State of Alaska
FY2005 Governor's Operating Budget

Department of Transportation/Public Facilities
Construction and CIP Support
Results Delivery Unit Budget Summary

Contents

Construction and CIP Support Results Delivery Unit

Contribution to Department's Mission

The mission of the Construction and CIP Support division is to improve the transportation system in Alaska and protect the health and safety of the people of Alaska by constructing safe, environmentally sound, reliable and cost effective highways, airports, harbors, docks, and buildings.

Core Services

Each Construction and CIP Support component reports to a different region, and the services provided may vary from region to region. The following information is typical of services provided. See individual components for detail.

Construction Branch: Administers construction contracts, provides field inspection and construction oversight, provides quality assurance that construction documentation and materials are in conformance with contract requirements during construction and closeout of projects, and reports Disadvantaged Business Enterprises/Minority Business Enterprise activity on construction projects.

Contracts Branch: The Construction Contract Unit reviews construction documents, provides bid packages, advertises and awards contracts, prepares certified bid tabulations, and helps resolve bidding disputes. The Professional Services Agreement Unit coordinates, solicits, selects, prepares and administers professional services agreements.

Project Control Branch: Coordinates and programs project funding; administers state and federal grants; provides engineering management support; prepares and manages the component's operating budget; develops, enhances, maintains Oracle management reporting system for capital projects; provides regional network administration and desktop computer support; and processes time and equipment charges to projects.

End Results	Strategies to Achieve Results
(1) Improve DOT&PF efficiency. Target: Maintain construction engineering (CE) averages below 14.5% of total contractor payments. Measure: The percentage of total contractor payments that were spent on contract engineering.	**(1) Reduce construction project costs.** Target: Reduce the percentage of change orders due to design modifications by 5%. Measure: Percent change in change orders due to design modifications compared to a 5-year average. Target: Reduce the percentage difference between bid and final contractor payments by 5%. Measure: The percentage change between contractor bids and final contractor payments as compared to a 5-year average.

Major Activities to Advance Strategies

- Timely close-out of construction projects
- Compare and contrast cost of in-house CE with consultant CE
- Classify change orders and quantity overruns to identify the cause
- Cross training between Design and Construction
- Involve Construction in design process from project scoping.
- Explore innovative contracting methods
- Greater use of technology in the field
- Create electronic tools to enable regional staff to create PDAs
- Capture information from these electronic PDAs so that double data entry into other databases is not required
- Permit tracking and electronic signatures to be used in the project control process.

FY2005 Resources Allocated to Achieve Results

FY2005 Results Delivery Unit Budget: $34,429,600

Personnel:	
Full time	276
Part time	181
Total	457

Performance Measure Detail

(1) Result: Improve DOT&PF efficiency.

Target: Maintain construction engineering (CE) averages below 14.5% of total contractor payments.
Measure: The percentage of total contractor payments that were spent on contract engineering.

Percent of Project Costs Attributed to Construction Engineering

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	YTD Total
2003	not available	not available	not available	not available	not available

Analysis of results and challenges: This measure can only be accurately determined after a project is closed and all project charges are accounted for. Construction closed out 90 projects during FY02 and 105 projects during FY01. Historically, contract administration costs run at about 14.5%.

This measure is always a challenge because of the remoteness of most of the projects (increasing travel and transportation costs), and because the requirements of the federal funding agencies and the expectations of the traveling public tend to increase over time. All of these factors drive administrative costs up. This measure will change from year to year based on the type and size of projects completed. Small urban projects may require the same level of oversight, i.e., staff, as large rural projects. Projects that consist primarily of asphalt paving are typically completed in a short time resulting in low engineering costs compared to the contract value. The need to supplement regional staff with consultants will have a direct impact on future construction engineering costs.

(1) Strategy: Reduce construction project costs.

Target: Reduce the percentage of change orders due to design modifications by 5%.
Measure: Percent change in change orders due to design modifications compared to a 5-year average.

Cost of Change Orders Due to Design Modifications

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	YTD Total
2003	not available	not available	not available	not available	not available

Analysis of results and challenges: This is to measure project changes due to design revisions and does not include those change orders specific to expanding the project beyond the original design. As more data becomes available, trends may show whether technical design revisions are increasing or decreasing as the reason for increased construction costs. Resources and training efforts could then be directed to technical design efforts that would result in cost effective changes to construction costs.

This measure is a challenge because efforts to reduce design costs could result in an increase in construction change order costs and quantity overruns.

Target: Reduce the percentage difference between bid and final contractor payments by 5%.
Measure: The percentage change between contractor bids and final contractor payments as compared to a 5-year average.

Percent of Contract Bid Amounts to Final Contractor Payments

Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	YTD Total
2003	not available	not available	not available	not available	not available

Analysis of results and challenges: This measure will help determine how effective the department is in administering construction contracts. It will reflect only closed highway construction projects. There can be unforeseen events or circumstances that could occur during a project that will impact this data.

Key RDU Challenges

- The increased level of Federal Highway Administration (FHWA) and Federal Aviation Administration (FAA) funds nationwide has necessitated the need for alternative methods of delivery of construction projects. The Department is anticipating delivering more jobs by the design/build method, as well as managing construction administration of contracts through consultants, local or borough governmental agencies, Bureau of Indian Affairs (BIA), Alaska Department of Natural Resources, and in time, through contractor acceptance testing. This marks the gradual transition from active construction management by Department employees, to the role of quality assurance of the management of projects by others.
- A key challenge for FY05 and beyond will be to retain experienced engineers, and to replace the large number of engineers that are reaching retirement age with a new generation of highly qualified and motivated engineers. Construction continues to have difficulty in finding and retaining qualified engineering staff willing to take long-term assignments to remote sites. Staff turnover has increased as a result of the unattractive nature of long-term assignments to remote sites, often requiring exhaustive overtime and on site presence for up to six months during the summer with little time off.
- Increased rural community involvement has resulted in increased contract costs, engineering costs, and an increase in local requests for contract changes due to heightened community awareness. Mandatory post award meetings require travel by both project engineers and contractors to remote sites, and the resolution of issues raised often requires some reengineering.
- Increased security measures at airports involves a more detailed and costly screening process prior to security badges being issued for all personnel that work on the airport. This will involve all state personnel assigned to airport projects, as well as contractors. Access to the airport by construction equipment will be restricted to specific secured gates that will need to be manned by state or contractor personnel whenever gates are unlocked.

Significant Changes in Results to be Delivered in FY2005

None.

Major RDU Accomplishments in 2003

- Received $262.3 million ($155.3 Central Region, $75.8 Northern Region $31.2 Southeast Region) in federal highway construction authorization in FFY03.
- Received $155.9million ($60.1 CR, $81.5 NR, $14.3 SE) in federal aviation authorization in FFY03, of which the majority was allocated to the construction phase.
- Completed runway, taxiway, lighting, environmental and safety improvements at rural airports in Girdwood, Illiamna, Toksook Bay, Unalaska, Port Heiden, St Paul, Dillingham, Atmautluak, Russian Mission and Selawik, as well as at Fairbanks International Airport. Completed major expansions at the Ketchikan and Sitka airports.
- Increased safety for traveling public with installation of guardrail and warning signs on main roadways on Kodiak Island, replacement of high tower lighting systems at several NHS intersections in the Anchorage area, and completed Northern Region rumble strips and Parks Hwy Pedestrian Access. Southeast Region completed Egan Drive Illumination, Thane Road Recessed Pavement Markings, and various traffic signal upgrades.
- Started the construction phase for a design/build contract to replace the Alaska Psychiatric Institute in Anchorage with a new facility estimated to cost over $41.8 million dollars.
- Completed construction of the Kenai Youth Detention Facility, and the Dept. of Environmental Conservation Seafood and Food Safety Laboratory.
- Completed a significant harbor upgrade in Hyder.
- Major highway and airport infrastructure was damaged in the November 2002 earthquake in Nabesna, Mentasta, Northway, and Tok. Preliminary emergency repairs were completed in December 2002 and permanent repairs to road systems were completed in 2003.

- Completed Americans with Disabilities Act (ADA) projects, including the following: installed and retrofitted sidewalks in Fairbanks on 12th Ave, Airport and Market Streets, sidewalk improvements on College Road, and curb ramp upgrades on Dimond Boulevard and on the Old Glenn Highway through Eagle River. ADA improvement were also made to courthouses, education facilities, correctional centers, state office buildings, ferry terminals and health centers throughout the state.
- Paved roads: CR Construction paved 28.8 CL miles (57.6 lane miles) of gravel road, Northern Region paved 67.96 CL miles, and Southeast Construction paved 8 CL miles.

Contact Information

Contact: John MacKinnon, Deputy Commissioner
Phone: (907) 465-6973
Fax: (907) 586-8365
E-mail: John_MacKinnon@dot.state.ak.us

Construction and CIP Support
RDU Financial Summary by Component

All dollars shown in thousands

	FY2003 Actuals				FY2004 Authorized				FY2005 Governor			
	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds
Formula Expenditures												
None.												
Non-Formula Expenditures												
Central Construction & CIP	246.9	0.0	15,416.3	15,663.2	200.1	0.0	15,626.4	15,826.5	183.2	0.0	16,364.0	16,547.2
Northern Construction & CIP	298.6	0.0	11,615.8	11,914.4	242.0	0.0	11,965.4	12,207.4	239.1	0.0	12,620.8	12,859.9
Southeast Region Construction	169.3	0.0	4,653.4	4,822.7	140.0	0.0	4,660.8	4,800.8	128.2	0.0	4,894.3	5,022.5
Totals	**714.8**	**0.0**	**31,685.5**	**32,400.3**	**582.1**	**0.0**	**32,252.6**	**32,834.7**	**550.5**	**0.0**	**33,879.1**	**34,429.6**

Construction and CIP Support
Summary of RDU Budget Changes by Component
From FY2004 Authorized to FY2005 Governor

All dollars shown in thousands

	General Funds	Federal Funds	Other Funds	Total Funds
FY2004 Authorized	**582.1**	**0.0**	**32,252.6**	**32,834.7**
Adjustments which will continue current level of service:				
-Central Construction & CIP	0.0	0.0	737.6	737.6
-Northern Construction & CIP	0.0	0.0	571.2	571.2
-Southeast Region Construction	0.0	0.0	233.5	233.5
Proposed budget decreases:				
-Central Construction & CIP	-16.9	0.0	0.0	-16.9
-Northern Construction & CIP	-2.9	0.0	0.0	-2.9
-Southeast Region Construction	-11.8	0.0	0.0	-11.8
Proposed budget increases:				
-Northern Construction & CIP	0.0	0.0	84.2	84.2
FY2005 Governor	**550.5**	**0.0**	**33,879.1**	**34,429.6**