



# Traffic Engineering Update

Infrastructure & Development Committee  
February 4, 2026

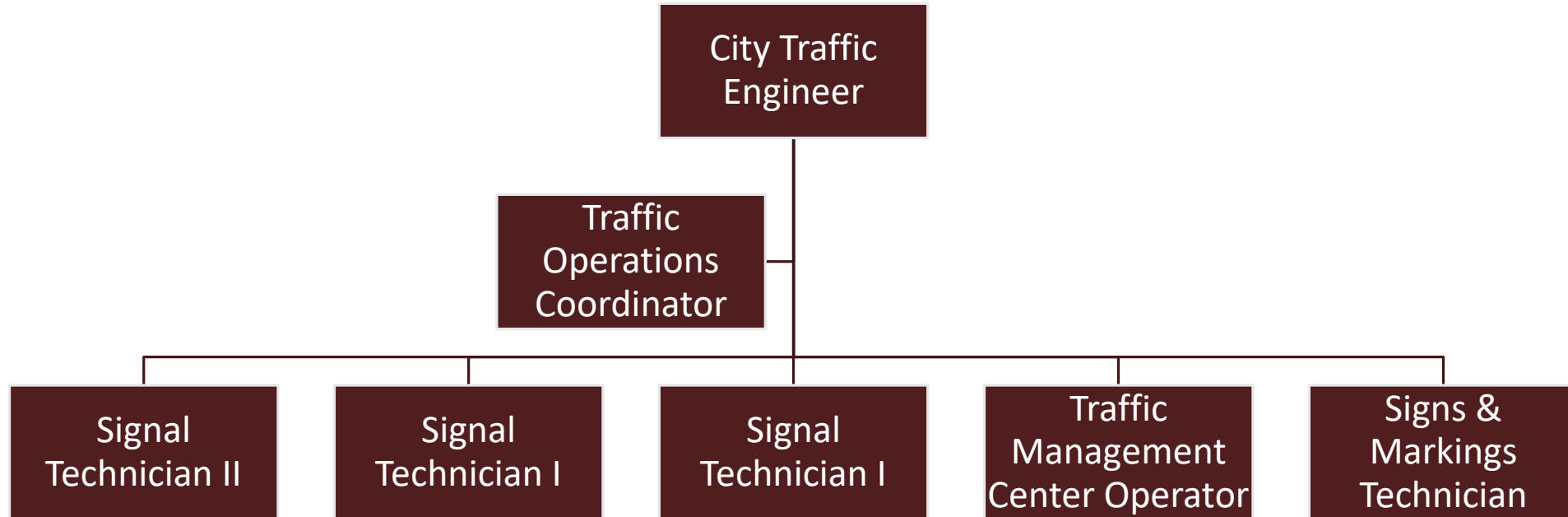
Public Works Department

# Outline



- Traffic Signals/ Traffic Management Center
- Signs & Markings
- Street Lighting
- Maintenance Projects
- TxDOT Highway Safety Improvement Grant Submissions

# Traffic Engineering Division of Public Works



## Fleet Inventory:

- Two bucket trucks
- Two service trucks
- One crash attenuator

# TxDOT Traffic Signal Maintenance Agreement



- Cities over 50,000 population (according to the latest U.S. census) are required to maintain TxDOT traffic signals within their city limits by State Law – Burleson elected to take on this responsibility early
- Voters approved 2022 Bond including funding for Intelligent Transportation System (ITS) and Traffic Management Center (TMC) project
- City executed agreement in July 2025 to assume signal maintenance from TxDOT for 26 Traffic Signals / 8 School Flashers / 6 Advance Warning Flashers
- City now maintains:
  - 44 Traffic Signals / 37 School Zone Flashers / 6 Advance Warning Flashers / 8 RRFB Crosswalks / 8 Driver Feedback Signs / 5 Flood Warning Flashers



Special thanks to Yang Jin, project manager from Capital Engineering, and Scott Heisley, project manager from Information Technology, for their support throughout the implementation of the project

# Traffic Management Center Video Wall



Video wall allows staff to among other things:

- Monitor side street and turn lane back ups
- Monitor platoon progression on corridors
- Monitor signal status and incidents

# Traffic Management Center Cameras/Radar Live Video

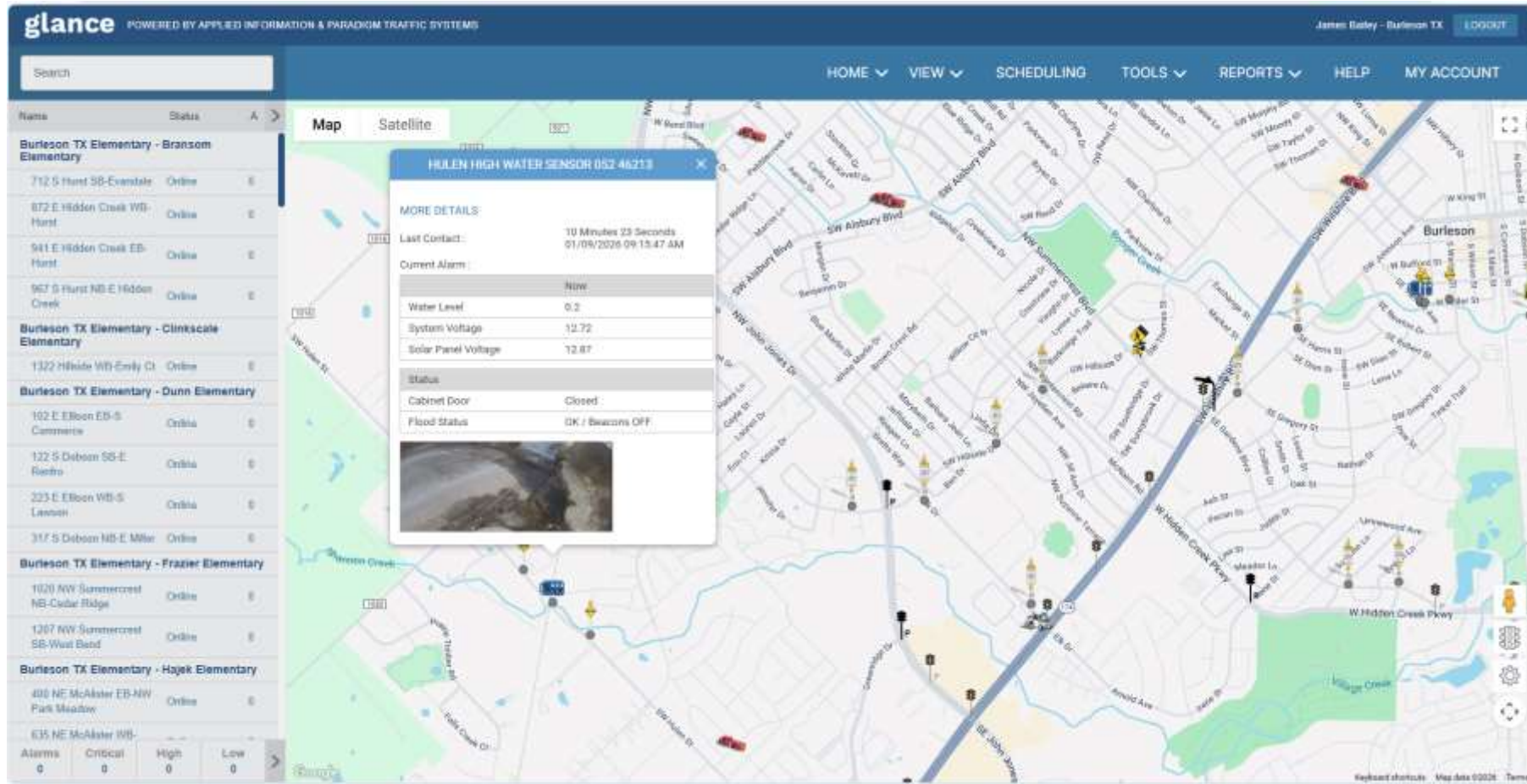
## Detection Zone Set Up

### Detection & Counts

- Pedestrians
- Bicycles
- Trucks
- Buses



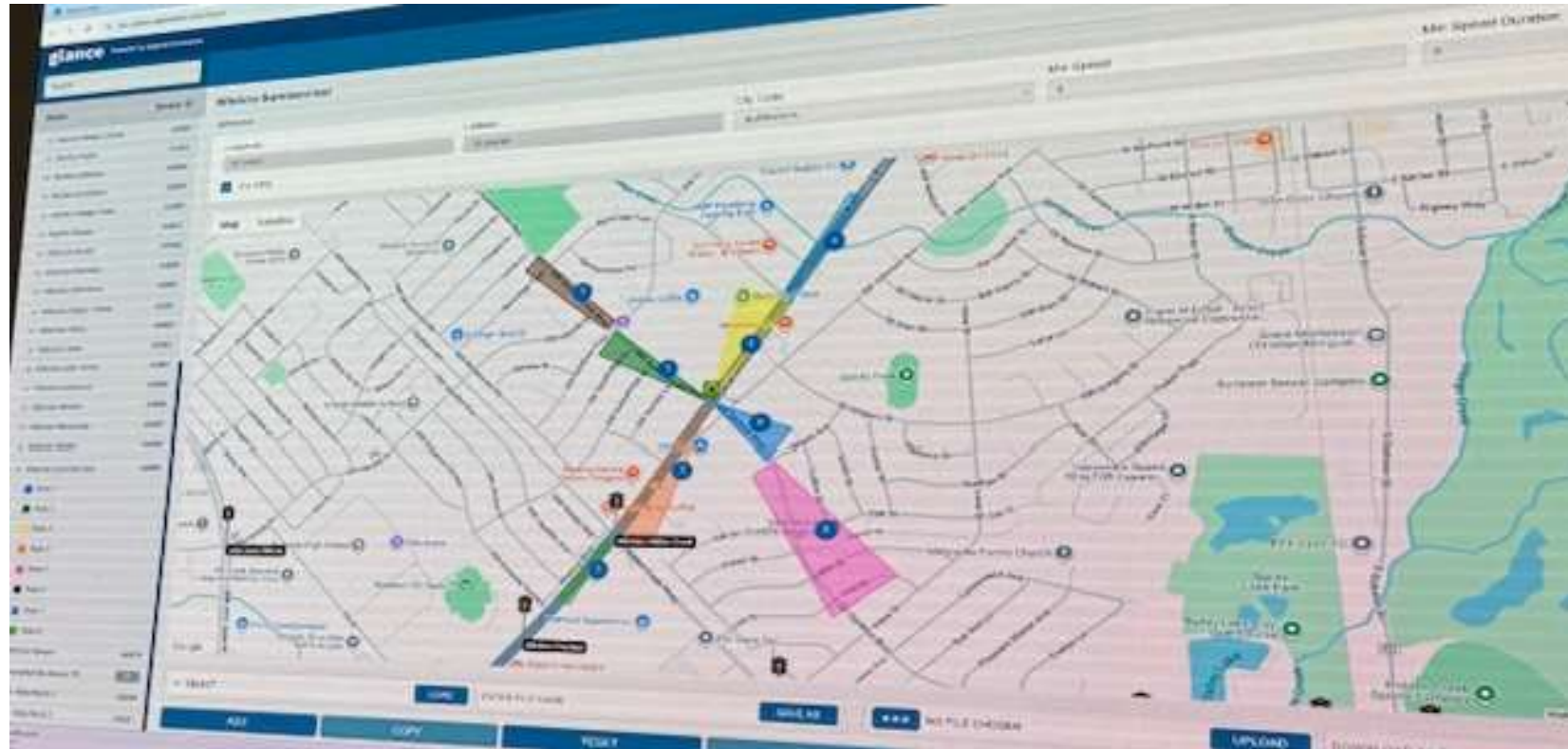
# Traffic Management Center Glance Software



## Supports and Monitors

- Battery Back Ups
- Flood Warning System
- School Zone Beacons
- Emergency Response Preemption

# Traffic Signal Preemption for Emergency Response Vehicles

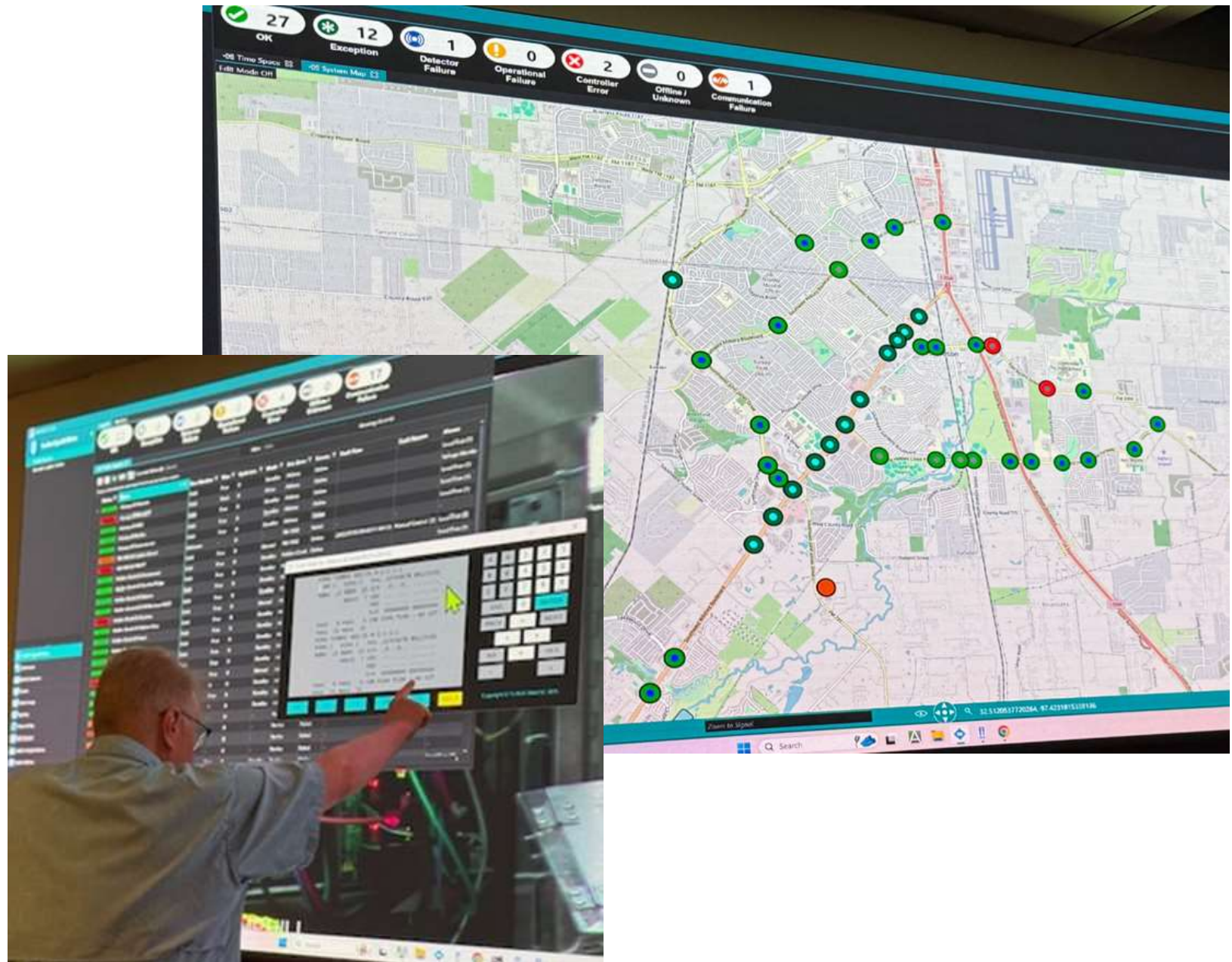


GPS/radio is used to locate emergency vehicles and provide green lights at traffic signals for better response times and traffic safety. Phased implementation began last month and full implementation anticipated this month. Preemption activation can cause momentary traffic back-ups for up to a few minutes after the response vehicle has cleared an intersection.

# Traffic Management Center

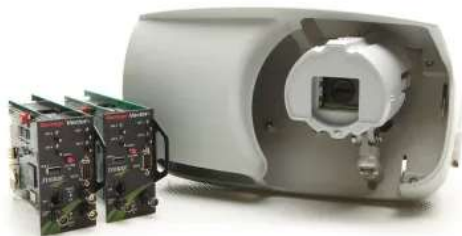
Various software allows staff to:

- Monitor and reset traffic signal controllers
- Remotely access intersections
- Adjust timing
- Troubleshoot
- Maintenance Alerts
- Signal Performance Measures (Wilshire Blvd Only)



# Traffic Counts

Wilshire & John Jones  
Wednesday, November 12, 2025 12:00 AM - Wednesday, November 12, 2025 11:59 PM



Wilshire PM Peak Traffic Counts

(from 2019 TxDOT counts  
to 2025 up to 20% Increase)

AM plan 6am to 9am  
MID plan 9am to 2:30pm  
PM plan 2:30pm to 7pm

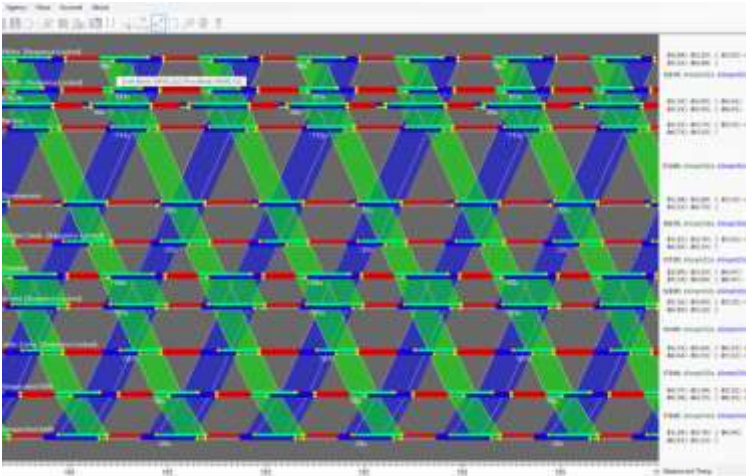
# Traffic Signal Timing Test Runs



Example: WaySync software travel time GPS drive runs provide objective data. Northbound Wilshire – approximately 3 miles from Hulen St to Hillery St

Date	Time	Run #	Avg Speed (mph)	Travel Time	Number of Stops	% Time Stops	Grade
12/17/2025 (Wednesday)	11:59 am	1 (Before)	22.3	7 min 58 sec	4	34%	D-
1/8/2026 (Thursday)	1:21 pm	1 (After)	32.4	5 min 31 sec	1	12%	A
1/14/2026 (Wednesday)	12:09 pm	2 (After)	18.7	7 min 21 sec	3	31%	D
1/14/2026 (Wednesday)	11:50 am	3 (After)	33.9	5 min 15 sec	1	9%	A

Timing adjustments result from an iterative process of specialty software modeling to produce options and travel time runs in the field after adjustments for verification



# Traffic Signal Maintenance



- Battery Back Ups
- Cell Modems
- Malfunction Units
- Load Switches
- Turned Poles
- LEDs out
- Signals on Flash



On-call 24/7 (via 3-1-1 / after-hours response line)

# Pavement Markings



Hidden Creek at Cardinal Ridge  
(Contrast Crosswalks)



Gardens Blvd/ Johnson Ave  
(Don't Block the Box)



Renfro St



Warren St/ Tinker Trail  
(Green Shared Bike Markings)



Dobson St

# Traffic Signs



# Streetlighting



Decorative Streetlight Maintenance



Banner Replacements in Collaboration  
with Economic Development

# Signs & Markings (Example Changes)

2025 Manual of Uniform Traffic control Devices (MUTCD) and Texas MUTCD



(pedestrian crosswalk sign sheeting color)



(mid-block crosswalks only)



(school zone beacon sign on back side)

Current sign replacement schedule based on sheeting material warranties (7 to 12 years)

# Pavement Marking Replacement Need Examples:



**Alsbury Blvd  
(Renfro to Summercrest)**



**Hidden Creek Dr  
(Wilshire to Irene)**



**NE Mc Allister Rd  
(Hemphill to Renfro)**

# High Priority Pavement Markings Needs



Roadway	Estimated	From	To	Existing	AADT	311 Concern & Comments
NW Summercrest Blvd	\$52,500	John Jones	Cedar Ridge	Buttons Only	2,787	Add Center Turn Lane, 4 to 3 lanes
NE McAllister Rd	\$75,000	Hemphill	Renfro	Buttons/Markings	4,590	Faded Bike Lanes, Extend bike lanes
Newton Dr	\$15,000	Wilshire	Johnson	No Markings	258	Add Center Turn Lane
SW Thomas St	\$15,000	Renfro	Tarrant	No Markings	2,737	Pathway Church Add Center Lane
SW Johnson Ave	\$67,500	Gardens	Renfro	Buttons Only	3,579	Add Center Turn Lane, 4 to 3 lanes
Alsbury Blvd	\$67,500	Renfro	Summercrest	Buttons Only	15,299	Replace Buttons with Thermo Markings
Hidden Creek	\$30,000	Wilshire	Irene	Buttons Only	13,494	Replace Buttons with Thermo Markings

**Total    \$322,500**

Thermoplastic markings with glass beads for retroreflectivity last three to five years

Current operating budget for pavement marking materials and services: \$55k

New service contract anticipated to be presented to Council in March based on inter-local agreement with Grand Prairie – this is intended to be used for routine operating budget markings and to support annual Street Maintenance Program

# Wilshire Blvd Lighting Replacements and Repairs

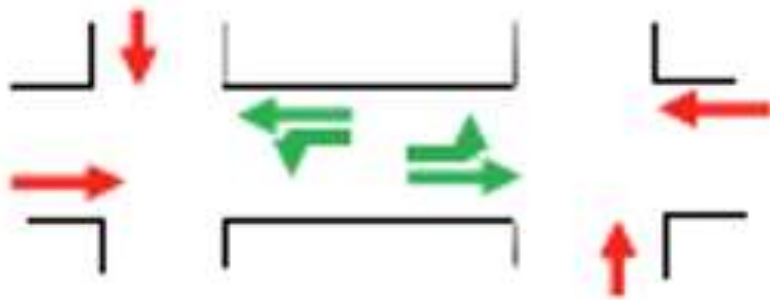
IH 35W to south of Gardens (approx. 2 miles)

Originally installed by the City in 1994 – Upgrades anticipated completion March 2026

- 68 light fixtures to be replaced and upgraded to current standards
- Three 240/480V services to be replaced with 120/240V services
- Multiple sections of existing conduit to be repaired / replaced



# IH 35 at FM 917 Signal Improvements



## EXISTING

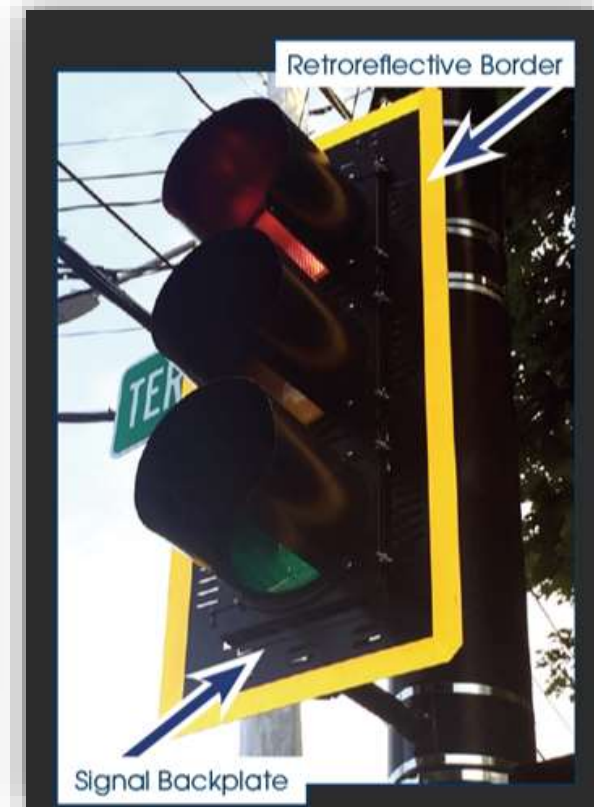
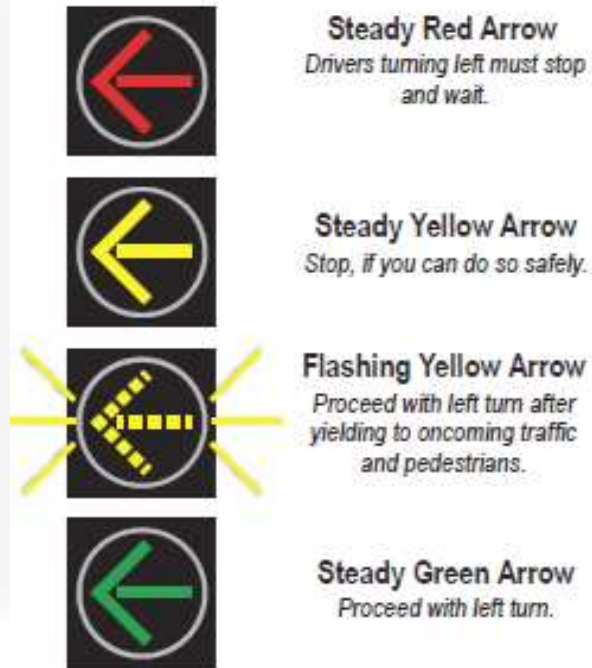


## PROPOSED PROTECTED ONLY



- Install new signal heads with protected green arrows for three phase operation (anticipated Feb 2026)
- Install local communication for two separate controllers to work together & add PTZ cameras

# Renfro / Wilson Improvements



- Install new signal heads with flashing yellow arrows and reflective back plates
- Install new pedestrian audible buttons and countdown timer indications

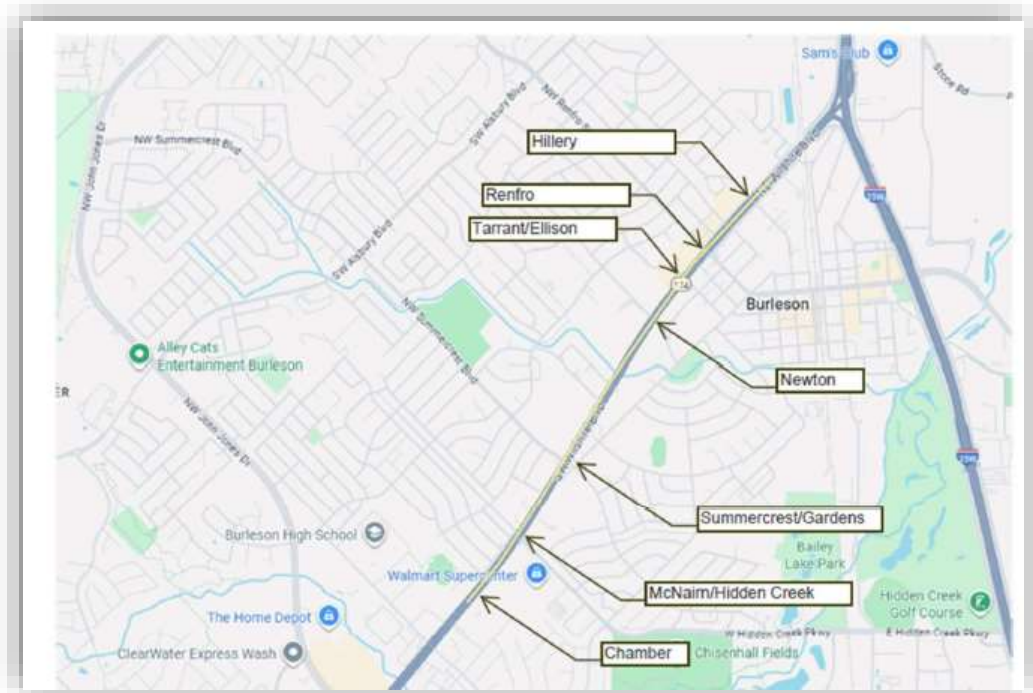



Scheduled FY2026

# TxDOT Highway Safety Improvement Program Application

Wilshire from Chamber to Hillery – approx. \$404k

- Install new signal heads with flashing yellow arrows and reflective back plates
- Install new pedestrian audible buttons and countdown timer indications





### 2026 Program Call HSIP Project Submission Form

(UTP 2027 - TRF 2027 Sub-Program)

[MANUAL](#)

SAVE FORM#NAME?

#### Proposal Information

District

Fort Worth

County

Johnson

Comments

City of Burleson Signals (7ea)

Project Work Codes\*

108 Improve Traffic Signals (Hardware)

131 Improve Pedestrian Signals

\*Can include up to 8 work codes as scope of project

Supervised By

#### Roadway Information

Primary Roadway

SH 174

Limits From

0.1 mi S of Chamber Dr

Limits To

0.1 mi N of Hillery St

On or Off System

ON

Selection Method

Systemic

Work Code Combo\*

\*See WC Combo RF Calculator tab to determine Top 3 Work Codes & Combo Reduction Factor

Preferred Letting

March 2029

Letting Fiscal Year

2029

C.S-J(s)

0019-01

RF

K

A

B

SII

Length (miles)

1.918

Begin DFO


0.618

End DFO

2.536

# TxDOT Highway Safety Improvement Program Application





2026 Program Call

HSIP Project Submission Form

(UTP 2027 - TRF 2027 Sub-Program)

SAVE FORM

\*\*\*\*\*

MANUAL

Proposal Information

District

Fort Worth

County

Johnson

Comments

Replace wood poles span wire traffic signal

Project Work Codes

108 Improve Traffic Signals (Hardware)

131 Improve Pedestrian Signals

Supervised By

Roadway Information

Primary Roadway

E Hidden Creek Pkwy

C-S-J(s)

Limits From

0.1 mi E of S Hurst Rd

Beg Lat/Long

32.525, -97.301

Limits To

0.1 mi W of S Hurst Rd

End Lat/Long

32.525, -97.300

On or Off System

OFF

Length

0.2

Selection Method

Targeted

RF

K

0

Work Code Combo

A

0

Preferred Letting

March 2029

B

3

Letting Fiscal Year

2029

SII

1.43

\*Can include up to 8 work codes as scope of project

\*See WC Combo RF Calculator tab to determine Top 3 Work Codes & Combo Reduction Factor

Hidden Creek Parkway at Hurst – approx. \$363k

- Replacing wood pole span wire signals
- Could complement or support future City widening of the south leg for dedicated right turn lane and overall alignment

February 4, 2026

Public Works Department

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# Questions/Discussion

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City Traffic Engineer

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