	1,200.00
		KIEWIT PACIFIC CO.		500.00	1,500.00
		SECON		500.00	1,500.00
		ENGINEER'S ESTIMATE		82.41	247.23
63401 A	m	Pavement markings, type M, solid white			
		SOUTHEAST ROAD BUILDERS, INC.	29,900	4.14	123,786.00
		KIEWIT PACIFIC CO.		2.75	82,225.00
		SECON		3.00	89,700.00
		ENGINEER'S ESTIMATE		5.00	149,500.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63401 B	m	Pavement markings, type M, solid yellow			
		SOUTHEAST ROAD BUILDERS, INC.	26,600	4.12	109,592.00
		KIEWIT PACIFIC CO.		2.75	73,150.00
		SECON		3.00	79,800.00
		ENGINEER'S ESTIMATE		5.00	133,000.00
63401 C	m	Pavement markings, type M, broken yellow			
		SOUTHEAST ROAD BUILDERS, INC.	3,900	4.12	16,068.00
		KIEWIT PACIFIC CO.		2.75	10,725.00
		SECON		3.00	11,700.00
		ENGINEER'S ESTIMATE		4.00	15,600.00
63406	each	Pavement markings type M, stop line			
		SOUTHEAST ROAD BUILDERS, INC.	1	295.00	295.00
		KIEWIT PACIFIC CO.		1,000.00	1,000.00
		SECON		300.00	300.00
		ENGINEER'S ESTIMATE		1,000.00	1,000.00
63410	each	Recessed pavement markers			
		SOUTHEAST ROAD BUILDERS, INC.	1,300	35.35	45,955.00
		KIEWIT PACIFIC CO.		25.00	32,500.00
		SECON		20.00	26,000.00
		ENGINEER'S ESTIMATE		35.00	45,500.00
63505 A	each	Barricade type I			
		SOUTHEAST ROAD BUILDERS, INC.	40	100.00	4,000.00
		KIEWIT PACIFIC CO.		150.00	6,000.00
		SECON		70.00	2,800.00
		ENGINEER'S ESTIMATE		60.00	2,400.00
63505 B	each	Barricade type III			
		SOUTHEAST ROAD BUILDERS, INC.	4	500.00	2,000.00
		KIEWIT PACIFIC CO.		400.00	1,600.00
		SECON		200.00	800.00
		ENGINEER'S ESTIMATE		170.00	680.00
63506	each	Cone type 700 millimeter			
		SOUTHEAST ROAD BUILDERS, INC.	500	20.00	10,000.00
		KIEWIT PACIFIC CO.		30.00	15,000.00
		SECON		30.00	15,000.00
		ENGINEER'S ESTIMATE		26.00	13,000.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63507	m2	Construction sign			
		SOUTHEAST ROAD BUILDERS, INC.	136.00	158.00	21,488.00
		KIEWIT PACIFIC CO.		100.00	13,600.00
		SECON		150.00	20,400.00
		ENGINEER'S ESTIMATE		200.00	27,200.00
63508	each	Drum type 1 meter			
		SOUTHEAST ROAD BUILDERS, INC.	40	80.00	3,200.00
		KIEWIT PACIFIC CO.		75.00	3,000.00
		SECON		50.00	2,000.00
		ENGINEER'S ESTIMATE		50.00	2,000.00
63509	fix hr rate	Flagger			
		SOUTHEAST ROAD BUILDERS, INC.	13,000	41.00	533,000.00
		KIEWIT PACIFIC CO.		41.00	533,000.00
		SECON		41.00	533,000.00
		ENGINEER'S ESTIMATE		41.00	533,000.00
63510	hour	Pilot car			
		SOUTHEAST ROAD BUILDERS, INC.	7,000.0	50.00	350,000.00
		KIEWIT PACIFIC CO.		43.00	301,000.00
		SECON		60.00	420,000.00
		ENGINEER'S ESTIMATE		50.00	350,000.00
63521 A	each	Warning light type A			
		SOUTHEAST ROAD BUILDERS, INC.	10	200.00	2,000.00
		KIEWIT PACIFIC CO.		75.00	750.00
		SECON		50.00	500.00
		ENGINEER'S ESTIMATE		50.00	500.00
63521 B	each	Warning light type B			
		SOUTHEAST ROAD BUILDERS, INC.	8	200.00	1,600.00
		KIEWIT PACIFIC CO.		75.00	600.00
		SECON		50.00	400.00
		ENGINEER'S ESTIMATE		40.00	320.00
63521 C	each	Warning light type C			
		SOUTHEAST ROAD BUILDERS, INC.	70	200.00	14,000.00
		KIEWIT PACIFIC CO.		50.00	3,500.00
		SECON		50.00	3,500.00
		ENGINEER'S ESTIMATE		40.00	2,800.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63560	day	Traffic and safety supervisor			
		SOUTHEAST ROAD BUILDERS, INC.	360	612.00	220,320.00
		KIEWIT PACIFIC CO.		330.00	118,800.00
		SECON		500.00	180,000.00
		ENGINEER'S ESTIMATE		300.00	108,000.00
63701	each	Field office			
		SOUTHEAST ROAD BUILDERS, INC.	1	28,500.00	28,500.00
		KIEWIT PACIFIC CO.		50,000.00	50,000.00
		SECON		20,000.00	20,000.00
		ENGINEER'S ESTIMATE		20,000.00	20,000.00
63704	each	Vehicles			
		SOUTHEAST ROAD BUILDERS, INC.	4	43,450.00	173,800.00
		KIEWIT PACIFIC CO.		25,000.00	100,000.00
		SECON		20,000.00	80,000.00
		ENGINEER'S ESTIMATE		20,000.00	80,000.00
65001 A	each	Log weir			
		SOUTHEAST ROAD BUILDERS, INC.	9	400.00	3,600.00
		KIEWIT PACIFIC CO.		900.00	8,100.00
		SECON		400.00	3,600.00
		ENGINEER'S ESTIMATE		2,000.00	18,000.00
65001 B	each	Rock weir			
		SOUTHEAST ROAD BUILDERS, INC.	2	250.00	500.00
		KIEWIT PACIFIC CO.		2,000.00	4,000.00
		SECON		1,000.00	2,000.00
		ENGINEER'S ESTIMATE		7,500.00	15,000.00
65001 C	each	Root wad			
		SOUTHEAST ROAD BUILDERS, INC.	30	200.00	6,000.00
		KIEWIT PACIFIC CO.		300.00	9,000.00
		SECON		200.00	6,000.00
		ENGINEER'S ESTIMATE		5.00	150.00
67702	m	Pedestrian trail			
		SOUTHEAST ROAD BUILDERS, INC.	90	154.00	13,860.00
		KIEWIT PACIFIC CO.		30.00	2,700.00
		SECON		50.00	4,500.00
		ENGINEER'S ESTIMATE		50.00	4,500.00

TABULATION OF BIDS

Date: 04/03/03

Bid Schedule B

Project No.: AK PFH 44-1(1)

Project Name: COFFMAN COVE ROAD, SCHEDULE B

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
68001	LPSM	Construct and maintain detour			
		SOUTHEAST ROAD BUILDERS, INC.	ALL	10,800.00	10,800.00
		KIEWIT PACIFIC CO.		50,000.00	50,000.00
		SECON		30,000.00	30,000.00
		ENGINEER'S ESTIMATE		7,600.00	7,600.00
<hr/>					
AK PFH 44-					
		SOUTHEAST ROAD BUILDERS, INC.		0.00	0.00
		KIEWIT PACIFIC CO.		0.00	0.00
		SECON		0.00	0.00
		ENGINEER'S ESTIMATE		0.00	0.00

This Page Intentionally Left Blank

TABULATION OF BIDS

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

State: AK
 County: PRINCE OF WALES
 TONGASS NATIONAL FOREST

Opened at: Vancouver WA
 By: Julee McTaggart
 Date: 04/02/02

I certify that this Bid Tabulation accurately reflects the bids received and publicly opened for this solicitation.

Signed: _____

Title: _____ Date: _____

Contract Awarded to: Southeast Roadbuilders Date: 4-17-02

Contractor	Bid Amount	Responsive
SOUTHEAST ROADBUILDERS, INC HC60 BOX 4800 HAINES, AK 99827	9,357,302.75	
SECON PO BOX 32159 JUNEAU, AK 99803	9,823,450.00	
KIEWIT PACIFIC CO. PO BOX 1769 VANCOUVER, WA 98668	11,464,455.00	
WILDER CONSTRUCTION COMPANY 11301 LANG STREET ANCHORAGE, AK 99515	11,815,600.00	
Engineer's Estimate	10,148,553.75	

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15101	LPSM	Mobilization			
		SOUTHEAST ROADBUILDERS, INC	ALL	783,000.00	783,000.00
		SECON		1,100,000.00	1,100,000.00
		KIEWIT PACIFIC CO.		1,275,000.00	1,275,000.00
		WILDER CONSTRUCTION COMPANY		1,150,000.00	1,150,000.00
		ENGINEER'S ESTIMATE		923,000.00	923,000.00
15201	LPSM	Construction survey and staking			
		SOUTHEAST ROADBUILDERS, INC	ALL	100,000.00	100,000.00
		SECON		150,000.00	150,000.00
		KIEWIT PACIFIC CO.		200,000.00	200,000.00
		WILDER CONSTRUCTION COMPANY		250,000.00	250,000.00
		ENGINEER'S ESTIMATE		175,000.00	175,000.00
15301	LPSM	Contractor quality control			
		SOUTHEAST ROADBUILDERS, INC	ALL	171,000.00	171,000.00
		SECON		25,000.00	25,000.00
		KIEWIT PACIFIC CO.		125,000.00	125,000.00
		WILDER CONSTRUCTION COMPANY		125,000.00	125,000.00
		ENGINEER'S ESTIMATE		112,000.00	112,000.00
15401	LPSM	Contractor testing			
		SOUTHEAST ROADBUILDERS, INC	ALL	129,200.00	129,200.00
		SECON		100,000.00	100,000.00
		KIEWIT PACIFIC CO.		75,000.00	75,000.00
		WILDER CONSTRUCTION COMPANY		250,000.00	250,000.00
		ENGINEER'S ESTIMATE		95,000.00	95,000.00
15501	LPSM	Construction schedule			
		SOUTHEAST ROADBUILDERS, INC	ALL	19,100.00	19,100.00
		SECON		5,000.00	5,000.00
		KIEWIT PACIFIC CO.		5,000.00	5,000.00
		WILDER CONSTRUCTION COMPANY		8,500.00	8,500.00
		ENGINEER'S ESTIMATE		30,000.00	30,000.00
15702	ha	Temporary turf establishment			
		SOUTHEAST ROADBUILDERS, INC	32	25.00	800.00
		SECON		1,000.00	32,000.00
		KIEWIT PACIFIC CO.		2,700.00	86,400.00
		WILDER CONSTRUCTION COMPANY		3,600.00	115,200.00
		ENGINEER'S ESTIMATE		2,500.00	80,000.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15703	m	Silt fence			
		SOUTHEAST ROADBUILDERS, INC	10500	6.20	65,100.00
		SECON		7.00	73,500.00
		KIEWIT PACIFIC CO.		11.00	115,500.00
		WILDER CONSTRUCTION COMPANY		13.00	136,500.00
		ENGINEER'S ESTIMATE		11.00	115,500.00
15708	each	Bales, straw			
		SOUTHEAST ROADBUILDERS, INC	50	75.00	3,750.00
		SECON		30.00	1,500.00
		KIEWIT PACIFIC CO.		25.00	1,250.00
		WILDER CONSTRUCTION COMPANY		60.00	3,000.00
		ENGINEER'S ESTIMATE		50.00	2,500.00
15709	each	Check dams			
		SOUTHEAST ROADBUILDERS, INC	100	90.00	9,000.00
		SECON		100.00	10,000.00
		KIEWIT PACIFIC CO.		140.00	14,000.00
		WILDER CONSTRUCTION COMPANY		75.00	7,500.00
		ENGINEER'S ESTIMATE		100.00	10,000.00
15724	m	Fiber log			
		SOUTHEAST ROADBUILDERS, INC	350	35.00	12,250.00
		SECON		30.00	10,500.00
		KIEWIT PACIFIC CO.		30.00	10,500.00
		WILDER CONSTRUCTION COMPANY		30.00	10,500.00
		ENGINEER'S ESTIMATE		40.00	14,000.00
15801	m3	Watering for dust control			
		SOUTHEAST ROADBUILDERS, INC	8000	7.00	56,000.00
		SECON		8.00	64,000.00
		KIEWIT PACIFIC CO.		6.00	48,000.00
		WILDER CONSTRUCTION COMPANY		6.00	48,000.00
		ENGINEER'S ESTIMATE		4.50	36,000.00
20101	ha	Clearing and grubbing			
		SOUTHEAST ROADBUILDERS, INC	1.00	5,450.00	5,450.00
		SECON		15,000.00	15,000.00
		KIEWIT PACIFIC CO.		12,000.00	12,000.00
		WILDER CONSTRUCTION COMPANY		20,000.00	20,000.00
		ENGINEER'S ESTIMATE		10,000.00	10,000.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
20201	ha	Selective clearing			
		SOUTHEAST ROADBUILDERS, INC	2.75	1,385.00	3,808.75
		SECON		10,000.00	27,500.00
		KIEWIT PACIFIC CO.		15,000.00	41,250.00
		WILDER CONSTRUCTION COMPANY		15,000.00	41,250.00
		ENGINEER'S ESTIMATE		8,085.00	22,233.75
20301	each	Removal of bridge curb			
		SOUTHEAST ROADBUILDERS, INC	4	907.00	3,628.00
		SECON		500.00	2,000.00
		KIEWIT PACIFIC CO.		500.00	2,000.00
		WILDER CONSTRUCTION COMPANY		1,000.00	4,000.00
		ENGINEER'S ESTIMATE		1,200.00	4,800.00
20302 A	m	Removal and stockpiling of guardrail			
		SOUTHEAST ROADBUILDERS, INC	1550	7.50	11,625.00
		SECON		20.00	31,000.00
		KIEWIT PACIFIC CO.		10.00	15,500.00
		WILDER CONSTRUCTION COMPANY		40.00	62,000.00
		ENGINEER'S ESTIMATE		15.00	23,250.00
20302 B	m	Removal and stockpiling of guardrail elements			
		SOUTHEAST ROADBUILDERS, INC	290	9.00	2,610.00
		SECON		40.00	11,600.00
		KIEWIT PACIFIC CO.		20.00	5,800.00
		WILDER CONSTRUCTION COMPANY		40.00	11,600.00
		ENGINEER'S ESTIMATE		35.00	10,150.00
20401	m3	Roadway excavation			
		SOUTHEAST ROADBUILDERS, INC	2000	5.25	10,500.00
		SECON		6.00	12,000.00
		KIEWIT PACIFIC CO.		10.00	20,000.00
		WILDER CONSTRUCTION COMPANY		15.00	30,000.00
		ENGINEER'S ESTIMATE		12.00	24,000.00
20402	m3	Subexcavation			
		SOUTHEAST ROADBUILDERS, INC	2500	3.50	8,750.00
		SECON		6.00	15,000.00
		KIEWIT PACIFIC CO.		10.00	25,000.00
		WILDER CONSTRUCTION COMPANY		7.50	18,750.00
		ENGINEER'S ESTIMATE		7.00	17,500.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
20409	m3	Embankment construction			
		SOUTHEAST ROADBUILDERS, INC	30000	10.00	300,000.00
		SECON		6.00	180,000.00
		KIEWIT PACIFIC CO.		20.00	600,000.00
		WILDER CONSTRUCTION COMPANY		16.00	480,000.00
		ENGINEER'S ESTIMATE		1.50	45,000.00
20416	t	Rock borrow			
		SOUTHEAST ROADBUILDERS, INC	9000	9.50	85,500.00
		SECON		5.00	45,000.00
		KIEWIT PACIFIC CO.		2.00	18,000.00
		WILDER CONSTRUCTION COMPANY		7.50	67,500.00
		ENGINEER'S ESTIMATE		10.00	90,000.00
20427 A	LPSM	Surcharge embankment Sta. 11+446 to 11+482			
		SOUTHEAST ROADBUILDERS, INC	ALL	6,750.00	6,750.00
		SECON		20,000.00	20,000.00
		KIEWIT PACIFIC CO.		30,000.00	30,000.00
		WILDER CONSTRUCTION COMPANY		42,000.00	42,000.00
		ENGINEER'S ESTIMATE		41,000.00	41,000.00
20427 B	LPSM	Surcharge embankment Sta. 39+600 to 39+800			
		SOUTHEAST ROADBUILDERS, INC	ALL	27,550.00	27,550.00
		SECON		40,000.00	40,000.00
		KIEWIT PACIFIC CO.		75,000.00	75,000.00
		WILDER CONSTRUCTION COMPANY		75,000.00	75,000.00
		ENGINEER'S ESTIMATE		77,000.00	77,000.00
20427 C	LPSM	Surcharge embankment Sta. 42+410 to 42+536			
		SOUTHEAST ROADBUILDERS, INC	ALL	19,350.00	19,350.00
		SECON		30,000.00	30,000.00
		KIEWIT PACIFIC CO.		45,000.00	45,000.00
		WILDER CONSTRUCTION COMPANY		55,000.00	55,000.00
		ENGINEER'S ESTIMATE		58,000.00	58,000.00
25119	m2	Riprap blanket			
		SOUTHEAST ROADBUILDERS, INC	3400	10.75	36,550.00
		SECON		15.00	51,000.00
		KIEWIT PACIFIC CO.		22.00	74,800.00
		WILDER CONSTRUCTION COMPANY		15.00	51,000.00
		ENGINEER'S ESTIMATE		22.50	76,500.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
26201	m2	Rockery wall			
		SOUTHEAST ROADBUILDERS, INC	220	90.00	19,800.00
		SECON		100.00	22,000.00
		KIEWIT PACIFIC CO.		175.00	38,500.00
		WILDER CONSTRUCTION COMPANY		35.00	7,700.00
		ENGINEER'S ESTIMATE		150.00	33,000.00
30101	t	Aggregate base grading D			
		SOUTHEAST ROADBUILDERS, INC	119000	9.79	1,165,010.00
		SECON		12.00	1,428,000.00
		KIEWIT PACIFIC CO.		15.00	1,785,000.00
		WILDER CONSTRUCTION COMPANY		17.50	2,082,500.00
		ENGINEER'S ESTIMATE		12.00	1,428,000.00
30305	km	Ditch reconditioning			
		SOUTHEAST ROADBUILDERS, INC	50	340.00	17,000.00
		SECON		2,000.00	100,000.00
		KIEWIT PACIFIC CO.		550.00	27,500.00
		WILDER CONSTRUCTION COMPANY		600.00	30,000.00
		ENGINEER'S ESTIMATE		2,250.00	112,500.00
31001	m2	Recycled aggregate base			
		SOUTHEAST ROADBUILDERS, INC	60000	1.25	75,000.00
		SECON		1.00	60,000.00
		KIEWIT PACIFIC CO.		0.75	45,000.00
		WILDER CONSTRUCTION COMPANY		1.25	75,000.00
		ENGINEER'S ESTIMATE		4.00	240,000.00
31005	t	Cement			
		SOUTHEAST ROADBUILDERS, INC	180	223.70	40,266.00
		SECON		200.00	36,000.00
		KIEWIT PACIFIC CO.		260.00	46,800.00
		WILDER CONSTRUCTION COMPANY		300.00	54,000.00
		ENGINEER'S ESTIMATE		275.00	49,500.00
31006	t	Emulsified asphalt, grade CSS-1			
		SOUTHEAST ROADBUILDERS, INC	570	200.00	114,000.00
		SECON		300.00	171,000.00
		KIEWIT PACIFIC CO.		375.00	213,750.00
		WILDER CONSTRUCTION COMPANY		300.00	171,000.00
		ENGINEER'S ESTIMATE		250.00	142,500.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
40101	t	Hot asphalt concrete pavement class B, grading C, type II pavement smoothness			
		SOUTHEAST ROADBUILDERS, INC	82000	27.73	2,273,860.00
		SECON		28.00	2,296,000.00
		KIEWIT PACIFIC CO.		31.00	2,542,000.00
		WILDER CONSTRUCTION COMPANY		28.00	2,296,000.00
		ENGINEER'S ESTIMATE		30.00	2,460,000.00
40103	t	Asphalt cement grade SHRP PG 58-28			
		SOUTHEAST ROADBUILDERS, INC	4900	313.30	1,535,170.00
		SECON		280.00	1,372,000.00
		KIEWIT PACIFIC CO.		300.00	1,470,000.00
		WILDER CONSTRUCTION COMPANY		315.00	1,543,500.00
		ENGINEER'S ESTIMATE		350.00	1,715,000.00
40104	t	Mineral filler			
		SOUTHEAST ROADBUILDERS, INC	550	400.00	220,000.00
		SECON		350.00	192,500.00
		KIEWIT PACIFIC CO.		500.00	275,000.00
		WILDER CONSTRUCTION COMPANY		275.00	151,250.00
		ENGINEER'S ESTIMATE		150.00	82,500.00
55601 A	m	Steel bridge railing			
		SOUTHEAST ROADBUILDERS, INC	70	409.00	28,630.00
		SECON		500.00	35,000.00
		KIEWIT PACIFIC CO.		500.00	35,000.00
		WILDER CONSTRUCTION COMPANY		850.00	59,500.00
		ENGINEER'S ESTIMATE		500.00	35,000.00
55601 B	m	Thrie beam bridge rail , blocked out			
		SOUTHEAST ROADBUILDERS, INC	290	74.30	21,547.00
		SECON		120.00	34,800.00
		KIEWIT PACIFIC CO.		120.00	34,800.00
		WILDER CONSTRUCTION COMPANY		300.00	87,000.00
		ENGINEER'S ESTIMATE		150.00	43,500.00
55901	m2	Membrane waterproofing , class C			
		SOUTHEAST ROADBUILDERS, INC	1540	18.25	28,105.00
		SECON		25.00	38,500.00
		KIEWIT PACIFIC CO.		40.00	61,600.00
		WILDER CONSTRUCTION COMPANY		28.00	43,120.00
		ENGINEER'S ESTIMATE		60.00	92,400.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
60201 A	m	450 millimeter pipe culvert			
		SOUTHEAST ROADBUILDERS, INC	100	57.40	5,740.00
		SECON		80.00	8,000.00
		KIEWIT PACIFIC CO.		140.00	14,000.00
		WILDER CONSTRUCTION COMPANY		150.00	15,000.00
		ENGINEER'S ESTIMATE		110.00	11,000.00
60201 B	m	600 millimeter pipe culvert			
		SOUTHEAST ROADBUILDERS, INC	110	100.00	11,000.00
		SECON		100.00	11,000.00
		KIEWIT PACIFIC CO.		150.00	16,500.00
		WILDER CONSTRUCTION COMPANY		175.00	19,250.00
		ENGINEER'S ESTIMATE		130.00	14,300.00
60502	m	Standard underdrain system			
		SOUTHEAST ROADBUILDERS, INC	40	114.00	4,560.00
		SECON		150.00	6,000.00
		KIEWIT PACIFIC CO.		150.00	6,000.00
		WILDER CONSTRUCTION COMPANY		150.00	6,000.00
		ENGINEER'S ESTIMATE		150.00	6,000.00
60507	m	200 millimeter outlet pipe			
		SOUTHEAST ROADBUILDERS, INC	20	40.50	810.00
		SECON		50.00	1,000.00
		KIEWIT PACIFIC CO.		125.00	2,500.00
		WILDER CONSTRUCTION COMPANY		100.00	2,000.00
		ENGINEER'S ESTIMATE		50.00	1,000.00
60802	m	Paved waterway type VI			
		SOUTHEAST ROADBUILDERS, INC	60	79.40	4,764.00
		SECON		60.00	3,600.00
		KIEWIT PACIFIC CO.		40.00	2,400.00
		WILDER CONSTRUCTION COMPANY		50.00	3,000.00
		ENGINEER'S ESTIMATE		60.00	3,600.00
61701 A	m	Guardrail system G4, type I, class A			
		SOUTHEAST ROADBUILDERS, INC	455	84.40	38,402.00
		SECON		80.00	36,400.00
		KIEWIT PACIFIC CO.		75.00	34,125.00
		WILDER CONSTRUCTION COMPANY		100.00	45,500.00
		ENGINEER'S ESTIMATE		70.00	31,850.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
61701 B	m	Guardrail system CRT, type I, class A			
		SOUTHEAST ROADBUILDERS, INC	30	77.50	2,325.00
		SECON		90.00	2,700.00
		KIEWIT PACIFIC CO.		170.00	5,100.00
		WILDER CONSTRUCTION COMPANY		125.00	3,750.00
		ENGINEER'S ESTIMATE		190.00	5,700.00
61702 A	each	Terminal section type CRT			
		SOUTHEAST ROADBUILDERS, INC	2	1,200.00	2,400.00
		SECON		3,000.00	6,000.00
		KIEWIT PACIFIC CO.		3,000.00	6,000.00
		WILDER CONSTRUCTION COMPANY		3,000.00	6,000.00
		ENGINEER'S ESTIMATE		1,850.00	3,700.00
61702 B	Each	Terminal section type tangent			
		SOUTHEAST ROADBUILDERS, INC	32	2,255.00	72,160.00
		SECON		2,500.00	80,000.00
		KIEWIT PACIFIC CO.		2,400.00	76,800.00
		WILDER CONSTRUCTION COMPANY		1,350.00	43,200.00
		ENGINEER'S ESTIMATE		2,000.00	64,000.00
61706	each	Connection to structure			
		SOUTHEAST ROADBUILDERS, INC	12	244.00	2,928.00
		SECON		500.00	6,000.00
		KIEWIT PACIFIC CO.		800.00	9,600.00
		WILDER CONSTRUCTION COMPANY		1,350.00	16,200.00
		ENGINEER'S ESTIMATE		1,000.00	12,000.00
61711	each	Bridge transition railing			
		SOUTHEAST ROADBUILDERS, INC	35	250.00	8,750.00
		SECON		1,300.00	45,500.00
		KIEWIT PACIFIC CO.		1,200.00	42,000.00
		WILDER CONSTRUCTION COMPANY		2,500.00	87,500.00
		ENGINEER'S ESTIMATE		1,750.00	61,250.00
62101	each	Monument , centerline			
		SOUTHEAST ROADBUILDERS, INC	32	250.00	8,000.00
		SECON		300.00	9,600.00
		KIEWIT PACIFIC CO.		200.00	6,400.00
		WILDER CONSTRUCTION COMPANY		350.00	11,200.00
		ENGINEER'S ESTIMATE		500.00	16,000.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
62201 A	hour	Hydraulic excavator, crawler mounted, 0.7 m3 minimum capacity with thumb attachment			
		SOUTHEAST ROADBUILDERS, INC	160	110.00	17,600.00
		SECON		160.00	25,600.00
		KIEWIT PACIFIC CO.		175.00	28,000.00
		WILDER CONSTRUCTION COMPANY		125.00	20,000.00
		ENGINEER'S ESTIMATE		80.00	12,800.00
62201 B	hour	Loader/backhoe, wheel type tractor, 35 kW minimum			
		SOUTHEAST ROADBUILDERS, INC	60	80.00	4,800.00
		SECON		110.00	6,600.00
		KIEWIT PACIFIC CO.		125.00	7,500.00
		WILDER CONSTRUCTION COMPANY		90.00	5,400.00
		ENGINEER'S ESTIMATE		65.00	3,900.00
62201 C	hour	Tractor, crawler (dozer), 150 kW minimum			
		SOUTHEAST ROADBUILDERS, INC	20	150.00	3,000.00
		SECON		150.00	3,000.00
		KIEWIT PACIFIC CO.		125.00	2,500.00
		WILDER CONSTRUCTION COMPANY		175.00	3,500.00
		ENGINEER'S ESTIMATE		120.00	2,400.00
62201 D	hour	Truck, highway, dump body, rear, 7.6 m3 minimum capacity			
		SOUTHEAST ROADBUILDERS, INC	490	80.00	39,200.00
		SECON		100.00	49,000.00
		KIEWIT PACIFIC CO.		80.00	39,200.00
		WILDER CONSTRUCTION COMPANY		75.00	36,750.00
		ENGINEER'S ESTIMATE		140.00	68,600.00
62301	hour	General labor			
		SOUTHEAST ROADBUILDERS, INC	220	45.00	9,900.00
		SECON		50.00	11,000.00
		KIEWIT PACIFIC CO.		60.00	13,200.00
		WILDER CONSTRUCTION COMPANY		45.00	9,900.00
		ENGINEER'S ESTIMATE		50.00	11,000.00
62404	m2	Placing conserved topsoil, 100 millimeter depth			
		SOUTHEAST ROADBUILDERS, INC	2000	1.50	3,000.00
		SECON		1.00	2,000.00
		KIEWIT PACIFIC CO.		1.50	3,000.00
		WILDER CONSTRUCTION COMPANY		2.50	5,000.00
		ENGINEER'S ESTIMATE		1.50	3,000.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
62503	sly unit	Seeding, hydraulic method			
		SOUTHEAST ROADBUILDERS, INC	320	250.00	80,000.00
		SECON		200.00	64,000.00
		KIEWIT PACIFIC CO.		150.00	48,000.00
		WILDER CONSTRUCTION COMPANY		350.00	112,000.00
		ENGINEER'S ESTIMATE		350.00	112,000.00
62506	sly unit	Mulching, hydraulic method			
		SOUTHEAST ROADBUILDERS, INC	320	160.00	51,200.00
		SECON		200.00	64,000.00
		KIEWIT PACIFIC CO.		150.00	48,000.00
		WILDER CONSTRUCTION COMPANY		375.00	120,000.00
		ENGINEER'S ESTIMATE		400.00	128,000.00
63302	m2	Sign installation			
		SOUTHEAST ROADBUILDERS, INC	75	719.00	53,925.00
		SECON		400.00	30,000.00
		KIEWIT PACIFIC CO.		900.00	67,500.00
		WILDER CONSTRUCTION COMPANY		900.00	67,500.00
		ENGINEER'S ESTIMATE		450.00	33,750.00
63401 A	m	Pavement markings, type M, solid white			
		SOUTHEAST ROADBUILDERS, INC	102000	3.20	326,400.00
		SECON		3.00	306,000.00
		KIEWIT PACIFIC CO.		2.40	244,800.00
		WILDER CONSTRUCTION COMPANY		3.00	306,000.00
		ENGINEER'S ESTIMATE		0.50	51,000.00
63401 B	m	Pavement markings, type M, solid yellow			
		SOUTHEAST ROADBUILDERS, INC	91000	3.20	291,200.00
		SECON		3.00	273,000.00
		KIEWIT PACIFIC CO.		2.40	218,400.00
		WILDER CONSTRUCTION COMPANY		3.00	273,000.00
		ENGINEER'S ESTIMATE		0.60	54,600.00
63401 C	m	Pavement markings, type M, broken yellow			
		SOUTHEAST ROADBUILDERS, INC	8350	3.20	26,720.00
		SECON		3.00	25,050.00
		KIEWIT PACIFIC CO.		2.40	20,040.00
		WILDER CONSTRUCTION COMPANY		4.00	33,400.00
		ENGINEER'S ESTIMATE		0.60	5,010.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63410	Each	Recessed pavement markers			
		SOUTHEAST ROADBUILDERS, INC	4300	21.38	91,934.00
		SECON		25.00	107,500.00
		KIEWIT PACIFIC CO.		40.00	172,000.00
		WILDER CONSTRUCTION COMPANY		20.00	86,000.00
		ENGINEER'S ESTIMATE		20.00	86,000.00
63506	each	Cone type 700 millimeter			
		SOUTHEAST ROADBUILDERS, INC	500	20.00	10,000.00
		SECON		50.00	25,000.00
		KIEWIT PACIFIC CO.		2.00	1,000.00
		WILDER CONSTRUCTION COMPANY		15.00	7,500.00
		ENGINEER'S ESTIMATE		25.00	12,500.00
63507	m2	Construction sign			
		SOUTHEAST ROADBUILDERS, INC	190	27.50	5,225.00
		SECON		150.00	28,500.00
		KIEWIT PACIFIC CO.		40.00	7,600.00
		WILDER CONSTRUCTION COMPANY		250.00	47,500.00
		ENGINEER'S ESTIMATE		140.00	26,600.00
63508	each	Drum type 1 meter			
		SOUTHEAST ROADBUILDERS, INC	100	75.00	7,500.00
		SECON		100.00	10,000.00
		KIEWIT PACIFIC CO.		40.00	4,000.00
		WILDER CONSTRUCTION COMPANY		80.00	8,000.00
		ENGINEER'S ESTIMATE		75.00	7,500.00
63509	fix hr rate	Flagger			
		SOUTHEAST ROADBUILDERS, INC	12,000	41.00	492,000.00
		SECON		41.00	492,000.00
		KIEWIT PACIFIC CO.		41.00	492,000.00
		WILDER CONSTRUCTION COMPANY		41.00	492,000.00
		ENGINEER'S ESTIMATE		41.00	492,000.00
63510	hour	Pilot car			
		SOUTHEAST ROADBUILDERS, INC	1120	50.00	56,000.00
		SECON		50.00	56,000.00
		KIEWIT PACIFIC CO.		55.00	61,600.00
		WILDER CONSTRUCTION COMPANY		45.00	50,400.00
		ENGINEER'S ESTIMATE		55.00	61,600.00

TABULATION OF BIDS

Date: 04/03/02

Bid Schedule A

Project No.: AK PFH 42-1(5), 43-1(6)

Project Name: CONTROL LAKE - THORNE BAY ROAD AND NORTH PRINCE OF WALES ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63521 A	each	Warning light type A			
		SOUTHEAST ROADBUILDERS, INC	84	30.00	2,520.00
		SECON		50.00	4,200.00
		KIEWIT PACIFIC CO.		45.00	3,780.00
		WILDER CONSTRUCTION COMPANY		35.00	2,940.00
		ENGINEER'S ESTIMATE		40.00	3,360.00
63521 B	each	Warning light type C			
		SOUTHEAST ROADBUILDERS, INC	16	30.00	480.00
		SECON		50.00	800.00
		KIEWIT PACIFIC CO.		60.00	960.00
		WILDER CONSTRUCTION COMPANY		65.00	1,040.00
		ENGINEER'S ESTIMATE		50.00	800.00
63560	day	Traffic and safety supervisor			
		SOUTHEAST ROADBUILDERS, INC	220	560.00	123,200.00
		SECON		600.00	132,000.00
		KIEWIT PACIFIC CO.		150.00	33,000.00
		WILDER CONSTRUCTION COMPANY		415.00	91,300.00
		ENGINEER'S ESTIMATE		320.00	70,400.00
63701	Each	Field office			
		SOUTHEAST ROADBUILDERS, INC	1	17,500.00	17,500.00
		SECON		15,000.00	15,000.00
		KIEWIT PACIFIC CO.		7,000.00	7,000.00
		WILDER CONSTRUCTION COMPANY		15,000.00	15,000.00
		ENGINEER'S ESTIMATE		20,000.00	20,000.00
63704	Each	Vehicles			
		SOUTHEAST ROADBUILDERS, INC	5	14,500.00	72,500.00
		SECON		8,000.00	40,000.00
		KIEWIT PACIFIC CO.		45,000.00	225,000.00
		WILDER CONSTRUCTION COMPANY		20,000.00	100,000.00
		ENGINEER'S ESTIMATE		25,000.00	125,000.00

This Page Intentionally Left Blank

TABULATION OF BIDS

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

State: AK
 County:
 TONGASS NATIONAL FOREST

Opened at: VANCOUVER WA
 By: WILLIAM L. PARSONS
 Date: 09/23/99

I certify that this Bid Tabulation accurately reflects the bids received and publicly opened for this solicitation.

Signed: _____

Title: _____ Date: _____

Contract Awarded To: South Coast, Incorporated Date: October 6, 1999

Contractor	Bid Amount	Responsive
SOUTH COAST INC PO BOX 8620 KETCHIKAN, AK 99901	7,609,240.00	
QUALITY ASPHALT PAVING INC 240 W 68TH AVE ANCHORAGE, AK 99518	10,052,275.00	
SOUTHEAST ROAD BUILDERS INC PO BOX 1129 HAINES, AK 99827	10,238,492.60	
WILDER CONSTRUCTION CO 11301 LANG STREET ANCHORAGE, AK 99515-3006	10,604,941.00	
GOODFELLOW BROS INC PO BOX 598 WENATCHEE, WA 98807	10,730,440.00	
KIEWITT PACIFIC CO PO BOX 1769 VANCOUVER, WA 98668	10,815,742.00	
Engineer's Estimate	9,445,109.50	

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15101	LPSM	Mobilization			
		SOUTH COAST INC	ALL	700,000.00	700,000.00
		QUALITY ASPHALT PAVING INC		1,000,000.00	1,000,000.00
		SOUTHEAST ROAD BUILDERS INC		1,100,000.00	1,100,000.00
		WILDER CONSTRUCTION CO		1,000,000.00	1,000,000.00
		GOODFELLOW BROS INC		1,000,000.00	1,000,000.00
		KIEWITT PACIFIC CO		1,100,000.00	1,100,000.00
		ENGINEER'S ESTIMATE		780,000.00	780,000.00
15201	LPSM	Construction survey and staking			
		SOUTH COAST INC	ALL	300,000.00	300,000.00
		QUALITY ASPHALT PAVING INC		90,000.00	90,000.00
		SOUTHEAST ROAD BUILDERS INC		220,000.00	220,000.00
		WILDER CONSTRUCTION CO		150,000.00	150,000.00
		GOODFELLOW BROS INC		250,000.00	250,000.00
		KIEWITT PACIFIC CO		175,000.00	175,000.00
		ENGINEER'S ESTIMATE		133,300.00	133,300.00
15401	LPSM	Contractor testing			
		SOUTH COAST INC	ALL	50,000.00	50,000.00
		QUALITY ASPHALT PAVING INC		110,000.00	110,000.00
		SOUTHEAST ROAD BUILDERS INC		50,000.00	50,000.00
		WILDER CONSTRUCTION CO		125,000.00	125,000.00
		GOODFELLOW BROS INC		120,000.00	120,000.00
		KIEWITT PACIFIC CO		200,000.00	200,000.00
		ENGINEER'S ESTIMATE		82,000.00	82,000.00
15501	LPSM	Construction schedule			
		SOUTH COAST INC	ALL	120,000.00	120,000.00
		QUALITY ASPHALT PAVING INC		5,000.00	5,000.00
		SOUTHEAST ROAD BUILDERS INC		100,000.00	100,000.00
		WILDER CONSTRUCTION CO		4,500.00	4,500.00
		GOODFELLOW BROS INC		5,000.00	5,000.00
		KIEWITT PACIFIC CO		5,000.00	5,000.00
		ENGINEER'S ESTIMATE		20,000.00	20,000.00
15702	ha	Temporary turf establishment			
		SOUTH COAST INC	3.0	7,500.00	22,500.00
		QUALITY ASPHALT PAVING INC		2,000.00	6,000.00
		SOUTHEAST ROAD BUILDERS INC		7,000.00	21,000.00
		WILDER CONSTRUCTION CO		9,500.00	28,500.00
		GOODFELLOW BROS INC		10,000.00	30,000.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
		KIEWITT PACIFIC CO		3,000.00	9,000.00
		ENGINEER'S ESTIMATE		2,400.00	7,200.00
15703	m	Silt fence			
		SOUTH COAST INC	4,900	6.00	29,400.00
		QUALITY ASPHALT PAVING INC		20.00	98,000.00
		SOUTHEAST ROAD BUILDERS INC		8.00	39,200.00
		WILDER CONSTRUCTION CO		12.75	62,475.00
		GOODFELLOW BROS INC		11.00	53,900.00
		KIEWITT PACIFIC CO		9.00	44,100.00
		ENGINEER'S ESTIMATE		10.00	49,000.00
15705	m	Slope drains			
		SOUTH COAST INC	50	35.00	1,750.00
		QUALITY ASPHALT PAVING INC		100.00	5,000.00
		SOUTHEAST ROAD BUILDERS INC		35.00	1,750.00
		WILDER CONSTRUCTION CO		33.50	1,675.00
		GOODFELLOW BROS INC		140.00	7,000.00
		KIEWITT PACIFIC CO		35.00	1,750.00
		ENGINEER'S ESTIMATE		60.00	3,000.00
15707 A	m	Temporary 900 millimeter culvert pipe			
		SOUTH COAST INC	12	100.00	1,200.00
		QUALITY ASPHALT PAVING INC		200.00	2,400.00
		SOUTHEAST ROAD BUILDERS INC		120.00	1,440.00
		WILDER CONSTRUCTION CO		375.00	4,500.00
		GOODFELLOW BROS INC		320.00	3,840.00
		KIEWITT PACIFIC CO		150.00	1,800.00
		ENGINEER'S ESTIMATE		90.00	1,080.00
15707 B	m	Temporary 1200 millimeter culvert pipe			
		SOUTH COAST INC	0	0.00	0.00
		QUALITY ASPHALT PAVING INC		0.00	0.00
		SOUTHEAST ROAD BUILDERS INC		0.00	0.00
		WILDER CONSTRUCTION CO		0.00	0.00
		GOODFELLOW BROS INC		0.00	0.00
		KIEWITT PACIFIC CO		0.00	0.00
		ENGINEER'S ESTIMATE		100.00	0.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
15707 C	m	Temporary 1800 millimeter culvert pipe			
		SOUTH COAST INC	40	250.00	10,000.00
		QUALITY ASPHALT PAVING INC		350.00	14,000.00
		SOUTHEAST ROAD BUILDERS INC		130.00	5,200.00
		WILDER CONSTRUCTION CO		725.00	29,000.00
		GOODFELLOW BROS INC		450.00	18,000.00
		KIEWITT PACIFIC CO		390.00	15,600.00
		ENGINEER'S ESTIMATE		225.00	9,000.00
15708	each	Bales, straw			
		SOUTH COAST INC	600	50.00	30,000.00
		QUALITY ASPHALT PAVING INC		40.00	24,000.00
		SOUTHEAST ROAD BUILDERS INC		25.00	15,000.00
		WILDER CONSTRUCTION CO		30.50	18,300.00
		GOODFELLOW BROS INC		14.00	8,400.00
		KIEWITT PACIFIC CO		26.00	15,600.00
		ENGINEER'S ESTIMATE		30.00	18,000.00
15709	each	Check dams			
		SOUTH COAST INC	60	100.00	6,000.00
		QUALITY ASPHALT PAVING INC		100.00	6,000.00
		SOUTHEAST ROAD BUILDERS INC		120.00	7,200.00
		WILDER CONSTRUCTION CO		95.00	5,700.00
		GOODFELLOW BROS INC		36.00	2,160.00
		KIEWITT PACIFIC CO		170.00	10,200.00
		ENGINEER'S ESTIMATE		100.00	6,000.00
15718 A	m	Diversion channel , Plastic lined			
		SOUTH COAST INC	300	30.00	9,000.00
		QUALITY ASPHALT PAVING INC		25.00	7,500.00
		SOUTHEAST ROAD BUILDERS INC		35.00	10,500.00
		WILDER CONSTRUCTION CO		62.00	18,600.00
		GOODFELLOW BROS INC		60.00	18,000.00
		KIEWITT PACIFIC CO		22.00	6,600.00
		ENGINEER'S ESTIMATE		40.00	12,000.00
15718 B	m	Diversion channel , Riprap lined			
		SOUTH COAST INC	20	50.00	1,000.00
		QUALITY ASPHALT PAVING INC		90.00	1,800.00
		SOUTHEAST ROAD BUILDERS INC		100.00	2,000.00
		WILDER CONSTRUCTION CO		131.00	2,620.00
		GOODFELLOW BROS INC		290.00	5,800.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
		KIEWITT PACIFIC CO		65.00	1,300.00
		ENGINEER'S ESTIMATE		100.00	2,000.00
15801	m3	Watering for dust control			
		SOUTH COAST INC	7,000	5.00	35,000.00
		QUALITY ASPHALT PAVING INC		7.00	49,000.00
		SOUTHEAST ROAD BUILDERS INC		3.70	25,900.00
		WILDER CONSTRUCTION CO		4.30	30,100.00
		GOODFELLOW BROS INC		4.00	28,000.00
		KIEWITT PACIFIC CO		4.00	28,000.00
		ENGINEER'S ESTIMATE		10.00	70,000.00
20101	ha	Clearing and grubbing			
		SOUTH COAST INC	32.000	5,000.00	160,000.00
		QUALITY ASPHALT PAVING INC		7,000.00	224,000.00
		SOUTHEAST ROAD BUILDERS INC		6,500.00	208,000.00
		WILDER CONSTRUCTION CO		5,800.00	185,600.00
		GOODFELLOW BROS INC		7,500.00	240,000.00
		KIEWITT PACIFIC CO		6,000.00	192,000.00
		ENGINEER'S ESTIMATE		7,000.00	224,000.00
20301	each	Removal and stockpiling of sign			
		SOUTH COAST INC	19	40.00	760.00
		QUALITY ASPHALT PAVING INC		80.00	1,520.00
		SOUTHEAST ROAD BUILDERS INC		40.00	760.00
		WILDER CONSTRUCTION CO		76.00	1,444.00
		GOODFELLOW BROS INC		90.00	1,710.00
		KIEWITT PACIFIC CO		45.00	855.00
		ENGINEER'S ESTIMATE		60.00	1,140.00
20302	m	Removal and stockpiling of guardrail			
		SOUTH COAST INC	579	15.00	8,685.00
		QUALITY ASPHALT PAVING INC		15.00	8,685.00
		SOUTHEAST ROAD BUILDERS INC		10.00	5,790.00
		WILDER CONSTRUCTION CO		16.50	9,553.50
		GOODFELLOW BROS INC		20.00	11,580.00
		KIEWITT PACIFIC CO		15.00	8,685.00
		ENGINEER'S ESTIMATE		15.50	8,974.50

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
20401 A	m3	Roadway excavation			
		SOUTH COAST INC	310,000	3.50	1,085,000.00
		QUALITY ASPHALT PAVING INC		5.50	1,705,000.00
		SOUTHEAST ROAD BUILDERS INC		8.75	2,712,500.00
		WILDER CONSTRUCTION CO		6.00	1,860,000.00
		GOODFELLOW BROS INC		6.30	1,953,000.00
		KIEWITT PACIFIC CO		7.15	2,216,500.00
		ENGINEER'S ESTIMATE		5.00	1,550,000.00
20401 B	m3	Roadway excavation , Sta. 4+500 to 4+950			
		SOUTH COAST INC	171,000	5.50	940,500.00
		QUALITY ASPHALT PAVING INC		8.00	1,368,000.00
		SOUTHEAST ROAD BUILDERS INC		3.75	641,250.00
		WILDER CONSTRUCTION CO		8.70	1,487,700.00
		GOODFELLOW BROS INC		11.00	1,881,000.00
		KIEWITT PACIFIC CO		7.25	1,239,750.00
		ENGINEER'S ESTIMATE		8.00	1,368,000.00
20402	m3	Subexcavation			
		SOUTH COAST INC	97,000	2.75	266,750.00
		QUALITY ASPHALT PAVING INC		3.00	291,000.00
		SOUTHEAST ROAD BUILDERS INC		3.00	291,000.00
		WILDER CONSTRUCTION CO		5.00	485,000.00
		GOODFELLOW BROS INC		4.50	436,500.00
		KIEWITT PACIFIC CO		7.25	703,250.00
		ENGINEER'S ESTIMATE		4.00	388,000.00
20415	m3	Rock borrow			
		SOUTH COAST INC	52,000	1.00	52,000.00
		QUALITY ASPHALT PAVING INC		8.00	416,000.00
		SOUTHEAST ROAD BUILDERS INC		6.60	343,200.00
		WILDER CONSTRUCTION CO		9.90	514,800.00
		GOODFELLOW BROS INC		9.00	468,000.00
		KIEWITT PACIFIC CO		9.00	468,000.00
		ENGINEER'S ESTIMATE		8.00	416,000.00
20501	m	Controlled blast hole			
		SOUTH COAST INC	20,500	10.00	205,000.00
		QUALITY ASPHALT PAVING INC		7.00	143,500.00
		SOUTHEAST ROAD BUILDERS INC		8.60	176,300.00
		WILDER CONSTRUCTION CO		10.00	205,000.00
		GOODFELLOW BROS INC		10.00	205,000.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
		KIEWITT PACIFIC CO		10.50	215,250.00
		ENGINEER'S ESTIMATE		8.00	164,000.00
20701	m2	Earthwork geotextile type I-D			
		SOUTH COAST INC	150	3.00	450.00
		QUALITY ASPHALT PAVING INC		20.00	3,000.00
		SOUTHEAST ROAD BUILDERS INC		12.50	1,875.00
		WILDER CONSTRUCTION CO		1.70	255.00
		GOODFELLOW BROS INC		3.00	450.00
		KIEWITT PACIFIC CO		2.00	300.00
		ENGINEER'S ESTIMATE		4.00	600.00
21102	LPSM	Roadway obliteration			
		SOUTH COAST INC	ALL	100,000.00	100,000.00
		QUALITY ASPHALT PAVING INC		600,000.00	600,000.00
		SOUTHEAST ROAD BUILDERS INC		30,000.00	30,000.00
		WILDER CONSTRUCTION CO		8,900.00	8,900.00
		GOODFELLOW BROS INC		85,000.00	85,000.00
		KIEWITT PACIFIC CO		28,000.00	28,000.00
		ENGINEER'S ESTIMATE		152,500.00	152,500.00
25101 A	m3	Placed riprap, class 2			
		SOUTH COAST INC	80	40.00	3,200.00
		QUALITY ASPHALT PAVING INC		30.00	2,400.00
		SOUTHEAST ROAD BUILDERS INC		30.00	2,400.00
		WILDER CONSTRUCTION CO		10.00	800.00
		GOODFELLOW BROS INC		25.00	2,000.00
		KIEWITT PACIFIC CO		12.00	960.00
		ENGINEER'S ESTIMATE		40.00	3,200.00
25101 B	m3	Placed riprap, class 4			
		SOUTH COAST INC	0	0.00	0.00
		QUALITY ASPHALT PAVING INC		0.00	0.00
		SOUTHEAST ROAD BUILDERS INC		0.00	0.00
		WILDER CONSTRUCTION CO		0.00	0.00
		GOODFELLOW BROS INC		0.00	0.00
		KIEWITT PACIFIC CO		0.00	0.00
		ENGINEER'S ESTIMATE		40.00	0.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
25107	m	Riprap lined ditch			
		SOUTH COAST INC	260	30.00	7,800.00
		QUALITY ASPHALT PAVING INC		22.00	5,720.00
		SOUTHEAST ROAD BUILDERS INC		15.00	3,900.00
		WILDER CONSTRUCTION CO		5.75	1,495.00
		GOODFELLOW BROS INC		22.00	5,720.00
		KIEWITT PACIFIC CO		15.00	3,900.00
		ENGINEER'S ESTIMATE		23.00	5,980.00
25110	each	Culvert outlet control system			
		SOUTH COAST INC	8	3,000.00	24,000.00
		QUALITY ASPHALT PAVING INC		1,200.00	9,600.00
		SOUTHEAST ROAD BUILDERS INC		800.00	6,400.00
		WILDER CONSTRUCTION CO		850.00	6,800.00
		GOODFELLOW BROS INC		6,000.00	48,000.00
		KIEWITT PACIFIC CO		1,400.00	11,200.00
		ENGINEER'S ESTIMATE		3,000.00	24,000.00
25112	each	Riprap headwall			
		SOUTH COAST INC	7	1,000.00	7,000.00
		QUALITY ASPHALT PAVING INC		600.00	4,200.00
		SOUTHEAST ROAD BUILDERS INC		750.00	5,250.00
		WILDER CONSTRUCTION CO		360.00	2,520.00
		GOODFELLOW BROS INC		600.00	4,200.00
		KIEWITT PACIFIC CO		400.00	2,800.00
		ENGINEER'S ESTIMATE		1,500.00	10,500.00
25116 A	m	Energy dissipator, type 1 , 600 mm culvert			
		SOUTH COAST INC	75	200.00	15,000.00
		QUALITY ASPHALT PAVING INC		100.00	7,500.00
		SOUTHEAST ROAD BUILDERS INC		45.00	3,375.00
		WILDER CONSTRUCTION CO		56.00	4,200.00
		GOODFELLOW BROS INC		100.00	7,500.00
		KIEWITT PACIFIC CO		35.00	2,625.00
		ENGINEER'S ESTIMATE		50.00	3,750.00
25116 B	m	Energy dissipator, type 1 , 900 mm culvert			
		SOUTH COAST INC	36	200.00	7,200.00
		QUALITY ASPHALT PAVING INC		120.00	4,320.00
		SOUTHEAST ROAD BUILDERS INC		65.00	2,340.00
		WILDER CONSTRUCTION CO		69.00	2,484.00
		GOODFELLOW BROS INC		125.00	4,500.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
		KIEWITT PACIFIC CO		50.00	1,800.00
		ENGINEER'S ESTIMATE		100.00	3,600.00
25504	m2	Gabion-faced retaining wall			
		SOUTH COAST INC	988	110.00	108,680.00
		QUALITY ASPHALT PAVING INC		200.00	197,600.00
		SOUTHEAST ROAD BUILDERS INC		150.00	148,200.00
		WILDER CONSTRUCTION CO		215.00	212,420.00
		GOODFELLOW BROS INC		350.00	345,800.00
		KIEWITT PACIFIC CO		360.00	355,680.00
		ENGINEER'S ESTIMATE		300.00	296,400.00
30104	t	Subbase grading B			
		SOUTH COAST INC	52,926	7.50	396,945.00
		QUALITY ASPHALT PAVING INC		10.00	529,260.00
		SOUTHEAST ROAD BUILDERS INC		10.00	529,260.00
		WILDER CONSTRUCTION CO		11.25	595,417.50
		GOODFELLOW BROS INC		10.00	529,260.00
		KIEWITT PACIFIC CO		11.00	582,186.00
		ENGINEER'S ESTIMATE		10.00	529,260.00
30901	t	Emulsified asphalt treated aggregate base grading D			
		SOUTH COAST INC	29,400.0	13.00	382,200.00
		QUALITY ASPHALT PAVING INC		15.00	441,000.00
		SOUTHEAST ROAD BUILDERS INC		14.50	426,300.00
		WILDER CONSTRUCTION CO		14.00	411,600.00
		GOODFELLOW BROS INC		11.00	323,400.00
		KIEWITT PACIFIC CO		15.00	441,000.00
		ENGINEER'S ESTIMATE		12.00	352,800.00
30904	t	Emulsified asphalt grade CSS-1			
		SOUTH COAST INC	295.0	250.00	73,750.00
		QUALITY ASPHALT PAVING INC		250.00	73,750.00
		SOUTHEAST ROAD BUILDERS INC		370.00	109,150.00
		WILDER CONSTRUCTION CO		388.00	114,460.00
		GOODFELLOW BROS INC		350.00	103,250.00
		KIEWITT PACIFIC CO		330.00	97,350.00
		ENGINEER'S ESTIMATE		225.00	66,375.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
40101	t	Hot asphalt concrete pavement class B, grading C, type I pavement smoothness			
		SOUTH COAST INC	21,500	27.00	580,500.00
		QUALITY ASPHALT PAVING INC		30.00	645,000.00
		SOUTHEAST ROAD BUILDERS INC		42.00	903,000.00
		WILDER CONSTRUCTION CO		26.65	572,975.00
		GOODFELLOW BROS INC		17.00	365,500.00
		KIEWITT PACIFIC CO		27.00	580,500.00
		ENGINEER'S ESTIMATE		40.00	860,000.00
40103	t	Asphalt cement grade SHRP PG 58-28			
		SOUTH COAST INC	1,290.0	300.00	387,000.00
		QUALITY ASPHALT PAVING INC		300.00	387,000.00
		SOUTHEAST ROAD BUILDERS INC		420.00	541,800.00
		WILDER CONSTRUCTION CO		450.00	580,500.00
		GOODFELLOW BROS INC		410.00	528,900.00
		KIEWITT PACIFIC CO		380.00	490,200.00
		ENGINEER'S ESTIMATE		300.00	387,000.00
40201	t	Minor hot asphalt concrete			
		SOUTH COAST INC	285.0	20.00	5,700.00
		QUALITY ASPHALT PAVING INC		100.00	28,500.00
		SOUTHEAST ROAD BUILDERS INC		110.00	31,350.00
		WILDER CONSTRUCTION CO		30.00	8,550.00
		GOODFELLOW BROS INC		80.00	22,800.00
		KIEWITT PACIFIC CO		60.00	17,100.00
		ENGINEER'S ESTIMATE		75.00	21,375.00
41201	t	Tack coat grade CSS-1			
		SOUTH COAST INC	32	400.00	12,800.00
		QUALITY ASPHALT PAVING INC		250.00	8,000.00
		SOUTHEAST ROAD BUILDERS INC		600.00	19,200.00
		WILDER CONSTRUCTION CO		388.00	12,416.00
		GOODFELLOW BROS INC		500.00	16,000.00
		KIEWITT PACIFIC CO		330.00	10,560.00
		ENGINEER'S ESTIMATE		360.00	11,520.00
55905	m2	Membrane waterproofing class C			
		SOUTH COAST INC	720.0	5.00	3,600.00
		QUALITY ASPHALT PAVING INC		30.00	21,600.00
		SOUTHEAST ROAD BUILDERS INC		20.00	14,400.00
		WILDER CONSTRUCTION CO		25.50	18,360.00
		GOODFELLOW BROS INC		10.00	7,200.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
		KIEWITT PACIFIC CO		15.00	10,800.00
		ENGINEER'S ESTIMATE		20.00	14,400.00
60104 A	each	Concrete, headwall for 3000 millimeter pipe culvert			
		SOUTH COAST INC	0	0.00	0.00
		QUALITY ASPHALT PAVING INC		0.00	0.00
		SOUTHEAST ROAD BUILDERS INC		0.00	0.00
		WILDER CONSTRUCTION CO		0.00	0.00
		GOODFELLOW BROS INC		0.00	0.00
		KIEWITT PACIFIC CO		0.00	0.00
		ENGINEER'S ESTIMATE		14,000.00	0.00
60104 B	each	Concrete, headwall for 4600 millimeter structural plate pipe culvert			
		SOUTH COAST INC	1	10,000.00	10,000.00
		QUALITY ASPHALT PAVING INC		20,000.00	20,000.00
		SOUTHEAST ROAD BUILDERS INC		17,500.00	17,500.00
		WILDER CONSTRUCTION CO		14,000.00	14,000.00
		GOODFELLOW BROS INC		5,100.00	5,100.00
		KIEWITT PACIFIC CO		12,000.00	12,000.00
		ENGINEER'S ESTIMATE		25,000.00	25,000.00
60201 A	m	600 millimeter pipe culvert			
		SOUTH COAST INC	1,010	130.00	131,300.00
		QUALITY ASPHALT PAVING INC		100.00	101,000.00
		SOUTHEAST ROAD BUILDERS INC		100.00	101,000.00
		WILDER CONSTRUCTION CO		160.00	161,600.00
		GOODFELLOW BROS INC		120.00	121,200.00
		KIEWITT PACIFIC CO		110.00	111,100.00
		ENGINEER'S ESTIMATE		100.00	101,000.00
60201 B	m	900 millimeter pipe culvert			
		SOUTH COAST INC	240	165.00	39,600.00
		QUALITY ASPHALT PAVING INC		150.00	36,000.00
		SOUTHEAST ROAD BUILDERS INC		110.00	26,400.00
		WILDER CONSTRUCTION CO		300.00	72,000.00
		GOODFELLOW BROS INC		155.00	37,200.00
		KIEWITT PACIFIC CO		160.00	38,400.00
		ENGINEER'S ESTIMATE		180.00	43,200.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
60201 C	m	1200 millimeter pipe culvert			
		SOUTH COAST INC	70	250.00	17,500.00
		QUALITY ASPHALT PAVING INC		200.00	14,000.00
		SOUTHEAST ROAD BUILDERS INC		400.00	28,000.00
		WILDER CONSTRUCTION CO		620.00	43,400.00
		GOODFELLOW BROS INC		260.00	18,200.00
		KIEWITT PACIFIC CO		300.00	21,000.00
		ENGINEER'S ESTIMATE		240.00	16,800.00
60201 D	m	1500 millimeter pipe culvert			
		SOUTH COAST INC	0	0.00	0.00
		QUALITY ASPHALT PAVING INC		0.00	0.00
		SOUTHEAST ROAD BUILDERS INC		0.00	0.00
		WILDER CONSTRUCTION CO		0.00	0.00
		GOODFELLOW BROS INC		0.00	0.00
		KIEWITT PACIFIC CO		0.00	0.00
		ENGINEER'S ESTIMATE		280.00	0.00
60201 E	m	1800 millimeter pipe culvert			
		SOUTH COAST INC	0	0.00	0.00
		QUALITY ASPHALT PAVING INC		0.00	0.00
		SOUTHEAST ROAD BUILDERS INC		0.00	0.00
		WILDER CONSTRUCTION CO		0.00	0.00
		GOODFELLOW BROS INC		0.00	0.00
		KIEWITT PACIFIC CO		0.00	0.00
		ENGINEER'S ESTIMATE		460.00	0.00
60201 F	m	2100 millimeter pipe culvert			
		SOUTH COAST INC	116	600.00	69,600.00
		QUALITY ASPHALT PAVING INC		400.00	46,400.00
		SOUTHEAST ROAD BUILDERS INC		800.00	92,800.00
		WILDER CONSTRUCTION CO		1,065.00	123,540.00
		GOODFELLOW BROS INC		720.00	83,520.00
		KIEWITT PACIFIC CO		710.00	82,360.00
		ENGINEER'S ESTIMATE		550.00	63,800.00
60201 G	m	3000 millimeter pipe culvert			
		SOUTH COAST INC	0	0.00	0.00
		QUALITY ASPHALT PAVING INC		0.00	0.00
		SOUTHEAST ROAD BUILDERS INC		0.00	0.00
		WILDER CONSTRUCTION CO		0.00	0.00
		GOODFELLOW BROS INC		0.00	0.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
		KIEWITT PACIFIC CO		0.00	0.00
		ENGINEER'S ESTIMATE		0.00	0.00
60201 H	m	3600 millimeter pipe culvert			
		SOUTH COAST INC	39	2,500.00	97,500.00
		QUALITY ASPHALT PAVING INC		3,000.00	117,000.00
		SOUTHEAST ROAD BUILDERS INC		2,400.00	93,600.00
		WILDER CONSTRUCTION CO		3,450.00	134,550.00
		GOODFELLOW BROS INC		2,600.00	101,400.00
		KIEWITT PACIFIC CO		2,400.00	93,600.00
		ENGINEER'S ESTIMATE		900.00	35,100.00
60206 A	each	End section for 600 millimeter pipe culvert			
		SOUTH COAST INC	41	150.00	6,150.00
		QUALITY ASPHALT PAVING INC		200.00	8,200.00
		SOUTHEAST ROAD BUILDERS INC		200.00	8,200.00
		WILDER CONSTRUCTION CO		330.00	13,530.00
		GOODFELLOW BROS INC		175.00	7,175.00
		KIEWITT PACIFIC CO		100.00	4,100.00
		ENGINEER'S ESTIMATE		170.00	6,970.00
60206 B	each	End section for 900 millimeter pipe culvert			
		SOUTH COAST INC	6	200.00	1,200.00
		QUALITY ASPHALT PAVING INC		400.00	2,400.00
		SOUTHEAST ROAD BUILDERS INC		500.00	3,000.00
		WILDER CONSTRUCTION CO		450.00	2,700.00
		GOODFELLOW BROS INC		350.00	2,100.00
		KIEWITT PACIFIC CO		220.00	1,320.00
		ENGINEER'S ESTIMATE		350.00	2,100.00
60301	m	4600 millimeter structural plate pipe , 4.32 millimeter			
		SOUTH COAST INC	25	3,000.00	75,000.00
		QUALITY ASPHALT PAVING INC		4,000.00	100,000.00
		SOUTHEAST ROAD BUILDERS INC		3,000.00	75,000.00
		WILDER CONSTRUCTION CO		4,400.00	110,000.00
		GOODFELLOW BROS INC		2,700.00	67,500.00
		KIEWITT PACIFIC CO		2,500.00	62,500.00
		ENGINEER'S ESTIMATE		1,800.00	45,000.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
60501	m	Underdrain system , slope cut-off			
		SOUTH COAST INC	150	100.00	15,000.00
		QUALITY ASPHALT PAVING INC		100.00	15,000.00
		SOUTHEAST ROAD BUILDERS INC		60.00	9,000.00
		WILDER CONSTRUCTION CO		81.00	12,150.00
		GOODFELLOW BROS INC		90.00	13,500.00
		KIEWITT PACIFIC CO		10.00	1,500.00
		ENGINEER'S ESTIMATE		100.00	15,000.00
60506	m	200 millimeter collector pipe			
		SOUTH COAST INC	44	100.00	4,400.00
		QUALITY ASPHALT PAVING INC		100.00	4,400.00
		SOUTHEAST ROAD BUILDERS INC		100.00	4,400.00
		WILDER CONSTRUCTION CO		50.00	2,200.00
		GOODFELLOW BROS INC		60.00	2,640.00
		KIEWITT PACIFIC CO		9.00	396.00
		ENGINEER'S ESTIMATE		25.00	1,100.00
61701 A	m	Guardrail system G4, type I, class A (wood posts)			
		SOUTH COAST INC	1,715	80.00	137,200.00
		QUALITY ASPHALT PAVING INC		70.00	120,050.00
		SOUTHEAST ROAD BUILDERS INC		75.00	128,625.00
		WILDER CONSTRUCTION CO		80.00	137,200.00
		GOODFELLOW BROS INC		60.00	102,900.00
		KIEWITT PACIFIC CO		65.00	111,475.00
		ENGINEER'S ESTIMATE		80.00	137,200.00
61701 B	m	Guardrail system CRT, type I, class A			
		SOUTH COAST INC	17	200.00	3,400.00
		QUALITY ASPHALT PAVING INC		100.00	1,700.00
		SOUTHEAST ROAD BUILDERS INC		180.00	3,060.00
		WILDER CONSTRUCTION CO		183.00	3,111.00
		GOODFELLOW BROS INC		210.00	3,570.00
		KIEWITT PACIFIC CO		206.00	3,502.00
		ENGINEER'S ESTIMATE		85.00	1,445.00
61702 A	each	Terminal section type CRT			
		SOUTH COAST INC	1	2,000.00	2,000.00
		QUALITY ASPHALT PAVING INC		2,000.00	2,000.00
		SOUTHEAST ROAD BUILDERS INC		1,500.00	1,500.00
		WILDER CONSTRUCTION CO		1,220.00	1,220.00
		GOODFELLOW BROS INC		3,200.00	3,200.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
		KIEWITT PACIFIC CO		4,000.00	4,000.00
		ENGINEER'S ESTIMATE		1,200.00	1,200.00
61702 B	Each	Terminal section type SRT 350			
		SOUTH COAST INC	12	1,600.00	19,200.00
		QUALITY ASPHALT PAVING INC		2,000.00	24,000.00
		SOUTHEAST ROAD BUILDERS INC		2,000.00	24,000.00
		WILDER CONSTRUCTION CO		2,150.00	25,800.00
		GOODFELLOW BROS INC		2,400.00	28,800.00
		KIEWITT PACIFIC CO		2,500.00	30,000.00
		ENGINEER'S ESTIMATE		2,200.00	26,400.00
61703	m	Removing and resetting guardrail			
		SOUTH COAST INC	68	50.00	3,400.00
		QUALITY ASPHALT PAVING INC		20.00	1,360.00
		SOUTHEAST ROAD BUILDERS INC		60.00	4,080.00
		WILDER CONSTRUCTION CO		66.00	4,488.00
		GOODFELLOW BROS INC		35.00	2,380.00
		KIEWITT PACIFIC CO		30.00	2,040.00
		ENGINEER'S ESTIMATE		120.00	8,160.00
62101	each	Monument , centerline			
		SOUTH COAST INC	12	500.00	6,000.00
		QUALITY ASPHALT PAVING INC		200.00	2,400.00
		SOUTHEAST ROAD BUILDERS INC		350.00	4,200.00
		WILDER CONSTRUCTION CO		375.00	4,500.00
		GOODFELLOW BROS INC		300.00	3,600.00
		KIEWITT PACIFIC CO		300.00	3,600.00
		ENGINEER'S ESTIMATE		300.00	3,600.00
62503	slry unit	Seeding, hydraulic method			
		SOUTH COAST INC	180.00	125.00	22,500.00
		QUALITY ASPHALT PAVING INC		400.00	72,000.00
		SOUTHEAST ROAD BUILDERS INC		325.00	58,500.00
		WILDER CONSTRUCTION CO		400.00	72,000.00
		GOODFELLOW BROS INC		360.00	64,800.00
		KIEWITT PACIFIC CO		350.00	63,000.00
		ENGINEER'S ESTIMATE		300.00	54,000.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
62506	sly unit	Mulching, hydraulic method			
		SOUTH COAST INC	180.00	300.00	54,000.00
		QUALITY ASPHALT PAVING INC		400.00	72,000.00
		SOUTHEAST ROAD BUILDERS INC		225.00	40,500.00
		WILDER CONSTRUCTION CO		525.00	94,500.00
		GOODFELLOW BROS INC		450.00	81,000.00
		KIEWITT PACIFIC CO		425.00	76,500.00
		ENGINEER'S ESTIMATE		300.00	54,000.00
62509	ha	Turf establishment , Bonded Fiber Matrix			
		SOUTH COAST INC	0.100	10,000.00	1,000.00
		QUALITY ASPHALT PAVING INC		10,000.00	1,000.00
		SOUTHEAST ROAD BUILDERS INC		20,276.00	2,027.60
		WILDER CONSTRUCTION CO		68,000.00	6,800.00
		GOODFELLOW BROS INC		13,000.00	1,300.00
		KIEWITT PACIFIC CO		3,000.00	300.00
		ENGINEER'S ESTIMATE		3,000.00	300.00
63302	m2	Sign installation			
		SOUTH COAST INC	5.60	575.00	3,220.00
		QUALITY ASPHALT PAVING INC		600.00	3,360.00
		SOUTHEAST ROAD BUILDERS INC		550.00	3,080.00
		WILDER CONSTRUCTION CO		700.00	3,920.00
		GOODFELLOW BROS INC		300.00	1,680.00
		KIEWITT PACIFIC CO		395.00	2,212.00
		ENGINEER'S ESTIMATE		600.00	3,360.00
63401 A	m	Pavement markings type B, broken yellow			
		SOUTH COAST INC	7,900	1.00	7,900.00
		QUALITY ASPHALT PAVING INC		0.30	2,370.00
		SOUTHEAST ROAD BUILDERS INC		0.60	4,740.00
		WILDER CONSTRUCTION CO		0.50	3,950.00
		GOODFELLOW BROS INC		0.45	3,555.00
		KIEWITT PACIFIC CO		0.45	3,555.00
		ENGINEER'S ESTIMATE		0.80	6,320.00
63401 B	m	Pavement markings type B, solid yellow			
		SOUTH COAST INC	29,500	1.00	29,500.00
		QUALITY ASPHALT PAVING INC		0.30	8,850.00
		SOUTHEAST ROAD BUILDERS INC		0.60	17,700.00
		WILDER CONSTRUCTION CO		0.80	23,600.00
		GOODFELLOW BROS INC		0.45	13,275.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
		KIEWITT PACIFIC CO		0.45	13,275.00
		ENGINEER'S ESTIMATE		0.80	23,600.00
63401 C	m	Pavement markings type B, solid white			
		SOUTH COAST INC	19,100	1.00	19,100.00
		QUALITY ASPHALT PAVING INC		0.30	5,730.00
		SOUTHEAST ROAD BUILDERS INC		0.50	9,550.00
		WILDER CONSTRUCTION CO		0.80	15,280.00
		GOODFELLOW BROS INC		1.05	20,055.00
		KIEWITT PACIFIC CO		1.00	19,100.00
		ENGINEER'S ESTIMATE		0.80	15,280.00
63410	Each	Recessed pavement markers			
		SOUTH COAST INC	794	35.00	27,790.00
		QUALITY ASPHALT PAVING INC		30.00	23,820.00
		SOUTHEAST ROAD BUILDERS INC		50.00	39,700.00
		WILDER CONSTRUCTION CO		28.00	22,232.00
		GOODFELLOW BROS INC		25.00	19,850.00
		KIEWITT PACIFIC CO		24.00	19,056.00
		ENGINEER'S ESTIMATE		30.00	23,820.00
63505 A	each	Barricade type I			
		SOUTH COAST INC	40	50.00	2,000.00
		QUALITY ASPHALT PAVING INC		50.00	2,000.00
		SOUTHEAST ROAD BUILDERS INC		60.00	2,400.00
		WILDER CONSTRUCTION CO		50.00	2,000.00
		GOODFELLOW BROS INC		60.00	2,400.00
		KIEWITT PACIFIC CO		75.00	3,000.00
		ENGINEER'S ESTIMATE		60.00	2,400.00
63505 B	each	Barricade type III			
		SOUTH COAST INC	20	200.00	4,000.00
		QUALITY ASPHALT PAVING INC		100.00	2,000.00
		SOUTHEAST ROAD BUILDERS INC		150.00	3,000.00
		WILDER CONSTRUCTION CO		150.00	3,000.00
		GOODFELLOW BROS INC		200.00	4,000.00
		KIEWITT PACIFIC CO		200.00	4,000.00
		ENGINEER'S ESTIMATE		200.00	4,000.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63506	each	Cone type 700 millimeter			
		SOUTH COAST INC	100	20.00	2,000.00
		QUALITY ASPHALT PAVING INC		25.00	2,500.00
		SOUTHEAST ROAD BUILDERS INC		35.00	3,500.00
		WILDER CONSTRUCTION CO		28.00	2,800.00
		GOODFELLOW BROS INC		15.00	1,500.00
		KIEWITT PACIFIC CO		40.00	4,000.00
		ENGINEER'S ESTIMATE		35.00	3,500.00
63507	m2	Construction sign			
		SOUTH COAST INC	62	100.00	6,200.00
		QUALITY ASPHALT PAVING INC		250.00	15,500.00
		SOUTHEAST ROAD BUILDERS INC		100.00	6,200.00
		WILDER CONSTRUCTION CO		130.00	8,060.00
		GOODFELLOW BROS INC		200.00	12,400.00
		KIEWITT PACIFIC CO		225.00	13,950.00
		ENGINEER'S ESTIMATE		150.00	9,300.00
63508	each	Drum type 1 meter			
		SOUTH COAST INC	20	200.00	4,000.00
		QUALITY ASPHALT PAVING INC		50.00	1,000.00
		SOUTHEAST ROAD BUILDERS INC		70.00	1,400.00
		WILDER CONSTRUCTION CO		65.00	1,300.00
		GOODFELLOW BROS INC		50.00	1,000.00
		KIEWITT PACIFIC CO		100.00	2,000.00
		ENGINEER'S ESTIMATE		60.00	1,200.00
63509	fix hr rate	Flagger			
		SOUTH COAST INC	10,240	41.00	419,840.00
		QUALITY ASPHALT PAVING INC		41.00	419,840.00
		SOUTHEAST ROAD BUILDERS INC		41.00	419,840.00
		WILDER CONSTRUCTION CO		41.00	419,840.00
		GOODFELLOW BROS INC		41.00	419,840.00
		KIEWITT PACIFIC CO		41.00	419,840.00
		ENGINEER'S ESTIMATE		41.00	419,840.00
63510	hour	Pilot car			
		SOUTH COAST INC	1,710.0	40.00	68,400.00
		QUALITY ASPHALT PAVING INC		48.00	82,080.00
		SOUTHEAST ROAD BUILDERS INC		50.00	85,500.00
		WILDER CONSTRUCTION CO		55.00	94,050.00
		GOODFELLOW BROS INC		65.00	111,150.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
		KIEWITT PACIFIC CO		47.00	80,370.00
		ENGINEER'S ESTIMATE		50.00	85,500.00
63511	m	Temporary concrete barrier			
		SOUTH COAST INC	240	150.00	36,000.00
		QUALITY ASPHALT PAVING INC		50.00	12,000.00
		SOUTHEAST ROAD BUILDERS INC		75.00	18,000.00
		WILDER CONSTRUCTION CO		187.00	44,880.00
		GOODFELLOW BROS INC		80.00	19,200.00
		KIEWITT PACIFIC CO		64.00	15,360.00
		ENGINEER'S ESTIMATE		80.00	19,200.00
63521 A	each	Warning light type A			
		SOUTH COAST INC	20	40.00	800.00
		QUALITY ASPHALT PAVING INC		45.00	900.00
		SOUTHEAST ROAD BUILDERS INC		50.00	1,000.00
		WILDER CONSTRUCTION CO		35.00	700.00
		GOODFELLOW BROS INC		5.00	100.00
		KIEWITT PACIFIC CO		35.00	700.00
		ENGINEER'S ESTIMATE		45.00	900.00
63521 B	each	Warning light type C			
		SOUTH COAST INC	58	40.00	2,320.00
		QUALITY ASPHALT PAVING INC		45.00	2,610.00
		SOUTHEAST ROAD BUILDERS INC		50.00	2,900.00
		WILDER CONSTRUCTION CO		35.00	2,030.00
		GOODFELLOW BROS INC		20.00	1,160.00
		KIEWITT PACIFIC CO		40.00	2,320.00
		ENGINEER'S ESTIMATE		45.00	2,610.00
63559	hour	Traffic control laborer			
		SOUTH COAST INC	1,710.0	35.00	59,850.00
		QUALITY ASPHALT PAVING INC		45.00	76,950.00
		SOUTHEAST ROAD BUILDERS INC		40.00	68,400.00
		WILDER CONSTRUCTION CO		49.00	83,790.00
		GOODFELLOW BROS INC		42.00	71,820.00
		KIEWITT PACIFIC CO		41.00	70,110.00
		ENGINEER'S ESTIMATE		45.00	76,950.00

TABULATION OF BIDS

Date: 10/01/99

Schedule: X
 Project No.: AK PFH 9-1(9)
 Project Name: BIG SALT LAKE ROAD

Item No.	Item Unit	Item Description	Quantity	Unit Price	Amount
63704	Each	Vehicles			
		SOUTH COAST INC	5	10,000.00	50,000.00
		QUALITY ASPHALT PAVING INC		17,000.00	85,000.00
		SOUTHEAST ROAD BUILDERS INC		14,000.00	70,000.00
		WILDER CONSTRUCTION CO		10,000.00	50,000.00
		GOODFELLOW BROS INC		26,000.00	130,000.00
		KIEWITT PACIFIC CO		25,000.00	125,000.00
		ENGINEER'S ESTIMATE		10,000.00	50,000.00