RESOLUTION NO. 07-222

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES
TO AUTHORIZE A CONTRACT WITH FEHR AND PEERS TRANSPORTATION CONSULTANTS
FOR TRAFFIC ENGINEERING SERVICES

WHEREAS, recent traffic studies forecast 2010 traffic at Golden Hill Road and Airport Road at their intersections with Highway 46E will operate at Level of Service F with all planned improvements completed. The Circulation Element of the General Plan adopted a minimum Level of Service standard of D.

WHEREAS, airport area businesses and those in the north Golden Hill Road area rely on the safe and efficient operation of the Airport Road-46E and Golden Hill Road-46E intersection for access; and

WHEREAS, Fehr and Peers Transportation Consultants have provided a proposal for a three phases of studies and documentation to plan for mitigation of growth in traffic city-wide. These phases include:

1. identify and evaluate a series of proposed transportation projects north of Highway 46E for their effectiveness in increasing Levels of Service

2. develop a new city-wide traffic model to verify the accuracy of traffic generation assumptions related to the pace of commercial, industrial and residential development

3. update the Circulation Element of the General Plan based on the findings of the studies above

THEREFORE BE IT HEREBY RESOLVED by the City Council of the City of El Paso de Robles to approve a series of budget appropriations, when needed, from gas tax funds in a total amount not to exceed $225,000 to budget account 200-910-5452-545 for fiscal year 2007.

PASSED AND ADOPTED by the City Council of the City of Paso Robles this 6th day of November 2007 by the following vote:

AYES: Hamon, Nemeth, Picanco, Strong, and Mecham
NOES:
ABSTAIN:
ABSENT:

_____
Frank R. Mecham, Mayor

ATTEST:

_____
Deborah D. Robinson, Deputy City Clerk

FEHR & PEERS
TRANSPORTATION CONSULTANTS

September 24, 2007

Mr. John Falkenstien
City Engineer
Community Development-Engineering Division
City of Paso Robles
1000 Spring Street
Paso Robles, CA 93446

Subject: Proposal to Develop Citywide Model and Update Circulation Element
P07-1487

Dear Mr. Falkenstien:

We are pleased to submit this proposal to provide transportation planning and engineering services to prepare three studies. The first study will evaluate the need for roadway improvements in the northern section of Paso Robles to support proposed development and improve operations on the SR 46 East corridor and was submitted under separate cover. The second study (Study II) includes development of a validated Citywide travel demand model using the regional SLOCOG travel demand model as a base. The last study (Study III) includes a comprehensive update of the City's circulation element using data and findings from the first two studies.

The attached scope of work (Attachment A) presents the detailed tasks for Studies II and III. We have scoped these projects such that they are separate and distinct with no overlap in tasks; the forecasts from the Citywide model (Study II) are required to establish the future roadway system developed for the Circulation Element (Study III). The cost for each of these efforts is summarized below:

Study II: Citywide Model Development	$95,000	(includes $18,000 in traffic counts)
Study III: Update Circulation Element	$80,000	(includes $9,800 in traffic counts)
Total Fee	$175,000	

This fee estimate includes all professional and support staff time, as well as direct expenses. Please note that environmental review of the circulation element update would be required and is not included with this proposal.

The terms of this proposal are valid for 60 days. Please contact us if you have any questions about this proposal. Otherwise please send us a contract for this project for our review. We look forward to working with you on these projects.

Sincerely,

FEHR & PEERS

D. Sohrab Rashid, P.E.
Principal

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FEHR & PEERS
TRANSPORTATION CONSULTANTS

Attachment A

DRAFT SCOPE OF WORK
Citywide Model Development and Circulation Element Update in Paso Robles

The following scope of work outlines the anticipated work effort to develop a Citywide model (Study II) and prepare an update to the City General Plan Circulation Element (Study III). Study I is the analysis of the area north of SR 46 and was submitted under separate cover.

Study II will include an update of the city's traffic model by modifying the regional SLOCOG travel demand model which was recently completed by Fehr & Peers, while Study III includes a comprehensive update of the City's General Plan Circulation Element. The detailed scope of work for each study is presented below.

Study II – Citywide Model Development

The City of Paso Robles current citywide travel demand forecasting model was last updated in 1999 by Omni-Means. City staff has requested that the model be updated or a new model be prepared to reflect the planned growth in both the City of Paso Robles and the San Luis Obispo region. Fehr & Peers recently completed the San Luis Obispo Council of Governments (SLOCOG) Regional Travel Demand model, which is intended to forecast growth on major roadways of regional significance. The SLOCOG model was created using the TransCAD software package, and uses the same traffic analysis zone (TAZ) structure as the City's current model. Rather than update the City's current model, we recommend using the SLOCOG model to create a sub-area model of the City. This approach is preferred for the following reasons:

- TransCAD is GIS based and allows for easy transfer of data
- The SLOCOG model was well-validated and the effort to enhance detail in Paso Robles is minimal
- This model is extensively documented, which makes it easy to use and modify
- The model would be consistent with regional forecasts, and can be easily updated as land use forecasts in the region change
- The model includes the most current regional land uses
- Regional support & acceptance

Thus, we propose to create a new model of Paso Robles using the SLOCOG model base data that includes all key city roadways plus the remainder of San Luis Obispo County. In the City, all key streets and highway segments will be included, and traffic analysis zones (TAZs) will be included at a fine enough level of detail to evaluate land use changes. Major developments outside the city limits will be represented by much larger zones and a grosser but still adequate level of roadway network. Trips from outside the immediate study area will be represented at external gateways such as US 101, SR 46 East, SR 46 West, etc. The overall result of this approach will be a model that will provide accurate results, will run in a reasonable amount of time, meet or exceed Caltrans and Federal guidelines for validation, and better account for the transportation effects of planned growth in the City of Paso Robles and growth in San Luis Obispo County.

The model will be prepared using the TransCAD software program, and will forecast morning (AM) peak hour, evening (PM) peak hour, and daily traffic volumes for typical weekday conditions. Given the unique conditions associated with SR 46, we will coordinate our effort with Caltrans and San Luis Obispo County staff to develop a process for addressing more congested weekend peak conditions. The specific phases and tasks we propose to undertake and the data required from the City are described below.

Task II-A –Review of Model Structure and Input Files

We will review and modify the SLOCOG TDM to accurately reflect existing and planned land use and roadway network conditions within the City of Paso Robles. To correctly develop a sub-area model, a thorough review of the model structure and input files is required.

As part of this review, we will verify with City of Paso Robles and SLOCOG staff the base year, Year 2015, and 2030 roadway networks and land use inputs within the City of Paso Robles. The future roadway networks will likely only include funded improvements to ensure an accurate assessment of future roadway improvement needs. This approach will be confirmed with City staff and will require provision of a list of funded improvements for implementation by the 2015 and 2030 timeframes.

The base year land use data will be compared against census data, aerial photos, and field observations for selected areas of the City. Base year land use data was provided by SLOCOG to Fehr & Peers as part of the regional model validation and is expected to be generally correct; however, we expect to find specific local areas where land uses are not included or are not the correct development level or type. Review of land use in all TAZs within the City is outside the scope of this study will be conducted as an additional service. We will review and summarize Year 2015 and 2030 land use data for all of the TAZs in Paso Robles. The land use summary will be provided to City staff for review and approval. The City will be responsible for identifying changes to future year land use and allocate that use by TAZ. If needed, Fehr & Peers or the City could retain a land use consultant as part of a separate work effort and budget to assist with land use forecasting.

Task II-B–Model Development

The model development will focus on adding traffic analysis zone (TAZ) and roadway network detail in the City. The Year 2015 and Year 2030 roadway networks will be coded to only include capacity expansion projects that are programmed to be constructed and in place by 2030.

We will add TAZs in the sub-area by aggregating TAZs elsewhere in the model or using spare TAZs if available. This effort will be coordinated with SLOCOG staff. We will also add roadway network detail so that all appropriate study roadways and intersections are accurately represented in the model.
The sub-area model will be calibrated for the following three steps.

- Trip Generation
- Trip Distribution
- Traffic Assignment

The trip generation component of the model will be reviewed and refined to ensure that the model's estimate of daily and peak hour trips for the land uses in the City closely match estimates obtained using empirical trip rates from local, regional, and national travel surveys or publications such as *NCHRP Report 365* (Transportation Research Board, 1998) and *Trip Generation* (Institute of Transportation Engineers, 2003). For trip distribution and assignment, we will verify that the trip lengths and travel paths are reasonable within City limits.

Task II-C–Model Validation

A sub-area validation of the model will be conducted using static and dynamic validation tests. The static tests will compare base year (2004) model volumes for roadway segments to existing counts using the maximum deviation, correlation coefficient, and percent root mean squared error (RMSE) criteria contained in the *Travel Forecasting Guidelines* (Caltrans, 1992). These tests will be limited to those links where base year traffic count data is available or new counts are conducted. This proposal

includes budget for up to 60 new seven-day roadway segment counts. Counts may be adjusted as necessary to account for growth in the City over the last three years.

The dynamic validation tests will include the following changes to the model.

- Add lanes to a link
- Add a link
- Delete a link
- Add 100 households to a TAZ
- Add 1,000 households to a TAZ
- Add 5,000 households to a TAZ
- Add 10,000 households to a TAZ

For the dynamic tests, we will review the traffic volume forecasts to verify that they change in the appropriate direction and magnitude. We will prepare a technical memorandum that presents the model development process and sub-area validation results.

Task II-D–Traffic Volume Forecasts

Once the base year model is validated and accepted by the project team, we will forecast Year 2015 and 2030 traffic volumes using the land use and network assumptions identified in Task II-A. Depending on the accuracy of the model validation, some of the future forecasts may have to be adjusted prior to use in future traffic studies.

Task II-E – Documentation

We will document our methodology and results in a model development report maximizing the use of graphics and tables. The initial and final validation results will be presented and the modifications required to achieve the minimum standards will be described. Changes to the model inputs will also be documented. The report will also include a discussion of the need for the sub-area validation and the relationship of this process to the methods used in previous traffic studies. We have budgeted up to 24 hours to respond to comments on the model development report.

Task II-F – Meetings

We will prepare for and attend up to four (4) project-level meetings as part of Study II. Attendance at additional meetings or any public hearings will be conducted as an additional service.

Additional Services for Study II

The following services, not outlined in the above scope of work, are considered additional services and would be performed upon authorization:

- Conducting seven-day roadway segment counts at more than 60 locations
- Evaluating additional peak hours or horizon years
- Conducting a detailed review of land use for all TAZs in the City
- Attending more than four (4) project-level meetings or any public hearings
- More than 24 hours to respond to comments on the model development report

Study III – Update City of Paso Robles Circulation Element

The Circulation Element includes an analysis of existing and planned land uses to adequately plan for future transportation infrastructure needs. In addition, the Circulation Element identifies goals and policies that provide clear direction to decision-makers, City staff, and residents on how the City's circulation will develop. The City of Paso Robles Circulation Element was last updated in 2003. Since that time, changes in regional and local development patterns plus the completion of a new regional traffic model have prompted City staff to request an update of the Circulation Element. Anticipated growth in the SR 46 East corridor and potential land use changes in the Uptown area of Paso Robles are contributing factors.

The tasks to be conducted in the analysis are:

Task III-A - Baseline Transportation Inventory

Fehr & Peers will prepare a baseline transportation analysis, describing and quantifying existing systems and services as well as the policy framework related to highways, local streets, air, freight and commuter rail, public transit, pedestrian and bicycle systems. This effort will make use of traffic count information compiled as part of various traffic studies performed for projects throughout the City, as well as data available through the City's GIS resources and information obtained from other planning and transportation agencies.

The baseline transportation assessment will cover: functional classification of City streets; existing traffic volumes and levels of service on major roadways (up to 60 locations where traffic data is available through other sources) and on freeway segments; existing transit services and facilities; bicycle and trail systems; existing aviation facilities; and existing goods movement facilities including trucks, boats, and rail. This scope assumes that seven-day counts at up to 60 different roadway locations will be conducted as part of Study II, but that AM and PM peak period intersection turning movement counts at up to 15 intersections will be conducted as part of this effort (Study III). We will make extensive use of GIS resources to produce maps of the existing transportation systems and services to accompany the written descriptions.

Fehr & Peers will review the existing policy framework affecting the modes of transportation listed above, including policies in the current Paso Robles General Plan and in other relevant City and regional planning documents. Potential adjustments to the City's transportation policies will be identified and discussed with staff and decision-makers.

Products: Draft Report on Baseline Transportation Conditions and Policies. The Final Report will incorporate comments from City staff. This document will be the primary source of information for the Setting section of the General Plan EIR Transportation Chapter.

Task III-B - Evaluation of Circulation Needs

Future Year 2015 and 2030 traffic forecasts will be developed as part of a separate study (see Study II). Level of service calculations will be prepared for up to 35 roadway segments. We also propose to conduct a focused analysis of up to 15 key intersections to identify specific turning movement or interchange lane requirements. Key intersections will be identified with city staff prior to finalizing the scope work.

The results of the roadway segment and intersection analysis will be used to identify potential circulation improvements. The transportation network identified to support the General Plan land uses will be presented in the Circulation Diagram. This task assumes that we will complete up to two additional model runs to determine the effect of proposed improvements on projected traffic volumes.

Task III-C - Preparation of Circulation Element

Fehr & Peers will develop a broad set of transportation policies based on professional best practices, direction from City staff, and input from the public and local decision-makers throughout the General Plan process. We will consolidate other transportation information and recommendations developed through previous tasks into the Circulation Element of the General Plan. The traffic report for the Circulation Element will include potential future roadway deficiencies and the recommended future transportation network to accommodate the Plan's land use element from Task III-B.

The Circulation Element will encompass the full range of transportation modes, including conceptual locations for major roadways, transit, and pedestrian and bicycle corridors. Drawing upon our company's extensive experience with bicycle and pedestrian planning, we will advise the staff and the consultant team on methods for incorporating bicycle- and pedestrian-supportive facilities and policies in the updated General Plan.

Pending discussions with staff, it is anticipated that the Circulation Element will address the following:

1. Introduction
    - Paso Robles' travel characteristics and regional setting
    - Diagrams of existing street network, bicycle/pedestrian network, and public transit system
    - Regulatory framework
    - Relationship to other elements

2. Goals, Policies and Implementation Actions
    - Streets and highways
    - Public transportation
    - Bicycle and pedestrian transportation
    - Freight transportation (highway and rail)
    - Transportation demand management
    - Neighborhood traffic management

3. Street and Highway Network, Classification, and Operations
    - Street classification system
    - Circulation diagram showing planned transportation improvements
    - Standards for traffic level of service

4. Public Transportation System
    - Proposed transit system and services

5. Bicycle and Pedestrian Systems
    - Bicycle and pedestrian facility classification system
    - Proposed bikeway and pedestrian system

6. Freight and Air Transportation Systems
    - Proposed truck routes
    - Proposed rail transportation and connections to the street network
    - Anticipated growth in air travel (estimated by others)
    - Airport and adjacent land use/circulation compatibility issues

Products: Administrative Draft, Draft, and Final Circulation Element, incorporating comments from City staff, local decision-makers, and the public. This scope allocates 28 total hours to respond to up

to two rounds of comments before finalizing the Circulation Element; if the time required to respond to the comments exceeds that allotment, the scope and budget will be adjusted accordingly.

Task III-D – Meetings and Public Participation

Fehr & Peers will be available to attend up to two project-level meetings and six (6) public hearings/community meetings as part of the Circulation Element Update process. We anticipate the following schedule of meetings, subject to coordination with the City:

- Two staff-level meetings, including an initial scoping meeting
- Two Planning Commission workshops
- Two City Council workshops
- Two community outreach or focus group meetings

The Principal in Charge will attend and present at the public hearings and community meetings. Additional meetings can be accommodated on an as-needed basis, subject to scope and budget amendments. We estimate that the cost for each additional meeting will be about $2,000.

Additional Services for Study III

The following services, not outlined in the above scope of work, are considered additional services and would be performed upon authorization:

- Conducting peak period intersection turning movement counts at more than 15 locations
- Evaluating additional peak hours, horizon years or time periods
- Generating raw forecasts for more than three roadway network scenarios
- Attending more than two project-level meetings or more than six public hearings/community meetings
- More than 28 hours to respond to comments on the Circulation Element background