

Description of Items of Work
 with Breakdown of Pay Items and Cost Codes
 revised February 3, 2006

<u>Pay Item</u>	<u>Cost Code</u>	<u>Description</u>
095	0950	R-O-W - The costs of surveying the r-o-w, aerial photography, etc. (DA)
095	0951	Archaeological Clearance - The cost of archaeology work; surveying, reporting, monitoring, etc. (EA)
095	0952	Endangered Species Clearance - The cost of T&E work; surveying, reporting, etc. (EA)
095	0953	Plan and Profile Surveying – The cost of doing a ground profile survey, aerial photography, etc. (DA)
095	0954	Topo Survey for Lagoon – The cost of doing a topographic survey of a proposed lagoon site. (DA)
095	0955	Topo Survey for Tanksite – The cost of doing a topographic survey of a proposed tank site. (DA)
095	0956	Topo Survey for Solid Waste Site – The cost of doing a topographic survey for a proposed landfill site. (DA)
095	0957	Construction Alignment Survey – The cost of restaking the project alignment for construction. (DA)
095	0958	Lagoon Grade Staking – The cost of setting grade stakes for lagoon construction. (DA)
095	0959	Sewerline Grade Staking – The cost of setting grade stakes for sewerline and manhole construction. (DA)
095	0960	Water Tank Foundation Grade Staking – The cost of setting grade stakes for the water tank foundation. (DA)
095	0961	Drafting R-O-W – The cost of drafting the right-of-way survey. (DA)
095	0962	Drafting Construction Drawings – The cost of drafting the plan and profile drawings for construction. (DA)
095	0963	Drafting As-built Construction Plans – The cost of drafting the as-built construction plans. (DA)
095	0964	Drafting As-built R-O-W – The cost of drafting the as-built right-of-way maps. (DA)
095	0970	Storm Water Pollution Prevention – Includes the grading and excavation for; and the installation and removal of ; straw bales, silt fences, or other pollution prevention devices. (JB)

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100	1000	10-inch PVC Waterline - Includes all excavation, pipe laying; installation of fittings and bends, gate valves, marker posts, air relief valves, DI road crossings and back filling. (LF)
080	0800	8-inch PVC Waterline - Includes all excavation, pipelaying; installation of fittings and bends, gate valves, marker posts, air relief valves, DI road crossings and back filling. (LF)
060	0600	6-inch PVC Waterline - Includes all excavation, pipelaying; installation of fittings and bends, gate valves, marker posts, air relief valves, DI road crossings and back filling. (LF)
040	0400	4-inch PVC Waterline - Includes all excavation, pipelaying; installation of fittings and bends, gate valves, marker posts, air relief valves, DI road crossings and back filling. (LF)
020	0200	2-inch PVC Waterline - Includes all excavation, pipelaying; installation of fittings and bends, gate valves, marker posts, air relief valves, DI road crossings and back filling. (LF)
110	1100	R-O-W Clearing - Includes clearing and grubbing the right-of-way and ripping the centerline. (LF)
111	1110	Pressure Testing (Waterline) - Includes the equipment and labor necessary to pressure test any size waterline. (LF)
112	1120	Leak-Repair - Includes the labor and equipment necessary to repair any leak. (EA)
113	1130	Flush Valve - Includes installation of the gate valve, piping and gravel. (EA)
114	1140	Pipeline Crossing (Waterline) - Includes casing installation, sealing casing ends and compaction. (EA)
115	1150	DI Wash Crossing (2" – 4") - Includes installation of rip-rap, DI pipe and appropriate appurtenances from PVC pipe to PVC pipe. (LF)
116	1160	DI Wash Crossing (6", and over) - Includes installation of rip-rap, DI pipe and appropriate appurtenances from PVC pipe to PVC

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		pipe. (LF)
117	1170	HDPE Wash Crossing - Includes installation of rip-rap, HDPE pipe and appropriate appurtenances from PVC pipe to PVC pipe. (LF)
118	1180	Road Crossing-Open-Cut (Cased) - For unpaved road crossing. Includes casing installation, sealing casing ends, waterline, and compaction. (LF)
118	1185	Road Crossing - Paved Open-Cut (Cased) - For paved road crossing. Includes casing installation, sealing casing ends, waterline, and compaction. (LF)
119	1190	Road Boring - Waterline (Large) - For paved road crossing. Includes casing installation, boring machine, and sealing casing ends. (14" Bore) (LF)
120	1200	Road Boring - Waterline (X-Large) - For paved road crossing. Includes casing installation, boring machine, and sealing casing ends. (Larger than 14" Bore) (LF)
121	1210	Road Boring - Waterline (Small) - For paved road crossing. Includes casing installation, boring machine, and sealing casing ends. (8" Bore) (LF)
122	1220	Rock Excavation - Water & sewer lines - Includes all materials, labor, and equipment for drilling, blasting and removal of rock. (LF)
010	1291	Fire Hydrant - Includes installation of everything from tee through the hydrant. (EA)
030		PRV (Complete)
030	3434	PRV 3/4 x 3/4 - Includes installation of the PRV'S, plumbing, delivery of the vault, and vault. (EA)
030	2234	PRV 2 x 2 x 3/4 - Includes installation of the PRV'S, plumbing, delivery of the vault, and vault. (EA)

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030	2034	PRV 2 x 3/4 - Includes installation of the PRV'S, plumbing, delivery of the vault, and vault. (EA)
240	2400	Fire Flow Meter Vault - Includes installation of the meter, plumbing, delivery of the vault, and vault. (EA)
400	4000	3/4 - Inch House Service - Includes installation of PE service line, meter can, domestic stop, curb stop and marker posts from mainline to the house. (EA)
400	4001	1 - Inch House Service - Includes installation of PE service line, meter can, domestic stop, curb stop and marker posts from mainline to the house. (EA)
450	4500	Wet Vent Plumbing - Includes installation of complete conventional in-house plumbing with fixtures. [Standard Component Lists SC003500, SC016595, SC016700, or SC016705] (EA)
450	4505	Rough-in Plumbing – Labor and material, including the plumbing wall and bathtub, to do the rough-in plumbing where a plumbing wall will be utilized. [Standard Component List SC006400 or SC006405] (EA)
450	4510	Fixture Setting – Labor and material, including the kitchen sink, lavatory, and toilet, to complete the plumbing where a plumbing wall will be utilized. [Standard Component List SC016590] (EA)
450	4560	Bathroom Addition (Complete)
460		Cistern System (Complete)
460	4600	Cistern System (Gravity) - Includes delivery and installation of cistern system including the waterline to the house. (EA)
460	4650	Cistern System (Pressure) - Includes delivery and installation of cistern including waterline to the house and the hydropneumatic pump system. (EA)
490	4900	Electrical Power Extension - Includes the installation of Power lines to well Sites, pumphouses, booster stations, etc. by NTUA or other electric utilities. (MI)

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<u>Pay Item</u>	<u>Cost Code</u>	<u>Description</u>
500		Booster Station (Complete)
500	5000	Prefab Booster Station Construction - Includes construction of the footing, floor and building; installation of miscellaneous materials, vents, exhaust fan and gravel around the structure. (EA)
500	5005	Block Booster Station Construction - Includes construction of the footing, floor and building; installation of miscellaneous materials, vents, exhaust fan and gravel around the structure. (EA)
500	5010	Booster Station Plumbing - Complete interior plumbing and inlet-outlet piping. (EA)
500	5020	Pitless Unit - Installation of the pitless unit for the booster pump. (EA)
500	5030	Chainlink Fence - Fence construction at wells, tanks, booster stations. etc. (LF)
500	5040	Electrical Controls - Installation of controls, conduit, heaters, lights, miscellaneous materials, and wiring of booster station. (EA)
500	5050	Chemical Feed Pumps Installation - Installing and plumbing the chemical feed pumps in the pumphouse; ie chlorination plus fluoridation equals 2ea. (EA)
550		Pumphouse (Complete)
550	5500	Prefab Pumphouse Construction - Includes construction of the footing, floor and building; installation of miscellaneous materials, vents, exhaust fan and gravel around the structure. (EA)
550	5550	Block Pumphouse Construction - Includes construction of the footing, floor and building; installation of miscellaneous materials, vents, exhaust fan and gravel around the structure. (EA)
550	5510	Pumphouse Plumbing - Complete interior plumbing and inlet-outlet piping. (EA)
550	5520	Pitless Unit - Installation of the pitless unit on the well casing. (EA)

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550	5540	Electrical Controls - Installation of controls, conduit, heaters, lights, miscellaneous materials, and wiring of pumphouse. (EA)
560		Pumphouse Renovation (Complete)
560	5600	Pumphouse Construction (Renovation) - Includes construction of the footing, floor and addition to the building; installation or moving of miscellaneous equipment and materials, i.e., vents, exhaust fan and gravel around the structure. (EA)
560	5610	Pumphouse Plumbing (Renovation) - Removing, adding to, and completing the interior plumbing and inlet-outlet piping. (EA)
560	5630	Chainlink Fence Well Site (Renovation) - Removing, expanding, and upgrading the chainlink fence around the pumphouse and well site. (LF)
560	5640	Electrical Controls (Renovation) - Removing and upgrading controls, conduit, heaters, lights, miscellaneous materials, SCADA modifications, and wiring of the pumphouse. (EA)
560	5650	Chemical Feed Pumps (Renovation) - Removing, upgrading, and replumbing the chemical feed pumps in the pumphouse. (EA)
570	5700	Well Pump Installation - Installation of well pump, drop pipe, probes and observation pipe at the well site, ie Smeal Rig. (EA)
580	5800	Well Drilling (Complete) - Well construction bid through NECA but done by an outside contractor. (FT)
580	5810	Mobilization and Demobilization - Moving into and out of the site, setting up camp, and site preparation. (EA)
580	5815	Drilling - Drilling the hole for surface casing. (LF)
580	5820	Drilling - Drilling the hole for well casing. (LF)
580	5830	Casing Installation - Setting the surface casing, and/or the well casing. (LF)

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580	5831	Screen Installation - Setting the well casing. (LF)
580	5832	Perforation Installation - Setting the perforated casing, or perforating the casing. (LF)
580	5840	Logging - Gamma log, caliper log, bond log, resistivity log, porosity log, compensated neutron log, and a specific potential log. (JB)
580	5850	Grouting - Grouting the surface casing and the well casing. (LF)
580	5860	Developing - Surging, jetting or bailing the well, i.e. Smeal Rig. (HR)
580	5865	Acid Developing - All operations associated with acid injection in the well. (JB)
580	5870	Test Pumping - Test pumping the well; by contract or in-house, including pump and setting of the pump. (HR)
580	5880	Hydrogeologic Consultation - The employment of a professional geologist or hydrogeologist to do the preliminary investigation, prepare a well design, and provide consulting services throughout the well construction on a per well basis. (EA)
580	5881	Sand Fracing - All operations associated with sand fracing a well. (JB)
600	6000	Water Tank (Complete) - Pre-fabricated water storage tank supplied and erected on site by outside contractor. (Gal)
600	6005	Water Tank (Rental) - Rental of a temporary water storage tank while the primary tank is being repainted. (LS)
600	6010	Water Tank Construction - Includes material, crew and equipment and tank erection. (SF)
600	6015	Water Tank (Relocate) - Includes moving a water storage tank from

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		one location to another. (LS)
600	6020	NECA Water Tank Painting (Int) - Includes scaffolding, painting and paint for the interior of constructed tanks. (SF)
600	6021	NECA Water Tank Painting (Ext) - Includes scaffolding, painting and paint for the exterior of constructed tanks. (SF)
600	6030	NECA Sandblasting Tank (Int) - Includes the crew and equipment, sandblasting and sand for preparation of the interior of newly constructed tanks. (SF)
600	6031	NECA Sandblasting Tank (Ext) - Includes the crew and equipment, sandblasting and sand for preparation of the exterior of newly constructed tanks. (SF)
600	6035	NECA Sandblasting Tank (Rehab-Int) - Includes the crew and equipment, sandblasting and sand for preparation of the interior of existing tanks for painting. (SF)
600	6036	NECA Sandblasting Tank (Rehab-Ext) - Includes the crew and equipment, sandblasting and sand for preparation of the exterior of existing tanks for painting. (SF)
600	6038	Tank Painting Inspection (JB) - Includes all costs for tank painting inspection whether done by NTUA or some other outside source
600	6040	Water Tank Plumbing - Includes pressure control vault, inlet, outlet, drain, and overflow piping on per tank basis. (EA)
600	6050	Sand Water Tank Foundation - Includes steel ringwall and sand pad foundation. (EA)
600	6060	Concrete Water Tank Foundation - Includes ringwall or concrete foundation. (EA)
610	6100	Contract Water Tank Painting (Interior) - Includes surface preparation, scaffolding, painting and paint for the interior of a water storage tank by a private contractor. (SF)

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610	6110	Contract Water Tank Painting (Exterior) - Includes surface preparation, scaffolding, painting and paint for the exterior of a water storage tank by a private contractor. (SF)
610	6120	Weld Lane Grinding - Includes furnishing labor and equipment to grind weld lanes, up to 6" on either side of the weld, as needed prior to painting. (LF)
610	6130	Accessories (Manholes, etc.) - Includes furnishing and installing additional manholes and modifying ladders in existing tanks. (LS)
680	6800	Telemetric Controls - Includes the telemetric equipment and installation, antenna erection and solar panel installation at both transmitter and receiver site. (LS)
690	6900	Watering Point – Includes the building construction and plumbing required for a community watering point. (EA)
700		Septic Tank and Drainfield (Complete)
700	7000	Septic Tank - Includes delivery and installation of the tank, solid piping from the house to the tank including the cleanout, and marker posts. (EA)
700	7010	Perforated Drainfield - Includes installation of the appropriate system, pipe from the tank, delivery of gravel, cost of gravel and marker posts. (LF)
700	7015	Infiltrator Drainfield - Includes installation of the appropriate system, pipe from the tank, marker posts. (LF)
700	7020	Septic Tank Pumping - Includes the cost of having a septic tank pumper pump a septic tank. (EA)
705	7050	Pressure Testing Sewerline - Includes labor and equipment to test sewerline and manholes. (LF)
706	7060	6-Inch Sewerline – Includes excavation, pipelaying and backfilling. (LF)

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708	7080	8-Inch Sewerline – Includes excavation, pipelaying and backfilling. (LF)
710	7100	10-Inch Sewerline - Includes excavation, pipelaying and backfilling. (LF)
715	7150	Pipeline Crossing Sewerline - Includes casing installation, sealing casing ends and compaction. (EA)
720	7200	Wash Crossing Sewerline - Includes installation of rip-rap, DI pipe and appropriate appurtenances and complete installation of pipe from manhole to manhole. (LF)
725	7250	Rock Excavation Sewerline - Includes all materials, labor, and equipment for drilling, blasting and removal of rock. (LF)
730	7300	Road Boring Sewerline - For paved road crossing. Includes casing installation, boring machine, and sealing casing ends from manhole to manhole (8", & 14" Bore). (LF)
735	7350	Road Crossing - Sewerline (Cased) - For unpaved road crossing. Includes casing installation, sealing casing ends and compaction from manhole to manhole. (LF)
750	7500	Manholes (0'-5') - Includes delivery and installation of manhole sections, construction of flow channels, and sealing of the manhole. (EA)
760	7600	Manholes (5'-10') - Includes delivery and installation of manhole sections, construction of flow channels, and sealing of the manhole. (EA)
770	7700	Manholes (over 10') - Includes delivery and installation of manhole sections, construction of flow channels, and sealing of the manhole. (EA)
780		Lagoon (Complete)
780	7850	Lagoon Earthwork (Cut & Fill) - Includes clearing and grubbing,

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		excavation and backfill, water for compaction and compaction. (CY)
780	7851	Lagoon Earthwork (Cut & Waste) - Includes clearing and grubbing, excavation and disposal of excess dirt. (CY)
780	7855	Lagoon Plumbing - Includes installation of level control structures, distribution piping and manholes. (LS)
780	7860	Lagoon Sealing - Includes the installation of liners or bentonite. (AC)
780	7865	Lagoon Fencing - Includes installation of fencing around the perimeter of the lagoon. (LF)
780	7870	Erosion Control/Rip-Rap - Includes the construction of erosion control materials on the slopes of a lagoon. (SY)
780	7880	Individual Lagoon Earthwork (Cut & Fill) - Includes clearing and grubbing, excavation and backfill, water for compaction and compaction. (CY)
795	7950	4-Inch House Service - Includes the installation of the four inch pipe and cleanouts. (LF)
800		Landfill (Complete)
800	8000	Landfill Plan Development - Includes hydrogeology, well drilling, soil boring, water and soil lab work, for site selection process. (%)
800	8010	Landfill Contract Design - Contract cost for landfill design and O&M plan preparation. (AC)
800	8020	Landfill Site Appurtenances - Includes all permanent structures, fence, and operating equipment. (LS)
830	8300	Garbage Can and Rack - Includes installation of the rack and cans. (EA)
850		Transfer Station (Complete)

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850	8500	Transfer Station Earthwork - Excavation and embankment necessary to build a ramp for a dumpster. (CY)
850	8510	Transfer Station Fencing - Construction of chicken mesh fencing around the site to catch wind blown debris. (LF)
850	8520	Transfer Structures - Construction of the barrier wall and the concrete pad for the dumpster. (LS)
900		NECA Management & Crew Support
900	0850	NECA Overhead - The percentage of labor currently established as overhead. (JB)
900	9001	Bunk Van - Equipment charges for the crew's bunk van. (WK)
900	9002	Small Tools and Supplies - Hand tools, drinking cups, coolers, etc. (WK)
900	9003	Set-Up Camp - Includes security fence at the job-site yard, set up bunk van, etc. (EA)
900	9004	Mechanic and Services - Mechanic and oiler's time and equipment when assigned to a project, i.e., the lagoon dirt spread. (WK)
900	9005	Outside Engineering - Engineering services provided by other than PHS or NECA. soil analysis, permeability test, sieve analysis. (JB)
900	9006	Engineering Assistance - NECA labor to assist PHS Engineer. (HR)
900	9007	Travel & Related Expenses - Per Diem for Foreperson. (WK)
900	9009	Mobilization - The cost of moving NECA equipment to the project for construction of water line, sewer line, storage tank, sewage lagoon, etc. (LD)
900	9012	Job Supervision (Utilities) - NECA Foreman's salary, per diem, and vehicle while working on utilities. (WK)

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900	9013	Job Supervision (Lagoon) - NECA Foreman's salary, per diem, and vehicle while working on a lagoon. (WK)
900	9014	Job Supervision (Storage Tank) - NECA Foreman's salary, per diem, and vehicle while working on a storage tank. (WK)
900	9015	Timekeeper - The NECA timekeeper's salary. (WK)
900	9016	Security - The cost of providing security for the NECA equipment and PHS materials on weekends and holidays. (WK)
900	9017	Transportation - The cost of transporting to and unloading of materials at the project site from the NECA Warehouse. (LD)
900	9020	Porta-Potty - The costs of providing and maintaining portable toilets on construction sites. (MO)
900	9021	Trash Dumpster - The costs of providing and maintaining trash disposal units on construction sites. (MO)
900	9060	Environmental Cleanup – The cost of cleaning up and disposing of hazardous materials from the construction sites, i.e., fuel, oil, and antifreeze spills, etc. (JB)
900	9070	Equipment Standby - time. (HR)
900	9075	Incentives – The cost of the incentive plan for attendance and safety. (JB)
900	9080	Management Fee - Nielson's management fee. (MO)
900	9850	NECA Overhead – A percentage of the direct labor which supports the administration of NECA. (JB)
900	9090	Warehouse Fee – 2 1/2% of all materials costs to support the NECA warehouse operation. (MO)

NECA/PHS JOB COST ACCOUNTING REPORTS

Under the NECA/PHS Job Cost Accounting System two computer reports are generated every week for each active project. The reports are identified as the "Cost Analysis Report" and the "Unit Cost-Current Period Quantity". This narrative will attempt to explain the information available from these printouts using the attached copies of actual project reports.

COST ANALYSIS REPORT (See Example A)

Column #1 is the "Pay Item" i.e. 020 2" waterline, 095 ROW Survey and Prep., 700 Septic Tank and Drainfield, etc.

Column #2 is the "Cost Code" i.e. 0200 for 2" Waterline, 0951 for Arch clearance, 7015 for Infiltrator Drainfield, etc.

Column #3 is the "Cost Description" i.e. Lagoon Earthwork, Lagoon Plumbing, Lagoon Fencing, Septic Tank, etc.

Column #4 is the "Current Budget" taken from the estimate submitted by the Field Engineer.

Column #5 is the cost for each cost type for that particular period (week).

Column #6 is the cost for each cost type for the fiscal year beginning October 1 and ending September 30.

Column #7 is the cost for each cost type for the entire time period this particular job has been under construction.

Column #8 is the percent completed. A number followed by the letter "Q" indicates the percent of estimated quantities completed and is calculated by dividing Column #8 on the "Unit Cost Report" by Column #5 on the "Unit Cost Report". A number followed by the letter 'D' indicates the percent of estimated cost completed and is calculated by dividing Column #7 on the "Cost Analysis Report" by Column #4 on the "Cost Analysis Report". Column #8 will only have a percent of estimated cost completed when there are dollars spent but no quantities installed recorded in Column #8 on the "Unit Cost Report".

Column #9 is the estimated cost remaining for each cost type and is the difference between Column #4 and Column #7, if the percentage in Column #8 is in dollars. If the percentage in Column #8 is in quantities, then the estimated cost remaining is the difference between Column #7 and the calculated cost of installing the remaining quantity (Column #5 on the "Unit Cost Report" minus Column #8 on the "Unit Cost Report") at the "Job to Date" unit cost recorded in Column #10 on the "Unit Cost Report".

DATE 1/04/06 JCP044 01 000 N.E.C.A. COST ANALYSIS REPORT. TIME 15.44 PAGE 85
 PERIOD 12/25/2005 - 12/31/2005
 Example 'A'

700N49	PINDN NORTH	START DATE 00/00/0000	CONTRACT AMT	T & M	03006 US PUBLIC HEALTH SERVICE			
		COMPL DATE 00/00/0000	CHANGE ORDERS					
			CURRENT AMT					
①	②	④	⑤	⑥	⑦	⑧	⑨	
		CURRENT BUDGET	C-T-U-A-L	D-S-T-S	Job	OPEN COMMITMENTS	CMP	COST REMAINING
			YEAR					
020-0200	2IN WATERLINE-COMPL	7,000.00	570.90	2,014.85	2,014.85		37g	3,490.20
	EQUIPMENT USAGE	5,000.00	484.31	2,209.43	2,209.43		37g	3,827.26
	LABOR & P/R BURDENS	7,000.00		10,580.94	10,580.94		37g	18,328.73
	MATERIALS	19,000.00	1,055.21	14,805.22	14,805.22			25,645.19
	* Cost Code							
	* Pay Item							
030-2234	PRV 2 X 2 X 3/4	549.00					D	549.00
	EQUIPMENT USAGE	494.00					D	494.00
	LABOR & P/R BURDENS	2,300.00					D	2,275.75
	MATERIALS	3,363.00					D	3,339.75
	* Cost Code							
	* Pay Item							
040-0040	FOREMAN EXPENSES	24,900.00					D	24,900.00
	EQUIPMENT USAGE	12,450.00					D	12,450.00
	LABOR & P/R BURDENS	37,350.00					D	37,350.00
	MATERIALS	74,700.00					D	74,700.00
	* Cost Code							
040-0400	4IN WATERLINE-COMPL	11,685.00	571.00	10,324.00	10,324.00		78g	2,889.86
	EQUIPMENT USAGE	6,150.00	612.11	10,086.69	10,086.69		78g	2,823.43
	LABOR & P/R BURDENS	27,050.00		109,042.54	109,056.50		78g	30,526.74
	MATERIALS	44,895.00	1,183.11	129,453.23	129,467.19			36,240.03
	* Cost Code							
	* Pay Item							
095-0950	ROW SURVEY & PREP	74,700.00	5,337.49	55,760.01	55,887.41			74,700.00
	EQUIPMENT USAGE							
	LABOR & P/R BURDENS		2,840.99	46,007.17	46,134.57			
	MATERIALS		5,937.49	55,760.01	55,887.41			
	* Cost Code							
	* Pay Item							

UNIT COST-CURRENT PERIOD QUANTITY REPORT (See Example B)

Columns 1, 2, 3 are the same as the "Cost Analysis Report"

Column #4 is the unit of measure for the estimated quantities.

Column #5 is the estimated quantity taken from the project manager's initial estimate.

Column #6 is the estimated total cost taken from project manager's initial estimate.

Column #7 is the estimated unit cost taken from the project manager's initial estimate.

Column #8 is the quantity installed to date taken from the weekly report prepared by the timekeeper and concurred with by the project manager.

Column #9 is the total cost to date compiled from employee time sheets, equipment time sheets, hard cards, and any other outside costs coded to that particular pay item, cost code, and cost type.

Column #10 is the actual unit cost to date compiled by dividing column #9 by column #8.

Column #11 is the cost overrun or underrun based on the comparison of the estimated cost versus the actual cost. The asterisk denotes an overrun. Subtract the quantities installed to date (Column #5) from the estimated quantities (Column #8), multiply that number by the unit cost to date (Column #10), add that number to the cost to date (Column #9), and subtract that number from the estimated cost (Column #6). If the

actual quantities installed exceeds the estimated quantities, the computer considers the job complete so subtract the actual cost from the estimated cost and if the number is negative its an overrun, if its positive its an underrun.

Column #12 is the quantity of items installed during the week being reported.

Column #13 is the total cost of each item installed during the week being reported.

Column #14 is the unit cost of each item installed during the week being reported.

Column #15 is the projected cost overrun or underrun if the quantities installed that week would have been installed at the estimated unit cost. The asterisk denotes an overrun.

Take the quantities installed that week (Column #12) times the estimated unit cost (Column #7) and subtract the cost for that week (Column #13) from that amount.

NAVAJO ENGINEERING AND CONSTRUCTION AUTHORITY

LABOR AND EQUIPMENT REPORTING POLICIES AND PROCEDURES IHS JOBS

PURPOSE - The following are Labor and Equipment Reporting Policies and Procedures for Navajo Engineering and Construction Authority (NECA) labor and equipment utilized in construction of Public Law 86-121 projects for the Navajo Area Indian Health Service (IHS). The purpose of the procedures is to explain to NECA and IHS personnel the basis for labor and equipment charges to Public Law 86-121 projects and the system for recording and billing labor and equipment charges.

The NECA furnishes labor and equipment for P.L. 86-121 projects on a cost reimbursable basis. The following policies have been adopted by the NECA with the IHS's approval in order for the NECA's labor and equipment costs to be paid as provided for in the Memorandum of Agreement. The NECA's "Labor and Equipment Reporting Policies and Procedures" also provides documentation in support of construction costs, as required under P.L. 86-121.

RESPONSIBILITIES - The following personnel are involved in the labor and equipment reporting process:

1. NECA PROJECT FOREMAN - The Project Foreman is responsible for obtaining equipment and personnel information to be recorded on the Daily Time Sheets and Equipment Time Sheets. The Project Foreman keeps track of the personnel on his crew and the hours worked by his crew. The Project Foreman is also responsible for reviewing and signing the Daily Time Sheets and The Daily Production Reports. The Project Foreman is responsible for ensuring that all equipment and labor is reported according to the requirements of these policies and procedures. When the Project Foreman signs the Daily Time Sheets, he or she indicates that all of the supporting information is verified and correct.
2. NECA TIMEKEEPER - The Timekeeper is responsible for recording the information provided by the foreman on the Daily Time Sheets and Equipment Time Sheets. The Timekeeper is responsible for seeing that all information required for the Daily Time Sheets and Equipment Time Sheets is accurate and that equipment and personnel hours are charged against proper pay items and cost codes. The Timekeeper is to present the Daily Time Sheets and Equipment Time Sheets to the Project Foreman for approval on a daily basis. Under the supervision of the Project Foreman, the Timekeeper is responsible for preparing the Daily Time Sheets, Equipment Time Sheets, Daily Production Reports, and Daily Dairies each day.

3. IHS PROJECT ENGINEER - The IHS Project Engineer or his/her representative is responsible for approving, on behalf of the government, the NECA Daily Time Sheets. The time sheets as approved by the engineer serve as a basis for the NECA's billing to the IHS. It is the IHS Project Engineer's responsibility to make himself or his representative available to NECA project personnel for approval of the time sheets.
4. NECA MECHANIC, WELDER OR TRUCKDRIVER - NECA shop personnel are responsible for reporting their equipment usage on IHS projects through the Mechanic's Daily Timecard. Shop personnel temporarily performing work on a project will submit the Mechanic's Daily Time Reports through the shop office. Time for shop personnel permanently assigned to a project will be submitted through the NECA Project Foreman.
5. NECA MAIN OFFICE - The NECA Accounts Receivable Section receives and processes documents pertaining to IHS equipment charges. The accounts receivable section also prepares the NECA's monthly IHS billings; however, questions regarding equipment and labor charges are to be directed to the respective area Field Superintendent.

EQUIPMENT REPORTING - The following NECA Equipment Charges Guidelines will be used to determine the number of equipment hours to be reported on the NECA time sheet.

Equipment Charges Guidelines

All NECA equipment assigned to IHS P.L. 86-121 projects will be charged in one of the followings ways:

1. Work hours at appropriate Hourly Rate.
2. Stand-by hours at appropriate Hourly Rate.
3. Down hours at No Cost to Project.
4. Weekly rate at appropriate Weekly Rate.
 - A. Work hours are defined at those hours during which a piece of equipment is started and ready to work until it is shut off and no longer required during the shift.
 - B. Stand-by hours are those hours during which a piece of equipment is on a project, but not needed during a workday. If a crew normally works 10 hours a day, the stand-by hours would also be 10 hours. The time between when a machine is shut off (See "a" above) and the end of the shift will be charged as stand-by.
 - C. Down hours are only those hours during which a machine is unable to work due to mechanical problems. When a machine is repaired, it will again be charged as detailed in a. & b. above.

- D. The following items of equipment will continue to be charged by the appropriate weekly rate:
1. Bunk Vans
 2. Office Trailers
 3. Lab Trailers
- E. Equipment will be charged work or stand-by hours until it is released by the project. The exception to these charges will be when a project is shut down due to weather as outlined in General Condition GC-02 of the IHS/NECA Specifications. Work and stand-by charges will resume when the crew returns to work.
- F. All projects will be assigned a Pay Item, Cost Code, Cost Type of 900-9070-E. All stand-by equipment charges will be coded to this number. At the end of each fiscal year any surplus equipment revenues collected will be credited to this item on a prorated basis.

OTHER EQUIPMENT RULES

Equipment And Material Transportation

All labor and equipment used to haul material to or from an IHS project is to be charged to that project, including stand-by, loading, and unloading and travel time. The truck driver is responsible for obtaining the correct project number from the Project Foreman or Timekeeper because many locations have more than one project number assigned to them.

All labor and equipment used to haul equipment to an IHS project is to be charged to that project, including stand-by, loading, unloading, and travel time. Projects are charged for removing equipment from the project to the shop (move-out). Equipment moved from one project to another is charged to the receiving project. Transportation of equipment to the shop for repair is not charged to an IHS project. Transport drivers report their time on the Mechanic's Daily Time Reports, which are processed through the shop. Copies of the Mechanic's Daily Time Reports are included with the monthly IHS billing.

Repair and Service of Equipment

Repairs made in the shop to equipment assigned to P.L. 86-121 projects are paid for through the equipment rental rates. Charges for mechanics and service personnel dispatched from the shop to a project on a temporary basis are also included in the equipment rental rate. Large projects that require several major pieces of equipment, i. e., dams, lagoons, or road construction may have mechanics and servicemen assigned to the individual project and their time and equipment will be charged directly to the project. Welders or truck drivers, dispatched to a project for other work such as welding casing or hauling bedding, will be charged to the project from the time they leave the shop until they return.

REVIEW AND APPROVAL OF EQUIPMENT CHARGES - Daily Time Sheets will be maintained by NECA project personnel on a daily basis. The time sheets are available for review and signature by the Project Engineer on a weekly basis. It is the Project Engineer's or his/her representative's responsibility to review and initial the NECA Daily Time Sheets prior to their submission for the weekly payroll.

Based on the Daily Time Reports, the NECA Accounts Receivable Section prepares the monthly IHS project billings. The billings contain backup sheets summarizing the equipment and labor charges incurred, based on the approved Daily Time Sheets. Copies of the invoice and backup are provided to the Project Engineer. If erroneous equipment or other charges occur in the monthly billing, the IHS Project Engineer is to advise the NECA Area Field Superintendent of the nature of the problem. Written documentation may be requested from the IHS Project Engineer to substantiate his request. In order to maintain adequate NECA cash flow, the uncorrected invoice will be paid by the IHS Area Office. Any adjustment requested by the Project Engineer and approved by NECA Supervision will result in a credit being issued by the NECA Accounts Receivable Section.

EQUIPMENT REPORTING PROCEDURES

Equipment Time Sheet

The Equipment Time Sheet is to be completed on all NECA projects each day. The NECA Timekeeper is responsible for preparing the Equipment Time Sheet, and presenting it to the NECA Project Foreman for review and approval. The Project Foreman is responsible for ensuring that all the information is correct and that the Equipment Time Sheet is prepared in accordance with the NECA Labor and Equipment Reporting Policies and Procedures. The completed Equipment Time Sheet is to be approved on a weekly basis by the IHS Project Engineer or his/her representative before submitting to the NECA's Shiprock Office.

How to Report Equipment Usage on the Equipment Time Sheet:

1. Note the job number to ensure correctness. The IHS project number is available from the IHS Project Engineer.
2. Note the location or area where the crew is working.
3. Write the date the crew worked and circle the appropriate week day.
4. Pay Item and Cost Codes are numbers describing construction work being performed on the project. The IHS numbers are contained in the job cost listing which is distributed by the NECA Cost Accountant or Field Coordinator.

5. Equipment Section - Equipment number is the NECA number assigned to the unit of equipment, such as 14.325.
6. Equipment Description - The description of the piece of equipment, such as JD500 Backhoe.
7. Pay Items and Cost Codes - The number of hours worked by the piece of equipment on each construction activity is to be listed under the proper pay item and cost code.
8. All projects should report equipment released, but not moved from the project site. Write the word "released" in the spaces where you would report the hours used. Do not report hours for released equipment.
9. Comments - Describe any significant events during the day and the work done by the crew. Report the equipment, which is received, released, or transferred during the shift; materials received; or shop personnel who came to the jobsite.
10. Prepared by - Signature of the NECA Timekeeper or Foreman who prepares the Equipment Time Sheet. The NECA Project Foreman or Project Superintendent is to approve the time sheet. The signature of the IHS Project Engineer or his/her representative is to be put in the lower right hand corner of the Equipment Time Sheet.
11. Distribution - The original copy of the Equipment Time Sheet is submitted to NECA's Shiprock office. One carbon copy is given to the IHS Project Engineer, and one copy is retained on the project.
12. Two or more projects - If a NECA crew worked at two or more projects in a day or week, separate time sheets are to be turned in for each project. These separate time sheets are to reflect the hours worked on each individual project.
13. If a crew is working on two or more projects in one day, weekly equipment usage must be pro-rated accordingly. Weekly equipment is to be charged to the appropriate cost code. If weekly equipment is not being used, it is to be charged to cost code 40.

All projects will receive an equipment list for each day of the week on the Equipment Time Sheet. This list will include:

1. All equipment assigned to the project.
2. All equipment remaining on the project from a previous project.
3. All equipment released by the project not yet removed from the site.

When a piece of equipment is received during the week, it must be added to the Equipment Time Sheet at the bottom of the page. When a piece of equipment does not have a NECA unit number, write the serial number or license number and full description of the equipment on the Equipment Time Sheet. All equipment transferred the previous week will not be included on the Equipment Time Sheet for the following week.

If the Equipment Time Sheet is not completed according to the Equipment Reporting Procedures, it will be returned to the field for corrections.

Any questions concerning how to complete the Equipment Time Sheet should be directed to the NECA Accounts Receivable Section or Field Coordinator at NECA's Shiprock Office.

Mechanic's Daily Time Report

The yellow Mechanic's Daily Time Report is used to report time for mechanics, welders, servicemen, truck drivers, and their assigned equipment. Shop personnel dispatched to a project are responsible for obtaining the project number from the NECA Project Foreman if work performed for the project is chargeable to the project. Mechanics and servicemen who repair or service equipment in the field or in the shop will charge their time to the shop, indicating which piece of equipment was repaired or serviced, repair code, equipment used, etc. If equipment is repaired or serviced in the field, shop personnel should obtain the initials of the NECA Project Foreman indicating that they were present at the site. All equipment used by shop personnel is to be listed in the "Equipment Used" column. For transport drivers, this will include the trucks and trailers used to haul the equipment. The equipment being hauled is not to be charged on the Mechanic's Daily Time Report; however, it should be noted in the comments section at the bottom of the report.

Truck drivers and other shop personnel are to describe what loads they hauled (what materials were moved from which project, etc.), or what work they performed. Copies of the Mechanic's Daily Time Report will be attached to the monthly IHS billing.

Equipment Assignment/Transfer Record

An Equipment Transfer card is to be filled out for each piece of NECA equipment, which is moved from the shop to a project, from a project to another project, or released from a project to the shop. When a piece of equipment is moved out from a project, it is the responsibility of the NECA Project Foreman to complete the Equipment Transfer Card and give it to the transport driver. Project personnel must ensure that the NECA equipment number and the make and model of the equipment is noted on the form. In the remarks section, note any mechanical problems with the equipment.

An Equipment Transfer Record is to be completed for any outside rental equipment, which is received on the project. The transfer record is to be submitted with the weekly payroll. Shop personnel will also use the Equipment Assignment/Transfer Record to assign unit numbers and describe equipment purchased or leased by the NECA.

CALCULATION OF OVERHEAD AND MANAGEMENT FEES

The following formulae are to be used in preparation of the Job Cost Accounting budget and will be used by the NECA in the Productivity and Job-Cost-to-Date Reports:

$$\begin{aligned}
 I &= \text{Wages} \times \text{Overhead Rate} \\
 L &= \text{Wages} + \text{Payroll Burden} + \text{Pensions} \\
 F &= [(L + E + I + V) \times 5\%] + [(M + T + R) \times 2.5\%]
 \end{aligned}$$

Where:

- I = Overhead for NECA operations which include supervision, engineering, administration, purchasing, etc.
- L = Total labor cost including payroll burden and pensions.
- F = Management fee collected by the NECA to pay for Nielsons management contract.
- E = Equipment usage (NECA equipment).
- T = Tools and supplies purchased or used by the NECA for a particular job.
- V = Travel and related expenses.
- M = Permanent materials purchased through the NECA. These are materials that will remain on the job (i.e. water storage tank, manholes, pumps, well casing, etc.).
- R = Outside services and rentals. Such services would include archaeological surveys, aerial surveys, well drilling, etc. Outside rentals would be equipment rented from Nielsons or a rental agency.
- Wages = Hourly labor rate **X** hours worked. That portion of labor before the addition of payroll burden and pensions.

Overhead Rate = A percentage established by NECA and IHS. Contact NECA Controller for current rate.

Payroll Burden = Payroll burden expenses other than wages including payroll taxes, group insurance, paid leave, workmen's compensation, etc.
Payroll Burden is calculated as a percentage of wages. Contact the NECA Controller for current rate.

Pensions = Pension expenses charged directly to the IHS and estimated as a percentage of wages. This percentage can only be approximate since each employee's participation is optional. Contact the NECA Controller for current rate.

Calculation of Overhead & Management

Sample Calculations: You purchase a steel water storage tank through the NECA for \$18,000. The NECA pays its erection crew \$9,000 in wages and charges \$11,000 for equipment usage.

Overhead Calculation:

$$I = \$9,000 \times 62\% = \$5,580$$

Labor Cost Calculation:

$$\begin{aligned} L &= \$9,000 + (9,000 \times 21\%) + (9,000 \times 2\%) = \$9,000 + \$1,890 + \$180 \\ &= \$11,070 \end{aligned}$$

Management Fee Calculation:

$$\begin{aligned} F &= [(\$11,070 + \$11,000 + 5,580) \times 5\%] + (\$18,000 \times 2.5\%) \\ &= \$1,382.50 + \$450 \\ &= \$1,832.50 \end{aligned}$$

NECA COST ACCOUNTING ESTIMATING SHEET
PROJECT NO.
DESCRIPTION
NO. OF HOMES

Overhead rate = 27%
Burden Rate = 23%
Pension Rate = 2%

JCA REVISION DATE = 14-Nov-05

PROJECT JCA DATE =

PAY	COST	COST			UNIT	TOTAL COST	TOTAL COST	
ITEM	CODE	TYPE	DESCRIPTION	U/M	QUANTITY	COST	BY COST TYPE	BY COST CODE
	0950	E	R-O-W SURVEY	DA			\$0	
	0950	L					\$0	
	0950	R					\$0	
	0950	T					\$0	\$0.00
	0953	E	PLAN & PROFILE SURVEYING	DA			\$0	
	0953	L					\$0	
	0953	R					\$0	
	0953	T					\$0	\$0.00
	0954	E	TOPO SURVEY FOR LAGOON	DA			\$0	
	0954	L					\$0	
	9054	R					\$0	
	0954	T					\$0	\$0.00
	0955	E	TOPO SURVEY FOR TANKSITE	DA			\$0	
	0955	L					\$0	
	0955	R					\$0	
	0955	T					\$0	\$0.00
	0956	E	TOPO SURVEY FOR SW SITE	DA			\$0	
	0956	L					\$0	
	0956	R					\$0	
	0956	T					\$0	\$0.00
	0957	E	CONSTRUCTION ALIGN SURVEY	DA			\$0	
	0957	L					\$0	
	0957	R					\$0	
	0957	T					\$0	\$0.00
	0958	E	LAGOON GRADE STAKING	DA			\$0	
	0958	L					\$0	
	0958	R					\$0	
	0958	T					\$0	\$0.00
	0959	E	SEWERLINE GRADE STAKING	DA			\$0	
	0959	L					\$0	
	0959	R					\$0	
	0959	T					\$0	\$0.00
	0960	E	WATER TANK FNDN GRADE STAKING	DA			\$0	
	0960	L					\$0	
	0960	R					\$0	
	0960	T					\$0	\$0.00
	0961	L	DRAFTING ROW	DA			\$0	
	0961	R					\$0	\$0.00
	0962	L	DRAFTING CONSTRUCTION PLANS	DA			\$0	
	0962	R					\$0	\$0.00
	0963	L	DRAFTING AS-BUILT CONSTRUCTION PLANS	DA			\$0	
	0963	R					\$0	\$0.00
	0964	L	DRAFTING AS-BUILT ROW	DA			\$0	
	0964	R					\$0	\$0.00
095	0951	S	ARCH CLEARANCE	EA			\$0	
095	0951	R					\$0	\$0.00
095	0952	R	ENDANGERED SPECIES SURVEY	EA			\$0	\$0.00
095	0970	E	STORMWATER POLLUTION PREVENTION	JB			\$0	
095	0970	I				\$0.00	\$0	
095	0970	L					\$0	
095	0970	M					\$0	\$0.00
100	1000	E	10-INCH WATERLINE (COMPLETE)	LF			\$0	
100	1000	I				\$0.00	\$0	
100	1000	L					\$0	
100	1000	M					\$0	
100	1000	S					\$0	\$0.00
080	0800	E	8-INCH WATERLINE (COMPLETE)	LF			\$0	
080	0800	I				\$0.00	\$0	
080	0800	L					\$0	
080	0800	M					\$0	
080	0800	S					\$0	\$0.00

060	0600	E	6-INCH WATERLINE (COMPLETE)	LF			\$0	
060	0600	I				\$0.00	\$0	
060	0600	L					\$0	
060	0600	M					\$0	
060	0600	S					\$0	\$0.00
040	0400	E	4-INCH WATERLINE (COMPLETE)	LF			\$0	
040	0400	I				\$0.00	\$0	
040	0400	L					\$0	
040	0400	M					\$0	
040	0400	S					\$0	\$0.00
020	0200	E	2-INCH WATERLINE (COMPLETE)	LF			\$0	
020	0200	I				\$0.00	\$0	
020	0200	L					\$0	
020	0200	M					\$0	
020	0200	S					\$0	\$0.00
110	1100	E	R-O-W CLEARING	LF			\$0	
110	1100	I				\$0.00	\$0	
110	1100	L					\$0	
110	1100	M					\$0	
110	1100	S					\$0	\$0.00
111	1110	E	PRESSURE TESTING-WATERLINE	LF			\$0	
111	1110	I				\$0.00	\$0	
111	1110	L					\$0	
111	1110	M					\$0	
111	1110	S					\$0	\$0.00
112	1120	E	LEAK REPAIR	EA			\$0	
112	1120	I				\$0.00	\$0	
112	1120	L					\$0	
112	1120	M					\$0	
112	1120	S					\$0	\$0.00
113	1130	E	FLUSH VALVE	EA			\$0	
113	1130	I				\$0.00	\$0	
113	1130	L					\$0	
113	1130	M					\$0	
113	1130	S					\$0	\$0.00
114	1140	E	PIPELINE CROSSING-WATERLINE	EA			\$0	
114	1140	I				\$0.00	\$0	
114	1140	L					\$0	
114	1140	M					\$0	
114	1140	S					\$0	\$0.00

115	1150	E	DI WASH CROSSING (2"-4")	LF			\$0	
115	1150	I				\$0.00	\$0	
115	1150	L					\$0	
115	1150	M					\$0	
115	1150	S					\$0	\$0.00
116	1160	E	DI WASH CROSSING (6" AND OVER)	LF			\$0	
116	1160	I				\$0.00	\$0	
116	1160	L					\$0	
116	1160	M					\$0	
116	1160	S					\$0	\$0.00
117	1170	E	HDPE WASH CROSSING	LF			\$0	
117	1170	I				\$0.00	\$0	
117	1170	L					\$0	
117	1170	M					\$0	
117	1170	S					\$0	\$0.00
118	1180	E	ROAD CROSSING OPEN-CUT (CASED)	LF			\$0	
118	1180	I				\$0.00	\$0	
118	1180	L					\$0	
118	1180	M					\$0	
118	1180	S					\$0	\$0.00
118	1185	E	ROAD X-ING PAVED O/C (CASED)	LF			\$0	
118	1185	I				\$0.00	\$0	
118	1185	L					\$0	
118	1185	M					\$0	
118	1185	S					\$0	\$0.00
119	1190	E	ROAD BORING-WATERLINE	LF			\$0	
119	1190	I	(LARGE 14")			\$0.00	\$0	
119	1190	L					\$0	
119	1190	M					\$0	
119	1190	S					\$0	\$0.00
120	1200	E	ROAD BORING-WATERLINE	LF			\$0	
120	1200	I	(LARGER THAN 14")			\$0.00	\$0	
120	1200	L					\$0	
120	1200	M					\$0	
120	1200	S					\$0	\$0.00
121	1210	E	ROAD BORING-WATERLINE	LF			\$0	
121	1210	I	(SMALL 8")			\$0.00	\$0	
121	1210	L					\$0	
121	1210	M					\$0	
121	1210	S					\$0	\$0.00
122	1220	E	ROCK EXCAVATION WATER	LF			\$0	
122	1220	I				\$0.00	\$0	
122	1220	L					\$0	
122	1220	M					\$0	
122	1220	S					\$0	\$0.00
010	1291	E	FIRE HYDRANT	EA			\$0	
010	1291	I				\$0.00	\$0	
010	1291	L					\$0	
010	1291	M					\$0	
010	1291	S					\$0	\$0.00
030	3434	E	PRV 3/4 X 3/4	EA			\$0	
030	3434	I				\$0.00	\$0	
030	3434	L					\$0	
030	3434	M					\$0	
030	3434	S					\$0	\$0.00
030	2234	E	PRV 2 X 2 X 3/4	EA			\$0	
030	2234	I				\$0.00	\$0	
030	2234	L					\$0	
030	2234	M					\$0	
030	2234	S					\$0	\$0.00
030	2034	E	PRV 2 X 3/4	EA			\$0	
030	2034	I				\$0.00	\$0	
030	2034	L					\$0	
030	2034	M					\$0	
030	2034	S					\$0	\$0.00

240	2400	E	FIRE FLOW METER VAULT	EA			\$0	
240	2400	I				\$0.00	\$0	
240	2400	L					\$0	
240	2400	M					\$0	
240	2400	S					\$0	\$0.00
400	4000	E	3/4-INCH HOUSE SERVICE	EA			\$0	
400	4000	I				\$0.00	\$0	
400	4000	L					\$0	
400	4000	M					\$0	
400	4000	S					\$0	\$0.00
400	4001	E	1-INCH HOUSE SERVICE	EA			\$0	
400	4001	I				\$0.00	\$0	
400	4001	L					\$0	
400	4001	M					\$0	
400	4001	S					\$0	\$0.00
450	4500	E	WET VENT PLUMBING	EA			\$0	
450	4500	I				\$0.00	\$0	
450	4500	L					\$0	
450	4500	M					\$0	
450	4500	S					\$0	\$0.00
450	4505	E	ROUGH-IN PLUMBING	EA			\$0	
450	4505	I				\$0.00	\$0	
450	4505	L					\$0	
450	4505	M					\$0	
450	4505	S					\$0	\$0.00
450	4510	E	FIXTURE SETTING	EA			\$0	
450	4510	I				\$0.00	\$0	
450	4510	L					\$0	
450	4510	M					\$0	
450	4510	S					\$0	\$0.00
450	4560	E	BATHROOM ADDITION	EA			\$0	
450	4560	I				\$0.00	\$0	
450	4560	L					\$0	
450	4560	M					\$0	
450	4560	S					\$0	\$0.00
460	4600	E	CISTERN SYSTEM (GRAVITY)	EA			\$0	
460	4600	I				\$0.00	\$0	
460	4600	L					\$0	
460	4600	M					\$0	
460	4600	S					\$0	\$0.00
460	4650	E	CISTERN SYSTEM (AC PRESSURE)	EA			\$0	
460	4650	I				\$0.00	\$0	
460	4650	L					\$0	
460	4650	M					\$0	
460	4650	S					\$0	\$0.00
490	4900	R	ELECTRICAL POWER EXTENSION	MI			\$0	\$0.00
500	5000	E	PREFAB BOOSTER STATION CONSTR	EA			\$0	
500	5000	I				\$0.00	\$0	
500	5000	L					\$0	
500	5000	M					\$0	
500	5000	S					\$0	\$0.00
500	5005	E	BLOCK BOOSTER STATION CONSTR	EA			\$0	
500	5005	I				\$0.00	\$0	
500	5005	L					\$0	
500	5005	M					\$0	
500	5005	S					\$0	\$0.00
500	5010	E	BOOSTER STATION PLUMBING	EA			\$0	
500	5010	I				\$0.00	\$0	
500	5010	L					\$0	
500	5010	M					\$0	
500	5010	S					\$0	\$0.00
500	5020	E	PITLESS UNIT	EA			\$0	
500	5020	I				\$0.00	\$0	
500	5020	L					\$0	
500	5020	M					\$0	
500	5020	S					\$0	\$0.00
500	5030	E	CHAINLINK FENCE (ANYWHERE)	LF			\$0	
500	5030	I	@BOOSTER, WELL, TANK			\$0.00	\$0	
500	5030	L					\$0	

500	5030	M						\$0	
500	5030	S						\$0	\$0.00

500	5040	E	ELECTRICAL CONTROLS	EA			\$0	
500	5040	I				\$0.00	\$0	
500	5040	L					\$0	
500	5040	M					\$0	
500	5040	S					\$0	\$0.00
500	5050	E	CHEMICAL FEED PUMPS INST.	EA			\$0	
500	5050	I	@ PUMPHOUSE, & BOOSTER STA			\$0.00	\$0	
500	5050	L	PER PUMP				\$0	
500	5050	M					\$0	
500	5050	S					\$0	\$0.00
550	5500	E	PREFAB PUMPHOUSE CONSTR	EA			\$0	
550	5500	I				\$0.00	\$0	
550	5500	L					\$0	
550	5500	M					\$0	
550	5500	S					\$0	\$0.00
550	5550	E	BLOCK PUMPHOUSE CONSTR	EA			\$0	
550	5550	I				\$0.00	\$0	
550	5550	L					\$0	
550	5550	M					\$0	
550	5550	S					\$0	\$0.00
550	5510	E	PUMPHOUSE PLUMBING	EA			\$0	
550	5510	I				\$0.00	\$0	
550	5510	L					\$0	
550	5510	M					\$0	
550	5510	S					\$0	\$0.00
550	5520	E	PITLESS UNIT	EA			\$0	
550	5520	I				\$0.00	\$0	
550	5520	L					\$0	
550	5520	M					\$0	
550	5520	S					\$0	\$0.00
550	5540	E	ELECTRICAL CONTROLS	EA			\$0	
550	5540	I				\$0.00	\$0	
550	5540	L					\$0	
550	5540	M					\$0	
550	5540	S					\$0	\$0.00
560	5600	E	PUMPHOUSE RENOVATION	EA			\$0	
560	5600	I				\$0.00	\$0	
560	5600	L					\$0	
560	5600	M					\$0	
560	5600	S					\$0	\$0.00
560	5610	E	PUMPHOUSE PLUMBING (RENOV.)	EA			\$0	
560	5610	I				\$0.00	\$0	
560	5610	L					\$0	
560	5610	M					\$0	
560	5610	S					\$0	\$0.00
560	5630	E	CHAINLINK FENCE (RENOV.)	LF			\$0	
560	5630	I				\$0.00	\$0	
560	5630	L					\$0	
560	5630	M					\$0	
560	5630	S					\$0	\$0.00
560	5640	E	ELECTRICAL CONTROLS (RENOV.)	EA			\$0	
560	5640	I				\$0.00	\$0	
560	5640	L					\$0	
560	5640	M					\$0	
560	5640	S					\$0	\$0.00
560	5650	E	CHEMICAL FEED PUMPS (RENOV.)	EA			\$0	
560	5650	I				\$0.00	\$0	
560	5650	L					\$0	
560	5650	M					\$0	
560	5650	S					\$0	\$0.00
570	5700	E	WELL PUMP INSTALLATION	EA			\$0	
570	5700	I				\$0.00	\$0	
570	5700	L					\$0	
570	5700	M				\$0.00	\$0	
570	5700	S					\$0	\$0.00
580	5800	R	WELL DRILLING (COMPLETE)	FT			\$0	\$0.00
580	5810	R	WELL DRILLING MOB/DEMOB	EA			\$0	\$0.00
580	5815	R	DRILLING (SURFACE CASING)	LF			\$0	\$0.00
580	5820	R	DRILLING (WELL CASING)	LF			\$0	\$0.00

580	5830	R	CASING INSTALLATION	LF				\$0	
580	5830	M						\$0	
580	5830	S						\$0	\$0.00
580	5831	R	SCREEN INSTALLATION	LF				\$0	
580	5831	M						\$0	
580	5831	S						\$0	\$0.00
580	5832	R	PERFORATION INSTALLATION	LF				\$0	
580	5832	M						\$0	
580	5832	S						\$0	\$0.00
580	5840	R	LOGGING	JB				\$0	\$0.00
580	5850	R	GROUTING	LF				\$0	\$0.00
580	5860	R	DEVELOPING	HR				\$0	\$0.00
580	5865	R	ACID DEVELOPMENT	JB				\$0	\$0.00
580	5870	R	TEST PUMPING	HR				\$0	
580	5870	M						\$0	
580	5870	S						\$0	\$0.00
580	5880	R	HYDROGEOLOGIC INVESTIGATION	EA				\$0	\$0.00
580	5881	R	SAND FRAC WELL	JB				\$0	\$0.00
600	6000	R	WATER TANK & FOUNDATION (CONT)	GAL				\$0	
600	6000	M						\$0	
600	6000	S						\$0	\$0.00
600	6005	R	WATER TANK (RENTAL)	LS				\$0	\$0.00
600	6010	E	WATER TANK CONSTRUCTION	SF				\$0	
600	6010	I				\$0.00		\$0	
600	6010	L						\$0	
600	6010	M						\$0	
600	6010	S						\$0	\$0.00
600	6015	E	WATER TANK RELOCATE	LS				\$0	
600	6015	I				\$0.00		\$0	
600	6015	L						\$0	
600	6015	M						\$0	
600	6015	S						\$0	\$0.00
600	6020	E	NECA TANK PAINTING (INT)	SF				\$0	
600	6020	I				\$0.00		\$0	
600	6020	L						\$0	
600	6020	M						\$0	
600	6020	S						\$0	\$0.00
600	6021	E	NECA TANK PAINTING (EXT)	SF				\$0	
600	6021	I				\$0.00		\$0	
600	6021	L						\$0	
600	6021	M						\$0	
600	6021	S						\$0	\$0.00
600	6030	E	NECA SAND BLASTING (NEW-INT)	SF				\$0	
600	6030	I				\$0.00		\$0	
600	6030	L						\$0	
600	6030	M						\$0	
600	6030	S						\$0	\$0.00
600	6031	E	NECA SAND BLASTING (NEW-EXT)	SF				\$0	
600	6031	I				\$0.00		\$0	
600	6031	L						\$0	
600	6031	M						\$0	
600	6031	S						\$0	\$0.00
600	6035	E	NECA SAND BLASTING (REHAB-INT)	SF				\$0	
600	6035	I				\$0.00		\$0	
600	6035	L						\$0	
600	6035	M						\$0	
600	6035	S						\$0	\$0.00
600	6036	E	NECA SAND BLASTING (REHAB-EXT)	SF				\$0	
600	6036	I				\$0.00		\$0	
600	6036	L						\$0	
600	6036	M						\$0	
600	6036	S						\$0	\$0.00
600	6038	R	TANK PAINTING INSPECTION	JB				\$0	\$0.00

600	6040	E	WATER TANK PLUMBING	EA			\$0	
600	6040	I				\$0.00	\$0	
600	6040	L					\$0	
600	6040	M					\$0	
600	6040	S					\$0	\$0.00
600	6050	E	WATER TANK FOUNDATION (SAND)	EA			\$0	
600	6050	I				\$0.00	\$0	
600	6050	L					\$0	
600	6050	M					\$0	
600	6050	S					\$0	\$0.00
600	6060	E	WATER TANK FOUND. (CONCRETE)	EA			\$0	
600	6060	I				\$0.00	\$0	
600	6060	L					\$0	
600	6060	M					\$0	
600	6060	S					\$0	\$0.00
610	6100	R	INTERIOR TANK PAINTING (CONTR)	SF			\$0	\$0.00
610	6110	R	EXTERIOR TANK PAINTING (CONTR)	SF			\$0	\$0.00
610	6120	R	WELD LANE GRINDING	LF			\$0	\$0.00
610	6130	R	ACCESSORIES (MANHOLES, ETC.)	LS			\$0	\$0.00
680	6800	E	TELEMETRIC CONTROLS	LS			\$0	
680	6800	I				\$0.00	\$0	
680	6800	L					\$0	
680	6800	R					\$0	
680	6800	M					\$0	
680	6800	S					\$0	\$0.00
690	6900	E	WATERING POINT	EA		\$4,000.00	\$0	
690	6900	I				\$1,512.00	\$0	
690	6900	L				\$7,000.00	\$0	
690	6900	M				\$14,000.00	\$0	\$0.00
700	7000	E	SEPTIC TANK	EA			\$0	
700	7000	I				\$0.00	\$0	
700	7000	L					\$0	
700	7000	M					\$0	
700	7000	S					\$0	\$0.00
700	7010	E	DRAINFIELD (ROCK)	LF			\$0	
700	7010	I				\$0.00	\$0	
700	7010	L					\$0	
700	7010	M					\$0	
700	7010	S					\$0	\$0.00
700	7015	E	DRAINFIELD (INFILTRATOR)	LF			\$0	
700	7015	I				\$0.00	\$0	
700	7015	L					\$0	
700	7015	M					\$0	
700	7015	S					\$0	\$0.00
700	7020	R	SEPTIC TANK (PUMPING)	EA			\$0	\$0.00
705	7050	E	PRESSURE TESTING-SEWERLINE	LF			\$0	
705	7050	I				\$0.00	\$0	
705	7050	L					\$0	
705	7050	M					\$0	
705	7050	S					\$0	\$0.00
706	7060	E	6-INCH SEWERLINE	LF			\$0	
706	7060	I				\$0.00	\$0	
706	7060	L					\$0	
706	7060	M					\$0	
706	7060	S					\$0	\$0.00
708	7080	E	8-INCH SEWERLINE	LF			\$0	
708	7080	I				\$0.00	\$0	
708	7080	L					\$0	
708	7080	M					\$0	
708	7080	S					\$0	\$0.00
710	7100	E	10-INCH SEWERLINE	LF			\$0	
710	7100	I				\$0.00	\$0	
710	7100	L					\$0	
710	7100	M					\$0	
710	7100	S					\$0	\$0.00

715	7150	E	PIPELINE CROSSING- SEWERLINE	EA			\$0
715	7150	I				\$0.00	\$0
715	7150	L					\$0
715	7150	M					\$0
715	7150	S					\$0 \$0.00
720	7200	E	WASH CROSSING-SEWERLINE	LF			\$0
720	7200	I				\$0.00	\$0
720	7200	L					\$0
720	7200	M					\$0
720	7200	S					\$0 \$0.00
725	7250	E	ROCK EXCAVATION-SEWERLINE	LF			\$0
725	7250	I				\$0.00	\$0
725	7250	L					\$0
725	7250	M					\$0
725	7250	S					\$0 \$0.00
730	7300	E	ROAD BORING-SEWERLINE	LF			\$0
730	7300	I				\$0.00	\$0
730	7300	L					\$0
730	7300	M					\$0
730	7300	S					\$0 \$0.00
735	7350	E	ROAD CROSSING-SEWERLINE (CASED)	LF			\$0
735	7350	I				\$0.00	\$0
735	7350	L					\$0
735	7350	M					\$0
735	7350	S					\$0 \$0.00
750	7500	E	MANHOLES (0'-5')	EA			\$0
750	7500	I				\$0.00	\$0
750	7500	L					\$0
750	7500	M					\$0
750	7500	S					\$0 \$0.00
760	7600	E	MANHOLES (5'-10')	EA			\$0
760	7600	I				\$0.00	\$0
760	7600	L					\$0
760	7600	M					\$0
760	7600	S					\$0 \$0.00
770	7700	E	MANHOLES (OVER 10')	EA			\$0
770	7700	I				\$0.00	\$0
770	7700	L					\$0
770	7700	M					\$0 \$0.00
780	7850	E	LAGOON EARTHWORK (CUT & FILL)	CY			\$0
780	7850	I				\$0.00	\$0
780	7850	L					\$0
780	7850	M					\$0 \$0.00
780	7851	E	LAGOON EARTHWORK (CUT & WASTE)	CY			\$0
780	7851	I				\$0.00	\$0
780	7851	L					\$0
780	7851	M					\$0 \$0.00
780	7855	E	LAGOON PLUMBING	LS			\$0
780	7855	I				\$0.00	\$0
780	7855	L					\$0
780	7855	M					\$0
780	7855	S					\$0 \$0.00
780	7860	E	LAGOON SEALING	ACRE			\$0
780	7860	I				\$0.00	\$0
780	7860	L					\$0
780	7860	M				\$0.00	\$0
780	7860	S					\$0 \$0.00
780	7865	E	LAGOON FENCING	LF			\$0
780	7865	I				\$0.00	\$0
780	7865	L					\$0
780	7865	M					\$0
780	7865	S					\$0 \$0.00
780	7880	E	INDIVIDUAL LAGOON CONSTRUCTION	CY			\$0
780	7880	I				\$0.00	\$0
780	7880	L					\$0
780	7880	M					\$0 \$0.00

780	7870	E	EROSION CONTROL/RIP-RAP	SY			\$0	
780	7870	I				\$0.00	\$0	
780	7870	L					\$0	
780	7870	M					\$0	
780	7870	S					\$0	\$0.00
795	7950	E	4-INCH HOUSE SERVICE	LF			\$0	
795	7950	I				\$0.00	\$0	
795	7950	L					\$0	
795	7950	M					\$0	
795	7950	S					\$0	\$0.00
800	8000	R	LANDFILL PLAN DEVELOPMENT	AC			\$0	\$0.00
800	8010	R	LANDFILL CONTRACT DESIGN	AC			\$0	\$0.00
800	8020	E	LANDFILL SITE APPURTENANCES	LS			\$0	
800	8020	I				\$0.00	\$0	
800	8020	L					\$0	
800	8020	M					\$0	
800	8020	S					\$0	\$0.00
830	8300	E	GARBAGE CAN AND RACK	EA			\$0	
830	8300	I				\$0.00	\$0	
830	8300	L					\$0	
830	8300	M					\$0	
830	8300	S					\$0	\$0.00
850	8500	E	TRANSFER STATION EARTHWORK	CY			\$0	
850	8500	I				\$0.00	\$0	
850	8500	L					\$0	
850	8500	M					\$0	
850	8500	S					\$0	\$0.00
850	8510	E	TRANSFER STATION FENCING	LF			\$0	
850	8510	I				\$0.00	\$0	
850	8510	L					\$0	
850	8510	M					\$0	
850	8510	S					\$0	\$0.00
850	8520	E	TRANSFER STATION STRUCTURES	LS			\$0	
850	8520	I				\$0.00	\$0	
850	8520	L					\$0	
850	8520	M					\$0	
850	8520	S					\$0	\$0.00
900	9001	E	BUNK VAN	WK		\$90.00	\$0	\$0.00
900	9002	T	SMALL TOOLS AND SUPPLIES	WK		\$100.00	\$0	
900	9002	S					\$0	\$0.00
900	9003	E	SET UP CAMP	EA		\$300.00	\$0	
900	9003	I				\$64.80	\$0	
900	9003	L				\$300.00	\$0	\$0.00
900	9004	E	MECHANIC AND SERVICES	WK			\$0	
900	9004	I				\$0.00	\$0	
900	9004	L					\$0	\$0.00
900	9005	R	OUTSIDE ENGINEERING	JB			\$0	\$0.00
900	9006	E	ENGINEERING ASSISTANCE	HR			\$0	
900	9006	I				\$0.00	\$0	
900	9006	L					\$0	\$0.00
900	9007	V	TRAVEL AND RELATED EXP.	WK		\$100.00	\$0	\$0.00
900	9009	E	MOBILIZATION (ALL JOBS)	LD		\$350.00	\$0	
900	9009	I				\$54.00	\$0	
900	9009	L				\$250.00	\$0	\$0.00
900	9012	E	JOB SUPERVISION (UTILITIES)	WK		\$280.00	\$0	
900	9012	I				\$151.20	\$0	
900	9012	L				\$700.00	\$0	\$0.00
900	9013	E	JOB SUPERVISION (LAGOON)	WK			\$0	
900	9013	I				\$0.00	\$0	
900	9013	L					\$0	\$0.00
900	9014	E	JOB SUPERVISION (STOR. TANK)	WK			\$0	
900	9014	I				\$0.00	\$0	
900	9014	L					\$0	\$0.00
900	9015	I	TIMEKEEPER	WK		\$0.00	\$0	
900	9015	L					\$0	\$0.00

900	9016	E	SECURITY	WK		\$280.00	\$0	
900	9016	I				\$86.40	\$0	
900	9016	L				\$400.00	\$0	\$0.00
900	9017	E	TRANSPORTATION	LD		\$275.00	\$0	
900	9017	I				\$54.00	\$0	
900	9017	L				\$250.00	\$0	\$0.00
900	9020	R	PORTA-POTTY	WK		\$100.00	\$0	\$0.00
900	9021	R	TRASH DUMPSTER	LD		\$150.00	\$0	\$0.00
900	9060	E	ENVIRONMENTAL CLEANUP	JB			\$0	
900	9060	I				\$0.00	\$0	
900	9060	L					\$0	
900	9060	R					\$0	
900	9060	M					\$0	\$0.00
900	9070	E	EQUIPMENT STANDBY	HR			\$0	\$0.00
900	9075	B	INCENTIVES	JB		\$0.00	\$0	\$0.00
900	9080	F	MANAGEMENT FEE	MO		#DIV/0!	\$0	\$0.00
900	9850	O	NECA OVERHEAD	JB		\$0.00	\$0	\$0.00
900	9090	W	WAREHOUSE FEE	MO		#DIV/0!	\$0	\$0.00

TOTAL PROJECT COST= \$0.00
 TOTAL NECA COST= \$0.00
 INDIRECTS AS % OF NECA DIRECT COSTS= #DIV/0!
 INDIRECTS AS % OF TOTAL PROJECT COSTS= #DIV/0!

FIRST ADVANCE = \$0.00
 SECOND ADVANCE= #DIV/0!

SUMMARY -----

Water Supply		#DIV/0!
A. Materials	\$0.00	
B. Labor	\$0.00	
C. NECA Mgt & Crew Support	#DIV/0!	
Liquid Waste Disposal		#DIV/0!
A. Materials	\$0.00	
B. Labor	\$0.00	
C. NECA Mgt & Crew Support	#DIV/0!	
Solid Waste Disposal		#DIV/0!
A. Materials	\$0.00	
B. Labor	\$0.00	
C. NECA Mgt & Crew Support	#DIV/0!	
TOTAL		#DIV/0!
+10% Contingencies		#DIV/0!
+15% Support Services		#DIV/0!
+3% Navajo Nation Tax		#DIV/0!
TOTAL		#DIV/0!
ROUND TO NEAREST \$1,000		#DIV/0!
COST PER HOUSE		#DIV/0!

RECOMMENDED PLANNING AMOUNT

#DIV/0!