Loyola Interchange Improvements for the new MSY Airport Terminal

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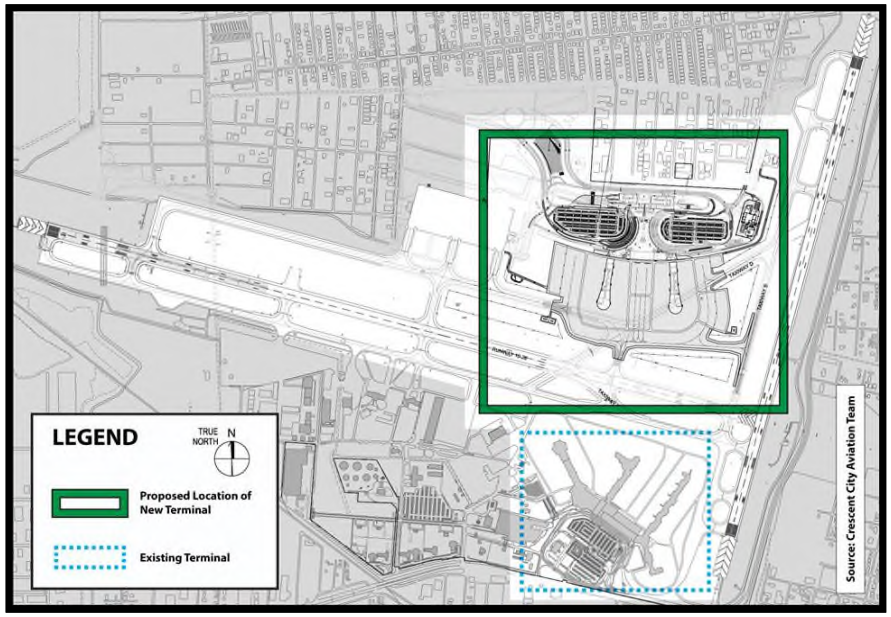
Urban Systems Inc.

Presentation Overview

- Expansion of the Louis Armstrong New Orleans International Airport (MSY)
- Information and history of the new and old terminals
- Focus on the improvements at the Loyola Interchange
- IMR and EA documents
- Loyola interchange Alternatives
- Update on the current construction



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South Terminal (Old)

- Louis Armstrong New Orleans International Airport (MSY).
- Built in 1959, over 60 years old.
- Approximately 80% of all passengers flying into the state of LA use this Airport.
- Approximately 17% passanger growth from 2016 to 2018 was projected.
- Very outdated and inefficient.

Louis Armstrong New Orleans International Airport

Source: Google Earth 2017

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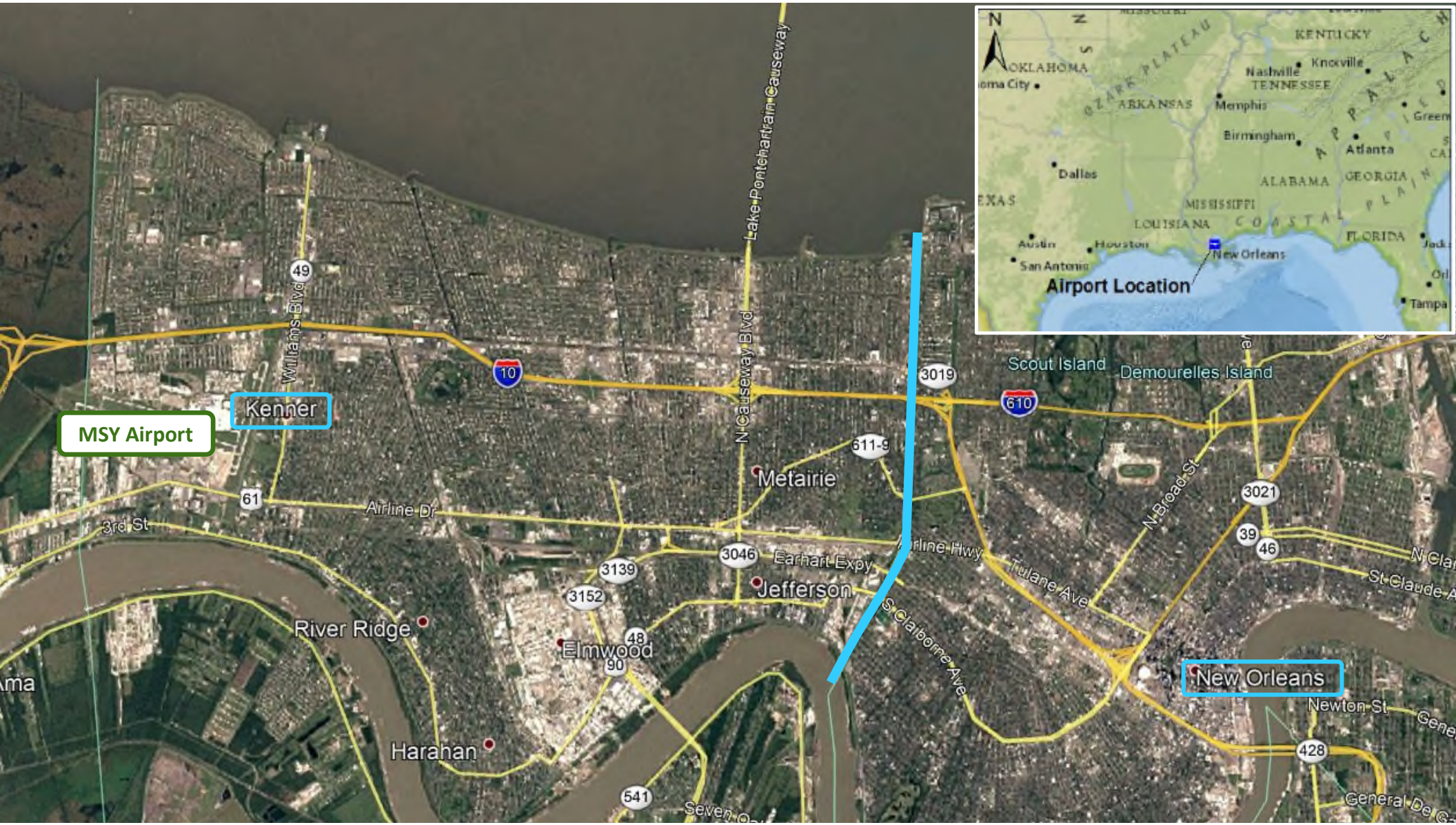
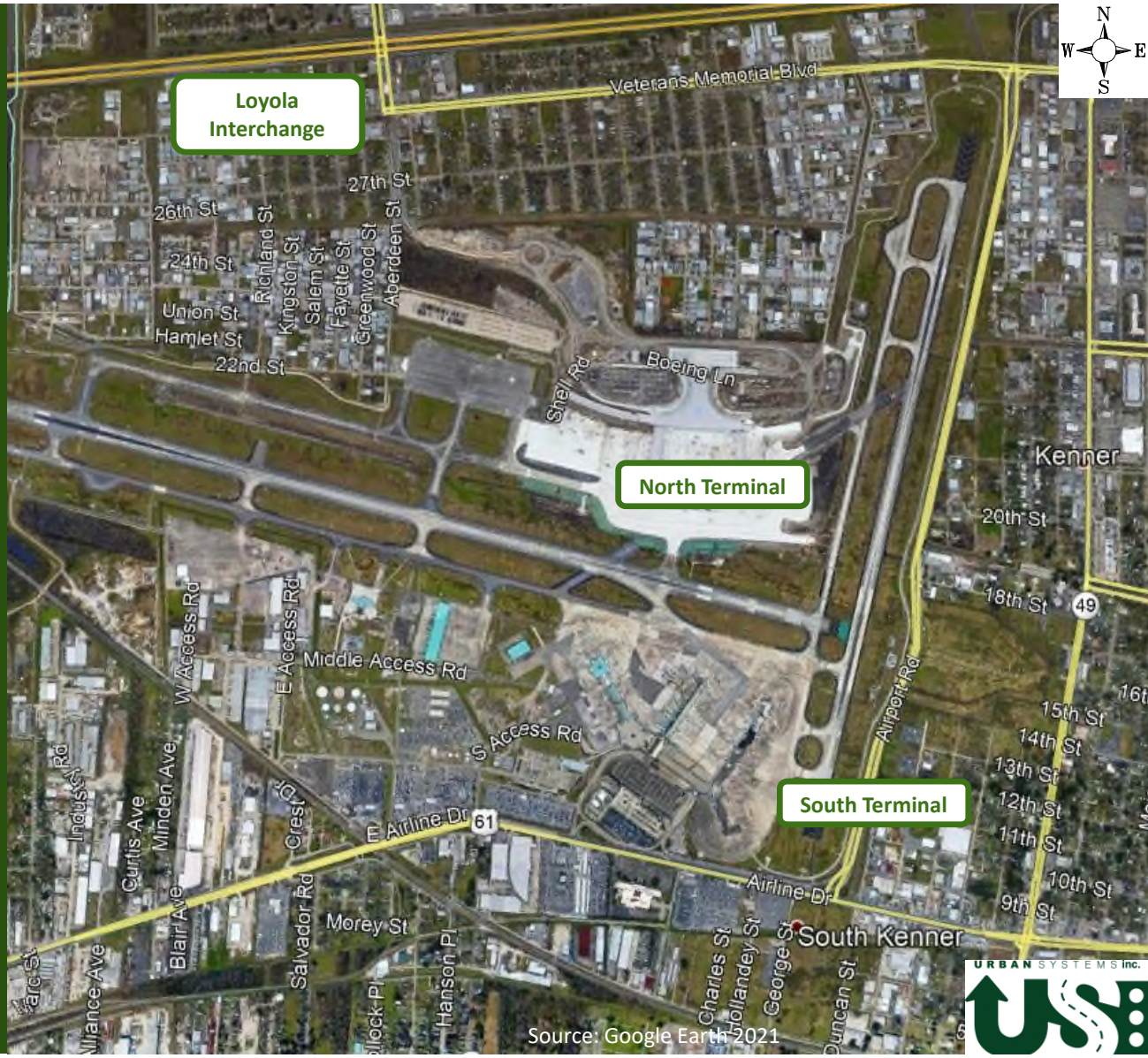

MSY Airport
Kenner
Metairie
Jefferson
River Ridge
Elmwood
Harahan
New Orleans
Scout Island
Demourelles Island
Lake Pontchartrain Causeway
N Causeway Blvd
Williams Blvd
Airline Dr
3rd St
Earhart Expy
Airline Hwy
Tulane Ave
St Claiborne Ave
N Broad St
Newton St
General De G
Seven O
10
610
49
61
611-9
3019
3046
3139
3152
48
90
541
3021
39
46
428
Airport Location
KENTUCKY
Nashville
TENNESSEE
Knoxville
Memphis
ARKANSAS
Birmingham
Atlanta
Dallas
ALABAMA
GEORGIA
MISSISSIPPI
LOUISIANA
FLORIDA
Austin
Houston
San Antonio
New Orleans
Tampa
OKLAHOMA
Ozark Plateau
Coastal Plain

North Terminal (New)

- Construction began in January 2016 and opened in November 2019
- 972,000 sqft
- 3 concourses
- 8,000 parking spaces
- Approximately $1 billion dollar cost
- Utilizes existing runways
- More efficient

Louis Armstrong New Orleans International Airport



Loyola Dr Interchange

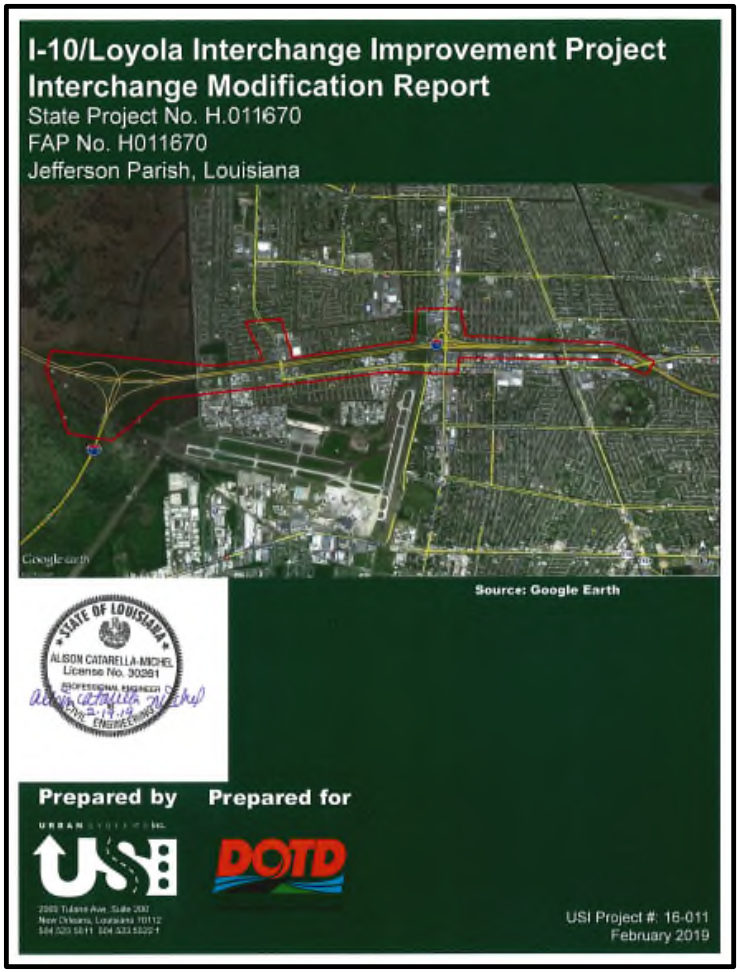
- Traditional Diamond Interchange
- Loyola Interchange and Veterans Blvd intersection are signalized
- Veterans Blvd: ~20,000 ADT
- Loyola Dr (South of I-10):~20,000 ADT
- Loyola Dr (North of I-10): ~40,000 ADT
- I-10: ~100K-140K ADT

Purpose and Need

- Improve operational conditions at the I-10/Loyola Interchange
- Increase the capacity of this interchange
  - *To accommodate future traffic demand in the area*
  - *To serve as the primary ingress and egress for airline passenger traffic to the new MSY Airport terminal*

IMR Document

- Interchange Modification Report (IMR) for the Loyola Interchange.
- Followed FHWA and LADOTD Guidelines.
- Included the ITE Tier I-III analysis, data collection, safety analysis, capacity analysis and VISSIM modeling.
- Notice to Proceed March 2016
- Data collection in 2016.
- Completed in February 2019.



Data Collection

- Data collected in early 2016. Included Peak Hour Turning Movement Counts at 35 locations.
- Estimated “Base” Airport Traffic for the AM and PM Peaks and for Entering and Exiting the Airport.
- Peak of approx. **1,300** vehs/ hr entering and **1,800** vehs/ hr exiting the Airport in 2016.
- Travel time runs.
- Broken down by 14 Origins/ Destinations.
- Origin/ destination was estimated using TMC data as well as upstream/ downstream video.

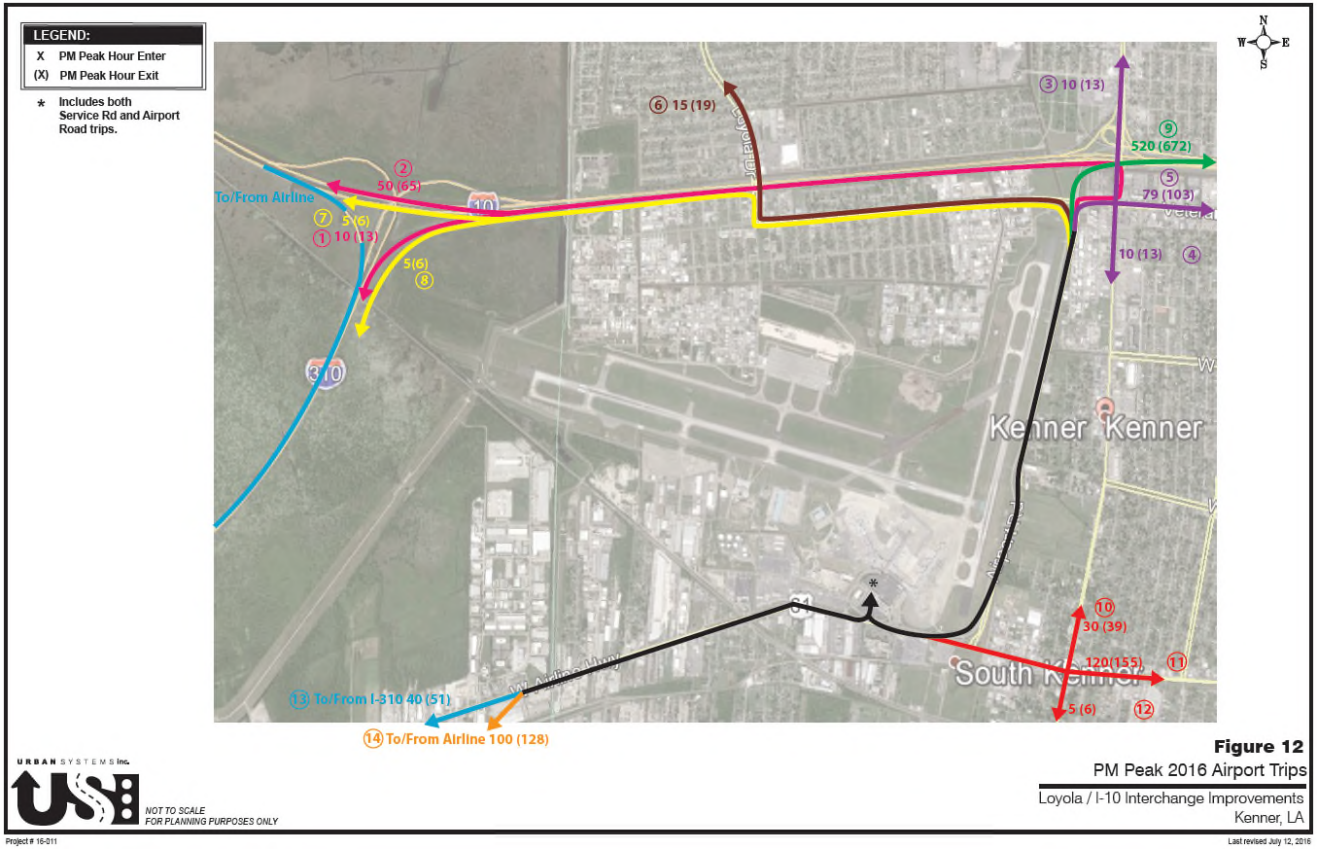


Figure 12
PM Peak 2016 Airport Trips
Loyola / I-10 Interchange Improvements
Kenner, LA

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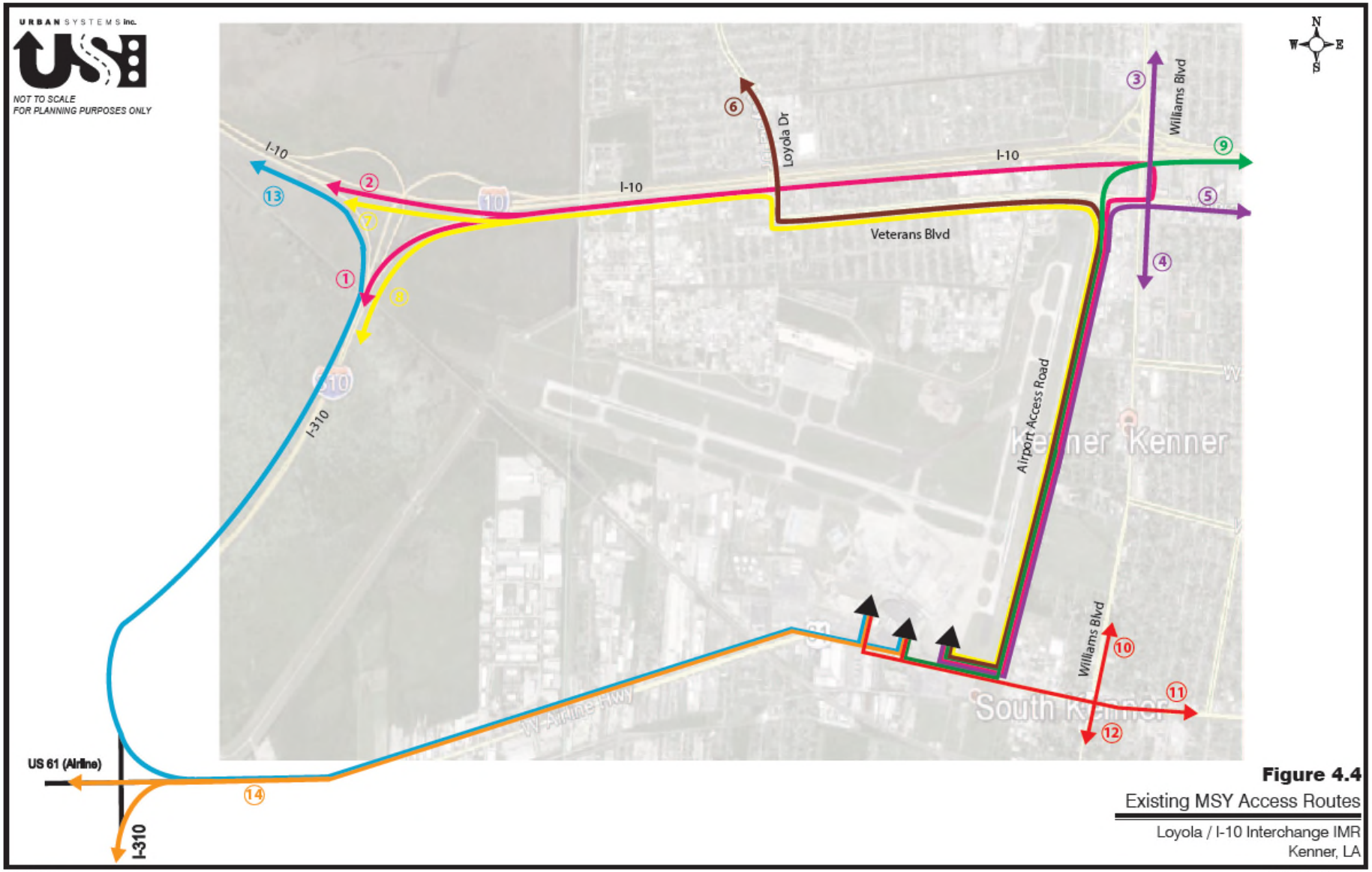

Figure 4.4

Existing MSY Access Routes

Loyola / I-10 Interchange IMR
Kenner, LA

Project # 16-011

Last revised September 7, 2016

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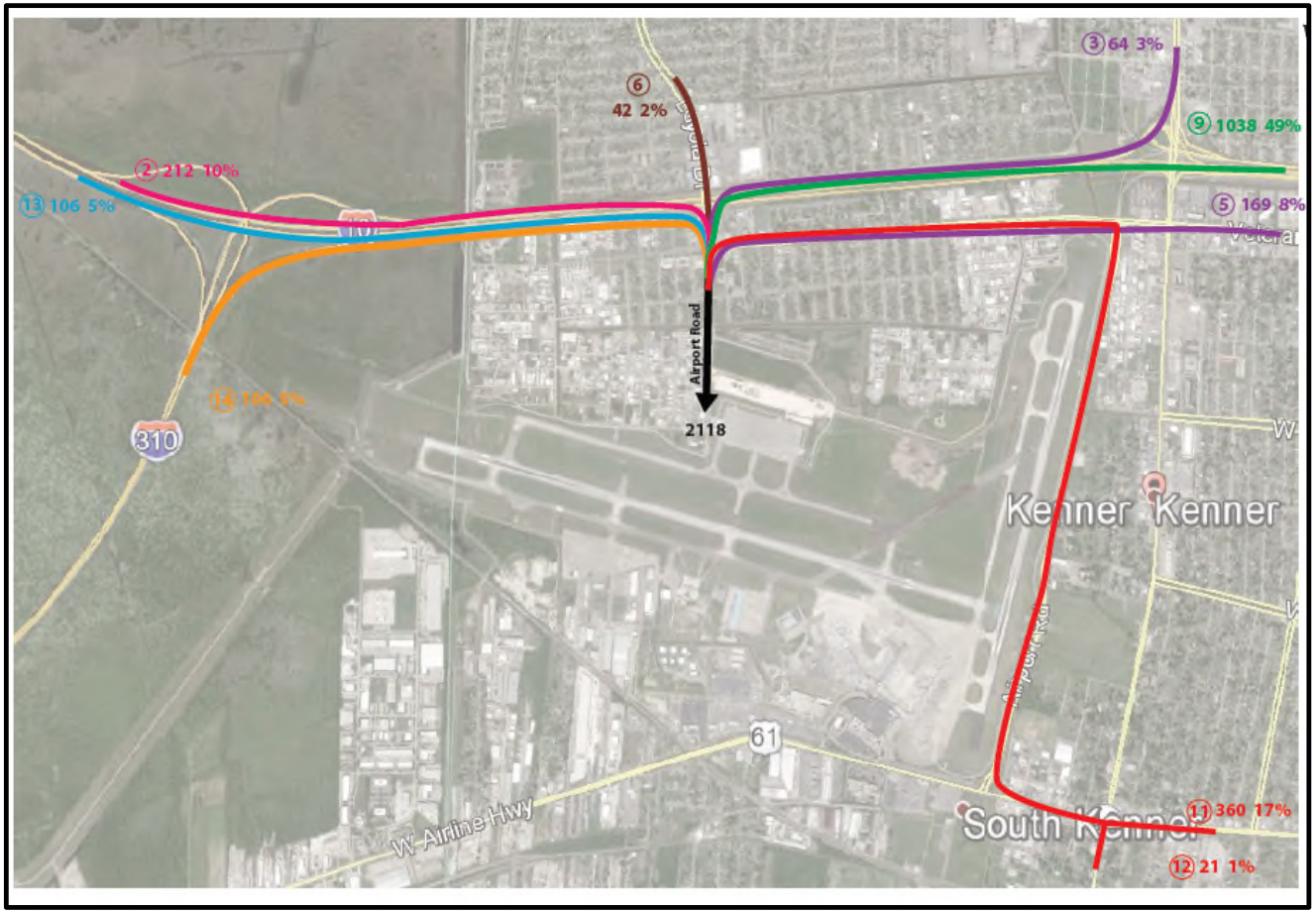
Re-routed Airport Traffic

- Data was grown to a design year of 2040.
- Different growth rates for Airport traffic, Interstate traffic and surface streets.
- Airport traffic volumes were re-routed based on the 14 Origins/ Destinations.
- Peak of approx. **2,118** vehs entering and **2,935** vehs exiting in 2040.
- Significant increase to the Loyola Interchange.



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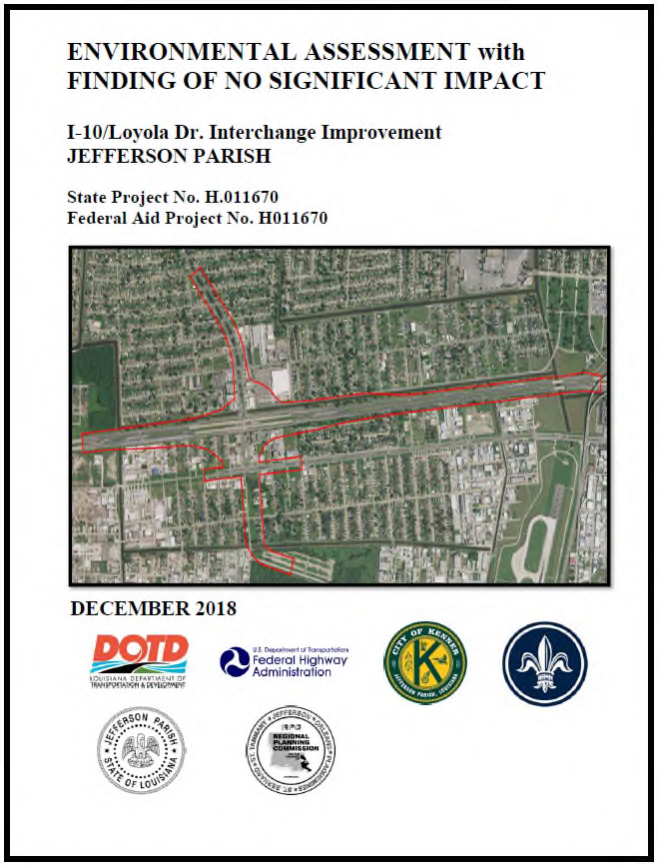
Environmental Assessment Document

- Environmental Assessment (EA) for the Loyola Interchange.
- Followed FHWA and NEPA Guidelines.
- Included the ITE Tier I-III analysis with a focus on environmental impacts.
- Determine Environmental Impacts.
- Goal to obtain a Finding of No Significant Impact (FONSI).
- Public outreach.
- 8 sub-consultants.
- Notice to Proceed in November 2017.
- Received the FONSI in December of 2018.
- Approved EA document in **400 days**.


ENVIRONMENTAL ASSESSMENT with
FINDING OF NO SIGNIFICANT IMPACT

I-10/Loyola Dr. Interchange Improvement
JEFFERSON PARISH

State Project No. H.011670
Federal Aid Project No. H011670

DECEMBER 2018

DOTD
Federal Highway Administration

How were the Alternatives Developed?

IMR and EA

Tier I

↓

Tier II

↓

Tier III

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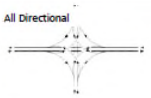
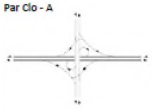
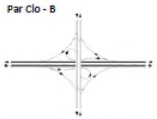
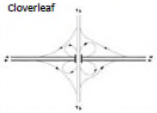
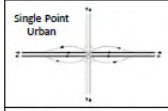
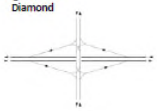
Tier I (IMR)

- **18 alternatives were analyzed and screened for:**
  - Traffic Operations
  - Right of Way requirements
  - Environmental/Social Impacts
  - Construction and Right of Way costs
- **Three (3) alternatives were selected for further evaluation in Tier II and moved to Tier III**

I-10/Loyola Interchange Improvements
S.P. # H.011670

Final Tier 1 Matrix

INTERCHANGE FORM	Description	TRAFFIC OPERATIONS	RIGHT-OF-WAY	ENVIRONMENTAL/ SOCIAL IMPACTS	COSTS	REMARKS	CONSIDERATION TIER 2
All Directional 	**New** Directional ramps for all eight movements	Very High Capacity	Significant	Moderate	Very High	Applicable for Freeway to Freeway Only	N
Par Clo - A 	**New** SB to EB Clover EB to NB and SB At Grade Ramp NB to WB Clover WB to NB and SB At Grade Ramp **Existing** SB to WB At grade Ramp NB to EB At grade Ramp	Low Capacity	Significant	High	Low	Heavy volume conflict between SB and WBL (am and pm) and EBL (pm) and between NB and both EBL/WBL (pm)	N
Par Clo - B 	**New** NB and SB to WB At Grade Ramp NB and SB to EB At Grade Ramp EB to NB Clover WB to SB Clover **Existing** EB to NB At grade Ramp WB to NB At grade Ramp	Moderate Capacity	Significant	Moderate	Low	Heavy volume conflict between SBL and NB and NBL with SBT (pm)	N
Cloverleaf 	**New** SB to EB Clover SB to WB At Grade Ramp EB to NB Clover EB to SB At Grade Ramp NB to EB At Grade Ramp NB to WB Clover WB to NB At Grade Ramp WB to SB Clover	Moderate Capacity	Significant	High	Moderate	Weaving sections are undesirable for heavy conflict, WB to SB with SB to EB (both peaks), and NB to WB with EB to NB (pm)	N
Single Point Urban 	**New** Single Point Urban Intersection for all eight movements **Existing** Diamond Ramps in all 4 quadrants	Moderate Capacity	Minimal	Low	Moderate	Volumes well suited for SPUI in the PM. Requires replacement of I-10 bridges.	N
Tight Urban Diamond 	**New** TSM improvements TBD Services all eight movements **Existing** Diamond Ramps in all 4 quadrants	Low Capacity	Minimal	Low	Low	Inadequate storage between ramps. Heavy volume conflicts with all left turning movements	No-Build Scenario/ TSM

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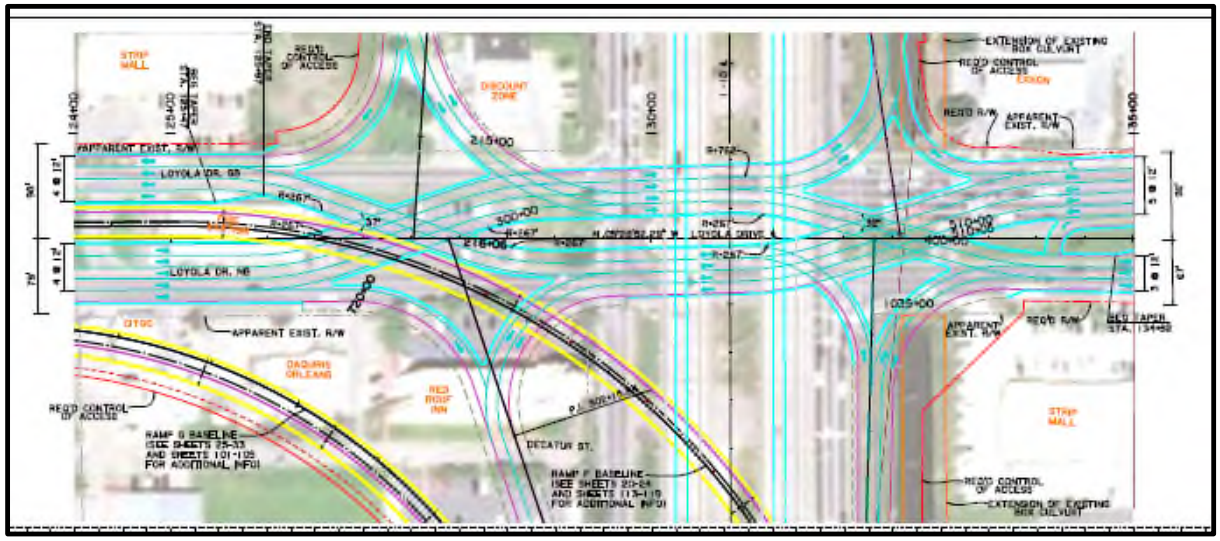
Tier II (IMR and EA)

- **Three (3) alternatives were analyzed and evaluated for the following:**
  - Future highway network
  - Public transportation plan, pedestrian and bicycle requirements
  - ITS strategies and HOV facilities
  - Design year traffic volumes
  - Future traffic and lane requirements for the study area
  - Design criteria and critical geometry
- **This evaluation included a VISSIM model for the Alternatives.**



Source: T. Baker Smith and Stanley Consultants

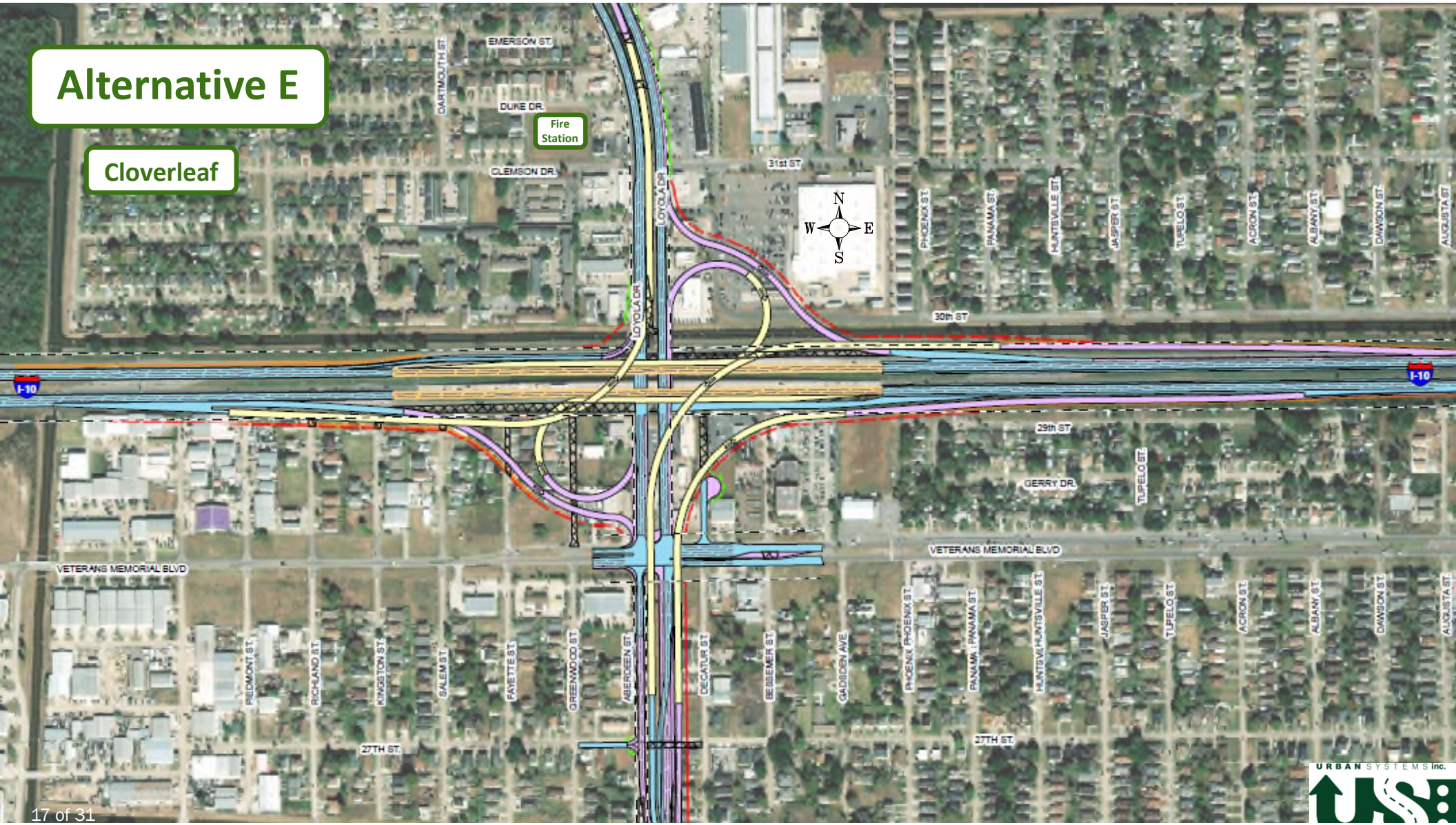
Tier III (EA)

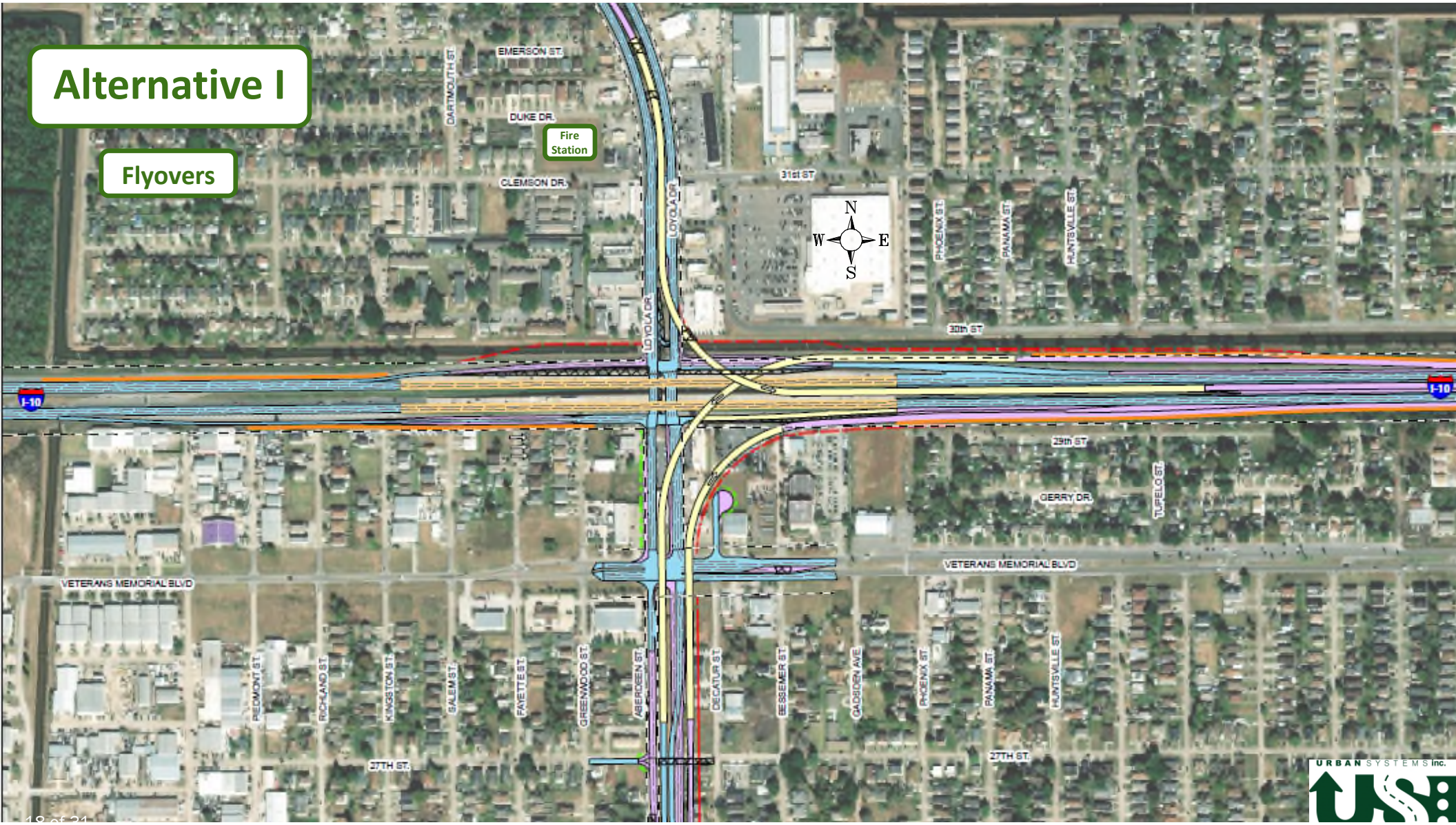
- Detailed environmental impacts
- The three alternatives further evaluated in Tier II and III were Alternatives E, I, and L.

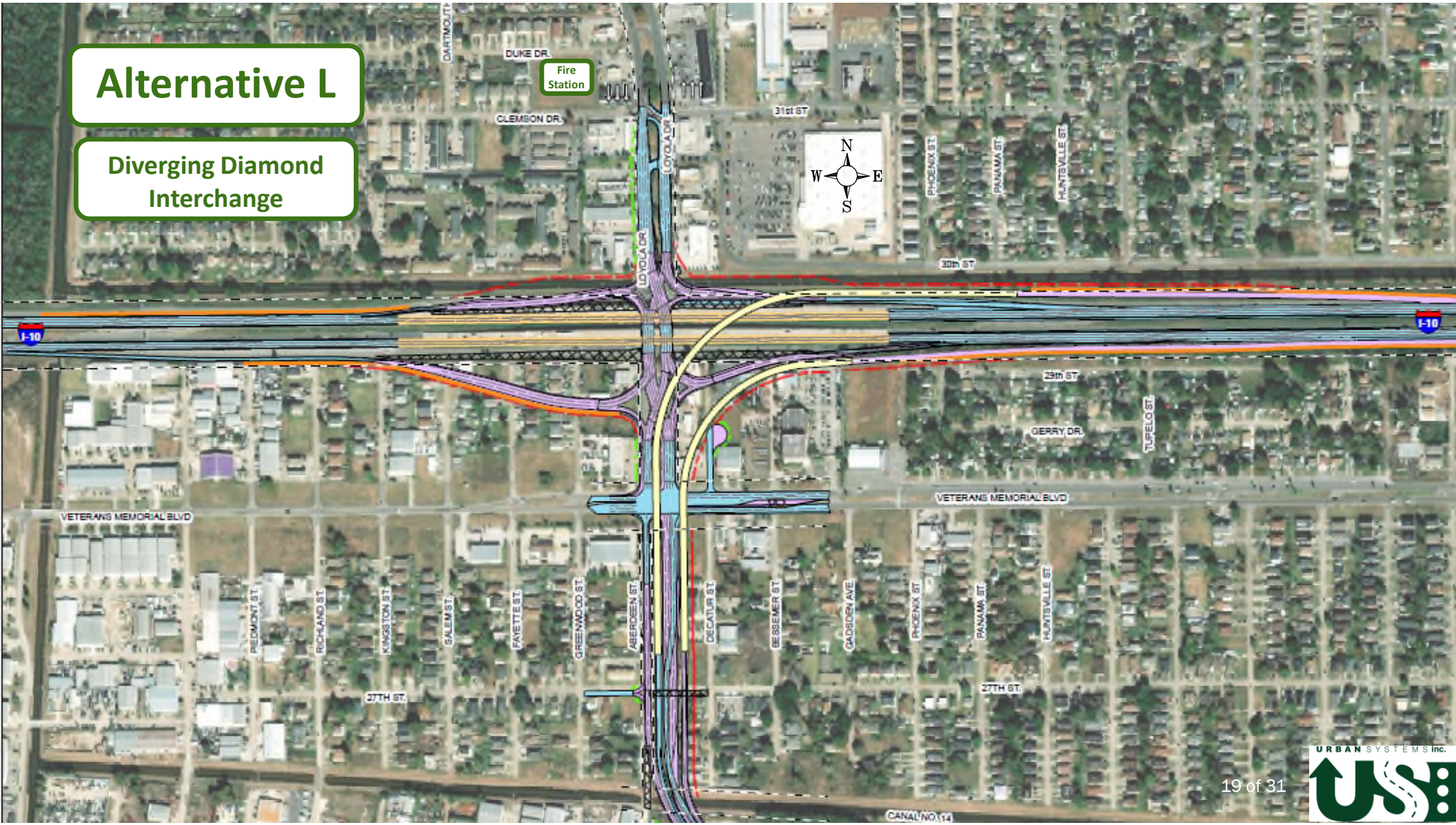
  - Alternative E – 2 Cloverleaf and 3 Flyover Ramps
  - Alternative I – 3 Flyover Ramps
  - Alternative L – Diverging Diamond Interchange and 2 Flyovers Ramps

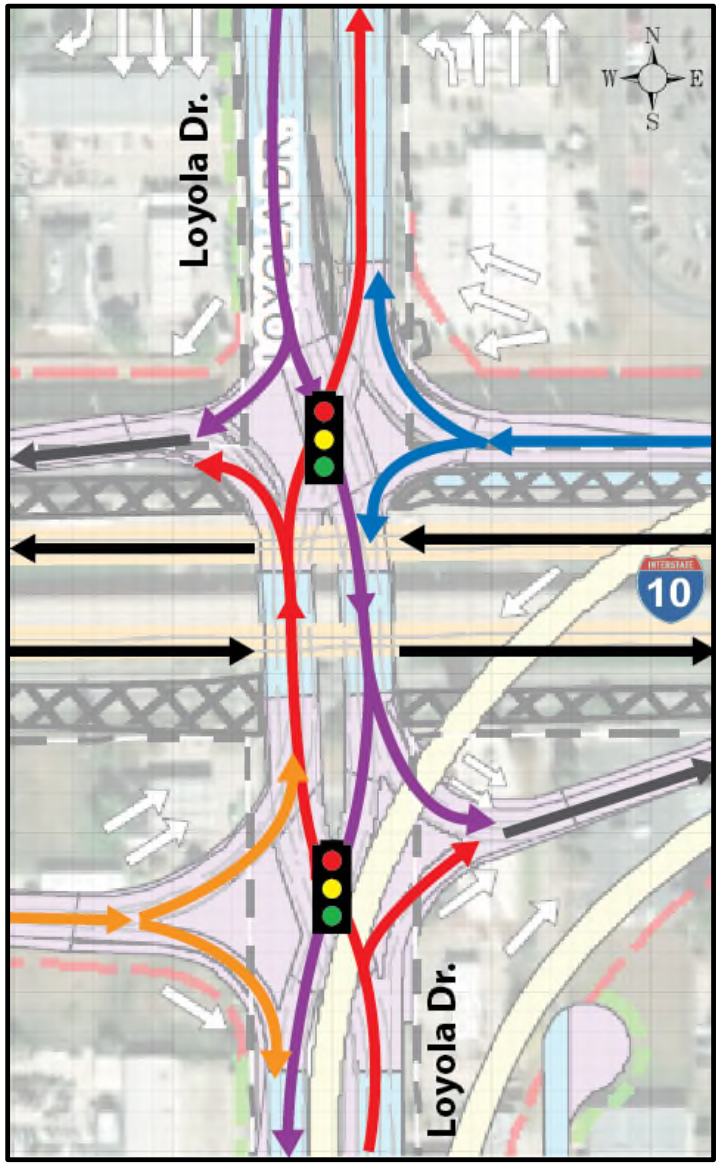
Alternative E

Cloverleaf




Alternative I
Flyovers
EMERSON ST.
DARTMOUTH ST.
DUKE DR.
Fire Station
CLEMSON DR.
LOYOLA DR.
31st ST
PHOENIX ST.
PANAMA ST.
HUNTSVILLE ST.
30th ST
I-10
29th ST
GERRY DR.
TUPELO ST.
VETERANS MEMORIAL BLVD
REDMONT ST.
RICHLAND ST.
KINGSTON ST.
SALEM ST.
FAYETTE ST.
GREENWOOD ST.
ABERDEEN ST.
DECATUR ST.
BESSEMER ST.
GADSDEN AVE.
27TH ST.
N
W
E
S


Alternative L
Diverging Diamond Interchange
Fire Station
DUKE DR.
CLEMSON DR.
DARTMOUTH
LOYOLA DR.
31st ST
30th ST
29th ST
27TH ST.
GERRY DR.
TUPELO ST.
PHOENIX ST.
PANAMA ST.
HUNTSVILLE ST.
VETERANS MEMORIAL BLVD
I-10
N
W
E
S
REDMONT ST.
RICHLAND ST.
KINGSTON ST.
SALEM ST.
FAYETTE ST.
GREENWOOD ST.
ABERDEEN ST.
DECATUR ST.
BESSEMER ST.
GADSDEN AVE
CANAL NO. 14



Diverging Diamond Interchange (DDI)

Source: US 21 at I-40 Interchange in Statesville, North Carolina

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Final Tier III Comparison Matrix

Resources/Criteria	Alternative E	Alternative I	Alternative L
Property Impacts - Land Only (Acres)			
Non-Commercial	15.5483 acres	3.6347 acres	5.4229 acres
Commercial	20.2717 acres	3.6003 acres	6.0541 acres
Susan Park Impact	0.200 acres	0.065 acres	0.240 acres
Struture Impacts (Number)			
Residential	158	13	55
Commercial	49	5	8
Noise Sensitive Receptors			
Total Number of Impacts	375	426	418
Traffic Analyses			
Operations	UA	A	UA
Signing	MC	LC	C
Safety	A	A	A
Design and Constructability			
Geometrics	MC	LC	C
Constructability	MC	C	LC
Feasible	No	Yes	Yes
Preliminary Total Cost Estimate	$292.3 Million	$147.0 Million	$139.4 Million

*Key to Letter Grading:	UA: unacceptable	A: acceptable	LC: least complex	C: complex	MC: most complex

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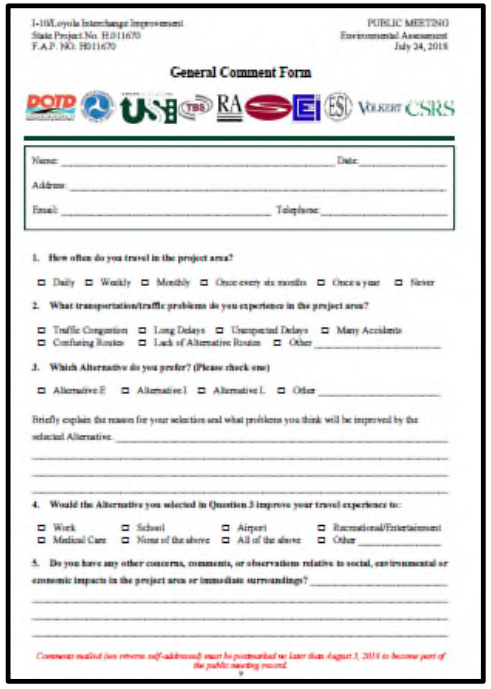
Public Outreach

- 2 Public Meetings and 1 Public Hearing.
- Multiple stakeholder meetings which included LADOTD, FHWA, Airport personnel, City of New Orleans, Jefferson Parish, MPO, City of Kenner, local emergency services.
- Per NEPA and FHWA requirements, all meeting were documented and made available to the public.
- Additional Public Meeting held by the Design-Builder in October of 2019. Hot wheels.
- Provided general comment forms.



I-10/Loyola Interchange Improvement
State Project No. H.011670
F.A.P. NO. H011670

PUBLIC MEETING
Environmental Assessment
July 24, 2018

General Comment Form

Name: _____ Date: _____

Address: _____

Email: _____ Telephone: _____

1. How often do you travel in the project area?

☐ Daily ☐ Weekly ☐ Monthly ☐ Once every six months ☐ Once a year ☐ Never

2. What transportation/traffic problems do you experience in the project area?

☐ Traffic Congestion ☐ Long Delays ☐ Unexpected Delays ☐ Many Accidents
☐ Confusing Routes ☐ Lack of Alternative Routes ☐ Other _____

3. Which Alternative do you prefer? (Please check one)

☐ Alternative E ☐ Alternative I ☐ Alternative L ☐ Other _____

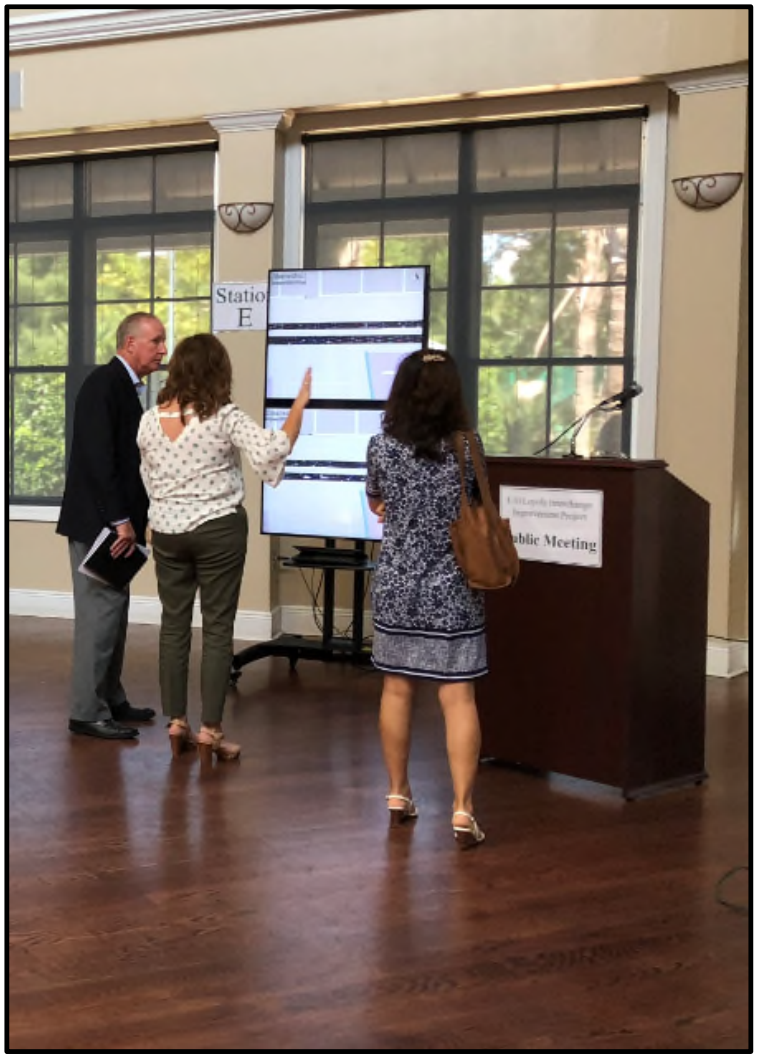
Briefly explain the reason for your selection and what problems you think will be improved by the selected Alternative. _____

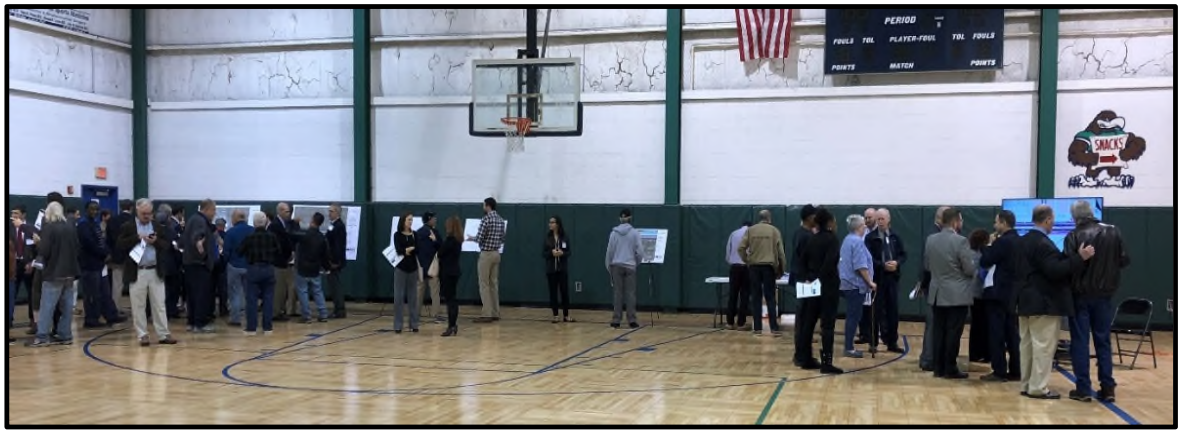
4. Would the Alternative you selected in Question 3 improve your travel experience to:

☐ Work ☐ School ☐ Airport ☐ Recreational/Entertainment
☐ Medical Care ☐ None of the above ☐ All of the above ☐ Other _____

5. Do you have any other concerns, comments, or observations relative to social, environmental or economic impacts in the project area or immediate surroundings? _____

Comments mailed (use reverse self-addressed) must be postmarked no later than August 3, 2018 to become part of the public meeting record.





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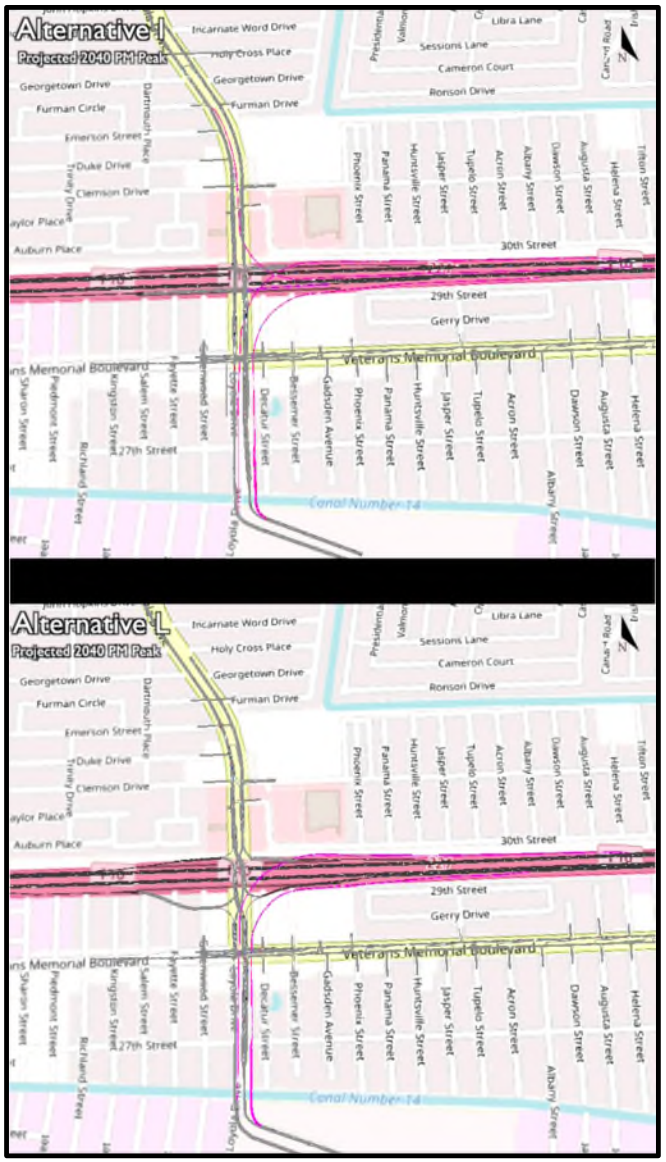
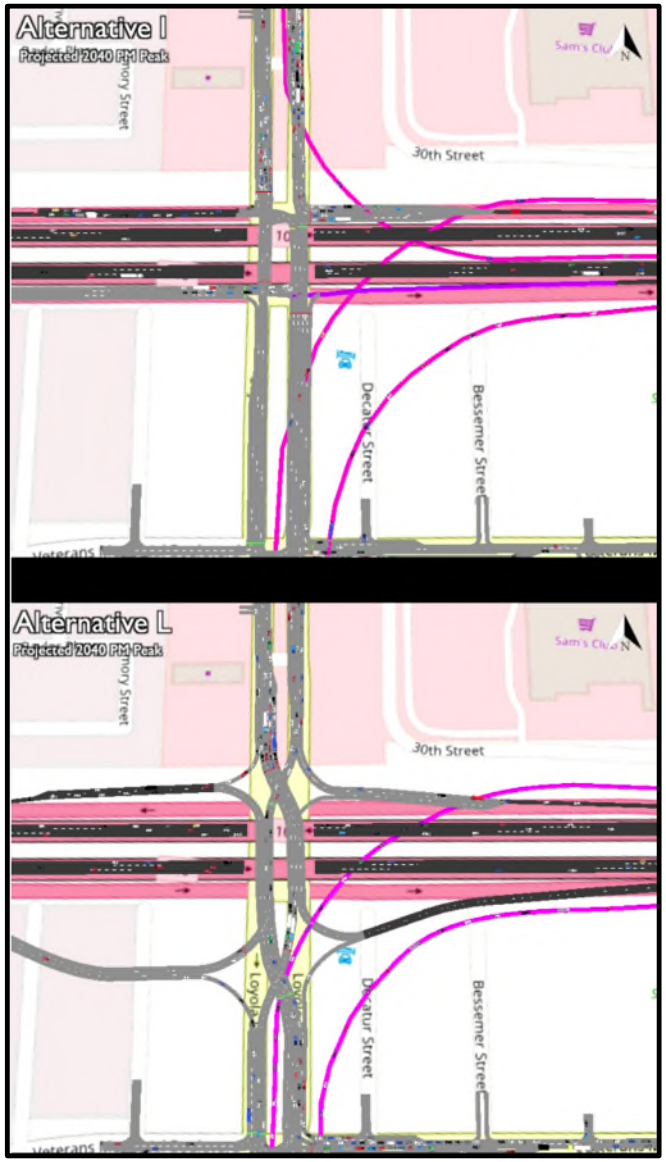
VISSIM Models





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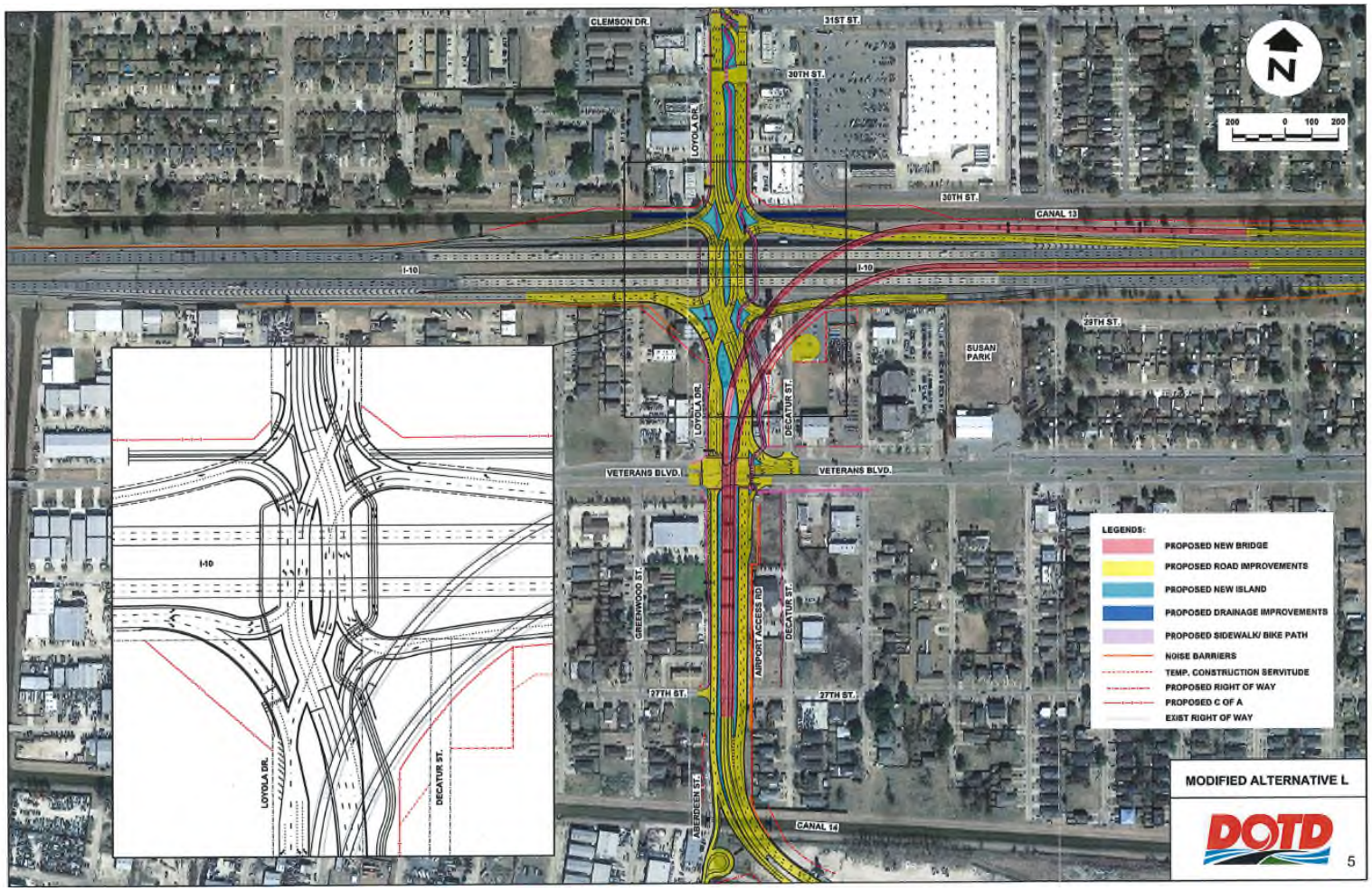
Design-Build - Modified Alternative L



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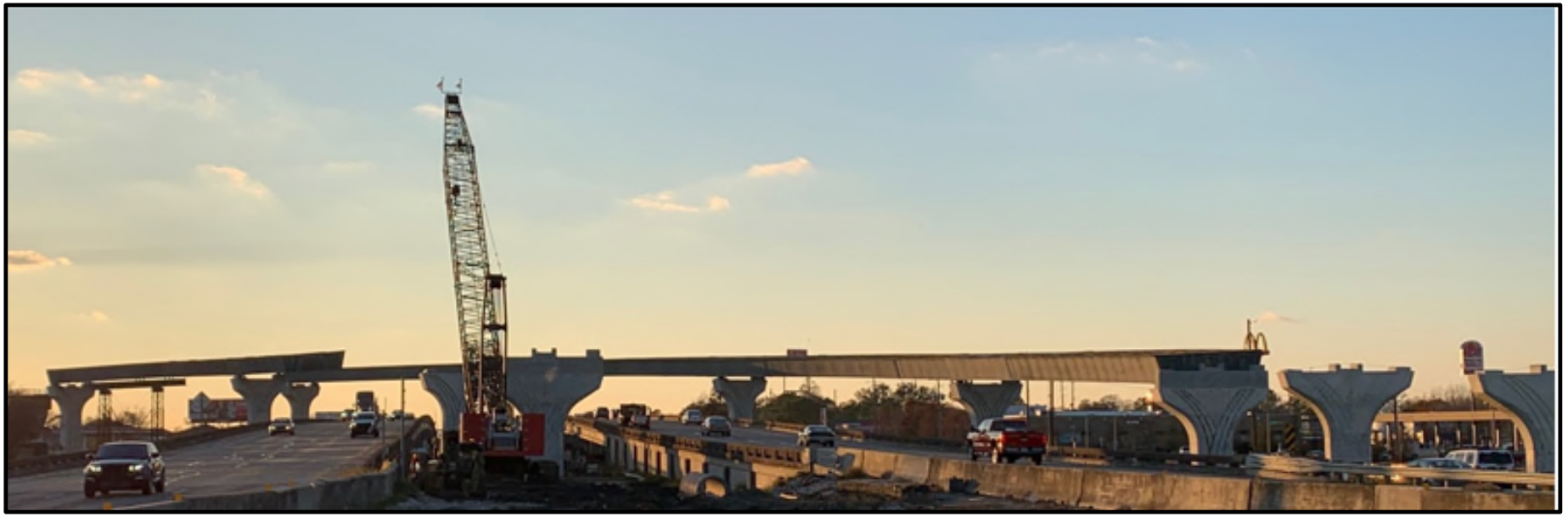
Current Construction

Source: NOLA.com

Current Construction

Source: NOLA.com

Current Construction

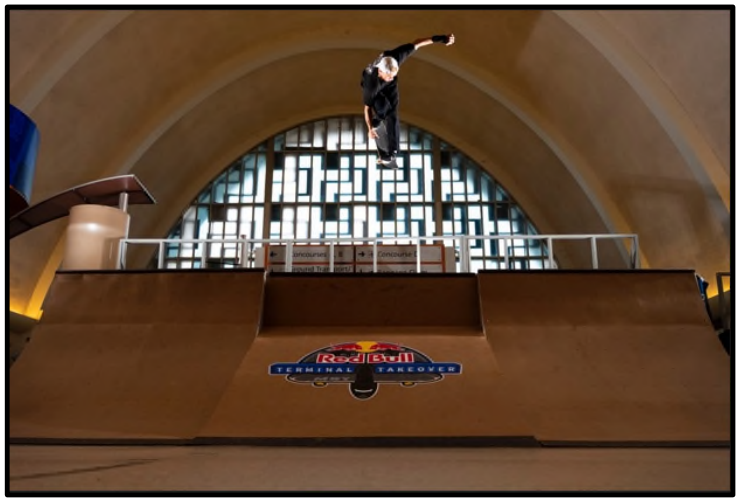


Source: LADOTD

Current Construction

Source: LADOTD

What's Going to Happen to the Old Terminal????



Source: https://www.redbullcontentpool.com/international/CP-V-31500

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Thank you!
Questions?

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