



TEXAS DEPARTMENT OF TRANSPORTATION

**Welcome to the
SH 105 Access Management Study
Public Meeting**



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**PLACE A DOT ON THE MAP
TO SHOW THE PLACE WHERE
YOU LIVE OR WORK**

 **YOUR BUSINESS/WORK**

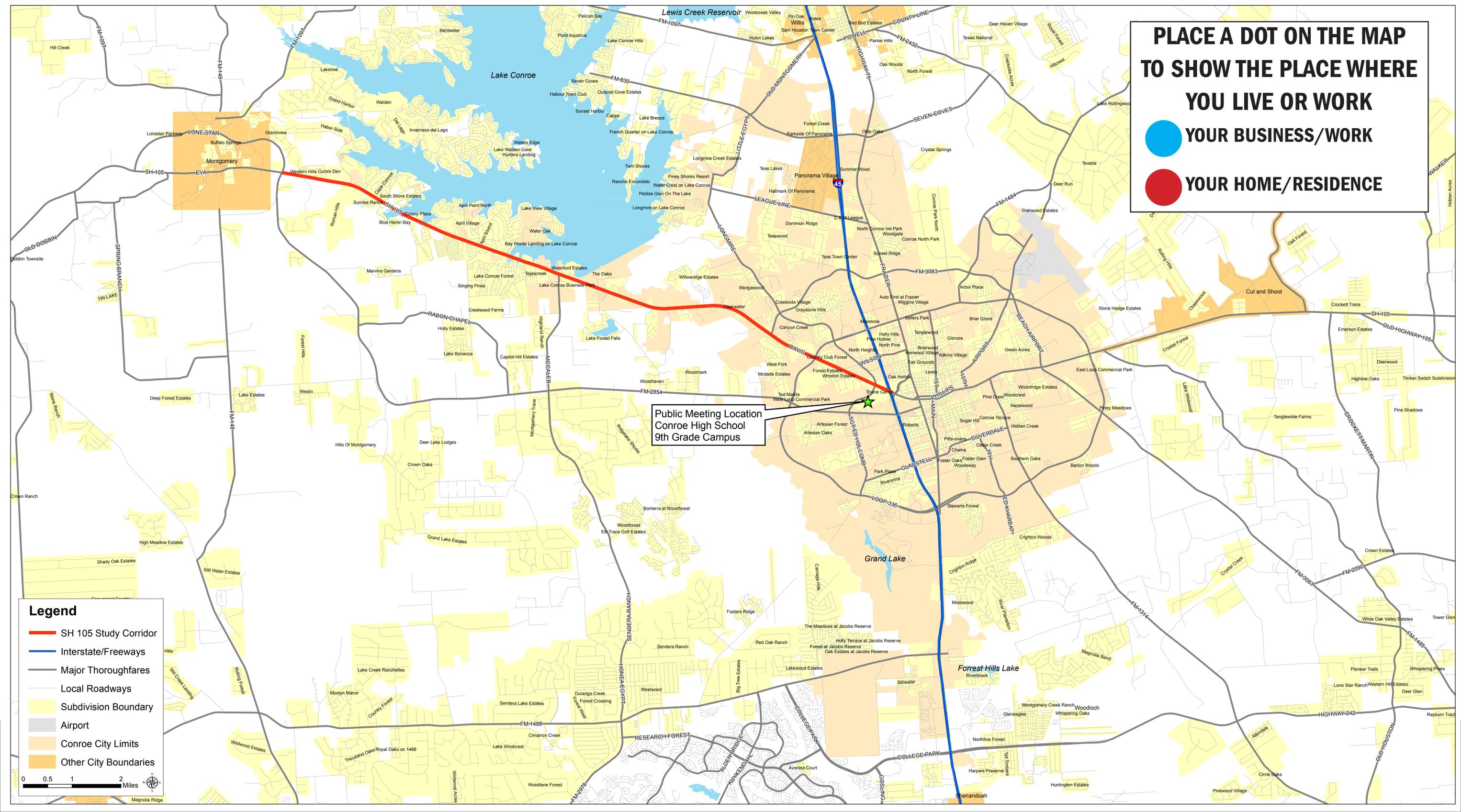
 **YOUR HOME/RESIDENCE**

Public Meeting Location
Conroe High School
9th Grade Campus

Legend

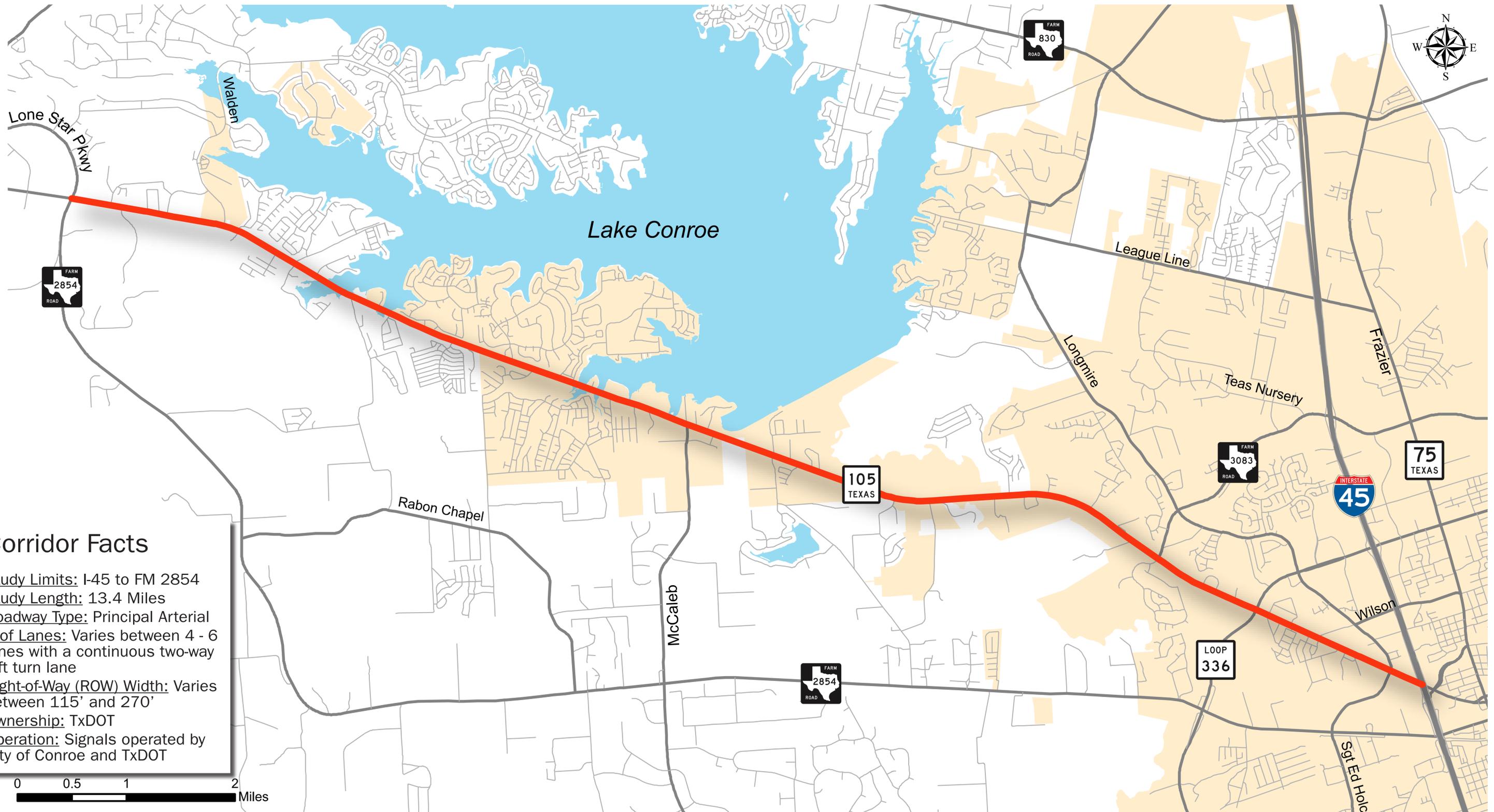
-  SH 105 Study Corridor
-  Interstate/Freeways
-  Major Thoroughfares
-  Local Roadways
-  Subdivision Boundary
-  Airport
-  Conroe City Limits
-  Other City Boundaries

0 0.5 1 2 Miles





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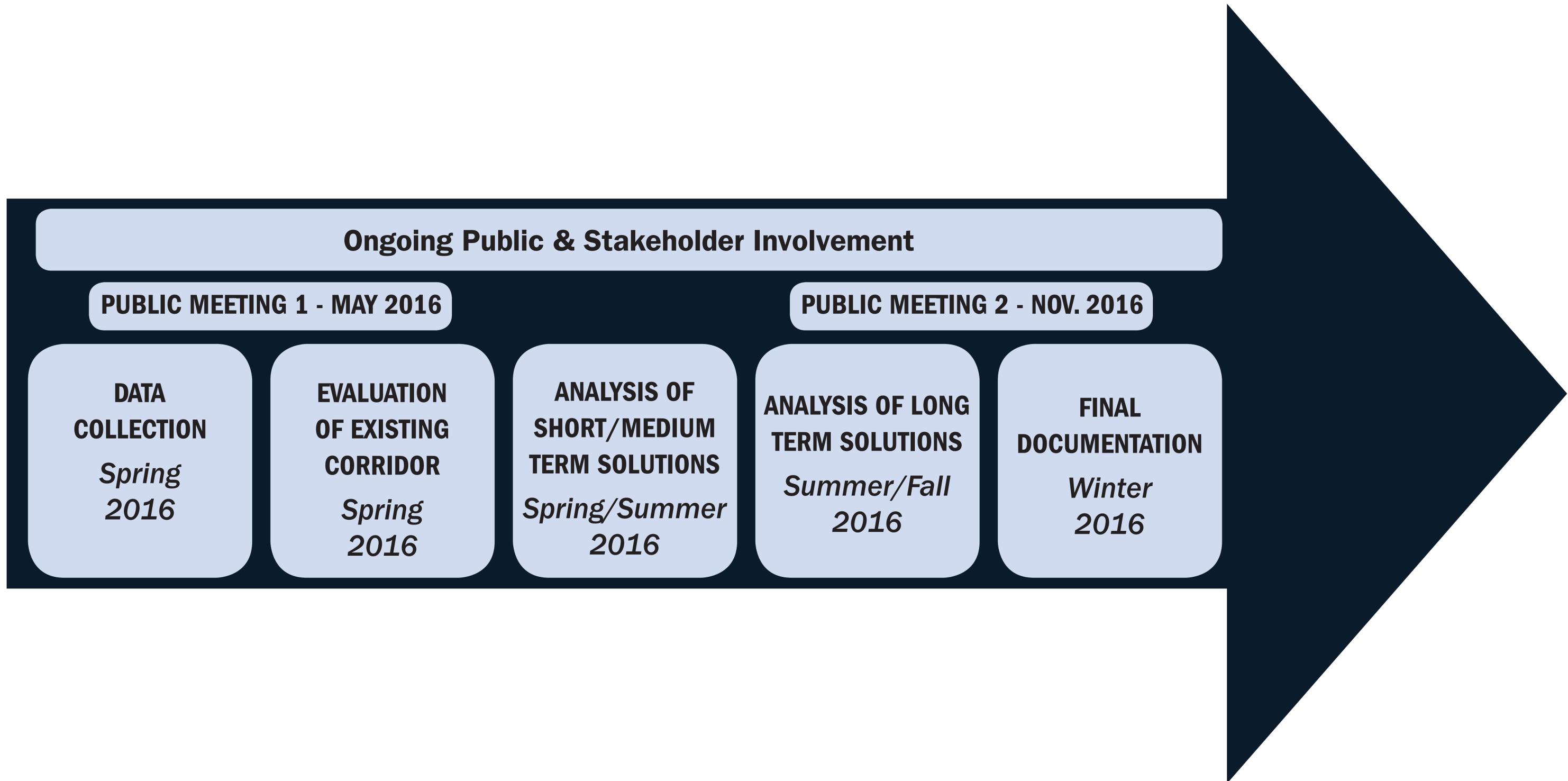
Corridor Facts

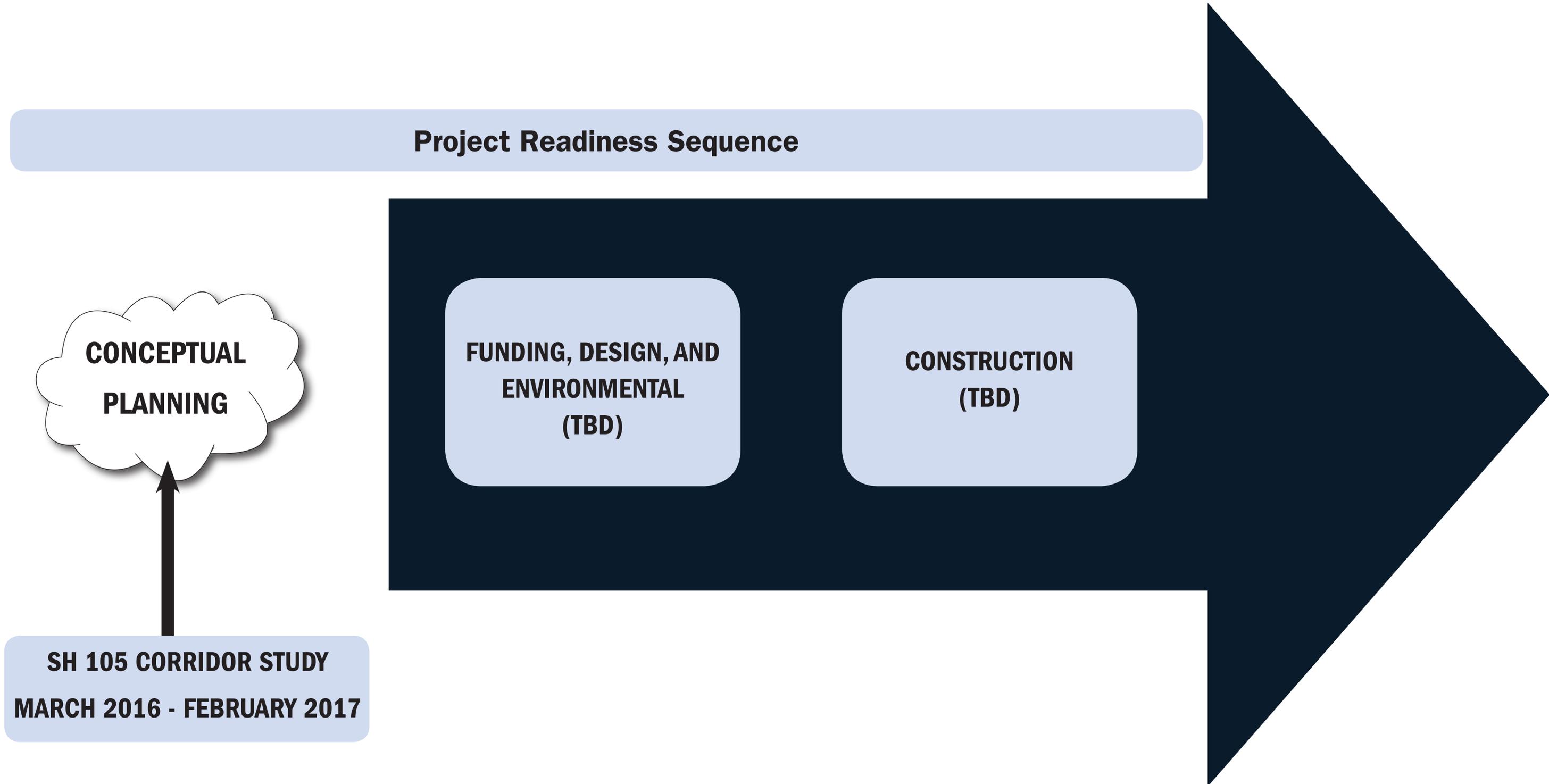
Study Limits: I-45 to FM 2854
Study Length: 13.4 Miles
Roadway Type: Principal Arterial
of Lanes: Varies between 4 - 6 lanes with a continuous two-way left turn lane
Right-of-Way (ROW) Width: Varies between 115' and 270'
Ownership: TxDOT
Operation: Signals operated by City of Conroe and TxDOT





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**CONCEPTUAL
PLANNING**

**SH 105 CORRIDOR STUDY
MARCH 2016 - FEBRUARY 2017**

**FUNDING, DESIGN, AND
ENVIRONMENTAL
(TBD)**

**CONSTRUCTION
(TBD)**



Rank the goals in your preferred order of importance.

Use the markers provided to include additional goals.

_____ First Name

Highest Priority Goal

Medium Priority Goals

Lowest Priority Goals

Increase Safety

Improve Traffic Flow

Improve Bicycle and Pedestrian Mobility

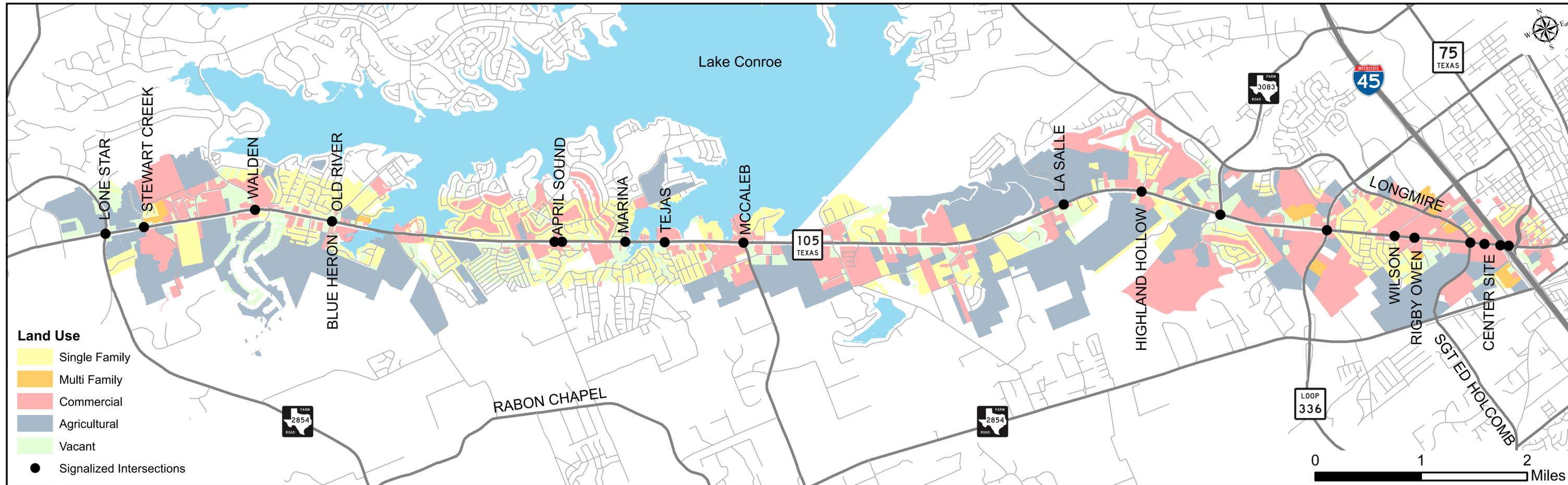
Accommodate Truck Traffic

Accommodate Future Growth

Provide Transit Options



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Residential development with recreational amenities



Pockets of activity centers at key intersections along corridor



Established residential neighborhoods along corridor

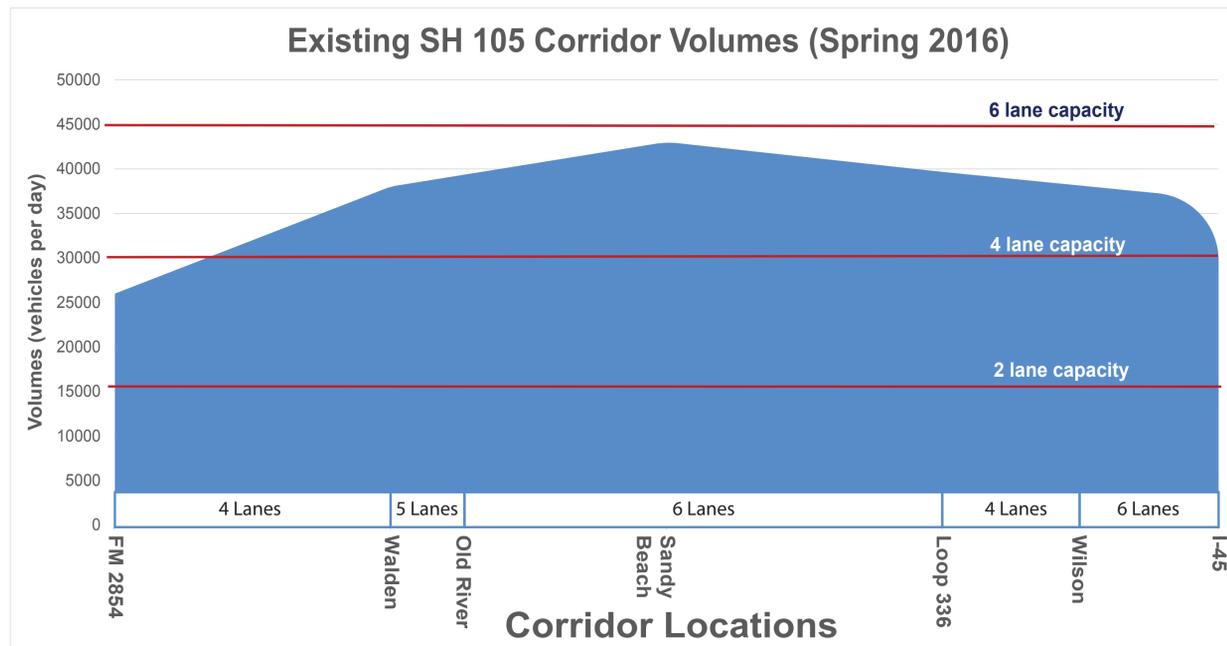
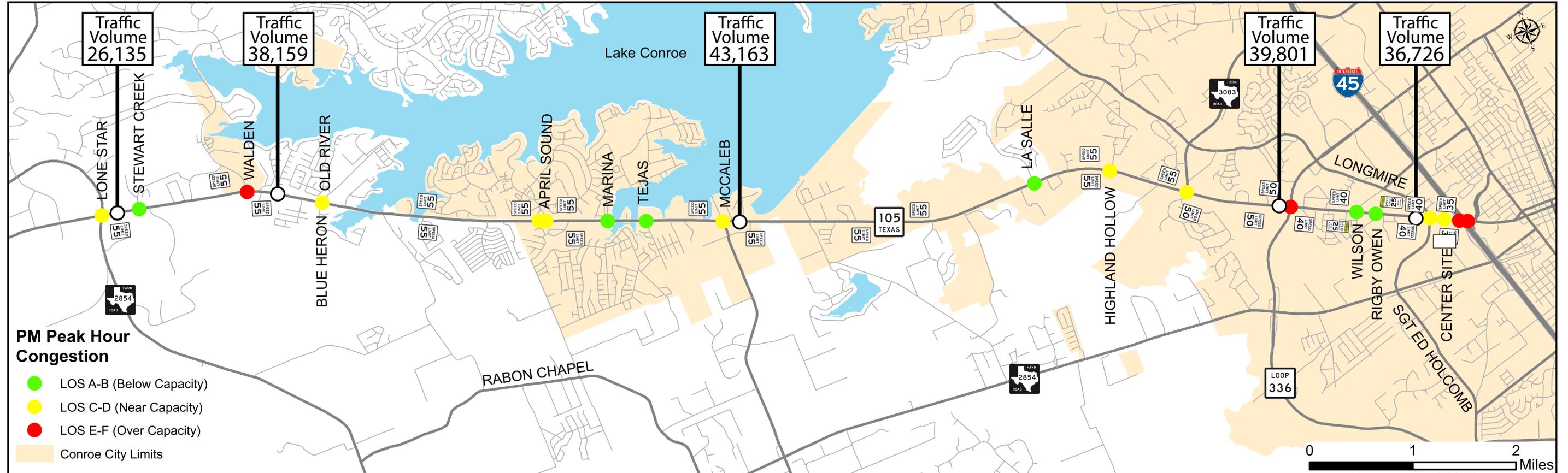


Commercial/retail development closer to I-45



Existing Conditions - Traffic

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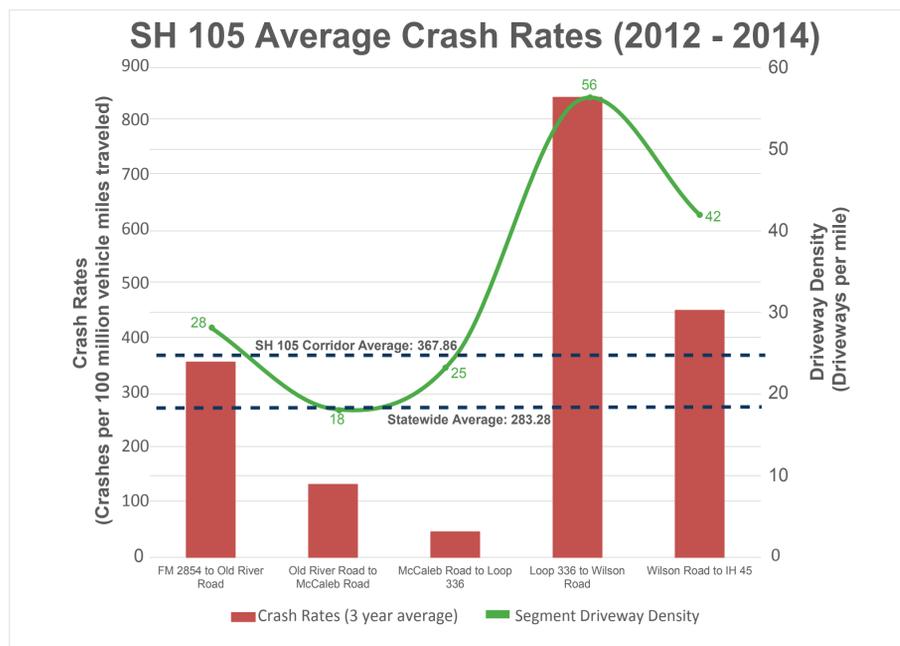
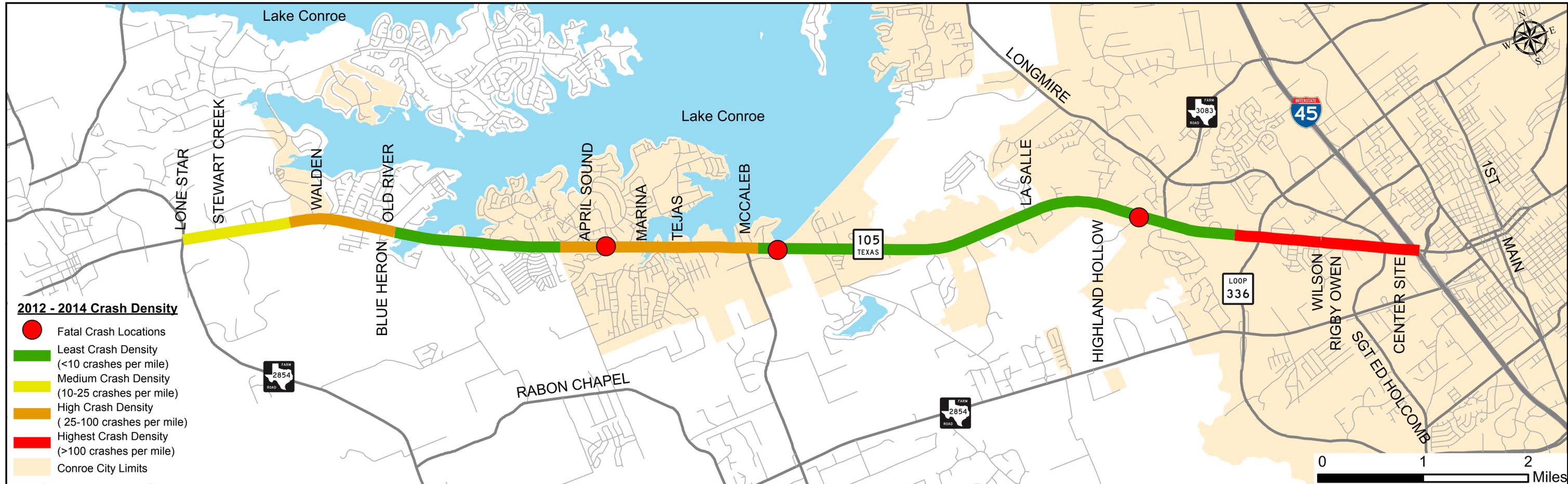
Traffic Level of Service (LOS) Example





Existing Conditions - Safety

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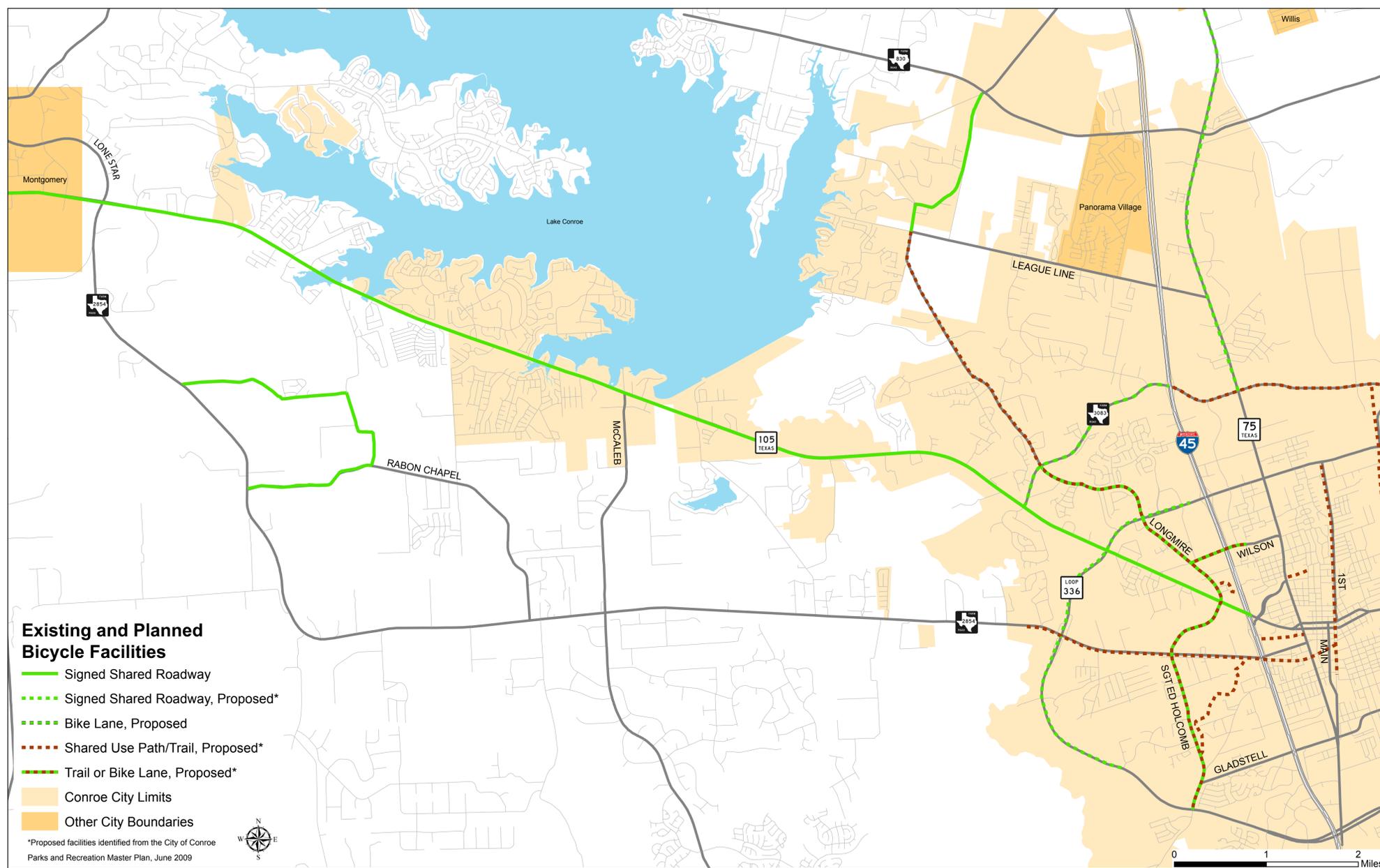


SH 105 Crash Incidents (2012 - 2014)

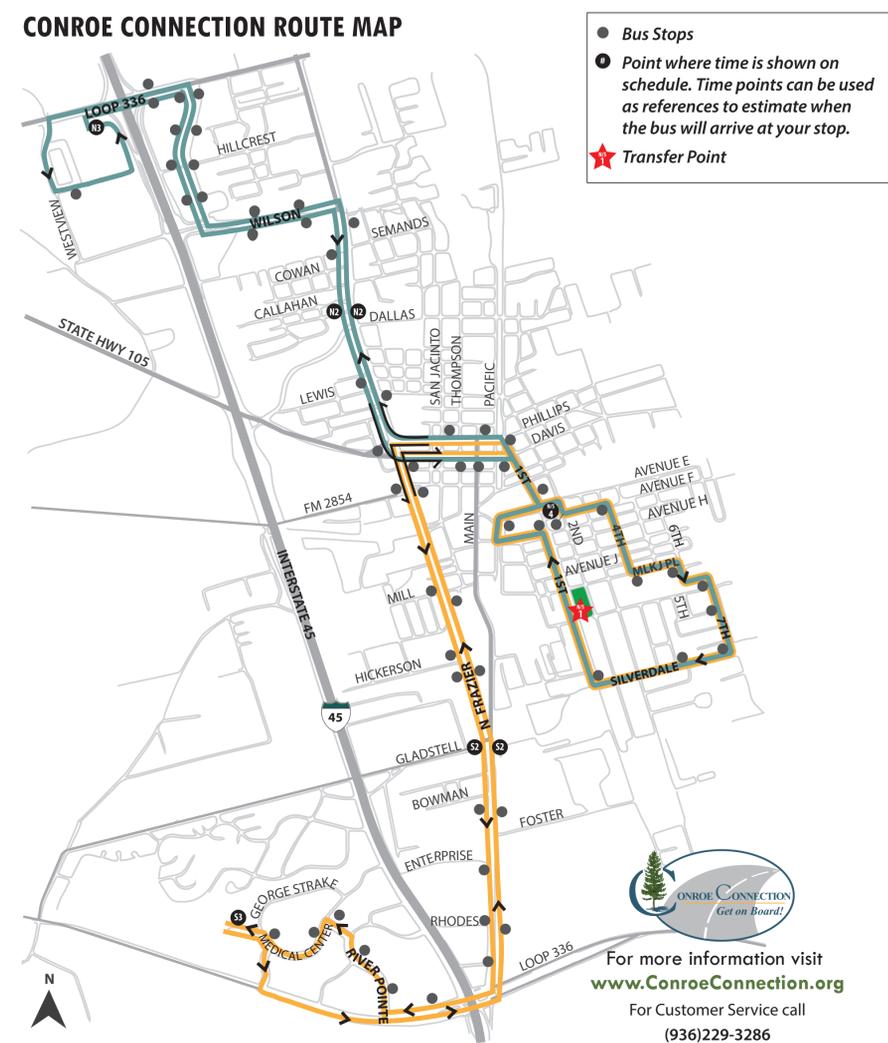
Segment	Fatality Crashes			Injury Crashes			Non-Injury Crashes			Total Crashes
	2012	2013	2014	2012	2013	2014	2012	2013	2014	
FM 2854 to Old River Road	0	0	0	11	16	17	25	37	43	149
Old River Road to McCaleb Road	0	0	1	21	23	18	41	37	37	178
McCaleb Road to Loop 336	1	0	1	15	9	10	8	19	30	93
Loop 336 to Wilson Road	0	0	0	12	12	17	28	27	20	116
Wilson Road to IH 45	0	0	0	13	15	16	32	30	52	158
Total	1	0	2	72	75	78	134	150	182	694



Existing and Planned Bicycle Facilities



Existing Transit Routes





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What is Access Management?

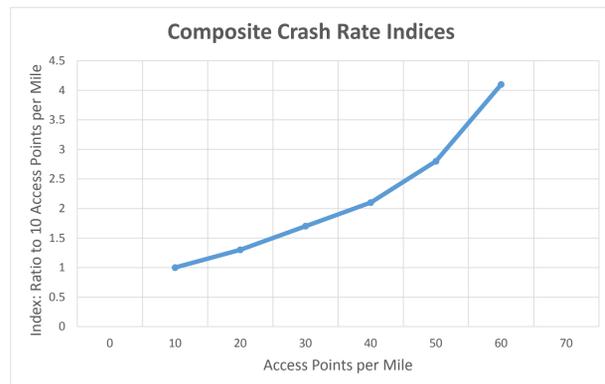
Access Management is the systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway.

The purpose is to provide vehicular access to land development in a manner that preserves the safety and efficiency of the transportation system.

Source: Access Management Manual, TRB 2003

Effects on Safety

- As access density increases, crash rates increase



- High speed and high volume roadways with raised medians have lower crash rates than undivided roadways with continuous two-way left turn lanes

Crash Rates			
Representative Accident Rates (Crashes per Million VMT) by Type of Median - Urban and Suburban Areas			
Total Access Points per Mile*	Median Type		
	Undivided	Two-Way Left Turn Lane	Non-Traversable Median
<20	3.8	3.4	2.9
20 - 40	7.3	5.9	5.1
40 - 60	9.4	7.9	6.8
>60	10.6	9.2	8.2
Average Rate	9.0	6.9	5.6

* Includes both signalized and unsignalized access points

Operational Effects

- Increased access points per mile reduces free flow speed

Access Points and Free Flow Speed	
Access Points per Mile	Reduction in free flow speed (mph)
0	0.0
10	2.5
20	5.0
30	7.5
40 or more	10.0

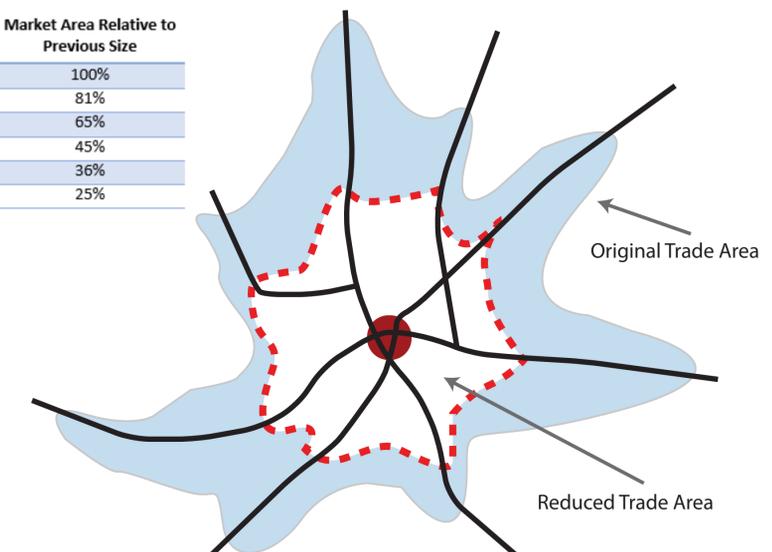
- Each additional signal (per mile) reduces through speed approximately 2 - 3 miles per hour

Percentage Increases in Travel Times as Signalized Density Increases	
Signals per Mile	Percent Increase in Travel Times (Compared with 2 Signals per Mile)
2.0	0
3.0	9
4.0	16
5.0	23
6.0	29
7.0	34
8.0	39

Economic Effects

- Market analysis shows as travel times increase, the market area for business is reduced
- National Highway Institute reports that inadequate access management can increase travel time and delay by as much as 40 - 60%
- A 10% reduction in average travel speed can cause a business to lose 20% of its market area

Reduction in Average Speed	Market Area Relative to Previous Size
0%	100%
10%	81%
20%	65%
30%	45%
40%	36%
50%	25%



Source: TxDOT Access Management Manual, 2011

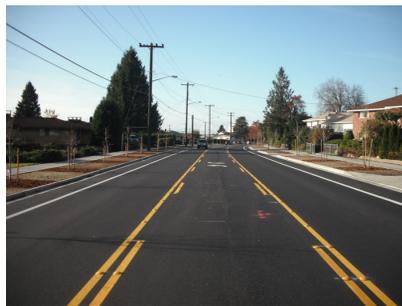


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Median Treatments



No Medians



At-Grade Median with Continuous Two-Way Left Turn Lane (TWLTL)



Raised Medians



Two Directional Channelized Median

Intersection Operation



Signalization



Houston Chronicle

Signal Timing



flickr/John Dawson

Signal Spacing



Right Turn Lane - Add or Extend



Left Turn Lane - Add or Extend

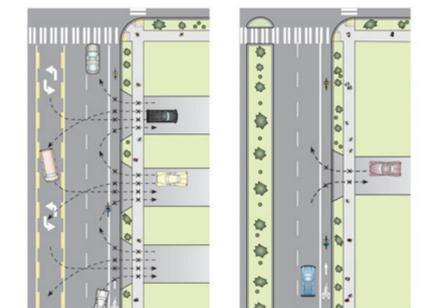
Driveway Improvements



Driveway Modifications



Driveway Spacing



Source: FHWA, Ohio DOT

Driveway Consolidation



Cross Access Policy



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Roadway Improvements



New Roadways



flickr/Ryan Smith

Widen Roadway



Signage Improvements



Thoroughfare Planning

Bicycle and Pedestrian



Sidewalk Improvements



Pedestrian Crossings



Shared Lane Signage and Markings



On-Street Bike Facilities



Off-Street Bike Facilities

Transit Improvements



RideMetro

Transit Service - New or Add



Houston Chronicle

Transit Park and Ride



Houston Chronicle

Bus Stop/Shelter Improvements



RTA Mobility

Bus Pull Outs



Corridor maps are located in the center of the room.

Please provide your comments on location specific concerns along the corridor.

Use the markers, pens, and sticky notes provided to indicate the following:



- Current traffic issues?
- Current safety issues?
- Better connected with sidewalks or bicycle facilities?
- Increased/better transit service?
- Other issues that we need to consider for this study?





- Information gathered today will be used to begin developing recommendations.
- Project team will be meeting with stakeholders along the corridor to gather more feedback.
- Throughout the summer, the project team will be analyzing the data and using the feedback to develop short-, medium-, and long-term improvements.
- The improvement recommendations will be presented at the 2nd Public Meeting scheduled for November 2016.



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If you have any questions or comments, please contact:

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Go to www.txdot.gov

Search: SH 105 Access Management

