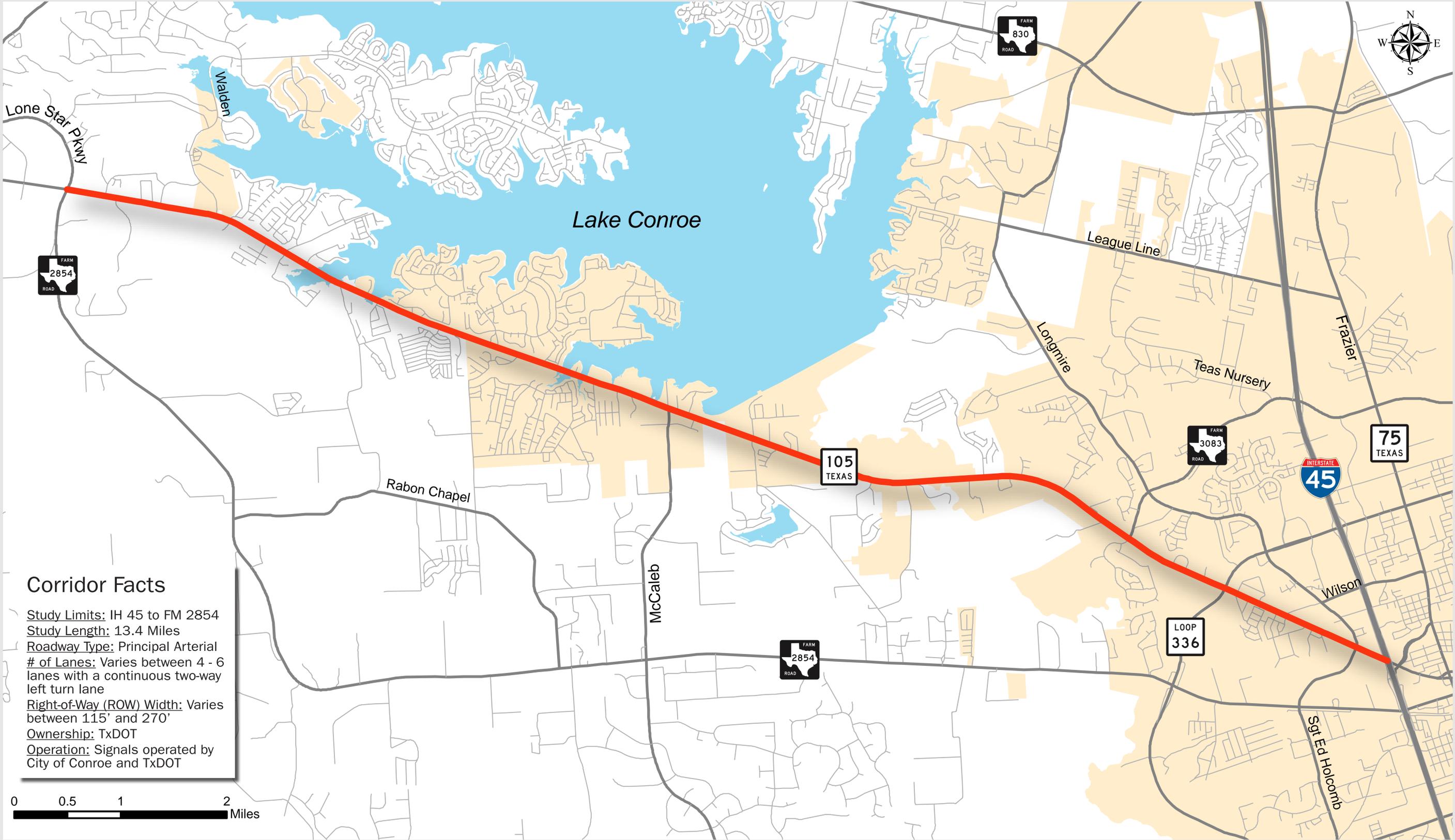




**Welcome to the
SH 105 Access Management Study
Public Meeting**

Study Area Map

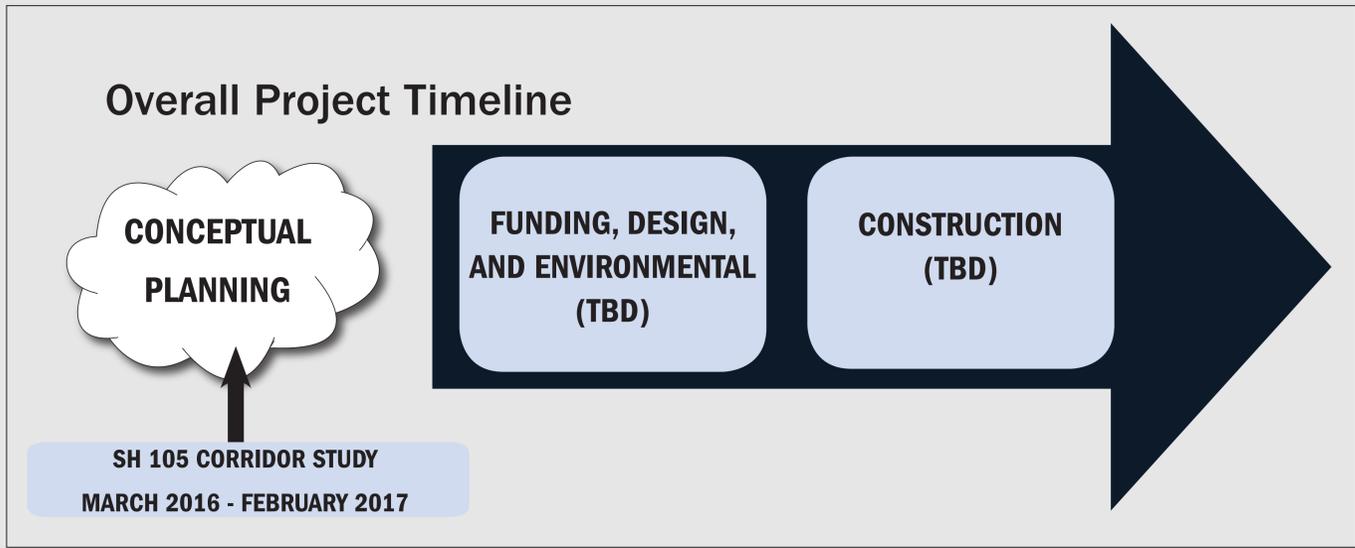


Corridor Facts

Study Limits: IH 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

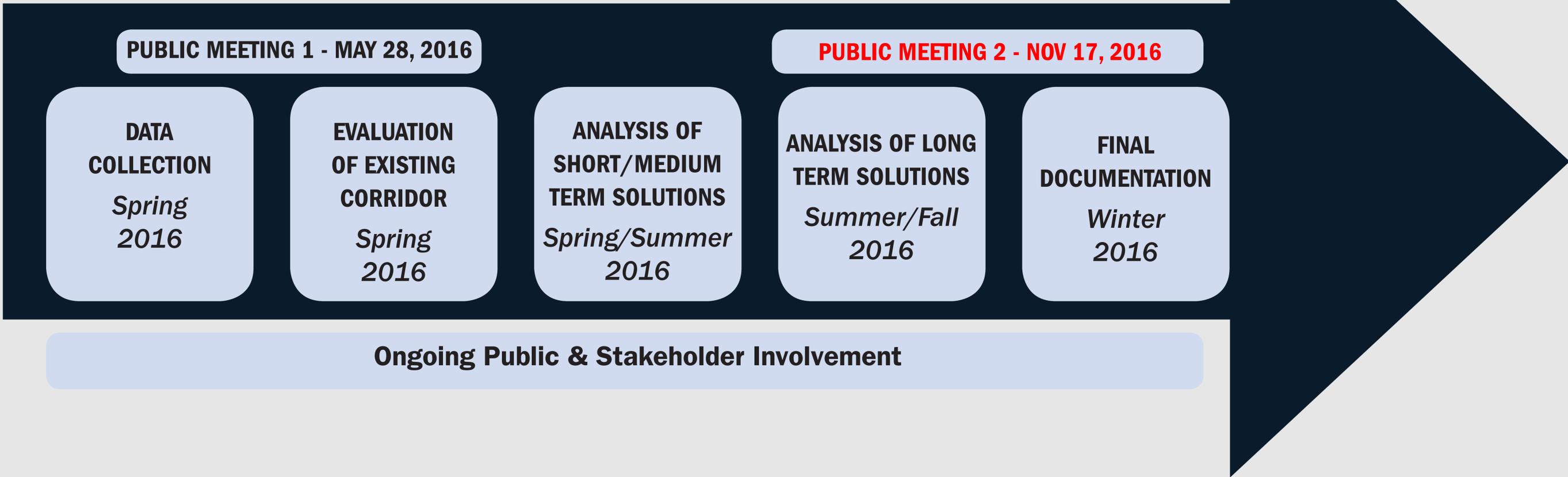


Project Timeline

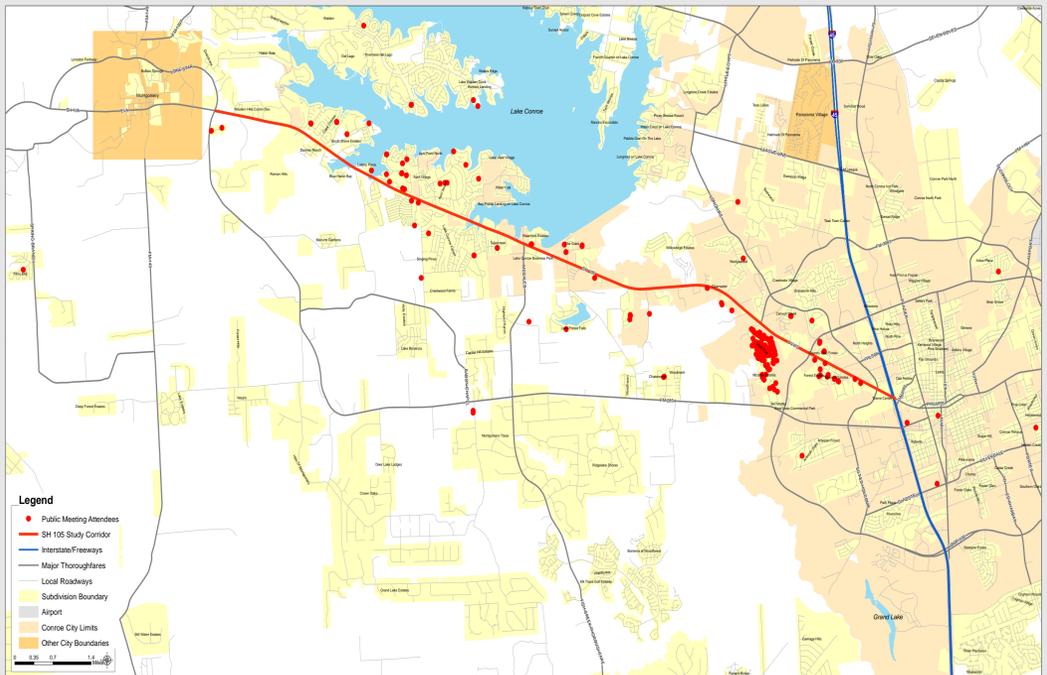


WE ARE HERE!

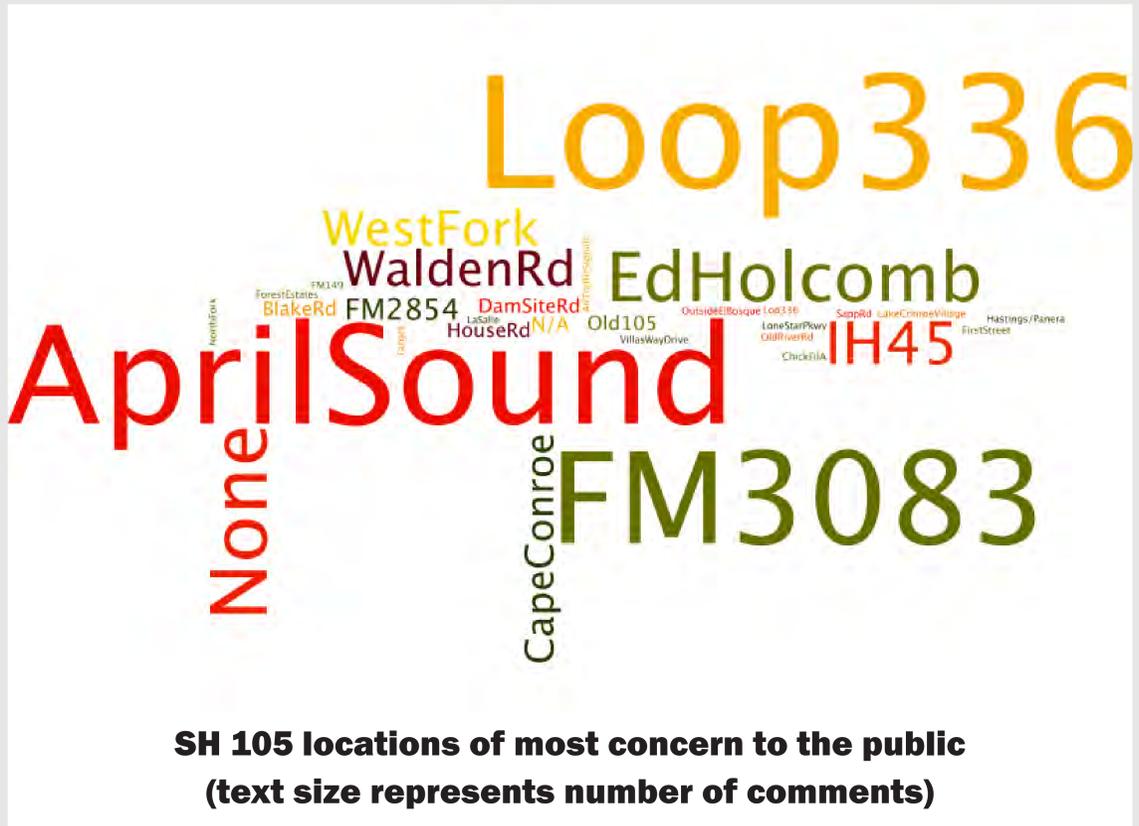
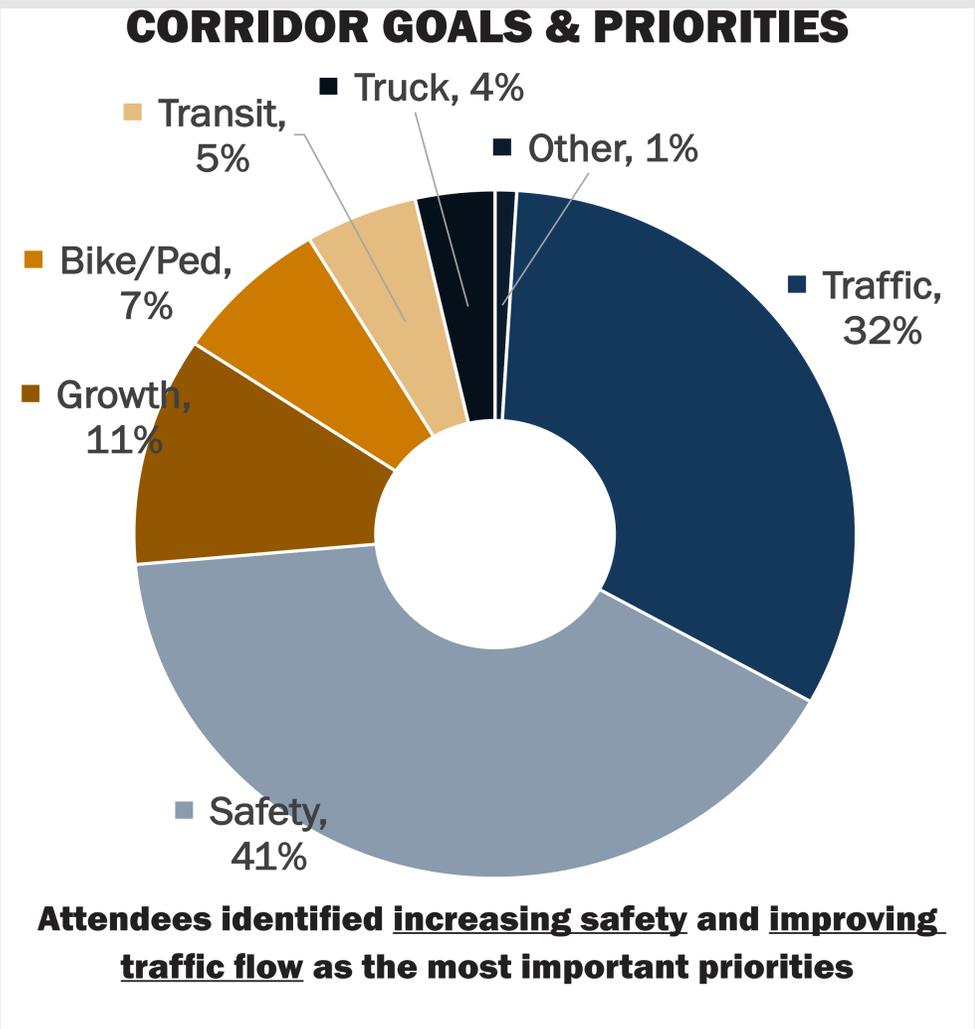
SH 105 Corridor Study Timeline



Public Meeting 1 Summary May 24, 2016



More than 200 people attended the first public meeting



Project & Public Involvement Summary

SH 105 CORRIDOR GOALS AND PRIORITIES

Six corridor goals were defined with input from the Steering Committee. The Steering Committee was comprised of representatives from the City of Conroe, Montgomery County, Conroe Independent School District (CISD), TxDOT and the Houston-Galveston Area Council (H-GAC).

INCREASE SAFETY



IMPROVE TRAFFIC FLOW



ACCOMMODATE FUTURE GROWTH



IMPROVE BIKE & PED MOBILITY



PROVIDE TRANSIT OPTIONS



ACCOMMODATE TRUCK TRAFFIC



PUBLIC OUTREACH EFFORTS

The public participation efforts for the SH 105 Access Management Study provided an ongoing information exchange between the project team and stakeholders, residents, business owners and technical staff. The following is a summary of the public outreach efforts:

Steering Committee

- Steering Committee Meeting 1: April 14, 2016
- Steering Committee Meeting 2: June 6, 2016
- Steering Committee Meeting 3: September 23, 2016

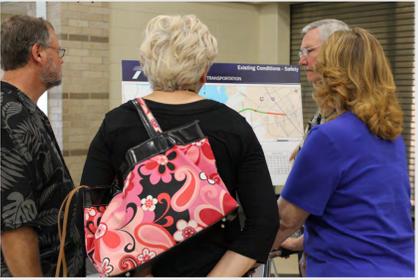


Stakeholder Outreach

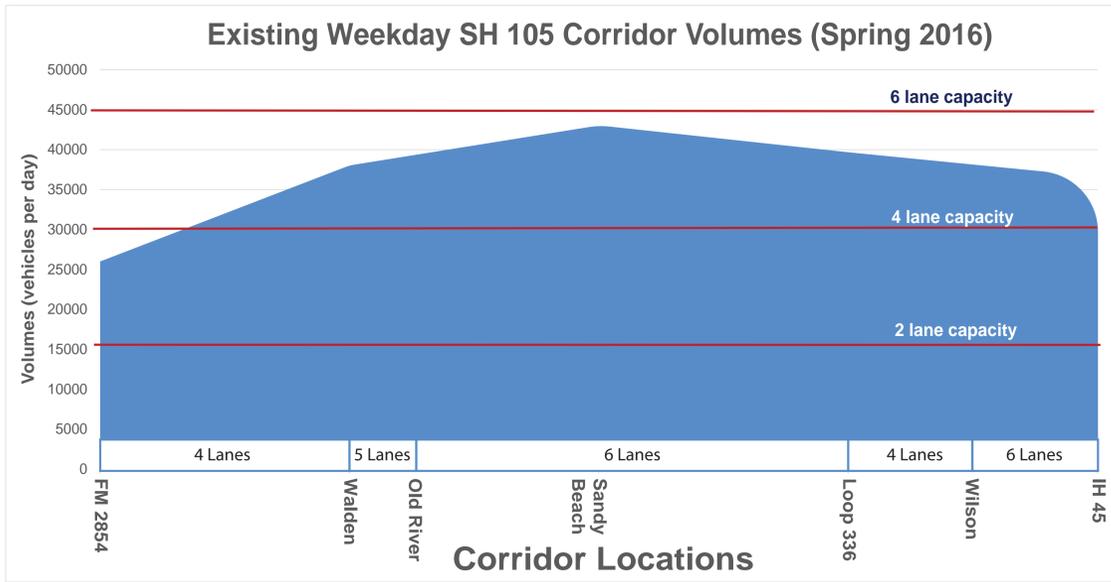
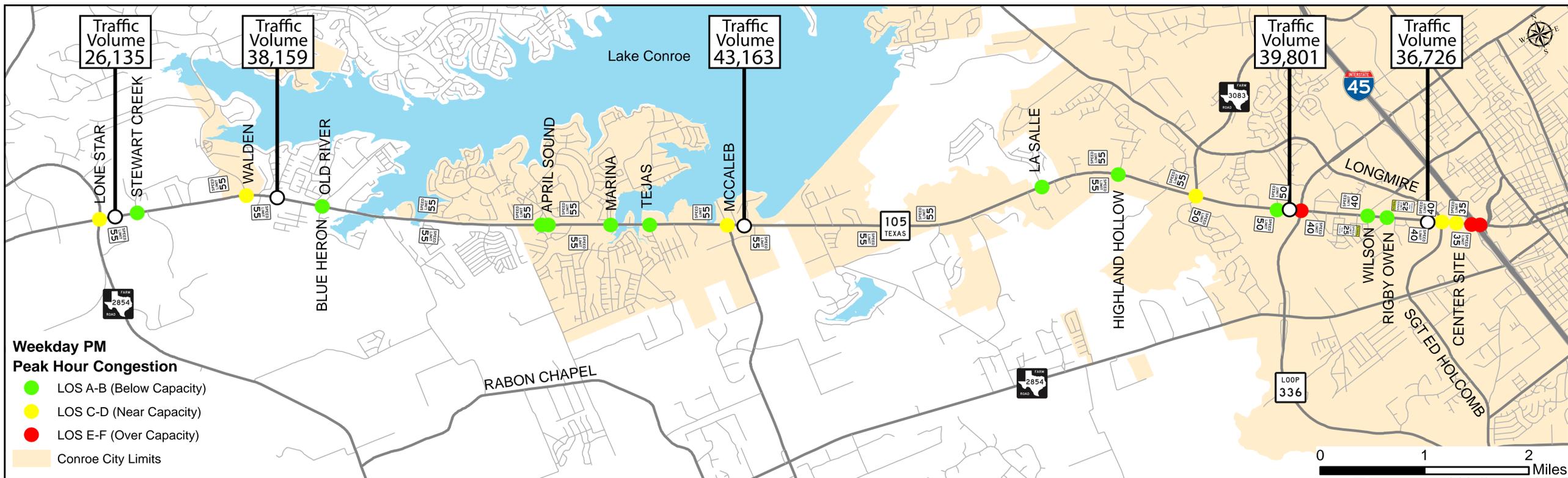
- City of Conroe City Council: May 25, 2016
- Conroe ISD: July 11, 2016
- April Sound Property Owners Association (POA): September 1, 2016
- Montgomery County Bicycle Group: October 3, 2016
- Emergency Services: November 16, 2016

Public Meetings

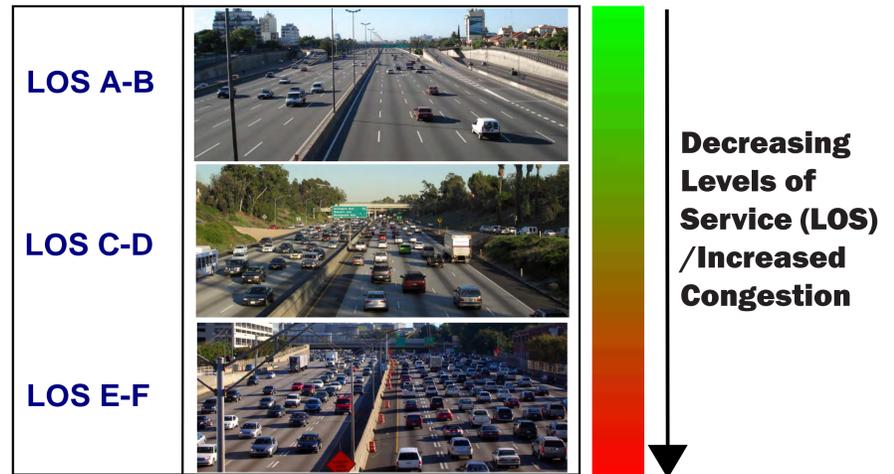
- Public Meeting 1: May 24, 2016
 - Over 200 attendees
 - Over 100 surveys completed
 - Received additional emails from concerned citizens
- Public Meeting 2: November 17, 2016



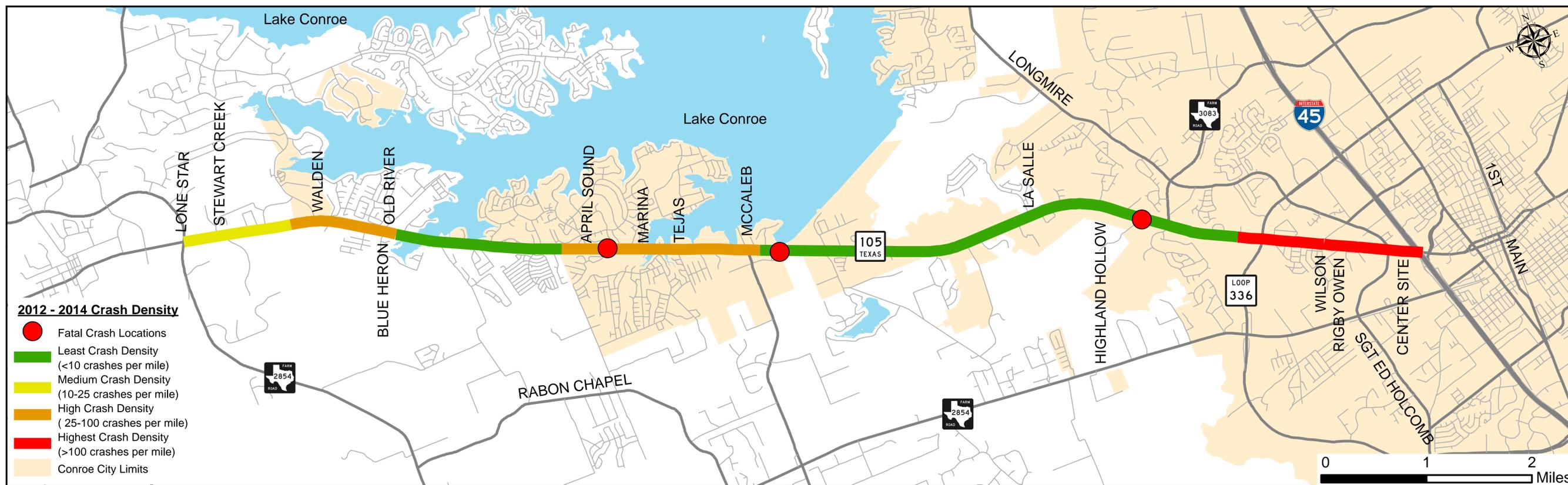
Existing Conditions - Traffic



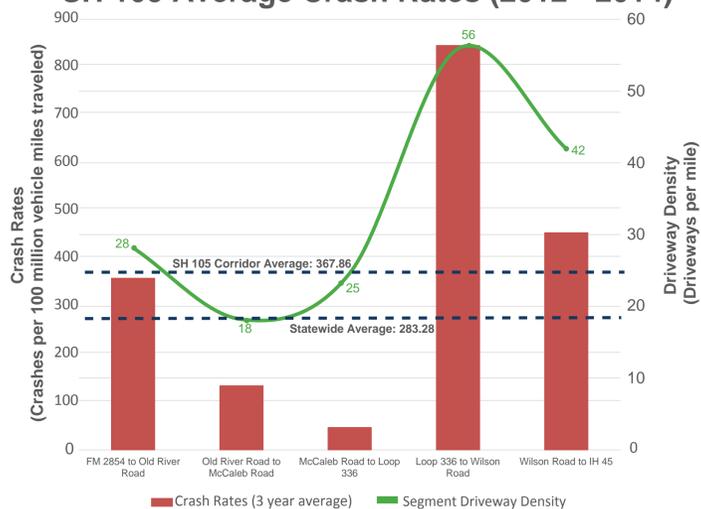
Traffic Level of Service (LOS) Example



Existing Conditions - Safety



SH 105 Average Crash Rates (2012 - 2014)



SH 105 Crash Incidents (2012 - 2014)

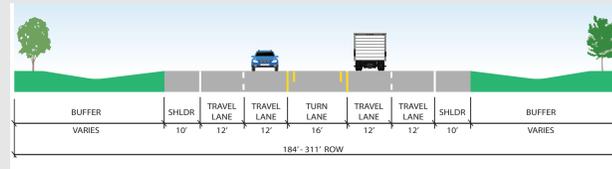
Segment	Fatality Crashes			Injury Crashes			Non-Injury Crashes			Total Crashes
	2012	2013	2014	2012	2013	2014	2012	2013	2014	
FM 2854 to Old River Road	0	0	0	11	16	17	25	37	43	149
Old River Road to McCaleb Road	0	0	1	21	23	18	41	37	37	178
McCaleb Road to Loop 336	1	0	1	15	9	10	8	19	30	93
Loop 336 to 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



Corridor Recommendations

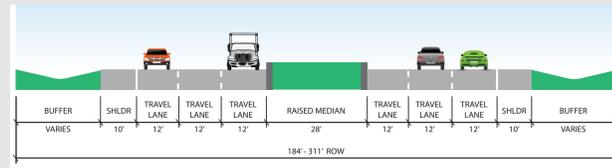
FM 2854 TO WALDEN ROAD

EXISTING CONFIGURATION



- 2 eastbound and 2 westbound lanes with two-way left turn lane
- Pavement - 84 feet wide
- Daily Traffic Volume - 26,000 vehicles per day

SHORT/MEDIUM TERM RECOMMENDATION



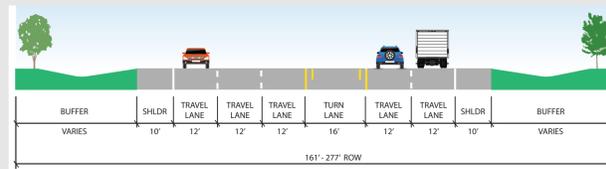
- 28 foot raised median
- Widen to 6 lanes; 3 lanes eastbound, 3 lanes westbound
- Improved shoulders, bicycle route designation and signage

CORRIDOR GOALS

- Increase Safety
- Improve Traffic Flow
- Improve Bicycle and Pedestrian Mobility
- Accommodate Truck Traffic
- Accommodate Future Growth
- Provide Transit Options

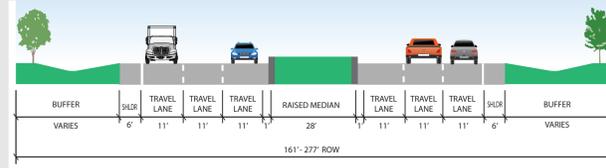
WALDEN ROAD TO OLD RIVER ROAD

EXISTING CONFIGURATION



- 2 eastbound and 3 westbound lanes with two-way left turn lane
- Pavement - 96 feet wide
- Daily Traffic Volume - 38,000 vehicles per day

SHORT/MEDIUM TERM RECOMMENDATION



- 28 foot raised median
- Additional eastbound lane
- Improved shoulders, bicycle route designation and signage

LONG TERM RECOMMENDATION

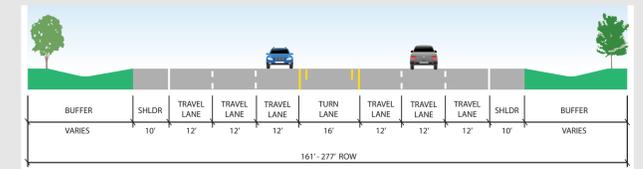
- Widen lanes and shoulders

CORRIDOR GOALS

- Increase Safety
- Improve Traffic Flow
- Improve Bicycle and Pedestrian Mobility
- Accommodate Truck Traffic
- Accommodate Future Growth
- Provide Transit Options

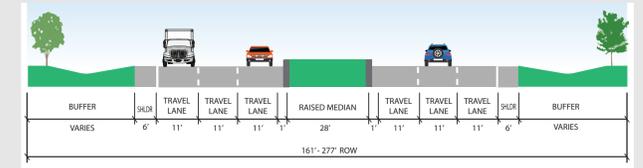
OLD RIVER ROAD TO LOOP 336

EXISTING CONFIGURATION



- 3 eastbound and 3 westbound lanes with two-way left turn lane
- Pavement - 108 feet wide
- Daily Traffic Volume - 43,000 vehicles per day

SHORT/MEDIUM TERM RECOMMENDATION



- 28 foot raised median
- No raised median on bridges
- Improved shoulders, bicycle route designation and signage

LONG TERM RECOMMENDATION

- Widen lanes and shoulders

CORRIDOR GOALS

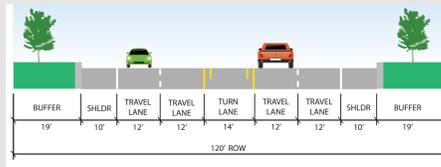
- Increase Safety
- Improve Traffic Flow
- Improve Bicycle and Pedestrian Mobility
- Accommodate Truck Traffic
- Accommodate Future Growth
- Provide Transit Options



Corridor Recommendations

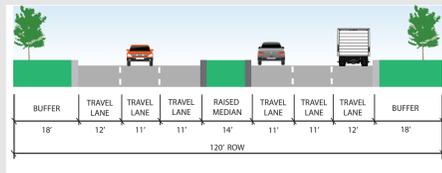
LOOP 336 TO WILSON ROAD

EXISTING CONFIGURATION



- 2 eastbound and 2 westbound lanes with two-way left turn lane
- Pavement - 82 feet wide
- Daily Traffic Volume - 36,000 vehicles per day

SHORT TERM RECOMMENDATION



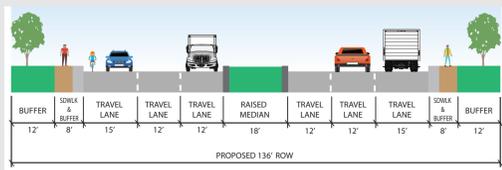
- 14 foot raised median
- Widen to 6 lanes (11' each lane)

MEDIUM TERM RECOMMENDATION



- 16 foot raised median
- Drainage improvements
- Sidewalk improvements

LONG TERM RECOMMENDATION



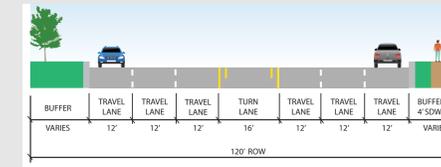
- 18 foot raised median
- 15 foot outside lanes

CORRIDOR GOALS

- Increase Safety
- Improve Traffic Flow
- Improve Bicycle and Pedestrian Mobility
- Accommodate Truck Traffic
- Accommodate Future Growth
- Provide Transit Options

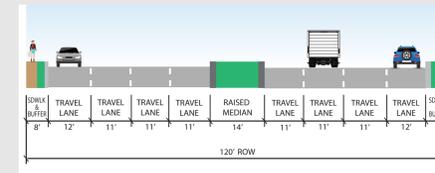
WILSON ROAD TO IH 45

EXISTING CONFIGURATION



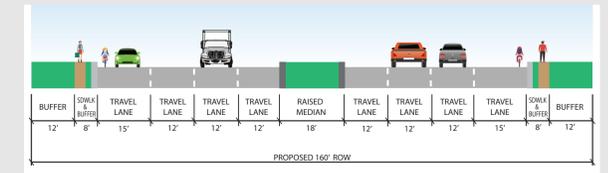
- 3 eastbound and 3 westbound lanes with two-way left turn lane
- Pavement - 88 feet wide
- Daily Traffic Volume - 36,000 vehicles per day

SHORT/MEDIUM TERM RECOMMENDATION



- 14 foot raised median
- Widen to 8 lanes

LONG TERM RECOMMENDATION



- 18 foot raised median
- 15 foot outside lanes

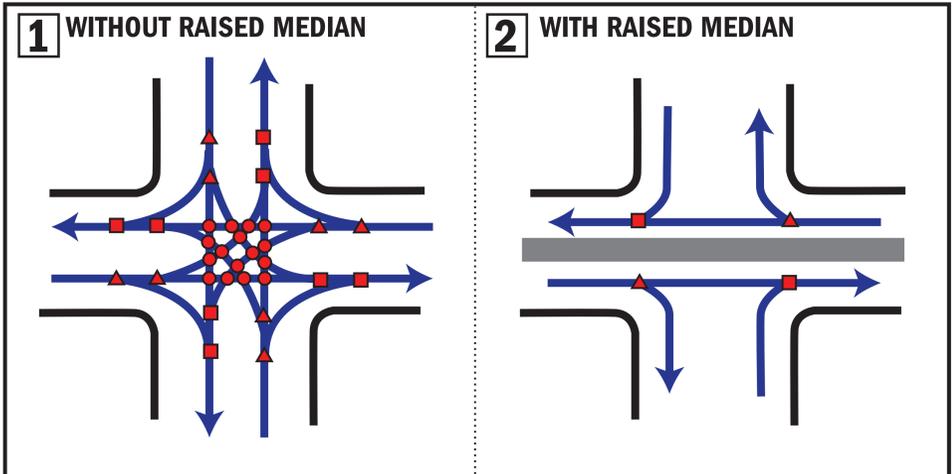
CORRIDOR GOALS

- Increase Safety
- Improve Traffic Flow
- Improve Bicycle and Pedestrian Mobility
- Accommodate Truck Traffic
- Accommodate Future Growth
- Provide Transit Options



Safety Improvements

TRAFFIC CONFLICT POINTS



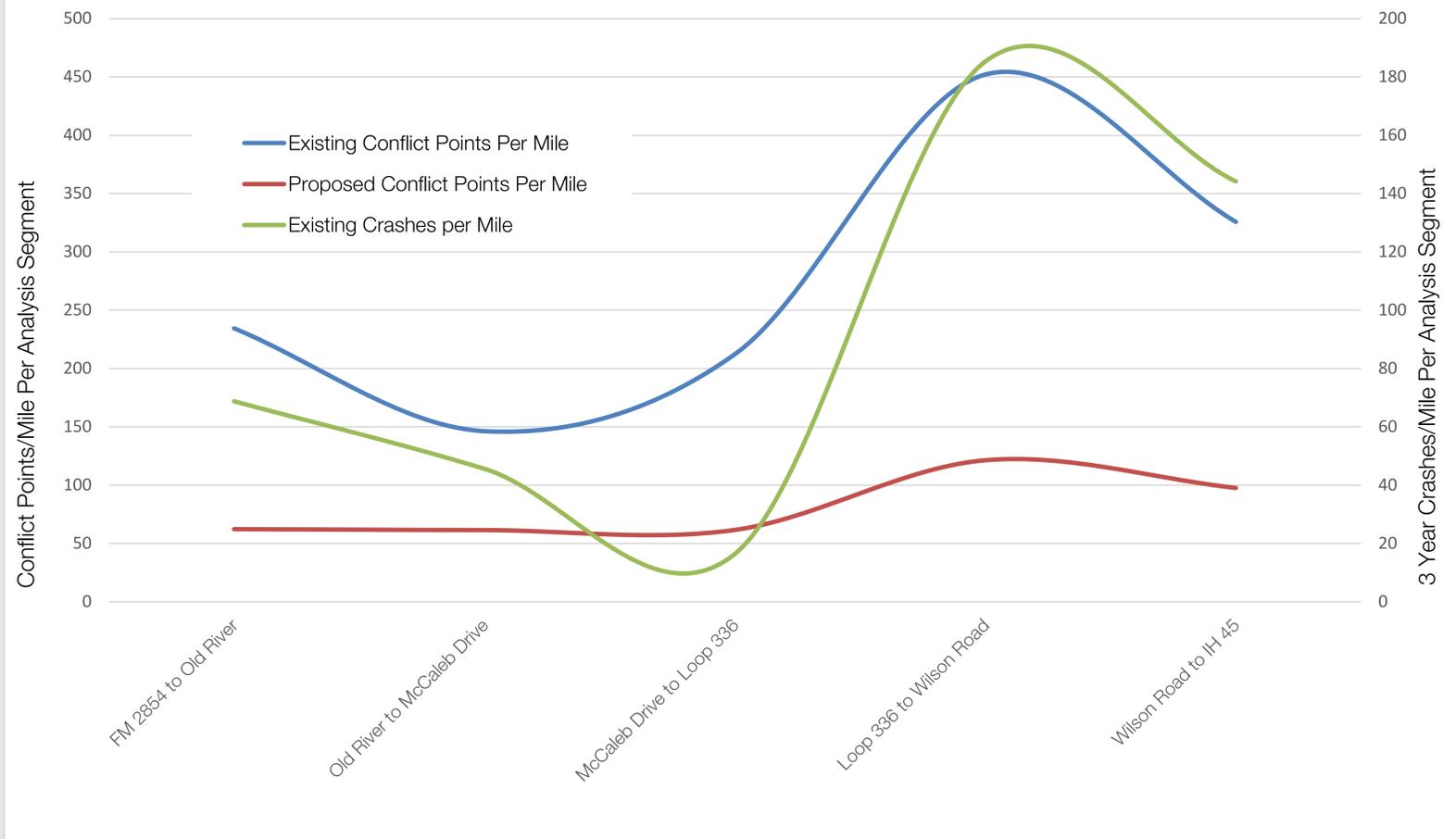
CONFLICT POINTS

	1	2
● CROSSING	16	0
▲ DIVERGE	8	2
■ MERGE	8	2
TOTAL	32	4



At each intersection, cross street or driveway a vehicle faces a number of conflict points with other movements of travel. Each of these conflict points poses an opportunity for the vehicle to hit another vehicle. Introducing a raised median to restrict the movement of traffic at these locations reduces the number of conflict points from 32 to 4.

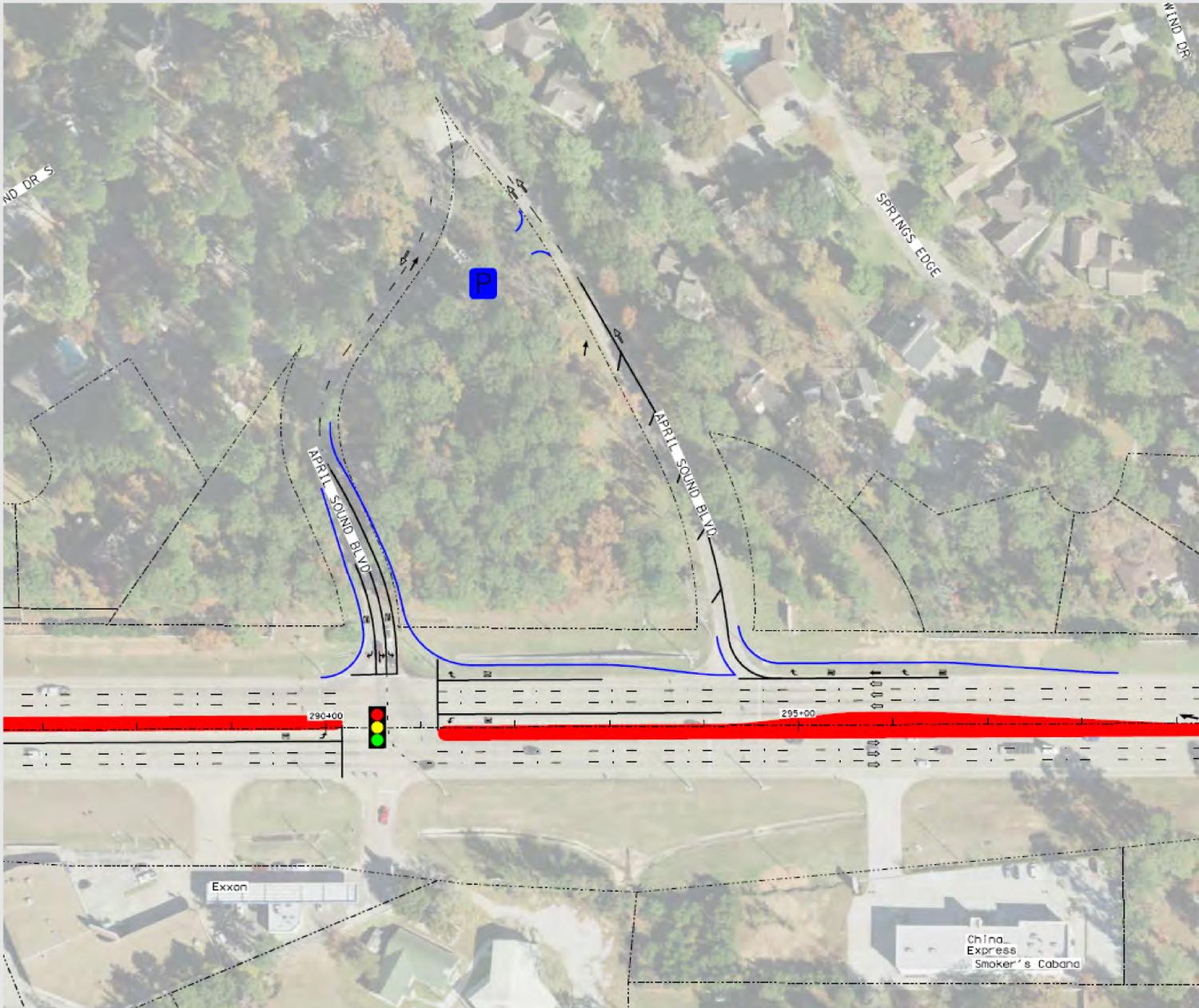
SH 105 CONFLICT POINTS AND CRASHES



The graph shows the direct correlation between conflict points and crashes. A raised median will help to reduce crashes by limiting conflict points.



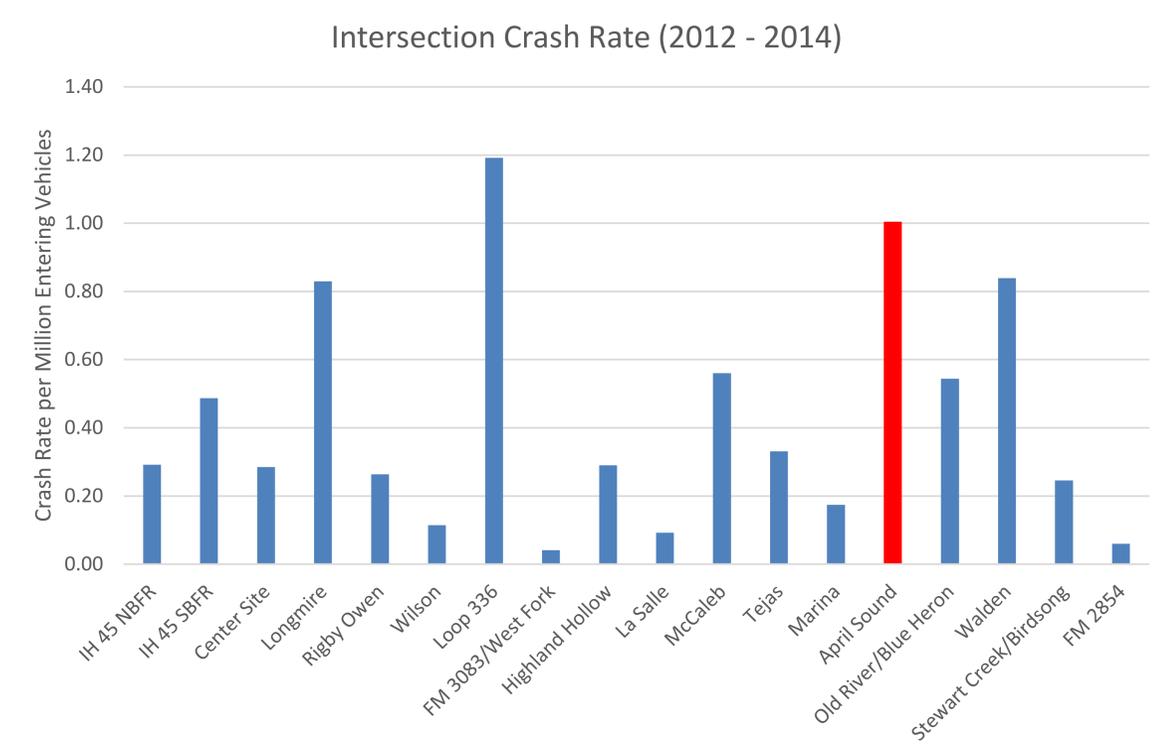
April Sound Blvd. Improvements



The SH 105 at April Sound Blvd. intersection showed a high number of crash incidents due to the close proximity of the two signalized intersections.

This recommendation would remove the signal on the east intersection and would provide a left turn for entering vehicles at the west intersection.

This would also allow for an additional lane to enter the April Sound development at the security gate.

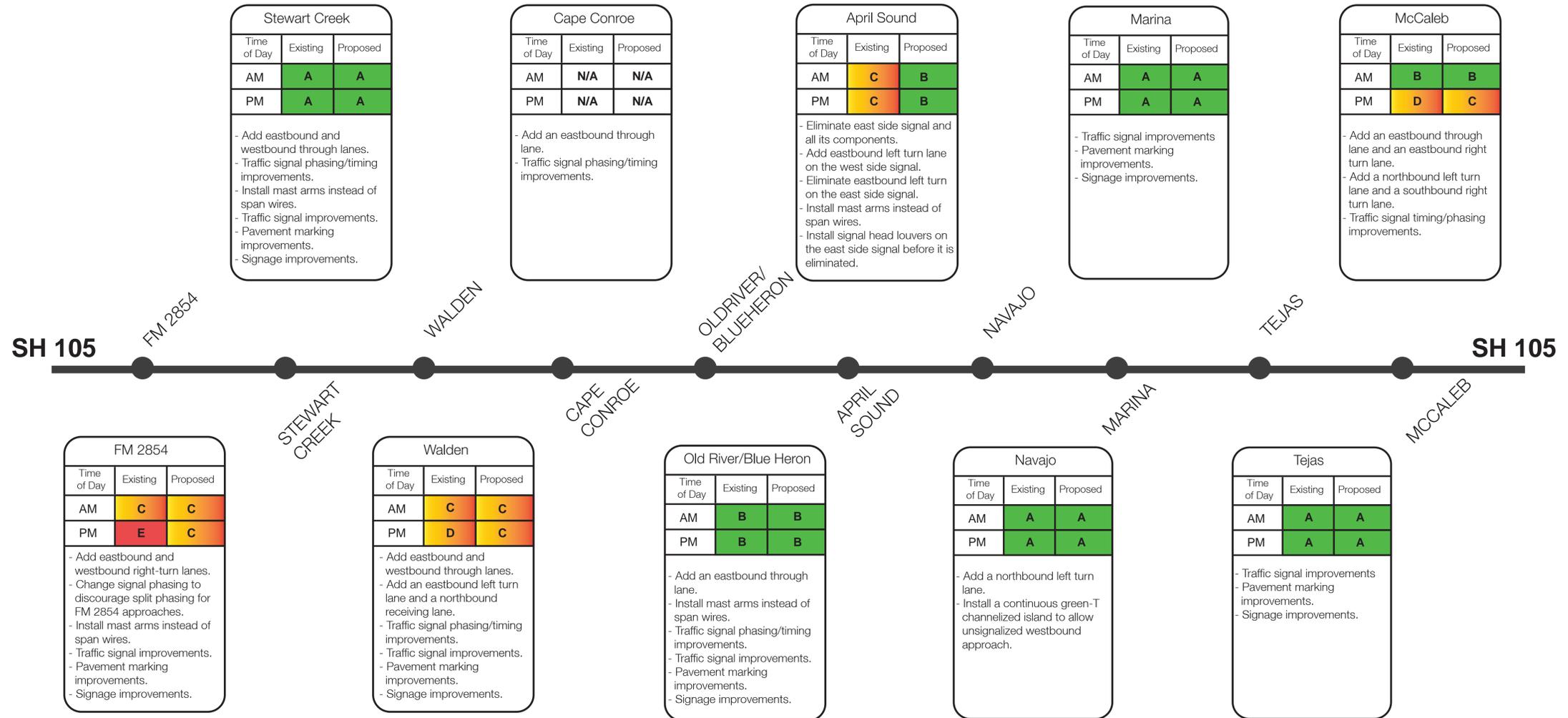


April Sound Blvd. has the second highest intersection crash rate along the study area corridor, which confirms the comments that were made by attendees at the first public meeting.



Intersection Recommendations

RECOMMENDATIONS AND RESULTS



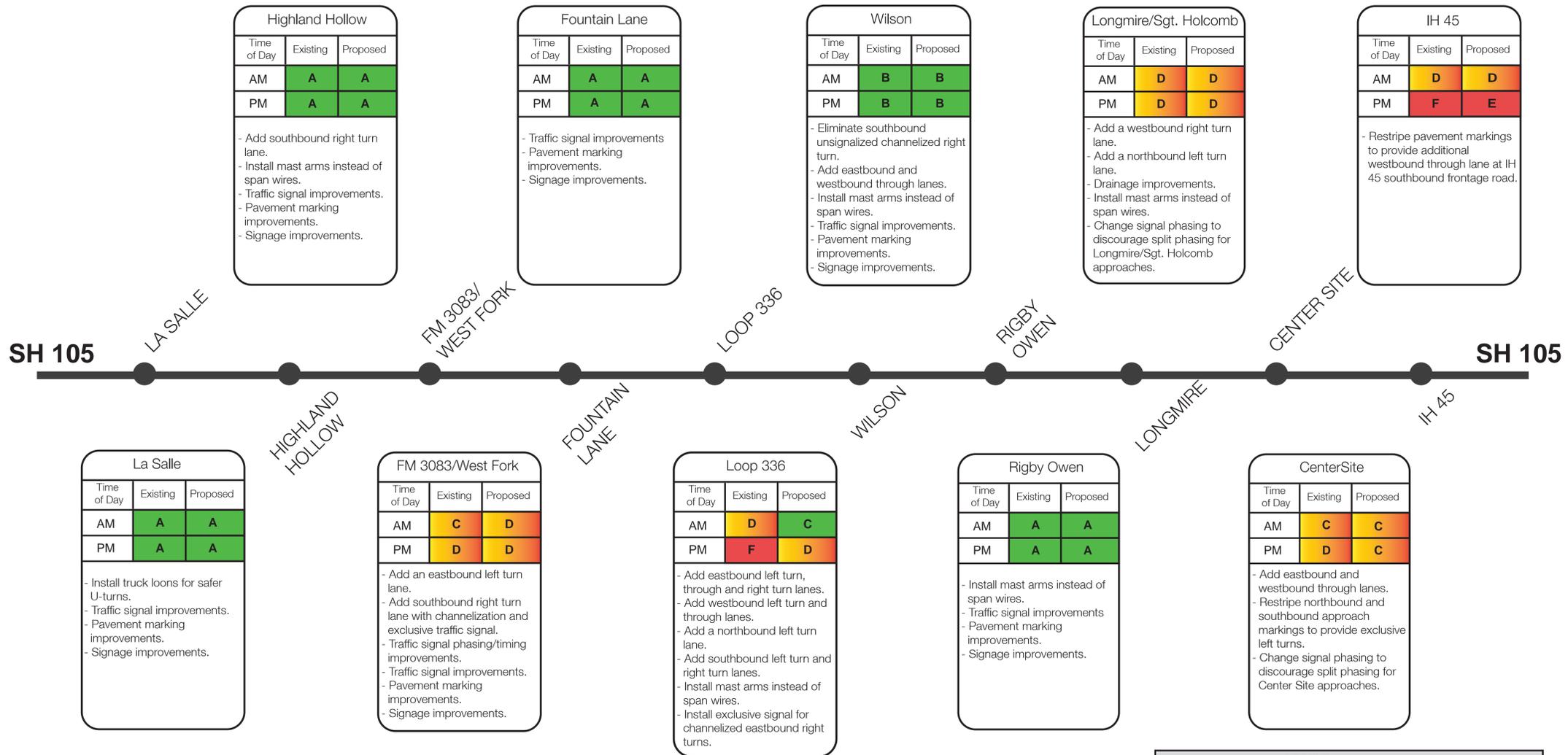
Results of the capacity analyses are reported in standard level of service (LOS) format, with the most favorable conditions being designated as LOS A and the poorest conditions indicated by LOS F. Intersection LOS is based on the amount of delay that each vehicle encounters at a given intersection. The LOS criteria for signalized and unsignalized intersections, along with a brief description of the conditions experienced for each level of service grade are provided in the Legend.

LEGEND	
Level of Service	Description
A	Traffic flows freely with limited delay in vehicle movements through an intersection
B	Traffic flow restricted with increasing vehicle densities, ability to maneuver decreases.
C	Traffic flow is forced with excessive delays. Queues may block upstream intersections.
D	
E	
F	
—	SH 105 Corridor
●	Signalized Cross Street intersecting with SH 105



Intersection Recommendations

RECOMMENDATIONS AND RESULTS



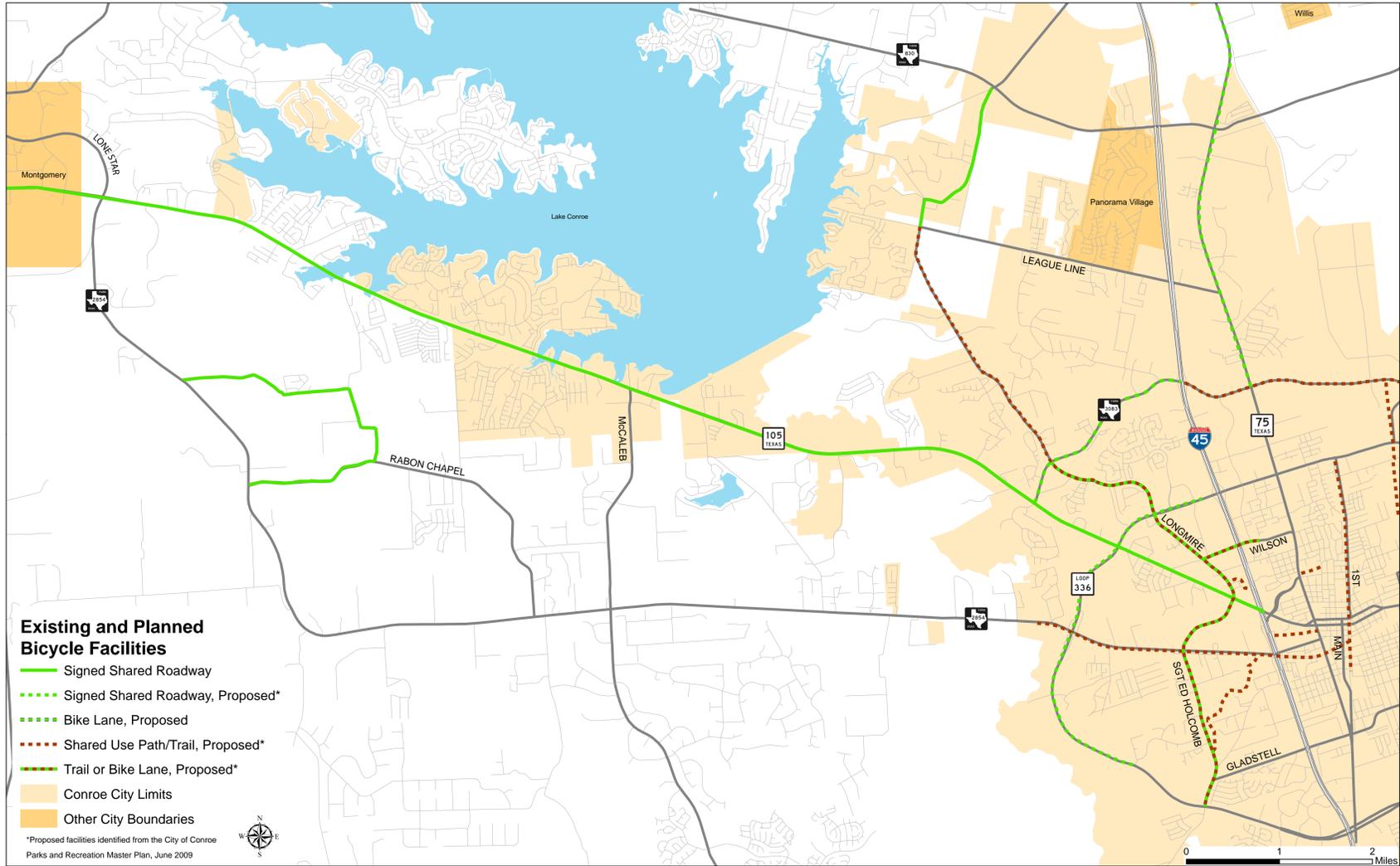
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D	
E	
F	
—	SH 105 Corridor
●	Signalized Cross Street intersecting with SH 105



Pedestrian and Bicycle Recommendations

RECOMMENDED BICYCLE FACILITIES



IMPROVED SHOULDER



- 6 foot minimum width
- No rumble strips in urban areas, minimal rumble strips in other locations
- Proper bicycle striping at intersections

SH 105 MULTI-USE TRAIL



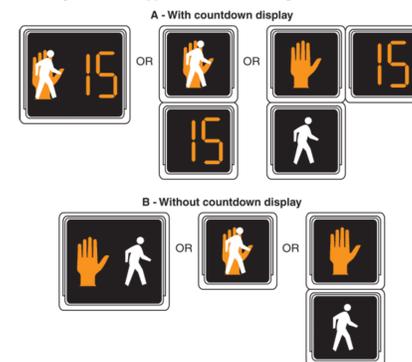
- 10 foot trail adjacent to SH 105
- From Loop 336 to FM 2854
- Within TxDOT ROW
- Medium to long term improvement

PEDESTRIAN IMPROVEMENTS



- Sidewalk connections between IH 45 and Loop 336
- Remove mid-block crosswalk at SH 105 at Conroe High School
- Improved pedestrian signals at all signals
- ADA compliant curb ramps

Figure 4E-1. Typical Pedestrian Signal Indications



Corridor Implementation and Cost

SH 105 Access Management Study Preliminary Cost Estimates*						
Primary Funding Source		TxDOT	Montgomery County	City of Conroe	Others	TOTALS
Improvement		Cost	Cost	Cost	Cost	(In Millions)
SHORT	INTERSECTION IMPROVEMENTS	\$769,600.00	\$0.00	\$1,313,000.00**	\$154,400.00	\$18.69
	Traffic signal improvements	\$132,000.00		\$500,000.00		
	Traffic signal timing and synchronization	\$13,000.00		\$34,000.00		
	Signage improvements	\$37,000.00		\$52,000.00		
	Pavement marking improvements	\$8,300.00		\$14,400.00		
	Add storage and deceleration turn lanes	\$471,000.00		\$558,000.00		
	Add a northbound receiving lane (SH 105 at April Sound - West)				\$150,000.00	
	Eliminate traffic signal and components (SH 105 at April Sound - East)				\$4,400.00	
	Eliminate southbound unsignalized channelized right turn (SH 105 at Wilson)	\$0.00		\$0.00		
	Restripe lane configuration pavement markings to allow additional WB thru lane (IH 45)	\$24,100.00		\$0.00		
	CORRIDOR IMPROVEMENTS	\$15,438,000.00	\$0.00	\$370,000.00	\$0.00	
	Add raised median- concrete (Walden to Loop 336)	\$14,400,000.00				
	Widen roadway cross section from 5 lanes to 6 lanes (Walden to Old River)	\$668,000.00				
	Stormwater drainage improvements (Wilson to IH 45)	\$370,000.00		\$370,000.00		
	BIKE/PEDESTRIAN IMPROVEMENTS	\$414,400.00	\$0.00	\$16,300.00	\$64,000.00	
	Add sidewalks (East of Loop 336)	\$413,600.00			\$64,000.00	
	Add ADA accessible curb ramps (Longmire to IH 45)			\$16,000.00		
	Add crosswalks (Longmire to IH 45)			\$300.00		
	Remove midblock crosswalk (between Wilson and Rigby Owen)	\$800.00				
	SAFETY IMPROVEMENTS	\$77,700.00	\$0.00	\$0.00	\$0.00	
Add "Next Intersection/Signal" signs	\$12,700.00					
Add "Curve Warning" signs	\$24,000.00					
Shoulder improvements (add texturing on both sides)	\$41,000.00					
BARRICADES, SIGNS AND TRAFFIC HANDLING	\$24,000.00		\$24,000.00	\$24,000.00		
TOTAL FOR SHORT RANGE IMPROVEMENTS	\$16,724,000.00	\$0.00	\$1,724,000.00	\$243,000.00		
MEDIUM	INTERSECTION IMPROVEMENTS	\$1,101,000.00		\$428,000.00**	\$0.00	\$10.16
	Traffic signal improvements	\$4,000.00		\$9,500.00		
	Traffic signal timing and synchronization	\$4,000.00		\$4,000.00		
	Signage improvements	\$17,000.00		\$7,000.00		
	Pavement marking improvements	\$12,000.00		\$2,000.00		
	Add storage and deceleration turn lanes	\$663,000.00		\$366,000.00		
	Install a continuous-green-T intersection channelization (SH 105 at Navajo)	\$300,000.00		\$0.00		
	Add channelized right-turn islands (FM 3083)	\$500.00		\$0.00		
	CORRIDOR IMPROVEMENTS	\$8,584,700.00	\$0.00	\$0.00	\$0.00	
	Add raised median - concrete (FM 2854 to Walden and Loop 336 to IH 45)	\$2,292,000.00				
	Widen roadway cross section from 4 lanes to 6 lanes (FM 2854 to Walden and Loop 336 to Longmire)	\$5,055,200.00				
	Widen roadway cross section from 6 lanes to 8 lanes (Longmire to IH 45)	\$487,500.00				
	Widen roadway cross section from 2 lanes to 4 lanes (FM 2854)	\$750,000.00				
	BARRICADES, SIGNS AND TRAFFIC HANDLING	\$24,000.00	\$0.00	\$24,000.00	\$0.00	
TOTAL FOR MEDIUM RANGE IMPROVEMENTS	\$9,710,000.00	\$0.00	\$452,000.00	\$0.00		
LONG	CORRIDOR IMPROVEMENTS	\$0.00	\$4,513,500.00	\$0.00	\$2,805,900.00	\$12.22
	Extend Parkgate St. to Sgt Ed Holcomb Blvd (Widen to 4 lanes with 5' sidewalks on both sides)***				\$1,487,000.00	
	Widen roadway cross section from 2 lanes to 4 lanes (McCaleb)***		\$4,513,500.00			
	Acquire ROW (Loop 336 to IH 45)	TBD				
	Driveway modification, elimination and addition				\$289,800.00	
	Add access roads for strip center access				\$1,029,100.00	
	BIKE/PEDESTRIAN IMPROVEMENTS	\$4,855,400.00	\$0.00	\$0.00	\$0.00	
	10' Multi-Use Trail (west of Loop 336)***	\$4,730,900.00				
	Convert 12' lane to 15' shared bike lane	\$121,900.00				
	Pavement marking improvements (bike symbol markings)	\$2,600.00				
BARRICADES, SIGNS AND TRAFFIC HANDLING	\$24,000.00			\$24,000.00		
TOTAL FOR LONG RANGE IMPROVEMENTS	\$4,880,000.00	\$4,514,000.00	\$0.00	\$2,830,000.00		

*DISCLAIMER: Planning level cost estimates; subject to change. Coordination will be required with City of Conroe and Montgomery County.

** Joint funding may occur for the traffic signal improvements.

*** Additional study will be required in the long term for the funding to occur, 25% contingency is included in all costs.



If you have any questions or comments, please contact:

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SH105AccessStudy@txdot.gov

Website:

Go to www.txdot.gov

Search: SH 105 Access Management

