

COUNCIL AGENDA: NOVEMBER 4, 2014

SUBJECT: AUTHORIZATION TO ADVERTISE FOR BIDS – TRANSIT MAINTENANCE & CNG FUELING FACILITY EXPANSION PROJECT

SOURCE: Public Works Department - Engineering Division

COMMENT: Plans and Project Manual have been prepared for the Transit Maintenance & CNG Fueling Facility Expansion Project. The Base Bid includes constructing a minimum of twenty (20) new "time fill" CNG dispenser locations for use by the City's expanding CNG-vehicle fleet. The expansion will include connections to existing upstream CNG-supply headers, routing of new distribution headers, location and configuration of new time-fill stations, supporting electrical work for under canopy lighting, and emergency shutdown buttons at the new dispensing areas.

The expansion project will include civil construction work as well as structural work. The civil elements of the project will include grading, infill and paving of existing ponds, concrete improvements, installation of storm drainage system, and water main for fire protection. The structural aspect of the project will consist of installing two new pre-engineered canopies. The new canopies will generally match existing canopies. There will also be construction of structural support for the new CNG-fueling dispensers. The CNG Expansion Project includes installation of solar panels on the pre-engineered canopies; however, these solar panels or Solar Photovoltaic Systems are intended as add alternates. The add alternates are listed as follows:

CNG Fueling Facility Expansion Project Add Alternates.

- Add Alternate A – Installation of "Solar Photovoltaic System 1" 40 kilowatt system.
- Add Alternate B - Installation of "Solar Photovoltaic System 2" 40 kilowatt system.
- Add Alternate C - Installation of "Solar Photovoltaic System 3" 40 kilowatt system.
- Add Alternate D – Installation of "Solar Photovoltaic System 4" 40 kilowatt system.

The Plans and Project Manual have been completed and are available in the Pete V. McCracken Conference Room for Council's review.

The Estimate of Probable Cost for construction of the Base Bid is \$1,081,617.20. An additional \$108,161.72 is needed for the construction contingency (10%) and an additional \$54,080.86 is needed for construction management, quality control and inspection (5%). The total

Dir *AKK* Appropriated/Funded *ME* CM *J* Item No. 2  
*ARAD*

estimated cost associated with the Base Bid is \$1,243,859.78. Should the City receive a favorable bid, Add Alternates A, B, C and D will be added in the order listed to the extent budgeted funds will allow. An Estimate of Probable Cost is attached for Council's review.

Funding was approved in the 2014/2015 Annual Budget for CNG Facility Expansion. However, staff will be asking for a budget augmentation to offset the Local Transportation Fund (LTF) original allocation.

Funds for the CNG Expansion Project will come from a FTA Grant in the amount of \$1,135,228 (Section 5307 Federal Funding), Solid Waste Fund in the amount of \$300,000, which requires a budget augmentation, for the grant matching component and LTF monies in the amount of \$386,000, for a total project budget of \$1,821,228.

RECOMMENDATION: That the City Council:

1. Approve staff's recommended plans and project manual;
2. Authorize staff to advertise for bids on the project;
3. Authorize the Finance Director to appropriate Solid Waste Funds in the amount of \$300,000.

ATTACHMENTS: Estimate of Probable Cost  
Locator Map

CITY OF PORTERVILLE TRANSIT MAINTENANCE CNG FACILITY EXPANSION PROJECT  
 ENGINEER'S ESTIMATE OF PROJECT COST  
 CITY OF PORTERVILLE

10/24/2014

BASE BID						
ITEM NO.	DESCRIPTION	QUANTITY	UNIT		UNIT PRICE	TOTAL PRICE
1	Mobilization and Demobilization (Total Project)	1	LS	\$	60,000.00	\$ 60,000.00
2	Site Barricades	1	LS	\$	1,000.00	\$ 1,000.00
3	Demolition Clearing and Grubbing	1	LS	\$	5,000.00	\$ 5,000.00
4	Earthwork (grading & compaction) Fill Both Ponds	20468	CY	\$	4.00	\$ 81,872.00
5	4' Wide Valley Gutter Per City Std. C-9	1720	SF	\$	10.00	\$ 17,200.00
6	Barrier Curb Per City Std. C-3	430	LF	\$	12.00	\$ 5,160.00
7	Valley Gutter Drainage Inlet Per Detail on Plans	1	EA	\$	2,500.00	\$ 2,500.00
8	Connect to Existing Storm Drain Manhole	1	EA	\$	1,000.00	\$ 1,000.00
9	Adjust Existing Storm Drain Manhole to Finish Grade	3	EA	\$	1,000.00	\$ 3,000.00
10	18" Class III RCP Storm Drain Pipe	112	LF	\$	70.00	\$ 7,840.00
11	2X6 Redwood Header Per Detail on Plans	305	LF	\$	10.00	\$ 3,050.00
12	3/4" Crushed Rock Section	95	CY	\$	20.00	\$ 1,900.00
13	6" Thick Class II Aggregate Base	845	CY	\$	65.00	\$ 54,925.00
14	4" Thick Type A Asphalt Concrete	1255	Tons	\$	100.00	\$ 125,500.00
15	Prefabricated Parking Structures Per Specifications	2	EA	\$	187,500.00	\$ 375,000.00
16	Remove and relocate Fire Hydrant and relocate fence to 3' clear of new hydrant location	1	LS	\$	1,500.00	\$ 1,500.00
17	6" Water Main including replacement of concrete improvements	1306	LF	\$	30.00	\$ 39,180.00
18	Fire Hydrant Assembly including tee, gate valve, run out piping and bollards	1	EA	\$	6,000.00	\$ 6,000.00
19	6"x6"x6" Tee	2	EA	\$	500.00	\$ 1,000.00
20	6" Gate Valve	1	EA	\$	1,000.00	\$ 1,000.00
21	6" 45 Degree Elbow	1	EA	\$	500.00	\$ 500.00
22	6" 90 Degree Elbow	1	EA	\$	600.00	\$ 600.00
23	6" 22.5 Degree Elbow	1	EA	\$	500.00	\$ 500.00
24	Blow off per City Standard W-5.1	2	EA	\$	1,000.00	\$ 2,000.00
<b>City of Porterville Civil Portion Subtotal</b>						<b>\$ 797,227.00</b>

Primary Mechanical-CNG Equipment and Components						
25	CNG mass flow meter MicroMotion # CNG-050	1	EA	\$	12,392.55	\$ 12,392.55
27	Time Fill Assembly(Single hose installed overhead in Canopy)	36	EA	\$	3,824.58	\$ 137,684.88
28	Ventilator	6	EA	\$	1,509.61	\$ 9,057.66
Pipe, Tubing, Valves and Regulators						
30	Pipe sleeve, sch 40 PVC	290	LF	\$	2.27	\$ 658.00
31	Pipe, stainless steel, tubing, .065 wall, 1/2", type 316, excludes joints and hangers	815	LF	\$	12.93	\$ 10,535.51
32	Pipe / tubing supports, Unistrut 1 5/8" galvanized, in Overhead canopy installation	525	LF	\$	7.94	\$ 4,167.45
33	Valves, stainless steel, ball, threaded, 3-piece, 6000 PSIG, 1/2"	6	EA	\$	211.83	\$ 1,271.00
Civil & Structural Work						
35	Mobilization or demobilization, dozer, loader, backhoe or excavator, 70 H.P. to 250 H.P., up to 50 miles	2	EA	\$	257.10	\$ 514.20
36	Site demolition, remove concrete, rod reinforced, to 6" thick, excludes hauling and disposal fees - trench new U.G. SS tubing sleeves	16.7	S.Y.	\$	18.16	\$ 303.20
37	Parking barriers, pipe bollards, concrete filled/painted, 8' L x 4' D hole, 6" diam.	2	EA	\$	564.24	\$ 1,128.47
38	Utility vaults, precast concrete, 18" x 24" x 18" deep excludes excavation and backfill	1	EA	\$	2,878.70	\$ 2,878.70
39	Concrete sawing, concrete, existing slab, mesh reinforcing, for each additional inch of depth over 3"	150	LF	\$	1.23	\$ 184.24
<b>Subtotal Equipment and Installation</b>						<b>\$ 180,775.85</b>
General Contractor's markup on sub@12% assuming 50% subcontracting						\$ 10,846.55
General Conditions@ 11%						\$ 19,885.34
Subtotal Project Cost						\$ 211,507.75
Contingency 8%						\$ 16,920.62
<b>Total Equipment and Installation Project Cost</b>						<b>\$ 228,428.37</b>

Electrical Equipment, Conduit, & Wiring						
41	Stranded copper building wire # 3/0	15	CLF	\$	764.85	\$ 11,472.73
42	Type THWV 600 volt Stranded copper building wire #10	1.5	KLF	\$	865.77	\$ 1,298.66
43	Schedule 40 PVC conduit, 10' lengths with coupling 1"	1.5	CLF	\$	409.59	\$ 614.38
44	Schedule 40 PVC conduit, 10' lengths with coupling 2"	1	CLF	\$	694.69	\$ 694.69
45	NEMA 4 pushbutton station Emergency Shutdown, Div 2	12	EA	\$	297.84	\$ 3,574.04
46	Two-lamp enclosed-gasketed fluorescent fixtures for damp locations 48" high output	22	EA	\$	261.18	\$ 5,746.06
47	Two-lamp Class 1, Div 2 fluorescent fixtures 48" high output	22	EA	\$	1,007.31	\$ 22,160.93
48	Galvanized cast metal conduit seal 1"	1	EA	\$	68.75	\$ 68.75
49	Fluorescent bracket-mounted exterior wall pack 42W CFL	6	EA	\$	260.24	\$ 1,561.45
50	Standard wall galvanized rigid steel conduit 1"	1.5	CLF	\$	1,440.29	\$ 2,160.44
51	Copper plated stainless steel ground rod 5/8" x 10'	8	EA	\$	135.27	\$ 1,082.18
52	Round Grounding Test Well 10" Diameter	4	EA	\$	110.02	\$ 440.09
<b>Electrical Work Subtotal</b>						<b>\$ 50,874.39</b>
10% Electrical Work Estimating Contingency						\$ 5,087.44
<b>Electrical Work Total</b>						<b>\$ 55,961.83</b>

<b>Total Engineer's Estimate(Base Bid)</b>	<b>\$ 1,081,617.20</b>
10% Construction Contingency	\$ 108,161.72
5% Staff Time & Testing	\$ 54,080.86
<b>Total Construction Estimate(Base Bid)</b>	<b>\$ 1,243,859.78</b>

Add Alternate 'A'					
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
A1	Solar Photovoltaic System 1 40kw System	1	EA	\$ 209,440.00	\$ 209,440.00
<b>Total Engineer's Estimate (Add Alternate)</b>					<b>\$ 209,440.00</b>
10% Construction Contingency					\$ 20,944.00
5% Staff Time & Testing					\$ 10,472.00
<b>Total Construction Estimate (Add Alternate)</b>					<b>\$ 240,856.00</b>

Add Alternate 'B'					
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
B1	Solar Photovoltaic System 2 40kw System	1	EA	\$ 209,440.00	\$ 209,440.00
<b>Total Engineer's Estimate (Add Alternate)</b>					<b>\$ 209,440.00</b>
10% Construction Contingency					\$ 20,944.00
5% Staff Time & Testing					\$ 10,472.00
<b>Total Construction Estimate (Add Alternate)</b>					<b>\$ 240,856.00</b>

Add Alternate 'C'					
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
C1	Solar Photovoltaic System 3 40kw System	1	EA	\$ 209,440.00	\$ 209,440.00
<b>Total Engineer's Estimate (Add Alternate)</b>					<b>\$ 209,440.00</b>
10% Construction Contingency					\$ 20,944.00
5% Staff Time & Testing					\$ 10,472.00
<b>Total Construction Estimate (Add Alternate)</b>					<b>\$ 240,856.00</b>

Add Alternate 'D'					
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
D1	Solar Photovoltaic System 4 40kw System	1	EA	\$ 209,440.00	\$ 209,440.00
<b>Total Engineer's Estimate (Add Alternate)</b>					<b>\$ 209,440.00</b>
10% Construction Contingency					\$ 20,944.00
5% Staff Time & Testing					\$ 10,472.00
<b>Total Construction Estimate (Add Alternate)</b>					<b>\$ 240,856.00</b>

<b>Electrical Work Subtotal(Add Alternate "A1","B1","C1","D1")</b>	<b>\$ 963,424.00</b>
10% Electrical Work Estimating Contingency	\$ 96,342.40
<b>Electrical Work Total Cost(Add Alternate "A1","B1","C1","D1")</b>	<b>\$ 1,059,766.40</b>

**TOTAL CONSTRUCTION ESTIMATE (BASE+ALTERNATE "A1","B2","C1","D1")** \$ **2,303,626.18**

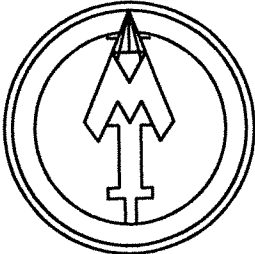
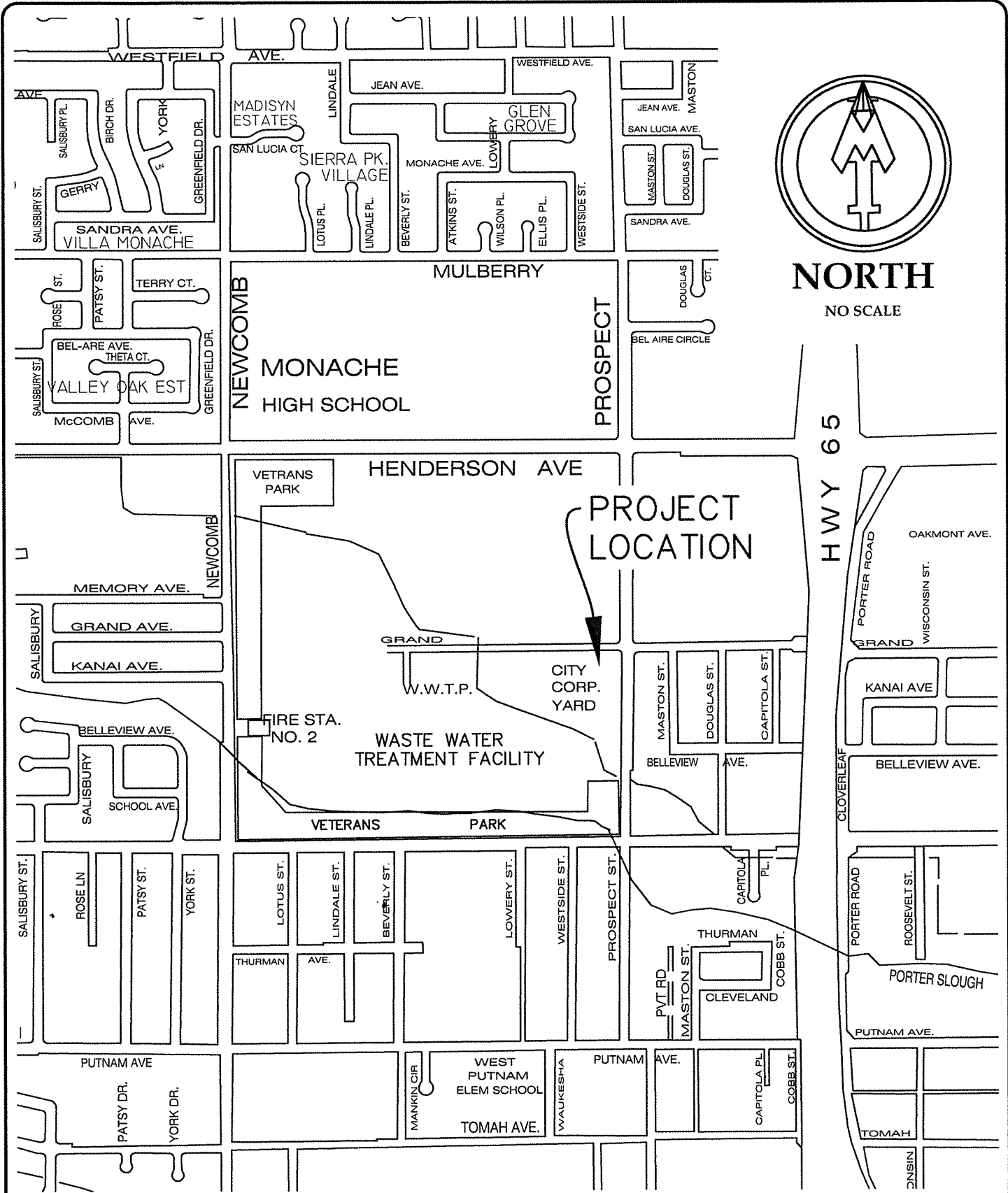
*Vicente Santamaria*  
Project Manager 10-23-14  
Date

*Michael K. Reed*  
Michael K. Reed, City Engineer/Deputy Public Works Director 10-23-14  
Date

*Baldomero Rodriguez*  
Baldomero S. Rodriguez, Public Works Director 10/24/14  
Date

*J. D. Lolis*  
John D. Lolis, City Manager 10/28/14  
Date





**NORTH**

NO SCALE

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**Transit CNG  
 Fueling Facility  
 Expansion Project**