Plano
City of Excellence

Engineering Department

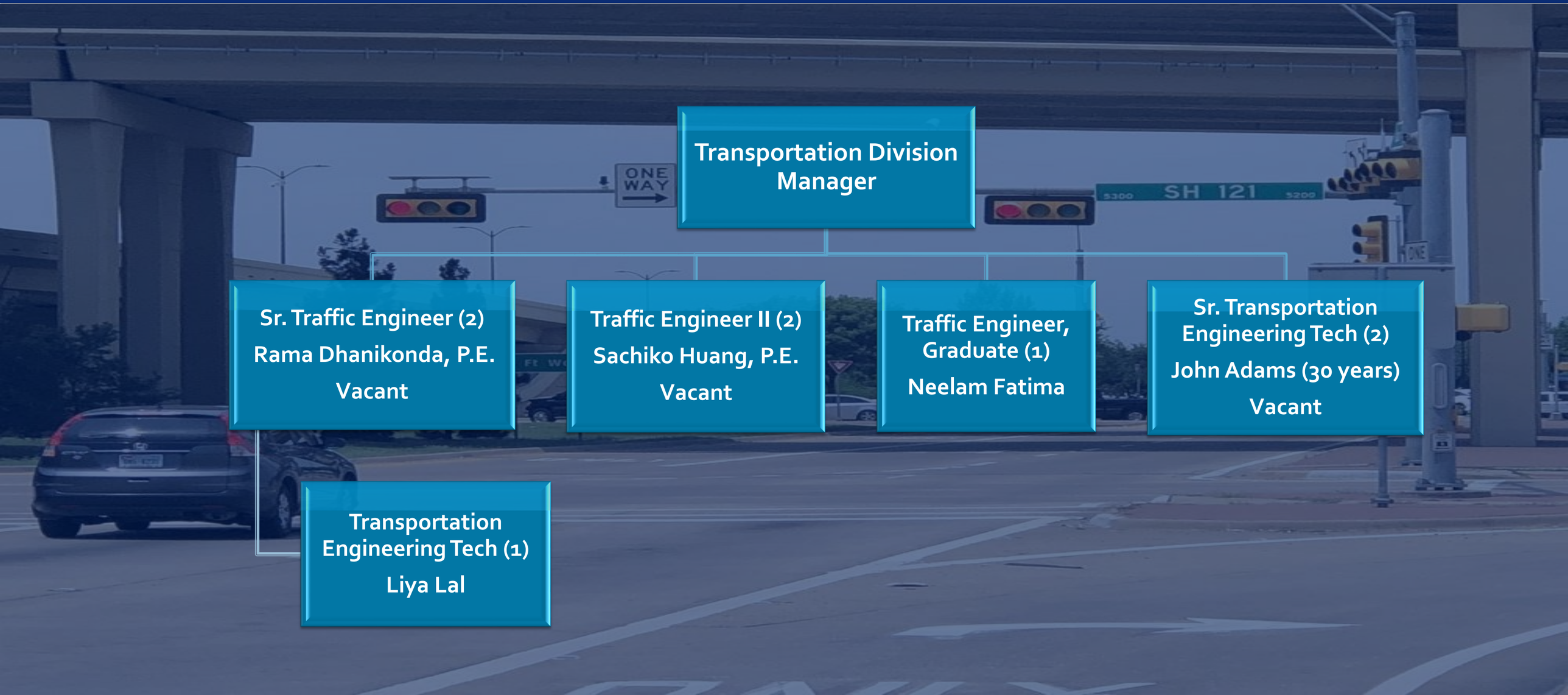
Transportation (TE) Division

July 23, 2018

Fast Facts

- Signalized intersections nearly doubled in the last 20 years to 268
- Traffic entering and leaving Plano doubled in the last 20 years
- Over 1000 emergency vehicle preempts per day
- >5 billion motorists travel thru (touch) Plano traffic signals annually
- Traffic Management Center operates 8 a.m.–noon and 1:00–5:00 p.m.
- TE Division currently has the same number (9) of staff positions we had 20 years ago. We currently have 3 vacant positions.

Transportation Staff



Transportation Division Manager

Sr. Traffic Engineer (2)
Rama Dhanikonda, P.E.
Vacant

Traffic Engineer II (2)
Sachiko Huang, P.E.
Vacant

Traffic Engineer, Graduate (1)
Neelam Fatima

Sr. Transportation Engineering Tech (2)
John Adams (30 years)
Vacant

Transportation Engineering Tech (1)
Liya Lal

Primary Division Functions

- Internal Traffic Studies – preparation, analysis and development of recommended solutions
- Major Projects – coordination and input
- Current Programs – implementation and oversight
- Construction Plans – design, review, and comment
- Traffic Signal Operations – develop, implement, and fine-tune new coordinated and optimized timing plans
- Traffic Management Center (TMC) – operate TMC
- Future Programs/Initiatives – development and implementation

Major Project Coordination

- Cotton Belt Regional Rail (DART)
- DNT 4th Lane Widening Project (NTTA)
- SH 121 4th Lane Widening Project (NTTA and TxDOT)
- US 75/Plano Parkway Widening Project (TxDOT)
- Legacy Transportation Management Association
- Traffic Management Center Upgrade
- Citywide Fiber Communications Upgrade
- Citywide Traffic Signal Retiming
- Thoroughfare Standards Update

Current Division Programs

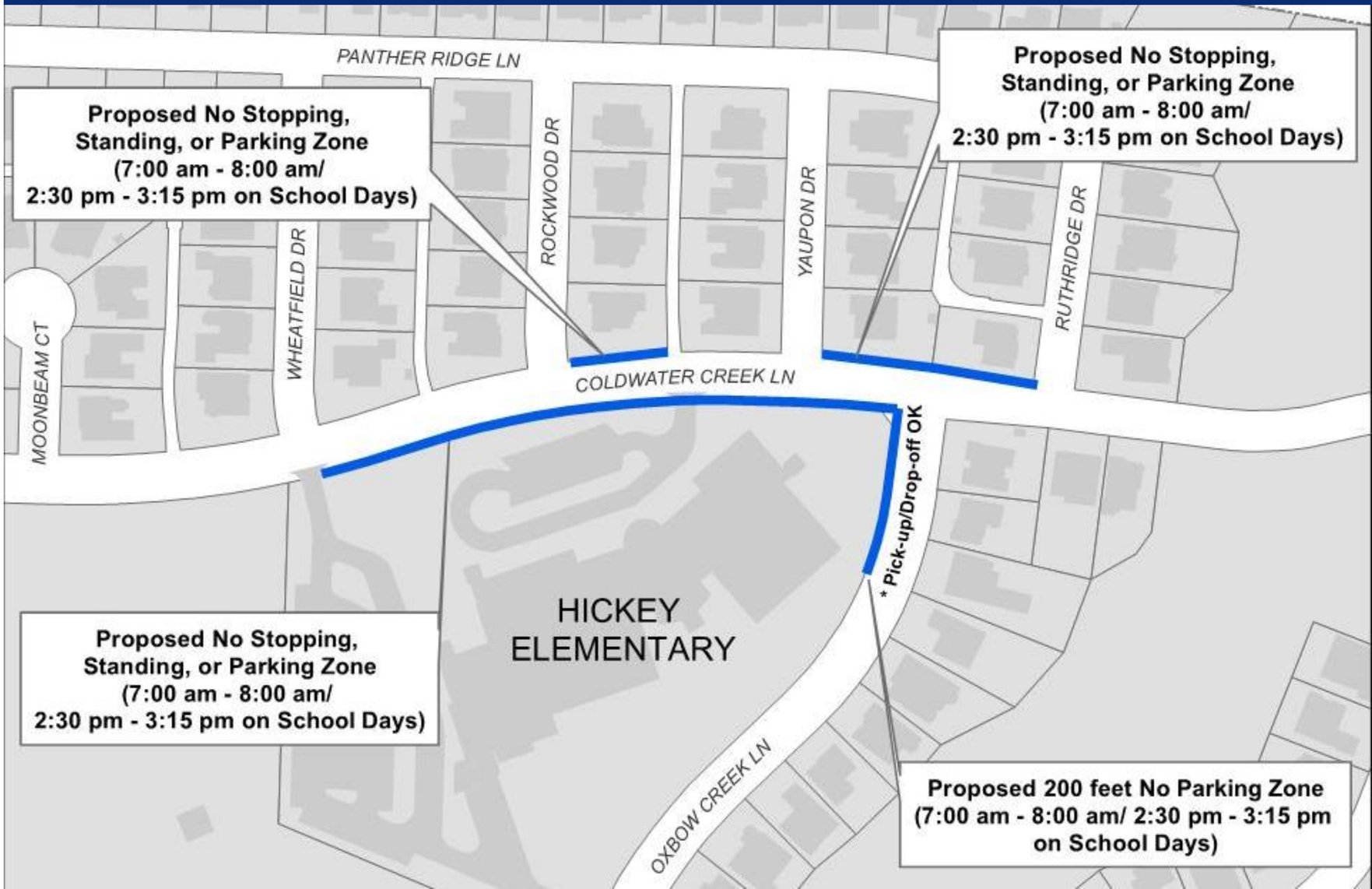
- Annual Traffic Safety Report
- High Accident Location/High Accident Roadway Segment (HAL/HARS)
- Traffic Count/Data Collection Program
- Respond to FixIT, Citizen, Motorist Requests
- School Traffic Coordination
- Bike Share Program

FixIT / Citizen / Motorist Requests

- Traffic signal timing requests
  - Coordination
  - Capacity issues (not enough green time)
- Neighborhood/business requests
  - Install “Stop” signs
  - Install “No Parking” signs
  - Provide speed reduction signing
  - Install new traffic signals
  - Remove abandoned Bike Share bicycles

Hickey Elementary FixIT Request

Recommended Improvements



Bike Share Program

- Citywide except Legacy West area
- Primary emphasis on parks, downtown, transit facilities, libraries, and other high bike usage locations



Bike Share Program

New FixIT request!



Construction Traffic Control Example

- K Avenue closure south of 15th Street
- Photo is looking southbound just north of 15th



Traffic Signal Operations

- 268 signalized intersections
- 183 school zone flashers
- 32 CCTV cameras
- Wireless communications to 227 intersections
- New HAWK pedestrian signal
- Five basic peak timing plans – AM, Off, PM, late night, and Free (actuated)

Traffic Signal Timing Example

Photo of Park and DNT on east side of DNT looking westbound



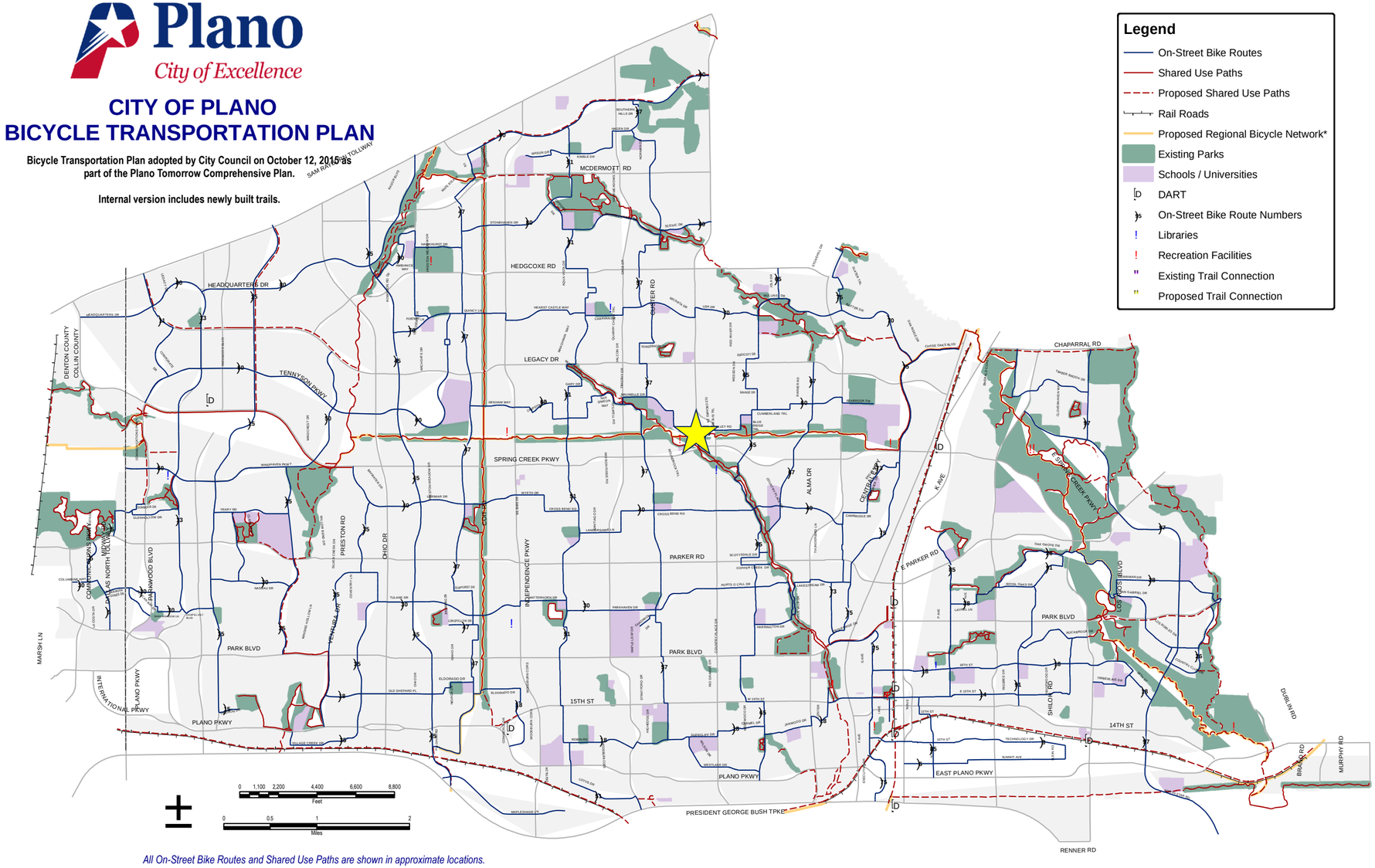

LEFT ON GREEN ARROW ONLY
40
40
FUSION

City of Plano Facebook Post

Heather XXXXXXXXX to City of Plano, Texas Government April 6 ·

“(Transportation Engineering Division) in engineering at the City of Plano ROCKS. woohoo three green lights in a row!!!! This is in front of Willowbend east bound on Park at DNT...i finally called Weds about these lights being out of sync for months. Brian left me a detailed vmail thurs morning explaining they were working on the issue and then he called back today (fri) to ask if i had driven that direction because the problem was fixed...wow what customer service — feeling accomplished in Plano, Texas.”

New HAWK Signal Location



All On-Street Bike Routes and Shared Use Paths are shown in approximate locations.
Note: When multiple lines appear side by side, it denotes multiple uses served by the same facility.
**North Central Texas Council of Governments Regional Veloweb.*

Date: February, 2015
Source: City of Plano, Parks Division

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New HAWK at Alma and Bluebonnet Trail

Photo looking south



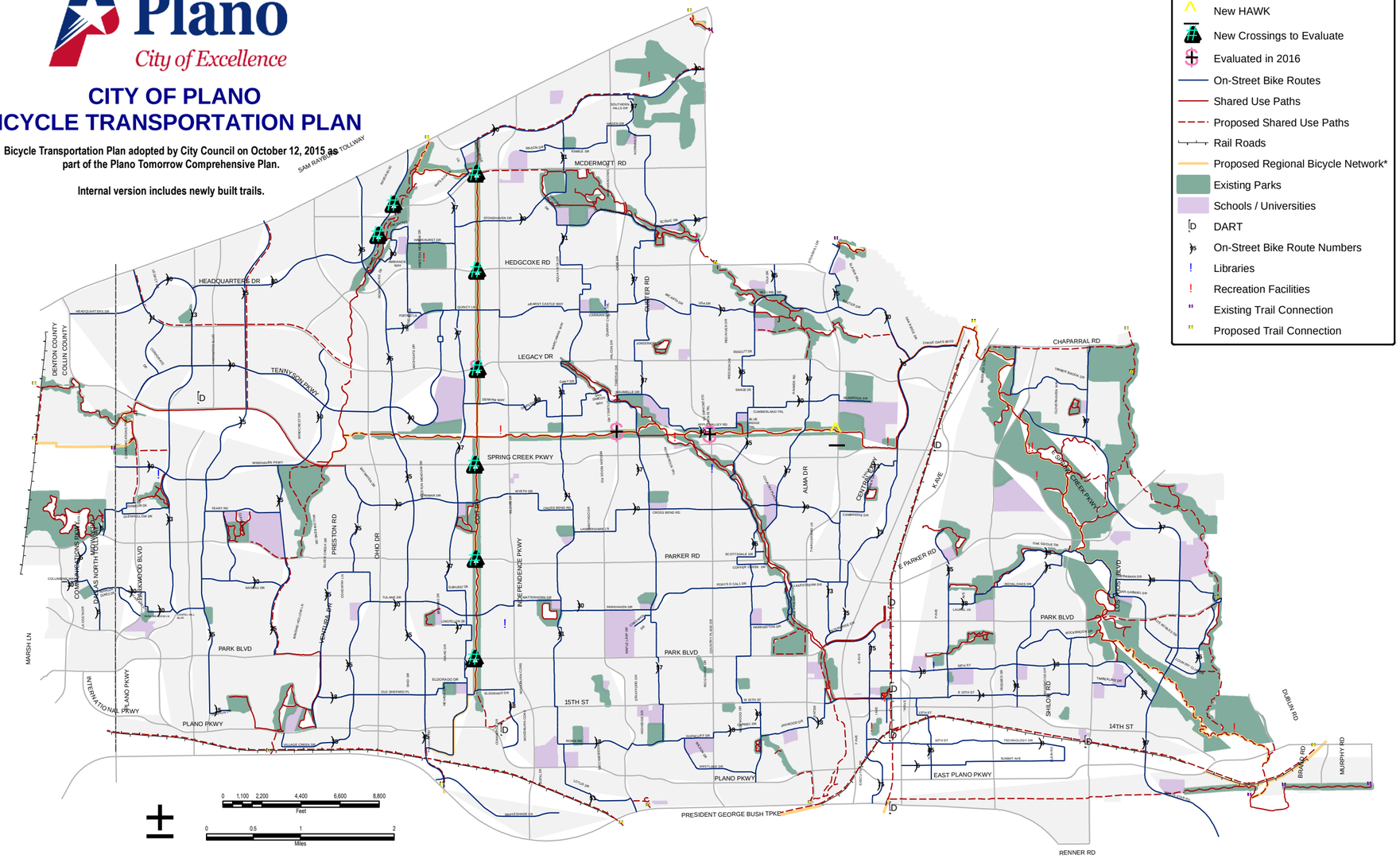
Future HAWK Evaluations

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BICYCLE TRANSPORTATION PLAN

Bicycle Transportation Plan adopted by City Council on October 12, 2015 as part of the Plano Tomorrow Comprehensive Plan.

Internal version includes newly built trails.



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Existing Traffic Management Center

- Over 20 years old
- Citizen calls
- Field alarms
- Controller mods
- Verification of traffic conditions via Pan, Tilt, Zoom (PTZ) cameras



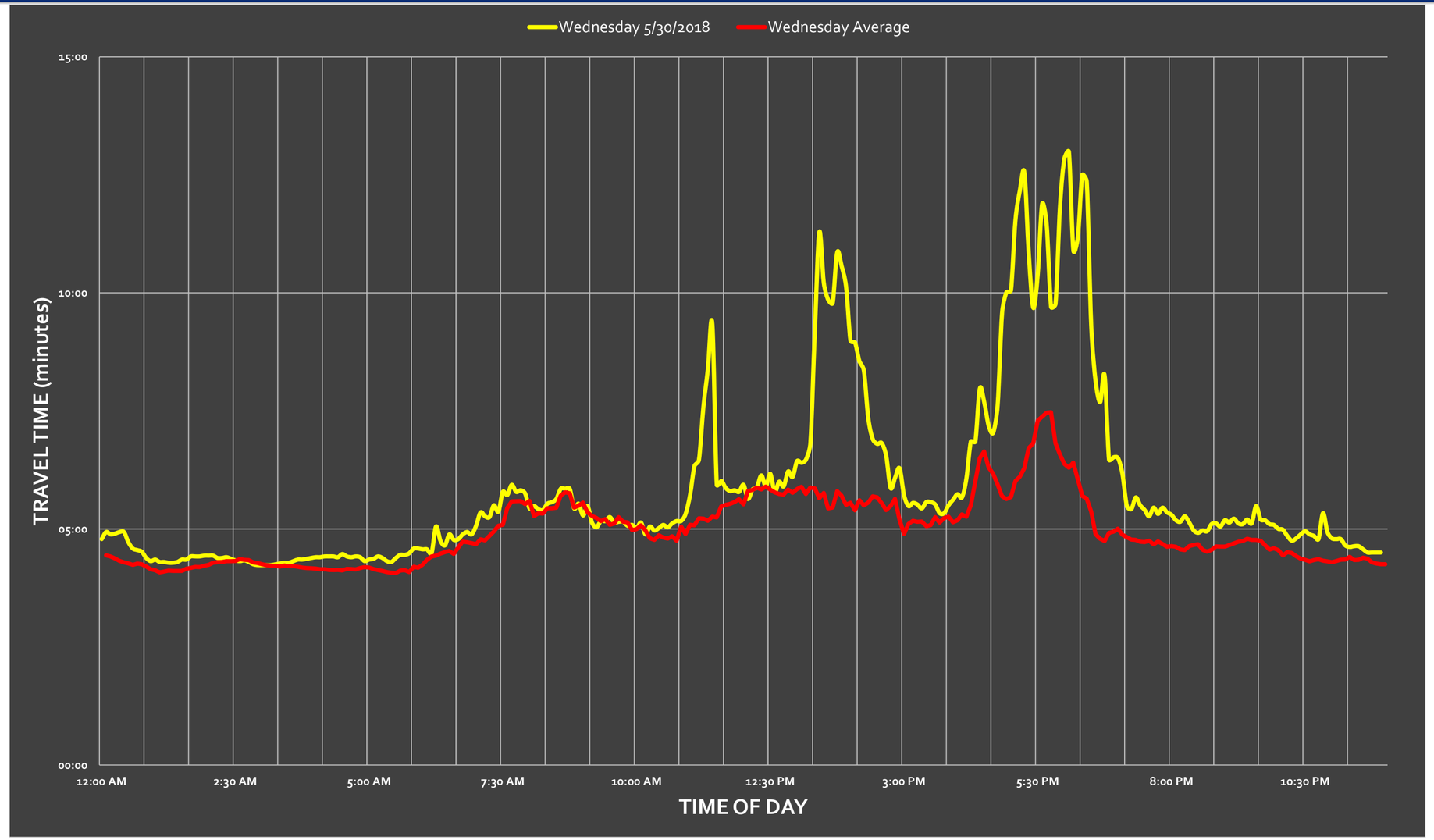
Current Operational Improvements

- PTZ camera expansion
- School Zone Flasher System
- Intersection communications expansion
- Emergency vehicle preemption system upgrade
- Traffic Management Center (TMC) upgrade
- Fiber optic communications upgrade
- Citywide traffic signal timing update

Future Programs / Initiatives

- Traffic Management Strategies Evaluation
- Intersection Capacity and Corridor Bottleneck Improvement Study
- Incident Management Alternative Timing Plans
- Waze Traffic Data Integration – Grant Program
- Adaptive Traffic Signals – PODS Pilot
- Autonomous and Connected Vehicles
- Performance Metrics Integration

Travel Time Comparison for Northbound Preston Road from Frankford Road to Park Boulevard



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QUESTIONS

Brian Shewski, P.E., PTOE
Transportation Engineering Manager
bshewski@plano.gov
972-941-5637