



**BOARD OF SUPERVISORS AGENDA ITEM REPORT  
CONTRACTS / AWARDS / GRANTS**

Award  Contract  Grant

Requested Board Meeting Date: 08/01/2017

\* = Mandatory, information must be provided

or Procurement Director Award

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

PCL Construction, Inc.

**\*Project Title/Description:**

Construction Manager at Risk Services for Continental Ranch Regional Pump Station Upgrade Project (3CRS05)

**\*Purpose:**

Ratification of Amendment: Contract No. CT-WW-17-380, Amendment No. One (1). This amendment increases the award amount by \$4,202,228.00 from \$128,048.00 to \$4,330,276.00 and incorporates Guaranteed Maximum Price No. One (GMP-1). Administering Department: Regional Wastewater Reclamation

GMP-1 pertains to project phase 1 and provides for operation of temporary flow management equipment for the project, acquisition of equipment for permanent flow management facilities, construction of the permanent flow management facilities and for all other related construction activities for this phase. Due to limited subcontracting opportunities, no Small Business Enterprise (SBE) goal is established for GMP-1.

Immediate approval of the amendment by the Board of Supervisors Chair was requested by the Regional Wastewater Reclamation Department to allow for immediate implementation of GMP-1 so that acquisition of equipment and construction of the infrastructure may begin for permanent flow management at the Continental Ranch Regional Pump Station. This action was necessitated by the recent failure of multiple pumps at the pump station prior to its total rehabilitation under this contract.

**\*Procurement Method:**

Pursuant to Solicitation for Qualifications No. 247817, on June 20, 2017, the Board of Supervisors awarded a contract for pre-construction services for this project in the amount of \$128,048.00 for a contract term of 06/20/2017 to 06/19/2019.

Attachments: Contract Amendment No. One (1), Ratification Memorandum.

**\*Program Goals/Predicted Outcomes:**

Completion of the rehabilitation process, facilitated by the participation of the Construction Manager at Risk, in accordance/compliance with approved project plans and specifications, regulatory and industry codes, and department standards.

**\*Public Benefit:**

Upgraded Pump Station standards that will allow handling of additional flows at future build out conditions without additional funding requirements for pump station operations.

**\*Metrics Available to Measure Performance:**

Performance will be measured with monthly or bi-weekly activity reports during construction, monthly updates to the Cost to Complete Forecast, and by using the contractor evaluation process as outlined in BOS Policy D29.1.F.III.F.

**\*Retroactive:**

No

TO: COB 7-27-17 (1)  
Vers: 3  
pgs: 41

Procure Dept 07/27/17 PM 1:51

**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

**\*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 22-73.*

**Amendment / Revised Award Information**

Document Type: CT Department Code: WW Contract Number (i.e., 15-123): 17-380

Amendment No.: One (1) AMS Version No.: 3

Effective Date: 07/26/2017 New Termination Date: \_\_\_\_\_

Prior Contract No. (Synergen/CMS): \_\_\_\_\_

Expense or  Revenue  Increase  Decrease Amount This Amendment: \$ 4,202,228.00

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 *Keith E. Rogers* 7-25-17

Department: Procurement *Man J...* 7/26/17 Telephone: 724-3542

Department Director Signature/Date: \_\_\_\_\_

Deputy County Administrator Signature/Date: \_\_\_\_\_

County Administrator Signature/Date: *C. DeMuller* 7/26/17

*(Required for Board Agenda/Addendum Items)*



**PIMA COUNTY**

PROCUREMENT

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## MEMORANDUM

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**Date:** July 26, 2017

**To:** Ms. Sharon Bronson, Chair, Pima County Board of Supervisors

**From:** Mary Jo Furphy, Procurement Director

**Re:** Contract No. CT-WW-17-380, Contract Amendment Ratification Request

Dear Ms. Bronson:

Contract No. CT-WW-17-380 was awarded to PCL Construction, Inc. by the Board of Supervisors on June 20, 2017 for Construction Manager at Risk (CMAR) pre-construction services for the Continental Ranch Regional Pump Station Rehabilitation Project (3CRS05). This contract is for the Regional Wastewater Reclamation Department (RWRD). The contract was awarded in the amount of \$128,048.00 for a term of 06/20/2017 to 06/19/2019. It was anticipated that construction of the project would be phased with at least two (2) Guaranteed Maximum Price (GMP) amendments.

In July of this year, during the pre-construction services activities, a failure of multiple pumps utilized at this pump station occurred, partially flooding the facility. This resulted in a declaration of emergency due to the threat to public health, welfare, property or safety. Since this pump station does not yet have its own dedicated flow management (bypass) equipment, flow management equipment was put into place to bypass the pump station. Since that solution is only an interim measure and very costly, it was determined that the best solution to protect the interests of the County and public is to accelerate construction activities under the CMAR contract.

GMP-1 of this contract in the amount of \$4,202,228.00 incorporates the emergency cleanup activities, the acquisition of permanent flow management equipment for this pump station, construction of the infrastructure to support the permanent flow management equipment, and the equipment's installation. Once the permanent flow management equipment is installed, accepted and operational, the flow management equipment temporarily put in place to manage the emergency will be removed, and activities to rehabilitate the remainder of the pump station may continue.

RWRD is requesting that the contract be amended to incorporate GMP-1 immediately under the authority of the Board of Supervisors' Chair with ratification of the amendment to follow at the August 1, 2017 Board of Supervisors Meeting.

Your signature below will indicate agreement with this request. For ratification, this award amendment will be processed for inclusion on the August 1, 2017 Agenda.



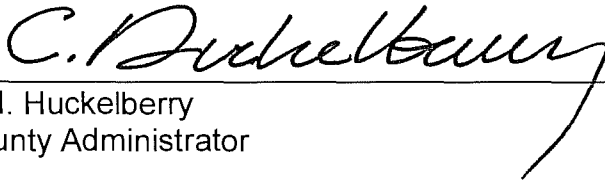
Sharon Bronson, Chair, Pima County Board of Supervisors

JUL 26 2017

Date

APPROVED:

Approval of this action is to mitigate any potential threat of discharge into the Santa Cruz River and acknowledges the direction to Procurement to accelerate construction activities under the CMAR contract with PCL Construction, Inc.

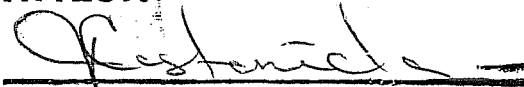


C.H. Huckelberry  
County Administrator

7/26/17

Date

**ATTEST:**



Clerk, Board of Supervisors  
Pima County, Arizona

**PIMA COUNTY REGIONAL WASTEWATER  
RECLAMATION DEPARTMENT**

**PROJECT:** Construction Manager At Risk Services  
for Continental Ranch Regional Pump  
Station Upgrade Project (3CRS05)

**CONTRACTOR:** PCL Construction, Inc.  
1711 W Greentree Dr, Suite 201  
Tempe, Arizona 85284

**CONTRACT NO.:** CT-WW-17-380

**AMENDMENT NO.:** One (1)

**FUNDING:** Regional Wastewater Reclamation Department  
Obligations

<b>CONTRACT</b>	
NO. <u>CT-WW-17-380</u>	
AMENDMENT NO. <u>01</u>	
This number must appear on all invoices, correspondence and documents pertaining to this contract.	

<b>CONTRACT TERM:</b> 06/20/2017 - 06/19/2019	<b>ORIGINAL CONTRACT AMOUNT:</b>	\$	128,048.00
<b>TERMINATION PRIOR AMENDMENT:</b> NA	<b>PRIOR AMENDMENT(S):</b>	\$	-
<b>TERMINATION THIS AMENDMENT:</b> 06/19/2019	<b>AMOUNT THIS AMENDMENT:</b>	\$	4,202,228.00
	<b>REVISED CONTRACT AMOUNT:</b>	\$	4,330,276.00

**CONSTRUCTION CONTRACT AMENDMENT**

**WHEREAS**, COUNTY and CONTRACTOR have entered into the Contract for the project referenced above; and

**WHEREAS**, construction of the project was anticipated to be conducted in multiple phases; and

**WHEREAS**, Guaranteed Maximum Price No. One (GMP-1) shall pertain to project Phase 1; and

**WHEREAS**, COUNTY and CONTRACTOR, pursuant to Article 2, have agreed to incorporate GMP-1 into the contract for Phase 1 construction activities, including operation of temporary flow management equipment for the project, acquisition of equipment for permanent flow management facilities, construction of the permanent flow management facilities and for all other related construction activities; and,

**WHEREAS**, COUNTY's acceptance of GMP-1 is subject to the understanding of the Parties that all other elements of future GMPs, if any, are and remain negotiable; and,

**WHEREAS**, COUNTY and CONTRACTOR pursuant to Article 3 have agreed to increase the Contract amount as identified in GMP-1.

**NOW, THEREFORE**, it is agreed as follows:

**CHANGE: ARTICLE 3 – PRE-CONSTRUCTION SERVICES FEE AND GUARANTEED MAXIMUM PRICE**

Insert after Paragraph B:

Guaranteed Maximum Price-1 (GMP-1) for acquisition of equipment and all construction activities as identified in APPENDIX "F" is Four Million, Two Hundred and Two Thousand, Two Hundred Twenty-Eight Dollars and No Cents (\$4,202,228.00). COUNTY reserves the right to negotiate the construction fee, overhead rate, and all other elements of future GMPs, if any.

**ADD: AS APPENDIX "F"**

APPENDIX "F": Construction Manager at Risk (CMAR) Services for Continental Ranch Regional Pump Station Rehabilitation (3CRS05) GMP-1, proposal dated July 25, 2017 (38 pages, attached).

This Amendment shall be effective on July 26, 2017.

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

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IN WITNESS WHEREOF, the parties have affixed their signatures to this Amendment on the dates written below.

APPROVED:



Chair, Board of Supervisors

**JUL 26 2017**

Date

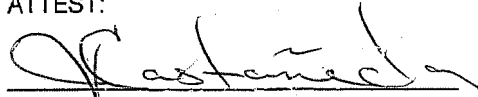
CONTRACTOR:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name and Title (Please Print)

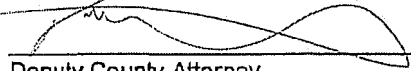
\_\_\_\_\_  
Date

ATTEST:



Clerk of the Board

APPROVED AS TO FORM:



Deputy County Attorney

**TOBIN ROSEN**

Printed Name

**7/26/17**

Date

This Amendment shall be effective on July 26, 2017.

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 Amendment on the dates written below.

APPROVED:



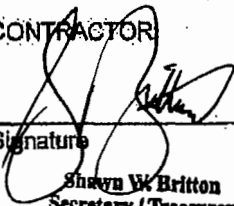
Chair, Board of Supervisors

JUL 26 2017

Date

CONTRACTOR


Signature

  
Shawn W. Britton  
Secretary / Treasurer

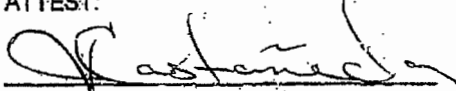
Name and Title (Please Print)

7-21-2017

Date

  
RICHARD HEWITT  
AUTHORIZED SIGNER  
OPERATIONS MANAGER

ATTEST:



Clerk of the Board

APPROVED AS TO FORM:

  
Deputy County Attorney  
TOBIN ROSEN

Printed Name

7/26/17  
Date

Continental Ranch Regional Pump Station Upgrades Project -3CRS05  
GMP 1 Summary



**CONSTRUCTION**

<b>CONSTRUCTION COSTS- GMP 1</b>	<b>AMOUNT</b>
Cost of Construction	\$ 2,879,547
CMAR Contingency	\$ 200,000
<b>SUBTOTAL DIRECT CONSTRUCTION COSTS</b>	<b>\$ 3,079,547</b>
<b>INDIRECT CONSTRUCTION COSTS</b>	
General Conditions	\$ 239,719
Overhead (6.21%)	\$ 223,908
Insurance	\$ 38,421
Payment & Performance Bonds	\$ 24,013
<b>SUBTOTAL DIRECT CONSTRUCTION COSTS + GC's, OH, Insurance, Bonds</b>	<b>\$ 3,605,608</b>
Construction Fee (8%)	\$ 288,449
<b>SUBTOTAL DIRECT CONSTRUCTION COSTS + GC's, OH, Insurance, Bonds, Fee</b>	<b>\$ 3,894,057</b>
AZ Gross Receipts Tax (MRRA)	\$ 108,171
<b>GMP 1 TOTAL</b>	<b>\$ 4,002,228</b>
<b>OTHER PROJECT COSTS</b>	
County Contingency	\$ 200,000.00
<b>TOTAL CONTRACT</b>	<b>\$ 4,202,228</b>





Date **July 25, 2017**  
Time **3:56:41 PM**  
BE Number **BE170920**  
Opportunity No  
Owner File No  
Estimator

**PCL Construction, Inc.**  
Water Infrastructure Group

**Conceptual Estimate Report**

Project **Continental Ranch Regional Pump Station Upgrade Project (3CRS05)**  
Location **Marana**  
Owner **Pima County Wastewater Management Dept.**  
Designer **Westland Resources, Inc.**

Bid Closing  
Project Start **July 24, 2017**  
Project Completion **December 29, 2017**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**General Estimate Summary**

Summary Page 1 of 2

Jul 25, 2017  
 3:56:41 PM

BE Number BE170920  
 Opportunity No  
 Owner File No  
 Project Continental Ranch Regional Pump Station Upgrade Project (3CRS05)  
 Location Marana

Sheet Name	Description	Quantity UOM	Labor			Equipment			Services / Tools / Supplies		Material		Subcontract		Total Cost	
			Hours	Rate	Total	Hours	Unit	Total	Unit	Total	Unit	Total	Unit	Total		
<b>CONSTRUCTION COSTS</b>																
<b>COST OF CONSTRUCTION</b>		<b>1 LS</b>														
DC 1	Division 1	1 LS	310	32.71	10,142	4,401	---	15,574	---	76,623	---	20,157	---	8,000	---	130,496
TEMP	Temporary Bypass Scope	1 LS	---	---	---	---	---	---	---	---	---	11,910	---	793,973	---	805,883
DC 2	Site Work	1 LS	778	39.33	30,586	292	---	11,943	---	20,489	---	79,466	---	263,631	---	406,116
DC 3	Concrete	1 LS	1,550	38.93	60,364	619	---	18,848	---	14,432	---	24,491	---	44,625	---	162,761
DC 5	Metals	1 LS	131	37.99	4,990	24	---	2,114	---	---	---	24,810	---	43,816	---	75,730
DC 9	Coatings	1 LS	---	---	---	---	---	---	---	---	---	---	---	98,623	---	98,623
DC 11	Equipment	1 LS	168	37.91	6,368	30	---	2,643	---	450	---	339,751	---	---	---	349,212
DC 15	Mechanical	1 LS	804	35.87	28,843	265	---	10,108	---	560	---	556,591	---	---	---	596,102
DC 16	Electrical	1 LS	96	39.42	3,784	72	---	3,109	---	---	---	935	---	246,795	---	254,624
<b>COST OF CONSTRUCTION</b>		<b>1 LS</b>	<b>3,838</b>	<b>---</b>	<b>145,078</b>	<b>5,703</b>	<b>---</b>	<b>64,340</b>	<b>---</b>	<b>112,555</b>	<b>---</b>	<b>1,058,111</b>	<b>---</b>	<b>1,499,463</b>	<b>---</b>	<b>2,879,547</b>
CONT	Contractor's Contingency	1 LS	---	---	---	---	---	---	---	200,000	---	---	---	---	---	200,000
<b>CONSTRUCTION COSTS</b>		<b>-</b>	<b>3,838</b>	<b>---</b>	<b>145,078</b>	<b>5,703</b>	<b>---</b>	<b>64,340</b>	<b>---</b>	<b>312,555</b>	<b>---</b>	<b>1,058,111</b>	<b>---</b>	<b>1,499,463</b>	<b>---</b>	<b>3,079,547</b>
<b>INDIRECT CONSTRUCTION COSTS</b>																
GE 17	General Conditions	1 LS	2,340	79.13	185,168	1,038	---	14,651	---	39,900	---	---	---	---	---	239,719
GE 7	Overhead	1 LS	---	---	---	---	---	---	---	---	---	223,908	---	---	---	223,908
GE 9	Insurance	1 LS	---	---	---	---	---	---	---	38,421	---	---	---	---	---	38,421
GE 8	Payment and Performance Bonds	1 LS	---	---	---	---	---	---	---	24,013	---	---	---	---	---	24,013
<b>INDIRECT CONSTRUCTION COSTS</b>		<b>17.08% T.C.</b>	<b>2,340</b>	<b>---</b>	<b>185,168</b>	<b>1,038</b>	<b>---</b>	<b>14,651</b>	<b>---</b>	<b>102,335</b>	<b>---</b>	<b>223,908</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>526,062</b>
<b>TOTAL COST</b>																
			<b>6,178</b>	<b>---</b>	<b>330,246</b>	<b>6,741</b>	<b>---</b>	<b>78,990</b>	<b>---</b>	<b>414,889</b>	<b>---</b>	<b>1,282,019</b>	<b>---</b>	<b>1,499,463</b>	<b>---</b>	<b>3,605,609</b>
<b>Fee</b>		<b>8.00% T.C.</b>														<b>288,449</b>
<b>Tax &amp; County Contingency</b>																
TAX	TAX	100 %	---	---	---	---	---	---	1,844.97	184,497	-763.26	-76,326	---	---	1,081.71	108,171
CON	County Contingency	1 LS	---	---	---	---	---	---	---	200,000	---	---	---	---	---	200,000



BE Number BE170920  
 Opportunity No  
 Owner File No  
 Project Continental Ranch Regional Pump Station Upgrade Project (3CRS05)  
 Location Marana

**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**General Estimate Summary**

Summary Page 2 of 2

Jul 25, 2017  
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Sheet Name	Description	Quantity	UOM	Labor			Equipment			Services / Tools / Supplies		Material		Subcontract		Total Cost	
				Hours	Rate	Total	Hours	Unit	Total	Unit	Total	Unit	Total	Unit	Total	Unit	Total
	<b>Tax &amp; County Contingency</b>																308,171
	<b>TOTAL BID</b>																4,202,228



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**Item Analysis Sheet**

Detail Page 1 of 29  
 Jul 21, 2017  
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BE Number BE170920  
 Opportunity No  
 Owner File No  
 Project Continental Ranch Regional Pump Station Upgrade Project  
 Location Marana

**DC 1 Division 1 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	UOM	Units Per Hours	Man Hrs Per Unit	Labor			Equipment		Service/Tools/Supplies		Perm. Material		SubContract		Total Cost			
						Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total		
<b>Division 1</b>																				
	<b>MOBILIZE</b>	<b>1</b>	<b>LS</b>																	
	<b>Freight In</b>	<b>1</b>	<b>LS</b>																	
	Load at Job Site	24	HR	1.000	1.000	24	LG3 28.83	692	---	---	---	---	---	---	---	---	---	28.83	692	
	Forklift, RT 8000# Reach	24	HR	1.000	1.000	24	DP2 42.85	1,028	23.47	563	---	---	---	---	---	---	---	66.32	1,592	
	Equipment Freight -IN	1	LS									8,500							8,500	
	<b>Freight In</b>	<b>1</b>	<b>LS</b>			<b>48</b>	<b>35.84</b>	<b>1,720</b>	<b>563.38</b>	<b>563</b>		<b>8,500</b>							<b>10,784</b>	
	<b>MOBILIZE</b>	<b>1</b>	<b>LS</b>			<b>48</b>	<b>35.84</b>	<b>1,720</b>	<b>23.47</b>	<b>563</b>		<b>8,500</b>							<b>10,784</b>	
	<b>DEMOBILIZE</b>	<b>1</b>	<b>LS</b>																	
	<b>Freight Out</b>	<b>1</b>	<b>LS</b>																	
	Load at Job Site	24	HR	1.000	1.000	24	LG3 28.83	692	---	---	---	---	---	---	---	---	---	---	28.83	692
	Forklift, RT 8000# Reach	24	HR	1.000	1.000	24	DP2 42.85	1,028	23.47	563	---	---	---	---	---	---	---	---	66.32	1,592
	Equipment Freight -OUT	1	LS									8,500							8,500	
	<b>Freight Out</b>	<b>1</b>	<b>LS</b>			<b>48</b>	<b>35.84</b>	<b>1,720</b>	<b>563.38</b>	<b>563</b>		<b>8,500</b>							<b>10,784</b>	
	<b>DEMOBILIZE</b>	<b>1</b>	<b>LS</b>			<b>48</b>	<b>35.84</b>	<b>1,720</b>	<b>23.47</b>	<b>563</b>		<b>8,500</b>							<b>10,784</b>	

V:\PCL\NC.Network.ads\Civil Southwest\District Office\District Shared\ESTIMATING\BIDS-CURRENT\Special Projects\Continental Ranch CMAR\Continental

**DC 1 Division 1 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**Item Analysis Sheet**

Detail Page 2 of 29  
 Jul 21, 2017  
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BE Number BE170920  
 Opportunity No  
 Owner File No  
 Project Continental Ranch Regional Pump Station Upgrade Project  
 Location Marana

**DC 1**     **Division 1**     **1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	DOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost		
						Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
<b>Instal Security</b>		100 %																	
	Temp Fencing/Windshde	600 LF									6.00	3,600						6.00	3,600
<b>Instal Security</b>		100 %										3,600						36.00	3,600
<b>SWPPP and Dust Control</b>		1 LS																	
	SWPPP Plan Development						1.00 LS												
	SWPPP Permit	1 EA									350.00	350						350.00	350
	Dust Control																		
	Pima County Dust Control Permit < 10 Acres	1 EA									625.00	625						625.00	625
SWPPP Installed and Maintained							1.00 LS												
	Install Silt Fence on South Side of Project																		
	Silt Fence w/Post 100'	1 LS												500					500
	Install Silt Fence																		
3	Install Silt Fence	8 HR	1.000	1.000		24	LEG 28.83	692										86.50	692
	Case 570XLT Skiploader-	8 HR	1.000	1.000		8	OP2 42.85	343	16.81	134								59.65	477
Establish/Maintain Construction Entrance																			
	4 HRS/MONTH 5 Months																		
	Install Construction Entrance	20 HR	1.000	1.000		20	LEG 28.83	577										28.83	577
	Ldr 966G RT w/GP-4.5cy -O	20 HR	1.000	1.000		20	OP2 42.85	857	67.53	1,351								110.37	2,207
	Trackout Rock	40 TN											15.00	600				15.00	600
	Trackout Rock	25 TN											15.00	375				15.00	375

W:\PCL\NC.Network\ads\Civil Southwest\District Office\District Shared\ESTIMATING\BIDS-CURRENT\Special Projects\Continental Ranch -CMAR\Continental Ranch Regional Pump Station Upgrade Project

**DC 1**     **Division 1**     **1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**Item Analysis Sheet**

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 Jul 21, 2017  
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BE Number      BE170920  
 Opportunity No  
 Owner File No  
 Project          Continental Ranch Regional Pump Station Upgrade Project  
 Location        Marana

<b>DC 1</b>	<b>Division 1</b>	<b>1.00 LS</b>
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Proprietary and Confidential

No.	Description	Quantity	UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost		
						Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
	<b>Project Dust Control</b>					1.00	LS												
	Tank Trl Water 500 Gal	5	MO	1.000	1.000				598.82	2,994								598.82	2,994
	NESHAP Permit	1	LS									600							600
	Demo Inspection	1	LS									1,000							1,000
	<b>SWPPP and Dust Control</b>	1	LS			72	34.28	2,468	5.02	4,479		2,575		1,475					10,997
	<b>Temporary Utilities</b>	1	LS																
	<b>Setup Site Office</b>	1	LS																
	Three offices																		
	Mobilize Site Offices	1	EA										1,500.00	1,500				1,500.00	1,500
	Office Furniture/Materials	1	EA										5,000.00	5,000				5,000.00	5,000
2	Setup Office	1	EA	0.063	16.000	32	28.83	923										922.66	923
	<b>Setup Site Office</b>	1	LS			32	28.83	923						6,500					7,423
	<b>Temporary Contractors Tool Connex/Trade Shack</b>	1	LS																
	Setup Connex/Trade Shack (Onsite)																		
	Set Up Connex-Labor	16	HR	1.000	1.000	16	37.48	600										37.48	600
	Set Up Connex-Material	2	EA									500.00	1,000					500.00	1,000
	Water Coolers	4	EA									50.00	200					50.00	200
4	Drinking Water & Ice	5	MO									50.00	1,000					200.00	1,000
	<b>Temporary Contractors Tool Connex/</b>	1	LS			16	37.48	600					2,200						2,800
	<b>QC Testing</b>	1	LS																
	QC Testing	1	LS										10,000						10,000
	<b>QC Testing</b>	1	LS										10,000						10,000

<b>DC 1</b>	<b>Division 1</b>	<b>1.00 LS</b>
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**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**Item Analysis Sheet**

BE Number: BE170920  
 Opportunity No:  
 Owner File No:  
 Project: Continental Ranch Regional Pump Station Upgrade Project  
 Location: Marana

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**DC 1 Division 1 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hour	Man/Hrs Per Unit	Labor			Equipment		Service/Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
	<b>Temporary Electrical Power Connection</b>	1 LS															
	Contr. Field Office Utilites					1.00 LS											
	Set Up Electrical Power	1 LS													8,000		8,000
	<b>Temporary Electrical Power Connectio</b>	1 LS													8,000		8,000
	<b>Temporary Site Services</b>	1 LS															
	Site Services; Constr. Operations					1.00 LS											
	Garbage Pickup; Onsite Rollaway	5 MO								800.00	4,000					800.00	4,000
	Janitorial Services at Site Trailers	5 MO								300.00	1,500					300.00	1,500
	<b>Temporary Site Services</b>	1 LS									5,500						5,500
	<b>Temporary Utilities</b>	1 LS			48	31.72	1,522				17,700		6,500		8,000		33,722
	<b>Construction Facilities</b>	1 LS															
	<b>Temporary Construction Equipment; Onsite</b>	1 LS															
	Construction Support Equipment					1.00 LS											
	Expendables/Consumables	6,178 MH								0.700000	4,324					0.700000	4,324
	Safety Supplies	145,078 EA										0.014000	2,031			0.014000	2,031
	<b>Temporary Construction Equipment;</b>	1 LS									4,324		2,031				6,355

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**DC 1 Division 1 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
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 Opportunity No  
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 Location Marana

**DC 1 Division 1 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost		
						Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
<b>Construction Facilities</b>		1	LS									4,324		2,031					6,355
	<b>Testing, Training and Facility Start-Up</b>	1	LS																
	Leak test	1	LS																
	Leak test Labor	24	HR	1.000	1.000	24	28.83	692										28.83	692
	Testing STS	1	LS											500					500
	<b>Leak test</b>	1	LS			24	28.83	692						500					1,192
	<b>Start-Up Testing/Commissioning</b>	1	LS																
	14 Day Startup Labor	70	HR	1.000	1.000	70	28.83	2,018										28.83	2,018
	Testing STS	1	LS											2,500					2,500
	<b>Start-Up Testing/Commissioning</b>	1	LS			70	28.83	2,018						2,500					4,518
	<b>Testing, Training and Facility Start</b>	1	LS			94	28.83	2,710						3,000					5,710
	<b>First Aid and Safety STS</b>	100	%																





**PCL Construction, Inc.**  
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Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost		
					Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
	Medical/Drug Testing	5 EA	---	---	---	---	---	---	---	75.00	375	---	---	---	---	75.00	375	
	Training & Orientation	5 EA	---	---	---	---	---	---	---	35.00	175	---	---	---	---	35.00	175	
	F.A. & Safety Supplies	6,178 MH	---	---	---	---	---	---	---	0.120000	741	---	---	---	---	0.120000	741	
	Fire Protection	6,178 MH	---	---	---	---	---	---	---	0.070000	432	---	---	---	---	0.070000	432	
	Safety Supplies	145,078 EA	---	---	---	---	---	---	---	---	---	0.014000	2,031	---	---	0.014000	2,031	
	Safety Equipment																	
	Air Monitors	5 MO	1.000	1.000	---	---	---	160.25	801	---	---	---	---	---	---	160.25	801	
	Rescue Tripod w/yo yo	5 MO	1.000	1.000	---	---	---	160.25	801	---	---	---	---	---	---	160.25	801	
	Yo Yo Winch	5 MO	1.000	1.000	---	---	---	67.57	338	---	---	---	---	---	---	67.57	338	
	<b>First Aid and Safety STS</b>	<b>100 %</b>	---	---	---	---	---	<b>0.7477</b>	<b>1,940</b>	---	<b>1,724</b>	<b>20.31</b>	<b>2,031</b>	---	---	<b>56.95</b>	<b>5,695</b>	
	<b>Surveying</b>																	
	Field Engineering (Onsite)	1 LS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Total Station/Survey Equipment	5 MO	1.000	1.000	---	---	---	1,605.64	8,028	---	---	---	---	---	---	1,605.64	8,028	
	Survey Requirements																	
	Licensed Surveyor	24 HR	---	---	---	---	---	---	---	---	---	160.00	3,840	---	---	160.00	3,840	
	Licensed Surveyor, As-Built Drawings	8 HR	---	---	---	---	---	---	---	---	---	160.00	1,280	---	---	160.00	1,280	
	<b>Surveying</b>	<b>1 LS</b>	---	---	---	---	---	<b>9.28</b>	<b>8,028</b>	---	---	---	<b>5,120</b>	---	---	---	<b>13,148</b>	
	<b>Hourly Worker Housing</b>																	
	Per Contract	1 LS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2 Hotels	110 DY	---	---	---	---	---	---	---	85.00	18,700	---	---	---	---	170.00	18,700	
	5 Subsistence (Hourly Workers)	110 DY	---	---	---	---	---	---	---	20.00	11,000	---	---	---	---	100.00	11,000	
	<b>Hourly Worker Housing</b>	<b>1 LS</b>	---	---	---	---	---	---	---	---	<b>29,700</b>	---	---	---	---	---	<b>29,700</b>	



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**DC 1 Division 1 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity - UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
<b>Division 1</b>		1 LS	—	—	310	32.71	10,142	3.54	15,574	—	76,623	—	20,157	—	8,000	—	130,496



**PCL Construction, Inc.**  
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**TEMP Temporary Bypass Scope 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Service/ Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
<b>Temporary Bypass Scope</b>																	
	<b>Temporary Bypass Scope</b>	<b>1 LS</b>															
	B&F																
	Bypass Equipment Rental	1 LS													5,765		5,765
	Setup/ Installation of FMP Pump Station	1 LS													5,738		5,738
	Remove Bypass Pumps, Pipe, Fitting	1 LS													3,825		3,825
	Flow Management Plan Submittal	1 LS													1,250		1,250
	System Pump, Pipe, Plugs, Manifold, Fittings and Valve Rental (2 Primary & 1 Backup)	140 DY											1,431.00	200,340	1,431.00	200,340	200,340
	Tool Truck, spill kit, compressor & Light Plant @ suction manhole	140 DY											150.00	21,000	150.00	21,000	
	Fuel per 24 Hour Day (362 Gal/ Day)	50,680 DY											3.75	190,050	3.75	190,050	
	Daily Monitoring Labor costs for Bypass System	140 DY											2,362.00	330,680	2,362.00	330,680	
	Traffic Control	5 MO											1,725.00	8,625	1,725.00	8,625	
	Asphalt/ Concrete Restoration	1 LS												3,500		3,500	
	Adds per John's Request																
	Additional Redundency Requirements Setup	1 LS												5,000		5,000	
	Additional Discharge Piping	140 DY											130.00	18,200	130.00	18,200	
	Bond	793,973 \$										0.015000	11,910			0.015000	11,910
	<b>Temporary Bypass Scope</b>	<b>1 LS</b>											11,910		793,973		805,883
	<b>Temporary Bypass Scope</b>	<b>1 LS</b>											11,910		793,973		805,883



**PCL Construction, Inc.**  
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**DC 2 Site Work 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
<b>Site Work</b>																	
<b>KE&amp;G Scope</b>		<b>1 LS</b>															
<b>Demo Wall and Footings</b>		<b>1 LS</b>															
	Demo Wall/ Footing	1 LS													11,300		11,300
	Demo Gate	1 LS													670		670
	Demo Cap 22" Sewer	1 LS													4,900		4,900
	Demo Recirc Tank / Piping	1 LS													7,800		7,800
	Demo Bollards	1 LS													200		200
	Excavate/Install Shoring	1 LS													152,500		152,500
	Backfill- wet well and FMP SOG	1 LS													69,390		69,390
	Subgrade Prep - Wet well/ FMP SOG	1 LS													9,009		9,009
	Relocate Utilities	1 LS													5,000		5,000
	Demo Wood Planter	1 LS													252		252
	Bonds	1 LS													2,610		2,610
<b>Demo Wall and Footings</b>		<b>1 LS</b>													263,631		263,631
<b>KE&amp;G Scope</b>		<b>1 LS</b>													263,631		263,631
<b>Underground Utilities</b>		<b>339 LF</b>															
	Pipe Zone Material - PAG Sand	220 TN										12.00	2,640			12.00	2,640
	Pipe Rigging STS	1 LS									2,000						2,000
<b>20" Force Main</b>		<b>339 LF</b>															

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**DC 2 Site Work 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
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**DC 2 Site Work 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	Months Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
	Dig / Lay / Bury																
	Foreman	339 LF	4.000	0.250	85	PM1 50.46	4,276										12.61 4,276
2	Yard Pipe Crew	339 LF	4.000	0.250	170	PKS 35.99	6,101										18.00 6,101
	Bckho 321DL 1.83cy -0	339 LF	4.000	0.250	85	DP2 42.85	3,631	11.13	3,774								21.84 7,405
	Ldr 966G RT w/GP-4.5cy -0	339 LF	4.000	0.250	85	DP2 42.85	3,631	16.88	5,723								27.59 9,354
	Trench Compactor 24"-33"-0	339 LF	4.000	0.250				4.37	1,483								4.37 1,483
	Trench Box	3 WK										850.00	2,550				850.00 2,550
	<b>Valve adjustments</b>	<b>5 EA</b>															
2	Yard Pipe Crew (LFM+PLL+2LG5)	5 EA	0.500	2.000	20	PKS 35.99	720										143.97 720
	Bckho 321DL 1.83cy -0	5 EA	0.500	2.000	10	DP2 42.85	428	89.07	445								174.76 874
	Bckho-Ldr Ct 420C 1.0cy	5 EA	0.500	2.000	10	DP2 42.85	428	43.46	217								129.15 646
	Trench Compactor 24"-33"	5 EA	0.500	2.000	10	DP2 42.85	428	34.99	175								120.69 603
	Concrete	2 CY										101.00	202				101.00 202
	<b>Valve adjustments</b>	<b>5 EA</b>	<b>0.100</b>	<b>10.000</b>	<b>50</b>	<b>40.10</b>	<b>2,005</b>	<b>27.92</b>	<b>838</b>			<b>40.40</b>	<b>202</b>				<b>608.96 3,045</b>
	<b>Test</b>	<b>1 EA</b>															
2	Yard Pipe Crew (LFM+PLL+2LG5)	1 EA	0.125	8.000	16	PKS 35.99	576										575.87 576
	Comp 185 CFM Diesel	1 EA	0.125	8.000				125.83	126								125.83 126
	<b>Test</b>	<b>1 EA</b>	<b>0.063</b>	<b>16.000</b>	<b>16</b>	<b>35.99</b>	<b>576</b>	<b>15.73</b>	<b>126</b>								<b>701.70 702</b>
	<b>20" Force Main</b>	<b>339 LF</b>	<b>0.692</b>	<b>1.445</b>	<b>490</b>	<b>41.29</b>	<b>20,221</b>	<b>35.23</b>	<b>11,943</b>			<b>8.12</b>	<b>2,752</b>				<b>103.00 34,916</b>
	<b>Underground Utilities</b>	<b>339 LF</b>	<b>0.692</b>	<b>1.445</b>	<b>490</b>	<b>41.29</b>	<b>20,221</b>	<b>40.87</b>	<b>11,943</b>		<b>2,000</b>	<b>15.91</b>	<b>5,392</b>				<b>116.68 39,556</b>
	<b>Precast</b>	<b>1 LS</b>															
	Purchase Precast Materials						1.00 LS										
	Wet Well Vault	1 LS											39,274				39,274
	Dry Pit Vault	1 LS										19,800					19,800

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**DC 2 Site Work 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
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BE Number BE170920  
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 Project Continental Ranch Regional Pump Station Upgrade Project  
 Location Marana

**DC 2 Site Work 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	UCM	Units Per Hours	Man/Hrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost	
						Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total		
	Valve Vault	1	LS	---	---	---	---	---	---	---	---	---	13,500	---	---	---	---	13,500
	Misc Core Drilling	1	LS	---	---	---	---	---	---	---	---	---	1,500	---	---	---	---	1,500
	Set Valve Vaults/Cover																	
4	Set Valve Vaults	3	EA	0.063	16.000	192	35.99	6,910	---	---	---	---	---	---	---	---	2,303.50	6,910
	240 Ton Hydraulic Crane OPERATED	24	HR	---	---	---	---	---	---	499.55	11,989	---	---	---	---	---	499.55	11,989
	Crane Mobilizations	2	EA	---	---	---	---	---	---	3,000.00	6,000	---	---	---	---	---	3,000.00	6,000
	Grout STS	1	LS	---	---	---	---	---	---	---	500	---	---	---	---	---	---	500
	Grout Precast Penetrations	6	EA	0.063	16.000	96	35.99	3,455	---	---	---	---	---	---	---	---	575.87	3,455
	<b>Precast</b>	1	LS	---	---	288	35.99	10,366	---	---	---	18,489	---	74,074	---	---	---	102,929
	<b>Site Work</b>	1	LS	---	---	778	39.33	30,586	40.87	11,943	---	20,489	---	79,466	---	263,631	---	406,116

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**DC 3 Concrete 1.00 LS**



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**DC 3 Concrete 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/ Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
<b>Concrete</b>																	
	<b>CONCRETE</b>	<b>228 CY</b>															
	<b>Sub Grade Prep</b>	<b>3,488 SF</b>															
	Quantities				3,488.00												
	Foundation Prep				3,488.00 SF			250.000		LG3							
	Backho-Ldr Ct 420C 1.0cy				3,488.00 SF			250.000		OP2							Backho-Ldr-IT Ct
	Trench Compactor 24"-33" ABC				3,488.00 SF			250.000		OP2							Trench Compacto
					64.00 TN							13.00					
	<b>Sub Grade Prep</b>	<b>3,488 SF</b>															
	<b>Concrete Formwork</b>	<b>3,409 SF</b>															
	<b>Fab Formwork</b>	<b>1,679 SF</b>															
	<b>Fab SOG &amp; Ftg Forms</b>	<b>324 SF</b>															
	Fab SOG Forms (Stick Built)				324.00												
	Fab SOG Forms	324 SF	8.000	0.125	41	37.00	1,499									4.63	1,499
	3/4" Finform Plywood	356.40 SF								1.05	374					1.05	374
	Dimen. Lumber (2x4-2x10)	712.80 BF								0.600000	428					0.600000	428
	Form Hardware	324 SF								0.300000	97					0.300000	97
	<b>Fab SOG &amp; Ftg Forms</b>	<b>324 SF</b>	<b>8.000</b>	<b>0.125</b>	<b>41</b>	<b>37.00</b>	<b>1,499</b>			<b>2.78</b>	<b>899</b>					<b>7.40</b>	<b>2,398</b>
	<b>Fab Wall Forms</b>	<b>1,355 SF</b>															
	Rent all inside forms and half of the outside forms																
	Rental Wall Forms				1,355.00												
	Retaining Wall	1,355 SFM								3.50	4,743					3.50	4,743
	Mob in/Mob Out Rental Forms	2 LDS										1,500.00	3,000			1,500.00	3,000

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**DC 3 Concrete 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
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 Project Continental Ranch Regional Pump Station Upgrade Project  
 Location Marana

<b>DC 3</b>	<b>Concrete</b>	<b>1.00</b>	<b>LS</b>
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Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost		
					Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
	Load/Unload Rental Forms	16 HR	1.000	1.000	16	Mx1 37.00	592	---	---	---	---	---	---	---	---	---	37.00	592
	Assemble/ Disassemble Form Sys - Vault	1,355 SF	18.000	0.056	75	Mx1 37.00	2,785	---	---	---	---	---	---	---	---	---	2.06	2,785
	Form Hardware	1,355 SF	---	---	---	---	---	---	---	0.300000	407	---	---	---	---	---	0.300000	407
	Scaffold Planks	84 LF	---	---	---	---	---	---	---	5.00	420	---	---	---	---	---	5.00	420
	<b>Fab Wall Forms</b>	<b>1,355 SF</b>	<b>14.845</b>	<b>0.067</b>	<b>91</b>	<b>37.00</b>	<b>3,377</b>	---	---	<b>4.11</b>	<b>5,569</b>	<b>2.21</b>	<b>3,000</b>	---	---	---	<b>8.82</b>	<b>11,946</b>
	<b>Fab Formwork</b>	<b>1,679 SF</b>	<b>12.741</b>	<b>0.078</b>	<b>132</b>	<b>37.00</b>	<b>4,876</b>	---	---	<b>3.85</b>	<b>6,468</b>	<b>1.79</b>	<b>3,000</b>	---	---	---	<b>8.54</b>	<b>14,344</b>
	<b>Erect and Strip Formwork</b>	<b>3,409 SF</b>																
	Totals Formwork				3,409	0.00 sf												
	?Form Oil	3,409 SF	---	---	---	---	---	---	---	0.030000	102	---	---	---	---	---	0.030000	102
	Erect and Strip Supplies	3,409 SF	---	---	---	---	---	---	---	0.250000	852	---	---	---	---	---	0.250000	852
					3,409	0.00												
	SOG	409 SF	2.000	0.500	205	Mx1 37.00	7,567	---	---	---	---	---	---	---	---	---	18.50	7,567
	Equipment Slabs	164 SF	1.000	1.000	164	Mx1 37.00	6,068	---	---	---	---	---	---	---	---	---	37.00	6,068
	Walls < 15 Foot	2,710 SF	8.000	0.125	339	Mx1 37.00	12,535	---	---	---	---	---	---	---	---	---	4.63	12,535
	Blockouts	96 SF	1.000	1.000	96	Mx1 37.00	3,552	---	---	---	---	---	---	---	---	---	37.00	3,552
	CJ's	30 SF	1.500	0.667	20	Mx1 37.00	740	---	---	---	---	---	---	---	---	---	24.67	740
	Handrail Lumber 4 Bf per lf				184	0.00 lf												
	Dimen. Lumber (2x4-2x10)	736 BF	---	---	---	---	---	---	---	0.600000	442	---	---	---	---	---	0.600000	442
	Handrails	184 LF	20.000	0.050	18	Mx1 37.00	681	---	---	---	---	---	---	---	---	---	3.70	681
	Bulkhead Mtls: Misc				30	0.00												
	3/4" Finform Plywood	30 SF	---	---	---	---	---	---	---	1.05	32	---	---	---	---	---	1.05	32
	Dimen. Lumber (2x4-2x10)	132 BF	---	---	---	---	---	---	---	0.600000	79	---	---	---	---	---	0.600000	79

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<b>DC 3</b>	<b>Concrete</b>	<b>1.00</b>	<b>LS</b>
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**PCL Construction, Inc.**  
**Water Infrastructure Group**  
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 Project Continental Ranch Regional Pump Station Upgrade Project  
 Location Marana

**DC 3 Concrete 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
	Blockouts NOTE: Check Formula "How many reuses"					96.00 SF											
	3/4" Finform Plywood	96 SF								1.05	101					1.05	101
	Dimen. Lumber (2x4-2x10)	211.20 BF								0.600000	127					0.600000	127
	<b>Erect and Strip Formwork</b>	<b>3,409 SF</b>	<b>4.050</b>	<b>0.247</b>	<b>842</b>	<b>37.00</b>	<b>31,143</b>			<b>0.508753</b>	<b>1,734</b>					<b>9.64</b>	<b>32,877</b>
	<b>Concrete Formwork</b>	<b>3,409 SF</b>	<b>3.502</b>	<b>0.286</b>	<b>973</b>	<b>37.00</b>	<b>36,019</b>				<b>8,202</b>	<b>0.880023</b>	<b>3,000</b>			<b>13.85</b>	<b>47,222</b>
	<b>03300 Cast In Place Concrete</b>	<b>238 CY</b>															
	<b>Concrete Materials</b>	<b>249.90 CY</b>															
	TOTAL CONCRETE					238.00 Cy											
	CONC BASE BID					238.00											
	Conc.3000 Psi	238 CY										86.00	20,468			86.00	20,468
	Conc.3000 Psi Waste 5%	11.90 CY										86.00	1,023			86.00	1,023
	Super Plastizer	238 CY								5.00	1,190					5.00	1,190
	Fiber Mesh	1 LS									1,000						1,000
	Conc. Placing Supplies	238 CY								0.350000	83					0.350000	83
	<b>Concrete Materials</b>	<b>249.90 CY</b>								<b>9.10</b>	<b>2,273</b>	<b>86.00</b>	<b>21,491</b>			<b>95.10</b>	<b>23,765</b>
	<b>Concrete Placement</b>	<b>238 CY</b>															
	Total Concrete CY					238.00											
	SOG	178 CY	1.500	0.667	119	36.62	4,345									24.41	4,345
	Walls	50 CY	1.500	0.667	33	36.62	1,221									24.41	1,221

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**DC 3 Concrete 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
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 Project Continental Ranch Regional Pump Station Upgrade Project  
 Location Marana

**DC 3 Concrete 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost		
						Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
	Equipment Pads	10	CY	0.250	4.000	40	36.62	1,465										146.47	1,465
	Crane & Bucket																		
	Concrete Pump (SOG & Walls)					0.00													
	120 Ft Boom Pump ( 36m )	18.31	HR								130.00	2,380						130.00	2,380
	Conc Pump Charge 92 to 120 ft Boom	238	CY								2.00	476						2.00	476
	<b>Concrete Placement</b>	<b>238</b>	<b>CY</b>	<b>1.240</b>	<b>0.807</b>	<b>192</b>	<b>36.62</b>	<b>7,031</b>			<b>12.00</b>	<b>2,856</b>						<b>41.54</b>	<b>9,887</b>
	<b>03300 Cast In Place Concrete</b>	<b>238</b>	<b>CY</b>	<b>1.240</b>	<b>0.807</b>	<b>192</b>	<b>36.62</b>	<b>7,031</b>				<b>5,129</b>	<b>90.30</b>	<b>21,491</b>				<b>141.39</b>	<b>33,651</b>
	<b>03251 Concrete Joints</b>	<b>238</b>	<b>CY</b>																
	Concrete Joint Qty					895													
	Joint Prep	895	SF	15.000	0.067	60	36.62	2,185										2.44	2,185
	Comp 185 CFM Diesel	895	SF	15.000	0.067				1.05	938								1.05	938
	Greencut Supplies	895	SF								0.150000	134						0.150000	134
	Sawcut C	16	HR	1.000	1.000	16	36.62	586										36.62	586
	Waterstop Qty					120													
	Install Waterstops	120	LF	5.000	0.200	24	37.00	888										7.40	888
	<b>03251 Concrete Joints</b>	<b>238</b>	<b>CY</b>	<b>2.388</b>	<b>0.419</b>	<b>100</b>	<b>36.71</b>	<b>3,659</b>	<b>15.73</b>	<b>938</b>		<b>134</b>						<b>19.88</b>	<b>4,732</b>
	<b>Conc Finishing</b>	<b>2,710</b>	<b>SF</b>																
	Quantities					2,710													
	Point and Patch Finish	2,710	SF	40.000	0.025	68	37.48	2,539										0.937073	2,539
	Finishing Supplies P/P	2,710	SF								0.030000	81						0.030000	81
	Scissor Lift - 32' Electric	1	WK	1.000	1.000				241.17	241								241.17	241
	<b>Conc Finishing</b>	<b>2,710</b>	<b>SF</b>	<b>40.000</b>	<b>0.025</b>	<b>68</b>	<b>37.48</b>	<b>2,539</b>	<b>6.03</b>	<b>241</b>		<b>81</b>						<b>1.06</b>	<b>2,862</b>

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**PCL Construction, Inc.**  
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**DC 3 Concrete 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	Man/Hrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
	<b>Curing</b>	<b>238 CY</b>															
	<b>Curing</b>	<b>8,852 SF</b>															
	Quantities				8,852.00 SF												
	Curing Labor	8,852 SF	200.000	0.005	44 <sup>MX2</sup>	36.62	1,621										0.183090 1,621
	Cure Supplies	8,852 SF								0.100000	885						0.100000 885
	<b>Curing</b>	<b>8,852 SF</b>	<b>200.000</b>	<b>0.005</b>	<b>44</b>	<b>36.62</b>	<b>1,621</b>			<b>0.100000</b>	<b>885</b>						<b>0.283090 2,506</b>
	<b>Curing</b>	<b>238 CY</b>	<b>5.377</b>	<b>0.186</b>	<b>44</b>	<b>36.62</b>	<b>1,621</b>				<b>885</b>						<b>10.53 2,506</b>
	<b>03200 Conc Reinforcement</b>	<b>29.75 TN</b>															
	<b>Rebar Sub: Supply &amp; Install</b>	<b>29.75 TN</b>															
	Rule of Thumb 250 Lbs per CY				59,500.00 Lbs												
	Rebar Subcontractor																
	Concrete Rebar= \$1500 per TN				44,625.00 USD												
	Concrete Rebar	1 LS														44,625	44,625
	<b>Rebar Sub: Supply &amp; Install</b>	<b>29.75 TN</b>												1,500.00	44,625	1,500.00	44,625
	<b>03200 Conc Reinforcement</b>	<b>29.75 TN</b>												1,500.00	44,625	1,500.00	44,625
	<b>Concrete Equipment</b>	<b>1 LS</b>															
	Crane Ruff Ter 40 Ton	1 MO	1.000	1.000	173 <sup>OP3</sup>	54.78	9,496	10,886.21	10,886								20,381.87 20,382
	Comp 185 CFM Diesel	1 MO	1.000	1.000				2,721.06	2,721								2,721.06 2,721
	Forklift, RT 8000# Reach	1 MO	1.000	1.000				4,061.05	4,061								4,061.05 4,061

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 Location Marana

**DC 3 Concrete 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	UDM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/ Tools/Supplies		Perm. Material		SubContract		Total Cost	
						Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
	<b>Concrete Equipment</b>	1	LS	—	—	173	54.78	9,496	34.04	17,668	—	—	—	—	—	—	—	27,164
	<b>CONCRETE</b>	228	CY	0.147	6.800	1,550	38.93	60,364	30.47	18,848	—	14,432	107.42	24,491	195.72	44,625	713.87	162,761
	<b>Concrete</b>	1	LS	—	—	1,550	38.93	60,364	30.47	18,848	—	14,432	—	24,491	—	44,625	—	162,761

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**DC 5 Metals 1.00 LS**



**PCL Construction, Inc.**  
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**DC 5 Metals 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost		
						Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
<b>Metals</b>																			
<b>Metals Bid Package</b>		1	LS																
	Covered Work Area (Shade Structure)	1	LS													43,816		43,816	
	Stair Landing	1	LS										7,500					7,500	
	Handrail	106	LF										10.00	1,060			10.00	1,060	
P	Fiberglass Ladder/Platform	1	LS											8,000				8,000	
P	Fiberglass Ladder	3	EA										2,000.00	6,000			2,000.00	6,000	
P	Supply Manhole Cover	1	LS											750				750	
	Valve Vault Hatch	1	LS											1,500				1,500	
<b>Metals Bid Package</b>		1	LS											24,810		43,816		68,626	
<b>Install Metals</b>		1	LS																
	Install Handrail	106	LF	3.000	0.333	35	34.24	1,210										11.41	1,210
3	Install Misc Metals	24	HR	1.000	1.000	72	34.24	2,465										102.72	2,465
	Crane Ruff Ter 60 Ton	24	HR	1.000	1.000	24	54.78	1,315	88.09	2,114								142.87	3,429
<b>Install Metals</b>		1	LS			131	37.99	4,990	88.09	2,114									7,104
<b>Metals</b>		1	LS			131	37.99	4,990	88.09	2,114				24,810		43,816			75,730

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**DC 9 Coatings 1.00 LS**



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**DC 9 Coatings 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost		
						Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
	<b>Coatings</b>	1	LS																
	AO Painting	1	LS														98,623		98,623
	<b>Coatings</b>	1	LS														98,623		98,623

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**DC 11 Equipment 1.00 LS**





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**DC 15 Mechanical 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
<b>Mechanical</b>																	
	<b>Purchase Pipe Materials (Exposed)</b>	<b>1 LS</b>															
	<b>Permanent Pipe Materials</b>	<b>1 LS</b>															
	Pipe Materials Including Underground																
P	Purchase Pipe Materials	1 LS										551,591					551,591
	Carbon Vent					1.00 LS						5,000.00					
	Trench Drains					1.00 LS						2,500.00					
	36" Plug					1.00 LS						3,500.00					
	Anchor Bolts/Epoxy	1 LS										5,000					5,000
	<b>Permanent Pipe Materials</b>	<b>1 LS</b>										<b>556,591</b>					<b>556,591</b>
	<b>Temporary Pipe Materials</b>	<b>1 LS</b>															
P	STS - Installation (Exposed)	1 LS									500						500
	Non-Shrink Grout	3 CF								20.00	60					20.00	60
	<b>Temporary Pipe Materials</b>	<b>1 LS</b>									<b>560</b>						<b>560</b>
	<b>Purchase Pipe Materials (Exposed)</b>	<b>1 LS</b>										<b>556,591</b>					<b>557,151</b>
	<b>Install Piping (Exposed)</b>	<b>1 LS</b>															
	<b>Direct Manhours</b>	<b>1 LS</b>															
	Process Pipe Crew	676 HR	1.000	1.000	676	34.24	23,146									34.24	23,146





**PCL Construction, Inc.**  
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 Location Marana

**DC 15 Mechanical 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	DOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/ Tools/Supplies		Perm. Material		SubContract		Total Cost		
						Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
<b>Direct Manhours</b>		1	LS			676	34.24	23,146											23,146
<b>Pipe Testing</b>		1	LS																
2	Test Pipe Crew	2	EA	0.063	16.000	64	34.24	2,191										1,095.65	2,191
	Comp 185 CFM Diesel	2	EA	0.063	16.000				251.66	503								251.66	503
<b>Pipe Testing</b>		1	LS			64	34.24	2,191	15.73	503									2,695
<b>Equipment</b>		1	LS																
<b>Forklift, RT 8000# Reach</b>		1	LS																
	Forklift, RT 8000# Reach	169	HR	1.000	1.000				23.47	3,967								23.47	3,967
<b>Forklift, RT 8000# Reach</b>		1	LS						3,967.15	3,967									3,967
<b>Crane</b>		1	LS																
	Crane Ruff Ter 60 Ton	64	HR	1.000	1.000	64	54.78	3,506	88.09	5,638								142.87	9,144
<b>Crane</b>		1	LS			64	54.78	3,506	5,637.59	5,638									9,144
<b>Equipment</b>		1	LS			64	54.78	3,506	41.22	9,605									13,111
<b>Install Piping (Exposed)</b>		1	LS			804	35.87	28,843	38.14	10,108									38,951
<b>Mechanical</b>		1	LS			804	35.87	28,843	38.14	10,108		560		556,591					596,102

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**DC 16 Electrical 1.00 LS**



**PCL Construction, Inc.**  
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 Location Marana

**DC 16 Electrical 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/ Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
<b>Electrical</b>																	
	Ludvik Electric Quote	1 LS	---	---											246,795		246,795
Excavate/Backfill Puct Banks																	
2	Yard Pipe Crew (LFM+PLL+ZLGS)	24 HR	1.000	1.000	48	MKS 35.99	1,728										71.98 1,728
	Bckho 321DL 1.83cy -O	24 HR	1.000	1.000	24	DP2 42.85	1,028	44.53	1,069								87.38 2,097
	Ldr 966G RT w/GP-4.5cy -O	24 HR	1.000	1.000	24	DP2 42.85	1,028	67.53	1,621								110.37 2,649
	Trench Compactor 24"-33"-O	24 HR	1.000	1.000				17.50	420								17.50 420
	Concrete	11 CY										85.00	935				85.00 935
<b>Electrical</b>		<b>1 LS</b>			<b>96</b>	<b>39.42</b>	<b>3,784</b>	<b>43.19</b>	<b>3,109</b>				<b>935</b>		<b>246,795</b>		<b>254,624</b>

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**CONT Contractor's Contingency 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**Item Analysis Sheet**

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BE Number BE170920  
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 Project Continental Ranch Regional Pump Station Upgrade Project  
 Location Marana

**CONT Contractor's Contingency 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost		
					Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
	Contractor's Contingency																	
	CMAR Contingency	1 LS	---	---	---	---	---	---	---	---	200,000	---	---	---	---	---	---	200,000
	<b>Contractor's Contingency</b>	<b>1 LS</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>200,000</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>200,000</b>

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**GE 17 General Conditions 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**Item Analysis Sheet**

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BE Number BE170920  
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 Location Marana

**GE 17 General Conditions 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost	
						Hours	\$/hr	Total	\$/hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
<b>General Conditions</b>		<b>1</b>	<b>LS</b>															
	Total Project Duration					3.00												
	Project Manager	5	MO	1.000	1.000	867	72.92	63,197									12,639.46	63,197
	Project Superintendent/Pickup Truck	5	MO	1.000	1.000	867	97.02	84,084	2,441.80	12,209							19,258.59	96,293
	Project Engineer	2.50	MO	1.000	1.000	433	67.13	29,089									11,635.74	29,089
	Safety Coordinator/Pickup Truck	1	MO	1.000	1.000	173	50.76	8,798	2,441.80	2,442							11,239.55	11,240
	Out of Town Living Expense	10	MO							1,500.00	15,000						1,500.00	15,000
	Contractor Trailer Rental	5	EA							350.00	1,750						350.00	1,750
	Tool/Material Connex Rental	5	EA							150.00	750						150.00	750
	Office Supplies	5	EA							600.00	3,000						600.00	3,000
	Office Equipment (Copier, Fax, Printer)	5	EA							670.00	3,350						670.00	3,350
	Computers/I-Pads	5	EA							300.00	1,500						300.00	1,500
	FEDEX/Courier	5	EA							60.00	300						60.00	300
	Tel/Cell Billings	5	EA							420.00	2,100						420.00	2,100
	Internet Billing	5	EA							400.00	2,000						400.00	2,000
	Power Billing	5	EA							600.00	3,000						600.00	3,000
	Potable Water Billing	5	EA							200.00	1,000						200.00	1,000
	Sewer System Billing	5	EA							330.00	1,650						330.00	1,650
	Portable Toilets	5	EA							300.00	1,500						300.00	1,500
	Car Allowance	5	EA							600.00	3,000						600.00	3,000
<b>General Conditions</b>		<b>1</b>	<b>LS</b>			<b>2,340</b>	<b>79.13</b>	<b>185,168</b>	<b>14.11</b>	<b>14,651</b>		<b>39,900</b>						<b>239,719</b>
<b>General Conditions</b>		<b>1</b>	<b>LS</b>			<b>2,340</b>	<b>79.13</b>	<b>185,168</b>	<b>14.11</b>	<b>14,651</b>		<b>39,900</b>						<b>239,719</b>

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**GE 7 Overhead 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**Item Analysis Sheet**

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BE Number BE170920  
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 Location Marana

**GE 7 Overhead 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity UOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost	
					Hours	\$/ hr	Total	\$/ hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total
	<b>Overhead</b>																
	Corporate Overhead	3,605,609 EA	---	---	---	---	---	---	---	---	---	0.062100	223,908	---	---	0.062100	223,908
	<b>Overhead</b>	1 LS	---	---	---	---	---	---	---	---	---	---	223,908	---	---	---	223,908

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**GE 9 Insurance 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**Item Analysis Sheet**

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**GE 9 Insurance 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	UDM	Units Per Hours	Man/Hrs Per Unit	Labor			Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost		
						Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
<b>Insurance</b>																			
	<b>General Liability</b>	100 %																	
	Gen Liab-USA	4,002,228 TB		---	---	---	---	---	---	---	---	0.008500	34,019	---	---	---	---	0.008500	34,019
	<b>General Liability</b>	100 %											34,019	---	---	---	---	340.19	34,019
	<b>Builders Risk Insurance</b>	100 %																	
	Builders Risk	4,002,228 TB		---	---	---	---	---	---	---	---	0.001100	4,402	---	---	---	---	0.001100	4,402
	<b>Builders Risk Insurance</b>	100 %											4,402	---	---	---	---	44.02	4,402
	<b>Insurance</b>	1 LS											38,421	---	---	---	---	---	38,421

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**GE 8 Payment and Performance Bonds 1.00 LS**



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**Item Analysis Sheet**

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BE Number BE170920  
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 Location Marana

**GE B Payment and Performance Bonds 1.00 LS**

Proprietary and Confidential

No.	Description	Quantity	LOM	Units Per Hours	ManHrs Per Unit	Labor			Equipment		Service/ Tools/Supplies		Perm. Material		SubContract		Total Cost		
						Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit	Total	
<b>Payment and Performance Bonds</b>																			
	<b>US CONTRACT BOND Class B</b>	100 %																	
	US CONTRACT BOND Class B	4,002,228 TB									0.006000	24,013					0.006000	24,013	
	<b>US CONTRACT BOND Class B</b>	100 %										24,013					240.13	24,013	
	<b>Payment and Performance Bonds</b>	1 LS										24,013						24,013	



**PCL Construction, Inc.**  
**Water Infrastructure Group**  
**Item Analysis Sheet**

BE Number BE170920  
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<b>TAX</b>	<b>TAX</b>	<b>100.00 %</b>
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Proprietary and Confidential

No.	Description	Quantity	UOM	Units Per Hours	ManHrs Per Unit	Labor		Equipment		Services/Tools/Supplies		Perm. Material		SubContract		Total Cost	
						Hours	\$ / hr	Total	\$ / hr	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	\$/ItemUnit	Total	Unit
<b>TAX</b>																	
<b>TAXES</b>		<b>100 %</b>															
	MRPA																
P	MRRRA Tax	2,145,316	EA	---	---	---	---	---	---	---	0.086000	184,497	---	---	---	---	0.086000 184,497
P	Pipe Materials	551,591	EA	---	---	---	---	---	---	---	---	-	47,437	---	---	---	-0.086000 -47,437
P	Purchase Pumps	335,925	EA	---	---	---	---	---	---	---	---	-	28,890	---	---	---	-0.086000 -28,890
<b>TAXES</b>		<b>100 %</b>															
											1,844.97	184,497	-763.26	-76,326			1,081.71 108,171
<b>TAX</b>		<b>100 %</b>															
											1,844.97	184,497	-763.26	-76,326			1,081.71 108,171

<small>\\PCL\NC_Network_ads\Civil_Southwest\District_Office\District_Shared\ESTIMATING\BIDS-CURRENT\Special_Projects\Continental_Ranch_CNAR\Continental</small>																<b>TAX</b>	<b>TAX</b>	<b>100.00 %</b>
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**Pima County Water Reclamation Department  
Continental Ranch Regional Pump Station Upgrade Design  
GMP 1 – Assumption List**

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1. The GMP is based on the following documents:
  - Westland Resources 100% Submittal Drawings Dated February 28<sup>th</sup>
  - Westland Resources 100% Special Provisions Dated March 2017
  - Conformatech Geotechnical Evaluation Dated October 15, 2014
  - Addendums 1-9
2. Scope of Work Includes the following
  - Demolition of the CMU Site Wall Complete
  - Excavation/Backfill of the FMP Station
  - Precast Wet/Dry Wells for the FMP Station
  - Precast Valve Vault
  - Misc Hatches, Ladders, Stairways, and Handrail Associated with the FMP Pump Station
  - Covered Work Area Concrete and Shade Structure
  - Concrete Coating of the Interior Wet Well
  - Underground and Mechanical Piping per Attachment A
  - Procurement and Installation of the FMP Pumps
  - Electrical Scope from Ludvik Electric per Attachment B
3. Pima County Regional Wastewater Reclamation Department Engineering Design Standards and Specifications have not been referenced for this project.
4. With the exception of a SWPPP and Pima County Dust control permits all other permit costs will be drawn from the contractor's contingency.
5. The GMP excludes that initial installation of the bypass and running of bypass pumps that has been performed prior to the PCL construction NTP.
6. The GMP includes temporary chain link fence and a swing gate around the south and east sides of the site. No additional security measures are included in our GMP.
7. The GMP assumes that onsite trailers may be placed on the northeast of the site – outside of the existing wall but inside the property line.
8. The GMP excludes all paving replacement, this scope will be included in GMP 2.
9. The GMP excludes all masonry work, this scope will be included in GMP 2
10. The GMP excludes all work in the existing pump station building, this scope will be included in GMP 2.
11. The GMP assumes a small tools billable rate of 5% of total hourly labor.
12. The GMP assumes that 80 Mils of Durashied 310 JARS Kits will be an acceptable product to repair the T-Lock at the 36" influent pipe joints.
13. The GMP assumes that the excavation of the FMP pump station may be sloped back at 2:1 – this will limit access on the south side of the existing pump station.
14. The GMP excludes all costs associated with mitigating archeological areas.
15. The GMP does not include costs for the remediation of hazardous waste materials.
16. The GMP assumes that all construction electrical consumption costs will be paid by the Pima County at no cost to the project.
17. The GMP includes valve vaults with the following dimensions:

**Pima County Water Reclamation Department**  
**Continental Ranch Regional Pump Station Upgrade Design**  
**GMP 1 – Assumption List**

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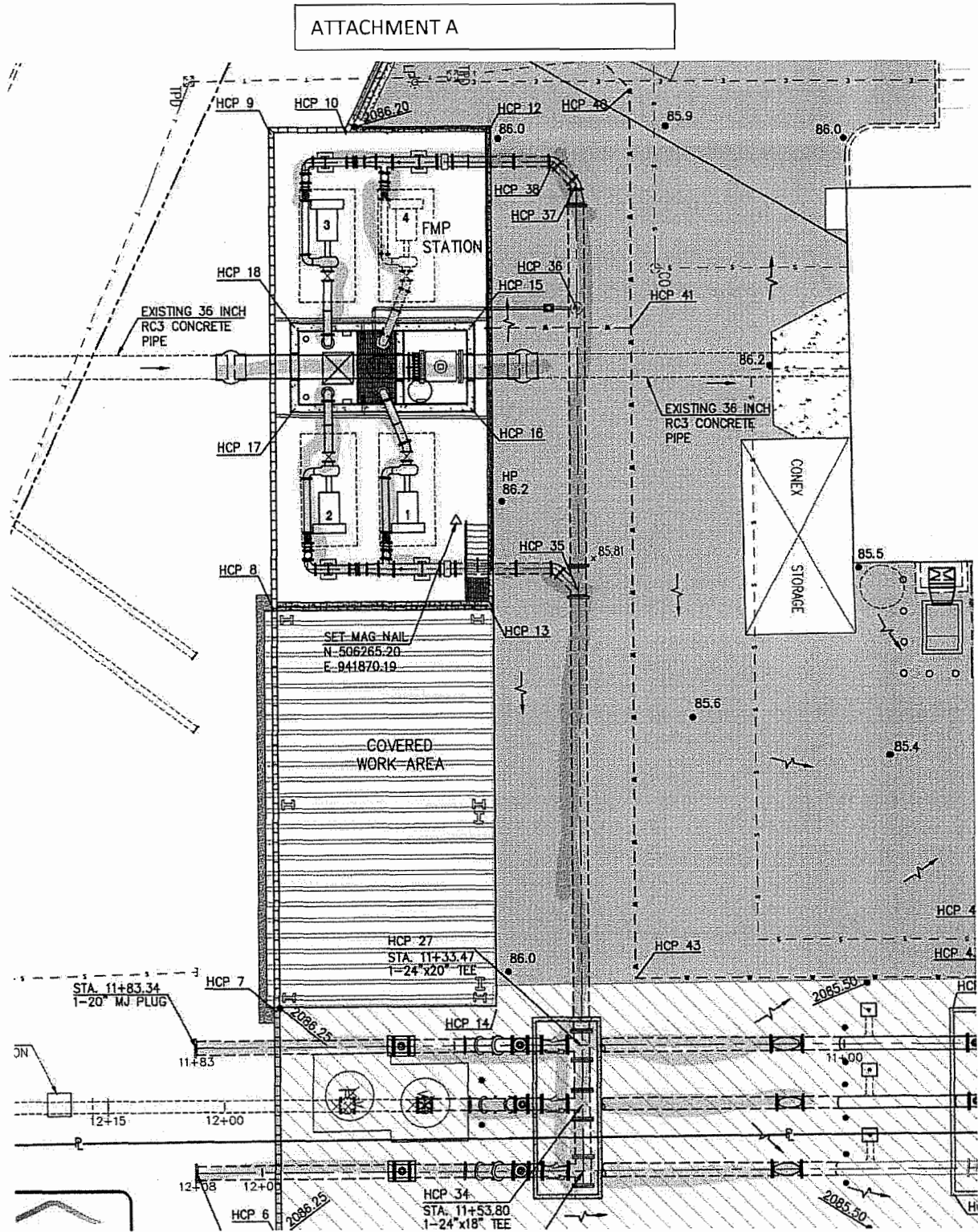
10' x 12' x 18' for the Wet Well

8' x 10' x 18' for the Dry Pit/Valve Vault

This will require review by Westland

18. Due to the emergency procurement requirements and minimal time to develop this GMP we have developed a contractor's contingency that will be utilized to cover any omissions in the above described scope and additional temporary bypass pumping if required.
19. Due to emergency procurement of this GMP, a SBE outreach was not possible for this portion of the project. \$98,623 of our proposal is SBE – this amount will be reduced if Conshield additive is utilized in lieu of concrete sewer coatings.
20. This GMP assumes that the warranty period for this project will begin after the successful commissioning of the diesel drive bypass pumps.
21. This GMP assumes a total hourly burden of 26.50% will be acceptable for insurance, holiday/vacation, and 401K. This is lower than the total allowable hourly burdens of 32% in section B-10 of Article 2 – Cost of Work, but may exceed each the individual insurance percentage maximum.
22. The GMP assumes that General Liability rate of .85% will be acceptable for this project as the contract requires a 2 year warranty and a premium rate above .5% will be incurred.
23. The GMP assumes that temporary living allowances will be allowed for staff and hourly workers as necessary to complete this project due to the need to complete this project immediately.
24. The GMP assumes that this project is governed by MRRRA statutes and that a form Arizona 5000 form will be provided by the County.
25. Please note that we are currently evaluating the schedule with our subcontractors and suppliers and the durations included in the GMP are estimates only at this time.

Pima County Water Reclamation Department  
Continental Ranch Regional Pump Station Upgrade Design  
GMP 1 – Assumption List



July 20, 2017

Page 1 of 2

Reference: PCRWRD Continental Ranch Flow Management Emergency Procurement

Subject: **ELECTRICAL BID/SCOPE**

We submit our proposal for the emergency procurement portion of the Electrical and Instrumentation work of Special Provisions Revision 2 dated 3-1-17 as shown on the Electrical Drawings 100% Submittal Set dated 2-28-17, including Addenda No. 1 (dated 7-5-16) thru No. 8 (dated 8-24-16) and as follows:

We submit our proposal to provide Continental Ranch Flow Management Emergency Procurement as follows:

Electrical and Instrumentation Bid Amount **\$ 246,795.00**

The following items are included for the "Flow Management Emergency Procurement" portion of the PCRWRD Continental Ranch Regional Pump Station Upgrades Project.

- a. 225A 480V Feeder Breaker to be installed in the existing space in the existing "MCC-1".
- b. 225A 480V NEMA 1 Power Panel "HV"
- c. 100A 480V NEMA 3R Power Panel "HV1"
- d. 30kVA 480:120/208V NEMA 3R Mini Power Center "LV2"
- e. 100A 120/240V NEMA 1 Power Panel "UPS"
- f. 10kVA 480:120/240V Indoor Dry Transformer for UPS System
- g. Two 40A 2-Pole NEMA 1 Enclosed Circuit Breakers "Transformer Output" and "UPS Output".
- h. UPS External Bypass Switch
- i. UPS Enclosure with Power Modules, Batteries, Charger, WEB/SNMP Card, Relay Interface Card, External Battery Enclosure, Battery Connection, Connectors and Cabling.
- j. Plant SCADA Panel with PLC, HMI, Ethernet Switch, I/O, TVSS and NEMA 12 Enclosure.
- k. SCADA and PCL Programming and Software for the FMP Station, UPS System and Items related to the "Flow Management Emergency Procurement" Scope of Work.
- l. Two 16" Magnetic Flow Meters with integral Transmitter "Bypass Flow Meter No. 1" and "Bypass Flow Meter No. 2".
- m. Two Pressure Gauges with Diaphragm Seals (located at Bypass No. 1 and Bypass No. 2)
- n. Two 20A Single Pole Explosion Proof Switches (Flow Meter No. 1 and Flow Meter No. 2)
- o. Twelve "Type 1" canopy mounted Fixtures at the Work Area location
- p. One "Type 3" wall mounted Fixture at the FMP Station location
- q. Three Fixture Switches, Nine GFCI Receptacles, Device Boxes and Device Covers.
- r. Three NEMA 3R Junction Boxes located at the Shade Canopy for the FMP Pump Station Diesel Pumps and Flow Meters signal, control and communication connection.
- s. Conduit, Fittings, Hangers, Supports, Conductors, Cables, Terminations, etc. related to the items above.



Ludvik Electrical Budget Scope/Estimate  
PCRWRD Continental Ranch Flow Management Emergency Procurement  
July 20, 2017

Page 2 of 2

**EXCLUSIONS:**

1. Taxes, permits, utility company costs and fees.
2. Temporary lighting and power. To be provided on a T&M basis if required.
3. Removal of refuse from site. We will deposit refuse in your dumpster.
4. Cutting and patching of concrete and asphalt.
5. Grouting and all formed concrete (i.e. pads, bases, curbs, etc.).
6. Process and mechanical connections, piping, tubing, fittings, valves, spools, etc.
7. Surveying, trench plating, dust control, construction water, compaction testing, de-watering and shoring.
8. Excavation, sand, and backfill for underground raceways. There is an estimated **155 L.F.** of trench consisting of **35 yards** of excavation, **18 tons** of sand to be provided.

**CLARIFICATIONS:**

1. Electrical and instrumentation items specified under other sections, identified to be furnished by other sections, or understood to be provided by others are not included. The following items are typical of these:
  - a. 10 20 10 Sound Attenuated Skid Mounted, Diesel Engine-Driven Back-Up Pumps – Engine Controller, Engine Control Panel, Oil Pressure Switch, Thermal Switch, Battery Charger, Block Heater, Light Fixture, Contacts for SCADA integration, Submersible Level Transducer assembly with 7-Pin Connector, Float Switches, Cable, Hangers, Supports and a Remote Monitoring System with Auto Dialer System. Packaged unit, skid mounted and furnished complete.
2. Landscaping, painting, bollards and toilet facilities are not included.
3. Pricing is based on normal shipping and normal work hours.

This proposal is submitted for a mutually agreeable subcontract and schedule. It is valid for award within 45 calendar days. Please contact us at 602-777-5000 with any questions or for additional information.

Sincerely,  
**LUDVIK ELECTRIC CO.**

Jeffrey A. Lipsky  
Estimator

