



Updated September 27, 2024

Robert Vestal
Director of Public Works | City Engineer
City of Beaumont
550 E. 6th Street
Beaumont, CA 92223

**Subject: South of SR 60 Roadway Infrastructure Delivery Plan and Fee Program
Nexus Study**

P23-2244-OC

Dear Robert:

This proposal reflects our recent phone conversations with City staff and our concerns related to delivering needed infrastructure in the City concurrent with industrial development in the referenced area of the City. Specifically, as we have started working with the City to review development applications generally located south of SR-60 and west of SR-79, we have realized the following:

1. The City is processing more than 30 million sq. ft. of industrial/warehousing development in this area.
2. Warehousing development trip generation can vary significantly depending on the client, with uses like High-Cube Transload and Short-Term Storage Warehouse generating daily trips at a rate of 1.4 trips per 1,000 sq. ft.; whereas General Light Industrial or High-Cube Fulfillment Center Warehouse – Sort generate between 4.87 and 6.44 trips per 1,000 sq. ft. Given that most of the studies we have seen come through utilize the lower end of the trip rate range, it is imperative to understand how roadway capacity needs may change with more trip intensive land uses.
3. The City's General Plan identified three key roadway connections to serve this general area. These facilities are:
 - a. The Potrero interchange (e.g. add ramp connections from the overcrossing to SR-60) – recent funding of the interchange ramps will deliver this project sooner; however, there is only so much traffic this interchange can support and understanding how its capacity constrains may or may affect operations on Potrero and other streets needs to be understood
 - b. The extension of Potrero to the east, connecting it to SR-79 (and eventually over to the other portion of Potrero east of SR-79)
 - c. A new east/west roadway generally paralleling Potrero to the south
 - d. The Beaumont Avenue interchange has limited capacity and routing trucks and passenger cars to it will increase the deficiency at that location
4. Although the traffic studies we have seen to-date have all followed the City's guidelines and generally identify spot improvements at various locations, none of them look at



- identifying *when* each of these key infrastructure connections would be required to serve the proposed development. Additionally, none identify the final roadway alignment for the Potrero connection to SR-79 nor do they identify the best alignment for the new east-west roadway located south of Potrero.
5. The traffic studies assume much of this infrastructure is completed in the future without identifying how that infrastructure will be funded. As such, conceptual cost estimates for the identified roadway alignments would be helpful so that the City can start identifying a mechanism for funding and delivering the infrastructure (such as an updated transportation impact fee program or a road and bridge benefit district (RBBD)).
 6. The City would benefit from a fee program/nexus study to determine new development's fair share contributions toward these projects.

The purpose of this proposal is to provide the City with services to help answer key questions noted above. Fehr & Peers has included Mark Thomas & Company to our team to assist in identifying alignment for the two east-west roadways noted above and to develop cost estimates for the proposed infrastructure.

Our proposed scope of work is described in detail below:

SCOPE OF WORK

TASK 1 – KICK OFF MEETING

The Fehr & Peers team will attend a kick-off meeting at the City with City staff. At this meeting, we will work with staff to better understand what development applications the City has received in the general study area and get a better understanding of any geometric layouts already developed for the facilities noted above. Fehr & Peers will also review any approved or submitted traffic studies in the area to better understand the availability of count data in the area.

We will work with the City to identify if they have a mechanism for controlling the tenants of the facilities after they are entitled. Specifically, if the traffic study assumed a trip generation rate of High-Cube Transload but the actual tenant is a High-Cube Fulfillment Center Warehouse – Sort, does the City have a mechanism to reassess infrastructure needs or obtain increased funding to deal with transportation needed infrastructure that would be required for the increased trips.

TASK 2 – CAPACITY MODEL ASSESSMENT

Fehr & Peers will develop a capacity model to assist in assessing the roadway capacity infrastructure. We propose to initially look at roadway segment capacity to assist with answering some of the bigger questions of when development would occur.



As we build the capacity model, we will work with staff to pre-build in traffic from entitled projects. We will propose to then set up specific zones for proposed projects so that we can test different development yields (e.g. 25%, 50%, 75%, and 100%) that we will use to test when specific segments approach capacity and identify key facilities needed to address those capacity issues. We will also build into the assessment a two-step process; one using rates we are seeing used in the submitted traffic studies and another where more intensive uses (like Light Industrial or Fulfillment Center Warehouse – Sort) and how those assumptions change the results of the infrastructure needs.

Fehr & Peers will use some combination of a refined RIVCOM model and/or a sub-area refined trip assignment model to assist in developing the roadway network. We will use trip generation information using ITE and/or WRCOG trip rates including PCE conversion estimates to review roadway capacity at a PCE level.

Fehr & Peers will also utilize two sources for estimating the distribution of trips to/from this area. First, we will use the RIVCOM travel demand model to assist with trip distribution estimates, but we also propose to use big data (Streetlight) to assist with this effort. Streetlight data will be used to estimate origin/distribution and trip routing for both passenger car and heavy vehicles from already developed industrial areas in the City. This will provide valuable information that will ensure that the trip distribution and trip assignment assumptions used reflect current demands in the study area. Please note that Streetlight data is available for no cost through the SCAG data portal and we have already pulled that data for our use in the City's truck route study.

Once the number of trips, distribution of trips, and routing of trips have been refined, we will include that information into our capacity assessment. Our goal would be to identify the number of trips that could be accommodated from the study area using the existing infrastructure (on a roadway segment basis) and start identifying when subsequent infrastructure would be required. These trips will be "backed into" the development utilizing the bookends of trip generation noted above to assist in planning this infrastructure in the City.

TASK 3 – ROADWAY ALIGNMENT DEVELOPMENT

Mark Thomas & Company will lead the roadway alignment assessment. scope proposes to utilize available data from Riverside County (such as contours), an assumed roadway cross-section, an assumed roadway design speed, existing utility information, and available right-of-way information to identify a potential alignment for connecting Potrero road in the study area and the best alignment for the future east-west roadway south of Potrero identified in the City's General Plan. Once the alignments are identified, they will share that information with City staff to confirm the appropriateness of the alignment.

In addition to developing the alignments, Mark Thomas & Company will also complete a cost estimate for each facility (including review of the Potrero interchange). This will include a planning-level cost estimate, but will include assumptions for roadway costs, right-of-way estimates,



engineering and design considerations, major drainage considerations, and a description of needed permits and environmental considerations needed to progress the projects.

TASK 4 – DOCUMENTATION

Fehr & Peers will work with the City on the most appropriate form of documentation but believe a memorandum summarizing the results of the traffic work, alignment strip maps, and planning cost estimates would be appropriate for the City to review and approve our work on Tasks 1-3.

TASK 5 – NEXUS STUDY

Fehr & Peers will utilize the information in Tasks 1-4 to develop a nexus study for this effort. The nexus study will utilize information from the City's General Plan along with estimates of development that will contribute traffic to these facilities.

Fehr & Peers will utilize the information to establish the following key components associated with impact fee programs, including:

- Rough proportionality of the fee related to the development contributing to the facility needs.
- Identification of any existing deficiencies and fair share calculations reflecting new development's fair share contribution toward those facilities.
- Establishment of a metric to be used for the fee program calculation. That could be trips, passenger car equivalent trips, vehicles miles of travel, or other metric that normalizes the fee charged to new development.
- Establishment of an approach to address AB 602 requirements with the City. AB 602 requires the City to incorporate projects into their capital improvement program, update the fee every eight years, and to assure that any housing projects incorporated into the fee program address whether unit size should be accounted for in the impact fee program.
- Preparation of a proposed fee schedule that can be utilized for this fee using typical land uses that would occur in the area.
- Draft and final nexus studies to be used by City staff.

SCHEDULE AND FEE

The Fehr & Peers team proposes to complete Tasks 1-5 within 20 weeks following our receipt of a work order for this effort. We will complete this effort on a time-and-materials basis for a not-to-exceed amount of \$252,560,458 (\$105,292) of which is Mark Thomas's effort for this project).



We look forward to our continued work with the City of Beaumont. If you have any questions, please call me directly at 949-308-6312.

Sincerely,
FEHR & PEERS

A handwritten signature in blue ink that reads "J. D. Pack". The signature is written in a cursive style with a horizontal line underneath.

Jason D. Pack, P.E.
Principal