

# Memorandum



CITY OF DALLAS

DATE June 5, 2020

TO Honorable Members of the Public Safety Committee

SUBJECT **P25 Radio System Update**

IT Assistant Director, Will Snead has prepared a briefing to update the Public Safety Committee on the P25 Public Safety Radio System. The presentation provides background information, recent actions taken, and next steps.

Please let us know if you have any questions or need additional information.

A handwritten signature in black ink that reads "Jon Fortune".

Jon Fortune  
Assistant City Manager

[Attachment]

T.C. Broadnax, City Manager  
Chris Caso, City Attorney (Interim)  
Mark Swann, City Auditor  
Biliera Johnson, City Secretary  
Preston Robinson, Administrative Judge  
Kimberly Bizer Tolbert, Chief of Staff to the City Manager  
Majed A. Al-Ghafry, Assistant City Manager  
Jon Fortune, Assistant City Manager

Joey Zapata, Assistant City Manager  
Nadia Chandler Hardy, Assistant City Manager and Chief Resilience Officer  
Michael Mendoza, Chief of Economic Development and Neighborhood Services  
M. Elizabeth Reich, Chief Financial Officer  
Laila Aleqresh, Chief Innovation Officer  
M. Elizabeth (Liz) Cedillo-Pereira, Chief of Equity and Inclusion  
Directors and Assistant Directors

# P25 Status and Change Order #2 Briefing

## Public Safety Committee

June 8<sup>th</sup>, 2020

**Will Snead**  
Assistant Director  
*Information and Technology Services*



# Presentation Overview

- Purpose/Objectives
- Background/History
- Recent Actions Taken
- Next Steps

# Purpose / Objectives

- Provide the Public Safety Committee with an overview of the P25 Radio System Upgrade Project approved in 2017
- Brief the Public Safety Committee on the Status of the P25 Radio System Upgrade Project
- Brief the Public Safety Committee on the requirement for Change Order #2

# Background

## What is the P25 Radio Project

- Project 25 (P25) is a standard for digital mobile radio communications designed for use by public safety organizations in North America.

## What value does this bring to the City of Dallas

- P25 adds the ability to transmit voice as data, allowing for greater implementation of encryption as well as a more robust, secure, efficient and modern Radio System.

## Why we need to upgrade our current Radio System

- The current Radio System design is over 40 years old, with the last radio system technology refresh occurring over 20 years ago.
  - Note: The current system cannot be expanded due to age and number of frequencies it is capable of using.
- The P25 Project will replace three City radio systems with one system and will provide modern technology to 1st Responders and city workers

4

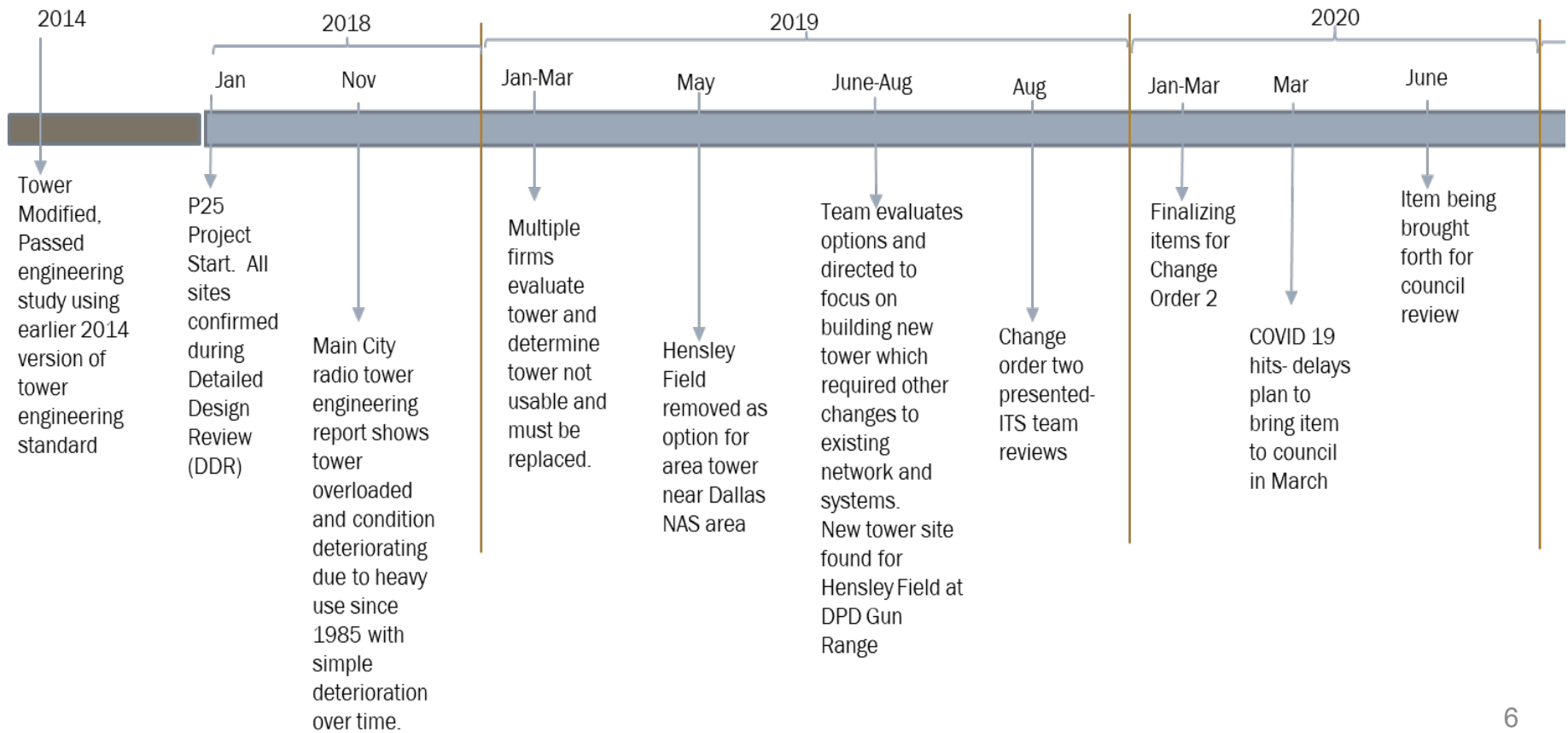
# Background

## Financial & Project Information:

- City of Dallas published a Request FCSP that was awarded to Motorola.
- The P25 project contract was approved by Council in December 2017 at cost of \$66,129,202.
- Project includes a cooperative agreement with Dallas County, which is responsible for:
  - \$10,201,941 of the initial cost
  - Plus an additional \$2,624,836 for O&M costs over the next 15 years.
- The project began Jan 2018 with an original estimated completion date of 12/2020.

5

# Key Project Events of the P25 Project



# P25 Project Status and Change Overview

## FACTORS FOR CHANGE REQUEST

### Issues

- Failure of Dawson Tower
- More Resilient Transport/Backhaul Design needed
- Site Acquisition delays and changes
  - Samuel Farms – Inter City Cooperation
  - Dawson/Oak Lane – Tower Failure
  - Gun Range (Internal) – Replacement for Hensley Field

### Financial

- Delay Costs (Permitting, warehousing, FCC approvals, COVID delays) = Approx \$3.3M
- New Tower site replaces Dawson approx. \$3.1M

### Operational

- 22 Month delay from original Date – Completion Est 10/2022

## PROJECT STATUS SUMMARY

18 Sites are complete or nearing completion

14 sites are in progress

9 of 14 Sites have not been started due to ILA or change order needs

Remaining 5 sites have been started but are awaiting change order approval

P25 Technical Board has reviewed requests for change and scope modification which were approved by project governance board in May 2020

Garland Mesquite Rowlett Sachse Radio Consortium (GMRS) board has presented a very favorable offer to allow us to lease space on their sites/towers at a greatly reduced rate



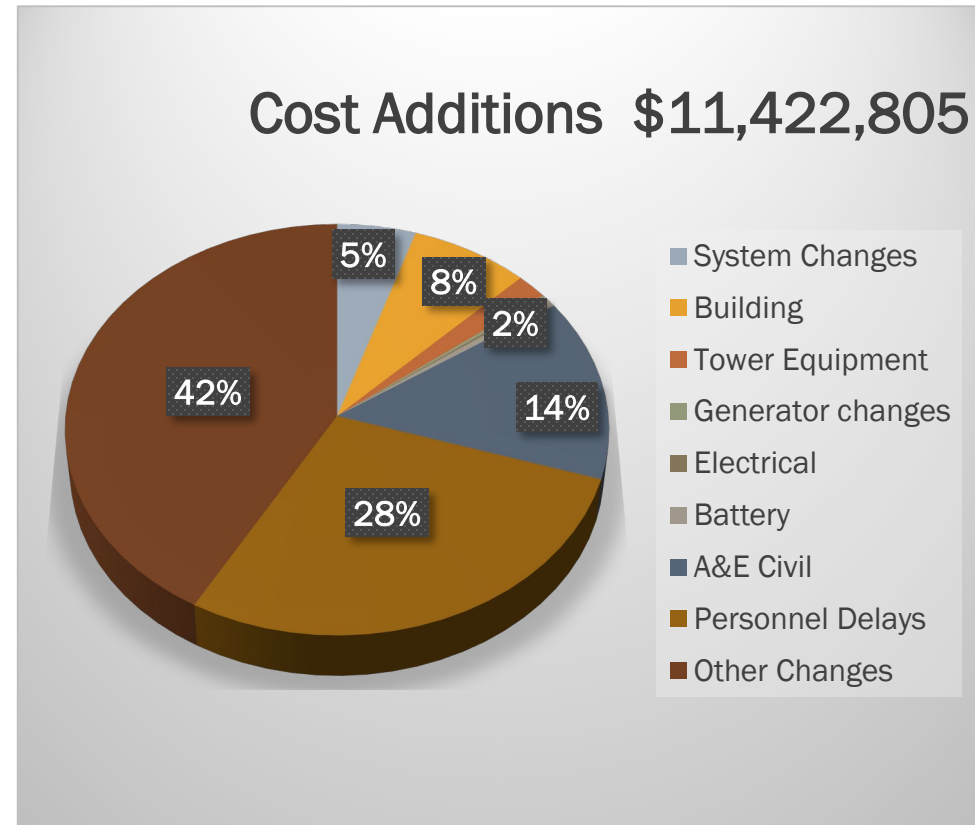
# Change Order #2 Cost – Scope Additions

Net CO#2 Costs: **\$6,494,270**

## SCOPE ADDITIONS

- Electrical / battery system upgrades
- Engineering / civil construction work changes identified at sites (bad soil, FCC issues, etc)
- Loss of sites due to permitting, economic development, or site code changes/restrictions
- Loss of Dawson tower and reconfiguration to adjust system to main tower site
- Delays due to permitting, engineering evaluations of Dawson tower, and weather

**Total Scope Cost Additions: + \$11,422,805**



**Note:** These Costs items are not inclusive of the GMRS cost savings

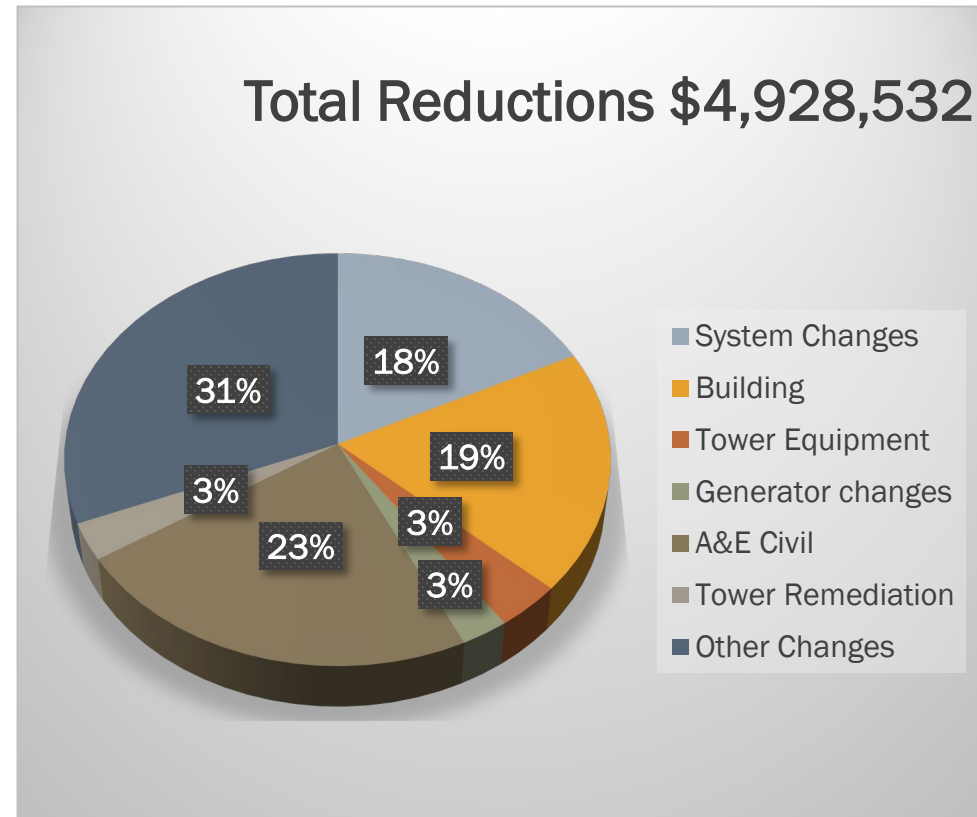
# Change Order #2 Cost – Scope Reductions

Net CO#2 Costs: **\$6,494,270**

## SCOPE REDUCTIONS

- Overall System Changes to improve data reporting and interoperability between agencies
- Remove unneeded buildings due to site sharing and use of existing structures
- Unused tower remediation funds
- Deletion of unused sites where we can use shared sites with a neighbor
- Unneeded generators where generators exist or are not allowed

**Total Scope Cost Reductions: -\$4,928,532**



9

**Note:** These Costs items are not inclusive of the GMRS cost savings

*Public Safety*

# The GMRS Proposal & Impact

## GMRS PROPOSAL

GMRS Proposal allows the CoD to have space on three of their towers — Mesquite, Sachse, and Mckenzie (Balch Springs area)

Distributes costs out over 20 years. Also improves interoperability between agencies on East side of County

### Proposal Costs to City

- \$60,000.00 for 5 years
- \$9,000.00 per year from years 6-20
- Annual circuit costs - \$10,800
- Tower analysis for any changes \$2,500 x 3

### Savings to City

Immediate Costs Savings: \$619,777

Additional Savings over 20 years: \$395,677

**Total Savings Over 20 yrs with GMRS: \$2,146,330**

## COST WITHOUT GMRS

Mesquite Area - Possible use of Samuel Farms not approved by State AG office and Park Board:

Initial Cost Estimate: \$5000/month

Sachse no physical site found - Unable to locate shared site. Might need to purchase land

Seagoville/Lasater - DWU shared site, but extensive land modifications will be needed

*Calculated Additional costs: \$1,750,653 over 20 years*

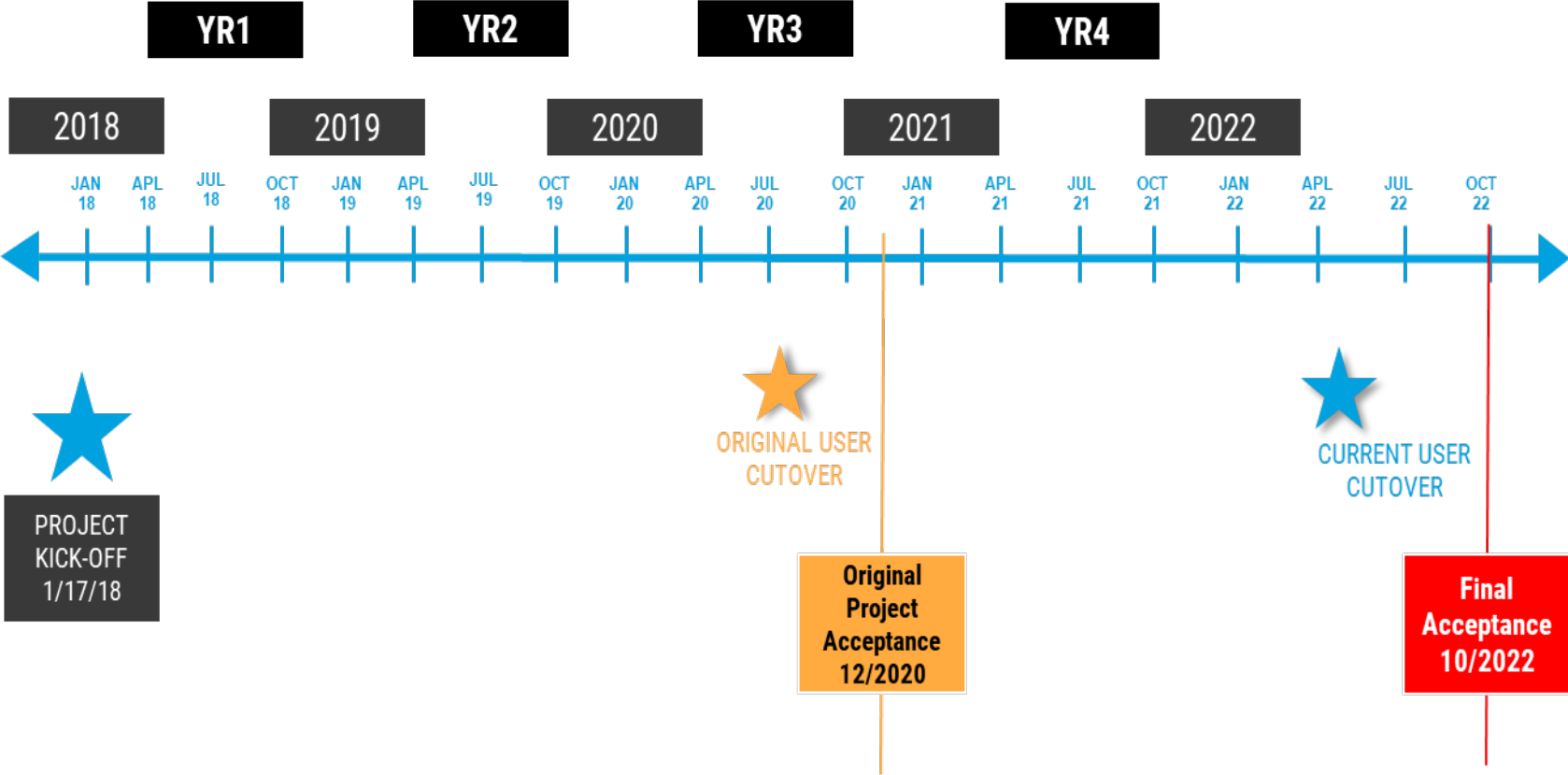
- Construction costs: \$406,653 extra needed above amounts in original contract SoW
- Annual Site Maintenance: \$7,200.00
- Annual Lease-Samuel Farms: \$60,000 / Yr

10

**Note:** GMRS = Garland, Mesquite, Rowlett & Sachse Radio Consortium

Public Safety

# DALLAS P25 SCHEDULE UPDATE 05-28-20





**Note:** GMRS = Garland, Mesquite, Rowlett & Sachse Radio Consortium


















# Dallas / Dallas County / Radio Towers

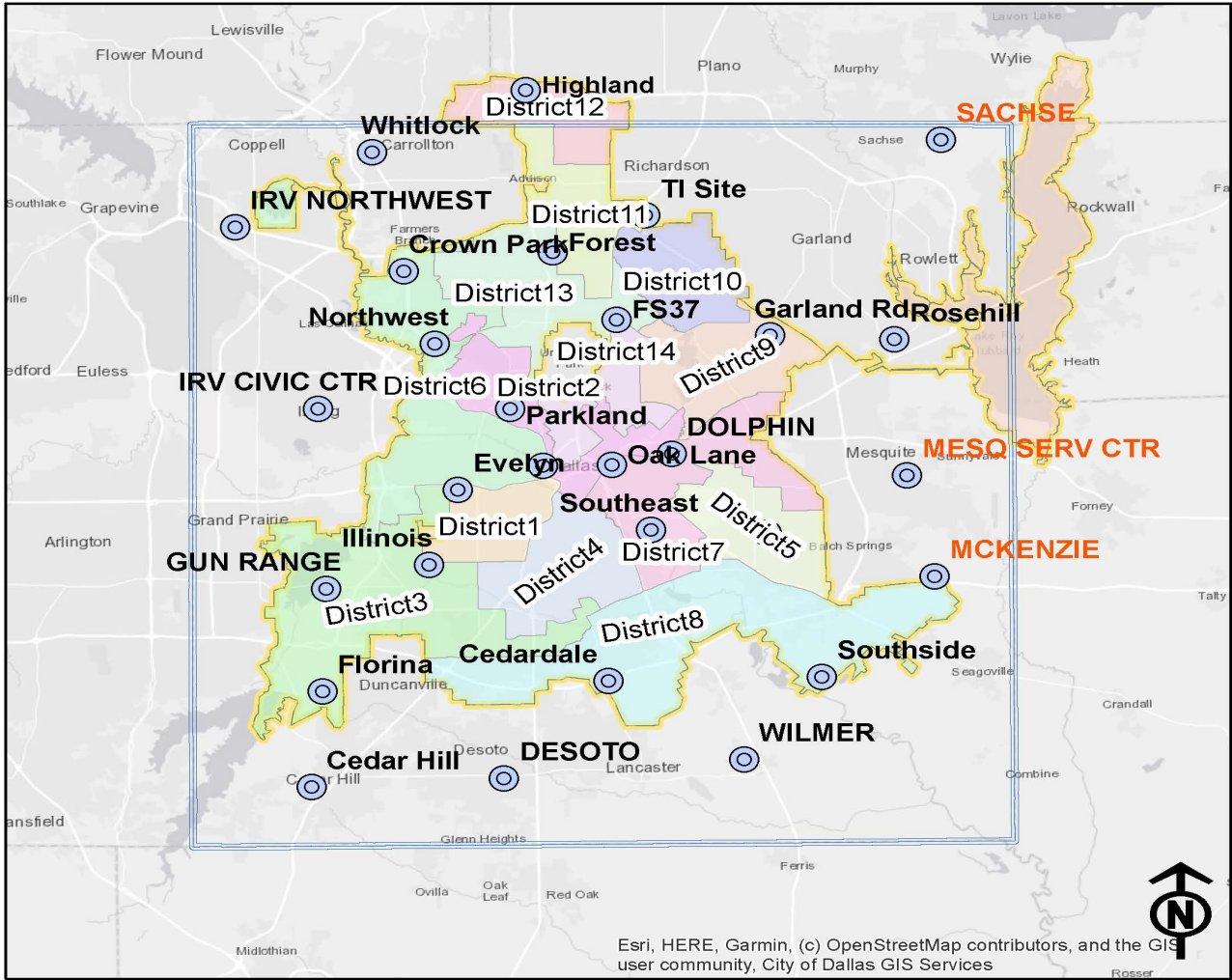
**Legend**

-  Radio Towers
-  Dallas County

**Dallas Council Districts**

**DISTRICT**

-  Dist 1
-  Dist 2
-  Dist 3
-  Dist 4
-  Dist 5
-  Dist 6
-  Dist 7
-  Dist 8
-  Dist 9
-  Dist 10
-  Dist 11
-  Dist 12
-  Dist 13
-  Dist 14
-  City Limits



Note: GMRS = Garland, Mesquite, Rowlett & Sachse Radio Consortium



# What's required to move forward

- Project Team is asking for Council approval of Change Order 2 on the June 24<sup>th</sup> Council Meeting in the amount of \$6,494,271 to complete the project and avoid any further costly delays.
- GMRS Proposal will be presented to council (Estimated timeframe Aug 2020) once the CAO/ITS team has had time to review the final terms and conditions
  - If the GMRS proposal is approved by Council in August, this will result in an immediate savings to the project of \$619,777.
  - In addition, over the next 20 years, the GMRS Proposal will save the city an estimated \$2.15 million through the reduction of building costs, maintenance costs, other associated costs to building and maintaining three tower sites in Eastern Dallas County

# Questions?

