



# Memorandum

**TO:** HONORABLE MAYOR AND  
CITY COUNCIL

**FROM:** Katy Allen  
James R. Helmer

**SUBJECT:** SEE BELOW

**DATE:** 05-31-05

Approved

Date

6/8/05

Council District: 3

**SUBJECT: TRAFFIC SIGNAL MODIFICATION AT AIRPORT PARKWAY AND TECHNOLOGY DRIVE PROJECT**

## RECOMMENDATION

Report on bids and award of contract for the Traffic Signal Modification at Airport Parkway and Technology Drive Project to the lowest responsive bidder, San Jose Signal Electric Construction, Inc., in the amount of \$205,000, and approval of a contingency in the amount of \$20,500. CEQA: Resolution No. 65071, PP05-074.

## BACKGROUND

The Route 87 Freeway Project requires modification of the Airport Parkway and Technology Drive intersection. This mitigation was required by the Project Environmental Impact Report. The scope of this traffic mitigation consists of adding a second left-turn lane at the westbound and the southbound approaches. This traffic signal modification will accommodate the increase in the volume of traffic leading to the new Skyport Drive interchange and to Highway 101. This project includes the installation of signal poles, signal display equipment, conduit and electrical systems, vehicular and pedestrian detection systems, street lighting and related improvements.

Construction is scheduled to begin in August with completion in December.

**ANALYSIS**

Bids were opened on May 12, 2005 with the following results:

<u>Contractor</u>	<u>Total Bid</u>	<u>Variance Amount</u>	<u>Over/(Under) Percent</u>
Brown & Fesler, Inc. (Livermore)	\$270,118	\$70,118	35
Beltramo Electrical Services, Inc. (San Martin)	257,310	57,310	29
St. Francis Electric (San Leandro)	238,719	38,719	19
Tennyson Electric, Inc. (Hollister)	207,234	7,234	4
San Jose Signal Electric Construction, Inc. (San José)	205,000	5,000	3
<b>Engineer Estimate</b>	<b>200,000</b>	--	--
Prism Engineering, Inc. (Santa Clara)	199,150 *	(850)	(0)

\* There was a mathematical error of \$ 200 in the summary of the bid from Prism Engineering. The correct bid from Prism Engineering should be \$199,150. The actual sum of all 16 line items from Prism Engineering’s bid is \$199,150, but the amount written down by Prism Engineering is \$199,350. Section 2-1.05 of the Standard Specifications, titled “Proposal Forms,” provides that in such situations, the actual sum of the extended prices prevails.

Staff recommends that the Council reject the bid of the apparent low bidder, Prism Engineering, as being “unbalanced” and, therefore, not responsive. Staff recommends that the construction contract be awarded to the lowest responsive bidder, San Jose Signal Electric Construction, Inc. The low bid submitted by San Jose Signal Electric is 3 percent above the Engineer’s Estimate. Staff considers this reasonable for the work to be performed.

Section 2-1.06 of the Standard Specifications, titled “Rejection of Proposal,” provides that the City may reject a bid if it shows “a disproportionate amount of payment being made on any item of work during any phase of the project. . . .” This is commonly known as an “unbalanced bid.” Unbalanced bids are generally undesirable to the owner for three reasons:

1. Unreliable contractors may increase their bid prices for the early items of work to be completed, with corresponding reductions elsewhere in the bid, with the intention of receiving excessive early payments, then defaulting on the contract. This could leave the surety to complete the contract with insufficient funds remaining in the contract.

2. The contractor may refuse to do work for which he has bid unreasonably low prices, and instead attempt to do the work using bid items where he has bid higher prices and thereby obtain an increased and unearned profit from the City.
3. When the contractor believes that the Engineer's Estimate for certain items is low, by unbalancing his bid in favor of these items, he can again obtain an increased and unearned profit from the City.

Prism's bid is extremely unbalanced, resulting in a significant risk to the City.

The bid quantity sheet for this project contains 16 line items. The base work is set forth in line item 16, which is the line item for the traffic signal modification; line item 3, which is the line item for traffic control; and line item 11, which is for record drawings. These are the items of work that the contractor must perform and for which the City MUST pay. Thirteen of the items on the bid quantity sheet are revocable, which means that the City may or may not have the contractor perform the work. The lowest bidder is determined based upon the sum of the base work and revocable items.

Staff believes that the bid submitted by Prism reflects a disproportional amount of payments on the base work versus the work on the revocable items. Section 1 of Attachment "A" of this memorandum compares the bids submitted on the base work. A comparison of the bids for the base work demonstrate that three of the remaining five contractors submitted bids lower than the one submitted by Prism for this work. Prism's bid for the base work ranges from approximately 10 percent to 22.6 percent higher than these other three bids. Prism's bid is \$33,430 higher than the one submitted by San Jose Signal Electric for the same work.

The spread between the bids for the base work analyzed in conjunction with Prism's bid on the revocable items demonstrates that costs were shifted from the revocable items to the base work. Section 2 of Attachment "A" sets forth the bid results for the revocable work. For some of the revocable items, there is a considerable spread in the bids submitted by the various contractors. However, the one constant is that Prism's bid on EVERY item of revocable work, except for one, is significantly lower than any of the other bidders. For example, Prism's bids on line items 8 through 10 and 12 through 14 are from 80 to 97.5 percent lower than the next lowest bid for the same work. Prism's bids on line items 2, 5, 6 and 7 range from 50 to 75 percent lower than the next lowest bidder. Even on line item 15, where Tennyson Electric submitted the low bid, Prism's bid was 50 to 80 percent lower than the remaining three bidders.

The imbalance between Prism's bid on the base work and the revocable items results in the City bearing all the risk of having the contractor perform or not perform the revocable items. For example, if the City does not have Prism perform any of the revocable items, then the City will end up paying Prism substantially more than it would have had to pay three other bidders for the same work. On the other hand, if the City requires Prism to perform some of the revocable work, Prism will be partially compensated by its higher bid on the base work. In effect, the City would be prepaying Prism to perform the revocable work.

In short, staff recommends that Prism's bid be rejected as non-responsive pursuant to Section 2-1.06 of the Standard Specification and that the construction contract be awarded to lowest responsive bidder, San Jose Signal Electric.

Council policy provides for a standard contingency of ten percent on public works projects involving traffic signal systems. The standard contingency is appropriate for this project. The funds budgeted for this project are sufficient to provide for the recommended contingency.

### **OUTCOME**

Award of the construction contract to San Jose Signal Electric will enable this project to move forward to construction. Approval of the ten-percent contingency will allow funding for unforeseen conditions encountered during construction of the project.

### **PUBLIC OUTREACH**

This project public outreach was coordinated with Council District 3, the Airport, and immediate businesses at the intersection.

To solicit contractors, this project was listed on the City's Internet Bid Line and advertised in the *San José Post Record*. Bid packages for all Department of Public Works construction projects are provided to various contractor organizations and builder's exchanges.

### **COORDINATION**

This project and memorandum have been coordinated with the City Attorney's Office, the City Manager's Budget Office and the Department of Planning, Building and Code Enforcement.

### **COST IMPLICATIONS**

1. COST OF RECOMMENDATION: \$205,000

2. COST OF PROJECT:

Project Delivery	\$ 75,000
Construction	205,000
Contingency	<u>20,500</u>
<b>TOTAL PROJECT COSTS</b>	<b>\$300,500</b>

Prior Year Expenditures	\$1,225
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<b>REMAINING PROJECT COSTS</b>	<b>\$299,275</b>
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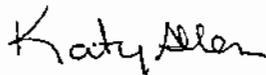
- 3. SOURCE OF FUNDING: 429 – Building and Structure Construction Tax Fund
- 4. FISCAL IMPACT: This project is consistent with the Council-approved Budget Strategy Economic Recovery section in that it will spur construction spending in our local economy. Upon completion, the project will have no additional operating and maintenance costs on the general fund.

**BUDGET REFERENCE**

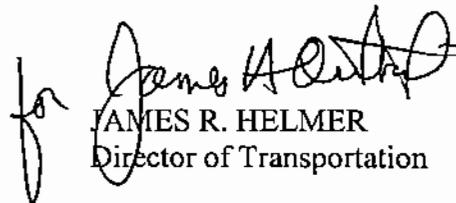
Fund #	Appn #	Appn. Name	RC #	Total Appn.	Amt. for Contract	Adopted Budget Page	Last Budget Action (Date, Ord. No.)
429	6211	Route 87 Caltrans Design and Construction Support	125165	\$398,000	\$205,000	V-992	10/12/04, Ord. No. 27267
<b>Total Current Funding Available</b>				<b>\$398,000</b>	<b>\$205,000</b>		

**CEQA**

Resolution No. 65071, PP05-074.



KATY ALLEN  
Director, Public Works Department



for JAMES R. HELMER  
Director of Transportation

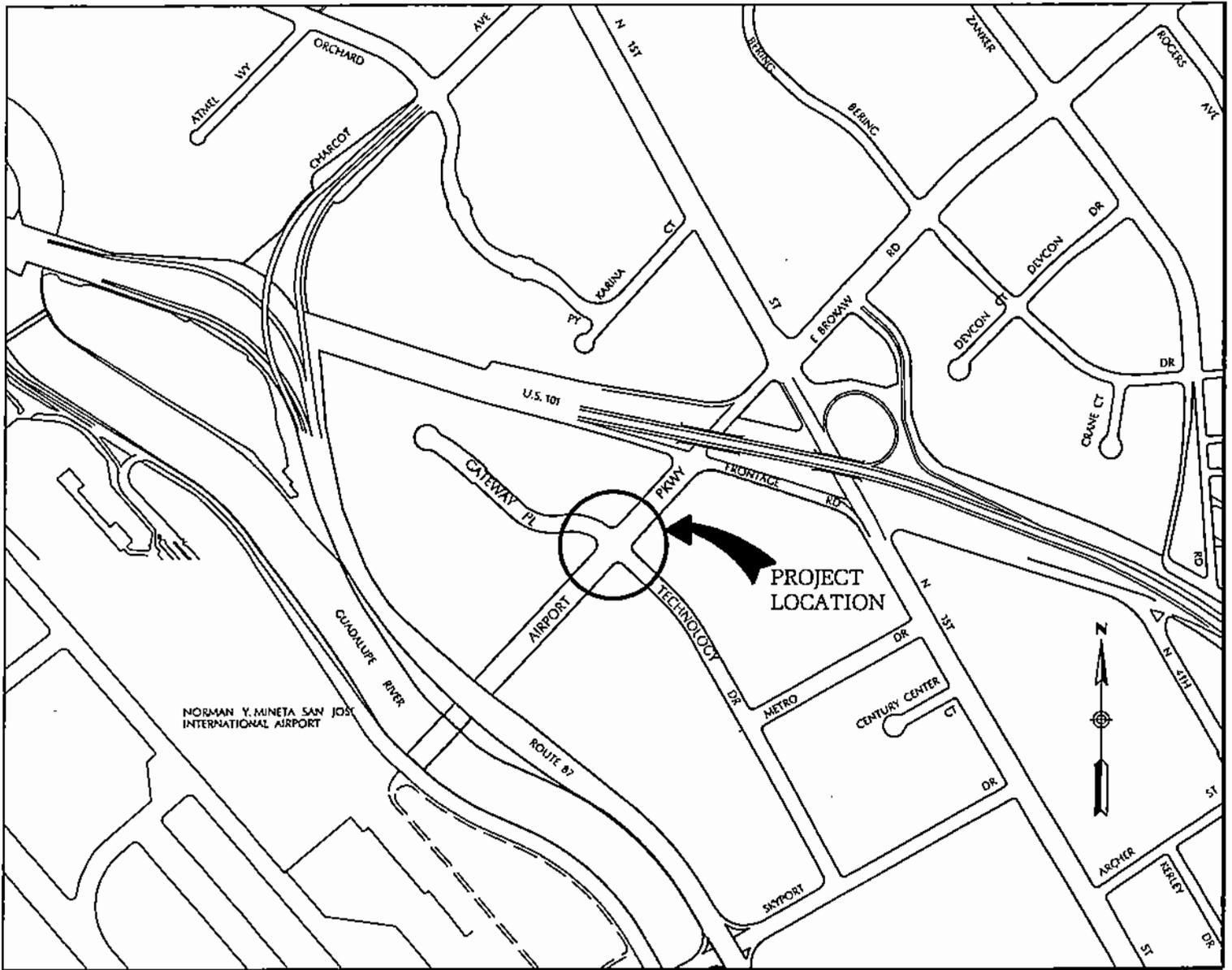
**Attachment "A"**

**Section 1 – Bids On Base Work**

Item No.	Item Description	Prism	San Jose Signal Electric	Tennyson Electric	St. Francis Electric	Beltramo Electric	Brown & Fessler	Engineer's Estimate
16	Traffic Signal Modification	\$169,370	\$142,190	\$155,914	\$160,680	\$179,000	\$189,806	\$134,889
11	Record Drawings	\$1,500	\$250	\$1,500	\$100	\$200	\$350	\$206
3	Traffic Control	\$10,000	\$5,000	\$4,500.00	\$2,500	\$5,500	\$6,587	\$3,541
	Total Base Bid	\$180,870	\$147,440	\$161,914	\$163,280	\$184,700	\$196,743	\$138,636

**Section 2 – Bids On Revocable Work**

Item No.	Item Description	Prism	San Jose Signal Electric	Tennyson Electric	St. Francis Electric	Beltramo Electric	Brown & Fessler	Engineer's Estimate
2	Additional Potholing	\$500	\$2,000	\$2,500	\$3,000	\$2,500	\$3,500	\$4,4950
5	Striping Removal	\$530	\$1,060	\$1,590	\$3,339	\$1,060	\$5,300	\$2,565
6	Asphalt Concrete Pavement	\$2,000	\$17,500	\$5,000	\$16,050	\$8,750	\$15,000	\$7,100
7	Street Name Sign	\$400	\$2,000	\$1,000	\$4,400	\$1,800	\$1,400	\$880
8	Wheelchair Ramp	\$200	\$10,000	\$13,000	\$8,000	\$12,000	\$12,000	\$9,292
9	Additional A2 Curb & Gutter	\$200	\$4,500	\$2,500	\$6,100	\$6,500	\$7,500	\$3,410
10	Additional PCC Sidewalk	\$200	\$1,800	\$1,000	\$3,000	\$3,200	\$4,000	\$2,834
12	Additional 2" Conduit	\$100	\$1,000	\$800	\$3,000	\$5,000	\$1,800	\$2,860
13	Additional 3" Conduit	\$300	\$3,000	\$2,700	\$12,000	\$15,000	\$5,400	\$9,900
14	Additional #6 Pull Box	\$100	\$800	\$1,200	\$2,200	\$2,000	\$1,800	\$1,588
15	Additional#8 Conductors	\$150	\$300	\$30	\$750	\$300	\$675	\$240



**TRAFFIC SIGNAL MODIFICATION  
AT  
AIRPORT PKWY & TECHNOLOGY DR**