



BOARD OF SUPERVISORS AGENDA ITEM REPORT CONTRACTS / AWARDS / GRANTS

☐ Award ☒ Contract ☐ Grant

Requested Board Meeting Date: 12/17/19

* = Mandatory, information must be provided

or Procurement Director Award ☐

***Contractor/Vendor Name/Grantor (DBA):**

The Ashton Company, Inc., Contractors and Engineers

***Project Title/Description:**

Design-Build Services For: TRWRF BioGas Cleaning & Utilization Project (3GAS18)

***Purpose:**

Amendment: Contract No. CT-WW-18-423, Amendment No. Two (2). This amendment increases the contract amount by \$4,228,069.46 for a cumulative not-to-exceed amount of \$12,622,230.37 and incorporates Guaranteed Maximum Price No. Two (GMP-2). Administering Department: Regional Wastewater Reclamation.

GMP-2 pertains to the acquisition of the remaining equipment and construction activities to complete the BioGas facility. A Small Business Enterprises (SBE) goal of 2% is established for GMP-2.

***Procurement Method:**

Pursuant to Solicitation for Qualifications No. 285645, on 07/03/18, the Board of Supervisors awarded a contract for design and pre-construction services for this project in the amount of \$663,552.00 for a contract term of 07/03/18 to 12/31/20.

Contract Amendment No. One (1) was approved by the Board of Supervisors to incorporate GMP-1.

Attachment: Amendment No. Two (2).

***Program Goals/Predicted Outcomes:**

This program will provide a means of cleaning to "pipeline quality" the biogas created by the anaerobic digestion of the wastewater solids and injecting it into the Southwest Gas system for use as a renewable resource.

***Public Benefit:**

This program will create a revenue stream by selling the gas in the marketplace. This program also affirms a commitment to Pima County's philosophy of sustainability by creating Renewable Natural Gas (RNG) for reuse.

***Metrics Available to Measure Performance:**

The success of this project will be measured by providing clean biogas that meets Southwest Gas specifications (RNG) and by the return on the capital investment through the revenue generated.

***Retroactive:**

No

To: CoB-12-11-19

Ver. - 12

pgs - 197 (1)

Attachment

Contract / Award Information

Document Type: _____ Department Code: _____ Contract Number (i.e., 15-123): _____
Effective Date: _____ Termination Date: _____ Prior Contract Number (Synergen/CMS): _____
☐ Expense Amount: \$* _____ ☐ Revenue Amount: \$ _____

***Funding Source(s) required:**

Funding from General Fund? ☐ Yes ☐ No If Yes \$ _____ % _____

Contract is fully or partially funded with Federal Funds? ☐ Yes ☐ No

If Yes, is the Contract to a vendor or subrecipient? _____

Were insurance or indemnity clauses modified? ☐ Yes ☐ No

If Yes, attach Risk's approval.

Vendor is using a Social Security Number? ☐ Yes ☐ No

If Yes, attach the required form per Administrative Procedure 22-10.

Amendment / Revised Award Information

Document Type: CT Department Code: WW Contract Number (i.e., 15-123): 18-423
Amendment No.: Two (2) AMS Version No.: Twelve (12)
Effective Date: 12/17/19 New Termination Date: _____
Prior Contract No. (Synergen/CMS): _____
☒ Expense or ☐ Revenue ☒ Increase ☐ Decrease Amount This Amendment: \$ 4,228,069.46

Is there revenue included? ☐ Yes ☒ No If Yes \$ _____

***Funding Source(s) required:** Regional Wastewater Reclamation department Obligations

Funding from General Fund? ☐ Yes ☒ No If Yes \$ _____ % _____

Grant/Amendment Information (for grants acceptance and awards) ☐ Award ☐ Amendment

Document Type: _____ Department Code: _____ Grant Number (i.e., 15-123): _____
Effective Date: _____ Termination Date: _____ Amendment Number: _____
☐ Match Amount: \$ _____ ☐ Revenue Amount: \$ _____

***All Funding Source(s) required:**

*Match funding from General Fund? ☐ Yes ☐ No If Yes \$ _____ % _____

*Match funding from other sources? ☐ Yes ☐ No If Yes \$ _____ % _____

*Funding Source: _____

***If Federal funds are received, is funding coming directly from the Federal government or passed through other organization(s)?**

Contact: Keith E. Rogers 11-25-19
Department: Procurement 11/25/19 Telephone: 724-3542
Department Director Signature/Date: [Signature] 11/26/19
Deputy County Administrator Signature/Date: [Signature] 12/2/19
County Administrator Signature/Date: [Signature] 12/2/19
(Required for Board Agenda/Addendum Items)

PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT

PROJECT: Design-Build Services For: TRWRF BioGas Cleaning & Utilization Project (3GAS18)

CONTRACTOR: The Ashton Company, Inc., Contractors and Engineers
PO Box 26927
Tucson, AZ 85726

CONTRACT NO.: CT-WW-18-423

AMENDMENT NO.: Two (2)

FUNDING: Regional Wastewater Reclamation Department Obligations

CONTRACT TERM: 07/03/2018 - 12/31/2020	ORIGINAL CONTRACT AMOUNT:	\$	663,552.00
TERMINATION PRIOR AMENDMENT: 12/31/2020	PRIOR AMENDMENT(S):	\$	7,730,608.91
TERMINATION THIS AMENDMENT: 12/31/2020	AMOUNT THIS AMENDMENT:	\$	4,228,069.46
	REVISED CONTRACT AMOUNT:	\$	12,622,230.37

DESIGN-BUILD CONTRACT AMENDMENT

WHEREAS, County and Design-Builder have entered into the Contract for the project referenced above; and

WHEREAS, construction of the project was anticipated to be conducted utilizing multiple Guaranteed Maximum Prices (GMPs); and

WHEREAS, Guaranteed Maximum Price No. One (GMP-1), for acquisition of long-lead equipment and construction of the electrical infrastructure expansion was previously incorporated into the contract via Amendment No. One (1); and

WHEREAS, Guaranteed Maximum Price No. Two (GMP-2) shall pertain to acquisition of the remaining equipment and construction activities to complete the BioGas facility; and

WHEREAS, County and Design-Builder, pursuant to Article 3, have agreed to incorporate GMP-2 into the contract; and

WHEREAS, COUNTY and DESIGN-BUILDER pursuant to Article 3 have agreed to increase the Contract amount as identified in GMP-2; and

WHEREAS, COUNTY's acceptance of GMP-2 is subject to the understanding of the Parties that all elements of future GMPs, if any, are and remain negotiable.

NOW, THEREFORE, it is agreed as follows:

CHANGE: **ARTICLE 3 – Scope of Services, Section 3.1**

Replace - Exhibit A - Preliminary Schedule - GMP-1 (3 pages) **with** Exhibit A - Revised Project Schedule - GMP-2 (4 pages).

Add - Exhibit D – Phase 2 – Construction Services – GMP-2 (187 pages) to the contract after Exhibit C – Phase 2 – Construction Services – GMP-1 (80 pages).

CHANGE: ARTICLE 5 – Compensation and Payment

Add - as sentence 4 to Article 5.2:

County's total payments to Design-Builder for Phase 2 Work – GMP-2, including sales taxes (if applicable), in the not-to-exceed amount of \$4,228,069.46.

CHANGE: ARTICLE 6 - Insurance

Change Article 6.4.3.1 – Builder's Risk – Installation Floater

From: Amount equal to the Contract Completed Value \$8,394,160.91.

To: Amount equal to the Contract Completed Value \$12,622,230.37.

This Amendment shall be effective on December 17, 2019.

All other provisions of the Contract, not specifically changed by this amendment, shall remain in effect and be binding upon the Parties.

IN WITNESS WHEREOF, the Parties have affixed their signatures to this Change Order on the dates written below.

APPROVED:

Chairman, Board of Supervisors

Date

DESIGN-BUILDER:

Signature

SHAWN SILVERSTEIN, V.P.
Name and Title (Please Print)

12/2/19
Date

ATTEST:

Clerk of the Board

APPROVED AS TO FORM:

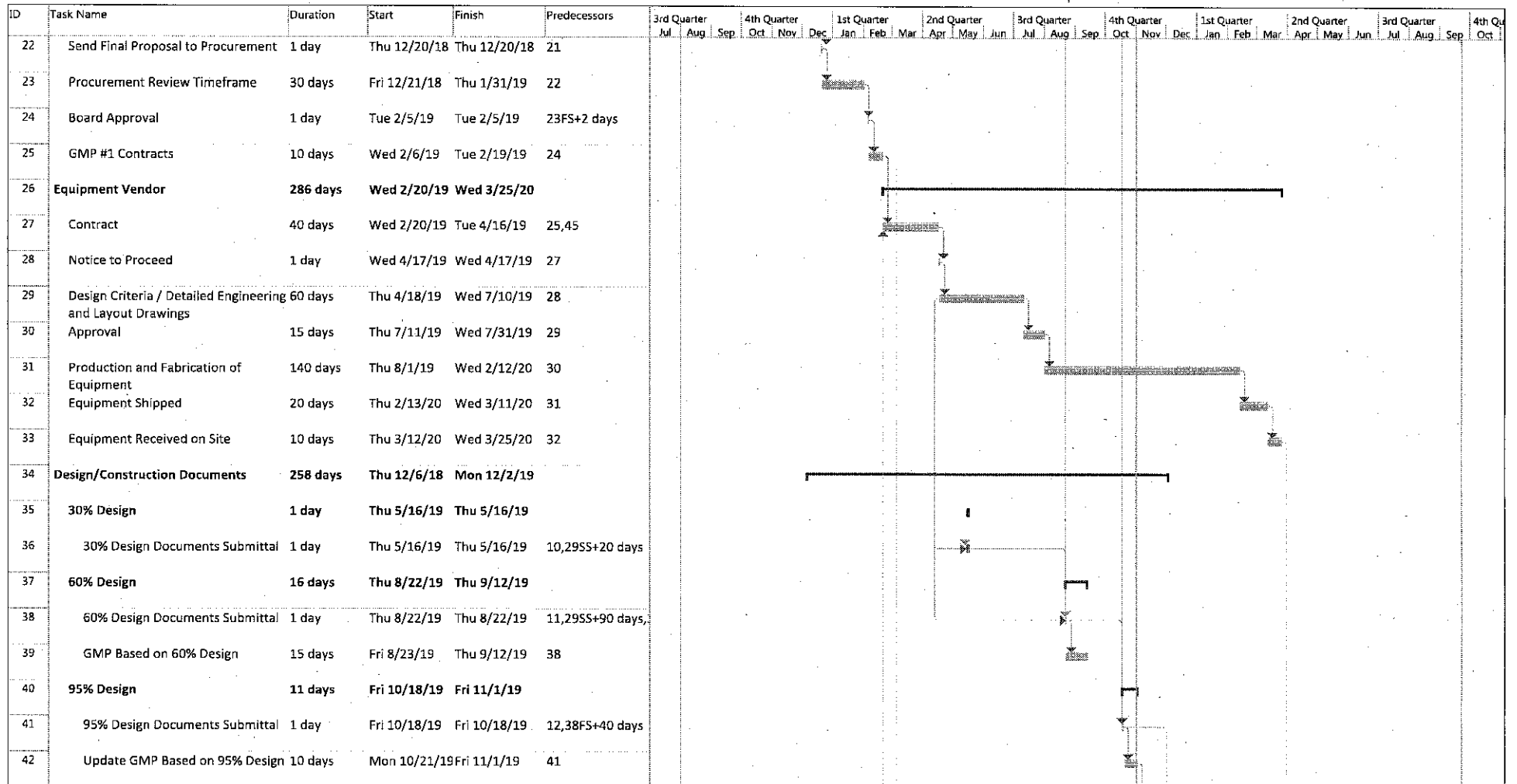
Deputy County Attorney

CHARLES WESSELHOFT

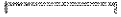
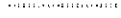
Printed Name

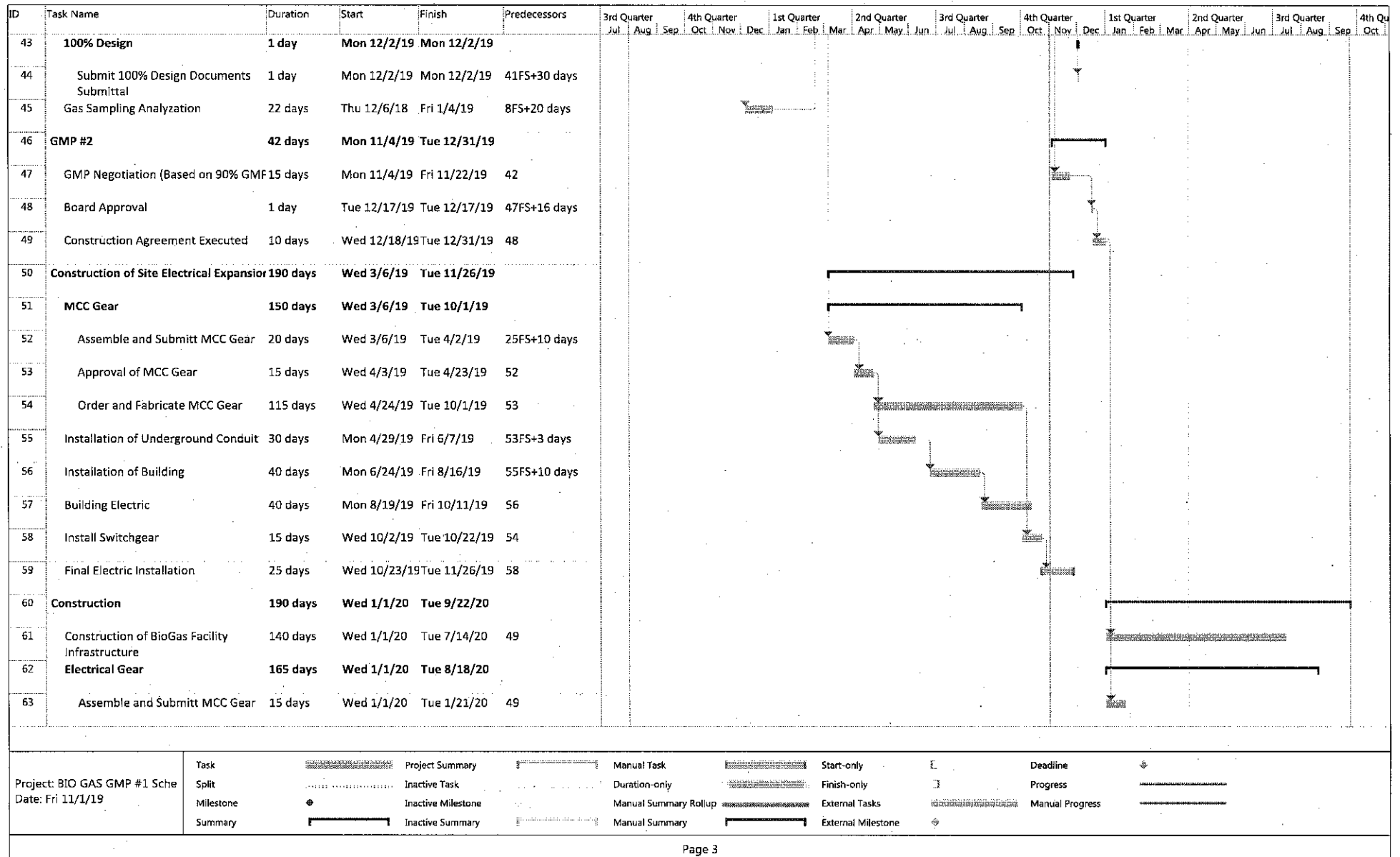
NOV 27 2019

Date

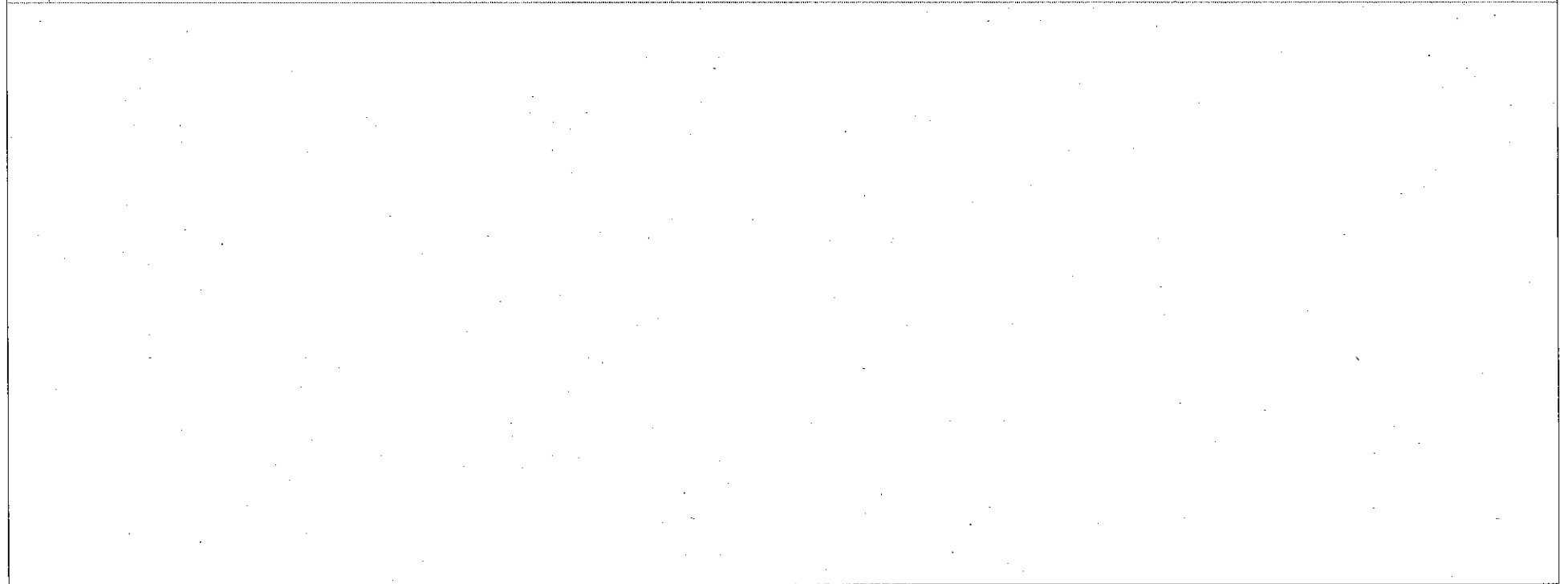


Project: BIO GAS GMP #1 Sche
Date: Fri 11/1/19

Task		Project Summary		Manual Task		Start-only		Deadline	
Split		Inactive Task		Duration-only		Finish-only		Progress	
Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
Summary		Inactive Summary		Manual Summary		External Milestone			



ID	Task Name	Duration	Start	Finish	Predecessors	3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
						Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct		
64	Approval of MCC Gear	15 days	Wed 1/22/20	Tue 2/11/20	63																														
65	Order and Fabricate MCC Gear	105 days	Wed 2/12/20	Tue 7/7/20	64																														
66	Install Gear	15 days	Wed 7/8/20	Tue 7/28/20	65																														
67	Final Electric Installation	15 days	Wed 7/29/20	Tue 8/18/20	66																														
68	Installation of Equipment	40 days	Thu 3/26/20	Wed 5/20/20	33																														
69	Startup and Testing	35 days	Wed 8/5/20	Tue 9/22/20	67FS-10 days																														



Project: BIO GAS GMP #1 Sche Date: Fri 11/1/19	Task		Project Summary		Manual Task		Start-only		Deadline	
	Split		Inactive Task		Duration-only		Finish-only		Progress	
	Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
	Summary		Inactive Summary		Manual Summary		External Milestone			

THE ASHTON COMPANY, INC.

Contractors & Engineers

2727 SOUTH COUNTRY CLUB ROAD, TUCSON, AZ. 85713

MAILING ADDRESS: P.O. Box 26927, TUCSON, AZ. 85726

PHONE: (520) 624-5500 FAX: (520) 791-9059

November 8, 2019

Pima County Wastewater
Tres Rios WWTP

Attention: Bobby DeAngelo

Re: Biogas Cleaning and Utilization Project – GMP #2

Dear Mr. DeAngelo,

Attached you will find a detailed cost breakdown and supporting documentation for the installation of the BioGas Cleaning and Utilization Project.

The following clarifications and assumptions apply to this GMP:

- No assembly of DMT provided equipment has been included in this cost estimate. We have included the setting of all skids on their respective concrete pads.
- This estimate does not include any special cleaning of piping. Pipe cleaning to consist of flushing of lines.
- No painting of piping has been included in this proposal.
- No pipe or valve identification has been included in this proposal.
- Ashton has included a commissioning/testing crew for 80 hours in this estimate. This includes an electrician, electrician foreman, 2 metal trades journeymen and one mechanical foreman.
- Ashton has included one eyewash at the main BioGas site. An eyewash at the H2S site has not been included.
- This proposal includes FO Conduit from the building to the Struvite Manhole.
- All underground conduit will be PVC with PVC coated 90 elbows and GRC aboveground with no concrete encasement.

Should you have any questions or concerns regarding this proposal or any of the attached documents, please feel free to call me at (520) 624-5500, Ext. 203, or on my cell phone at (520) 909-4805.

Sincerely,

THE ASHTON COMPANY, INC.



Shawn Silvester, P.E.
Vice President

LICENSE NUMBERS

ROC 070683 Class A	General Engineering
ROC 070684 Class B-01	General Commercial
ROC 101880 Class C-11	Residential Electrical
ROC 101890 Class L-11	Commercial Electrical

BioGas Cleaning and Utilization
GMP #2 - Construction

	Description	Cost
1	Cost of the Work	\$3,326,738.00
2	Subtotal Direct Construction Costs	\$3,326,738.00
3	Overhead (8.5% of Line Item 2) (See Certified Statement)	\$282,772.73
4	Insurance (Builder's Risk)	\$2,000.00
5	Payment and Performance Bond	\$24,026.69
6	Subtotal	\$3,635,537.42
7	Construction Fee (4% of Line item 2 & 3)	\$144,380.43
8	Subtotal Direct Construction Cost + Gen Cond., Overhead, Bonds, Insurance and Fee	\$3,779,917.85
9	Arizona Gross Receipts Tax	\$248,151.61
10	Subtotal Direct Construction Cost + Gen Cond., Overhead, Bonds, Insurance, Fee and Tax	\$4,028,069.46
11	Guaranteed Maximum Price (GMP)	\$4,028,069.46
12	County Contingency	\$200,000.00
13	TOTAL CONTRACT COST	\$4,228,069.46

Schedule of Values
TRWRF BioGas Cleaning Utilization Project (3GAS18)

A	B	C	D	E	F	G	H	I		
TASK NO.	Description of Work	Quantity	Unit	Scheduled Value	Previous Applications	Work in Place	Stored Materials (Not in D or E)	TOTAL COMPLETED AND STORED TO DATE (D+E+F)	% (G÷C)	BALANCE TO FINISH (C-G)
	<u>GMP #2</u>									
	<u>MOBILIZATION / GENERAL CONDITIONS</u>									
	Mobilization	1	LS	18,000.00				0.00	0%	18,000.00
	Jobsite General Conditions	1	LS	287,000.00				0.00	0%	287,000.00
	Demobilization	1	LS	8,340.46				0.00	0%	8,340.46
	<u>SITE WORK</u>									
	Initial Grading	1	LS	32,000.00				0.00	0%	32,000.00
	Aggregate Base Course	1	LS	19,000.00				0.00	0%	19,000.00
	Asphalt	1	LS	33,000.00				0.00	0%	33,000.00
	Site Fencing	1	LS	10,000.00				0.00	0%	10,000.00
	Drainage Pipe	1	LS	22,000.00				0.00	0%	22,000.00
	Site Sewer	1	LS	32,300.00				0.00	0%	32,300.00
	SWPPP	1	LS	1,800.00				0.00	0%	1,800.00
	Excavate/Backfill for SW Gas	1	LS	9,426.00				0.00	0%	9,426.00
	<u>ELECTRIC BUILDING</u>									
	Concrete/Masonry	1	LS	98,000.00				0.00	0%	98,000.00
	Architectural Work	1	LS	135,000.00				0.00	0%	135,000.00
	Roof System	1	LS	80,753.00				0.00	0%	80,753.00
	HVAC / Plumbing	1	LS	72,000.00						
	Building Electrical	1	LS	22,000.00				0.00	0%	22,000.00
	<u>PLANT WORK</u>									
	Plant Concrete	1	LS	56,000.00				0.00	0%	56,000.00
	Set DMT Equipment	1	LS	61,000.00				0.00	0%	61,000.00
	Install Mechanical Piping	1	LS	648,000.00				0.00	0%	648,000.00
	Pipe Supports	1	LS	149,000.00				0.00	0%	149,000.00
	<u>ELECTRICAL</u>									
	Purchase of Electrical Equipment	1	LS	950,000.00				0.00	0%	950,000.00
	Underground Electric Work	1	LS	245,000.00				0.00	0%	245,000.00
	Conduit/Wire and Terminations	1	LS	398,000.00				0.00	0%	398,000.00
	Instrumentation			340,000.00						
	Lightning Protection	1	LS	43,000.00				0.00	0%	43,000.00
	Fire Alarm	1	LS	38,000.00						
	Security	1	LS	52,000.00						
	Programming	1	LS	143,000.00				0.00	0%	143,000.00
	<u>COMMISSIONING/TESTING</u>									
	Commissioning	1	LS	24,450.00				0.00	0%	24,450.00
	<u>OWNER'S CONTINGENCY</u>	1	LS	200,000.00				0.00	0%	200,000.00
	<u>GMP #2 TOTAL</u>	1	LS	4,228,069.46				0.00	0%	4,228,069.46

BioGas Cleaning and Utilization GMP #2

This GMP is based off of the following drawings titled Tres Rios Water Reclamation Facility Gas Development from Bartlett and West, Structural Concepts and Breckenridge Architects

DRAWING NUMBER	DATE	FIRM
G-001 - G-007	7/22/2019 60% SET NFC	Bartlett & West
11-G-601	7/22/2019 60% SET NFC	Bartlett & West
87-G-601	7/22/2019 60% SET NFC	Bartlett & West
87-C-401 - 87-C-406	July 2019	Bartlett & West
11-I-001 - 11-I-002	7/22/2019 60% SET NFC	Bartlett & West
20-I-001 - 20-I-003	7/22/2019 60% SET NFC	Bartlett & West
87-I-001 - 87-I-008	7/22/2019 60% SET NFC	Bartlett & West
87-I-601 - 87-I-604	7/22/2019 60% SET NFC	Bartlett & West
11-M-141	7/22/2019 60% SET NFC	Bartlett & West
20-P-400	August 2019 65% SET NFC	Bartlett & West
20-EP-400	August 2019 65% SET NFC	Bartlett & West
20-EL-400	August 2019 65% SET NFC	Bartlett & West
20-EI-400	August 2019 65% SET NFC	Bartlett & West
20-E-400	August 2019 65% SET NFC	Bartlett & West
20-E-500	August 2019 65% SET NFC	Bartlett & West
87-M-141	7/22/2019 60% SET NFC	Bartlett & West
87-M-301 - 87-M-304	7/22/2019 60% SET NFC	Bartlett & West
87-M-401 - 87-M-405	7/22/2019 60% SET NFC	Bartlett & West
87-M-501 - 87-M-502	7/22/2019 60% SET NFC	Bartlett & West
87-P-400	August 2019 65% SET NFC	Bartlett & West
87-EL-400	August 2019 65% SET NFC	Bartlett & West
87-EP-400	August 2019 65% SET NFC	Bartlett & West
87-EI-400	August 2019 65% SET NFC	Bartlett & West
87-P-130	August 2019 65% SET NFC	Bartlett & West
87-P-140	August 2019 65% SET NFC	Bartlett & West
87-P-500	August 2019 65% SET NFC	Bartlett & West
87-H-140	August 2019 65% SET NFC	Bartlett & West
87-H-500	August 2019 65% SET NFC	Bartlett & West
87-EL-140	August 2019 65% SET NFC	Bartlett & West
87-EF-140	August 2019 65% SET NFC	Bartlett & West
87-E-500	August 2019 65% SET NFC	Bartlett & West
87-EI-140	August 2019 65% SET NFC	Bartlett & West
87-EF-141	August 2019 65% SET NFC	Bartlett & West
87-E-501	August 2019 65% SET NFC	Bartlett & West
87-E-140	August 2019 65% SET NFC	Bartlett & West
87-E-600	August 2019 65% SET NFC	Bartlett & West
87-E-400	August 2019 65% SET NFC	Bartlett & West
87-E-500	August 2019 65% SET NFC	Bartlett & West

DRAWING NUMBER	DATE	FIRM
S1 - S5	9/19	Structural Concepts
A1.0	08/05/19	Breckenridge Architects
A2.0	07/22/19	Breckenridge Architects
A2.1	07/31/19	Breckenridge Architects
A3.1	08/01/19	Breckenridge Architects
A4.0	08/01/19	Breckenridge Architects
A5	08/13/19	Breckenridge Architects
A6	08/13/19	Breckenridge Architects

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 15 CLIENT# = 15										
Description =	SUPERINTENDENT		Unit =	MO	Takeoff Quan:	7.000		Engr Quan:		7.000
15A	SUPERINTENDENT				Quan: 1,232.00 HR	Hrs/Shift: 8.00	Cal: 508	WC: AZ00		
<u>GC0015</u>	Project Supervision	1,232.00	CH		Prod: 1.0000 UH	Lab Pcs: 1.00		Eqp Pcs: 1.00		**Unreviewed
8TRPU	Truck - Pickup Ex. Cab	1.00	1,232.00 HR		14.000			17,248		17,248
SS-	Superintendent	1.00	1,232.00 MH *		59.384	73,162				73,162
\$90,409.70	1.0000 MH/HR		1,232.00 MH		[43]	73,162		17,248		90,410
154.0000 Shifts	8.0000 Un/Shift		1.0000 Unit/MH			59.38		14.00		73.38
Item Totals: 15 - SUPERINTENDENT										
\$90,409.70	176.0000 MH/MO		1,232.00 MH		[7568]	73,162		17,248		90,410
12,915.671	7 MO					10,451.67		2,464.00		12,915.67
BID ITEM = 16 CLIENT# = 16										
Description =	QUALITY CONTROL & OUTSIDE TECH		Unit =	LS	Takeoff Quan:	1.000		Engr Quan:		1.000
16	QUALITY CONTROL & OUTSIDE TECH				Quan: 1.00 LS	Hrs/Shift: 8.00	Cal: 508	WC: AZ00		
4QC	Outside QC Project Testing	1.00	1.00 LS		10,545.000			10,545		10,545
BID ITEM = 18 CLIENT# = 18										
Description =	PROJECT ENGINEER		Unit =	MO	Takeoff Quan:	6.000		Engr Quan:		6.000
18A	PROJECT ENGINEER				Quan: 1,056.00 HR	Hrs/Shift: 8.00	Cal: 508	WC: AZ00		
<u>GC0018</u>	Project Engineer	1,056.00	CH		Prod: 1.0000 UH	Lab Pcs: 1.00		Eqp Pcs: 1.00		
8TRPU	Truck - Pickup Ex. Cab	1.00	1,056.00 HR		14.000			14,784		14,784
SPE	Project Engineer	1.00	1,056.00 MH *		39.201	41,396				41,396
\$56,179.73	1.0000 MH/HR		1,056.00 MH		[27]	41,396		14,784		56,180
132.0000 Shifts	8.0000 Un/Shift		1.0000 Unit/MH			39.20		14.00		53.20
Item Totals: 18 - PROJECT ENGINEER										
\$56,179.73	176.0000 MH/MO		1,056.00 MH		[4752]	41,396		14,784		56,180
9,363.288	6 MO					6,899.29		2,464.00		9,363.29
BID ITEM = 77 CLIENT# = 77										
Description =	PERMITS		Unit =	LS	Takeoff Quan:	1.000		Engr Quan:		1.000
77	PERMITS				Quan: 1.00 LS	Hrs/Shift: 8.00	Cal: 508	WC: AZ00		
2ADEQDUST	Dust Permit	1.00	1.00 LS		800.000			800		800
Item Totals: 77 - PERMITS										
\$800.00					[]	800				800
800.000	1 LS					800.00				800.00

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 87 CLIENT# = 87										
Description =	PROJECT LAYOUT		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000
87	PROJECT LAYOUT		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
4SURVEY	Survey Sub	1.00	1.00 LS	16,800.000				16,800		16,800
BID ITEM = 95 CLIENT# = 95										
Description =	SANITATION		Unit =	MO	Takeoff Quan:		6.000	Engr Quan:		6.000
95A	SANITATION		Quan:	6.00 MO	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
Change unit cost in Setup/Local Materials tab to reflect project needs;										**Unreviewed
<u>GC0095</u>	Sanitation		6.00 CH	Prod:	1.0000 UH	Lab Pcs:	0.00	Eqp Pcs:	0.00	
3ZF30	Portable Toilets 1	1.00	6.00 MO	400.000		2,400				2,400
Item Totals: 95 - SANITATION										
\$2,400.00				[]		2,400				2,400
400.000	6 MO					400.00				400.00
BID ITEM = 100 CLIENT# = 100										
Description =	STORAGE SHEDS		Unit =	MO	Takeoff Quan:		6.000	Engr Quan:		6.000
100A	STORAGE SHEDS		Quan:	6.00 MO	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
Change unit cost in Setup/Local Materials tab to reflect project needs;										
<u>GC0100</u>	Storage Containers		6.00 CH	Prod:	1.0000 UH	Lab Pcs:	0.00	Eqp Pcs:	0.00	
3ZF18	Storage Container 1	1.00	6.00 MO	400.000		2,400				2,400
Item Totals: 100 - STORAGE SHEDS										
\$2,400.00				[]		2,400				2,400
400.000	6 MO					400.00				400.00
BID ITEM = 110 CLIENT# = 110										
Description =	TELEPHONE - ASHTON		Unit =	MO	Takeoff Quan:		6.000	Engr Quan:		6.000
110A	TELEPHONE - ASHTON		Quan:	6.00 MO	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
Change unit cost in Setup/Local Materials tab to reflect project needs;										
<u>GC0110</u>	Telephone - Ashton		6.00 CH	Prod:	1.0000 UH	Lab Pcs:	0.00	Eqp Pcs:	0.00	
3ZF46	Cell Phone Charges 1	1.00	6.00 MO	250.000		1,500				1,500
Item Totals: 110 - TELEPHONE - ASHTON										
\$1,500.00				[]		1,500				1,500
250.000	6 MO					250.00				250.00
BID ITEM = 121 CLIENT# = 121										
Description =	DRINKING WATER		Unit =	MO	Takeoff Quan:		6.000	Engr Quan:		6.000
121A	DRINKING WATER		Quan:	6.00 MO	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 121 CLIENT# = 121										
Description =	DRINKING WATER		Unit =	MO	Takeoff Quan:		6.000	Engr Quan:		6.000
Change unit cost in Setup/Local Materials tab to reflect project needs;										
<u>GC0121</u>	Drinking Water		6.00 CH	Prod:	1.0000 UH	Lab Pcs:		0.00	Eqp Pcs:	0.00
3ZW10	Water - Drinking 1	1.00	6.00 MO	250.000		1,500				1,500
Item Totals: 121 - DRINKING WATER										
\$1,500.00				[]		1,500				1,500
250.000		6 MO				250.00				250.00

BID ITEM = 135 CLIENT# = 135										
Description =	MAIN YARD EXPENSE		Unit =	MO	Takeoff Quan:		6.000	Engr Quan:		6.000
Change unit cost in Setup/Local Materials tab to reflect project needs;										
<u>GC0135</u>	Main Yard Expense		6.00 CH	Prod:	1.0000 UH	Lab Pcs:		0.00	Eqp Pcs:	0.00
3MYE01	Main Yard Expense 1	1.00	6.00 MO	2,000.000		12,000				12,000
Item Totals: 135 - MAIN YARD EXPENSE										
\$12,000.00				[]		12,000				12,000
2,000.000		6 MO				2,000.00				2,000.00

BID ITEM = 137 CLIENT# = 137										
Description =	PERIODIC JOB CLEANUP		Unit =	MO	Takeoff Quan:		6.000	Engr Quan:		6.000
Change unit cost in Setup/Local Materials tab to reflect project needs;										
<u>GC0137</u>	Periodic Job Cleanup		72.00 CH	Prod:	1.0000 UH	Lab Pcs:		4.00	Eqp Pcs:	2.00
8BA580	Backhoe - 580 Case	1.00	72.00 HR	27.000		1,944				1,944
8TR10W	Truck - 10 Wheel Dump	1.00	72.00 HR	46.000		3,312				3,312
L4	Lab-Raker,Pipe,JHam	2.00	144.00 MH *	25.324	3,647					3,647
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	72.00 MH *	36.678	2,641					2,641
T2	Team-2-Jaxle,H20<2.5	1.00	72.00 MH *	25.324	1,823					1,823
\$13,366.76	4.0000 MH/HR		288.00 MH	[73]	8,111			5,256		13,367
9.0000 Shifts	8.0000 Un/Shift		0.2500 Unit/MH		112.65			73.00		185.65
Item Totals: 137 - PERIODIC JOB CLEANUP										
\$13,366.76	48.0000 MH/MO		288.00 MH	[876]	8,111			5,256		13,367
2,227.793	6 MO				1,351.80			876.00		2,227.79

BID ITEM = 140 CLIENT# = 140										
Description =	FINAL JOB CLEANUP		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000
Change unit cost in Setup/Local Materials tab to reflect project needs;										
<u>GC0140</u>	Final Job Cleanup		32.00 CH	Prod:	1.0000 UH	Lab Pcs:		4.00	Eqp Pcs:	2.00
8BA580	Backhoe - 580 Case	1.00	32.00 HR	27.000		864				864
8TR10W	Truck - 10 Wheel Dump	1.00	32.00 HR	46.000		1,472				1,472
L4	Lab-Raker,Pipe,JHam	2.00	64.00 MH *	25.324	1,621					1,621
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	32.00 MH *	36.678	1,174					1,174

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 140 CLIENT# = 140										
Description =	FINAL JOB CLEANUP		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000
T2	Team-2-3axle,H20<2.5	1.00	32.00 MH *	25.324	810					810
\$5,940.78	4.0000 MH/HR		128.00 MH	[73]	3,605			2,336		5,941
4.0000 Shifts	8.0000 Un/Shift		0.2500 Unit/MH		112.65			73.00		185.65
====> Item Totals: 140 - FINAL JOB CLEANUP										
\$5,940.78	128.0000 MH/LS		128.00 MH	[2336]	3,605			2,336		5,941
5,940.780	1 LS				3,604.79			2,335.99		5,940.78

BID ITEM = 142 CLIENT# = 142										
Description =	MOBILIZATION		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000
142A Mobilize Equipment										
		Quan:	16.00	LDS	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
SSMOB	Mobilization Crew		96.00	CH	Prod:	6.0000 HU	Lab Pcs:	1.00	Eqp Pcs:	1.00
8TRANS-S	Truck - Trans Std Load	1.00	96.00 HR		80.500			7,728		7,728
T6	Team-7axle, Transport	1.00	96.00 MH *		34.154	3,279				3,279
\$11,006.83	6.0000 MH/LDS		96.00 MH	[138]	3,279			7,728		11,007
12.0000 Shifts	1.3333 Un/Shift		0.1667 Unit/MH		204.93			483.00		687.93
142B Mobilize Float Loads										
		Quan:	5.00	EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
SSFLT	Float		25.00	CH	Prod:	5.0000 HU	Lab Pcs:	1.00	Eqp Pcs:	1.00
8TRANS-S	Truck - Trans Std Load	1.00	25.00 HR		80.500			2,013		2,013
T6	Team-7axle, Transport	1.00	25.00 MH *		34.154	854				854
\$2,866.36	5.0000 MH/EA		25.00 MH	[115]	854			2,013		2,866
3.1250 Shifts	1.6000 Un/Shift		0.2000 Unit/MH		170.77			402.50		573.27
142C Mobilize Towable Loads										
		Quan:	4.00	EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
SSTOW	Towable Loads		16.00	CH	Prod:	4.0000 HU	Lab Pcs:	1.00	Eqp Pcs:	1.00
8TRFLATBED	Truck - Flatbed 2 Ton	1.00	16.00 HR		21.000			336		336
T2	Team-2-3axle,H20<2.5	1.00	16.00 MH *		25.324	405				405
\$741.18	4.0000 MH/EA		16.00 MH	[64]	405			336		741
2.0000 Shifts	2.0000 Un/Shift		0.2500 Unit/MH		101.30			84.00		185.30
====> Item Totals: 142 - MOBILIZATION										
\$14,614.37	137.0000 MH/LS		137.00 MH	[3039]	4,538			10,077		14,614
14,614.370	1 LS				4,537.87			10,076.50		14,614.37

BID ITEM = 160 CLIENT# = 160										
Description =	SMALL POWER TOOLS		Unit =	MO	Takeoff Quan:		6.000	Engr Quan:		6.000
160A SMALL POWER TOOLS										
		Quan:	6.00	MO	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
Change unit cost in Setup/Local Materials tab to reflect project needs;										
GC0160	Small Power Tools		6.00	CH	Prod:	1.0000 UH	Lab Pcs:	0.00	Eqp Pcs:	0.00
3ZS21	Small Tools - Electr	1.00	6.00 MO		5,000.000			30,000		30,000
====> Item Totals: 160 - SMALL POWER TOOLS										
\$30,000.00				[]				30,000		30,000
5,000.000	6 MO							5,000.00		5,000.00

Cost Report

Activity	Desc	Quantity	Unit	Unit		Cost	Labor	Perm	Constr	Equip	Sub-	Total
Resource		Pcs						Material	Matl/Exp	Ment	Contract	
BID ITEM = 255 CLIENT# = 255												
Description = CRANES & HOISTING				Unit =	LS	Takeoff Quan:			1.000	Engr Quan:		1.000
255A	Manlifts			Quan:	4.00 MO	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00	
Modify crew as necessary for needed crane size.												
2MANLIFT1	Manlift 40'	1.00	4.00 MO		1,850.000			7,400				7,400
2MANLIFT2	Manlift 40'	1.00	4.00 MO		1,850.000			7,400				7,400
\$14,800.00					[]			14,800				14,800
								3,700.00				3,700.00
255B	Hoisting (Miscellaneous)			Quan:	40.00 HR	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00	
SSHST	Hoisting Crew		40.00 CH	Prod:	1.0000 UH	Lab Pcs:	1.00	Eqp Pcs:	1.00			
8CR60	Crane - 60-65 Tn Hydro	1.00	40.00 HR		89.500				3,580			3,580
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	40.00 MH *		36.678	1,467						1,467
\$5,047.10	1.0000 MH/HR		40.00 MH		[25]	1,467			3,580			5,047
5.0000 Shifts	8.0000 Un/Shift		1.0000 Unit/MH			36.68			89.50			126.18
====>	Item Totals:	255	- CRANES & HOISTING									
\$19,847.10	40.0000 MH/LS		40.00 MH		[1000]	1,467	14,800		3,580			19,847
19,847.100	1 LS					1,467.10	14,800.00		3,580.00			19,847.10

PARENT ITEM = 300
 Description = CONCRETE Unit = LS Takeoff Quan: 1.000 Engr Quan: 1.000

Listing of Sub-Biditems of Parent Item 300:

PARENT ITEM = 305
 Description = ELECTRIC BUILDING Unit = CY Takeoff Quan: 53.000 Engr Quan: 53.000

Listing of Sub-Biditems of Parent Item 305:

BID ITEM = 310
 Description = FOOTING Unit = CY Takeoff Quan: 12.000 Engr Quan: 0.000

310A	Overexcavation			Quan:	297.00 CY	Hrs/Shift:	8.00	Cat: 508	WC: AZ00	
<u>SSOEX</u>	Overexcavation Crew		6.00 CH	Prod:	49.5000 UH	Lab Pcs:	4.50	Eqp Pcs:	3.50	**Unreviewed
8EX330	Excavator - 330C Cat	1.00	6.00 HR	106.500			639			639
8LO4CY	Loader - 950G	0.50	3.00 HR	68.000			204			204
8TRPU	Truck - Pickup Ex. Cab	1.00	6.00 HR	14.000			84			84
8WA3900	Water Truck - 3900 Gal	1.00	6.00 HR	48.000			288			288
L2	Lab-Concrete,GuinCha	1.00	6.00 MH *	24.063	144					144
O2	Oper-Plnt,SmHoe,Paver,Scr	0.50	3.00 MH *	34.103	102					102
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	6.00 MH *	36.678	220					220
OF	Oper-Foreman	1.00	6.00 MH *	42.985	258					258
T3	Team-Mixer<10CY,H2O<4	1.00	6.00 MH *	26.585	160					160
\$2,099.18	0.0909 MH/CY		27.00 MH	[1.99]	884		1,215			2,099
0.7500 Shifts	396.0000 Un/Shift		11.0000 Unit/MH		2.98		4.09			7.07
310B	Backfill to Grade			Quan:	297.00 CY	Hrs/Shift:	8.00	Cat: 508	WC: AZ00	
<u>SSMBFL</u>	Mass Backfill Crew		8.00 CH	Prod:	37.1250 UH	Lab Pcs:	6.00	Eqp Pcs:	5.00	**Unreviewed
8EX330	Excavator - 330C Cat	1.00	8.00 HR	106.500			852			852
8LO4CY	Loader - 950G	1.00	8.00 HR	68.000			544			544
8ROSD115	Roller-SD115	1.00	8.00 HR	50.500			404			404

Cost Report

Activity	Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm	Material	Constr	Matl/Exp	Equip	Sub-	Contract	Total
BID ITEM = 310															
Description = FOOTING															
Unit =						CY	Takeoff Quan:		12.000	Engr Quan:		SS			
												0.000			
8TRPU		Truck - Pickup Ex. Cab	1.00	8.00	HR	14.000						112		112	
8WA3900		Water Truck - 3900 Gal	1.00	8.00	HR	48.000						384		384	
L2		Lab-Concrete,GuinCha	1.00	8.00	MH *	24.063	193							193	
O2		Oper-Plnt,SmHoe,Paver,Scr	2.00	16.00	MH *	34.104	546							546	
O3		Oper-Blade,TrkHoe,+6cyLo	1.00	8.00	MH *	36.678	293							293	
OF		Oper-Foreman	1.00	8.00	MH *	42.985	344							344	
T3		Team-Mixer<10CY,H2O<4	1.00	8.00	MH *	26.585	213							213	
\$3,884.15		0.1616 MH/CY		48.00	MH	[3.582]	1,588					2,296		3,884	
1.0000	Shifts	297.0000 Un/Shift		6.1875	Unit/MH		5.35					7.73		13.08	
310C Excavate for Footing															
Quan:						89.00 CY	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed				
SSBHE1		Backhoe Exc Crew		12.00	CH	Prod:	7.4167 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00				
8BA580		Backhoe - 580 Case	1.00	12.00	HR	33.000				396		396			
L2		Lab-Concrete,GuinCha	2.00	24.00	MH *	24.063	578					578			
O3		Oper-Blade,TrkHoe,+6cyLo	1.00	12.00	MH *	36.678	440					440			
\$1,413.63		0.4044 MH/CY		36.00	MH	[7.416]	1,018					396		1,414	
1.5000	Shifts	59.3333 Un/Shift		2.4722	Unit/MH		11.43					4.45		15.88	
310D GLT															
Quan:						640.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed				
SSGLT		GLT Crew		8.00	CH	Prod:	80.0000 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00				
L2		Lab-Concrete,GuinCha	2.00	16.00	MH *	24.063	385					385			
\$385.00		0.0250 MH/SF		16.00	MH	[0.375]	385					385			
1.0000	Shifts	640.0000 Un/Shift		40.0000	Unit/MH		0.60					0.60			
310E Form Footing															
Quan:						320.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed				
SSFM2		Form Crew 2		10.00	CH	Prod:	32.0000 UH	Lab Pcs:	5.50	Eqp Pcs:	1.50				
3FORMSLF		Form Rental Rate LF	1.00	320.00	LF	2.000			640			640			
8MIFORKLIFT		Forklift - 10K reach	0.50	5.00	HR	43.000				215		215			
8TRPU		Truck - Pickup Ex. Cab	1.00	10.00	HR	14.000				140		140			
C		Carpenter	2.00	20.00	MH *	45.268	905					905			
CF		Carpenter-Foreman	1.00	10.00	MH *	48.297	483					483			
L2		Lab-Concrete,GuinCha	2.00	20.00	MH *	24.063	481					481			
O1		Oper- Load<3CY,Dirt Rolle	0.50	5.00	MH *	31.532	158					158			
\$3,022.24		0.1718 MH/LF		55.00	MH	[4.016]	2,027			640		355		3,022	
1.2500	Shifts	256.0000 Un/Shift		5.8182	Unit/MH		6.34			2.00		1.11		9.44	
310F Rebar Rack															
Quan:						160.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed				
SSCARP		Carpenter		16.00	CH	Prod:	10.0000 UH	Lab Pcs:	1.00	Eqp Pcs:	0.00				
C		Carpenter	1.00	16.00	MH *	45.268	724					724			
\$724.28		0.1000 MH/LF		16.00	MH	[2.85]	724					724			
2.0000	Shifts	80.0000 Un/Shift		10.0000	Unit/MH		4.53					4.53			
310G Pour Footing															
Quan:						13.50 CY	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed				
SSFM1		Form Crew 1		2.00	CH	Prod:	6.7500 UH	Lab Pcs:	5.00	Eqp Pcs:	1.00				
2CONC3000		3000 PSI Concrete	1.00	13.50	CY	104.200	1,407					1,407			
8TRPU		Truck - Pickup Ex. Cab	1.00	2.00	HR	14.000				28		28			
C		Carpenter	2.00	4.00	MH *	45.268	181					181			
CF		Carpenter-Foreman	1.00	2.00	MH *	48.295	97					97			
L2		Lab-Concrete,GuinCha	2.00	4.00	MH *	24.063	96					96			
\$1,808.61		0.7407 MH/CY		10.00	MH	[17.481]	374	1,407		28		1,809			
0.2500	Shifts	54.0000 Un/Shift		1.3500	Unit/MH		27.70	104.20		2.07		133.97			
310H Finish TOP															
Quan:						320.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed				

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 310										SS
Description = FOOTING			Unit =	CY	Takeoff Quan:	12.000	Engr Quan:	0.000		
SSFIN	Finisher		4.00 CH	Prod:	80.0000 UH	Lab Pcs:	1.00	Eqp Pcs:	0.00	
F	Concrete Finisher	1.00	4.00 MH *	31.533	126					126
\$126.13	0.0125 MH/SF		4.00 MH	[0.263]	126					126
0.5000 Shifts	640.0000 Un/Shift		80.0000 Unit/MH		0.39					0.39
310I Cure TOP										
			Quan:	320.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSCURE	Cure Crew		0.20 CH	Prod:	1,600.0000 UH	Lab Pcs:	1.00	Eqp Pcs:	0.00	**Unreviewed
2CUREMATL	Cure Material	1.00	320.00 SF	0.050	16					16
L2	Lab-Concrete,GuinCha	1.00	0.20 MH *	24.050	5					5
\$20.81	0.0006 MH/SF		0.20 MH	[0.009]	5	16				21
0.0250 Shifts	12,800.0000 Un/Shift		1,600.0000 Unit/MH		0.02	0.05				0.07
Item Totals: 310 - FOOTING										
\$13,484.03	17.6833 MH/CY		212.20 MH	[384.917]	7,131	1,423	640	4,290		13,484
1,123.669	12 CY				594.28	118.56	53.33	357.50		1,123.67
BID ITEM = 315										SS
Description = STEM WALL			Unit =	CY	Takeoff Quan:	8.500	Engr Quan:	0.000		
315A Form Stem Wall										
			Quan:	695.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSFM2	Form Crew 2		28.00 CH	Prod:	24.8214 UH	Lab Pcs:	5.50	Eqp Pcs:	1.50	**Unreviewed
3FORMSSF	Form Rental Rate SF	1.00	695.00 SF	2.000		1,390				1,390
8MIFORKLIFT	Forklift - 10K reach	0.50	14.00 HR	43.000			602			602
8TRPU	Truck - Pickup Ex. Cab	1.00	28.00 HR	14.000			392			392
C	Carpenter	2.00	56.00 MH *	45.268	2,535					2,535
CF	Carpenter-Foreman	1.00	28.00 MH *	48.296	1,352					1,352
L2	Lab-Concrete,GuinCha	2.00	56.00 MH *	24.063	1,348					1,348
O1	Oper- Load<3CY,Dirt Rolle	0.50	14.00 MH *	31.531	441					441
\$8,060.23	0.2215 MH/SF		154.00 MH	[5.177]	5,676		1,390	994		8,060
3.5000 Shifts	198.5714 Un/Shift		4.5130 Unit/MH		8.17		2.00	1.43		11.60
315B Form Around Doors										
			Quan:	8.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSCARP	Carpenter		16.00 CH	Prod:	0.5000 UH	Lab Pcs:	1.00	Eqp Pcs:	0.00	**Unreviewed
C	Carpenter	1.00	16.00 MH *	45.268	724					724
\$724.28	2.0000 MH/EA		16.00 MH	[57]	724					724
2.0000 Shifts	4.0000 Un/Shift		0.5000 Unit/MH		90.54					90.54
315C Pour Stem Walls										
			Quan:	10.00 CY	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSFM1	Form Crew 1		1.78 CH	Prod:	5.6000 UH	Lab Pcs:	5.00	Eqp Pcs:	1.00	**Unreviewed
2CONC3000	3000 PSI Concrete	1.00	10.00 CY	104.200	1,042					1,042
8TRPU	Truck - Pickup Ex. Cab	1.00	1.79 HR	14.000			25			25
C	Carpenter	2.00	3.57 MH *	45.266	162					162
CF	Carpenter-Foreman	1.00	1.79 MH *	48.296	86					86
L2	Lab-Concrete,GuinCha	2.00	3.57 MH *	24.062	86					86
\$1,401.01	0.8930 MH/CY		8.93 MH	[21.079]	334	1,042		25		1,401
0.2225 Shifts	44.9438 Un/Shift		1.1198 Unit/MH		33.40	104.20		2.51		140.10
315D Finish Top of Wall										
			Quan:	160.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSFIN	Finisher		5.33 CH	Prod:	30.0008 UH	Lab Pcs:	1.00	Eqp Pcs:	0.00	**Unreviewed
F	Concrete Finisher	1.00	5.33 MH *	31.533	168					168
\$168.07	0.0333 MH/LF		5.33 MH	[0.7]	168					168

Cost Report

Activity	Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total	
BID ITEM = 315													
Description =					STEM WALL	Unit =	CY	Takeoff Quan:		8.500	Engr Quan:	SS	
0.6663 Shifts					240.1501 Un/Shift	30.0188 Unit/MH	1.05					1.05	
315E Cure/Patch Wall													
						Quan:	695.00 SF	Hrs/Shift:	8.00	Cal:	508 WC: AZ00	**Unreviewed	
<u>SSPTCH</u>					Patch Crew	5.50 CH	Prod:	126.3636 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00	
2PTCHMATL					Patch Material	1.00 695.00 SF	0.100	70				70	
L2					Lab-Concrete,GuinCha	2.00 11.00 MH *	24.063	265				265	
\$334.19					0.0158 MH/SF	11.00 MH	[0.237]	265	70				334
0.6875 Shifts					1,010.9091 Un/Shift	63.1819 Unit/MH	0.38 0.10					0.48	
315F Backfill Stem Wall													
						Quan:	48.00 CY	Hrs/Shift:	8.00	Cal:	508 WC: AZ00	**Unreviewed	
<u>SSBFL1</u>					Backfill Crew I	11.13 CH	Prod:	4.3125 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	
2ABCDLIVER					ABC Delivered	1.00 96.00 TNS	10.500	1,008				1,008	
8LO4CY					Loader - 950G	1.00 11.13 HR	68.000		757				757
L2					Lab-Concrete,GuinCha	2.00 22.26 MH *	24.062	536				536	
O2					Oper-Plnt,SmHoe,Paver,Scr	1.00 11.13 MH *	34.104	380				380	
\$2,680.05					0.6956 MH/CY	33.39 MH	[12.289]	915	1,008	757			2,680
1.3913 Shifts					34.5013 Un/Shift	1.4376 Unit/MH	19.07 21.00		15.77				55.83
====> Item Totals: 315 - STEM WALL													
\$13,367.83					26.9000 MH/CY	228.65 MH	[603.719]	8,082	2,120	1,390	1,776	13,368	
1,572.686					8.5 CY			950.87	249.35	163.53	208.93	1,572.69	

BID ITEM = 320									
Description =	FLOOR SLAB		Unit =	CY	Takeoff Quan:	17.500	Engr Quan:	SS	0.000
320A Place ABC									
				Quan:	26.00 TNS	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	**Unreviewed
SSPLAB	Place ABC	10.00	CH	Prod:	2.6000 UH	Lab Pcs:	5.50	Eqp Pcs:	2.50
2ABCDLIVER	ABC Delivered	1.00	26.00 TNS	10.500	273				273
8BA480	Backhoe - 570LL Gannon	1.00	10.00 HR	29.000			290		290
8TRPU	Truck - Pickup Ex. Cab	0.50	5.00 HR	14.000			70		70
8WA3900	Water Truck - 3900 Gal	1.00	10.00 HR	48.000			480		480
L2	Lab-Concrete,GuinCha	3.00	30.00 MH *	24.063	722				722
O1	Oper- Load<3CY,Dirt Rolle	1.00	10.00 MH *	31.532	315				315
OF	Oper-Foreman	0.50	5.00 MH *	42.986	215				215
T3	Team-Mixer<10CY,H2O<4	1.00	10.00 MH *	26.586	266				266
\$2,630.99	2.1153 MH/TNS	55.00 MH	[37.692]	1,518	273		840		2,631
1.2500 Shifts	20.8000 Un/Shift	0.4727 Unit/MH		58.38	10.50		32.31		101.19
320B Finish ABC									
				Quan:	1,000.00 SF	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	**Unreviewed
SSFNAB	Finish AB Crew	10.00	CH	Prod:	100.0000 UH	Lab Pcs:	5.00	Eqp Pcs:	2.00
8BA480	Backhoe - 570LL Gannon	0.50	5.00 HR	29.000			145		145
8ROSD70	Roller-SD70	0.50	5.00 HR	45.500			228		228
8TRPU	Truck - Pickup Ex. Cab	0.50	5.00 HR	14.000			70		70
8WA3900	Water Truck - 3900 Gal	0.50	5.00 HR	48.000			240		240
L2	Lab-Concrete,GuinCha	3.00	30.00 MH *	24.063	722				722
O1	Oper- Load<3CY,Dirt Rolle	0.50	5.00 MH *	31.532	158				158
O2	Oper-Plnt,SmHoe,Paver,Scr	0.50	5.00 MH *	34.104	171				171
OF	Oper-Foreman	0.50	5.00 MH *	42.986	215				215
T3	Team-Mixer<10CY,H2O<4	0.50	5.00 MH *	26.586	133				133
\$2,080.42	0.0500 MH/SF	50.00 MH	[0.905]	1,398			683		2,080
1.2500 Shifts	800.0000 Un/Shift	20.0000 Unit/MH		1.40			0.68		2.08

BID ITEM = 322		Description = ELECTRIC HK PADS		Unit =	CY	Takeoff Quan:	1.500	Engr Quan:	0.000	SS
322A	Drill and Epoxy Dowels			Quan:	12.00 EA	Hrs/Shift:	8.00	Cal:	508	WC: AZ00
SSCL	Carpenter and Laborer			2.00 CH	Prod:	6.0000 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00
2EPOXY	Epoxy for Dowels			1.00	12.00 EA	3.000	36			36
C	Carpenter			1.00	2.00 MH *	45.270	91			91
L2	Lab-Concrete,GuinCha			1.00	2.00 MH *	24.065	48			48
\$174.67	0.3333 MH/EA				4.00 MH	[7.25]	139	36		175
0.2500 Shifts	48.0000 Un/Shift				3.0000 Unit/MH		11.56	3.00		14.56
322B	Form HK Pads			Quan:	88.00 LF	Hrs/Shift:	8.00	Cal:	508	WC: AZ00

Cost Report

Activity	Desc	Quantity	Unit	Unit	Cost	Labor	Perm	Constr	Equip	Sub-	Total
Resource		Pcs					Material	Matl/Exp	Ment	Contract	
BID ITEM = 322											SS
Description =	ELECTRIC HK PADS		Unit =	CY	Takeoff Quan:		1.500	Engr Quan:			0.000
<u>SSFM3</u>	Form Crew 3		4.00 CH	Prod:	22.0000 UH	Lab Pcs:		3.50	Eqp Pcs:		0.50
3FORMSLF	Form Rental Rate LF	1.00	88.00 LF		2.000			176			176
8TRPU	Truck - Pickup Ex. Cab	0.50	2.00 HR		14.000				28		28
C	Carpenter	2.00	8.00 MH *		45.268	362					362
CF	Carpenter-Foreman	0.50	2.00 MH *		48.295	97					97
L2	Lab-Concrete,GuinCha	1.00	4.00 MH *		24.063	96					96
\$758.98	0.1590 MH/LF		14.00 MH	[3.977]	555			176	28		759
0.5000 Shifts	176.0000 Un/Shift		6.2857 Unit/MH		6.31			2.00	0.32		8.62
322C Pour HK Pads											Quant: 2.00 CY Hrs/Shift: 8.00 Cal: 508 WC: AZ00
<u>SSFM1</u>	Form Crew 1		1.00 CH	Prod:	2.0000 UH	Lab Pcs:		5.00	Eqp Pcs:		1.00
2CONC3000	3000 PSI Concrete	1.00	2.00 CY		104.200	208					208
8TRPU	Truck - Pickup Ex. Cab	1.00	1.00 HR		14.000				14		14
C	Carpenter	2.00	2.00 MH *		45.270	91					91
CF	Carpenter-Foreman	1.00	1.00 MH *		48.300	48					48
L2	Lab-Concrete,GuinCha	2.00	2.00 MH *		24.065	48					48
\$409.37	2.5000 MH/CY		5.00 MH	[59]	187	208			14		409
0.1250 Shifts	16.0000 Un/Shift		0.4000 Unit/MH		93.49	104.20			7.00		204.69
322D Finish HK Pads											Quant: 121.00 SF Hrs/Shift: 8.00 Cal: 508 WC: AZ00
<u>SSFIN</u>	Finisher		2.00 CH	Prod:	60.5000 UH	Lab Pcs:		1.00	Eqp Pcs:		0.00
F	Concrete Finisher	1.00	2.00 MH *		31.530	63					63
\$63.06	0.0165 MH/SF		2.00 MH	[0.347]	63						63
0.2500 Shifts	484.0000 Un/Shift		60.5000 Unit/MH		0.52						0.52
Item Totals: 322 - ELECTRIC HK PADS											
\$1,406.08	16.6666 MH/CY		25.00 MH	[398]	944	244		176	42		1,406
937.387	1.5 CY				629.12	162.93		117.33	28.00		937.39

BID ITEM = 323											SS
Description =	DOOR STOOPS		Unit =	CY	Takeoff Quan:		3.000	Engr Quan:			0.000
323A GLT											Quant: 180.00 SF Hrs/Shift: 8.00 Cal: 508 WC: AZ00
<u>SSGLT</u>	GLT Crew		3.00 CH	Prod:	60.0000 UH	Lab Pcs:		2.00	Eqp Pcs:		0.00
L2	Lab-Concrete,GuinCha	2.00	6.00 MH *		24.063	144					144
\$144.38	0.0333 MH/SF		6.00 MH	[0.5]	144						144
0.3750 Shifts	480.0000 Un/Shift		30.0000 Unit/MH		0.80						0.80
323B Form Edges											Quant: 265.00 LF Hrs/Shift: 8.00 Cal: 508 WC: AZ00
<u>SSCL</u>	Carpenter and Laborer		10.00 CH	Prod:	26.5000 UH	Lab Pcs:		2.00	Eqp Pcs:		0.00
3FORMSSF	Form Rental Rate SF	1.00	265.00 SF		2.000			530			530
C	Carpenter	1.00	10.00 MH *		45.268	453					453
L2	Lab-Concrete,GuinCha	1.00	10.00 MH *		24.063	241					241
\$1,223.31	0.0754 MH/LF		20.00 MH	[1.642]	693			530			1,223
1.2500 Shifts	212.0000 Un/Shift		13.2500 Unit/MH		2.62			2.00			4.62
323C Pour Pad											Quant: 3.00 CY Hrs/Shift: 8.00 Cal: 508 WC: AZ00
<u>SSFM1</u>	Form Crew 1		1.50 CH	Prod:	2.0000 UH	Lab Pcs:		5.00	Eqp Pcs:		1.00
2CONC3000	3000 PSI Concrete	1.00	3.00 CY		104.200	313					313
8TRPU	Truck - Pickup Ex. Cab	1.00	1.50 HR		14.000				21		21
C	Carpenter	2.00	3.00 MH *		45.267	136					136

Cost Report

Activity	Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm	Material	Constr	Matl/Exp	Equip	Sub- Ment	Contract	Total
BID ITEM = 330															
Description =		ACTIVE CARBON SKID			Unit =	CY	Takeoff	Quan:	10.000	Engr	Quan:	SS			
												0.000			
330C	GLT			Quan:	270.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00				
**Unreviewed															
SSGLT	GLT Crew			2.50	CH	Prod:	108.0000 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00				
L2	Lab-Concrete,GuinCha			2.00	5.00 MH *	24.062	120							120	
\$120.31	0.0185 MH/SF				5.00 MH	[0.278]	120							120	
0.3125	Shifts			864.0000 Un/Shift	54.0000 Unit/MH		0.45							0.45	
330D	Form Edges			Quan:	66.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00				
**Unreviewed															
SSFM4	Form Crew 4			3.14	CH	Prod:	20.9997 UH	Lab Pcs:	4.50	Eqp Pcs:	1.50				
3FORMSSF	Form Rental Rate SF			1.00	66.00 SF	2.000		132						132	
8MIFORKLIFT	Forklift - 10K reach			0.50	1.57 HR	43.000			68					68	
8TRPU	Truck - Pickup Ex. Cab			1.00	3.14 HR	14.000			44					44	
C	Carpenter			2.00	6.29 MH *	45.269	285							285	
CF	Carpenter-Foreman			1.00	3.14 MH *	48.296	152							152	
L2	Lab-Concrete,GuinCha			1.00	3.14 MH *	24.064	76							76	
O1	Oper- Load<3CY,Dirt Rolle			0.50	1.57 MH *	31.529	50							50	
\$804.92	0.2142 MH/SF				14.14 MH	[5.404]	561		132	111				805	
0.3925	Shifts			168.1529 Un/Shift	4.6676 Unit/MH		8.51		2.00	1.69				12.20	
330E	Pour Pad			Quan:	12.00 CY	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00				
**Unreviewed															
SSFM1	Form Crew 1			1.50	CH	Prod:	8.0000 UH	Lab Pcs:	5.00	Eqp Pcs:	1.00				
2CONC3000	3000 PSI Concrete			1.00	12.00 CY	104.200	1,250							1,250	
8TRPU	Truck - Pickup Ex. Cab			1.00	1.50 HR	14.000			21					21	
C	Carpenter			2.00	3.00 MH *	45.267	136							136	
CF	Carpenter-Foreman			1.00	1.50 MH *	48.293	72							72	
L2	Lab-Concrete,GuinCha			2.00	3.00 MH *	24.063	72							72	
\$1,551.83	0.6250 MH/CY				7.50 MH	[14.75]	280	1,250		21				1,552	
0.1875	Shifts			64.0000 Un/Shift	1.6000 Unit/MH		23.37	104.20		1.75				129.32	
330F	Finish Pad			Quan:	270.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00				
**Unreviewed															
SSFIN2	Finisher 2			2.50	CH	Prod:	108.0000 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00				
F	Concrete Finisher			2.00	5.00 MH *	31.532	158							158	
\$157.66	0.0185 MH/SF				5.00 MH	[0.389]	158							158	
0.3125	Shifts			864.0000 Un/Shift	54.0000 Unit/MH		0.58							0.58	
330G	Cure Pad			Quan:	270.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00				
**Unreviewed															
SSCURE	Cure Crew			0.31	CH	Prod:	864.0000 UH	Lab Pcs:	1.00	Eqp Pcs:	0.00				
2CUREMATL	Cure Material			1.00	270.00 SF	0.050	14							14	
L2	Lab-Concrete,GuinCha			1.00	0.31 MH *	24.065	7							7	
\$20.96	0.0011 MH/SF				0.31 MH	[0.017]	7	14						21	
0.0388	Shifts			6,967.7419 Un/Shift	870.9739 Unit/MH		0.03	0.05						0.08	
330H	Backfill Pad			Quan:	66.00 LF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00				
**Unreviewed															
SSBHE1	Backhoe Exc Crew			2.00	CH	Prod:	33.0000 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00				
8BA580	Backhoe - 580 Case			1.00	2.00 HR	33.000			66					66	
L2	Lab-Concrete,GuinCha			2.00	4.00 MH *	24.063	96							96	
O3	Oper-Blade,TrkHoe,+6cyLo			1.00	2.00 MH *	36.680	73							73	
\$235.61	0.0909 MH/LF				6.00 MH	[1.667]	170			66				236	
0.2500	Shifts			264.0000 Un/Shift	11.0000 Unit/MH		2.57			1.00				3.57	
Item Totals: 330 - ACTIVE CARBON SKID															
\$2,891.29	3.7950 MH/CY				37.95 MH	[82.833]	1,297	1,264	132	198				2,891	
289.129	10 CY						129.69	126.39	13.20	19.85				289.13	

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 335										
Description = MEMBRANE FEED COMPRESSOR			Unit =	CY	Takeoff Quan:		5.000	Engr Quan:		SS 0.000
335C	GLT		Quan:	144.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
<u>SSGLT</u>	GLT Crew		1.50 CH	Prod:	96.0000 UH	Lab Pcs:	2.00	Eqp Pcs:		0.00
L2	Lab-Concrete,GuinCha	2.00	3.00 MH *	24.063	72					72
\$72.19	0.0208 MH/SF		3.00 MH	[0.313]	72					72
0.1875 Shifts	768.0000 Un/Shift		48.0000 Unit/MH		0.50					0.50
335D	Form Edges		Quan:	52.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
<u>SSFM4</u>	Form Crew 4		2.50 CH	Prod:	20.8000 UH	Lab Pcs:	4.50	Eqp Pcs:		1.50
3FORMSSF	Form Rental Rate SF	1.00	52.00 SF	2.000		104				104
8MIFORKLIFT	Forklift - 10K reach	0.50	1.25 HR	43.000			54			54
8TRPU	Truck - Pickup Ex. Cab	1.00	2.50 HR	14.000			35			35
C	Carpenter	2.00	5.00 MH *	45.268	226					226
CF	Carpenter-Foreman	1.00	2.50 MH *	48.296	121					121
L2	Lab-Concrete,GuinCha	1.00	2.50 MH *	24.064	60					60
O1	Oper- Load<3CY,Dirt Rolle	0.50	1.25 MH *	31.536	39					39
\$639.41	0.2163 MH/SF		11.25 MH	[5.457]	447		104	89		639
0.3125 Shifts	166.4000 Un/Shift		4.6222 Unit/MH		8.59		2.00	1.71		12.30
335E	Pour Pad		Quan:	6.00 CY	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
<u>SSFM1</u>	Form Crew 1		1.00 CH	Prod:	6.0000 UH	Lab Pcs:	5.00	Eqp Pcs:		1.00
2CONC3000	3000 PSI Concrete	1.00	6.00 CY	104.200	625					625
8TRPU	Truck - Pickup Ex. Cab	1.00	1.00 HR	14.000			14			14
C	Carpenter	2.00	2.00 MH *	45.270	91					91
CF	Carpenter-Foreman	1.00	1.00 MH *	48.300	48					48
L2	Lab-Concrete,GuinCha	2.00	2.00 MH *	24.065	48					48
\$826.17	0.8333 MH/CY		5.00 MH	[19.667]	187	625		14		826
0.1250 Shifts	48.0000 Un/Shift		1.2000 Unit/MH		31.16	104.20		2.33		137.70
335F	Finish Pad		Quan:	144.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
<u>SSFIN2</u>	Finisher 2		1.50 CH	Prod:	96.0000 UH	Lab Pcs:	2.00	Eqp Pcs:		0.00
F	Concrete Finisher	2.00	3.00 MH *	31.530	95					95
\$94.59	0.0208 MH/SF		3.00 MH	[0.438]	95					95
0.1875 Shifts	768.0000 Un/Shift		48.0000 Unit/MH		0.66					0.66
335G	Cure Pad		Quan:	144.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
<u>SSCURE</u>	Cure Crew		0.15 CH	Prod:	960.0000 UH	Lab Pcs:	1.00	Eqp Pcs:		0.00
2CUREMATL	Cure Material	1.00	144.00 SF	0.050	7					7
L2	Lab-Concrete,GuinCha	1.00	0.15 MH *	24.067	4					4
\$10.81	0.0010 MH/SF		0.15 MH	[0.016]	4	7				11
0.0188 Shifts	7,680.0000 Un/Shift		960.0061 Unit/MH		0.03	0.05				0.08
335H	Backfill Pad		Quan:	52.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
<u>SSBHE1</u>	Backhoe Exc Crew		1.50 CH	Prod:	34.6667 UH	Lab Pcs:	3.00	Eqp Pcs:		1.00
8BA580	Backhoe - 580 Case	1.00	1.50 HR	33.000			50			50
L2	Lab-Concrete,GuinCha	2.00	3.00 MH *	24.063	72					72
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	1.50 MH *	36.680	55					55
\$176.71	0.0865 MH/LF		4.50 MH	[1.587]	127		50			177
0.1875 Shifts	277.3333 Un/Shift		11.5556 Unit/MH		2.45		0.95			3.40
Item Totals: 335 - MEMBRANE FEED COMPRESSOR										
\$1,819.88	5.3800 MH/CY		26.90 MH	[118.9]	931	632	104	152		1,820

Cost Report

Activity	Desc	Pes	Quantity	Unit	Unit Cost	Labor	Perm	Constr	Equip	Sub-	Total
Resource							Material	Matl/Exp	Ment	Contract	
BID ITEM = 335											
Description =	MEMBRANE FEED COMPRESSOR			Unit =	CY	Takeoff Quan:		5.000	Engr Quan:		SS 0.000
363.976	5 CY					186.25	126.48	20.80	30.45		363.98
BID ITEM = 340											
Description =	FILTRATION SKID			Unit =	CY	Takeoff Quan:		9.500	Engr Quan:		SS 0.000
340C GLT											
				Quan:	256.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSGLT	GLT Crew		2.50	CH	Prod:	102.4000 UH		Lab Pcs:	2.00	Eqp Pcs:	0.00
L2	Lab-Concrete,GuinCha	2.00	5.00 MH *		24.062	120					120
\$120.31	0.0195 MH/SF		5.00 MH		[0.293]	120					120
0.3125	Shifts	819.2000 Un/Shift	51.2000 Unit/MH			0.47					0.47
340D Form Edges											
				Quan:	80.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSFM4	Form Crew 4		4.00	CH	Prod:	20.0000 UH		Lab Pcs:	4.50	Eqp Pcs:	1.50
3FORMSSF	Form Rental Rate SF	1.00	80.00 SF		2.000			160			160
8MIFORKLIFT	Forklift - 10K reach	0.50	2.00 HR		43.000				86		86
8TRPU	Truck - Pickup Ex. Cab	1.00	4.00 HR		14.000				56		56
C	Carpenter	2.00	8.00 MH *		45.268	362					362
CF	Carpenter-Foreman	1.00	4.00 MH *		48.298	193					193
L2	Lab-Concrete,GuinCha	1.00	4.00 MH *		24.063	96					96
O1	Oper- Load<3CY,Dirt Rolle	0.50	2.00 MH *		31.530	63					63
\$1,016.64	0.2250 MH/SF		18.00 MH		[5.675]	715		160	142		1,017
0.5000	Shifts	160.0000 Un/Shift	4.4444 Unit/MH			8.93		2.00	1.78		12.71
340E Pour Pad											
				Quan:	10.50 CY	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSFM1	Form Crew 1		1.50	CH	Prod:	7.0000 UH		Lab Pcs:	5.00	Eqp Pcs:	1.00
2CONC3000	3000 PSI Concrete	1.00	10.50 CY		104.200	1,094					1,094
8TRPU	Truck - Pickup Ex. Cab	1.00	1.50 HR		14.000				21		21
C	Carpenter	2.00	3.00 MH *		45.267	136					136
CF	Carpenter-Foreman	1.00	1.50 MH *		48.293	72					72
L2	Lab-Concrete,GuinCha	2.00	3.00 MH *		24.063	72					72
\$1,395.53	0.7142 MH/CY		7.50 MH		[16.857]	280	1,094		21		1,396
0.1875	Shifts	56.0000 Un/Shift	1.4000 Unit/MH			26.71	104.20		2.00		132.91
340F Finish Pad											
				Quan:	256.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSFIN2	Finisher 2		2.50	CH	Prod:	102.4000 UH		Lab Pcs:	2.00	Eqp Pcs:	0.00
F	Concrete Finisher	2.00	5.00 MH *		31.532	158					158
\$157.66	0.0195 MH/SF		5.00 MH		[0.41]	158					158
0.3125	Shifts	819.2000 Un/Shift	51.2000 Unit/MH			0.62					0.62
340G Cure Pad											
				Quan:	256.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSCURE	Cure Crew		0.20	CH	Prod:	1,280.0000 UH		Lab Pcs:	1.00	Eqp Pcs:	0.00
2CUREMATL	Cure Material	1.00	256.00 SF		0.050	13					13
L2	Lab-Concrete,GuinCha	1.00	0.20 MH *		24.050	5					5
\$17.61	0.0007 MH/SF		0.20 MH		[0.012]	5	13				18
0.0250	Shifts	10,240.0000 Un/Shift	1,280.0000 Unit/MH			0.02	0.05				0.07
340H Backfill Pad											
				Quan:	80.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSBHE1	Backhoe Exc Crew		2.50	CH	Prod:	32.0000 UH		Lab Pcs:	3.00	Eqp Pcs:	1.00
8BA580	Backhoe - 580 Case	1.00	2.50 HR		33.000				83		83
L2	Lab-Concrete,GuinCha	2.00	5.00 MH *		24.062	120					120

Cost Report

Activity	Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm	Material	Constr	Matl/Exp	Equip	Sub-	Contract	Total
BID ITEM = 340															
Description =		FILTRATION SKID			Unit =	CY	Takeoff Quan:		9.500		Engr Quan:				SS 0.000
O3		Oper-Blade,TrkHoe,+6cyLo	1.00	2.50	MH *	36.680	92								92
\$294.51		0.0937 MH/LF		7.50	MH	[1.719]	212					83			295
0.3125	Shifts	256.0000 Un/Shift		10.6667	Unit/MH		2.65					1.03			3.68
====> Item Totals: 340 - FILTRATION SKID															
\$3,002.26		4.5473 MH/CY		43.20	MH	[100.158]	1,490	1,107	160		246				3,002
316.027		9.5 CY					156.83	116.52	16.84		25.84				316.03
BID ITEM = 345															
Description =		PRODUCT GAS COMPRESSOR			Unit =	CY	Takeoff Quan:		4.000		Engr Quan:				SS 0.000
345C GLT															
						Quan:	110.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		**Unreviewed
<u>SSGLT</u>		GLT Crew		1.50	CH	Prod:	73.3333 UH	Lab Pcs:	2.00		Eqp Pcs:				0.00
L2		Lab-Concrete,GuinCha	2.00	3.00	MH *	24.063	72								72
\$72.19		0.0272 MH/SF		3.00	MH	[0.409]	72								72
0.1875	Shifts	586.6667 Un/Shift		36.6667	Unit/MH		0.66								0.66
345D Form Edges															
						Quan:	42.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		**Unreviewed
<u>SSFM4</u>		Form Crew 4		2.50	CH	Prod:	16.8000 UH	Lab Pcs:	4.50		Eqp Pcs:				1.50
3FORMSSF		Form Rental Rate SF	1.00	42.00	SF	2.000		84							84
8MIFORKLIFT		Forklift - 10K reach	0.50	1.25	HR	43.000					54				54
8TRPU		Truck - Pickup Ex. Cab	1.00	2.50	HR	14.000					35				35
C		Carpenter	2.00	5.00	MH *	45.268	226								226
CF		Carpenter-Foreman	1.00	2.50	MH *	48.296	121								121
L2		Lab-Concrete,GuinCha	1.00	2.50	MH *	24.064	60								60
O1		Oper- Load<3CY,Dirt Rolle	0.50	1.25	MH *	31.536	39								39
\$619.41		0.2678 MH/SF		11.25	MH	[6.756]	447		84		89				619
0.3125	Shifts	134.4000 Un/Shift		3.7333	Unit/MH		10.63		2.00		2.11				14.75
345E Pour Pad															
						Quan:	5.00 CY	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		**Unreviewed
<u>SSFM1</u>		Form Crew 1		1.00	CH	Prod:	5.0000 UH	Lab Pcs:	5.00		Eqp Pcs:				1.00
2CONC3000		3000 PSI Concrete	1.00	5.00	CY	104.200		521							521
8TRPU		Truck - Pickup Ex. Cab	1.00	1.00	HR	14.000					14				14
C		Carpenter	2.00	2.00	MH *	45.270	91								91
CF		Carpenter-Foreman	1.00	1.00	MH *	48.300	48								48
L2		Lab-Concrete,GuinCha	2.00	2.00	MH *	24.065	48								48
\$721.97		1.0000 MH/CY		5.00	MH	[23.6]	187	521			14				722
0.1250	Shifts	40.0000 Un/Shift		1.0000	Unit/MH		37.39	104.20			2.80				144.39
345F Finish Pad															
						Quan:	110.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		**Unreviewed
<u>SSFIN2</u>		Finisher 2		1.50	CH	Prod:	73.3333 UH	Lab Pcs:	2.00		Eqp Pcs:				0.00
F		Concrete Finisher	2.00	3.00	MH *	31.530	95								95
\$94.59		0.0272 MH/SF		3.00	MH	[0.573]	95								95
0.1875	Shifts	586.6667 Un/Shift		36.6667	Unit/MH		0.86								0.86
345G Cure Pad															
						Quan:	110.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		**Unreviewed
<u>SSCURE</u>		Cure Crew		0.10	CH	Prod:	1,100.0000 UH	Lab Pcs:	1.00		Eqp Pcs:				0.00
2CUREMATL		Cure Material	1.00	110.00	SF	0.050		6							6
L2		Lab-Concrete,GuinCha	1.00	0.10	MH *	24.100	2								2
\$7.91		0.0009 MH/SF		0.10	MH	[0.014]	2	6							8
0.0125	Shifts	8,800.0000 Un/Shift		1,100.0011	Unit/MH		0.02	0.05							0.07

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 345										SS
Description = PRODUCT GAS COMPRESSOR										0.000
Unit = CY Takeoff Quan: 4.000 Engr Quan: 0.000										
345H	Backfill Pad				Quan: 42.00 LF	Hrs/Shift: 8.00	Cal: 508	WC: AZ00		
										**Unreviewed
<u>SSBHE1</u>	Backhoe Exc Crew		1.50 CH	Prod:	28.0000 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	
8BA580	Backhoe - 580 Case	1.00	1.50 HR	33.000				50		50
L2	Lab-Concrete,GuinCha	2.00	3.00 MH *	24.063	72					72
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	1.50 MH *	36.680	55					55
\$176.71	0.1071 MH/LF		4.50 MH	[1.964]	127			50		177
0.1875 Shifts	224.0000 Un/Shift		9.3333 Unit/MH		3.03			1.18		4.21
Item Totals: 345 - PRODUCT GAS COMPRESSOR										
\$1,692.78	6.7125 MH/CY		26.85 MH	[148.438]	930	527	84	152		1,693
423.195	4 CY				232.51	131.63	21.00	38.06		423.20

BID ITEM = 350										SS
Description = LUBE OIL SKID										0.000
Unit = CY Takeoff Quan: 4.000 Engr Quan: 0.000										
350C	GLT				Quan: 110.00 SF	Hrs/Shift: 8.00	Cal: 508	WC: AZ00		
										**Unreviewed
<u>SSGLT</u>	GLT Crew		1.50 CH	Prod:	73.3333 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00	
L2	Lab-Concrete,GuinCha	2.00	3.00 MH *	24.063	72					72
\$72.19	0.0272 MH/SF		3.00 MH	[0.409]	72					72
0.1875 Shifts	586.6667 Un/Shift		36.6667 Unit/MH		0.66					0.66
350D	Form Edges				Quan: 42.00 SF	Hrs/Shift: 8.00	Cal: 508	WC: AZ00		
										**Unreviewed
<u>SSFM4</u>	Form Crew 4		2.50 CH	Prod:	16.8000 UH	Lab Pcs:	4.50	Eqp Pcs:	1.50	
3FORMSSF	Form Rental Rate SF	1.00	42.00 SF	2.000		84				84
8MIFORKLIFT	Forklift - 10K reach	0.50	1.25 HR	43.000				54		54
8TRPU	Truck - Pickup Ex. Cab	1.00	2.50 HR	14.000				35		35
C	Carpenter	2.00	5.00 MH *	45.268	226					226
CF	Carpenter-Foreman	1.00	2.50 MH *	48.296	121					121
L2	Lab-Concrete,GuinCha	1.00	2.50 MH *	24.064	60					60
O1	Oper- Load<3CY,Dirt Rolle	0.50	1.25 MH *	31.536	39					39
\$619.41	0.2678 MH/SF		11.25 MH	[6.756]	447		84	89		619
0.3125 Shifts	134.4000 Un/Shift		3.7333 Unit/MH		10.63		2.00	2.11		14.75
350E	Pour Pad				Quan: 5.00 CY	Hrs/Shift: 8.00	Cal: 508	WC: AZ00		
										**Unreviewed
<u>SSFM1</u>	Form Crew 1		1.00 CH	Prod:	5.0000 UH	Lab Pcs:	5.00	Eqp Pcs:	1.00	
2CONC3000	3000 PSI Concrete	1.00	5.00 CY	104.200	521					521
8TRPU	Truck - Pickup Ex. Cab	1.00	1.00 HR	14.000				14		14
C	Carpenter	2.00	2.00 MH *	45.270	91					91
CF	Carpenter-Foreman	1.00	1.00 MH *	48.300	48					48
L2	Lab-Concrete,GuinCha	2.00	2.00 MH *	24.065	48					48
\$721.97	1.0000 MH/CY		5.00 MH	[23.6]	187	521		14		722
0.1250 Shifts	40.0000 Un/Shift		1.0000 Unit/MH		37.39	104.20		2.80		144.39
350F	Finish Pad				Quan: 110.00 SF	Hrs/Shift: 8.00	Cal: 508	WC: AZ00		
										**Unreviewed
<u>SSFIN2</u>	Finisher 2		1.50 CH	Prod:	73.3333 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00	
F	Concrete Finisher	2.00	3.00 MH *	31.530	95					95
\$94.59	0.0272 MH/SF		3.00 MH	[0.573]	95					95
0.1875 Shifts	586.6667 Un/Shift		36.6667 Unit/MH		0.86					0.86

Cost Report

Activity	Desc	Quantity	Unit	Unit Cost	Labor	Perm	Constr	Equip	Sub-	Total
Resource		Pcs				Material	Matl/Exp	Ment	Contract	
BID ITEM = 350										SS
Description =	LUBE OIL SKID		Unit =	CY	Takeoff Quan:		4.000	Engr Quan:		0.000
350G	Cure Pad		Quan:	110.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSCURE	Cure Crew		0.10 CH	Prod: 1,100.0000	UH	Lab Pcs:	1.00	Eqp Pcs:		0.00
2CUREMATL	Cure Material	1.00	110.00 SF	0.050		6				6
L2	Lab-Concrete,GuinCha	1.00	0.10 MH *	24.100	2					2
\$7.91	0.0009 MH/SF		0.10 MH	[0.014]	2	6				8
0.0125 Shifts	8,800.0000 Un/Shift		1,100.0011 Unit/MH		0.02	0.05				0.07
350H	Backfill Pad		Quan:	42.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSBHE1	Backhoe Exc Crew		1.50 CH	Prod: 28.0000	UH	Lab Pcs:	3.00	Eqp Pcs:		1.00
8BA580	Backhoe - 580 Case	1.00	1.50 HR	33.000				50		50
L2	Lab-Concrete,GuinCha	2.00	3.00 MH *	24.063	72					72
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	1.50 MH *	36.680	55					55
\$176.71	0.1071 MH/LF		4.50 MH	[1.964]	127			50		177
0.1875 Shifts	224.0000 Un/Shift		9.3333 Unit/MH		3.03			1.18		4.21
Item Totals: 350 - LUBE OIL SKID										
\$1,692.78	6.7125 MH/CY		26.85 MH	[148.438]	930	527	84	152		1,693
423.195	4 CY				232.51	131.63	21.00	38.06		423.20

BID ITEM = 355										SS
Description = CHILLER SKID										0.000
Unit = CY Takeoff Quan: 4.000 Engr Quan:										
355C GLT										Quan: 110.00 SF Hrs/Shift: 8.00 Cal: 508 WC: AZ00
SSGLT GLT Crew 1.50 CH Prod: 73.3333 UH Lab Pcs: 2.00 Eqp Pcs:										**Unreviewed 0.00
L2 Lab-Concrete,GuinCha 2.00 3.00 MH * 24.063 72										72
\$72.19 0.0272 MH/SF 3.00 MH [0.409] 72										72
0.1875 Shifts 586.6667 Un/Shift 36.6667 Unit/MH 0.66										0.66
355D Form Edges										Quan: 42.00 SF Hrs/Shift: 8.00 Cal: 508 WC: AZ00
SSFM4 Form Crew 4 2.50 CH Prod: 16.8000 UH Lab Pcs: 4.50 Eqp Pcs:										**Unreviewed 1.50
3FORMSSF Form Rental Rate SF 1.00 42.00 SF 2.000 84										84
8MIFORKLIFT Forklift - 10K reach 0.50 1.25 HR 43.000 54										54
8TRPU Truck - Pickup Ex. Cab 1.00 2.50 HR 14.000 35										35
C Carpenter 2.00 5.00 MH * 45.268 226										226
CF Carpenter-Foreman 1.00 2.50 MH * 48.296 121										121
L2 Lab-Concrete,GuinCha 1.00 2.50 MH * 24.064 60										60
O1 Oper- Load<3CY,Dirt Rolle 0.50 1.25 MH * 31.536 39										39
\$619.41 0.2678 MH/SF 11.25 MH [6.756] 447 84 89										619
0.3125 Shifts 134.4000 Un/Shift 3.7333 Unit/MH 10.63 2.00 2.11										14.75
355E Pour Pad										Quan: 5.00 CY Hrs/Shift: 8.00 Cal: 508 WC: AZ00
SSFM1 Form Crew 1 1.00 CH Prod: 5.0000 UH Lab Pcs: 5.00 Eqp Pcs:										**Unreviewed 1.00
2CONC3000 3000 PSI Concrete 1.00 5.00 CY 104.200 521										521
8TRPU Truck - Pickup Ex. Cab 1.00 1.00 HR 14.000 14										14
C Carpenter 2.00 2.00 MH * 45.270 91										91
CF Carpenter-Foreman 1.00 1.00 MH * 48.300 48										48
L2 Lab-Concrete,GuinCha 2.00 2.00 MH * 24.065 48										48
\$721.97 1.0000 MH/CY 5.00 MH [23.6] 187 521 14										722
0.1250 Shifts 40.0000 Un/Shift 1.0000 Unit/MH 37.39 104.20 2.80										144.39

Cost Report

Activity	Desc	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip	Sub-Contract	Total
Resource	Pcs							Ment		
BID ITEM = 355										SS
Description = CHILLER SKID			Unit = CY	Takeoff Quan:	4.000	Engr Quan:				0.000
355F	Finish Pad		Quan:	110.00 SF	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSFIN2	Finisher 2	1.50	CH	Prod:	73.3333 UH	Lab Pcs:	2.00	Eqp Pcs:		0.00
F	Concrete Finisher	2.00	3.00 MH *	31.530	95					95
\$94.59	0.0272 MH/SF		3.00 MH	[0.573]	95					95
0.1875	Shifts	586.6667 Un/Shift	36.6667 Unit/MH		0.86					0.86
355G	Cure Pad		Quan:	110.00 SF	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSCURE	Cure Crew	0.10	CH	Prod:	1,100.0000 UH	Lab Pcs:	1.00	Eqp Pcs:		0.00
2CUREMATL	Cure Material	1.00	110.00 SF	0.050	6					6
L2	Lab-Concrete,GuinCha	1.00	0.10 MH *	24.100	2					2
\$7.91	0.0009 MH/SF		0.10 MH	[0.014]	2	6				8
0.0125	Shifts	8,800.0000 Un/Shift	1,100.0011 Unit/MH		0.02	0.05				0.07
355H	Backfill Pad		Quan:	42.00 LF	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSBHE1	Backhoe Exc Crew	1.50	CH	Prod:	28.0000 UH	Lab Pcs:	3.00	Eqp Pcs:		1.00
8BA580	Backhoe - 580 Case	1.00	1.50 HR	33.000			50			50
L2	Lab-Concrete,GuinCha	2.00	3.00 MH *	24.063	72					72
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	1.50 MH *	36.680	55					55
\$176.71	0.1071 MH/LF		4.50 MH	[1.964]	127		50			177
0.1875	Shifts	224.0000 Un/Shift	9.3333 Unit/MH		3.03		1.18			4.21
====> Item Totals: 355 - CHILLER SKID										
\$1,692.78	6.7125 MH/CY		26.85 MH	[148.438]	930	527	84	152		1,693
423.195	4 CY				232.51	131.63	21.00	38.06		423.20

BID ITEM = 360									
Description = COOLING SYSTEM SKID									
Unit = CY				Takeoff Quan:	4.000	Engr Quan:	SS	0.000	
360C	GLT	Quan:		110.00 SF	Hrs/Shft:	8.00	Cal: 508	WC: AZ00	**Unreviewed
<u>SSGLT</u>	GLT Crew	1.50	CH	Prod:	73.3333 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00
L2	Lab-Concrete,GuinCha	2.00	3.00 MH *	24.063	72				72
\$72.19	0.0272 MH/SF		3.00 MH	[0.409]	72				72
0.1875 Shifts	586.6667 Un/Shift		36.6667 Unit/MH		0.66				0.66
360D	Form Edges	Quan:		42.00 SF	Hrs/Shft:	8.00	Cal: 508	WC: AZ00	**Unreviewed
<u>SSFM4</u>	Form Crew 4	2.50	CH	Prod:	16.8000 UH	Lab Pcs:	4.50	Eqp Pcs:	1.50
3FORMSSF	Form Rental Rate SF	1.00	42.00 SF	2.000		84			84
8MIFORKLIFT	Forklift - 10K reach	0.50	1.25 HR	43.000			54		54
8TRPU	Truck - Pickup Ex. Cab	1.00	2.50 HR	14.000			35		35
C	Carpenter	2.00	5.00 MH *	45.268	226				226
CF	Carpenter-Foreman	1.00	2.50 MH *	48.296	121				121
L2	Lab-Concrete,GuinCha	1.00	2.50 MH *	24.064	60				60
O1	Oper- Load<3CY,Dirt Rolle	0.50	1.25 MH *	31.536	39				39
\$619.41	0.2678 MH/SF		11.25 MH	[6.756]	447	84	89		619
0.3125 Shifts	134.4000 Un/Shift		3.7333 Unit/MH		10.63	2.00	2.11		14.75
360E	Pour Pad	Quan:		5.00 CY	Hrs/Shft:	8.00	Cal: 508	WC: AZ00	**Unreviewed
<u>SSFM1</u>	Form Crew 1	1.00	CH	Prod:	5.0000 UH	Lab Pcs:	5.00	Eqp Pcs:	1.00
2CONC3000	3000 PSI Concrete	1.00	5.00 CY	104.200	521				521

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 360										SS
Description =	COOLING SYSTEM SKID		Unit =	CY	Takeoff Quan:		4.000	Engr Quan:		0.000
8TRPU	Truck - Pickup Ex. Cab	1.00	1.00 HR	14.000				14		14
C	Carpenter	2.00	2.00 MH *	45.270	91					91
CF	Carpenter-Foreman	1.00	1.00 MH *	48.300	48					48
L2	Lab-Concrete,GuinCha	2.00	2.00 MH *	24.065	48					48
\$721.97	1.0000 MH/CY		5.00 MH	[23.6]	187	521		14		722
0.1250 Shifts	40.0000 Un/Shift		1.0000 Unit/MH		37.39	104.20		2.80		144.39
360F Finish Pad										Quan: 110.00 SF Hrs/Shift: 8.00 Cal: 508 WC: AZ00
SSFIN2	Finisher 2		1.50 CH	Prod: 73.3333 UH	Lab Pcs:			2.00	Eqp Pcs:	0.00
F	Concrete Finisher	2.00	3.00 MH *	31.530	95					95
\$94.59	0.0272 MH/SF		3.00 MH	[0.573]	95					95
0.1875 Shifts	586.6667 Un/Shift		36.6667 Unit/MH		0.86					0.86
360G Cure Pad										Quan: 110.00 SF Hrs/Shift: 8.00 Cal: 508 WC: AZ00
SSCURE	Cure Crew		0.10 CH	Prod: 1,100.0000 UH	Lab Pcs:			1.00	Eqp Pcs:	0.00
2CUREMATL	Cure Material	1.00	110.00 SF	0.050	6					6
L2	Lab-Concrete,GuinCha	1.00	0.10 MH *	24.100	2					2
\$7.91	0.0009 MH/SF		0.10 MH	[0.014]	2	6				8
0.0125 Shifts	8,800.0000 Un/Shift		1,100.0011 Unit/MH		0.02	0.05				0.07
360H Backfill Pad										Quan: 42.00 LF Hrs/Shift: 8.00 Cal: 508 WC: AZ00
SSBHE1	Backhoe Exc Crew		1.50 CH	Prod: 28.0000 UH	Lab Pcs:			3.00	Eqp Pcs:	1.00
8BA580	Backhoe - 580 Case	1.00	1.50 HR	33.000				50		50
L2	Lab-Concrete,GuinCha	2.00	3.00 MH *	24.063	72					72
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	1.50 MH *	36.680	55					55
\$176.71	0.1071 MH/LF		4.50 MH	[1.964]	127			50		177
0.1875 Shifts	224.0000 Un/Shift		9.3333 Unit/MH		3.03			1.18		4.21
Item Totals: 360 - COOLING SYSTEM SKID										
\$1,692.78	6.7125 MH/CY		26.85 MH	[148.438]	930	527	84	152		1,693
423.195	4 CY				232.51	131.63	21.00	38.06		423.20

BID ITEM = 365										SS
Description =	H2S SKID		Unit =	CY	Takeoff Quan:		45.000	Engr Quan:		0.000
365C GLT										Quan: 816.00 SF Hrs/Shift: 8.00 Cal: 508 WC: AZ00
SSGLT	GLT Crew		8.00 CH	Prod: 102.0000 UH	Lab Pcs:			2.00	Eqp Pcs:	0.00
L2	Lab-Concrete,GuinCha	2.00	16.00 MH *	24.063	385					385
\$385.00	0.0196 MH/SF		16.00 MH	[0.294]	385					385
1.0000 Shifts	816.0000 Un/Shift		51.0000 Unit/MH		0.47					0.47
365D Form Edges										Quan: 174.00 SF Hrs/Shift: 8.00 Cal: 508 WC: AZ00
SSFM4	Form Crew 4		8.00 CH	Prod: 21.7500 UH	Lab Pcs:			4.50	Eqp Pcs:	1.50
3FORMSSF	Form Rental Rate SF	1.00	174.00 SF	2.000			348			348
8MIFORKLIFT	Forklift - 10K reach	0.50	4.00 HR	43.000				172		172
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000				112		112
C	Carpenter	2.00	16.00 MH *	45.268	724					724
CF	Carpenter-Foreman	1.00	8.00 MH *	48.296	386					386
L2	Lab-Concrete,GuinCha	1.00	8.00 MH *	24.063	193					193
O1	Oper- Load<3CY,Dirt Rolle	0.50	4.00 MH *	31.533	126					126
\$2,061.28	0.2068 MH/SF		36.00 MH	[5.218]	1,429		348	284		2,061

Cost Report

Activity	Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip	Sub-Ment	Contract	Total
BID ITEM = 365													
Description = H2S SKID						Unit =	CY	Takeoff	Quan:	45.000	Engr	Quan:	SS 0.000
1.0000	Shifts	174.0000	Un/Shift	4.8333	Unit/MH		8.21		2.00	1.63			11.85
365E	Pour Pad					Quan:	51.00 CY	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
SSFM1	Form.Crew 1			5.00	CH	Prod:	10.2000 UH		Lab Pcs:	5.00	Eqp Pcs:		**Unreviewed 1.00
2CONC3000	3000 PSI Concrete	1.00		51.00	CY	104.200		5,314					5,314
8TRPU	Truck - Pickup Ex. Cab	1.00		5.00	HR	14.000				70			70
C	Carpenter	2.00		10.00	MH *	45.268	453						453
CF	Carpenter-Foreman	1.00		5.00	MH *	48.296	241						241
L2	Lab-Concrete,GuinCha	2.00		10.00	MH *	24.063	241						241
\$6,318.99	0.4901 MH/CY			25.00	MH	[11.569]	935	5,314		70			6,319
0.6250	Shifts	81.6000	Un/Shift	2.0400	Unit/MH		18.33	104.20		1.37			123.90
365F	Finish Pad					Quan:	816.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
SSFIN2	Finisher 2			8.00	CH	Prod:	102.0000 UH		Lab Pcs:	2.00	Eqp Pcs:		**Unreviewed 0.00
F	Concrete Finisher	2.00		16.00	MH *	31.531	505						505
\$504.50	0.0196 MH/SF			16.00	MH	[0.412]	505						505
1.0000	Shifts	816.0000	Un/Shift	51.0000	Unit/MH		0.62						0.62
365G	Cure Pad					Quan:	816.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
SSCURE	Cure Crew			1.00	CH	Prod:	816.0000 UH		Lab Pcs:	1.00	Eqp Pcs:		**Unreviewed 0.00
2CUREMATL	Cure Material	1.00		816.00	SF	0.050		41					41
L2	Lab-Concrete,GuinCha	1.00		1.00	MH *	24.060	24						24
\$64.86	0.0012 MH/SF			1.00	MH	[0.018]	24	41					65
0.1250	Shifts	6,528.0000	Un/Shift	816.0001	Unit/MH		0.03	0.05					0.08
365H	Backfill Pad					Quan:	116.00 LF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
SSBHE1	Backhoe Exc Crew			3.50	CH	Prod:	33.1429 UH		Lab Pcs:	3.00	Eqp Pcs:		**Unreviewed 1.00
8BA580	Backhoe - 580 Case	1.00		3.50	HR	33.000				116			116
L2	Lab-Concrete,GuinCha	2.00		7.00	MH *	24.063	168						168
O3	Oper-Blade,TrkHoe,+6cyLo	1.00		3.50	MH *	36.680	128						128
\$412.32	0.0905 MH/LF			10.50	MH	[1.659]	297			116			412
0.4375	Shifts	265.1429	Un/Shift	11.0476	Unit/MH		2.56			1.00			3.55
Item Totals: 365 - H2S SKID													
\$9,746.95	2.3222 MH/CY			104.50	MH	[50.7]	3,574	5,355	348	470			9,747
216.599	45 CY						79.43	119.00	7.73	10.43			216.60

BID ITEM = 370										SS
Description = ALLOCATE SKIDS			Unit =	CY	Takeoff Quan:	4.000	Engr Quan:	0.000		
370C										
GLT			Quan:	100.00 SF	Hrs/Shift:	8.00	Cal:	508	WC: AZ00	
SSGLT										**Unreviewed
GLT Crew			1.50	CH	Prod:	66.6667 UH	Lab Pcs:	2.00	Eqp Pcs: 0.00	
L2 Lab-Concrete,GuinCha			2.00	3.00 MH *	24.063	72			72	
\$72.19 0.0300 MH/SF			3.00 MH	[0.45]	72				72	
0.1875 Shifts			533.3333 Un/Shift	33.3333 Unit/MH	0.72				0.72	
370D										
Form Edges			Quan:	60.00 SF	Hrs/Shift:	8.00	Cal:	508	WC: AZ00	
SSFM4										**Unreviewed
Form Crew 4			3.50	CH	Prod:	17.1429 UH	Lab Pcs:	4.50	Eqp Pcs: 1.50	
3FORMSSF Form Rental Rate SF			1.00	60.00 SF	2.000		120		120	
8MIFORKLIFT Forklift - 10K reach			0.50	1.75 HR	43.000			75	75	

Cost Report

Activity	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm	Constr	Equip	Sub-	Total
Resource							Material	Matl/Exp	Ment	Contract	
BID ITEM = 370											
Description =	ALLOCATE SKIDS			Unit =	CY	Takeoff Quan:		4.000	Engr Quan:		SS 0.000
8TRPU	Truck - Pickup Ex. Cab	1.00	3.50	HR	14.000				49		49
C	Carpenter	2.00	7.00	MH *	45.267	317					317
CF	Carpenter-Foreman	1.00	3.50	MH *	48.297	169					169
L2	Lab-Concrete,GuinCha	1.00	3.50	MH *	24.063	84					84
O1	Oper- Load<3CY,Dirt Rolle	0.50	1.75	MH *	31.537	55					55
\$869.57	0.2625 MH/SF		15.75	MH	[6.621]	625		120	124		870
0.4375 Shifts	137.1429 Un/Shift		3.8095	Unit/MH		10.42		2.00	2.07		14.49
370E Pour Pad											
				Quan:	5.00 CY	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSFM1	Form Crew 1		1.00	CH	Prod:	5.0000 UH	Lab Pcs:	5.00	Eqp Pcs:		1.00
2CONC3000	3000 PSI Concrete	1.00	5.00	CY	104.200	521					521
8TRPU	Truck - Pickup Ex. Cab	1.00	1.00	HR	14.000				14		14
C	Carpenter	2.00	2.00	MH *	45.270	91					91
CF	Carpenter-Foreman	1.00	1.00	MH *	48.300	48					48
L2	Lab-Concrete,GuinCha	2.00	2.00	MH *	24.065	48					48
\$721.97	1.0000 MH/CY		5.00	MH	[23.6]	187	521		14		722
0.1250 Shifts	40.0000 Un/Shift		1.0000	Unit/MH		37.39	104.20		2.80		144.39
370F Finish Pad											
				Quan:	100.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSFIN2	Finisher 2		1.50	CH	Prod:	66.6667 UH	Lab Pcs:	2.00	Eqp Pcs:		0.00
F	Concrete Finisher	2.00	3.00	MH *	31.530	95					95
\$94.59	0.0300 MH/SF		3.00	MH	[0.63]	95					95
0.1875 Shifts	533.3333 Un/Shift		33.3333	Unit/MH		0.95					0.95
370G Cure Pad											
				Quan:	100.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSCURE	Cure Crew		0.10	CH	Prod:	1,000.0000 UH	Lab Pcs:	1.00	Eqp Pcs:		0.00
2CUREMATL	Cure Material	1.00	100.00	SF	0.050	5					5
L2	Lab-Concrete,GuinCha	1.00	0.10	MH *	24.100	2					2
\$7.41	0.0010 MH/SF		0.10	MH	[0.015]	2	5				7
0.0125 Shifts	8,000.0000 Un/Shift		1,000.0000	Unit/MH		0.02	0.05				0.07
370H Backfill Pad											
				Quan:	60.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSBHE1	Backhoe Exc Crew		2.00	CH	Prod:	30.0000 UH	Lab Pcs:	3.00	Eqp Pcs:		1.00
8BA580	Backhoe - 580 Case	1.00	2.00	HR	33.000				66		66
L2	Lab-Concrete,GuinCha	2.00	4.00	MH *	24.063	96					96
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	2.00	MH *	36.680	73					73
\$235.61	0.1000 MH/LF		6.00	MH	[1.833]	170			66		236
0.2500 Shifts	240.0000 Un/Shift		10.0000	Unit/MH		2.83			1.10		3.93
Item Totals: 370 - ALLOCATE SKIDS											
\$2,001.34	8.2125 MH/CY		32.85	MH	[183.688]	1,151	526	120	204		2,001
500.335	4 CY					287.77	131.50	30.00	51.06		500.34

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 380										SS
Description =	EXCAVATION		Unit =	CY	Takeoff Quan:		81.000	Engr Quan:		0.000
380	EXCAVATION		Quan:	81.00 CY	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
SSBHE1	Backhoe Exc Crew		32.00 CH	Prod:	2.5313 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	
8BA580	Backhoe - 580 Case	1.00	32.00 HR	33.000				1,056		1,056
L2	Lab-Concrete,GuinCha	2.00	64.00 MH *	24.063	1,540					1,540
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	32.00 MH *	36.678	1,174					1,174
\$3,769.68	1.1851 MH/CY		96.00 MH	[21.728]	2,714			1,056		3,770
4.0000 Shifts	20.2500 Un/Shift		0.8438 Unit/MH		33.50			13.04		46.54
====>	Item Totals:	380	- EXCAVATION							
\$3,769.68	1.1851 MH/CY		96.00 MH	[21.728]	2,714			1,056		3,770
46.539	81 CY				33.50			13.04		46.54

Total of Above Sub-Biditems

====>	Item Totals:	325	- EXTERIOR SLABS							
\$45,002.52	4.9866 MH/CY		448.80 MH	[105.84]	14,877	10,990	1,200	2,935	15,000	45,003
500.028	90 CY				165.30	122.11	13.33	32.61	166.67	500.03

Total of Above Sub-Biditems

====>	Item Totals:	300	- CONCRETE							
\$87,539.99	1,122.3300 MH/LS		1,122.33 MH	[23976.89]	37,423	17,735	3,936	10,797	17,648	87,540
87,539.990	1 LS				37,423.22	17,735.40	3,936.00	10,797.37	17,648.00	87,539.99

PARENT ITEM = 400

Description = SITEWORK

Unit = LS Takeoff Quan: 1.000 Engr Quan: 1.000

Listing of Sub-Biditems of Parent Item 400:

BID ITEM = 405

Description = SUBGRADE

Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000

405A	OG Compaction for Entire Site		Quan:	2,833.00 SY	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
SSOG	OG Crew		5.00 CH	Prod:	566.6000 UH	Lab Pcs:	4.00	Eqp Pcs:	4.00	**Unreviewed
8BL14H	Blade - 14H Cat	1.00	5.00 HR	73.000				365		365
8ROSD115	Roller-SD115	1.00	5.00 HR	50.500				253		253
8TRPU	Truck - Pickup Ex. Cab	1.00	5.00 HR	14.000				70		70
8WA3900	Water Truck - 3900 Gal	1.00	5.00 HR	48.000				240		240
O2	Oper-Plnt,SmHoe,Paver,Ser	1.00	5.00 MH *	34.104	171					171
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	5.00 MH *	36.678	183					183
OF	Oper-Foreman	1.00	5.00 MH *	42.986	215					215
T3	Team-Mixer<10CY,H2O<4	1.00	5.00 MH *	26.586	133					133
\$1,629.27	0.0070 MH/SY		20.00 MH	[0.168]	702			928		1,629
0.6250 Shifts	4,532.8000 Un/Shift		141.6501 Unit/MH		0.25			0.33		0.58

Cost Report

Activity	Desc	Quantity	Unit	Unit Cost	Labor	Perm	Constr	Equip	Sub-	Total
Resource		Pcs				Material	Matl/Exp	Ment	Contract	
BID ITEM = 405										SS
Description = SUBGRADE										0.000
Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000										
405D	Balance Entire Site				Quan: 2,833.00 SY	Hrs/Shft: 8.00	Cal: 508	WC: AZ00		
SSBAL	Balance Crew		8.00 CH	Prod: 354.1250 UH	Lab Pcs: 4.50	Eqp Pcs: 3.50	**Unreviewed			
8BL14H	Blade - 14H Cat	1.00	8.00 HR	73.000		584				584
8SC615	Scraper - 615 Cat	0.50	4.00 HR	92.000		368				368
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000		112				112
8WA3900	Water Truck - 3900 Gal	1.00	8.00 HR	48.000		384				384
O1	Oper- Load<3CY,Dirt Rolle	1.00	8.00 MH *	31.531	252					252
O2	Oper-Plnt,SmHoe,Paver,Scr	0.50	4.00 MH *	34.105	136					136
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	8.00 MH *	36.678	293					293
OF	Oper-Foreman	1.00	8.00 MH *	42.985	344					344
T3	Team-Mixer<10CY,H2O<4	1.00	8.00 MH *	26.585	213					213
\$2,686.65	0.0127 MH/SY		36.00 MH	[0.295]	1,239			1,448		2,687
1.0000 Shifts	2,833.0000 Un/Shift		78.6945 Unit/MH		0.44			0.51		0.95
405E	Finish Subgrade on Entire Site (Initial)				Quan: 1,661.00 SY	Hrs/Shft: 8.00	Cal: 508	WC: AZ00		
SSFSG	Finish Subgrade Crew		6.00 CH	Prod: 276.8333 UH	Lab Pcs: 5.50	Eqp Pcs: 4.50	**Unreviewed			
8BL14H	Blade - 14H Cat	1.00	6.00 HR	73.000		438				438
8ROSD115	Roller-SD115	1.00	6.00 HR	50.500		303				303
8SC615	Scraper - 615 Cat	0.50	3.00 HR	92.000		276				276
8TRPU	Truck - Pickup Ex. Cab	1.00	6.00 HR	14.000		84				84
8WA3900	Water Truck - 3900 Gal	1.00	6.00 HR	48.000		288				288
O1	Oper- Load<3CY,Dirt Rolle	1.00	6.00 MH *	31.532	189					189
O2	Oper-Plnt,SmHoe,Paver,Scr	1.50	9.00 MH *	34.104	307					307
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	6.00 MH *	36.678	220					220
OF	Oper-Foreman	1.00	6.00 MH *	42.985	258					258
T3	Team-Mixer<10CY,H2O<4	1.00	6.00 MH *	26.585	160					160
\$2,522.62	0.0198 MH/SY		33.00 MH	[0.461]	1,134			1,389		2,523
0.7500 Shifts	2,214.6667 Un/Shift		50.3334 Unit/MH		0.68			0.84		1.52
405F	Final Subgrade Main Site				Quan: 2,000.00 SY	Hrs/Shft: 8.00	Cal: 508	WC: AZ00		
SSFSG1	Finish Subgrade Crew		12.60 CH	Prod: 158.7138 UH	Lab Pcs: 7.00	Eqp Pcs: 4.00	**Unreviewed			
8BA480	Backhoe - 570LL Gannon	1.00	12.60 HR	29.000		365				365
8ROSD115	Roller-SD115	1.00	12.60 HR	50.500		636				636
8TRPU	Truck - Pickup Ex. Cab	1.00	12.60 HR	14.000		176				176
8WA3900	Water Truck - 3900 Gal	1.00	12.60 HR	48.000		605				605
L2	Lab-Concrete,GuinCha	2.00	25.20 MH *	24.063	606					606
O1	Oper- Load<3CY,Dirt Rolle	2.00	25.20 MH *	31.531	795					795
O2	Oper-Plnt,SmHoe,Paver,Scr	1.00	12.60 MH *	34.104	430					430
OF	Oper-Foreman	1.00	12.60 MH *	42.985	542					542
T3	Team-Mixer<10CY,H2O<4	1.00	12.60 MH *	26.585	335					335
\$4,490.16	0.0441 MH/SY		88.20 MH	[0.895]	2,707			1,783		4,490
1.5750 Shifts	1,269.8413 Un/Shift		22.6757 Unit/MH		1.35			0.89		2.25
405G	Finish Subgrade Roadway Portion				Quan: 550.00 SY	Hrs/Shft: 8.00	Cal: 508	WC: AZ00		
SSFSG	Finish Subgrade Crew		2.50 CH	Prod: 220.0000 UH	Lab Pcs: 5.50	Eqp Pcs: 4.50				
8BL14H	Blade - 14H Cat	1.00	2.50 HR	73.000		183				183
8ROSD115	Roller-SD115	1.00	2.50 HR	50.500		126				126
8SC615	Scraper - 615 Cat	0.50	1.25 HR	92.000		115				115
8TRPU	Truck - Pickup Ex. Cab	1.00	2.50 HR	14.000		35				35
8WA3900	Water Truck - 3900 Gal	1.00	2.50 HR	48.000		120				120
O1	Oper- Load<3CY,Dirt Rolle	1.00	2.50 MH *	31.532	79					79
O2	Oper-Plnt,SmHoe,Paver,Scr	1.50	3.75 MH *	34.107	128					128
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	2.50 MH *	36.680	92					92
OF	Oper-Foreman	1.00	2.50 MH *	42.984	107					107

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 405										SS
Description =	SUBGRADE		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		0.000
T3	Team-Mixer<10CY,H2O<4	1.00	2.50 MH *	26.588	66					66
\$1,051.11	0.0250 MH/SY		13.75 MH	[0.58]	472			579		1,051
0.3125 Shifts	1,760.0000 Un/Shift		40.0000 Unit/MH		0.86			1.05		1.91
405H Grade after Paving/Parkway Grading										
			Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSFCU	Final Cleanup Crew		16.00 CH	Prod:	0.0625 UH		Lab Pcs:	6.00	Eqp Pcs:	3.00
8BA480	Backhoe - 570LL Gannon	1.00	16.00 HR	29.000				464		464
8TRPU	Truck - Pickup Ex. Cab	1.00	16.00 HR	14.000				224		224
8WA3900	Water Truck - 3900 Gal	1.00	16.00 HR	48.000				768		768
L2	Lab-Concrete,GuinCha	2.00	32.00 MH *	24.063	770					770
O1	Oper- Load<3CY,Dirt Rolle	2.00	32.00 MH *	31.532	1,009					1,009
OF	Oper-Foreman	1.00	16.00 MH *	42.985	688					688
T3	Team-Mixer<10CY,H2O<4	1.00	16.00 MH *	26.586	425					425
\$4,348.14	96.0000 MH/LS		96.00 MH	[1904]	2,892			1,456		4,348
2.0000 Shifts	0.5000 Un/Shift		0.0104 Unit/MH		2,892.14			1,456.00		4,348.14
405I Install DG										
			Quan:	520.00 SY	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSFCU	Final Cleanup Crew		28.00 CH	Prod:	18.5714 UH		Lab Pcs:	6.00	Eqp Pcs:	3.00
2DECOMPGRAN	Decomposed Granite	1.00	88.00 TN	25.000	2,200					2,200
8BA480	Backhoe - 570LL Gannon	1.00	28.00 HR	29.000				812		812
8TRPU	Truck - Pickup Ex. Cab	1.00	28.00 HR	14.000				392		392
8WA3900	Water Truck - 3900 Gal	1.00	28.00 HR	48.000				1,344		1,344
L2	Lab-Concrete,GuinCha	2.00	56.00 MH *	24.063	1,348					1,348
O1	Oper- Load<3CY,Dirt Rolle	2.00	56.00 MH *	31.531	1,766					1,766
OF	Oper-Foreman	1.00	28.00 MH *	42.985	1,204					1,204
T3	Team-Mixer<10CY,H2O<4	1.00	28.00 MH *	26.585	744					744
\$9,809.23	0.3230 MH/SY		168.00 MH	[6.408]	5,061	2,200		2,548		9,809
3.5000 Shifts	148.5714 Un/Shift		3.0952 Unit/MH		9.73	4.23		4.90		18.86
Item Totals: 405 - SUBGRADE										
\$26,537.18	454.9500 MH/LS		454.95 MH	[9419.95]	14,207	2,200		10,130		26,537
26,537.180	1 LS				14,207.03	2,200.00		10,130.15		26,537.18

BID ITEM = 410										SS
Description =	AGGREGATE BASE		Unit =	CY	Takeoff Quan:		261.000	Engr Quan:		0.000
410A Purchase and Haul ABC										
			Quan:	520.00 TNS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
2ABDELIVER	ABC Delivered	1.00	520.00 TNS	10.500	5,460					5,460
410B Place ABC										
			Quan:	520.00 TNS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSPLFL	Place Fill Crew		8.00 CH	Prod:	65.0000 UH		Lab Pcs:	5.00	Eqp Pcs:	4.00
8BL14H	Blade - 14H Cat	1.00	8.00 HR	73.000				584		584
8ROSD115	Roller-SD115	1.00	8.00 HR	50.500				404		404
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000				112		112
8WA3900	Water Truck - 3900 Gal	1.00	8.00 HR	48.000				384		384
O1	Oper- Load<3CY,Dirt Rolle	1.00	8.00 MH *	31.531	252					252
O2	Oper-Plnt,SmHoe,Paver,Scr	1.00	8.00 MH *	34.105	273					273
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	8.00 MH *	36.678	293					293
OF	Oper-Foreman	1.00	8.00 MH *	42.985	344					344
T3	Team-Mixer<10CY,H2O<4	1.00	8.00 MH *	26.585	213					213
\$2,859.07	0.0769 MH/TNS		40.00 MH	[1.785]	1,375			1,484		2,859
1.0000 Shifts	520.0000 Un/Shift		13.0000 Unit/MH		2.64			2.85		5.50

Cost Report

Activity	Desc	Quantity	Unit	Unit	Perm	Constr	Equip	Sub-	Total
Resource		Pcs		Cost	Labor	Material	Matl/Exp	Ment Contract	
BID ITEM = 410									SS
Description = AGGREGATE BASE									0.000
Unit = CY Takeoff Quan: 261.000 Engr Quan:									
410C	Balance ABC			Quan: 520.00 TNS	Hrs/Shft: 8.00	Cal: 508	WC: AZ00		**Unreviewed
SSBAL	Balance Crew		5.00 CH	Prod: 104.0000 UH	Lab Pcs: 4.50	Eqp Pcs: 3.50			
8BL14H	Blade - 14H Cat	1.00	5.00 HR	73.000		365			365
8SC615	Scraper - 615 Cat	0.50	2.50 HR	92.000		230			230
8TRPU	Truck - Pickup Ex. Cab	1.00	5.00 HR	14.000		70			70
8WA3900	Water Truck - 3900 Gal	1.00	5.00 HR	48.000		240			240
O1	Oper- Load<3CY,Dirt Rolle	1.00	5.00 MH *	31.532	158				158
O2	Oper-Plnt,SmHoe,Paver,Scr	0.50	2.50 MH *	34.104	85				85
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	5.00 MH *	36.678	183				183
OF	Oper-Foreman	1.00	5.00 MH *	42.986	215				215
T3	Team-Mixer<10CY,H2O<4	1.00	5.00 MH *	26.586	133				133
\$1,679.17	0.0432 MH/TNS		22.50 MH	[1.005]	774	905			1,679
0.6250 Shifts	832.0000 Un/Shift		23.1111 Unit/MH		1.49	1.74			3.23
410D	Finish ABC Main Site			Quan: 709.00 SY	Hrs/Shft: 8.00	Cal: 508	WC: AZ00		**Unreviewed
SSFSG1	Finish Subgrade Crew		12.00 CH	Prod: 59.0833 UH	Lab Pcs: 7.00	Eqp Pcs: 4.00			
8BA480	Backhoe - 570LL Gannon	1.00	12.00 HR	29.000		348			348
8ROSD115	Roller-SD115	1.00	12.00 HR	50.500		606			606
8TRPU	Truck - Pickup Ex. Cab	1.00	12.00 HR	14.000		168			168
8WA3900	Water Truck - 3900 Gal	1.00	12.00 HR	48.000		576			576
L2	Lab-Concrete,GuinCha	2.00	24.00 MH *	24.063	578				578
O1	Oper- Load<3CY,Dirt Rolle	2.00	24.00 MH *	31.532	757				757
O2	Oper-Plnt,SmHoe,Paver,Scr	1.00	12.00 MH *	34.104	409				409
OF	Oper-Foreman	1.00	12.00 MH *	42.985	516				516
T3	Team-Mixer<10CY,H2O<4	1.00	12.00 MH *	26.586	319				319
\$4,276.36	0.1184 MH/SY		84.00 MH	[2.403]	2,578	1,698			4,276
1.5000 Shifts	472.6667 Un/Shift		8.4405 Unit/MH		3.64	2.39			6.03
410E	Finish ABC Haul Road			Quan: 550.00 SY	Hrs/Shft: 8.00	Cal: 508	WC: AZ00		**Unreviewed
SSFSG	Finish Subgrade Crew		2.50 CH	Prod: 220.0000 UH	Lab Pcs: 5.50	Eqp Pcs: 4.50			
8BL14H	Blade - 14H Cat	1.00	2.50 HR	73.000		183			183
8ROSD115	Roller-SD115	1.00	2.50 HR	50.500		126			126
8SC615	Scraper - 615 Cat	0.50	1.25 HR	92.000		115			115
8TRPU	Truck - Pickup Ex. Cab	1.00	2.50 HR	14.000		35			35
8WA3900	Water Truck - 3900 Gal	1.00	2.50 HR	48.000		120			120
O1	Oper- Load<3CY,Dirt Rolle	1.00	2.50 MH *	31.532	79				79
O2	Oper-Plnt,SmHoe,Paver,Scr	1.50	3.75 MH *	34.107	128				128
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	2.50 MH *	36.680	92				92
OF	Oper-Foreman	1.00	2.50 MH *	42.984	107				107
T3	Team-Mixer<10CY,H2O<4	1.00	2.50 MH *	26.588	66				66
\$1,051.11	0.0250 MH/SY		13.75 MH	[0.58]	472	579			1,051
0.3125 Shifts	1,760.0000 Un/Shift		40.0000 Unit/MH		0.86	1.05			1.91
Item Totals: 410 - AGGREGATE BASE									
\$15,325.71	0.6139 MH/CY		160.25 MH	[13.307]	5,200	5,460	4,666		15,326
58.719	261 CY				19.92	20.92	17.88		58.72

BID ITEM = 415
 Description = ASPHALT Unit = TNS Takeoff Quan: 254.000 Engr Quan: 0.000

415C Hand Pave Small Areas Quan: 1.00 LS Hrs/Shft: 8.00 Cal: 508 WC: AZ00

Cost Report

Activity	Desc	Quantity	Unit	Unit	Perm	Constr	Equip	Sub-	Total
Resource		Pcs		Cost	Labor	Material	Matl/Exp	Ment Contract	
BID ITEM = 415									SS
Description =	ASPHALT		Unit =	TNS	Takeoff Quan:	254.000	Engr Quan:		0.000
<u>SSHP</u>	Hand Pave Crew		16.00 CH	Prod:	0.0625 UH	Lab Pcs:	6.25	Eqp Pcs:	2.25
8BA480	Backhoe - 570LL Gannon	1.00	16.00 HR	29.000			464		464
8ROVIB	Roller-Vibratory DD110	1.00	16.00 HR	96.000			1,536		1,536
8WA3900	Water Truck - 3900 Gal	0.25	4.00 HR	48.000			192		192
L4	Lab-Raker,Pipe,JHam	4.00	64.00 MH *	25.324	1,621				1,621
O1	Oper- Load<3CY,Dirt Rolle	1.00	16.00 MH *	31.531	505				505
O2	Oper-Plnt,SmHoe,Paver,Scr	1.00	16.00 MH *	34.104	546				546
T3	Team-Mixer<10CY,H2O<4	0.25	4.00 MH *	26.585	106				106
\$4,969.25	100.0000 MH/LS		100.00 MH	[1796]	2,777		2,192		4,969
2.0000 Shifts	0.5000 Un/Shift		0.0100 Unit/MH		2,777.25		2,192.00		4,969.25
415A Purchase and Haul AC									SS
			Quan:	254.00 TNS	Hrs/Shft:	8.00	Cal: 508	WC: AZ00	**Unreviewed
2ACPAG1	PAG I AC	1.00	274.00 TN	54.500	14,933				14,933
8ZSUP18	=> Rental Super 18 Truck	1.00	24.00 HR	92.500			2,220		2,220
\$17,153.00				[]	14,933		2,220		17,153
					58.79		8.74		67.53
415B Place AC									SS
			Quan:	254.00 TNS	Hrs/Shft:	8.00	Cal: 508	WC: AZ00	**Unreviewed
<u>SSPAVE</u>	Paving Crew		8.00 CH	Prod:	31.7500 UH	Lab Pcs:	9.50	Eqp Pcs:	4.50
8BA480	Backhoe - 570LL Gannon	0.25	2.00 HR	29.000			58		58
8PAPAVR	Paver - Cat1055D	1.00	8.00 HR	155.500			1,244		1,244
8ROVIB	Roller-Vibratory DD110	2.00	16.00 HR	96.000			1,536		1,536
8TRMECH	Truck - Mechanic	1.00	8.00 HR	25.500			204		204
8WA3900	Water Truck - 3900 Gal	0.25	2.00 HR	48.000			96		96
L4	Lab-Raker,Pipe,JHam	4.00	32.00 MH *	25.324	810				810
O1	Oper- Load<3CY,Dirt Rolle	0.25	2.00 MH *	31.530	63				63
O2	Oper-Plnt,SmHoe,Paver,Scr	2.00	16.00 MH *	34.104	546				546
O3	Oper-Blade,TrkHoe,+6cyLo	3.00	24.00 MH *	36.678	880				880
T3	Team-Mixer<10CY,H2O<4	0.25	2.00 MH *	26.585	53				53
\$5,490.53	0.2992 MH/TNS		76.00 MH	[6.126]	2,353		3,138		5,491
1.0000 Shifts	254.0000 Un/Shift		3.3421 Unit/MH		9.26		12.35		21.62
Item Totals: 415 - ASPHALT									
\$27,612.78	0.6929 MH/TNS		176.00 MH	[13.197]	5,130	14,933	7,550		27,613
108.712	254 TNS				20.20	58.79	29.72		108.71

BID ITEM = 420									SS
Description =	PIPE AT H2S		Unit =	LF	Takeoff Quan:	60.000	Engr Quan:		0.000
420A Install Pipe at H2S									SS
			Quan:	60.00 LF	Hrs/Shft:	8.00	Cal: 508	WC: AZ00	**Unreviewed
<u>SSPIPE</u>	Pipe Crew		5.00 CH	Prod:	12.0000 UH	Lab Pcs:	5.00	Eqp Pcs:	3.00
2ABDELIVER	ABC Delivered	1.00	40.38 TNS	10.500	424				424
4PIPECMP	18" CMP Pipe	1.00	60.00 LF	37.750				2,265	2,265
8BA580	Backhoe - 580 Case	1.00	5.00 HR	33.000			165		165
8LO4CY	Loader - 950G	1.00	5.00 HR	68.000			340		340
8TRPU	Truck - Pickup Ex. Cab	1.00	5.00 HR	14.000			70		70
L4	Lab-Raker,Pipe,JHam	1.00	5.00 MH *	25.324	127				127
MJ	Metal Trades-Journeyman	1.00	5.00 MH *	40.012	200				200
O2	Oper-Plnt,SmHoe,Paver,Scr	1.00	5.00 MH *	34.104	171				171
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	5.00 MH *	36.678	183				183
OF	Oper-Foreman	1.00	5.00 MH *	42.986	215				215
\$4,159.51	0.4166 MH/LF		25.00 MH	[10.167]	896	424	575	2,265	4,160
0.6250 Shifts	96.0000 Un/Shift		2.4000 Unit/MH		14.93	7.07	9.58	37.75	69.33

Cost Report

Activity	Desc	Quantity	Unit	Unit Cost	Labor	Perm	Material	Constr	Equip	Sub-	Total
Resource		Pcs						Matl/Exp	Ment	Contract	
BID ITEM = 420											
Description =	PIPE AT H2S		Unit =	LF	Takeoff Quan:		60.000		Engr Quan:	SS	
										0.000	
420B	Install Headwalls		Quan:	2.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00			
<u>SSFM1</u>	Form Crew 1		32.00 CH	Prod:	0.0625 UH	Lab Pcs:	5.00	Eqp Pcs:	1.00		
2CONC4000	4000 PSI Concrete	1.00	12.00 CY	113.000		1,356				1,356	
3FORMSSF	Form Rental Rate SF	1.00	560.00 SF	2.000			1,120			1,120	
8TRPU	Truck - Pickup Ex. Cab	1.00	32.00 HR	14.000				448		448	
C	Carpenter	2.00	64.00 MH *	45.268	2,897					2,897	
CF	Carpenter-Foreman	1.00	32.00 MH *	48.297	1,545					1,545	
L2	Lab-Concrete,GuinCha	2.00	64.00 MH *	24.063	1,540					1,540	
\$8,906.63	80.0000 MH/EA		160.00 MH	[1888]	5,983	1,356	1,120	448		8,907	
4.0000 Shifts	0.5000 Un/Shift		0.0125 Unit/MH		2,991.32	678.00	560.00	224.00		4,453.32	
420C	Replace Shotcrete		Quan:	450.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00			
4SHOTCRETE	Shotcrete	1.00	450.00 SF	8.000					3,600	3,600	
====> Item Totals: 420 - PIPE AT H2S											
\$16,666.14	3.0833 MH/LF		185.00 MH	[73.1]	6,878	1,780	1,120	1,023	5,865	16,666	
277.769	60 LF				114.64	29.67	18.67	17.05	97.75	277.77	
BID ITEM = 425											
Description =	SITE FENCING		Unit =	LF	Takeoff Quan:		219.000		Engr Quan:	SS	
										0.000	
425	SITE FENCING		Quan:	219.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00			
4FENCE	Fencing Sub	1.00	219.00 LF	36.358					7,962	7,962	
425A	Remove Existing Fencing		Quan:	280.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00			
<u>SSBHE1</u>	Backhoe Exc Crew		3.00 CH	Prod:	93.3333 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00		
8BA580	Backhoe - 580 Case	1.00	3.00 HR	33.000				99		99	
L2	Lab-Concrete,GuinCha	2.00	6.00 MH *	24.063	144					144	
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	3.00 MH *	36.677	110					110	
\$353.41	0.0321 MH/LF		9.00 MH	[0.589]	254			99		353	
0.3750 Shifts	746.6667 Un/Shift		31.1111 Unit/MH		0.91			0.35		1.26	
====> Item Totals: 425 - SITE FENCING											
\$8,315.81	0.0410 MH/LF		9.00 MH	[0.753]	254			99	7,962	8,316	
37.972	219 LF				1.16			0.45	36.36	37.97	
BID ITEM = 430											
Description =	SITE SEWER		Unit =	LS	Takeoff Quan:		1.000		Engr Quan:	SS	
										0.000	
430A	Install Manholes		Quan:	4.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00			
<u>SSMH</u>	Manhole Crew		8.00 CH	Prod:	0.5000 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00		
2MANHOLES	Manholes Sanitary Sewer	1.00	4.00 EA	3,500.000		14,000				14,000	
8BA580	Backhoe - 580 Case	1.00	8.00 HR	33.000				264		264	
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000				112		112	
L2	Lab-Concrete,GuinCha	2.00	16.00 MH *	24.063	385					385	
MJ	Metal Trades-Journeyman	2.00	16.00 MH *	40.012	640					640	
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	8.00 MH *	36.678	293					293	
SMF	Mechanical Foreman	1.00	8.00 MH *	47.731	382					382	

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Perm Labor	Constr Material	Equip Matl/Exp	Sub- Contract	Total
BID ITEM = 430									SS
Description = SITE SEWER			Unit =	LS	Takeoff Quan:	1.000	Engr Quan:		0.000
\$16,076.46	12.0000 MH/EA	48.00 MH	[290]	1,700	14,000		376		16,076
1.0000 Shifts	4.0000 Un/Shift	0.0833 Unit/MH		425.12	3,500.00		94.00		4,019.12
430B Install Sewer Line 6"									
			Quan:	217.00 LF	Hrs/Shift:	8.00	Cat: 508	WC: AZ00	
SSPIPE	Pipe Crew	16.00 CH	Prod:	13.5625 UH	Lab Pcs:	5.00	Eqp Pcs:	3.00	
2ABDELIVER	ABC Delivered	1.00	32.08 TNS	10.500	337				337
2SEWERPIPE6"	Sewer Pipe 6"	1.00	217.00 LF	14.000	3,038				3,038
8BA580	Backhoe - 580 Case	1.00	16.00 HR	33.000			528		528
8LO4CY	Loader - 950G	1.00	16.00 HR	68.000			1,088		1,088
8TRPU	Truck - Pickup Ex. Cab	1.00	16.00 HR	14.000			224		224
L4	Lab-Raker,Pipe,JHam	1.00	16.00 MH *	25.324	405				405
MJ	Metal Trades-Journeyman	1.00	16.00 MH *	40.012	640				640
O2	Oper-Plnt,SmHoe,Paver,Scr	1.00	16.00 MH *	34.104	546				546
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	16.00 MH *	36.678	587				587
OF	Oper-Foreman	1.00	16.00 MH *	42.985	688				688
\$8,080.48	0.3686 MH/LF	80.00 MH	[8.995]	2,866	3,375		1,840		8,080
2.0000 Shifts	108.5000 Un/Shift	2.7125 Unit/MH		13.21	15.55		8.48		37.24
430C Install Drains in Building									
			Quan:	3.00 EA	Hrs/Shift:	8.00	Cat: 508	WC: AZ00	
SSPIPE	Pipe Crew	6.00 CH	Prod:	0.5000 UH	Lab Pcs:	5.00	Eqp Pcs:	3.00	
2FLOORDRAINS	Floor Drains	1.00	3.00 EA	200.000	600				600
8BA580	Backhoe - 580 Case	1.00	6.00 HR	33.000			198		198
8LO4CY	Loader - 950G	1.00	6.00 HR	68.000			408		408
8TRPU	Truck - Pickup Ex. Cab	1.00	6.00 HR	14.000			84		84
L4	Lab-Raker,Pipe,JHam	1.00	6.00 MH *	25.323	152				152
MJ	Metal Trades-Journeyman	1.00	6.00 MH *	40.012	240				240
O2	Oper-Plnt,SmHoe,Paver,Scr	1.00	6.00 MH *	34.105	205				205
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	6.00 MH *	36.678	220				220
OF	Oper-Foreman	1.00	6.00 MH *	42.985	258				258
\$2,364.62	10.0000 MH/EA	30.00 MH	[244]	1,075	600		690		2,365
0.7500 Shifts	4.0000 Un/Shift	0.1000 Unit/MH		358.21	200.00		230.00		788.21
Item Totals: 430 - SITE SEWER									
\$26,521.56	158.0000 MH/LS	158.00 MH	[3844]	5,641	17,975		2,906		26,522
26,521.560	1 LS			5,640.72	17,974.84		2,906.00		26,521.56

BID ITEM = 435									SS
Description = SWPPP			Unit =	LS	Takeoff Quan:	1.000	Engr Quan:		0.000
435A Install Straw Wattles									
			Quan:	600.00 LF	Hrs/Shift:	8.00	Cat: 508	WC: AZ00	
SSBHE1	Backhoe Exc Crew	7.50 CH	Prod:	80.0000 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	
2STRAWWADDL	Straw Wattle	1.00	600.00 LF	1.000	600				600
8BA580	Backhoe - 580 Case	1.00	7.50 HR	33.000			248		248
L2	Lab-Concrete,GuinCha	2.00	15.00 MH *	24.063	361				361
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	7.50 MH *	36.679	275				275
\$1,483.53	0.0375 MH/LF	22.50 MH	[0.688]	636	600		248		1,484
0.9375 Shifts	640.0000 Un/Shift	26.6667 Unit/MH		1.06	1.00		0.41		2.47
Item Totals: 435 - SWPPP									
\$1,483.53	22.5000 MH/LS	22.50 MH	[412.5]	636	600		248		1,484
1,483.530	1 LS			636.03	600.00		247.50		1,483.53

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
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BID ITEM = 440
 Description = EX/BACKFILL FOR SW GAS Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000 SS

440	Excavate for SW Gas	Quan: 400.00 LF	Hrs/Shift: 8.00	Cal: 508	WC: AZ00					
SSEX1	Exc Crew 1	12.00	CH	Prod: 33.3333	UH	Lab Pcs: 3.00	Eqp Pcs: 2.00			
8EX320	Excavator - 320SL Cat	1.00	12.00 HR	75.500			906			906
8TRPU	Truck - Pickup Ex. Cab	0.50	6.00 HR	14.000			84			84
8WA3900	Water Truck - 3900 Gal	0.50	6.00 HR	48.000			288			288
L2	Lab-Concrete,GuinCha	1.00	12.00 MH *	24.063	289					289
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	12.00 MH *	36.678	440					440
OF	Oper-Foreman	0.50	6.00 MH *	42.985	258					258
T3	Team-Mixer<10CY,H2O<4	0.50	6.00 MH *	26.585	160					160
\$2,424.30	0.0900 MH/LF	36.00	MH	[1.905]	1,146		1,278			2,424
1.5000 Shifts	266.6667 Un/Shift	11.1111	Unit/MH		2.87		3.20			6.06

440A	Backfill Line	Quan: 400.00 LF	Hrs/Shift: 8.00	Cal: 508	WC: AZ00					
SSBFL2	Backfill Crew 2	16.00	CH	Prod: 25.0000	UH	Lab Pcs: 4.50	Eqp Pcs: 3.50			
8EX320	Excavator - 320SL Cat	1.00	16.00 HR	75.500			1,208			1,208
8LO4CY	Loader - 950G	1.00	16.00 HR	68.000			1,088			1,088
8TRPU	Truck - Pickup Ex. Cab	1.00	16.00 HR	14.000			224			224
8WA3900	Water Truck - 3900 Gal	0.50	8.00 HR	48.000			384			384
L2	Lab-Concrete,GuinCha	1.00	16.00 MH *	24.063	385					385
O2	Oper-Plnt,SmHoe,Paver,Scr	1.00	16.00 MH *	34.104	546					546
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	16.00 MH *	36.678	587					587
OF	Oper-Foreman	1.00	16.00 MH *	42.985	688					688
T3	Team-Mixer<10CY,H2O<4	0.50	8.00 MH *	26.585	213					213
\$5,321.95	0.1800 MH/LF	72.00	MH	[4.06]	2,418		2,904			5,322
2.0000 Shifts	200.0000 Un/Shift	5.5556	Unit/MH		6.04		7.26			13.30

Item Totals: 440 - EX/BACKFILL FOR SW GAS
 \$7,746.25 108.0000 MH/LS 108.00 MH [2386] 3,564 4,182 7,746
 7,746.250 1 LS 3,564.25 4,182.00 7,746.25

Total of Above Sub-Biditems

Item Totals: 400 - SITEWORK
 \$130,208.96 1,273.7000 MH/LS 1,273.70 MH [27438.7] 41,510 42,948 1,120 30,803 13,827 130,209
 130,208.960 1 LS 41,510.33 42,947.83 1,120.00 30,803.40 13,827.40 130,208.96

PARENT ITEM = 500
 Description = ARCHITECTURAL/SUBS Unit = LS Takeoff Quan: 1.000 Engr Quan: 1.000

Listing of Sub-Biditems of Parent Item 500:

BID ITEM = 505
 Description = MASONRY SUB Unit = SF Takeoff Quan: 2,880.000 Engr Quan: 0.000 SS

505	Masonry Sub Elect Bldg	Quan: 2,880.00 SF	Hrs/Shift: 8.00	Cal: 508	WC: AZ00					
4MASONRY	Masonry Sub	1.00	2,880.00 SF	12.833			36,960			36,960

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 515										
Description =	STEEL STUD AND DRYWALL SUB		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
515	STEEL STUD AND DRYWALL SUB		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
2329 SF Steel Studs, 2928 SF Drywall										
4DRYWALL	Drywall Sub	1.00	1.00 LS	30,000.000				30,000		30,000
BID ITEM = 520										
Description =	FRP PANEL SUB		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
520	FRP PANEL SUB		Quan:	190.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
190 SF of Paneling										
4FRP	FRP Panel Sub	1.00	190.00 SF	3.000				570		570
BID ITEM = 525										
Description =	COATING FLOOR SUB		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
525	COATING FLOOR SUB		Quan:	1,000.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
4COATING	Coating Floor Sub	1.00	1,000.00 SF	4.960				4,960		4,960
BID ITEM = 530										
Description =	INSTALL DOORS		Unit =	EA	Takeoff Quan:		5.000	Engr Quan:		SS 0.000
530A	Install Single Doors		Quan:	4.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSDR	Install Door Sub		40.00 CH	Prod:	0.1000 UH	Lab Pcs:	2.50	Eqp Pcs:	0.50	
2DOORSSINGLE	Single Doors	1.00	4.00 EA	1,400.000		5,600			5,600	
8TRPU	Truck - Pickup Ex. Cab	0.50	20.00 HR	14,000				280		280
C	Carpenter	2.00	80.00 MH *	45,268	3,621					3,621
CF	Carpenter-Foreman	0.50	20.00 MH *	48,297	966					966
\$10,467.35	25.0000 MH/EA		100.00 MH	[725]	4,587	5,600		280		10,467
5.0000 Shifts	0.8000 Un/Shift		0.0400 Unit/MH		1,146.84	1,400.00		70.00		2,616.84
530B	Install Double Doors		Quan:	1.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSDR	Install Door Sub		12.00 CH	Prod:	0.0833 UH	Lab Pcs:	2.50	Eqp Pcs:	0.50	
2DOORDOUBLE	Double Door	1.00	1.00 EA	2,000.000		2,000			2,000	
8TRPU	Truck - Pickup Ex. Cab	0.50	6.00 HR	14,000				84		84
C	Carpenter	2.00	24.00 MH *	45,268	1,086					1,086
CF	Carpenter-Foreman	0.50	6.00 MH *	48,297	290					290
\$3,460.21	30.0000 MH/EA		30.00 MH	[870]	1,376	2,000		84		3,460
1.5000 Shifts	0.6667 Un/Shift		0.0333 Unit/MH		1,376.21	2,000.00		84.00		3,460.21
Item Totals: 530 - INSTALL DOORS										
\$13,927.56	26.0000 MH/EA		130.00 MH	[754]	5,964	7,600		364		13,928
2,785.512	5 EA				1,192.71	1,520.00		72.80		2,785.51

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 535										
Description =	INSTALL DROP CEILING		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
535	INSTALL DROP CEILING		Quan:	513.00 SF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
4DROPCEILING	Drop Ceiling Sub	1.00	513.00 SF	4.500				2,309		2,309
BID ITEM = 540										
Description =	INSTALL CANOPIES		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
540A	Fabricate Canopy Material		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
2CANOPYFAB	Canopy Fabrication	1.00	1.00 LS	5,616.000		5,616				5,616
540B	Install Canopies		Quan:	3.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
<u>SSSSJ</u>	Set Steel Joists Crew		16.00 CH	Prod:	0.1875 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00	
8CR60	Crane - 60-65 Tn Hydro	1.00	16.00 HR	89.500			1,432		1,432	
8TRPU	Truck - Pickup Ex. Cab	1.00	16.00 HR	14.000			224		224	
C	Carpenter	2.00	32.00 MH *	45.268	1,449				1,449	
CF	Carpenter-Foreman	1.00	16.00 MH *	48.296	773				773	
L2	Lab-Concrete,GuinCha	2.00	32.00 MH *	24.063	770				770	
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	16.00 MH *	36.678	587				587	
\$5,234.15	32.0000 MH/EA		96.00 MH	[762.667]	3,578		1,656		5,234	
2.0000 Shifts	1.5000 Un/Shift		0.0313 Unit/MH		1,192.72		552.00		1,744.72	
Item Totals: 540 - INSTALL CANOPIES										
\$10,850.15	96.0000 MH/LS		96.00 MH	[2288]	3,578	5,616		1,656		10,850
10,850.150	1 LS				3,578.15	5,616.00		1,656.00		10,850.15
BID ITEM = 545										
Description =	INSTALL ROOF		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
545A	Install Steel Joists		Quan:	11.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
<u>SSSSJ</u>	Set Steel Joists Crew		11.00 CH	Prod:	1.0000 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00	
8CR60	Crane - 60-65 Tn Hydro	1.00	11.00 HR	89.500			985		985	
8TRPU	Truck - Pickup Ex. Cab	1.00	11.00 HR	14.000			154		154	
C	Carpenter	2.00	22.00 MH *	45.268	996				996	
CF	Carpenter-Foreman	1.00	11.00 MH *	48.296	531				531	
L2	Lab-Concrete,GuinCha	2.00	22.00 MH *	24.063	529				529	
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	11.00 MH *	36.677	403				403	
\$3,598.48	6.0000 MH/EA		66.00 MH	[143]	2,460		1,139		3,598	
1.3750 Shifts	8.0000 Un/Shift		0.1667 Unit/MH		223.63		103.50		327.13	
545B	Install Steel Plates for Joists		Quan:	22.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
<u>SSCL</u>	Carpenter and Laborer		5.50 CH	Prod:	4.0000 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00	
C	Carpenter	1.00	5.50 MH *	45.269	249				249	
L2	Lab-Concrete,GuinCha	1.00	5.50 MH *	24.064	132				132	
\$381.33	0.5000 MH/EA		11.00 MH	[10.875]	381				381	
0.6875 Shifts	32.0000 Un/Shift		2.0000 Unit/MH		17.33				17.33	
545C	Weld Steel Joists to Plates		Quan:	22.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00

Cost Report

Activity	Desc	Quantity	Unit	Unit	Perm	Constr	Equip	Sub-	Total
Resource		Pcs		Cost	Labor	Material	Matl/Exp	Contract	
BID ITEM = 545									SS
Description =	INSTALL ROOF		Unit =	LS	Takeoff Quan:	1.000	Engr Quan:		0.000
SSWLD1	Weld Crew 1		22.00 CH	Prod:	1.0000 UH	Lab Pcs:	2.00	Eqp Pcs:	1.00
8TRMECH	Truck - Mechanic	1.00	22.00 HR	25.500			561		561
L2	Lab-Concrete,GuinCha	1.00	22.00 MH *	24.063	529				529
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	22.00 MH *	36.678	807				807
\$1,897.29	2.0000 MH/EA		44.00 MH	[40]	1,336		561		1,897
2.7500 Shifts	8.0000 Un/Shift		0.5000 Unit/MH		60.74		25.50		86.24
545D Install Ledger Angle									
			Quan:	100.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
SSSSJ	Set Steel Joists Crew		8.00 CH	Prod:	12.5000 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00
8CR60	Crane - 60-65 Tn Hydro	1.00	8.00 HR	89.500			716		716
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000			112		112
C	Carpenter	2.00	16.00 MH *	45.268	724				724
CF	Carpenter-Foreman	1.00	8.00 MH *	48.296	386				386
L2	Lab-Concrete,GuinCha	2.00	16.00 MH *	24.063	385				385
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	8.00 MH *	36.678	293				293
\$2,617.07	0.4800 MH/LF		48.00 MH	[11.44]	1,789		828		2,617
1.0000 Shifts	100.0000 Un/Shift		2.0833 Unit/MH		17.89		8.28		26.17
545E Weld Ledger to Joists/Embeds									
			Quan:	78.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
SSWLD1	Weld Crew 1		39.00 CH	Prod:	2.0000 UH	Lab Pcs:	2.00	Eqp Pcs:	1.00
8TRMECH	Truck - Mechanic	1.00	39.00 HR	25.500			995		995
L2	Lab-Concrete,GuinCha	1.00	39.00 MH *	24.063	938				938
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	39.00 MH *	36.677	1,430				1,430
\$3,363.36	1.0000 MH/EA		78.00 MH	[20]	2,369		995		3,363
4.8750 Shifts	16.0000 Un/Shift		1.0000 Unit/MH		30.37		12.75		43.12
545F Install Plates for Ledger Angle									
			Quan:	56.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
SSCL	Carpenter and Laborer		9.33 CH	Prod:	6.0000 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00
C	Carpenter	1.00	9.33 MH *	45.267	422				422
L2	Lab-Concrete,GuinCha	1.00	9.33 MH *	24.062	225				225
\$646.84	0.3332 MH/EA		18.66 MH	[7.248]	647				647
1.1663 Shifts	48.0171 Un/Shift		3.0011 Unit/MH		11.55				11.55
545G Install Decking									
			Quan:	1,000.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
SSSDK	Set Decking Crew		16.00 CH	Prod:	62.5000 UH	Lab Pcs:	7.00	Eqp Pcs:	2.00
8CR60	Crane - 60-65 Tn Hydro	1.00	16.00 HR	89.500			1,432		1,432
8TRPU	Truck - Pickup Ex. Cab	1.00	16.00 HR	14.000			224		224
C	Carpenter	3.00	48.00 MH *	45.268	2,173				2,173
CF	Carpenter-Foreman	1.00	16.00 MH *	48.296	773				773
L2	Lab-Concrete,GuinCha	2.00	32.00 MH *	24.063	770				770
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	16.00 MH *	36.678	587				587
\$5,958.43	0.1120 MH/SF		112.00 MH	[2.744]	4,302		1,656		5,958
2.0000 Shifts	500.0000 Un/Shift		8.9286 Unit/MH		4.30		1.66		5.96
545H Fabricate Roof Material									
			Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
2FABROOF	Roof Fabrication	1.00	1.00 LS	10,640.000		10,640			10,640
545I Roofing Sub									
			Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
4ROOF	Roofing Sub	1.00	1.00 LS	37,252.000				37,252	37,252
Item Totals: 545 - INSTALL ROOF									
\$66,354.80	377.6600 MH/LS		377.66 MH	[8546.11]	13,285	10,640	5,178	37,252	66,355
66,354.800	1 LS				13,284.80	10,640.00	5,178.00	37,252.00	66,354.80

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 550										
Description =	PAINT SUB		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
550	PAINT SUB		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
4PAINT1	Paint Sub	1.00	1.00 LS	21,763.000				21,763		21,763
BID ITEM = 555										
Description =	PLUMBING SUB		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
555	PLUMBING SUB		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
4PLUMBING	Plumbing Sub	1.00	1.00 LS	9,121.000				9,121		9,121
555A	Install Potable Water to Building		Quan:	50.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
<u>SSBHE1</u>	Backhoe Exc Crew		6.00 CH	Prod:	8.3333 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	
2PVCPIPE2"	2" PVC Pipe	1.00	50.00 LF	2.000		100			100	
8BA580	Backhoe - 580 Case	1.00	6.00 HR	33.000				198	198	
L2	Lab-Concrete,GuinCha	2.00	12.00 MH *	24.063	289				289	
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	6.00 MH *	36.678	220				220	
\$806.82	0.3600 MH/LF		18.00 MH	[6.6]	509	100		198	807	
0.7500 Shifts	66.6667 Un/Shift		2.7778 Unit/MH		10.18	2.00		3.96	16.14	
Item Totals: 555 - PLUMBING SUB										
\$9,927.82	18.0000 MH/LS		18.00 MH	[330]	509	100		198	9,121	9,928
9,927.820	1 LS				508.82	100.00		198.00	9,121.00	9,927.82
BID ITEM = 560										
Description =	HVAC SUB		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
560	HVAC SUB		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
4HVAC	HVAC Sub	1.00	1.00 LS	50,000.000				50,000		50,000
BID ITEM = 565										
Description =	INSULATION SUB		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
565	WALL INSULATION SUB		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
4INSULATION	Insulation Sub	1.00	1.00 LS	1,530.000				1,530		1,530
BID ITEM = 570										
Description =	BATHROOM ACC SUB		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
570	BATHROOM ACC SUB		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
County to supply Bathroom Accessories - Excluding Grab Bars										
<u>SSCL</u>	Carpenter and Laborer		9.00 CH	Prod:	0.1111 UH	Lab Pcs:	1.50	Eqp Pcs:	0.50	
2BATHROOMAC	Bathroom Accessories	1.00	1.00 LS	200.000		200			200	
8TRPU	Truck - Pickup Ex. Cab	0.50	4.50 HR	14.000				63	63	

Cost Report

Activity	Desc	Quantity	Unit	Unit	Perm	Constr	Equip	Sub-	Total
Resource		Pcs		Cost	Labor	Material	Matl/Exp	Ment Contract	

BID ITEM = 570
 Description = BATHROOM ACC SUB Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000 SS

C	Carpenter	1.00	9.00 MH *	45.268	407				407
CF	Carpenter-Foreman	0.50	4.50 MH *	48.296	217				217
\$887.74		13.5000 MH/LS	13.50 MH	[396]	625	200		63	888
1.1250 Shifts	0.8889 Un/Shift	0.0741 Unit/MH		624.74	200.00			63.00	887.74
Item Totals: 570 - BATHROOM ACC SUB									
\$887.74		13.5000 MH/LS	13.50 MH	[396]	625	200		63	888
887.740		1 LS			624.74	200.00		63.00	887.74

BID ITEM = 575
 Description = EIFS SUB Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000 SS

575	EIFS SUB			Quan: 2,520.00 SF	Hrs/Shift: 8.00	Cal: 508	WC: AZ00		
4EIFS	EIFS SUB	1.00	2,520.00 SF	8.727				21,992	21,992

Total of Above Sub-Biditems

Item Totals: 500 - ARCHITECTURAL/SUBS

\$272,032.09	635.1600 MH/LS	635.16 MH	[15330.11]	23,960	24,156		7,459	216,457	272,032
272,032.090	1 LS			23,960.07	24,156.00		7,459.00	216,457.02	272,032.09

PARENT ITEM = 600
 Description = EQUIPMENT SETTING Unit = LS Takeoff Quan: 1.000 Engr Quan: 1.000

Listing of Sub-Biditems of Parent Item 600:

BID ITEM = 605
 Description = H2S AREA Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000 SS

605E Bolt Down Tanks Quan: 2.00 EA Hrs/Shift: 8.00 Cal: 508 WC: AZ00

SSCL	Carpenter and Laborer		4.00 CH	Prod: 0.5000 UH	Lab Pcs: 2.00	Eqp Pcs: 0.00			
2EPOXY	Epoxy for Dowels	1.00	8.00 EA	3.000	24				24
C	Carpenter	1.00	4.00 MH *	45.268	181				181
L2	Lab-Concrete,GuinCha	1.00	4.00 MH *	24.063	96				96
\$301.32		4.0000 MH/EA	8.00 MH	[87]	277	24			301
0.5000 Shifts	4.0000 Un/Shift	0.2500 Unit/MH		138.66	12.00				150.66

605F Bolt Down Dehydration Skid Quan: 1.00 EA Hrs/Shift: 8.00 Cal: 508 WC: AZ00

SSCL	Carpenter and Laborer		2.00 CH	Prod: 0.5000 UH	Lab Pcs: 2.00	Eqp Pcs: 0.00			
2EPOXY	Epoxy for Dowels	1.00	4.00 EA	3.000	12				12
C	Carpenter	1.00	2.00 MH *	45.270	91				91
L2	Lab-Concrete,GuinCha	1.00	2.00 MH *	24.065	48				48
\$150.67		4.0000 MH/EA	4.00 MH	[87]	139	12			151
0.2500 Shifts	4.0000 Un/Shift	0.2500 Unit/MH		138.67	12.00				150.67

Cost Report

Activity	Desc	Quantity	Unit	Unit	Perm	Constr	Equip	Sub-	Total
Resource		Pcs		Cost	Labor	Material	Matl/Exp	Ment Contract	
BID ITEM = 605									SS
Description = H2S AREA									0.000
Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000									
605A	Set Tanks								
Quan: 2.00 EA Hrs/Shift: 8.00 Cal: 508 WC: AZ00									**Unreviewed
SSSSJ	Set Steel Joists Crew		8.00 CH	Prod:	0.2500 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00
8CR60	Crane - 60-65 Tn Hydro	1.00	8.00 HR	89.500			716		716
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000			112		112
C	Carpenter	2.00	16.00 MH *	45.268	724				724
CF	Carpenter-Foreman	1.00	8.00 MH *	48.296	386				386
L2	Lab-Concrete,GuinCha	2.00	16.00 MH *	24.063	385				385
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	8.00 MH *	36.678	293				293
\$2,617.07	24.0000 MH/EA		48.00 MH	[572]	1,789		828		2,617
1.0000 Shifts	2.0000 Un/Shift		0.0417 Unit/MH		894.54		414.00		1,308.54
605C	Install Piping Manifold / Vent Piping								
Quan: 1.00 LS Hrs/Shift: 8.00 Cal: 508 WC: AZ00									**Unreviewed
SSPIP1	Pipe Assembly Crew 1		8.00 CH	Prod:	0.1250 UH	Lab Pcs:	5.00	Eqp Pcs:	2.00
8MIFORKLIFT	Forklift - 10K reach	1.00	8.00 HR	43.000			344		344
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000			112		112
M2	Metal Trades-Level 2	1.00	8.00 MH *	30.140	241				241
MJ	Metal Trades-Journeyman	2.00	16.00 MH *	40.012	640				640
O1	Oper- Load<3CY,Dirt Rolle	1.00	8.00 MH *	31.531	252				252
SMF	Mechanical Foreman	1.00	8.00 MH *	47.731	382				382
\$1,971.41	40.0000 MH/LS		40.00 MH	[1048]	1,515		456		1,971
1.0000 Shifts	1.0000 Un/Shift		0.0250 Unit/MH		1,515.41		456.00		1,971.41
605D	Install Dehydration Skid								
Quan: 1.00 LS Hrs/Shift: 8.00 Cal: 508 WC: AZ00									**Unreviewed
SSPIP1	Pipe Assembly Crew 1		2.00 CH	Prod:	0.5000 UH	Lab Pcs:	5.00	Eqp Pcs:	2.00
8MIFORKLIFT	Forklift - 10K reach	1.00	2.00 HR	43.000			86		86
8TRPU	Truck - Pickup Ex. Cab	1.00	2.00 HR	14.000			28		28
M2	Metal Trades-Level 2	1.00	2.00 MH *	30.140	60				60
MJ	Metal Trades-Journeyman	2.00	4.00 MH *	40.013	160				160
O1	Oper- Load<3CY,Dirt Rolle	1.00	2.00 MH *	31.530	63				63
SMF	Mechanical Foreman	1.00	2.00 MH *	47.730	95				95
\$492.85	10.0000 MH/LS		10.00 MH	[262]	379		114		493
0.2500 Shifts	4.0000 Un/Shift		0.1000 Unit/MH		378.85		114.00		492.85
Item Totals: 605 - H2S AREA									
\$5,533.32	110.0000 MH/LS		110.00 MH	[2715]	4,099	36	1,398		5,533
5,533.320	1 LS				4,099.32	36.00	1,398.00		5,533.32

BID ITEM = 610
Description = ACTIVE CARBON SKID Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000

610A	Set Tanks								
Quan: 2.00 EA Hrs/Shift: 8.00 Cal: 508 WC: AZ00									**Unreviewed
SSSSJ	Set Steel Joists Crew		8.00 CH	Prod:	0.2500 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00
8CR60	Crane - 60-65 Tn Hydro	1.00	8.00 HR	89.500			716		716
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000			112		112
C	Carpenter	2.00	16.00 MH *	45.268	724				724
CF	Carpenter-Foreman	1.00	8.00 MH *	48.296	386				386
L2	Lab-Concrete,GuinCha	2.00	16.00 MH *	24.063	385				385
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	8.00 MH *	36.678	293				293
\$2,617.07	24.0000 MH/EA		48.00 MH	[572]	1,789		828		2,617
1.0000 Shifts	2.0000 Un/Shift		0.0417 Unit/MH		894.54		414.00		1,308.54

Cost Report

Activity	Desc	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
Resource		Pcs								
BID ITEM = 610										
Description =	ACTIVE CARBON SKID		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
610C	Install Piping Manifold / Vent Piping		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSPIP1	Pipe Assembly Crew 1		8.00 CH	Prod:	0.1250 UH	Lab Pcs:	5.00	Eqp Pcs:	2.00	
8MIFORKLIFT	Forklift - 10K reach	1.00	8.00 HR	43.000				344		344
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000				112		112
M2	Metal Trades-Level 2	1.00	8.00 MH *	30.140	241					241
MJ	Metal Trades-Journeyman	2.00	16.00 MH *	40.012	640					640
O1	Oper- Load<3CY,Dirt Rolle	1.00	8.00 MH *	31.531	252					252
SMF	Mechanical Foreman	1.00	8.00 MH *	47.731	382					382
\$1,971.41	40.0000 MH/LS		40.00 MH	[1048]	1,515			456		1,971
1.0000 Shifts	1.0000 Un/Shift		0.0250 Unit/MH		1,515.41			456.00		1,971.41
610E	Bolt Down Tanks		Quan:	2.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSCL	Carpenter and Laborer		4.00 CH	Prod:	0.5000 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00	
2EPOXY	Epoxy for Dowels	1.00	8.00 EA	3.000	24					24
C	Carpenter	1.00	4.00 MH *	45.268	181					181
L2	Lab-Concrete,GuinCha	1.00	4.00 MH *	24.063	96					96
\$301.32	4.0000 MH/EA		8.00 MH	[87]	277	24				301
0.5000 Shifts	4.0000 Un/Shift		0.2500 Unit/MH		138.66	12.00				150.66
Item Totals: 610 - ACTIVE CARBON SKID										
\$4,889.80	96.0000 MH/LS		96.00 MH	[2366]	3,582	24		1,284		4,890
4,889.800	1 LS				3,581.80	24.00		1,284.00		4,889.80

BID ITEM = 615										
Description =	MEMBRANE FEED COMPRESSOR		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
615C	Deduct for Cover		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
2DEDUCT1	Deduct for Cover	1.00	1.00 LS	35,000.000	35,000					35,000
615A	Set Membrane Feed Compressor and Plumb		Quan:	1.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSSSJ	Set Steel Joists Crew		8.00 CH	Prod:	0.1250 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00	
8CR60	Crane - 60-65 Tn Hydro	1.00	8.00 HR	89.500				716		716
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000				112		112
C	Carpenter	2.00	16.00 MH *	45.268	724					724
CF	Carpenter-Foreman	1.00	8.00 MH *	48.296	386					386
L2	Lab-Concrete,GuinCha	2.00	16.00 MH *	24.063	385					385
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	8.00 MH *	36.678	293					293
\$2,617.07	48.0000 MH/EA		48.00 MH	[1144]	1,789			828		2,617
1.0000 Shifts	1.0000 Un/Shift		0.0208 Unit/MH		1,789.07			828.00		2,617.07
615B	Bolt Down Membrane Feed Comp.		Quan:	1.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
SSCL	Carpenter and Laborer		4.00 CH	Prod:	0.2500 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00	
2EPOXY	Epoxy for Dowels	1.00	8.00 EA	3.000	24					24
C	Carpenter	1.00	4.00 MH *	45.268	181					181
L2	Lab-Concrete,GuinCha	1.00	4.00 MH *	24.063	96					96
\$301.32	8.0000 MH/EA		8.00 MH	[174]	277	24				301
0.5000 Shifts	2.0000 Un/Shift		0.1250 Unit/MH		277.32	24.00				301.32
Item Totals: 615 - MEMBRANE FEED COMPRESSOR										
\$37,918.39	56.0000 MH/LS		56.00 MH	[1318]	2,066	35,024		828		37,918

Cost Report

Activity	Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm	Material	Constr	Matl/Exp	Equip	Sub-	Contract	Total
BID ITEM = 615															
Description =	MEMBRANE FEED COMPRESSOR					Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS		0.000
37,918.390	1 LS							2,066.39		35,024.00		828.00		37,918.39	
BID ITEM = 620															
Description =	FILTRATION SKID					Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		SS		0.000
620A Set Filtration Skid and Membrane Skid															
						Quan:	1.00 LS	Hrs/Shift:		8.00	Cal: 508		WC: AZ00		
<u>SSSSI</u>	Set Steel Joists Crew			8.00	CH	Prod:	0.1250 UH		Lab Pcs:	6.00	Eqp Pcs:		2.00		
8CR60	Crane - 60-65 Tn Hydro			1.00	8.00 HR	89.500					716				716
8TRPU	Truck - Pickup Ex. Cab			1.00	8.00 HR	14.000					112				112
C	Carpenter			2.00	16.00 MH *	45.268	724								724
CF	Carpenter-Foreman			1.00	8.00 MH *	48.296	386								386
L2	Lab-Concrete,GuinCha			2.00	16.00 MH *	24.063	385								385
O3	Oper-Blade,TrkHoe,+6cyLo			1.00	8.00 MH *	36.678	293								293
\$2,617.07	48.0000 MH/LS				48.00 MH	[1144]	1,789				828				2,617
1.0000	Shifts	1.0000 Un/Shift			0.0208 Unit/MH		1,789.07				828.00				2,617.07
620B Bolt up Filtration to Membrane Skid															
						Quan:	1.00 LS	Hrs/Shift:		8.00	Cal: 508		WC: AZ00		
<u>SSPIP1</u>	Pipe Assembly Crew 1			4.00	CH	Prod:	0.2500 UH		Lab Pcs:	5.00	Eqp Pcs:		2.00		
8MIFORKLIFT	Forklift - 10K reach			1.00	4.00 HR	43.000					172				172
8TRPU	Truck - Pickup Ex. Cab			1.00	4.00 HR	14.000					56				56
M2	Metal Trades-Level 2			1.00	4.00 MH *	30.140	121								121
MJ	Metal Trades-Journeyman			2.00	8.00 MH *	40.013	320								320
O1	Oper- Load<3CY,Dirt Rolle			1.00	4.00 MH *	31.533	126								126
SMF	Mechanical Foreman			1.00	4.00 MH *	47.730	191								191
\$985.71	20.0000 MH/LS				20.00 MH	[524]	758				228				986
0.5000	Shifts	2.0000 Un/Shift			0.0500 Unit/MH		757.71				228.00				985.71
620C Bolt Down Filtration and Membrane Skid															
						Quan:	1.00 LS	Hrs/Shift:		8.00	Cal: 508		WC: AZ00		
<u>SSCL</u>	Carpenter and Laborer			4.00	CH	Prod:	0.2500 UH		Lab Pcs:	2.00	Eqp Pcs:		0.00		
2EPOXY	Epoxy for Dowels			1.00	8.00 EA	3.000	24								24
C	Carpenter			1.00	4.00 MH *	45.268	181								181
L2	Lab-Concrete,GuinCha			1.00	4.00 MH *	24.063	96								96
\$301.32	8.0000 MH/LS				8.00 MH	[174]	277		24						301
0.5000	Shifts	2.0000 Un/Shift			0.1250 Unit/MH		277.32		24.00						301.32
Item Totals: 620 - FILTRATION SKID															
\$3,904.10	76.0000 MH/LS				76.00 MH	[1842]	2,824		24		1,056				3,904
3,904.100	1 LS						2,824.10		24.00		1,056.00				3,904.10

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
BID ITEM = 625										SS
Description =	PRODUCT GAS COMPRESSOR		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		0.000
\$654.27	12.0000 MH/LS	12.00	MH	[286]	447			207		654
0.2500 Shifts	4.0000 Un/Shift	0.0833	Unit/MH		447.27			207.00		654.27
625B Bolt Down Product Gas Compressor										
				Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
SSCL	Carpenter and Laborer	2.00	CH	Prod:	0.5000 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00	
2EPOXY	Epoxy for Dowels	1.00	EA	3.000		12				12
C	Carpenter	1.00	MH *	45.270	91					91
L2	Lab-Concrete,GuinCha	1.00	MH *	24.065	48					48
\$150.67	4.0000 MH/LS	4.00	MH	[87]	139	12				151
0.2500 Shifts	4.0000 Un/Shift	0.2500	Unit/MH		138.67	12.00				150.67
Item Totals: 625 - PRODUCT GAS COMPRESSOR										
\$804.94	16.0000 MH/LS	16.00	MH	[373]	586	12		207		805
804.940	1 LS				585.94	12.00		207.00		804.94

BID ITEM = 630										SS
Description =	LUBE OIL SKID		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		0.000
630A Set Lube Oil Skid										
				Quan:	1.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
SSSSJ	Set Steel Joists Crew	2.00	CH	Prod:	0.5000 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00	
8CR60	Crane - 60-65 Tn Hydro	1.00	HR	89.500				179		179
8TRPU	Truck - Pickup Ex. Cab	1.00	HR	14.000				28		28
C	Carpenter	2.00	MH *	45.268	181					181
CF	Carpenter-Foreman	1.00	MH *	48.295	97					97
L2	Lab-Concrete,GuinCha	2.00	MH *	24.063	96					96
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	MH *	36.680	73					73
\$654.27	12.0000 MH/EA	12.00	MH	[286]	447			207		654
0.2500 Shifts	4.0000 Un/Shift	0.0833	Unit/MH		447.27			207.00		654.27
630B Bolt Down Lube Oil Skid										
				Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
SSCL	Carpenter and Laborer	2.00	CH	Prod:	0.5000 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00	
2EPOXY	Epoxy for Dowels	1.00	EA	3.000		12				12
C	Carpenter	1.00	MH *	45.270	91					91
L2	Lab-Concrete,GuinCha	1.00	MH *	24.065	48					48
\$150.67	4.0000 MH/LS	4.00	MH	[87]	139	12				151
0.2500 Shifts	4.0000 Un/Shift	0.2500	Unit/MH		138.67	12.00				150.67
Item Totals: 630 - LUBE OIL SKID										
\$804.94	16.0000 MH/LS	16.00	MH	[373]	586	12		207		805
804.940	1 LS				585.94	12.00		207.00		804.94

BID ITEM = 635										SS
Description =	CHILLER SKID		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		0.000
635A Set Chiller and Compressor Skid										
				Quan:	1.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
SSSSJ	Set Steel Joists Crew	3.00	CH	Prod:	0.3333 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00	
8CR60	Crane - 60-65 Tn Hydro	1.00	HR	89.500				269		269
8TRPU	Truck - Pickup Ex. Cab	1.00	HR	14.000				42		42
C	Carpenter	2.00	MH *	45.268	272					272
CF	Carpenter-Foreman	1.00	MH *	48.297	145					145

Cost Report

Activity	Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip- Ment	Sub- Contract	Total
BID ITEM = 635												
Description =	CHILLER SKID					Unit = LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
L2		Lab-Concrete,GuinCha	2.00	6.00	MH *	24.063	144					144
O3		Oper-Blade,TrkHoe,+6cyLo	1.00	3.00	MH *	36.677	110					110
\$981.41		18.0000 MH/EA		18.00	MH	[429]	671			311		981
0.3750	Shifts	2.6667 Un/Shift		0.0556	Unit/MH		670.91			310.50		981.41
635B Bolt Down Chiller Skid												
						Quan:	1.00 EA	Hrs/Shift:	8.00	Cal:	508	WC: AZ00
SSCL		Carpenter and Laborer		2.00	CH	Prod:	0.5000 UH	Lab Pcs:	2.00	Eqp Pcs:		0.00
2EPOXY		Epoxy for Dowels	1.00	4.00	EA	3.000		12				12
C		Carpenter	1.00	2.00	MH *	45.270	91					91
L2		Lab-Concrete,GuinCha	1.00	2.00	MH *	24.065	48					48
\$150.67		4.0000 MH/EA		4.00	MH	[87]	139	12				151
0.2500	Shifts	4.0000 Un/Shift		0.2500	Unit/MH		138.67	12.00				150.67
Item Totals: 635 - CHILLER SKID												
\$1,132.08		22.0000 MH/LS		22.00	MH	[516]	810	12		311		1,132
1,132.080		1 LS					809.58	12.00		310.50		1,132.08
BID ITEM = 640												
Description =	CANOPIES FOR EQUIPMENT					Unit = LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
Item Totals: 640 - CANOPIES FOR EQUIPMENT												
\$0.00						[]						
0.000		1 LS										
BID ITEM = 645												
Description =	INSTRUMENT AIR COMPRESSOR					Unit = LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
645A Instrument Air Compressor												
						Quan:	1.00 LS	Hrs/Shift:	8.00	Cal:	508	WC: AZ00
2INSTRAIRCOM		Instrument Air Compressor	1.00	1.00	LS	30,100.000	30,100					30,100
Item Totals: 645 - INSTRUMENT AIR COMPRESSOR												
\$30,100.00						[]	30,100					30,100
30,100.000		1 LS					30,100.00					30,100.00
BID ITEM = 650												
Description =	DEDUCT FOR DMT					Unit = LS	Takeoff Quan:		1.000	Engr Quan:		SS 0.000
650 DEDUCT FOR DMT												
						Quan:	1.00 LS	Hrs/Shift:	8.00	Cal:	508	WC: AZ00
2DMTDEDUCT		Deduct for DMT	1.00	1.00	LS	-93,700.000	-93,701					-93,701
Item Totals: 650 - DEDUCT FOR DMT												
\$-93,700.00						[]	-93,701					-93,701
-93,699.999		1 LS					-93,699.99					-93,699.99

Total of Above Sub-Biditems

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 650										SS
Description =	DEDUCT FOR DMT		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		0.000
Item Totals: 600 - EQUIPMENT SETTING										
\$-8,612.43	392.0000 MH/LS		392.00 MH	[9503]	14,553	-28,456		5,291		-8,613
-8,612.429	1 LS				14,553.07	-28,455.99		5,290.50		-8,612.42
PARENT ITEM = 700										
Description =	PIPE SUPPORTS		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000
Listing of Sub-Biditems of Parent Item 700:										
PARENT ITEM = 705										SS
Description =	MAIN SITE		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000
Listing of Sub-Biditems of Parent Item 705:										
BID ITEM = 710										SS
Description =	CONCRETE FOR SUPPORTS		Unit =	EA	Takeoff Quan:		15.000	Engr Quan:		0.000
710L	Backfill Supports		Quan:	15.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
<u>SSBHE1</u>	Backhoe Exc Crew		15.00 CH	Prod:	1.0000 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	
8BA580	Backhoe - 580 Case	1.00	15.00 HR	33.000			495		495	
L2	Lab-Concrete,GuinCha	2.00	30.00 MH *	24.063	722				722	
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	15.00 MH *	36.677	550				550	
\$1,767.04	3.0000 MH/EA		45.00 MH	[55]	1,272		495		1,767	
1.8750 Shifts	8.0000 Un/Shift		0.3333 Unit/MH		84.80		33.00		117.80	
710B	Backfill Supports		Quan:	195.00 CY	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
<u>SSBHE1</u>	Backhoe Exc Crew		45.00 CH	Prod:	4.3333 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	
8BA580	Backhoe - 580 Case	1.00	45.00 HR	33.000			1,485		1,485	
L2	Lab-Concrete,GuinCha	2.00	90.00 MH *	24.063	2,166				2,166	
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	45.00 MH *	36.678	1,650				1,650	
\$5,301.12	0.6923 MH/CY		135.00 MH	[12.692]	3,816		1,485		5,301	
5.6250 Shifts	34.6667 Un/Shift		1.4444 Unit/MH		19.57		7.62		27.19	
710C	Ex to Bottom of Footing		Quan:	15.00 CY	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
<u>SSBHE1</u>	Backhoe Exc Crew		7.50 CH	Prod:	2.0000 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	
8BA580	Backhoe - 580 Case	1.00	7.50 HR	33.000			248		248	
L2	Lab-Concrete,GuinCha	2.00	15.00 MH *	24.063	361				361	
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	7.50 MH *	36.679	275				275	
\$883.53	1.5000 MH/CY		22.50 MH	[27.5]	636		248		884	
0.9375 Shifts	16.0000 Un/Shift		0.6667 Unit/MH		42.40		16.50		58.90	
710D	GLT Footing		Quan:	15.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
<u>SSCURE</u>	Cure Crew		15.00 CH	Prod:	1.0000 UH	Lab Pcs:	1.00	Eqp Pcs:	0.00	
L2	Lab-Concrete,GuinCha	1.00	15.00 MH *	24.063	361				361	
\$360.94	1.0000 MH/EA		15.00 MH	[15]	361				361	
1.8750 Shifts	8.0000 Un/Shift		1.0000 Unit/MH		24.06				24.06	
710E	Form Footing		Quan:	225.00 SF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		**Unreviewed
<u>SSFM3</u>	Form Crew 3		30.00 CH	Prod:	7.5000 UH	Lab Pcs:	3.50	Eqp Pcs:	0.50	

Cost Report

Activity	Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm	Material	Constr	Equip	Sub-	Total
										Matl/Exp	Ment	Contract	
BID ITEM = 710													
Description =	CONCRETE FOR SUPPORTS					Unit =	EA	Takeoff Quan:		15.000	Engr Quan:		SS 0.000
3FORMSSF	Form Rental Rate SF	1.00	225.00	SF		2.000			450				450
8TRPU	Truck - Pickup Ex. Cab	0.50	15.00	HR		14.000					210		210
C	Carpenter	2.00	60.00	MH *		45.268	2,716						2,716
CF	Carpenter-Foreman	0.50	15.00	MH *		48.297	724						724
L2	Lab-Concrete,GuinCha	1.00	30.00	MH *		24.063	722						722
\$4,822.40	0.4666	MH/SF	105.00	MH		[11.667]	4,162		450		210		4,822
3.7500	Shifts	60.0000	Un/Shift	2.1429	Unit/MH		18.50		2.00		0.93		21.43
710F Column Racks													
					Quan:	30.00	EA	Hrs/Shift:	8.00	Cal:	508	WC: AZ00	
SSCARP	Carpenter		15.00	CH	Prod:	2.0000	UH	Lab Pcs:	1.00	Eqp Pcs:			**Unreviewed 0.00
C	Carpenter	1.00	15.00	MH *		45.268	679						679
\$679.02	0.5000	MH/EA	15.00	MH		[14.25]	679						679
1.8750	Shifts	16.0000	Un/Shift	2.0000	Unit/MH		22.63						22.63
710G Pour Footing													
					Quan:	7.50	CY	Hrs/Shift:	8.00	Cal:	508	WC: AZ00	
SSFM3	Form Crew 3		7.50	CH	Prod:	1.0000	UH	Lab Pcs:	3.50	Eqp Pcs:			**Unreviewed 0.50
2CONC3000	3000 PSI Concrete	1.00	7.50	CY		104.200	782						782
8TRPU	Truck - Pickup Ex. Cab	0.50	3.75	HR		14.000				53			53
C	Carpenter	2.00	15.00	MH *		45.268	679						679
CF	Carpenter-Foreman	0.50	3.75	MH *		48.299	181						181
L2	Lab-Concrete,GuinCha	1.00	7.50	MH *		24.063	180						180
\$1,874.61	3.5000	MH/CY	26.25	MH		[87.5]	1,041	782		53			1,875
0.9375	Shifts	8.0000	Un/Shift	0.2857	Unit/MH		138.75	104.20		7.00			249.95
710H Finish/Cure													
					Quan:	15.00	EA	Hrs/Shift:	8.00	Cal:	508	WC: AZ00	
SSCURE	Cure Crew		7.50	CH	Prod:	2.0000	UH	Lab Pcs:	1.00	Eqp Pcs:			**Unreviewed 0.00
L2	Lab-Concrete,GuinCha	1.00	7.50	MH *		24.063	180						180
\$180.47	0.5000	MH/EA	7.50	MH		[7.5]	180						180
0.9375	Shifts	16.0000	Un/Shift	2.0000	Unit/MH		12.03						12.03
710I Form Columns													
					Quan:	30.00	EA	Hrs/Shift:	8.00	Cal:	508	WC: AZ00	
SSFM3	Form Crew 3		15.00	CH	Prod:	2.0000	UH	Lab Pcs:	3.50	Eqp Pcs:			**Unreviewed 0.50
3FORMSCOL	Column Forms	1.00	8.00	EA		50.000			400				400
8TRPU	Truck - Pickup Ex. Cab	0.50	7.50	HR		14.000				105			105
C	Carpenter	2.00	30.00	MH *		45.268	1,358						1,358
CF	Carpenter-Foreman	0.50	7.50	MH *		48.296	362						362
L2	Lab-Concrete,GuinCha	1.00	15.00	MH *		24.063	361						361
\$2,586.19	1.7500	MH/EA	52.50	MH		[43.75]	2,081		400	105			2,586
1.8750	Shifts	16.0000	Un/Shift	0.5714	Unit/MH		69.37		13.33	3.50			86.21
710J Pour Columns													
					Quan:	30.00	EA	Hrs/Shift:	8.00	Cal:	508	WC: AZ00	
SSFM3	Form Crew 3		15.00	CH	Prod:	2.0000	UH	Lab Pcs:	3.50	Eqp Pcs:			**Unreviewed 0.50
2CONC3000	3000 PSI Concrete	1.00	3.00	CY		104.200	313						313
8TRPU	Truck - Pickup Ex. Cab	0.50	7.50	HR		14.000				105			105
C	Carpenter	2.00	30.00	MH *		45.268	1,358						1,358
CF	Carpenter-Foreman	0.50	7.50	MH *		48.296	362						362
L2	Lab-Concrete,GuinCha	1.00	15.00	MH *		24.063	361						361
\$2,498.79	1.7500	MH/EA	52.50	MH		[43.75]	2,081	313		105			2,499
1.8750	Shifts	16.0000	Un/Shift	0.5714	Unit/MH		69.37	10.42		3.50			83.29
710K Finish TOC													
					Quan:	30.00	EA	Hrs/Shift:	8.00	Cal:	508	WC: AZ00	
SSFIN	Finisher		7.50	CH	Prod:	4.0000	UH	Lab Pcs:	1.00	Eqp Pcs:			**Unreviewed 0.00
F	Concrete Finisher	1.00	7.50	MH *		31.532	236						236

Cost Report

Activity	Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm	Material	Constr	Matl/Exp	Equip	Sub-	Contract	Total
BID ITEM = 710															
Description =	CONCRETE FOR SUPPORTS				Unit =	EA	Takeoff Quan:		15.000		Engr Quan:				SS 0.000
\$236.49		0.2500 MH/EA		7.50 MH		[5.25]	236								236
0.9375	Shifts	32.0000 Un/Shift		4.0000 Unit/MH			7.88								7.88
710M Rebar Sub Supports															
						Quan:	15.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
4REBAR	Rebar Sub		1.00	15.00 EA		167.000								2,505	2,505
															**Unreviewed
Item Totals: 710 - CONCRETE FOR SUPPORTS															
\$23,695.60		32.2500 MH/EA		483.75 MH		[702.75]	16,547	1,094		850	2,700	2,505			23,696
1,579.707		15 EA					1,103.10	72.94		56.67	180.00	167.00			1,579.71
BID ITEM = 715															
Description =	FABRICATE AND INSTALL SUPPORTS				Unit =	EA	Takeoff Quan:		15.000		Engr Quan:				SS 0.000
715C Bolt Down Supports															
						Quan:	15.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
SSCL	Carpenter and Laborer			22.50 CH		Prod:	0.6667 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00				
2ANCHORSSP	Anchors for Supports	1.00	120.00 EA			3.000		360							360
2EPOXY	Epoxy for Dowels	1.00	120.00 EA			3.000		360							360
C	Carpenter	1.00	22.50 MH *			45.268	1,019								1,019
L2	Lab-Concrete,GuinCha	1.00	22.50 MH *			24.063	541								541
\$2,279.94		3.0000 MH/EA		45.00 MH		[65.25]	1,560	720							2,280
2.8125	Shifts	5.3333 Un/Shift		0.3333 Unit/MH			104.00	48.00							152.00
715D Grout Supports															
						Quan:	15.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
SSPTCH	Patch Crew			30.00 CH		Prod:	0.5000 UH	Lab Pcs:	2.00	Eqp Pcs:	0.00				
2GROUTBGS	Grout Bags Sika 212	1.00	15.00 EA			15.000		225							225
L2	Lab-Concrete,GuinCha	2.00	60.00 MH *			24.063	1,444								1,444
\$1,668.75		4.0000 MH/EA		60.00 MH		[60]	1,444	225							1,669
3.7500	Shifts	4.0000 Un/Shift		0.2500 Unit/MH			96.25	15.00							111.25
715A Fabricate Supports															
						Quan:	15.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
2FABSUPPORTS	Fabricate Supports	1.00	15.00 EA			800.000		12,000							12,000
															**Unreviewed
715B Set Supports															
						Quan:	15.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
SSSTSP	Set Support Crew			7.50 CH		Prod:	2.0000 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00				
8CR60	Crane - 60-65 Tn Hydro	1.00	7.50 HR			89.500				671					671
8TRPU	Truck - Pickup Ex. Cab	1.00	7.50 HR			14.000				105					105
C	Carpenter	2.00	15.00 MH *			45.268	679								679
CF	Carpenter-Foreman	1.00	7.50 MH *			48.296	362								362
L2	Lab-Concrete,GuinCha	2.00	15.00 MH *			24.063	361								361
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	7.50 MH *			36.679	275								275
\$2,453.52		3.0000 MH/EA		45.00 MH		[71.5]	1,677			776					2,454
0.9375	Shifts	16.0000 Un/Shift		0.3333 Unit/MH			111.82			51.75					163.57
Item Totals: 715 - FABRICATE AND INSTALL SUPPORTS															
\$18,402.21		10.0000 MH/EA		150.00 MH		[196.75]	4,681	12,945		776					18,402
1,226.814		15 EA					312.06	863.00		51.75					1,226.81

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 720										SS
Description =	MISCELLANEOUS SUPPORTS		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		0.000
720	MISCELLANEOUS SUPPORTS		Quan:	1.00 LS	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
2SUPPORTSMIS	Miscellaneous Supports	1.00	1.00 LS	15,000.000		15,000				15,000
====>	Item Totals:	720	- MISCELLANEOUS SUPPORTS							
\$15,000.00				[]		15,000				15,000
15,000.000		1 LS				15,000.00				15,000.00
BID ITEM = 725										SS
Description =	INSTALL BEAMS FOR TUBING		Unit =	EA	Takeoff Quan:		2.000	Engr Quan:		0.000
====>	Item Totals:	725	- INSTALL BEAMS FOR TUBING							
\$0.00				[]						
0.000		2 EA								
BID ITEM = 730										SS
Description =	TRENCH FOR TUBING		Unit =	LF	Takeoff Quan:		80.000	Engr Quan:		0.000
730A	Purchase and Install Trenwa		Quan:	80.00 LF	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
<u>SSTREN</u>	Trenwa Crew	16.00	CH	Prod:	5.0000 UH	Lab Pcs:	5.00	Eqp Pcs:	2.00	
2TRENWA	Trenwa Trench	1.00	80.00 LF	150.000		12,000				12,000
8BA580	Backhoe - 580 Case	1.00	16.00 HR	33.000				528		528
8TRPU	Truck - Pickup Ex. Cab	1.00	16.00 HR	14.000				224		224
C	Carpenter	2.00	32.00 MH *	45.268	1,449					1,449
CF	Carpenter-Foreman	1.00	16.00 MH *	48.296	773					773
L2	Lab-Concrete,GuinCha	1.00	16.00 MH *	24.063	385					385
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	16.00 MH *	36.678	587					587
\$15,945.15	1.0000 MH/LF		80.00 MH	[25.6]	3,193	12,000		752		15,945
2.0000 Shifts	40.0000 Un/Shift		1.0000 Unit/MH		39.91	150.00		9.40		199.31
====>	Item Totals:	730	- TRENCH FOR TUBING							
\$15,945.15		1.0000 MH/LF	80.00 MH	[25.6]	3,193	12,000		752		15,945
199.314		80 LF			39.91	150.00		9.40		199.31
Total of Above Sub-Biditems										
====>	Item Totals:	705	- MAIN SITE							
\$73,042.96		713.7500 MH/LF	713.75 MH	[15540.5]	24,421	41,039	850	4,228	2,505	73,043
73,042.960		1 LS			24,420.61	41,039.10	850.00	4,228.25	2,505.00	73,042.96
PARENT ITEM = 750										SS
Description =	H2S SITE		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000

Listing of Sub-Biditems of Parent Item 750:

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 755										
Description = CONCRETE FOR SUPPORTS			Unit =	EA	Takeoff Quan:	8.000		Engr Quan:		0.000
755A	Ex for Supports				Quan:	104.00 CY	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	
<u>SSBHE1</u>	Backhoe Exc Crew		16.00 CH	Prod:	6.5000 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	**Unreviewed
8BA580	Backhoe - 580 Case	1.00	16.00 HR	33.000				528		528
L2	Lab-Concrete,GuinCha	2.00	32.00 MH *	24.063	770					770
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	16.00 MH *	36.678	587					587
\$1,884.84	0.4615 MH/CY		48.00 MH	[8.462]	1,357			528		1,885
2.0000 Shifts	52.0000 Un/Shift		2.1667 Unit/MH		13.05			5.08		18.12
755B	Backfill Supports				Quan:	104.00 CY	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	
<u>SSBHE1</u>	Backhoe Exc Crew		24.00 CH	Prod:	4.3333 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	**Unreviewed
8BA580	Backhoe - 580 Case	1.00	24.00 HR	33.000				792		792
L2	Lab-Concrete,GuinCha	2.00	48.00 MH *	24.063	1,155					1,155
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	24.00 MH *	36.678	880					880
\$2,827.26	0.6923 MH/CY		72.00 MH	[12.692]	2,035			792		2,827
3.0000 Shifts	34.6667 Un/Shift		1.4444 Unit/MH		19.57			7.62		27.19
755C	Ex to Bottom of Footing				Quan:	8.00 CY	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	
<u>SSBHE1</u>	Backhoe Exc Crew		4.00 CH	Prod:	2.0000 UH	Lab Pcs:	3.00	Eqp Pcs:	1.00	**Unreviewed
8BA580	Backhoe - 580 Case	1.00	4.00 HR	33.000				132		132
L2	Lab-Concrete,GuinCha	2.00	8.00 MH *	24.063	193					193
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	4.00 MH *	36.678	147					147
\$471.21	1.5000 MH/CY		12.00 MH	[27.5]	339			132		471
0.5000 Shifts	16.0000 Un/Shift		0.6667 Unit/MH		42.40			16.50		58.90
755D	GLT Footing				Quan:	8.00 EA	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	
<u>SSCURE</u>	Cure Crew		8.00 CH	Prod:	1.0000 UH	Lab Pcs:	1.00	Eqp Pcs:	0.00	**Unreviewed
L2	Lab-Concrete,GuinCha	1.00	8.00 MH *	24.063	193					193
\$192.50	1.0000 MH/EA		8.00 MH	[15]	193					193
1.0000 Shifts	8.0000 Un/Shift		1.0000 Unit/MH		24.06					24.06
755E	Form Footing				Quan:	120.00 SF	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	
<u>SSFM3</u>	Form Crew 3		16.00 CH	Prod:	7.5000 UH	Lab Pcs:	3.50	Eqp Pcs:	0.50	**Unreviewed
3FORMSSF	Form Rental Rate SF	1.00	120.00 SF	2.000			240			240
8TRPU	Truck - Pickup Ex. Cab	0.50	8.00 HR	14.000				112		112
C	Carpenter	2.00	32.00 MH *	45.268	1,449					1,449
CF	Carpenter-Foreman	0.50	8.00 MH *	48.296	386					386
L2	Lab-Concrete,GuinCha	1.00	16.00 MH *	24.063	385					385
\$2,571.94	0.4666 MH/SF		56.00 MH	[11.667]	2,220		240	112		2,572
2.0000 Shifts	60.0000 Un/Shift		2.1429 Unit/MH		18.50		2.00	0.93		21.43
755F	Column Racks				Quan:	16.00 EA	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	
<u>SSCARP</u>	Carpenter		8.00 CH	Prod:	2.0000 UH	Lab Pcs:	1.00	Eqp Pcs:	0.00	**Unreviewed
C	Carpenter	1.00	8.00 MH *	45.268	362					362
\$362.14	0.5000 MH/EA		8.00 MH	[14.25]	362					362
1.0000 Shifts	16.0000 Un/Shift		2.0000 Unit/MH		22.63					22.63
755G	Pour Footing				Quan:	4.00 CY	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	
<u>SSFM3</u>	Form Crew 3		4.00 CH	Prod:	1.0000 UH	Lab Pcs:	3.50	Eqp Pcs:	0.50	**Unreviewed
2CONC3000	3000 PSI Concrete	1.00	4.00 CY	104.200	417					417
8TRPU	Truck - Pickup Ex. Cab	0.50	2.00 HR	14.000				28		28
C	Carpenter	2.00	8.00 MH *	45.268	362					362

Activity	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm	Constr	Equip	Sub-	Total
Resource							Material	Matl/Exp	Ment	Contract	
BID ITEM = 755											
Description =	CONCRETE FOR SUPPORTS			Unit =	EA	Takeoff Quan:		8.000	Engr Quan:		0.000
CF	Carpenter-Foreman	0.50	2.00	MH *	48.295	97					97
L2	Lab-Concrete,GuinCha	1.00	4.00	MH *	24.063	96					96
\$999.78		3.5000	MH/CY	14.00	MH	[87.5]	555	417		28	1,000
0.5000	Shifts	8.0000	Un/Shift	0.2857	Unit/MH		138.75	104.20		7.00	249.95
755H	Finish/Cure			Quan:	8.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSCURE	Cure Crew		4.00	CH	Prod:	2.0000 UH	Lab Pcs:	1.00	Eqp Pcs:		0.00
L2	Lab-Concrete,GuinCha	1.00	4.00	MH *	24.063	96					96
\$96.25		0.5000	MH/EA	4.00	MH	[7.5]	96				96
0.5000	Shifts	16.0000	Un/Shift	2.0000	Unit/MH		12.03				12.03
755I	Form Columns			Quan:	16.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSFM3	Form Crew 3		8.00	CH	Prod:	2.0000 UH	Lab Pcs:	3.50	Eqp Pcs:		0.50
3FORMSCOL	Column Forms	1.00	4.26	EA	50.000		213				213
8TRPU	Truck - Pickup Ex. Cab	0.50	4.00	HR	14.000				56		56
C	Carpenter	2.00	16.00	MH *	45.268	724					724
CF	Carpenter-Foreman	0.50	4.00	MH *	48.298	193					193
L2	Lab-Concrete,GuinCha	1.00	8.00	MH *	24.063	193					193
\$1,378.97		1.7500	MH/EA	28.00	MH	[43.75]	1,110	213	56		1,379
1.0000	Shifts	16.0000	Un/Shift	0.5714	Unit/MH		69.37	13.31	3.50		86.19
755J	Pour Columns			Quan:	16.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSEM3	Form Crew 3		8.00	CH	Prod:	2.0000 UH	Lab Pcs:	3.50	Eqp Pcs:		0.50
2CONC3000	3000 PSI Concrete	1.00	2.00	CY	104.200	208					208
8TRPU	Truck - Pickup Ex. Cab	0.50	4.00	HR	14.000				56		56
C	Carpenter	2.00	16.00	MH *	45.268	724					724
CF	Carpenter-Foreman	0.50	4.00	MH *	48.298	193					193
L2	Lab-Concrete,GuinCha	1.00	8.00	MH *	24.063	193					193
\$1,374.37		1.7500	MH/EA	28.00	MH	[43.75]	1,110	208	56		1,374
1.0000	Shifts	16.0000	Un/Shift	0.5714	Unit/MH		69.37	13.03	3.50		85.90
755K	Finish TOC			Quan:	16.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSFIN	Finisher		4.00	CH	Prod:	4.0000 UH	Lab Pcs:	1.00	Eqp Pcs:		0.00
F	Concrete Finisher	1.00	4.00	MH *	31.533	126					126
\$126.13		0.2500	MH/EA	4.00	MH	[5.25]	126				126
0.5000	Shifts	32.0000	Un/Shift	4.0000	Unit/MH		7.88				7.88
755L	Backfill Supports			Quan:	8.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00		
SSBHE1	Backhoe Exc Crew		8.00	CH	Prod:	1.0000 UH	Lab Pcs:	3.00	Eqp Pcs:		1.00
8BA580	Backhoe - 580 Case	1.00	8.00	HR	33.000			264			264
L2	Lab-Concrete,GuinCha	2.00	16.00	MH *	24.063	385					385
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	8.00	MH *	36.678	293					

Activity	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Material	Perm	Constr	Equip	Sub-Ment	Contract	Total
BID ITEM = 760													
Description =	FABRICATE AND INSTALL SUPPORTS			Unit =	EA	Takeoff Quan:		8.000		Engr Quan:			0.000
760A	Fabricate Supports			Quan:	8.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
2FABSUPPORTS	Fabricate Supports	1.00	8.00	EA	1,198.000		9,584						**Unreviewed
760B	Set Supports			Quan:	8.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
<u>SSSTSP</u>	Set Support Crew		8.00	CH	Prod:	1.0000 UH	Lab Pcs:	6.00		Eqp Pcs:	2.00		
8CR60	Crane - 60-65 Tn Hydro	1.00	8.00	HR	89.500				716		716		
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00	HR	14.000				112		112		
C	Carpenter	2.00	16.00	MH *	45.268	724					724		
CF	Carpenter-Foreman	1.00	8.00	MH *	48.296	386					386		
L2	Lab-Concrete,GuinCha	2.00	16.00	MH *	24.063	385					385		
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	8.00	MH *	36.678	293					293		
\$2,617.07	6.0000 MH/EA		48.00	MH	[143]	1,789			828		2,617		
1.0000 Shifts	8.0000 Un/Shift		0.1667	Unit/MH		223.63			103.50		327.13		
760C	Bolt Down Supports			Quan:	8.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
<u>SSCL</u>	Carpenter and Laborer		12.00	CH	Prod:	0.6667 UH	Lab Pcs:	2.00		Eqp Pcs:	0.00		**Unreviewed
2ANCHORSSP	Anchors for Supports	1.00	64.00	EA	3.000	192					192		
2EPOXY	Epoxy for Dowels	1.00	64.00	EA	3.000	192					192		
C	Carpenter	1.00	12.00	MH *	45.268	543					543		
L2	Lab-Concrete,GuinCha	1.00	12.00	MH *	24.063	289					289		
\$1,215.96	3.0000 MH/EA		24.00	MH	[65.25]	832	384				1,216		
1.5000 Shifts	5.3333 Un/Shift		0.3333	Unit/MH		104.00	48.00				152.00		
760D	Grout Supports			Quan:	8.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
<u>SSPTCH</u>	Patch Crew		16.00	CH	Prod:	0.5000 UH	Lab Pcs:	2.00		Eqp Pcs:	0.00		**Unreviewed
2GROUTBGS	Grout Bags Sika 212	1.00	8.00	EA	15.000	120					120		
L2	Lab-Concrete,GuinCha	2.00	32.00	MH *	24.063	770					770		
\$890.00	4.0000 MH/EA		32.00	MH	[60]	770	120				890		
2.0000 Shifts	4.0000 Un/Shift		0.2500	Unit/MH		96.25	15.00				111.25		
Item Totals: 760 - FABRICATE AND INSTALL SUPPORTS													
\$14,307.03	13.0000 MH/EA		104.00	MH	[268.25]	3,391	10,088		828		14,307		
1,788.379	8 EA					423.88	1,261.00		103.50		1,788.38		

Description =	INSTALL BEAMS FOR PIPING	Unit =	EA	Takeoff Quan:	8.000	Engr Quan:	0.000
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770A		INSTALL BEAMS FOR PIPING/MODIFY SUPPOR		Quan:	20.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
<u>SSSTSP</u>	Set Support Crew		40.00	CH	Prod:	0.5000 UH	Lab Pcs:	6.00	Eqp Pcs:	2.00
2FABSUP1	Fabricate Beam Supports	1.00	20.00	EA	400.000	8,000				8,000
8CR60	Crane - 60-65 Tn Hydro	1.00	40.00	HR	89.500			3,580		3,580
8TRPU	Truck - Pickup Ex. Cab	1.00	40.00	HR	14.000			560		560
C	Carpenter	2.00	80.00	MH *	45.268	3,621				3,621
CF	Carpenter-Foreman	1.00	40.00	MH *	48.297	1,932				1,932
L2	Lab-Concrete,GuinCha	2.00	80.00	MH *	24.063	1,925				1,925
O3	Oper-Blade,TrkHoe,+6cyLo	1.00	40.00	MH *	36.678	1,467				1,467
\$21,085.38	12.0000 MH/EA		240.00	MH	[286]	8,945	8,000	4,140		21,085
5.0000 Shifts	4.0000 Un/Shift		0.0833	Unit/MH		447.27	400.00	207.00		1,054.27
====> Item Totals:		770	- INSTALL BEAMS FOR PIPING							

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 770										
Description =	INSTALL BEAMS FOR PIPING		Unit =	EA	Takeoff Quan:		8.000	Engr Quan:		0.000
\$21,085.38	30.0000 MH/EA	240.00 MH		[715]	8,945	8,000		4,140		21,085
2,635.673	8 EA				1,118.17	1,000.00		517.50		2,635.67

Total of Above Sub-Biditems

Item Totals: 750 - H2S SITE										
\$49,956.22	650.0000 MH/LS	650.00 MH		[14368]	22,518	18,713	453	6,936	1,336	49,956
49,956.220	1 LS				22,518.02	18,713.20	453.00	6,936.00	1,336.00	49,956.22

Total of Above Sub-Biditems

Item Totals: 700 - PIPE SUPPORTS										
\$122,999.18	1,363.7500 MH/LS	1,363.75 MH		[29908.5]	46,939	59,752	1,303	11,164	3,841	122,999
122,999.180	1 LS				46,938.63	59,752.30	1,303.00	11,164.25	3,841.00	122,999.18

PARENT ITEM = 800										
Description =	MECHANICAL PIPING		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000
Listing of Sub-Biditems of Parent Item 800:										

PARENT ITEM = 805										
Description =	AS30 PIPE		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000
Listing of Sub-Biditems of Parent Item 805:										

BID ITEM = 807										
Description =	2" PIPE		Unit =	LF	Takeoff Quan:		240.000	Engr Quan:		0.000

807A	2" PIPE				Quan:	240.00 LF	Hrs/Shift:	8.00	Cal:	508 WC: AZ00	
ASMECH	Mechanical Crew 1		10.00	CH	Prod:	24.0000 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	5.00	HR	43.000			215		215	
8MIWELD400	Welder - 400 AMP	1.00	10.00	HR	10.500			105		105	
8TRPU	Truck - Pickup Ex. Cab	1.00	10.00	HR	14.000			140		140	
M2	Metal Trades-Level 2	1.00	10.00	MH *	30.140	301				301	
MJ	Metal Trades-Journeyman	1.00	10.00	MH *	40.012	400				400	
O1	Oper- Load<3CY,Dirt Rolle	0.50	5.00	MH *	31.532	158				158	
SMF	Mechanical Foreman	1.00	10.00	MH *	47.731	477				477	
W	Welder	1.00	10.00	MH *	45.408	454				454	
\$2,250.57	0.1875 MH/LF	45.00 MH		[5.188]	1,791			460		2,251	
1.2500 Shifts	192.0000 Un/Shift	5.3333 Unit/MH			7.46			1.92		9.38	

807B	2" ELBOWS				Quan:	20.00 EA	Hrs/Shift:	8.00	Cal:	508 WC: AZ00	
ASMECH	Mechanical Crew 1		33.00	CH	Prod:	1.6500 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	16.50	HR	43.000			710		710	
8MIWELD400	Welder - 400 AMP	1.00	33.00	HR	10.500			347		347	

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 807										
Description = 2" PIPE			Unit =	LF	Takeoff Quan:		240.000	Engr Quan:		0.000
8TRPU	Truck - Pickup Ex. Cab	1.00	33.00 HR	14.000				462		462
M2	Metal Trades-Level 2	1.00	33.00 MH *	30.140	995					995
MJ	Metal Trades-Journeyman	1.00	33.00 MH *	40.012	1,320					1,320
O1	Oper- Load<3CY,Dirt Rolle	0.50	16.50 MH *	31.532	520					520
SMF	Mechanical Foreman	1.00	33.00 MH *	47.731	1,575					1,575
W	Welder	1.00	33.00 MH *	45.408	1,498					1,498
\$7,426.87	7.4250 MH/EA		148.50 MH	[205.425]	5,909			1,518		7,427
4.1250 Shifts	4.8485 Un/Shift		0.1347 Unit/MH		295.44			75.90		371.34
807C 2" FLANGES Quan: 26.00 EA Hrs/Shft: 8.00 Cal: 508 WC: AZ00										
ASMECH Mechanical Crew 1 18.20 CH Prod: 0.7000 HU Lab Pcs: 4.50 Eqp Pcs: 2.50 **Unreviewed										
8MIFORKLIFT	Forklift - 10K reach	0.50	9.10 HR	43.000				391		391
8MIWELD400	Welder - 400 AMP	1.00	18.20 HR	10.500				191		191
8TRPU	Truck - Pickup Ex. Cab	1.00	18.20 HR	14.000				255		255
M2	Metal Trades-Level 2	1.00	18.20 MH *	30.140	549					549
MJ	Metal Trades-Journeyman	1.00	18.20 MH *	40.012	728					728
O1	Oper- Load<3CY,Dirt Rolle	0.50	9.10 MH *	31.532	287					287
SMF	Mechanical Foreman	1.00	18.20 MH *	47.731	869					869
W	Welder	1.00	18.20 MH *	45.408	826					826
\$4,096.04	3.1500 MH/EA		81.90 MH	[87.15]	3,259			837		4,096
2.2750 Shifts	11.4286 Un/Shift		0.3175 Unit/MH		125.34			32.20		157.54
807D 2" NBG KIT Quan: 10.00 EA Hrs/Shft: 8.00 Cal: 508 WC: AZ00										
ASNBG NBG Crew 1 4.00 CH Prod: 0.4000 HU Lab Pcs: 2.50 Eqp Pcs: 1.50 **Unreviewed										
8MIWELD400	Welder - 400 AMP	1.00	4.00 HR	10.500				42		42
8TRPU	Truck - Pickup Ex. Cab	0.50	2.00 HR	14.000				28		28
M2	Metal Trades-Level 2	1.00	4.00 MH *	30.140	121					121
MJ	Metal Trades-Journeyman	1.00	4.00 MH *	40.013	160					160
SMF	Mechanical Foreman	0.50	2.00 MH *	47.730	95					95
\$446.07	1.0000 MH/EA		10.00 MH	[26]	376			70		446
0.5000 Shifts	20.0000 Un/Shift		1.0000 Unit/MH		37.61			7.00		44.61
807E 2" VALVES Quan: 5.00 EA Hrs/Shft: 8.00 Cal: 508 WC: AZ00										
ASNBG NBG Crew 1 5.00 CH Prod: 1.0000 HU Lab Pcs: 2.50 Eqp Pcs: 1.50 **Unreviewed										
8MIWELD400	Welder - 400 AMP	1.00	5.00 HR	10.500				53		53
8TRPU	Truck - Pickup Ex. Cab	0.50	2.50 HR	14.000				35		35
M2	Metal Trades-Level 2	1.00	5.00 MH *	30.140	151					151
MJ	Metal Trades-Journeyman	1.00	5.00 MH *	40.012	200					200
SMF	Mechanical Foreman	0.50	2.50 MH *	47.732	119					119
\$557.59	2.5000 MH/EA		12.50 MH	[65]	470			88		558
0.6250 Shifts	8.0000 Un/Shift		0.4000 Unit/MH		94.02			17.50		111.52
Item Totals: 807 - 2" PIPE										
\$14,777.14	1.2412 MH/LF		297.90 MH	[34.185]	11,804			2,973		14,777
61.571	240 LF				49.19			12.39		61.57

BID ITEM = 809											
Description = 4" PIPE			Unit = LF		Takeoff Quan: 120.000		Engr Quan: 0.000				
809A 4" PIPE											
Quan: 120.00 LF			Hrs/Shft: 8.00		Cal: 508		WC: AZ00				
**Unreviewed											
ASMECH		Mechanical Crew 1		10.00		CH		Prod: 12.0000 UH		Lab Pcs: 4.50 Eqp Pcs: 2.50	
8MIFORKLIFT		Forklift - 10K reach		0.50 5.00 HR		43.000				215 215	

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 809										
Description = 4" PIPE			Unit =	LF	Takeoff	Quan:	120.000	Engr	Quan:	0.000
8MIWELD400	Welder - 400 AMP	1.00	10.00 HR	10.500				105		105
8TRPU	Truck - Pickup Ex. Cab	1.00	10.00 HR	14.000				140		140
M2	Metal Trades-Level 2	1.00	10.00 MH *	30.140	301					301
MJ	Metal Trades-Journeyman	1.00	10.00 MH *	40.012	400					400
O1	Oper- Load<3CY,Dirt Rolle	0.50	5.00 MH *	31.532	158					158
SMF	Mechanical Foreman	1.00	10.00 MH *	47.731	477					477
W	Welder	1.00	10.00 MH *	45.408	454					454
\$2,250.57	0.3750 MH/LF		45.00 MH	[10.375]	1,791			460		2,251
1.2500 Shifts	96.0000 Un/Shift		2.6667 Unit/MH		14.92			3.83		18.75
809B 4" ELBOWS										
			Quan:	13.00 EA	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
<u>ASMECH</u>			32.50 CH	Prod:	2.5000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	
8MIFORKLIFT	Forklift - 10K reach	0.50	16.25 HR	43.000				699		699
8MIWELD400	Welder - 400 AMP	1.00	32.50 HR	10.500				341		341
8TRPU	Truck - Pickup Ex. Cab	1.00	32.50 HR	14.000				455		455
M2	Metal Trades-Level 2	1.00	32.50 MH *	30.140	980					980
MJ	Metal Trades-Journeyman	1.00	32.50 MH *	40.012	1,300					1,300
O1	Oper- Load<3CY,Dirt Rolle	0.50	16.25 MH *	31.532	512					512
SMF	Mechanical Foreman	1.00	32.50 MH *	47.731	1,551					1,551
W	Welder	1.00	32.50 MH *	45.408	1,476					1,476
\$7,314.37	11.2500 MH/EA		146.25 MH	[311.25]	5,819			1,495		7,314
4.0625 Shifts	3.2000 Un/Shift		0.0889 Unit/MH		447.64			115.00		562.64
809C 4" TEE										
			Quan:	3.00 EA	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
<u>ASMECH</u>			10.50 CH	Prod:	3.5000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	
8MIFORKLIFT	Forklift - 10K reach	0.50	5.25 HR	43.000				226		226
8MIWELD400	Welder - 400 AMP	1.00	10.50 HR	10.500				110		110
8TRPU	Truck - Pickup Ex. Cab	1.00	10.50 HR	14.000				147		147
M2	Metal Trades-Level 2	1.00	10.50 MH *	30.141	316					316
MJ	Metal Trades-Journeyman	1.00	10.50 MH *	40.012	420					420
O1	Oper- Load<3CY,Dirt Rolle	0.50	5.25 MH *	31.531	166					166
SMF	Mechanical Foreman	1.00	10.50 MH *	47.731	501					501
W	Welder	1.00	10.50 MH *	45.408	477					477
\$2,363.11	15.7500 MH/EA		47.25 MH	[435.75]	1,880			483		2,363
1.3125 Shifts	2.2857 Un/Shift		0.0635 Unit/MH		626.70			161.00		787.70
809D 4" FLANGES										
			Quan:	17.00 EA	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
<u>ASMECH</u>			17.00 CH	Prod:	1.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	
8MIFORKLIFT	Forklift - 10K reach	0.50	8.50 HR	43.000				366		366
8MIWELD400	Welder - 400 AMP	1.00	17.00 HR	10.500				179		179
8TRPU	Truck - Pickup Ex. Cab	1.00	17.00 HR	14.000				238		238
M2	Metal Trades-Level 2	1.00	17.00 MH *	30.140	512					512
MJ	Metal Trades-Journeyman	1.00	17.00 MH *	40.012	680					680
O1	Oper- Load<3CY,Dirt Rolle	0.50	8.50 MH *	31.532	268					268
SMF	Mechanical Foreman	1.00	17.00 MH *	47.731	811					811
W	Welder	1.00	17.00 MH *	45.408	772					772
\$3,825.97	4.5000 MH/EA		76.50 MH	[124.5]	3,044			782		3,826
2.1250 Shifts	8.0000 Un/Shift		0.2222 Unit/MH		179.06			46.00		225.06
809E 4" NBG KIT										
			Quan:	17.00 EA	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
<u>ASNBG</u>			12.75 CH	Prod:	0.7500 HU	Lab Pcs:	2.50	Eqp Pcs:	1.50	
8MIWELD400	Welder - 400 AMP	1.00	12.75 HR	10.500				134		134
8TRPU	Truck - Pickup Ex. Cab	0.50	6.38 HR	14.000				89		89
M2	Metal Trades-Level 2	1.00	12.75 MH *	30.140	384					384
MJ	Metal Trades-Journeyman	1.00	12.75 MH *	40.013	510					510

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 809										
Description =	4" PIPE		Unit =	LF	Takeoff Quan:		120.000	Engr Quan:		0.000
SMF	Mechanical Foreman	0.50	6.38 MH *	47.732	305					305
\$1,422.16		1.8752 MH/EA	31.88 MH	[48.76]	1,199			223		1,422
1.5938 Shifts		10.6667 Un/Shift	0.5332 Unit/MH		70.53			13.13		83.66
809F 4" VALVES										
					Quan:	2.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00
ASNBG	NBG Crew 1		4.00 CH	Prod:	2.0000 HU	Lab Pcs:	2.50	Eqp Pcs:	1.50	**Unreviewed
8MIWELD400	Welder - 400 AMP	1.00	4.00 HR	10.500				42		42
8TRPU	Truck - Pickup Ex. Cab	0.50	2.00 HR	14.000				28		28
M2	Metal Trades-Level 2	1.00	4.00 MH *	30.140	121					121
MJ	Metal Trades-Journeyman	1.00	4.00 MH *	40.013	160					160
SMF	Mechanical Foreman	0.50	2.00 MH *	47.730	95					95
\$446.07		5.0000 MH/EA	10.00 MH	[130]	376			70		446
0.5000 Shifts		4.0000 Un/Shift	0.2000 Unit/MH		188.04			35.00		223.04
Item Totals: 809 - 4" PIPE										
\$17,622.25		2.9740 MH/LF	356.88 MH	[81.699]	14,109			3,513		17,622
146.852		120 LF			117.58			29.28		146.85

BID ITEM = 811										
Description =	6" PIPE		Unit =	LF	Takeoff Quan:		120.000	Engr Quan:		0.000
811A 6" PIPE										
					Quan:	120.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00
ASMECH	Mechanical Crew 1		12.00 CH	Prod:	10.0000 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	6.00 HR	43.000				258		258
8MIWELD400	Welder - 400 AMP	1.00	12.00 HR	10.500				126		126
8TRPU	Truck - Pickup Ex. Cab	1.00	12.00 HR	14.000				168		168
M2	Metal Trades-Level 2	1.00	12.00 MH *	30.140	362					362
MJ	Metal Trades-Journeyman	1.00	12.00 MH *	40.012	480					480
O1	Oper- Load<3CY,Dirt Rolle	0.50	6.00 MH *	31.532	189					189
SMF	Mechanical Foreman	1.00	12.00 MH *	47.731	573					573
W	Welder	1.00	12.00 MH *	45.408	545					545
\$2,700.68		0.4500 MH/LF	54.00 MH	[12.45]	2,149			552		2,701
1.5000 Shifts		80.0000 Un/Shift	2.2222 Unit/MH		17.91			4.60		22.51
811B 6" ELBOWS										
					Quan:	5.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00
ASMECH	Mechanical Crew 1		17.50 CH	Prod:	3.5000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	8.75 HR	43.000				376		376
8MIWELD400	Welder - 400 AMP	1.00	17.50 HR	10.500				184		184
8TRPU	Truck - Pickup Ex. Cab	1.00	17.50 HR	14.000				245		245
M2	Metal Trades-Level 2	1.00	17.50 MH *	30.141	527					527
MJ	Metal Trades-Journeyman	1.00	17.50 MH *	40.013	700					700
O1	Oper- Load<3CY,Dirt Rolle	0.50	8.75 MH *	31.533	276					276
SMF	Mechanical Foreman	1.00	17.50 MH *	47.731	835					835
W	Welder	1.00	17.50 MH *	45.408	795					795
\$3,938.52		15.7500 MH/EA	78.75 MH	[435.75]	3,134			805		3,939
2.1875 Shifts		2.2857 Un/Shift	0.0635 Unit/MH		626.70			161.00		787.70
811C 6" TEE										
					Quan:	4.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00
ASMECH	Mechanical Crew 1		20.00 CH	Prod:	5.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	10.00 HR	43.000				430		430
8MIWELD400	Welder - 400 AMP	1.00	20.00 HR	10.500				210		210
8TRPU	Truck - Pickup Ex. Cab	1.00	20.00 HR	14.000				280		280

Cost Report

Activity	Resource	Desc	Pcs	Quantity	Unit	Unit Cost	Labor	Perm	Constr	Matl/Exp	Equip	Sub-Contract	Total
BID ITEM = 811													
Description = 6" PIPE					Unit =	LF	Takeoff Quan:		120.000		Engr Quan:		0.000
M2		Metal Trades-Level 2	1.00	20.00	MH *	30.140	603						603
MJ		Metal Trades-Journeyman	1.00	20.00	MH *	40.012	800						800
O1		Oper- Load<3CY,Dirt Rolle	0.50	10.00	MH *	31.532	315						315
SMF		Mechanical Foreman	1.00	20.00	MH *	47.731	955						955
W		Welder	1.00	20.00	MH *	45.408	908						908
\$4,501.14		22.5000 MH/EA		90.00	MH	[622.5]	3,581				920		4,501
2.5000 Shifts		1.6000 Un/Shift		0.0444	Unit/MH		895.29				230.00		1,125.29
811D 6" FLANGES													
				Quan:	16.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
<u>ASMECH</u>					32.00 CH	Prod:	2.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50		**Unreviewed
8MIFORKLIFT		Forklift - 10K reach	0.50	16.00	HR	43.000				688			688
8MIWELD400		Welder - 400 AMP	1.00	32.00	HR	10.500				336			336
8TRPU		Truck - Pickup Ex. Cab	1.00	32.00	HR	14.000				448			448
M2		Metal Trades-Level 2	1.00	32.00	MH *	30.140	964						964
MJ		Metal Trades-Journeyman	1.00	32.00	MH *	40.012	1,280						1,280
O1		Oper- Load<3CY,Dirt Rolle	0.50	16.00	MH *	31.531	505						505
SMF		Mechanical Foreman	1.00	32.00	MH *	47.731	1,527						1,527
W		Welder	1.00	32.00	MH *	45.408	1,453						1,453
\$7,201.81		9.0000 MH/EA		144.00	MH	[249]	5,730				1,472		7,202
4.0000 Shifts		4.0000 Un/Shift		0.1111	Unit/MH		358.11				92.00		450.11
811E 6" NBG KIT													
				Quan:	16.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
<u>ASNBG</u>					20.00 CH	Prod:	1.2500 HU	Lab Pcs:	2.50	Eqp Pcs:	1.50		**Unreviewed
8MIWELD400		Welder - 400 AMP	1.00	20.00	HR	10.500				210			210
8TRPU		Truck - Pickup Ex. Cab	0.50	10.00	HR	14.000				140			140
M2		Metal Trades-Level 2	1.00	20.00	MH *	30.140	603						603
MJ		Metal Trades-Journeyman	1.00	20.00	MH *	40.012	800						800
SMF		Mechanical Foreman	0.50	10.00	MH *	47.731	477						477
\$2,230.35		3.1250 MH/EA		50.00	MH	[81.25]	1,880				350		2,230
2.5000 Shifts		6.4000 Un/Shift		0.3200	Unit/MH		117.52				21.88		139.40
811F 6" VALVES													
				Quan:	5.00 EA	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00		
<u>ASMECH</u>					10.00 CH	Prod:	2.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50		**Unreviewed
8MIFORKLIFT		Forklift - 10K reach	0.50	5.00	HR	43.000				215			215
8MIWELD400		Welder - 400 AMP	1.00	10.00	HR	10.500				105			105
8TRPU		Truck - Pickup Ex. Cab	1.00	10.00	HR	14.000				140			140
M2		Metal Trades-Level 2	1.00	10.00	MH *	30.140	301						301
MJ		Metal Trades-Journeyman	1.00	10.00	MH *	40.012	400						400
O1		Oper- Load<3CY,Dirt Rolle	0.50	5.00	MH *	31.532	158						158
SMF		Mechanical Foreman	1.00	10.00	MH *	47.731	477						477
W		Welder	1.00	10.00	MH *	45.408	454						454
\$2,250.57		9.0000 MH/EA		45.00	MH	[249]	1,791				460		2,251
1.2500 Shifts		4.0000 Un/Shift		0.1111	Unit/MH		358.11				92.00		450.11
Item Totals: 811 - 6" PIPE													
\$22,823.07		3.8479 MH/LF		461.75	MH	[105.765]	18,264				4,559		22,823
190.192		120 LF					152.20				37.99		190.19

**Unreviewed

Cost Report

Activity	Desc	Quantity	Unit	Unit	Perm	Constr	Equip	Sub-	Total
Resource		Pcs		Cost	Labor	Material	Matl/Exp	Contract	
BID ITEM = 813									
Description =	8" PIPE		Unit =	LF	Takeoff Quan:	140.000	Engr Quan:		0.000
<u>ASMECH</u>	Mechanical Crew 1		17.50 CH	Prod:	8.0000 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	8.75 HR	43.000			376		376
8MIWELD400	Welder - 400 AMP	1.00	17.50 HR	10.500			184		184
8TRPU	Truck - Pickup Ex. Cab	1.00	17.50 HR	14.000			245		245
M2	Metal Trades-Level 2	1.00	17.50 MH *	30.141	527				527
MJ	Metal Trades-Journeyman	1.00	17.50 MH *	40.013	700				700
O1	Oper- Load<3CY,Dirt Rolle	0.50	8.75 MH *	31.533	276				276
SMF	Mechanical Foreman	1.00	17.50 MH *	47.731	835				835
W	Welder	1.00	17.50 MH *	45.408	795				795
\$3,938.52	0.5625 MH/LF		78.75 MH	[15.563]	3,134		805		3,939
2.1875 Shifts	64.0000 Un/Shift		1.7778 Unit/MH		22.38		5.75		28.13
813B 8" ELBOWS Quan: 19.00 EA Hrs/Shift: 8.00 Cal: 508 WC: AZ00 **Unreviewed									
<u>ASMECH</u>	Mechanical Crew 1		95.00 CH	Prod:	5.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	47.50 HR	43.000			2,043		2,043
8MIWELD400	Welder - 400 AMP	1.00	95.00 HR	10.500			998		998
8TRPU	Truck - Pickup Ex. Cab	1.00	95.00 HR	14.000			1,330		1,330
M2	Metal Trades-Level 2	1.00	95.00 MH *	30.140	2,863				2,863
MJ	Metal Trades-Journeyman	1.00	95.00 MH *	40.012	3,801				3,801
O1	Oper- Load<3CY,Dirt Rolle	0.50	47.50 MH *	31.532	1,498				1,498
SMF	Mechanical Foreman	1.00	95.00 MH *	47.731	4,534				4,534
W	Welder	1.00	95.00 MH *	45.408	4,314				4,314
\$21,380.40	22.5000 MH/EA		427.50 MH	[622.5]	17,010		4,370		21,380
11.8750 Shifts	1.6000 Un/Shift		0.0444 Unit/MH		895.28		230.00		1,125.28
813C 8" TEE Quan: 2.00 EA Hrs/Shift: 8.00 Cal: 508 WC: AZ00 **Unreviewed									
<u>ASMECH</u>	Mechanical Crew 1		12.00 CH	Prod:	6.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	6.00 HR	43.000			258		258
8MIWELD400	Welder - 400 AMP	1.00	12.00 HR	10.500			126		126
8TRPU	Truck - Pickup Ex. Cab	1.00	12.00 HR	14.000			168		168
M2	Metal Trades-Level 2	1.00	12.00 MH *	30.140	362				362
MJ	Metal Trades-Journeyman	1.00	12.00 MH *	40.012	480				480
O1	Oper- Load<3CY,Dirt Rolle	0.50	6.00 MH *	31.532	189				189
SMF	Mechanical Foreman	1.00	12.00 MH *	47.731	573				573
W	Welder	1.00	12.00 MH *	45.408	545				545
\$2,700.68	27.0000 MH/EA		54.00 MH	[747]	2,149		552		2,701
1.5000 Shifts	1.3333 Un/Shift		0.0370 Unit/MH		1,074.34		276.00		1,350.34
813D 8" FLANGES Quan: 18.00 EA Hrs/Shift: 8.00 Cal: 508 WC: AZ00 **Unreviewed									
<u>ASMECH</u>	Mechanical Crew 1		54.00 CH	Prod:	3.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	27.00 HR	43.000			1,161		1,161
8MIWELD400	Welder - 400 AMP	1.00	54.00 HR	10.500			567		567
8TRPU	Truck - Pickup Ex. Cab	1.00	54.00 HR	14.000			756		756
M2	Metal Trades-Level 2	1.00	54.00 MH *	30.140	1,628				1,628
MJ	Metal Trades-Journeyman	1.00	54.00 MH *	40.012	2,161				2,161
O1	Oper- Load<3CY,Dirt Rolle	0.50	27.00 MH *	31.531	851				851
SMF	Mechanical Foreman	1.00	54.00 MH *	47.731	2,577				2,577
W	Welder	1.00	54.00 MH *	45.408	2,452				2,452
\$12,153.06	13.5000 MH/EA		243.00 MH	[373.5]	9,669		2,484		12,153
6.7500 Shifts	2.6667 Un/Shift		0.0741 Unit/MH		537.17		138.00		675.17
813E 8" NBG KIT Quan: 18.00 EA Hrs/Shift: 8.00 Cal: 508 WC: AZ00 **Unreviewed									
<u>ASNBG</u>	NBG Crew 1		27.00 CH	Prod:	1.5000 HU	Lab Pcs:	2.50	Eqp Pcs:	1.50
8MIWELD400	Welder - 400 AMP	1.00	27.00 HR	10.500			284		284
8TRPU	Truck - Pickup Ex. Cab	0.50	13.50 HR	14.000			189		189

Cost Report

Activity	Desc	Quantity	Unit	Unit	Perm	Constr	Equip	Sub-	Total
Resource		Pcs		Cost	Labor	Material	Matl/Exp	Ment	Contract
BID ITEM = 813									
Description =	8" PIPE		Unit =	LF	Takeoff Quan:	140.000	Engr Quan:		0.000
M2	Metal Trades-Level 2	1.00	27.00 MH *	30.140	814				814
MJ	Metal Trades-Journeyman	1.00	27.00 MH *	40.012	1,080				1,080
SMF	Mechanical Foreman	0.50	13.50 MH *	47.731	644				644
\$3,010.97	3.7500 MH/EA		67.50 MH	[97.5]	2,538			473	3,011
3.3750 Shifts	5.3333 Un/Shift		0.2667 Unit/MH		141.03			26.25	167.28
813F 8" VALVES									
Quan: 4.00 EA Hrs/Shift: 8.00 Cat: 508 WC: AZ00									
**Unreviewed									
ASMECH	Mechanical Crew 1		8.00 CH	Prod:	2.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	4.00 HR	43.000			172		172
8MIWELD400	Welder - 400 AMP	1.00	8.00 HR	10.500			84		84
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000			112		112
M2	Metal Trades-Level 2	1.00	8.00 MH *	30.140	241				241
MJ	Metal Trades-Journeyman	1.00	8.00 MH *	40.013	320				320
O1	Oper- Load<3CY,Dirt Rolle	0.50	4.00 MH *	31.533	126				126
SMF	Mechanical Foreman	1.00	8.00 MH *	47.731	382				382
W	Welder	1.00	8.00 MH *	45.408	363				363
\$1,800.46	9.0000 MH/EA		36.00 MH	[249]	1,432			368	1,800
1.0000 Shifts	4.0000 Un/Shift		0.1111 Unit/MH		358.12			92.00	450.12
Item Totals: 813 - 8" PIPE									
\$44,984.09	6.4767 MH/LF		906.75 MH	[178.388]	35,933			9,052	44,984
321.315	140 LF				256.66			64.65	321.31

BID ITEM = 815									
Description =	12" PIPE		Unit =	LF	Takeoff Quan:	440.000	Engr Quan:		0.000
815A 12" PIPE									
Quan: 440.00 LF Hrs/Shift: 8.00 Cat: 508 WC: AZ00									
**Unreviewed									
ASMECH	Mechanical Crew 1		88.00 CH	Prod:	5.0000 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	44.00 HR	43.000			1,892		1,892
8MIWELD400	Welder - 400 AMP	1.00	88.00 HR	10.500			924		924
8TRPU	Truck - Pickup Ex. Cab	1.00	88.00 HR	14.000			1,232		1,232
M2	Metal Trades-Level 2	1.00	88.00 MH *	30.140	2,652				2,652
MJ	Metal Trades-Journeyman	1.00	88.00 MH *	40.012	3,521				3,521
O1	Oper- Load<3CY,Dirt Rolle	0.50	44.00 MH *	31.532	1,387				1,387
SMF	Mechanical Foreman	1.00	88.00 MH *	47.731	4,200				4,200
W	Welder	1.00	88.00 MH *	45.408	3,996				3,996
\$19,805.00	0.9000 MH/LF		396.00 MH	[24.9]	15,757			4,048	19,805
11.0000 Shifts	40.0000 Un/Shift		1.1111 Unit/MH		35.81			9.20	45.01
815B 12" ELBOWS									
Quan: 7.00 EA Hrs/Shift: 8.00 Cat: 508 WC: AZ00									
**Unreviewed									
ASMECH	Mechanical Crew 1		56.00 CH	Prod:	8.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	28.00 HR	43.000			1,204		1,204
8MIWELD400	Welder - 400 AMP	1.00	56.00 HR	10.500			588		588
8TRPU	Truck - Pickup Ex. Cab	1.00	56.00 HR	14.000			784		784
M2	Metal Trades-Level 2	1.00	56.00 MH *	30.140	1,688				1,688
MJ	Metal Trades-Journeyman	1.00	56.00 MH *	40.012	2,241				2,241
O1	Oper- Load<3CY,Dirt Rolle	0.50	28.00 MH *	31.531	883				883
SMF	Mechanical Foreman	1.00	56.00 MH *	47.731	2,673				2,673
W	Welder	1.00	56.00 MH *	45.408	2,543				2,543
\$12,603.18	36.0000 MH/EA		252.00 MH	[996]	10,027			2,576	12,603
7.0000 Shifts	1.0000 Un/Shift		0.0278 Unit/MH		1,432.45			368.00	1,800.45

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 815										
Description = 12" PIPE										
Unit = LF					Takeoff Quan:	440.000	Engr Quan:	0.000		
815C	12" FLANGES		Quan:	4.00 EA	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
ASMECH	Mechanical Crew 1		20.00 CH	Prod:	5.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	10.00 HR	43.000				430		430
8MIWELD400	Welder - 400 AMP	1.00	20.00 HR	10.500				210		210
8TRPU	Truck - Pickup Ex. Cab	1.00	20.00 HR	14.000				280		280
M2	Metal Trades-Level 2	1.00	20.00 MH *	30.140	603					603
MJ	Metal Trades-Journeyman	1.00	20.00 MH *	40.012	800					800
O1	Oper- Load<3CY,Dirt Rolle	0.50	10.00 MH *	31.532	315					315
SMF	Mechanical Foreman	1.00	20.00 MH *	47.731	955					955
W	Welder	1.00	20.00 MH *	45.408	908					908
\$4,501.14		22.5000 MH/EA	90.00 MH	[622.5]	3,581			920		4,501
2.5000 Shifts		1.6000 Un/Shift	0.0444 Unit/MH		895.29			230.00		1,125.29
815D	12" NBG KIT		Quan:	4.00 EA	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
ASNBG	NBG Crew 1		8.00 CH	Prod:	2.0000 HU	Lab Pcs:	2.50	Eqp Pcs:	1.50	**Unreviewed
8MIWELD400	Welder - 400 AMP	1.00	8.00 HR	10.500				84		84
8TRPU	Truck - Pickup Ex. Cab	0.50	4.00 HR	14.000				56		56
M2	Metal Trades-Level 2	1.00	8.00 MH *	30.140	241					241
MJ	Metal Trades-Journeyman	1.00	8.00 MH *	40.013	320					320
SMF	Mechanical Foreman	0.50	4.00 MH *	47.730	191					191
\$892.14		5.0000 MH/EA	20.00 MH	[130]	752			140		892
1.0000 Shifts		4.0000 Un/Shift	0.2000 Unit/MH		188.04			35.00		223.04
Item Totals: 815 - 12" PIPE										
\$37,801.46		1.7227 MH/LF	758.00 MH	[47.586]	30,117			7,684		37,801
85.912		440 LF			68.45			17.46		85.91

BID ITEM = 817										
Description = MATERIALS										
Unit = LS					Takeoff Quan:	1.000	Engr Quan:	0.000		
817	MATERIALS		Quan:	1.00 LS	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
2OXYGENDEL	Oxygen Delivry System	1.00	1.00 EA	7,399.210	7,399					7,399
2PIPEMATLS	PURCHASE PIPE MATER	1.00	1.00 LS	207,237.000	207,237					207,237
\$214,636.21				[]	214,636					214,636
					214,636.21					214,636.21
Item Totals: 817 - MATERIALS										
\$214,636.21				[]	214,636					214,636
214,636.210		1 LS			214,636.21					214,636.21

Total of Above Sub-Biditems

Item Totals: 805 - AS30 PIPE										
\$352,644.22		2,781.2800 MH/LS	2,781.28 MH	[76612.32]	110,228	214,636		27,780		352,644
352,644.220		1 LS			110,227.62	214,636.21		27,780.39		352,644.22

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
PARENT ITEM = 820										
Description =	BS30 PIPE		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000
Listing of Sub-Biditems of Parent Item 820:										
BID ITEM = 822										
Description =	4" PIPE		Unit =	LF	Takeoff Quan:		280.000	Engr Quan:		0.000
822A 4" PIPE										
					Quan:	280.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00
ASMECH	Mechanical Crew 1		23.33 CH	Prod:	12.0000 UH	Lab Pcs:	4.50	Eqp Pcs:		2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	11.67 HR	43.000				502		502
8MIWELD400	Welder - 400 AMP	1.00	23.33 HR	10.500				245		245
8TRPU	Truck - Pickup Ex. Cab	1.00	23.33 HR	14.000				327		327
M2	Metal Trades-Level 2	1.00	23.33 MH *	30.140	703					703
MJ	Metal Trades-Journeyman	1.00	23.33 MH *	40.012	933					933
O1	Oper- Load<3CY,Dirt Rolle	0.50	11.67 MH *	31.531	368					368
SMF	Mechanical Foreman	1.00	23.33 MH *	47.731	1,114					1,114
W	Welder	1.00	23.33 MH *	45.408	1,059					1,059
\$5,250.93		0.3749 MH/LF	104.99 MH	[10.374]	4,178			1,073		5,251
2.9163 Shifts		96.0137 Un/Shift	2.6669 Unit/MH		14.92			3.83		18.75
822B 4" ELBOWS										
					Quan:	25.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00
ASMECH	Mechanical Crew 1		62.50 CH	Prod:	2.5000 HU	Lab Pcs:	4.50	Eqp Pcs:		2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	31.25 HR	43.000				1,344		1,344
8MIWELD400	Welder - 400 AMP	1.00	62.50 HR	10.500				656		656
8TRPU	Truck - Pickup Ex. Cab	1.00	62.50 HR	14.000				875		875
M2	Metal Trades-Level 2	1.00	62.50 MH *	30.140	1,884					1,884
MJ	Metal Trades-Journeyman	1.00	62.50 MH *	40.012	2,501					2,501
O1	Oper- Load<3CY,Dirt Rolle	0.50	31.25 MH *	31.532	985					985
SMF	Mechanical Foreman	1.00	62.50 MH *	47.731	2,983					2,983
W	Welder	1.00	62.50 MH *	45.408	2,838					2,838
\$14,066.07		11.2500 MH/EA	281.25 MH	[311.25]	11,191			2,875		14,066
7.8125 Shifts		3.2000 Un/Shift	0.0889 Unit/MH		447.64			115.00		562.64
822C 4" TEE										
					Quan:	6.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00
ASMECH	Mechanical Crew 1		21.00 CH	Prod:	3.5000 HU	Lab Pcs:	4.50	Eqp Pcs:		2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	10.50 HR	43.000				452		452
8MIWELD400	Welder - 400 AMP	1.00	21.00 HR	10.500				221		221
8TRPU	Truck - Pickup Ex. Cab	1.00	21.00 HR	14.000				294		294
M2	Metal Trades-Level 2	1.00	21.00 MH *	30.140	633					633
MJ	Metal Trades-Journeyman	1.00	21.00 MH *	40.012	840					840
O1	Oper- Load<3CY,Dirt Rolle	0.50	10.50 MH *	31.532	331					331
SMF	Mechanical Foreman	1.00	21.00 MH *	47.731	1,002					1,002
W	Welder	1.00	21.00 MH *	45.408	954					954
\$4,726.20		15.7500 MH/EA	94.50 MH	[435.75]	3,760			966		4,726
2.6250 Shifts		2.2857 Un/Shift	0.0635 Unit/MH		626.70			161.00		787.70
822D 4" FLANGES										
					Quan:	47.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00
ASMECH	Mechanical Crew 1		47.00 CH	Prod:	1.0000 HU	Lab Pcs:	4.50	Eqp Pcs:		2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	23.50 HR	43.000				1,011		1,011
8MIWELD400	Welder - 400 AMP	1.00	47.00 HR	10.500				494		494
8TRPU	Truck - Pickup Ex. Cab	1.00	47.00 HR	14.000				658		658
M2	Metal Trades-Level 2	1.00	47.00 MH *	30.140	1,417					1,417
MJ	Metal Trades-Journeyman	1.00	47.00 MH *	40.012	1,881					1,881
O1	Oper- Load<3CY,Dirt Rolle	0.50	23.50 MH *	31.532	741					741
SMF	Mechanical Foreman	1.00	47.00 MH *	47.731	2,243					2,243
W	Welder	1.00	47.00 MH *	45.408	2,134					2,134

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 822										
Description = 4" PIPE				Unit = LF	Takeoff Quan:		280.000	Engr Quan:		0.000
\$10,577.68	4.5000 MH/EA	211.50 MH	[124.5]	8,416				2,162		10,578
5.8750 Shifts	8.0000 Un/Shift	0.2222 Unit/MH		179.06				46.00		225.06
822E 4" NBG KIT										
				Quan:	47.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed
ASNBG	NBG Crew 1		35.25 CH	Prod:	0.7500 HU	Lab Pcs:	2.50	Eqp Pcs:	1.50	
8MIWELD400	Welder - 400 AMP	1.00	35.25 HR	10.500				370		370
8TRPU	Truck - Pickup Ex. Cab	0.50	17.63 HR	14.000				247		247
M2	Metal Trades-Level 2	1.00	35.25 MH *	30.140	1,062					1,062
MJ	Metal Trades-Journeyman	1.00	35.25 MH *	40.012	1,410					1,410
SMF	Mechanical Foreman	0.50	17.63 MH *	47.731	842					842
\$3,931.30	1.8751 MH/EA	88.13 MH	[48.754]	3,314				617		3,931
4.4063 Shifts	10.6667 Un/Shift	0.5333 Unit/MH		70.52				13.13		83.64
822F 4" VALVES										
				Quan:	8.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed
ASNBG	NBG Crew 1		16.00 CH	Prod:	2.0000 HU	Lab Pcs:	2.50	Eqp Pcs:	1.50	
8MIWELD400	Welder - 400 AMP	1.00	16.00 HR	10.500				168		168
8TRPU	Truck - Pickup Ex. Cab	0.50	8.00 HR	14.000				112		112
M2	Metal Trades-Level 2	1.00	16.00 MH *	30.140	482					482
MJ	Metal Trades-Journeyman	1.00	16.00 MH *	40.012	640					640
SMF	Mechanical Foreman	0.50	8.00 MH *	47.731	382					382
\$1,784.28	5.0000 MH/EA	40.00 MH	[130]	1,504				280		1,784
2.0000 Shifts	4.0000 Un/Shift	0.2000 Unit/MH		188.04				35.00		223.04
822G INSULATION										
				Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed
4INSULATION	Insulation Sub	1.00	1.00 LS	2,100.000				2,100		2,100
Item Totals: 822 - 4" PIPE										
\$42,436.46	2.9298 MH/LF	820.37 MH	[80.298]	32,363				7,973	2,100	42,436
151.559	280 LF			115.58				28.48	7.50	151.56

BID ITEM = 832

Description = 6" PIPE Unit = LF Takeoff Quan: 200.000 Engr Quan: 0.000

832A 6" PIPE										
				Quan:	200.00 LF	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed
ASMECH	Mechanical Crew 1		20.00 CH	Prod:	10.0000 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50	
8MIFORKLIFT	Forklift - 10K reach	0.50	10.00 HR	43.000				430		430
8MIWELD400	Welder - 400 AMP	1.00	20.00 HR	10.500				210		210
8TRPU	Truck - Pickup Ex. Cab	1.00	20.00 HR	14.000				280		280
M2	Metal Trades-Level 2	1.00	20.00 MH *	30.140	603					603
MJ	Metal Trades-Journeyman	1.00	20.00 MH *	40.012	800					800
O1	Oper- Load<3CY,Dirt Rolle	0.50	10.00 MH *	31.532	315					315
SMF	Mechanical Foreman	1.00	20.00 MH *	47.731	955					955
W	Welder	1.00	20.00 MH *	45.408	908					908
\$4,501.14	0.4500 MH/LF	90.00 MH	[12.45]	3,581				920		4,501
2.5000 Shifts	80.0000 Un/Shift	2.2222 Unit/MH		17.91				4.60		22.51
832B 6" ELBOWS										
				Quan:	17.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed
ASMECH	Mechanical Crew 1		59.50 CH	Prod:	3.5000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	
8MIFORKLIFT	Forklift - 10K reach	0.50	29.75 HR	43.000				1,279		1,279
8MIWELD400	Welder - 400 AMP	1.00	59.50 HR	10.500				625		625
8TRPU	Truck - Pickup Ex. Cab	1.00	59.50 HR	14.000				833		833

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 832										
Description = 6" PIPE			Unit =	LF	Takeoff Quan:		200.000	Engr Quan:		0.000
M2	Metal Trades-Level 2	1.00	59.50 MH *	30.140	1,793					1,793
MJ	Metal Trades-Journeyman	1.00	59.50 MH *	40.012	2,381					2,381
O1	Oper- Load<3CY,Dirt Rolle	0.50	29.75 MH *	31.532	938					938
SMF	Mechanical Foreman	1.00	59.50 MH *	47.731	2,840					2,840
W	Welder	1.00	59.50 MH *	45.408	2,702					2,702
\$13,390.90	15.7500 MH/EA		267.75 MH	[435.75]	10,654			2,737		13,391
7.4375 Shifts	2.2857 Un/Shift		0.0635 Unit/MH		626.70			161.00		787.70
832C 6" TEE										
			Quan:	6.00 EA	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
ASMECH Mechanical Crew 1			30.00 CH	Prod:	5.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	15.00 HR	43.000				645		645
8MIWELD400	Welder - 400 AMP	1.00	30.00 HR	10.500				315		315
8TRPU	Truck - Pickup Ex. Cab	1.00	30.00 HR	14.000				420		420
M2	Metal Trades-Level 2	1.00	30.00 MH *	30.140	904					904
MJ	Metal Trades-Journeyman	1.00	30.00 MH *	40.012	1,200					1,200
O1	Oper- Load<3CY,Dirt Rolle	0.50	15.00 MH *	31.531	473					473
SMF	Mechanical Foreman	1.00	30.00 MH *	47.731	1,432					1,432
W	Welder	1.00	30.00 MH *	45.408	1,362					1,362
\$6,751.70	22.5000 MH/EA		135.00 MH	[622.5]	5,372			1,380		6,752
3.7500 Shifts	1.6000 Un/Shift		0.0444 Unit/MH		895.28			230.00		1,125.28
832D 6" FLANGES										
			Quan:	11.00 EA	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
ASMECH Mechanical Crew 1			22.00 CH	Prod:	2.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	11.00 HR	43.000				473		473
8MIWELD400	Welder - 400 AMP	1.00	22.00 HR	10.500				231		231
8TRPU	Truck - Pickup Ex. Cab	1.00	22.00 HR	14.000				308		308
M2	Metal Trades-Level 2	1.00	22.00 MH *	30.140	663					663
MJ	Metal Trades-Journeyman	1.00	22.00 MH *	40.012	880					880
O1	Oper- Load<3CY,Dirt Rolle	0.50	11.00 MH *	31.532	347					347
SMF	Mechanical Foreman	1.00	22.00 MH *	47.731	1,050					1,050
W	Welder	1.00	22.00 MH *	45.408	999					999
\$4,951.25	9.0000 MH/EA		99.00 MH	[249]	3,939			1,012		4,951
2.7500 Shifts	4.0000 Un/Shift		0.1111 Unit/MH		358.11			92.00		450.11
832E 6" NBG KIT										
			Quan:	11.00 EA	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
ASNBG NBG Crew 1			13.75 CH	Prod:	1.2500 HU	Lab Pcs:	2.50	Eqp Pcs:	1.50	**Unreviewed
8MIWELD400	Welder - 400 AMP	1.00	13.75 HR	10.500				144		144
8TRPU	Truck - Pickup Ex. Cab	0.50	6.88 HR	14.000				96		96
M2	Metal Trades-Level 2	1.00	13.75 MH *	30.140	414					414
MJ	Metal Trades-Journeyman	1.00	13.75 MH *	40.012	550					550
SMF	Mechanical Foreman	0.50	6.88 MH *	47.733	328					328
\$1,533.68	3.1254 MH/EA		34.38 MH	[81.265]	1,293			241		1,534
1.7188 Shifts	6.4000 Un/Shift		0.3200 Unit/MH		117.54			21.88		139.43
832F 6" VALVES										
			Quan:	5.00 EA	Hrs/Shft:	8.00	Cal: 508	WC: AZ00		
ASMECH Mechanical Crew 1			10.00 CH	Prod:	2.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	5.00 HR	43.000				215		215
8MIWELD400	Welder - 400 AMP	1.00	10.00 HR	10.500				105		105
8TRPU	Truck - Pickup Ex. Cab	1.00	10.00 HR	14.000				140		140
M2	Metal Trades-Level 2	1.00	10.00 MH *	30.140	301					301
MJ	Metal Trades-Journeyman	1.00	10.00 MH *	40.012	400					400
O1	Oper- Load<3CY,Dirt Rolle	0.50	5.00 MH *	31.532	158					158
SMF	Mechanical Foreman	1.00	10.00 MH *	47.731	477					477
W	Welder	1.00	10.00 MH *	45.408	454					454
\$2,250.57	9.0000 MH/EA		45.00 MH	[249]	1,791			460		2,251

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 832										
Description = 6" PIPE				Unit = LF	Takeoff Quan:		200.000	Engr Quan:		0.000
1.2500 Shifts	4.0000 Un/Shift		0.1111 Unit/MH		358.11			92.00		450.11
Item Totals: 832 - 6" PIPE										
\$33,379.24	3.3556 MH/LF		671.13 MH	[92.553]	26,630			6,750		33,379
166.896	200 LF				133.15			33.75		166.90

BID ITEM = 834										
Description = MATERIALS				Unit = LS	Takeoff Quan:		1.000	Engr Quan:		0.000
834	MATERIALS			Quan:	1.00 LS	Hrs/Shft:	8.00	Cal:	508	WC: AZ00
2PIPEMATLS	PURCHASE PIPE MATER	1.00	1.00 LS	32,166.000		32,166				32,166
Item Totals: 834 - MATERIALS										
\$32,166.00				[]	32,166					32,166
32,166.000	1 LS				32,166.00					32,166.00

Total of Above Sub-Biditems

Item Totals: 820 - BS30 PIPE										
\$107,981.70	1,491.5000 MH/LS		1,491.50 MH	[40994.03]	58,993	32,166		14,723	2,100	107,982
107,981.700	1 LS				58,992.68	32,166.00		14,723.02	2,100.00	107,981.70

PARENT ITEM = 840										
Description = CS PIPE				Unit = LS	Takeoff Quan:		1.000	Engr Quan:		1.000

Listing of Sub-Biditems of Parent Item 840:

BID ITEM = 842										
Description = 2" CW PIPE				Unit = LF	Takeoff Quan:		1,560.000	Engr Quan:		0.000
842A	2" PIPE			Quan:	1,560.00 LF	Hrs/Shft:	8.00	Cal:	508	WC: AZ00
ASMECH	Mechanical Crew 1		52.00 CH	Prod:	30.0000 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	26.00 HR	43.000			1,118		1,118	
8MIWELD400	Welder - 400 AMP	1.00	52.00 HR	10.500			546		546	
8TRPU	Truck - Pickup Ex. Cab	1.00	52.00 HR	14.000			728		728	
M2	Metal Trades-Level 2	1.00	52.00 MH *	30.140	1,567				1,567	
MJ	Metal Trades-Journeyman	1.00	52.00 MH *	40.012	2,081				2,081	
O1	Oper- Load<3CY,Dirt Rolle	0.50	26.00 MH *	31.532	820				820	
SMF	Mechanical Foreman	1.00	52.00 MH *	47.731	2,482				2,482	
W	Welder	1.00	52.00 MH *	45.408	2,361				2,361	
\$11,702.95	0.1500 MH/LF		234.00 MH	[4.15]	9,311		2,392		11,703	
6.5000 Shifts	240.0000 Un/Shift		6.6667 Unit/MH		5.97		1.53		7.50	

842B	2" ELBOWS			Quan:	29.00 EA	Hrs/Shft:	8.00	Cal:	508	WC: AZ00
ASMECH	Mechanical Crew 1		29.00 CH	Prod:	1.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	**Unreviewed
8MIFORKLIFT	Forklift - 10K reach	0.50	14.50 HR	43.000			624		624	

Cost Report

Activity	Desc	Quantity	Unit	Unit	Perm	Constr	Equip	Sub-	Total
Resource		Pcs		Cost	Labor	Material	Matl/Exp	Ment Contract	
BID ITEM = 842									
Description =	2" CW PIPE		Unit =	LF	Takeoff Quan:	1,560.000	Engr Quan:		0.000
8MIWELD400	Welder - 400 AMP	1.00	29.00 HR	10.500			305		305
8TRPU	Truck - Pickup Ex. Cab	1.00	29.00 HR	14.000			406		406
M2	Metal Trades-Level 2	1.00	29.00 MH *	30.140	874				874
MJ	Metal Trades-Journeyman	1.00	29.00 MH *	40.012	1,160				1,160
O1	Oper- Load<3CY,Dirt Rolle	0.50	14.50 MH *	31.532	457				457
SMF	Mechanical Foreman	1.00	29.00 MH *	47.731	1,384				1,384
W	Welder	1.00	29.00 MH *	45.408	1,317				1,317
\$6,526.65	4.5000 MH/EA	130.50 MH	[124.5]	5,193			1,334		6,527
3.6250 Shifts	8.0000 Un/Shift	0.2222 Unit/MH		179.06			46.00		225.06
842C 2" FLANGES									
				Quan:	8.00 EA	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	**Unreviewed
ASMECH	Mechanical Crew 1	4.00	CH	Prod:	0.5000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	2.00 HR	43.000			86		86
8MIWELD400	Welder - 400 AMP	1.00	4.00 HR	10.500			42		42
8TRPU	Truck - Pickup Ex. Cab	1.00	4.00 HR	14.000			56		56
M2	Metal Trades-Level 2	1.00	4.00 MH *	30.140	121				121
MJ	Metal Trades-Journeyman	1.00	4.00 MH *	40.013	160				160
O1	Oper- Load<3CY,Dirt Rolle	0.50	2.00 MH *	31.530	63				63
SMF	Mechanical Foreman	1.00	4.00 MH *	47.730	191				191
W	Welder	1.00	4.00 MH *	45.408	182				182
\$900.22	2.2500 MH/EA	18.00 MH	[62.25]	716			184		900
0.5000 Shifts	16.0000 Un/Shift	0.4444 Unit/MH		89.53			23.00		112.53
842D 2" NBG KIT									
				Quan:	8.00 EA	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	**Unreviewed
ASNBG	NBG Crew 1	3.00	CH	Prod:	0.3750 HU	Lab Pcs:	2.50	Eqp Pcs:	1.50
8MIWELD400	Welder - 400 AMP	1.00	3.00 HR	10.500			32		32
8TRPU	Truck - Pickup Ex. Cab	0.50	1.50 HR	14.000			21		21
M2	Metal Trades-Level 2	1.00	3.00 MH *	30.140	90				90
MJ	Metal Trades-Journeyman	1.00	3.00 MH *	40.013	120				120
SMF	Mechanical Foreman	0.50	1.50 MH *	47.733	72				72
\$334.56	0.9375 MH/EA	7.50 MH	[24.375]	282			53		335
0.3750 Shifts	21.3333 Un/Shift	1.0667 Unit/MH		35.26			6.56		41.82
842E INSULATION									
				Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	**Unreviewed
4INSULATION	Insulation Sub	1.00	1.00 LS	4,000.000				4,000	4,000
Item Totals: 842 - 2" CW PIPE									
\$23,464.38	0.2500 MH/LF	390.00 MH	[6.909]	15,502			3,963	4,000	23,464
15.041	1560 LF			9.94			2.54	2.56	15.04

BID ITEM = 850
Description = 2" LO PIPE

Unit = LF Takeoff Quan: 100.000 Engr Quan: 0.000

850A 2" PIPE									
				Quan:	100.00 LF	Hrs/Shift:	8.00	Cal: 508 WC: AZ00	**Unreviewed
ASMECH	Mechanical Crew 1	3.33	CH	Prod:	30.0000 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	1.67 HR	43.000			72		72
8MIWELD400	Welder - 400 AMP	1.00	3.33 HR	10.500			35		35
8TRPU	Truck - Pickup Ex. Cab	1.00	3.33 HR	14.000			47		47
M2	Metal Trades-Level 2	1.00	3.33 MH *	30.141	100				100
MJ	Metal Trades-Journeyman	1.00	3.33 MH *	40.012	133				133
O1	Oper- Load<3CY,Dirt Rolle	0.50	1.67 MH *	31.527	53				53
SMF	Mechanical Foreman	1.00	3.33 MH *	47.730	159				159

Cost Report

Activity Resource	Desc	Pcs	Quantity Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 850										
Description = 2" LO PIPE			Unit = LF		Takeoff Quan:		100.000	Engr Quan:		0.000
W	Welder	1.00	3.33 MH *	45.405	151					151
\$749.79		0.1499 MH/LF	14.99 MH	[4.147]	596			153		750
0.4163 Shifts		240.2402 Un/Shift	6.6711 Unit/MH		5.96			1.53		7.50
850B 2" ELBOWS										
				Quan:	15.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed
ASMECH	Mechanical Crew 1		15.00 CH	Prod:	1.0000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	
8MIFORKLIFT	Forklift - 10K reach	0.50	7.50 HR	43.000				323		323
8MIWELD400	Welder - 400 AMP	1.00	15.00 HR	10.500				158		158
8TRPU	Truck - Pickup Ex. Cab	1.00	15.00 HR	14.000				210		210
M2	Metal Trades-Level 2	1.00	15.00 MH *	30.140	452					452
MJ	Metal Trades-Journeyman	1.00	15.00 MH *	40.012	600					600
O1	Oper- Load<3CY,Dirt Rolle	0.50	7.50 MH *	31.532	236					236
SMF	Mechanical Foreman	1.00	15.00 MH *	47.731	716					716
W	Welder	1.00	15.00 MH *	45.408	681					681
\$3,375.86		4.5000 MH/EA	67.50 MH	[124.5]	2,686			690		3,376
1.8750 Shifts		8.0000 Un/Shift	0.2222 Unit/MH		179.06			46.00		225.06
850C 2" FLANGES										
				Quan:	4.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed
ASMECH	Mechanical Crew 1		2.00 CH	Prod:	0.5000 HU	Lab Pcs:	4.50	Eqp Pcs:	2.50	
8MIFORKLIFT	Forklift - 10K reach	0.50	1.00 HR	43.000				43		43
8MIWELD400	Welder - 400 AMP	1.00	2.00 HR	10.500				21		21
8TRPU	Truck - Pickup Ex. Cab	1.00	2.00 HR	14.000				28		28
M2	Metal Trades-Level 2	1.00	2.00 MH *	30.140	60					60
MJ	Metal Trades-Journeyman	1.00	2.00 MH *	40.010	80					80
O1	Oper- Load<3CY,Dirt Rolle	0.50	1.00 MH *	31.530	32					32
SMF	Mechanical Foreman	1.00	2.00 MH *	47.730	95					95
W	Welder	1.00	2.00 MH *	45.410	91					91
\$450.11		2.2500 MH/EA	9.00 MH	[62.25]	358			92		450
0.2500 Shifts		16.0000 Un/Shift	0.4444 Unit/MH		89.53			23.00		112.53
850D 2" NBG KIT										
				Quan:	4.00 EA	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	**Unreviewed
ASNBG	NBG Crew 1		1.60 CH	Prod:	0.4000 HU	Lab Pcs:	2.50	Eqp Pcs:	1.50	
8MIWELD400	Welder - 400 AMP	1.00	1.60 HR	10.500				17		17
8TRPU	Truck - Pickup Ex. Cab	0.50	0.80 HR	14.000				11		11
M2	Metal Trades-Level 2	1.00	1.60 MH *	30.144	48					48
MJ	Metal Trades-Journeyman	1.00	1.60 MH *	40.013	64					64
SMF	Mechanical Foreman	0.50	0.80 MH *	47.725	38					38
\$178.43		1.0000 MH/EA	4.00 MH	[26]	150			28		178
0.2000 Shifts		20.0000 Un/Shift	1.0000 Unit/MH		37.61			7.00		44.61
Item Totals: 850 - 2" LO PIPE										
\$4,754.19		0.9549 MH/LF	95.49 MH	[26.352]	3,791			963		4,754
47.542		100 LF			37.91			9.63		47.54
BID ITEM = 860										
Description = MATERIALS			Unit = LS		Takeoff Quan:		1.000	Engr Quan:		0.000
860 MATERIALS										
				Quan:	1.00 LS	Hrs/Shift:	8.00	Cal: 508	WC: AZ00	
2PIPEMATLS	PURCHASE PIPE MATER	1.00	1.00 LS	6,400.000	6,400					6,400
Item Totals: 860 - MATERIALS										
\$6,400.00				[]	6,400					6,400

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 860										
Description =	MATERIALS		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		0.000
6,400.000		1 LS			6,400.00					6,400.00

Total of Above Sub-Biditems

Item Totals: 840 - CS PIPE										
\$34,618.57	485.4900 MH/LS	485.49 MH	[13412.69]	19,293	6,400		4,926	4,000		34,619
34,618.570	1 LS			19,292.68	6,400.00		4,925.89	4,000.00		34,618.57

BID ITEM = 880										
Description =	TUBING		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		0.000

880A	INSTALL TUBING		Quan: 550.00 LF		Hrs/Shift: 8.00	Cal: 508	WC: AZ00			
<u>ASTUBE</u>	Tubing Crew		55.00	CH	Prod:	10.0000 UH	Lab Pcs:	2.50	Eqp Pcs:	0.50
8TRPU	Truck - Pickup Ex. Cab	0.50	27.50	HR	14.000			385		385
M2	Metal Trades-Level 2	1.00	55.00	MH *	30.140	1,658				1,658
MJ	Metal Trades-Journeyman	1.00	55.00	MH *	40.012	2,201				2,201
SMF	Mechanical Foreman	0.50	27.50	MH *	47.731	1,313				1,313
\$5,555.96		0.2500 MH/LF	137.50	MH	[6.5]	5,171		385		5,556
6.8750 Shifts		80.0000 Un/Shift	4.0000	Unit/MH	9.40			0.70		10.10

**Unreviewed

880B	INSTALL FITTINGS		Quan: 25.00 EA		Hrs/Shift: 8.00	Cal: 508	WC: AZ00			
<u>ASTUBE</u>	Tubing Crew		6.25	CH	Prod:	4.0000 UH	Lab Pcs:	2.50	Eqp Pcs:	0.50
8TRPU	Truck - Pickup Ex. Cab	0.50	3.13	HR	14.000			44		44
M2	Metal Trades-Level 2	1.00	6.25	MH *	30.141	188				188
MJ	Metal Trades-Journeyman	1.00	6.25	MH *	40.011	250				250
SMF	Mechanical Foreman	0.50	3.13	MH *	47.732	149				149
\$631.67		0.6252 MH/EA	15.63	MH	[16.257]	588		44		632
0.7813 Shifts		32.0000 Un/Shift	1.5995	Unit/MH	23.51			1.75		25.27

**Unreviewed

880C	INSTALL VALVES		Quan: 6.00 EA		Hrs/Shift: 8.00	Cal: 508	WC: AZ00			
<u>ASTUBE</u>	Tubing Crew		2.00	CH	Prod:	3.0000 UH	Lab Pcs:	2.50	Eqp Pcs:	0.50
8TRPU	Truck - Pickup Ex. Cab	0.50	1.00	HR	14.000			14		14
M2	Metal Trades-Level 2	1.00	2.00	MH *	30.140	60				60
MJ	Metal Trades-Journeyman	1.00	2.00	MH *	40.010	80				80
SMF	Mechanical Foreman	0.50	1.00	MH *	47.730	48				48
\$202.03		0.8333 MH/EA	5.00	MH	[21.667]	188		14		202
0.2500 Shifts		24.0000 Un/Shift	1.2000	Unit/MH	31.34			2.33		33.67

**Unreviewed

880D	INSTALL TUBING TRAY		Quan: 50.00 LF		Hrs/Shift: 8.00	Cal: 508	WC: AZ00			
<u>ASTUBE</u>	Tubing Crew		5.00	CH	Prod:	10.0000 UH	Lab Pcs:	2.50	Eqp Pcs:	0.50
2TUBETRAY	Purchase Tubing Tray	1.00	50.00	LF	23.000	1,150				1,150
8TRPU	Truck - Pickup Ex. Cab	0.50	2.50	HR	14.000			35		35
M2	Metal Trades-Level 2	1.00	5.00	MH *	30.140	151				151
MJ	Metal Trades-Journeyman	1.00	5.00	MH *	40.012	200				200
SMF	Mechanical Foreman	0.50	2.50	MH *	47.732	119				119
\$1,655.09		0.2500 MH/LF	12.50	MH	[6.5]	470	1,150	35		1,655
0.6250 Shifts		80.0000 Un/Shift	4.0000	Unit/MH	9.40	23.00		0.70		33.10

**Unreviewed

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
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BID ITEM = 880

Description = TUBING Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000

Item Totals: 880 - TUBING

\$8,044.75	170.6300 MH/LS	170.63 MH	[4436.42]	6,417	1,150		478		8,045
8,044.750	1 LS			6,416.93	1,150.00		477.82		8,044.75

BID ITEM = 885

Description = DRAIN PIPE Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000

885A DRAIN PIPE Quan: 150.00 LF Hrs/Shift: 8.00 Cal: 508 WC: AZ00 **Unreviewed

ASMECH	Mechanical Crew 1	10.00	CH	Prod:	15.0000 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	5.00 HR	43.000			215		215
8MIWELD400	Welder - 400 AMP	1.00	10.00 HR	10.500			105		105
8TRPU	Truck - Pickup Ex. Cab	1.00	10.00 HR	14.000			140		140
M2	Metal Trades-Level 2	1.00	10.00 MH *	30.140	301				301
MJ	Metal Trades-Journeyman	1.00	10.00 MH *	40.012	400				400
O1	Oper- Load<3CY,Dirt Rolle	0.50	5.00 MH *	31.532	158				158
SMF	Mechanical Foreman	1.00	10.00 MH *	47.731	477				477
W	Welder	1.00	10.00 MH *	45.408	454				454
\$2,250.57	0.3000 MH/LF		45.00 MH	[8.3]	1,791		460		2,251
1.2500 Shifts	120.0000 Un/Shift	3.3333 Unit/MH		11.94			3.07		15.00

885B FITTINGS Quan: 10.00 EA Hrs/Shift: 8.00 Cal: 508 WC: AZ00 **Unreviewed

ASMECH	Mechanical Crew 1	4.00	CH	Prod:	2.5000 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50
8MIFORKLIFT	Forklift - 10K reach	0.50	2.00 HR	43.000			86		86
8MIWELD400	Welder - 400 AMP	1.00	4.00 HR	10.500			42		42
8TRPU	Truck - Pickup Ex. Cab	1.00	4.00 HR	14.000			56		56
M2	Metal Trades-Level 2	1.00	4.00 MH *	30.140	121				121
MJ	Metal Trades-Journeyman	1.00	4.00 MH *	40.013	160				160
O1	Oper- Load<3CY,Dirt Rolle	0.50	2.00 MH *	31.530	63				63
SMF	Mechanical Foreman	1.00	4.00 MH *	47.730	191				191
W	Welder	1.00	4.00 MH *	45.408	182				182
\$900.22	1.8000 MH/EA		18.00 MH	[49.8]	716		184		900
0.5000 Shifts	20.0000 Un/Shift	0.5556 Unit/MH		71.62			18.40		90.02

Item Totals: 885 - DRAIN PIPE

\$3,150.79	63.0000 MH/LS	63.00 MH	[1743]	2,507			644		3,151
3,150.790	1 LS			2,506.79			644.00		3,150.79

BID ITEM = 890

Description = EYE WASH Unit = LS Takeoff Quan: 1.000 Engr Quan: 0.000

890 EYE WASH Quan: 1.00 LS Hrs/Shift: 8.00 Cal: 508 WC: AZ00

ASMECH	Mechanical Crew 1	8.00	CH	Prod:	0.1250 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50
2EYEWASH	Purchase Eye Wash	1.00	1.00 LS	3,500.000	3,500				3,500
8MIFORKLIFT	Forklift - 10K reach	0.50	4.00 HR	43.000			172		172
8MIWELD400	Welder - 400 AMP	1.00	8.00 HR	10.500			84		84
8TRPU	Truck - Pickup Ex. Cab	1.00	8.00 HR	14.000			112		112
M2	Metal Trades-Level 2	1.00	8.00 MH *	30.140	241				241
MJ	Metal Trades-Journeyman	1.00	8.00 MH *	40.013	320				320
O1	Oper- Load<3CY,Dirt Rolle	0.50	4.00 MH *	31.533	126				126
SMF	Mechanical Foreman	1.00	8.00 MH *	47.731	382				382
W	Welder	1.00	8.00 MH *	45.408	363				363

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
BID ITEM = 890										
Description =	EYE WASH		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		0.000
\$5,300.46	36.0000 MH/LS	36.00 MH	[996]	1,432	3,500			368		5,300
1.0000 Shifts	1.0000 Un/Shift	0.0278 Unit/MH		1,432.46	3,500.00			368.00		5,300.46
====> Item Totals: 890 - EYE WASH										
\$5,300.46	36.0000 MH/LS	36.00 MH	[996]	1,432	3,500			368		5,300
5,300.460	1 LS			1,432.46	3,500.00			368.00		5,300.46

BID ITEM = 900										
Description =	PIPE CLEANING		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		0.000
900	PIPE CLEANING		Quan:	1.00 LS	Hrs/Shft:	8.00	Cal:	508	WC:	AZ00
<u>ASMECH</u>	Mechanical Crew 1	80.00 CH	Prod:	0.0125 UH	Lab Pcs:	4.50	Eqp Pcs:	2.50		
2PIPECLNMT	PIPE CLEANING MATERI	1.00 1.00 LS	3,000.000		3,000			3,000		
4PAINTPIPE	Paint Pipe	1.00 1.00 LS	2,500.000					2,500		2,500
8MIFORKLIFT	Forklift - 10K reach	0.50 40.00 HR	43.000					1,720		1,720
8MIWELD400	Welder - 400 AMP	1.00 80.00 HR	10.500					840		840
8TRPU	Truck - Pickup Ex. Cab	1.00 80.00 HR	14.000					1,120		1,120
M2	Metal Trades-Level 2	1.00 80.00 MH *	30.140	2,411						2,411
MJ	Metal Trades-Journeyman	1.00 80.00 MH *	40.012	3,201						3,201
O1	Oper- Load<3CY,Dirt Rolle	0.50 40.00 MH *	31.532	1,261						1,261
SMF	Mechanical Foreman	1.00 80.00 MH *	47.731	3,818						3,818
W	Welder	1.00 80.00 MH *	45.408	3,633						3,633
\$23,504.54	360.0000 MH/LS	360.00 MH	[9960]	14,325	3,000			3,680	2,500	23,505
10.0000 Shifts	0.1000 Un/Shift	0.0028 Unit/MH		14,324.54	3,000.00			3,680.00	2,500.00	23,504.54
====> Item Totals: 900 - PIPE CLEANING										
\$23,504.54	360.0000 MH/LS	360.00 MH	[9960]	14,325	3,000			3,680	2,500	23,505
23,504.540	1 LS			14,324.54	3,000.00			3,680.00	2,500.00	23,504.54

Total of Above Sub-Biditems

====> Item Totals: 800 - MECHANICAL PIPING										
\$535,245.03	5,387.9000 MH/LS	5,387.90 MH	[148154.46]	213,194	260,852			52,599	8,600	535,245
535,245.030	1 LS			213,193.70	260,852.21			52,599.12	8,600.00	535,245.03

BID ITEM = 950										
Description =	ELECTRICAL WORK		Unit =	LS	Takeoff Quan:		1.000	Engr Quan:		1.000
950	ELECTRICAL WORK		Quan:	1.00 LS	Hrs/Shft:	8.00	Cal:	508	WC:	
2	MATERIALS	1.00 1.00 LS	1,042,958.940		1,042,959					1,042,959
4	SUBCONTRACTORS	1.00 1.00 LS	423,054.340					423,054		423,054
82	==> Equip Operating Cost	1.00 1.00 LS	54,813.030					54,813		54,813
U	==> Labor	1.00 1.00 LS	341,506.060	341,506						341,506
\$1,862,332.37			[]	341,506	1,042,959			54,813	423,054	1,862,332
				341,506.06	1,042,958.94			54,813.03	423,054.34	1,862,332.37
====> Item Totals: 950 - ELECTRICAL WORK										
\$1,862,332.37			[]	341,506	1,042,959			54,813	423,054	1,862,332

Cost Report

Activity Resource	Desc	Quantity Pcs	Unit Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub- Contract	Total
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BID ITEM = 950

Description =	ELECTRICAL WORK	Unit =	LS	Takeoff Quan:	1.000	Engr Quan:	1.000
1,862,332.370	1 LS			341,506.06	1,042,958.94	54,813.03	423,054.34 1,862,332.37

BID ITEM = 1000

Description =	COMMISSIONING/TESTING	Unit =	LS	Takeoff Quan:	1.000	Engr Quan:	1.000
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1000A	Commissioning/Testing	Quan:	1.00 LS	Hrs/Shift:	8.00	Cal:	508	WC:	AZ00
SSCOMM	Commissioning Crew	80.00	CH	Prod:	0.0125 UH	Lab Pcs:	5.00	Eqp Pcs:	2.00
8TRPU	Truck - Pickup Ex. Cab	2.00	160.00 HR	14.000			2,240		2,240
E	Electrician Local 570	1.00	80.00 MH *	43.710	3,497				3,497
EF	Electrician-Foreman	1.00	80.00 MH *	51.661	4,133				4,133
MJ	Metal Trades-Journeyman	2.00	160.00 MH *	40.012	6,402				6,402
SMF	Mechanical Foreman	1.00	80.00 MH *	47.731	3,818				3,818
\$20,090.10	400.0000 MH/LS		400.00 MH	[12148]	17,850		2,240		20,090
10.0000 Shifts	0.1000 Un/Shift		0.0025 Unit/MH		17,850.10		2,240.00		20,090.10
====> Item Totals: 1000 - COMMISSIONING/TESTING									
\$20,090.10	400.0000 MH/LS		400.00 MH	[12148]	17,850		2,240		20,090
20,090.10	1 LS				17,850.10		2,240.00		20,090.10

\$3,326,738.73	*** Report Totals ***	13,455.84 MH	869,213	1,437,947	77,159	228,447	713,973	3,326,739
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>>> indicates Non Additive Activity

-----Report Notes:-----

The estimate was prepared with TAKEOFF Quantities.

This report shows TAKEOFF Quantities with the resources.

"Unreviewed" Activities are marked.

Bid Date: Owner: Engineering Firm:

Estimator-In-Charge:

JOB DOES NOT HAVE NOTES

* on units of MH indicate average labor unit cost was used rather than base rate.

[] in the Unit Cost Column = Labor Unit Cost Without Labor Burdens

In equipment resources, rent % and EOE % not = 100% are represented as XXX%YYY where XXX=Rent% and YYY=EOE%

-----Calendar Codes-----

410	40hour week - (4 X 10)
508	40 hour week - (5 x 8) (Default Calendar)
509	45 hour week (5x9)
510	50 hour week - (5x10)
608	48 hour week - (6 x 8)
610	60 hour week (6x10)

ELECTRICAL BID INFORMATION

PROJECT NUMBER:

PROJECT NAME: GMP2

QUOTE PRICE DATE: November 2019

ELECTRICAL WORK SCOPE: See Cover Sheet for Details

Labor Rate	Rate		Equipment	Rate	
Labor Rate Journeyman	\$ 39.13	HR	PICK-UP TRUCK	\$ 10.00	HR
Labor Rate Forman	\$ 54.63	HR	TRK GMC BOOM W/CRANE		
Labor Rate General Foreman	\$ 61.77	HR	BACK HOE 580		
			Air Compressor		
			WATER TRUCK 3900gAL		

Final Bid	Man Hours		LABOR		Materials		Equip.	SUB C	Total	
Total Electrical Cost	7,253	Hrs	-	341,506.06		1,042,958.94		54,813.03	423,054.34	1,862,332.38

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
One line diagram Equipment										
MCC High Voltage 4160V, 1000A	1	EA	60.000	2,347.80	E/W		89.50	716.00		3,063.80
MCC Medium Voltage 480V, 1200A	1	EA	80.000	3,130.40	E/W		89.50	1,074.00		4,204.40
750KVA Transformer 13.8KV - 4180V	2	EA	40.000	3,130.40	E/W		89.50	1,432.00		4,562.40
750KVA Transformer 13.8KV - 480/277V	2	EA	40.000	3,130.40	E/W		89.50	1,432.00		4,562.40
1/2" x 5 1/2" Wedge Anchor SS	48	EA	0.350	657.38	5.864	281.49				938.88
1/2" Fender Washer SS	48	EA	0.020	37.56	0.677	32.52				70.08
1/2" Nut SS	48	EA	0.030	56.35	0.543	26.08				82.43
Fault Indicator for PMEs	24	EA	1.000	939.12	50.000	1,200.00				2,139.12
400A, 3P, HD, 600V, N4X Disconnect	1	EA	8.000	313.04	E/W					313.04
200A, 3P, HD, 600V, N4X Disconnect	1	EA	6.000	234.78	E/W					234.78
30A, 3P, HD, 600V, N4X Disconnect	5	EA	3.000	586.95	E/W					586.95
600A, 3P, HD, 15KV, N4X Disconnect	1	EA	8.000	313.04	E/W					313.04
1/2" x 2" Bolt SS	46	EA	0.050	90.00	5.864	269.76				359.76
1/2" Spring Nut SS	40	EA	0.100	156.52	3.576	143.04				299.56
1/2" Fender Washer SS	46	EA	0.020	36.00	0.677	31.16				67.16
1/2" x 5 1/2" Wedge Anchor SS	6	EA	0.250	58.70	5.864	35.19				93.88

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
Disconnect Racks	8	EA								
4" GRC	160	LF	0.320	2,003.46	17.500	2,800.00				4,803.46
4" GRC Cap	16	EA	0.500	313.04	67.000	1,072.00				1,385.04
1 5/8" Double Strut SS	120	LF	0.150	704.34	13.840	1,660.80				2,365.14
4" Inside Diam x 6" L U-Bolt w/1/2 bolt SS	48	EA	0.150	281.74	39.240	1,883.52				2,165.26
1/2" Nut SS	48	EA	0.030	56.35	0.543	26.08				82.43
1/2" Fender Washer SS	48	EA	0.020	37.56	0.677	32.52				70.08
Auger 12" Diam x 5' Deep	16	EA	2.000	1,252.16	N/A			49.50	1,782.00	3,083.66
12" Diam x 24" Long Sono Tube	16	EA	1.000	626.08	7.675	122.80				748.88
80# Concrete	4	CY	1.000	156.52	100.000	400.00				556.52
Set Rack in place	8	EA	4.000	1,252.16	N/A					1,252.16
Electric Room										
75KVA Transformer	1	EA	12.000	469.56	E/W					469.56
1/2" x 5 1/2" Wedge Anchor SS	4	EA	0.250	39.13	5.864	23.46				62.59
1/2" Fender Washer SS	4	EA	0.020	3.13	0.677	2.71				5.84
1/2" Nut SS	4	EA	0.030	4.70	0.543	2.17				6.87
Panel 1, 225A	1	EA	8.000	313.04	E/W					313.04
1 5/8" x 1 5/8" Strut SS	6	LF	0.100	23.48	8.990	53.94				77.42
3/8" Drop in anchor SS	4	EA	0.150	23.48	1.379	5.51				28.99
3/8" x 1 1/2" Bolt SS	8	EA	0.050	15.65	0.515	4.12				19.77
3/8" Fender Washer SS	4	EA	0.020	3.13	0.597	2.39				5.52
3/8" Spring Nut SS	4	EA	0.100	15.65	2.952	11.81				27.46
3/8" Flat Washer SS	4	EA	0.020	3.13	0.079	0.31				3.44
Control Room										
CP87B - Gas Upgrading Control Panel	1	EA	24.000	939.12	E/W					939.12
1/2" x 5 1/2" Wedge Anchor SS	4	EA	0.150	23.48	5.864	23.46				46.94
1/2" Fender Washer SS	4	EA	0.020	3.13	0.677	2.71				5.84
1/2" Nut SS	4	EA	0.030	4.70	0.543	2.17				6.87
CP87A-Gas Upgrading control panel (DMT)	1	EA	24.000	939.12	By Others					939.12
1/2" x 5 1/2" Wedge Anchor SS	4	EA	0.150	23.48	5.864	23.46				46.94
1/2" Fender Washer SS	4	EA	0.020	3.13	0.677	2.71				5.84
1/2" Nut SS	4	EA	0.030	4.70	0.543	2.17				6.87
Product Gas Compressor Control Panel	1	EA	24.000	939.12	By Others					939.12
1/2" x 5 1/2" Wedge Anchor SS	4	EA	0.150	23.48	5.864	23.46				46.94
1/2" Fender Washer SS	4	EA	0.020	3.13	0.677	2.71				5.84
1/2" Nut SS	4	EA	0.030	4.70	0.543	2.17				6.87
Membrane Feed Compressor Control Panel	1	EA	24.000	939.12	By Others					939.12
1/2" x 5 1/2" Wedge Anchor SS	4	EA	0.150	23.48	5.864	23.46				46.94

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
1/2" Fender Washer SS	4	EA	0.020	3.13	0.677	2.71				5.84
1/2" Nut SS	4	EA	0.030	4.70	0.543	2.17				6.87
Emergency Push Button (control room and exterior door)	2	EA	1.500	117.39	250.000	500.00				617.39
3/8" Drop in anchor SS	4	EA	0.150	23.48	1.379	5.51				28.99
3/8" x 1 1/2" Bolt SS	4	EA	0.050	7.83	0.515	2.06				9.88
3/8" Flat Washer SS	4	EA	0.020	3.13	0.253	1.01				4.14
Lighting										
Type A (4' Strip Lights)	14	EA	1.000	547.82	E/W					547.82
Type C (Canopy)	3	EA	1.000	117.39	E/W					117.39
Type E (Exit Light)	4	EA	1.000	156.52	E/W					156.52
Type X	3	EA	1.000	117.39	E/W					117.39
3/8" Beam Clamp SS	24	EA	0.250	234.78	12.700	304.80				539.58
3/8" All thread SS	48	LF	0.100	187.82	2.340	112.32				300.14
3/8" Nut SS	48	EA	0.050	93.91	0.241	11.56				105.47
3/8" Fender Washer SS	80	EA	0.020	62.61	0.597	47.77				110.38
1 5/8" x 1 5/8" Strut SS	72	LF	0.100	281.74	8.990	647.28				929.02
3/8" Drop in anchor SS	20	EA	0.150	117.39	1.379	27.57				144.96
3/8" x 1 1/2" Bolt SS	20	EA	0.050	39.13	0.515	10.29				49.42
1/4" x 4" Toogle Bolt	2	EA	0.250	19.57	0.463	0.93				20.49
1/4" Fender Washer SS	2	EA	0.020	1.57	0.253	0.51				2.07
Caddy T grid mounting hardware #IDS95	14	EA	0.250	136.96	4.450	62.30				199.26
Hanger Wire	14	EA	0.500	273.91	2.000	28.00				301.91
3 way switch	6	EA	0.350	82.17	2.278	13.67				95.84
4 way switch	1	EA	0.350	13.70	15.530	15.53				29.23
Ocupancy Sensor	1	EA	0.500	19.57	33.870	33.87				53.44
Photo Cell	1	EA	0.500	19.57	21.230	21.23				40.80
FD Box, single gang w/(1) 3/4" Hub	9	EA	0.500	176.09	10.556	95.00				271.09
Switch cover SS	7	EA	0.350	95.87	0.812	5.68				101.55
1/4" Drop in anchor SS	18	EA	0.250	176.09	1.379	24.81				200.90
1/4" x 1 1/2" Bolt SS	18	EA	0.050	35.22	0.238	4.28				39.50
Power										
20A Duplex Rextepectacle	8	EA	0.250	78.26	1.060	8.48				86.74
20A GFCI	2	EA	0.250	19.57	12.223	24.45				44.01
FD Box Single gang w/(1) 3/4" Hub	5	EA	0.500	97.83	10.556	52.78				150.61
FD Box Single gang w/(2) 3/4" Hub Bottom	5	EA	0.500	97.83	24.112	120.56				218.39
Duplex Receptacle Cover SS	8	EA	0.250	78.26	0.812	6.50				84.76
GFCI Receptacle Cover SS	1	EA	0.250	9.78	0.812	0.81				10.59
WIU GFI Receptacle	1	EA	0.350	13.70	11.600	11.60				25.30
1/4" Drop in anchor SS	20	EA	0.250	195.65	1.379	27.57				223.22
1/4" x 1 1/2" Bolt SS	20	EA	0.050	39.13	0.238	4.75				43.88
Conduit and Wire for Lighting and Power										

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
FD Box Round w/3/4" Hubs	19	EA	0.500	371.74	119.510	2,270.69				2,642.43
FD Box Cover Blank	19	EA	0.250	185.87	25.000	475.00				660.87
Red Wirenuts	48	EA	0.050	93.91	0.150	7.20				101.11
3/4" Sealtite	48	LF	0.050	93.91	1.056	50.67				144.59
3/4" ST Conn 90	12	EA	0.250	117.39	2.390	28.68				146.07
3/4" ST Conn Str	12	EA	0.250	117.39	1.710	20.52				137.91
3/4" GRC	270	LF	0.080	845.21	1.733	467.91				1,313.12
3/4" GRC 90	11	EA	0.250	107.61	3.287	36.15				143.76
3/4" GRC Coupling	22	EA	0.100	86.09	0.972	21.38				107.47
#12 XHHW	1558	LF	0.008	487.72	0.110	170.91				658.63
3/4" one hole malleable	27	EA	0.100	105.65	0.282	7.62				113.27
3/4" Back Clamp	27	EA	0.100	105.65	0.406	10.95				116.60
1/4" Drop in anchor SS	27	EA	0.250	264.13	1.379	37.22				301.35
1/4" x 1 1/2" Bolt SS	27	EA	0.050	52.83	0.238	6.42				59.24
3/8" Beam Clamp SS	64	EA	0.250	626.08	12.700	812.80				1,438.88
3/8" x 1 1/2" Bolt SS	64	EA	0.050	125.22	0.515	32.93				158.14
3/4" Mini	64	EA	0.350	876.51	0.278	17.78				894.29
1 5/8" x 1 5/8" Strut SS	19	LF	0.100	74.35	8.990	170.81				245.16
3/8" Fender Washer SS	38	EA	0.020	29.74	0.597	22.69				52.43
3/4" Hub	1	EA	0.500	19.57	7.753	7.75				27.32
3/4" Strut Strap SS	21	EA	0.100	82.17	4.908	103.07				185.24
Exterior Lighting										
Pole Light	2	EA	6.000	469.56	E/W		89.50	358.00		827.56
Auger 24" x 6' Deep	2	EA	2.000	156.52	N/A		49.50	198.00		354.52
Rebar Cage 24" x 8' Deep	2	EA	2.000	156.52	E/W		49.50	99.00		255.52
Sonotube 24" D x 4'	2	EA	1.000	78.26	16.000	32.00				110.26
Install anchor bolts	2	SET	2.000	156.52	N/A					156.52
Concrete	2.05	CY	3.000	240.65	100.000	205.00				445.65
3/4" GRC PVC/C	114	LF	0.100	446.08	3.420	389.88				835.96
3/4" GRC 90 PVC/C	4	EA	0.350	54.78	12.676	50.70				105.49
3/4" GRC Coupling	8	EA	0.100	31.30	0.972	7.77				39.08
3/4" GB	4	EA	0.150	23.48	2.554	10.21				33.69
3/4" EYS	2	EA	1.000	78.26	16.346	32.69				110.95
3/4" Strut Strap SS	2	EA	0.100	7.83	4.908	9.82				17.64
3/4" Hub	1	EA	0.500	19.57	7.753	7.75				27.32
#10 XHHW	610	LF	0.010	238.69	0.187	114.27				352.96
Label and Termination	15	EA	0.150	88.04	1.650	24.75				112.79
Trenching										
96' x 2' x 2' x 1.1 / 27	15.64	CY								
Trenching @ 4 CY/HR	3.91	HRS	2.000	306.00			33.00	129.03		435.03
GLT @ 100' @ HR	0.96	HRS	2.000	75.13			15.00	14.40		89.53
Backfill @ 6 CY/ HR	2.6	HRS	2.000	203.48			33.00	85.80		289.28
Power Conduit and Wire for HVAC										
30A/2P N3R, 240V Disc.	5	EA	3.000	586.95	E/W					586.95

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
60A/2P N4X, 240V Disc.	1	EA	4.000	156.52	E/W					156.52
60A/3P N3R, 240V Disc.	1	EA	4.000	156.52	E/W					156.52
Supports										
1 5/8" x 1 5/8" Strut SS	30	LF	0.100	117.39	8.990	269.70				387.09
3/8" Beam Clamp SS	20	EA	0.250	195.65	12.700	254.00				449.65
3/8" x 1 1/2" Bolt SS	40	EA	0.050	78.26	0.515	20.58				98.84
3/8" Spring Nut SS	20	EA	0.100	78.26	2.952	59.04				137.30
3/8" Fender Washer SS	20	EA	0.020	15.65	0.597	11.94				27.59
3/8" Flat Washer SS	20	EA	0.020	15.65	0.079	1.57				17.22
1 5/8" x 1 5/8" Strut SS	6	LF	0.100	23.48	8.990	53.94				77.42
1 5/8" Post Base	2	EA	0.500	39.13	103.890	207.78				246.91
3/8" x 1 1/2" Bolt SS	10	EA	0.050	19.57	0.515	5.15				24.71
3/8" Spring Nut SS	10	EA	0.100	39.13	2.952	29.52				68.65
3/8" Fender Washer SS	10	EA	0.030	11.74	0.597	5.97				17.71
3/4" Roof Jack	1	EA	2.000	78.26	10.000	10.00				88.26
Liquid Nail	1	LS	1.000	39.13	9.940	9.94				49.07
Roof Tar	1	LS	1.000	39.13	40.000	40.00				79.13
Receptacle power										
3/4" GRC	316	LF	0.080	989.21	1.733	547.63				1,536.83
3/4" GRC 90	8	EA	0.250	78.26	3.287	26.29				104.55
3/4" GRC Coupling	16	EA	0.100	62.61	0.972	15.55				78.16
3/4" Hub	4	EA	0.500	78.26	7.753	31.01				109.27
3/4" Strut Strap SS	52	EA	0.100	203.48	4.908	255.22				458.69
3/4" 'T' Condulet	7	EA	0.500	136.96	20.000	140.00				276.96
3/4" 'LB'	4	EA	0.500	78.26	20.000	80.00				158.26
#12 XHHW	1192	LF	0.008	373.14	0.110	130.76				503.91
Label and Termination	42	EA	0.100	164.35	1.650	69.30				233.65
1 5/8" x 1 5/8" Strut SS	36	LF	0.100	140.87	8.990	323.64				464.51
3/8" Drop in anchor SS	72	EA	0.250	704.34	1.379	99.26				803.60
3/8" x 1 1/2" Bolt SS	72	EA	0.050	140.87	0.515	37.04				177.91
3/8" Fender Washer SS	72	EA	0.020	56.35	0.597	42.99				99.34
1" Coredrill	4	EA	1.000	156.52	N/A					156.52
Seal Coredrill	4	EA	1.000	156.52	15.000	60.00				216.52
FC (disconnect) and Hand Dryer Power										
3/4" GRC	241	LF	0.080	754.43	1.733	417.65				1,172.08
3/4" GRC 90	6	EA	0.250	58.70	3.287	19.72				78.41
3/4" GRC Coupling	12	EA	0.100	46.96	0.972	11.66				58.62
3/4" Hub	12	EA	0.500	234.78	7.753	93.04				327.82
3/4" Strut Strap SS	38	EA	0.100	148.69	4.908	186.50				335.20
3/4" 'LB'	4	EA	0.500	78.26	20.000	80.00				158.26
#10 XHHW	1319	LF	0.010	516.12	0.187	247.08				763.20
Label and Termination	50	EA	0.100	195.65	1.650	82.50				278.15

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
1 5/8" x 1 5/8" Strut SS	47	LF	0.100	183.91	8.990	422.53				606.44
3/8" Drop in anchor SS	34	EA	0.150	199.56	1.379	46.87				246.44
3/8" x 1 1/2" Bolt SS	34	EA	0.050	66.52	0.515	17.49				84.01
3/8" Fender Washer SS	34	EA	0.020	26.61	0.597	20.30				46.91
1" Coredrill	4	EA	1.000	156.52	N/A					156.52
Seal Coredrill	4	EA	1.000	156.52	15.000	60.00				216.52
3/4" Sealtite	20	EA	0.100	78.26	1.056	21.11				99.37
3/4" ST Conn 90	5	EA	0.250	48.91	2.390	11.95				60.86
3/4" ST Conn Str	5	EA	0.250	48.91	1.710	8.55				57.46
Water Heater										
1" GRC	53	LF	0.100	207.39	2.883	152.77				360.16
1" GRC 90	2	EA	0.350	27.39	4.710	9.42				36.81
1" GRC Coupling	4	EA	0.100	15.65	2.127	8.51				24.16
1" Hub	1	EA	0.500	19.57	6.595	6.60				26.16
1" Strut Strap SS	9	EA	0.100	35.22	5.262	47.36				82.58
1" LB	1	EA	0.500	19.57	25.000	25.00				44.57
#6 XHHW	240	LF	0.015	140.87	0.431	103.34				244.21
#8 XHHW	80	LF	0.015	46.96	0.302	24.12				71.08
Label and Termination	8	EA	0.150	46.96	1.650	13.20				60.16
1 5/8" x 1 5/8" Strut SS	2	LF	0.100	7.83	8.990	17.98				25.81
3/8" Drop in anchor SS	4	EA	0.150	23.48	1.379	5.51				28.99
3/8" x 1 1/2" Bolt SS	4	EA	0.050	7.83	0.515	2.06				9.88
3/8" Fender Washer SS	4	EA	0.020	3.13	0.597	2.39				5.52
1 1/2" Coredrill	1	EA	2.000	78.26	N/A					78.26
Seal Coredrill	1	EA	1.000	39.13	15.000	15.00				54.13
1" Sealtite	4	EA	0.100	15.65	1.935	7.74				23.39
1" ST Conn 90	1	EA	0.350	13.70	6.330	6.33				20.03
1" ST Conn Str	1	EA	0.350	13.70	2.947	2.95				16.64
CU-1 AC Unit outside										
1" GRC PVC/C	38	LF	0.150	223.04	4.428	168.25				391.29
1" GRC 90 PVC/C	2	EA	0.350	27.39	14.539	29.08				56.47
1" GRC Coupling PVC/C	4	EA	0.100	15.65	4.626	18.50				34.15
1" Hub PVC/C	2	EA	0.500	39.13	67.090	134.18				173.31
1" Strut Strap SS	4	EA	0.100	15.65	5.262	21.05				36.70
1 5/8" x 1 5/8" Strut SS	4	LF	0.100	15.65	8.990	35.96				51.61
1" Sealtite	4	LF	0.100	15.65	1.935	7.74				23.39
1" ST Conn 90	1	EA	0.350	13.70	6.330	6.33				20.03
1" ST Conn Str	1	EA	0.350	13.70	2.947	2.95				16.64
#6 XHHW	147	LF	0.015	86.28	0.431	63.30				149.58
#8 XHHW	49	LF	0.015	28.76	0.302	14.78				43.54

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
Label and Termination	8	EA	0.150	46.96	1.650	13.20				60.16
Trenching										
38' x 2' x 2' x 1.1' / 27	6.19	CY								
Trenching @ 4 CY/HR	1.547	HRS	2.000	121.07			33.00	51.05		172.12
GLT @ 100' @ HR	0.38	HRS	2.000	29.74			15.00	5.70		35.44
Backfill @ 6 CY/ HR	1.031	HRS	2.000	80.69			33.00	34.02		114.71
Instruments by Ashton										
PRESSURE INDICATOR (PI 2000-01)	1	EA	1.500	58.70	174.00	174.00				232.70
PRESSURE INDICATING TRANSMITTER (PIT 2000-02	1	EA	1.500	58.70	1,400.37	1,400.37				1,459.07
PRESSURE TRANSMITTER (PT 8740-04)	1	EA	1.500	58.70	528.00	528.00				586.70
TEMPERATURE TRANSMITTER (TT 8740-04)	1	EA	1.500	58.70	1,055.78	1,055.78				1,114.48
PRESSURE INDICATING TRANSMITTER (PIT 2020-01)	1	EA	1.500	58.70	1,400.38	1,400.38				1,459.08
PRESSURE INDICATING TRANSMITTER (PIT 2020-02)	1	EA	1.500	58.70	1,400.38	1,400.38				1,459.08
PRESSURE INDICATING TRANSMITTER (PIT 8730-01)	1	EA	1.500	58.70	1,400.38	1,400.38				1,459.08
PRESSURE INDICATING TRANSMITTER (PIT 8740-01)	1	EA	1.500	58.70	1,400.38	1,400.38				1,459.08
MASS FLOW CONTROLLER (FIC 2000-01)	1	EA	3.000	117.39	20,000.00	20,000.00				20,117.39
TEMPERATURE INDICATOR (TI 8710-01)	1	EA	1.500	58.70	138.00	138.00				196.70
PRESSURE INDICATOR (PI 8740-01)	1	EA	1.500	58.70	174.00	174.00				232.70
FLOW TRANSMITTER (FIT 2020-01)	1	EA	3.000	117.39	4,577.00	4,577.00				4,694.39
FLOW TRANSMITTER (FIT 28740-01)	1	EA	3.000	117.39	5,667.00	5,667.00				5,784.39
GAS CHROMATOGRAPH	1	EA	4.000	156.52	100,000.00	100,000.00				100,156.52
Freight for Instruments	1	LS			4,179.47	4,179.47				4,179.47
Instruments by Vendor										
PRESSURE TRANSMITTER (PT 2010-01)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 2010-02)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 2010-01)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 2010-02)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 2010-03)	1	EA	1.500	58.70	By Others					58.70
FLOW INDICATING SWITCH (FIS 2020-01)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 2020-01)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 2020-01)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8700-01)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8700-02)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8700-01)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8700-02)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8700-03)	1	EA	1.500	58.70	By Others					58.70
PRESSURE INDICATING TRANSMITTER (PIT 8710-01)	1	EA	1.500	58.70	By Others					58.70
BALL VALVE (ABLV 8720-01)	1	EA	1.500	58.70	By Others					58.70
BALL VALVE (ABLV 8720-02)	1	EA	1.500	58.70	By Others					58.70
LEVEL SWITCH (LS 8720-01)	1	EA	1.500	58.70	By Others					58.70

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
LEVEL TRANSMITTER (LT 8750-01)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PIT 8720-01)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8720-01)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8720-02)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8720-03)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8720-04)	1	EA	1.500	58.70	By Others					58.70
CONTROL VALVE (ABFV 8730-01)	1	EA	2.000	78.26	By Others					78.26
CONTROL VALVE (ABFV 8730-02)	1	EA	2.000	78.26	By Others					78.26
CONTROL VALVE (ABFV 8730-03)	1	EA	2.000	78.26	By Others					78.26
CONTROL VALVE (ABFV 8730-04)	1	EA	2.000	78.26	By Others					78.26
FLOW INDICATOR TRANSMITTER (FIT 8730-01)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8730-01)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8730-03)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8730-05)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8730-06)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8730-07)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8730-08)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8730-09)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8730-10)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8730-11)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8730-01)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8730-02)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8730-01)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8730-02)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8730-03)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8730-04)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8770-01)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8770-02)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8770-03)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8770-01)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8770-02)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8770-03)	1	EA	1.500	58.70	By Others					58.70
FLOW INDICATOR SWITCH (FIS 8780-01)	1	EA	1.500	58.70	By Others					58.70
PRESSURE TRANSMITTER (PT 8780-01)	1	EA	1.500	58.70	By Others					58.70
TEMPERATURE TRANSMITTER (TT 8780-01)	1	EA	1.500	58.70	By Others					58.70
Conduit and Wire for Instrumentation										
3/4" GRC	1419	LF	0.080	4,442.04	1.733	2,459.13				6,901.16
3/4" GRC 90	110	EA	0.250	1,076.08	3.287	361.52				1,437.59
3/4" GRC Coupling	220	EA	0.100	860.86	0.972	213.80				1,074.66
3/4" GRC Coupling PVC/C	428	EA	0.100	1,674.76	3.559	1,523.04				3,197.80
3/4" GRC 90 PVC/C	214	EA	0.350	2,930.84	12.676	2,712.69				5,643.52
3/4" GRC PVC/C	7361	LF	0.100	28,803.59	3.420	25,174.62				53,978.21
3/4" LB PVC/C	43	EA	0.750	1,261.94	35.882	1,542.93				2,804.87
3/4" Hub PVC/C	75	EA	0.500	1,467.38	61.600	4,620.00				6,087.38
3/4" Strut Strap SS	392	EA	0.100	1,533.90	4.908	1,923.94				3,457.83
1 5/8" x 1 5/8" Strut SS	90	LF	0.100	352.17	8.990	809.10				1,161.27

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
3/8" Drop in anchor SS	192	EA	0.150	1,126.94	1.379	264.69				1,391.64
3/8" x 1 1/2" Bolt SS	192	EA	0.050	375.65	0.515	98.78				474.43
3/8" Fender Washer SS	192	EA	0.020	150.26	0.597	114.64				264.90
3/4" x 18" Nipple	17	EA	0.500	332.61	25.765	438.01				770.61
1" Coredrill	17	EA	1.000	665.21	N/A					665.21
Seal 1" Coredrill	17	EA	1.000	665.21	15.000	255.00				920.21
3/4" EYS PVC/C	168	EA	1.000	6,573.84	74.601	12,532.97				19,106.81
3/4" Ericson Explosion Proof	84	EA	0.500	1,643.46	13.220	1,110.48				2,753.94
#14 STP	2657	LF	0.007	727.78	0.250	664.25				1,392.03
#18 STP	21679	LF	0.007	5,938.09	0.130	2,818.27				8,756.36
Label and Termination	878	EA	0.100	3,435.61	1.650	1,448.70				4,884.31
3/4" x 4' Explosion Proof Flex	47	EA	1.000	1,839.11	351.350	16,513.45				18,352.56
3/4" Ericson Explosion Proof	47	EA	0.500	919.56	13.220	621.34				1,540.90
3/4" GB	65	EA	0.250	635.86	2.554	165.99				801.85
#12 Unshilded Twisted Pair	3853	LF	0.008	1,206.14	0.330	1,271.49				2,477.63
3/4" PVC	5780	LF	0.030	6,785.14	0.199	1,152.53				7,937.67
3/4" FA	132	EA	0.020	103.30	0.279	36.78				140.08
3/4" LB Explosion Proof	59	EA	1.000	2,308.67	48.000	2,832.00				5,140.67
3/4" Hub	127	EA	0.500	2,484.76	7.000	889.00				3,373.76
#18 Unshilded Twisted Pair	2016	LF	0.007	552.20	0.125	252.00				804.20
Support for conduit Vertical	39									
1 5/8" x 1 5/8" Strut SS	390	LF	0.100	1,526.07	8.990	3,506.10				5,032.17
1 5/8" Post Base	78	EA	0.500	1,526.07	103.890	8,103.42				9,629.49
3/8" Drop in anchor SS	312	EA	0.150	1,831.28	1.379	430.12				2,261.41
3/8" x 1 1/2" Bolt SS	624	EA	0.050	1,220.86	0.515	321.05				1,541.90
3/8" Fender Washer SS	234	EA	0.020	183.13	0.597	139.72				322.85
3/8" Spring Nut SS	312	EA	0.100	1,220.86	2.952	921.02				2,141.88
Support for conduit horizontal	183									
1 5/8" x 1 5/8" Strut SS	573	LF	0.100	2,242.15	8.990	5,151.27				7,393.42
1 5/8" Post Base	191	EA	0.500	3,736.92	103.890	19,842.99				23,579.91
3/8" Drop in anchor SS	764	EA	0.150	4,484.30	1.379	1,053.25				5,537.55
3/8" x 1 1/2" Bolt SS	1146	EA	0.050	2,242.15	0.515	589.62				2,831.77
3/8" Fender Washer SS	382	EA	0.020	298.95	0.597	228.09				527.05
3/8" Spring Nut SS	382	EA	0.100	1,494.77	2.952	1,127.66				2,622.43
3/4" PVC	5641	LF	0.030	6,621.97	0.199	1,124.82				7,746.79
3/4" FA	12	EA	0.020	9.39	0.279	3.34				12.73
3/4" GRC 90 PVC/C	24	EA	0.350	328.69	12.676	304.23				632.92
3/4" GRC Coupling PVC/C	36	EA	0.100	140.87	3.559	128.11				268.97
3/4" GRC PVC/C	436	LF	0.100	1,706.07	3.420	1,491.12				3,197.19
3/4" GRC Coupling	12	EA	0.100	46.96	0.972	11.66				58.62
3/4" GRC	56	EA	0.080	175.30	1.733	97.05				272.35
3/4" EYS	20	EA	1.000	782.60	16.346	326.92				1,109.52

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
3/4" x 4' Explosion Proof Flex	10	EA	1.000	391.30	351.350	3,513.50				3,904.80
3/4" Strut Strap SS	48	EA	0.100	187.82	4.908	235.58				423.41
#12 Unshilded Twisted Pair	484	LF	0.008	151.51	0.330	159.72				311.23
Label and Termination	68	EA	0.100	266.08	1.650	112.20				378.28
3/4" Ericson Explosion Proof	12	EA	0.500	234.78	13.220	158.64				393.42
#18 STP	1098	LF	0.007	300.75	0.130	142.74				443.49
1 5/8" x 1 5/8" Strut SS	20	LF	0.100	78.26	8.990	179.80				258.06
3/8" Drop in anchor SS	40	EA	0.150	234.78	1.379	55.14				289.92
3/8" x 1 1/2" Bolt SS	40	EA	0.050	78.26	0.515	20.58				98.84
3/8" Fender Washer SS	40	EA	0.020	31.30	0.212	8.47				39.78
Support Support	4									
1 5/8" x 1 5/8" Strut SS	40	LF	0.100	156.52	8.990	359.60				516.12
1 5/8" Post Base	8	EA	0.500	156.52	103.890	831.12				987.64
3/8" Drop in anchor SS	32	EA	0.150	187.82	1.379	44.12				231.94
3/8" x 1 1/2" Bolt SS	64	EA	0.050	125.22	0.515	32.93				158.14
3/8" Fender Washer SS	24	EA	0.020	18.78	0.597	14.33				33.11
3/8" Spring Nut SS	96	EA	0.100	375.65	2.952	283.39				659.04
2" PVC	546	LF	0.060	1,281.90	0.606	330.71				1,612.61
2" FA	16	EA	0.060	37.56	0.679	10.86				48.43
2" GRC 90 PVC/C	16	EA	0.500	313.04	30.635	490.16				803.20
2" EYS PVC/C	12	EA	1.500	704.34	196.490	2,357.88				3,062.22
2" GRC Coupling PVC/C	16	EA	0.100	62.61	9.380	150.08				212.68
2" GRC PVC/C	18	LF	0.190	133.82	8.889	160.01				293.83
2" GRC	124	LF	0.140	679.30	5.766	715.01				1,394.31
2" GRC 90	6	EA	0.500	117.39	30.000	180.00				297.39
2" GRC Coupling	12	EA	0.140	65.74	3.387	40.65				106.38
2" Strut Strap SS	28	EA	0.100	109.56	9.360	262.08				371.64
2" LB Explosion Proof	6	EA	1.000	234.78	185.000	1,110.00				1,344.78
2" x 4' Exp Proof Flex	6	EA	1.000	234.78	1210.810	7,264.86				7,499.64
1 5/8" x 1 5/8" Strut SS	20	LF	0.100	78.26	8.990	179.80				258.06
3/8" Drop in anchor SS	20	EA	0.150	117.39	1.379	27.57				144.96
3/8" x 1 1/2" Bolt SS	20	EA	0.050	39.13	0.515	10.29				49.42
3/8" Fender Washer SS	20	EA	0.020	15.65	0.597	11.94				27.59
3/8" Spring Nut SS	96	EA	0.100	375.65	2.952	283.39				659.04
#18 Triad, Shilded twisted	2580	LF	0.007	706.69	0.175	451.50				1,158.19
#18 STP	1548	LF	0.007	424.01	0.130	201.24				625.25
Label and Termination	228	EA	0.100	892.16	1.650	376.20				1,268.36
#18 Unshilded Twistes Pair	392	LF	0.007	107.37	0.125	49.00				156.37
E-Sto Button										
3/4" PVC	100	LF	0.030	117.39	0.199	19.94				137.33
3/4" FA	6	EA	0.020	4.70	0.279	1.67				6.37
3/4" GRC 90 PVC/C	6	EA	0.350	82.17	12.676	76.06				158.23
3/4" GRC Coupling PVC/C	6	EA	0.100	23.48	3.559	21.35				44.83
3/4" GRC PVC/C	18	LF	0.100	70.43	3.420	61.56				131.99
3/4" GRC Coupling	6	EA	0.100	23.48	0.972	5.83				29.31

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
3/4" GRC	24	EA	0.080	75.13	1.733	41.59				116.72
3/4" EYS	6	EA	1.000	234.78	16.346	98.08				332.86
3/4" Ericson Explosion Proof	6	EA	0.500	117.39	13.220	79.32				196.71
3/4" Strut Strap SS	18	EA	0.100	70.43	4.908	88.34				158.78
1 5/8" x 1 5/8" Strut SS	4	LF	0.100	15.65	8.990	35.96				51.61
3/8" Drop in anchor SS	6	EA	0.150	35.22	1.379	8.27				43.49
3/8" x 1 1/2" Bolt SS	6	EA	0.050	11.74	0.515	3.09				14.83
3/8" Fender Washer SS	6	EA	0.020	4.70	0.212	1.27				5.97
#14 STP, 6 wires	534	LF	0.008	167.16	0.250	133.50				300.66
Label and Termination	36	EA	0.100	140.87	1.650	59.40				200.27
3/4" PVC (8 conduits)	160	LF	0.030	187.82	0.199	31.90				219.73
3/4" FA	16	EA	0.020	12.52	0.279	4.46				16.98
3/4" GRC 90 PVC/C	16	EA	0.350	219.13	12.676	202.82				421.95
3/4" GRC Coupling PVC/C	16	EA	0.100	62.61	3.559	56.94				119.54
3/4" GRC PVC/C	24	LF	0.100	93.91	3.420	82.08				175.99
3/4" GRC Coupling	16	EA	0.100	62.61	0.972	15.55				78.16
3/4" GRC	64	EA	0.080	200.35	1.733	110.91				311.26
3/4" Hub	16	EA	0.500	313.04	7.753	124.05				437.09
3/4" Strut Strap SS	16	EA	0.100	62.61	4.908	78.53				141.14
1 5/8" x 1 5/8" Strut SS	8	LF	0.100	31.30	8.990	71.92				103.22
3/8" Drop in anchor SS	6	EA	0.150	35.22	1.379	8.27				43.49
3/8" x 1 1/2" Bolt SS	6	EA	0.050	11.74	0.515	3.09				14.83
3/8" Fender Washer SS	6	EA	0.020	4.70	0.212	1.27				5.97
#18 Unshilded Twistes Pair	408	LF	0.007	111.76	0.125	51.00				162.76
Label and Termination	32	EA	0.100	125.22	1.650	52.80				178.02
Trenching/backfill for Instrumentation Conduit										
Dwg 87-C-404										
290' x 2' x 3' x 1.1 / 27	70.89	CY								
138' x 2' x 2' x 1.1 / 27	22.49	CY								
24' x 2' x 2' x 1.1 / 27	3.91	CY								
20' x 2' x 2' x 1.1 / 27	3.26	CY								
Dwg 87-EC-141										
From CP87 to Skids										
392' x 2' x 3' x 1.1 / 27	95.82	CY								
34' x 2' x 2' x 1.1 / 27	5.54	CY								
20' x 2' x 2' x 1.1 / 27	3.26	CY								
Total Trenching	205.17	CY								
Trenching @ 4 CY/HR	51.92	HRS	2.000	4,063.26			33.00	1,713.36		5,776.62
GLT @ 100' @ HR	9.18	HRS	2.000	718.43			15.00	137.70		856.13
Backfill @ 6 CY/ HR	34.17	HRS	2.000	2,674.14			33.00	1,127.61		3,801.75

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
Controls Inside Building										
3/4" GRC PVC/C	156	LF	0.100	610.43	3.420	533.52				1,143.95
3/4" GRC 90 PVC/C	16	EA	0.350	219.13	12.676	202.82				421.95
3/4" GRC Coupling	32	EA	0.100	125.22	0.972	31.10				156.31
3/4" Hub	16	EA	0.500	313.04	7.753	124.05				437.09
3/4" GB	16	EA	0.250	156.52	2.554	40.86				197.38
3/4" Strut Strap SS	32	EA	0.100	125.22	4.908	157.06				282.27
#18 STP	316	LF	0.007	86.56	0.130	41.08				127.64
Label and Termination	20	EA	0.100	78.26	1.650	33.00				111.26
1 5/8" x 1 5/8" Strut SS	32	EA	0.100	125.22	8.990	287.68				412.90
Instrument Conduit										
6" x 6" x 6" Explosion Proof Box	15	EA	2.000	1,173.90	729.730	10,945.95				12,119.85
1" Drill and Tap explosion box	51	EA	1.000	1,995.63	N/A					1,995.63
8" x 8" x 6" N4X J-Boxes	4	EA	2.000	313.04	288.000	1,152.00				1,465.04
3/8" Spring Nuts SS	76	EA	0.200	594.78	2.952	224.35				819.13
3/8" x 1 1/2" Bolt SS	76	EA	0.050	148.69	0.515	39.10				187.80
3/8" Flat Washer SS	76	EA	0.020	59.48	0.079	5.97				65.45
E-Stop Push Botton and Box	1	EA	1.000	39.13	250.000	250.00				289.13
3/8" Spring Nuts SS	2	EA	0.200	15.65	2.952	5.90				21.56
3/8" x 1 1/2" Bolt SS	2	EA	0.050	3.91	0.515	1.03				4.94
3/8" Flat Washer SS	2	EA	0.020	1.57	0.079	0.16				1.72
Box Support	19									
1 5/8" x 1 5/8" Strut SS	190	LF	0.100	743.47	8.990	1,708.10				2,451.57
1 5/8" Post Base	38	EA	0.500	743.47	103.890	3,947.82				4,691.29
3/8" Spring Nut SS	228	EA	0.100	892.16	2.952	673.06				1,565.22
3/8" x 1 1/2" Bolt SS	304	EA	0.050	594.78	0.515	156.41				751.18
3/8" Fender Washer SS	304	EA	0.020	237.91	0.597	181.52				419.43
3/8" Drop in anchor SS	76	EA	0.150	446.08	1.379	104.77				550.86
PA System										
Speaker	2	EA	1.500	117.39	100.000	200.00				317.39
1 5/8" x 1 5/8" Strut SS	16	LF	0.100	62.61	8.990	143.84				206.45
3/8" Fender Washer SS	20	EA	0.020	15.65	0.597	11.94				27.59
3/8" x 1 1/2" Bolt SS	20	EA	0.050	39.13	0.515	10.29				49.42
3/8" Nut SS	8	EA	0.030	9.39	0.241	1.93				11.32
3/8" Spring Nut SS	8	EA	0.100	31.30	2.952	23.62				54.92
3/8" Flat Washer SS	8	EA	0.020	6.26	0.079	0.63				6.89
Speaker WP	1	EA	1.500	58.70	100.000	100.00				158.70
1 5/8" x 1 5/8" Strut SS	8	LF	0.100	31.30	8.990	71.92				103.22
3/8" Fender Washer SS	8	EA	0.020	6.26	0.597	4.78				11.04
3/8" Spring Nut SS	8	EA	0.100	31.30	2.952	23.62				54.92
3/8" x 1 1/2" Bolt SS	8	EA	0.050	15.65	0.515	4.12				19.77

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
3/4" GRC	108	LF	0.080	338.08	1.733	187.16				525.25
3/4" GRC 90	3	EA	0.250	29.35	3.090	9.27				38.62
3/4" GRC Coupling	6	EA	0.050	11.74	0.890	5.34				17.08
3/4" Hub	3	EA	0.500	58.70	7.753	23.26				81.95
3/4" Strut Strap SS	15	EA	0.100	58.70	4.908	73.62				132.32
1 5/8" x 1 5/8" Strut SS	30	LF	0.050	58.70	6.590	197.70				256.40
3/8" Beam Clamp SS	30	EA	0.100	117.39	10.450	313.50				430.89
3/8" x 1 1/2" Bolt SS	30	EA	0.030	35.22	0.515	15.44				50.65
3/8" Fender Washer SS	30	EA	0.020	23.48	0.212	6.36				29.83
#16 TSP	360	LF	0.008	112.69	0.210	75.60				188.29
Lightning Protection										
Aluminum Conductors #A50, LP Class 1, Smooth Weave, 24 Strands	300	LF	0.010	117.39	0.590	177.00				294.39
712 Stamped Adhesive Clip A712 Aluminum	100	Each	0.050	195.65	0.393	39.30				234.95
Adhesive P783 M-1 Structural Adhesive/Sealant 10.1 OZ Tube	20	Tube	1.000	782.60	8.035	160.70				943.30
#10 Self Taping x 1" Screws	200	Each	0.050	391.30	0.100	20.00				411.30
Copper Conductor C59-19 4/0 Concentric 19 strands	300	LF	0.010	117.39	2.280	684.00				801.39
Trenching 200x3x1x1.10/27 -24 cy	200	LF								
Back hoe at 6 Cy / hour	4	HR					33.00	132.00		132.00
Operator	4	HR	1.000	156.52						156.52
Spotter	4	HR	1.000	156.52						156.52
Back fill										
Back hoe at 4 Cy / hour	6	HR					33.00	198.00		198.00
Operator	6	HR	1.000	234.78						234.78
Labor s back fill & compact	6	HR	2.000	469.56			15.00	90.00		559.56
Water buffalo	6	HR					36.00	216.00		216.00
GROUNDING										
Ground Rods 3/4" x 10'	4	Each	0.500	78.26	21.000	84.00	15.00	60.00		222.26
Concrete Roadway Traffic Ground Access Wells P6561	1	Each	1.000	39.13	144.716	144.72				183.85
641-643 Ground Rods Clamps #c643 3/4" Ground Rod	1	Each	0.250	9.78	9.148	9.15				18.93
Ground Cad Weld 4/0 to 3/4" Rod	4	Each	0.500	78.26	8.750	35.00				113.26
PVC Risers	6									
PVC 1"	300	LF	0.100	1,173.90	0.360	108.00				1,281.90
PVC 1" 90's	12	Ea.	0.050	23.48	0.650	7.80				31.28
PVC 1" Couplings	12	Ea.	0.050	23.48	0.150	1.80				25.28
PVC 1" Bell Ends	6	Ea	0.050	11.74	0.650	3.90				15.64
1" Unistrut Strap Stainless Steel	38	Ea	0.050	74.35	3.950	150.10				224.45

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
Deep 1-5/8 Unistrut Stainless Steel	18	LF	0.150	105.65	7.020	126.36				232.01
Concrete 3/8 Anchors	38	Ea	0.250	371.74	0.500	19.00				390.74
3/8" x 1 1/2" Bolt SS	38	Ea	0.100	148.69	0.515	19.55				168.25
3/8" Fender Washer SS	38	Ea	0.050	74.35	0.597	22.69				97.04
3/8 Lock Washer Stainless Steel	38	Ea	0.005	7.43	0.104	3.96				11.40
Detail BB Air Terminal	12	Each								
Air Terminals A1218ST 1/2" x 18" Safety tipped Aluminum	12	Each	0.100	46.96	7.456	89.47				136.43
Base Aluminum #A209 Dual Mount Base	12	Each	0.100	46.96	6.441	77.29				124.25
712 Stamped Adhesive Clip A712 Aluminum	12	Each	0.050	23.48	0.393	4.72				28.19
Adhesive P783 M-1 Structural Adhesive/Sealant 10.1 OZ Tube	2.4	Tube	0.030	2.82	8.035	19.28				22.10
#10 Self Taping x 1" Screws	48	Each	0.030	56.35	0.100	4.80				61.15
Cable Connection Detail Bi-metal	6	Each								
A320 Bimetallic Splicer # a320 Aluminum to Copper Bimetallic	6	Each	0.100	23.48	8.810	52.86				76.34
309 Parallel Splicer #A309 Aluminum	6	Each	0.100	23.48	8.068	48.41				71.89
Detail B/103 Pole B	4	Each								
10 foot 3/4" aluminum tubing, 3/16 Min Wall thickness	4	Each	0.250	39.13	13.000	52.00				91.13
230 Top Mount Pipe Base Aluminum 239	4	Each	0.100	15.65	8.500	34.00				49.65
1-5/8 band strap Stainless Steel	8	Each	0.030	9.39	5.000	40.00				49.39
3/4" Band Strap Stainless Steel	8	Each	0.030	9.39	4.000	32.00				41.39
5/16 x 1" Stainless steel bolt & nut	8	Each	0.030	9.39	1.000	8.00				17.39
416-418 Pipe Clamp A416 Aluminum (3/4-1.25" OD)	4	Each	0.100	15.65	8.701	34.80				50.46
416-418 Pipe Clamp A417 Aluminum (1.25-2" OD)	4	Each	0.100	15.65	16.288	65.15				80.80
Air Terminals A1218ST 1/2" x 18" Safety tipped Aluminum	4	Each	0.100	15.65	7.456	29.82				45.48
Access ladder Detail	1	Each								
416-418 Pipe Clamp A417 Aluminum (1.25-2" OD)	1	Each	0.250	9.78	16.288	16.29				26.07
A320 Bimetallic Splicer # A320 Aluminum to Copper Bimetallic	1	Each	0.100	3.91	8.810	8.81				12.72
309 Parallel Splicer #A309 Aluminum	1	Each	0.150	5.87	8.068	8.07				13.94
712 Stamped Adhesive Clip A712 Aluminum	1	Each	0.050	1.96	0.400	0.40				2.36
Adhesive P783 M-1 Structural Adhesive/Sealant 10.1 OZ Tube	0.2	Tube	0.030	0.23	8.035	1.61				1.84
#10 Self Taping x 1" Screws	2	Each	0.030	2.35	0.100	0.20				2.55
Hand Rail to Hand Rail Jumper	1	Each								
416-418 Pipe Clamp A417 Aluminum (1.25-2" OD)	2	Each	0.500	39.13	16.288	32.58				71.71

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
Aluminum Conductors #A50, LP Class 1, Smooth Weave, 24 Strands	1.5	LF	0.100	5.87	0.590	0.89				6.75
Items in original Quote										
Painting of PVC		LS							1,500.00	1,500.00
Security										
4' x 3' Plywood	1	EA	1.000	39.13	65.570	65.57				104.70
10" x 10" x 36" Gutter N3R	1	EA	1.000	39.13	146.965	146.97				186.10
DSX 8-Door Controller	1	EA	By APL		By APL					
DSX Power Supply	1	EA	By APL		By APL					
24VAC/12VDC Camera Power Supply	1	EA	By APL		By APL					
10" x 10" x 6" J-Box N3R	1	EA	1.000	39.13	26.059	26.06				65.19
FD Box 2 gang , 1 (Hub) 3/4"	1	EA	0.500	19.57	75.000	75.00				94.57
Duplex receptacle	2	EA	0.250	19.57	10.000	20.00				39.57
FD Box cover duplex receptacle	1	EA	0.250	9.78	35.000	35.00				44.78
wood screw	28	EA	0.030	32.87	0.150	4.20				37.07
2" x 8" GRC Nipple	4	EA	0.500	78.26	10.221	40.88				119.14
2" Lock nut	8	EA	0.100	31.30	0.450	3.60				34.90
2" GB	4	EA	0.150	23.48	4.796	19.18				42.66
1" x 4" GRC Nipple	4	EA	0.500	78.26	2.700	10.80				89.06
1" Lock Nut	26	EA	0.050	50.87	0.139	3.60				54.47
1" GB	12	EA	1.000	469.56	2.816	33.79				503.35
1" GRC	25	LF	0.090	88.04	2.883	72.06				160.11
1" Hole Strap	10	EA	0.100	39.13	1.409	14.09				53.22
3/4" GRC	4	LF	0.080	12.52	1.733	6.93				19.45
3/4" Lock Nut	8	EA	0.050	15.65	0.080	0.64				16.29
3/4" one hole malleable	2	EA	0.050	3.91	0.282	0.56				4.48
wood screw	12	EA	0.030	14.09	0.150	1.80				15.89
Card Reader Box	4	EA	1.000	156.52	By APL					156.52
12" x 12" x 8" N3R J-Box	4	EA	2.000	313.04	48.495	193.98				507.02
Powers Supply Box	4	EA	By APL		By APL					
1" GRC	126	LF	0.090	443.73	2.883	363.20				806.93
1" GRC 90	6	EA	0.250	58.70	4.710	28.26				86.96
1" GRC Coupling	12	EA	0.100	46.96	2.127	25.52				72.48
1" Hub	12	EA	0.250	117.39	6.595	79.14				196.53
1" Strut Strap SS	26	EA	0.100	101.74	5.262	136.81				238.55
1 5/8" x 1 5/8" Strut SS	40	LF	0.100	156.52	8.990	359.60				516.12
3/8" Beam Clamp SS	40	EA	0.100	156.52	12.700	508.00				664.52
3/8" x 1 1/2" Bolt SS	40	EA	0.030	46.96	0.515	20.58				67.54
3/8" Fender Washer SS	40	EA	0.020	31.30	0.597	23.88				55.19
#12 XHHW	159	LF	0.004	24.89	0.110	17.44				42.33
#12 Label and Termination	6	EA	0.150	35.22	1.500	9.00				44.22

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
Pull String	100	LF	0.010	39.13	0.250	25.00				64.13
1" GRC	484	LF	0.100	1,893.89	2.883	1,395.13				3,289.02
1" GRC 90	4	EA	0.250	39.13	4.710	18.84				57.97
1" GRC Coupling	8	EA	0.100	31.30	2.127	17.02				48.32
1" Hub	32	EA	0.500	626.08	6.595	211.04				837.12
1" Strut Strap SS	60	EA	0.100	234.78	5.262	315.72				550.50
1 5/8" x 1 5/8" Strut SS	27	LF	0.100	105.65	8.990	242.73				348.38
3/8" Drop in anchor SS	18	EA	0.150	105.65	1.379	24.81				130.47
3/8" x 1 1/2" Bolt SS	18	EA	0.050	35.22	0.515	9.26				44.48
3/8" Fender Washer SS	18	EA	0.020	14.09	0.597	10.75				24.83
#12 XHHW	870	LF	0.008	272.34	0.110	95.44				367.78
Label and Termination	48	LF	0.100	187.82	1.650	79.20				267.02
Fire Alarm										
FACP	1	EA	8.000	313.04	E/W					313.04
1 5/8" x 1 5/8" Strut SS	6	LF	0.100	23.48	8.990	53.94				77.42
3/8" Drop in anchor SS	4	EA	0.150	23.48	1.379	5.51				28.99
3/8" x 1 1/2" Bolt SS	8	EA	0.050	15.65	0.515	4.12				19.77
3/8" Spring Nut SS	4	EA	0.100	15.65	2.952	11.81				27.46
3/8" Fender Washer SS	4	EA	0.020	3.13	0.597	2.39				5.52
3/8" Flat Washer	4	EA	0.020	3.13	0.785	3.14				6.27
Fire Alarm Annunciator Devices	9	EA	0.500	176.09	E/W					176.09
Back Box	9	EA	0.500	176.09	39.000	351.00				527.09
3/8" Drop in anchor SS	18	LF	0.200	140.87	1.379	24.81				165.68
3/8" Fender Washer SS	18	EA	0.020	14.09	0.597	10.75				24.83
3/8" x 1 1/2" Bolt SS	18	EA	0.030	21.13	0.515	9.26				30.39
Pull Station	6	EA	0.500	117.39	E/W					117.39
Back Box	6	EA	0.500	117.39	39.000	234.00				351.39
3/8" Drop in anchor SS	12	LF	0.200	93.91	1.379	16.54				110.46
3/8" Fender Washer SS	12	EA	0.020	9.39	0.597	7.17				16.56
3/8" x 1 1/2" Bolt SS	12	EA	0.030	14.09	0.515	6.17				20.26
Smoke Detector	4	EA	0.500	78.26	E/W					78.26
Back Box	4	EA	0.500	78.26	39.000	156.00				234.26
1 5/8" x 1 5/8" Strut SS	12	LF	0.100	46.96	8.990	107.88				154.84
3/8" Beam Clamp SS	16	EA	0.100	62.61	12.700	203.20				265.81
3/8" Fender Washer SS	16	EA	0.020	12.52	0.597	9.55				22.08
3/8" x 1 1/2" Bolt SS	16	EA	0.030	18.78	0.515	8.23				27.01
3/8" Spring Nut SS	24	EA	0.100	93.91	2.952	70.85				164.76
3/8" Flat Washer SS	8	EA	0.020	6.26	0.079	0.63				6.89
3/4" GRC	570	LF	0.080	1,784.33	1.733	987.81				2,772.14

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
3/4" GRC 90	22	EA	0.250	215.22	3.287	72.30				287.52
3/4" GRC Coupling	44	EA	0.100	172.17	0.972	42.76				214.93
3/4" Hub	8	EA	0.500	156.52	7.753	62.03				218.55
3/4" 'T' Condulet	7	EA	0.500	136.96	20.000	140.00				276.96
3/4" "LB"	4	EA	0.500	78.26	20.000	80.00				158.26
3/4" Mini	47	EA	0.350	643.69	0.278	13.06				656.75
3/4" one hole malleable	36	EA	0.100	140.87	0.282	10.16				151.03
3/4" Back Strap	36	EA	0.100	140.87	0.406	14.62				155.48
3/8" Beam Clamp SS	55	EA	0.250	538.04	12.700	698.50				1,236.54
3/8" x 1 1/2" Bolt SS	55	EA	0.050	107.61	0.515	28.30				135.91
3/4" Strut Strap SS	13	EA	0.100	50.87	4.908	63.80				114.67
3/8" Fender Washer SS	8	EA	0.020	6.26	0.597	4.78				11.04
#14 XHHW	720	LF	0.006	169.04	0.076	55.01				224.05
16 STP Fire Alarm Wire	762	LF	0.008	238.54	0.200	152.40				390.94
Label and Termination	158	EA	0.100	618.25	1.650	260.70				878.95
1/4" Drop in anchor SS	36	EA	0.250	352.17	1.379	49.63				401.80
1/4" x 1 1/2" Bolt SS	36	EA	0.050	70.43	0.238	8.56				78.99
#12 XHHW	165	LF	0.008	51.65	0.110	18.10				69.75
1 5/8" x 1 5/8" Strut SS	8	LF	0.100	31.30	8.990	71.92				103.22
Cat 5	80	LF	0.006	18.78	0.076	6.08				24.86
RJ45	2	EA	1.000	78.26	0.633	1.27				79.53
Grounding										
4/0 Bare Copper	1150	LF	0.023	1,034.99	2.725	3,133.23				4,168.22
Cadweld 4/0 to 4/0 mold	5	EA	N/A		121.730	608.65				608.65
Weld Metal	73	EA	0.500	1,428.25	11.500	839.50				2,267.75
4/0 Pigtails (35 each)	455	LF	0.023	409.50	2.725	1,239.88				1,649.37
Trenching										
1150' x 3' x 1' x 1.1' / 27	140	CY								
Trenching @ 4 CY/HR	35	HRS	2.000	2,739.10			33.00	1,155.00		3,894.10
GLT @ 100' @ HR	11.5	HRS	2.000	899.99			15.00	172.50		1,072.49
Backfill @ 6 CY/ HR	23.33	HRS	2.000	1,825.81			33.00	769.89		2,595.70
Conduit and Wire One Line / Site										
PME Vault to XFMR										
4" PVC Conduit	230	LF	0.095	854.99	1.563	359.42				1,214.41
4" BE	4	EA	0.100	15.65	2.860	11.44				27.09
4" FA	4	EA	0.500	78.26	1.621	6.48				84.74
4" GRC 90 PVC/C	4	EA	1.000	156.52	131.711	526.84				683.36
4" x 3' GRC Nipple PVC/C	4	EA	1.500	234.78	97.973	391.89				626.67
4" GB	4	EA	0.350	54.78	16.186	64.74				119.53
4" Strut Strap	8	EA	0.150	46.96	21.006	168.05				215.00
1 5/8" x 1 5/8" Strut SS	20	LF	0.100	78.26	8.990	179.80				258.06
4" Base Spacer	24	EA	0.150	140.87	0.700	16.80				157.67
4" Intermediate Spacer	14	EA	0.500	273.91	0.651	9.11				283.02
4" GRC Coupling	4	EA	0.150	23.48	21.940	87.76				111.24

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
Trenching										
62' x 3'W x 5' x 1.1 / 27	37.89	CY								
Trenching @ 4 CY/HR	9.472	HRS	2.000	741.28			33.00	312.58		1,053.85
GLT @ 100' @ HR	0.62	HRS	2.000	48.52			15.00	9.30		57.82
Backfill @ 6 CY/ HR	6.315	HRS	2.000	494.21			33.00	208.40		702.61
Concrete encased										
62' x 3' x 2' x 5' x 1.1 / 27	15.16	CY	0.150	88.98	100.000	1,516.00				1,604.98
UG Tape	63	LF	0.010	24.65	0.195	12.30				36.95
#4/0 Bare	113	LF	0.023	101.70	2.651	299.55				401.25
Cadweld 4/0 to 4/0 Mold	1	EA	N/A		121.730	121.73				121.73
Weld Metal	4	EA	0.500	78.26	11.500	46.00				124.26
Re-bar Cage for Duct Bank	62	LF	0.020	48.52	E/W		33.00	33.00		81.52
#1/0 15KV MV-90-EPR Shielded	1146	LF	0.017	762.33	3.940	4,514.67				5,277.00
Freight for Wire	1	LS			425.000	425.00				425.00
#6 XHHW	382	LF	0.011	164.42	0.431	164.49				328.91
Label and Termination	40	EA	0.100	156.52	1.650	66.00				222.52
Dead Break Elbow for #1/0 15KV	8	SET	12.000	3,756.48	646.668	5,173.34				8,929.82
Cold Gnd Shield #200ECS-G3	24	EA	0.500	469.56	22.223	533.35				1,002.91
Cable Prep	24	EA	0.250	234.78	15.556	373.34				608.12
#6 Long Barrel Compression Lug	8	EA	0.250	78.26	1.344	10.75				89.01
XFMR to SWGR										
4" PVC Conduit	154	LF	0.095	572.47	1.563	240.66				813.13
4" FA	8	EA	0.500	156.52	1.621	12.97				169.49
4" GRC 90 PVC/C	8	EA	1.000	313.04	131.711	1,053.69				1,366.73
4" x 3' GRC Nipple PVC/C	8	EA	1.500	469.56	97.973	783.78				1,253.34
4" GB	8	EA	0.350	109.56	16.186	129.49				239.05
4" Strut Strap	16	EA	0.150	93.91	21.006	336.10				430.01
1 5/8" x 1 5/8" Strut SS	40	LF	0.100	156.52	8.990	359.60				516.12
4" Base Spacer	32	EA	0.150	187.82	0.700	22.41				210.23
4" GRC Coupling PVC/C	8	EA	0.150	46.96	42.287	338.30				385.25
Trenching										
154' x 3' x 4' x 1.1/27	75.28	CY								
Trenching @ 4 CY/HR	18.82	HRS	2.000	1,472.85			33.00	621.06		2,093.91
GLT @ 100' @ HR	1.54	HRS	2.000	120.52			15.00	23.10		143.62
Backfill @ 6 CY/ HR	12.46	HRS	2.000	975.12			33.00	411.18		1,386.30
Concrete encased										
154' 3' x 1' x 1.1/27	18.82	CY	0.250	184.11	100.000	1,882.00				2,066.11
UG Tape	154	LF	0.010	60.26	0.195	30.06				90.32
#4/0 Bare	210	LF	0.023	189.00	2.651	556.69				745.69

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
Re-bar Cage for Duct Bank	154	LF	0.020	120.52	E/W		49.50	49.50		170.02
#4/0 15KV MV-90-EPR Shielded	774	LF	0.035	1,060.03	6.005	4,648.18				5,708.21
Freight for Wire	1	LS			340.000	340.00				340.00
#1/0 XHHW	258	LF	0.015	151.43	1.513	390.23				541.66
Label and Termination	32	EA	0.100	125.22	1.500	48.00				173.22
Dead Break Elbow for #4/0 15KV	8	SET	12.000	3,756.48	646.670	5,173.36				8,929.84
Cold Gnd Shield #200ECS-G3	24	EA	0.500	469.56	22.223	533.35				1,002.91
Cable Prep	24	EA	0.250	234.78	15.556	373.34				608.12
#1/0 Long Barrel Compression Lug	8	EA	0.350	109.56	2.476	19.81				129.37
XFMR to MCC-01										
4" PVC Conduit	41	LF	0.095	152.41	1.563	64.07				216.48
4" FA	4	EA	0.350	54.78	1.621	6.48				61.27
4" GRC 90 PVC/C	4	EA	1.000	156.52	131.711	526.84				683.36
4" x 3' GRC Nipple PVC/C	4	EA	1.500	234.78	97.973	391.89				626.67
4" GB	4	EA	0.350	54.78	16.186	64.74				119.53
4" Strut Strap	8	EA	0.150	46.96	21.006	168.05				215.00
4" Base Spacer	10	EA	0.150	58.70	0.700	7.00				65.70
4" GRC Coupling PVC/C	4	EA	0.150	23.48	42.287	169.15				192.63
Trenching										
44' x 3' x 4' x 1.1 /27	21.51	CY								
Trenching @ 4 CY/HR	3.585	HRS	2.000	280.56			33.00	118.31		398.87
GLT @ 100' @ HR	0.44	HRS	2.000	34.43			15.00	6.60		41.03
Backfill @ 6 CY/ HR	3.585	HRS	2.000	280.56			33.00	118.31		398.87
Concrete encased										
44' x 3' x 1' x 1.1/27	5.38	CY	0.400	84.21	100.000	538.00				622.21
UG Tape	45	LF	0.010	17.61	0.195	8.78				26.39
#4/0 Bare	55	LF	0.023	49.50	2.651	145.80				195.30
Re-bar Cage for Duct Bank	44	LF	0.020	34.43	E/W		49.50	49.50		83.93
#350 KCMIL	249	LF	0.032	311.79	4.505	1,121.62				1,433.41
#2 XHHW Ground	83	LF	0.007	22.73	0.923	76.63				99.37
Label and Termination	16	EA	0.100	62.61	1.500	24.00				86.61
Compression Lug #350	4	SET	1.500	234.78	4.607	18.43				253.21
Compression Lug #2	4	EA	0.150	23.48	2.298	9.19				32.67
SWGR to MVDS1										
4" PVC Conduit	56	LF	0.095	208.17	1.563	87.51				295.68
4" BE	4	EA	0.100	15.65	2.860	11.44				27.09
4" FA	4	EA	0.350	54.78	1.621	6.48				61.27
4" GRC 90 PVC/C	4	EA	1.000	156.52	131.711	526.84				683.36
4" x 3' GRC Nipple PVC/C	4	EA	1.500	234.78	97.973	391.89				626.67

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
4" GB	4	EA	0.350	54.78	16.186	64.74				119.53
4" Strut Strap	8	EA	0.100	31.30	21.006	168.05				199.35
1 5/8" x 1 5/8" Strut SS	20	EA	0.100	78.26	8.990	179.80				258.06
4" Base Spacer	12	EA	0.150	70.43	0.700	8.40				78.84
4" GRC Coupling PVC/C	4	EA	0.150	23.48	42.287	169.15				192.63
4" EYS	2	EA	2.000	156.52	394.898	789.80				946.32
4" X 4' Explosion Proof Flex	1	EA	1.000	39.13	5508.109	5,508.11				5,547.24
4" Ericson Explosion Proof	2	EA	1.000	78.26	308.768	617.54				695.80
Trenching										
56' x 3' x 4' x 1.1 / 27	27.38	CY								
Trenching @ 4 CY/HR	6.845	HRS	2.000	535.69			33.00	225.89		761.57
GLT @ 100' @ HR	0.56	HRS	2.000	43.83			15.00	8.40		52.23
Backfill @ 6 CY/ HR	4.563	HRS	2.000	357.10			33.00	150.58		507.68
Concrete Encasement										
56' x 3' x 1' x 1.1/27	6.84	CY	0.400	107.06	100.000	684.00				791.06
UG Tape	56	LF	0.010	21.91	0.195	10.93				32.84
#4/0 Bare	76	LF	0.023	68.40	2.651	201.47				269.87
Re-bar Cage for Duct Bank	56	LF	0.020	43.83	E/W		33.00	33.00		76.83
#1/0 15KV MV-90-EPR Shielded	324	LF	0.017	215.53	3.940	1,276.40				1,491.93
#6 XHHW	108	LF	0.006	25.36	0.431	46.50				71.86
Label and Termination	10	EA	0.100	39.13	1.500	15.00				54.13
Dead Break Elbow for #1/0 15KV	4	SET	4.000	626.08	646.668	2,586.67				3,212.75
Cold Gnd Shield #200ECS-G3	12	EA	0.500	234.78	22.223	266.68				501.46
Cable Prep	12	EA	0.250	117.39	15.556	186.67				304.06
#6 Long Barrel Compression Lug	4	EA	0.150	23.48	1.344	5.38				28.85
Trenching/backfill for Disconnects										
216' x 3' x 3' x 1.1 /27	79.2	CY								
Trenching @ 4 CY/HR	19.8	HRS	2.000	1,549.55			33.00	653.40		2,202.95
GLT @ 100' @ HR	2.16	HRS	2.000	169.04			15.00	32.40		201.44
Backfill @ 6 CY/ HR	13.2	HRS	2.000	1,033.03			33.00	435.60		1,468.63
UG Tape	250	LF	0.010	97.83	0.195	48.80				146.63
DS1, DS4										
2" GRC PVC/C	125	LF	0.190	929.34	8.889	1,111.18				2,040.51
2" GRC 90 PVC/C	4	EA	0.500	78.26	30.635	122.54				200.80
2" GRC Coupling PVC/C	4	EA	0.100	15.65	9.380	37.52				53.17
2" EYS	4	EA	1.000	156.52	86.465	345.86				502.38
2" Ericson Explosion Proof	4	EA	1.000	156.52	59.341	237.36				393.88
2" Strut Strap SS	6	EA	0.100	23.48	9.360	56.16				79.64
2" x 4' Explosion Proof Flex	2	EA	1.000	78.26	1210.810	2,421.62				2,499.88
2" GB	4	EA	0.250	39.13	4.796	19.18				58.31

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
1 5/8" x 1 5/8" Strut SS	16	LF	0.100	62.61	8.990	143.84				206.45
#4/0 XHHW	543	LF	0.024	499.32	2.968	1,611.52				2,110.83
#4 XHHW	181	LF	0.007	46.04	0.566	102.50				148.54
2" x 3' Nipple PVC/C	2	EA	1.500	117.39	35.557	71.11				188.50
2" x 2' Nipple PVC/C	2	EA	1.500	117.39	26.668	53.34				170.73
Label and Termination	16	EA	0.350	219.13	1.650	26.40				245.53
DS2, DS3, DS5, DS6, DS7, Instr Air										
3/4" GRC PVC/C	898	LF	0.100	3,513.87	3.420	3,071.16				6,585.03
3/4" GRC 90 PVC/C	12	EA	0.350	164.35	12.676	152.11				316.46
3/4" GRC Coupling PVC/C	24	EA	0.100	93.91	3.559	85.40				179.32
3/4" EYS	12	EA	1.000	469.56	16.346	196.15				665.71
3/4" Ericson Explosion Proof	12	EA	0.500	234.78	13.220	158.64				393.42
3/4" Strut Strap SS	18	EA	0.100	70.43	4.908	88.34				158.78
3/4" GB	12	EA	0.100	46.96	2.554	30.64				77.60
1 5/8" x 1 5/8" Strut SS	30	LF	0.100	117.39	8.990	269.70				387.09
#10 XHHW	2896	LF	0.010	1,133.20	0.187	542.48				1,675.68
3/4" x 3' Nipple PVC/C	12	EA	1.350	633.91	14.160	169.92				803.83
Label and Termination	48	EA	0.100	187.82	1.650	79.20				267.02
#12 XHHW	1416	LF	0.008	443.26	0.110	155.34				598.60
MCC to TX-3										
1 1/2" GRC PVC/C	12	LF	0.150	70.43	6.814	81.77				152.21
1 1/2" GRC 90 PVC/C	2	EA	0.500	39.13	21.951	43.90				83.03
1 1/2" GRC Coupling PVC/C	4	EA	0.100	15.65	6.412	25.65				41.30
1 1/2" x 3' Nipple PVC/C	2	EA	1.350	105.65	27.256	54.51				160.16
1 1/2" GB	2	EA	0.250	19.57	4.188	8.38				27.94
1 1/2" Strut Strap	4	EA	0.100	15.65	8.592	34.37				50.02
1 5/8" x 1 5/8" Strut SS	5	EA	0.100	19.57	8.990	44.95				64.52
#1/0 XHHW	105	LF	0.017	69.85	1.513	158.81				228.66
#6 XHHW	35	LF	0.006	8.22	0.431	15.07				23.29
Label and Termination	8	EA	0.350	109.56	1.650	13.20				122.76
TX-03 to PNL-01										
2 1/2" Sealite	4	LF	0.200	31.30	5.662	22.65				53.95
2 1/2" ST Conn 90	1	EA	0.500	19.57	89.344	89.34				108.91
2 1/2" ST Conn Str	1	EA	0.500	19.57	73.308	73.31				92.87
#4/0 XHHW	42	LF	0.040	65.74	2.968	124.65				190.39
#4 XHHW	14	LF	0.060	32.87	0.566	7.93				40.80
Label and Termination	8	EA	0.500	156.52	1.650	13.20				169.72
H2S Controls										
8" x 8" x 6" Explosion Proof J-Box	15	EA	2.000	1,173.90	967.568	14,513.52				15,687.42
3/4" Drill and Tap J-Box	45	EA	1.000	1,760.85	N/A					1,760.85
1 5/8" x 1 5/8" Strut SS	135	LF	0.100	528.26	8.990	1,213.65				1,741.91
1 5/8" Post Base	30	EA	0.500	586.95	103.890	3,116.70				3,703.65
3/8" Drop in anchor SS	60	LF	0.150	352.17	1.379	82.72				434.89

Description	Qty	Unit	Unit Price	LABOR	Unit Price	MATERIAL	Rate	Equip.	SUB CONT.	TOTAL
3/8" x 1 1/2" Bolt SS	240	EA	0.050	469.56	0.515	123.48				593.04
3/8" Fender Washer SS	240	EA	0.020	187.82	0.597	143.30				331.13
3/8" Spring Nut SS	180	EA	0.100	704.34	2.952	531.36				1,235.70
Install CP-19 Panel	1	EA	16.000	626.08	By Other					626.08
1 5/8" x 1 5/8" Strut SS	8	LF	0.100	31.30	8.990	71.92				103.22
3/8" Drop in anchor SS	6	EA	0.150	35.22	1.379	8.27				43.49
3/8" Spring Nut SS	6	EA	0.100	23.48	2.952	17.71				41.19
3/8" x 1 1/2" Bolt SS	12	EA	0.050	23.48	0.515	6.17				29.65
3/8" Fender Washer SS	12	EA	0.020	9.39	0.597	7.17				16.56
FO Conduit from MH to Bld 87										
(MH for Nutrient Recovery to Bldg 87)										
4" PVC Conduit	460	LF	0.095	1,709.98	1.563	718.84				2,428.82
4" BE	2	EA	0.250	19.57	2.860	5.72				25.29
4" FA	2	EA	0.500	39.13	1.621	3.24				42.37
4" GRC 90 36"Radius	2	EA	1.000	78.26	538.056	1,076.11				1,154.37
4" Plastic Bushing	2	EA	0.250	19.57	1.759	3.52				23.08
4" x 3" GRC Nipple PVC/C	2	EA	1.500	117.39	97.973	195.95				313.34
4" GRC Coupling	4	EA	0.150	23.48	21.940	87.76				111.24
1" Innerduct (3 innerduct)	729	LF	0.024	684.62	2.000	1,458.00				2,142.62
Pull String (for spare)	243	LF	0.006	57.05	0.170	41.31				98.36
4" Base spacer	92	EA	0.150	539.99	0.700	64.42				604.41
Re-bar Cage for Duct Bank	230	LF	0.020	180.00	E/W		49.50	49.50		229.50
Trenching										
230' x 3' x 2.5' x 1.1' / 27	70.28	CY								
Trenching @ 4 CY/HR	17.57	HRS	2.000	1,375.03			33.00	579.81		1,954.84
GLT @ 100' @ HR	2.3	HRS	2.000	180.00			15.00	34.50		214.50
Backfill @ 6 CY/ HR	11.71	HRS	2.000	916.42			33.00	386.43		1,302.85
Concrete Encased										
230' x 1' x 2.5' x 1.1' / 27	23.43	CY	0.200	183.36	100.000	2,343.00				2,526.36
Chico A3 Co mpund	33	LB			12.160	401.28				401.28
Chico X7 Fiber	2	LB			88.069	176.14				176.14
Conduit to SWG										
4" PVC	106	LF	0.095	394.04	1.563	165.65				559.69
4" FA	1	EA	0.350	13.70	1.621	1.62				15.32
4" GRC 90 PVC/C	1	EA	1.000	39.13	131.711	131.71				170.84
4" GRC Coupling PVC/C	2	EA	0.150	11.74	42.287	84.57				96.31
4" GB	1	EA	0.350	13.70	16.186	16.19				29.88
4" EYS	1	EA	2.000	78.26	394.898	394.90				473.16
4" Base spacer	22	EA	0.150	129.13	0.700	15.40				144.53
4" PVC Cap	1	EA	0.100	3.91	7.940	7.94				11.85