



Public Meeting

I-35 Corridor from John Kilpatrick Turnpike
North to Waterloo Road

October 26, 2017 @ 6:00pm

Edmond Community Center

Auditorium





Before we get started...

...Please turn off or mute any electronic devices, and make sure you have a Handout and Comment Form available. Please hold your questions until after the presentation has ended.



Presentation Outline

- Meeting & Study Purpose
- Existing Conditions
- Frontage Road Concepts
- Study Timeline
- General Questions & Comments



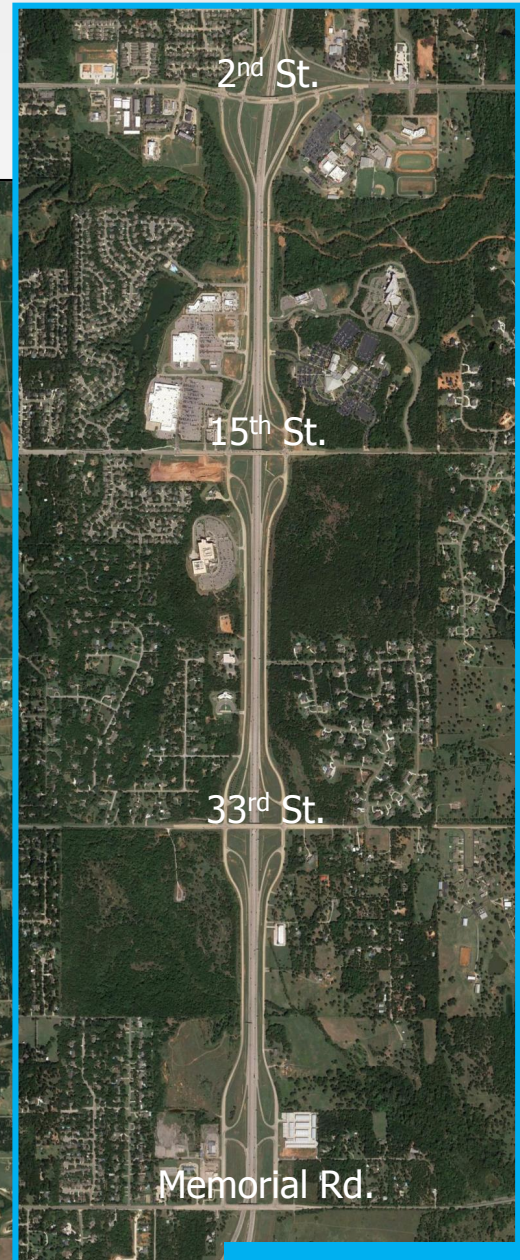
Purpose of this Meeting

To inform the public and obtain input on the frontage road concepts under consideration for the I-35 corridor from Memorial Road to 2nd Street through Edmond, Oklahoma.

Purpose of this Study

To determine the safety and traffic needs of the I-35 mainline, interchanges, and **frontage roads** from the Kilpatrick Turnpike north to Waterloo Road; and to evaluate potential solutions.

Overall Study Location



Frontage Road Study Area

Overall Study Objectives



- Improve Traffic Efficiency Along Frontage Roads and at Frontage Road Intersections
- Improve Capacity of I-35 Mainline
- Increase Safety



An aerial map of a city area, likely Oklahoma City, showing a grid of streets and a major highway. The map is overlaid with a large, stylized graphic on the left side consisting of several parallel diagonal lines in dark blue, red, and white. The text 'Existing Conditions' is centered on the map. Various street names and highway shields are visible in the background.

Existing Conditions

15TH ST.

33rd

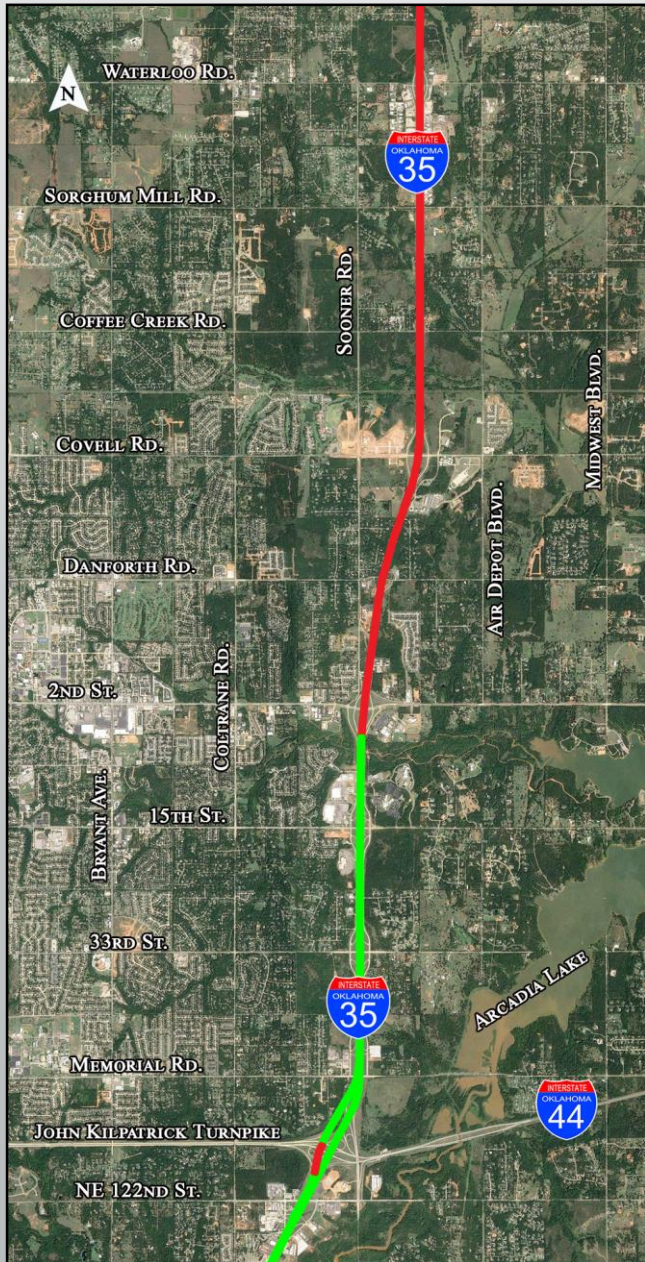


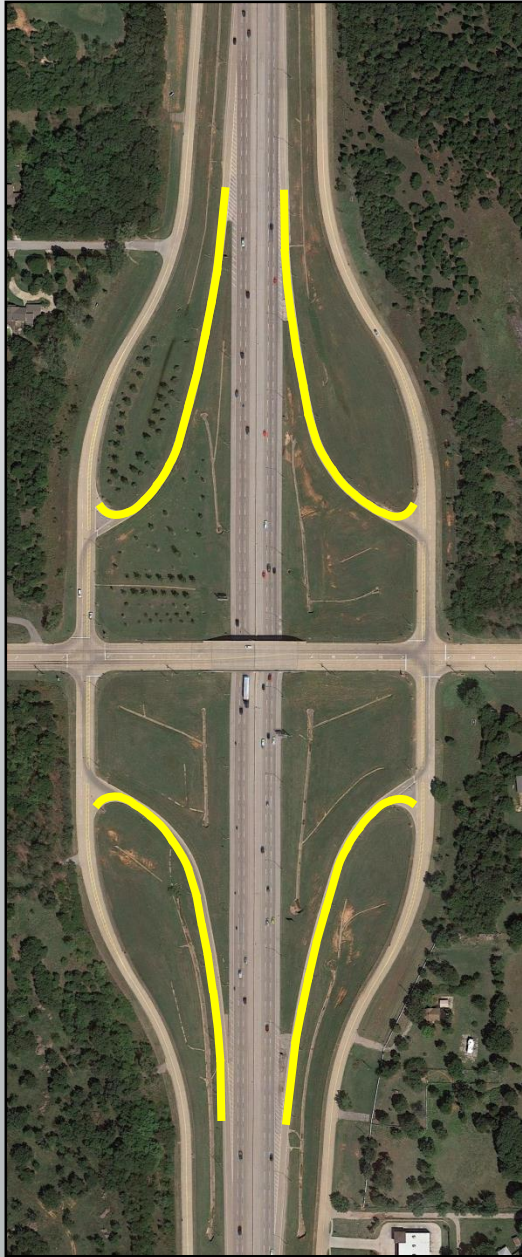
ARCADIA

Existing Conditions

- **I-35 Mainline**

- Constructed in the 1950s
- 6 Lanes from Memorial Road to 2nd Street
- 4 Lanes from 2nd Street to Waterloo Road
- I-35 Southbound is only 4 Lanes for ¼ mile South of Memorial Road
- AM and PM Gridlock Where Mainline Drops to 4 Lanes
 - AM Gridlock Southbound at Memorial
 - PM Gridlock Northbound at 2nd Street



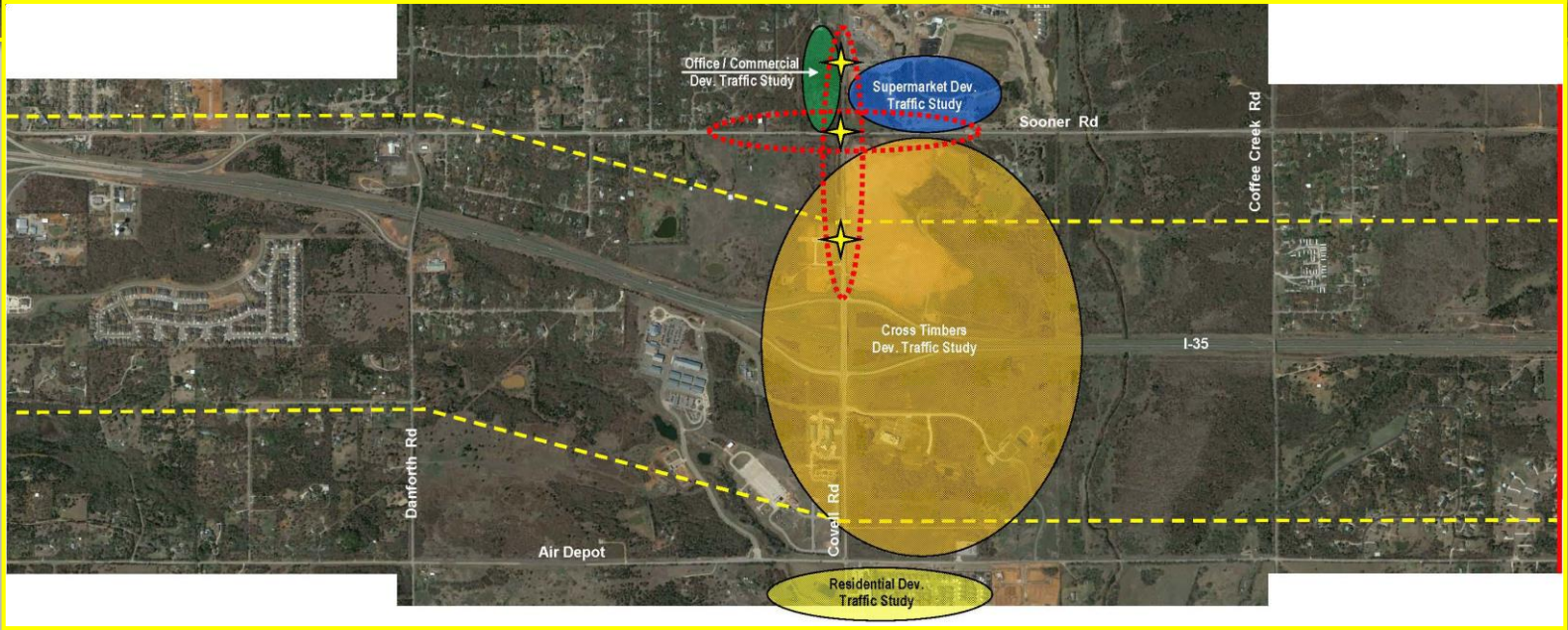


Existing Conditions

- **I-35 Frontage Roads**

- Constructed in Early 1980s
- Two-Lane, Two-Way Traffic
- Turn Lanes at Intersections
- (2)-13' Driving Lanes with Curb and Gutter
- Stop Sign Control on Ramp Exit
- Button Hook Entry to and Exit from I-35

Existing Businesses / Future Development



Areas of Consideration



E. 2nd Street

Integris

Henderson Hills

E. 15th Street

Wal-Mart/Sam's

Mercy

E. 33rd Street

E. Memorial Road

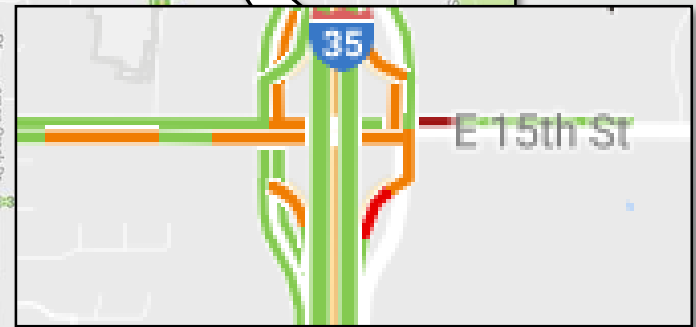
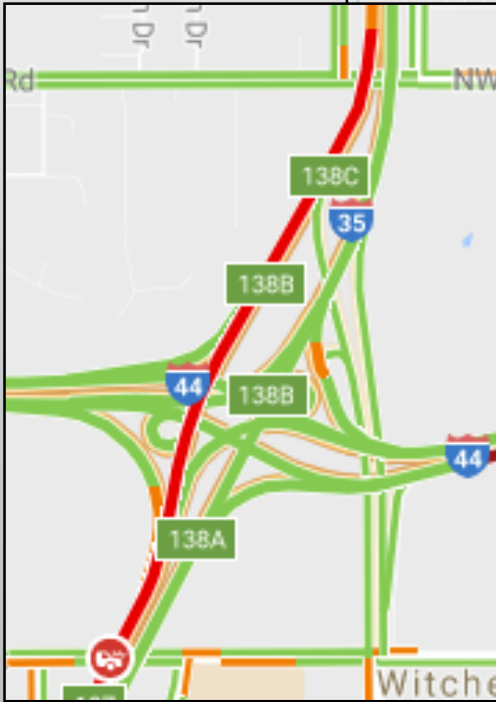
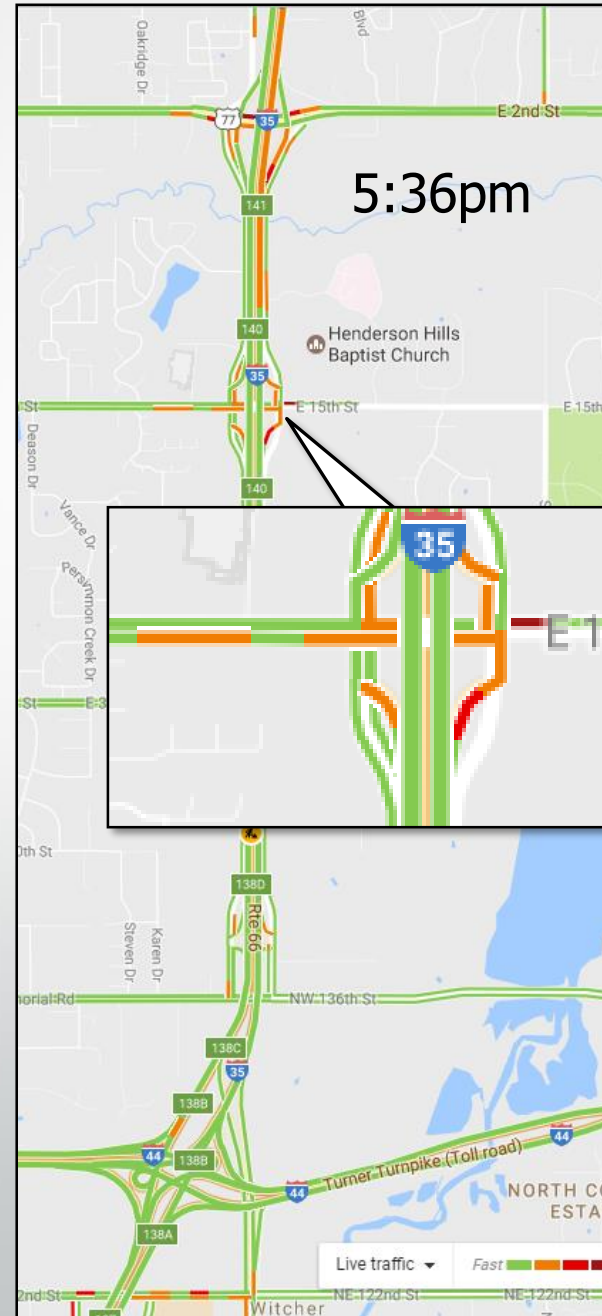
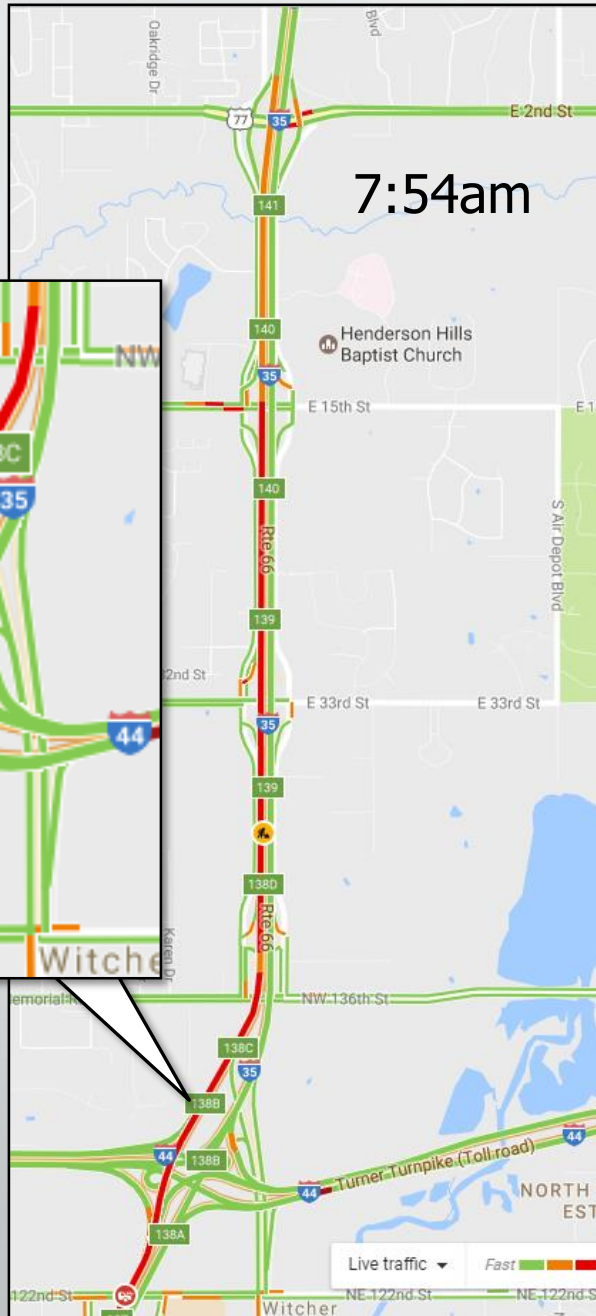


Traffic Volume

- Vehicles Per Day, Present and Future
 - I-35: 76,000 (2016) / 125,000 (2040)
 - W. Frontage Road: 7,000 (2016) / 10,300 (2040)
 - E. Frontage Road: 4,000 (2016) / 5,150 (2040)



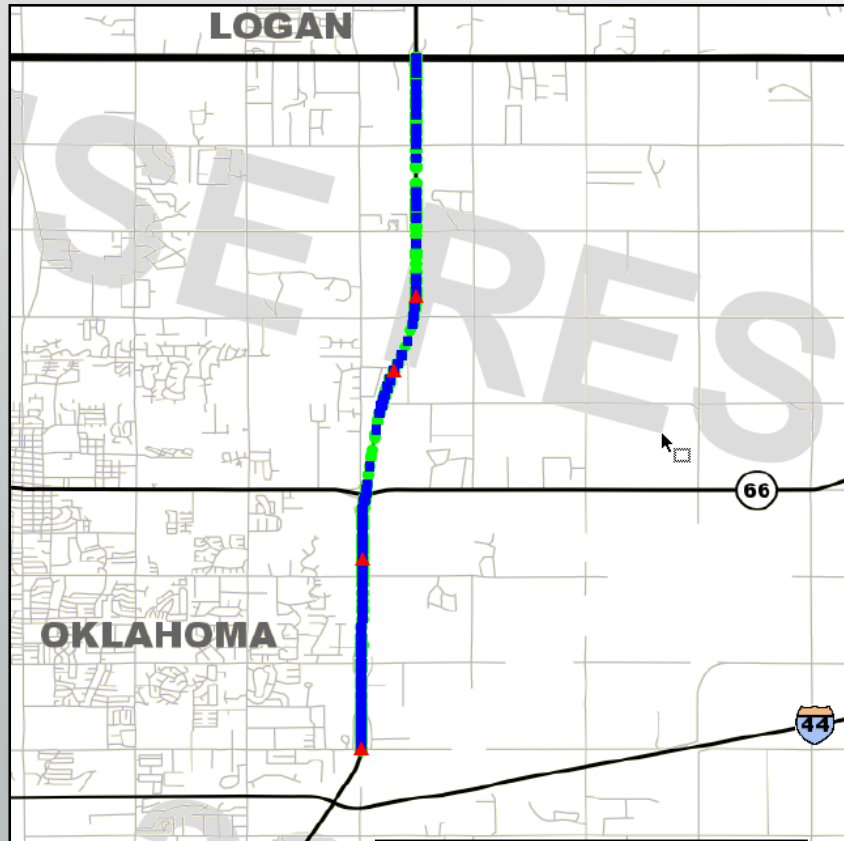
Traffic Volume



Collision Data

Overall Corridor

Memorial Rd. to Waterloo Rd.



Legend

- ▲ Fatality
- Injury
- Property Damage



I-35 FRONTAGE RDS. FROM MEMORIAL TO WATERLOO

Time Period: 10-31-2011 to 10-31-2016 (1828 days)

RATE = No. of Collisions per 100 Million Vehicle Miles

Rate Type	Location Rates	Statewide Rates ** (2011 - 2013)	Critical Rates
Overall Collision:	108.61	83.23	88.69
Fatal Collision:	0.52	0.60	
Vis. Injury Collision*:	13.33	14.17	
Vis. Injury + Fatal:	13.85	14.77	17.11

Collision History Summary (Number of Years = 5)

	# Collisions	# People
Involving Fatality:	4	Killed: 5
Vis. Injury*:	103	Vis. Injured*: 131
Poss. Injury:	120	Poss. Injured: 170
Property Damage Only:	612	
TOTAL:	839	

* Includes Incapacitating and Non-Incapacitating Injuries.

2011 To 2016

- **839 Collisions**
- **301 Injured/Poss. Injure**
- **4 Fatality Collisions**
- **Higher Than Avg. Collision Rate**

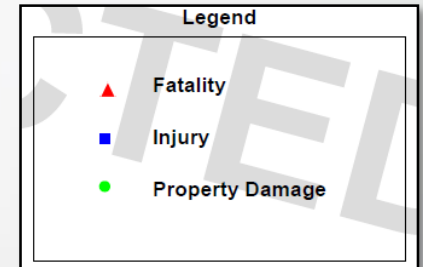
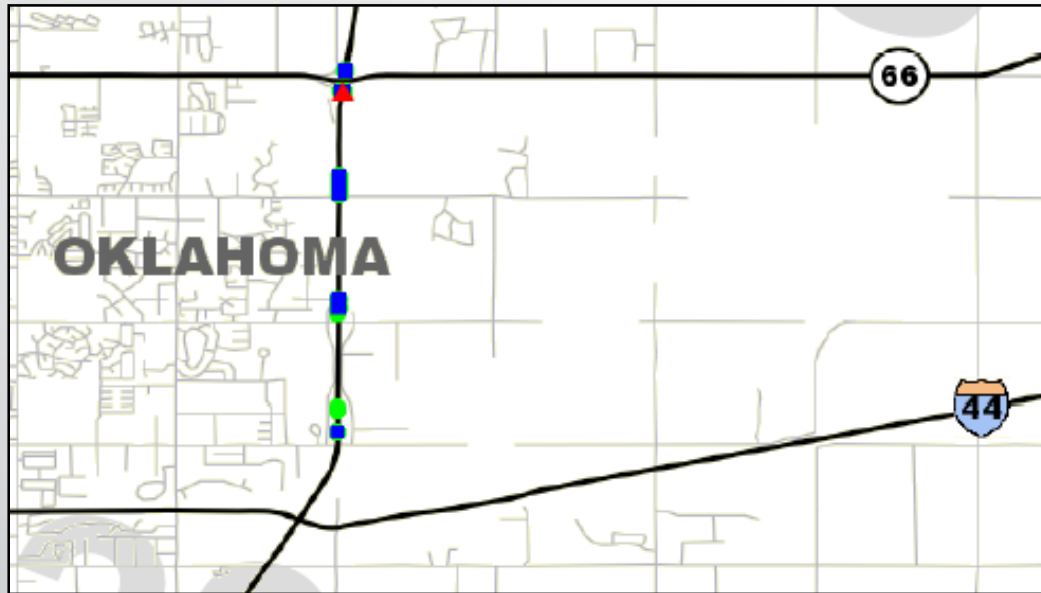


EDMOND
OKLAHOMA

Collision Data

Frontage Road

Memorial Rd. to 2nd St.



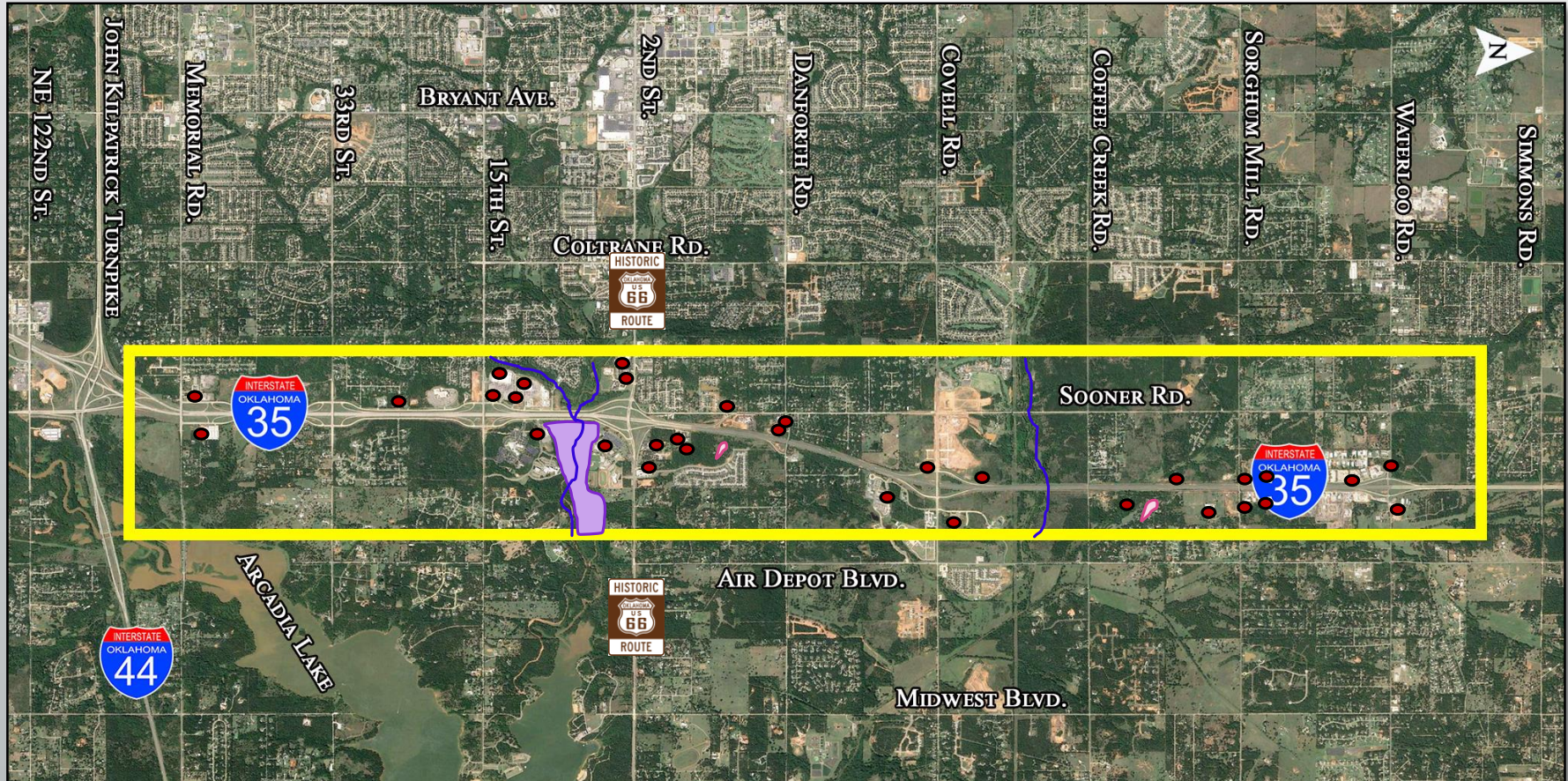
2011 To 2016



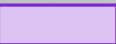


- **227 Collisions**
- **75 Injured/Poss. Injured**
- **1 Fatality**

Environmental Constraints

- Performed a Reconnaissance-Level Study to Evaluate Existing Resources in the Study Area, Such As:
 - Public Parks and Recreational Areas
 - Cemeteries
 - Airports
 - Federal and Indian Lands
 - Historic and Archaeological Sites
 - Potential Contamination Issues
 - Waters and Wetlands

Environmental Constraints



-  Study Area
-  Potential Hazardous Materials
-  US Army Corps of Engineers Property
-  Streams
-  Wetlands



Frontage Road Concepts



Why Is This Study Needed?

"If You Live or Work Around Here"

- How do I get home?
- How will customers find my business?
- Ambulance needs to get to hospital...
- Will I have to go out of my way to go down the street?
- Will the ramps really back up cars on the interstate if we do nothing?



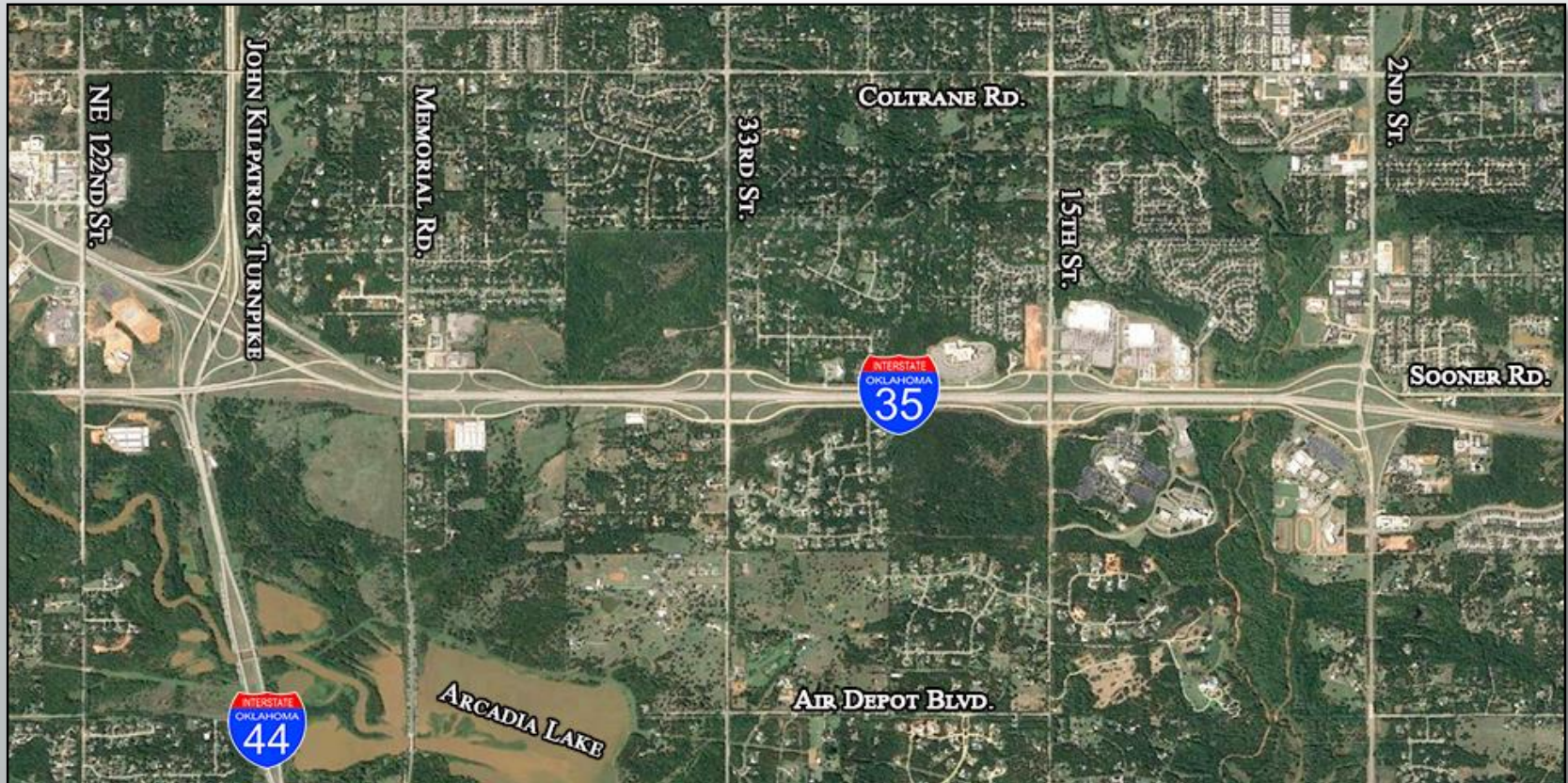
Why Are Improvements to Frontage Roads Needed?



- Congestion from Increasing Traffic Volumes
- Backed Up Traffic on I-35 at Off-Ramps
- Increased Vehicle Delay - Longer Travel Times
- Inefficiency of Signals
- Safety Issues of Two-Way Frontage
- Consideration for Future Development

Frontage Road Concepts

- **Concept No. 1** – No-Build Alternative
- **Concept No. 2** – Improved Two-Way Frontage Roads
- **Concept No. 3** – Conversion to One-Way Frontage Roads



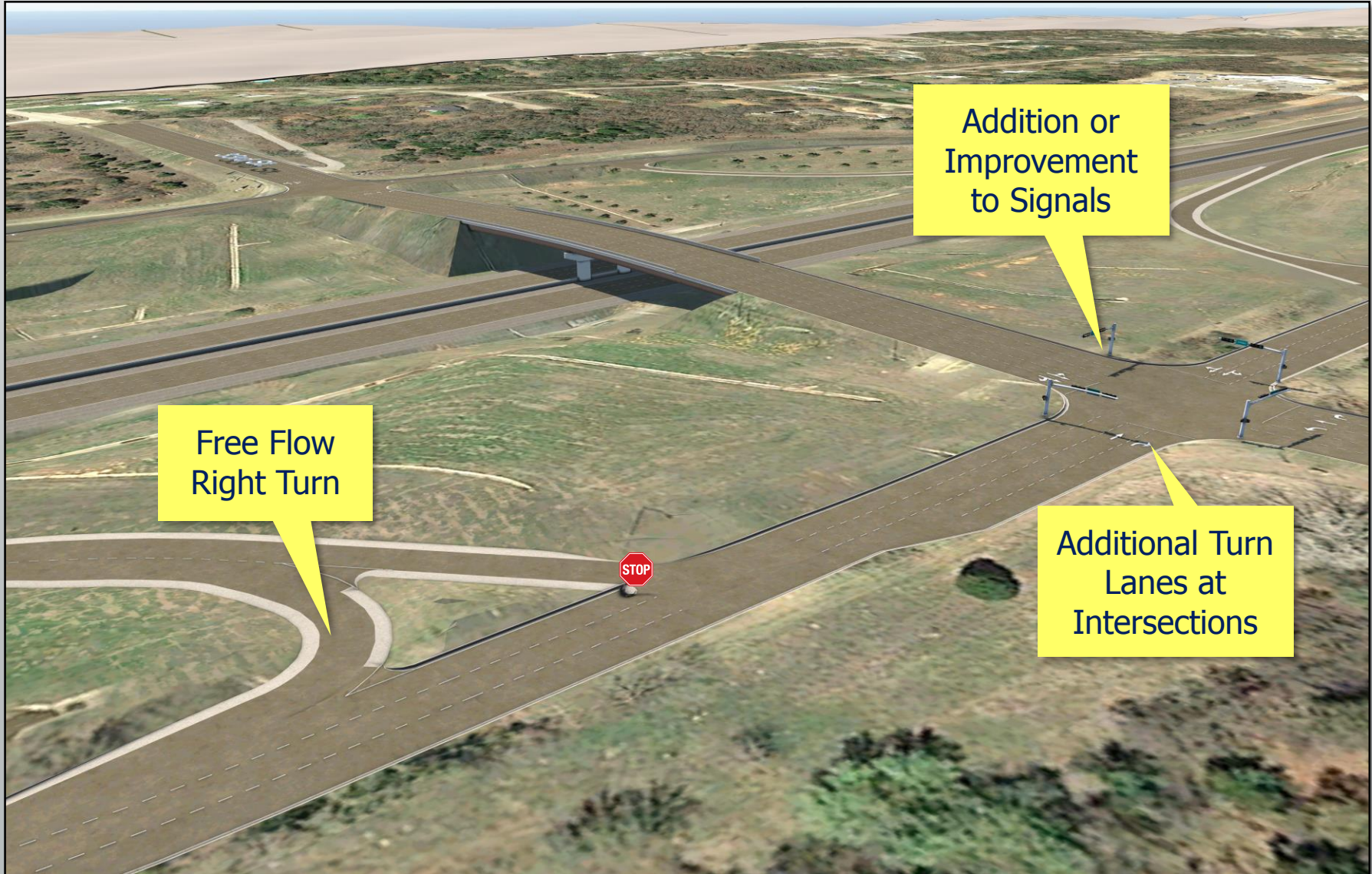
Frontage Road Concept No. 1

No Build



Frontage Road Concept No. 2

Improved 2-Way Frontage Roads



Addition or Improvement to Signals

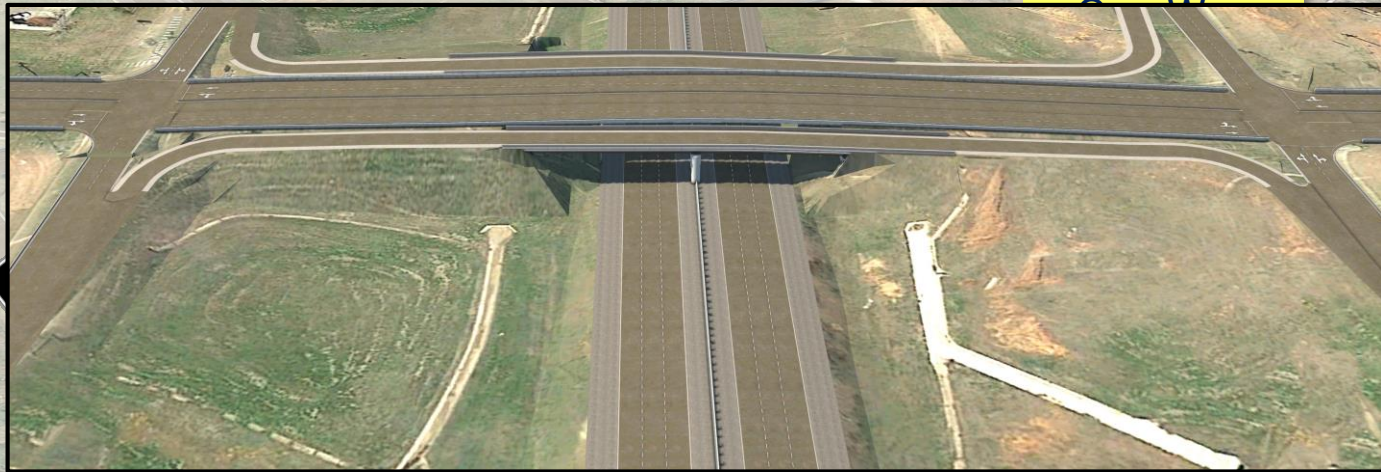
Free Flow Right Turn

Additional Turn Lanes at Intersections

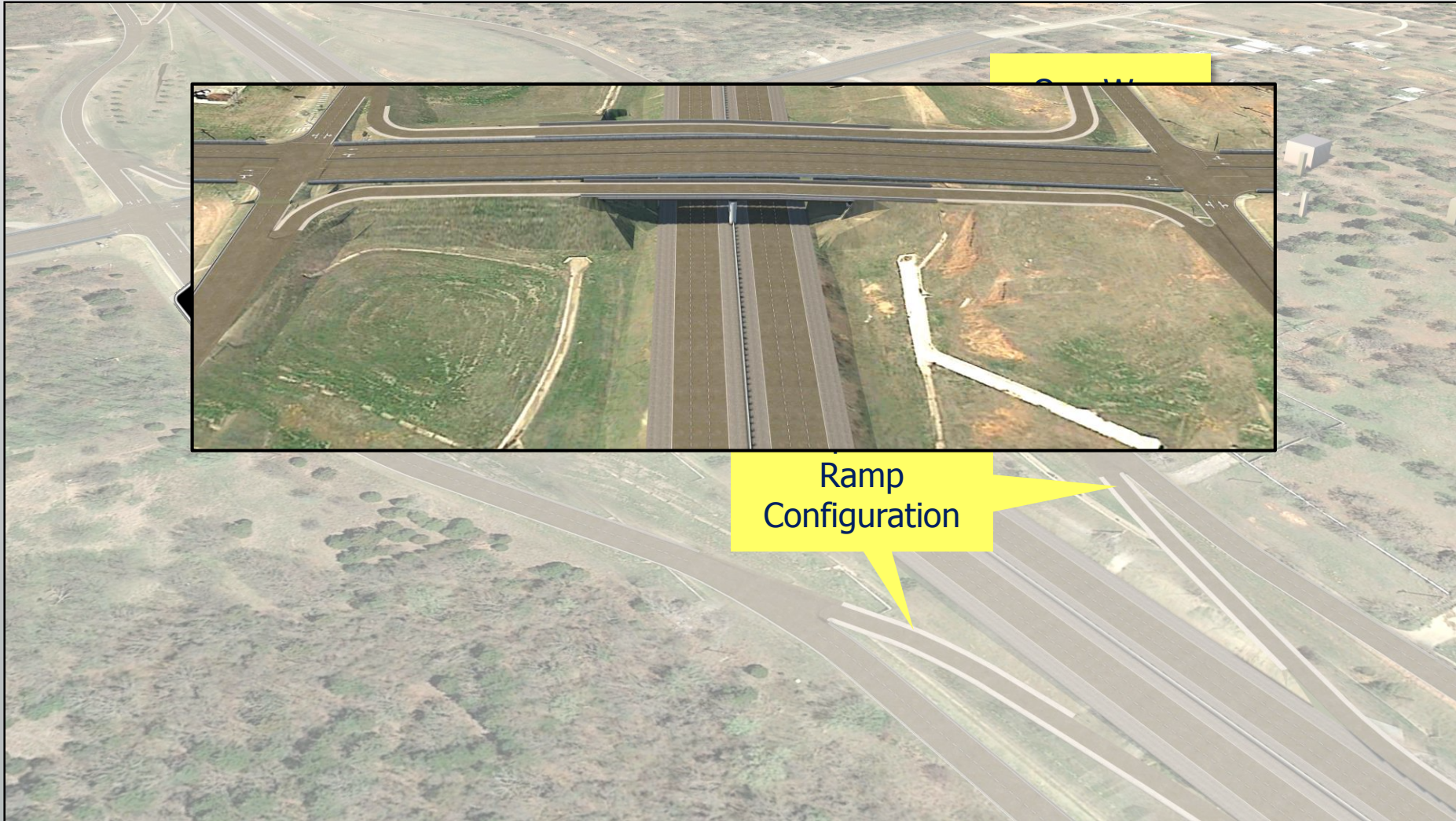
STOP

Frontage Road Concept No. 3

Conversion to 1-Way



Ramp
Configuration

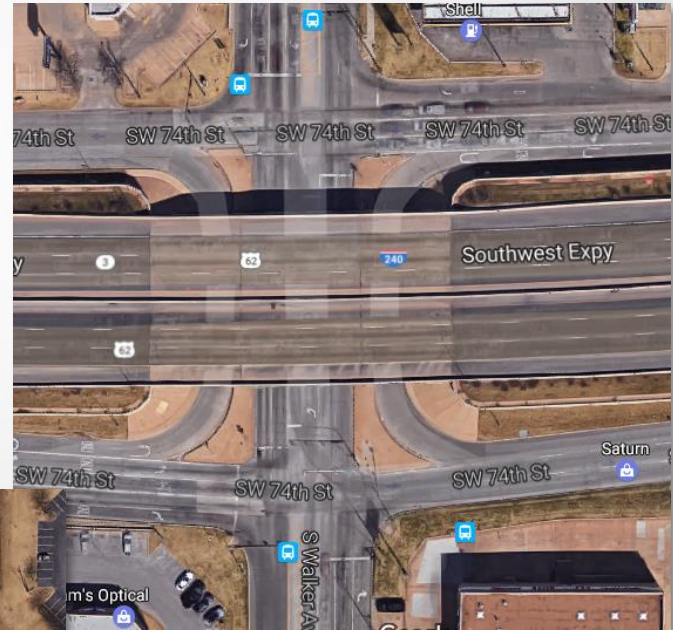


Frontage Road Concept No. 3

Conversion to 1-Way



“Protected Turnaround”
Under Kilpatrick Turnpike
at Penn Ave.



“Protected Turnaround”
Under I-240 at
Walker Ave.



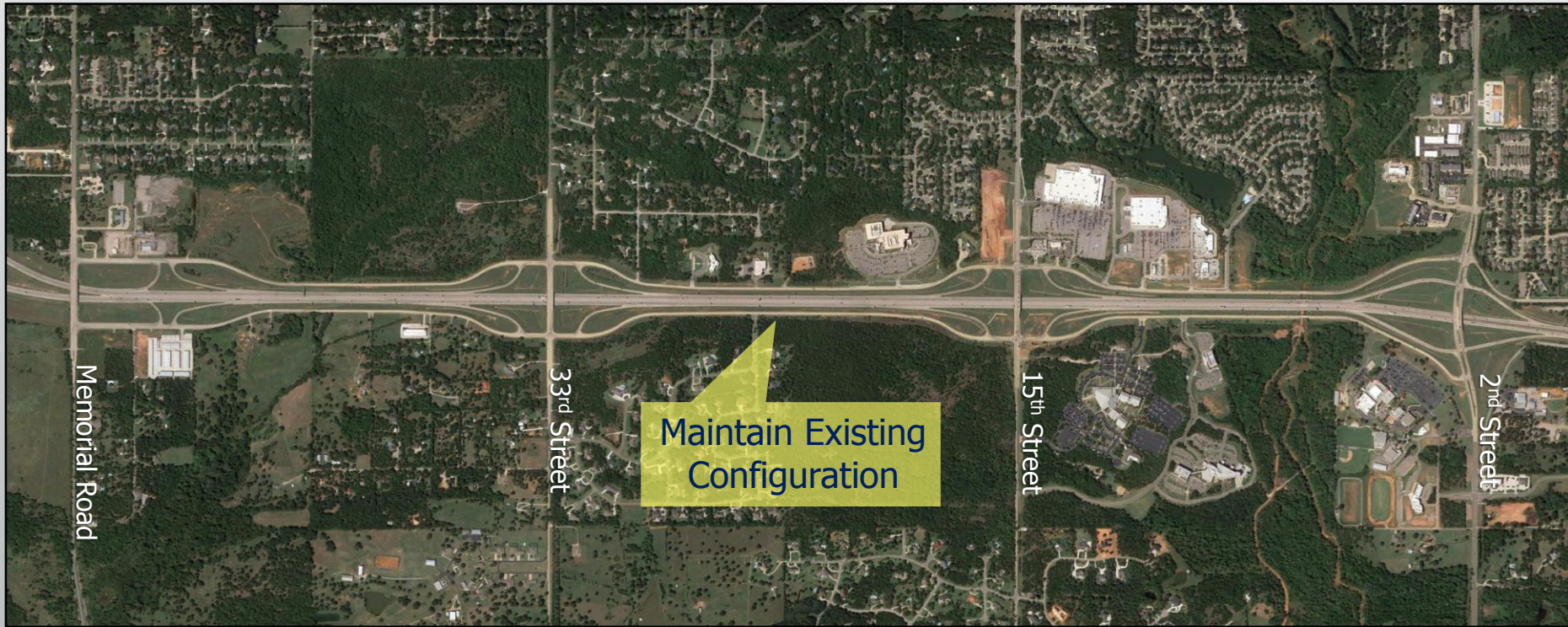
“Protected Turnaround” Over
US-77 at Britton Rd.



Concept Pros / Cons

Frontage Road Concept No. 1

No Build



Pros:

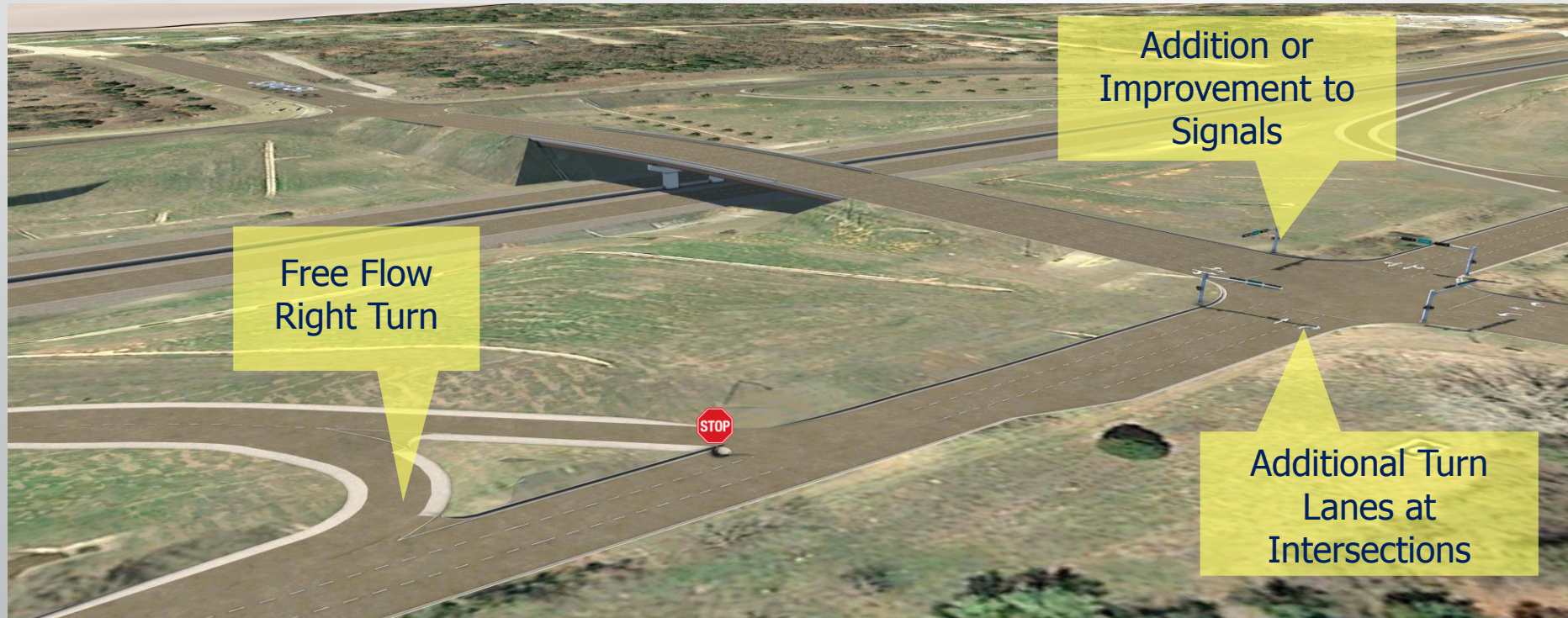
- No Cost to Construct
- Familiar Access to Destinations
- Shorter Travel Distance to Some Destinations

Cons:

- Doesn't Improve Corridor Gridlock
- Doesn't Improve Safety or Reduce Collisions
- Dangerous Crossing Traffic Conflict Points
- Continues Current Inefficient Traffic Operation

Frontage Road Concept No. 2

Improved 2-Way Frontage Roads



Pros:

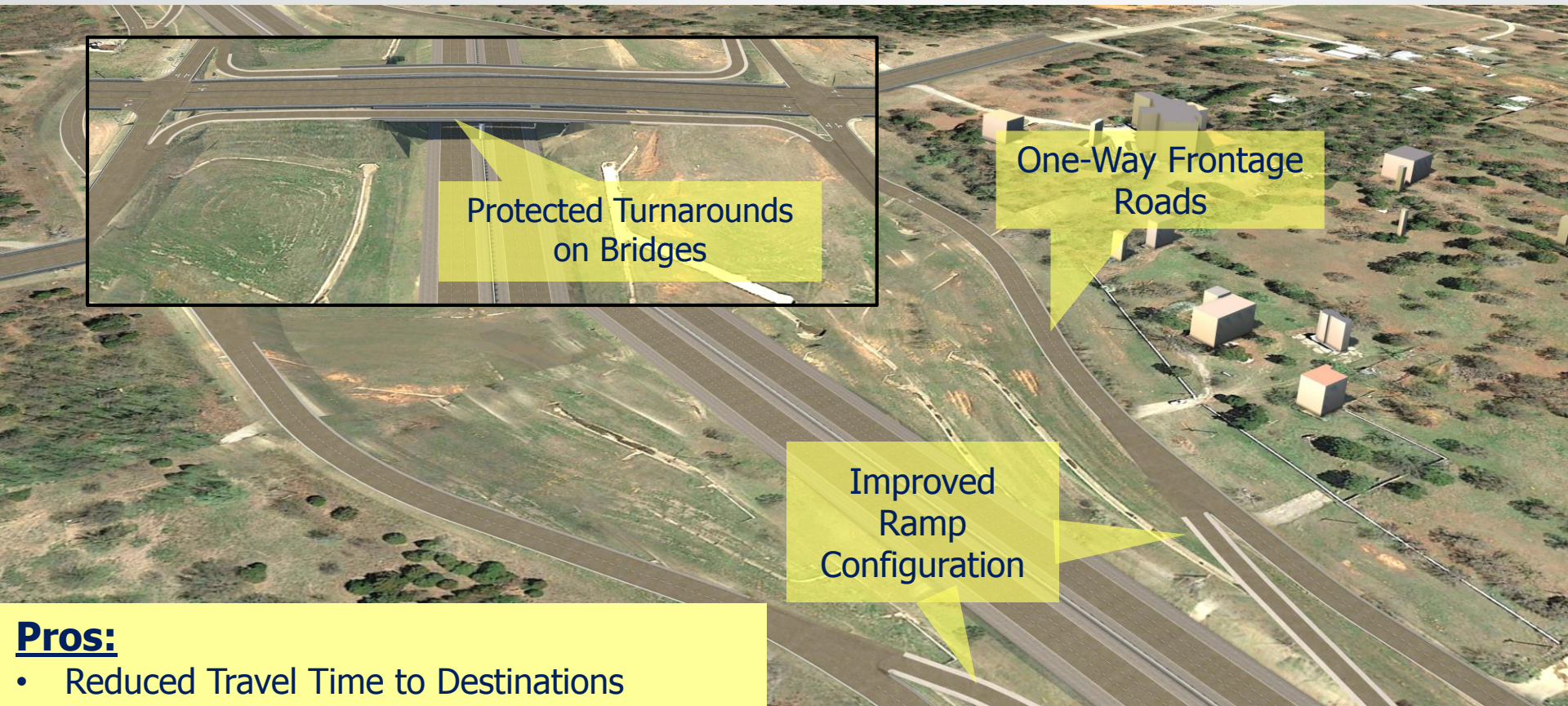
- Middle Construction Cost of 3 Concepts
- Familiar Access to Destinations
- Shorter Travel Distance to Some Destinations
- Minor Improvement to Intersection Signals and Lane Configurations

Cons:

- Only Minor Improvement to Intersection Delay
- Doesn't Improve Ramp Congestion / Backup
- No Improvement to Stop Sign Delay at Ramp Terminal
- Dangerous Crossing Traffic Conflict Points

Frontage Road Concept No. 3

Conversion to 1-Way



Pros:

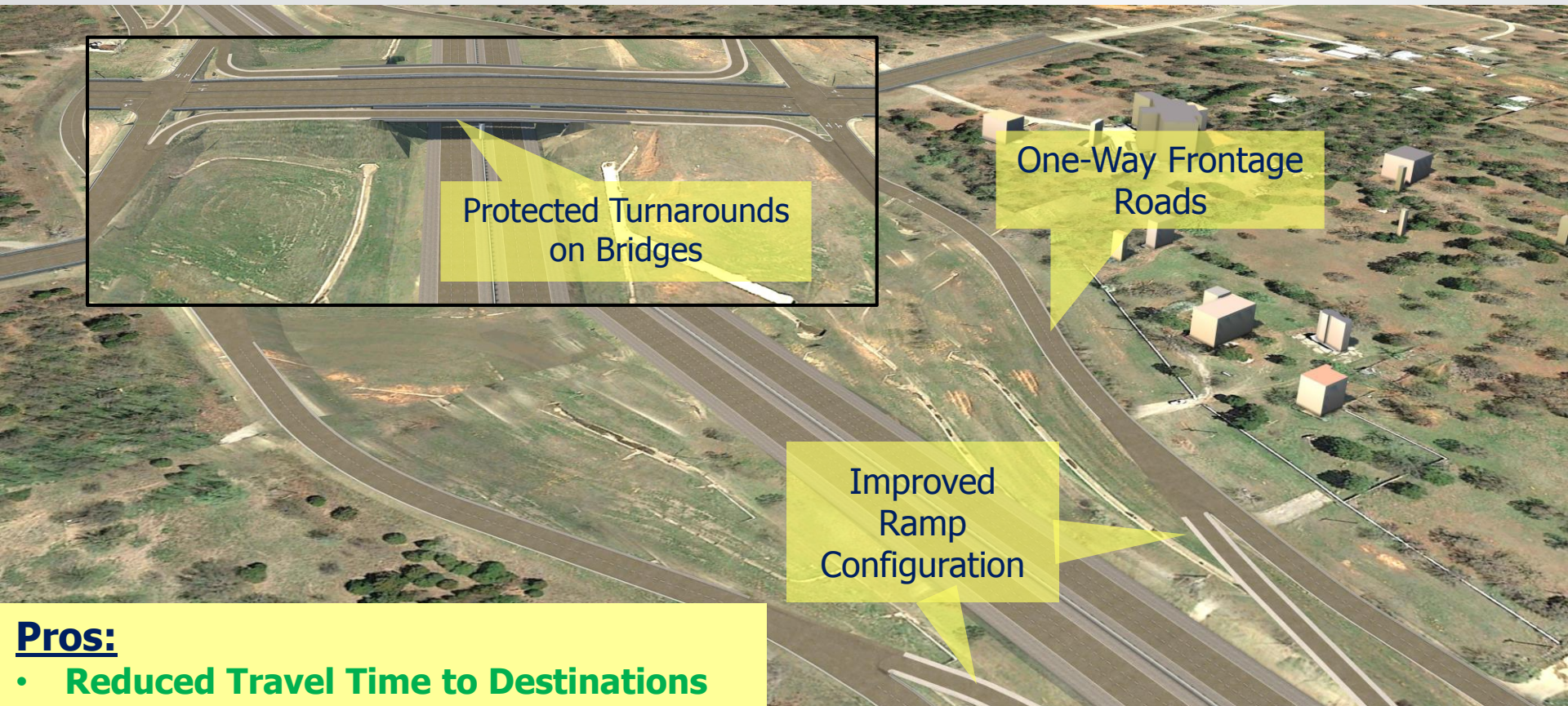
- Reduced Travel Time to Destinations
- Reduces "Stop" Time at Intersections
- Reduces Dangerous Turn Movements
- No Ramp Backup onto I-35
- Handles Greater Traffic Volumes
- Traffic Accident Management

Cons:

- Highest Construction Cost of the 3 Concepts
- Longer Travel Distances to Some Destinations
- New Travel Routes
- Blue Logo Sign Improvements

Frontage Road Concept No. 3

Conversion to 1-Way



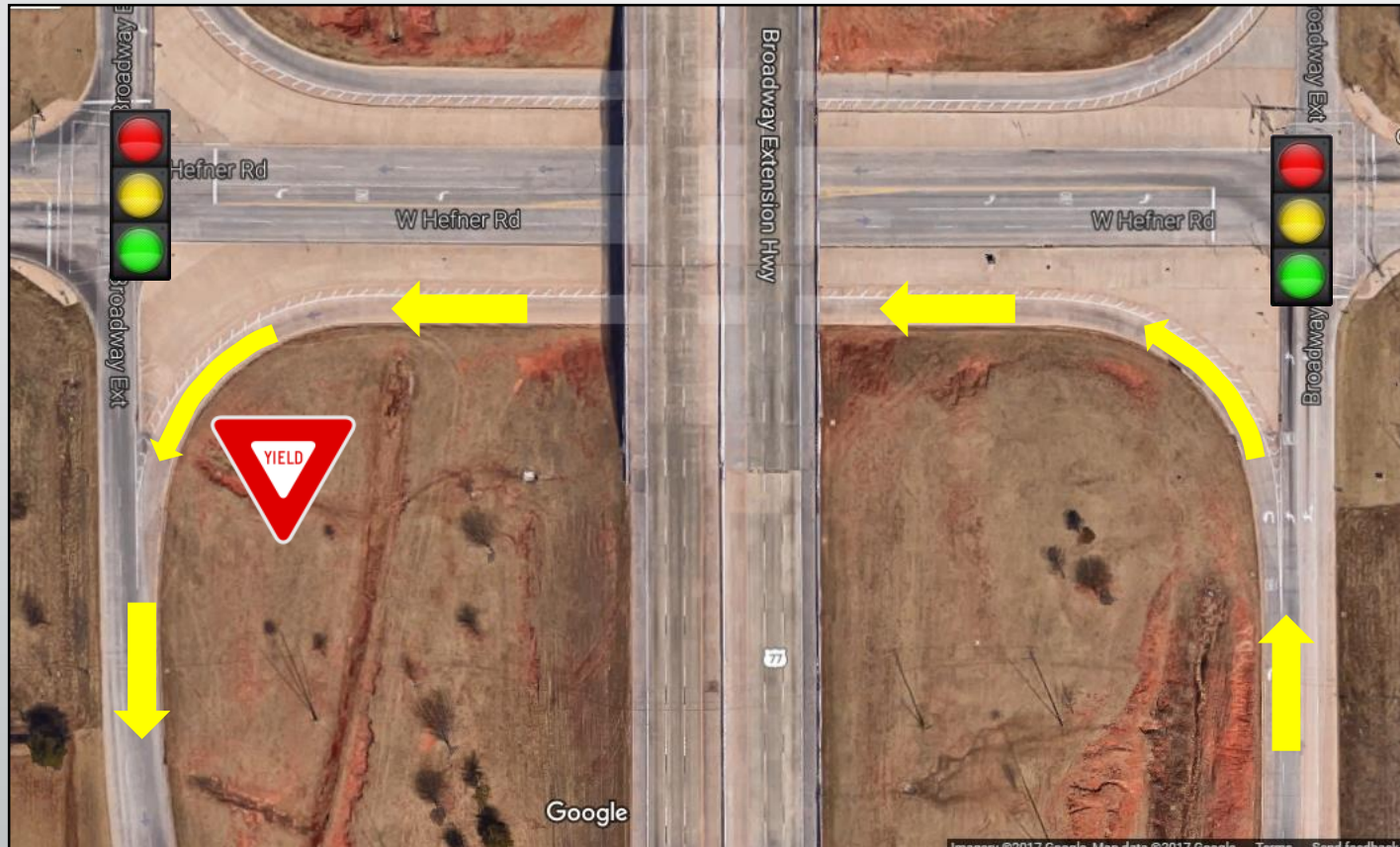
Pros:

- **Reduced Travel Time to Destinations**
- Reduces "Stop" Time at Intersections
- Reduces Dangerous Turn Movements
- No Ramp Backup onto I-35
- Handles Greater Traffic Volumes
- Traffic Accident Management

Cons:

- Highest Construction Cost of the 3 Concepts
- Longer Travel Distances to Some Destinations
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“Protected Turnarounds” Allow By-Pass of Both Intersection Signals



Frontage Road Concept No. 3
Conversion to 1-Way

Existing Travel Pattern NB I-35 to Fox Lake Lane

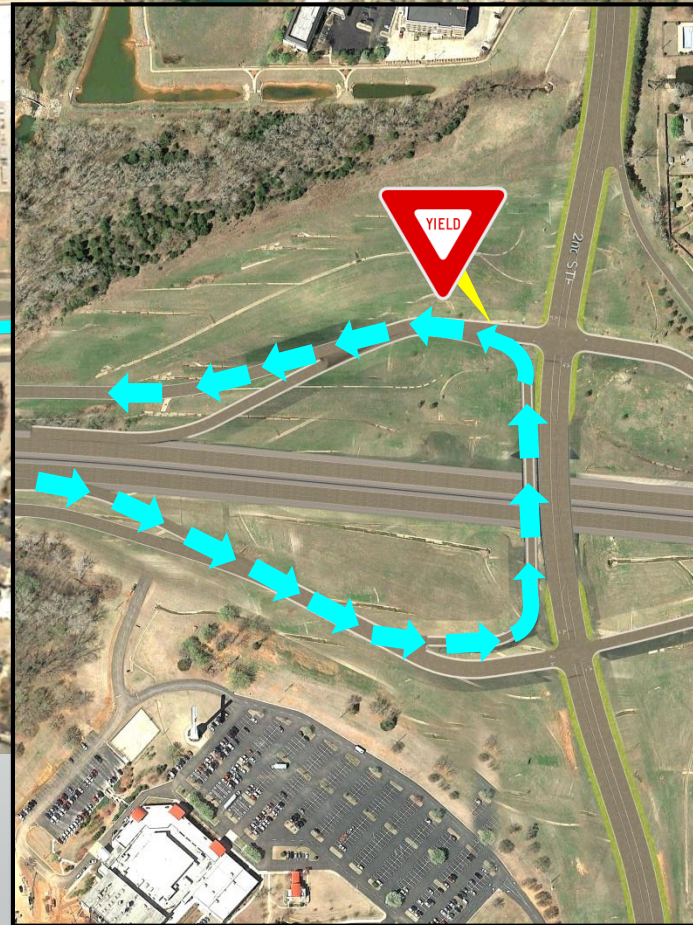


Drive Times:
2 Red Lights = 4:56
2 Green Lights = 3:54

Frontage Road Concept No. 3
Conversion to 1-Way

Concept 3 Travel Pattern with Turn-Arounds NB I-35 to Fox Lake Lane

Calculated Drive Time:
2:41



Frontage Road Concept No. 3
Conversion to 1-Way



EDMOND
OKLAHOMA

Frontage Road Concept No. 3

Conversion to 1-Way



Protected Turnarounds
on Bridges

One-Way Frontage
Roads

Improved
Ramp
Configuration

Pros:

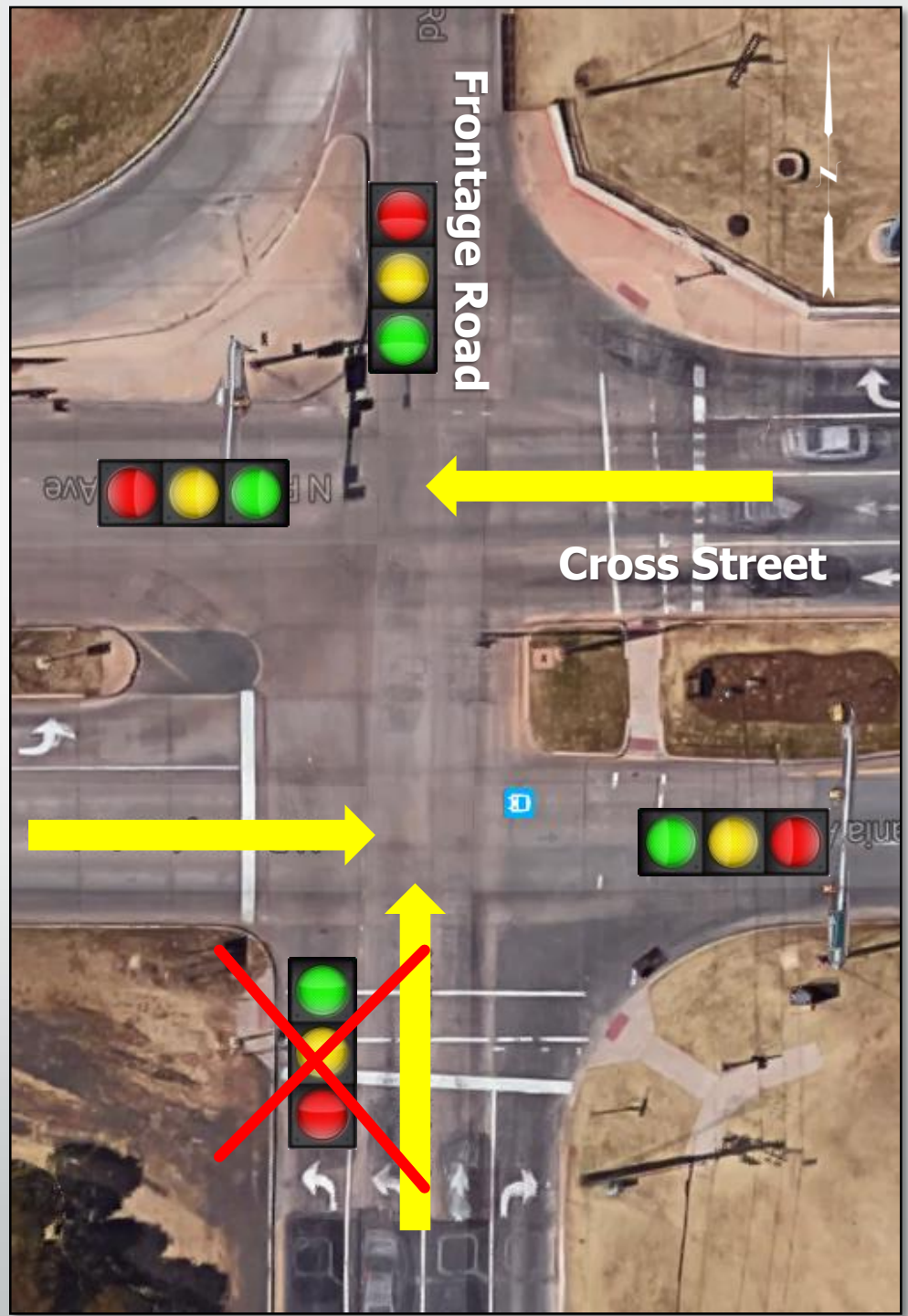
- Reduced Travel Time to Destinations
- **Reduces "Stop" Time at Intersections**
- Reduces Dangerous Turn Movements
- No Ramp Backup onto I-35
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Cons:

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- New Travel Routes
- Blue Logo Sign Improvements

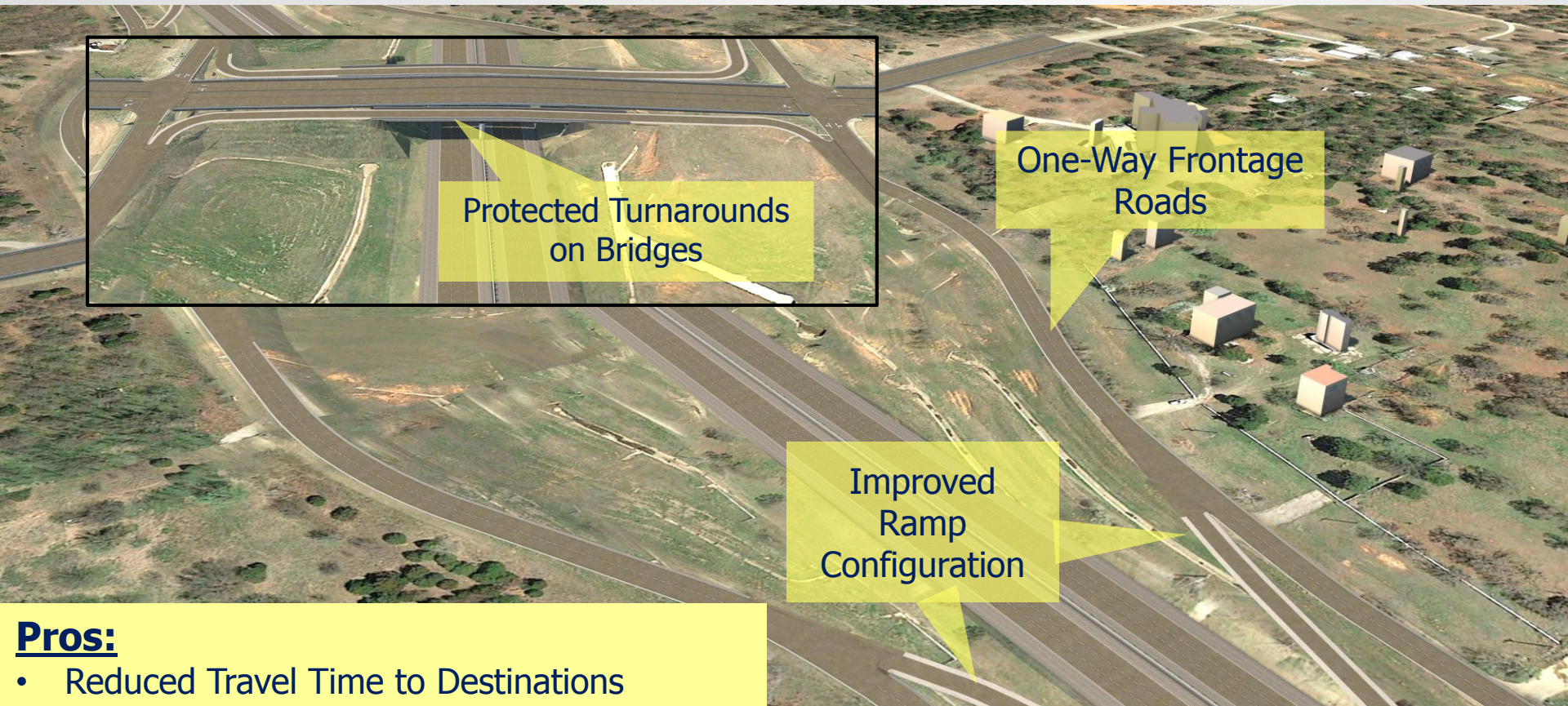
Elimination of Signal at Intersection Decreases "Stop" Time

Frontage Road Concept No. 3
Conversion to 1-Way



Frontage Road Concept No. 3

Conversion to 1-Way



Pros:

- Reduced Travel Time to Destinations
- Reduces "Stop" Time at Intersections
- **Reduces Dangerous Turn Movements**
- No Ramp Backup onto I-35
- Handles Greater Traffic Volumes
- Traffic Accident Management

Cons:

- Highest Construction Cost of the 3 Concepts
- Longer Travel Distances to Some Destinations
- New Travel Routes
- Blue Logo Sign Improvements

Frontage Road Concept No. 3

Conversion to 1-Way

Wrong Turn onto Off-Ramp

Head-On Cross Traffic at Entrance Ramp

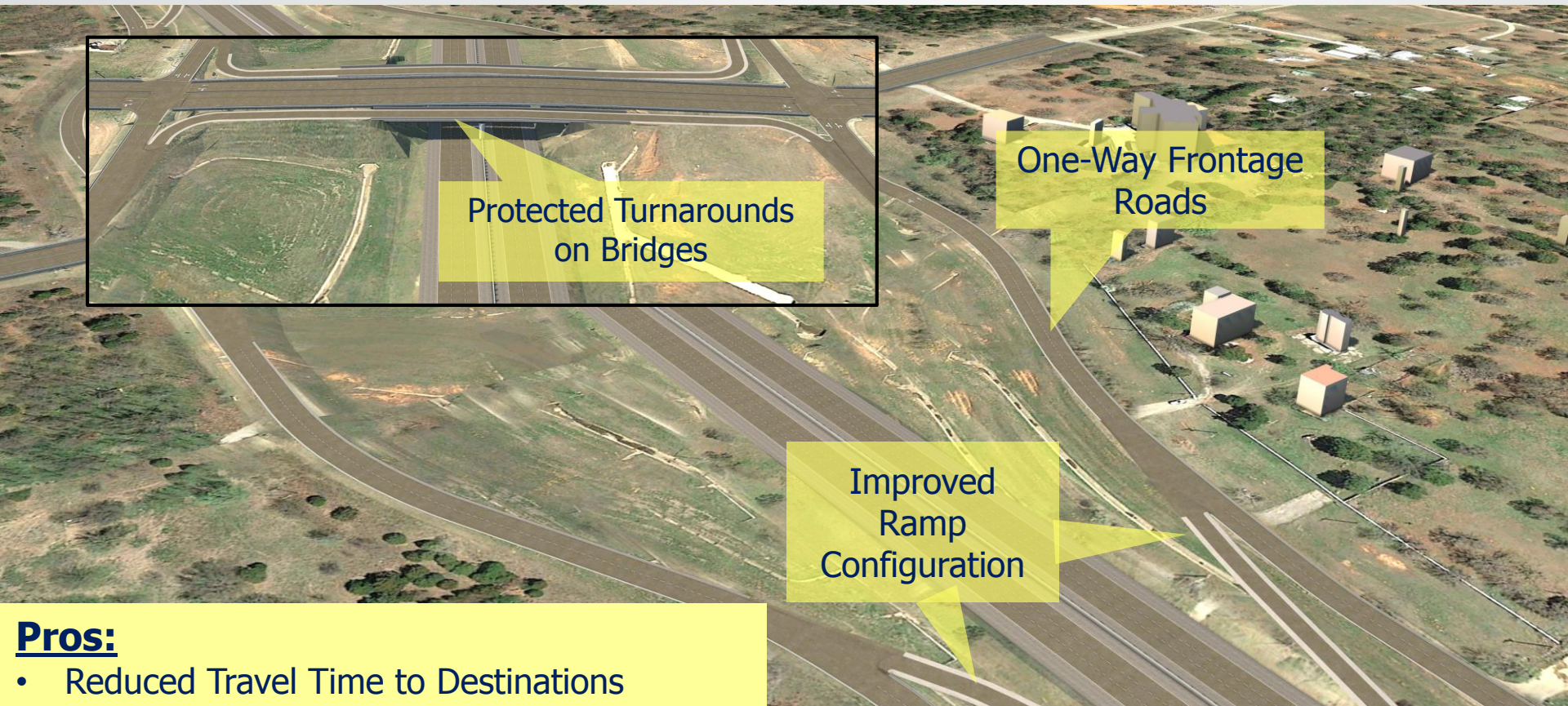


**WRONG
WAY**



Frontage Road Concept No. 3

Conversion to 1-Way



Protected Turnarounds
on Bridges

One-Way Frontage
Roads

Improved
Ramp
Configuration

Pros:

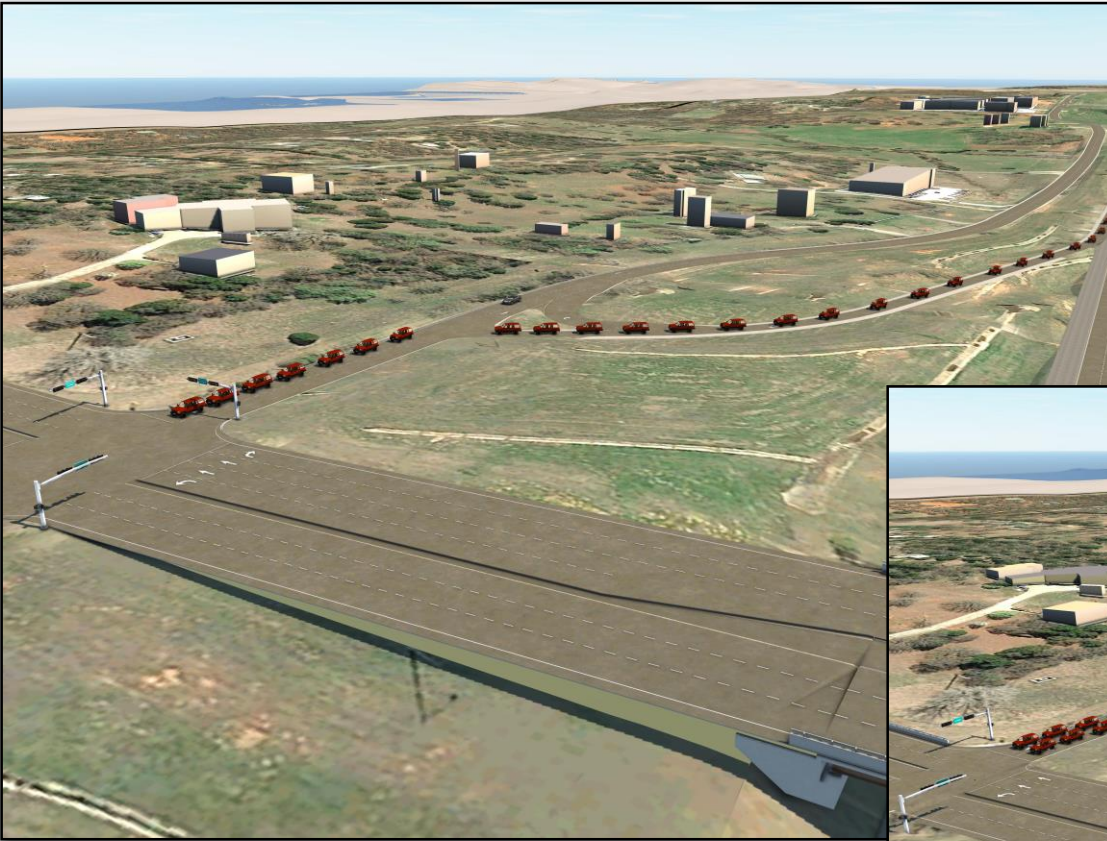
- Reduced Travel Time to Destinations
- Reduces "Stop" Time at Intersections
- Reduces Dangerous Turn Movements
- **No Ramp Backup onto I-35**
- Handles Greater Traffic Volumes
- Traffic Accident Management

Cons:

- Highest Construction Cost of the 3 Concepts
- Longer Travel Distances to Some Destinations
- New Travel Routes
- Blue Logo Sign Improvements

Frontage Road Concept No. 3

Conversion to 1-Way



**One-Way Frontage Road =
No I-35 Backup**

Existing Ramp Backup onto I-35



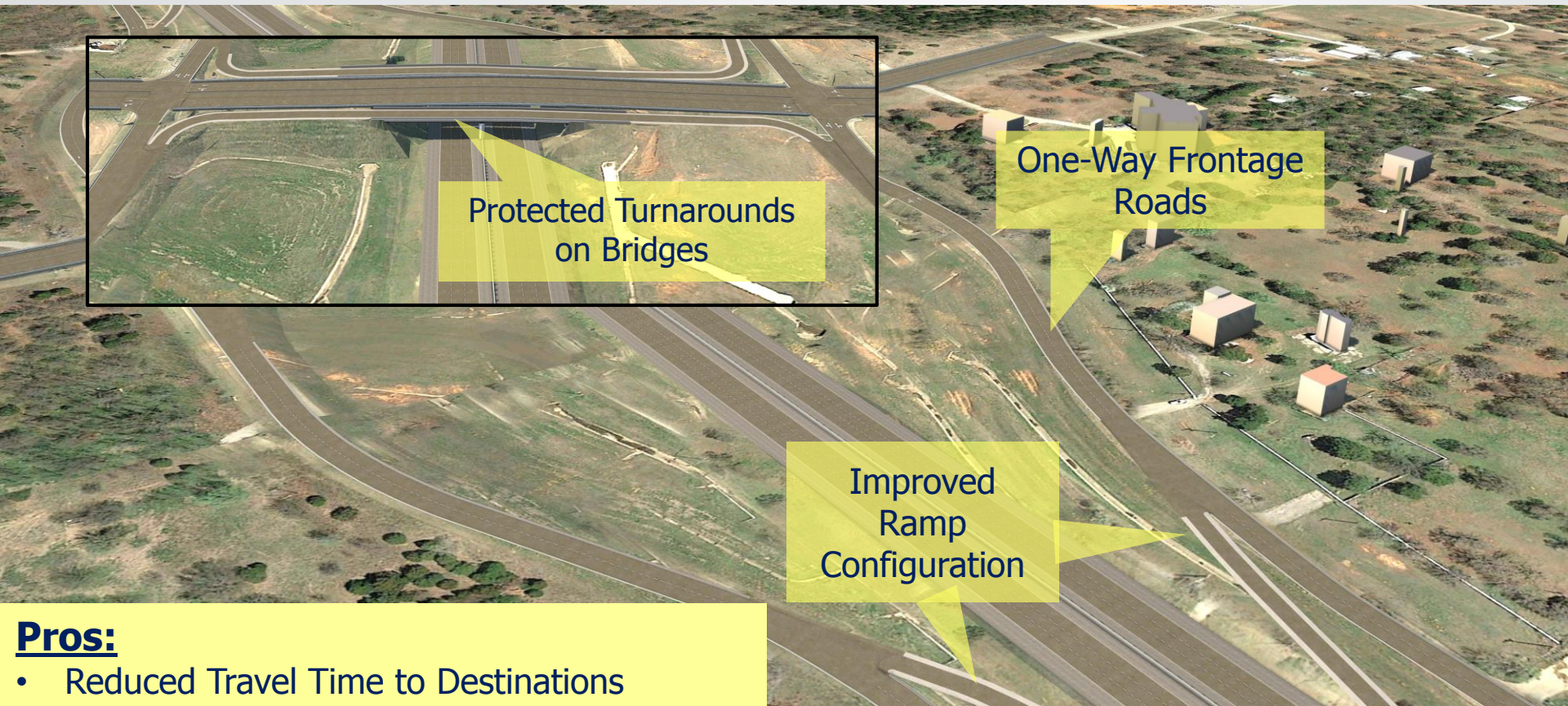
Frontage Road Concept No. 3 Conversion to 1-Way



Drone View of Existing Ramp Backup onto I-35 at E. 15th Street

Frontage Road Concept No. 3

Conversion to 1-Way



Pros:

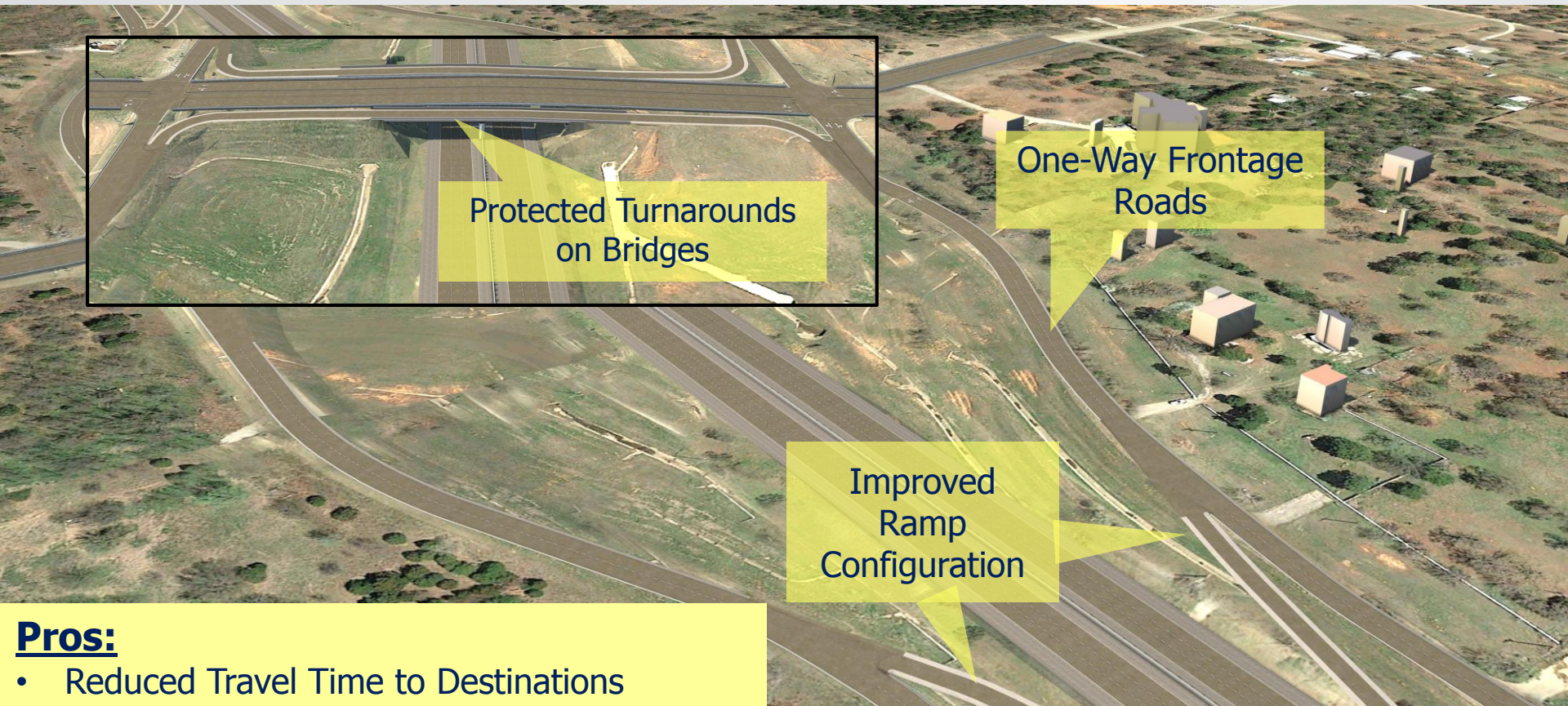
- Reduced Travel Time to Destinations
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- No Ramp Backup onto I-35
- **Handles Greater Traffic Volumes**
- Traffic Accident Management

Cons:

- Highest Construction Cost of the 3 Concepts
- Longer Travel Distances to Some Destinations
- New Travel Routes
- Blue Logo Sign Improvements

Frontage Road Concept No. 3

Conversion to 1-Way



Protected Turnarounds
on Bridges

One-Way Frontage
Roads

Improved
Ramp
Configuration

Pros:

- Reduced Travel Time to Destinations
- Reduces "Stop" Time at Intersections
- Reduces Dangerous Turn Movements
- No Ramp Backup onto I-35
- Handles Greater Traffic Volumes
- **Traffic Accident Management**

Cons:

- Highest Construction Cost of the 3 Concepts
- Longer Travel Distances to Some Destinations
- New Travel Routes
- Blue Logo Sign Improvements

Blue Logo Sign Improvements



Frontage Road Concept No. 3
Conversion to 1-Way

Frontage Road Concept No. 3

Conversion to 1-Way

Research by National Cooperative Highway Research Program (NCHRP)
"Safety and Economic Impacts of Converting Two-Way Frontage Roads to One-Way Operation" – Texas Transportation Institute, 2011

Pre- and Post-Conversion Study of Impact to 8 Texas Communities

- Summary of Prior Research
- Collision Frequency
- Economic Impacts (Gross Sales, Land Value, Employment)

Conclusions of Comparison

- Characteristics of One-Way Operation Generally Superior
- Observation of Crash Rate Reduction
- Economic
 - Three Cities Showed Increase in Gross Sales (2% to 30% Inc.)
 - No Negative Impacts to Land Values
 - Five Cities Experienced Increase in Employment (2% to 198% Inc.)



Timeline



Frontage Road Concepts Study Timeline

Frontage Road Engineering Report – Late 2017

General Questions & Comments

Do you have any general questions or comments about the information presented?

Submit Your Comments

- Leave your written comments with us tonight.
- Download and submit a comment form at:
www.odot.org/publicmeetings
- Submit your written comments by mail to:
Oklahoma Department of Transportation
Environmental Programs Division
200 NE 21st Street
Oklahoma City, OK 73105
- Fax your written comments to:
(405) 522-5193
- Email your comments to:
environment@odot.org

**Please submit your comments
by November 9, 2017**





2nd St.

15th St.

33rd St.

Memorial Rd.



Waterloo Rd.

Overall Study Location

Sorghum Mill Rd.

Bryant Ave.

Sooner Rd.

Coffee Creek Rd.

Air Depot Blvd.

Midwest Blvd.

Covell Rd.



Danforth Rd.

2nd St.

Frontage Road Study Area

15th St.

33rd St.

Memorial Rd.

Turner Turnpike

John Kilpatrick Turnpike



Oklahoma

