H.005158 I-49 South SEIS (RACELAND TO WESTBANK) TRAFFIC EXPECTATIONS

December 2, 2014
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LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Traffic Scope Overview

- Alignment
  - Use Previous EA as a guide for the proposed alignment. Can make adjustments if needed.
- Data Collection
  - 7-Day 24-Hour, 48-Hour, Peak hour TMCs, 15 min TMCs, and count estimates along the existing US 90, as well as crossing routes and routes that will be impacted due to rerouting of traffic (rerouting vehicles to proposed interchanges for access).

Traffic Scope Overview

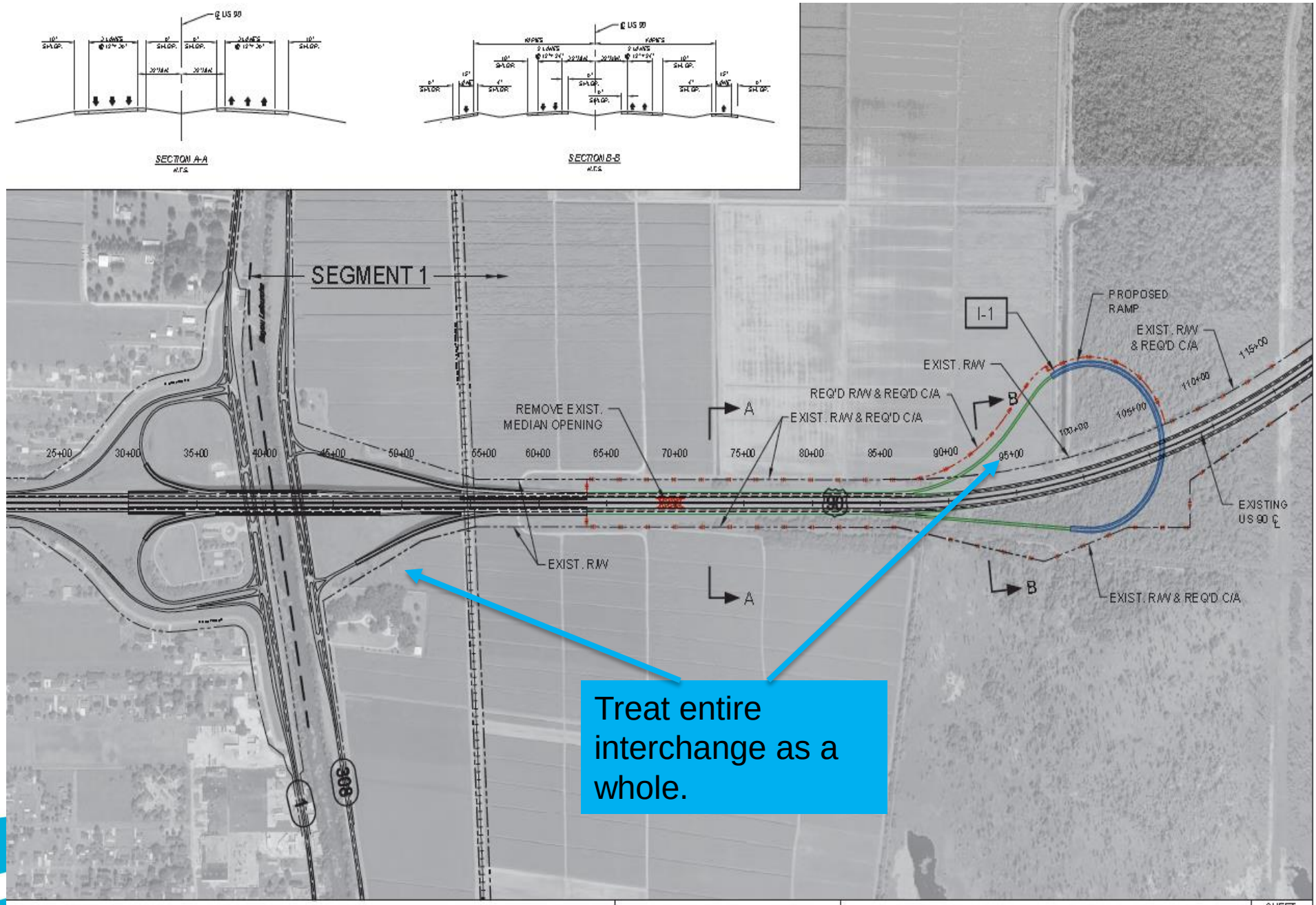
- Analysis
  - Perform a high-level interchange decision matrix for each proposed interchange. The matrix should consider operation, safety, right-of-way impacts, etc. Once the matrices are completed by the consultant, they shall meet with DOTD with their recommendations to discuss which interchanges to move forward for further analysis.
  - All roadway alignments and intersections must follow applicable EDSMs, such as but not limited to IV.2.1.4 Median Openings on Divided Multi-Lane Roadways, VI.3.1.6 Traffic Signals, VI.1.1.5 Roundabout Study and Approval, V1.1.1.6 Roundabout Design, etc.

Traffic Scope Overview

- Analysis (Continued)
  - Perform intersection analysis with Synchro, Vistro, and/or Sidra software.
  - Perform roadway segments, ramp terminal, and weave sections with HCM software.
  - All analysis shall be performed for the Design Year AM and PM.
  - A growth rate report shall be turned in by the consultant and approved by the DOTD before preforming analysis.

Traffic Scope Overview

- Analysis (Continued)
  - There should be at least 3 alternatives considered for the interchange types. Interchange types will be determined during the Matrix Meeting with DOTD.
  - The chosen interchange alternatives should control the crossing roadway alternatives.



Treat entire interchange as a whole.

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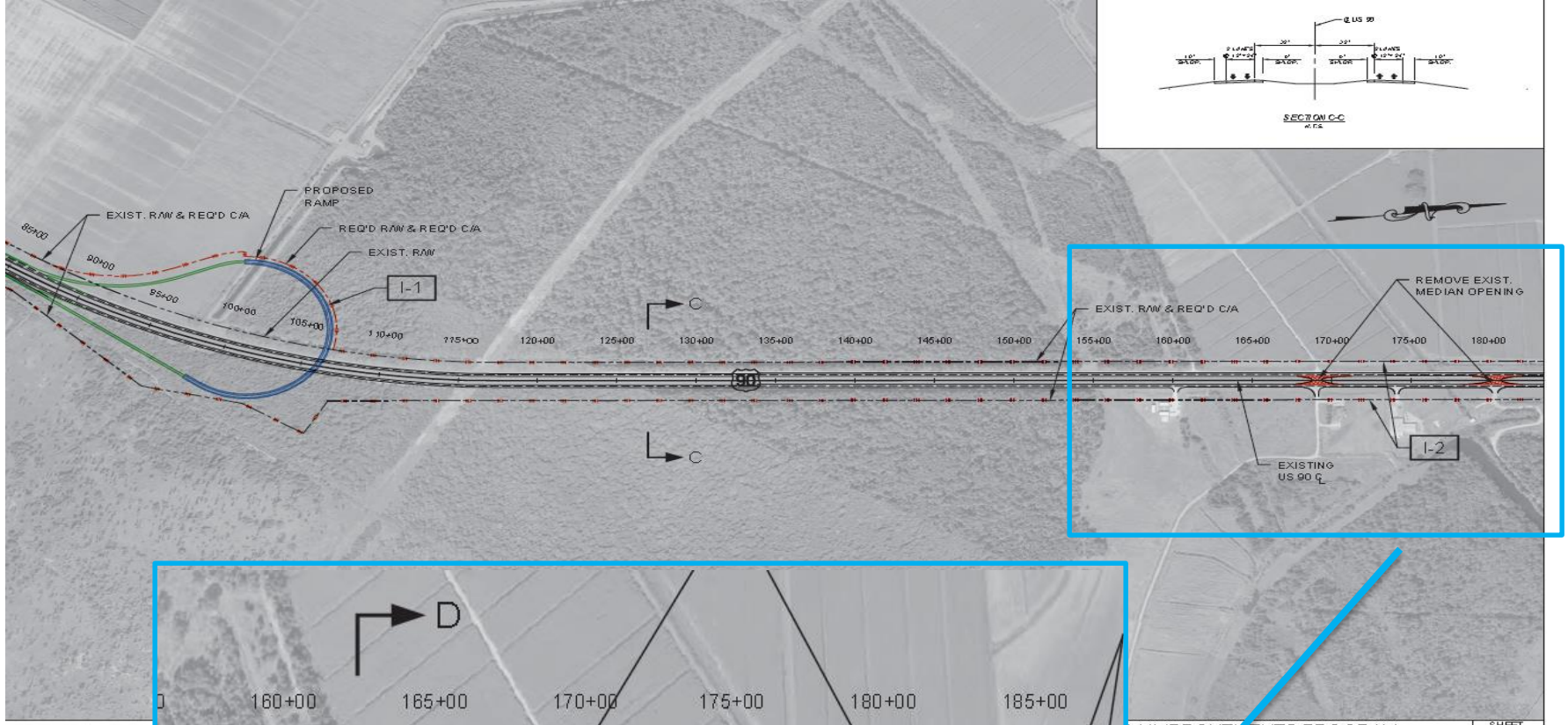
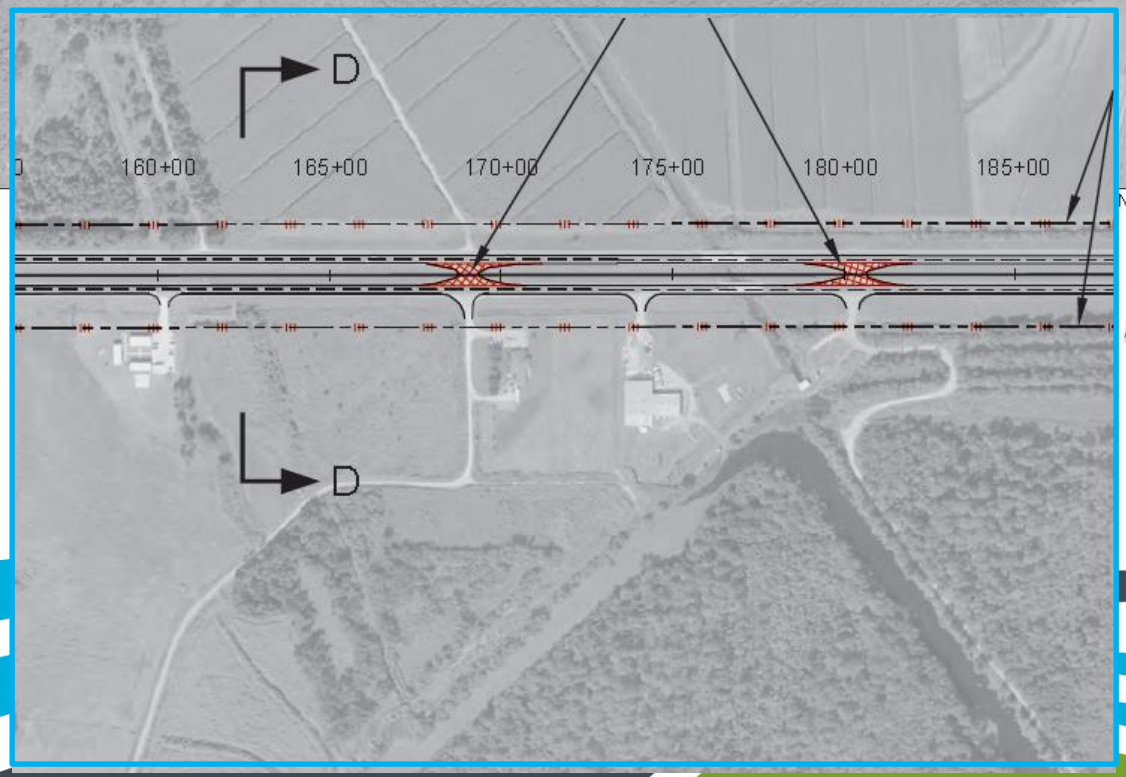
SCALE: 1" = 600'

INTERIM IMPROVEMENTS PROGRAM
SEGMENT 1
PROJECT I-1

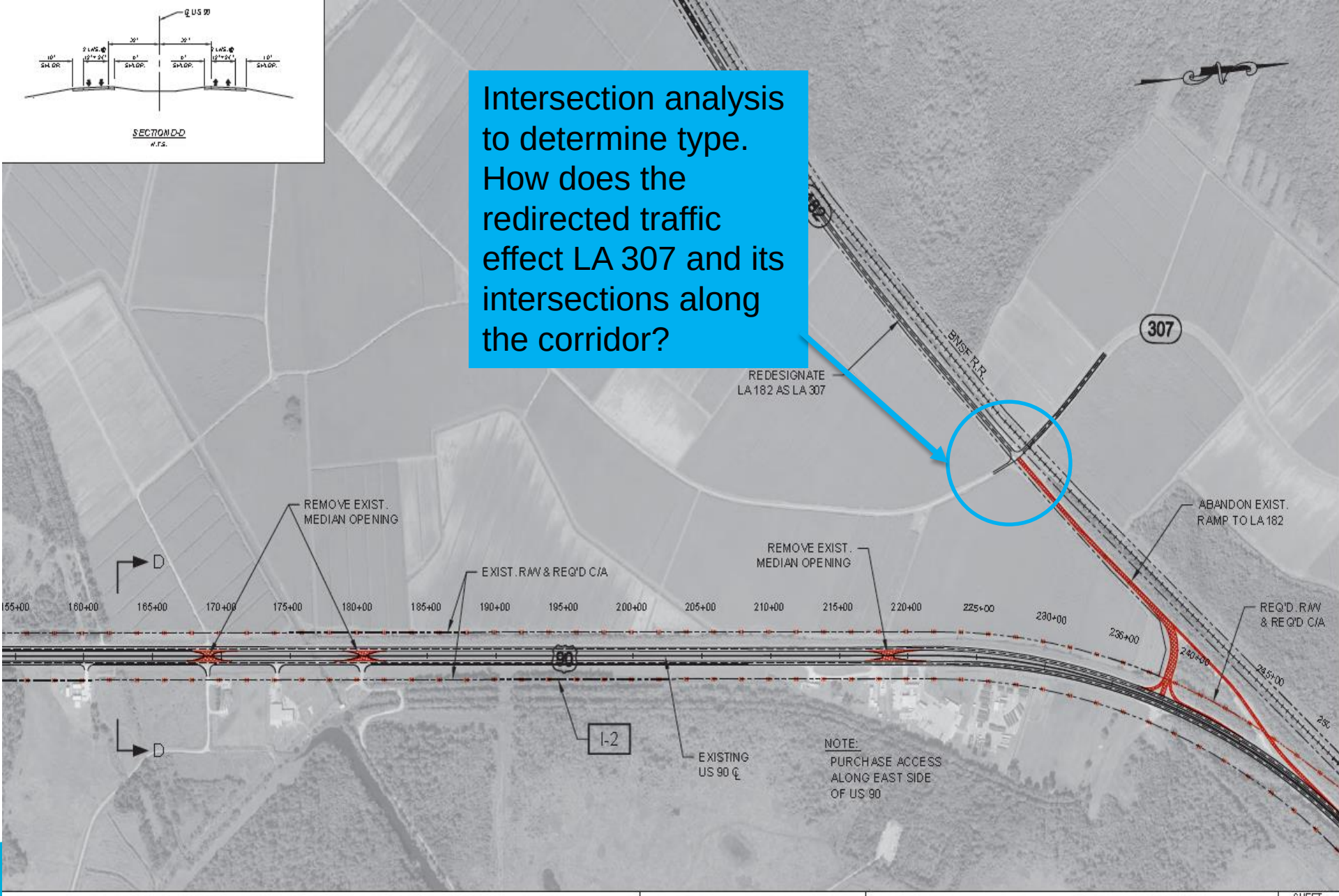
SHEET 1 OF 23





Where do these businesses and roadways access?

Intersection analysis to determine type. How does the redirected traffic effect LA 307 and its intersections along the corridor?



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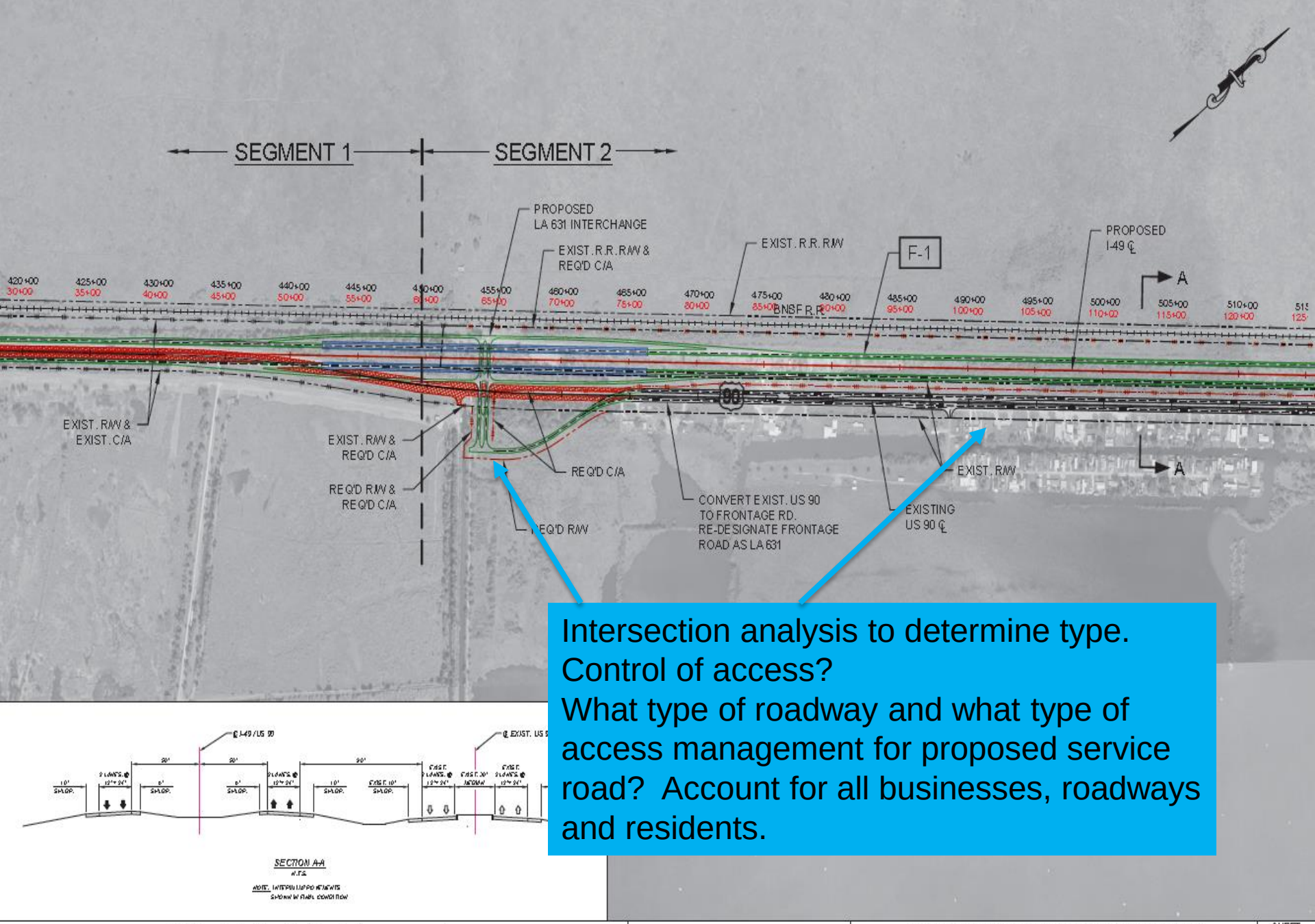
INTERIM IMPROVEMENTS PROGRAM
SEGMENT 1
PROJECT I-2

SHEET 3 OF 23



Intersection analysis to determine type.
Control of access?
What type of roadway and what type of access management for proposed service road? Account for all businesses, roadways and residents.

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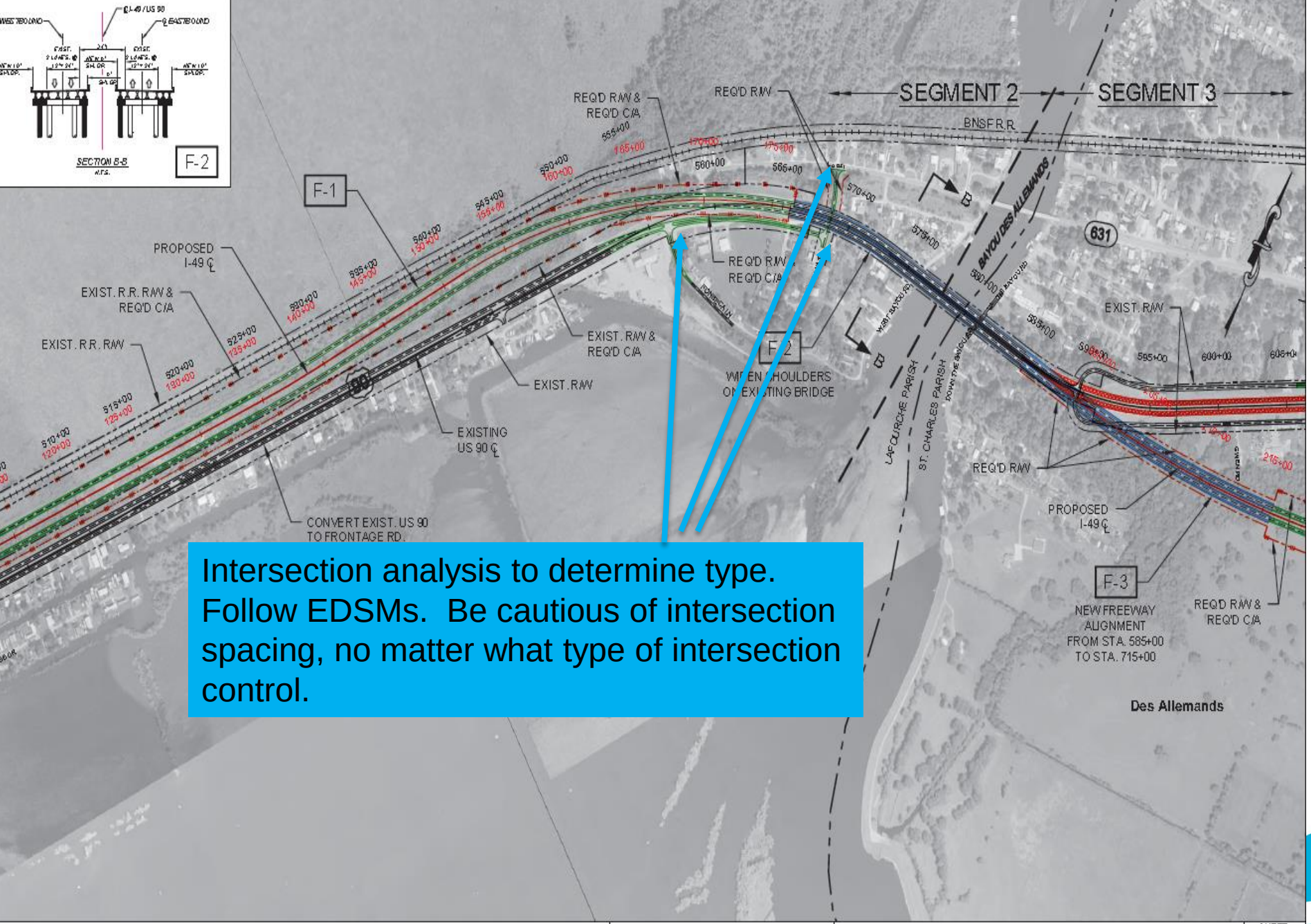
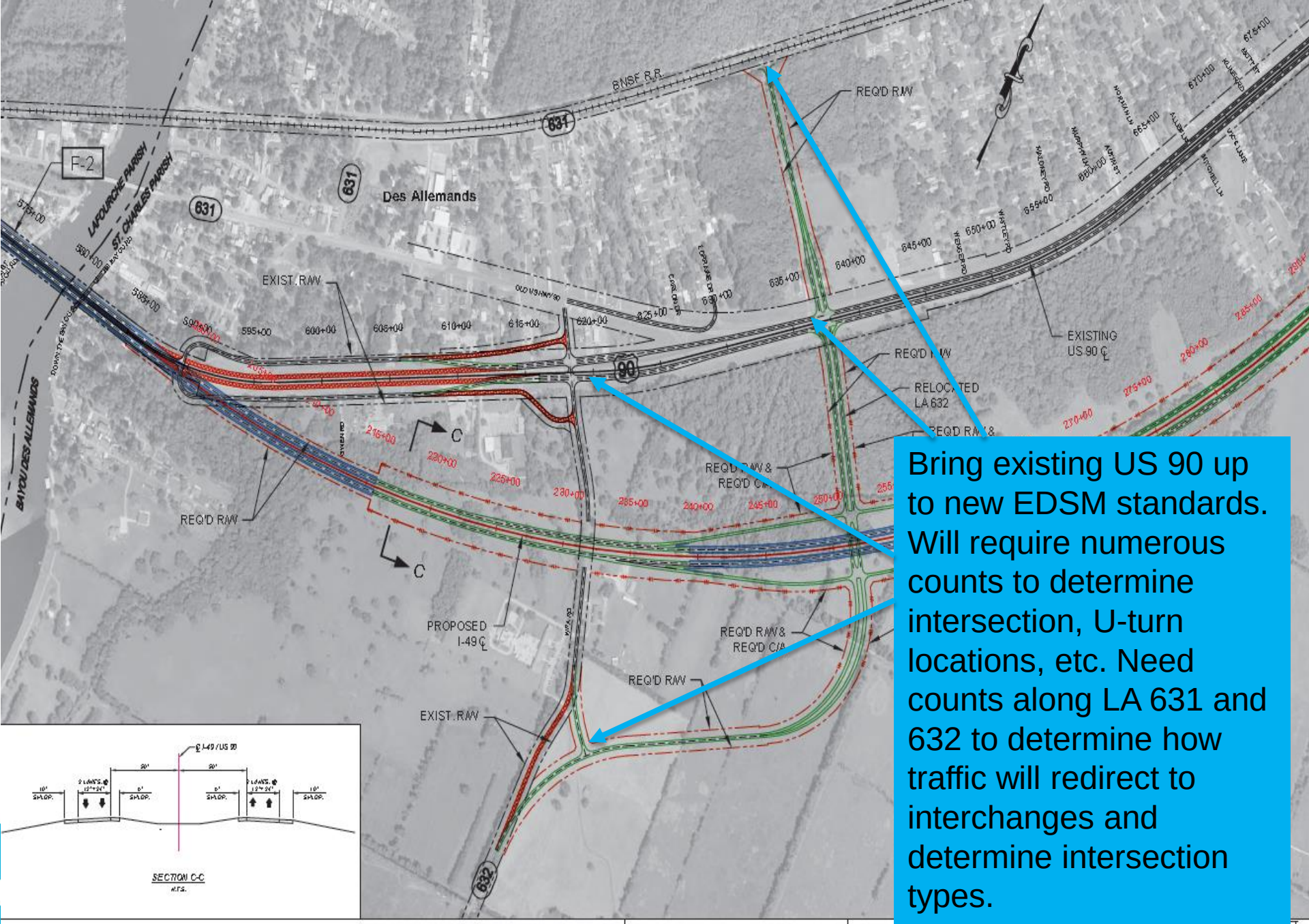
FREEWAY IMPROVEMENTS PROGRAM
SEGMENTS 1 & 2
PROJECT F-1

SHEET
6
OF 23



Intersection analysis to determine type. Follow EDSMs. Be cautious of intersection spacing, no matter what type of intersection control.



Bring existing US 90 up to new EDSM standards. Will require numerous counts to determine intersection, U-turn locations, etc. Need counts along LA 631 and 632 to determine how traffic will redirect to interchanges and determine intersection types.

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FREEWAY IMPROVEMENTS PROGRAM
SEGMENT 3
PROJECT F-3

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Des Allemands

BNSF R.R.

EXIST. R/W

EXISTING US 90 ℄

DEAD END

EXIST. R/W & REQ'D C/A

REQ'D R/W & REQ'D C/A

BEGIN CONCRETE BARRIER RAIL

PROPOSED I-49 ℄

F-3

F-4

Access?

SECTION C-C

SECTION D-D

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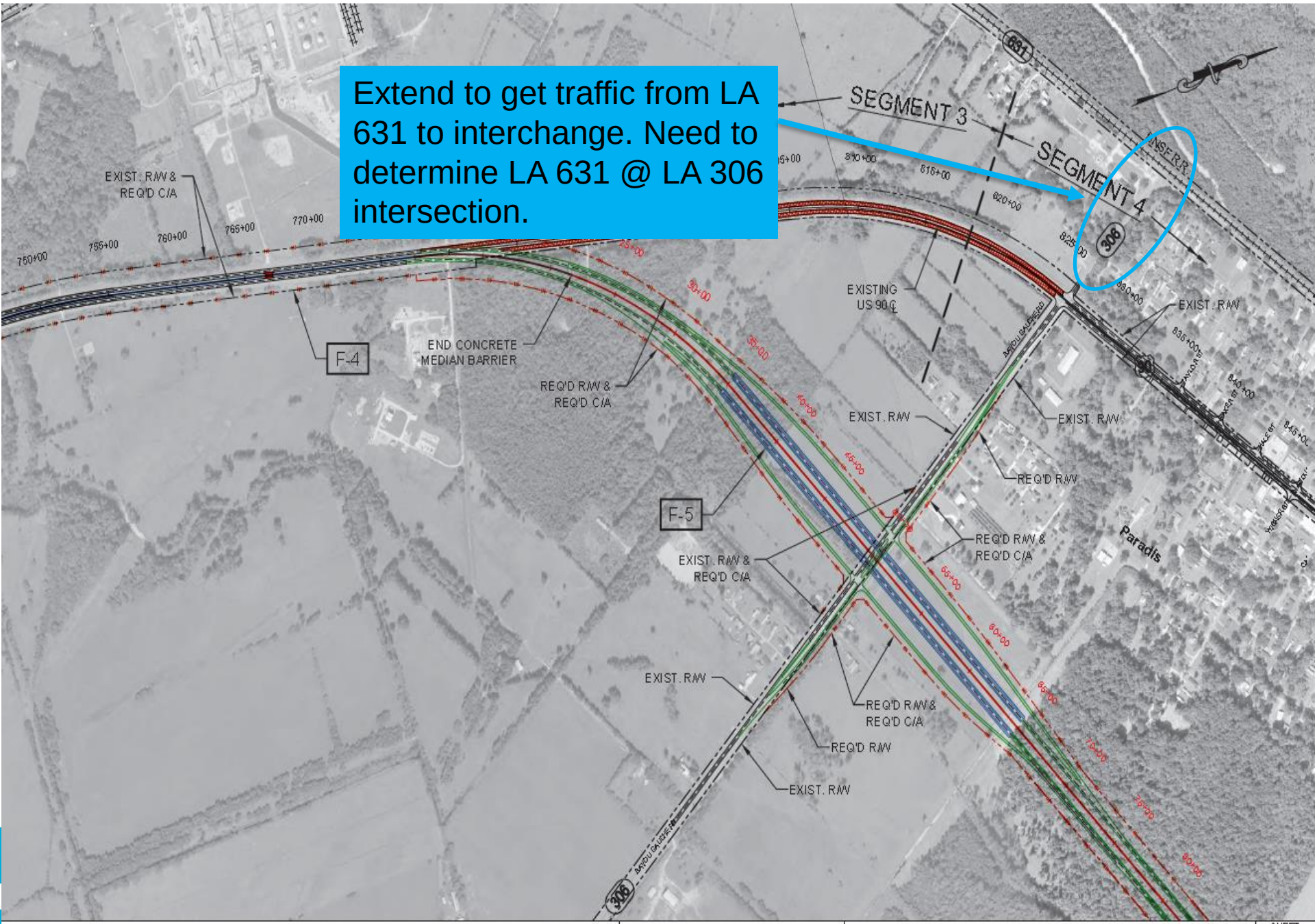
SCALE: 1" = 600'

FREEWAY IMPROVEMENTS PROGRAM
SEGMENT 3
PROJECTS F-3 & F-4

Extend to get traffic from LA 631 to interchange. Need to determine LA 631 @ LA 306 intersection.



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FREEWAY IMPROVEMENTS PROGRAM
SEGMENTS 3 & 4
PROJECTS F-4 & F-5

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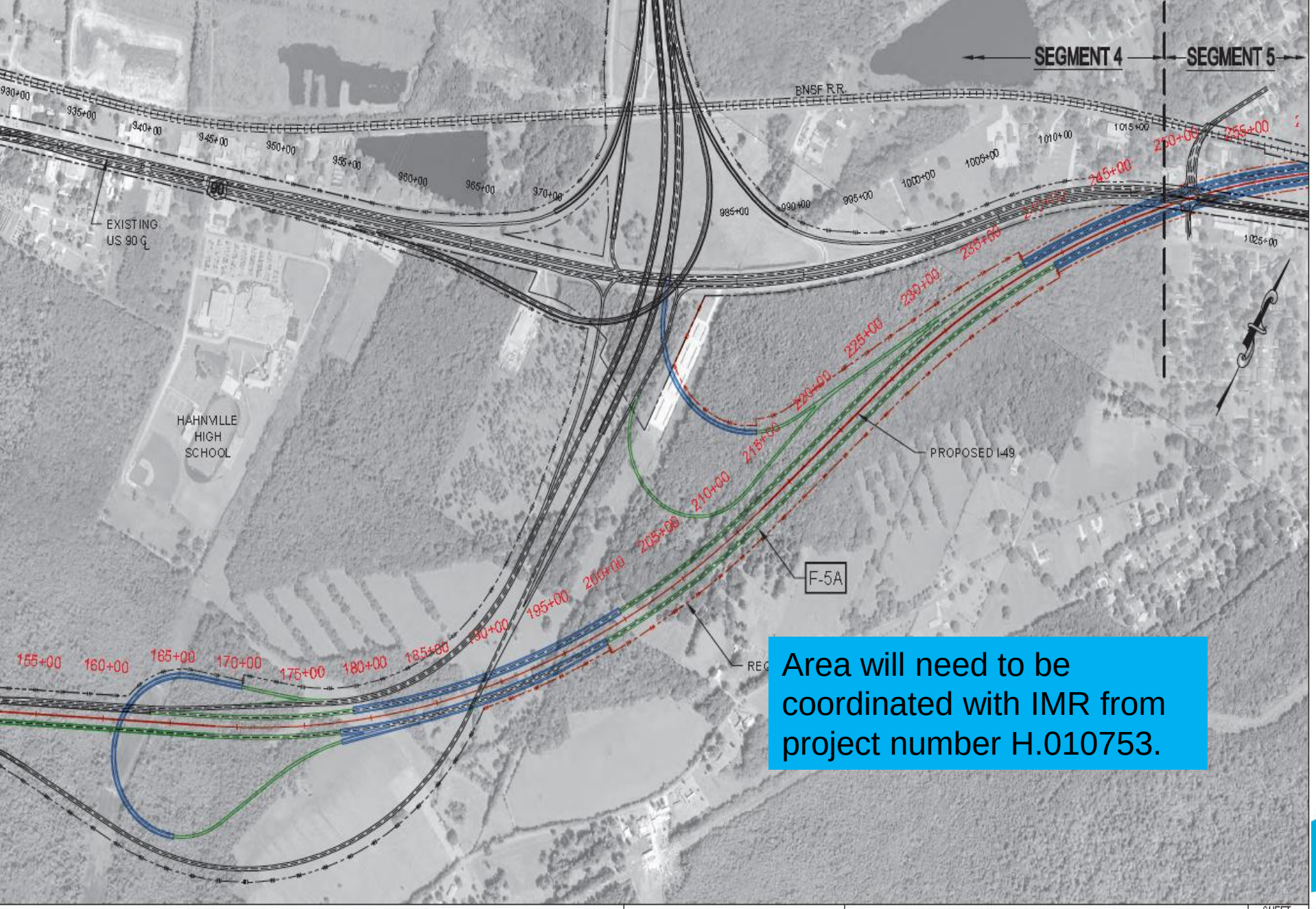
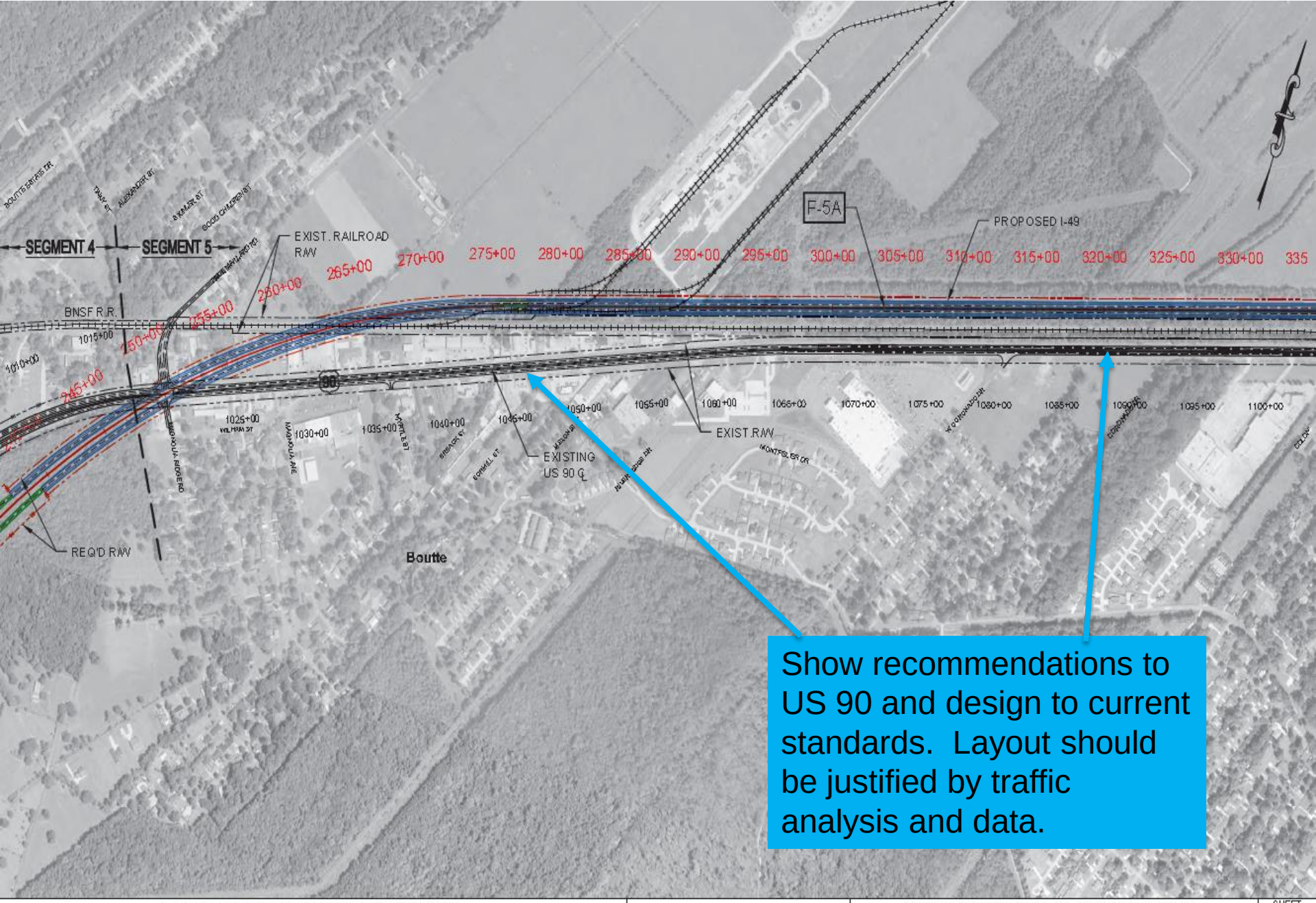
FREEWAY IMPROVEMENTS PROGRAM
SEGMENT 4
PROJECT F-5A

SHEET 11 OF 23



Area will need to be coordinated with IMR from project number H.010753.



Show recommendations to US 90 and design to current standards. Layout should be justified by traffic analysis and data.

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FREEWAY IMPROVEMENTS PROGRAM
SEGMENT 5
PROJECT F-5A

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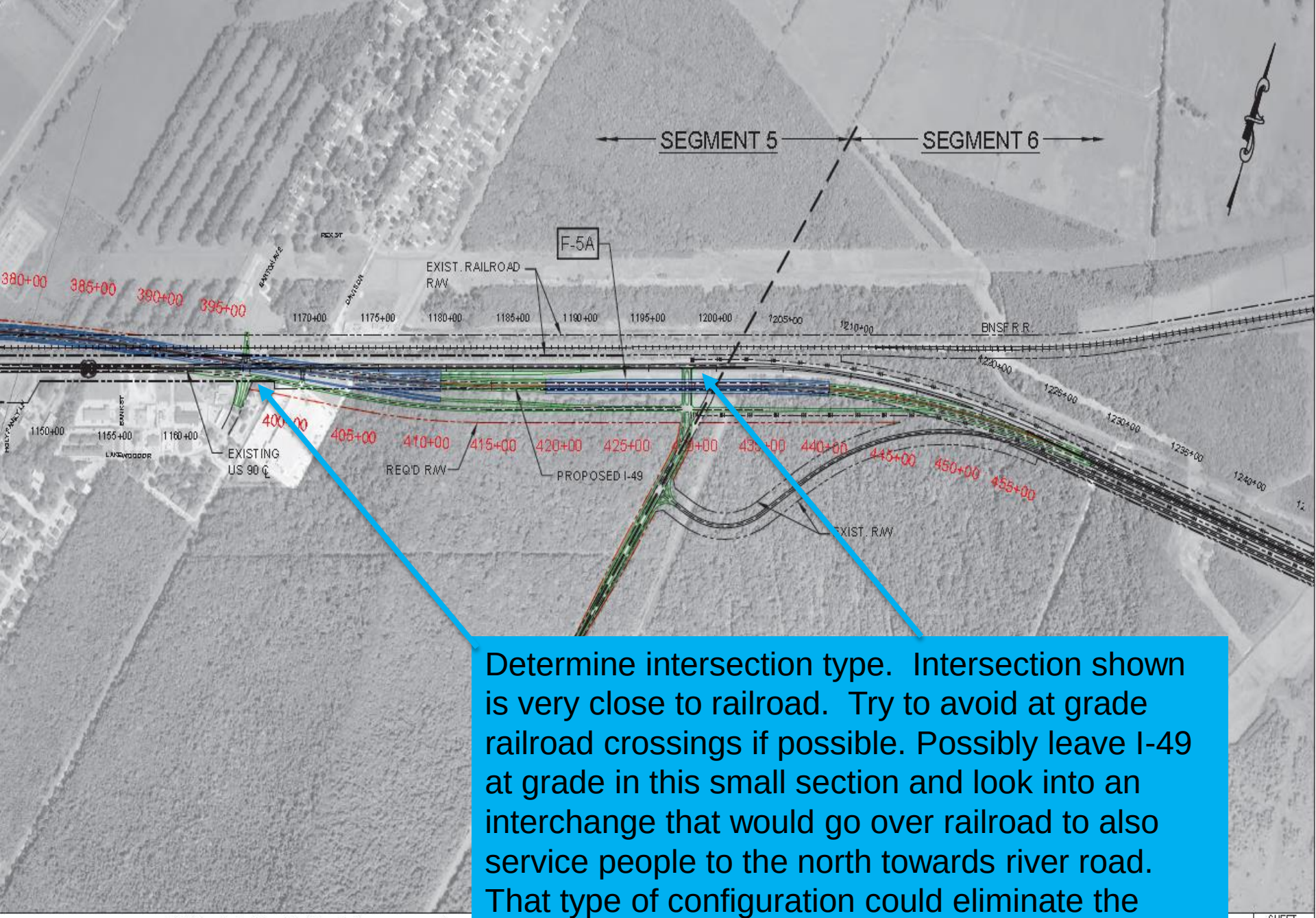
FREEWAY IMPROVEMENTS PROGRAM
SEGMENT 5
PROJECT F-5A

SHEET 14 OF 23



Determine intersection type. Intersection shown is very close to railroad. Try to avoid at grade railroad crossings if possible. Possibly leave I-49 at grade in this small section and look into an interchange that would go over railroad to also service people to the north towards river road. That type of configuration could eliminate the other proposed at grade railroad crossing to the west.

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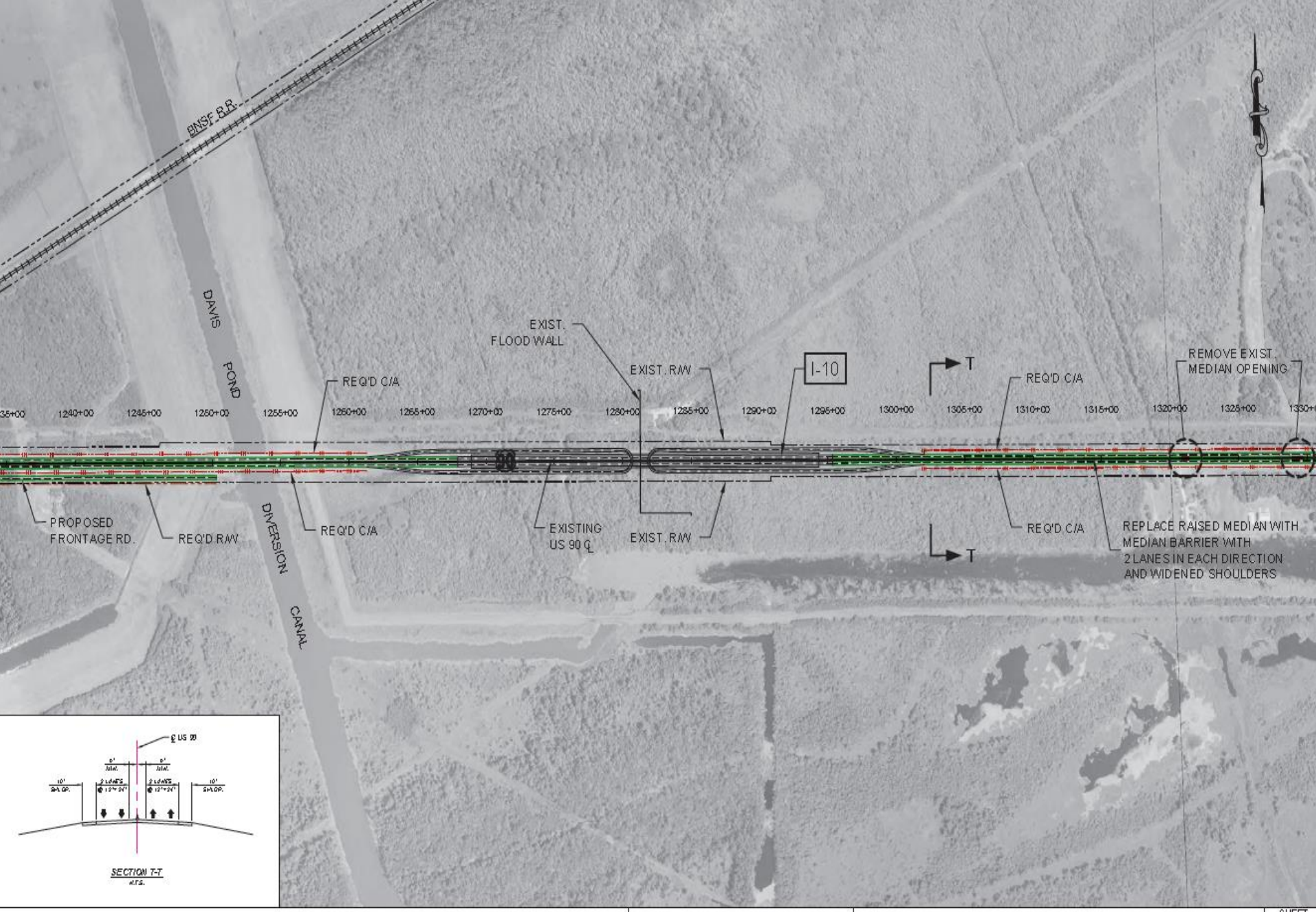

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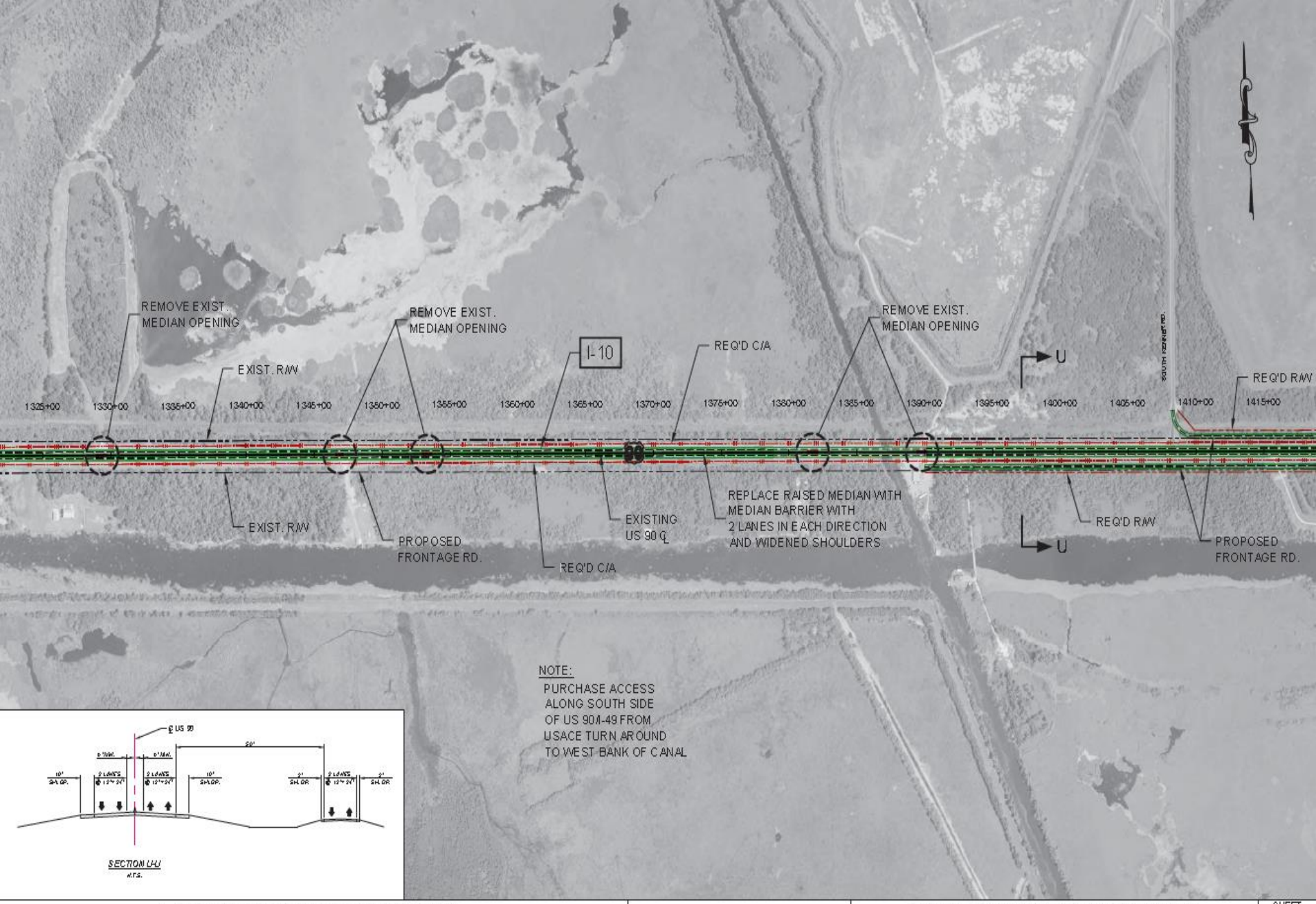
INTERIM IMPROVEMENTS PROGRAM
SEGMENT 6
PROJECT I-10



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SCALE: 1" = 600'

INTERIM IMPROVEMENTS PROGRAM
SEGMENT 6
PROJECT I-10

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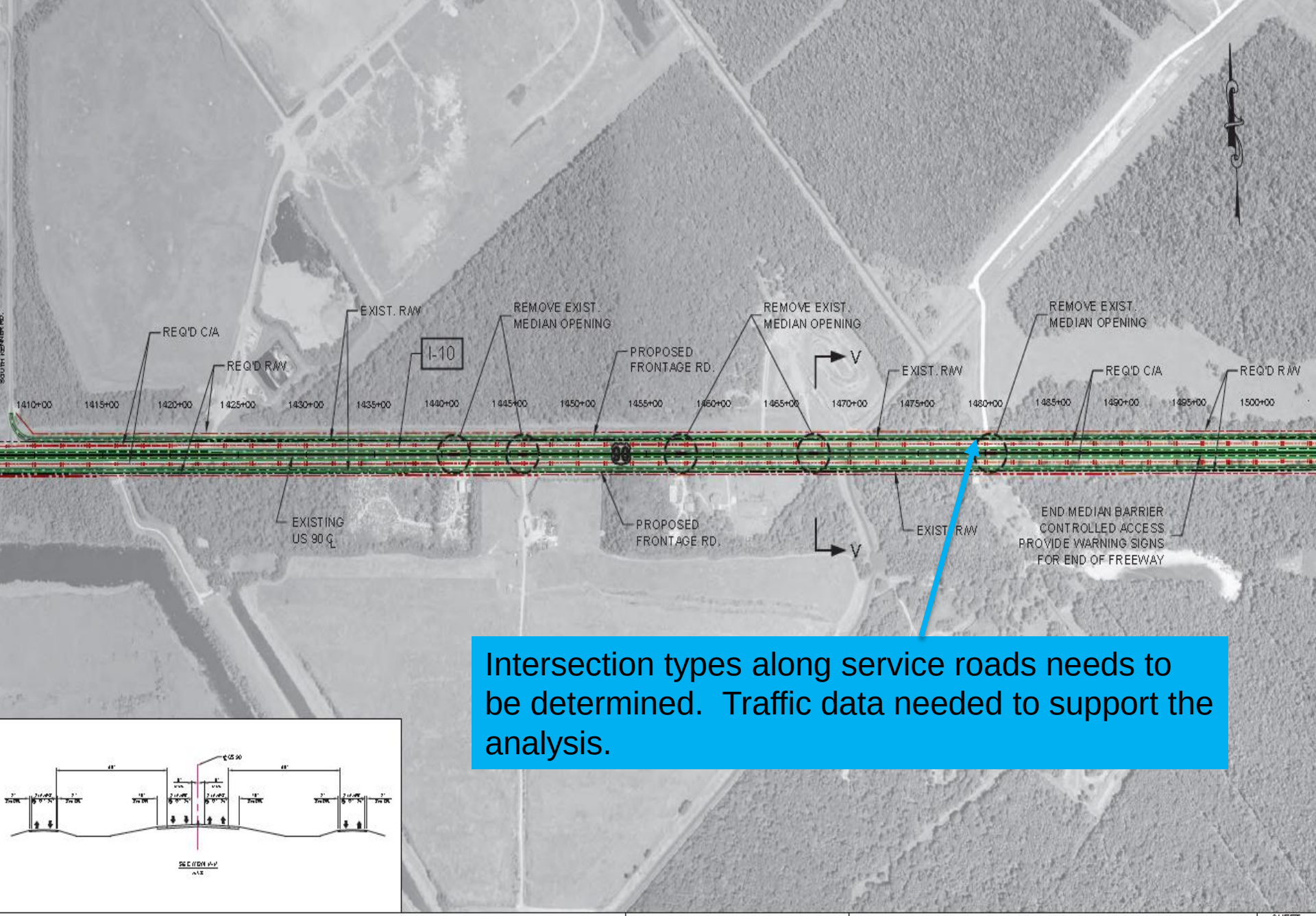
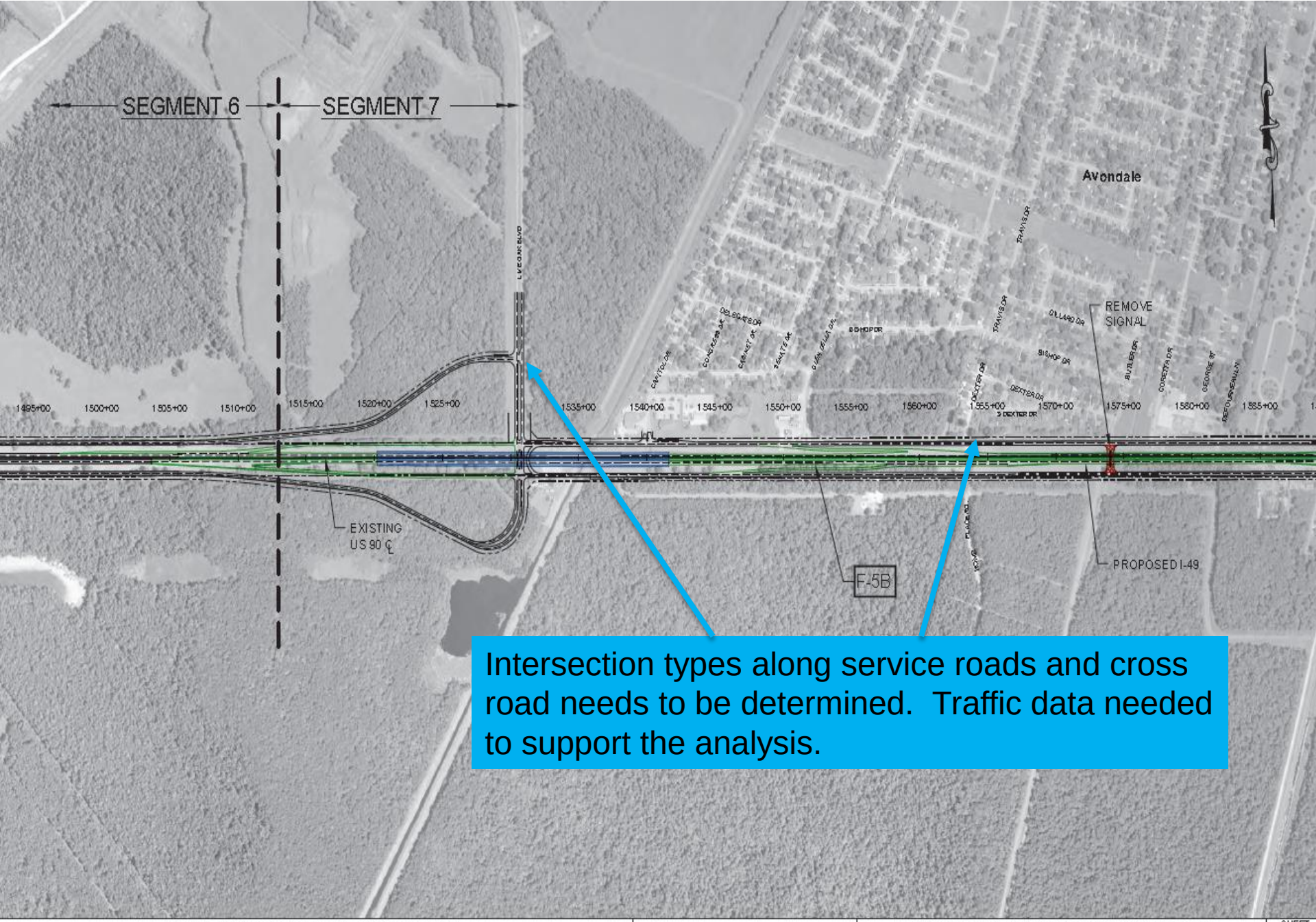
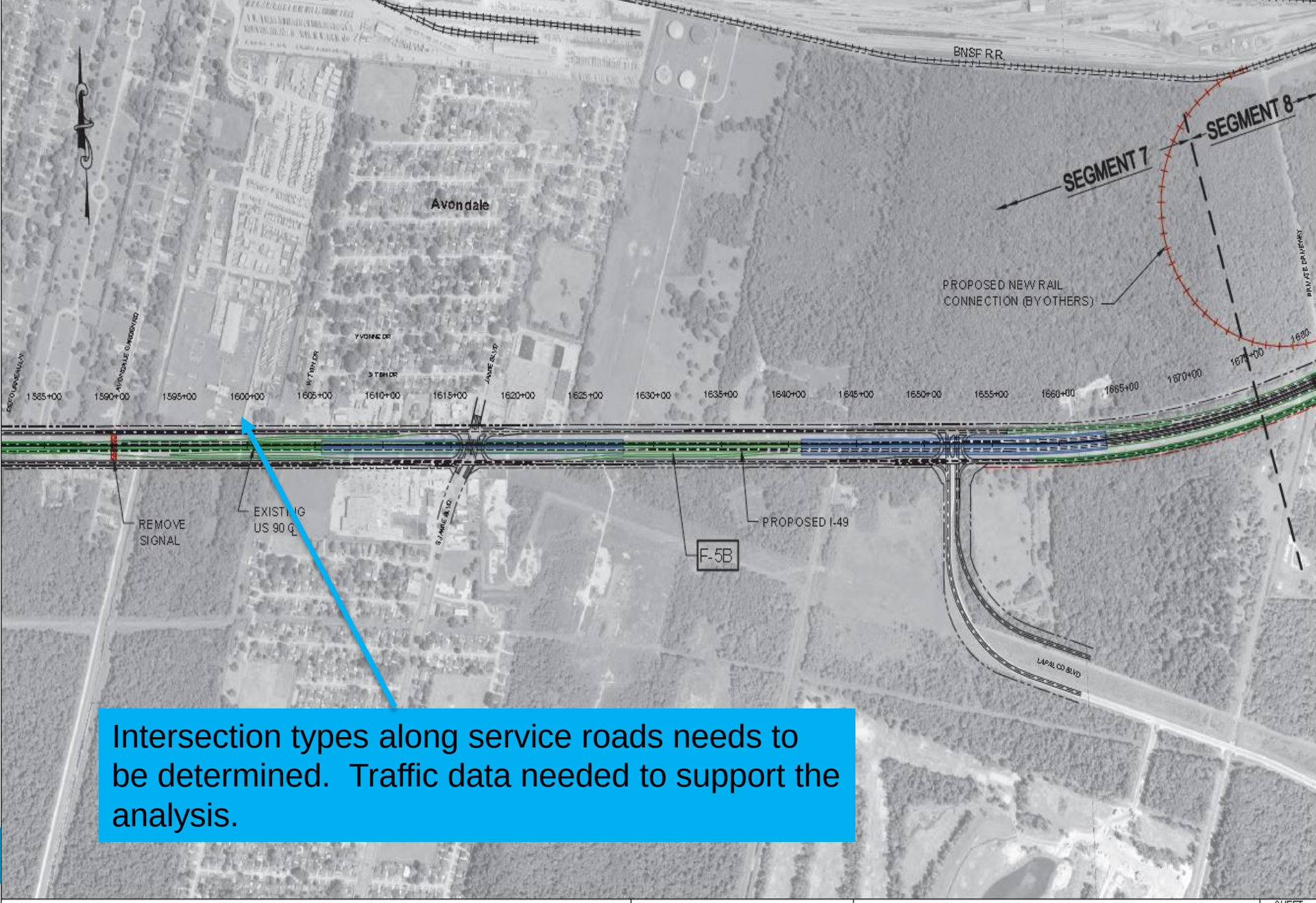


Intersection types along service roads needs to be determined. Traffic data needed to support the analysis.



Intersection types along service roads and cross road needs to be determined. Traffic data needed to support the analysis.



Intersection types along service roads needs to be determined. Traffic data needed to support the analysis.

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FREEWAY IMPROVEMENTS PROGRAM
SEGMENT 7
PROJECT F-5B

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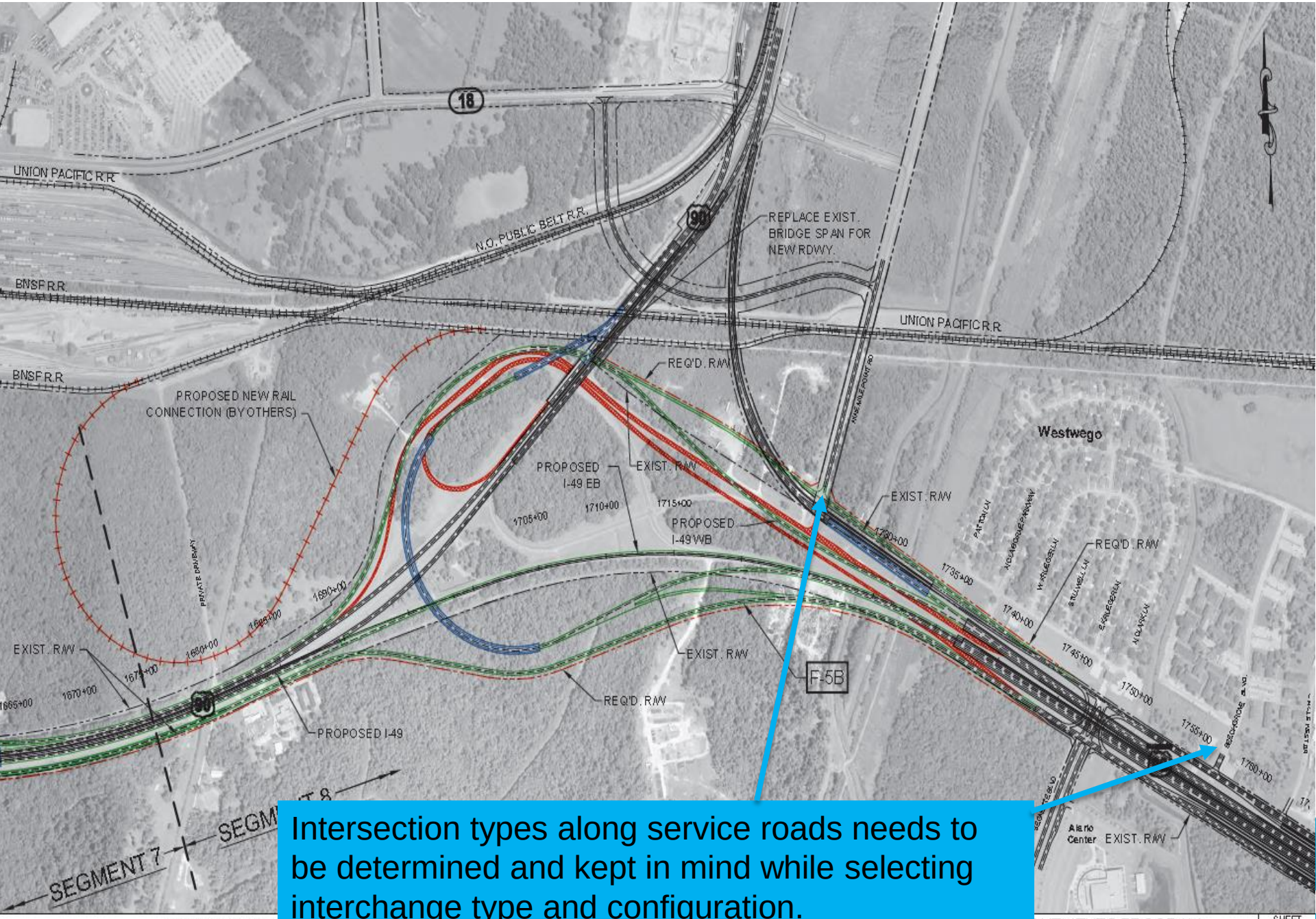

Intersection types along service roads needs to be determined and kept in mind while selecting interchange type and configuration.

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SCALE: 1" = 600'

VEMENTS PROGRAM
SEGMENT 8
PROJECT F-5B

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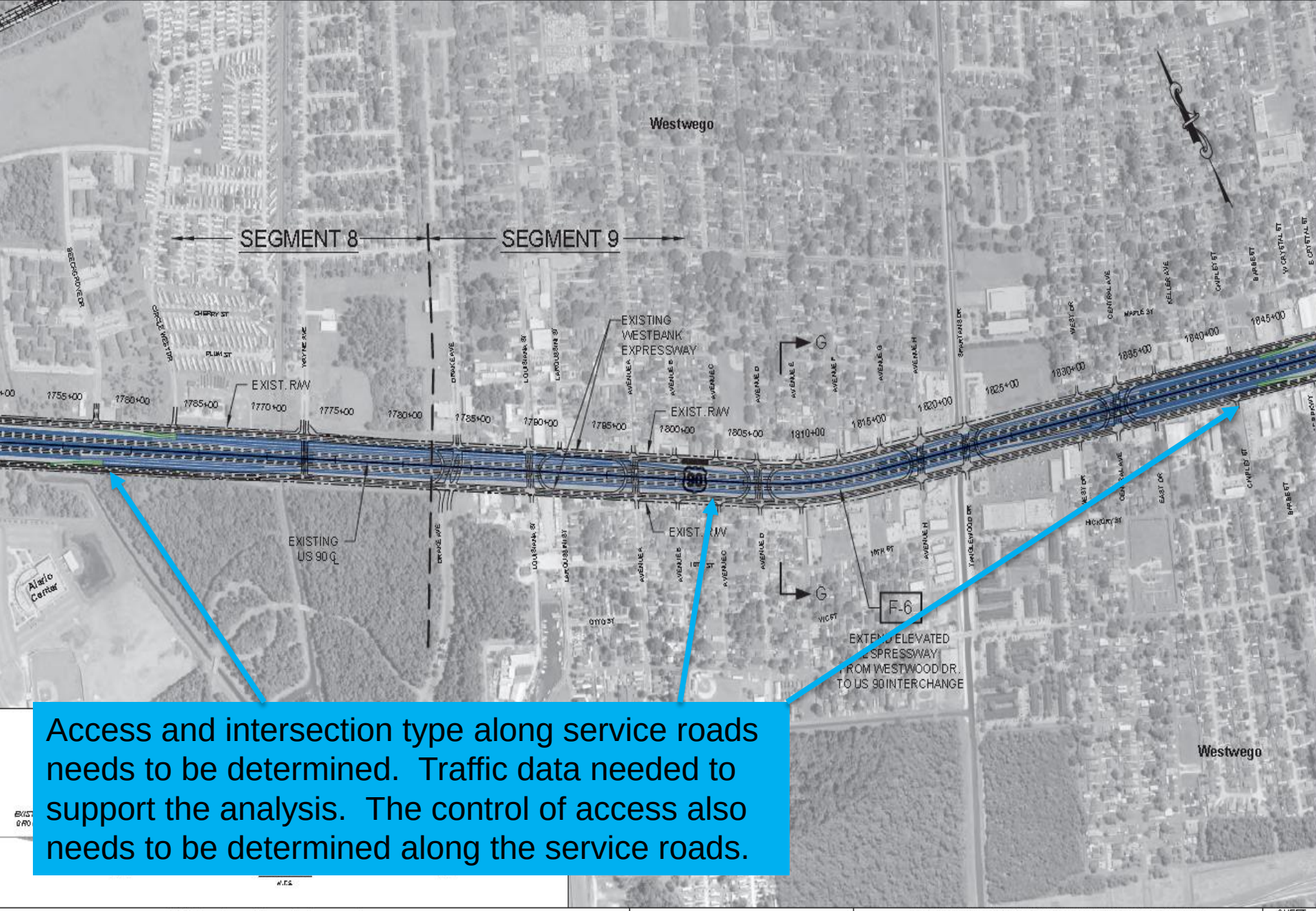
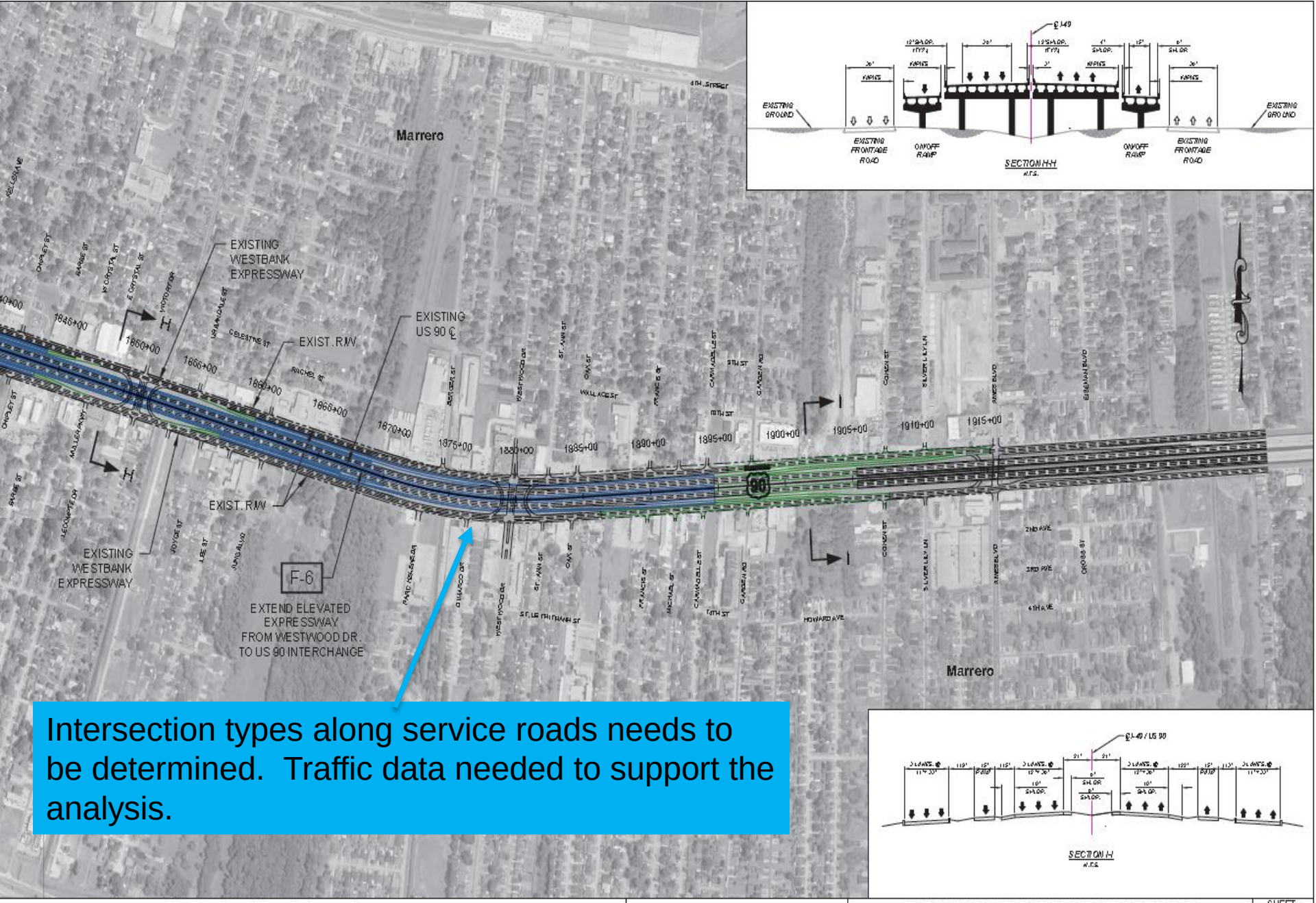


Access and intersection type along service roads needs to be determined. Traffic data needed to support the analysis. The control of access also needs to be determined along the service roads.



Intersection types along service roads needs to be determined. Traffic data needed to support the analysis.

Phasing

- Show phased construction implementation, since it is impossible to construct all at one time. So, how should the project be divided so that it still operates with some of the existing alignment?
- How does the overall traffic study work with the phasing? The traffic study may need to be tweaked to show that the corridor still operates when it is phased.

Questions