













# US 380 COLLIN COUNTY FEASIBILITY STUDY

**Collin County Commissioners Court** 



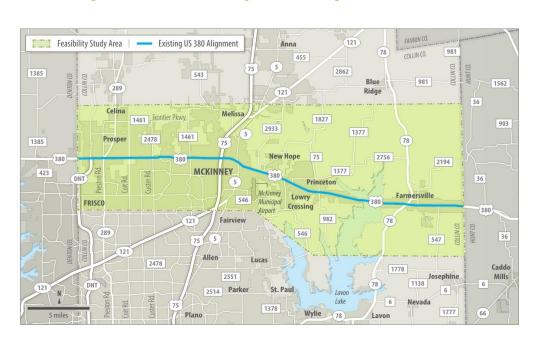
# WELCOME

US 380 Collin County Feasibility Study

# **DALLAS DISTRICT**PUBLIC MEETING

APRIL 26 - MAY 1 - MAY 3, 2018

6:00 P.M - 8:00 P.M.



The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project is being, or has been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.



#### **Population Growth**

**24**%

INCREASE IN
COLLIN COUNTY
POPULATION FROM
2010 - 2017

"QuickFacts Collin County, Texas" US Census Bureau, 1 July 2017. Web. 23 April 2018. **166**%

PROJECTED INCREASE
IN COLLIN COUNTY
POPULATION GROWTH FROM
2018 – 2040\*

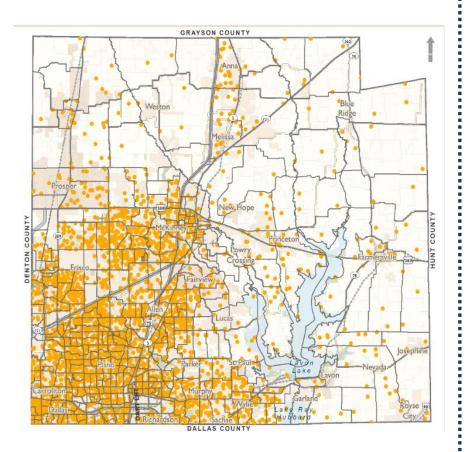
"2014 Texas Population Projections by Migration Scenario Data" Texas
State Demographer, WEB. 23 April 2018.

\*Aggressive scenario based on observed Collin County growth from 20002010.

"The Dallas-Fort Worth-Arlington metro area added more people between 2015 and 2016 than any other metro in the country." - Texas State Demographer

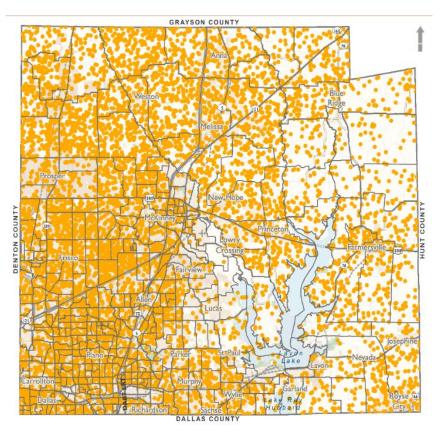
# **Population Growth**

2012



#### **PROJECTED**

**BUILD OUT** 



"Mobility Plan Update", Collin County, 2016

1 Dot = 250 Persons

#### **Freeway Network Spacing**

OPTIMAL SPACING BETWEEN
 FREEWAYS/TOLLWAYS IS ABOUT 5 MILES
 IN AN URBAN AREA

CURRENT FREEWAYS/TOLLWAYS
 SPACING IS BETWEEN 5 AND 8 MILES
 MOVING NORTH FROM DALLAS\*

SPACING BETWEEN SAM RAYBURN
 TOLLWAY (SH 121) AND THE FUTURE
 COLLIN COUNTY OUTER LOOP WILL BE
 APPROXIMATELY 14 MILES APART.

<sup>\*</sup>Approximate distances measured from points halfway between DNT & US 75





DRIVE 380.com

PLANNING FOR THE FUTURE

# US 380 TODAY

#### **US 380 Today**



#### **Existing Conditions**

4 to 6 lane arterial

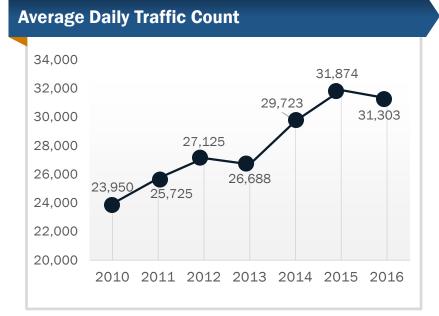
Rated in engineering terms as an F level of service (the worst)

Traffic over capacity during rush hours

Right of way between 130' wide and 180' wide

#### **Traffic Increases on US 380**

Location	Percent Increase (2010-2016)		
Princeton	50%		
West McKinney	45%		
East McKinney	34%		
Frisco/Prosper	14%		
Farmersville	14%		



Traffic volumes across US 380 in Collin County grew by 30% between 2010 and 2016.

Source: TxDOT Historical AADT Counts, 2017

#### **Few Planned Improvements for US 380**

#### **Prosper - Frisco**

- Widen from 4 to 6 lanes and add access roads
  - Denton County line to east of SH 289
  - Year Open: 2018
- New interchanges along US 380 at DNT & SH 289
  - Year Open: 2028

#### **McKinney - Princeton**

- Widen from 4 to 6 lanes with a raised median
  - Airport Road to 4<sup>th</sup> Street
  - Completion Date TBD

#### **Princeton**

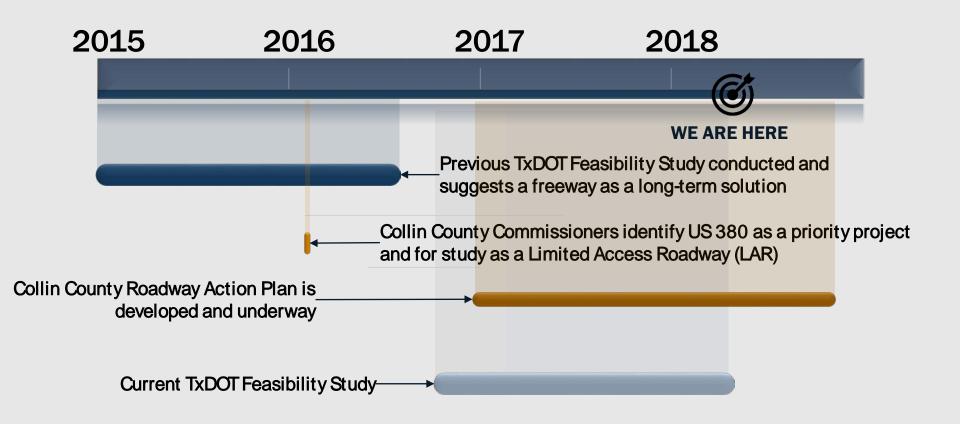
- Add raised median
  - 4<sup>th</sup> Street to CR 985
  - Undergoing Planning Studies
  - Completion Date TBD

Few additional improvements are planned for US 380 in Collin County between now and 2045.





#### **US 380 History**



#### **Previous US 380 Study Recommendations**

### 2016 TxDOT Feasibility Study

Studied a wide range of potential solutions for US 380 ranging from:

- Minor improvements
  - Adding turn lanes
- Moderate Improvements
  - Constructing overpasses or underpasses at select intersections
- Major Improvements
  - Existing US 380 as a freeway

#### **Final Recommendation:**

A freeway "provides the best mobility and safety, and addresses the long term needs of the communities" but "an additional detailed study covering Denton, Collin, and Hunt Counties is likely necessary".

#### **Current US 380 Feasibility Study**

#### Purpose

Analyzed potential roadway options, including improving the existing alignment or utilizing new alignments.

- ➤ Helps determine if the project should move on to more advanced phases of project development
- ➤ Identifies high level or critical elements of engineering, impacts to stakeholders and the public, and economic feasibility of potential new roadways or improvements to existing roadways
- Not intended to result in detailed design, environmental analysis, or cost estimates

#### **GOAL**

Develop an
alignment to
initiate corridor
preservation

#### **Regional Partnerships**

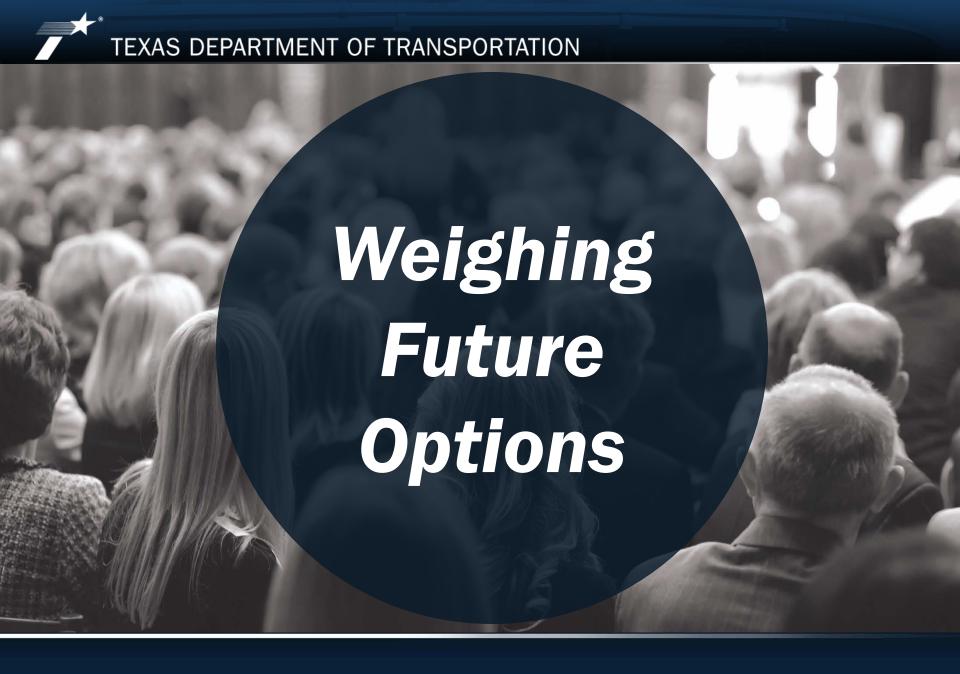








- > PROSPER
- > FRISCO
- > MCKINNEY
- > FAIRVIEW
- > NEW HOPE
- > LOWRY CROSSING
- > PRINCETON
- > FARMERSVILLE



#### **Evaluate Modes of Transportation to Relieve Congestion**



#### **BIKE/PEDESTRIAN**

- Cannot relieve congestion alone
- ➤ Bike/Pedestrian facilities will be included in future plans

#### **TRANSIT**

Cannot solely relieve congestion as it only serves a small portion of the trips

#### **ROADWAY**

➤ Variety of options previously studied range from no new improvements to grade separations to freeway alignments

These modes work together to move goods, improve mobility, and provide access to, from, and throughout the area

### **Possible Options**



# NO NEW IMPROVEMENTS ON US 380



- 6 lanes
- Rated in engineering terms as an "F" level of service (the worst)

#### **Possible Options**



- Maintains current alignment but allows drivers to bypass select major intersections
- 6 lanes frontage road lanes at some intersections
- Restrict access to improve safety
- Rated in engineering terms as a "F" level of service
- \$\$

#### **Possible Options**



- Multiple alignment options
- 6 lanes 2 frontage road lanes
- Improvements in safety. No signalized intersections
- Rated in engineering terms as a "B" level of service depending on alignment
- \$\$\$\$\$

# **Draft Comparison of Options**

EVALUATION CRITERIA:	NO NEW IMPROVEMENTS ON US 380	GRADE SEPARATED INTERSECTIONS	FREEWAY
Enhances Safety	0	0	•
Reduces Existing Congestion	0	0	•
Regional Mobility	0	•	•
Minimizes Future Congestion Expected from Growth	0	•	
Cost	\$\$\$\$\$	\$\$555	\$\$\$\$\$
Supports Future Economic Growth	0	•	•
TOTAL SCORE	•	0	•

Criteria Rating Scale						
Does not achieve criteria		Partially meets criteria		Highly meets criteria		
			•			

#### **KEY FACTORS WE'VE EXAMINED**

WE HAVE DONE EXTENSIVE ANALYSIS OF THE NEEDS OF THE COMMUNITY AND POTENTIAL SOLUTIONS.



ENGINEERING ANALYSIS



TRAFFIC ANALYSIS



SAFETY AND CRASH DATA



RIGHT-OF- WAY REQUIREMENTS



EXISTING AND PLANNED RESIDENTIAL AND COMMERCIAL DEVELOPMENTS



EXISTING AND PLANNED UTILITIES



COST AND ECONOMIC IMPACT



OTHER PLANNING EFFORTS



NATURAL AND CULTURAL RESOURCES



ENDANGERED SPECIES



LAND USE AND PARKLAND



WATER RESOURCES AND FLOOD PLAINS



HAZARDOUS MATERIALS



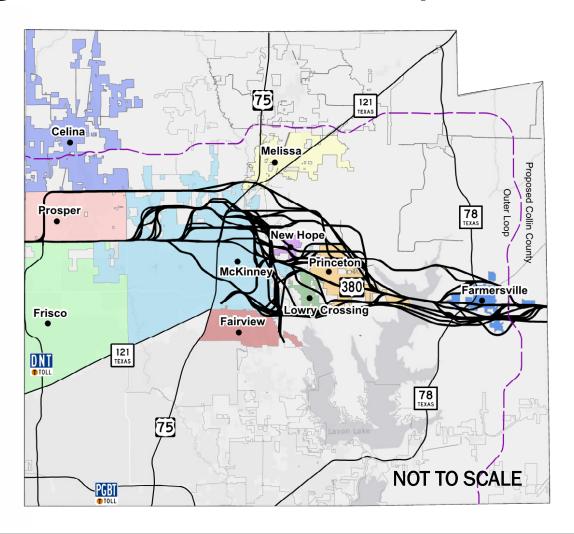
SOCIAL AND COMMUNITY IMPACTS



STAKEHOLDER AND PUBLIC INPUT

### **Draft Freeway Alignment Options**

# Many alignments have been developed and studied.



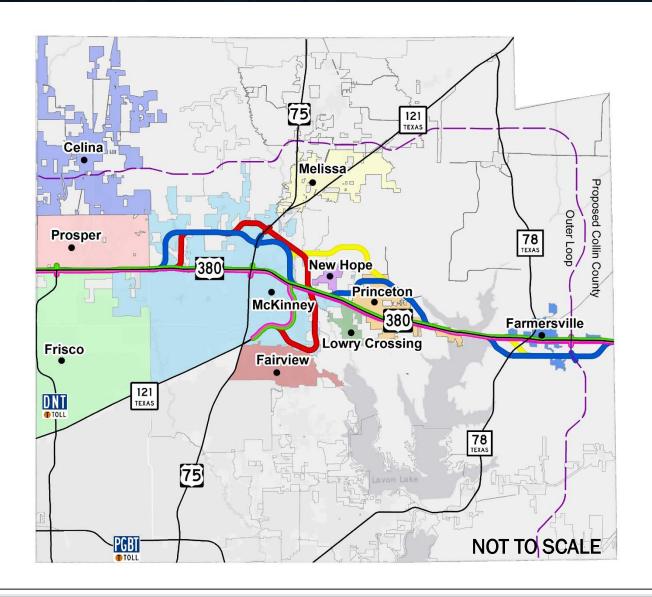
#### **Draft Freeway Alignment Evaluation**

# NOT ALL OF THESE ALIGNMENTS ARE VIABLE. SOME WOULD:

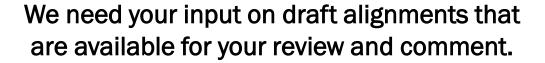
- > impact a significant number of homes and business
- conflict with major future development plans
- impact a floodplains or floodway, parks, and/or federally protected lands
- not provide significant congestion relief
- conflict with regional goals

Alignments presented are those that our study team found to be the most viable transportation options and corridor alignments.

## **Draft Freeway Alignment Options**



#### **Please Consider During Your Alignment Review**



# **PLEASE CONSIDER:**

A final alignment has not been chosen. These are conceptual alignments.

It is possible a combination of draft alignment segments could be merged for preferred alignments for comment at our next Public Meeting.

Each concept is being shown today with 350 to 400 foot right of way width.

#### **Help Shape the Feasibility Study**

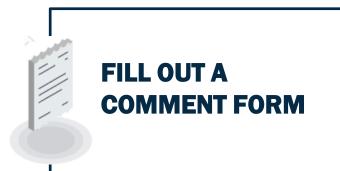
# TXDOT NEEDS YOUR HELP AND INPUT TO SHAPE THE NEXT STEPS OF THE STUDY.

- What solutions would you suggest?
- Would you like to see a freeway constructed?
- What is your opinion of the alignments shown?



TXDOT WANTS TO HEAR FROM YOU.

#### **How to Provide Input**







#### **SURVEY: ONLINE OR PAPER COPY**

Go online to survey.Drive380.com



Surveys and comment forms must be submitted by

May 18, 2018

to be included in study documentation

#### **Feasibility Study Process**

JUNE 2017 - MARCH 2018

APRIL -MAY 2018

SUMMER 2018

**FALL 2018** 

LATE 2018

Initial Data Gathering

- ✓ One-on-one meetings with partners
- ✓ Technical Work Session

Stakeholder input and Public Involvement

- ✓ Public Meeting and Comment Period
- ✓ Elected Leader
   Outreach and
   Council
   Presentations
- √ Stakeholder Work Groups

Process data/input

- ✓ Input analyzed
- √ TxDOT selects
  alignments for
  the study team to
  refine further
- ✓ Evaluation of alignments

Stakeholder input and Public Involvement

- ✓ Public Meeting and Comment Period
- ✓ Key Stakeholder and Elected Leader Outreach

Project

Project Implementation Plan

 ✓ Recommend long and short term improvements as well as regional action items

Alignment trends

5 alignment options



**WE ARE HERE** 

2 to 4 alignment options with typical sections

1 recommended alignment option\*

SUBJECT TO CHANGE

#### **Project Development**

#### TXDOT HAS DONE ANALYSIS OF THE NEED AND POTENTIAL SOLUTIONS.

Planning the next steps for the US 380 corridor will take time -that is why it is so important work begins NOW to plan for the future.



CORRIDOR IS
SEPARATED
INTO INDEPENDENT
PROJECTS
AND PRIORITIZED

ENVIRONMENTAL STUDY AND DESIGN SCHEMATIC FINAL DESIGN,
CONSTRUCTION PLANS,
COST ESTIMATES
AND UTILITIES
COORDINATION

PHASED CONSTRUCTION

\_\_\_\_

THE REGIONAL TRANSPORTATION COUNCIL HAS COMMITTED \$252 MILLION FOR THE US 380 CORRIDOR.

TOLLING IS NOT BEING CONSIDERED AS AN OPTION FOR FUNDING.

ROW PRESERVATION/ACQUISITION THROUGH LAND USE PLANNING AND PURCHASES



INPUT FROM THE PUBLIC IS IMPORTANT AND CONSIDERED BY TXDOT AT EVERY PHASE OF PROJECT DEVELOPMENT

#### **Study Contacts**





PLANNING FOR THE FUTURE

**STEPHEN ENDRES, P.E. TxDOT Project Manager** 

**Stephen.Endres@txdot.gov** 

(214) 320-4469

TONY KIMMEY, P.E.
Study Team Project
Manager

TKimmey@burnsmcd.com

(972) 455-3112

MICHELLE RAGLON
TxDOT Public Information
Officer

Michelle.Raglon@txdot.gov

(214) 320-4480

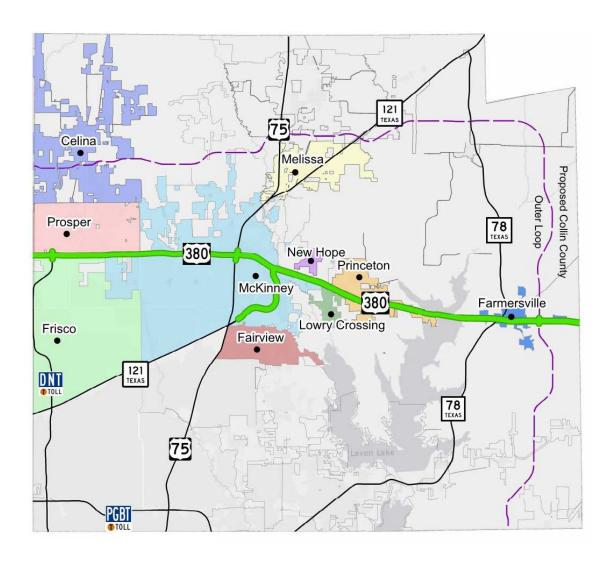


# **THANK YOU**

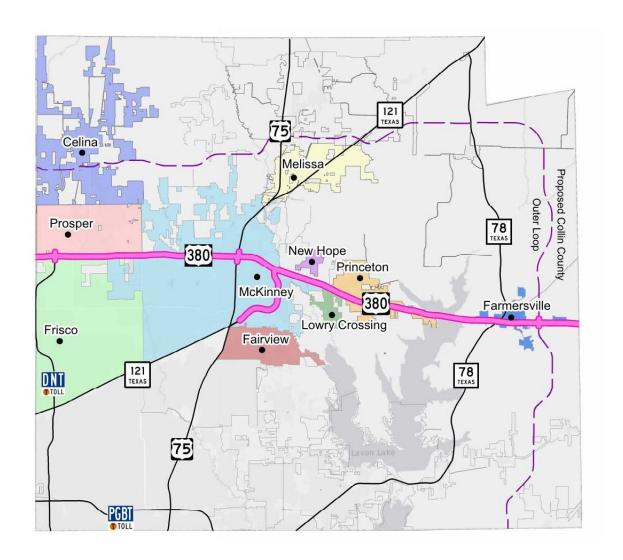
for taking time to provide input and help shape the future of US 380 and Collin County.

Visit <u>Drive380.com</u> for study information and updates.

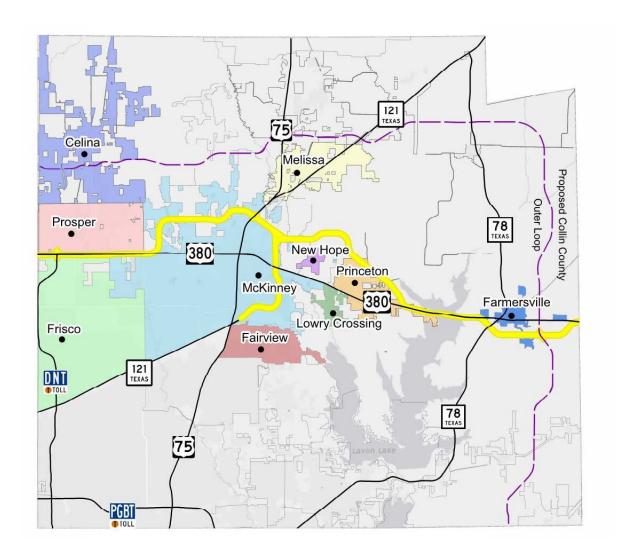
# **Green Alignment**



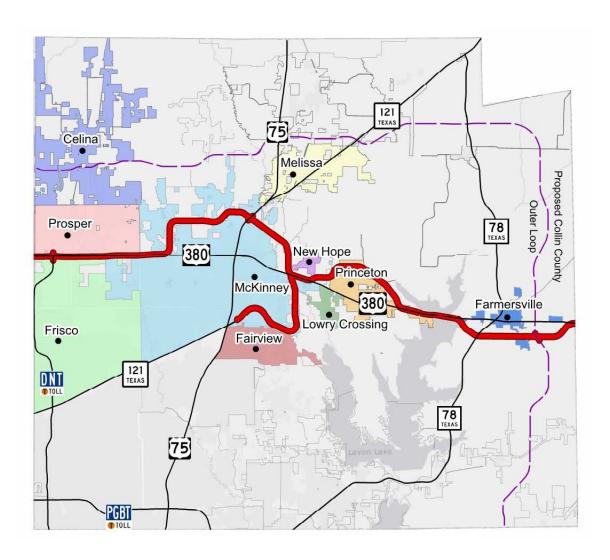
# **Pink Alignment**



# **Yellow Alignment**



# **Red Alignment**



# **Blue Alignment**

