

**Attachment D.  
U.S. Bureau of Reclamation  
Detailed Cost Estimates**

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## **Reclamation "Ballpark" Summaries**

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RECLAMATION 2005 "BALLPARK" ESTIMATES



# Non-Indian Alternative 2 Re-estimate for April 2005

(In \$1,000's of dollars)		(In \$1,000's of dollars)		(actual Dollars)
Alternative 2		Conceptual Plan		Difference
1	Diversion Estimate <sup>1</sup>	\$2,138		
2	Diversion O&M Estimate <sup>2</sup>	\$2,008		
3	Indexed Diversion Estimate <sup>3</sup>	\$2,779	Diversion Estimate <sup>1</sup>	\$2,182
4	Indexed Diversion O&M Estimate <sup>2</sup>	\$2,166	Diversion O&M Estimate <sup>2</sup>	\$1,655
5				\$597,184
6	WTP Estimate <sup>4</sup>	\$13,235		
7	WTP OM&R Estimate <sup>5</sup>	\$16,793		
8	Indexed WTP Estimate <sup>6</sup>	\$16,589	WTP Estimate <sup>4</sup>	\$12,487
9	Indexed WTP OM&R <sup>5</sup>	\$18,115	WTP OM&R Estimate <sup>5</sup>	\$14,733
10				\$4,101,543
11	Main Transmission Line Estimate <sup>4</sup>	\$30,895		
12	Main Transmission Line OM&R Estimate <sup>5</sup>	\$24,503		
13	Indexed Main Transmission Line Estimate <sup>4</sup>	\$35,563	Main Transmission Line Estimate <sup>4</sup>	\$27,931
14	Indexed Main Transmission Line OM&R Estimate <sup>5</sup>	\$26,806	Main Transmission Line OM&R Estimate <sup>5</sup>	\$24,464
15				\$7,631,824
16	Indian Storage and Distribution Estimate <sup>4</sup>	\$21,605	Indian-Only Storage and Distribution Estimate <sup>4</sup>	\$26,113
17	Indian Storage and Distribution OM&R Estimate <sup>5</sup>	\$974	Indian-Only Storage and Distribution OM&R Estimate <sup>5</sup>	\$5,157
18	Non-Indian Storage and Distribution Estimate <sup>4</sup>	\$34,450	New Non-Indian Storage and Distribution Estimate <sup>4</sup>	\$51,959
19	Non-Indian Storage and Distribution OM&R Estimate <sup>5</sup>	\$1,556	New Non-Indian Storage and Distribution OM&R Estimate <sup>5</sup>	\$10,279
20	Indexed Combined Storage and Distribution Estimate <sup>4</sup>	\$56,055	Combined Storage and Distribution Estimate	\$77,782
21	Indexed Combined Storage and Distribution OM&R Estimate <sup>5</sup>	\$2,530	Combined Storage and Distribution OM&R Estimate	\$15,436
22				-\$21,727,459
23	Options <sup>7</sup> (Deep wells and Pojoaque River dam only)	\$17,522		
24	Options OM&R <sup>8</sup>	\$5,458		
25	NEPA <sup>9</sup>	\$4,861		
26	Indexed Options <sup>7</sup>	\$19,035	Options <sup>7</sup>	\$11,906
27	Indexed Options OM&R <sup>8</sup>	\$5,929	Options OM&R <sup>8</sup>	\$5,295
28	Indexed NEPA <sup>9</sup>	\$5,281	NEPA <sup>9</sup>	\$3,931
29				\$7,129,245
30	INDEXED Alternative 2 (revised features) TOTAL <sup>6</sup>	\$190,848	Conceptual Plan TOTAL	\$135,855
31				\$54,993,313
32				
33	<b>ESTIMATED COST TO ADD NON-INDIAN FEATURES TO THE CONCEPTUAL PLAN<sup>#</sup></b>			
34	Direct comparison including all OM&R <sup>*</sup>			\$55,000,000
35	w/New Non-Indian Storage and Distribution Estimate and Non-Indian OM&R			\$121,000,000
36	w/New Non-Indian Storage and Distribution Estimate, but without OM&R			\$72,000,000
<p><b>Disclaimer</b> - This "ballpark estimate" was prepared at the request of the Aamodt negotiation parties. It does not reflect the views of the United States and by preparing it, the United States makes no representation that any of the components of the proposed project is acceptable to the United States or that the United States is willing to contribute funds toward it. There is no generally accepted definition of a "ballpark estimate" and no specific definition was used to qualify the estimate - this estimate document does not conform to any policy, system or method of construction cost estimation used by any federal agency within the Department of the Interior, or the Department of the Interior. This document was completed in a short time frame and in heavy reliance on previous appraisal level data. It should not be relied upon to justify any project or proposal. The United States reserves the right to reassess the "ballpark estimate" contained herein. - <b>no accuracy or reliability is expressed or implied</b></p>				
<b>NOTES:</b>				
1 From Appendix 14, page 50				
2 From Appendix 14, page 20				
3 From Reclamation Cost Estimating Guidelines Indices				
4 From Aamodt Econ18.xls "Least Cost Alternatives" worksheet tab				
5 From Aamodt Econ18.xls "Options Summary" worksheet tab				
6 The Alternative 2 revisions referred to are the change to a surface diversion and exclusion of the red-pipe and outlying areas options				
7 From the current "Ballpark" estimate				
8 From a new estimate commissioned after the Conceptual Plan "Ballpark" estimate				
9 There are differences in the features included in this Options estimate vs the Alternative 2 Indexed Options estimate so the difference isn't exactly the correct figure to use, but close enough at this estimate level				
* Generally equivalent to Alternative 2, minus the red-pipe, several options and the staged construction - same population served				
* Neglects design and operational differences between Alternative 2 Storage and Distribution and Conceptual Plan w/Non-Indian - probably low				
* Utilizes New Ballpark Estimates Only				

- separate by items

1. County CH negotiable  
 2. Agree on project  
 3. look @ diversion  
 4. Update costs  
 Chestnut  
 5/8  
 assumption - 34 omr Pueblo  
 29 omr County  
 6B

This document has not been approved by any party and remains subject to further discussion, negotiation and analysis.

April 18, 2006

**NonFederal Parties' Draft Allocation of Costs for Settlement of All Claims, including Four Pueblos, in State of New Mexico v. Aamodt**

	<u>Total</u>	<u>Federal</u>	<u>State</u>	<u>City</u>	<u>County/Non Pueblo Parties</u>
Project Cost*	\$159.3 M	\$95 M	\$15 M		\$49.3 M
Water Acquisition Fund	\$16 M	\$16 M			
Pueblo Conservation Fund	\$8 M	\$8 M			
Other Offsets	\$4 M			\$4 M	
Pueblo O. & M. Fund	\$39 M	\$39 M			
County Utility O.M. & R.	\$29 M				\$29 M
County Water Costs	\$3.3 M				\$3.3 M
Rights Transferred to County	\$4.8 M				\$4.8 M
Connection Fund & Impairment Fund	\$2 M (minimum)		\$2 M (minimum)		
<b>TOTALS</b>	<b>\$265.4 M</b>	<b>\$158 M</b>	<b>\$17 M</b>	<b>\$4 M</b>	<b>\$86.4 M</b>

\*The Project Cost above is predicated on the design criteria understood to be under consideration at the time of the estimate. The estimates in the table above are based in part on "ballpark" estimates of one or more of the major component facilities of a water system, and as such these estimates are **for discussion purposes only, and should not be relied upon** to convey the actual cost to construct and operate a potable water system in the Pojoaque Valley. These estimates include a cost adjustment factor for all previous April 2005 based figures forward to November 2005 – due to the current volatility in energy costs, and the shortage of common building materials due to hurricane damage repairs and reconstruction, less confidence in future costs will persist for some time. A new feasibility level study by a competent architectural and engineering organization familiar with the project/area will be **required** to properly estimate the actual cost of the final settlement project.

The design criteria for the Project Cost above includes a 4,000 acre-feet-per-year diversion structure on the Rio Grande at San Ildefonso Pueblo, a potable water treatment plant capable of processing the projected daily/hourly peak and fire flow demand of the final build out population to be served (within the annual water rights available) also at San Ildefonso Pueblo, a non-potable "red-pipe" water line to Pojoaque Pueblo capable of conveying 500 acre-feet-per-year of untreated water, a main transmission line serving treated water to both Indian and non-Indian customers, and five separate storage and distribution systems serving each individual Pueblo and the non-Indian County residents (who choose to become customers) within a reasonable distance and population density from planned service facilities – these storage and distribution systems will be capable of sustaining 1,000 gallons-per-minute fire flows according to National Fire Protection Code requirements. In addition to these major components, the following additional features are included in the

estimates above: a Pojoaque River dam, a Tesuque Creek infiltration pond, and seven combination injection/recovery (ASR) wells (exact locations not yet determined) for system reliability and aquifer recharge capability – one for each San Ildefonso Pueblo, Tesuque Pueblo, and Nambe Pueblo, and two each for Pojoaque Pueblo and Santa Fe County.

Assumptions affecting the design details and costs include the cost and availability of water, population to be served and location of population to be served, timing of start of construction, term of construction and level of commitment and cooperation amongst the parties after settlement, including the expeditious granting of right-of-way and access. For the purposes of the estimates above, water will be assumed to be available, the population estimates previously completed will be assumed to be correct, including the projected customer base, construction would begin in November 2005 and conclude five years later – 50 year project life, all parties will provide necessary construction and permanent right-of-way and grant necessary access in an expeditious manner, and labor, materials and energy will all be available at 'normal' levels and prices.

**Neither the United States, nor any of its agencies or employees, have prepared this document or represent that the cost estimates or funding allocations contained herein are accurate, reliable or acceptable.**



**Reclamation Diversion System - Cost Estimates**

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<b>Boyle Engineering - Alternative #2 - Surface diversion 2005 - Revised</b>					
Subtotal					\$1,077,111
Mobilization			(-/-)	5%	\$54,000
<b>SUBTOTAL</b>					<b>\$1,131,111</b>
Unlisted Items			(+/-)	10%	\$118,889
<b>CONTRACT COST</b>					<b>\$1,250,000</b>
Contingencies			(+/-)	20%	\$250,000
<b>FIELD COST</b>					<b>\$1,500,000</b>
Noncontract cost			(-/-)	30%	\$450,000
<b>CONSTRUCTION COST</b>					<b>\$1,950,000</b>

<b>Boyle Engineering - Alternative #2 - Infiltration Gallery 2005- Revised</b>					
Subtotal					\$6,113,275
Mobilization			(+/-)	5%	\$310,000
<b>SUBTOTAL</b>					<b>\$6,423,275</b>
Unlisted Items			(+/-)	10%	\$676,725
<b>CONTRACT COST</b>					<b>\$7,100,000</b>
Contingencies			(+/-)	20%	\$1,400,000
<b>FIELD COST</b>					<b>\$8,500,000</b>
Noncontract cost			(+/-)	30%	\$2,500,000
<b>CONSTRUCTION COST</b>					<b>\$11,000,000</b>

<b>Boyle Engineering - Alternative #2 - Infiltration Gallery 2015- Revised</b>					
Subtotal					\$1,537,339
Mobilization			(+/-)	5%	\$77,000
<b>SUBTOTAL</b>					<b>\$1,614,339</b>
Unlisted Items			(-/-)	10%	\$185,661
<b>CONTRACT COST</b>					<b>\$1,800,000</b>
Contingencies			(+/-)	20%	\$300,000
<b>FIELD COST</b>					<b>\$2,100,000</b>
Noncontract cost			(+/-)	30%	\$600,000
<b>CONSTRUCTION COST</b>					<b>\$2,700,000</b>

<b>Boyle Engineering - Alternative #2 - Infiltration Gallery 2020- New</b>					
Subtotal					\$1,415,670
Mobilization			(+/-)	5%	\$71,000
<b>SUBTOTAL</b>					<b>\$1,486,670</b>
Unlisted Items			(+/-)	10%	\$163,330
<b>CONTRACT COST</b>					<b>\$1,650,000</b>
Contingencies			(+/-)	20%	\$300,000
<b>FIELD COST</b>					<b>\$1,950,000</b>
Noncontract cost			(-/-)	30%	\$550,000
<b>CONSTRUCTION COST</b>					<b>\$2,500,000</b>

<b>Boyle Engineering - Alternative #2 - Infiltration Gallery 2025- Revised</b>					
Subtotal					\$1,478,426
Mobilization			(-/-)	5%	\$74,000
<b>SUBTOTAL</b>					<b>\$1,552,426</b>
Unlisted Items			(+/-)	10%	\$147,574
<b>CONTRACT COST</b>					<b>\$1,700,000</b>
Contingencies			(+/-)	20%	\$300,000
<b>FIELD COST</b>					<b>\$2,000,000</b>
Noncontract cost			(+/-)	30%	\$600,000
<b>CONSTRUCTION COST</b>					<b>\$2,600,000</b>

All cost provided by Boyle Engineering have been adjusted to include 6.5% Gross Receipts Tax on the materials portion of the cost, and recalculated by USBR

**AAMODT Feasibility Study  
Water Diversion Alternatives**

**Bureau of Reclamation  
Estimating, Specifications, and Value Program Group  
Review and Comments for Boyle Engineering Estimate  
March 2003**

General Comments:

- The estimate was received March 12, 2003 without supporting documentation or justification for unit price selection.
- No drawings, assumptions, or construction methodology were available to USBR through the duration of the review and commenting period.

Unit Pricing:

- Without more detailed information, there is no basis to dispute any of the unit prices provided by Boyle Engineering. All lines are unit priced consistently throughout the estimate, and are consistent with USBR pricing for the AAMODT Feasibility Study.

Estimate Summations:

- Boyle Engineering included a 10% 'Engineering' line items, and a 20% 'Unlisted' line item. There was no accounting for mobilization, contingencies, or project management costs.
  - It is unclear whether or not Boyle Engineering included the costs of mobilization in their unit prices. Typically USBR includes a line item of 5% of the direct costs, to account for mobilization to the jobsite.
  - It is recommended that a 20% 'Contingencies' line item be added after the 'Unlisted' items. It is typical of a project in this stage to account for unforeseen circumstances by adding a percentage of the subtotal.
  - It is recommended that the 10% 'Engineering' line item be changed to a 30% 'Noncontract Cost' which accounts for the design work, as well as oversight and project management activities; similar to all other estimates in this Feasibility Study.
  - It is further recommended that the summarized costs be rounded according to standard USBR practice. Reporting figures to the nearest dollar gives a false impression of the accuracy of the estimate.

## Tyler Artichoker

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**From:** "Wayne Welty" <WWelty@boyleengineering.com>  
**To:** "Fred Tan (E-mail)" <ftan@do.usbr.gov>, "Steve Bowser (E-mail)" <sbowser@uc.usbr.gov>, <rvinton@do.usbr.gov>, "Tyler Artichoker (E-mail)" <tartichoker@do.usbr.gov>  
**Date:** 4/10/03 2:59 PM  
**CC:** "Charles Leder (E-mail)" <cleder@ascg.com>

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The material and labor percentage breakdowns for the diversion options are:  
Horizontal Collector Well: Material - 49% and Labor - 51%  
Infiltration Gallery: Material - 64% and Labor - 36%  
Direct Surface Diversion: Material - 51% and Labor - 49%  
We will transmit the corrected supplemental well cost spreadsheets in a separate email.

Wayne  
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Managing Engineer  
Boyle Engineering Corporation  
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**Reclamation Water Treatment Plant - Cost Estimate**







ESTIMATE WORKSHEET

<b>FEATURE:</b> Alternative #2 - Surface Diversion Pojoaque Valley System Summary of Costs	13-Mar-03	<b>PROJECT:</b> AAMODT Feasibility Study
		<b>REGION:</b>
<b>WOID: AAM02</b>		<b>FILE:</b>

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>Capital Costs</b>					
		<b>2005 Costs</b>					
		Water Treatment Components					\$6,500,000
		System Pumps, Motors & Piping					\$830,000
		Sitework and Construction					\$4,600,000
		HVAC Components					\$350,000
		Facility Piping & Fixtures					\$145,000
		Electrical Work					\$910,000
							13,335,000
		<b>2015 Costs</b>					
		System Pumps, Motors & Piping					\$120,000
		<b>2020 Costs</b>					
		Water Treatment Components					\$2,500,000
		<b>Capital Cost</b>					\$15,955,000
		Assume ROW and Easement land donated at no charge					
		* All costs are reported in year 2003 dollars					

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
		T. Artchoker	<i>cy</i> 3/14/2003
DATE PREPARED	APPROVED	DATE	PRICE LEVEL
			Feasibility

<b>FEATURE:</b> Requirements for Surface Diversion Pojoaque Valley System (Alternative 2) 2005 Construction	13-Mar-03	<b>PROJECT:</b> Aamodt Feasibility Study Treatment Component
<b>WOID:</b> AAM02		<b>REGION:</b>
		<b>FILE:</b>

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
	1	Mixer in Rapid Mix Tanks	D-8230	1	Ea	\$37,000.00	\$37,000.00
	2	Mixer in Coagulation Tank		1	Ea	\$14,400.00	\$14,400.00
	3	Chemical Storage Tank for Alum - 2,500 gallons		1	Ea	\$3,500.00	\$3,500.00
	4	Microfiltration System - 2 Trains (52 modules), Feed Pump		1	LS	\$2,600,000	\$2,600,000.00
	5	Ultraviolet Disinfection Units		2	LS	\$86,000.00	\$172,000.00
	6	Anhydrous Ammonia Bulk Storage Tank - 500 gallons		1	Ea	\$7,000.00	\$7,000.00
	7	Chlorine Scrubber Unit		1	Ea	\$210,000.00	\$210,000.00
	8	Excavation of WW Polishing Ponds		3,330	CY	\$9.40	\$31,302.00
	9	Provide and Install 45-mil Polypropylene Liner in WW Polishing Ponds					
		Geomembrane Cost		21,480	SF	\$0.95	\$20,406.00
		Geomembrane Installation Cost		21,480	SF	\$0.30	\$6,444.00
		Geotextile Cost		2,390	SY	\$1.50	\$3,585.00
		Geotextile Installation Cost		2,390	SY	\$0.90	\$2,151.00
		Subtotal					\$3,107,788.00
		Mobilization			(+/-) 5%		\$155,000.00
		Funding for Pilot Study		1	LS	\$200,000.00	\$200,000.00
		<b>SUBTOTAL</b>					\$3,462,788.00
		Unlisted Items			(+/-) 20%		\$737,212.00
		<b>Contract Cost</b>					<b>\$4,200,000.00</b>
		Contingencies			(+/-) 20%		\$800,000.00
		<b>Field Cost</b>					<b>\$5,000,000.00</b>
		Noncontract Costs			(+/-) 30%		\$1,500,000.00
		<b>Construction Cost</b>					<b>\$6,500,000.00</b>

\* All costs are reported in year 2003 dollars

<b>QUANTITIES</b>		<b>PRICES</b>	
BY Glenn Howard	CHECKED Bob Rodriguez	BY T. Artichoker	CHECKED <i>cy</i> 3/14/2003
DATE PREPARED 3/13/03	APPROVED	DATE 2/28/03	PRICE LEVEL Feasibility

<b>FEATURE:</b> Requirements for Surface Diversion Pojoaque Valley System (Alternative 2) Phase Construction Year 2020	10-Mar-03	<b>PROJECT:</b> Aamodt Feasibility Study Treatment Component
<b>WOID: AAM02</b>		<b>REGION:</b>
		<b>FILE:</b>

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
	1	Mixer Coagulation Tank	D-8230	1	Ea	\$14,400.00	\$14,400.00
	2	Chemical Storage Tank for Alum - 2,500 gallons		1	Ea	\$3,500.00	\$3,500.00
	3	Microfiltration System - 1 Train with Feed Pumps		1	LS	\$1,200,000.00	\$1,200,000.00
	4	Ultraviolet Disinfection Units		1	Ea	\$86,000.00	\$86,000.00
		Subtotal					\$1,303,900.00
		Mobilization			(+/-) 5%		\$65,000.00
		Subtotal					\$1,368,900.00
		SUBTOTAL					\$1,368,900.00
		Unlisted Items			(+/-) 20%		\$281,100.00
		<b>Contract Cost</b>					<b>\$1,650,000.00</b>
		Contingencies			(+/-) 20%		\$300,000.00
		<b>Field Cost</b>					<b>\$1,950,000.00</b>
		Noncontract Costs			(+/-) 30%		\$550,000.00
		<b>Construction Cost</b>					<b>\$2,500,000.00</b>
* All costs are reported in year 2003 dollars							

<b>QUANTITIES</b>				<b>PRICES</b>			
BY Glenn Howard	CHECKED BR	BY T. Artichokar	CHECKED <i>cy</i> 3/13/2003				
DATE PREPARED 3/10/03	APPROVED	DATE 2/28/03	PRICE LEVEL Feasibility				

ESTIMATE WORKSHEET

<b>FEATURE:</b> Requirements for Surface Diversion Pojoaque Valley System (Alternative 2) 2005 construction	13-Mar-03	<b>PROJECT:</b> AAMODT Feasibility Study Treatment Component
<b>WOID:</b> AAMO2		<b>REGION:</b>  <b>FILE:</b> #NAME?

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>PUMPS/MOTORS</b>					
	10	3 - 1,370 gpm (3.0 cfs) pumps (P0)	D-8420	12,300	lbs	\$8.00	\$98,400.00
	(a)	Vertical turbine pump					
		332 feet TDH, steel baseplate for pump					
		4,100 lbs each					
	(b)	3 - 150 hp, TEFC motors, 460 v, 1800 rpm,	D-8420	6,300	lbs	\$12.00	\$75,600.00
		3 phase, 2,100 lbs each					
	20	3 - 66 gpm pumps (Waste Flow "B")	D-8420	525	lbs	\$15.00	\$7,875.00
	(a)	End suction centrifugal pump					
		40 ft TDH, variable speed, baseplate for pump and					
		motor, 175 lbs each					
	(b)	3 - 1.5 hp motors, 460 v, 1750 rpm, inverter rate	D-8420	300	lbs	\$18.70	\$5,610.00
		3 phase, 100 lbs each					
		<b>PIPING/VALVES</b>					
		a. P0 Pumps					
	30	20" dia., sch 10, 22 ft, 53 lbs/ft	D-8420	1,160	lbs	\$4.50	\$5,220.00
	40	10" dia., sch 20, 84 ft, 28 lbs/ft	D-8420	2,350	lbs	\$3.10	\$7,285.00
	50	Miscellaneous fittings - 10 % of piping	D-8420	350	lbs	\$5.00	\$1,750.00
	60	4 - hydraulic dampened check valve, 10" dia	D-8420	1,890	lbs	\$10.70	\$20,223.00
		472 lbs each					
	70	4 - motor operated butterfly valve, 10" dia	D-8420	1,760	lbs	\$19.20	\$33,792.00
		440 lbs each					
	80	8 - combination air valves, 2", 75 lbs each	D-8420	600	lbs	\$14.40	\$8,640.00
		b. Waste Flow "B" Pumps					
	90	2" dia., - Sch. 40 - 22.34 ft @ 3.652 lbs/ft	D-8420	90	lbs	\$4.50	\$405.00
	100	4" dia., - Sch. 40 - 9.97 ft @ 9.11 lbs/ft	D-8420	100	lbs	\$3.30	\$330.00
	110	Miscellaneous fittings - 10 % of piping	D-8420	190	lbs	\$5.00	\$950.00
	120	4 - air valves, 1" dia, 40 lbs ea	D-8420	160	lbs	\$14.40	\$2,304.00
		Subtotal (sheet 1 of 2)					\$268,384.00
		* All costs are reported in year 2003 dollars					

<b>QUANTITIES</b>		<b>PRICES</b>	
BY T. Hummel/Rick Frisz	CHECKED B. Zelenka	BY T. Artichoker	CHECKED <i>[Signature]</i> 3/14/2003
DATE PREPARED 3/13/03	APPROVED	DATE 2/28/03	PRICE LEVEL Feasibility

<b>FEATURE:</b> Requirements for Surface Diversion Projoaque Valley System (Alternative 2) 2005 construction  <b>WOID:</b> AAMO2	14-Mar-03	<b>PROJECT:</b> AAMODT Feasibility Study Treatment Component  <b>REGION:</b>  <b>FILE:</b>
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PLANT ACCT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
	130	4 - check valves, 2" dia, 50 lbs ea	D-8420	200	lbs	\$17.00	\$3,400.00
	140	8 - ball valves, 2" dia, 16.9 lbs ea	D-8420	135	lbs	\$22.40	\$3,024.00
	150	2 - check valves, 4" dia, 82 lbs ea	D-8420	165	lbs	\$16.20	\$2,673.00
	160	2 - butterfly valves, 4" dia, 32 lbs ea	D-8420	65	lbs	\$20.20	\$1,313.00
		c. Process Waste Water					
	170	9 - 4" Butterfly valve-Class 75 w/motor operator @ 205 lbs. ea	D-8420	1,850	lbs	\$26.90	\$49,765.00
		d. Surface Diversion					
	180	1 - 4" Butterfly valve-Class 75 w/motor operator @ 205 lbs. ea	D-8420	210	lbs	\$26.90	\$5,649.00
	190	1 - 10" Knifegate valve @ 322 lbs ea w/motor	D-8420	320	lbs	\$20.80	\$6,656.00
	200	2 - 24" Knifegate valve @ 1125 lbs. ea w/motor operator	D-8420	2,250	lbs	\$9.90	\$22,275.00
	210	5 - 24" Butterfly valve-Class 75 w/motor operator @ 1270 lbs. ea	D-8420	6,350	lbs	\$9.10	\$57,785.00
		Subtotal (sheet 1 of 2)					\$268,384.00
		Subtotal (sheet 2 of 2)					\$152,540.00
		Subtotal					\$420,924.00
		Mobilization			(+/-) 5%		\$21,000.00
		<b>SUBTOTAL</b>					\$441,924.00
		Unlisted Items			(+/-) 20%		\$88,076.00
		<b>Contract Cost</b>					\$530,000.00
		Contingencies			(+/-) 20%		\$110,000.00
		<b>Field Cost</b>					\$640,000.00
		Noncontract Costs			(+/-) 30%		\$190,000.00
		<b>Construction Cost</b>					\$830,000.00

\* All costs are reported in year 2003 dollars

<b>QUANTITIES</b>		<b>PRICES</b>	
BY T. Hummel/Rick Frisz	CHECKED B. Zelenka	BY T. Artichoker	CHECKED <i>[Signature]</i> 3/14/03
DATE PREPARED 3/14/03	APPROVED	DATE 2/28/03	PRICE LEVEL Feasibility

<b>FEATURE:</b> Requirements for Surface Division Pojoaque Valley System (Alternative 2) Phase Constructoin year - 2015	10-Mar-03	<b>PROJECT:</b> AAMODT Feasibility Study Treatment Component
		<b>REGION:</b>
<b>WOID: AAM02</b>		<b>FILE:</b>

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>PUMPS/MOTORS</b>					
	10	1 - 1,370 gpm (3.0 cfs) pumps (P0)	D-8420	4,100	lbs	\$8.00	\$32,800.00
	(a)	Vertical turbine pump 332 feet TDH, steel baseplate for pump 4,100 lbs each					
	(b)	1 - 150 hp, TEFC motors, 460 v, 1800 rpm, 3 phase, 2,100 lbs each	D-8420	2,100	lbs	\$12.00	\$25,200.00
	20	1 - 66 gpm pumps (Waste Flow "B")	D-8420	175	lbs	\$15.00	\$2,625.00
	(a)	End suction centrifugal pump 40 ft TDH, variable speed, baseplate for pump and motor, 175 lbs each					
	(b)	1 - 1.5 hp motors, 460 v, 1750 rpm, inverter rated 3 phase, 100 lbs each	D-8420	100	lbs	\$18.70	\$1,870.00
		Subtotal					\$62,495.00
		Mobilization			(+/-) 5%		\$3,100.00
		Subtotal					\$65,595.00
		<b>SUBTOTAL</b>					\$65,595.00
		Unlisted Items			(+/-) 20%		\$13,405.00
		<b>Contract Cost</b>					\$79,000.00
		Contingencies			(+/-) 20%		\$15,000.00
		<b>Field Cost</b>					\$94,000.00
		Noncontract Costs			(+/-) 30%		\$26,000.00
		<b>Construction Cost</b>					\$120,000.00

\* All costs are reported in year 2003 dollars

<b>QUANTITIES</b>		<b>PRICES</b>	
BY T. Hummel/Rick Frisz	CHECKED B. Zelenka	BY T. Artichokar	CHECKED <i>cy</i> 3/13/2003
DATE PREPARED 2/10/03	APPROVED	DATE 2/28/03	PRICE LEVEL Feasibility

<b>FEATURE:</b> AAMODT Feasibility Study Water Treatment Plant and Yard Piquette Valley Alternative (Alternative 2) ce Diversion 2005 Construction <b>WOID: AAMO2</b>	10-Mar-03	<b>PROJECT:</b> Water Treatment Component <b>REGION:</b> <b>FILE:</b> Aamodt_WTP2D1_D8120.xls
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>SITework</b>					
	10	<b>Access Road (856 ft of 24ft wide bituminous surface):</b>					
	a	Strip and clear site to 1 foot depth	D8120	2,100	CY	\$3.90	\$8,190.00
	b	Furnish and place 3-inch bituminous surfacing	D8120	200	CY	\$100.00	\$20,000.00
	c	Excavate for road (common material)	D8120	2,000	CY	\$6.10	\$12,200.00
	d	Furnish Embankment for road	D8120	200	CY	\$6.90	\$1,380.00
	e	Place and compact embankment for road	D8120	2,200	CY	\$2.80	\$6,160.00
	f	Furnish and place 6-inch aggregate base course	D8120	400	CY	\$30.00	\$12,000.00
	20	<b>Service Yard (6" aggregate surfacing)</b>					
	a	Strip and clear site to 1 foot depth	D8120	10,000	CY	\$3.90	\$39,000.00
	b	Excavation for site grading (common material)	D8120	9,000	CY	\$6.10	\$54,900.00
	c	Furnish embankment for service yard (local borrow)	D8120	700	CY	\$6.90	\$4,830.00
	d	Place and compact embankment for service yard	D8120	10,900	CY	\$2.80	\$30,520.00
	e	Furnish embankment for berm (local borrow)	D8120	11,900	CY	\$6.90	\$82,110.00
	f	Place and compact embankment for berm	D8120	24,000	CY	\$2.80	\$67,200.00
	g	Furnish and place 6-inch aggregate surfacing	D8120	2,500	CY	\$30.00	\$75,000.00
	h	Furnish and install 7-foot chain link fence	D8120	2,000	LF	\$25.00	\$50,000.00
	i	Furnish and install 7-foot x 24foot access gate	D8120	1	EA	\$4,000.00	\$4,000.00
	30	<b>Settling Pond</b>					
	a	Furnish embankment (assume local borrow)	D8120	21,150	CY	\$6.90	\$145,935.00
	b	Place and compact embankment	D8120	21,150	CY	\$2.80	\$59,220.00
	c	Furnish, form, and place 5-inch slab-on-grade area	D8120	400	CY	\$250.00	\$100,000.00
	d	Furnish and place concrete reinforcement (5#/SF)	D8120	37,600	LBS	\$1.10	\$41,360.00
	e	Furnish and handle cement (.235T/CY, f'c= 3,500)	D8120	94	TONS	\$150.00	\$14,100.00
	f	Furnish and place 6-inch PVC waterstop	D8120	2,000	LF	\$9.80	\$19,600.00
		<b>WW Polishing Ponds (By D-8230)</b>					
	40	<b>Sediment Drying Area</b>					
	a	Furnish and place 4-inch compacted sub-base	D8120	50	CY	\$30.00	\$1,500.00
	b	Furnish and place 4-inch bituminous surfacing	D8120	50	CY	\$100.00	\$5,000.00
	50	<b>Landscaping</b>					
	a	Furnish and apply native grass seed	D8120	15	AC	\$1,950.00	\$29,250.00
	b	Furnish and install deciduous trees (1-inch caliper)	D8120	75	EA	\$115.00	\$8,625.00
		Subtotal (sheet 1 of 5)					\$892,080.00

\* All costs are reported in year 2003 dollars

<b>QUANTITIES</b>		<b>PRICES</b>	
John Pattie, Dick LaFond	CHECKED	BY T. Artchoker	CHECKED <i>cy</i> 3/13/2003
DATE PREPARED 3/10/03	APPROVED	DATE 2/28/03	PRICE LEVEL Feasibility

<b>FEATURE:</b> AAMODT Feasibility Study Water Treatment Plant and Yard Picoaque Valley Alternative (Alternative 2) ce Diversion 2005 Construction <b>WOID: AAMO2</b>	10-Mar-03	<b>PROJECT:</b> Water Treatment Component <b>REGION:</b> <b>FILE:</b>
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>BUILDING TYPE 2 (INCLUDES CLEARWELL)</b>					
		<b>CIVIL -STRUCTURAL</b>					
	60	<b>Excavation and Backfill</b>					
	a	Excavation of common materials for structures	D8120	3,650	CY	\$9.40	\$34,310.00
	b	Furnish backfill for structures (assume local borrow)	D8120	2,340	CY	\$8.60	\$20,124.00
	c	Place backfill around structures	D8120	2,340	CY	\$8.60	\$20,124.00
	d	Compact backfill around structures	D8120	2,340	CY	\$12.00	\$28,080.00
	70	<b>Construct Building Substructure</b>					
	a	Furnish, form, and place concrete for substructure	D8120	865	CY	\$550.00	\$475,750.00
	b	Furnish and place concrete reinforcement (130#)	D8120	115,000	LBS	\$1.10	\$126,500.00
	c	Furnish and handle cement (.282T/CY, f'c= 4000)	D8120	244	TONS	\$150.00	\$36,600.00
	d	Furnish and place 6-inch PVC waterstop	D8120	600	LF	\$9.80	\$5,880.00
	80	<b>Construct Building Superstructure</b>					
	a	Furnish and install 1.5" x 22 gage steel roof deck (Vulcraft 1.5B22, painted, 1.68 psf)	D8120	7,500	SF	\$2.90	\$21,750.00
	b	Furnish and install open web joists (painted): Vulcraft 32LH14 x 54-ft span, 3 req'd	D8120	5,400	LBS	\$4.00	\$21,600.00
	c	Furnish and install structural steel:	D8120	39,000	LBS	\$2.80	\$109,200.00
	d	Furnish and construct 8-inch reinforced masonry	D8120	14,550	SF	\$13.60	\$197,880.00
	e	Furnish, form, & place concrete superstructure	D8120	100	CY	\$610.00	\$61,000.00
	f	Furnish, form, & place concrete equip. foundation	D8120	20	CY	\$370.00	\$7,400.00
	g	Furnish and place concrete reinforcement (130#)	D8120	16,000	LBS	\$1.10	\$17,600.00
	h	Furnish and handle cement (.282T/CY)	D8120	34	TONS	\$150.00	\$5,100.00
	i	Furnish and place 6-inch PVC waterstop	D8120	300	LF	\$9.80	\$2,940.00
	j	Furnish and install miscellaneous metalwork	D8120	3,000	LBS	\$8.30	\$24,900.00
		Subtotal (sheet 2 of 5)					\$1,216,738.00
		* All costs are reported in year 2003 dollars					

<b>QUANTITIES</b>		<b>PRICES</b>	
Dick LaFond DATE PREPARED 3/10/03	CHECKED APPROVED	BY T. Artichoker DATE 2/28/03	CHECKED 3/13/2003 PRICE LEVEL Feasibility

<b>FEATURE:</b> AAMODT Feasibility Study Water Treatment Plant and Yard Pnoioaque Valley Alternative (Alternative 2) ce Diversion 2005 Construction <b>WOID: AAMO2</b>	10-Mar-03	<b>PROJECT:</b> Water Treatment Component <b>REGION:</b> <b>FILE:</b>
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*	
		<b>BUILDING TYPE 2 (INCLUDES CLEARWELL)</b>						
		<b>ARCHITECTURAL</b>						
	90	<b>DOORS:</b>						
	a	3'X7X1.75" EXTERIOR STEEL DOOR AND DOOR	D8120	6	Each	\$750.00	\$4,500.00	
	b	3'X7X1.75" INTERIOR STEEL DOOR AND DOOR	D8120	9	Each	\$640.00	\$5,760.00	
	100	<b>DOOR HARDWARE:</b>						
	a	BUTT HINGES 4.5x4.5--HEAVY WEIGHT BRASS	D8120	45	Each	\$50.00	\$2,250.00	
	b	MORTISED LOCKSET W/LEVER HANDLES	D8120	15	Each	\$420.00	\$6,300.00	
	c	DOOR CLOSER--HOLD OPEN	D8120	15	Each	\$250.00	\$3,750.00	
	d	DOOR SHOE	D8120	15	Each	\$31.00	\$465.00	
	e	THRESHOLD-1/4"x5" STEEL PLATE-3'-0" LONG	D8120	15	Each	\$80.00	\$1,200.00	
	f	WEATHERSTRIPPING--STANDARD SELF-ADH	D8120	15	EACH	\$200.00	\$3,000.00	
	110	<b>ROLL UP DOOR WITH HARDWARE COMPLETE:</b>						
	a	12' WIDE, 12' HIGH	D8120	1	Each	\$2,700.00	\$2,700.00	
	b	12' WIDE, 8' HIGH	D8120	1	Each	\$2,200.00	\$2,200.00	
	c	10' WIDE, 8' HIGH	D8120	4	Each	\$1,950.00	\$7,800.00	
	d	8'WIDE, 8' HIGH	D8120	2	Each	\$1,750.00	\$3,500.00	
	120	<b>ALUMINUM SAFETY GLASS FIXED WINDOW</b>						
	a	6'-0" WIDE, 4'-0" HIGH	D8120	1	Each	\$330.00	\$330.00	
	130	<b>BUILT-UP ROOFING SYSTEM:</b>						
	a	ROOFING	D8120	8,000	Sq Ft	\$2.50	\$20,000.00	
	b	3" AVERAGE RIGID INSULATION	D8120	8,000	Sq Ft	\$0.90	\$7,200.00	
	140	<b>TOILET:</b>						
	a	SHOWER BASE- 3'x3'	D8120	1	Each	\$1,050.00	\$1,050.00	
	b	STEEL LOCKERS-12"x20"x72" HIGH	D8120	5	Each	\$280.00	\$1,400.00	
	c	WOODEN BENCH-9"x3'-0" LONGx15" HIGH	D8120	1	Each	\$490.00	\$490.00	
	d	MIRROR-24'x48"	D8120	1	Each	\$160.00	\$160.00	
	e	TPD	D8120	1	Each	\$42.00	\$42.00	
	f	SD	D8120	1	Each	\$250.00	\$250.00	
	g	GRAB BARS- 1.5"x42", 1.5"x36", 1.5"x24"	D8120	1	Each	\$200.00	\$200.00	
	h	STAINLESS STEEL WATER FOUNTAIN	D8120	1	Each	\$2,100.00	\$2,100.00	
	i	TRASH CAN-20 GALLONS	D8120	1	Each	\$150.00	\$150.00	
		Subtotal (sheet 3 of 5)					\$76,797.00	
		* All costs are reported in year 2003 dollars						

<b>QUANTITIES</b>		<b>PRICES</b>	
Kuldip Kumar DATE PREPARED 3/10/03	CHECKED APPROVED	BY T. Artichoker DATE 2/28/03	CHECKED cy 3/13/2003 PRICE LEVEL Feasibility

<b>FEATURE:</b> AAMODT Feasibility Study Water Treatment Plant and Yard ...naque Valley Alternative (Alternative 2) ...ace Diversion 2005 Construction <b>WOID: AAM02</b>	13-Mar-03	<b>PROJECT:</b> Water Treatment Component <hr/> <b>REGION:</b> <hr/> <b>FILE:</b>
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>BUILDING TYPE 2 (INCLUDES CLEARWELL)</b>					
		<b>ARCHITECTURAL (CONTINUED)</b>					
	150	<b>LAB:</b>					
	a	REFRIGERATOR- 20 CUBIC FEET	D8120	1	Each	\$6,600.00	\$6,600.00
	b	WOODEN BASE CABINET- 24" x 36" HIGH	D8120	26	LF	\$480.00	\$12,480.00
	c	WOODEN UPPER STORAGE CABINETS-12"x2	D8120	26	LF	\$435.00	\$11,310.00
	d	STAINLESS STEEL DUAL SINK- 16"x20"	D8120	1	Each	\$1,400.00	\$1,400.00
	e	FORMICA COUNTER TOP- 24' WIDE	D8120	26	LF	\$81.00	\$2,106.00
	f	STAINLESS STEEL EYE WASH	D8120	1	Each	\$480.00	\$480.00
	160	<b>ACOUSTICAL PANEL SUSPENDED SYSTEM:</b>	D8120	600	Sq Ft	\$6.70	\$4,020.00
	170	<b>FLOOR:</b>					
	a	FLOOR HARDENER	D8120	7,100	Sq Ft	\$1.10	\$7,810.00
	b	VINYL RESILIENT TILE	D8120	900	Sq Ft	\$2.20	\$1,980.00
	c	CERAMIC TILE ON TOILET WALLS	D8120	300	Sq Ft	\$8.80	\$2,640.00
	180	<b>PAINT:</b>					
	a	3/4" THICK STUCCO (ON EXTERIOR WALLS)	D8120	11,000	Sq Ft	\$3.70	\$40,700.00
	b	INTERIOR PAINT	D8120	1,500	Sq Ft	\$0.50	\$750.00
	190	<b>Miscellaneous Equipment Foundations in Yard</b>					
	a	Furnish, form, and place concrete for structures	D8120	5	CY	\$550.00	\$2,750.00
	b	Furnish and place concrete reinforcement (130#)	D8120	650	LBS	\$1.10	\$715.00
	c	Furnish and handle cement (.282T/CY)	D8120	1	TONS	\$150.00	\$150.00
		Furnish and install following precast valve vaults:					
	d	4'x4'x3-8"dp. (Utility Vault Co. 444-WA)	D8120	8	EA	\$1,530.00	\$12,240.00
	e	4'-8"x7'x4'dp. (Utility Vault Co. 575-WA)	D8120	10	EA	\$2,300.00	\$23,000.00
		(Utility Vault Co., Chandler, AZ, 602-963-2678)					
		Subtotal (sheet 4 of 5)					\$131,131.00

\* All costs are reported in year 2003 dollars

<b>QUANTITIES</b>		<b>PRICES</b>	
BY Kuldip Kumar	CHECKED	BY T. Artichoker	CHECKED <i>[Signature]</i> 3/14/2003
DATE PREPARED 3/13/03	APPROVED	DATE 2/28/03	PRICE LEVEL Feasibility



ESTIMATE WORKSHEET

**FEATURE:**  
 AAMODT  
 Water Treatment System  
 HVAC EQUIPMENT  
 native 2 - Surface Diversion  
 2005 Construction  
 WOID: AAM02

10-Mar-03

**PROJECT:**  
 AAMODT  
 Mechanical  
**REGION:**  
**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
	1	<b>Evaporative coolers NECU1 and NECU2. each:</b>		2	ea	\$51,000.00	\$102,000.00
		8 000-cfm at 2.5-inch w. g. at high speed					
		4000-cfm at low speed, 10-hp, 2-speed motor,					
		High speed max. 1600-fan rpm with belt drive.					
		motor 1800 rpm max, 460-v, 60Hz, 3-Ph.					
		80-% efficient.					
		12-inch cel-Dek element with 1/4hp sump pump.					
		Automatic controls for "Vent-Cool-Heat" and					
		duct type smoke					
		detector, solenoid valve					
		Mixing box with modulating RA and OA dampers					
		for 100% outside air to 100% return air					
		and min OA settings.					
		( PACE built up unit w/EvapPak size E20,					
		AHU size A20, flat filter, and mixing box with dampers)					
	2	Natural gas duct furnace		2	ea	\$2,260.00	\$4,520.00
		rated 200,000 Btuh input					
		with factory control panel. Airflow switch.					
	3	Roof fans: reversible, recirculating/Exhaust		4	ea	\$9,900.00	\$39,600.00
		propeller type with belt drive					
		4,000 cfm at 0.30 inch static pressure w.g.					
		0.75-hp motor. Vibration isolated roof curb.					
		Factory control panel. Airflow switch.					
		Greenheck Model ERD-30					
	4	Packaged terminal air conditioner (PTAC)		2	ea	\$1,490.00	\$2,980.00
		12,000 Btuh cooling					
		12,000 Btuh heating					
		at Elevation 5550 ft					
		(1.25 ton nominal)					
	5	Upblast roof exhausters		2	ea	\$1,220.00	\$2,440.00
		2650-cfm, at 0.30" esp (External static pressure)					
		Subtotal (sheet 1 of 2)					\$151,540.00
		* All costs are reported in year 2003 dollars					

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
		T. Artichoker	<i>[Signature]</i> 3/13/2003
DATE PREPARED	APPROVED	DATE	PRICE LEVEL
3/10/03		2/28/03	Feasibility

<b>FEATURE:</b> AAMODT Water Treatment System EQUIPMENT ative 2 - Surface Diversion 2005 Construction WOID: AAM02	10-Mar-03	<b>PROJECT:</b> Mechanical <b>REGION:</b> <b>FILE:</b>
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	6	Cabinet exhaust fan 250-cfm at 0.25" external static pressure		1	ea	\$350.00	\$350.00
	7	Makeup air unit - Outdoor type 75,000 Btuh input natural gas heat. 1000 cfm		1	ea	\$4,900.00	\$4,900.00
	8	Stationary Louvers with insect screens on the outside 68"x48 " 24"x16"		2 4	ea ea	\$1,600.00 \$210.00	\$3,200.00 \$840.00
	9	Ductwork		3,000	lb	\$5.30	\$15,900.00
	10	Control dampers 24"x16"		4	ea	\$270.00	\$1,080.00
		Subtotal sheet 1					\$151,540.00
		Subtotal sheet 2					\$26,270.00
		Subtotal					\$177,810.00
		Mobilization			(+/-) 5%		\$8,900.00
		Subtotal					\$186,710.00
		SUBTOTAL					\$186,710.00
		Unlisted Items			(+/-) 20%		\$33,290.00
		<b>Contract Cost</b>					<b>\$220,000.00</b>
		Contingencies			(+/-) 20%		\$50,000.00
		<b>Field Cost</b>					<b>\$270,000.00</b>
		Noncontract Costs			(+/-) 30%		\$80,000.00
		<b>Construction Cost</b>					<b>\$350,000.00</b>

\* All costs are reported in year 2003 dollars

<b>QUANTITIES</b>		<b>PRICES</b>	
DATE PREPARED 3/10/03	CHECKED T. Artchoker	BY T. Artchoker	CHECKED <i>cy</i> 3/13/2003
	APPROVED	DATE 2/28/03	PRICE LEVEL Feasibility

<b>FEATURE:</b> AAMODT FEASIBILITY STUDY ALTERNATIVE 2 - Surface Diversion  Items Are Furnish And Install	10-Mar-03	<b>PROJECT:</b> AAMODT Mechanical  <b>REGION:</b>  <b>FILE:</b>
<b>W/OID: AAMO2</b>		

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*	
	1	Water closet, floor mounted, vitreous white china, tank type, bottom outlet, 1.6 gallon flush.		1	ea	\$900.00	\$900.00	
	2	Urinal, wall mounted, vitreous white china, lever flush valve with wall mounted carrier.		1	ea	\$670.00	\$670.00	
	3	Lavatory, wall mounted, vitreous white china, 20 by 18 inch rectangular basin with single control lever handle faucet, wall mounted carrier.		1	ea	\$540.00	\$540.00	
	4	Service sink basin, precast terrazzo, 36 inch by 24 inch, with wall type lever handle faucets.		1	ea	\$390.00	\$390.00	
	5	Drench shower/emergency eye and face wash, floor mounted.		1	ea	\$780.00	\$780.00	
	6	Electric water cooler, wall mounted, stainless steel top and body, handicap accessible, 115 Vac		1	ea	\$1,970.00	\$1,970.00	
	7	Electric water heater, glass lined, 20 gallon capacity, 120 volt with temperature and pressure relief valve.		1	ea	\$490.00	\$490.00	
	8	Sink, 33" x 22", double compartment basin, stainless steel, with chrome plated single handle faucet and chrome plated supply and drain trim		1	ea	\$700.00	\$700.00	
	9	Shower head and control valve, stainless steel single supply with mixing valve		1	ea	\$585.00	\$585.00	
	10	Wall hydrant, nonfreeze type, 3/4" hose thread, exterior wall mounted chrome plated face lockable recessed box, integral vacuum breaker		6	ea	\$310.00	\$1,860.00	
	11	Hand portable multi-pupose dry chemical fire extinguisher, 20 pound capacity.		10	ea	\$155.00	\$1,550.00	
	12	Fire hydrant, wall-mounted, chrome plated finish, 2-1/2-inch by 2-1/2-inch by 3-inch flush type.		1	ea	\$540.00	\$540.00	
		Subtotal (sheet 1 of 2)					\$10,975.00	
		* All costs are reported in year 2003 dollars						

<b>QUANTITIES</b>		<b>PRICES</b>	
DATE PREPARED	CHECKED	BY	CHECKED
3/10/03		T. Arichoker	<i>Cy</i> 3/10/2003
DATE PREPARED	APPROVED	DATE	PRICE LEVEL
3/10/03		2/28/03	Feasibility

ESTIMATE WORKSHEET

**FEATURE:**  
 AAMODT FEASIBILITY STUDY  
 ALTERNATIVE 2 - Surface Diversion  
 Items Are Furnish And Install  
**WOID: AAM02**

**PROJECT:**  
 AAMODT  
 Mechanical  
**REGION:**  
**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
	13	Wheel mounted mobile multi-purpose dry chemical fire extinguisher, 125 lb. capacity		1	ea	\$1,800.00	\$1,800.00
	14	Fire hose cabinet, 100 feet of 1-1/2 inch hose with shutoff valve and adjustable fog nozzle.		2	ea	\$335.00	\$670.00
	15	Drain, waste and vent piping components		1	ls	\$27,875.00	\$27,875.00
		a. 2-inch cast iron soil pipe, service weight -100 L.F.		100	lf	\$19.50	
		b. 4-inch cast iron soil pipe, service weight -250 L.F.		250	lf	\$25.80	
		c. 6-inch cast iron soil pipe, service weight - 75 L.F.		75	lf	\$34.60	
		d. Cast iron floor drains - Fifteen		15	ea	\$650.00	
		e. Cast iron trench drain (10 feet long) - Two		2	ea	\$290.00	
		f. Cast iron trench drain (12 feet long) - Three		3	ea	\$1,000.00	
		g. Cast iron trench drain (14 feet long) - Two		2	ea	\$1,200.00	
	16	Carbon steel piping components w/ hangers and supports, ASTM A53, sch. 40		1	ls	\$4,305.00	\$4,305.00
		a. 1-inch pipe and fittings, galvanized - 100 Lin Ft		100	lf	\$11.70	
		b. 1-1/4-inch pipe and fittings, galvanized - 75 Lin Ft		75	lf	\$13.00	
		c. 1-1/2-inch pipe and fittings, galvanized - 150 Lin Ft		150	lf	\$14.40	
	17	Copper tube water supply piping components w/hangers and supports, ASTM B88, type K		1	ls	\$5,165.00	\$5,165.00
		a. 1/2-inch copper tube and fittings - 150 Lin Ft		150	lf	\$3.40	
		b. 3/4-inch copper tube and fittings - 100 Lin Ft		100	lf	\$4.50	
		c. 1-inch copper tube and fittings - 100 Lin Ft		100	lf	\$5.60	
		d. 1-1/2-inch copper tube and fittings - 50 Lin Ft		50	lf	\$7.90	
		e. 2-inch copper tube and fittings - 100 Lin Ft		100	lf	\$11.20	
		f. 3-inch copper tube and fittings - 100 Lin Ft		100	lf	\$21.30	
	18	3-inch double check valve backflow preventer, bronze construction, 175 psi rating threaded outlets w/ inlet and outlet ball valves.		1	each	\$1,200.00	\$1,200.00
	19	Gas detector, senses mixture of natural gas and air, wall mounted, 120 Vac operation		2	each	\$380.00	\$760.00
		Subtotal (sheet 1 of 2)					\$41,775.00

\* All costs are reported in year 2003 dollars

QUANTITIES		PRICES	
DATE PREPARED 3/10/03	CHECKED T. Artchoker	BY T. Artchoker	CHECKED cy 3/13/2003
DATE PREPARED 3/10/03	APPROVED	DATE 2/28/03	PRICE LEVEL Feasibility

**FEATURE:**  
 AAMODT FEASIBILITY STUDY  
 ALTERNATIVE 2 - Surface Diversion  
 Items Are Furnish And Install  
 WOID: AAM02

**PROJECT:**  
 AAMODT  
 Mechanical  
**REGION:**  
**FILE:**

PLANT ACCL.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
	20	Domestic water and fire suppression valves:		1	ls	\$2,792.00	\$2,792.00
		a. 1/2-inch ball valves, bronze - Twelve		12	ea	\$20.00	
		b. 3/4-inch ball valves, bronze - Six		6	ea	\$37.00	
		c. 1-1/2-inch ball valves, stainless steel - Two		2	ea	\$175.00	
		d. 2-inch ball valves, stainless steel - Two		2	ea	\$225.00	
		e. 2-inch gate valve, bronze - Two		2	ea	\$220.00	
		f. 3-inch gate valve, cast iron - Two		2	ea	\$485.00	
	21	3-inch pressure regulating valve with inlet and outlet pressure gages		1	ea	\$590.00	\$590.00
	22	Electromagnetic Flowmeter (equal to Marsh-McBirney Model 282)		2	ea	\$8,000.00	\$16,000.00
		Subtotal sheet 1					\$10,975.00
		Subtotal sheet 2					\$41,775.00
		Subtotal sheet 3					\$19,382.00
		Subtotal					\$72,132.00
		Mobilization			(+/-) 5%		\$3,600.00
		Subtotal					\$75,732.00
		<b>SUBTOTAL</b>					\$75,732.00
		Unlisted Items			(+/-) 20%		\$15,268.00
		<b>Contract Cost</b>					\$91,000.00
		Contingencies			(+/-) 20%		\$19,000.00
		<b>Field Cost</b>					\$110,000.00
		Noncontract Costs			(+/-) 30%		\$35,000.00
		<b>Construction Cost</b>					\$145,000.00

\* All costs are reported in year 2003 dollars

QUANTITIES		PRICES	
DATE PREPARED	CHECKED	BY	CHECKED
3/13/03	APPROVED	T. Artichoker	cy 3/14/2003
		DATE	PRICE LEVEL
		2/28/03	Feasibility

**FEATURE:**  
 AAMODT FEASIBILITY STUDY  
 ALTERNATIVE 2 - Surface Diversion  
  
 Electrical  
  
**WOID: AAM02**

**PROJECT:**  
 AAMODT  
  
**REGION:**  
  
**FILE:**

10-Mar-03

PLANT ACCT	PAY ITEM	DESCRIPTION	COOL	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Electrical Equipment					
	1	Motor control equipment - 5KV indoor MCC consisting of 7 sections as follows:		1	ea	\$171,800.00	\$171,800.00
	a	1. One-incoming power and metering section		1	ls	\$15,900.00	
	b	2. 4-unit start and control sections for 600 hp motors with motor contactors, unit control and protection, and isolation.		1	ls	\$76,700.00	
	c	3. One station service section including a 4160-480/277V, 500-kVA, 3-phase transformer		1	ls	\$39,600.00	
	d	4. One 3-phase, 4160-480V, 500 KVA isolation transformer to supply water treatment plant		1	ls	\$39,600.00	
	2	Motor control equipment - 600V indoor MCC consisting of 12 sections as follows:		1	ea	\$132,000.00	\$132,000.00
	a	1. One-incoming power and metering, and aux controls		1	ls	\$13,300.00	
	b	2. 8-unit start and control sections for various motors (20 HP max) with motor contactors, unit control, protection and isolation		1	ls	\$65,200.00	
	c	3. One station service section including a 480-240/120V, 3 phase transformer, and a 12 pole distribution panelboard		1	ls	\$50,000.00	
	d	4. 2 - sections each for 2 adjustable speed, 5 HP motors		1	ls	\$18,400.00	
	3	Incoming power and transformers: Furnished by others					
	4	F&I grounding system with ground rods, bare 4/0 copper conductors, ground plates and Cadweld junctions		200	lb	\$11.00	\$2,200.00
	5	60 KVA Engine generator system with integral natural gas fuel storage tank		1	ea	\$37,000.00	\$37,000.00
	6	Mobilization			(+/-) 5%		\$17,000.00
		Subtotal					\$360,000.00
		Scaling Factor (per M. Nelson, G. Howard)			(+/-) -33.00%		-\$118,800.00
		Incoming Power Lines & Transformers (Provided by Jemez Coop.)		1	ls	\$244,000.00	\$244,000.00
		Subtotal					\$485,200.00
		SUBTOTAL					\$485,200.00
		Unlisted Items			(+/-) 20%		\$94,800.00
		<b>Contract Cost</b>					<b>\$580,000.00</b>
		Contingencies			(+/-) 20%		\$120,000.00
		<b>Field Cost</b>					<b>\$700,000.00</b>
		Noncontract Costs			(+/-) 30%		\$210,000.00
		<b>Construction Cost</b>					<b>\$910,000.00</b>

\* All costs are reported in 2003 dollars

QUANTITIES		PRICES	
BY Mark Nelson	CHECKED	BY T. Antchoker	CHECKED 3/13/2003
DATE PREPARED 3/10/03	APPROVED	DATE 2/28/03	PRICE LEVEL Feasibility

Water Treatment Equipment Replacement Schedule - Alternative 2 - Surface Diversion									
Pay Item	Name of Equipment	Code	Date Installed	Replacement Schedule	Year	Quantity	Units	Unit Price*	Amount
10	12 - Pump Impeller/Pump Bowls (3 pumps - 4 stages/pump) 170 lbs each	D-8420	2005	20 years	2025	2040	lbs	\$13.00	\$26,520.00
20	3 - 150 hp, TEFC motors, 450 v, 1800 rpm, 3 phase, 2,100 lbs each	D-8420	2005	20 years	2025	6300	lbs	\$19.00	\$119,700.00
30	4 - Pump Impeller/Pump Bowls (1 pump - 4 stages/pump) 170 lbs ea	D-8420	2015	20 years	2035	680	lbs	\$13.00	\$8,840.00
40	1 - 150 hp, TEFC motors, 450 v, 1800 rpm, 3 phase, 2,100 lbs each	D-8420	2015	20 years	2035	2100	lbs	\$19.00	\$39,900.00
50	3 - Pump Impellers (3 pumps - 1 stages/pump) Bronze, 15 lbs each	D-8420	2005	20 years	2025	45	lbs	\$24.00	\$1,080.00
60	3 - 1.5 hp motors, 450 v, 1800 rpm, inverter rated, 3 phase, 100 lbs ea	D-8420	2005	20 years	2025	300	lbs	\$30.00	\$9,000.00
70	1 - Pump Impellers (1 pump - 1 stages/pump) Bronze, 15 lbs each	D-8420	2015	20 years	2035	15	lbs	\$24.00	\$360.00
80	1 - 1.5 hp motors, 450 v, 1800 rpm, inverter rated, 3 phase, 100 lbs ea	D-8420	2015	20 years	2035	100	lbs	\$30.00	\$3,000.00
90	3 - Butterfly Valve Seats, 10" dia 71 lbs each	D-8420	2005	20 years	2025	213	lbs	\$31.00	\$6,603.00
100	1 - Butterfly Valve Seats, 10" dia 71 lbs each	D-8420	2015	20 years	2035	71	lbs	\$31.00	\$2,201.00
110	2 - Butterfly Valve Seats, 4" dia 8 lbs each	D-8420	2005	20 years	2025	16	lbs	\$33.00	\$528.00
120	10 - Butterfly Valve Seats, 4" dia 13 lbs each	D-8420	2005	20 years	2025	130	lbs	\$33.00	\$4,290.00
130	5 - Butterfly Valve Seats, 24" dia 260 lbs each	D-8420	2005	20 years	2025	1300	lbs	\$20.00	\$26,000.00

Note: Costs are estimated through the year 2040  
 \* 'Unit Price' Column includes: 5% mobilization, 6.5% Gross Receipts Tax, 20% Unlisted, 20% Contingencies.  
 All costs are considered O&M  
 All costs reported in 2003 dollars

WTP's Treating Water from the Surface Diversion - O&M							
Equipment	Replacement Cycle	Years	# Trains	No/ Train	Total	Cost/ea *	Total Cost *
							per cycle
Miscellaneous	Annual	2006-2015				\$5,000	\$5,000
Pumps & Equipment		2016-2034				\$6,000	\$6,000
		2035-2040				\$6,000	\$6,000
Ultraviolet Disinfection	Annual	2006-2015	2.00	2	4	\$300	\$1,200
		2016-2034	3	2	6	\$300	\$1,800
		2035-2040	3	2	6	\$300	\$1,800
Microfiltration Modules	10 years	2015	2	52	104	\$2,500	\$260,000
		2025	3	63	189	\$2,500	\$472,500
		2035	3	74	222	\$2,500	\$555,000
Feed Pumps	20 years	2025				\$14,000	\$14,000
Impellers							
Bearings							

Cleaning of Settling Ponds - WTP for Surface Diversion Only - O&M							
Settling Ponds	Cycle	Years	# Trains	No/ Train	Total	Cost/ea *	Total Cost *
	15 years	2020				\$150,000	\$150,000
		2035				\$150,000	\$150,000

Notes

WTP Water Treatment Plant

\* 2003 Costs, provided by G. Howard, and unadjusted by estimator.

Water Treatment Facility Operational Demands - Alt. 2 - Surface Diversion						
Equipment Demands			Operation Demands			
Year	Diversion Q MGD	Demand Q MGD	Daily Labor (hours)	Daily Chemicals Cost	Daily Power (Kw)	Daily Cost
2005	3.25	3.09	51	\$241.64	7,236	\$2,679.62
2010	3.63	3.45	51	\$269.80	7,855	\$2,741.83
2015	4.01	3.81	51	\$297.96	8,475	\$2,804.09
2020	4.39	4.17	51	\$326.13	10,055	\$2,919.16
2025	4.76	4.54	51	\$354.29	10,675	\$2,981.42
2030	5.14	4.90	51	\$382.45	11,294	\$3,043.62
2035	5.52	5.26	51	\$410.61	11,914	\$3,105.88
2040	5.90	5.62	51	\$438.77	12,534	\$3,168.14

Pumps and treatment systems to be phased in by schedule.

Feed pump's max. production is 4.06 MGD at 100% VFD.

Labor rate is taken as an average of wages from Davis-Bacon (\$40.00/hr).

Power rates are taken from Jemez Mountain Electric Cooperative (\$0.055/kW-hr).

All costs are reported in 2003 dollars

<b>FEATURE:</b> Alternative #2 - Surface Diversion Pojoaque Valley System Summary of Costs	17-Mar-03	<b>PROJECT:</b> AAMODT Feasibility Study
		<b>REGION:</b>
		<b>FILE:</b>
<b>WOID: AAM02</b>		

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
<b>O&amp;M COSTS</b>							
<b>Water Treatment Plant</b>							
		2005					
		2006					\$984,261
		2007					\$984,261
		2008					\$984,261
		2009					\$984,261
		2010					\$1,006,966
		2011					\$1,006,966
		2012					\$1,006,966
		2013					\$1,006,966
		2014					\$1,006,966
		2015					\$1,289,691
		2016					\$1,031,291
		2017					\$1,031,291
		2018					\$1,031,291
		2019					\$1,031,291
		2020					\$1,223,292
		2021					\$1,073,292
		2022					\$1,073,292
		2023					\$1,073,292
		2024					\$1,073,292
		2025					\$1,776,237
		2026					\$1,096,016
		2027					\$1,096,016
		2028					\$1,096,016
		2029					\$1,096,016
		2030					\$1,118,721
		2031					\$1,118,721
		2032					\$1,118,721
		2033					\$1,118,721
		2034					\$1,118,721
		2035					\$1,900,747
		2036					\$1,141,446
		2037					\$1,141,446
		2038					\$1,141,446
		2039					\$1,141,446
		2040					\$1,164,171
Total O&M (rounded)							\$39,000,000.00

\* All costs are reported in year 2003 dollars

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
		T. Artichoker	
DATE PREPARED	APPROVED	DATE	PRICE LEVEL
			Feasibility

## **Reclamation Trunk Line Systems - Cost Estimate**







<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated Water to Communities + Raw Water to Pojoaque Basin PVC Pressure Pipe	09-Apr-03	<b>PROJECT:</b> AAMODT Feasibility Study
<b>WOID: AAM02</b>		<b>REGION:</b>
		<b>FILE:</b>

PLAN ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
<b>Capital Costs</b>							
<b>2005 Costs</b>							
		PVC Trunkline					\$21,000,000
		Treated Water Pumps, Motors & Piping					\$1,650,000
		Redline Pumps, Motors & Piping					\$460,000
		Lift Station RP0					\$380,000
		Lift Station TP1/RP1					\$2,300,000
		Lift Station TP2					\$460,000
		Lift Station TP3					\$460,000
		Lift Station TP4					\$460,000
		Lift Station TP5					\$460,000
		Electrical Work and Control System					\$5,300,000
<b>2015 Costs</b>							
		Treated Water Pumps, Motors & Piping					\$250,000
		Redline Pumps, Motors & Piping					\$78,000
<b>ROW and Easement</b>							
							\$1,700,000
<b>Capital Cost, Alternative #2 - PVC</b>							
							<b>\$34,958,000</b>
		Red Line					1196825
		Redline Pumps, Motors & Piping					927500
		Lift Station TP2					460000
		Lift Station TP3					460000
		Lift Station TP4					460000
		Lift Station TP5					460000
		Electrical Work and Control System					5300000
* All costs are reported in year 2003 dollars							

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
		T. Artichoker	
DATE PREPARED	APPROVED	DATE	PRICE LEVEL
		4/9/03	Feasibility

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated Water to Communities + Raw Water to Pojoaque Basin  
 PVC Pressure Pipe

**WOID: AAM02**

**PROJECT:**  
 AAMODT Feasibility Study

**REGION:**

**FILE:**

PLANT ACCT	PAY ITEM	DESCRIPTION	COIN	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>O&amp;M COSTS</b>					
		<b>PVC Trunkline</b>					
		2006					\$1,420,000
		2007					\$1,420,000
		2008					\$1,420,000
		2009					\$1,420,000
		2010					\$1,420,000
		2011					\$1,420,000
		2012					\$1,420,000
		2013					\$1,420,000
		2014					\$1,420,000
		2015					\$1,420,000
		2016					\$1,660,000
		2017					\$1,660,000
		2018					\$1,660,000
		2019					\$1,660,000
		2020					\$1,660,000
		2021					\$1,660,000
		2022					\$1,660,000
		2023					\$1,660,000
		2024					\$1,660,000
		2025					\$2,090,342
		2026					\$1,660,000
		2027					\$1,660,000
		2028					\$1,660,000
		2029					\$1,660,000
		2030					\$1,660,000
		2031					\$1,660,000
		2032					\$1,660,000
		2033					\$1,660,000
		2034					\$1,660,000
		2035					\$1,817,814
		2036					\$1,660,000
		2037					\$1,660,000
		2038					\$1,660,000
		2039					\$1,660,000
		2040					\$1,660,000
		<b>Total O&amp;M (rounded)</b>					<b>\$56,000,000</b>
* All costs are reported in year 2003 dollars							

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<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
		T. Artichoker	
DATE PREPARED	APPROVED	DATE	PRICE LEVEL
		4/9/03	Feasibility

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated Water to Communities + Raw Water to Pojoaque Basin  
 7C Pressure Pipe

14-Mar-03

**WOID: AAM04**

**PROJECT:**  
 Trunkline Component

**REGION:**

**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*	
		<b>F&amp;I the following High Head PVC pipe:</b>						
	1	4-CI-14 (700 ft, 305 psi)		2,200	L.F.	\$15.70	\$34,540.00	
	2	4-CI-25 (375 ft, 165 psi)		2,200	L.F.	\$8.40	\$18,480.00	
	3	4-CI-51 (175 ft, 80 psi)		4,850	L.F.	\$4.00	\$19,400.00	
	4	8-CI-41 (225 ft, 100 psi)		2,900	L.F.	\$10.80	\$31,320.00	
	5	10-CI-25 (375 ft, 165 psi) [not used]		-	L.F.		\$0.00	
	6	10-CI-32.5 (275 ft, 125 psi) [not used]		-	L.F.		\$0.00	
	7	10-CI-41 (225 ft, 100 psi)		4,350	L.F.	\$13.60	\$59,160.00	
	8	10-CI-51 (175 ft, 80 psi)		13,000	L.F.	\$13.60	\$176,800.00	
	9	12-CI-21 (450 ft, 200 psi)		4,600	L.F.	\$33.20	\$152,720.00	
	10	12-CI-25 (375 ft, 165 psi)		10,200	L.F.	\$28.20	\$287,640.00	
	11	12-CI-32.5 (275 ft, 125 psi)		11,000	L.F.	\$26.00	\$286,000.00	
	12	12-CI-41 (225 ft, 100 psi)		15,500	L.F.	\$22.80	\$353,400.00	
	13	12-CI-51 (175 ft, 80 psi)		14,000	L.F.	\$20.60	\$288,400.00	
	14	18-CI-21 (450 ft, 200 psi)		4,500	L.F.	\$54.50	\$245,250.00	
	15	18-CI-25 (375 ft, 165 psi)		4,500	L.F.	\$48.90	\$220,050.00	
	16	18-CI-32.5 (275 ft, 125 psi)		8,400	L.F.	\$35.70	\$299,880.00	
	17	24-CI-21 (450 ft, 200 psi)		2,900	L.F.	\$92.30	\$267,670.00	
	18	24-CI-25 (375 ft, 165 psi)		2,900	L.F.	\$81.80	\$237,220.00	
	19	24-CI-32.5 (275 ft, 125 psi)		6,200	L.F.	\$55.50	\$344,100.00	
	20	24-CI-41 (225 ft, 100 psi)		6,200	L.F.	\$49.60	\$307,520.00	
	21	24-CI-51 (175 ft, 80 psi)		16,500	L.F.	\$45.00	\$742,500.00	
		<b>Red Line</b>						
	22	12-CI-21 (450 ft, 200 psi)		2,900	L.F.	\$33.20	\$96,280.00	
	23	12-CI-25 (375 ft, 165 psi)		7,400	L.F.	\$28.20	\$208,680.00	
	24	12-CI-32.5 (275 ft, 125 psi)		6,200	L.F.	\$26.00	\$161,200.00	
	25	12-CI-41 (225 ft, 100 psi)		24,000	L.F.	\$22.80	\$547,200.00	
	26	12-CI-51 (175 ft, 80 psi)		13,500	L.F.	\$20.60	\$278,100.00	
							\$1,291,460	
		<b>Earthwork**</b>						
	27	Trench Excavation for Pipeline		190,000	CY	\$7.50	\$1,425,000.00	
	28	Trench Backfill for Pipeline (w/compaction)		140,000	CY	\$4.70	\$658,000.00	
	29	Bedding		15,000	CY	\$22.50	\$337,500.00	
	30	Embedment Material (soil cement)		27,000	CY	\$37.00	\$999,000.00	
							\$1,110,525	
		Subtotal (sheet 1 of 3)					\$9,083,610.00	
		* All costs reported in 2003 dollars						

QUANTITIES		PRICES	
DATE PREPARED 3/14/03	CHECKED T. Artichoker	BY T. Artichoker	CHECKED cy 3/16/2003
APPROVED	DATE 3/14/03	PRICE LEVEL	

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated Water to Communities + Raw Water to Pojoaque Basin  
 7C Pressure Pipe

14-Mar-03

**WOID: AAM04**

**PROJECT:**  
 Trunkline Component

**REGION:**

**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>F&amp;I Lateral Pipe</b>					
	31	4-CI-25 (375 ft, 165 psi)		200	L.F.	\$8.40	\$1,680.00
	32	4-CI-32.5 (275 ft, 125 psi)		200	L.F.	\$6.60	\$1,320.00
	33	4-CI-41 (225 ft, 100 psi)		2,100	L.F.	\$6.30	\$13,230.00
	34	4-CI-51 (175 ft, 80 psi)		11,000	L.F.	\$4.00	\$44,000.00
	35	6-CI-41 (225 ft, 100 psi)		2,000	L.F.	\$8.80	\$17,600.00
	36	6-CI-51 (175 ft, 80 psi)		3,000	L.F.	\$8.30	\$24,900.00
	37	12-CI-51 (175 ft, 80 psi)		3,500	L.F.	\$20.60	\$72,100.00
		<b>Earthwork for Laterals**</b>					
	38	Trench Excavation for Pipeline		6,500	CY	\$7.50	\$48,750.00
	39	Trench Backfill for Pipeline (w/compaction)		6,000	CY	\$4.70	\$28,200.00
	40	Bedding		600	CY	\$22.50	\$13,500.00
	41	Embedment Material (soil cement)		300	CY	\$37.00	\$11,100.00
	42	Pipe Jacking		2,000	LF	\$550.00	\$1,100,000.00
		Assume 2000 lf total jacking length					
		Assume 1/2 roads, 1/2 river crossings					
		Assume 100 days dewatering					
		** (quantity based on vertical trench)					
		** (unit price based on 2H:1V side slope)					
		Subtotal (sheet 2 of 3)					\$1,376,380.00
		* All costs reported in 2003 dollars					

QUANTITIES		PRICES	
DATE PREPARED 3/14/03	CHECKED T. Artichoker	BY T. Artichoker	CHECKED cy 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:** 14-Mar-03  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated Water to Communities + Raw Water to Pojoaque Basin  
 1/2" Pressure Pipe

**WOID: AAM04**

**PROJECT:**  
 Trunkline Component

**REGION:**

**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		Subtotal (sheet 1)					\$9,083,010.00
		Subtotal (sheet 2)					\$1,376,380.00
		Subtotal (all sheets)					\$10,459,390.00
		Mobilization			(+/-)	5%	\$520,000.00
		Subtotal					\$10,979,390.00
		<b>SUBTOTAL</b>					\$10,979,390.00
		Unlisted Items			(+/-)	20%	\$2,020,610.00
		<b>Contract Cost</b>					\$13,000,000.00
		Contingencies			(+/-)	20%	\$3,000,000.00
		<b>Field Cost</b>					\$16,000,000.00
		Noncontract Costs			(+/-)	30%	\$5,000,000.00
		<b>Construction Cost</b>					\$21,000,000.00

QUANTITIES		PRICES	
BY F. Tan	CHECKED	BY T. Artichoke	CHECKED <i>cy</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

<b>FEATURE:</b> Community (Alt 2) - 2005 Construction 14-Mar-03	<b>PROJECT:</b>  <b>REGION:</b>  <b>FILE:</b>
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**WOID: AAM04**

PLANT ACCT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT	
		<b>PUMPS/MOTORS</b>						
	10	3 - 1,370 gpm (3.0 cfs) pumps (P1) Vertical turbine pump 332 feet TDH, steel baseplate for pump 4,100 lbs each	D-8420	12,300	lbs	\$9.20	\$113,160.00	
		3 - 150 hp, WP1 motors, 460 v, 1800 rpm, 3 phase, 1800 lbs each		5,400	lbs	\$13.80	\$74,520.00	
	20	12 - 250 gpm pumps (P2, P3, P4, P5) Multi-Stage Horizontal Split Case Pump 350 ft TDH, baseplate for pump and motor, 400 lbs each	D-8420	4,800	lbs	\$18.10	\$86,880.00	
		12 - 40 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 420 lbs each		5,040	lbs	\$21.60	\$108,864.00	
		<b>PIPING/VALVES</b>						
		a. P1 Pumps						
	30	20" dia., sch 10, 22 ft, 53 lbs/ft	D-8420	1,160	lbs	\$5.20	\$6,032.00	
	40	10" dia., sch 20, 84 ft, 28 lbs/ft	D-8420	2,350	lbs	\$3.60	\$8,460.00	
	50	Miscellaneous fittings - 10 % of piping	D-8420	350	lbs	\$6.00	\$2,100.00	
	60	4 - hydraulic damponed check valve, 10" dia 472 lbs each	D-8420	1,890	lbs	\$12.30	\$23,247.00	
	70	4 - motor operated butterfly valve, 10" dia 440 lbs each	D-8420	1,760	lbs	\$22.10	\$38,896.00	
	80	8 - combination air valves, 2", 75 lbs each	D-8420	600	lbs	\$16.60	\$9,960.00	
		Subtotal (sheet 1 of 3)					\$472,119.00	
		* All costs reported in 2003 dollars						

<b>QUANTITIES</b>		<b>PRICES</b>	
BY T. Hummel/Rick Frisz	CHECKED B. Zelenka	BY T. Artcloker	CHECKED <i>[Signature]</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Community (Alt 2) - 2005 Construction  
 14-Mar-03  
**WOID: AAM04**

**PROJECT:**  
**REGION:**  
**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		b. P2, P3, P4, P5 Pumps					
	90	2" dia., - Sch. 40 - 53 ft @ 3.652#/ft	D-8420	195	lbs	\$5.20	\$1,014.00
	100	3" dia., - Sch. 40 - 53.8 ft @ 7.58#/ft	D-8420	410	lbs	\$4.30	\$1,763.00
	110	6" dia., - Sch 40 - 260 ft @ 18.97#/ft	D-8420	4,930	lbs	\$4.20	\$20,706.00
	120	8" dia., - Sch 20 - 256 ft @ 22.36#/ft	D-8420	5,730	lbs	\$3.90	\$22,347.00
	130	Miscellaneous fittings - 10 % of piping	D-8420	1,125	lbs	\$6.00	\$6,750.00
	140	32 - air valves, 1" dia, 40 lbs ea	D-8420	1,280	lbs	\$16.60	\$21,248.00
	150	16 - check valves, 2" dia, 50 lbs ea	D-8420	800	lbs	\$19.60	\$15,680.00
	160	16 - ball valves, 2" dia, 16.9 lbs ea	D-8420	270	lbs	\$25.80	\$6,966.00
	170	16 - ball valves, 3" dia, 40 lbs ea	D-8420	640	lbs	\$19.00	\$12,160.00
		<b>REGULATING TANKS</b>					
	180	2 - 21,151 gallon regulating tanks (12,800 lb each)	D-8420	25,600	lbs	\$4.00	\$102,400.00
	190	1 - 13,536 gallon regulating tank	D-8420	9,600	lbs	\$4.00	\$38,400.00
	200	1 - 9,400 gallon regulating tank	D-8420	7,000	lbs	\$4.00	\$28,000.00
		<b>AIR CHAMBER</b>					
	210	1 - ASME code steel air chamber (between P0 & P1)	D-8420	9,600	lbs	\$4.60	\$44,160.00
	220	1 - ASME code steel air chamber (between P1 & P2)	D-8420	4,800	lbs	\$4.60	\$22,080.00
Subtotal (sheet 1 of 3)							\$343,674.00
*All costs reported in 2003 dollars							

QUANTITIES		PRICES	
T. Hummel/Rick Frisz	CHECKED B. Zelenka	BY T. Artichoker	CHECKED 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL



<b>FEATURE:</b> Community (Alt 2) - 2015 Construction	14-Mar-03	<b>PROJECT:</b>  <b>REGION:</b>  <b>FILE:</b>
<b>WOID: AAM04</b>		

PLAN ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		PUMPS/MOTORS					
	10	1 - 1,370 gpm (3.0 cfs) pumps (P1) Vertical turbine pump 332 feet TDH, steel baseplate for pump 4,100 lbs each	D-8420	4,100	lbs	\$9.20	\$37,720.00
		1 - 150 hp, WP1 motors, 460 v, 1800 rpm, 3 phase, 1800 lbs each		1,800	lbs	\$13.80	\$24,840.00
	20	4 - 250 gpm pumps (P2, P3, P4, P5) Multi-Stage Horizontal Split Case Pump 350 ft TDH, baseplate for pump and motor, 400 lbs each	D-8420	1,600	lbs	\$18.10	\$28,960.00
		4 - 40 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 420 lbs each		1,680	lbs	\$21.60	\$36,288.00
		Subtotal					\$127,808.00
		Mobilization			(+/-)	5%	\$6,400.00
		Subtotal					\$134,208.00
		SUBTOTAL					\$134,208.00
		Unlisted Items			(+/-)	20%	\$25,792.00
		Contract Cost					\$160,000.00
		Contingencies			(+/-)	20%	\$35,000.00
		Field Cost					\$195,000.00
		Noncontract Costs			(+/-)	30%	\$55,000.00
		Construction Cost					\$250,000.00
* All costs reported in 2003 dollars							

<b>QUANTITIES</b>		<b>PRICES</b>	
T. Hummel/Rick Frisz	CHECKED B. Zelenka	BY T. Artichoker	CHECKED <i>[Signature]</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated Water to Communities + Raw Water to Pojoaque Basin 20 Pumping Plant and Yard Quantities  Location: In Water Treatment Yard <b>WOID: AAMO4</b>	14-Mar-03	<b>PROJECT:</b> Trunkline Component  <b>REGION:</b>  <b>FILE:</b> Aamodt_Alt2RP0_08120.xls
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*	
		<b>SITWORK (Included in Water Treatment Component)</b>						
		<b>PUMPING PLANT - ALT2-RP0</b>						
		Three Horizontal Centrifugal Units						
		Quantities are same for:						
		Alternative 3 - RP0						
		Alternative 4 - RP0						
		<b>CIVIL</b>						
	10	<b>Excavation and Backfill</b>						
	a	Excavation of common materials for structures	D8120	330	CY	\$14.00	\$4,620.00	
	b	Furnish backfill for structures (assume 10 mile borrow) (Placement included)	D8120	245	CY	\$21.00	\$5,145.00	
	c	Compact backfill around structures	D8120	245	CY	\$16.00	\$3,920.00	
		<b>STRUCTURAL</b>						
	20	<b>Construct Building Substructure</b>						
	a	Furnish, form, and place concrete for substructures	D8120	85	CY	\$680.00	\$57,800.00	
	b	Furnish and place concrete reinforcement (155#/CY)	D8120	13,200	LBS	\$1.00	\$13,200.00	
	c	Furnish and handle cement (.282T/CY, Fc= 4000 psi)	D8120	24	TONS	\$140.00	\$3,360.00	
		<b>Construct Building Superstructure</b>						
	a	Furnish and install 1.5" x 22 gage steel roof deck (Vulcraft 1.5B22, painted, 1.68 psf)	D8120	1,000	SF	\$3.20	\$3,200.00	
	b	Furnish and install open web joists (painted): Vulcraft 18K7 x 30'-0" span, 5 req'd	D8120	1,350	LBS	\$4.40	\$5,940.00	
	c	Furnish and install structural steel:	D8120	800	LBS	\$3.20	\$2,560.00	
	d	Furnish and construct 8-inch reinforced masonry walls	D8120	1,600	SF	\$12.00	\$19,200.00	
	e	Furnish and install miscellaneous metalwork	D8120	500	LBS	\$8.70	\$4,350.00	
		Subtotal (sheet 1 of 3)					\$123,295.00	
		* All costs reported in 2003 dollars						

<b>QUANTITIES</b>		<b>PRICES</b>	
BY Dick LaFond	CHECKED	BY T. Artchoker	CHECKED <i>cy</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL



**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated Water to Communities + Raw Water to Pojoaque Basin  
 P0 Pumping Plant and Yard Quantities  
 Location: In Water Treatment Yard  
**WOID: AAM04**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	100	<b>Forebay Tank Ring Foundation:</b>					
		<b>15' dia x 16' high forebay tank for RP0</b>					
	a	Excavation of common materials for structure	D8120	100	CY	\$14.00	\$1,400.00
	b	Furnish tank foundation embankment (< 10 mile borrow)	D8120	90	CY	\$7.50	\$675.00
	c	Place and compact embankment under tank	D8120	90	CY	\$3.10	\$279.00
	d	Waste excavated materials (< 10 mile haul)	D8120	100	CY	\$5.30	\$530.00
	e	Furnish/place/compact 4" oiled sand cushion under tank	D8120	2	CY	\$160.00	\$320.00
	f	Furnish, form, and place concrete for ring wall	D8120	10	CY	\$880.00	\$8,800.00
	g	Furnish and place concrete reinforcement (155#/CY)	D8120	1,600	LBS	\$1.00	\$1,600.00
	h	Furnish and handle cement (.282T/CY)	D8120	3	TONS	\$140.00	\$420.00
	110	<b>Air Chamber Foundation:</b>					
		<b>7' dia x 7' chamber for RP0</b>					
	a	Excavation of common materials for structures	D8120	35	CY	\$14.00	\$490.00
	b	Furnish, form, and place concrete for structures	D8120	35	CY	\$770.00	\$26,950.00
	c	Furnish and place concrete reinforcement (155#/CY)	D8120	5,500	LBS	\$1.00	\$5,500.00
	d	Furnish and handle cement (.282T/CY)	D8120	10	TONS	\$140.00	\$1,400.00
		Subtotal sheet 1					\$123,295.00
		Subtotal sheet 2					\$20,825.00
		Subtotal sheet 3					\$48,364.00
		Subtotal					\$192,484.00
		Mobilization			(+/-)	5%	\$9,600.00
		Subtotal					\$202,084.00
		<b>SUBTOTAL</b>					\$202,084.00
		Unlisted Items			(+/-)	20%	\$37,916.00
		<b>Contract Cost</b>					\$240,000.00
		Contingencies			(+/-)	20%	\$50,000.00
		<b>Field Cost</b>					\$290,000.00
		Noncontract Costs			(+/-)	30%	\$90,000.00
		<b>Construction Cost</b>					\$380,000.00

\* All costs reported in 2003 dollars

QUANTITIES		PRICES	
Dick LaFond	CHECKED	BY T. Artchoker	CHECKED 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

ESTIMATE WORKSHEET

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated Water to Communities + Raw Water to Pojoaque Basin TP1 and RP1 Pumping Plants and Yard Quantities Location: US84/285 @ NM503 WOID: AAMO4	14-Mar-03	<b>PROJECT:</b> Trunkline Component <b>REGION:</b> <b>FILE:</b> Aamodt_A:2TP1_D8120.xls
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PLANT ACCT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>Ait2-TP1/RP1 Pumping Plants (4-10" Vertical/3 Horizontal) and Yard at US84/285 &amp; NM503 (As Shown)</b>					
		Quantities are same for:					
		<b>Ait4-TP1/RP1 Pumping Plants and Yard at US84/285 &amp; NM503</b>					
		<b>SITEWORK</b>					
	10	<b>Service Yard (6" aggregate surfacing)</b>					
	a	Strip and clear site to 1 foot depth	D8120	1,390	CY	\$3.30	\$4,587.00
	b	Excavation for site grading (common material)	D8120	2,770	CY	\$5.30	\$14,681.00
	c	Furnish embankment for service yard (local borrow)	D8120	1,390	CY	\$5.30	\$7,367.00
	d	Place and compact embankment for service yard	D8120	2,770	CY	\$2.40	\$6,648.00
	e	Furnish embankment for berm (local borrow)	D8120	485	CY	\$6.00	\$2,910.00
	f	Place and compact embankment for berm	D8120	1,870	CY	\$2.40	\$4,488.00
	g	Furnish and place 6-inch aggregate surfacing	D8120	700	CY	\$32.00	\$22,400.00
	h	Furnish and install 7-foot chain link fence	D8120	758	LF	\$21.50	\$16,297.00
	i	Furnish and install 7-foot x 24-foot access gate	D8120	2	EA	\$3,700.00	\$7,400.00
	20	<b>Landscaping</b>					
	a	Furnish and apply native grass seed		1	AC	\$1,700.00	\$1,700.00
	b	Furnish and install deciduous trees (1-inch caliper)		35	EA	\$107.00	\$3,745.00
		<b>PUMPING PLANT - Ait2-TP1</b>					
		<b>Four Vertical Turbine Units (10-inch diameter)</b>					
		<b>CIVIL</b>					
	30	<b>Dewatering</b>					
		Dewater 120' x 125' area x 20' deep for 4 months.					
		Assume water table 5' below ground surface.					
	40	<b>Excavation and Backfill</b>					
	a	Excavation of common materials for structures	D8120	5,680	CY	\$7.50	\$42,600.00
	b	Furnish backfill for structures (re-use struct. excavation)	D8120	4,660	CY	\$7.50	\$34,950.00
	c	Place backfill around structures	D8120	4,660	CY	\$7.50	\$34,950.00
	d	Compact backfill around structures	D8120	4,660	CY	\$10.70	\$49,862.00
	50	<b>STRUCTURAL</b>					
		<b>Construct Building Substructure</b>					
	a	Furnish, form, and place concrete for substructures	D8120	430	CY	\$535.00	\$230,050.00
	b	Furnish and place concrete reinforcement (145#/CY)	D8120	62,500	LBS	\$1.00	\$62,500.00
	c	Furnish and handle cement (.282T/CY, P <sub>c</sub> = 4000 psi)	D8120	121	TONS	\$140.00	\$16,940.00
	d	Furnish and place 6-inch PVC waterstop	D8120	650	LF	\$8.50	\$5,525.00
		Subtotal (1 of 6)					\$910,400.00
		*All costs reported in 2003 dollars					

QUANTITIES		PRICES	
BY M.L. Pierce, D. LaFond	CHECKED	BY T. Artchoker	CHECKED <i>Ly</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated Water to Communities + Raw Water to Pojoaque Basin  
 TP1 and RP1 Pumping Plants and Yard Quantities  
 Location: US84/285 @ NM503  
 WOID: AAMO4

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>PUMPING PLANT - Alt2-TP1 (Structural-Continued)</b>					
	60	<b>Construct Building Superstructure</b>					
	a	Furnish and install 1.5" x 22 gage steel roof deck (Vulcraft 1.5322, painted, 1.68 psf)	D8120	1,200	SF	\$3.20	\$3,840.00
	b	Furnish and install open web joists (painted): Vulcraft 18K7 x 30" 0" span, 8 req'd	D8120	2,200	LBS	\$4.40	\$9,680.00
	c	Furnish and install structural steel:	D8120	2,850	LBS	\$3.20	\$9,120.00
	d	Furnish and construct 8-inch reinforced masonry walls	D8120	2,610	SF	\$12.00	\$31,320.00
	e	Furnish, form, & place concrete equip. foundations	D8120	3	CY	\$800.00	\$2,400.00
	f	Furnish and place concrete reinforcement (145#/CY)	D8120	450	LBS	\$1.00	\$450.00
	g	Furnish and handle cement (.282T/CY)	D8120	1	TONS	\$140.00	\$140.00
	h	Furnish and install miscellaneous metalwork	D8120	1,000	LBS	\$8.70	\$8,700.00
		Furnish and install following hatches:					
	i	3' x 2.5' H-20 rated Access Door (Bilco Mod. J-3 H20)	D8120	1	EA	\$450.00	\$450.00
	j	4' x 4' Roof Scuttle (Bilco Model F-40)	D8120	4	EA	\$520.00	\$2,080.00
	k	4' x 6' Roof Scuttle (Bilco Type "SS") (Bilco Company, Phone: 203-934-6363)	D8120	4	EA	\$780.00	\$3,120.00
		<b>ARCHITECTURAL</b>					
		<b>DOOR:</b>					
	70	3'x7'x1.75" EXTERIOR STEEL DOOR AND DOORFRAME	D8120	2	EA	\$655.00	\$1,310.00
		<b>DOOR HARDWARE:</b>					
	a	BUTT HINGES 4.5"x4.5"--HEAVY WEIGHT BRASS	D8120	6	EA	\$45.00	\$270.00
	b	MORTISED LOCKSET W/LEVER HANDLE	D8120	2	EA	\$360.00	\$720.00
	c	DOOR CLOSURE--HOLD OPEN	D8120	2	EA	\$220.00	\$440.00
	d	DOOR SHOE	D8120	2	EA	\$27.00	\$54.00
	e	THRESHOLD-1/2"x5" ALUMINUM SADDLE	D8120	2	EA	\$70.00	\$140.00
	f	WEATHERSTRIPPING-STANDARD SELF-ADHESIVE	D8120	2	EA	\$175.00	\$350.00
		<b>ROLL-UP DOOR WITH HARDWARE COMPLETE:</b>					
	90	12' WIDE, 8' HIGH	D8120	1	EA	\$1,900.00	\$1,900.00
		<b>BUILT-UP ROOFING SYSTEM:</b>					
	a	ROOFING	D8120	1,500	SF	\$2.70	\$4,050.00
	b	3" AVERAGE RIGID INSULATION	D8120	1,500	SF	\$1.00	\$1,500.00
		Subtotal (2 of 6)					\$82,034.00
		*All costs reported in 2003 dollars					

QUANTITIES		PRICES	
BY K. Kumar, D. LaFond	CHECKED	BY T. Artichoker	CHECKED <i>ly</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated Water to Communities + Raw Water to Pojoaque Basin TP1 and RP1 Pumping Plants and Yard Quantities Location: US84/285 @ NM503 WOID: AAMO4	14-Mar-03	<b>PROJECT:</b> Trunkline Component <b>REGION:</b> <b>FILE:</b>
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>PUMPING PLANT - Alt2-TP1 (Architectural-Continued)</b>					
		<b>FLOOR:</b>					
	110	FLOOR HARDENER	D8120	1,200	SF	\$1.20	\$1,440.00
		<b>PAINT:</b>					
	120	3/4" THICK STUCCO (ON EXTERIOR WALLS)	D8120	3,350	SF	\$4.00	\$13,400.00
		<b>PUMPING PLANT - Alt2-RP1</b>					
		<b>Three Horizontal Centrifugal Units</b>					
		<b>CIVIL</b>					
	130	<b>Excavation and Backfill</b>					
	a	Excavation of common materials for structures	D8120	330	CY	\$14.00	\$4,620.00
	b	Furnish backfill for structures (assume 10 mile borrow)	D8120	245	CY	\$21.00	\$5,145.00
		Place backfill around structures (included)					
	c	Compact backfill around structures	D8120	245	CY	\$16.00	\$3,920.00
	140	<b>STRUCTURAL</b>					
		<b>Construct Building Substructure</b>					
	a	Furnish, form, and place concrete for substructures	D8120	85	CY	\$680.00	\$57,800.00
	b	Furnish and place concrete reinforcement (155#/CY)	D8120	13,200	LBS	\$1.00	\$13,200.00
	c	Furnish and handle cement (.2821/CY, f'c= 4000 psi)	D8120	24	TONS	\$140.00	\$3,360.00
	150	<b>Construct Building Superstructure</b>					
	a	Furnish and install 1.5" x 22 gage steel roof deck (Vulcraft 1.5B22, painted, 1.68 psf)	D8120	1,000	SF	\$3.20	\$3,200.00
	b	Furnish and install open web joists (painted): Vulcraft 18K7 x 30'-0" span, 5 req'd	D8120	1,350	LBS	\$4.40	\$5,940.00
	c	Furnish and install structural steel:	D8120	800	LBS	\$3.20	\$2,560.00
	d	Furnish and construct 8-inch reinforced masonry walls	D8120	1,600	SF	\$12.00	\$19,200.00
	e	Furnish and install miscellaneous metalwork	D8120	500	LBS	\$8.70	\$4,350.00
		Subtotal (3 of 6)					\$138,135.00
		*All costs reported in 2003 dollars					

<b>QUANTITIES</b>		<b>PRICES</b>	
BY Dick LaFond	CHECKED	BY T. Artichoker	CHECKED <i>ly</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated Water to Communities + Raw Water to Pojoaque Basin TP1 and RP1 Pumping Plants and Yard Quantities Location: US84/285 @ NM503 WOID: AAM04	14-Mar-03	<b>PROJECT:</b> Trunkline Component <hr/> <b>REGION:</b> <hr/> <b>FILE:</b>
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>PUMPING PLANT - Alt2-RP1 (continued)</b>					
		<b>ARCHITECTURAL</b>					
		<b>DOOR:</b>					
	160	3'x7'x1.75" EXTERIOR STFFL. DOOR AND DOORFRAME	D8120	2	EA	\$655.00	\$1,310.00
	170	<b>DOOR HARDWARE:</b>					
	a	BUTT HINGES 4.5"x4.5"--HEAVY WEIGHT BRASS	D8120	6	EA	\$45.00	\$270.00
	b	MORTISED LOCKSET W/LEVER HANDLE	D8120	2	EA	\$360.00	\$720.00
	c	DOOR CLOSURE--HOLD OPEN	D8120	2	EA	\$220.00	\$440.00
	d	DOOR SHOE	D8120	2	EA	\$27.00	\$54.00
	e	THRESHOLD-1/2"x5" ALUMINUM SADDLE	D8120	2	EA	\$70.00	\$140.00
	f	WEATHERSTRIPPING-STANDARD SELF-ADHESIVE	D8120	2	EA	\$175.00	\$350.00
		<b>ROLL-UP DOOR WITH HARDWARE COMPLETE:</b>					
	180	12' WIDE, 8' HIGH	D8120	1	EA	\$1,900.00	\$1,900.00
	190	<b>BUILT-UP ROOFING SYSTEM:</b>					
	a	ROOFING	D8120	1,410	SF	\$2.70	\$3,807.00
	b	3" AVERAGE RIGID INSULATION	D8120	1,410	SF	\$1.00	\$1,410.00
		<b>FLOOR:</b>					
	200	FLOOR HARDENER	D8120	1,020	SF	\$1.20	\$1,224.00
		<b>PAINT:</b>					
	210	3/4" THICK STUCCO (ON EXTERIOR WALLS)	D8120	2,300	SF	\$4.00	\$9,200.00
		Subtotal (4 of 6)					\$20,825.00
		*All costs reported in 2003 dollars					

<b>QUANTITIES</b>		<b>PRICES</b>	
BY Kuldeep Kumar	CHECKED	BY T. Artichoker	CHECKED <i>3/16/2003</i>
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated Water to Communities + Raw Water to Pojoaque Basin TP1 and RP1 Pumping Plants and Yard Quantities Location: US84/285 @ NM503 WOID: AAM04	14-Mar-03	<b>PROJECT:</b> Trunkline Component <b>REGION:</b> <b>FILE:</b>
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*	
	220	<b>Forebay Tank Ring Foundation:</b>						
		15' dia x 16' high forebay tank for RP1						
	a	Excavation of common materials for structure	D8120	100	CY	\$14.00	\$1,400.00	
	b	Furnish tank foundation embankment (< 10 mile borrow)	D8120	90	CY	\$7.50	\$675.00	
	c	Place and compact embankment under tank	D8120	90	CY	\$3.10	\$279.00	
	d	Waste excavated materials (< 10 mile haul)	D8120	100	CY	\$5.30	\$530.00	
	e	Furnish/place/compact 4" oiled sand cushion under tank	D8120	2	CY	\$160.00	\$320.00	
	f	Furnish, form, and place concrete for ring wall	D8120	10	CY	\$880.00	\$8,800.00	
	g	Furnish and place concrete reinforcement (155#/CY)	D8120	1,600	LBS	\$1.00	\$1,600.00	
	h	Furnish and handle cement (.282T/CY)	D8120	3	TONS	\$140.00	\$420.00	
	230	<b>Air Chamber Foundations:</b>						
		10' dia x 10' chamber for TP1						
		7' dia x 7' chamber for RP1						
	a	Excavation of common materials for structures	D8120	35	CY	\$14.00	\$490.00	
	b	Furnish, form, and place concrete for structures	D8120	35	CY	\$770.00	\$26,950.00	
	c	Furnish and place concrete reinforcement (155#/CY)	D8120	5,500	LBS	\$1.00	\$5,500.00	
	d	Furnish and handle cement (.282T/CY)	D8120	10	TONS	\$140.00	\$1,400.00	
		<b>Transformer Pad (By Others)</b>						
		Subtotal (5 of 5)					\$48,364.00	
		*All costs reported in 2003 dollars						

QUANTITIES		PRICES	
BY Dick LaFond	CHECKED	BY T. Artichoker	CHECKED <i>cy</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL



**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 P2 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAMO4**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**  
 Aamodt: All2TP2\_D8170.xls

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		Alt4-TP2 Pumping Plant and Yard at Upper Pojoaque (As Shown)					
		Four Horizontal Centrifugal Units					
		Quantities are same for:					
		Alt2-TP3 Pumping Plant and Yard at South of Upper Cuyamangue					
		Alt2-TP4 Pumping Plant and Yard between Tesuque Pueblo and Tesuque Village					
		Alt2-TP5 Pumping Plant and Yard at South of Upper Tesuque					
		Alt3-TP2 Pumping Plant and Yard at Upper Pojoaque					
		Alt4-TP2 Pumping Plant and Yard at Upper Pojoaque					
		Alt4-TP3 Pumping Plant and Yard at South of Upper Cuyamangue					
		Alt4-TP4 Pumping Plant and Yard between Tesuque Pueblo and Tesuque Village					
		Alt4-TP5 Pumping Plant and Yard at South of Upper Tesuque					
		<b>SITWORK</b>					
	10	<b>Service Yard (6" aggregate surfacing)</b>					
	a	Strip and clear site to 1 foot depth	D8120	575	CY	\$3.30	\$1,897.50
	b	Excavation for site grading (common material)	D8120	1,150	CY	\$5.30	\$6,095.00
	c	Furnish embankment for service yard (local borrow)	D8120	575	CY	\$5.30	\$3,047.50
	d	Place and compact embankment for service yard	D8120	1,150	CY	\$2.40	\$2,760.00
	e	Furnish embankment for berm (local borrow)	D8120	675	CY	\$6.00	\$4,050.00
	f	Place and compact embankment for berm	D8120	1,250	CY	\$2.40	\$3,000.00
	g	Furnish and place 6-inch aggregate surfacing	D8120	290	CY	\$32.00	\$9,280.00
	h	Furnish and install 7-foot chain link fence	D8120	484	LF	\$21.50	\$10,406.00
	i	Furnish and install 7-foot x 24-foot access gate	D8120	2	EA	\$3,700.00	\$7,400.00
	20	<b>Landscaping</b>					
	a	Furnish and apply native grass seed		1	AC	\$1,700.00	\$1,190.00
	b	Furnish and install deciduous trees (1-inch caliper)		25	EA	\$107.00	\$2,675.00
		Subtotal (sheet 1 of 4)					\$51,801.00
		* All costs reported in 2003 dollars					

**QUANTITIES**

**PRICES**

M.L. Pierce, D. LaFond	CHECKED	BY T. Artchoker	CHECKED <i>[Signature]</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated to Communities + Raw to Buckman & Pojoaque Basin 2 Pumping Plant and Yard Quantities  Locations: Upper Pojoaque WOID: AAMO4	14-Mar-03	<b>PROJECT:</b> Trunkline Component  <b>REGION:</b>  <b>FILE:</b>
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PLANT ACC1	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*	
		<b>PUMPING PLANT - TP2</b>						
		Four Horizontal Centrifugal Units						
		<b>CIVIL</b>						
	30	<b>Excavation and Backfill</b>						
	a)	Excavation of common materials for structures	D8120	370	CY	\$14.00	\$5,180.00	
	b)	Furnish backfill for structures (re-use struct. excavation)	D8120	270	CY	\$21.00	\$5,670.00	
		Place backfill around structures (included)						
	c)	Compact backfill around structures	D8120	270	CY	\$16.00	\$4,320.00	
		<b>STRUCTURAL</b>						
	40	<b>Construct Building Substructure</b>						
	a)	Furnish, form, and place concrete for substructures	D8120	100	CY	\$680.00	\$68,000.00	
	b)	Furnish and place concrete reinforcement (155#/CY)	D8120	15,500	LBS	\$1.00	\$15,500.00	
	c)	Furnish and handle cement (.282T/CY, f'c= 4000 psi)	D8120	28	TONS	\$140.00	\$3,920.00	
	50	<b>Construct Building Superstructure</b>						
	a)	Furnish and install 1.5" x 22 gage steel roof deck (Vulcraft 1.5B22, painted, 1.68 psf)	D8120	1,200	SF	\$3.20	\$3,840.00	
	b)	Furnish and install open web joists (painted): Vulcraft 18K7 x 30'-0" span, 6 req'd	D8120	1,650	LBS	\$4.40	\$7,260.00	
	c)	Furnish and install structural steel:	D8120	900	LBS	\$3.20	\$2,880.00	
	d)	Furnish and construct 8-inch reinforced masonry walls	D8120	1,800	SF	\$12.00	\$21,600.00	
	e)	Furnish and install miscellaneous metalwork	D8120	500	LBS	\$8.70	\$4,350.00	
		Subtotal (sheet 2 of 4)					\$142,520.00	
		* All costs reported in 2003 dollars						

<b>QUANTITIES</b>		<b>PRICES</b>	
Dick LaFond	CHECKED	BY T. Artchoker	CHECKED <i>by</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated to Communities + Raw to Buckman & Pojoaque Basin P2 Pumping Plant and Yard Quantities Locations: Upper Pojoaque <b>WOID: AAMO4</b>	14-Mar-03	<b>PROJECT:</b> Trunkline Component <b>REGION:</b> <b>FILE:</b>
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>PUMPING PLANT - TP2 (continued)</b>					
		<b>ARCHITECTURAL</b>					
		<b>DOOR:</b>					
60		3'x7'x1.75" EXTERIOR STEEL DOOR AND DOORFRAME	D8120	2	EA	\$655.00	\$1,310.00
70		<b>DOOR HARDWARE:</b>					
	a	BUTT HINGES 4.5"x4.5"--HEAVY WEIGHT BRASS	D8120	6	EA	\$45.00	\$270.00
	b	MORTISED LOCKSET W/LEVER HANDLE	D8120	2	EA	\$360.00	\$720.00
	c	DOOR CLOSURE--HOLD OPEN	D8120	2	EA	\$220.00	\$440.00
	d	DOOR SHOE	D8120	2	EA	\$27.00	\$54.00
	e	THRESHOLD-1/2"x5" ALUMINUM SADDLE	D8120	2	EA	\$70.00	\$140.00
	f	WEATHERSTRIPPING-STANDARD SELF-ADHESIVE	D8120	2	EA	\$175.00	\$350.00
		<b>ROLL-UP DOOR WITH HARDWARE COMPLETE:</b>					
80		12' WIDE, 8' HIGH	D8120	1	EA	\$1,900.00	\$1,900.00
90		<b>BUILT-UP ROOFING SYSTEM:</b>					
	a	ROOFING	D8120	1,500	SF	\$2.70	\$4,050.00
	b	3" AVERAGE RIGID INSULATION	D8120	1,500	SF	\$1.00	\$1,500.00
		<b>FLOOR:</b>					
100		FLOOR HARDENER	D8120	1,200	SF	\$1.20	\$1,440.00
		<b>PAINT:</b>					
110		3/4" THICK STUCCO (ON EXTERIOR WALLS)	D8120	2,530	SF	\$4.00	\$10,120.00
		Subtotal (sheet 3 of 4)					\$22,294.00
		* All costs reported in 2003 dollars.					

<b>QUANTITIES</b>		<b>PRICES</b>	
BY Kuldip Kumar	CHECKED	BY T. Artchoker	CHECKED <i>cy</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 2 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAMO4**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
	120	<b>Forebay Tank Ring Foundation:</b>					
		15' dia x 16' high forebay tank for TP2					
		15' dia x 16' high forebay tank for TP3					
		12' dia x 16' high forebay tank for TP4					
		10' dia x 16' high forebay tank for TP5					
		<b>Note: Use same quantities for all tanks based on 15' dia.</b>					
	a	Excavation of common materials for structure	D8120	100	CY	\$14.00	\$1,400.00
	b	Furnish tank foundation embankment (< 10 mile borrow)	D8120	90	CY	\$7.50	\$675.00
	c	Place and compact embankment under tank	D8120	90	CY	\$3.10	\$279.00
	d	Waste excavated materials (< 10 mile haul)	D8120	100	CY	\$5.30	\$530.00
	e	Furnish/place/compact 4" oiled sand cushion under tank	D8120	2	CY	\$160.00	\$320.00
	f	Furnish, form, and place concrete for ring wall	D8120	10	CY	\$880.00	\$8,800.00
	g	Furnish and place concrete reinforcement (155#/CY)	D8120	1,600	LBS	\$1.00	\$1,600.00
	h	Furnish and handle cement (.282T/CY)	D8120	3	TONS	\$140.00	\$420.00
		<b>Transformer Pad (By Others)</b>					
		Subtotal sheet 1					\$51,801.00
		Subtotal sheet 2					\$142,520.00
		Subtotal sheet 3					\$22,294.00
		Subtotal sheet 4					\$14,024.00
		Subtotal					\$230,639.00
		Mobilization			(+/-)	5%	\$11,500.00
		Subtotal					\$242,139.00
		<b>SUBTOTAL</b>					\$242,139.00
		Unlisted Items			(+/-)	20%	\$47,861.00
		<b>Contract Cost</b>					\$290,000.00
		Contingencies			(+/-)	20%	\$60,000.00
		<b>Field Cost</b>					\$350,000.00
		Noncontract Costs			(+/-)	30%	\$110,000.00
		<b>Construction Cost</b>					\$460,000.00

\* All costs reported in 2003 dollars

QUANTITIES		PRICES	
Dick LaFond	CHECKED	BY T. Artichoker	CHECKED cy 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 3 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAMO4**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**  
 Aamodt: Alt2TP2 D8' 20' x-s

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		Alt4-TP2 Pumping Plant and Yard at Upper Pojoaque (As Shown)					
		Four Horizontal Centrifugal Units					
		Quantities are same for:					
		Alt2-TP3 Pumping Plant and Yard at South of Upper Cuyamangue					
		Alt2-TP4 Pumping Plant and Yard between Tesuque Pueblo and Tesuque Village					
		Alt2-TP5 Pumping Plant and Yard at South of Upper Tesuque					
		Alt3-TP2 Pumping Plant and Yard at Upper Pojoaque					
		Alt4-TP2 Pumping Plant and Yard at Upper Pojoaque					
		Alt4-TP3 Pumping Plant and Yard at South of Upper Cuyamangue					
		Alt4-TP4 Pumping Plant and Yard between Tesuque Pueblo and Tesuque Village					
		Alt4-TP5 Pumping Plant and Yard at South of Upper Tesuque					
		<b>SITWORK</b>					
	10	<b>Service Yard (6" aggregate surfacing)</b>					
	a	Strip and clear site to 1 foot depth	D8120	575	CY	\$3.30	\$1,897.50
	b	Excavation for site grading (common material)	D8120	1,150	CY	\$5.30	\$6,095.00
	c	Furnish embankment for service yard (local borrow)	D8120	575	CY	\$5.30	\$3,047.50
	d	Place and compact embankment for service yard	D8120	1,150	CY	\$2.40	\$2,760.00
	e	Furnish embankment for berm (local borrow)	D8120	675	CY	\$6.00	\$4,050.00
	f	Place and compact embankment for berm	D8120	1,250	CY	\$2.40	\$3,000.00
	g	Furnish and place 6-inch aggregate surfacing	D8120	290	CY	\$32.00	\$9,280.00
	h	Furnish and install 7-foot chain link fence	D8120	484	LF	\$21.50	\$10,406.00
	i	Furnish and install 7-foot x 24-foot access gate	D8120	2	EA	\$3,700.00	\$7,400.00
	20	<b>Landscaping</b>					
	a	Furnish and apply native grass seed		1	AC	\$1,700.00	\$1,190.00
	b	Furnish and install deciduous trees (1-inch caliper)		25	EA	\$107.00	\$2,675.00
		Subtotal (sheet 1 of 4)					\$51,801.00
		* All costs reported in 2003 dollars					

QUANTITIES		PRICES	
BY M.L. Pierce, D. LaFond	CHECKED	BY T. Artichoker	CHECKED Cy 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 P3 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAMO4**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT	
		<b>PUMPING PLANT - TP2</b>						
		Four Horizontal Centrifugal Units						
		<b>CIVIL</b>						
	30	<b>Excavation and Backfill</b>						
	a	Excavation of common materials for structures	D8120	370	CY	\$14.00	\$5,180.00	
	b	Furnish backfill for structures (re-use struct. excavation)	D8120	270	CY	\$21.00	\$5,670.00	
		Place backfill around structures (included)						
	c	Compact backfill around structures	D8120	270	CY	\$16.00	\$4,320.00	
		<b>STRUCTURAL</b>						
	40	<b>Construct Building Substructure</b>						
	a	Furnish, form, and place concrete for substructures	D8120	100	CY	\$680.00	\$68,000.00	
	b	Furnish and place concrete reinforcement (155#/CY)	D8120	15,500	LBS	\$1.00	\$15,500.00	
	c	Furnish and handle cement (.282T/CY, f'c= 4000 psi)	D8120	28	TONS	\$140.00	\$3,920.00	
	50	<b>Construct Building Superstructure</b>						
	a	Furnish and install 1.5" x 22 gage steel roof deck (Vulcraft 1.5B22, painted, 1.68 psf)	D8120	1,200	SF	\$3.20	\$3,840.00	
	b	Furnish and install open web joists (painted): Vulcraft 18K7 x 30'-0" span, 6 req'd	D8120	1,650	LBS	\$4.40	\$7,260.00	
	c	Furnish and install structural steel:	D8120	900	LBS	\$3.20	\$2,880.00	
	d	Furnish and construct 8-inch reinforced masonry walls	D8120	1,800	SF	\$12.00	\$21,600.00	
	e	Furnish and install miscellaneous metalwork	D8120	500	LBS	\$8.70	\$4,350.00	
		Subtotal (sheet 2 of 4)					\$142,520.00	
		* All costs reported in 2003 dollars						

QUANTITIES		PRICES	
Dick LaFond	CHECKED	BY T. Artchoker	CHECKED 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 23 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAMO4**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**

PLANT ACCT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>PUMPING PLANT - TP2 (continued)</b>					
		<b>ARCHITECTURAL</b>					
		<b>DOOR:</b>					
	60	3'x7'x1.75" EXTERIOR STEEL DOOR AND DOORFRAME	D8120	2	EA	\$655.00	\$1,310.00
	70	<b>DOOR HARDWARE:</b>					
	a	BUTT HINGES 4.5"x4.5"--HEAVY WEIGHT BRASS	D8120	6	EA	\$45.00	\$270.00
	b	MORTISED LOCKSET W/LEVER HANDLE	D8120	2	EA	\$360.00	\$720.00
	c	DOOR CLOSURE--HOLD OPEN	D8120	2	EA	\$220.00	\$440.00
	d	DOOR SHOE	D8120	2	EA	\$27.00	\$54.00
	e	THRESHOLD-1/2"x5" ALUMINUM SADDLE	D8120	2	EA	\$70.00	\$140.00
	f	WEATHERSTRIPPING-STANDARD SELF-ADHESIVE	D8120	2	EA	\$175.00	\$350.00
		<b>ROLL-UP DOOR WITH HARDWARE COMPLETE:</b>					
	80	12' WIDE, 8' HIGH	D8120	1	EA	\$1,900.00	\$1,900.00
	90	<b>BUILT-UP ROOFING SYSTEM:</b>					
	a	ROOFING	D8120	1,500	SF	\$2.70	\$4,050.00
	b	3" AVERAGE RIGID INSULATION	D8120	1,500	SF	\$1.00	\$1,500.00
		<b>FLOOR:</b>					
	100	FLOOR HARDENER	D8120	1,200	SF	\$1.20	\$1,440.00
		<b>PAINT:</b>					
	110	3/4" THICK STUCCO (ON EXTERIOR WALLS)	D8120	2,530	SF	\$4.00	\$10,120.00
		Subtotal (sheet 3 of 4)					\$22,294.00

\* All costs reported in 2003 dollars

QUANTITIES		PRICES	
BY Kuldip Kumar	CHECKED	BY T. Artichoker	CHECKED cy 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

ESTIMATE WORKSHEET

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 3 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAM04**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
	120	<b>Forebay Tank Ring Foundation:</b>					
		15' dia x 16' high forebay tank for TP2					
		15' dia x 16' high forebay tank for TP3					
		12' dia x 16' high forebay tank for TP4					
		10' dia x 16' high forebay tank for TP5					
		<b>Note: Use same quantities for all tanks based on 15' dia.</b>					
	a	Excavation of common materials for structure	D8120	100	CY	\$14.00	\$1,400.00
	b	Furnish tank foundation embankment (< 10 mile borrow)	D8120	90	CY	\$7.50	\$675.00
	c	Place and compact embankment under tank	D8120	90	CY	\$3.10	\$279.00
	d	Waste excavated materials (< 10 mile haul)	D8120	100	CY	\$5.30	\$530.00
	e	Furnish/place/compact 4" oiled sand cushion under tank	D8120	2	CY	\$160.00	\$320.00
	f	Furnish, form, and place concrete for ring wall	D8120	10	CY	\$880.00	\$8,800.00
	g	Furnish and place concrete reinforcement (155#/CY)	D8120	1,600	LBS	\$1.00	\$1,600.00
	h	Furnish and handle cement (.282T/CY)	D8120	3	TONS	\$140.00	\$420.00
		<b>Transformer Pad (By Others)</b>					
		Subtotal sheet 1					\$51,801.00
		Subtotal sheet 2					\$142,520.00
		Subtotal sheet 3					\$22,294.00
		Subtotal sheet 4					\$14,024.00
		Subtotal					\$230,639.00
		Mobilization			(+/-)	5%	\$11,500.00
		Subtotal					\$242,139.00
		<b>SUBTOTAL</b>					\$242,139.00
		Unlisted Items			(+/-)	20%	\$47,861.00
		<b>Contract Cost</b>					\$290,000.00
		Contingencies			(+/-)	20%	\$60,000.00
		<b>Field Cost</b>					\$350,000.00
		Noncontract Costs			(+/-)	30%	\$110,000.00
		<b>Construction Cost</b>					\$460,000.00

\* All costs reported in 2003 dollars

QUANTITIES		PRICES	
Dick LaFond	CHECKED	BY T. Artichoker	CHECKED cy 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated to Communities + Raw to Buckman & Pojoaque Basin 4 Pumping Plant and Yard Quantities  Locations: Upper Pojoaque <b>WOID: AAMO4</b>	14-Mar-03	<b>PROJECT:</b> Trunkline Component  <b>REGION:</b>  <b>FILE:</b> Aamodt_Ac21P2_D8120.xls
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		Alt4-TP2 Pumping Plant and Yard at Upper Pojoaque (As Shown)					
		Four Horizontal Centrifugal Units					
		Quantities are same for:					
		Alt2-TP3 Pumping Plant and Yard at South of Upper Cuyamangue					
		Alt2-TP4 Pumping Plant and Yard between Tesuque Pueblo and Tesuque Village					
		Alt2-TP5 Pumping Plant and Yard at South of Upper Tesuque					
		Alt3-TP2 Pumping Plant and Yard at Upper Pojoaque					
		Alt4-TP2 Pumping Plant and Yard at Upper Pojoaque					
		Alt4-TP3 Pumping Plant and Yard at South of Upper Cuyamangue					
		Alt4-TP4 Pumping Plant and Yard between Tesuque Pueblo and Tesuque Village					
		Alt4-TP5 Pumping Plant and Yard at South of Upper Tesuque					
		<b>SITWORK</b>					
	10	<b>Service Yard (6" aggregate surfacing)</b>					
	a	Strip and clear site to 1 foot depth	D8120	575	CY	\$3.30	\$1,897.50
	b	Excavation for site grading (common material)	D8120	1,150	CY	\$5.30	\$6,095.00
	c	Furnish embankment for service yard (local borrow)	D8120	575	CY	\$5.30	\$3,047.50
	d	Place and compact embankment for service yard	D8120	1,150	CY	\$2.40	\$2,760.00
	e	Furnish embankment for berm (local borrow)	D8120	675	CY	\$6.00	\$4,050.00
	f	Place and compact embankment for berm	D8120	1,250	CY	\$2.40	\$3,000.00
	g	Furnish and place 6-inch aggregate surfacing	D8120	290	CY	\$32.00	\$9,280.00
	h	Furnish and install 7-foot chain link fence	D8120	484	LF	\$21.50	\$10,406.00
	i	Furnish and install 7-foot x 24-foot access gate	D8120	2	EA	\$3,700.00	\$7,400.00
	20	<b>Landscaping</b>					
	a	Furnish and apply native grass seed		1	AC	\$1,700.00	\$1,190.00
	b	Furnish and install deciduous trees (1-inch caliper)		25	EA	\$107.00	\$2,675.00
		Subtotal (sheet 1 of 4)					\$51,801.00

\* All costs reported in 2003 dollars

<b>QUANTITIES</b>		<b>PRICES</b>	
M.L. Pierce, D. LaFond	CHECKED	BY T. Artchoker	CHECKED <i>cy 3/16/2003</i>
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 P4 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAMO4**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**

PLANT ACCT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>PUMPING PLANT - TP2</b>					
		Four Horizontal Centrifugal Units					
		<b>CIVIL</b>					
	30	<b>Excavation and Backfill</b>					
	a	Excavation of common materials for structures	D8120	370	CY	\$14.00	\$5,180.00
	b	Furnish backfill for structures (re-use struct. excavation)	D8120	270	CY	\$21.00	\$5,670.00
		Place backfill around structures (included)					
	c	Compact backfill around structures	D8120	270	CY	\$16.00	\$4,320.00
		<b>STRUCTURAL</b>					
	40	<b>Construct Building Substructure</b>					
	a	Furnish, form, and place concrete for substructures	D8120	100	CY	\$680.00	\$68,000.00
	b	Furnish and place concrete reinforcement (155#/CY)	D8120	15,500	LBS	\$1.00	\$15,500.00
	c	Furnish and handle cement (.282T/CY, f'c= 4000 psi)	D8120	28	TONS	\$140.00	\$3,920.00
		<b>Construct Building Superstructure</b>					
	a	Furnish and install 1.5" x 22 gage steel roof deck (Vulcraft 1.5B22, painted, 1.68 psf)	D8120	1,200	SF	\$3.20	\$3,840.00
	b	Furnish and install open web joists (painted): Vulcraft 18K7 x 30'-0" span, 6 req'd	D8120	1,650	LBS	\$4.40	\$7,260.00
	c	Furnish and install structural steel:	D8120	900	LBS	\$3.20	\$2,880.00
	d	Furnish and construct 8-inch reinforced masonry walls	D8120	1,800	SF	\$12.00	\$21,600.00
	e	Furnish and install miscellaneous metalwork	D8120	500	LBS	\$8.70	\$4,350.00
		Subtotal (sheet 2 of 4)					\$142,520.00

\* All costs reported in 2003 dollars

QUANTITIES		PRICES	
BY Dick LaFond	CHECKED	BY T. Artchoker	CHECKED <i>cy</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 24 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAMO4**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>PUMPING PLANT - TP2 (continued)</b>					
		<b>ARCHITECTURAL</b>					
		<b>DOOR:</b>					
	60	3x7x1.75" EXTERIOR STEEL DOOR AND DOORFRAME	D8120	2	EA	\$655.00	\$1,310.00
	70	<b>DOOR HARDWARE:</b>					
	a	BUTT HINGES 4.5"x4.5"--HEAVY WEIGHT BRASS	D8120	6	EA	\$45.00	\$270.00
	b	MORTISED LOCKSET W/LEVER HANDLE	D8120	2	EA	\$360.00	\$720.00
	c	DOOR CLOSURE--HOLD OPEN	D8120	2	EA	\$220.00	\$440.00
	d	DOOR SHOE	D8120	2	EA	\$27.00	\$54.00
	e	THRESHOLD-1/2"x5" ALUMINUM SADDLE	D8120	2	EA	\$70.00	\$140.00
	f	WEATHERSTRIPPING-STANDARD SELF-ADHESIVE	D8120	2	EA	\$175.00	\$350.00
		<b>ROLL-UP DOOR WITH HARDWARE COMPLETE:</b>					
	80	12' WIDE, 8' HIGH	D8120	1	EA	\$1,900.00	\$1,900.00
	90	<b>BUILT-UP ROOFING SYSTEM:</b>					
	a	ROOFING	D8120	1,500	SF	\$2.70	\$4,050.00
	b	3" AVERAGE RIGID INSULATION	D8120	1,500	SF	\$1.00	\$1,500.00
		<b>FLOOR:</b>					
	100	FLOOR HARDENER	D8120	1,200	SF	\$1.20	\$1,440.00
		<b>PAINT:</b>					
	110	3/4" THICK STUCCO (ON EXTERIOR WALLS)	D8120	2,530	SF	\$4.00	\$10,120.00
Subtotal (sheet 3 of 4)							\$22,294.00
* All costs reported in 2003 dollars							

QUANTITIES		PRICES	
Kuldip Kumar	CHECKED	BY T. Artichoker	CHECKED <i>cy</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 P4 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAM04**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT**
	120	<b>Forebay Tank Ring Foundation:</b>					
		15' dia x 16' high forebay tank for TP2					
		15' dia x 16' high forebay tank for TP3					
		12' dia x 16' high forebay tank for TP4					
		10' dia x 16' high forebay tank for TP5					
		<b>Note: Use same quantities for all tanks based on 15' dia.</b>					
	a	Excavation of common materials for structure	D8120	100	CY	\$14.00	\$1,400.00
	b	Furnish tank foundation embankment (< 10 mile borrow)	D8120	90	CY	\$7.50	\$675.00
	c	Place and compact embankment under tank	D8120	90	CY	\$3.10	\$279.00
	d	Waste excavated materials (< 10 mile haul)	D8120	100	CY	\$5.30	\$530.00
	e	Furnish/place/compact 4" oiled sand cushion under tank	D8120	2	CY	\$160.00	\$320.00
	f	Furnish, form, and place concrete for ring wall	D8120	10	CY	\$880.00	\$8,800.00
	g	Furnish and place concrete reinforcement (155#/CY)	D8120	1,600	LBS	\$1.00	\$1,600.00
	h	Furnish and handle cement (.282T/CY)	D8120	3	TONS	\$140.00	\$420.00
		<b>Transformer Pad (By Others)</b>					
		Subtotal sheet 1					\$51,801.00
		Subtotal sheet 2					\$142,520.00
		Subtotal sheet 3					\$22,294.00
		Subtotal sheet 4					\$14,024.00
		Subtotal					\$230,639.00
		Mobilization			(+/-)	5%	\$11,500.00
		Subtotal					\$242,139.00
		SUBTOTAL					\$242,139.00
		Unlisted Items			(+/-)	20%	\$47,861.00
		<b>Contract Cost</b>					<b>\$290,000.00</b>
		Contingencies			(+/-)	20%	\$60,000.00
		<b>Field Cost</b>					<b>\$350,000.00</b>
		Noncontract Costs			(+/-)	30%	\$110,000.00
		<b>Construction Cost</b>					<b>\$460,000.00</b>
* All costs reported in 2003 dollars							

QUANTITIES		PRICES	
Dick LaFond	CHECKED	BY T. Artichoker	CHECKED <i>cy</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 25 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAMO4**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**  
 Aamodt\_Alt21P2\_D8120.xls

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		Alt4-TP2 Pumping Plant and Yard at Upper Pojoaque (As Shown)					
		Four Horizontal Centrifugal Units					
		Quantities are same for:					
		Alt2-TP3 Pumping Plant and Yard at South of Upper Cuyamangue					
		Alt2-TP4 Pumping Plant and Yard between Tesuque Pueblo and Tesuque Village					
		Alt2-TP5 Pumping Plant and Yard at South of Upper Tesuque					
		Alt3-TP2 Pumping Plant and Yard at Upper Pojoaque					
		Alt4-TP2 Pumping Plant and Yard at Upper Pojoaque					
		Alt4-TP3 Pumping Plant and Yard at South of Upper Cuyamangue					
		Alt4-TP4 Pumping Plant and Yard between Tesuque Pueblo and Tesuque Village					
		Alt4-TP5 Pumping Plant and Yard at South of Upper Tesuque					
		<b>SITWORK</b>					
	10	<b>Service Yard (6" aggregate surfacing)</b>					
	a	Strip and clear site to 1 foot depth	D8120	575	CY	\$3.30	\$1,897.50
	b	Excavation for site grading (common material)	D8120	1,150	CY	\$5.30	\$6,095.00
	c	Furnish embankment for service yard (local borrow)	D8120	575	CY	\$5.30	\$3,047.50
	d	Place and compact embankment for service yard	D8120	1,150	CY	\$2.40	\$2,760.00
	e	Furnish embankment for berm (local borrow)	D8120	675	CY	\$6.00	\$4,050.00
	f	Place and compact embankment for berm	D8120	1,250	CY	\$2.40	\$3,000.00
	g	Furnish and place 6-inch aggregate surfacing	D8120	290	CY	\$32.00	\$9,280.00
	h	Furnish and install 7-foot chain link fence	D8120	484	LF	\$21.50	\$10,406.00
	i	Furnish and install 7-foot x 24-foot access gate	D8120	2	EA	\$3,700.00	\$7,400.00
	20	<b>Landscaping</b>					
	a	Furnish and apply native grass seed		1	AC	\$1,700.00	\$1,190.00
	b	Furnish and install deciduous trees (1-inch caliper)		25	EA	\$107.00	\$2,675.00
		Subtotal (sheet 1 of 4)					\$51,801.00
		* All costs reported in 2003 dollars					

QUANTITIES		PRICES	
M.L. Pierce, D. LaFond	CHECKED	BY T. Artichoker	CHECKED 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated to Communities + Raw to Buckman & Pojoaque Basin P5 Pumping Plant and Yard Quantities  Locations: Upper Pojoaque WOID: AAMO4	14-Mar-03	<b>PROJECT:</b> Trunkline Component  <b>REGION:</b>  <b>FILE:</b>
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT	
		<b>PUMPING PLANT - TP2</b>						
		Four Horizontal Centrifugal Units						
		<b>CIVIL</b>						
	30	<b>Excavation and Backfill</b>						
	a	Excavation of common materials for structures	D8120	370	CY	\$14.00	\$5,180.00	
	b	Furnish backfill for structures (re-use struct. excavation)	D8120	270	CY	\$21.00	\$5,670.00	
		Place backfill around structures (included)						
	c	Compact backfill around structures	D8120	270	CY	\$16.00	\$4,320.00	
		<b>STRUCTURAL</b>						
	40	<b>Construct Building Substructure</b>						
	a	Furnish, form, and place concrete for substructures	D8120	100	CY	\$680.00	\$68,000.00	
	b	Furnish and place concrete reinforcement (155#/CY)	D8120	15,500	LBS	\$1.00	\$15,500.00	
	c	Furnish and handle cement (.282T/CY, f'c= 4000 psi)	D8120	28	TONS	\$140.00	\$3,920.00	
	50	<b>Construct Building Superstructure</b>						
	a	Furnish and install 1.5" x 22 gage steel roof deck (Vulcraft 1.5B22, painted, 1.68 psf)	D8120	1,200	SF	\$3.20	\$3,840.00	
	b	Furnish and install open web joists (painted): Vulcraft 18K7 x 30'-0" span, 6 req'd	D8120	1,650	LBS	\$4.40	\$7,260.00	
	c	Furnish and install structural steel:	D8120	900	LBS	\$3.20	\$2,880.00	
	d	Furnish and construct 8-inch reinforced masonry walls	D8120	1,800	SF	\$12.00	\$21,600.00	
	e	Furnish and install miscellaneous metalwork	D8120	500	LBS	\$8.70	\$4,350.00	
		Subtotal (sheet 2 of 4)					\$142,520.00	
		* All costs reported in 2003 dollars						

<b>QUANTITIES</b>		<b>PRICES</b>	
BY Dick LaFond	CHECKED	BY T. Artchoker	CHECKED <i>Cy</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Treated to Communities + Raw to Buckman & Pojoaque Basin 25 Pumping Plant and Yard Quantities  Locations: Upper Pojoaque WOID: AAM04	14-Mar-03	<b>PROJECT:</b> Trunkline Component  <b>REGION:</b>  <b>FILE:</b>
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODJL	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		PUMPING PLANT - TP2 (continued)					
		ARCHITECTURAL					
		DOOR:					
	60	3'x7'x1.75" EXTERIOR STEEL DOOR AND DOORFRAME	D8120	2	EA	\$655.00	\$1,310.00
		DOOR HARDWARE:					
	a	BUTT HINGES 4.5"x4.5"--HEAVY WEIGHT BRASS	D8120	6	EA	\$45.00	\$270.00
	b	MORTISED LOCKSET W/LEVER HANDLE	D8120	2	EA	\$360.00	\$720.00
	c	DOOR CLOSURE--HOLD OPEN	D8120	2	EA	\$220.00	\$440.00
	d	DOOR SHOE	D8120	2	EA	\$27.00	\$54.00
	e	THRESHOLD-1/2"x5" ALUMINUM SADDLE	D8120	2	EA	\$70.00	\$140.00
	f	WEATHERSTRIPPING-STANDARD SELF-ADHESIVE	D8120	2	EA	\$175.00	\$350.00
		ROLL-UP DOOR WITH HARDWARE COMPLETE:					
	80	12' WIDE, 8' HIGH	D8120	1	EA	\$1,900.00	\$1,900.00
		BUILT-UP ROOFING SYSTEM:					
	a	ROOFING	D8120	1,500	SF	\$2.70	\$4,050.00
	b	3" AVERAGE RIGID INSULATION	D8120	1,500	SF	\$1.00	\$1,500.00
		FLOOR:					
	100	FLOOR HARDENER	D8120	1,200	SF	\$1.20	\$1,440.00
		PAINT:					
	110	3/4" THICK STUCCO (ON EXTERIOR WALLS)	D8120	2,530	SF	\$4.00	\$10,120.00
Subtotal (sheet 3 of 4)							\$22,294.00
* All costs reported in 2003 dollars							

<b>QUANTITIES</b>		<b>PRICES</b>	
CHECKED Kuldip Kumar	CHECKED T. Artichoker	CHECKED 3/16/2003	CHECKED PRICE LEVEL
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 Aamodt Feasibility Study  
 Water Transmission Trunkline (Alternative 2)  
 Treated to Communities + Raw to Buckman & Pojoaque Basin  
 75 Pumping Plant and Yard Quantities  
 Locations: Upper Pojoaque  
**WOID: AAMO4**

14-Mar-03

**PROJECT:**  
 Trunkline Component  
**REGION:**  
**FILE:**

PLANT ACC'L.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
	120	<b>Forebay Tank Ring Foundation:</b>					
		15' dia x 16' high forebay tank for TP2					
		15' dia x 16' high forebay tank for TP3					
		12' dia x 16' high forebay tank for TP4					
		10' dia x 16' high forebay tank for TP5					
		<b>Note: Use same quantities for all tanks based on 15' dia.</b>					
	a	Excavation of common materials for structure	D8120	100	CY	\$14.00	\$1,400.00
	b	Furnish tank foundation embankment (< 10 mile borrow)	D8120	90	CY	\$7.50	\$675.00
	c	Place and compact embankment under tank	D8120	90	CY	\$3.10	\$279.00
	d	Waste excavated materials (< 10 mile haul)	D8120	100	CY	\$5.30	\$530.00
	e	Furnish/place/compact 4" oiled sand cushion under tank	D8120	2	CY	\$160.00	\$320.00
	f	Furnish, form, and place concrete for ring wall	D8120	10	CY	\$880.00	\$8,800.00
	g	Furnish and place concrete reinforcement (155#/CY)	D8120	1,600	LBS	\$1.00	\$1,600.00
	h	Furnish and handle cement (.282T/CY)	D8120	3	TONS	\$140.00	\$420.00
		<b>Transformer Pad (By Others)</b>					
		Subtotal sheet 1					\$51,801.00
		Subtotal sheet 2					\$142,520.00
		Subtotal sheet 3					\$22,294.00
		Subtotal sheet 4					\$14,024.00
		Subtotal					\$230,639.00
		Mobilization			(+/-)	5%	\$11,500.00
		Subtotal					\$242,139.00
		<b>SUBTOTAL</b>					\$242,139.00
		Unlisted Items			(+/-)	20%	\$47,861.00
		<b>Contract Cost</b>					\$290,000.00
		Contingencies			(+/-)	20%	\$60,000.00
		<b>Field Cost</b>					\$350,000.00
		Noncontract Costs			(+/-)	30%	\$110,000.00
		<b>Construction Cost</b>					\$460,000.00
* All costs reported in 2003 dollars							

QUANTITIES		PRICES	
Dick LaFond	CHECKED	BY T. Artichoker	CHECKED <i>Cy</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

<b>FEATURE:</b> Red Line (Alternative 2B) - 2005 Construction 14-Mar-03	<b>PROJECT:</b>  <b>REGION:</b>  <b>FILE:</b>
<b>WOID: AAM04</b>	

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>PUMPS/MOTORS</b>					
	10	4 - 390 gpm pumps (Pa, Pb) Multi-Stage Horizontal Split Case Pump 350 ft TDH, baseplate for pump and motor. 575 lbs each	D-8420	2,300	lbs	\$12.60	\$28,980.00
		2 - 60 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 700 lbs each		1,400	lbs	\$23.40	\$32,760.00
		2 - 40 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 420 lbs each		840	lbs	\$21.60	\$18,144.00
		<b>PIPING/VALVES</b>					
		a. Pumps Pa & Pb					
	20	3" dia - Sch. 40 - 20.75 ft @ 7.58 lbs/ft	D-8420	160	lbs	\$4.30	\$688.00
	30	4" dia - Sch. 40 - 19.55 ft @ 10.79 lbs/ft	D-8420	210	lbs	\$4.20	\$882.00
	40	6" dia - Sch 40 - 130 ft @ 18.97 lbs/ft	D-8420	2,470	lbs	\$4.20	\$10,374.00
	50	8" dia - Sch. 20 - 128 ft @ 22.36 lbs/ft	D-8420	2,860	lbs	\$3.90	\$11,154.00
	60	Miscellaneous fittings - 10 % of piping	D-8420	570	lbs	\$6.00	\$3,420.00
	70	12 - air valves, 1" dia, 40 lbs ea	D-8420	480	lbs	\$16.60	\$7,968.00
	80	6 - check valves, 3" dia, 65 lbs ea	D-8420	390	lbs	\$12.00	\$4,680.00
	90	6 - ball valves, 3" dia, 40 lbs ea	D-8420	240	lbs	\$19.00	\$4,560.00
	100	6 - ball valves, 4" dia, 62 lbs ea	D-8420	370	lbs	\$9.40	\$3,478.00
		<b>REGULATING TANKS</b>					
	110	2 - 21,151 gallon regulating tanks (12,800 lb each)	D-8420	25,600	lbs	\$4.00	\$102,400.00
		Subtotal (sheet 1 of 2)					\$229,488.00
		* All costs reported in 2003 dollars					

<b>QUANTITIES</b>		<b>PRICES</b>	
T. Hummel/Rick Frisz	CHECKED B. Zelenka	BY T. Artchoker	CHECKED <i>[Signature]</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:**  
 14-Mar-03  
 Red Line (Alternative 2B) - 2005 Construction

**WOID: AAM04**

**PROJECT:**

**REGION:**

**FILE:**

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		Subtotal sheet 1					\$229,488.00
		Subtotal					\$229,488.00
		Mobilization			(+/-)	5%	\$11,500.00
		Subtotal					\$240,988.00
		SUBTOTAL					\$240,988.00
		Unlisted Items			(+/-)	20%	\$49,012.00
		<b>Contract Cost</b>					<b>\$290,000.00</b>
		Contingencies			(+/-)	20%	\$60,000.00
		<b>Field Cost</b>					<b>\$350,000.00</b>
		Noncontract Costs			(+/-)	30%	\$110,000.00
		<b>Construction Cost</b>					<b>\$460,000.00</b>
* All costs reported in 2003 dollars							

<b>QUANTITIES</b>		<b>PRICES</b>	
T. Hummel/Rick Frisz	CHECKED B. Zelenka	BY T. Artchoker	CHECKED <i>Cy</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

**FEATURE:** 14-Mar-03  
 Red Line (Alternative 2B) - 2015 Construction

**WOID: AAM04**

**PROJECT:**

**REGION:**

**FILE:**

PLANT ACCT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
		<b>PUMPS/MOTORS</b>					
	10	2 - 390 gpm pumps (Pa, Pb) Multi-Stage Horizontal Split Case Pump 350 ft TDH, baseplate for pump and motor, 575 lbs each	D-8420	1,150	lbs	\$12.60	\$14,490.00
		1 - 60 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 700 lbs each		700	lbs	\$23.40	\$16,380.00
		1 - 40 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 420 lbs each		420	lbs	\$21.60	\$9,072.00
		<b>Subtotal</b>					\$39,942.00
		Mobilization			(+/-)	5%	\$2,000.00
		<b>Subtotal</b>					\$41,942.00
		<b>SUBTOTAL</b>					\$41,942.00
		Unlisted Items			(+/-)	20%	\$8,058.00
		<b>Contract Cost</b>					\$50,000.00
		Contingencies			(+/-)	20%	\$10,000.00
		<b>Field Cost</b>					\$60,000.00
		Noncontract Costs			(+/-)	30%	\$18,000.00
		<b>Construction Cost</b>					\$78,000.00
		* All costs reported in 2003 dollars					

QUANTITIES		PRICES	
T. Hummel/Rick Frisz	CHECKED B. Zelenka	BY T. Artichoker	CHECKED Coy 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

ESTIMATE WORKSHEET

<b>FEATURE:</b> Aamodt Feasibility Study Water Transmission Trunkline (Alternative 2) Electrical and Control Systems from Idefonso to Nambe and Tesuque	14-Mar-03	<b>PROJECT:</b> Trunkline Component <b>REGION:</b> <b>FILE:</b>
<b>WOID: AAM04</b>		

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT*
	1	Electrical Extensions to Lift Stations (by Jemez Mountain Electric Coop)		1	LS	\$1,065,000.00	\$1,065,000.00
	2	Electrical Extensions to Lift Station (by Public Service, NM)		1	LS	\$160,000.00	\$160,000.00
	3	F & I overhead optical ground wire on Jemez line (OPGW: 12 fiber)		130,000	LF	\$4.25	\$552,500.00
	4	F & I 600 V indoor MCC		1	LS	\$89,700.00	\$89,700.00
	a	Incoming power/metering auxiliary control		1	Ea	\$15,900.00	
	b	2-unit start and control section (for 4-500hp motors) (w/ contactors, unit control, protection, isolation)		2	Ea	\$19,200.00	
	c	Station service section (w/460-240/120V 3-phase transformer) (w/12-pole distribution panelboard)		1	Ea	\$35,100.00	
	5	F & I grounding system		200	LB	\$10.70	\$2,140.00
	6	SCADA equipment including controller		8	Ea	\$10,700.00	\$85,600.00
	7	All new SCADA system in master control building		1	LS	\$530,000.00	\$530,000.00
	8	Communication equipment		8	Ea	\$21,300.00	\$170,400.00
	9	Security sytem equipment at each plant		8	Ea	\$5,300.00	\$42,400.00
		Subtotal					\$2,697,740.00
		Mobilization			(+/-)	5%	\$135,000.00
		Subtotal					\$2,832,740.00
		SUBTOTAL					\$2,832,740.00
		Unlisted Items			(+/-)	20%	\$567,260.00
		<b>Contract Cost</b>					<b>\$3,400,000.00</b>
		Contingencies			(+/-)	20%	\$700,000.00
		<b>Field Cost</b>					<b>\$4,100,000.00</b>
		Noncontract Costs			(+/-)	30%	\$1,200,000.00
		<b>Construction Cost</b>					<b>\$5,300,000.00</b>
* All costs reported in 2003 dollars							

<b>QUANTITIES</b>		<b>PRICES</b>	
DATE PREPARED 3/14/03	CHECKED T. Artchoker	BY T. Artchoker	CHECKED <i>ly</i> 3/16/2003
DATE PREPARED 3/14/03	APPROVED	DATE 3/14/03	PRICE LEVEL

Equipment Replacement Schedule - Community (Alternative 2)

Pay Item	Name of Equipment	Code	Date Installed	Replacement Schedule	Quantity	Units	Unit Price	Amount
10	15 - Pump Impeller/Pump Bowls (3 pumps - 5 stages/pump) 170 lbs each, bronze	D-8420	2005	20 years	2550	lbs	\$15.00	\$38,250
20	3 - 150 hp, WP1 motors, 460 v, 1800 rpm, 3 phase, 1800 lbs ea	D-8420	2005	20 years	5400	lbs	\$22.00	\$118,800
30	5 - Pump Impeller/Pump Bowls (1 pump - 5 stages/pump) 170 lbs each, bronze	D-8420	2015	20 years	850	lbs	\$15.00	\$12,750
40	1 - 150 hp, WP1 motors, 460 v, 1800 rpm, 3 phase, 1800 lbs ea	D-8420	2015	20 years	1800	lbs	\$22.00	\$39,600
50	24 - Pump Impellers (12 pumps - 2 stages/pump) Bronze, 9 lbs each	D-8420	2005	20 years	216	lbs	\$24.00	\$5,184
60	12 - 40 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 420 lbs each	D-8420	2005	20 years	5040	lbs	\$35.00	\$176,400
70	8 - Pump Impellers (4 pumps - 2 stages/pump) Bronze, 9 lbs each	D-8420	2015	20 years	72	lbs	\$29.00	\$2,088
80	4 - 40 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 420 lbs each	D-8420	2015	20 years	1680	lbs	\$35.00	\$58,800
90	3 - Butterfly Valve Seats, 10" dia 71 lbs each	D-8420	2005	20 years	213	lbs	\$36.00	\$7,668
100	1 - Butterfly Valve Seats, 10" dia 71 lbs each	D-8420	2015	20 years	71	lbs	\$36.00	\$2,556

\* 'Unit Price' Column includes: 5% mobilization, 6.5% Gross Receipts Tax, 20% Unlisted, 20% Contingencies  
 All costs are considered O&M  
 All costs reported in 2003 dollars

Equipment Replacement Schedule - Red Line (Alternative 2B)

Pay Item	Name of Equipment	Code	Date Installed	Replacement Schedule	Quantity	Units	Unit Price	Amount
10	8 - Pump Impellers (4 pumps - 2 stages/pump) Bronze, 9 lbs each	D-8420	2005	20 years	72	lbs	\$20.00	\$1,440.00
20	2 - 60 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 700 lbs each	D-8420	2005	20 years	1400	lbs	\$38.00	\$53,200.00
30	2 - 40 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 420 lbs each	D-8420	2005	20 years	840	lbs	\$35.00	\$29,400.00
40	4 - Pump Impellers (2 pumps - 2 stages/pump) Bronze, 9 lbs each	D-8420	2015	20 years	36	lbs	\$20.00	\$720.00
50	1 - 60 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 700 lbs each	D-8420	2015	20 years	700	lbs	\$38.00	\$26,600.00
60	1 - 40 hp motors, 460 v, 3600 rpm, 3 phase, WP1, 420 lbs each	D-8420	2015	20 years	420	lbs	\$35.00	\$14,700.00

\* 'Unit Price' Column includes: 5% mobilization, 6.5% Gross Receipts Tax, 20% Unlisted, 20% Contingencies

All costs are considered O&M

All costs reported in 2003 dollars

**Combined Distribution Systems - ASCG Cost Estimates**



**Aamodt Feasibility Study - Confidential**

**Estimate of Probable Construction Cost Summary  
Water Distribution System & Deep Wells**

*Preliminary, Revised 5/08/06*

DESCRIPTION	\$
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**Water Distribution Systems**

San Ildefonso	3,825,395
El Rancho/Jacona	4,951,734
Pojoaque	4,254,147
Upper Pojoaque	2,974,642
Nambe Village/Nambe Pueblo	3,959,189
Cuyamungue	3,225,091
Upper Cuyamungue/Lower Camel Rock	1,881,482
Camel Rock/Tesuque Pueblo	1,960,671
Upper Tesuque Pueblo/Lower Tesuque Village/Tesuque Village	2,158,248
Upper Tesuque Village	1,604,383
Santa Fe Opera/Upper Santa Fe Opera/Lower Bishop's Lodge	931,036
Bishop's Lodge	118,150

<b>Subtotal</b>		<b>31,844,169</b>
Mobilization	5%	1,592,208
Unlisted Items	20%	6,687,276
Contract Cost		40,123,653
Contingencies	20%	8,024,731
Field Cost		48,148,384

**Deep Well Fields for Main System**

Wells	6,899,875
Well Equipping	1,109,725
Piping	890,083

<b>Subtotal</b>		<b>8,899,683</b>
Mobilization	5%	444,984
Unlisted Items	20%	1,868,934
Contract Cost		11,213,601
Contingencies	20%	2,242,720
Field Cost		13,456,321

<b>Total Field Cost - Distribution Systems &amp; Well Fields</b>		<b>61,604,705</b>
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*J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-9-06XXX.xls*

**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> San Ildefonso
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		41,801	LF	\$20.00	\$836,012.47
	3	8" PVC pipe		27,285	LF	\$25.00	\$682,137.01
	4	10" PVC pipe		19,194	LF	\$30.00	\$575,805.69
	5	12" PVC pipe		18,691	LF	\$35.00	\$654,178.35
	6	14" PVC pipe			LF	\$50.00	
	7	Bore: 6" pipe in 14" casing			LF	\$150.00	
	8	Bore: 8" pipe in 16" casing			LF	\$168.00	
	9	Bore: 10" pipe in 18" casing			LF	\$192.00	
	10	Bore: 12" pipe in 24" casing			LF	\$264.00	
	11	Bore Pit			EA	\$3,500.00	
	12	Arroyo crossing, added trench depth 8' to 10' deep		675	LF	\$15.00	\$10,125.00
	13	Bridge crossing			LF	\$160.00	
	14	Acequia crossing		15	EA	\$12,000.00	\$180,000.00
	15	Pavement removal, disposal, and replacement		167	SY	\$40.00	\$6,666.67
	16	5/8"x3/4" water meter		769	EA	\$900.00	\$692,100.00
	17	PRV station assembly			EA	\$25,000	
	18	Water storage tank - 400,000 gallon		1	EA	\$144,900	\$144,900.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$144,900	\$43,470.00
	20	Tank site access road			LF		
	21	Disinfection unit including pipe, valves, and heated enclosure			EA	\$10.00	
	22	Tank site electrical, 1-phase, 30-amp			EA		
<b>Sheet Subtotal</b>							<b>\$3,825,395.18</b>

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL Feasibility



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Jacona & El Rancho (RPZ)
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		50,742	LF	\$20.00	\$1,014,844.03
	3	8" PVC pipe		35,734	LF	\$25.00	\$893,358.14
	4	10" PVC pipe		16,115	LF	\$30.00	\$483,443.97
	5	12" PVC pipe		5,057	LF	\$35.00	\$176,980.65
	6	14" PVC pipe		4,033	LF	\$50.00	\$201,651.00
	7	Bore: 6" pipe in 14" casing			LF	\$150.00	
	8	Bore: 8" pipe in 16" casing			LF	\$168.00	
	9	Bore: 10" pipe in 18" casing			LF	\$192.00	
	10	Bore: 12" pipe in 24" casing			LF	\$264.00	
	11	Bore Pit		4	EA	\$3,500.00	\$14,000.00
	12	Arroyo crossing, added trench depth 8' to 10' deep		350	LF	\$15.00	\$5,250.00
	13	Bridge crossing		320	LF	\$160.00	\$51,200.00
	14	Acequia crossing		25	EA	\$12,000.00	\$300,000.00
	15	Pavement removal, disposal, and replacement		127	SY	\$40.00	\$5,066.67
	16	5/8"x3/4" water meter		1,527	EA	\$900.00	\$1,374,300.00
	17	PRV station assembly		1	EA	\$25,000	\$25,000.00
	18	Water storage tank - 700,000 gallon		1	EA	\$312,800	\$312,800.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$312,800	\$93,840.00
	20	Tank site access road		1,612	LF		
	21	Disinfection unit including pipe, valves, and heated enclosure			EA	\$10.00	
	22	Tank site electrical, 1-phase, 30-amp			EA		
<b>Sheet Subtotal</b>							<b>\$4,951,734.46</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL Feasibility



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Pojoaque
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		22,944	LF	\$20.00	\$458,872.48
	3	8" PVC pipe		27,001	LF	\$25.00	\$675,036.21
	4	10" PVC pipe		19,978	LF	\$30.00	\$599,348.93
	5	12" PVC pipe		8,231	LF	\$35.00	\$288,093.72
	6	14" PVC pipe		723	LF	\$50.00	\$36,169.19
	7	Bore: 6" pipe in 14" casing			LF	\$150.00	
	8	Bore: 8" pipe in 16" casing			LF	\$168.00	
	9	Bore: 10" pipe in 18" casing		2,000	LF	\$192.00	\$384,000.00
	10	Bore: 12" pipe in 24" casing		1000	LF	\$264.00	\$264,000.00
	11	Bore Pit		8	EA	\$3,500.00	\$28,000.00
	12	Arroyo crossing, added trench depth 8' to 10' deep			LF	\$15.00	
	13	Bridge crossing		500	LF	\$160.00	\$80,000.00
	14	Acequia crossing		7	EA	\$12,000.00	\$84,000.00
	15	Pavement removal, disposal, and replacement		117	SY	\$40.00	\$4,666.67
	16	5/8"x3/4" water meter		1,153	EA	\$900.00	\$1,038,000.00
	17	PRV station assembly			EA	\$25,000	
	18	Water storage tank - 510,000 gallon		1	EA	\$241,500	\$241,500.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$241,500	\$72,450.00
	20	Tank site access road		1,200	LF		
	21	Disinfection unit including pipe, valves, and heated enclosure		1	EA	\$10.00	\$10.00
	22	Tank site electrical, 1-phase, 30-amp		1	EA		
<b>Sheet Subtotal</b>							<b>\$4,254,147.19</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL <i>Feasibility</i>



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Upper Pojoaque
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		19,404	LF	\$20.00	\$388,087.48
	3	8" PVC pipe		18,439	LF	\$25.00	\$460,986.47
	4	10" PVC pipe		13,690	LF	\$30.00	\$410,691.00
	5	12" PVC pipe		11,590	LF	\$35.00	\$405,657.35
	6	14" PVC pipe			LF	\$50.00	
	7	Bore: 6" pipe in 14" casing			LF	\$150.00	
	8	Bore: 8" pipe in 16" casing			LF	\$168.00	
	9	Bore: 10" pipe in 18" casing		60	LF	\$192.00	\$11,520.00
	10	Bore: 12" pipe in 24" casing			LF	\$264.00	
	11	Bore Pit		4	EA	\$3,500.00	\$14,000.00
	12	Arroyo crossing, added trench depth 8' to 10' deep		1,090	LF	\$15.00	\$16,350.00
	13	Bridge crossing			LF	\$160.00	
	14	Acequia crossing		15	EA	\$12,000.00	\$180,000.00
	15	Pavement removal, disposal, and replacement		30	SY	\$40.00	\$1,200.00
	16	5/8"x3/4" water meter		954	EA	\$900.00	\$858,900.00
	17	PRV station assembly			EA	\$25,000	
	18	Water storage tank - 450,000 gallon		1	EA	\$174,800	\$174,800.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$174,800	\$52,440.00
	20	Tank site access road			LF		
	21	Disinfection unit including pipe, valves, and heated enclosure		1	EA	\$10.00	\$10.00
	22	Tank site electrical, 1-phase, 30-amp		1	EA		
<b>Sheet Subtotal</b>							<b>\$2,974,642.29</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL Feasibility



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Nambe Pueblo & Nambe Village (RPZ)
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		65,859	LF	\$20.00	\$1,317,182.29
	3	8" PVC pipe		41,967	LF	\$25.00	\$1,049,181.13
	4	10" PVC pipe		1,842	LF	\$30.00	\$55,270.14
	5	12" PVC pipe		5,301	LF	\$35.00	\$185,525.29
	6	14" PVC pipe			LF	\$50.00	
	7	Bore: 6" pipe in 14" casing		120	LF	\$150.00	\$18,000.00
	8	Bore: 8" pipe in 16" casing			LF	\$168.00	
	9	Bore: 10" pipe in 18" casing		10	LF	\$192.00	\$1,920.00
	10	Bore: 12" pipe in 24" casing			LF	\$264.00	
	11	Bore Pit			EA	\$3,500.00	
	12	Arroyo crossing, added trench depth 8' to 10' deep		300	LF	\$15.00	\$4,500.00
	13	Bridge crossing			LF	\$160.00	
	14	Acequia crossing		15	EA	\$12,000.00	\$180,000.00
	15	Pavement removal, disposal, and replacement		120	SY	\$40.00	\$4,800.00
	16	5/8"x3/4" water meter		943	EA	\$900.00	\$848,700.00
	17	PRV station assembly		1	EA	\$25,000	\$25,000.00
	18	Water storage tank - 475,000 gallon		1	EA	\$207,000	\$207,000.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$207,000	\$62,100.00
	20	Tank site access road		300	LF		
	21	Disinfection unit including pipe, valves, and heated enclosure		1	EA	\$10.00	\$10.00
	22	Tank site electrical, 1-phase, 30-amp		1	EA		
<b>Sheet Subtotal</b>							<b>\$3,959,188.85</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL <i>Feasibility</i>



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Cuyamungue
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		24,276	LF	\$20.00	\$485,515.18
	3	8" PVC pipe		12,690	LF	\$25.00	\$317,241.30
	4	10" PVC pipe			LF	\$30.00	
	5	12" PVC pipe		25,192	LF	\$35.00	\$881,704.29
	6	14" PVC pipe		2,358	LF	\$50.00	\$117,903.50
	7	Bore: 6" pipe in 14" casing			LF	\$150.00	
	8	Bore: 8" pipe in 16" casing			LF	\$168.00	
	9	Bore: 10" pipe in 18" casing			LF	\$192.00	
	10	Bore: 12" pipe in 24" casing		1000	LF	\$264.00	\$264,000.00
	11	Bore Pit		4	EA	\$3,500.00	\$14,000.00
	12	Arroyo crossing, added trench depth 8' to 10' deep		1,050	LF	\$15.00	\$15,750.00
	13	Bridge crossing			LF	\$160.00	
	14	Acequia crossing		15	EA	\$12,000.00	\$180,000.00
	15	Pavement removal, disposal, and replacement		167	SY	\$40.00	\$6,666.67
	16	5/8"x3/4" water meter		748	EA	\$900.00	\$673,200.00
	17	PRV station assembly			EA	\$25,000	
	18	Water storage tank - 475,000 gallon		1	EA	\$207,000	\$207,000.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$207,000	\$62,100.00
	20	Tank site access road			LF		
	21	Disinfection unit including pipe, valves, and heated enclosure		1	EA	\$10.00	\$10.00
	22	Tank site electrical, 1-phase, 30-amp		1	EA		
<b>Sheet Subtotal</b>							<b>\$3,225,090.93</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL <i>Feasibility</i>



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Lower Camel Rock & Upper Cuyamungue (RPZ)
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		10,270	LF	\$20.00	\$205,403.29
	3	8" PVC pipe		14,060	LF	\$25.00	\$351,490.01
	4	10" PVC pipe		2,282	LF	\$30.00	\$68,463.45
	5	12" PVC pipe		16,984	LF	\$35.00	\$594,445.74
	6	14" PVC pipe			LF	\$50.00	
	7	Bore: 6" pipe in 14" casing			LF	\$150.00	
	8	Bore: 8" pipe in 16" casing		1,000	LF	\$168.00	\$168,000.00
	9	Bore: 10" pipe in 18" casing			LF	\$192.00	
	10	Bore: 12" pipe in 24" casing			LF	\$264.00	
	11	Bore Pit		2	EA	\$3,500.00	\$7,000.00
	12	Arroyo crossing, added trench depth 8' to 10' deep		300	LF	\$15.00	\$4,500.00
	13	Bridge crossing			LF	\$160.00	
	14	Acequia crossing			EA	\$12,000.00	
	15	Pavement removal, disposal, and replacement			SY	\$40.00	
	16	5/8"x3/4" water meter		299	EA	\$900.00	\$268,800.00
	17	PRV station assembly		1	EA	\$25,000	\$25,000.00
	18	Water storage tank - 475,000 gallon		1	EA	\$144,900	\$144,900.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$144,900	\$43,470.00
	20	Tank site access road		2,500	LF		
	21	Disinfection unit including pipe, valves, and heated enclosure		1	EA	\$10.00	\$10.00
	22	Tank site electrical, 1-phase, 30-amp		1	EA		
<b>Sheet Subtotal</b>							<b>\$1,881,482.49</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL <i>Feasibility</i>



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Tesuque Pueblo & Camel Rock (RPZ)
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		18,166	LF	\$20.00	\$363,314.88
	3	8" PVC pipe		3,205	LF	\$25.00	\$80,114.91
	4	10" PVC pipe		990	LF	\$30.00	\$29,708.60
	5	12" PVC pipe		18,808	LF	\$35.00	\$658,272.27
	6	14" PVC pipe			LF	\$50.00	
	7	Bore: 6" pipe in 14" casing			LF	\$150.00	
	8	Bore: 8" pipe in 16" casing		500	LF	\$168.00	\$84,000.00
	9	Bore: 10" pipe in 18" casing			LF	\$192.00	
	10	Bore: 12" pipe in 24" casing		50000%	LF	\$264.00	\$132,000.00
	11	Bore Pit		2	EA	\$3,500.00	\$7,000.00
	12	Arroyo crossing, added trench depth 8' to 10' deep		1,260	LF	\$15.00	\$18,900.00
	13	Bridge crossing			LF	\$160.00	
	14	Acequia crossing		7	EA	\$12,000.00	\$84,000.00
	15	Pavement removal, disposal, and replacement			SY	\$40.00	
	16	5/8"x3/4" water meter		183	EA	\$900.00	\$164,400.00
	17	PRV station assembly		1	EA	\$25,000	\$25,000.00
	18	Water storage tank - 475,000 gallon		1	EA	\$241,500	\$241,500.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$241,500	\$72,450.00
	20	Tank site access road		1,200	LF		
	21	Disinfection unit including pipe, valves, and heated enclosure		1	EA	\$10.00	\$10.00
	22	Tank site electrical, 1-phase, 30-amp		1	EA		
<b>Sheet Subtotal</b>							<b>\$1,960,670.65</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL <i>Feasibility</i>



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Tesuque Village, Lower Tesuque Village (RPZ) & Upper Tesuque Pueblo (RPZ)
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		23,679	LF	\$20.00	\$473,581.63
	3	8" PVC pipe		5,799	LF	\$25.00	\$144,967.29
	4	10" PVC pipe			LF	\$30.00	
	5	12" PVC pipe		19,147	LF	\$35.00	\$670,133.95
	6	14" PVC pipe			LF	\$50.00	
	7	Bore: 6" pipe in 14" casing		120	LF	\$150.00	\$18,000.00
	8	Bore: 8" pipe in 16" casing		50	LF	\$168.00	\$8,400.00
	9	Bore: 10" pipe in 18" casing		120	LF	\$192.00	\$23,040.00
	10	Bore: 12" pipe in 24" casing		50000%	LF	\$264.00	\$132,000.00
	11	Bore Pit		4	EA	\$3,500.00	\$14,000.00
	12	Arroyo crossing, added trench depth 8' to 10' deep		525	LF	\$15.00	\$7,875.00
	13	Bridge crossing			LF	\$160.00	
	14	Acequia crossing		4	EA	\$12,000.00	\$48,000.00
	15	Pavement removal, disposal, and replacement		50	SY	\$40.00	\$2,000.00
	16	5/8"x3/4" water meter		377	EA	\$900.00	\$339,000.00
	17	PRV station assembly		2	EA	\$25,000	\$50,000.00
	18	Water storage tank - 475,000 gallon		1	EA	\$174,800	\$174,800.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$174,800	\$52,440.00
	20	Tank site access road		2,300	LF		
	21	Disinfection unit including pipe, valves, and heated enclosure		1	EA	\$10.00	\$10.00
	22	Tank site electrical, 1-phase, 30-amp		1	EA		
<b>Sheet Subtotal</b>							<b>\$2,158,247.87</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL Feasibility



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Upper Tesuque Village
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe		5,270	LF	\$16.00	\$84,320.00
	2	6" PVC pipe		12,609	LF	\$20.00	\$252,185.79
	3	8" PVC pipe		13,688	LF	\$25.00	\$342,197.19
	4	10" PVC pipe		136	LF	\$30.00	\$4,094.70
	5	12" PVC pipe		3,122	LF	\$35.00	\$109,269.11
	6	14" PVC pipe			LF	\$50.00	
	7	Bore: 6" pipe in 14" casing		650	LF	\$150.00	\$97,500.00
	8	Bore: 8" pipe in 16" casing		50	LF	\$168.00	\$8,400.00
	9	Bore: 10" pipe in 18" casing			LF	\$192.00	
	10	Bore: 12" pipe in 24" casing			LF	\$264.00	
	11	Bore Pit		2	EA	\$3,500.00	\$7,000.00
	12	Arroyo crossing, added trench depth 8' to 10' deep		300	LF	\$15.00	\$4,500.00
	13	Bridge crossing			LF	\$160.00	
	14	Acequia crossing			EA	\$12,000.00	
	15	Pavement removal, disposal, and replacement		67	SY	\$40.00	\$2,666.67
	16	5/8"x3/4" water meter		348	EA	\$900.00	\$313,200.00
	17	PRV station assembly			EA	\$25,000	
	18	Water storage tank - 475,000 gallon		1	EA	\$105,800	\$105,800.00
	22	Water stora 1		1	EA	\$241,500	\$241,500.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$105,800	\$31,740.00
	20	Tank site access road		2,100	LF		
	21	Disinfection unit including pipe, valves, and heated enclosure		1	EA	\$10.00	\$10.00
	22	Tank site electrical, 1-phase, 30-amp		1	EA		
<b>Sheet Subtotal</b>							<b>\$1,604,383.45</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Lower Bishop's Lodge, Upper Santa Fe Opera (RPZ) & Santa Fe Opera (RPZ)
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		7,821	LF	\$20.00	\$156,415.33
	3	8" PVC pipe		11,096	LF	\$25.00	\$277,399.74
	4	10" PVC pipe		2,465	LF	\$30.00	\$73,935.78
	5	12" PVC pipe			LF	\$35.00	
	6	14" PVC pipe			LF	\$50.00	
	7	Bore: 6" pipe in 14" casing			LF	\$150.00	
	8	Bore: 8" pipe in 16" casing		50	LF	\$168.00	\$8,400.00
	9	Bore: 10" pipe in 18" casing			LF	\$192.00	
	10	Bore: 12" pipe in 24" casing			LF	\$264.00	
	11	Bore Pit			EA	\$3,500.00	
	12	Arroyo crossing, added trench depth 8' to 10' deep		90	LF	\$15.00	\$1,350.00
	13	Bridge crossing			LF	\$160.00	
	14	Acequia crossing		10	EA	\$12,000.00	\$120,000.00
	15	Pavement removal, disposal, and replacement		50	SY	\$40.00	\$2,000.00
	16	5/8"x3/4" water meter		177	EA	\$900.00	\$159,300.00
	17	PRV station assembly		2	EA	\$25,000	\$50,000.00
	18	Water storage tank - 475,000 gallon		1	EA	\$63,250	\$63,250.00
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$63,250	\$18,975.00
	20	Tank site access road			LF		
	21	Disinfection unit including pipe, valves, and heated enclosure		1	EA	\$10.00	\$10.00
	22	Tank site electrical, 1-phase, 30-amp		1	EA		
<b>Sheet Subtotal</b>							<b>\$931,035.85</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL Feasibility



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System  15-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY  <b>REGION:</b> Bishop's Lodge  <b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES
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PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16.00	
	2	6" PVC pipe		5,720	LF	\$20.00	\$114,400.00
	3	8" PVC pipe			LF	\$25.00	
	4	10" PVC pipe			LF	\$30.00	
	5	12" PVC pipe			LF	\$35.00	
	6	14" PVC pipe			LF	\$50.00	
	7	Bore: 6" pipe in 14" casing			LF	\$150.00	
	8	Bore: 8" pipe in 16" casing			LF	\$168.00	
	9	Bore: 10" pipe in 18" casing			LF	\$192.00	
	10	Bore: 12" pipe in 24" casing			LF	\$264.00	
	11	Bore Pit			EA	\$3,500.00	
	12	Arroyo crossing, added trench depth 8' to 10' deep		250	LF	\$15.00	\$3,750.00
	13	Bridge crossing			LF	\$160.00	
	14	Acequia crossing			EA	\$12,000.00	
	15	Pavement removal, disposal, and replacement			SY	\$40.00	
	16	5/8"x3/4" water meter			EA	\$900.00	
	17	PRV station assembly			EA	\$25,000	
	18	Water storage tank - 475,000 gallon			EA		
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%		
	20	Tank site access road			LF		
	21	Disinfection unit including pipe, valves, and heated enclosure			EA	\$10.00	
	22	Tank site electrical, 1-phase, 30-amp			EA		
		<b>Sheet Subtotal</b>					<b>\$118,150.00</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY	CHECKED	BY	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL Feasibility



**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Deep Wells	15-May-06	<b>PROJECT:</b> Aamodt Feasibility Study
		<b>REGION:</b> All
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Combined System\Cost Estimate5-15-06.xls\EASEMENT QUANTITIES

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	12" dia. water supply well 1,000 ft well: Sites #5 (3 each), #8 (1 each)		4	EA	\$331,575.00	\$1,326,300.00
	2	12" dia. water supply well 1,500 ft well: Site #2 (3 each)		3	EA	\$417,175.00	\$1,251,525.00
	3	Dual completion ASR 16" dia. well to 1,000 ft		0	EA	\$386,475.00	\$0.00
	4	Dual completion ASR 16" dia. well to 1,500 ft		0	EA	\$491,775.00	\$0.00
	5	10" dia. injection well to 1,000 ft: Sites #5 (6 each), #8 (2 each)		8	EA	\$276,275.00	\$2,210,200.00
	6	10" dia. injection well to 1,500 ft: Site #2 (6 each)		6	EA	\$351,975.00	\$2,111,850.00
	7	Professional Hydrogeologic Services for 12" dia. water supply well to 1,000 ft		0	EA	\$33,905.00	\$0.00
	8	Professional Hydrogeologic Services for 12" dia. water supply well to 1,500 ft		0	EA	\$39,105.00	\$0.00
	9	Professional Hydrogeologic Services for 16" dia. dual completion ASR well to 1,000 ft		0	EA	\$39,205.00	\$0.00
	10	Professional Hydrogeologic Services for 16" dia. dual completion ASR well to 1,500 ft		0	EA	\$45,305.00	\$0.00
	11	Professional Hydrogeologic Services for 10" dia. injection well to 1,000 ft		0	EA	\$31,305.00	\$0.00
	12	Professional Hydrogeologic Services for 10" dia. injection well to 1,500 ft		0	EA	\$36,305.00	\$0.00
	13	Well pump - 100 HP submersible, including setting		6	EA	\$52,425.00	\$314,550.00
	14	Well pump - 150 HP submersible, including setting		1	EA	\$74,175.00	\$74,175.00
	15	Well pump - 200 HP submersible, including setting		0	EA	\$94,925.00	\$0.00
	16	Well house, complete in place		7	EA	\$20,000.00	\$140,000.00
	17	Electrical for 100 to 150 HP pumps		7	EA	\$37,000.00	\$259,000.00
	18	Electrical for 200 HP pumps		0	EA	\$42,500.00	\$0.00
	19	Well house piping and valves		7	EA	\$14,000.00	\$98,000.00
	20	Disinfection unit		7	EA	\$17,000.00	\$119,000.00
	21	Earthwork, access road, site fencing		7	EA	\$15,000.00	\$105,000.00
	22	6" PVC pipe		7,970	LF	\$20.00	\$159,400.00
	23	8" PVC pipe		5,700	LF	\$25.00	\$142,500.00
	24	10" PVC pipe		15,120	LF	\$30.00	\$453,600.00
	25	Pavement removal, disposal, and replacement		83	SY	\$40.00	\$3,333.33
	26	Bore: 6" pipe in 14" casing		450	LF	\$150.00	\$67,500.00
	27	Bore: 10" pipe in 18" casing		250	LF	\$192.00	\$48,000.00
	28	Arroyo crossing, added trench depth 8' to 10' deep		1050	LF	\$15.00	\$15,750.00
		<b>Sheet Subtotal</b>					<b>\$8,899,683.33</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
BY TAK, JS	CHECKED	BY JSAI & ASCG	CHECKED
DATE PREPARED	APPROVED	DATE	PRICE LEVEL <i>Feasibility</i>





**Pueblo-Only Distribution Systems - ASCG Cost Estimates**



**Aamodt Feasibility Study - Confidential  
Indian- Only System - With Fire Storage  
Estimate of Probable Construction Cost Summary  
Water Distribution System & Deep Wells**

<i>DESCRIPTION</i>		<i>\$</i>
<b>Water Distribution Systems</b>		
<i>San Ildefonso</i>		4,119,257
<i>El Rancho/Jacona</i>		771,937
<i>Pojoaque</i>		6,335,258
<i>Nambe Village/Nambe Pueblo</i>		4,255,440
<i>Camel Rock/Tesuque Pueblo</i>		5,722,335
<i>Subtotal</i>		<b>21,204,227</b>
<i>Mobilization</i>	5%	<b>1,060,211</b>
<i>Unlisted Items</i>	20%	<b>4,452,888</b>
<i>Contract Cost</i>		<b>26,717,326</b>
<i>Contingencies</i>	20%	<b>5,343,465</b>
<i>Field Cost</i>		<b>32,060,791</b>
<b>Deep Well Fields for Main System</b>		
<i>Wells</i>		4,342,075
<i>Well Equipping</i>		951,625
<i>Piping</i>		335,183
<i>Subtotal</i>		<b>5,628,883</b>
<i>Mobilization</i>	5%	<b>281,444</b>
<i>Unlisted Items</i>	20%	<b>1,182,066</b>
<i>Contract Cost</i>		<b>7,092,393</b>
<i>Contingencies</i>	20%	<b>1,418,479</b>
<i>Field Cost</i>		<b>8,510,872</b>
<b>Total Field Cost - Distribution</b>		<b>40,571,662</b>

**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	18-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> San Ildefonso
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Cost Summary

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16	
	2	6" PVC pipe		37,773	LF	\$20	\$755,460
	3	8" PVC pipe		12,866	LF	\$25	\$321,650
	4	10" PVC pipe			LF	\$30	
	5	12" PVC pipe		20,201	LF	\$35	\$707,035
	6	14" PVC pipe			LF	\$50	
	7	Bore: 6" pipe in 14" casing			LF	\$150	
	8	Bore: 8" pipe in 16" casing			LF	\$168	
	9	Bore: 10" pipe in 18" casing			LF	\$192	
	10	Bore: 12" pipe in 24" casing			LF	\$264	
	11	Bore Pit			EA	\$3,500	
	12	Arroyo crossing, added trench depth 8' to 10' deep		675	LF	\$15	\$10,125
	13	Bridge crossing			LF	\$160	
	14	Acequia crossing		15	EA	\$12,000	\$180,000
	15	Pavement removal, disposal, and replacement		167	SY	\$40	\$6,667
	16	5/8"x3/4" water meter		1,021	EA	\$900	\$918,900
	17	PRV station assembly			EA	\$25,000	
	18	Water storage tank - 200,000 gallon		1	EA	\$368,000	\$368,000
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$368,000	\$110,400
	20	Access roads (Tanks)		500	LF	\$10	\$5,000
	21	Disinfection unit including pipe, valves, and heated enclosure			EA	\$30,000	
	22	Tank site electrical, 1-phase, 30-amp		1	EA	\$16,000	\$16,000
		Dual completion ASR 18" dia. well to 1,000 ft		1	EA	\$552,670	\$552,670
		Dual completion ASR 18" dia. well to 1,500 ft			EA	\$705,680	
		Professional Hydrogeologic Services for 16" dia. dual completion ASR well to 1,500 ft			EA	\$39,205	
		Professional Hydrogeologic Services for 10" dia. injection well to 1,000 ft			EA	\$45,305	
		Well pump - 100 HP submersible, including setting			EA	\$31,305	
		Well pump - 150 HP submersible, including setting		1	EA		
		Well pump - 200 HP submersible, including setting			EA	\$36,305	
		Well house, complete in place		1	EA		
		Electrical for 100 to 150 HP pumps		1	EA	\$52,425	\$52,425
		Electrical for 200 HP pumps			EA	\$74,175	
		Well house piping and valves		1	EA	\$94,925	\$94,925
		Disinfection unit		1	EA	\$20,000	\$20,000
<b>Sheet Subtotal</b>							<b>\$4,119,257</b>

<b>PRICES</b>	
BY _____ CHECKED _____	BY _____ CHECKED _____
PAC PREPARED: J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls	DATE: San Ildefonso Feasibility

**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	18-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Jacona & El Rancho (RPZ)
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Jacona

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16	
	2	6" PVC pipe			LF	\$20	
	3	8" PVC pipe		638	LF	\$25	\$15,950
	4	10" PVC pipe		8,451	LF	\$30	\$253,530
	5	12" PVC pipe			LF		
	6	14" PVC pipe			LF	\$35	
	7	Bore: 6" pipe in 14" casing			LF		
	6	14" PVC pipe			LF	\$50	
	8	Bore: 8" pipe in 16" casing			LF		
	9	Bore: 10" pipe in 18" casing			LF	\$150	
	10	Bore: 12" pipe in 24" casing			LF		
	11	Bore Pit			EA	\$3,500	
	12	Arroyo crossing, added trench depth 8' to 10' deep		350	LF	\$15	\$5,250
	13	Bridge crossing			LF	\$160	
	14	Acequia crossing			EA	\$12,000	
	15	Pavement removal, disposal, and replacement		127	SY	\$40	\$5,067
	16	5/8"x3/4" water meter		261	EA	\$900	\$234,900
	17	PRV station assembly		1	EA	\$25,000	\$25,000
	18	Water storage tank - 150,000 gallon		1	EA	\$174,800	\$174,800
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$174,800	\$52,440
	20	Access roads (Tanks)		500	LF	\$10	\$5,000
	21	Disinfection unit including pipe, valves, and heated enclosure			EA	\$30,000	
	22	Tank site electrical, 1-phase, 30-amp			EA	\$16,000	
		Dual completion ASR 16" dia. well to 1,000 ft				\$386,475	
		Dual completion ASR 16" dia. well to 1,500 ft				\$491,775	
		Professional Hydrogeologic Services for 16" dia. dual completion ASR well to 1,500 ft				\$39,205	
		Professional Hydrogeologic Services for 10" dia. injection well to 1,000 ft				\$45,305	
		Well pump - 100 HP submersible, including setting				\$52,425	
		Well pump - 150 HP submersible, including setting				\$74,175	
		Well pump - 200 HP submersible, including setting				\$94,925	
		Well house, complete in place				\$20,000	
		Electrical for 100 to 150 HP pumps				\$37,000	
		Electrical for 200 HP pumps				\$42,500	
		Well house piping and valves				\$14,000	
		Disinfection unit				\$17,000	
<b>Sheet Subtotal</b>							<b>\$771,937</b>

<b>PRICES</b>		
BY _____ J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Jacona	CHECKED _____ DATE PREPARED _____	BY _____ DATE _____
		CHECKED _____ PRICE LEVEL _____ Feasibility

**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	18-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Pojoaque
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Jacona

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>						
	1	4" PVC pipe			LF	\$16		
	2	6" PVC pipe		8,474	LF	\$20	\$169,480	
	3	8" PVC pipe		1,308	LF	\$25	\$32,700	
	4	10" PVC pipe		20,665	LF	\$30	\$619,950	
	5	12" PVC pipe		26,813	LF	\$35	\$938,455	
	6	14" PVC pipe		6,640	LF	\$50	\$332,000	
	7	Bore: 6" pipe in 14" casing		700	LF	\$150	\$105,000	
	8	Bore: 8" pipe in 16" casing		250	LF	\$168	\$42,000	
	9	Bore: 10" pipe in 18" casing			LF	\$192		
	10	Bore: 12" pipe in 24" casing			LF	\$264		
	11	Bore Pit		8	EA	\$3,500	\$28,000	
	12	Arroyo crossing, added trench depth 8' to 10' deep		500	LF	\$15	\$7,500	
	13	Bridge crossing			LF	\$160		
	14	Acequia crossing		1	EA	\$12,000	\$12,000	
	15	Pavement removal, disposal, and replacement		283	SY	\$40	\$11,333	
	16	5/8"x3/4" water meter		2,097	EA	\$900	\$1,887,300	
	17	PRV station assembly		2	EA	\$25,000	\$50,000	
	18	Water storage tank -360,000 gallon		1	EA	\$494,500	\$494,500	
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$494,500	\$148,350	
	20	Access roads (Tank)		500	LF	\$10	\$5,000	
	21	Disinfection unit including pipe, valves, and heated enclosure			EA	\$30,000		
	22	Tank site electrical, 1-phase, 30-amp		1	EA	\$16,000	\$16,000	
		Dual completion ASR 18" dia. well to 1,000 ft		2		\$552,670	\$1,105,340	
		Dual completion ASR 18" dia. well to 1,500 ft				\$705,680		
		Professional Hydrogeologic Services for 16" dia. dual completion ASR well to 1,500 ft			EA	\$39,205		
		Professional Hydrogeologic Services for 10" dia. injection well to 1,000 ft			EA	\$45,305		
		Well pump - 100 HP submersible, including setting				\$52,425		
		Well pump - 150 HP submersible, including setting		2		\$74,175	\$148,350	
		Well pump - 200 HP submersible, including setting				\$94,925		
		Well house, complete in place		2		\$20,000	\$40,000	
		Electrical for 100 to 150 HP pumps		2		\$37,000	\$74,000	
		Electrical for 200 HP pumps				\$42,500		
		Well house piping and valves		2		\$14,000	\$28,000	
		Disinfection unit		2		\$20,000	\$40,000	
		<b>Sheet Subtotal</b>					<b>\$6,335,258</b>	
				<b>PRICES</b>				
BY		CHECKED	BY		CHECKED			
J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls		Pojoaque					Feasibility	

**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	18-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Nambe Pueblo & Nambe Village (RPZ)
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Jacona

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16	
	2	6" PVC pipe		42,256	LF	\$20	\$845,120
	3	8" PVC pipe		11,038	LF	\$25	\$275,950
	4	10" PVC pipe		137	LF	\$30	\$4,110
	5	12" PVC pipe		17,509	LF	\$35	\$612,815
	6	14" PVC pipe			LF	\$50	
	7	Bore: 6" pipe in 14" casing		120	LF	\$150	\$18,000
	8	Bore: 8" pipe in 16" casing			LF	\$168	
	9	Bore: 10" pipe in 18" casing			LF	\$192	
	10	Bore: 12" pipe in 24" casing			LF	\$264	
	11	Bore Pit		4	EA	\$3,500	\$14,000
	12	Arroyo crossing, added trench depth 8' to 10' deep		300	LF	\$15	\$4,500
	13	Bridge crossing			LF	\$160	
	14	Acequia crossing		15	EA	\$12,000	\$180,000
	15	Pavement removal, disposal, and replacement		120	SY	\$40	\$4,800
	16	5/8"x3/4" water meter		1,161	EA	\$900	\$1,044,900
	17	PRV station assembly		2	EA	\$25,000	\$50,000
	18	Water storage tank -235,000 gallon		1	EA	\$368,000	\$368,000
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$368,000	\$110,400
	20	Access roads (Tank)		500	LF	\$10	\$5,000
	21	Disinfection unit including pipe, valves, and heated enclosure			EA	\$30,000	
	22	Tank site electrical, 1-phase, 30-amp			EA	\$16,000	
		Dual completion ASR 18" dia. well to 1,000 ft		1		\$552,670	\$ 552,670
		Dual completion ASR 1" dia. well to 1,500 ft				\$705,680	\$ -
		Professional Hydrogeologic Services for 16" dia. dual completion ASR well to 1,500 ft			EA	\$39,205	\$ -
		Professional Hydrogeologic Services for 10" dia. injection well to 1,000 ft			EA	\$45,305	\$ -
		Well pump - 100 HP submersible, including setting				\$52,425	\$ -
		Well pump - 150 HP submersible, including setting		1		\$74,175	\$ 74,175
		Well pump - 200 HP submersible, including setting				\$94,925	\$ -
		Well house, complete in place		1		\$20,000	\$ 20,000
		Electrical for 100 to 150 HP pumps		1		\$37,000	\$ 37,000
		Electrical for 200 HP pumps				\$42,500	\$ -
		Well house piping and valves		1		\$14,000	\$ 14,000
		Disinfection unit		1		\$20,000	\$ 20,000
		<b>Sheet Subtotal</b>					<b>\$4,255,440</b>

<b>PRICES</b>		
BY _____ CHECKED _____ J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Nambe Pueblo	BY _____ CHECKED _____ Only System -2000 gpm Fire 9-	DATE PREPARED _____ APPROVED _____ DATE _____ PRICE LEVEL _____ Feasibility

**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	18-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Cuyamungue
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Jacona

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16	
	2	6" PVC pipe		20,515	LF	\$20	\$410,300
	3	8" PVC pipe		4,906	LF	\$25	\$122,650
	4	10" PVC pipe		2,702	LF	\$30	\$81,060
	5	12" PVC pipe		5,262	LF	\$35	\$184,170
	6	14" PVC pipe			LF	\$50	
	7	Bore: 6" pipe in 14" casing		300	LF	\$150	\$45,000
	8	Bore: 8" pipe in 16" casing		250	LF	\$168	\$42,000
	9	Bore: 10" pipe in 18" casing			LF	\$192	
	10	Bore: 12" pipe in 24" casing			LF	\$264	
	11	Bore Pit		4	EA	\$3,500	\$14,000
	12	Arroyo crossing, added trench depth 8' to 10' deep		500	LF	\$15	\$7,500
	13	Bridge crossing			LF	\$160	
	14	Acequia crossing		1	EA	\$12,000	\$12,000
	15	Pavement removal, disposal, and replacement		167	SY	\$40	\$6,667
	16	5/8"x3/4" water meter			EA	\$900	
	17	PRV station assembly			EA	\$25,000	
	18	Water storage tank - 380,000 gallon		1	EA	\$368,000	\$368,000
	19	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$368,000	\$110,400
	20	Tank site access road			LF	\$10	
	21	Disinfection unit including pipe, valves, and heated enclosure		1	EA	\$30,000	\$30,000
	22	Tank site electrical, 1-phase, 30-amp		1	EA	\$16,000	\$16,000
		Dual completion ASR 16" dia. well to 1,000 ft				\$386,475	
		Dual completion ASR 16" dia. well to 1,500 ft				\$491,775	
		Professional Hydrogeologic Services for 16" dia. dual completion ASR well to 1,500 ft				\$39,205	
		Professional Hydrogeologic Services for 10" dia. injection well to 1,000 ft				\$45,305	
		Well pump - 100 HP submersible, including setting				\$52,425	
		Well pump - 150 HP submersible, including setting				\$74,175	
		Well pump - 200 HP submersible, including setting				\$94,925	
		Well house, complete in place				\$20,000	
		Electrical for 100 to 150 HP pumps				\$37,000	
		Electrical for 200 HP pumps				\$42,500	
		Well house piping and valves				\$14,000	
		Disinfection unit				\$17,000	
		<b>Sheet Subtotal</b>					<b>\$1,449,747</b>

		<b>PRICES</b>	
BY _____ CHECKED _____ J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Cuyamungue	BY _____ CHECKED _____ J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Cuyamungue	BY _____ CHECKED _____ J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Cuyamungue	BY _____ CHECKED _____ J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Cuyamungue
DATE PREPARED	DATE	PRICE LEVEL	Feasibility

**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Water Distributon System	18-May-06	<b>PROJECT:</b> AAMODT FEASIBILITY STUDY
		<b>REGION:</b> Tesuque Pueblo & Camel Rock (RPZ)
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Jacona

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>					
	1	4" PVC pipe			LF	\$16	
	2	6" PVC pipe		33,350	LF	\$20	\$667,000
	3	8" PVC pipe		18,912	LF	\$25	\$472,800
	4	10" PVC pipe		990	LF	\$30	\$29,700
	5	12" PVC pipe		33,988	LF	\$35	\$1,189,580
	6	14" PVC pipe			LF	\$50	
	7	Bore: 6" pipe in 14" casing		300	LF	\$150	\$45,000
	8	Bore: 8" pipe in 16" casing		500	LF	\$168	\$84,000
	9	Bore: 10" pipe in 18" casing		500	LF	\$192	\$96,000
	10	Bore: 12" pipe in 24" casing			LF	\$264	\$132,000
	11	Bore Pit		4	EA	\$3,500	\$14,000
	12	Arroyo crossing, added trench depth 8' to 10' deep		3,000	LF	\$15	\$45,000
	13	Bridge crossing			LF	\$160	
	14	Acequia crossing		7	EA	\$12,000	\$84,000
	15	Pavement removal, disposal, and replacement		200	SY	\$40	\$8,000
	16	5/8"x3/4" water meter		536	EA	\$900	\$482,400
	17	PRV station assembly		2	EA	\$25,000	\$50,000
	18	Fire pump, pump house, piping and controls		1	EA	\$80,000	\$80,000
	19	Diesel Generator w/3 day tank		1	EA	\$55,000	\$55,000
	20	Local fire alarm devices		1		\$10,000	\$10,000
	21	Water storage tank - 200,000 gallon		2	EA	\$368,000	\$736,000
	22	Water storage tank (fire) - 240,000 gallon		1	EA	\$241,500	\$241,500
	23	Tank site completion including yard pipe, trenching, bedding, valves, fittings, restraint, earthwork & fencing:		30%	%	\$977,500	\$293,250
	24	Access roads (Tank)		1,000	LF	\$10	\$10,000
	24	Disinfection unit including pipe, valves, and heated enclosure			EA	\$30,000	
	26	Tank site electrical, 1-phase, 30-amp			EA	\$16,000	
		Dual completion ASR 18" dia. well to 1,000 ft				\$552,670	
		Dual completion ASR 18" dia. well to 1,500 ft		1		\$705,680	\$705,680
		Professional Hydrogeologic Services for 16" dia. dual completion ASR well to 1,500 ft			EA	\$39,205.00	
		Professional Hydrogeologic Services for 10" dia. injection well to 1,000 ft			EA	\$45,305.00	
		Well pump - 100 HP submersible, including setting				\$52,425	
		Well pump - 150 HP submersible, including setting				\$74,175	
		Well pump - 200 HP submersible, including setting		1		\$94,925	\$94,925
		Well house, complete in place		1		\$20,000	\$20,000
		Electrical for 100 to 150 HP pumps				\$37,000	
		Electrical for 200 HP pumps		1		\$42,500	\$42,500
		Well house piping and valves		1		\$14,000	\$14,000
		Disinfection unit		1		\$20,000	\$20,000
J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls Tesuque Pueblo							<b>Sheet Subtotal</b> <b>\$5,722,335</b>

**PRICES**

**ESTIMATE WORKSHEET**

<b>FEATURE:</b> Deep Wells	18-May-06	<b>PROJECT:</b> Aamodt Feasibility Study
		<b>REGION:</b> All
		<b>FILE:</b> J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimates\Cost Estimate - Indian Only System -2000 gpm Fire 9-26-05.xls\Jacona

PLANT ACCT.	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
<b>FURNISH-AND-INSTALL THE FOLLOWING:</b>							
	1	12" dia. water supply well 1,000 ft well: Sites #5		3	EA	\$331,575.00	\$994,725.00
	2	12" dia. water supply well 1,500 ft well: Site #2, Site#8		2	EA	\$417,175.00	\$834,350.00
	3	Dual completion ASR 16" dia. well to 1,000 ft		0	EA	\$386,475.00	\$0.00
	4	Dual completion ASR 16" dia. well to 1,500 ft		0	EA	\$491,775.00	\$0.00
	5	10" dia. injection well to 1,000 ft: Site #5,		4	EA	\$276,275.00	\$1,105,100.00
	6	10" dia. injection well to 1,500 ft: Site #2		4	EA	\$351,975.00	\$1,407,900.00
	7	Professional Hydrogeologic Services for 12" dia. water supply well to 1,000 ft		0	EA	\$33,905.00	\$0.00
	8	Professional Hydrogeologic Services for 12" dia. water supply well to 1,500 ft		0	EA	\$39,105.00	\$0.00
	9	Professional Hydrogeologic Services for 16" dia. dual completion ASR well to 1,000 ft		0	EA	\$39,205.00	\$0.00
	10	Professional Hydrogeologic Services for 16" dia. dual completion ASR well to 1,500 ft		0	EA	\$45,305.00	\$0.00
	11	Professional Hydrogeologic Services for 10" dia. injection well to 1,000 ft		0	EA	\$31,305.00	\$0.00
	12	Professional Hydrogeologic Services for 10" dia. injection well to 1,500 ft		0	EA	\$36,305.00	\$0.00
	13	Well pump - 100 HP submersible, including setting		3	EA	\$52,425.00	\$157,275.00
	14	Well pump - 150 HP submersible, including setting		2	EA	\$74,175.00	\$148,350.00
	15	Well pump - 200 HP submersible, including setting		0	EA	\$94,925.00	\$0.00
	16	Well house, complete in place		5	EA	\$20,000.00	\$100,000.00
	17	Electrical for 100 to 150 HP pumps		3	EA	\$37,000.00	\$111,000.00
	18	Electrical for 200 HP pumps		2	EA	\$42,500.00	\$85,000.00
	19	Well house piping and valves		5	EA	\$14,000.00	\$70,000.00
	20	Disinfection unit		5	EA	\$17,000.00	\$85,000.00
	21	Earthwork, access road, site fencing		13	EA	\$15,000.00	\$195,000.00
	22	6" PVC pipe		0	LF	\$20.00	\$0.00
	23	8" PVC pipe		6,500	LF	\$25.00	\$162,500.00
	24	10" PVC pipe		1,000	LF	\$30.00	\$30,000.00
	25	Pavement removal, disposal, and replacement		83	SY	\$40.00	\$3,333.33
	26	Bore: 8" pipe in 16" casing		450	LF	\$168.00	\$75,600.00
	27	Bore: 10" pipe in 18" casing		250	LF	\$192.00	\$48,000.00
	28	Arroyo crossing, added trench depth 8' to 10' deep		1050	LF	\$15.00	\$15,750.00
<b>Sheet Subtotal</b>							<b>\$5,628,883.33</b>

<b>PRICES</b>	
BY: _____ CHECKED: _____ TAK, JS	BY: _____ CHECKED: _____ JSAI & ASCG
DATE PREPARED: 9-26-05 J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimate\9-26-05.xls\Deep Wells	DATE: _____ PRICE LEVEL: _____ J:\Chestnut Law Firm\20291\Indian-only system update\Cost Estimate\9-26-05.xls\Deep Wells Feasibility