MEMORANDUM

To: Mayor and City Council

From: Ken Griffin, P.E., Director of Public Works

Date: February 13, 2018

Reference: **Freeport Parkway Reconstruction Traveler Information System**

2030: Sustainable City Government, Goal 3
Excellent and Well-maintained City Infrastructure and Facilities

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General Information:

- Freeport Parkway reconstruction project will commence soon
- Traffic will be reduced to one lane in each direction for much of the project
- This traveler information system will advise motorists of comparative travel times via Freeport Parkway and SH 121
- Contract is for 18 months with the Texas A&M Transportation Institute (TTI), for a not-to-exceed value of $142,078.00

Introduction:

This agenda item is being presented to consider approval of a contract with the TTI for development and deployment of a Traveler Information System for the Freeport Parkway Reconstruction project.

Analysis:

The Freeport Parkway Reconstruction Project limits begin at Dividend/IH-635 and end at Bethel Road (see attached). Throughout the project, at least one lane of traffic in each direction will be maintained at all times. To help inform motorists, staff is working to implement a system of real-time traveler information to warn motorists of expected delays on Freeport, and allow alternate route decisions if appropriate (via SH 121 to IH 635). Four portable changeable message signs were included in the construction contract to facilitate this system and this contract with TTI is being presented for the system implementation.

This innovative project has 3 major goals:

1) Provide motorists with information to make good route choices.
2) Preserve available capacity on Freeport for local businesses and residents.

3) Provide data and impacts analysis for potential future applications of concept to other Coppell projects.

The project will deploy Bluetooth detectors at various points along both Freeport Pkwy and SH 121 and I-635. The detectors passively sense Bluetooth devices such as cell phone or other communication systems in a vehicle (e.g. hands-free and navigation). The data is immediately adjusted in the field so that no personally-identifiable information is kept. The time that a device was read is recorded and this information is transmitted to a central software and matched across subsequent detectors. The time stamps of these readings allow for a computation of the travel time between individual detectors. Utilizing the segment travel times, travel times for each route will be computed. Travel time information will be posted to Portable Changeable Message Signs (PCMS) at strategic locations on the roadway to allow motorists to make route choice decisions and preserve available capacity on Freeport Parkway. Message development will be one of the tasks included in this project, and could include current travel times, current delay relative to the average travel time, or some variant. Travel time data will be retained and analyzed to provide for impacts analysis of travel time savings and other performance metrics.

Legal Review:

The contract has been reviewed by the City Attorney's office.

Fiscal Impact:

The fiscal impact of this agenda item is $142,078.00 as provided for in CIP and IMF funds.

Recommendation:

The Engineering Department recommends approval of this contract with the Texas A&M Transportation Institute.