

TO: James L. App, City Manager
FROM: Doug Monn, Public Works Director
SUBJECT: Annual Street Maintenance
DATE: February 17, 2009

NEEDS: For the City Council to consider directing staff to engage the services of Pavement Engineering to assist staff in preparing bid documents for the City's annual street maintenance contract.

FACTS:

1. In 2007, the City engaged the services of Pavement Engineering to inventory all of the City's streets and determine their existing Pavement Condition Index (PCI). Based on their report, staff developed a 10 year plan prioritizing the City's maintenance program and index on the condition of the street, the traffic served and projected funding available (see attached). *Note: The Index ranges from 100 for excellent to 0 for very poor.*
2. At the request of President Obama, Congress is preparing a comprehensive economic recovery (stimulus) bill, which includes \$30 billion for highways, streets and roads.
3. SLOCOG has estimated that the City of Paso Robles could receive \$649,000 from the federal stimulus funds. Given the average condition of the City's streets, the \$649,000 would address approximately 1.7 miles of street, or less than 20% of the \$3,500,000 needed annually to keep the City's streets adequately maintained.
4. The funding is subject to the following requirements:
 - a) Projects must be on arterials and collectors;
 - b) Projects must be "shovel ready";
 - c) Projects must be awarded within 90 days of the date the Bill passes Congress and money is disbursed to cities (estimated to be in March/April);
 - d) Money must be used on new projects (i.e. not replace projects that are already funded);
 - e) Projects must clear federal environmental process (NEPA).
5. As noted in Fact #1 above, a 10 year priority plan for street maintenance has been prepared. Since the federal stimulus funds can only be used for arterials and collectors, it is proposed that the City begin design work for those streets on the 10 year plan.

ANALYSIS &

CONCLUSION: It is in the best interests of the City to initiate required field work and begin preparation of bid documents in order to have a "shovel ready" project to receive a share of federal stimulus funds. It is also critical that the City select a project that would clear the federal environmental process as quickly as possible. To that end, it

is proposed that the City propose use of federal stimulus funds for annual street maintenance and engage Pavement Engineering to begin field work and assist staff in preparing bid documents. Their fee is a not-to-exceed amount of \$57,030. The street segments proposed are as follows:

	<u>PCI</u>
21st Street, Vine to Riverside	28
10th Street, Riverside to Spring	45
Sherwood, Creston to Fontana	45
Oak Street, 1st to 10th	51

Pavement Engineering could complete their work 5–6 weeks from the issuance of a Notice to Proceed.

POLICY

REFERENCE: Adopted Pavement Management Program

FISCAL

IMPACT: Fund 200 (Gas Tax) has a cash balance available in the amount of \$110,000. Staff proposes that the fee for Pavement Engineering be funded from this balance.

- OPTIONS:**
- a. Direct staff to engage the services of Pavement Engineering, for a not to exceed fee of \$57,030, to begin initial preparation of bid documents for street maintenance in order to be ready to receive federal stimulus funds.
 - b. Amend, modify, or reject the above options.

Prepared by: Ditas Esperanza, P.E., Capital Projects Engineer

Attachments: Scope of Work
10 Year Plan for Street Maintenance

PROPOSED 10 YEAR STREET MAINTENANCE PLAN

NOTE: Funding Source for the City's Annual Street Maintenance is Gas Tax received from the State of California. Approximately \$400,000 to \$450,000 is currently received annually. It is hoped that the City will receive more in future years.							
Year	Classification	Street	From	To	PCI	Proposed Action	Est. Cost
2009	Collector	21st	Riverside	Spring	28	Heavy Overlay	278,330
2009	Collector	10th	Riverside	Spring	45	Light Overlay	146,196
2010	Arterial	Sherwood	Creston	Fontana	45	Light Overlay	265,980
2010	Residential	12th	Vine	Olive	46	Light Overlay	33,945
2010	Residential	12th	Olive	Fresno	38	Light Overlay	68,913
2010	Residential	12th	Fresno	Merryhill	35	Light Overlay	92,918
2011	Collector	Oak	1st	10th	51	Light Overlay	269,569
2011	Residential	Highland	17th	South end	38	Light Overlay	57,195
2011	Residential	Glen Ct	Highland	17th	42	Light Overlay	25,631
2011	Residential	Piedmont Pl	Highland	East end	40	Light Overlay	8,854
2012	Residential	Samantha	Nanette	Patricia	13	Re-construct	519,921
2013	Residential	Fairview Ln	Vine	Lake Nac. Dr	26	Heavy Overlay	253,589
2013	Residential	Sunset Dr	Fairview	Panorama	51	Cape Seal	9,155
2013	Residential	Panorama	East end	West end	41	Light Overlay	42,408
2013	Residential	Crestline	Fairview	Glencrest	44	Light Overlay	26,505
2013	Residential	Glencrest	Crestline	24th	42	Light Overlay	27,863
2013	Arterial	13th	Vine	Chestnut	53	Light Overlay	74,995
2014	Residential	Dorothy	Lana	Melody	16	Re-construct	523,160
2014	Residential	Lana	Creston	Melody	34	Heavy Overlay	200,658
2015	Arterial	Spring	18th	30th	54	Light Overlay	532,555
2016	Residential	Palm Ct	Shannon Hill	End	11	Re-construct	162,565
2016	Collector	Scott	Creston	Via Ramona	37	Heavy Overlay	129,537
2016	Collector	Scott	Via Ramona	Westfield	48	Light Overlay	146,475
2016	Collector	Scott	Westfield	Airport	47	Light Overlay	68,299
2016	Residential	Scott	Airport	East end	56	Cape Seal	18,578
2017	Arterial	Spring	6th	12th	56	Light Overlay	255,118
2017	Arterial	Spring	12th	18th	59	Light Overlay	255,006
2018	Arterial	Rolling Hills	Creston	Golden Hill	40	Heavy Overlay	624,656

PROPOSED 10 YEAR STREET MAINTENANCE PLAN

DEFINITIONS

Slurry Seal	Combination of fine aggregates and emulsified oil placed on pavement that are severely raveled and its service life can be extended without major work.
Cape Seal	A chip seal overcoated with a slurry seal used on residential and collector streets which may need an overlay but there are not sufficient funds available. This application can be used on streets with moderate alligator cracks to block shrinkage cracking.
Overlays	Procedure used to restore the existing pavement quality to add structural support to the pavement. Overlays consist of applying varying thicknesses of asphalt concrete dependent on level of deterioration.
Reconstruction	When pavement has severe cross section deficiencies or requires significant structural strengthening, reconstruction may be the only alternative.

January 29, 2009

MP09-004-R1

Ms. Merceditas Esperanza
City of Paso Robles
1000 Spring Street
Paso Robles, CA 93446

Subject: Request for Proposal (RFP) for the Preparation of Plans,
Specifications and Estimates for the 2009 Pavement
Rehabilitation Project (See Attached List)

Dear Ditas:

Per your request, we are submitting our proposal for the subject project. This proposal will outline our services and associated fees.

DESCRIPTION OF SERVICES

The proposed project includes reviewing streets, performing pavement evaluation including deflection testing, developing contract documents and estimates and providing bidding and construction support services.

The nature of this project is exactly the type of work PEI is involved with on a daily basis. Our company's focus is the rehabilitation of existing pavement. Our reputation demonstrates that we know what we are doing and how to get it done.

PEI is familiar with Paso Robles's streets and pavement conditions. We have provided services to the City since 2004. Our work has included pavement evaluation and design service, inspection and testing services.

BACKGROUND

PEI has field reviewed all the streets listed for 2009 and 2010 in the City's 10 Year Street Maintenance Plan. The following is a summary of our visual inspection of these streets:

21st Street - Riverside to Spring

This section of street is improved and unimproved. The pavement is exhibiting alligator and block cracking. There are a couple of areas of base failure. Drainage concerns should be addressed in this project, as well as connection to the existing concrete apron

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for the church on the corner of Riverside. It appears that a cross-gutter is needed at Pine. Railroad right-of-way exists within this section of road.

10th Street - Riverside to Spring

This section of street is adjacent to City Hall and the new court house. Most of the street has been improved, however there are unimproved sections. The street has bulbouts, enhanced crosswalks, and diagonal parking adjacent to the court house. Some survey work may be necessary to ensure that existing grades are not adversely affected by the rehabilitation approach. The street is exhibiting alligator and block cracking, and localized base failures. Railroad right-of-way exists within this section of road.

Sherwood - Creston to Fontana

This section of street is in a commercial/light industrial area. Due to the level of truck traffic the road surface is exhibiting alligator and block cracking, and localized base failures. The roadway has been widened in the past to accommodate the shopping center on the northeast corner of Sherwood and Creston. Roadway rehabilitation may require removal and replacement to match existing grades.

Additionally, PEI evaluated Fontana Road from Sherwood to Linne. This section of roadway is exhibiting base failure in several areas, which indicates that the surface is structurally inadequate. PEI recommends extending the scope of work to include this section of roadway. This section of road could be an alternate.

Oak Street - 1st Street to 10th Street

The roadway is improved and unimproved. Extensive concrete work will be required including the construction of cross-gutters, removal and replacement of some curb, and the construction, modification, or replacement of handicap ramps. Survey work will likely be required to address drainage concerns.

Railroad Crossings

10th Street and 21st Street both include railroad crossings within the project limits. Unless the City secures an encroachment permit, the paving work will end at the existing right-of-way line.

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ADA Compliance

During our field evaluation it was noted that several handicap ramps are missing or are not ADA compliant. Our proposal does not include evaluation or design of existing or missing handicap ramps.

SCOPE OF WORK

Our project approach and scope of work is outlined below:

Referencing the attached project street list, provided by the City, PEI will provide the following services:

Task 1 - Measurement of Field Quantities

PEI will physically walk each of the project streets identified in the provided street list to measure and record all pertinent field quantities. Physically measuring the quantities provides confidence that the bid quantities are correct. Taking the time to physically measure each bid item in the field ensures smoother contract administration and reduces the potential for change orders.

All field quantities of physical elements to be incorporated in the rehabilitation and/or resurfacing work of each street will be measured and recorded. This information includes the location of existing striping, pavement markers and paint markings; location of underground utilities; limits of paving transitions, digouts, and other pavement repairs; and total area of pavement to be resurfaced.

If any concrete repairs or tree root damage is identified during our field reviews, this work will be noted and brought to the City's attention to determine if the repairs should be added to the contract.

Task 2 - Pavement Evaluations Including Deflection Testing for Pavement Design of Overlay Streets

PEI will perform deflection testing, coring and analysis on all of the overlay candidate streets identified in Task 1. This type of analysis on each of the overlay streets will



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eliminate the guess work and ensure that an optimum rehabilitation approach is identified. In addition, PEI has found that adequate cores and deflection data on all overlay streets is invaluable during both the design and construction phases of the project. Our experience suggests that gathering this additional data helps produce designs that can last longer than average approaches, resulting in additional savings to the City.

The deflection analysis will be performed in general accordance with California Test Method 356 (CTM 356). Deflection tests will be performed at 100 foot maximum intervals in each lane (minimum of 10 tests per lane). Coring will be performed at 500 foot maximum intervals over the street segment (minimum 2 cores per street segment). The holes are patched back using cold patch compacted flush with the existing pavement. Traffic control will be provided using a vehicle mounted arrowboard. Flagging will be provided as needed. The City of Paso Robles will provide the traffic index information.

To assist us with this analysis, we propose to also determine the total structural section (AC and AB) and the native soil's R-value on Sherwood and Fontana as well as portions of 10th Street. Knowing the R-value of the soil will help us address any areas that need reconstruction.

Rehabilitation options to be investigated will include pulverization and resurfacing, milling and filling, conventional asphalt concrete overlay and ARHM overlays. The deflection testing and coring data will be included in the project development binders for each street. As with our previous project, no formal deflection testing report will be prepared. Going straight from the raw analysis and data to design saves considerable design funds. The pavement evaluation information will be compiled into binders and submitted to the City during reviews and at the completion of the project.

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Task 3 - Preparation of Contract Documents and Estimate

All field quantities will be compiled into individual engineer's estimates by street segment. A summary spreadsheet of the entire project will be provided. Using these quantities along with any base sheets and the information from the pavement evaluation (Task 2), PEI will meet with City staff to determine the most cost effective rehabilitation approach for each of the project streets. This meeting will be considered the 65% submittal.

Technical specifications will be drafted and details for typical sections, transitions, keycuts, digouts, and additional pavement work will be prepared. Any portions of the maintenance work which require further clarification will be submitted in the form of drafted plan views, details, elevations, or cross sections, as is necessary. Where it facilitates the design, PEI will use aerial photographs to develop base sheets. The City will provide the aerial photographs from their files. This information will be submitted to the City at the 90% design review.

After review of the 90% submittal, we will meet with the City staff to resolve any outstanding issues and will adjust the contract documents accordingly.

PEI will provide five (5) copies of the final contract documents (100% complete) to the City for their use along with electronic copies of all work at the completion of the project. In addition, PEI will provide electronic files of any "work in progress" items at anytime during the project at the City's request.

Task 4 - Bidding Process Support Services

After the final submittal, we will be available to answer any specific questions from the City concerning the design. Should the need arise, we will prepare an addendum as required. In addition, we will also be available for help with questions from the contract administration personnel or from contractors during the bidding process.

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Project Administration

This work includes a kick-off meeting with City staff to confirm the project's scope of work, schedule, budget and availability of project documents; review project goals; discuss format of deliverables; and clarify the responsibilities of each party.

Progress meetings will be arranged to review the work at critical stages of the project. Constant communication between the project manager and City staff, reviewing and approving the project street lists and design recommendations is part of our approach and will help ensure a successful project. Our fees for this work are included in the other items of work.

PROPOSED WORK SCHEDULE

PEI understands that time is of the essence. We are committed to delivering a quality product on time. We estimate that PEI can deliver the 90% submittal to the City within 4 to 5 weeks after receiving a notice to proceed. The 100% submittal will be returned to the City within one week of receiving the City's 90% review comments. A project schedule will be provided at the kick-off meeting.

PROPOSAL FEE & FEE BREAKDOWN

Pavement Engineering Inc.'s fee for the work is based on our experience with similar projects performed throughout the state. Our fee for this work is estimated at \$56,340 and is based on a project with a construction cost of \$0.9M.

The attached breakdown shows our projected costs for each portion of the project. Our proposal will be based on a lump sum fixed fee for the complete project. The individual fees associated with each task will serve as guidelines for progress payments.

The estimated fees for the total project includes all field work,

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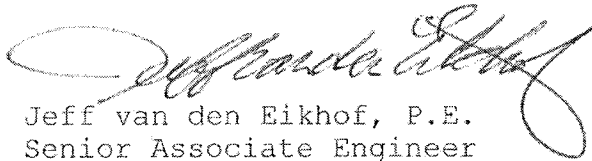
design work and contract document development up to completion of the project. Our fees include answering questions during the bid process and preparation of addendum if necessary.

Our fees do not include ADA assessment of existing or missing handicap ramps. This service can be provided at additional fees, at the request of the City.

All fees and costs associated with this project are subject to final negotiation with the City of Paso Robles. Changes in scope may result in additional fees. Inspection and testing services are not included. The attached proposal conditions apply.

Please feel free to contact us at (805)781-2265 with any questions you may have concerning this proposal.

Very truly yours,
PAVEMENT ENGINEERING INC.



Jeff van den Eikhof, P.E.
Senior Associate Engineer

Attachments: Project Street List
Fee Schedule
Proposal Conditions

pc: C File, M File, MP File S/R/P