

Continued November 18, 1987

CITY COUNCIL MEETING
NOVEMBER 18, 1987

PURCHASE OF
ELECTRONIC DISTANCE
MEASUREMENT SYSTEM
APPROVED

CC-12(d)
CC-20
CC-47

Council was apprised that the 1986/87 Budget included funds for an Electronic Distance Measurement System. The system consists of an electronic theodolite (a surveying instrument for measuring horizontal and vertical angles), an infrared distance meter, an electronic data collector, associated computer software, and miscellaneous accessories. The system will greatly increase the productivity of the surveying and topographic drafting function of the Engineering Division. The Request for Proposals for the system was approved by the City Council at its September 30, 1987 meeting.

The following proposals were received on October 23, 1987:

VENDOR	HARDWARE	SOFTWARE	TOTAL PRICE*
Surveyor's Service Co. Costa Mesa	Topcon ETL-1 w/DMA-2 Instrument	Maptech	\$20,071.42
California Drafting & Surveying Co. Sacramento	Lietz DT2 w/Red Mini-2 Instrument Lietz SDR2 Data Collector	Maptech	20,100.33
Surveyor's Service Co. Sacramento	Topcon GTS3-B Instrument Hewlett-Packard 71B/Topcon Propac Data Collector	Maptech	20,851.58
California Drafting & Surveying Co. Sacramento	Lietz Set 3 Instrument Lietz SDR2 Data Collector	Maptech	21,505.36
Lewis & Lewis Ventura	Lietz Set 3 Instrument Lietz SDR2 Data Collector	Lewis & Lewis	22,357.00

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*Prices adjusted for sales tax if not shown in proposal and estimated training if not included.

VENDOR	HARDWARE	SOFTWARE	TOTAL PRICE*
Haselbach Surveying	Wild T-1000 w/DI 1000 Instrument	Wild	25,864.00
Burlingame	Wild GRE-4 Data Collector		
Langham Mathis San Jose	Lietz Set 3 Instrument Lietz SDR2 Data Collector	Maptech	25,909.00
Langham Mathis San Jose	Lietz Set 2 Instrument Lietz SDR2 Data Collector	Maptech	27,816.00
Langham Mathis San Jose	Lietz Set 3 Instrument Lietz SDR2 Data Collector	PacSoft	29,587.00
Langham Mathis San Jose	Lietz Set 2 Instrument Lietz SDR2 Data Collector	Pacsoft	31,495.00
Land Innovation -- Maple Grove, MI (Software Only)		Site Comp 4	10,424.00

In reviewing the proposals, engineering staff received demonstrations of the Lietz, Topcon, and Wild instruments and Maptech and Wild software. The instruments are all fine pieces of equipment and would do fine as a stand-alone theodolite/electronic distance measurement device. Based on conversations with other surveyors, Wild is probably slightly better in overall quality, primarily in service life and long-term compatibility of equipment models.

The data collector is the link between the instrument and the computer. The Lietz and Wild collectors are dedicated units matched to their respective manufacturer's instruments. The Topcon Propac is a combination of an HP-71 hand-held computer and Topcon field case. The proposed unit includes Topcon and Maptech software. The dedicated units have an advantage in that they can take full advantage of the instrument's features.

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The software includes the necessary data transfer, coordinate geometry, plotting and miscellaneous surveying programs. The Maptech, Wild, and Lewis & Lewis programs all run on MS-DOS (IBM compatible) microcomputers. The PacSoft and Site Comp 4 programs run on Hewlett-Packard Engineering Workstations. The City does not have one of these computers, however, the proposals include the necessary "cards" to run the software on the Engineering Division's Hewlett-Packard Vectra (MS-DOS, IBM compatible) microcomputer.

Wild, PacSoft and Site Comp 4 have the most advanced features, particularly for plotting topography. To be comparable, Maptech and Lewis & Lewis would require the addition of "AutoCAD", another generic computer drafting program. This program costs approximately \$3,000.00 with the necessary interface program. The Wild software does not include contouring and earth work modules. Contouring will be available in December 1987 and earth work in mid-1988.

Staff recommends purchase of the Wild system. Staff feels it is worth the marginal additional cost and will be the best system to fulfill our needs. Some of the reasons are:

- Single Vendor - Wild Company and their representative, Haselbach Surveying, can respond to questions on the entire system. There are no compatibility or interface problems.
- Software Operation - The software was clear, easy to operate, and handled errors well. No additional processors are required as with PacSoft and Site Comp 4.
- Software Copy Protection - The Wild software can be installed on multiple computers, use is limited to one by a "key" disc. Maptech allowed only one installation. The key disk system is more flexible in our situation.

Funding in the amount of \$21,700 for this purchase was provided in the 1987/88 Budget. The source consisted of a combination of street (TDA, 30%), storm drain (30%), sewer (20%), and water (20%) funds. In the preparation of the budget request nearly a year ago, primary attention was given to the equipment since software changes rapidly. As a consequence, the amount estimated for software is insufficient. The software will be initially used for design of the storm drain basins and various parks projects requiring extensive topographic surveying. This software could be charged to the master storm drain fund.

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Addressing the Council regarding the merits of his equipment was Mr. Marc Severson, 4737 Auburn Boulevard, Sacramento, California, representing California Drafting and Surveying Company.

Following discussion, on motion of Council Member Pinkerton, Hinchman second, Council approved the purchase of the Wild electronic distance measurement system and authorized the allocation for the purchase of the software from the Master Storm Drain Fund.



CITY OF LODI

PUBLIC WORKS DEPARTMENT

COUNCIL COMMUNICATION

TO: City Council

FROM: City Manager

MEETING DATE: November 18, 1987

AGENDA TITLE: Approve Purchase of Electronic Distance Measurement System

RECOMMENDED ACTION: That the City Council approve the purchase of the Wild electronic distance measurement system.

BACKGROUND INFORMATION: The 1986/87 Budget included funds for an Electronic Distance Measurement System. The system consists of an electronic theodolite (a surveying instrument for measuring horizontal and vertical angles), an infrared distance meter, an electronic data collector, associated computer software, and miscellaneous accessories. The system will greatly increase the productivity of the surveying and topographic drafting function of the Engineering Division. The Request for Proposals for the system was approved by the City Council at its September 30, 1987 meeting.

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APPROVED:

Thomas A. Peterson
THOMAS A. PETERSON, City Manager

FILE NO.

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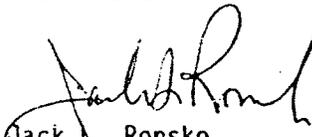
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Jack A. Ronsko
Public Works Director

JLR/RCP/ma

cc: Vendors