

Item Details

Legistar # 18-0424

Amendment to Professional Services Contract – Strategic Integration (Travel Demand Model) Feasibility Study (Bond 2014, Proposition 2 – Future TxDOT Participation)	
<u>Council Meeting Dates:</u> Future Item – April 24, 2018 Action Item - May 8, 2018	<u>Item Being Considered:</u> Motion

RECOMMENDATION:

Authorization to execute Amendment No. 1 to a professional services contract with CDM Smith, of Austin, Texas in the amount of \$410,045, for a total restated fee of \$459,998, for Strategic Integration (Travel Demand Model) Feasibility Study.

SUMMARY:

Federal planning regulations require Metropolitan Planning Organizations (MPOs) to coordinate with their State to develop Metropolitan Transportation Plans (MTPs) which address future transportation demands in their region. A computer model, known as a travel demand model (TDM), is the tool States use to assist MPOs in forecasting future travel demands. TDMs analyze existing conditions from a “base” year to predict future demands in a “forecast” year (up to 30 years in the future). Streets, urban highways, socioeconomic data (population, employment, etc.), commercial vehicle surveys and air quality surveys are typical data collected, analyzed, and incorporated into a TDM.

The Texas Department of Transportation’s (TxDOT) Transportation Planning and Programming (TPP) Division is responsible for preparing TDMs for MPOs. TxDOT’s travel demand computer model is referred to as the “Texas Package”. Some States develop TDMs following a four-step process that includes analysis of *trip generation* (number of trips made), *trip distribution* (where the trips go), *mode choice* (how trips are distributed among various modes of travel), and *traffic assignment* (which route trips take). The Texas Package does not include *mode choice*. MPOs for the Houston-Galveston and Dallas-Fort Worth region have taken responsibility for developing their own model. TXDOT provides the “Texas Package” for the remaining 23 of the State’s 25 MPOs. MPOs for San Antonio and Austin, which are considered benchmark cities, have used consulting contracts to include *mode choice* and additional factors unique to their region to enhance the results of the “base” Texas Package. Enhancing the Texas Package permits better forecasting since consultants can input data unique to a specific City or region.

TDMs are generally validated every 10 years. The last model update for the Corpus Christi Metropolitan Planning Organization (CCMPO) region, which includes Corpus Christi and portions of Nueces and San Patricio counties, occurred in 2006. Federal grant funding through the CCMPO, with a local match, is available for the City of Corpus Christi to use a qualified consulting firm to optimize the Texas Package through the *Strategic Integration (Travel Demand Model) Feasibility Study* project. The City will be able to use the *mode choice* process and input other “localized” data into the Texas Package. The result will be a TDM that is specific and unique to the transportation needs of Corpus Christi and not the entire CCMPO region.

An enhanced TDM model, specific to Corpus Christi’s conditions, provides a higher quality framework for the decision-making process for investment decisions on street (transportation) programming and expenditures for various City departments including Engineering Services, Development Services, and

Street Operations. Enhanced traffic projections will assist in updating the City's Urban Transportation Plan by providing forecasted volumes for integral arterial and collector streets and urban state highways. This more precise model will also assist in revamping existing Area Development Plans to ensure street capacity is adequate for proposed land use, planning and prioritization of street selection for the Street Preventative Maintenance Program and Capital Bond Programming, and planning of master planned streets constructed by private developers.

This project is a collaborative effort by the CCMPO, City of Corpus Christi, the Regional Transportation Authority (RTA) and TxDOT. The RTA is sharing costs since this funding opportunity is beneficial to improving their Long-Range Operations Plan and updating their transit network master plan (Transit Plan 20/20). The project will include reviewing existing City, State and Local transportation network plans, evaluating and validating base year assumptions from the most recent Texas Package TDM, incorporating specified data, land use and mode choice (including a transit component) into the TDM, and validating the TDM for the base year and forecast year. Deliverables will focus on supplying methodology, assumptions and results (model, GIS files, etc.) which indicate to the CCMPO, City and RTA the travel demand and projections for existing and planned streets in the City. State guidelines require the results of the study be provided to the CCMPO, but the information will be accessible to both the City and RTA.

In February 2017, CDM Smith was selected by Request for Qualifications (RFQ No. 2016-06) as the most qualified consultant to perform the project. Due to the complexity of the project modeling process, CDM Smith began operating under a small contract to begin reviewing and identifying the potential and existing scenarios/parameters and preparing a feasibility report describing the various elements that may impact the efficiency and/or recommendations for improvements/expansions needed to the transportation system to accommodate the continuous growth of the city.

PREVIOUS COUNCIL / BOARD ACTIONS:

January 17, 2017 – City Council approved execution of an Advance Funding Agreement (AFA) with TxDOT and an Interlocal Agreement (ILA) with RTA for this project.