



PUBLIC WORKS DEPARTMENT

Council Meeting Date: June 17, 2008
Staff Report #: 08-078

Agenda Item #: D2

CONSENT: Award of Contract to Graniterock Company in the Amount of \$3,295,880 for the Street Resurfacing Project for Fiscal Year 2007-08; and Authorization of a Project Budget in the Amount of \$4,160,000 for Construction, Contingencies, Material Testing, and Construction Administration.

RECOMMENDATION

Staff recommends that the City Council:

1. Award the contract for the Street Resurfacing Project for Fiscal Year 2007-08 to Graniterock Company in the amount of \$3,295,880; and
2. Authorize a project budget in the amount of \$4,160,000 for construction, contingencies, material testing, and construction administration.

BACKGROUND

The City's biennial street maintenance project provides for the preventive maintenance of street pavement and the repair of failed pavement sections by slurry seal treatment, asphalt concrete overlay treatment, or by complete reconstruction of selected streets.

Slurry seal treatment involves the application of a slurry-sand emulsion that seals the street surface against water intrusion. In general, the slurry seal process is used on streets in reasonably good condition and where this relatively simple and economic method is expected to prolong the life of the pavement.

The asphalt concrete overlay treatment involves the application of a one-and-one-half inch to two inch (1½" to 2") thick asphalt concrete resurfacing layer. This treatment is more expensive than a slurry seal and is used on streets showing a higher than moderate amount of "alligator" cracking or other types of distress. It is used where a slurry seal treatment is deemed inadequate for protecting the road base.

Street reconstruction involves the complete replacement of the asphalt concrete pavement. The existing pavement is ground down to the base and new asphalt concrete is placed. This treatment is the most expensive. It is utilized where widespread pavement failure exists or where the cost of performing numerous isolated repairs within a particular roadway segment approaches that of a complete reconstruction.

Street Selection And Pavement Management Methodology

In order to be eligible for regional funding for pavement maintenance and rehabilitation, the City uses a computerized Pavement Management Program approved by the Metropolitan Transportation Commission (MTC) for selecting streets for maintenance.

In the past, public works agencies adopted a “worst-first” maintenance strategy in which available funds were used for the streets that were in the worst condition within a street network. Pavement engineers have found that it is less costly to provide periodic maintenance to street pavements during their life than to allow them to deteriorate to a condition in which reconstruction and or an asphalt concrete overlay is the only viable option for returning the pavement to a serviceable condition. The MTC worked with the American Public Works Association and other agencies to develop a cost-effective pavement management program including methods for predicting pavement performance and the costs of maintaining street pavements. The results from the research indicated the following:

1. Every street has an economic life cycle, which is the period between when the street is new and when it has failed and needs to be replaced.
2. Once the street has failed, the only effective remedy is to reconstruct the street section, at significant cost.
3. Regularly scheduled preventive maintenance can significantly extend the life of the street.
4. An aggressive preventive maintenance program can delay by many years the time when a street needs to be overlaid and thereby reduce overall costs.
5. The cost of a preventive maintenance program depends on when the program starts in relationship to the age and condition of the street—the older the street section, the more expensive the required maintenance activity.
6. No matter when it is initiated, a preventive maintenance program is still the most economical way to extend pavement life, compared to waiting until a street has deteriorated to the point at which either an overlay or reconstruction is required.

The City’s computerized Pavement Management Program, which incorporates the above strategy, is an effective tool for minimizing maintenance costs while maintaining the City’s pavement network at a desirable level of service with the limited funds available. The systematic methodology used by the program allows staff to:

1. Evaluate the overall condition of the City’s pavement network;
2. Identify and prioritize pavement needs;
3. Evaluate maintenance and rehabilitation alternatives;
4. Develop annual work schedules; and
5. Determine current and long-range funding requirements.

Each year the approved budget amount for street resurfacing is entered into the Pavement Management Program. The program then predicts the best way of distributing the available funds among the streets needing preventive maintenance work or reconstruction. The program tends to focus on preventive maintenance work in order to protect the City’s investment in its streets that are still in good condition. As more funds are made available, the program focuses on streets in poor condition that need reconstruction. The program is statistically biased in the way it picks the streets to be

repaired and will, most of the time, pick streets that carry the most traffic, are considered collector streets, and function as inter-jurisdictional connectors.

Staff used the Pavement Management Program to develop the list of 34 streets proposed for this project. That list, including the treatment needed for each street, is shown in Attachment A. Streets that were selected by the program but have pending utility projects involving roadway excavation were removed from the list and will be addressed by future street resurfacing projects.

ANALYSIS

Summary of Contractor Selection Process

On May 7, 2008, the City issued a "Notice to Contractors" inviting qualified contractors to submit construction bid proposals for the project by June 3, 2008. Six contractors responded. Upon review of the submitted bids, staff determined Graniterock to be the lowest responsible bidder, with a bid of \$3,295,880. A summary of all the bid proposal amounts is included here as Attachment B.

Staff has reviewed Graniterock's references and is satisfied with the contractor's past performance. Staff recommends that the City Council award the contract to Graniterock.

IMPACT ON CITY RESOURCES

Because Graniterock's bid (\$3,295,880) is lower than the engineer's estimate (\$3,700,000) by almost 11-percent (\$404,120), staff is recommending that the City Council approve the addition of this amount to the 10-percent amount (\$330,000) typically allocated for contingencies on a project of this size. This additional contingency amount will be used to perform additional resurfacing work to the greatest extent that can be reasonably negotiated with the contractor.

Proposed Construction Budget:

Contract Amount	\$ 3,295,880
Contingency	\$ 734,120
Testing and Inspection Services	<u>\$ 130,000</u>
Total Construction Cost:	\$ 4,160,000

Project Funding:

Adequate funds are available as allocated by the FY 2007-08 budget for street resurfacing projects. The total approved budget is:

General Fund – CIP	\$ 2,500,000
Measure A	\$ 270,000
Highway Users Tax Fund	\$ 900,000
Traffic Congestion Relief	\$ 130,000
Construction Impact Fee	\$ <u>600,000</u>
Total Street Resurfacing Budget:	\$ 4,400,000

The difference between the total street resurfacing budget and this project's proposed construction cost will be used to fund a portion of the total cost of a separate street resurfacing project on Oak Grove Avenue and the City's cost share (\$138,725, owed to the Town of Atherton) for the recently completed resurfacing of Valparaiso Avenue.

POLICY ISSUES

The recommendation does not represent any change to existing City policy.

ENVIRONMENTAL REVIEW

The project is categorically exempt under Class I of the current State of California Environmental Quality Act (CEQA) Guidelines.



Lawrence M. Johmann
Senior Civil Engineer



Lisa A. Ekers
Engineering Services Manager

PUBLIC NOTICE: Public Notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting.

ATTACHMENTS: A. Planned Street Resurfacing Work
B. Bid Summary

ATTACHMENT A

Planned Street Resurfacing Work

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ROADWAY RECONSTRUCTION

TREATMENT TO BE APPLIED:

Remove approximately 2 to 3" section of existing asphalt concrete; compact base, overlay asphalt as required for proper grading; new markings and striping as required; no fabric.

NOTE: The reconstruction work for new street sections shall be not less than a minimum of 2" at its thinnest.

NO.	Street Name	Begin	End	Area (S.F.)
1	Alma Street	Waverly Street	Willow Road	47,320
2	Bay Laurel Drive	Amber Way	End of cul-de-sac	9,530
3	Castle Way	Windsor Avenue	End of Castle Way	8,400
4	Coleman Street	Willow Road	Santa Monica Avenue	35,700
5	Florence Lane	University Drive	Fremont Street	21,310
6	Fremont Street	Middle Avenue	Santa Cruz Avenue	52,730
7	Magnolia Street	Oakdell Drive	Stanford Avenue	25,120
8	Menalto Avenue	O'Connor	End of Menalto Avenue	46,000
9	Politzer Drive	Valparaiso Avenue	Elder Avenue	39,000
10	Poppy Avenue	Evergreen Street	Elder Avenue	20,000
11	Sharon Park Drive	Klamath Drive	Monte Rosa Drive	44,366
12	Sharon Park Drive	Monte Rosa Drive	385' E of Eastridge	73,650

ASPHALT CONCRETE OVERLAY

TREATMENT TO BE APPLIED:

Repair failed sections: 6" deep lift, compact base; 5' wedge cut, 25' conforms at intersections, 1-1/2" over-lay, new markings and striping as required; no fabric

NOTE: The new street section shall not be less than a minimum of 1-1/2" at its thinnest.

NO.	Street Name	Begin	End	Area (S.F.)
1	Alma Street	Burgess Drive	Waverly Street	22,800
2	Bay Road	Greenwood Drive	Del Norte Avenue	66,750
3	Bay Road	Del Norte Avenue	Ringwood Avneue	33,080
4	Bay Road	Berkelye Avenue	Van Buren Road	80,560
5	Chestnut Drive	Menlo Avenue	Santa Cruz Avenue	10,235
6	Chilco Street (1/3 section)	Last Island (Exact location to be determined by City Engineer in the field)	RR-Xing	67,622
7	East Creek Place	East Creek Drive	End of East Creek Place	7,660
8	Cotton Street	Middle Avenue	Santa Cruz Avenue	38,060
9	Crane Street	Oak Grove Avenue	Santa Cruz Avenue	11,760
10	Garwood Way	1518 Garwood Way (Exact location to be determined by City Engineer in the field)	Glenwood Way	15,700
11	Glenwood Avenue	Laurel Street	Garwood Way	25,740
12	Hermosa Way	Middle Avenue	Santa Cruz Avenue	47,492
13	Marcussen Dr	Oakgrove Avenue	Ravenswod Avenue	28,370
14	Menlo Avenue	University Drive	Doyle Street	46,000
15	Sharon Park Drive	385' E of Eastridge Avenue	Monte Rosa Drive	11,440
16	Sharon Park Drive	45' W of Monte Rosa Drive	385' E of Eastridge Avenue	12,195
17	University Drive	Valparaiso Avenue	Millie Avenue	36,780

SLURRY SEAL**TREATMENT TO BE APPLIED:**

Repair failed sections with 6" deep lift; compact base, grind existing markings and striping; slurry seal and replace markings and striping as required.

NO	Street Name	Begin	End	Area (S.Y.)
1	Chilco Street	2/3 length railroad track	Island (Exact locations to be provided by the Engineer in the field)	6,584
2	Christopher Way	Bay Road	Lorelei Lane	940
3	Coleman Place	Coleman Avenue	end of Coleman Place	2,260
5	Encinal Avenue	RR X-ing	Laurel Drive	5,365
5	Garwood Way	Encinal Avenue	1518 Garwood Way (Exact location to be determined by City Engineer in the field)	1,625
6	Helen Place	San Mateo Drive	End of Helen Place	560
7	Klamath Court	Siskiyou Drive	End of cu-de-sac	655
8	Laurel Street	Glenwood Avenue	Encinal Avenue	4,780
9	Laurel Street	20' North of Burgess	Willow Road	5,365
10	McKendry Drive	Blackburn Avenue	Marmona Drive	4,460
11	Oakdell Drive	Olive Street	Lemon Avenue	5,915
12	Oakdell Drive	Oak Knoll Lane	Santa Cruz Avenue	2,439
13	Ringwood Avenue	Bay Road	Van Buren Road	3,700
14	Trinity Court	Trinity Drive	End of Trinity Court	565
15	Willow Road	Alma Street	East Creek Drive	10,672

ATTACHMENT B

Bid Summary

STREET RESURFACING PROJECT 2007-08

Engineer's Estimate: \$3.7 Million

June 3, 2008

1. Graniterock Company	\$3,295,880
2. G. Bortolotto & Company	\$3,308,038
3. Granite Construction	\$3,425,425
4. O'Grady Paving, Inc.	\$3,511,725
5. Interstate Grading and Paving	\$3,646,790
6. C.F. Archibald	\$3,754,335