

CAMINO REAL REGIONAL MOBILITY AUTHORITY BOARD RESOLUTION

WHEREAS, the Camino Real Regional Mobility Authority (CRRMA) entered into a Construction Agreement dated October 15, 2015 (Agreement) with Paso del Norte Trackworks for the construction of the infrastructure component of the El Paso Streetcar Project being developed by the CRRMA;

WHEREAS, a change order, pursuant to the terms and conditions of the Agreement, is necessary for the relocation of power disconnects at the traction power substations and additional work for placement and relocation of various overhead contact system pole foundations; and

WHEREAS, the parties therefore desire to execute a change order to memorialize the responsibilities of each party related to the additional work contemplated herein.

NOW, THEREFORE, BE IT RESOLVED BY THE CAMINO REAL REGIONAL MOBILITY AUTHORITY:

THAT the Executive Director is hereby authorized to execute Change Order No. 18 with Paso del Norte Trackworks, including any additional documents or materials as may be necessary, for the El Paso Streetcar Project.

PASSED AND APPROVED THIS 12TH DAY OF JULY, 2017.

**CAMINO REAL REGIONAL
MOBILITY AUTHORITY**

Susan A. Melendez, Chair

ATTEST:

Joe R. Fernandez, Board Secretary

APPROVED AS TO CONTENT:

Raymond L. Telles
Executive Director

CAMINO REAL REGIONAL MOBILITY AUTHORITY

El Paso Streetcar Infrastructure Project

CONSTRUCTION CONTRACT CHANGE ORDER NUMBER: 0018.00

1. CONTRACTOR: Granite Construction
2. Change Order Work Limits: Sta: MSF, Stanton Street, and Santa Fe Street
3. Type of Change: (Major/Minor) Major
4. Describe the change and the reason for the change order. When necessary, include exceptions to this agreement.

Description	Cost
The locations of the OCS disconnection in the MSF were changed, so the locations of the conduit in TPSS were changed. These changes were made after the conduit was installed, which caused additional work to be done to install new conduit runs for both the equipment and the switches.	\$41,707.64
Because the designed foundations conflicted with existing communication lines, straddle foundations were need for 17 OCS poles on Santa Fe Street and Stanton Street. Potholing was also needed to investigate the OCS pole locations. This allowed the OCS foundations to be placed in locations that worked with both the design and existing utilities.	\$185,075.61
Total cost of this change order	\$226,783.25

Additional time and cost may be requested once the full schedule impact is realized. Engineer has reviewed that pricing for this change order is fair and reasonable.

5. New or revised plan sheet(s) are attached and numbered: N/A

Each signatory hereby warrants that each has the authority to execute this Change Order

By signing this change order, the contractor agrees to waive any and all claims for additional compensation due to any and all other expenses; additional changes for time, overhead and profit; or loss of compensation as a result of this change. Further, the contractor agrees that this agreement is made in accordance with Article 3.4 of the Contract General Conditions. Exceptions should be noted in the response for #4 and #5 above. Granite Construction Date <u>7/6/17</u> By <u>[Signature]</u> Typed/Printed Name <u>Anthony Alfonso</u> Project Manager _____	The following information must be provided Time Ext. #: <u>N/A</u> Days added on this C.O.: <u>N/A</u> Amt. added by this change order: <u>\$ 226,783.25</u> For CRRMA use only: Days participating: _____ Amount participating: _____ Signature _____ Date _____ <u>Raymond Telles, Executive Director</u> Name/Title
--	---

RECOMMENDED FOR EXECUTION:

5th Matt/RE 7/6/17
Name/Title Date
APPROVAL REQUEST APPROVAL

St P. B. 7-6-17
Name/Title Date
APPROVAL REQUEST APPROVAL

Name/Title Date
APPROVAL REQUEST APPROVAL

Name/Title Date
APPROVAL REQUEST APPROVAL

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Name/Title Date
APPROVAL REQUEST APPROVAL

Name/Title Date
APPROVAL REQUEST APPROVAL

Name/Title Date
APPROVAL REQUEST APPROVAL

Engineer's Seal:

Estimated Cost: SEE
ATTACHED

Paid by	Paid by Invoice? (Yes ☐ No)
---------	--

[illegible]

TABLE B: Contract Terms

[illegible]

June 1, 2017

Camino Real Regional Mobility Authority
300 N. Campbell, 2nd Floor
El Paso, TX 79901

Attn: Gilbert Gardner PE, ASQ CMQ/OE
Construction Manager



909 Texas Street
El Paso, TX 79901

RE: El Paso Streetcar Infrastructure Project

Subject: Change Proposal 45 - Traction Power Changes

Paso Del Norte Trackworks (PDNT) is submitting pricing for modifications made to TPSS S1 and the MSF OCS disconnect switches. The locations of the OCS disconnection inside the MSF were changed, and the locations of the conduit in TPSS S1 were changed. These changes were made after the conduit was installed, which required additional work to install new conduit runs for both the equipment and the disconnect switches. The pricing below is for all of the work associated with modifying the conduits inside the MSF building.

Pricing for the above scope of work is as follows and only includes the quantities/scope specifically identified below:

Description	QTY	UOM	Unit Price	Total
Traction Power Changes	1	LS	\$ 41,707.64	\$ 41,707.64
			Total	\$ 41,707.64

Inclusions/Exclusions:

- 1) The above scope of work may impact the baseline project schedule. By accepting this quote, the Camino Real Regional Mobility Authority acknowledges that there could be an impact and agrees that a contract time extension and/or additional overhead may need to be negotiated at a later date.
- 2) Price includes Bonds, Builders Risk, and Franchise Tax.

If you have any questions regarding this submittal please feel free contact me at (520) 260-7779.

Sincerely,

Anthony Alfonso
Project Manager
Paso Del Norte Trackworks



Paso Del Norte Trackworks is a joint venture between Granite Construction Company and RailWorks Track Systems, Inc.



909 Texas Street
El Paso, TX 79901

CHANGE PROPOSAL COST SUMMARY SHEET

Camino Real Regional Mobility Authority
El Paso Streetcar Infrastructure Project

CHANGE PROPOSAL NO. 45

Traction Power Changes

May 31, 2017

Item	Rate	Amount	Total Amount
A. Direct Costs (1+2+3+4)			\$ 39,215.00
1) Labor Cost		\$ -	
2) Subcontractor Cost		\$ 39,215.00	
3) Equipment		\$ -	
4) Cost of Materials and Supplies		\$ -	
B. Indirect Cost (a+b)			\$ 29.20
a) General Conditions		\$ -	
b) Builder's Risk Insurance		\$ 29.20	
C. Overhead and Profit (Self Performed) (A-SUB) x Rate	15.00%		\$ 4.38
D. Overhead and Profit (Subcontractor) (SUB) x Rate	5.00%		\$ 1,960.75
E. Taxes (C+D) x Rate (Franchise Tax)	0.950%		\$ 18.67
Bonds (Reimbursable w/ 15% Markup) (A+B+C+D+E) x Rate	1.150%		\$ 479.64
COST OF WORK (A+B+C+D+Bonds)			\$ 41,707.64

Prepared By:

Signature

Anthony Alfonso

Printed Name

Project Manager

Title

May 31, 2017



909 Texas Street
El Paso, TX 79901

CHANGE PROPOSAL DIRECT COST SUMMARY SHEET

Camino Real Regional Mobility Authority
El Paso Streetcar Infrastructure Project

CHANGE PROPOSAL NO. 45

Traction Power Changes

May 31, 2017

Item #	Description	Quantity	Units	Unit Price	Labor	Material	Equipment	Subcontract	Amount
10	MSF TPSS and OCS Modifications	1	LS	\$ 39,215.00	\$	-	-	\$ 39,215.00	\$ 39,215.00
	TOTALS				\$	-	-	\$ 39,215.00	\$ 39,215.00



Proposal

Date: May 22, 2017

Banes General Contractors, Inc
6001 Doniphan
El Paso, TX
Phone: (915) 584-0404
Fax: (915) 584- 2432

To: Granite Construction Company
4115 E. Illinois Street
Tucson, AZ 85714

Job	Vendor	Payment Terms	Due Date
COEP Streetcar MSF OCS and TPSS Additional Rough-Ins			

Qty	Description	Unit Price	Line Total
1 EA	Additional TPSS conduit rough in and wiring per attachment	Lump Sum	\$ 13,900.00
1 EA	Additional OCS rough in for Bays A&B as well as Wash Bay per attachment	Lump Sum	\$ 14,000.00
1 EA	Paint additional Conduits	Lump Sum	\$ 6,200.00
Subtotal			\$34,100.00
OH&P @ 15%			\$5,115.00
Total			\$39,215.00

L.E.S OF TEXAS INC.

NM DOL 271971-1
NM Public Works Registration
#002282320110712

LONGHORN ELECTRICAL SERVICES , INC.

May 8, 2017

Attn: WILLY GONZALEZ

Re: EP STREET CAR MSF - EL PASO TX
Subject: CHANGE ORDER 18

THE FOLLOWING IS AN ASSOCIATED CHANGE ORDER REQUEST FOR -EP STREET
CAR MSF -EL PASO TX

1. THE TOTAL ESTIMATED COST FOR THIS CHANGE ORDER IS : \$ 14,000.00

Cost to provide rigid conduit rough in for OCS disconnect switch , control box , and ets switches at
OCS bay A , OCS bay B , and wash bay . Cost also includes conduit runs for ets relocations for ets
4, 5, and 6 .

*The rigid conduit from the disconnect switch to the ocs contact wire will be installed by others per
walk through instructions . Installation of ets boxes , disconnect switches , control boxes , and any
OCS equipment is by others per walk through instructions . This only includes the conduits rout-
ing over the OCS bays and wash bay . Any OCS or TPSS conduits needed in TPSS room is not
included.*

Labor - 6,800.00
Materials - 5,500.00
Equipment - 750.00
Welding (support strut) - 950.00

EXCLUDED :

- SALES TAX
- BOND FEES

If you have any questions please advise.

Thank you

Eric Villegas
President

8411 LOCKHEED ST 13
El Paso TX 79925
www.longhornelectrical.com

Phone- 915-771-0488
fax- 915-771-0450
e mail -
eric@longhornelectrical.com

TECL # 23352 NM LIC # 350180



Regulated by The Texas Dept. Of Licensing and Regulation
P.o. box 12157 Austin Texas 78711
Www.license.state.tx.us/complaints 1-800-803-9202

1. VERIFY CONDUIT STUB-UP LOCATIONS WITH TFS EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION.
2. CONDUIT TO ENTER IN THE SIDE WALL OF PIT.
3. SEE OCS DRAWING J237 FOR THE DISCONNECT SWITCH DETAIL.
4. REFER TO .J658 FOR SHOP ETS CONTROL SCHEMATICS.



NO	DATE	REVISION	APPROVED @



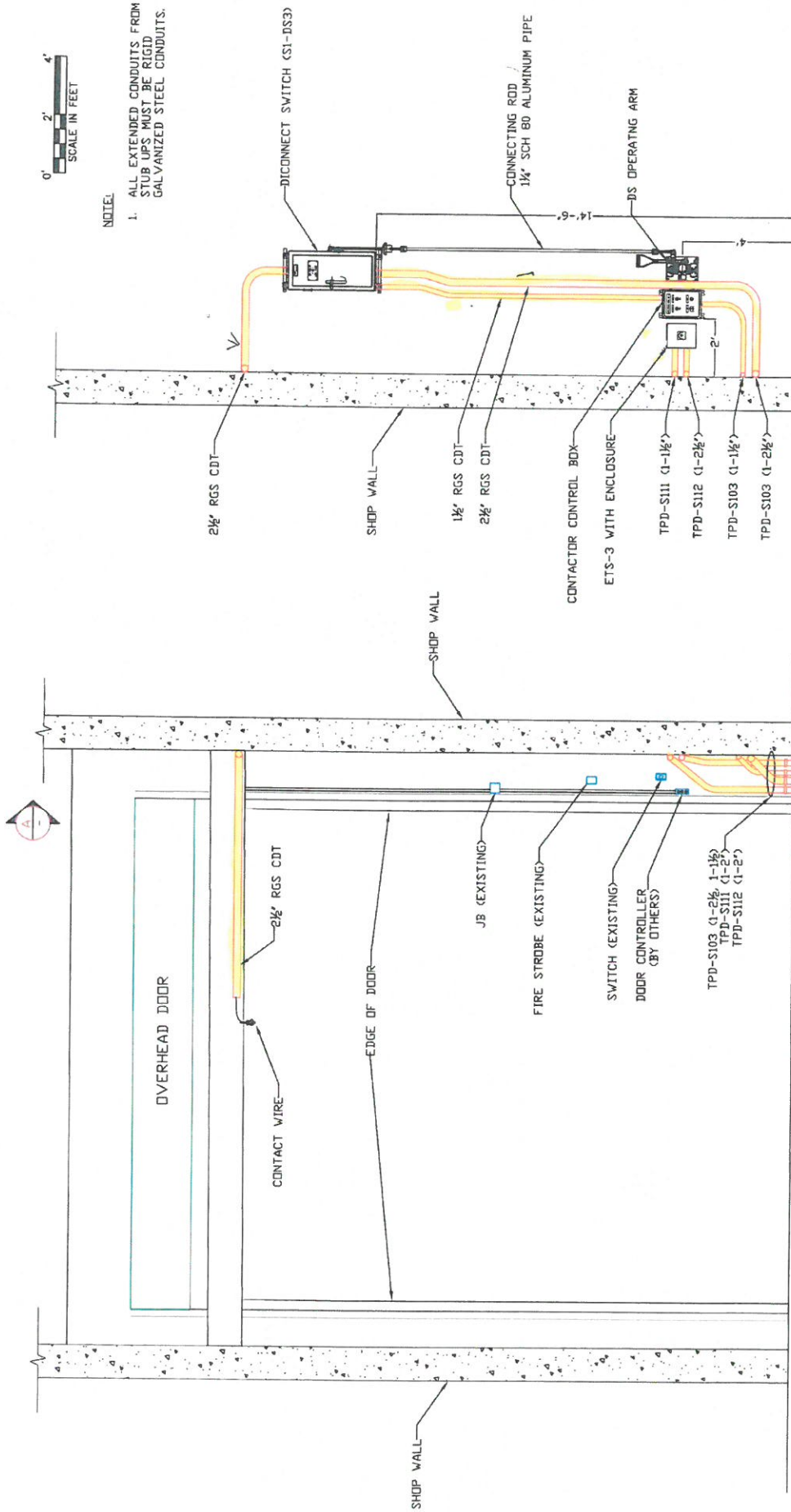
LTK
LTK Engineering Services

URS
2829 Montana Suite 208
El Paso, Texas 79903
(915) 453-4444

COEP STREETCAR

TPSS S1 SHOP
CONDUIT LAYOUT PLAN

COMT	SEC1	JOB	PROPERTY	J650
0924	06	446	VARIOUS	
EL PASO	DEPT	COUNTY	SHEET NO.	
EL PASO		EL PASO	1233	



SHOP DISCONNECT SWITCH ASSEMBLY
(DCS WASH BAY2)

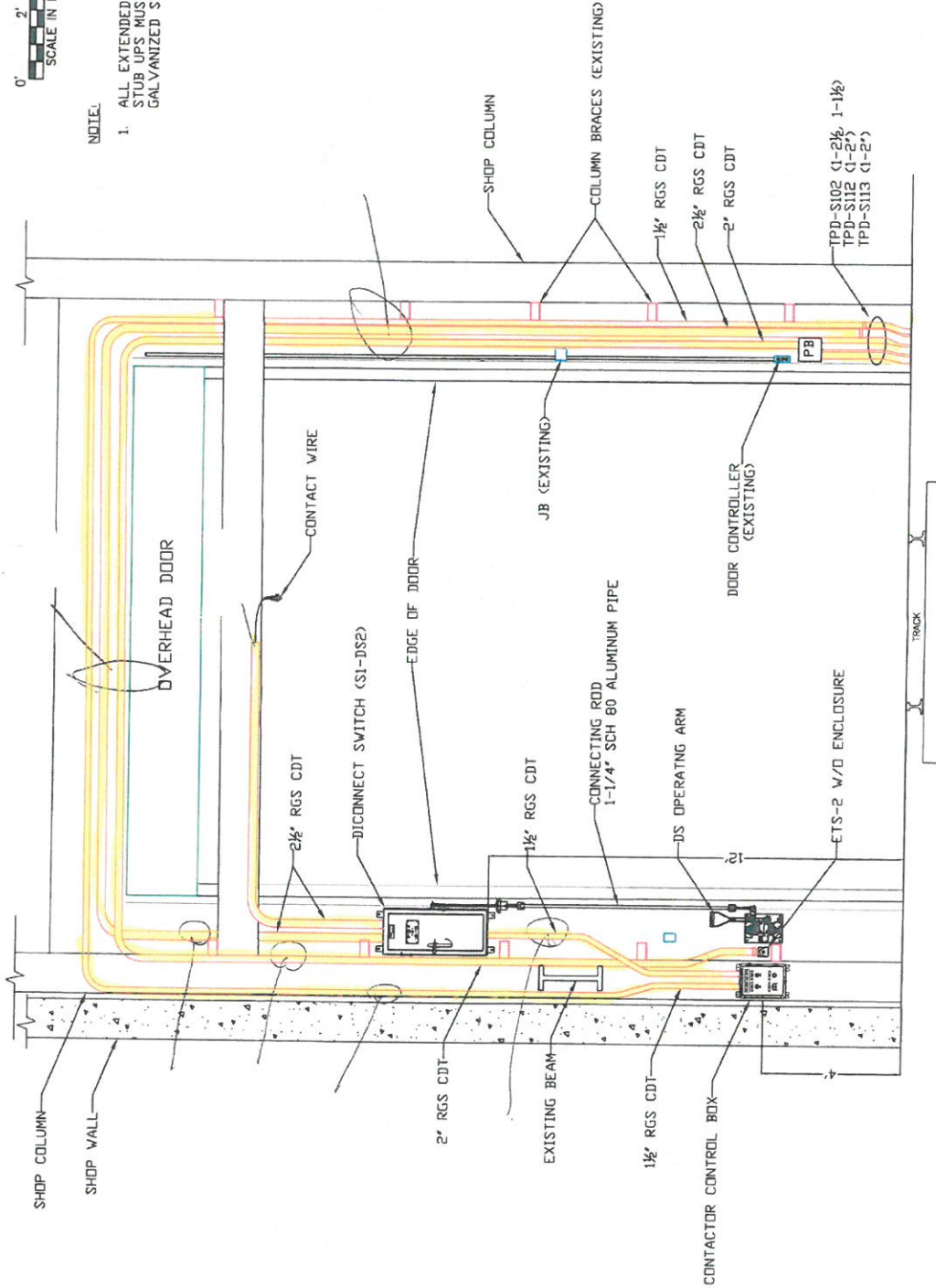
SECTION VIEW A

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NOTES:

1. ALL EXTENDED CONDUITS FROM STUB UPS MUST BE RIGID GALVANIZED STEEL CONDUITS.



**SHOP DISCONNECT SWITCH ASSEMBLY
(DCS BAY B)**

L.K. COMSTOCK & CO., INC.				Scale: NTS	Drawing No: LAY_VM_DISC_SV
				File No: LAY_VM_DISC_SV	Sheet No: 2 OF 3
				Contract No:	Rev: 2
				Date: 3/8/17	Revised: 2
				Submitted:	Revised:
				Approved By: Z.A.	Revised:
				Designed By: A.T.L.	Revised:
				Drawn By: A.T.L.	Revised:
				Checked By: C.C.	Revised:
				Approved By: Z.A.	Revised:
				Date:	Revised:
				Issn: Chk: Rev: Revisions	Revised:

**EL PASO STREETCAR
OVERHEAD CONTACT SYSTEM
WALL MOUNTED DISCONNECT SWITCH
INSTALLATION DRAWING**

L.E.S OF TEXAS INC.

NM DOL 271971-1
NM Public Works Registration
#002282320110712

LONGHORN ELECTRICAL SERVICES , INC.

May 19, 2017

Attn: WILLY GONZALEZ

Re: EP STREET CAR MSF - EL PASO TX
Subject: CHANGE ORDER 20

THE FOLLOWING IS AN ASSOCIATED CHANGE ORDER REQUEST FOR -EP STREET
CAR MSF -EL PASO TX

1. THE TOTAL ESTIMATED COST FOR THIS CHANGE ORDER IS : \$ 13,900.00

Cost to provide all conduit runs shown on highlighted drawing for the TPSS room , and service wire
supplying power to the 480 volt AC gear .

*All equipment , boxes , cables for tpss system are provided and installed by others . This quote is
for the conduit installation only and service wire as noted .*

Labor - 6,750.00
Materials - 7,150.00

EXCLUDED :

- SALES TAX
- BOND FEES

If you have any questions please advise.

Thank you

Eric Villegas
President

8411 LOCKHEED ST 13
El Paso TX 79925
www.longhornelectrical.com

Phone- 915-771-0488
fax- 915-771-0450
e mail -
eric@longhornelectrical.com

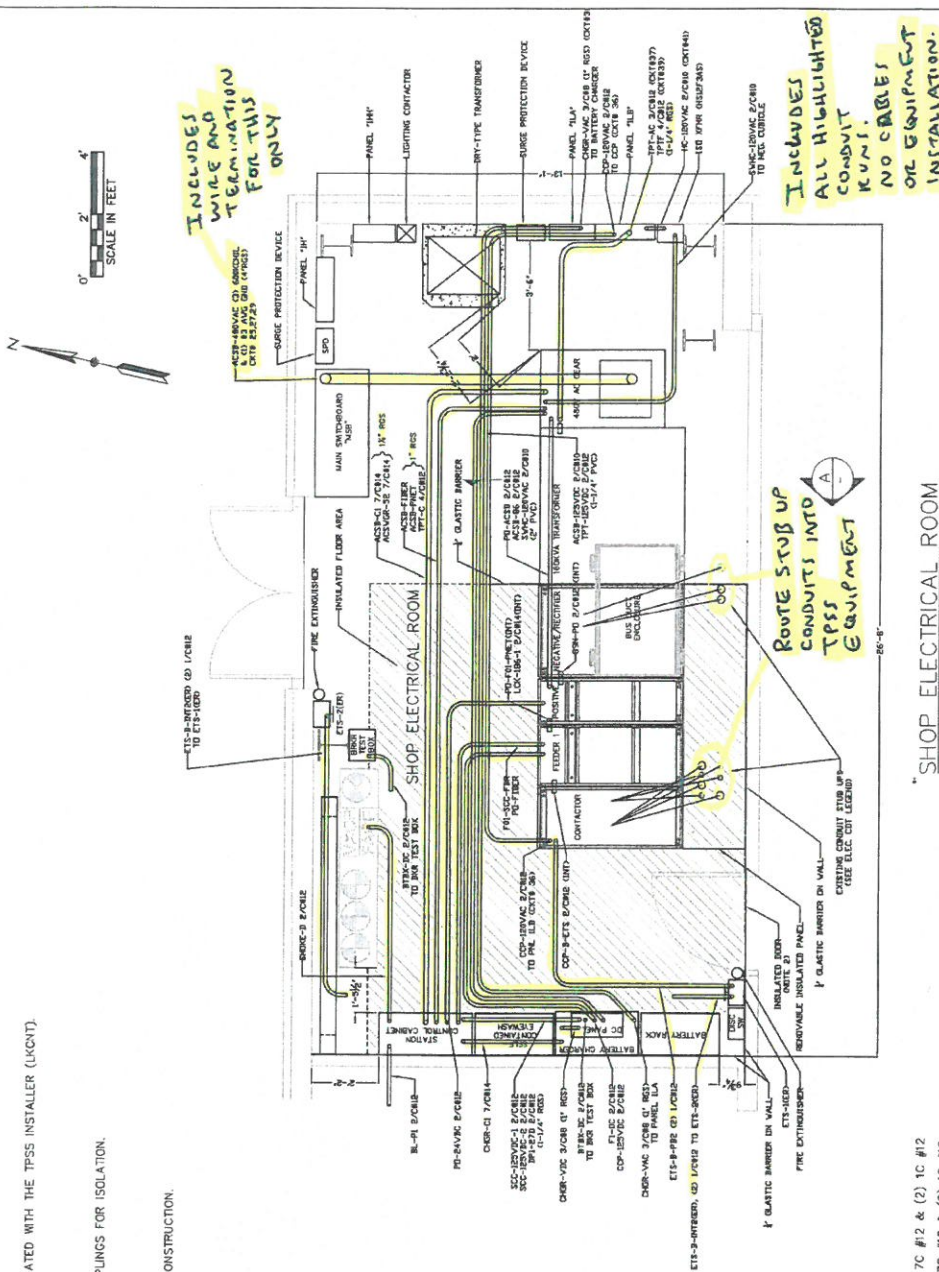
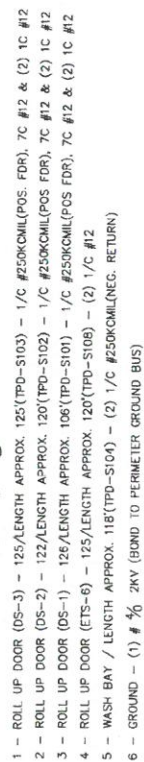
TECL # 23352 NM LIC # 350180



Regulated by The Texas Dept. Of Licensing and Regulation
P.o. box 12157 Austin Texas 78711
Www.license.state.tx.us/complaints 1-800-803-9202

1. ALL CONDUITS, DUCT WORK AND SPRINKLER PIPE INSTALLATION MUST BE COORDINATED WITH THE TPSS INSTALLER (LKCVNT).

2. ALL CONDUITS ARE ¾" RGS EXCEPT AS NOTED.
3. ALL CONDUITS TERMINATING THE DC GEAR MUST HAVE AT LEAST 6" OF PVC COUPLINGS FOR ISOLATION.
4. NO RGS CONDUIT SHALL DIRECTLY PASS ABOVE THE DC GEAR.
5. AVOID ANY METAL SHAVING OR DEBRIS TO ENTER THE SWITCHGEAR DURING THE CONSTRUCTION.



*SHOP ELECTRICAL ROOM

INCLUDES
ALL HIGHLIGHTED
CONDUIT
RUNS.
NO CABLES
OR EQUIPMENT
INSTALLATION.

[illegible]



REQUEST FOR INFORMATION RESPONSE

El Paso Streetcar Project

No. EPSC-RFI- 00355

DATE: 4/13/2017

TITLE OCS Disconnect Switch Installation Issue

SPEC:

RESPONSE REQUIRED: **4/20/2017**

DISCIPLINES AFFECTED:

- | | | | | | |
|--|---|--|---|---|--|
| ☐ Civil Drain/SWPPP | ☐ Civil Structures | ☐ MSF Architectural | ☐ MSF Structures | ☐ OCS System | ☐ Signals/SPM/TCP |
| ☐ Civil Roadway | ☐ Landscape | ☐ MSF Drainage | ☐ | ☒ OCS - MSF Equip | ☐ Survey |
| ☐ Civil Track | | ☐ MSF Electrical | ☐ | ☐ OCS System - TPSS | ☐ Water/Waste Water |
| ☐ Civil Elec | | ☐ MSF Plumb/Mech | ☐ Other | | ☐ |

QUESTION:

Based on the existing conditions and limited mounting space in MSF Bay A, Bay B & Wash Bay, LKCNT has an issue of installing OCS Disconnect switches. Please provide a solution to this issue.

Andy Ledesma

Cell: 1-678-301-0960

ALedesma@railworks.com

See attached installation drawings for approval.

REQUESTED BY: Armando Valero

RESPONSE

Add response below in expanding cell. Return response and any attachments to Janice.jaafari@aecom.com.

RESPONSE ASSIGNED TO: Ethan Kim

The contractor proposed alternate locations for the disconnect switch, contactor control panel, and ETSSs for Bay A, B, and Wash is approved.

Will require change
to plans/specs?

☐ Yes ☐ No

List Plans
and/or Specs
Affected:

RESPONDED BY: Ethan Kim

DATE: 4/29/17

RESPONSE
APPROVED BY:

Stephen Matty

DATE: 5/1/2017

June 29, 2017

Camino Real Regional Mobility Authority
300 N. Campbell, 2nd Floor
El Paso, TX 79901

Attn: Gilbert Gardner PE, ASQ CMQ/OE
Construction Manager



909 Texas Street
El Paso, TX 79901

RE: El Paso Streetcar Infrastructure Project

Subject: Change Proposal 51 OCS Straddle Foundations

Paso Del Norte Trackworks (PDNT) is submitting pricing for the installation of the OCS Straddle Foundations. These foundations were necessary because the designed foundations were in conflict with existing communications lines. Thirteen of these foundations are located on Santa Fe between Paisano and Father Rahm. The remaining four are located on Stanton between Arizona and California.

Paso Del Norte Trackworks (PDNT) is also submitting pricing for the exploratory potholing that was done in 10 locations. This potholing was necessary to investigate locations where the designed locations of OCS foundation conflicted with existing utilities. Potholing was done in locations close to the design locations that were free from utilities. This allowed for the OCS foundations to be placed in a location that worked with both the design and existing utilities.

Pricing for the above scope of work is as follows and only includes the quantities/scope specifically identified below:

Item	Description	QTY	UOM	Unit Price	Total
10	Straddle Cap	17	EA	\$ 7,083.67	\$ 120,422.39
20	OCS Exploratory Potholing	1	LS	\$ 64,653.22	\$ 64,653.22
				Total	\$ 185,075.61

Inclusions/Exclusions:

- 1) The drilled shaft portion has been billed according to the contract drill items.
- 2) Price includes Bonds, Builders Risk, and Franchise Tax.

If you have any questions regarding this submittal please feel free contact me at (520) 260-7779.

Sincerely,

Anthony Alfonso
Project Manager
Paso Del Norte Trackworks



Paso Del Norte Trackworks is a joint venture between Granite Construction Company and RailWorks Track Systems, Inc.



909 Texas Street
El Paso, TX 79901

CHANGE PROPOSAL COST SUMMARY SHEET

Camino Real Regional Mobility Authority

El Paso Streetcar Infrastructure Project

CHANGE PROPOSAL NO. 52

OCS Straddle Foundations

June 29, 2017

Item	Rate	Amount	Total Amount
A. Direct Costs (1+2+3+4)			\$ 165,289.57
1) Labor Cost		\$ 8,122.49	
2) Subcontractor Cost		\$ 150,927.90	
3) Equipment		\$ 6,239.18	
4) Cost of Materials and Supplies		\$ -	
B. Indirect Cost (a+b)			\$ 6,830.55
a) General Conditions		\$ 6,701.00	
b) Builder's Risk Insurance		\$ 129.55	
C. Overhead and Profit (Self Performed) (A-SUB) x Rate	15.00%		\$ 3,178.83
D. Overhead and Profit (Subcontractor) (SUB) x Rate	5.00%		\$ 7,546.40
E. Taxes (C+D) x Rate (Franchise Tax)	0.950%		\$ 101.89
Bonds (Reimbursable w/ 15% Markup) (A+B+C+D+E) x Rate	1.150%		\$ 2,128.37
COST OF WORK (A+B+C+D+Bonds)			\$ 185,075.61

Prepared By:

Signature

Anthony Alfonso

Printed Name

Project Manager

Title

June 29, 2017



CHANGE PROPOSAL DIRECT COST SUMMARY SHEET
 Camino Real Regional Mobility Authority
 El Paso Streetcar Infrastructure Project
 CHANGE PROPOSAL NO. 52
 OCS Straddle Foundations
 June 29, 2017

Item #	Description	Quantity	Units	Unit Price	Labor	Material	Equipment	Subcontract	Amount
10	Straddle Cap	17	EA	\$ 6,341.47	\$ 8,122.49	\$ -	\$ 6,239.18	\$ 93,443.40	\$ 107,805.07
20	OCS Exploratory Potholing	1	LS	\$ 57,879.07	\$ 264.24	\$ -	\$ 130.33	\$ 57,484.50	\$ 57,879.07
	TOTALS				\$ 8,122.49	\$ -	\$ 6,239.18	\$ 150,927.90	\$ 165,684.14

Biditem

STRADDLE CAP

10

Takeoff Qty: 17.000 EA

Bid Qty: 17.000 EA

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	283.16	194.63	477.79	367.01	0.00	0.00	5,496.67	0.00	0.00	0.00	6,341.47
Total	4,813.71	3,308.78	8,122.49	6,239.18	0.00	0.00	93,443.40	0.00	0.00	0.00	107,805.07

Manhours	Unit/MH	MH/Unit	\$/MH	Base Labor/MH	Total Labor/MH	Unit/CH
225.0000	0.0756	13.2353	479.1336	21.3943	36.1000	0.4250

Activity:	252037	Remove PCCP	Quantity:	17	Unit:	EA
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[illegible]

Crew \$/Unit	Crew Hrs/Unit	Units/Crew Hr	\$/Crew Hour	Shifts	Units/Shift	Shifts/Unit	\$/Shift
844.8041	2.3529	0.4250	359.0418	5.0000	3.4000	0.2941	2,872.3340

Manhours	Unit/MH	MH/Unit	Total Labor/MH	Base Labor/Unit
225.0000	0.0756	13.2353	36.1000	283.1594

Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZ5507 Street/Road Grading

Crew:	252037	Remove PCCP Buck & Load	Prod: UH	0.425	Eff: 100.00	Crew Hrs: 40.00	Labor Pcs: 5.50	Equipment Pcs: 3.50
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Notes: Additional Demo required at 12 locations. This demo was in PCCP avg 4x12. Figure 2hours per locations.

2hr x 12 locations = 3shifts

Rock Excavation on 5 shafts on Stanton - This work took 2 days for all 5 straddle caps.
2shifts

total 5 shifts

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
80406WATER4	Water Truck, 2 - 4 mgal	0.50	20.00	HR	30.60	100.00	30.60	612.08
806PICKHROPE	Oper 4 Pickup, 3/4 100/Day	1.00	45.00	HR	10.81	100.00	10.81	486.54
80801PECKER	Rental Backhoe w/hoeram	1.00	40.00	HR	81.73	100.00	81.73	3,269.32
80802CAT950	Loader, CAT 950 (3.75 - 4.0	1.00	40.00	HR	46.78	100.00	46.78	1,871.24
L1LAB	LAB - GENERAL LABORER	1.00	40.00	MH	12.81	100.00	25.37	1,014.91
O0	4-MAN - OPERATOR	1.00	45.00	MH	27.67	105.56	46.82	2,106.71
O1GRDSET	OP-GRADESETTER	1.00	40.00	MH	21.20	100.00	36.41	1,456.49
O3CAT950	OP-CAT 950 LOADER (3.75 - 4.	1.00	40.00	MH	21.20	100.00	36.41	1,456.49
O6BCKHOE	OP-BACKHOE/LOADER	1.00	40.00	MH	21.20	100.00	36.41	1,456.49
TWATER	TEAM - WATER TRUCK DRIVER	0.50	20.00	MH	17.52	100.00	31.57	631.40

Activity:	85030000	Drilled Shafts	Quantity:	17	Unit:	EA
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Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZ5507 Street/Road Grading

Notes: This item includes the cost to install the grade beam.

Rebar and anchor bolts not included in this item

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
4STRADDLE	Install Grade Beam w/bolts	1.00	17.00	EA	5,000.00	100.00	5,000.00	85,000.00

Activity:	85071500	Rebar	Quantity:	17	Unit:	EA
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Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZ5507 Street/Road Grading

Notes: This cost includes the material and labor to install the rebar in the Grade Beam.

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
45TRADDEBAR	Rebar for Straddle Foundatio	1.00	1.00	LS	8,443.40	100.00	8,443.40	8,443.40

Biditem

OCS EXPLORATORY POTHOLING

20

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	151.73	112.51	264.24	130.33	0.00	0.00	57,484.50	0.00	0.00	0.00	57,879.07
Total	151.73	112.51	264.24	130.33	0.00	0.00	57,484.50	0.00	0.00	0.00	57,879.07

Manhours	Unit/MH	MH/Unit	\$/MH	Base Labor/MH	Total Labor/MH	Unit/CH
8.0400	0.1244	8.0400	7,198.8893	18.8719	32.8657	0.5600

Activity:	241005	Pothole Support	Quantity:	1	Unit:	EA
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	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	151.73	112.51	264.24	130.33	0.00	0.00	0.00	0.00	0.00	0.00	394.57
Total	151.73	112.51	264.24	130.33	0.00	0.00	0.00	0.00	0.00	0.00	394.57

Crew \$/Unit	Crew Hrs/Unit	Units/Crew Hr	\$/Crew Hour	Shifts	Units/Shift	Shifts/Unit	\$/Shift
394.5700	1.7857	0.5600	220.9610	0.2232	4.4800	0.2232	1,767.6877

Manhours	Unit/MH	MH/Unit	Total Labor/MH	Base Labor/Unit
8.0400	0.1244	8.0400	32.8657	151.7300

Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZ5507 Street/Road Grading

Crew: 241005 Pothole Utilities Prod: UH 0.56 Eff: 100.00 Crew Hrs: 1.79 Labor Pcs: 4.50 Equipment Pcs: 2.50

Notes: Pothole support is GCC time to backfill the hole from hydro excavation.

Figure 2HR per location.

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
80406WATER4	Water Truck, 2 - 4 mgal	0.50	0.89	HR	30.60	100.00	30.61	27.24
806OPER4PU	Operator FM w/pickup 100/day	1.00	1.79	HR	10.81	100.00	10.81	19.35
80802CAT950	Loader, CAT 950 (3.75 - 4.0	1.00	1.79	HR	46.78	100.00	46.78	83.74
L1WACK	LAB - JUMPING JACK COMP LABO	2.00	3.57	MH	12.81	100.00	25.37	90.57
OO	4-MAN - OPERATOR	1.00	1.79	MH	27.67	100.00	44.92	80.41
O3CAT950	OP-CAT 950 LOADER (3.75 - 4.	1.00	1.79	MH	21.20	100.00	36.41	65.17
TWATER	TEAM - WATER TRUCK DRIVER	0.50	0.89	MH	17.52	100.00	31.56	28.09

Activity:	85064500	Potholing	Quantity:	100	Unit:	PC
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	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	0.00	0.00	0.00	0.00	0.00	0.00	574.85	0.00	0.00	0.00	574.85
Total	0.00	0.00	0.00	0.00	0.00	0.00	57,484.50	0.00	0.00	0.00	57,484.50

Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZ5507 Street/Road Grading

Notes: Misc Exploratory Potholing for OCS Foundations in conflict with existing utilities.

Kansas/Texas (8/25/16)
 Franklin/Kansas (9/29/16)
 Paisano/Santa Fe (10/15/16)
 Glory/Mesa (10/18/16-10/20/16)
 Kansas/Father Rahm (10/27/16-10/28/16)
 Santa Fe/Main (11/15/16-11/17/16)
 Santa Fe/Overland (11/17/16)
 Kansas/Overland (5/11/17-5/12/17)
 Kansas/Myrtle (5/10/17-5/11/17)
 Franklin/Mesa (4/11/17-4/14/17)

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
4POTHOLE	Pothole Kansas/Texas	1.00	1.00	LS	3,797.50	100.00	3,797.50	3,797.50
4POTHOLE10	Pothole Franklin/Mesa	1.00	1.00	LS	13,412.50	100.00	13,412.50	13,412.50
4POTHOLE2	Pothole Franklin/Kansas	1.00	1.00	LS	3,072.50	100.00	3,072.50	3,072.50
4POTHOLE3	Pothole Paisano/Santa Fe	1.00	1.00	LS	3,072.50	100.00	3,072.50	3,072.50

4POTHOLE4	Pothole Glory/Mesa	1.00	1.00	LS	8,092.50	100.00	8,092.50	8,092.50
4POTHOLE5	Pothole Kansas/Father Rahm	1.00	1.00	LS	6,155.00	100.00	6,155.00	6,155.00
4POTHOLE6	Pothole Santa Fe/Main	1.00	1.00	LS	9,002.00	100.00	9,002.00	9,002.00
4POTHOLE7	Pothole Santa Fe/Overland	1.00	1.00	LS	1,510.00	100.00	1,510.00	1,510.00
4POTHOLE8	Pothole Kansas/Overland	1.00	1.00	LS	4,610.00	100.00	4,610.00	4,610.00
4POTHOLE9	Pothole Kansas/Myrtle	1.00	1.00	LS	4,760.00	100.00	4,760.00	4,760.00

Report Summary

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
Total	4,965	3,421	8,387	6,370	0	0	150,928	0	0	0	165,684

Job Notes

2015 AZ Equipment

Labor Rates Updated on 10-28-14 by RP.

W/C = \$8.55 / \$100/payroll

PL/PD = \$9.93 / \$100/payroll

H & W = \$8.31 / MH

Calendars Used In Estimate

401

5 DPW-8 HPS-1 SPD

Cost Report

Granite Construction, Inc.
576965-051

167
OCS Straddle Foundations

Nicodemus, Brian

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06/29/2017 1:15 PM

Biditem

910000

BASE BID GENERAL ACCOUNT

Takeoff Qty: 1.000 LS
Bid Qty: 1.000 LS

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	3,974.89	382.32	4,357.21	795.28	625.10	203.00	720.00	0.00	0.00	0.00	6,700.59
Total	3,974.89	382.32	4,357.21	795.28	625.10	203.00	720.00	0.00	0.00	0.00	6,700.59

	Manhours	Unit/MH	MH/Unit	\$/MH	Base Labor/MH	Total Labor/MH	Unit/CH
	17.0000	0.0588	17.0000	394.1524	233.8171	256.3065	0.0000

Biditem

910101

ADMINISTRATIVE SALARIES

Takeoff Qty: 1.000 LS
Bid Qty: 1.000 LS

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	0.00	0.00	0.00	0.00	0.00	203.00	0.00	0.00	0.00	0.00	203.00
Total	0.00	0.00	0.00	0.00	0.00	203.00	0.00	0.00	0.00	0.00	203.00

Activity: 170308 T&D Allocation Quantity: 250 Unit: MH

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.00	0.81
Total	0.00	0.00	0.00	0.00	0.00	203.00	0.00	0.00	0.00	0.00	203.00

Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZZERO WC Set to Zero Indirect Calc

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
3*THEDI	Craft EDI	2015	1.00	250.04 MH	0.75	108.25	0.81	203.00
3AA3401	Salary EDI	2015	1.00	0.00 MO	126.00	108.25	0.00	0.00

Biditem

910110

FIELD OPERATIONS & WAGES

Takeoff Qty: 1.000 LS
Bid Qty: 1.000 LS

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	0.00	0.00	0.00	0.00	0.00	0.00	720.00	0.00	0.00	0.00	720.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	720.00	0.00	0.00	0.00	720.00

Activity: 110100 Quality Control Personnel Quantity: 23 Unit: MO

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	0.00	0.00	0.00	0.00	0.00	0.00	31.30	0.00	0.00	0.00	31.30
Total	0.00	0.00	0.00	0.00	0.00	0.00	720.00	0.00	0.00	0.00	720.00

Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZ5507 Street/Road Grading

Notes: Additional testing for Grade Beam.

1 set of cylinder per pour
On average poured 3 Grade Beams per shift

figure 6 sets of cylinders

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
3MISC.CORE	Core Barrel Allowance	1.00	0.00	DY	60.00	108.25	0.00	0.00
4685.005	QC Tech ST W/ Pickup	1.00	6.00	HR	40.00	100.00	40.00	240.00
4685.010	QC Tech OT W/ Pickup	1.00	0.00	HR	65.00	100.00	0.00	0.00
4685.015	QC Tech Trip Charges	1.00	0.00	EA	20.00	100.00	0.00	0.00

4685.020	QC Tech Per Diem	1.00	0.00	DY	70.00	100.00	0.00	0.00
4685.025	QC Proctor Standard	1.00	0.00	EA	135.00	100.00	0.00	0.00
4685.030	QC Concrete Compression Test	1.00	24.00	EA	20.00	100.00	20.00	480.00
4685.035	QC PI/Gradation	1.00	0.00	EA	130.00	100.00	0.00	0.00
4685.065	QC Weekly Reports	1.00	0.00	WK	0.00	100.00	0.00	0.00

Biditem

GENERAL PROJECT EXPENSES

910170

Takeoff Qty: 1.000 LS

Bid Qty: 1.000 LS

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	2,445.24	251.54	2,696.78	795.28	625.10	0.00	0.00	0.00	0.00	0.00	4,117.16
Total	2,445.24	251.54	2,696.78	795.28	625.10	0.00	0.00	0.00	0.00	0.00	4,117.16

	Manhours	Unit/MH	MH/Unit	\$/MH	Base Labor/MH	Total Labor/MH	Unit/CH
	17.0000	0.0588	17.0000	242.1859	143.8376	158.6341	0.0588

Activity:	120203	Hourly Subsistence	Quantity:	250	Unit:	HR
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Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZZERO WC Set to Zero Indirect Calc

Notes: Hourly Subsistence = \$7.50/MH

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
Z*TH	Total Labor Hours	1.00	250.04	LBHR	7.50	100.00	7.65	1,912.06

Activity:	170100	Small Tools	Quantity:	250	Unit:	MH
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Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZZERO WC Set to Zero Indirect Calc

Notes: \$2.5/MH

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
2*TH	Total Labor Hours	1.00	250.04	LBHR	2.50	100.00	2.50	625.10

Activity:	170399	Holiday Pay	Quantity:	250	Unit:	MH
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Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZZERO WC Set to Zero Indirect Calc

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
Z*TH	Total Labor Hours	1.00	250.04	LBHR	0.65	100.00	0.66	165.72

Activity:	231505	Provide Daily Access	Quantity:	17	Unit:	DY
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	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	21.62	14.80	36.41	46.78	0.00	0.00	0.00	0.00	0.00	0.00	83.19
Total	367.46	251.54	619.00	795.28	0.00	0.00	0.00	0.00	0.00	0.00	1,414.28

Crew \$/Unit	Crew Hrs/Unit	Units/Crew Hr	\$/Crew Hour	Shifts	Units/Shift	Shifts/Unit	\$/Shift
83.1929	1.0000	1.0000	83.1929	17.0000	1.0000	1.0000	83.1929

Manhours	Unit/MH	MH/Unit	Total Labor/MH	Base Labor/Unit
17.0000	1.0000	1.0000	36.4118	21.6153

Calendar: 1HR 1 Hour of Straight Time Hrs/Shift: 1 WC: AZ5507 Street/Road Grading

Crew: 231505 Provide Daily Access Prod: S 17 Eff: 100.00 Crew Hrs: 17.00 Labor Pcs: 1.00 Equipment Pcs: 1.00

Notes: Figure 1 Hr/ea to set fence at each location

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
80802CAT950	Loader, CAT 950 (3.75 - 4.0	1.00	17.00	HR	46.78	100.00	46.78	795.28
03CAT950	OP-CAT 950 LOADER (3.75 - 4.	1.00	17.00	MH	21.20	100.00	36.41	619.00

Biditem

LICENSES/FEES/BONDS

910175Takeoff Qty: 1.000 LS
Bid Qty: 1.000 LS

Activity: 175300 Contract Bond Quantity: 19.1 Unit: M\$

Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZ5507 Street/Road Grading

Notes: Cost calculated on cover sheet

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
2BOND	Granite Bon 4.71/1000 + Marg	1.00	0.00	M\$	5.23	100.00	0.00	0.00

Biditem**CLEARING/OFFSET ACCOUNTS****910190**Takeoff Qty: 1.000 LS
Bid Qty: 1.000 LS

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
U. Cost	1,529.65	130.78	1,660.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,660.43
Total	1,529.65	130.78	1,660.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,660.43

Activity: 175210 Builders Risk Premium Quantity: 19.1 Unit: M\$

Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZ5507 Street/Road Grading

Notes: Cost calculated on the cover sheet.

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
ZZ	ALLOWANCES	1.00	0.00	LS	0.00	100.00	0.00	0.00

Activity: 190995 Area/Region Supervision Quantity: 233 Unit: MH

Calendar: 401 5 DPW-8 HPS-1 SPD Hrs/Shift: 8 WC: AZ8742 Salesmen

Resource	Description	Pcs/Wste	Quantity	Unit	Unit Cost	Tax/OT %	Actual UC	Total
Z*TH	Total Labor Hours	1.00	250.04	LBHR	6.00	100.00	6.64	1,660.43

Report Summary

	Base Labor	Burden	Total Labor	Equipment	Perm Matls	Const Matls	Sub	Hauling	GC Matl	JV Partner	Total
Total	3,975	382	4,357	795	625	203	720	0	0	0	6,701

Job Notes

2015 AZ Equipment

Labor Rates Updated on 10-28-14 by RP.

W/C = \$8.55 / \$100/payroll

PL/PD = \$9.93 / \$100/payroll

H & W = \$8.31 / MH

Calendars Used In Estimate

401	5 DPW-8 HPS-1 SPD
1HR	1 Hour of Straight Time