

- **Board of Directors**
Engineering and Operations Committee

November 14, 2000 Board Meeting

10-2

Subject

Status report for the Inland Feeder Project for the month ending September 2000

Description

Arrowhead Tunnels (Design and Bid) – Reaches 1 and 2

Redesign of the Arrowhead West Tunnel and the remaining portion of the Arrowhead East Tunnel is approximately 90 percent complete and is scheduled to be completed in October 2000. It is anticipated the tunnel contract will be advertised for bid in December 2000 or January 2001, following Board approval.

Metropolitan expects a verbal response from the U.S. Forest Service (USFS) in October establishing their position on completion of the Arrowhead Tunnels. Written confirmation of their position is expected in mid-December 2000.

Four responses to Request for Qualifications No. 454 for the construction of the Arrowhead Tunnels have been received and are being evaluated. The four respondents are: J. F. Shea Co., Inc.; Shank/Balfour Beatty; Kiewit Construction Co.; and Traylor Bros., Inc.

Arrowhead West Tunnel – Reach 1

Negotiations continue over settlement of the remaining construction claim issues.

Arrowhead East Tunnel – City Creek Heading – Reach 2

The contractor continued final lining operations at the City Creek heading. Approximately 470 feet of the 8,000 feet of pipe has been installed. Total installation is scheduled to be completed by mid-2001. Negotiations continue over settlement of the remaining construction claim issues.

Pipeline Alternatives to Arrowhead Tunnels

Staff is evaluating pipeline alignment alternatives as a potential replacement for the Arrowhead Tunnels. An oral status report will be given to the Board at the October meeting, followed by a detailed report in November. Board action on how to proceed with the project is expected at the December or January meeting.

Highland Pipeline – Reach 3

The Highland Pipeline design is 90 percent complete. Once the design has been completed, the construction bidding will be placed “on hold” until work on the Arrowhead Tunnels has been scheduled, or a suitable alternative identified.

Mentone Pipeline – Reach 4

The contractor has completed installation and encasement of 800 feet of pipe across the Santa Ana River Wash. Installation of pipe has begun south of the Redlands Airport and shoring operations are underway along Mentone Boulevard. This reach is scheduled for completion in fall 2001.

Riverside Badlands Tunnel – Reaches 5 & 6

In September 2000, the tunnel boring machine (TBM) progressed 865 feet, bringing the total tunneled through September 30 to 28,353 feet (see [Attachment 1](#) for a summary of tunneling progress). The TBM has encountered loose unconsolidated material under ground water pressure, which has temporarily halted mining operations while grouting is being performed to stabilize the ground ahead of the machine. This condition could

be encountered for approximately 1,000 feet which reduces mining rates. Work on this reach remains ahead of schedule.

Schedule and Budget

The Inland Feeder Project is currently scheduled for completion in 2005; however, this date may be extended due to the revised construction work plan for either the Arrowhead Tunnels or a suitable pipeline alternative. The project budget remains at \$1.188 billion, and the projected total cost based on the 30 percent design of the Arrowhead Tunnels is \$981.5 million. Total expenditures through September 2000 are \$474.8 million (see [Attachment 2](#) for a financial summary and [Attachment 3](#) for a budget comparison and schedule summary).

RECENT DEVELOPMENTS

Mentone Pipeline – Reach 4

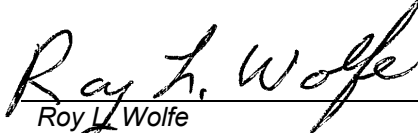

Based on Board action at the September meeting, staff is negotiating a change order with the contractor adding approximately 3,600 feet of the Highland Pipeline to the current contract.

Policy

Board Request

Fiscal Impact

Refer to the attachments.

	10/23/2000
Roy L. Wolfe Manager, Corporate Resources	Date
	10/24/2000
Ronald R. Foster General Manager	Date

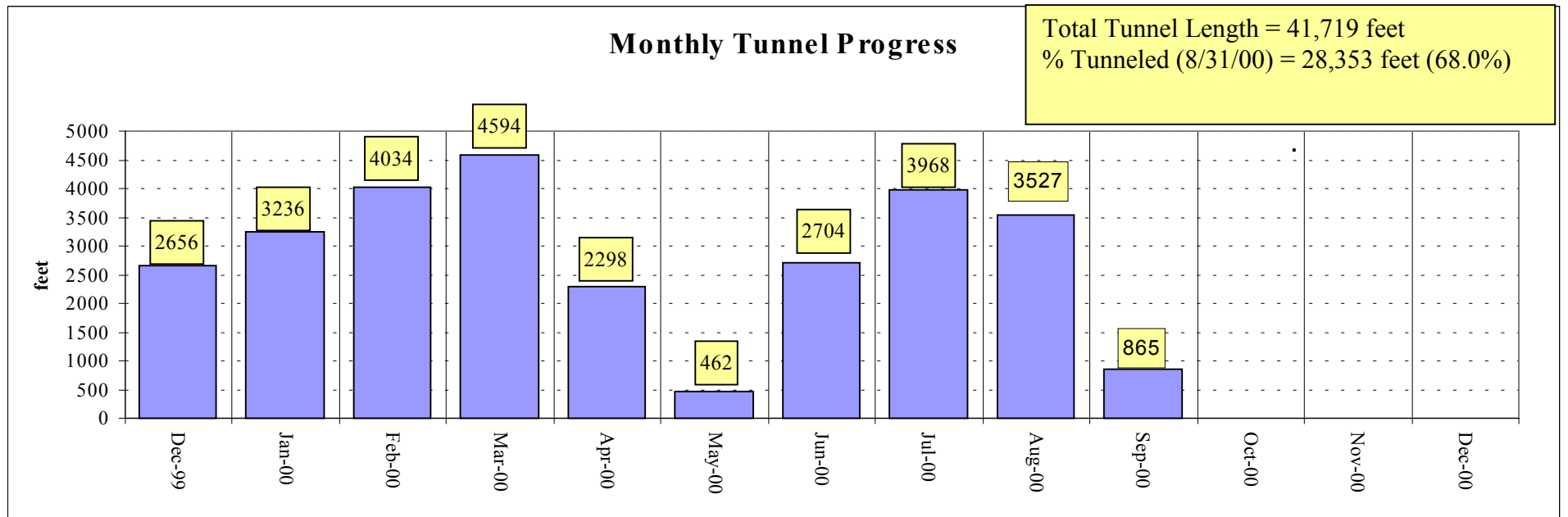
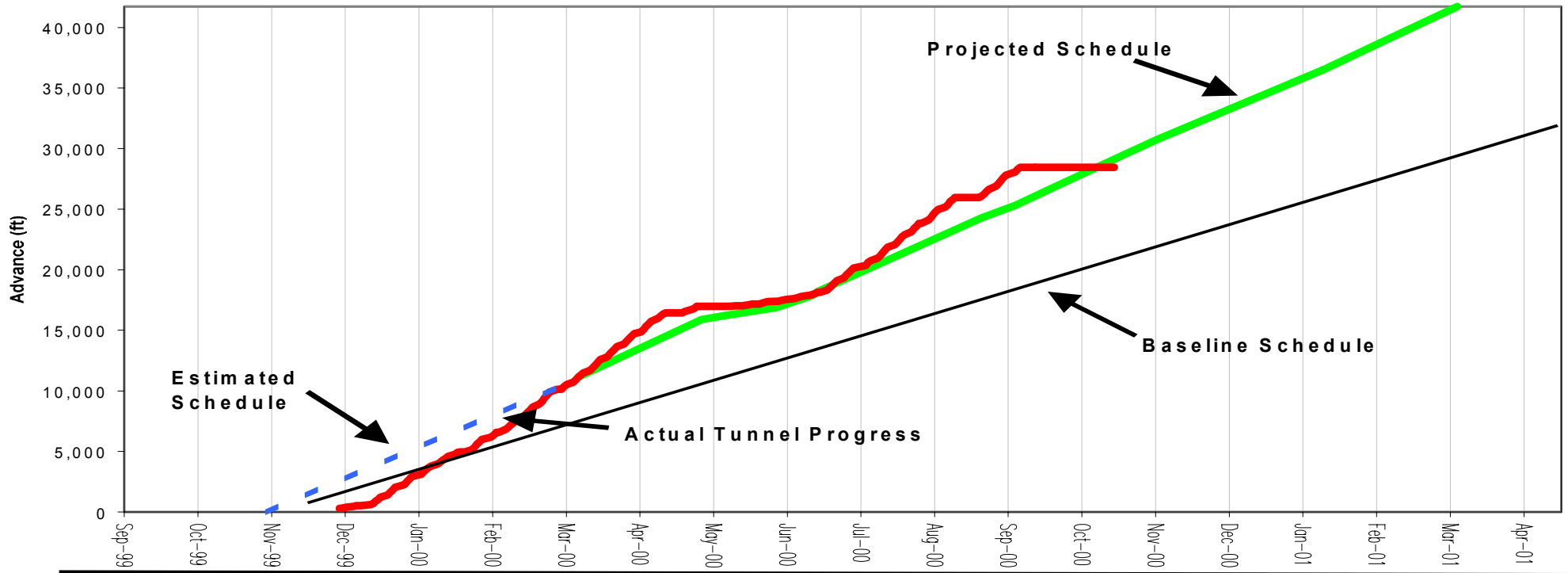
[Attachment 1 – Riverside Badlands Tunneling Progress](#)

[Attachment 2 – Financial Summary](#)

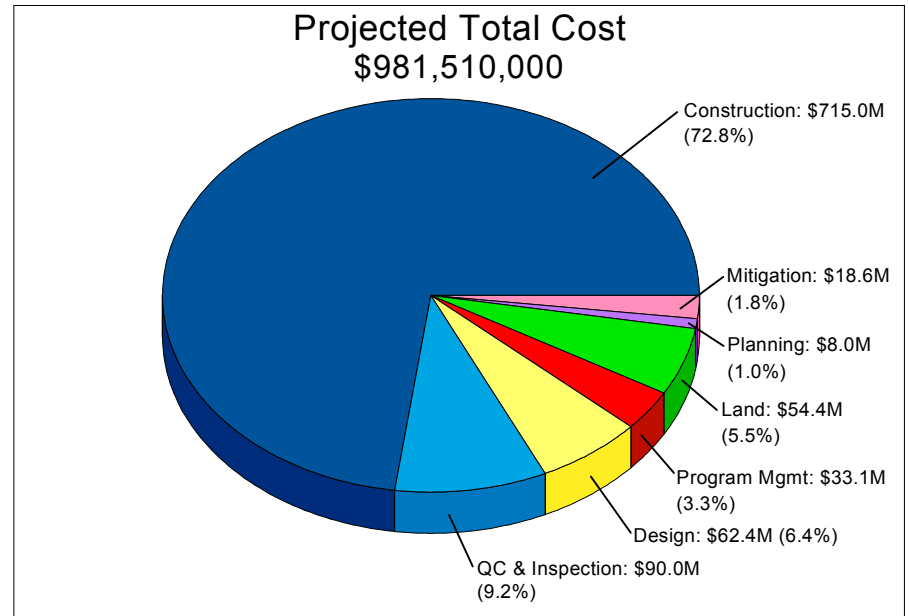
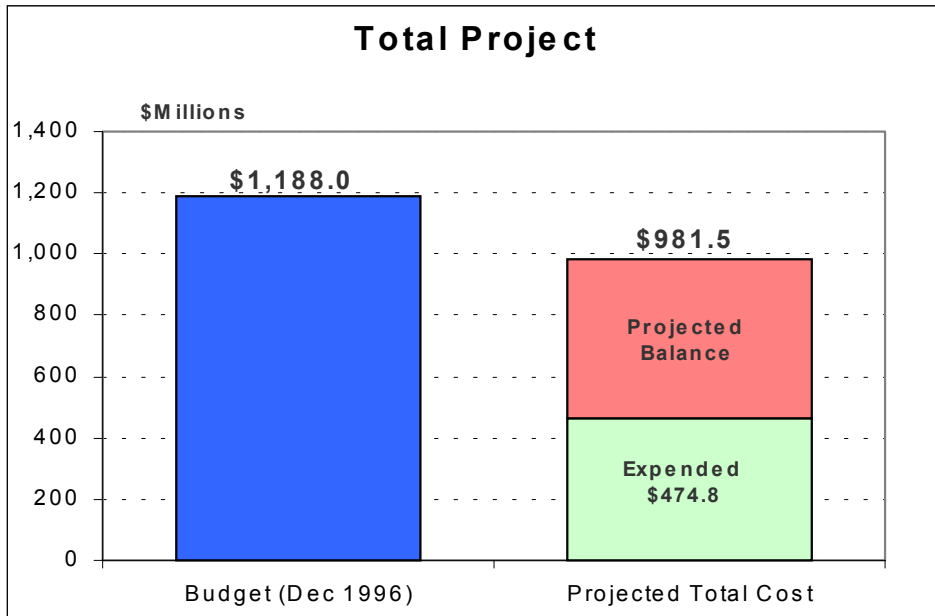
[Attachment 3 – Budget Comparison and Schedule Summary](#)

BLA #157

RIVERSIDE BADLANDS TUNNEL

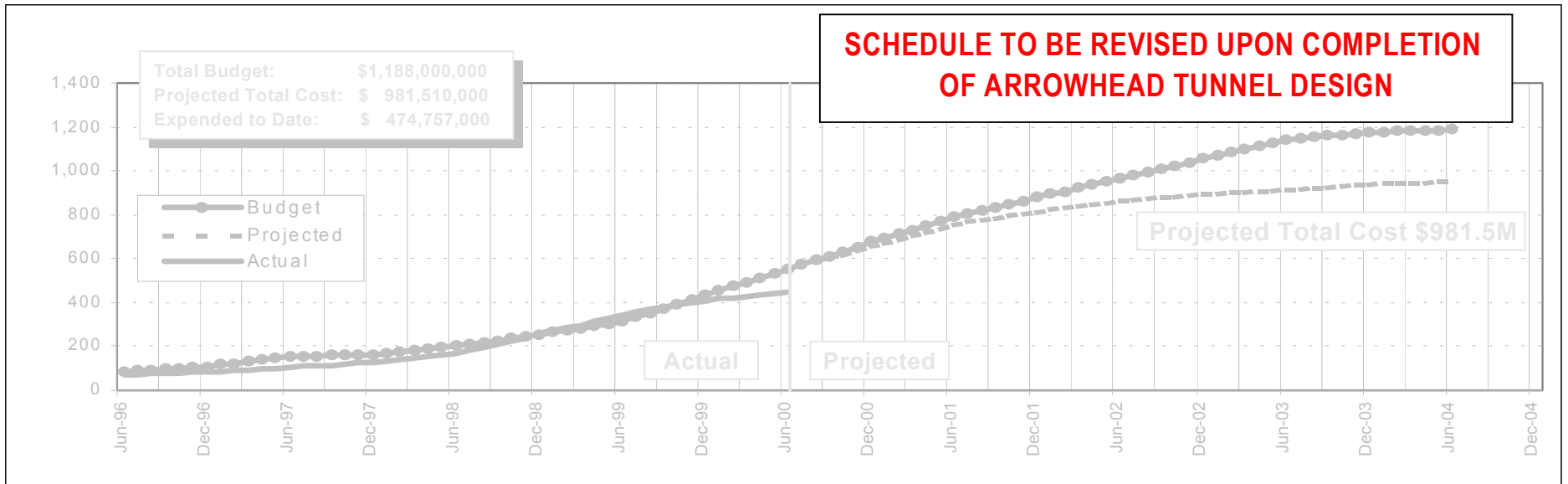


Financial Summary



1. Based on knowledge of current field conditions.

Project Cash Flow



Budget Comparison and Schedule Summary

	INITIAL AUTHORIZATION (DEC-96)	PRELIMINARY REBASELINE (JUN-2000) ⁽¹⁾	VARIANCE	ACTUALS THRU (SEPT-00) ⁽²⁾	PROGRESS		COMPLETION DATE		COMMENTS
					PLANNED 100%	ACTUAL % COMPLETE (SEPT-00) ⁽⁴⁾	CONTRACT ⁽⁵⁾	FORECAST (SEPT-00)	
Construction Reaches									
Arrowhead West Tunnel	\$ 200,450,000	\$ 211,728,000	\$ (11,278,000)	\$ 55,136,000	----	25%	Dec-02	T.B.D.	On hold.
Arrowhead East Tunnel	\$ 184,550,000	\$ 281,607,000	\$ (97,057,000)	\$ 115,342,000	----	38%	Jan-03	T.B.D.	On hold.
Highland Pipeline ⁽³⁾	\$ 95,230,000	\$ 57,199,000	\$ 38,031,000	\$ 7,065,000	0%	0%	-----	T.B.D.	In Design.
Mentone Pipeline	\$ 74,140,000	\$ 35,056,000	\$ 39,084,000	\$ 21,308,000	18%	30%	Mar-02	Oct-01	Under construction.
Riverside Badlands Tunnel	\$ 204,300,000	\$ 142,534,000	\$ 61,766,000	\$ 84,690,000	42%	59%	125%	Apr-02	Under construction.
Riverside North Pipeline	\$ 106,840,000	\$ 57,984,000	\$ 48,856,000	\$ 55,215,000	100%	100%	Completed	Nov-99	Completed Nov. 99
Riverside South Pipeline	\$ 77,200,000	\$ 42,358,000	\$ 34,842,000	\$ 42,343,000	100%	100%	Completed	Aug-99	Completed Aug. 99
Construction Support									
Right-of-Way and Land	\$ 47,830,000	\$ 54,448,000	\$ (6,618,000)	\$ 42,208,000	-----	78%	-----	-----	-----
Environmental Planning/Mitigation	\$ 10,960,000	\$ 18,598,000	\$ (7,638,000)	\$ 10,591,000	-----	57%	-----	-----	-----
Owner Controlled Insurance Prog.	\$ -	\$ 38,889,000	\$ (38,889,000)	\$ 15,660,000	-----	40%	-----	-----	-----
Study/Initial Planning	\$ 8,024,000	\$ 8,024,000	\$ -	\$ 8,024,000	-----	100%	-----	-----	-----
Program Management	\$ 20,170,000	\$ 33,085,000	\$ (12,915,000)	\$ 17,175,000	-----	52%	-----	-----	-----
Projected Total Cost	\$ 1,029,694,000	\$ 981,510,000	\$ 48,184,000	\$ 474,757,000					
Remaining Budget	\$ 158,306,000	\$ 206,490,000							
Total Approved Budget	\$ 1,188,000,000	\$ 1,188,000,000	\$ 48,184,000						

(1) Based on 30% design for Arrowhead Tunnels

(2) Actuals for construction reaches include design costs

(3) Expenditure for design which is at 90%. Once design has been completed, construction bidding will be placed on hold once work on the Arrowhead Tunnels is scheduled.

(4) Based on work complete for construction reaches and \$ expended for construction support

(5) Based on original contract duration and approved extensions

Remaining Budget ¹

