

### AGENDA MEMORANDUM

City Council Meeting of July 20, 2021

**DATE:** July 20, 2021

**TO**: Peter Zanoni, City Manager

**FROM**: Jeff H. Edmonds, P. E., Director of Engineering Services

jeffreye@cctexas.com

(361) 826-3851

Richard Martinez, Director of Public Works

richardm5@cctexas.com

(361) 826-3419

# Resolution approving Bond 2020 Street Projects – Pavement Design Recommendations

## **CAPTION:**

Resolution approving pavement design recommendations for the 22 Bond 2020 Streets projects following City Council Policy 28 which outlines the guidelines for awarding arterial and collector street construction contracts using concrete pavement or asphalt pavement.

#### **PURPOSE:**

This resolution item approves pavement recommendations for the Bond 2020 Streets projects. Following City Council Policy 28 – Award Guidelines for Arterial and Collector Streets with Concrete pavement (PCC) or Asphalt pavement (HMAC), City staff is making recommendations for the 22 streets projects that were approved by voters on November 3, 2020.

#### **BACKGROUND**:

On October 27, 2020, City Council approved a resolution amending City Council Policy 28 that outlines the guidelines for awarding arterial and collector street construction contracts using concrete pavement or asphalt pavement. The updated policy includes an emphasis on the evaluation of existing geotechnical soil conditions.

Below is a summary of the approved recommendations based on the City Council Policy 28:

1. When the project contains a majority subgrade with a Plasticity Index (PI) greater than 30 or deemed as a moderate to highly expansive soil by the design Geotechnical Engineer, the City should recommend HMAC.

- 2. When the cost difference of PCC is below **\$125,000/lane mile**, the City should recommend PCC.
- 3. For residential projects, the City should recommend HMAC.
- 4. Other criteria to consider is if the adjacent pavement section is PCC, consideration should be given to providing a uniform surface type, at the discretion of the City Public Works staff.

On March 16, 2021, City Council approved the mass selection of professional engineering services for the design of the 22 Bond 2020 street projects. This authorized City staff to negotiate and execute 22 professional services contracts with the top nine firms without having to present individual contracts to City Council. This allows staff to minimize agenda activity and expedite the execution of the Bond program.

Following City Council approval for the design contracts, City staff requested geotechnical investigations of the Bond 2020 streets projects. The geotechnical investigation provides relevant information about the PI for the projects. Based on the results of the geotechnical investigation and City Council Policy 28 policy, attached is the pavement design recommendations for projects. The pavement design recommendation provides clear direction to staff on which projects will be designed for asphalt pavement, concrete pavement and asphalt or concrete pavement with cost savings by not designing all the street projects for asphalt and concrete pavement.

Below is a summary of the results:

Proposed	Pavement	Design	Number of Streets
Recommendations			
Asphalt and Concrete			8
Asphalt Only			11
Concrete Only			3

Now that the geotechnical investigation on the Bond 2020 projects have been completed, the projects are being currently surveyed with professional service contracts being negotiated and executed.

#### **ALTERNATIVES:**

The alternative is to reject staff recommendations and evaluate pavement recommendations at the time of construction contract award.

## FISCAL IMPACT:

There is no fiscal impact for this item.

## **RECOMMENDATION:**

Staff recommends approval of the resolution as presented.

## **LIST OF SUPPORTING DOCUMENTS:**

Resolution HMAC/PCC Design Recommendations City Council Policy 28