

# Memorandum

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CITY SECRETARY  
DALLAS, TEXAS



CITY OF DALLAS

DATE 22 May 2015

TO Transportation and Trinity River Project Committee Members: Lee Kleinman (Vice Chair), Deputy Mayor Pro Tem Monica Alonzo, Mayor Pro Tem Tennell Atkins, Sandy Greyson, and Sheffie Kadane

SUBJECT Transportation and Trinity River Project Committee Meeting Agenda REVISED

**Tuesday, 26 May 2015, at 1:00 p.m. until 3:00 p.m.**

Dallas City Hall – 6ES, 1500 Marilla Street, Dallas, TX 75201

The agenda for the meeting is as follows:

1. Approval of the 11 May 2015 and 18 May 2015 Meeting Minutes (Estimated 3 Minutes) Vonciel Jones Hill, Chair
2. Traffic Signal System Plan Program Development and Implementation Strategies (Estimated 50 Minutes) Auro Majumdar, Assistant Director, Street Services
3. Everyone Is a Pedestrian Improving Pedestrian Safety in Texas (Estimated 30 Minutes) Al Alonzi, Division Administrator, Federal Highway Administration Texas Division
4. Upcoming Agenda Items (Estimated 5 Minutes)

A public hearing to receive comments to amend the City of Dallas' Thoroughfare Plan to change the dimensional classifications of (1) Beckley Avenue from IH-30 to Greenbriar Lane from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special six-lane undivided (SPCL 6U) roadway with a center turn lane, a cycle track and recommended off-peak parking within 100-feet of right-of-way; (2) Beckley Avenue from Greenbriar Lane to Colorado Boulevard from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special six-lane divided (SPCL 6D) roadway with a cycle track within 100-feet of right-of-way and 72 feet of pavement; (3) Beckley Avenue from Colorado Boulevard to Zang Boulevard from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special six-lane divided (SPCL 6D) roadway with cycle track within 88-feet of right-of-way and 64 feet of pavement; (4) Zang Boulevard from Jefferson/Houston Viaduct to Oakenwald Street from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special four-lane divided (SPCL 4D) roadway with protected bicycle facility and a dedicated streetcar lane within 100-feet of right-of-way and 80-feet of pavement; (5) Zang Boulevard from Oakenwald Street to Beckley Avenue from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special four-lane divided (SPCL 4D) roadway with bicycle lanes within 100-feet of right-of-way and 80-feet of pavement; and (6) Zang Boulevard from Beckley Avenue to Davis Street from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special four-lane divided (SPCL 4D) roadway with parking in 100-feet of right-of-way with 72-feet of pavement; and at the close of the hearing, authorize an ordinance implementing the change - Financing: No cost consideration to the City

***"A quorum of the Dallas City Council may attend this Council Committee meeting."***

5. Adjourn

Should you have any questions, please do not hesitate to contact me.



Vonciel Jones Hill, Chair  
Transportation and Trinity River Project Committee

- |  |  |
|--|--|
| c: Honorable Mayor and Members of the City Council<br>A.C. Gonzalez, City Manager<br>Warren M. S. Ernst, City Attorney<br>Daniel F. Solis, Administrative Judge<br>Rosa A. Rios, City Secretary<br>Craig D. Kinton, City Auditor<br>Ryan S. Evans, First Assistant City Manager<br>Eric D. Campbell, Assistant City Manager<br>Jill A. Jordan, Assistant City Manager<br>Joey Zapata, Assistant City Manager | Mark McDaniel, Assistant City Manager<br>Jeanne Chipperfield, Chief Financial Officer<br>Sana Syed, Public Information Officer<br>Elsa Cantu, Assistant to the City Manager -<br>Mayor and Council |
|--|--|

A closed executive session may be held if the discussion of any of the above agenda items concerns one of the following:

1. Contemplated or pending litigation, or matters where legal advice is requested of the City Attorney. Section 551.071 of the Texas Open Meetings Act.
2. The purchase, exchange lease or value of real property, if the deliberation in an open meeting would have a detrimental effect on the position of the City in negotiations with a third person. Section 551.072 of the Texas Open Meetings Act.
3. A contract for a prospective gift or donation to the City, if the deliberation in an open meeting would have a detrimental effect on the position of the City in negotiations with a third person. Section 551.073 of the Texas Open Meetings Act.
4. Personnel matters involving the appointment, employment, evaluation, reassignment, duties, discipline or dismissal of a public officer or employee or to hear a complaint against an officer or employee. Section 551.074 of the Texas Open Meetings Act.
5. The deployment, or specific occasions for implementation of security personnel or devices. Section 551.076 of the Texas Open Meetings Act.
6. Deliberations regarding economic development negotiations. Section 551.087 of the Texas Open Meetings Act.

# Transportation and Trinity River Project Council Committee Meeting

## Meeting Minutes

**Meeting Date:** 11 May 2015

**Convened:** 1:01 p.m.

**Adjourned:** 2:38 p.m.

<b>Councilmembers:</b>	<b>Presenter(s):</b>
Vonciel Jones Hill, Chair	Tanya Brooks, Interim Assistant Director, Planning and Neighborhood Vitality
Mayor Pro Tem Tennell Atkins	John Nguyen, Transportation Engineer, Texas Department of Transportation
Deputy Mayor Pro Tem Monica Alonzo	Mohamed (Mo) K. Bur, P.E., Director of Transportation Planning & Development - Dallas District, Texas Department of Transportation
Sandy Greyson	James Frye, Vice President, HNTB Corporation
Sheffie Kadane	
Lee Kleinman	<b>Other Councilmembers Present:</b>
<b>Councilmembers Absent:</b>	None
None	
<b>City Staff Present:</b>	
Robert Sims	Theresa O'Donnell
Art Hudman	Jill Jordan, Assistant City Manager
Sarah Standifer	Brent A. Brown

**AGENDA:**

**1. Approval of the 27 April 2015 Meeting Minutes**

**Presenter(s):** Vonciel Jones Hill, Chair

**Action Taken/Committee Recommendation(s):** Motion was made to approve the 13 April 2015 Transportation and Trinity River Project Council Committee meeting minutes.

Motion made by: Mayor Pro Tem Tennell Atkins

Item passed unanimously:   X    
Item failed unanimously:

Motion seconded by: Sandy Greyson

Item passed on a divided vote:  
Item failed on a divided vote:

**2. Southern Gateway**

Presenters: John Nguyen, Transportation Engineer, Texas Department of Transportation, Mohamed (Mo) K. Bur, P.E., Director of Transportation Planning & Development - Dallas District, Texas Department of Transportation and Tanya Brooks, Interim Assistant Director, Planning and Neighborhood Vitality

**Action Taken/Committee Recommendation(s):** Information Only

Motion made by:  
Item passed unanimously:  
Item failed unanimously:

Motion seconded by:  
Item passed on a divided vote:  
Item failed on a divided vote:

**3. City Map**

Presenter: John Nguyen, Transportation Engineer, Texas Department of Transportation, and James Frye, Vice President, HNTB Corporation

**Action Taken/Committee Recommendation(s):** Information Only

Motion made by:

Item passed unanimously:

Item failed unanimously:

Motion seconded by:

Item passed on a divided vote:

Item failed on a divided vote:

Adjourn (2:38 p.m.)

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Vonciel Jones Hill, Chair  
Transportation and Trinity River Project Council Committee

# Transportation and Trinity River Project Council Committee Special Meeting

## Meeting Minutes

**Meeting Date:** 18 May 2015

**Convened:** 5:00 p.m.

**Adjourned:** 6:57 p.m.

<b>Councilmembers:</b>	<b>Presenter(s):</b>
Vonciel Jones Hill, Chair	Gary Thomas, President/Executive Director, DART
Mayor Pro Tem Tennell Atkins	
Deputy Mayor Pro Tem Monica Alonzo	
Sandy Greyson	
Sheffie Kadane	
	<b>Other Councilmembers Present:</b>
<b>Councilmembers Absent:</b>	None
Lee Kleinman	
<b>City Staff Present:</b>	
Mark McDaniel	Jill Jordan, Assistant City Manager
Robert Sims	Tanya Brooks
Theresa O'Donnell	Mark Rauscher
Rosa Rios	Biliera Johnson
Jesse Salazar	Arturo Del Castillo

### **AGENDA:**

A meeting with the Dallas Members of the Dallas Area Rapid Transit ["DART"] Board to discuss the following topics:

1. D2 Alignment – Three (3) Most Feasible Alignments
2. DART Interface with Proposed High Speed Rail Station Locations
3. Dallas Streetcar
  - a. Operations and Maintenance
  - b. Proposed Alignment
4. DART 2040 Plan
  - a. Membership Options for Current Non-Member Cities
  - b. Rail Service to Addison
  - c. West Dallas Light Rail Line
  - d. Underground Station to Knox/Henderson
  - e. Pedestrian Access to Victory Station from Design District
5. Connectivity to Inland Port

**Presenter: Gary Thomas, President/Executive Director, DART**

**Action Taken/Committee Recommendation(s):** No action was taken. This meeting was held to discuss the above-referenced transportation related issues.

Adjourn (6:57 p.m.)

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Vonciel Jones Hill, Chair  
Transportation and Trinity River Project Council Committee

# Memorandum



CITY OF DALLAS

DATE 22 May 2015

TO The Honorable Members of the Transportation and Trinity River Project Committee:  
Vonciel Jones Hill (Chair), Lee Kleinman (Vice Chair), Deputy Mayor Pro Tem Monica Alonzo,  
Mayor Pro Tem Tennell Atkins, Sandy Greyson, and Sheffie Kadane

SUBJECT Traffic Signal System Plan Program Development and Implementation Strategies

On Tuesday, 26 May 2015, you will be briefed on the Traffic Signal System Plan Program Development and Implementation Strategies. Attached you will find the briefing materials for your information.

Please feel free to contact me if you need additional information.

A handwritten signature in blue ink, appearing to read 'Jill A. Jordan'.

Jill A. Jordan, P.E.  
Assistant City Manager

## Attachment

c: Honorable Mayor and Members of the City Council  
A.C. Gonzalez, City Manager  
Warren M.S. Ernst, City Attorney  
Craig D. Kinton, City Auditor  
Rosa A. Rios, City Secretary  
Daniel F. Solis, Administrative Judge  
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Sana Syed, Public Information Officer  
Elsa Cantu, Assistant to the City Manager – Mayor & Council



# Traffic Signal System Plan

## Program Development and Implementation Strategies

**Transportation and Trinity River Project Committee**  
**26 May 2015**



# Background

- In November 2013, staff briefed Council on the state of the City's traffic signal system. Council was informed that:
  - Older traffic signals have structural and operational deficiencies
  - Almost 80 percent (80%) of the City's 1,500+ traffic signals were obsolete
  - The City has never had a program to comprehensively upgrade signals





# Briefing Purpose

Since the briefing, staff has developed a potential program to upgrade the City's obsolete traffic signals.

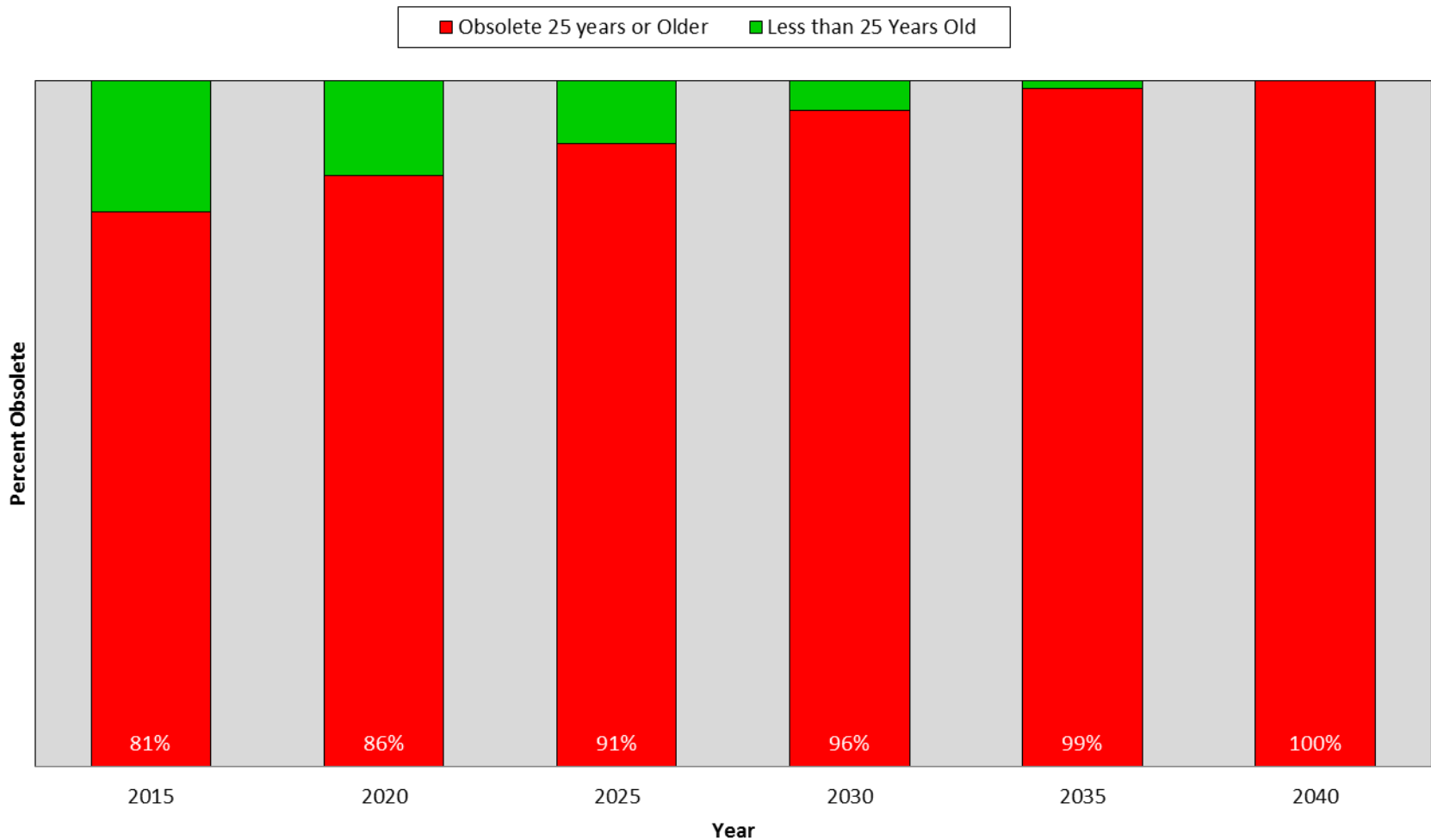
The purpose of this briefing is to:

- Discuss criteria to identify and prioritize critical signals for replacement
- Develop a program implementation strategy
- Seek Committee input and direction on the above

# We Need to Start Now

- 80% of the City's 1,500+ traffic signals need upgrade **today**
- Without a maintenance program, over 90% of signals will be obsolete by 2025
- Replacement costs for traffic signals that are currently obsolete - \$ 290 Million\*
- Not practical to upgrade all obsolete signals in a short time
- Need an annual program that will upgrade and maintain all signals to industry standard
- Estimated Cost - \$362 Million\* over 25 years
- *Costs have been updated based on recently opened bids for signal construction master agreement – previous estimates were based on 2005 signal price agreement.*

# City of Dallas Traffic Signal System without an Upgrade Program



# Benefits of Upgrade

Upgrading traffic signals has several benefits. It will:

- Enhance safety through reduced accidents
- Enhance mobility and reduce congestion
- Reduce signal malfunction during weather events
- Provide ability to add left-turn phasing
- Be compliant with Americans with Disabilities Act [“ADA”] requirements
- Meet current Federal operational, structural and wind-load standards

# PROGRAM IMPLEMENTATION

## Step 1 – Developing Selection Criteria

- With over 1,200 obsolete traffic signals, it is important to establish selection criteria to identify critical signals for replacement that are equitable and acceptable to all stakeholders
- Staff suggests the following criteria to identify signals in critical need for upgrade:
  1. **Age of Signal Hardware** (Causes structural failures and shorts during weather events; unable to provide left-turn phasing)
  2. **Number of Accidents** (Operational deficiencies, detection)
  3. **Number of Service Requests** (Operational deficiencies, detection)
  4. **Type of Signal Hardware** (Spanwire signals - sagging or rotated signal heads; downed signals are electrocution risk; operational issues)

# Storm Damaged Signal Pole



# Wind Damage to Span-Wire Signal





1960 -70s era signal – left turn phasing not possible



# Signal Pole Damage from High Winds



# Step 2 - Developing a Shortlist

- Using evaluation criteria on slide 7, an initial shortlist could be developed to identify signals in critical need of upgrade
- The initial list could be further refined based on:
  - input from stakeholders
  - other known issues and deficiencies
  - availability of outside funds
- A final shortlist of critical signals citywide could then be developed
- Staff could prepare individual lists by Council District showing the distribution of the above signals in each district

# Step 3 - Replacing Signals

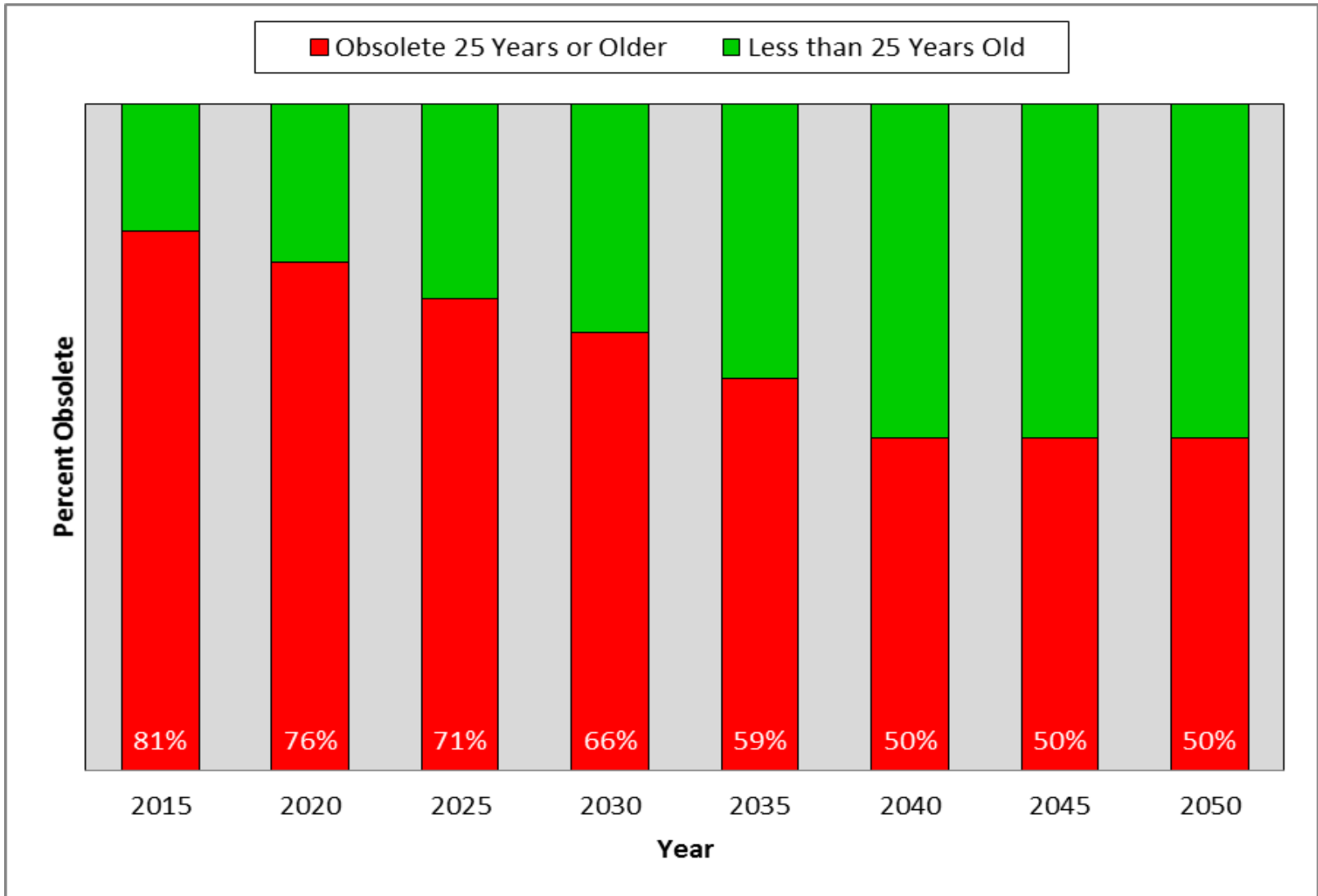
Once a shortlist is established:

- Staff could commence preparation of design and construction documents for the signals on the list
- The number of signals upgraded will depend on availability of funds
- At least one signal in each Council District will be upgraded (subject to availability of adequate funding)

# Program Scope

- An effective program would replace sixty (60) signals annually. This will put the City's traffic signals on a 25 year replacement schedule. 20-25 years is the industry standard for useful life of a signal
- If funding levels are lower:
  - Number of signals replaced annually will be reduced
  - Replacement of currently obsolete signals will take longer
  - Portions of the City's traffic signal system will be in obsolete condition perpetually

# 50% Signals Perpetually Obsolete (Replacing 30 signals /year)



# Funding Levels and Deliverables

Program Amount \$ Million per year	Approx. No. of signals replaced per year	No. of years to replace currently obsolete signals	No. of years to replace signal system citywide
<b>14.5</b>	<b>60</b>	<b>20</b>	<b>25</b>
10.9	45	27	34
7.3	30	40	50
4.3	18	67	84

# Program Funding Options

A traffic signal upgrade program that will replace sixty (60) signals annually, is needed to maintain the City's traffic signal system to industry standards. Subject to availability of funds, the program could be funded:

- On a “Pay As You Go” basis from the General Fund
- Through Bond Funds from future Bond Issues
- By dedicating revenues from potential public-private partnerships leveraging City assets to generate income
- Through a combination of the above

# Recommended Funding Strategy

It is recommended that:

- “Pay as You Go” funding option be adopted for upgrading signals in the short term – next two to three years (see slide 20 for associated costs)
- Staff continue to investigate public-private partnership opportunities
- Medium to long term funding shortfall be addressed as part of development of the next bond program
- The signal upgrade program be included as a project in future bond programs



# Short Term Implementation Strategy

While sixty (60) traffic signals need to be upgraded annually to maintain the City's traffic signal system to industry standards, an upgrade program needs to be started at a smaller scale initially for the following reasons:

- Currently, an average of fifteen (15) signals are constructed in the City of Dallas each year (includes all signals - new; reconstructs; public and private)
- Signal contractors need to hire and train additional staff to effectively implement a program that will be four times current work loads

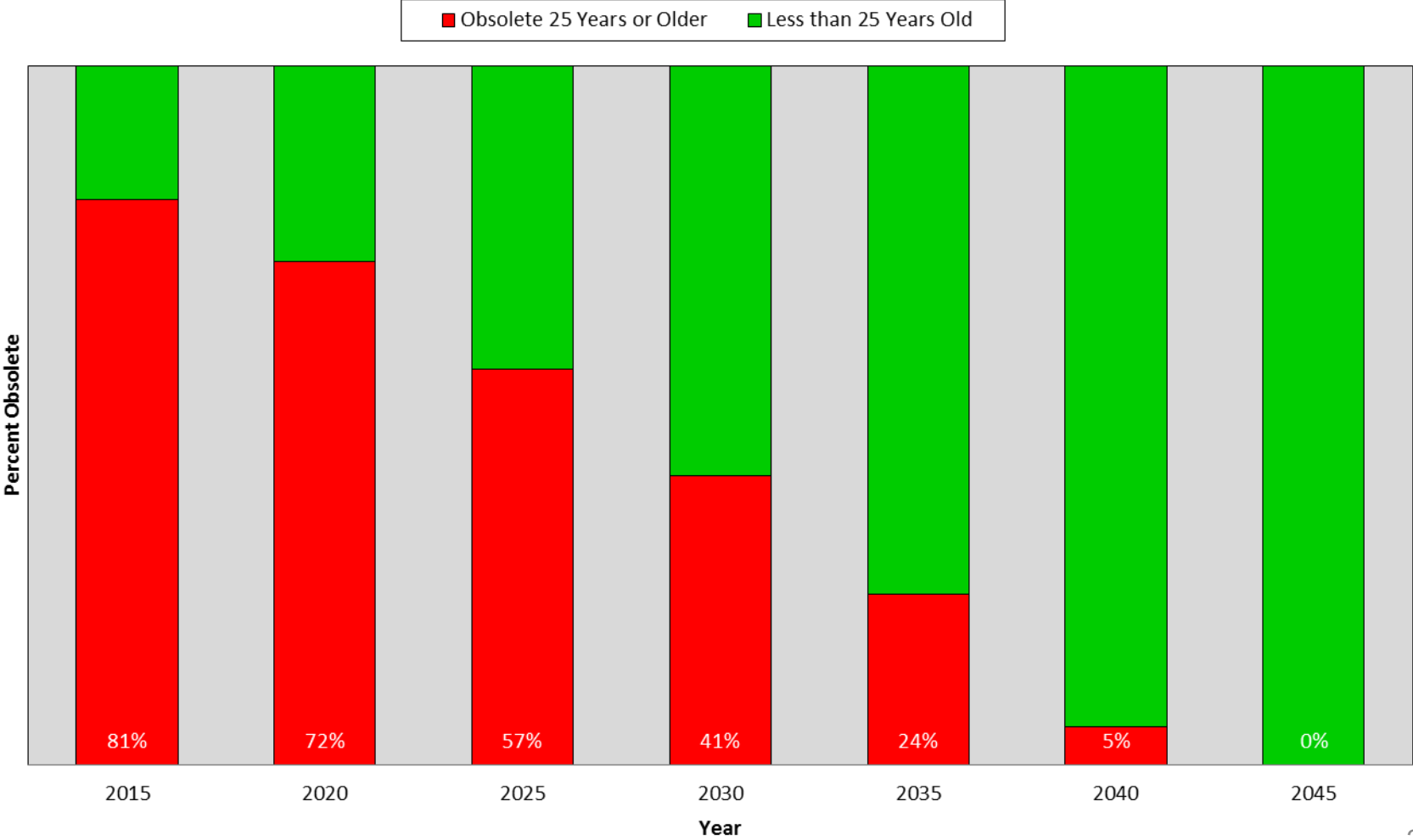
An incremental build-up to the program that will eventually replace sixty (60) signals annually is recommended (next slide)

# Incremental Signal Replacement Schedule

In order to provide time for signal contractors to build up the capacity to implement a full replacement program, staff recommends the following incremental replacement schedule for the traffic signal upgrade program:

- Year 1 : 18 signals - \$ 4.3 M
- Year 2 : 30 signals - \$ 7.3 M
- Year 3 : 45 signals - \$ 10.9 M
- Year 4 and beyond : 60 signals - \$14.5 M

# Traffic Signal System Conditions with Recommended Replacement Schedule



**QUESTIONS?**

# APPENDIX A

# Limitations of Existing Traffic Signals

- Over 80% of the City's traffic signals are past industry standard of useful life and are therefore obsolete
  - Increased structural failures
  - Electrical hardware failures during weather events
  - Shorted wires may result in conflicting indications
  - Hardware does not support left-turn signals
- 70% of all signalized intersections have broken vehicle detectors
  - Congestion during peak travel times due to default preset times
  - Increased potential for accidents due to drivers' impatience with extended red lights

# Operational Limitations of older signals

- In addition to the structural deficiencies, older traffic signals do not meet:
  - Current Federal operational standards
  - Current Federal structural standards
  - Current Federal wind-loading standards
- Many older signals are not Americans with Disability Act [“ADA”] compliant
- Due to hardware constraints of existing signals, staff is unable to program signals to turn green as vehicles approach them

# Why Upgrade?

- Enhanced safety and cost savings
  - An average injury accident costs over \$100,000; an average fatality costs \$6 million<sup>(1)</sup>
  - Dallas averages over 50 fatalities and 400 injury accidents every year at or near signalized intersections
  - Upgraded signals help reduce accidents<sup>(2)</sup>
- Reduced travel time and enhanced mobility
  - Economic impacts of congestion the United States is over \$121 billion annually<sup>(3)</sup>
  - A traffic signal retiming program saved San Antonio travelers over \$167,000 per signal per year

(1) Source: American Automobile Association [“AAA”]

(2) Source: Federal Highway Administration [“FHWA”]-SA-10-005

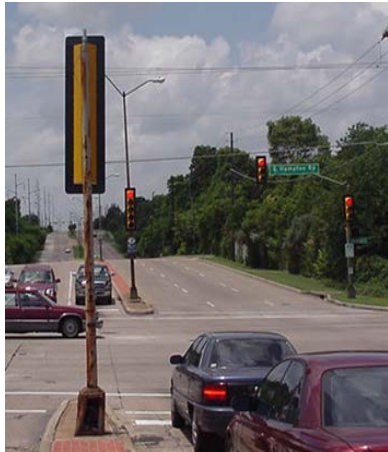
(3) Source: 2012 Urban Mobility Report, Texas Transportation Institute



# **APPENDIX B**

## **Advanced Traffic Management System [“ATMS”] Upgrade Project**

# Six Components of Traffic Signal System



Traffic Signal



Vehicle Detectors

**This Briefing**



Controller cabinet



Central Computer System



Communication Link



Traffic Signal Controller

**ATMS Upgrade Project**

# Currently Underway – ATMS Upgrade Project



- The on-going ATMS Upgrade project will completely replace the Computer and Communications System components of Dallas' traffic signal system
- Estimated cost - \$12.5 Million
  - \$6.1 M Bond Funds
  - \$5.1 M Grant Funds - Texas Department of Transportation ["TxDOT"]; North Central Texas Council of Governments ["NCTCOG"]
  - \$1.3 M General Fund

# ATMS tasks accomplished to date

- Hardware and Software contract for Advanced Traffic Controllers [“ATC”] approved by Council in May 2013
- Software testing and validation for ATC on-going
- 800 ATCs have been ordered
- Several ATCs have been deployed for testing at various locations throughout the City
- Consultant Contract for Central Computer System [“CCS”] specification development approved by Council in May 2014
- Specifications for CCS and Digital Modems (communications) have been finalized and are being advertised

# ATMS – Moving Forward

- Select System Integrator to develop Graphic User Interphase [“GUI”] and provide applications solution for CCS
- Procurement contract for Digital Modems
- Continue validation of ATC software
- Develop and deploy auxiliary communications solutions
- Continue to field deploy ATC
- Install final system by the first quarter of FY 2017

# APPENDIX C

# Needed: Upgraded Traffic Signal Field Infrastructure System



**Signal**



**Vehicle Detectors**



**Controller Cabinet**

- Traffic Signal Field Infrastructure includes:
  - Signal heads, poles, mast arms, electrical conduit
  - Vehicle detectors
  - Controller cabinets

# Upgrade Options

Upgrades could be either comprehensive or partial:

1. Comprehensive option would replace all three (3) components of the system simultaneously
2. Partial option would replace selected components of the system



# 1. Comprehensive Replacement Option

- Comprehensive replacement option would replace all three (3) components of the traffic signal field infrastructure system including:
  - Traffic signals: mast arms, signal poles, underground conduits, electrical cables and similar field components
  - Vehicle detectors
  - Controller cabinets
- This option will address current system deficiencies most comprehensively
  - Costs are higher than the partial options
  - Implementation time frame is longer

# 1. Upgrade all three (3) system components

## Advantages

- Will upgrade deteriorated electrical components and significantly reduce malfunctions during storm events
- Will address current structural and operational deficiencies
- Will provide for protected left-turn movements at intersections
- Will address ADA deficiencies
- Will provide for better detection

## Disadvantages

- Most expensive option
- Will take twenty-five (25) years or more to implement

## 2. Partial Replacement Options

Partial replacement option would replace one or more of the following traffic signal components:

- A. Traffic signals (mast arms, signal poles, underground conduits, cables and similar components)
- B. Controller cabinets
- C. Vehicle detectors

## 2 A. Upgrade Traffic Signal Components Only

### Advantages

- Will upgrade deteriorated electrical components and significantly reduce malfunctions during storm events
- Will address most structural and operational deficiencies
- Will provide for protected left-turn movements at many intersections where current signal mast arms are short
- Will address ADA deficiencies

### Disadvantages

- Will not address the lack of active detection at 70% of intersections
- Will require twenty (20) years or more to implement
- Upgrade costs are over 80% of comprehensive replacement costs

## 2 B. Upgrade Controller Cabinets Only

### Advantages

- Upgrade costs are less than 5% of comprehensive replacement
- Will provide for a more conducive environment for the new controllers and their operations
- Will provide for more programming and phasing options
- Enables installation at more locations

### Disadvantages

- Will not address deteriorated electrical components and malfunctions during storm events
- Will not address detection failure at 70% of the intersections
- Will not address structural deficiencies of older signals
- Will not provide for left-turn movements at signals
- Will not address ADA deficiencies

## 2 C. Upgrade Vehicle Detectors Only

### Advantages

- Upgrade costs are less than comprehensive replacement - \$50M for the entire system
- Will provide for active detection
- Will provide for vehicle actuated green lights

### Disadvantages

- Will not address deteriorated electrical components and malfunctions during storm events
- Will not address structural deficiencies of older signals
- Will not provide for left-turn movements at signals
- Will not address ADA deficiencies
- Will require up to ten (10) years to implement

# Summary - Comprehensive vs. Partial Options

- Comprehensive Option – Will address all current deficiencies: structural, operational, ADA and detection
  - Estimated cost: \$362 million
- Partial Options – Replacing vehicle detectors most viable option:
  - Will provide active detection
  - Will not address:
    - Structural deficiencies
    - Signal malfunctions during weather events
    - ADA issues
    - Operational deficiencies
  - Estimated cost: \$50 million

# APPENDIX D



# Number of Traffic Signals by Council District

Council District	Number of Signals	Percentage of Total
1	84	6%
2	258	17%
3	50	3%
4	72	5%
5	44	3%
6	143	10%
7	81	5%
8	53	4%
9	64	4%
10	79	5%
11	101	7%
12	66	4%
13	121	8%
14	286	19%

# Bond Fund Allocation for Traffic Signals in Prior Years

BOND PROGRAM	NO. OF SIGNALS FOR UPGRADE	COST	WARRANTED (NEW) SIGNALS AND SCHOOL FLASHERS
2003	20	\$2.6 M	\$1.2M
2006	5	\$626K	\$3.5M
2012	0	0	0

# Memorandum



CITY OF DALLAS

DATE 22 May 2015

TO The Honorable Members of the Transportation and Trinity River Project Committee:  
Vonciel Jones Hill (Chair), Lee Kleinman (Vice Chair), Deputy Mayor Pro Tem Monica Alonzo,  
Mayor Pro Tem Tennell Atkins, Sandy Greyson, and Sheffie Kadane

SUBJECT Everyone Is a Pedestrian  
Improving Pedestrian Safety in Texas

On Tuesday, 26 May, you will be briefed on Everyone Is a Pedestrian Improving Pedestrian Safety in Texas, presented by the Federal Highway Administration. The briefing materials are attached for your review.

Please feel free to contact me if you need additional information.

A handwritten signature in black ink, appearing to read 'Mark McDaniel'.

Mark McDaniel  
Assistant City Manager

## Attachment

c: Honorable Mayor and Members of the City Council  
A.C. Gonzalez, City Manager  
Warren M.S. Ernst, City Attorney  
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Elsa Cantu, Assistant to the City Manager – Mayor & Council



# Everyone is a Pedestrian



Longhorns in the Wichita Mountains Wildlife Refuge

Texas Division Office

## Improving Pedestrian Safety in Texas

Transportation and Trinity River Project Committee

26 May 2015



U.S. Department of Transportation  
Federal Highway Administration



# Everyone is a Pedestrian

Texas Division Office

Longhorns in the Wichita Mountains Wildlife Refuge

## Federal Highway Administration [“FHWA”] Programs to Improve Safety for All Roadway Users

- Mayor’s Challenge for Safer People, Safer Streets
- Pedestrian Safety Focus States and Cities
- Road Diets
- Road Safety Assessment [“RSA”]





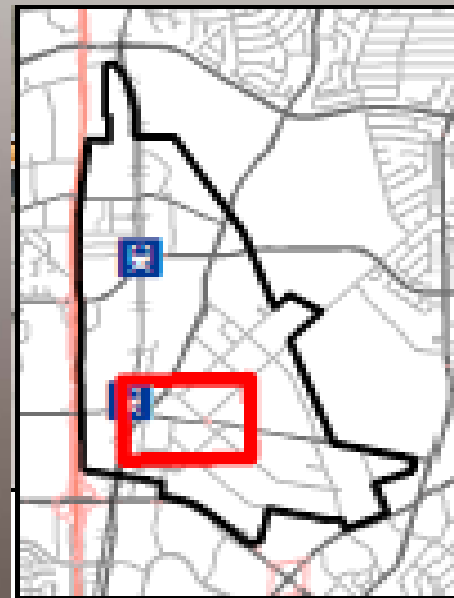
# Road Safety Audit

Texas Division Office

Longhorns in the Wichita Mountains Wildlife Refuge

## Vickery Meadow Neighborhood Pilot Project (24-26 February 2015)

FHWA led a study and will report potential road safety issues, and identify opportunities for improvement for all road users.



# Project Location and Crashes

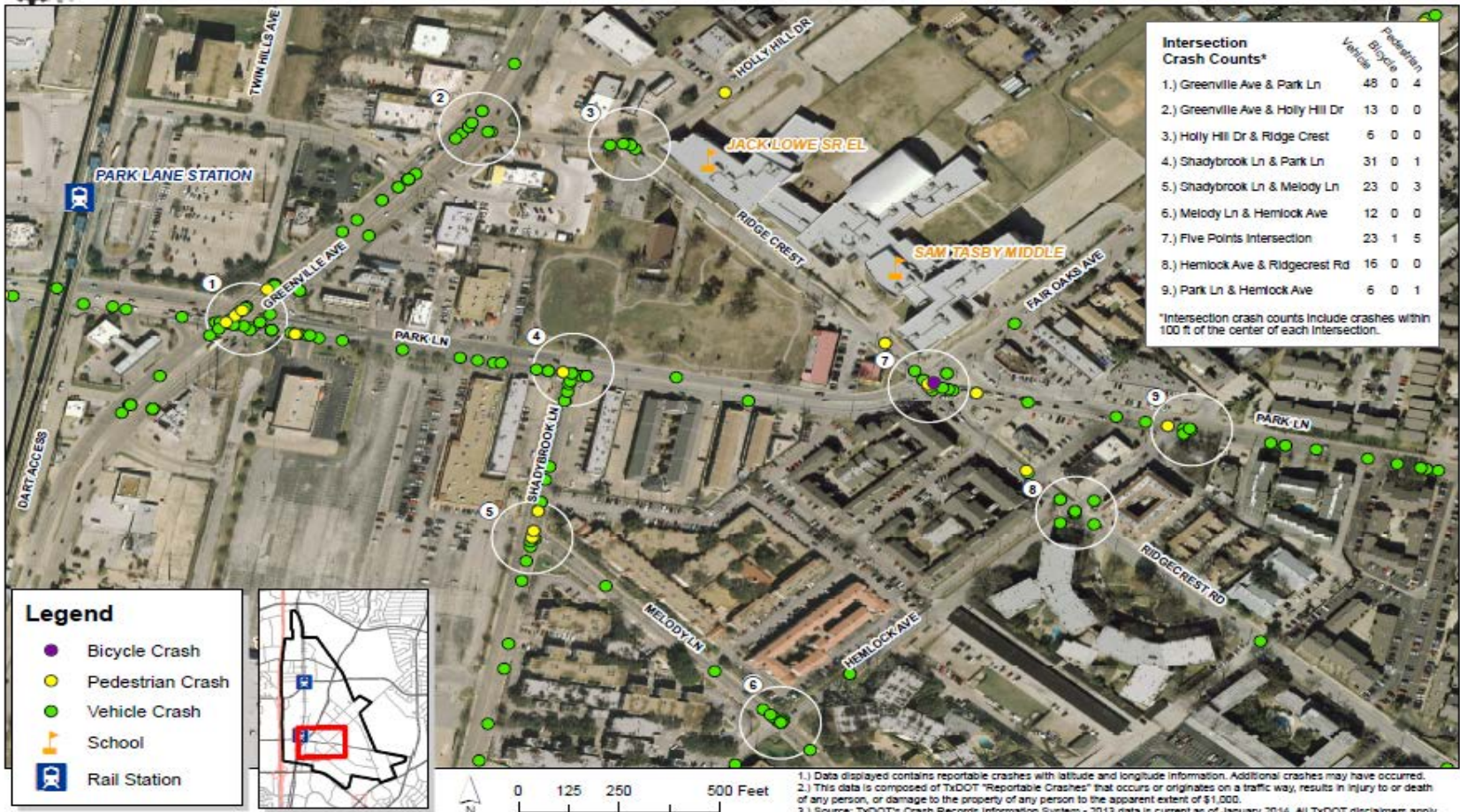
Longhorns in the Wichita Mountains Wildlife Refuge

Texas Division Office



North Central Texas  
Council of Governments

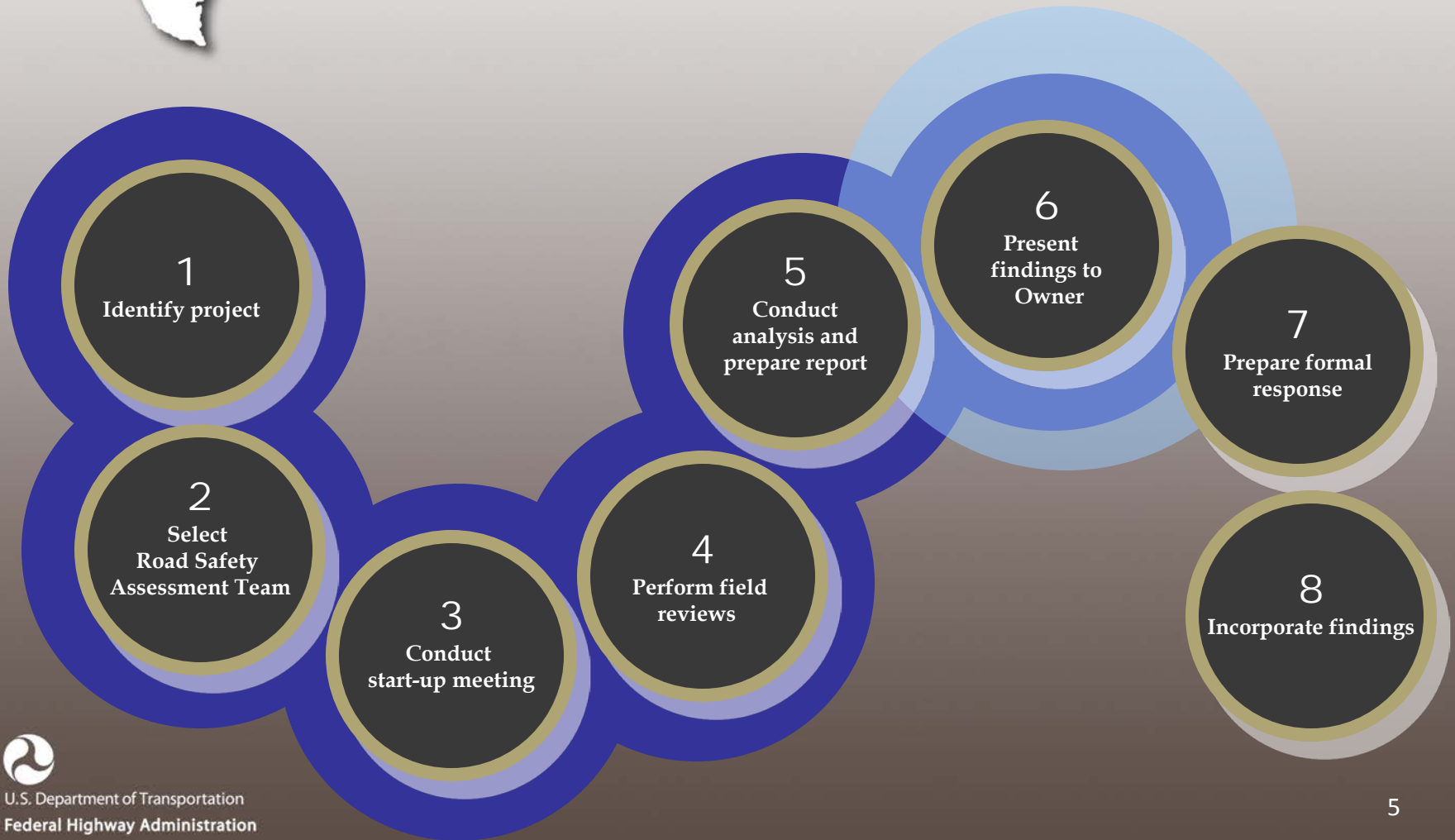
## Vickery Meadow Vehicle, Bicycle, and Pedestrian Crashes (2009 - 2013)



# Responsibilities

Texas Division Office

Longhorns in the Wichita Mountains Wildlife Refuge





# The RSA Team

Texas Division Office

- City of Dallas
- Dallas County
- Dallas Police Department
- North Central Council of Governments [“NCTCOG”]
- Vickery Meadow Public Improvement District
- FHWA



- **Independent**
- **Experienced**
- **Multi-disciplinary**
- **Multi-jurisdictional**



# Positives

Longhorns in the Wichita Mountains Wildlife Refuge

Texas Division Office

- Pavement markings
- Existing sidewalks
- Push buttons and pedestrian signals
- Turning islands
- School Crossing Guards
- Street lighting
- Medians



# Positives

Longhorns in the Wichita Mountains Wildlife Refuge

## Texas Division Office

- Proactive group, multiple agency support
- Readily available access to transit service
- Pedestrian activity
- Reduced criminal activity
- Children walking to school
- Planned Southern Pacific [“SOPAC”] Trail



# Concerns

Texas Division Office

Longhorns in the Wichita Mountains Wildlife Refuge

- Inadequate pedestrian facilities
- Insufficient traffic and pedestrian counts
- Under reporting of incidences
- Language barriers
- Prioritization of transportation modes
- Location of schools



# Safety Concerns

Longhorns in the Wichita Mountains Wildlife Refuge

Texas Division Office

- Intersections
  - Pedestrian signals and buttons
  - Signal timing
  - Americans with Disabilities Act ["ADA"] Accessibility
- Sidewalks
  - Connectivity
  - Condition
  - Width
  - Obstructions



# Safety Concerns

Texas Division Office

Longhorns in the Wichita Mountains Wildlife Refuge

- Less than desirable use of pedestrian facilities
- Risky pedestrian actions
- Multimodal interaction
- Roadway width
- Median width
- Turning movements
- “Multiple Threat”
- Pedestrian lighting



# Safety Concerns

Texas Division Office

- Intersection geometry
- Roadway design encourages higher speeds
- Need for education, positive examples, encouragement and enforcement
- Truck traffic (transfer station)



# Complete Streets

Texas Division Office

Longhorns in the Wichita Mountains Wildlife Refuge

- Street Design Standards that Include all modes of transportation (including vehicles, transit, pedestrians, bicycles)
- City of Dallas Complete Streets Initiative
- Vickery Meadow Station Area Plan recommends a Complete Street approach for Park Lane
- Complete Streets should also be considered for Shady Brook Lane, Fair Oaks Avenue and Greenville Avenue
- Could improve safety for all users in the neighborhood







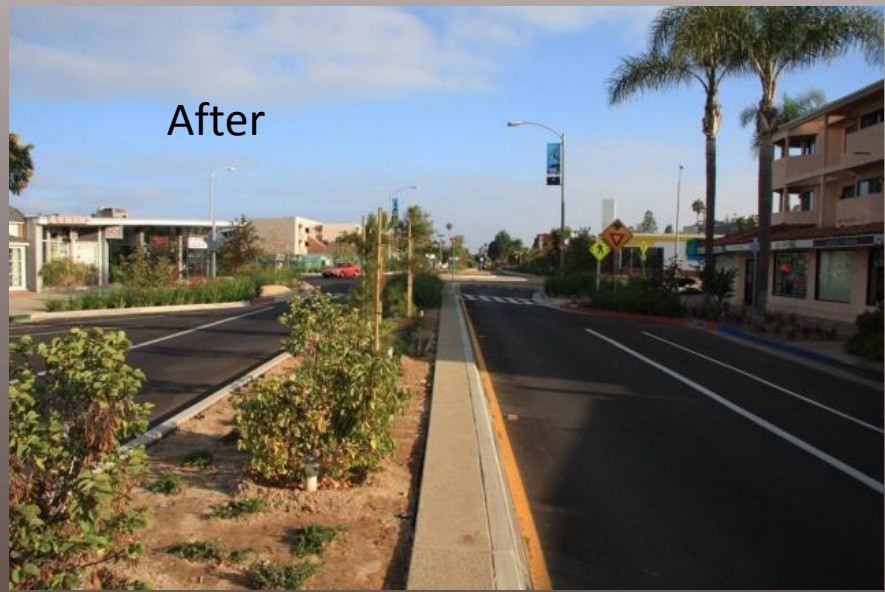
Texas Division Office



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Before



After

# DART Park Lane Station

Texas Division Office

- Crossing locations
- Multiple pedestrian exits from parking lot
  - Remove stone steps
  - Add fencing along Greenville Avenue
- Pedestrian direction through parking lot (signage/striping) and proper crossing points
- Support the addition of pedestrian bridge to platform



Downtown Carrollton Station



# Greenville Avenue and Park Lane

Texas Division Office

- Pedestrian signal timing
- Pedestrian signals and push buttons
- Intersection geometry
  - Number of through and turning lanes
  - Higher speed turns
  - Narrow to no medians
  - Long pedestrian crossing distances
- Pedestrian lighting
- Trees and birds



# Greenville Avenue and Park Lane

Texas Division Office

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- Re-evaluate under-utilized turn lanes
  - Southbound Greenville Avenue right turn lane
  - Inside southbound Greenville Avenue left turn lane
  - Northbound Greenville avenue right turn lane
- Pedestrian crossings
  - Tighter radius to decrease speeds
  - Widen medians
  - Decrease distance/exposure



# Park Lane and Shady Brook Lane

Texas Division Office

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- Pedestrian signal timing and operation
- ADA accessibility
- Lighting
- Evaluate potential for Complete Streets

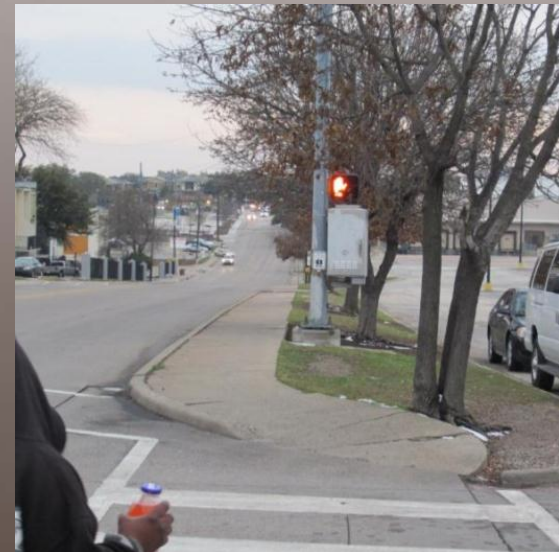
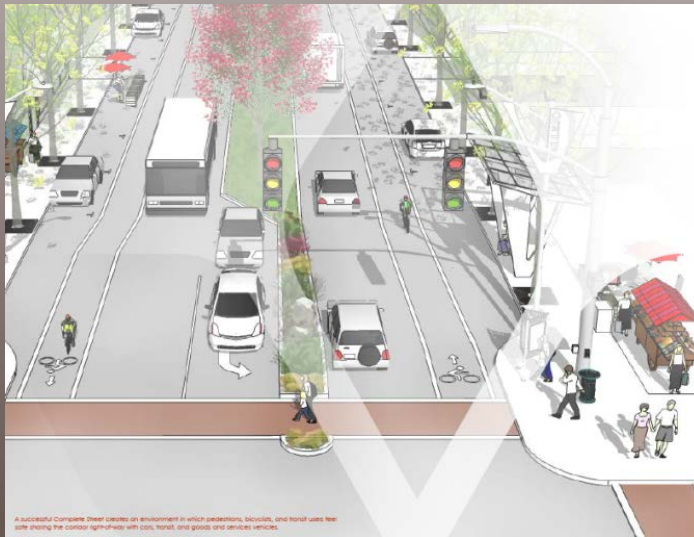


# Shady Brook Lane and Melody Lane

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Texas Division Office

- Pedestrian push button and signal location
- Lighting
- Evaluate potential for Complete Streets



# Five Points

Texas Division Office

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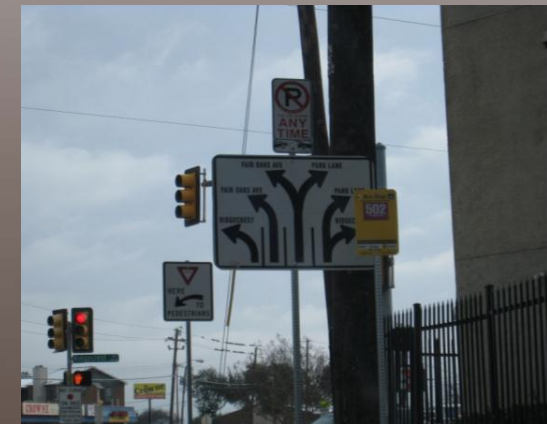
- Evaluate:
  - Extending school zones along Park Lane and Ridgecrest Road
  - Adding advance lane use signage, especially on Park Lane
  - Making Ridgecrest Road One-Way
  - Complete Streets for Fair Oaks Avenue and Park Lane
  - Vehicle Design traffic signal control



# Five Points

Texas Division Office

- Crossing distances
- Pedestrian signals and push buttons
- Unclear striping, signals and signage
- Signal timing





# Schools

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Texas Division Office



# Schools

Texas Division Office

- Develop a Safe Routes to School Plan
- During school dismissal
  - De-emphasize the use of the doors adjacent to Fair Oaks Avenue
  - Limit left-turns from Ridgecrest Road to Fair Oaks Avenue
  - Possible street/lane closures
  - Traffic signals programmed to flash red to allow for an all-pedestrian phase
- Widen sidewalks/crosswalks
- More frequent safety education for students and parents





Texas Division Office

Longhorns in the Wichita Mountains Wildlife Refuge

# Leadership



Commitment

**KEY FOCUS AREA:** Economic Vibrancy  
**AGENDA DATE:** May 27, 2015  
**COUNCIL DISTRICT(S):** 7  
**DEPARTMENT:** Planning and Neighborhood Vitality  
**CMO:** A. C. Gonzalez, 670-3297  
**MAPSCO:** 44V Z; 45W; 54D

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**SUBJECT**

A public hearing to receive comments to amend the City of Dallas' Thoroughfare Plan to change the dimensional classifications of **(1)** Beckley Avenue from IH-30 to Greenbriar Lane from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special six-lane undivided (SPCL 6U) roadway with a center turn lane, a cycle track and recommended off-peak parking within 100-feet of right-of-way; **(2)** Beckley Avenue from Greenbriar Lane to Colorado Boulevard from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special six-lane divided (SPCL 6D) roadway with a cycle track within 100-feet of right-of-way and 72 feet of pavement; **(3)** Beckley Avenue from Colorado Boulevard to Zang Boulevard from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special six-lane divided (SPCL 6D) roadway with cycle track within 88-feet of right-of-way and 64 feet of pavement; **(4)** Zang Boulevard from Jefferson/Houston Viaduct to Oakenwald Street from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special four-lane divided (SPCL 4D) roadway with protected bicycle facility and a dedicated streetcar lane within 100-feet of right-of-way and 80-feet of pavement; **(5)** Zang Boulevard from Oakenwald Street to Beckley Avenue from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special four-lane divided (SPCL 4D) roadway with bicycle lanes within 100-feet of right-of-way and 80-feet of pavement; and **(6)** Zang Boulevard from Beckley Avenue to Davis Street from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special four-lane divided (SPCL 4D) roadway with parking in 100-feet of right-of-way with 72-feet of pavement; and at the close of the hearing, authorize an ordinance implementing the change - Financing: No cost consideration to the City

**BACKGROUND**

The Planning and Neighborhood Vitality Department has requested amendments to the Thoroughfare Plan to change the operational characteristics of Beckley Avenue between IH-30 and Zang Boulevard and Zang Boulevard between Jefferson/Houston Viaduct and Davis Street.

## **BACKGROUND (continued)**

The Planning and Neighborhood Vitality Department presented a design approach to the community that places emphasis on creating a multi-modal street system that facilitates walking, bicycling and automobile use integrating the Dallas Modern Streetcar. Adding wider sidewalks and bicycle facilities in this corridor will improve connectivity for pedestrians and bicyclists to the Dallas Streetcar Stations and surrounding development. Staff is proposing to add parking along Beckley Avenue in the off-peak hours when four travel lanes can accommodate the capacity. Staff has also determined that a reduction in the travel lanes on Zang Boulevard from six to four lanes to incorporate permanent parking for the adjacent development is appropriate and can accommodate both existing and projected traffic volumes and enhance parkway amenities.

Staff recommends approval of the amendment to the Thoroughfare Plan to: **(1)** Beckley Avenue from IH-30 to Greenbriar Lane from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special six-lane undivided (SPCL 6U) roadway with a center turn lane, a cycle track and recommended off-peak parking within 100-feet of right-of-way; **(2)** Beckley Avenue from Greenbriar Lane to Colorado Boulevard from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special six-lane divided (SPCL 6D) roadway with a cycle track within 100-feet of right-of-way and 72 feet of pavement; **(3)** Beckley Avenue from Colorado Boulevard to Zang Boulevard from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special six-lane divided (SPCL 6D) roadway with cycle track within 88-feet of right-of-way and 64 feet of pavement; **(4)** Zang Boulevard from Jefferson/Houston Viaduct to Oakenwald Street from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special four-lane divided (SPCL 4D) roadway with protected bicycle facility and a dedicated streetcar lane within 100-feet of right-of-way and 80-feet of pavement; **(5)** Zang Boulevard from Oakenwald Street to Beckley Avenue from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special four-lane divided (SPCL 4D) roadway with bicycle lanes within 100-feet of right-of-way and 80-feet of pavement; and **(6)** Zang Boulevard from Beckley Avenue to Davis Street from a six-lane divided roadway [M-6-D(A)] within 100-feet of right-of-way to a special four-lane divided (SPCL 4D) roadway with parking in 100-feet of right-of-way with 72-feet of pavement and at the close of the hearing, authorize an ordinance implementing the change.

## **PRIOR ACTION/REVIEW (COUNCIL, BOARDS, COMMISSIONS)**

The City Plan Commission Transportation Committee acted on this item on April 2, 2015, and followed staff recommendation of approval.

The City Plan Commission acted on this item on April 16, 2015, and followed staff recommendation of approval.

**FISCAL INFORMATION**

No cost consideration to the City

**MAP**

Attached

# Beckley Avenue

IH-30 to Colorado Boulevard  
Colorado Boulevard to Zang Boulevard

# Zang Boulevard

Jefferson/Houston Viaduct to Oakenwald Street  
Oakenwald Street to Beckley Avenue  
Beckley Avenue to Davis Street

Council District 1

MAPSCO: 44V,Z; 45W; 54D



## Thoroughfare Plan Amendment Map

