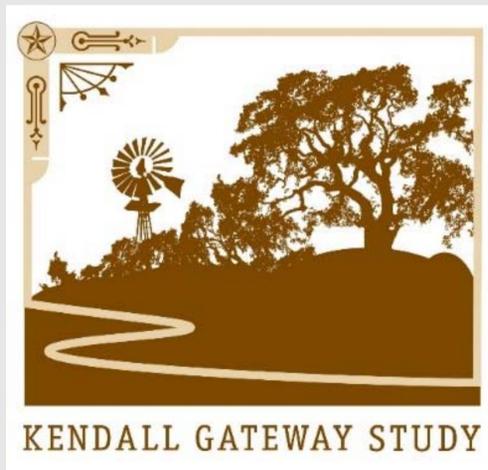




# WELCOME TO THE OPEN HOUSE

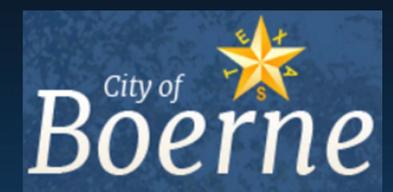
Wednesday, November 8, 2017



- Please sign in.
- Explore and interact with the exhibits.
- Complete the interactive survey.
- Submit comments.
- Ask questions.

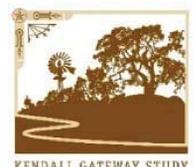
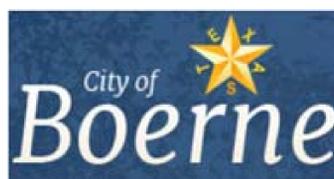
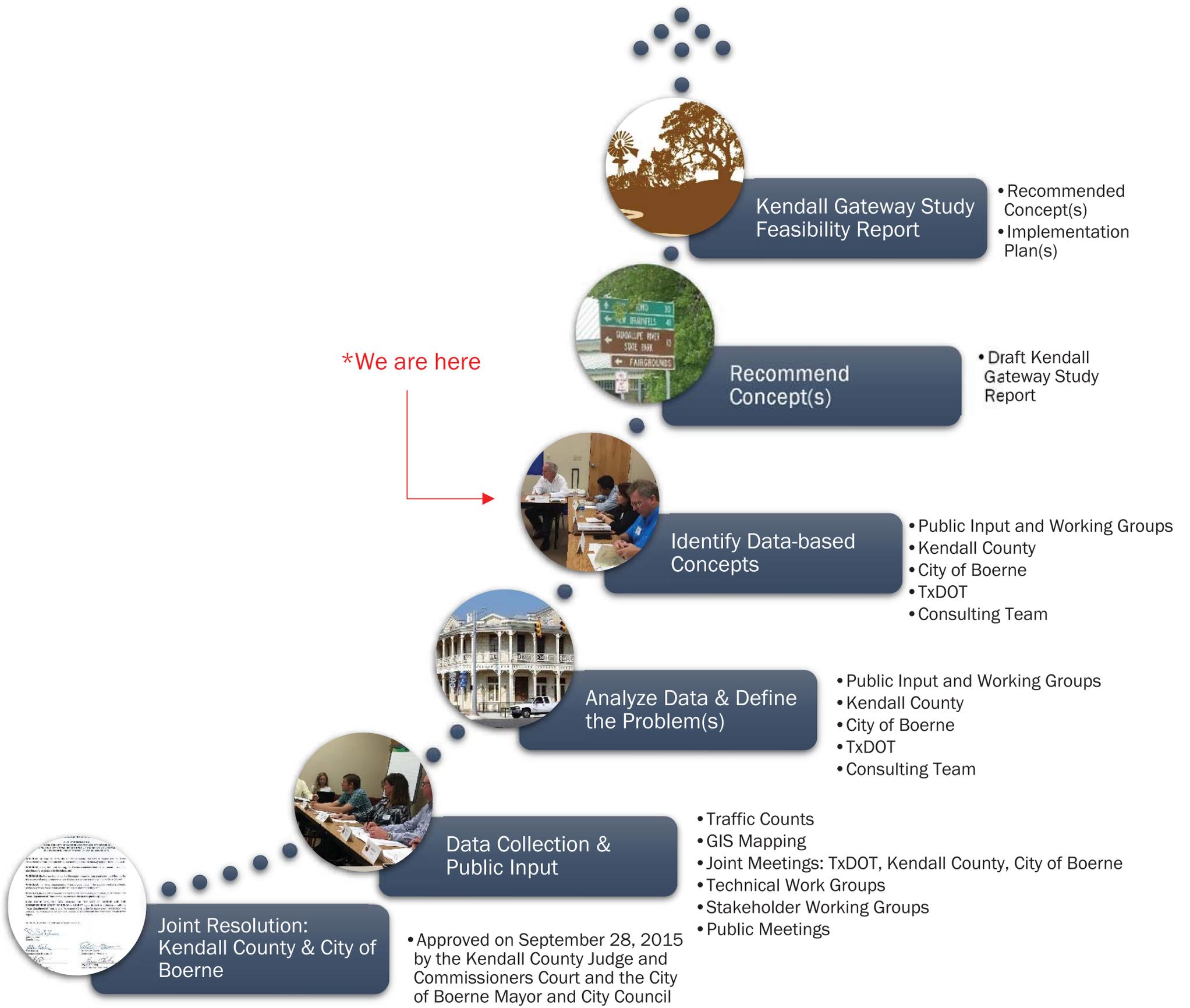
*The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.*

*La revisión ambiental, consultas y otras acciones requeridas por las leyes ambientales federales aplicables para este proyecto están siendo o han sido, llevado a cabo por TxDOT - en virtud de 23 USC 327 y un Memorando de Entendimiento fechado el 16 de diciembre del 2014, y ejecutado por la FHWA y el TxDOT.*



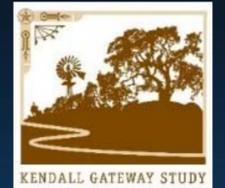


# STATION #1: FEASIBILITY STUDY PROCESS KENDALL GATEWAY STUDY





# STATION #2: DATA RESULTS





## What is Purpose and Need?

The Purpose and Need for a project is essential in establishing a basis for the development of the **range of concepts** and assists with the identification, evaluation, and selection of a **recommended concept**.

### Kendall Gateway Study Purpose and Need Summary

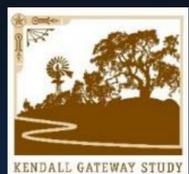
The purpose of the Kendall Gateway Study is to identify concepts and recommend a solution to address the growing transportation demands within and around the City of Boerne and Kendall County. The Study specifically addresses east/west traffic connectivity for travelers along SH 46 and within the downtown area of Boerne.

Defining a Purpose and Need for this study is essential to establish a basis for the development of reasonable concepts, and to eventually identify a preferred option.

The **PURPOSE** of the Study is to provide solutions for connectivity and regional linkage to the City of Boerne and Kendall County while minimizing impacts and maintaining Boerne's unique natural and cultural resources.

The **NEED** for the Study includes:

- Need 1) Past, present, and future population growth and travel demand.
- Need 2) Lack of east/west corridors in the Study Area.
- Need 3) Traffic directed through Boerne along the SH 46 route poses a traffic circulation problem and conflicts with the downtown center's walkability and pedestrian use.





# TRAFFIC COLLECTION OVERVIEW – FALL 2016

## Data Collection Methods

### Bluetooth Readers

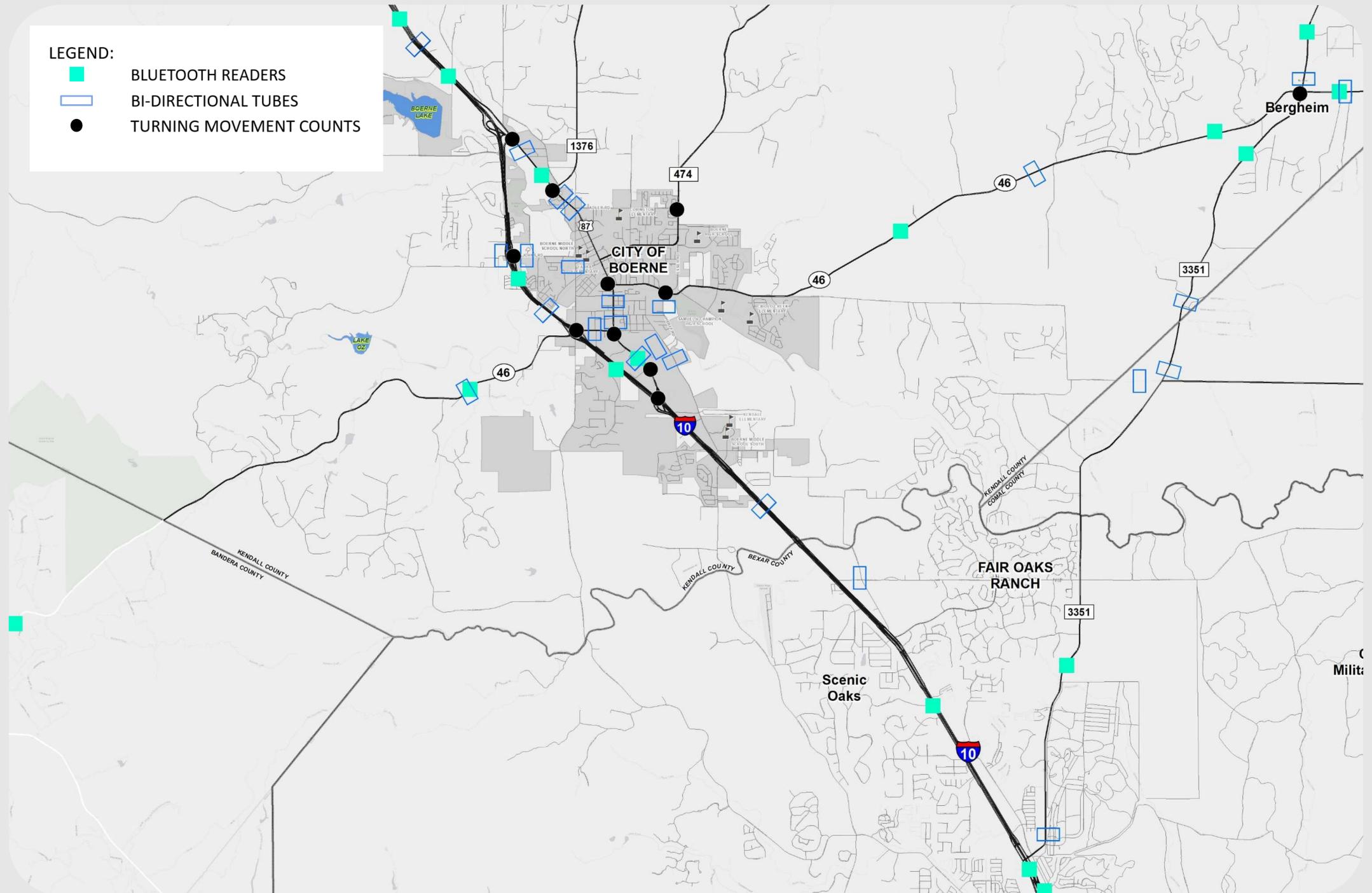
- Used to determine through traffic in study area

### Bi-directional Tube Counters

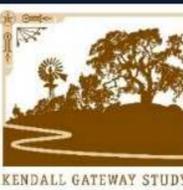
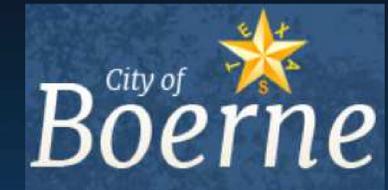
- Used to determine car/truck volume in each direction

### Turning Movement Counters

- Used to analyze intersection operations



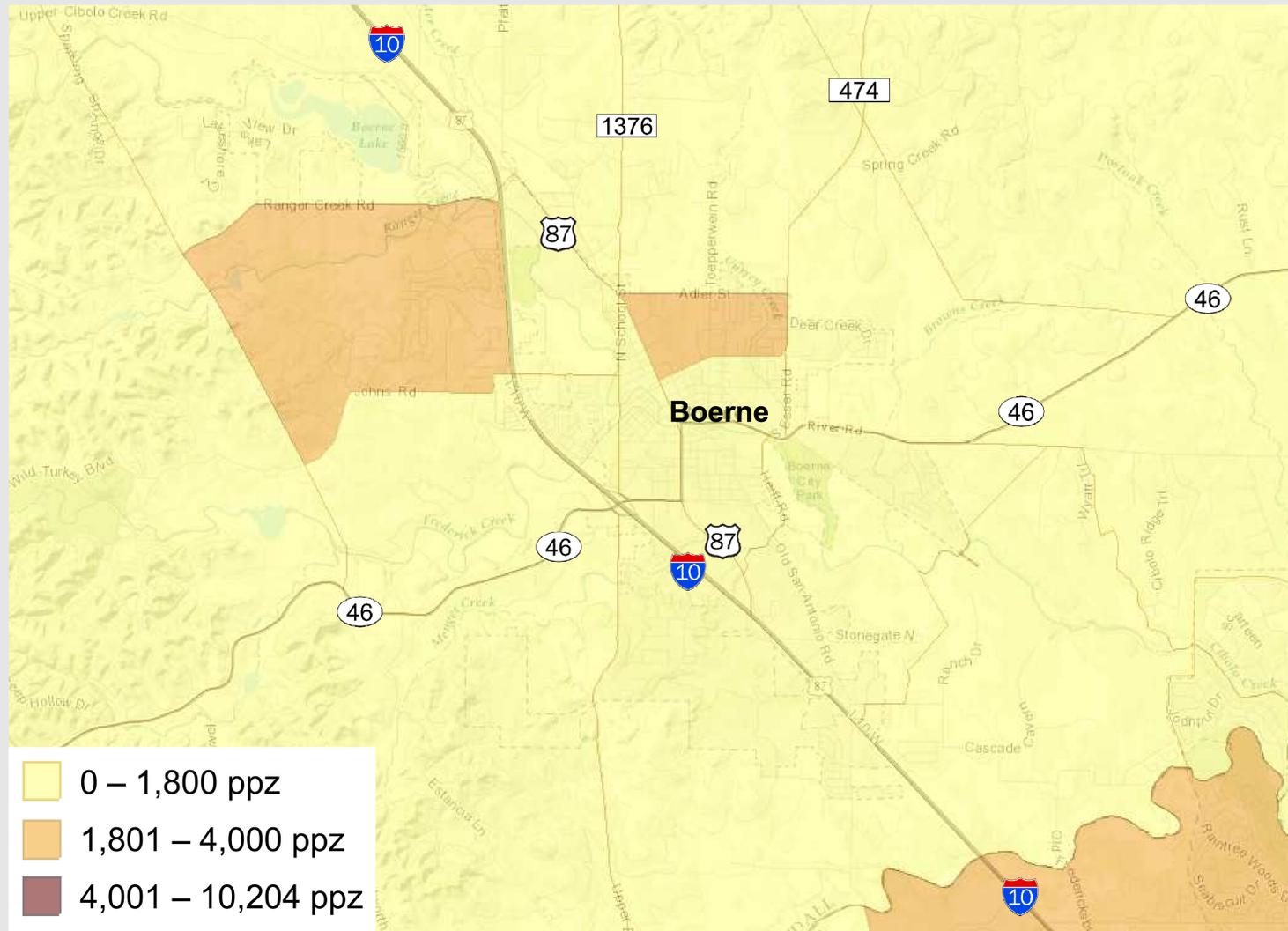
Counts were collected in Fall of 2016



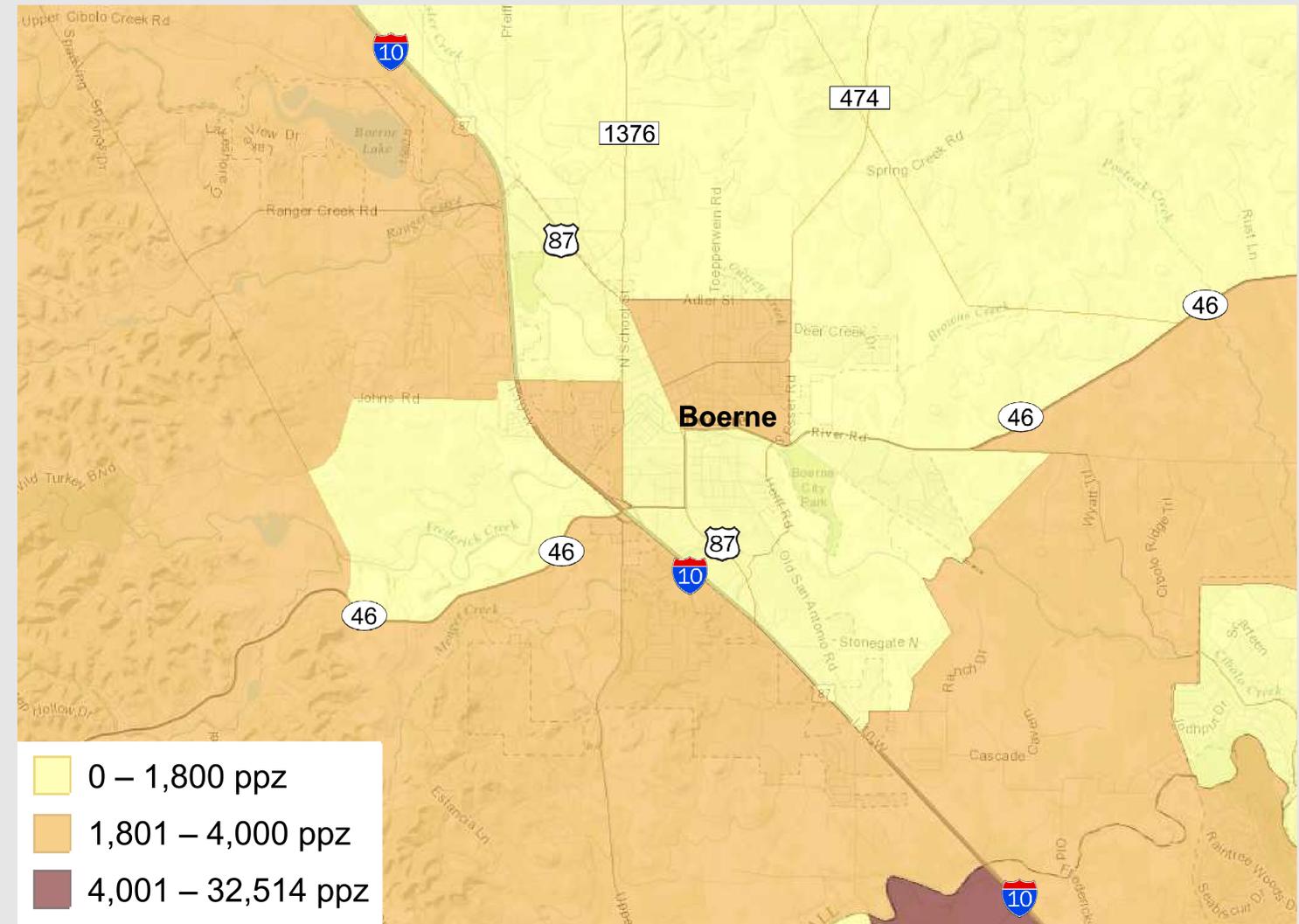


# NEED 1: POPULATION GROWTH

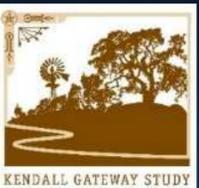
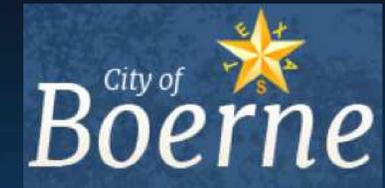
## 2015 POPULATION



## 2040 POPULATION



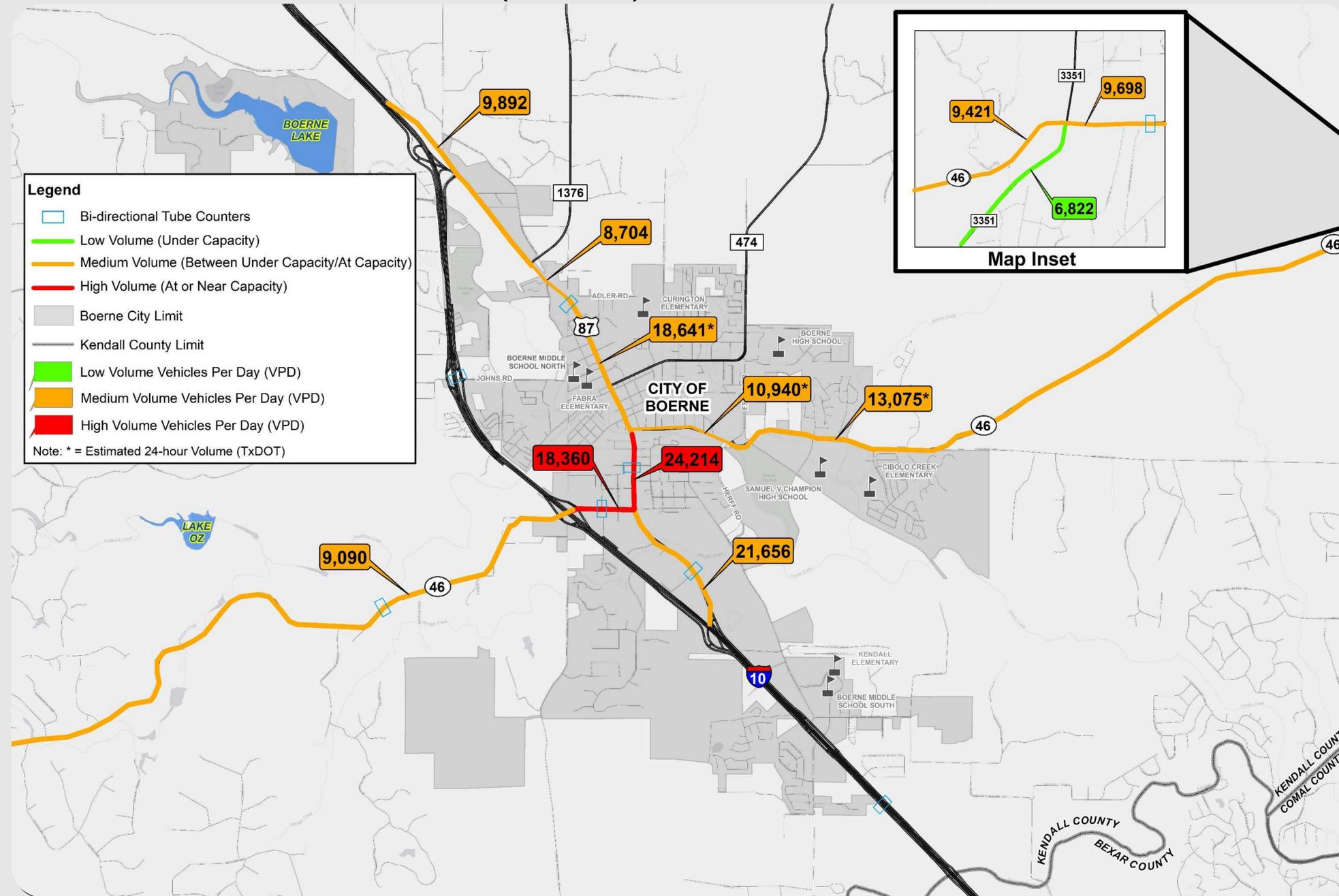
FROM THE ALAMO AREA METROPOLITAN PLANNING ORGANIZATION (MPO)  
PPZ = PEOPLE PER ZONE



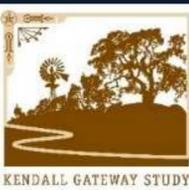
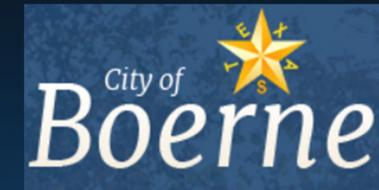


# NEED 1: POPULATION GROWTH

- EXISTING DAILY TRAFFIC VOLUME (2016)



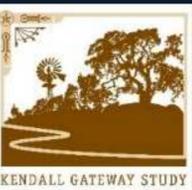
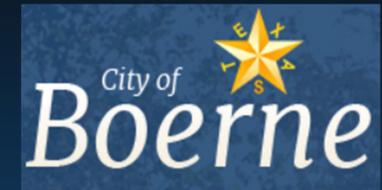
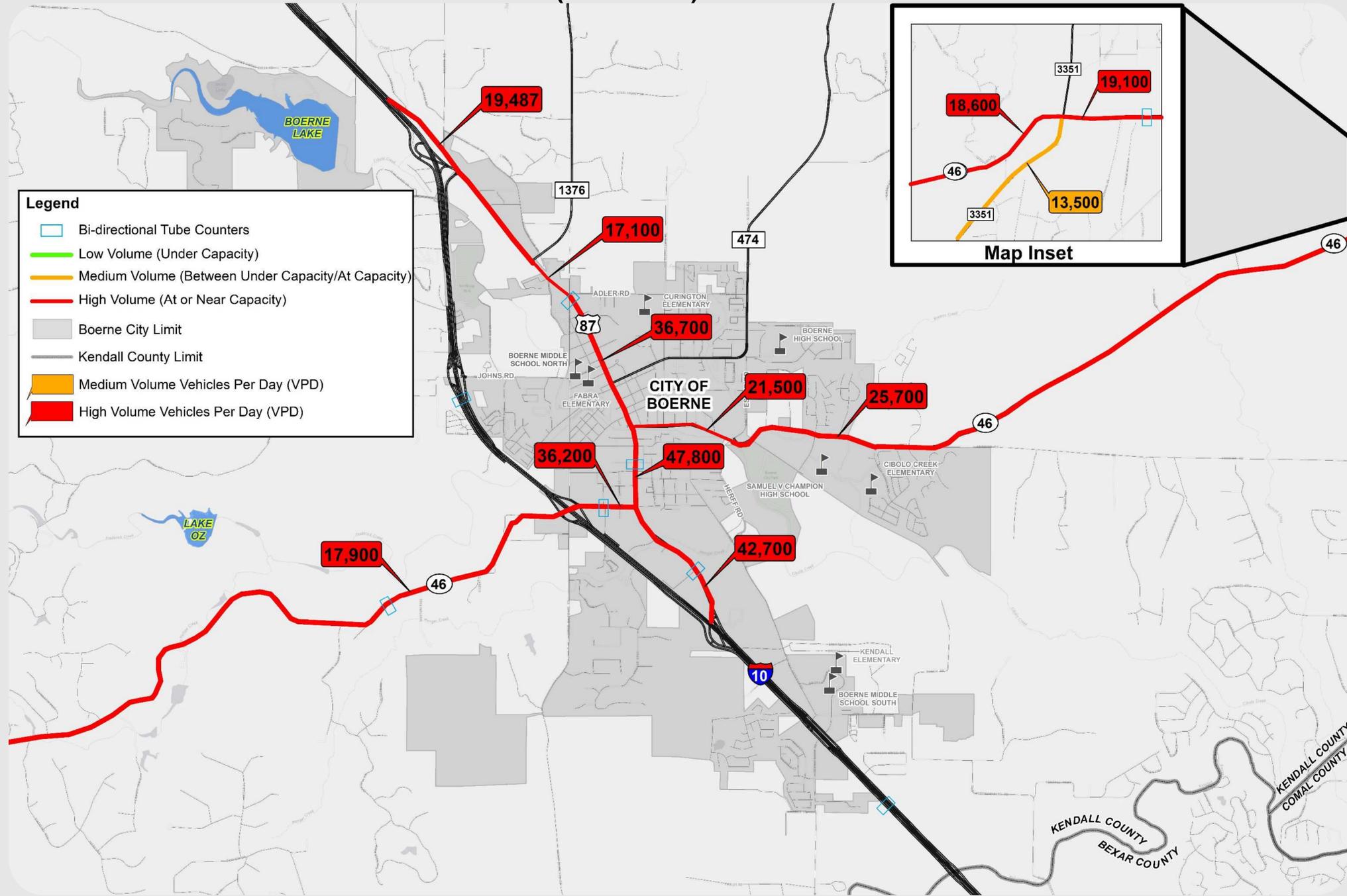
\*Counts were collected in Fall of 2016





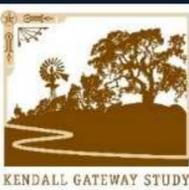
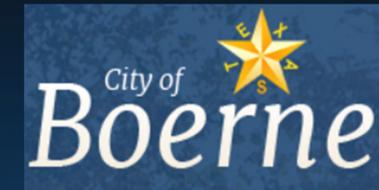
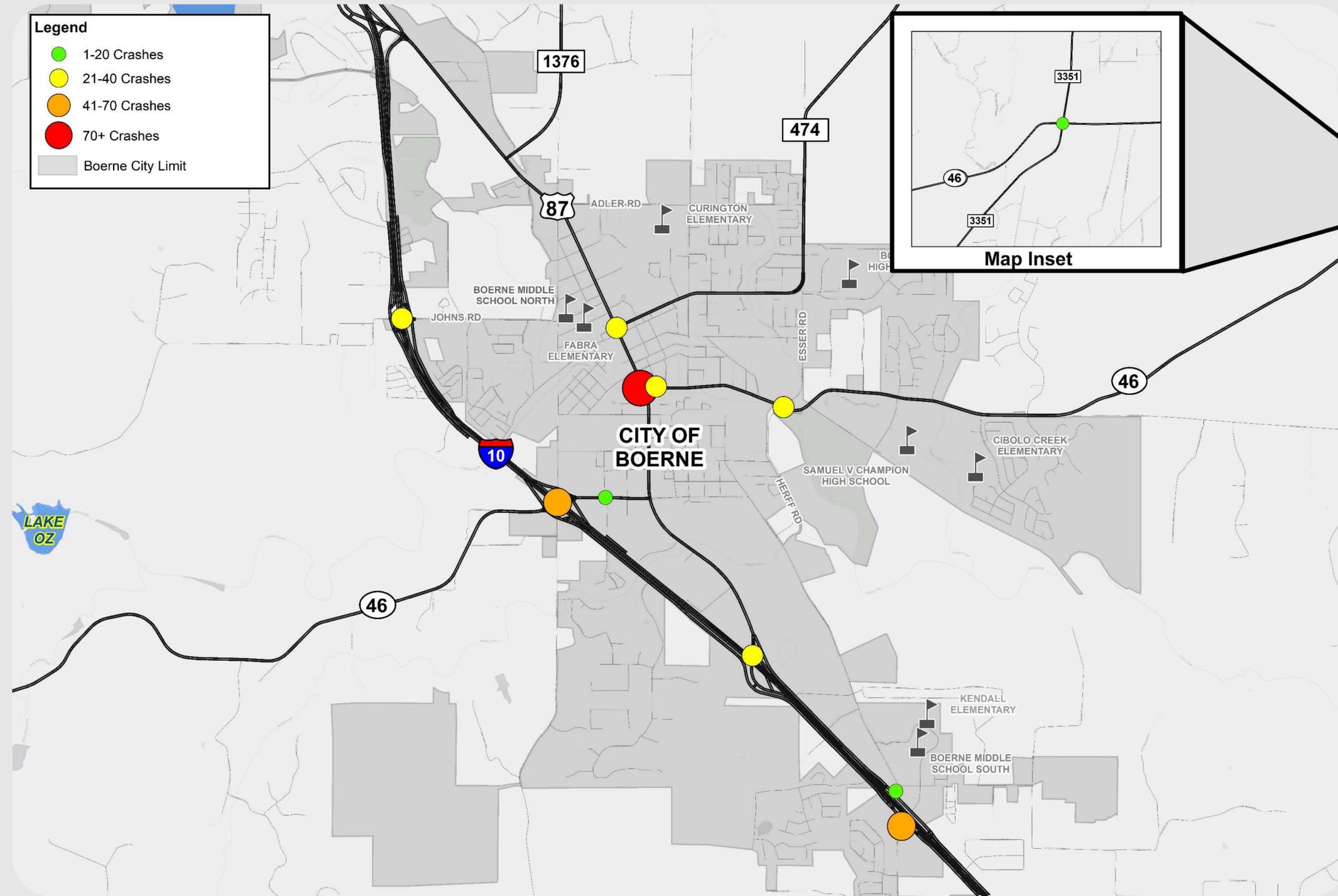
# NEED 1: POPULATION GROWTH

- PROJECTED DAILY TRAFFIC VOLUME (2040)





# CRASH DATA HOTSPOT MAP (2011-2016)

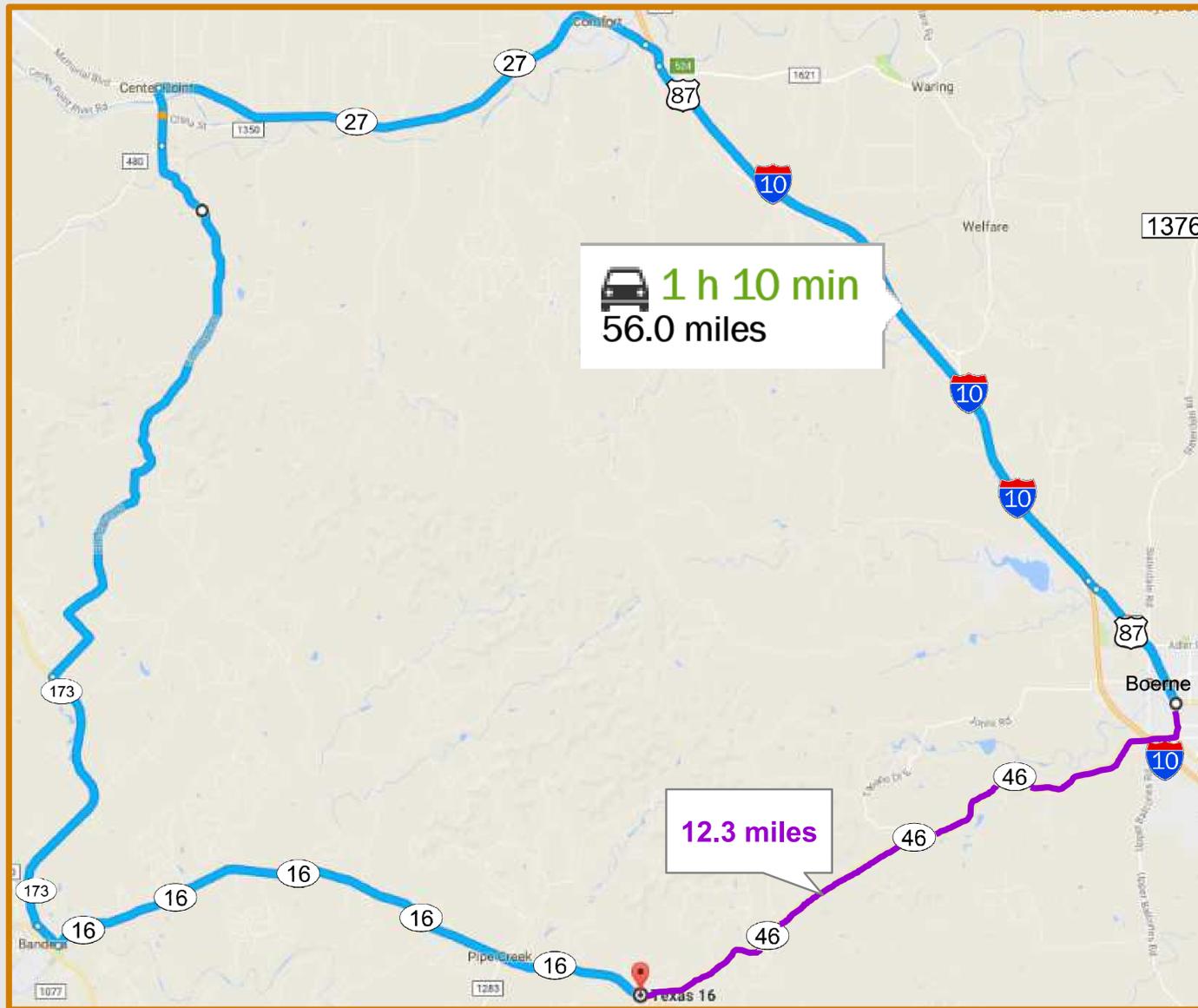




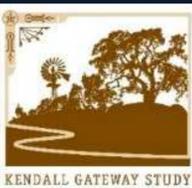
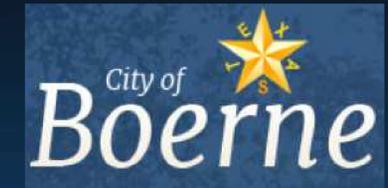
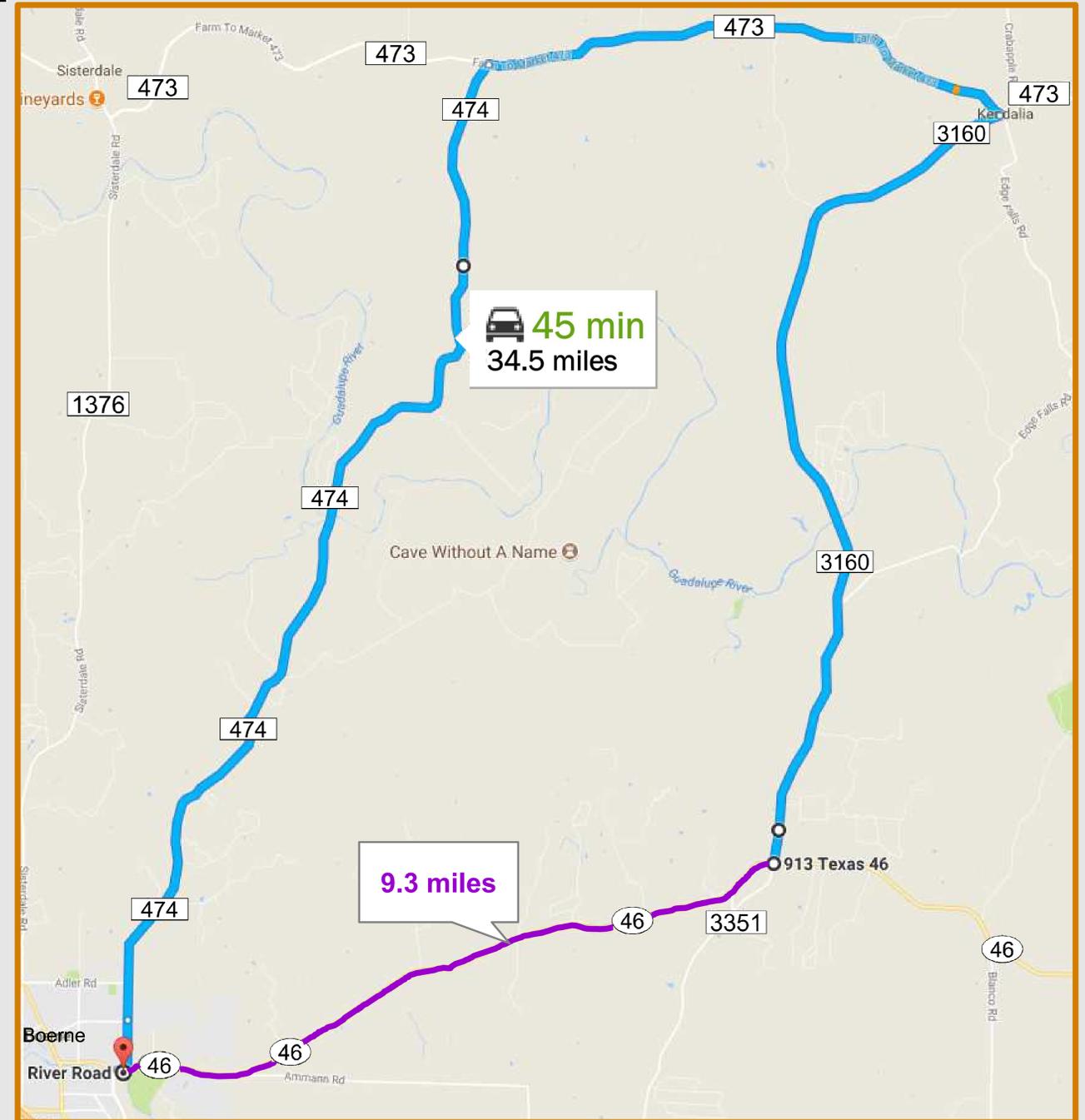
# NEED 2: LACK OF EAST/WEST CONNECTIVITY

- EXISTING ROUTES OTHER THAN SH 46?

## NORTHWEST



## NORTHEAST

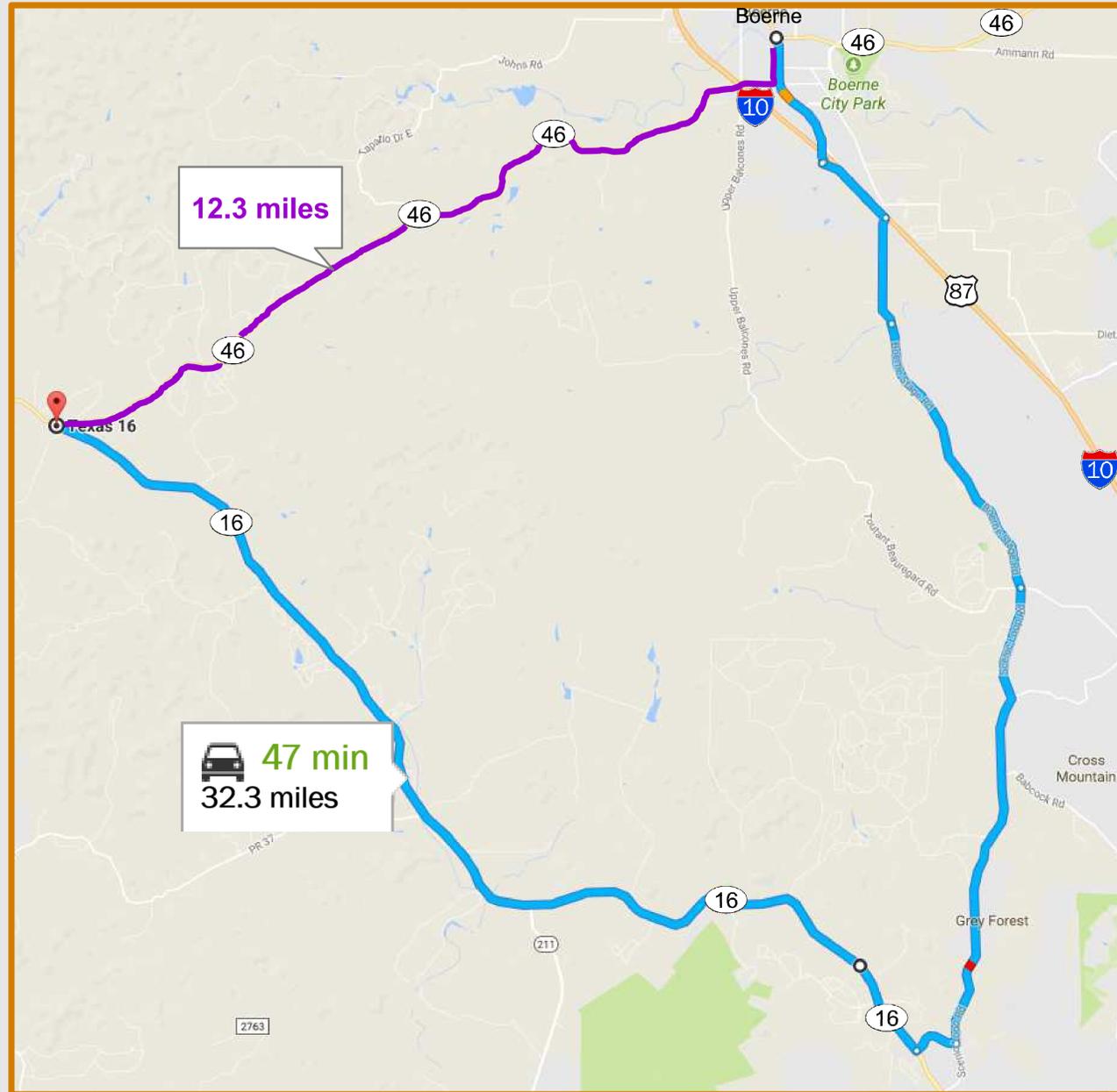




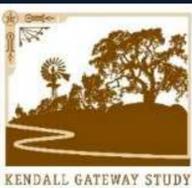
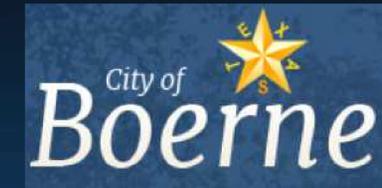
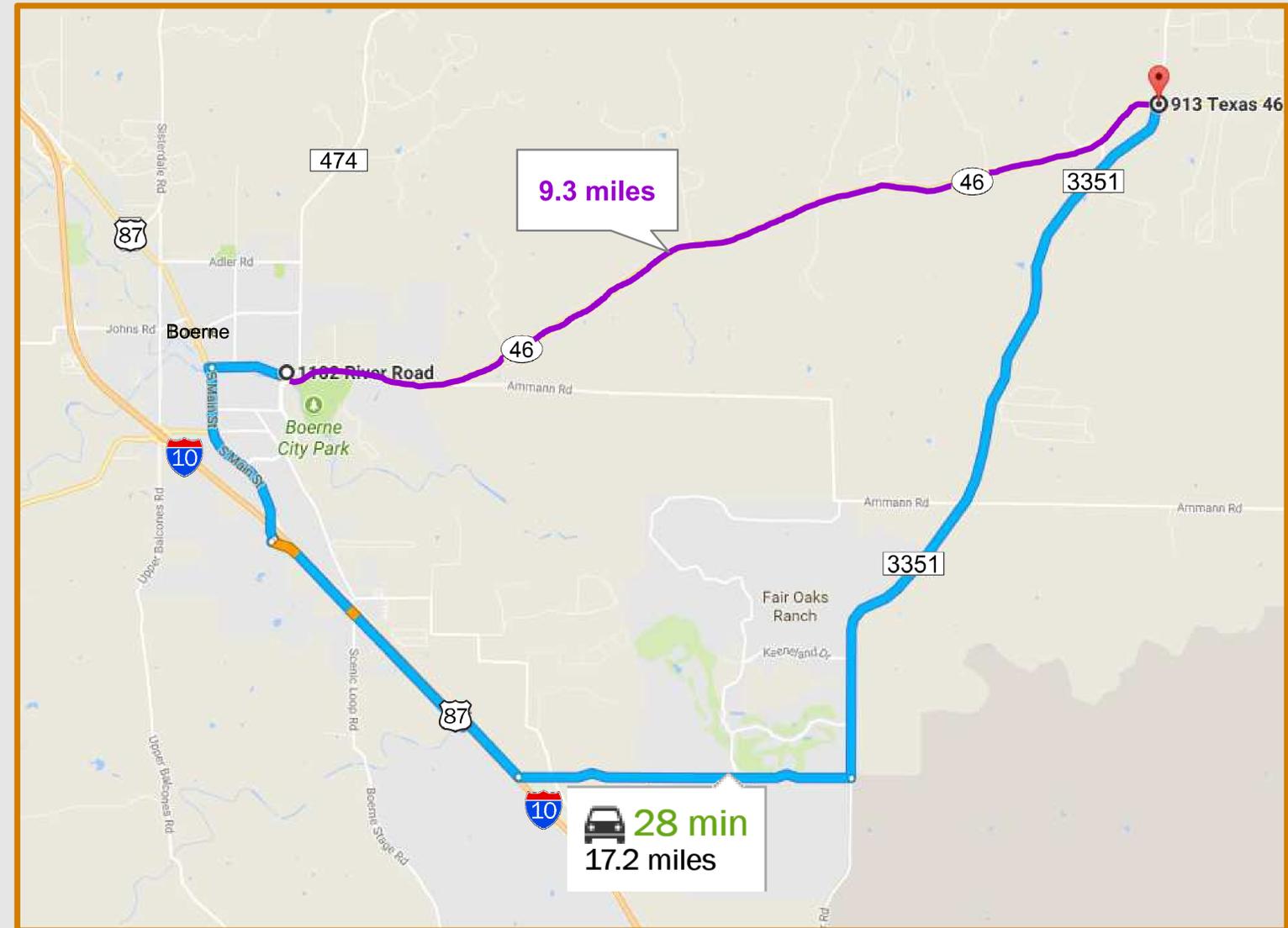
# NEED 2: LACK OF EAST/WEST CONNECTIVITY

- EXISTING ROUTES OTHER THAN SH 46?

## SOUTHWEST



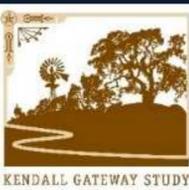
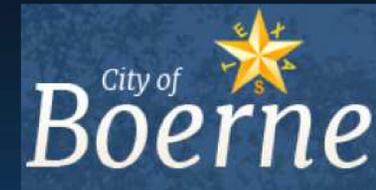
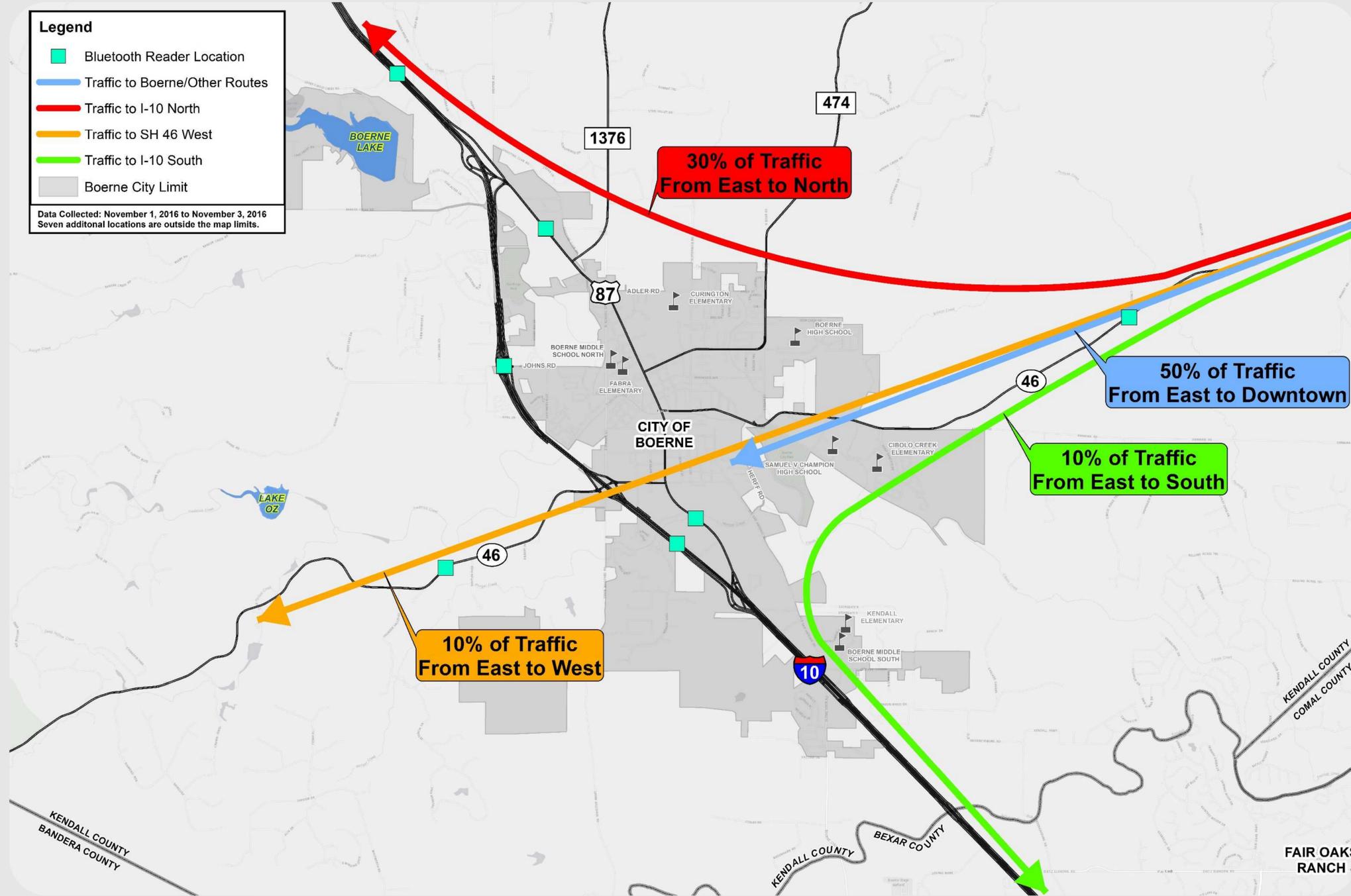
## SOUTHEAST





# NEED 3: TRAFFIC DIRECTED THROUGH BOERNE

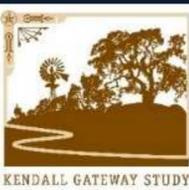
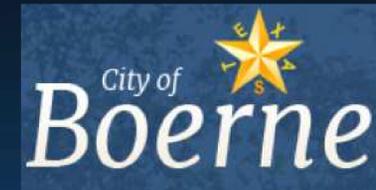
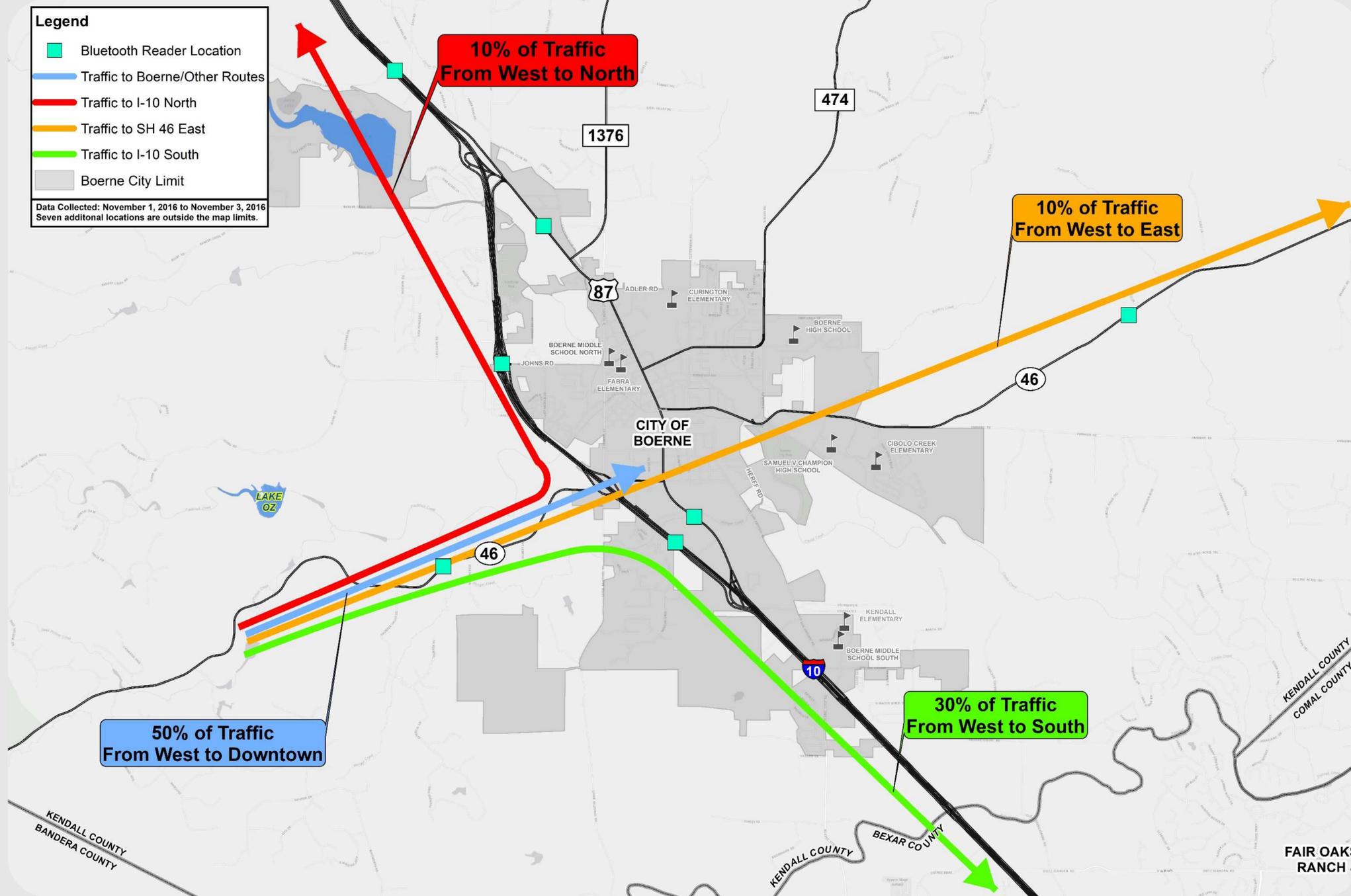
- VEHICLES ENTERING STUDY AREA FROM THE EAST – FALL 2016





# NEED 3: TRAFFIC DIRECTED THROUGH BOERNE

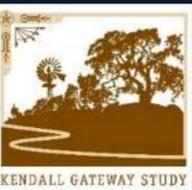
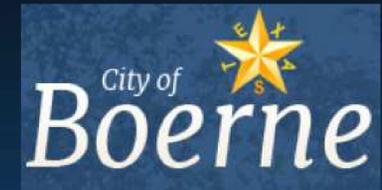
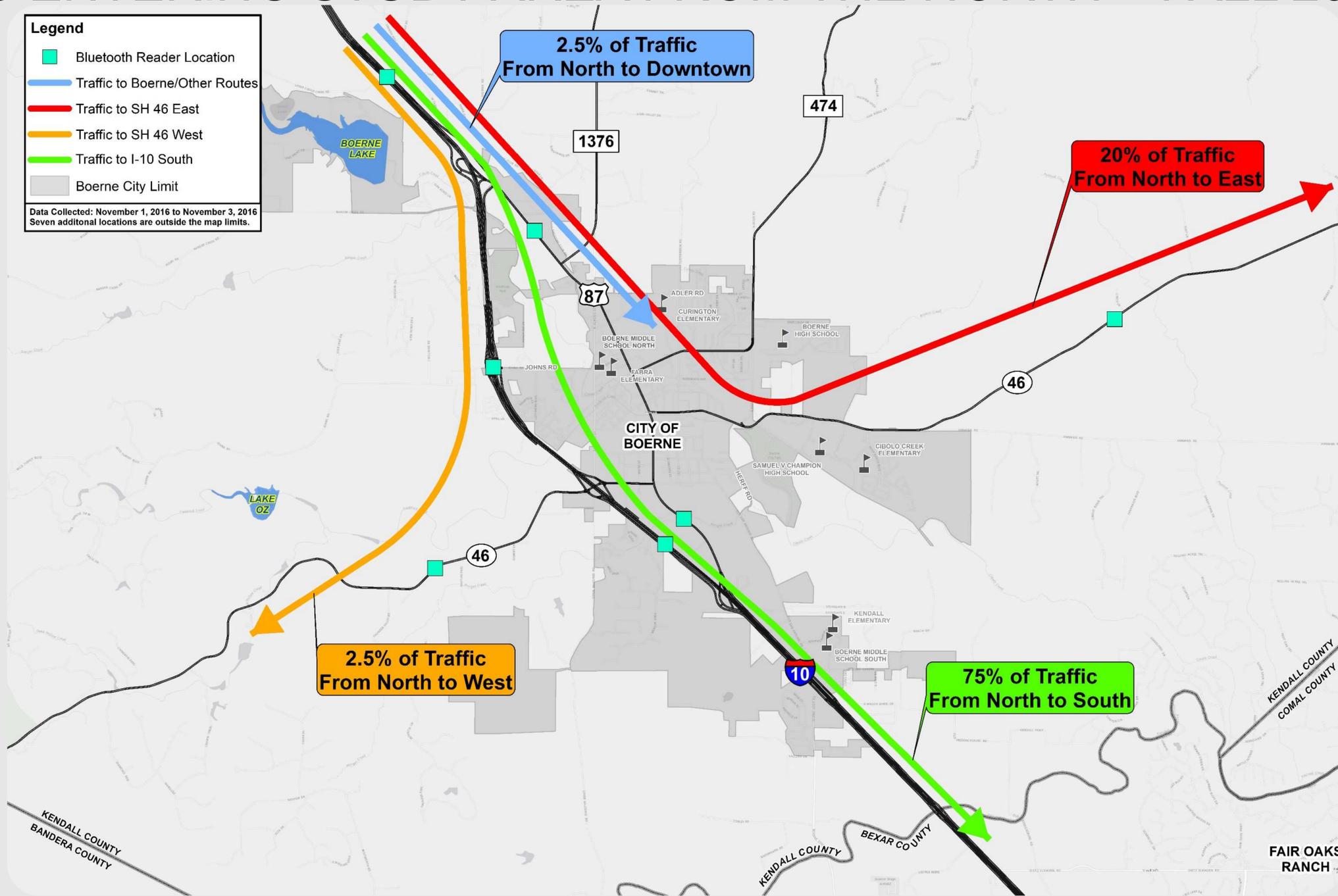
- VEHICLES ENTERING STUDY AREA FROM THE WEST – FALL 2016





# NEED 3: TRAFFIC DIRECTED THROUGH BOERNE

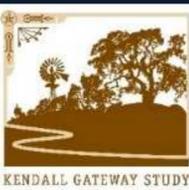
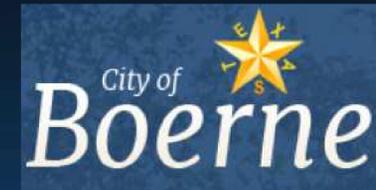
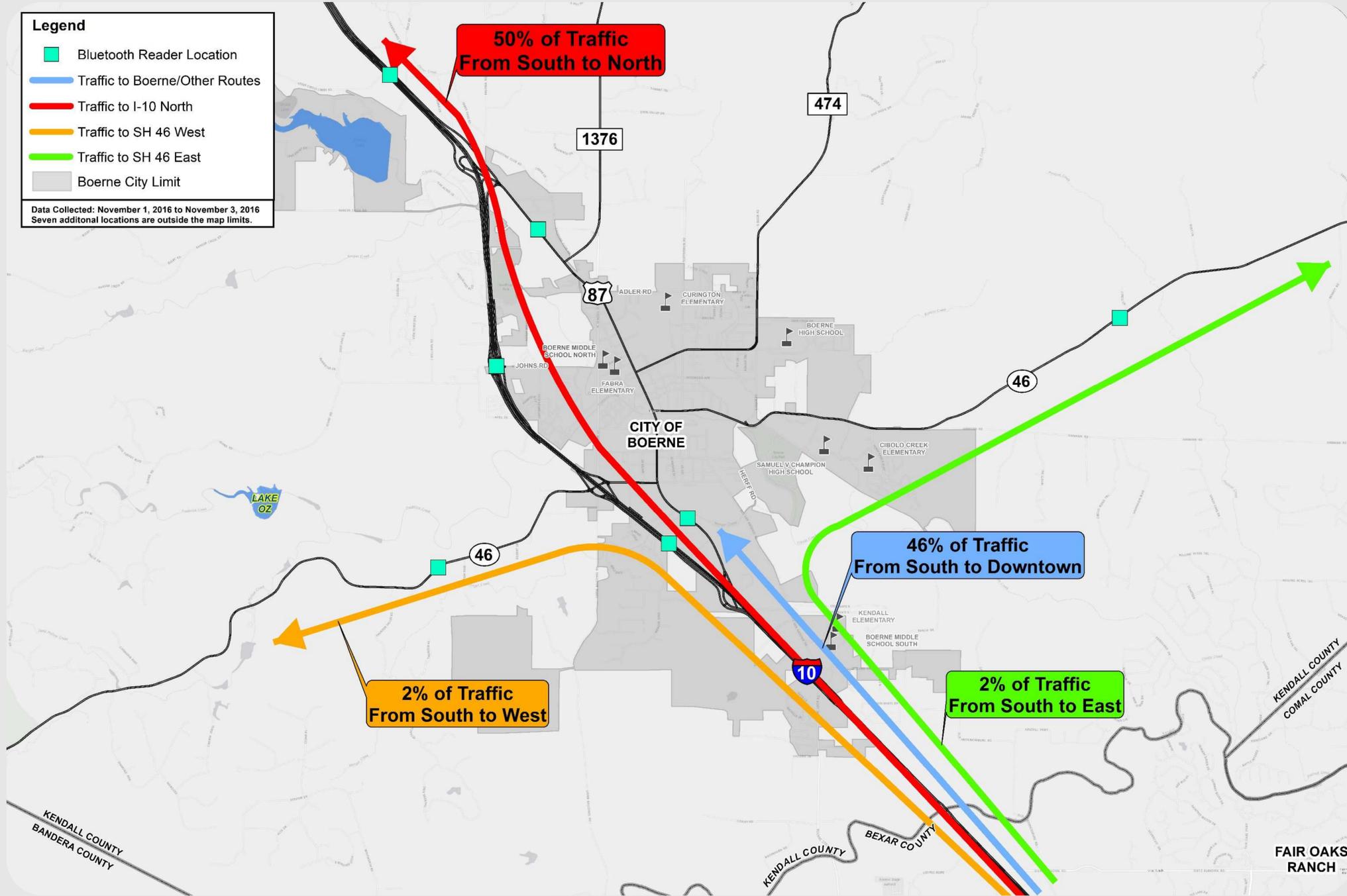
- VEHICLES ENTERING STUDY AREA FROM THE NORTH – FALL 2016





# NEED 3: TRAFFIC DIRECTED THROUGH BOERNE

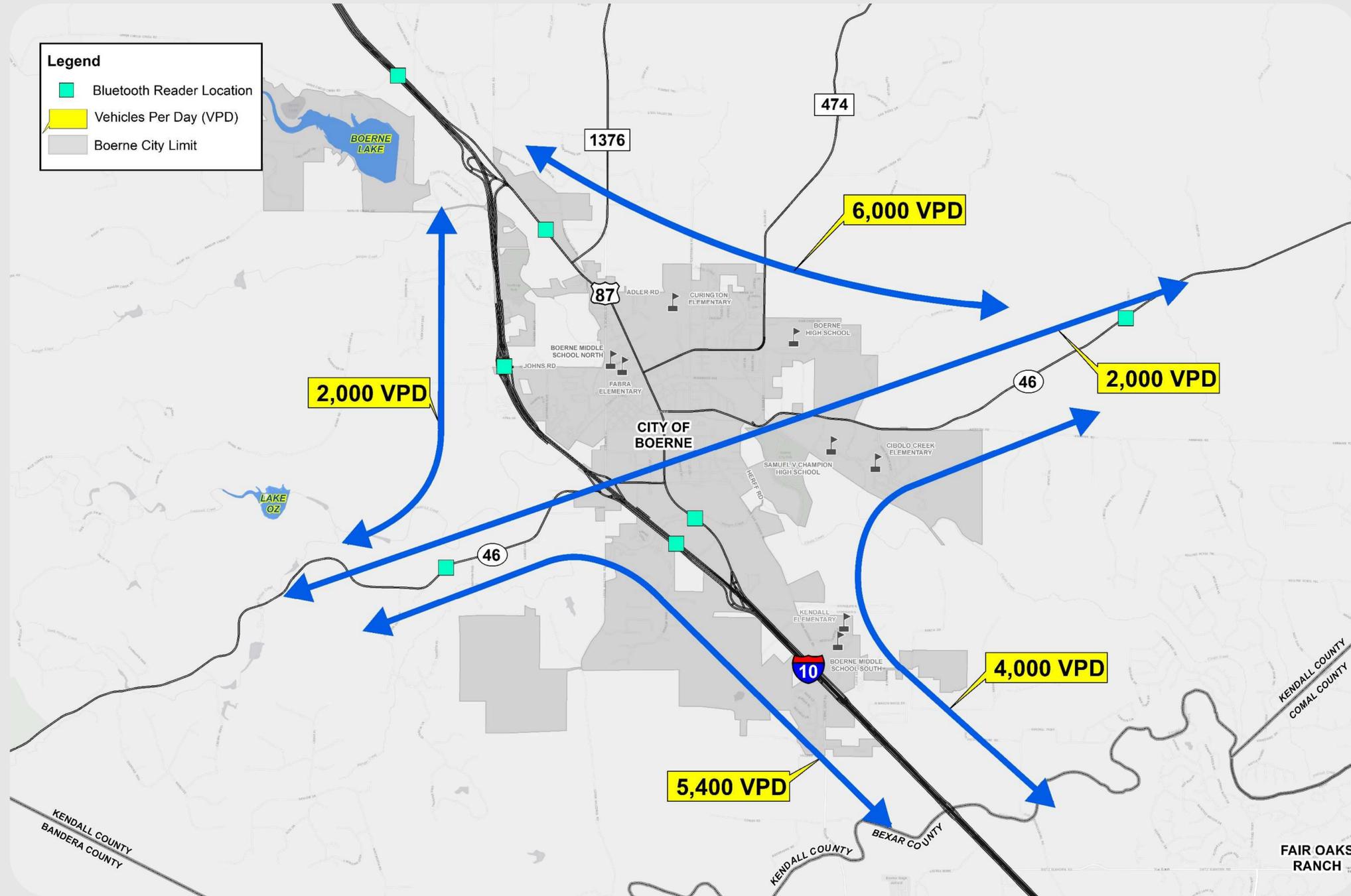
- VEHICLES ENTERING STUDY AREA FROM THE SOUTH – FALL 2016



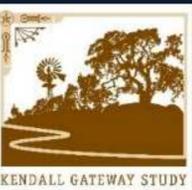
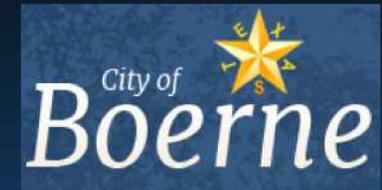


# NEED 3: TRAFFIC DIRECTED THROUGH BOERNE

- PROJECTED MINIMUM VEHICLES TRAVELING THROUGH STUDY AREA (2040)

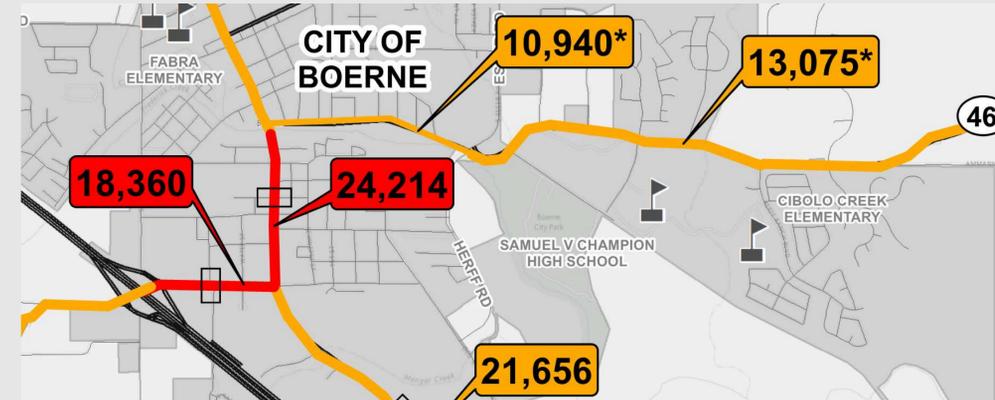
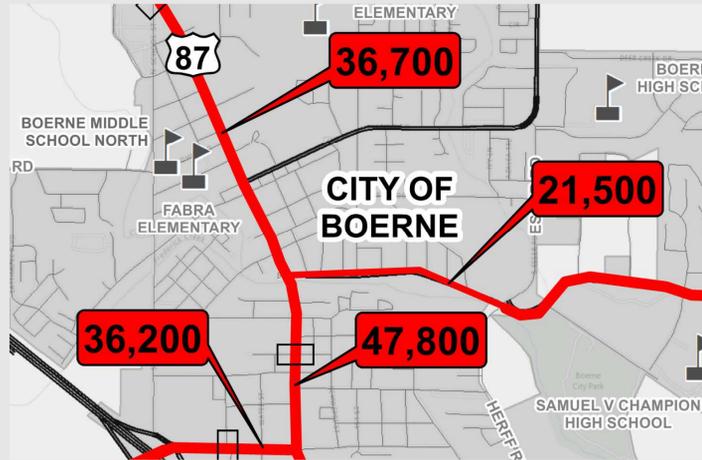


TOTAL =  
19,400 VPD

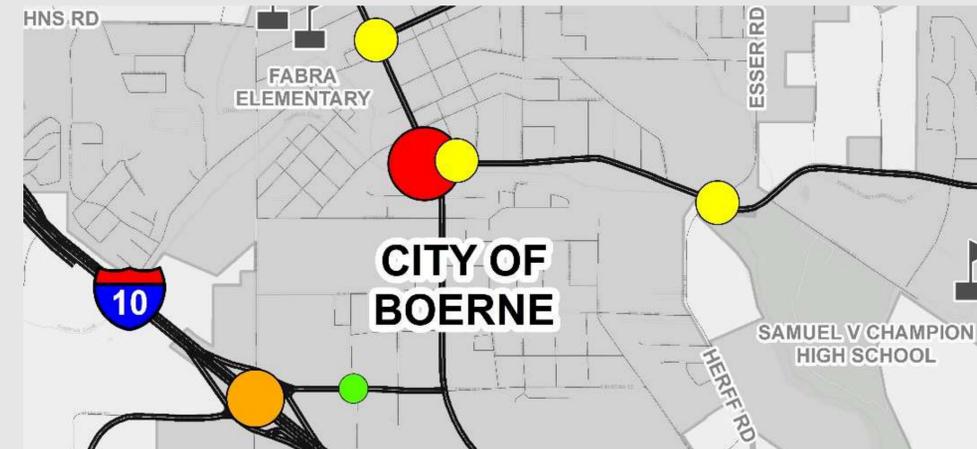




# TRAFFIC ANALYSIS SUMMARY

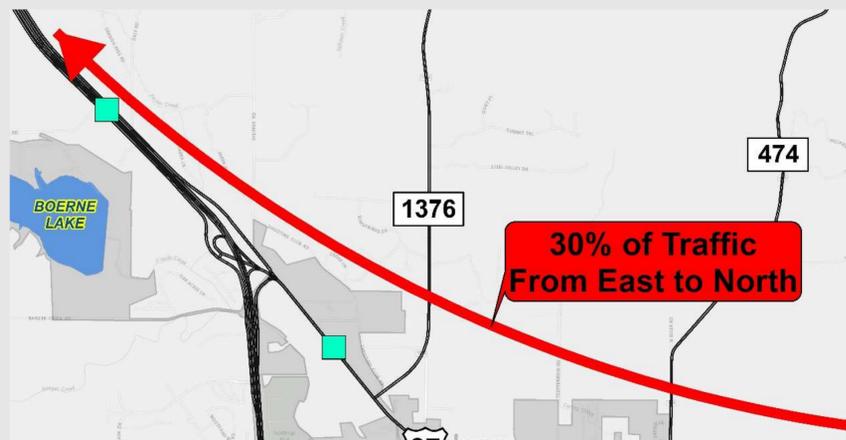


**DOWNTOWN IS ALREADY OVER CAPACITY**

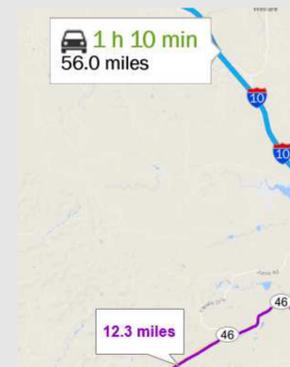


**SAFETY CONCERNS DOWNTOWN**

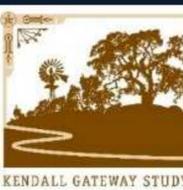
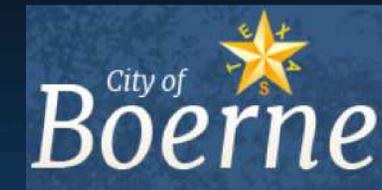
**IN 2040, MOST OF BOERNE WILL BE OVER CAPACITY**



**A LARGE % PASSES THRU DOWNTOWN**



**ONLY SH 46 CONNECTING THE EAST AND WEST**

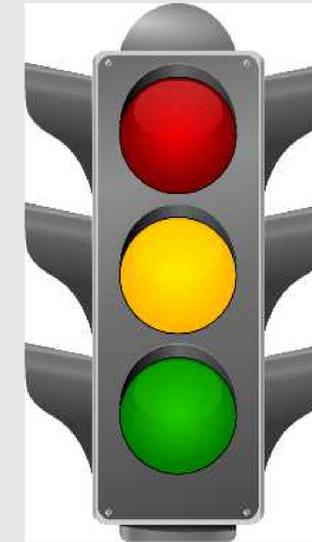




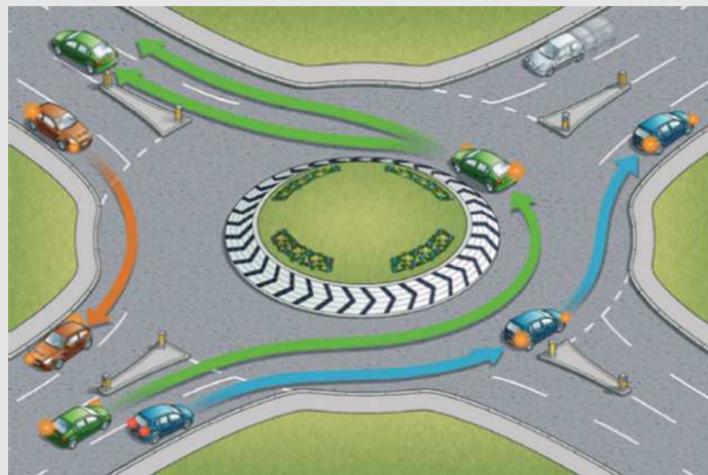
# OTHER CONCEPTS CONSIDERED



WIDEN EXISTING ROADS



SIGNAL TIMING



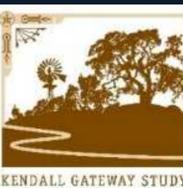
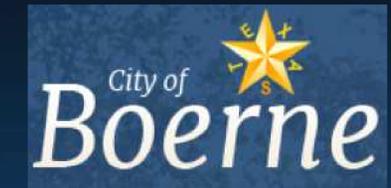
INNOVATIVE INTERSECTIONS



MASS TRANSIT

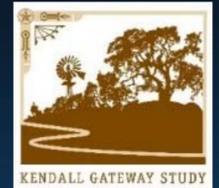
These solutions do not meet the Purpose & Need, but could be considered as complementary solutions

IMAGES FROM GOOGLE





# STATION #3: PUBLIC INPUT OVERVIEW



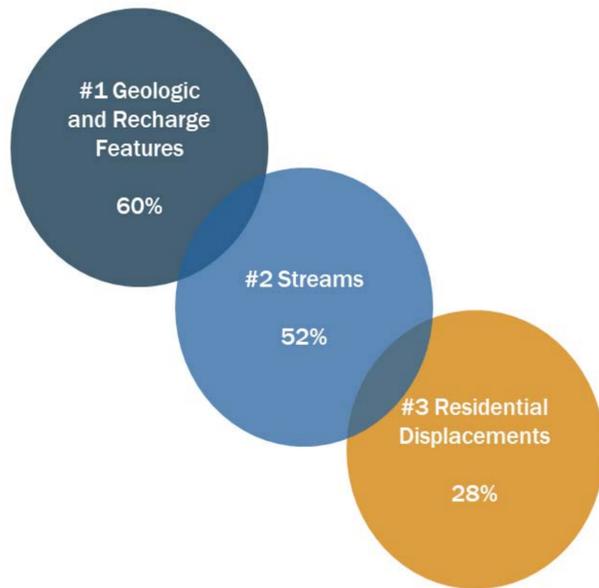


Technical Work Group & Stakeholder Working Group Prioritization Survey—June 2017

25 Respondents

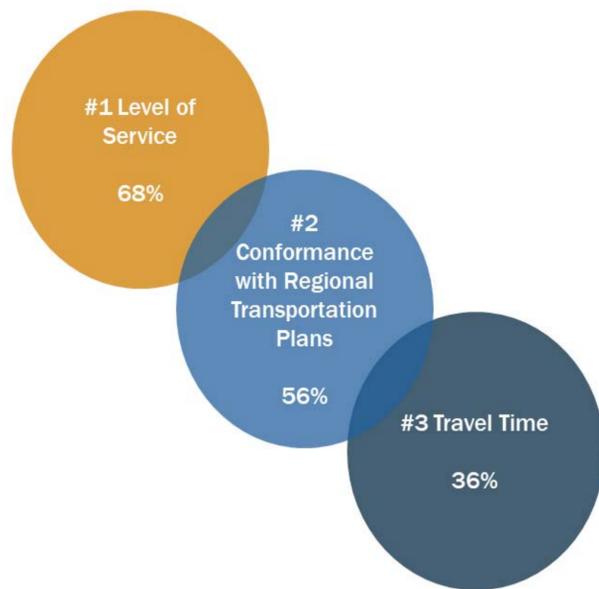
TOP 3 ENVIRONMENTAL CRITERIA

In your opinion, what are the 3 most important environmental criteria in the Kendall Gateway Study?



TOP 3 TRANSPORTATION CRITERIA

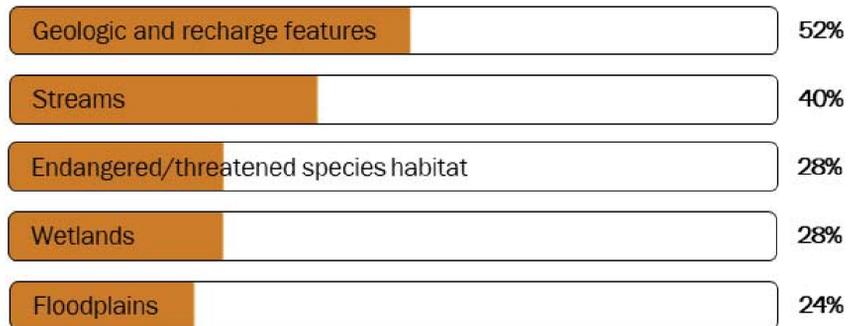
In your opinion, what are the 3 most important transportation criteria in the Kendall Gateway Study?



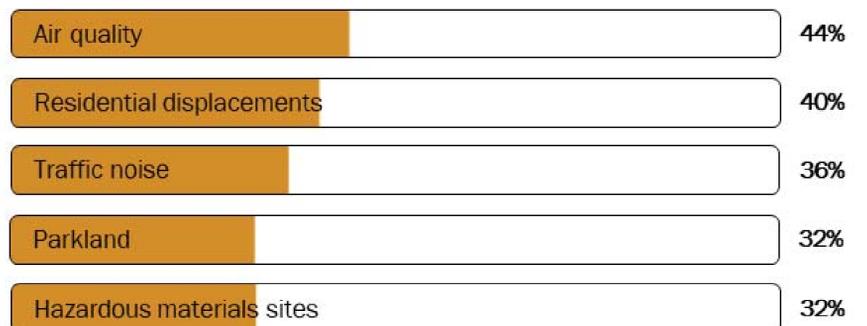
IMPORTANCE OF ENVIRONMENTAL CRITERIA

In your opinion, how important are each of these environmental criteria in the Kendall Gateway Study?

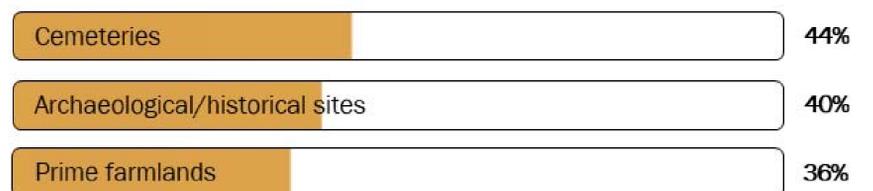
EXTREMELY IMPORTANT



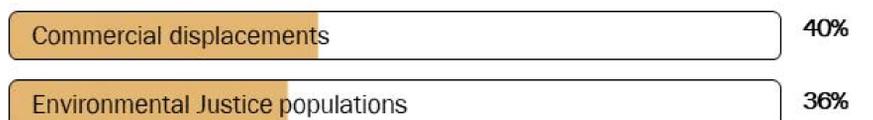
VERY IMPORTANT



SOMEWHAT IMPORTANT



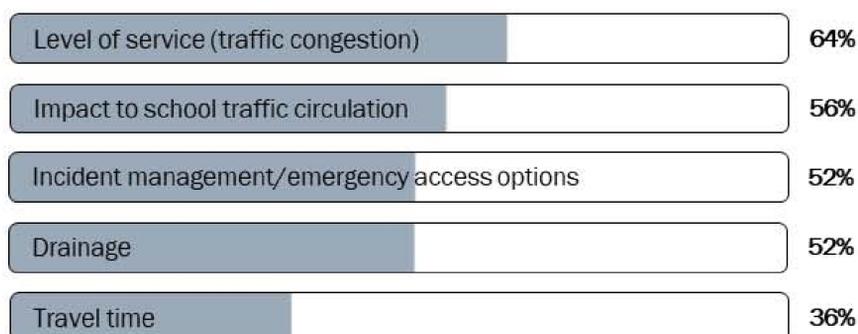
SLIGHTLY IMPORTANT



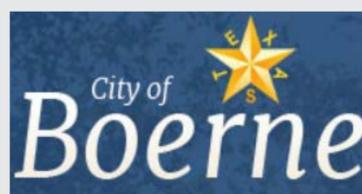
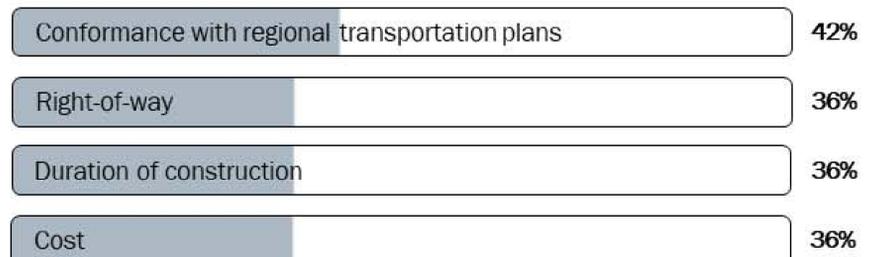
IMPORTANCE OF TRANSPORTATION CRITERIA

In your opinion, how important are each of these transportation criteria in the Kendall Gateway Study?

VERY IMPORTANT



SOMEWHAT IMPORTANT



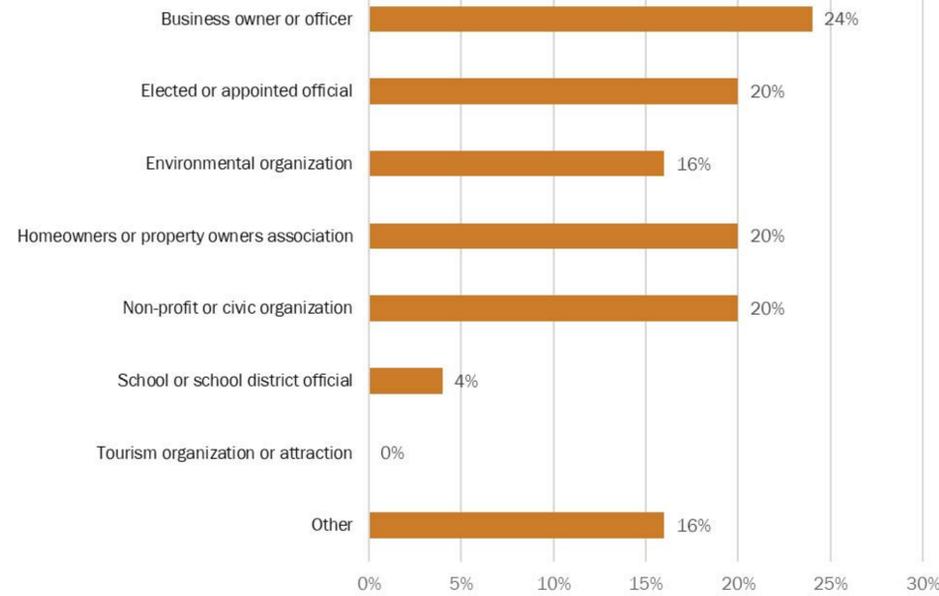


## Technical Work Group & Stakeholder Working Group Prioritization Survey—June 2017

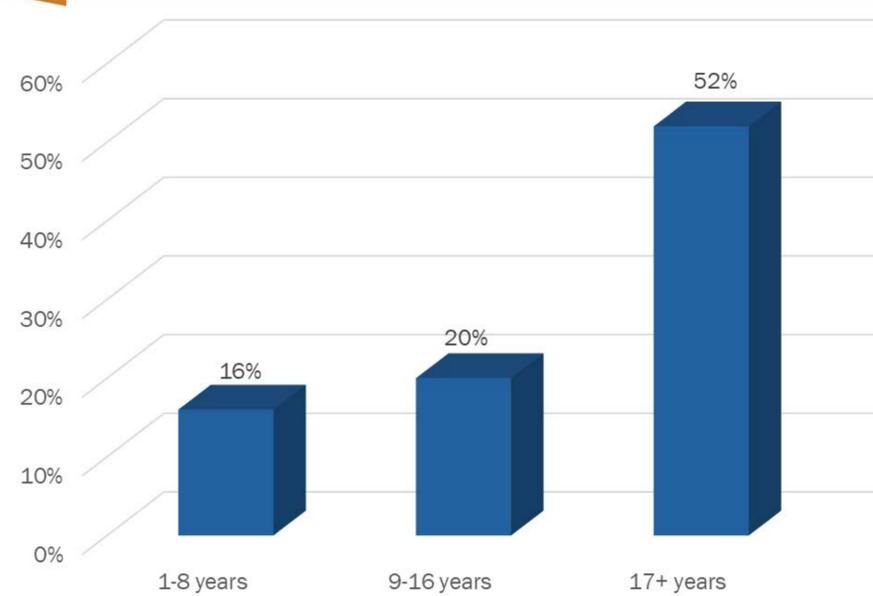
25 Respondents

### WHICH CATEGORY(S) BEST DESCRIBES YOUR AFFILIATION?

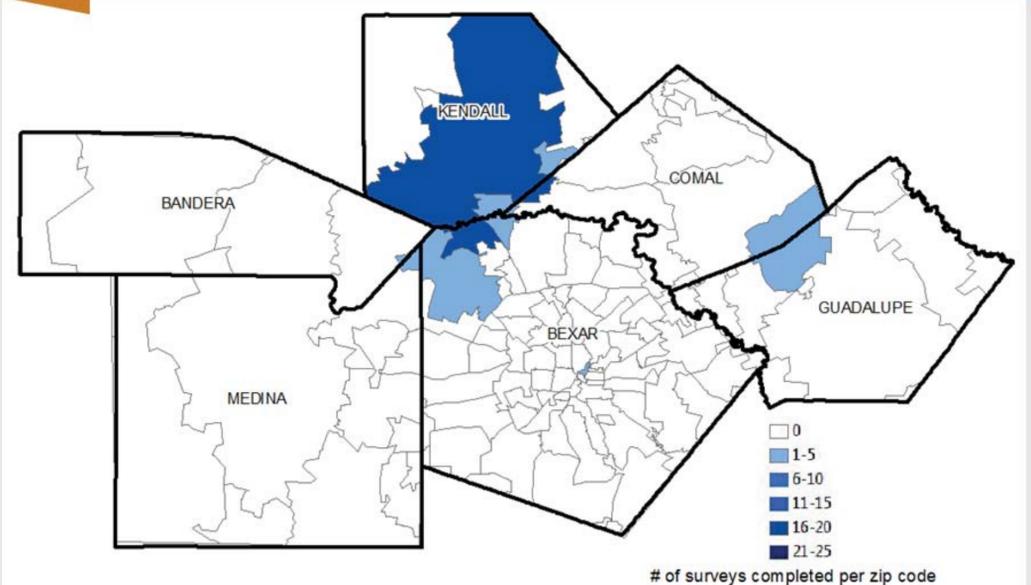
(Please check all that apply.)



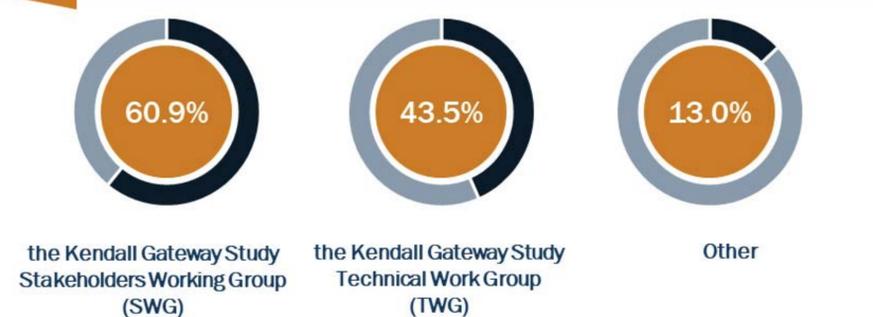
### HOW MANY YEARS HAVE YOU LIVED IN BOERNE OR KENDALL COUNTY?



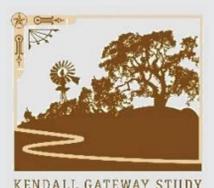
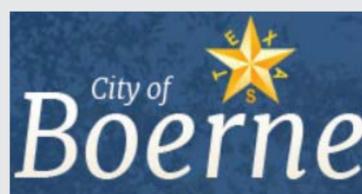
### IN WHAT ZIP CODE IS YOUR HOME LOCATED?



### I AM A MEMBER OF: (Please check all that apply.)



### RESPONDENT AGE GROUP



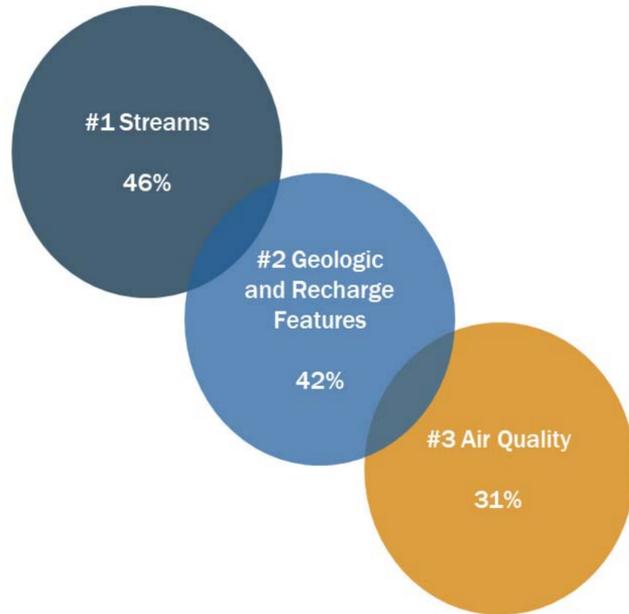


# Community Priorities Survey July-August 2017

479 Respondents

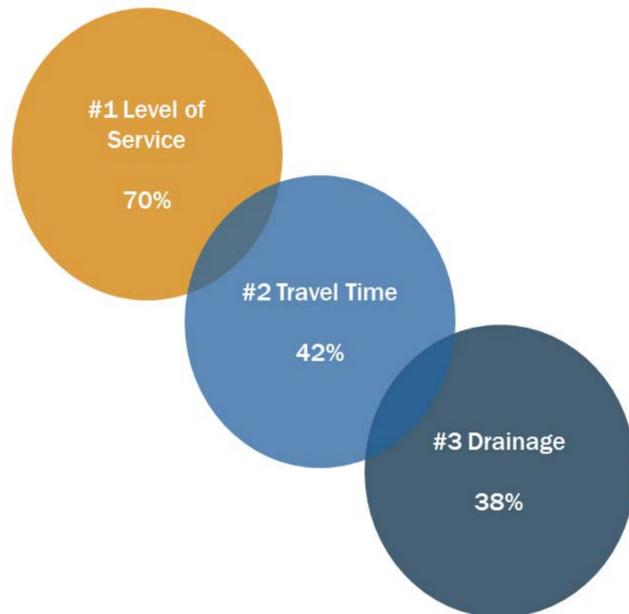
## TOP 3 ENVIRONMENTAL CRITERIA

In your opinion, what are the 3 most important environmental criteria in the Kendall Gateway Study?



## TOP 3 TRANSPORTATION CRITERIA

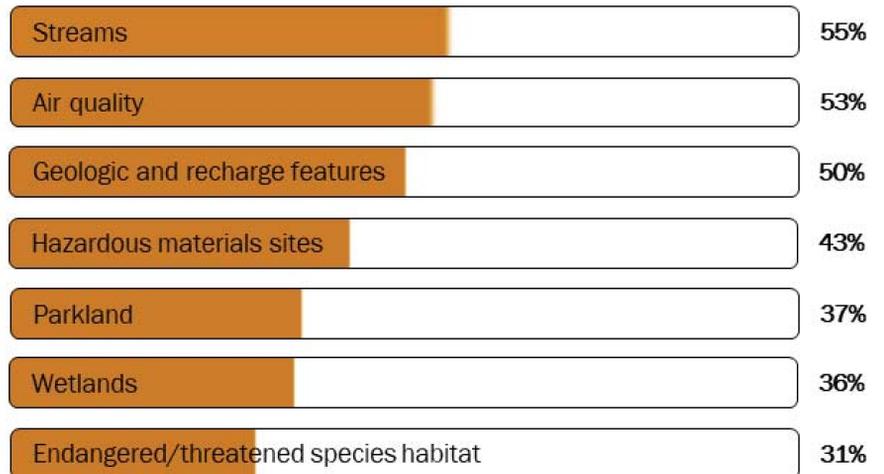
In your opinion, what are the 3 most important transportation criteria in the Kendall Gateway Study?



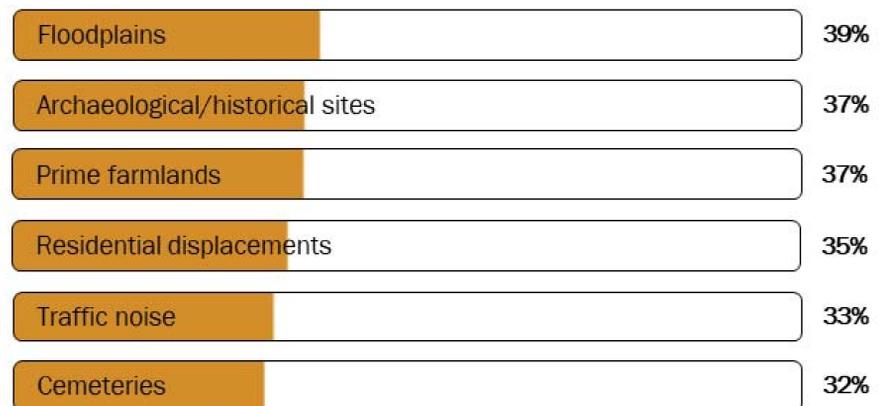
## IMPORTANCE OF ENVIRONMENTAL CRITERIA

In your opinion, how important are each of these environmental criteria in the Kendall Gateway Study?

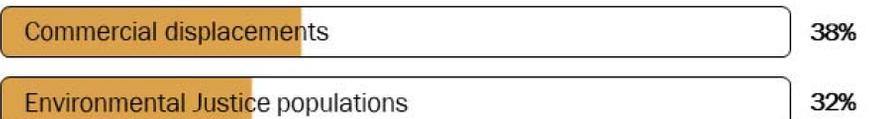
### EXTREMELY IMPORTANT



### VERY IMPORTANT



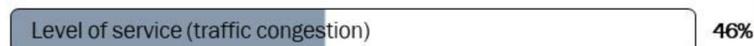
### SOMEWHAT IMPORTANT



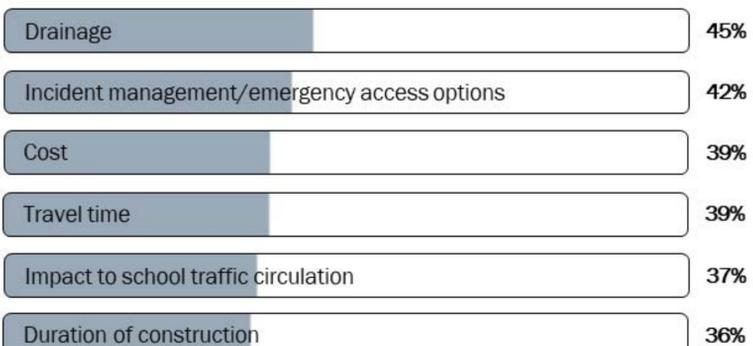
## IMPORTANCE OF TRANSPORTATION CRITERIA

In your opinion, how important are each of these transportation criteria in the Kendall Gateway Study?

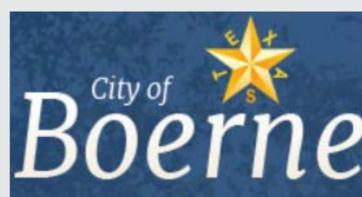
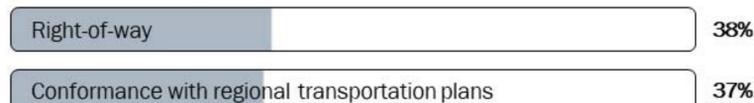
### EXTREMELY IMPORTANT



### VERY IMPORTANT



### SOMEWHAT IMPORTANT



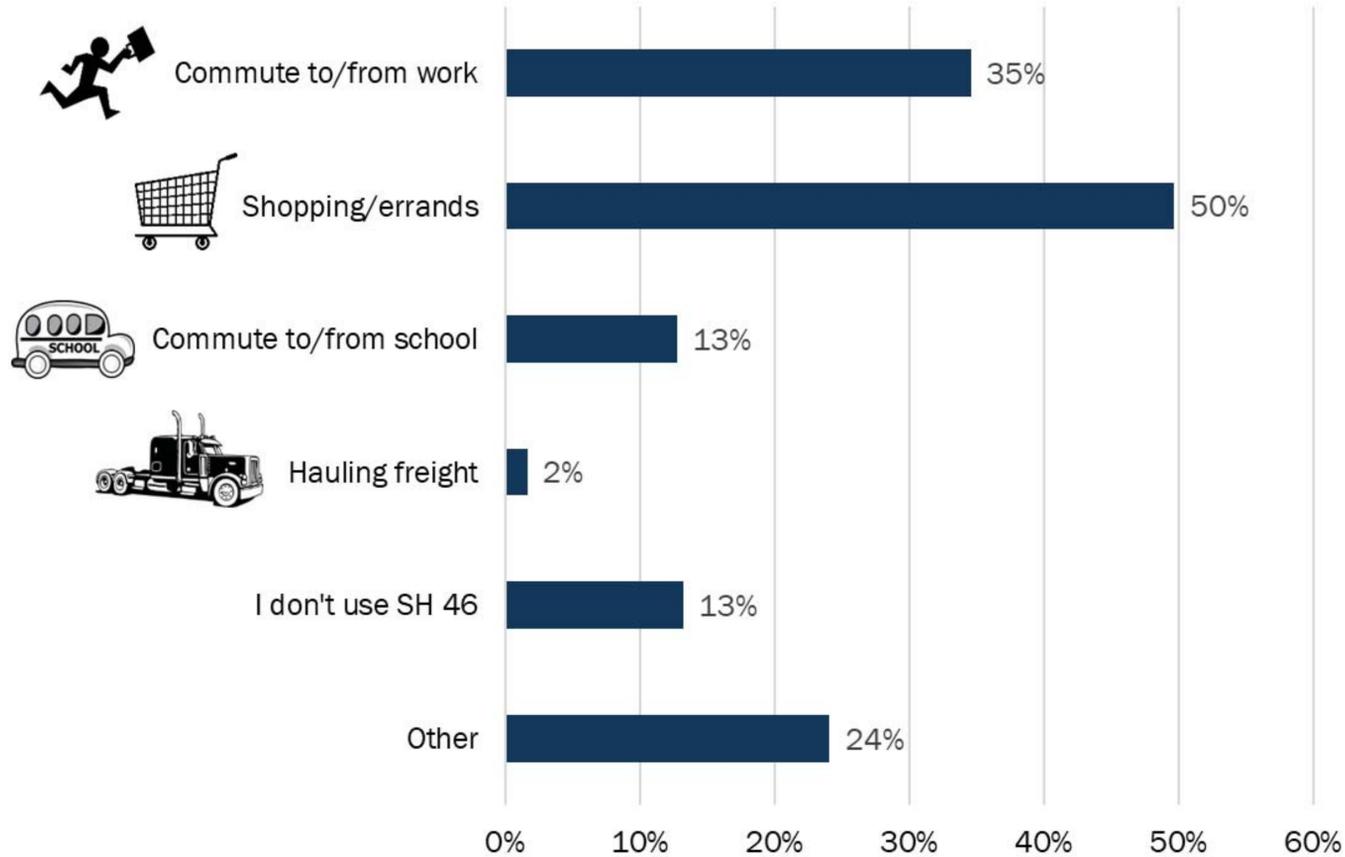


Community Priorities Survey  
July-August 2017

479 Respondents

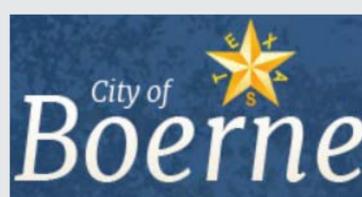
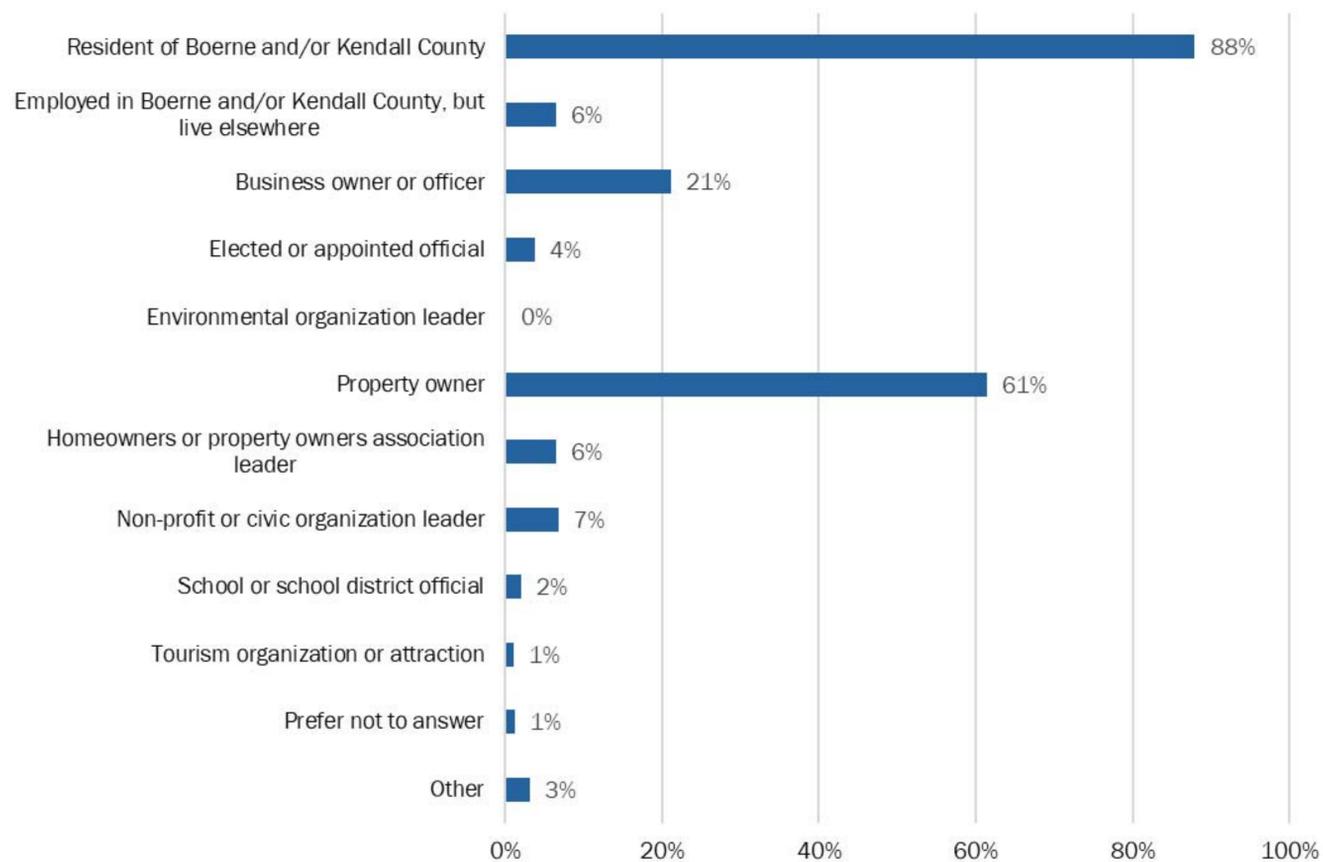
IF YOU USE SH 46, WHAT IS YOUR PRIMARY REASON FOR TRAVELING ON THE CORRIDOR?

(Please check all that apply.)



WHICH CATEGORY(S) BEST DESCRIBE YOUR AFFILIATION?

(Please check all that apply.)

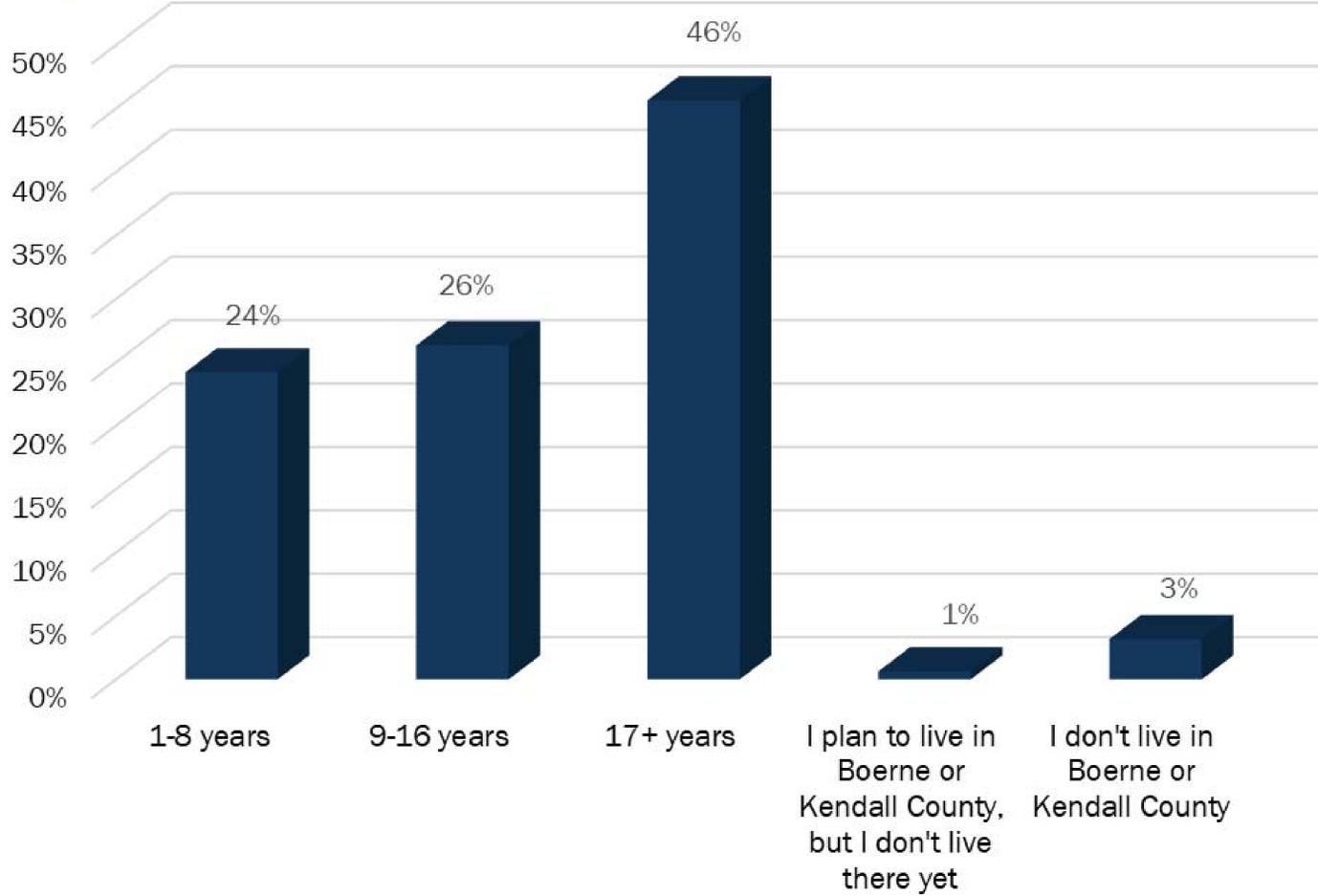




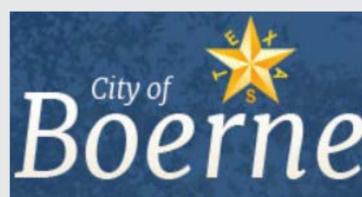
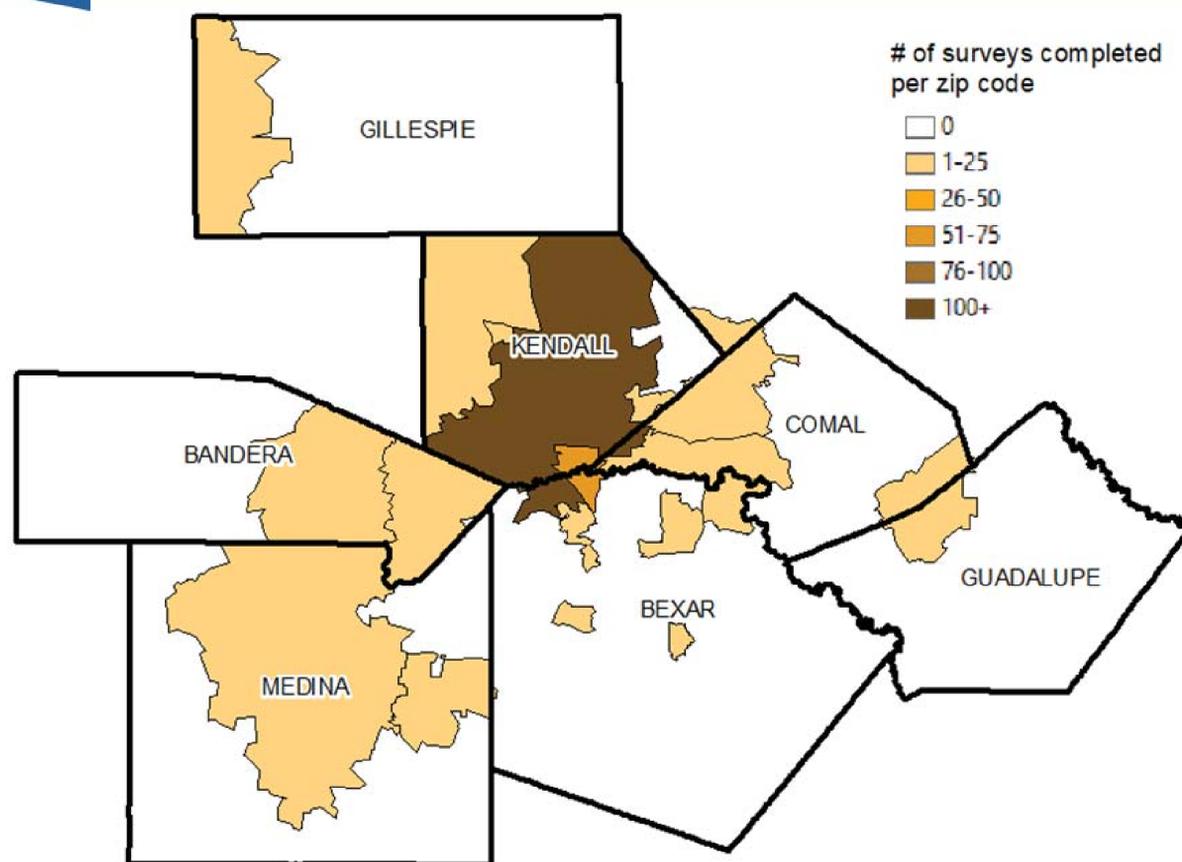
Community Priorities Survey  
July-August 2017

479 Respondents

HOW MANY YEARS HAVE YOU LIVED IN BOERNE OR KENDALL COUNTY?



IN WHAT ZIP CODE IS YOUR HOME LOCATED?





# TECHNICAL WORK GROUP (TWG)

## TWG Invitees:

- Alamo Area COG
- Alamo Area MPO
- Boerne ISD
- Boerne-Kendall County EDC
- City of Boerne
- City of Fair Oaks Ranch
- Comal County
- Kendall County
- Kendall West Utility, LP
- Matkin-Hoover Engineering & Surveying
- TxDOT

## TWG Meeting #1 October 20, 2016

### Top 3 Goals

- “Long-term planning”
- “Alleviate congestion”
- “Define the need”

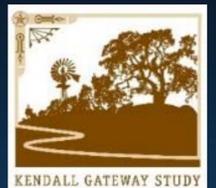
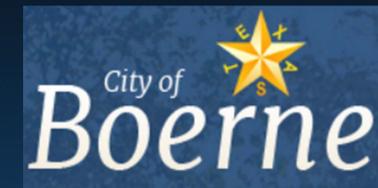
### Top 3 Concerns

- “Funding”
- “Public perception”
- “Environmental impacts”

## TWG Meeting #2 March 2, 2017

### Thoughts on Screening Matrix Development

- Include incident management
- Take into account new schools and future traffic patterns
- Remove traffic volumes and parking from Main Street
- Construct larger sidewalks on Main Street
- Include limited access facilities
- Evaluate at 5-year intervals to determine short-term and long-term needs
- Include time value of constraints





# STAKEHOLDER WORKING GROUP (SWG)

## SWG Invitees:

- Ammann Ranch Estates POA
- Boerne Area Historical Preservation Society
- Boerne Business Alliance
- Boerne Chamber of Commerce
- Boerne Convention & Visitor’s Bureau
- Boerne ISD
- Boerne Moontime Rotary
- Boerne Stage Airfield
- Boerne Sunrise Rotary
- Cascade Caverns
- Cibolo Conservancy
- Cibolo Nature Center
- City of Boerne
- Cordillera Ranch POA
- Cow Creek Groundwater Conservation District
- Edwards Aquifer Authority
- Estancia at Thunder Hill HOA
- Fair Oaks Ranch HOA
- Fair Oaks Ranch Rotary
- Geneva School of Boerne
- Greater Edwards Aquifer Alliance
- Kendall County
- Kendall County Historical Commission
- Kendall Pointe Subdivision
- Kronkosky Charitable Foundation
- Ranger Creek HOA
- River Mountain Ranch HOA
- River Trail POA
- Rotary Club of Boerne
- Saddlehorn HOA
- Sierra Club – Alamo Group
- Tx Parks and Wildlife
- Trails of Herff Ranch HOA
- U.S. Army Corps of Engineers
- U.S. Dept of Agriculture
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- Villas at Hampton Place HOA
- Woods of Frederick Creek HOA

## SWG Meeting #1 December 6, 2016

## SWG Meeting #2 April 5, 2017

### Goals

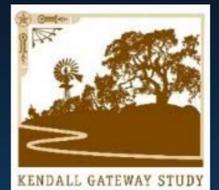
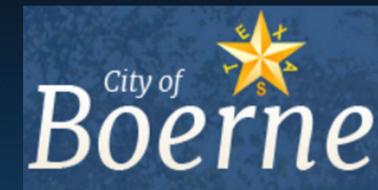
- “Long-term and scalable”
- Forecast future”
- “Long-term affordability”
- “Accessibility”
- “Ecological integrity”
- “Relieve traffic congestion”
- “Mutually beneficial”
- “Transparent communication”

### Concerns

- “Fostering growth”
- “Integrity of scope”
- “Natural resources and environment”
- “Develop sensibly”
- “Paralysis by analysis”
- “Not creative enough”
- “Reluctance to adapt to change”
- “Finding common ground”

### Thoughts on Screening Matrix Development

- Sensitive features (i.e. limestone) are an important resource
- How are traffic noise impacts determined?
- Is it possible to include the amount of time corridors are depicted as congested in Google Maps?
- Traffic data could be confusing to the public.
- How is induced growth measured?





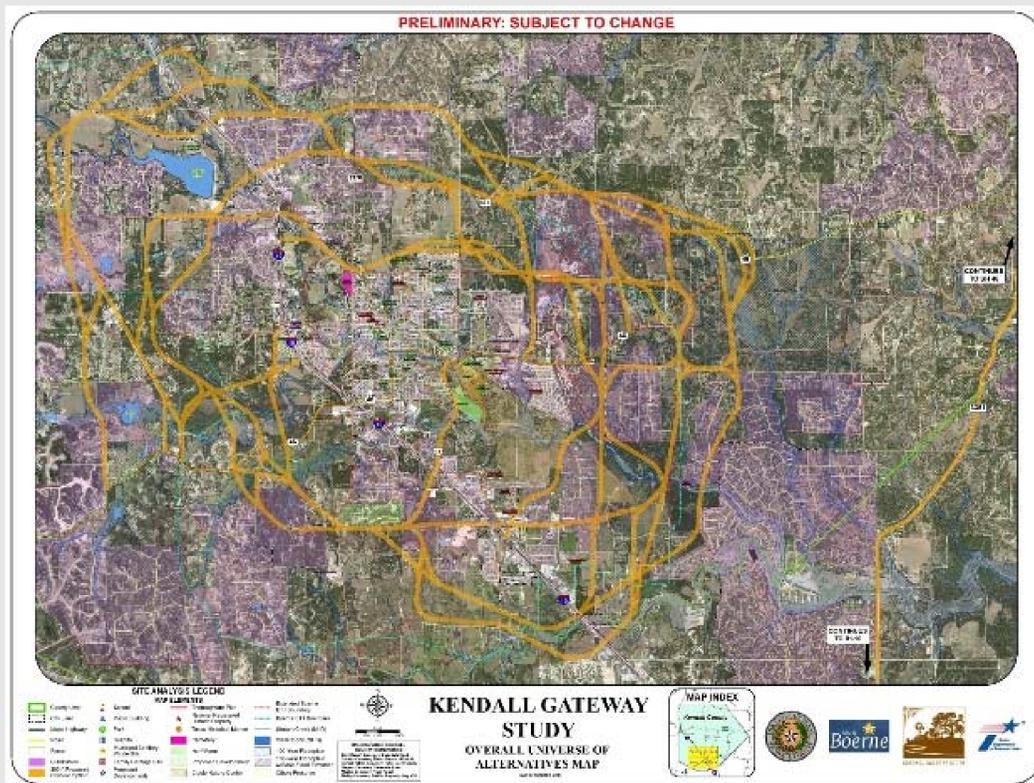
# TWG/SWG COMBINED MEETING #3

August 31, 2017

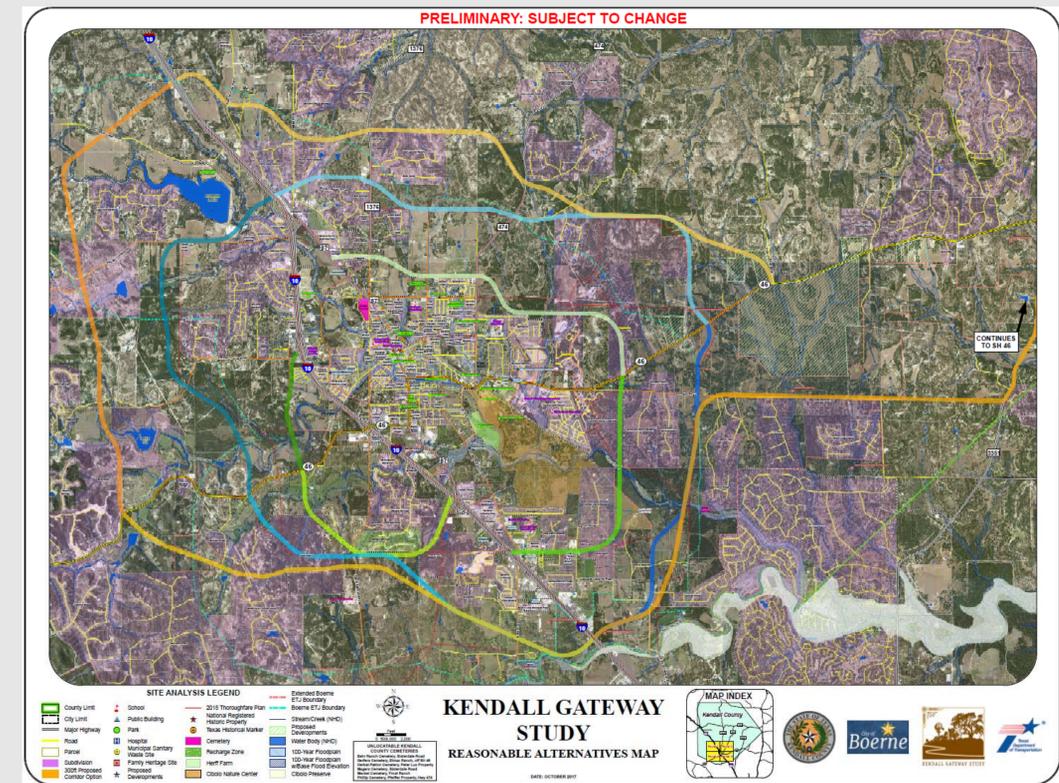
Feedback from the TWG/SWG on proposed concepts.

## Feedback from TWG/SWG Meeting Attendees

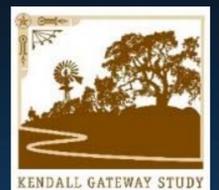
- Long-term solution should be a route that is further away from downtown Boerne
- Most desirable concept is a northern route
- Must consider Trinity Aquifer recharge zone and geological features
- An outer loop makes the most sense
- FM 3351 and Herff Road could be utilized as solutions
- Adding capacity to SH 46 may provide a short-term solution



Universe of Concepts



Reasonable Concepts



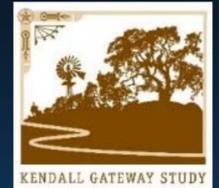


# STATION #4: KENDALL GATEWAY STUDY AREA MAPS

## We Need Your Feedback:

Place sticky notes and/or written notes on the maps to let us know:

1. Which concepts you like, and why.
2. Which concepts you dislike, and why.
3. Any additional concepts the Study Team should consider, and why.





# CONCEPT SCREENING PROCESS

IDENTIFY UNIVERSE OF CONCEPTS



LEVEL 1 SCREENING (FATAL FLAW ANALYSIS)



REASONABLE CONCEPTS

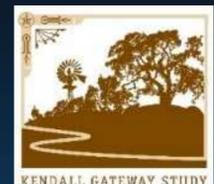


LEVEL 2 SCREENING



RECOMMENDED CONCEPT(S)

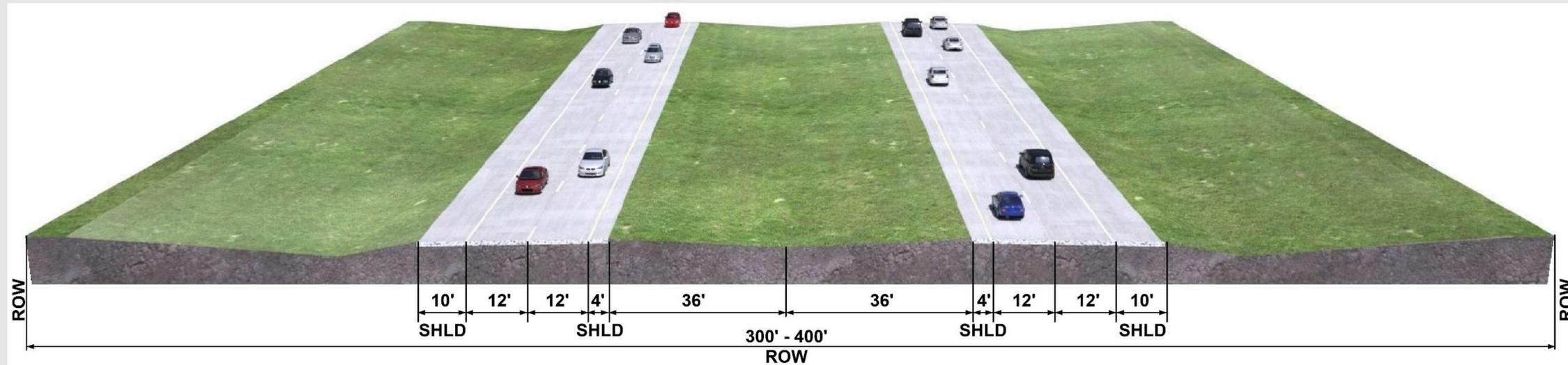
WE ARE HERE





# EXAMPLE FACILITY TYPE

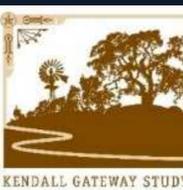
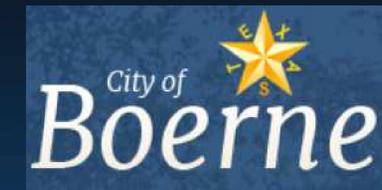
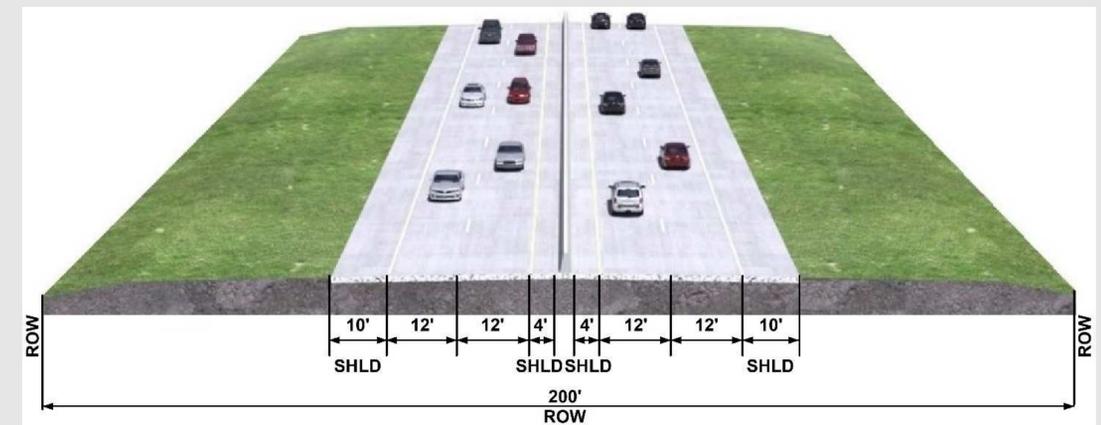
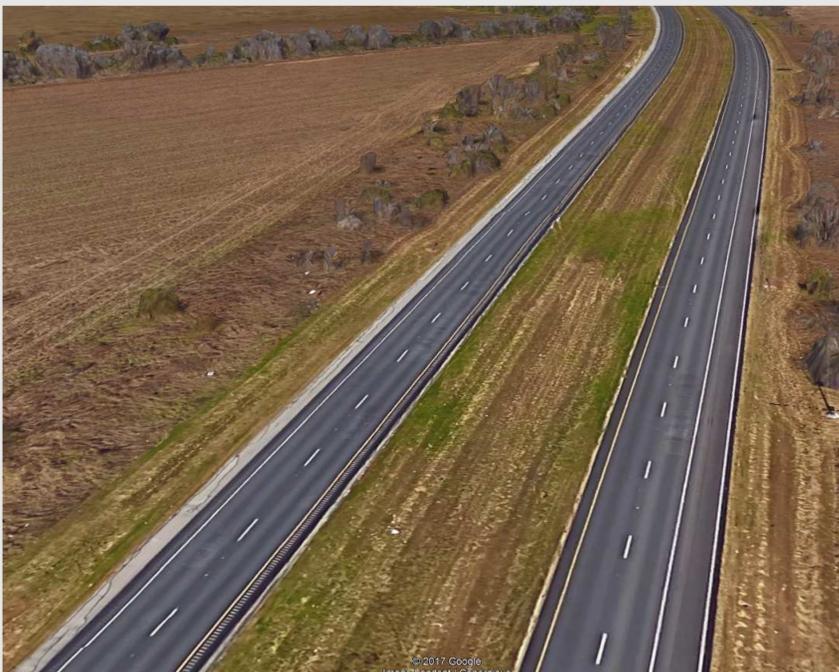
## CONCEPTUAL 4 LANE DIVIDED HIGHWAY WITH GRASS MEDIAN



### LONG-TERM EXAMPLE

### SHORT-TERM EXAMPLE

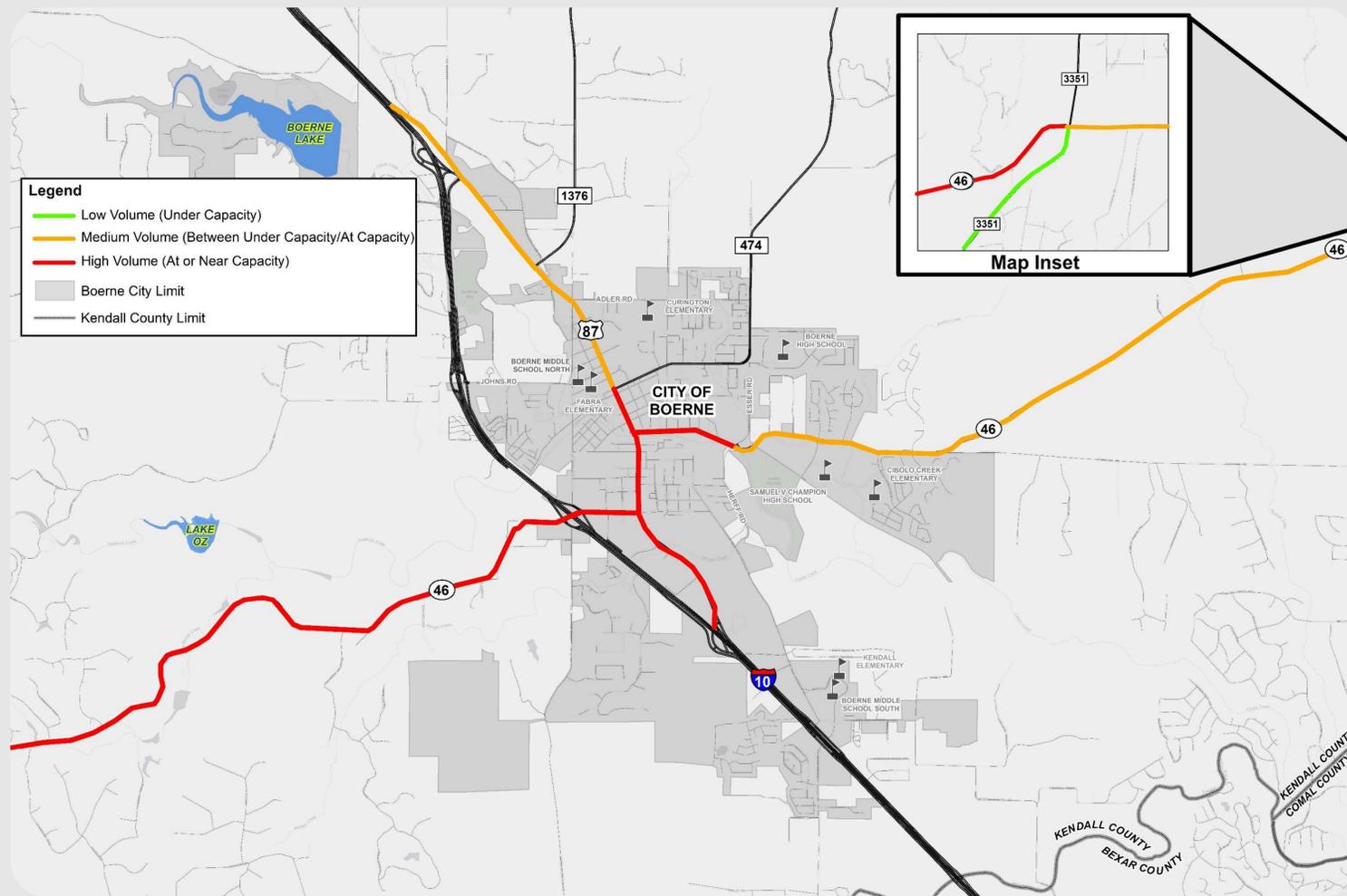
### POSSIBLE 4 LANE DIVIDED HIGHWAY WITH BARRIER



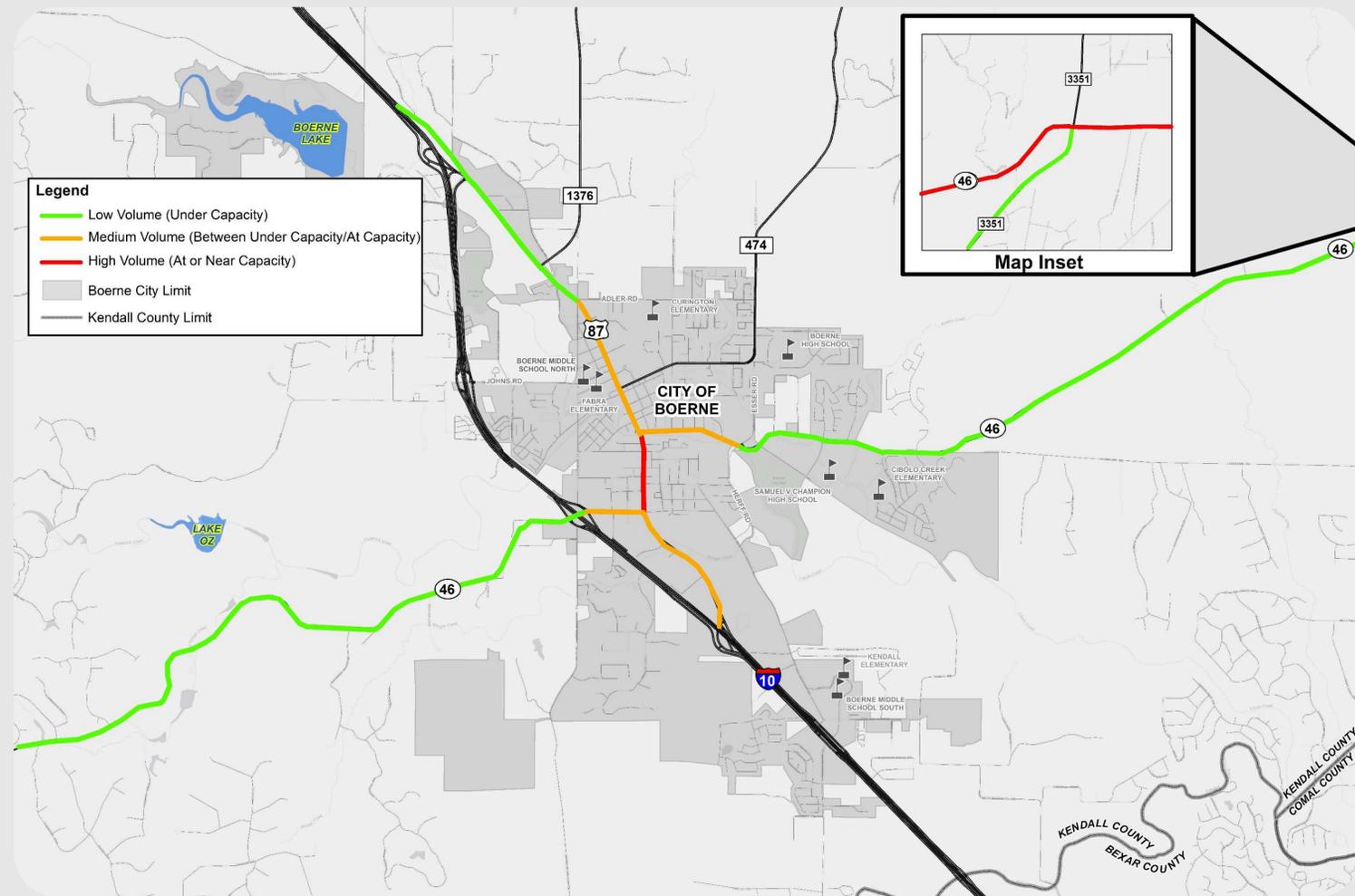


# HOW THE CONCEPTS HELP

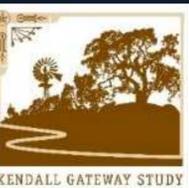
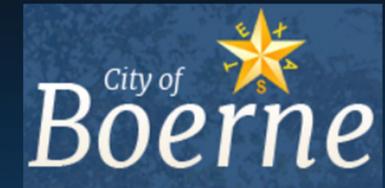
## WITHOUT CONCEPTS (2040)

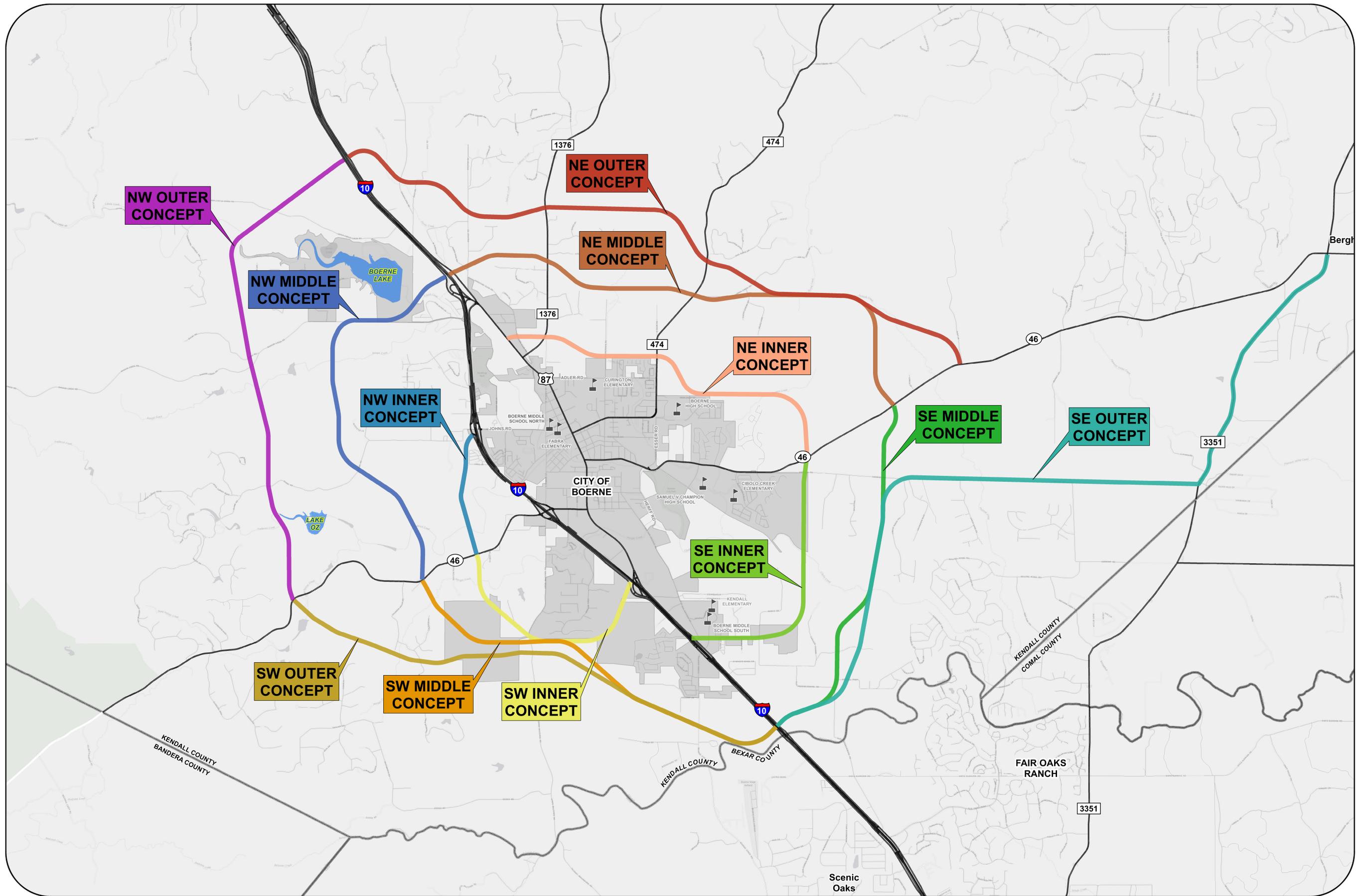


## WITH CONCEPTS (2040)



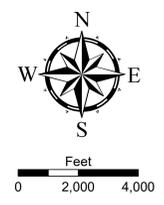
- This map focuses on major arterials used to travel through Boerne
- The 2040 projections account for the completion of future MPO projects
- On average, the concepts remove 40% of the trucks traveling through Boerne





**MAP LEGEND**

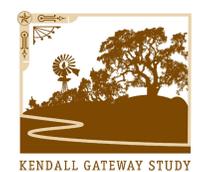
Water Body (NHD) selection	Major Highway
School	Road
Bexar_County	County Limit



# OVERALL CONCEPT MAP

## KENDALL GATEWAY STUDY

DATE: OCTOBER 2017





# STATION #5: INTERACTIVE SURVEY

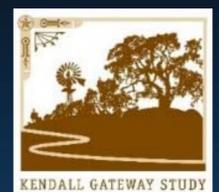
## Survey Options:



1. Complete the survey tonight using the provided i-Pads.
2. Complete the survey online. Visit [txdot.gov](http://txdot.gov), keyword “Kendall Gateway Study”, and click on the survey link.

*For technical assistance or for other questions/instructions regarding the survey, please see a Project Team member at Station #5.*

*Survey Deadline: Monday, November 27, 2017*



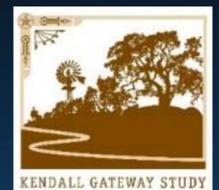


# WE WANT YOUR FEEDBACK!

## Commenting Options:

1. Fill out a comment card at the comment table.
2. Give verbal comments to the Court Reporter tonight.
3. Fax comments to (210) 349-4395.
4. Email comments to: [KendallGateway@pozcam.com](mailto:KendallGateway@pozcam.com).
5. Mail comments to: TxDOT San Antonio District, Richard De La Cruz, P.E., TxDOT Project Manager, 4615 NW Loop 410, San Antonio, TX 78229-5126.
6. Visit [txdot.gov](http://txdot.gov), keyword “Kendall Gateway Study”.

*Deadline for Comments: Monday, November 27, 2017*





## Next Steps

- Refine Reasonable Concepts based on public input.
- Conduct traffic modeling on Reasonable Concepts.
- Compare Reasonable Concepts against engineering and environmental criteria.
- Conduct 4<sup>th</sup> meeting with Technical Work Group and Stakeholder Working Group (Early 2018)
- Draft Feasibility Study (Spring 2018)

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**THANK YOU**

