

# Master Development Plan for the TxDOT North Tarrant Express Project Segments 2-4

## Chapter 3: Draft List of Facilities



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### 3. Draft List of Facilities

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The North Tarrant Express (NTE) Project is dedicated to improving mobility and connectivity along an approximately 37-mile corridor encompassing portions of IH 35W, IH 820 and SH 121/183 Airport Freeway in northern Tarrant County through a regionally supported managed lane system.

The first phase of NTE, known as the Concession Facility (Segments 1 and 2W), will rebuild and expand approximately 13 miles along IH 820 and SH 121/183, adding four tolled Managed Lanes, plus frontage roads and auxiliary lanes to approximately double the existing capacity. The ultimate configuration of the Concession Facility, developed when a certain level of demand is recorded, also includes two additional non-tolled main lanes. The Concession Facility is expected to be operational by 2015.

This Master Development Plan discusses NTE Segments 2E-4 (“the Project”), which are the additional Segments planned for construction following the Concession Facility. These Segments, totaling approximately 24 miles, will expand and rebuild SH 183 east of the Concession Facility, extend the Project on IH 820 and SH 121 south of the Concession Facility, and improve mobility on IH 35W north and south of IH 820. Each Segment will include three to four General Purpose Lanes and two to three Managed Lanes, as further detailed in this report. The Project includes 10 major interchanges and numerous connections to local roads.

NTEMP24 is carrying out traffic and revenue analysis to optimize and evaluate the configuration and feasibility of all Segments. This feasibility analysis centers on determining the optimal balance between relieving congestion on the General Purpose Lanes and driving sufficient traffic and revenue to the Managed Lanes to sustain the goal of constructing the Project while minimizing the use of public subsidies. Details of the traffic and revenue analysis will be provided in the Preliminary Project Traffic and Revenue Report in Milestone 4. The Draft Facilities Report, also to be provided in Milestone 4, will include a plan for phasing and sequencing the interim and ultimate buildouts of each Segment, including phasing parameters.

#### 3.1. Interim vs. Ultimate Configuration for the Remaining Segments of NTE

When discussing the different alternatives to deliver the remaining segments of the NTE system, NTEMP24 has focused on those that optimize the feasibility of the Project. The public-private collaboration between NTEMP24 and TxDOT brings together additional resources for financing, design, construction, operations and maintenance. Under those premises, NTEMP2-4 has identified Design-Build, Design-Bid-Build and Comprehensive Development Agreements as the best options for TxDOT.

One additional constraint is the availability of public funds to be earmarked for the implementation and long-term obligations associated with these large infrastructure projects. Taking into consideration the limited resources both from the State and the federal government, our primary goal in the endeavor of preparing the Master Development Plan for the North Tarrant Express system has been to minimize the amount of public funds required while maximizing the additional capacity that can be added in the short term.

Adding up all these factors, NTEMP24 has tried to optimize the revenue generation capacity of each Segment while ensuring that the users are provided with sufficient alternatives to avoid the inconvenience associated with long daily commutes due to congested roads.

In our plan, the Managed Lanes are added in the first stage of the development of each Segment, providing four additional lanes as an alternative to those who are willing to pay in order to avoid congestion. We cannot forget that by shifting traffic into the Managed Lanes, the flow on the General Purpose Lanes will be improved at no cost to those users since the existing capacity of General Purpose Lanes will be maintained when the Managed Lanes are built. Additional benefits to the traveling public in the short term include improvements to some ramps, a smoother alignment where possible, etc.

Design and construction of the interim configuration will take into consideration the future expansion that will accommodate the ultimate configuration envisioned by TxDOT and reflected in the schematics that are part of the environmental approval. Thus, the construction will occur at the time when the additional lanes are required, minimizing both the cost of those future expansions and the disturbance to traffic.

The triggers for future expansions will be based on one the following principles, depending on the actual financial outcome that will be carried out as part of Milestone 4:

- **Date-Based Triggers:** Similarly to the requirements on the CDA for Segments 1 and 2W, the concessionaire may be required to add capacity by a certain date, regardless of the actual demand.
- **Revenue-Based Triggers:** This option is also contemplated in the CDA for Segments 1 and 2W; the mechanism works according to the following principle: if the project is performing better than expected, when the amount of revenues in excess of the base case is enough to cover the cost of the widening plus the compensation to the concessionaire due to the decrease of traffic in the Managed Lanes as a result of the additional lane capacity, then new General Purpose Lanes, Frontage Roads and/or Managed Lanes will be constructed.



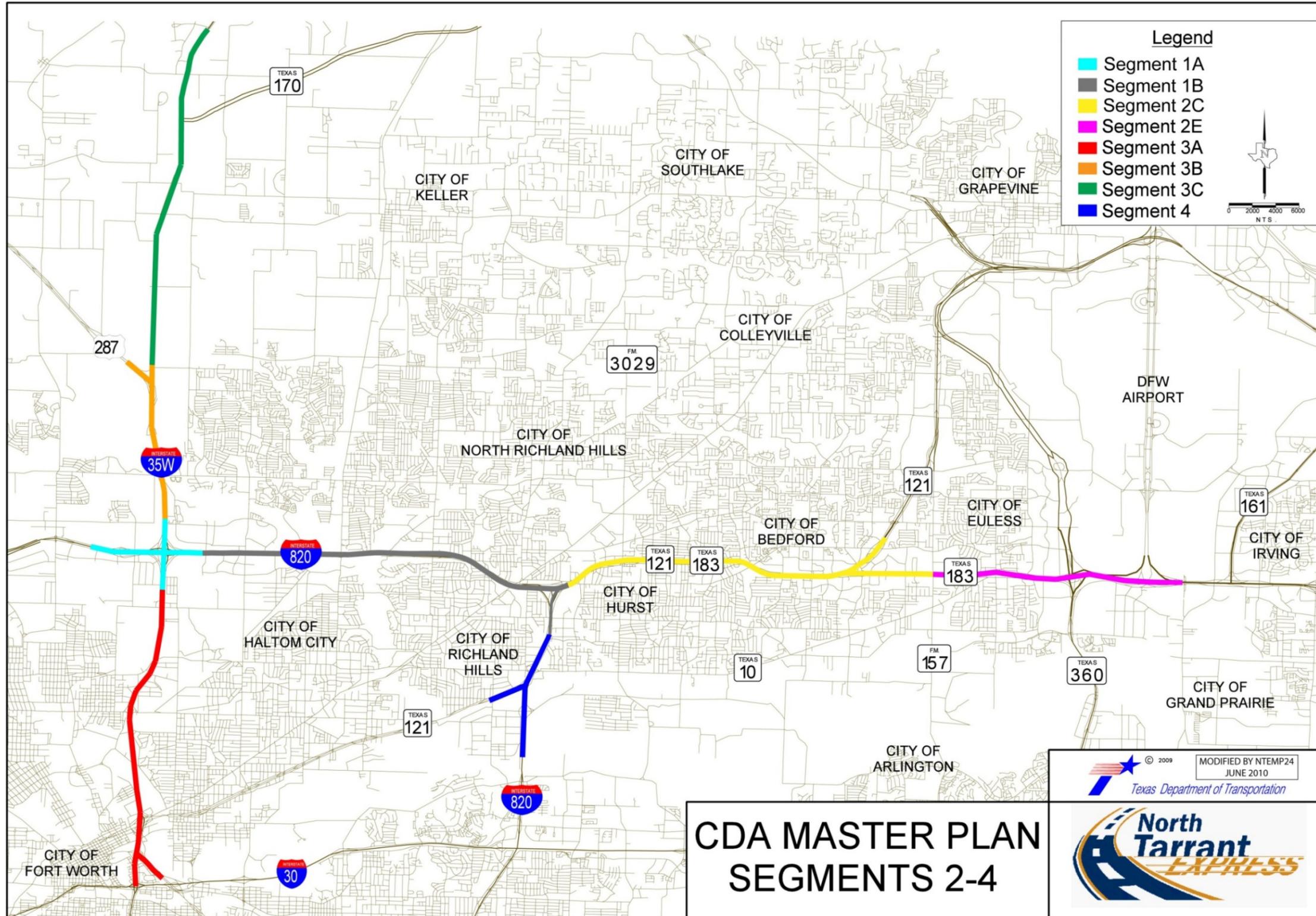
- **TxDOT's Discretion:** At all times, TxDOT will have the ability to request the concessionaire to build additional capacity, provided that the actual compensation is paid at the time.

As noted above, these alternatives will be further explored on Milestone 4, combining the actual technical aspects such as traffic demand, construction costs and operational impacts with the financial implications, in order to determine which options are optimal for each Segment.

### 3.2. Characteristics of Project Segments

The characteristics of each Segment are described in this section. A map of the Project is provided as Figure 3-1.

Figure 3-1: North Tarrant Express Segment Map



### 3.2.1. All Segments

The characteristics of each Segment are described in Table 3-1. The Segment lengths presented in Table 3-1 and in the stick diagrams provided in this chapter are not representative of the interim chargeable lengths, which are presented in Chapter 10.

Table 3-1: Characteristics of Project Segments

Segment ID	Geographical Limits		Number, Type and Width of Lanes (by direction)	Length (miles)	General Purpose Capacity (by direction)	Interconnections		Development Factors				
						Major (Multi-Level Interchange)	Minor (Minor Interchange or Grade Separation)	Overall Benefit to Corridor	Political Support	Viable / Minimize Public Funds	Construction Cost	Environmental Progress
2E Interim	NTE Segment 2C (SH 183) at Industrial Blvd. (FM 157)	County Line Road	3 – 12' GP 2 – 12' ML 2-12' Frontage Roads	4.5	3 lanes	<ul style="list-style-type: none"> <li>SH 360</li> <li>DFW International Parkway</li> </ul>	<ul style="list-style-type: none"> <li>N. Industrial Blvd. (FM 157)</li> <li>Manchester Dr.</li> <li>N. Ector Dr.</li> <li>Byers St.</li> <li>N. Euless Main Street</li> <li>SH 10</li> <li>American Blvd / Bear Creek Pkwy.</li> <li>Amon Carter Blvd.</li> </ul>	★	★	★	●	★
2E Ultimate			3 – 12' GP 3 – 12' ML 2-12' Frontage Roads		3 lanes							
3A Interim	North of Polaris Blvd.	IH 30	2-3 – 12' GP 2 – 12' ML 2-12' Frontage Roads	5.4	2 lanes – Meacham to SH 183 3 lanes – SH 183 to IH 30	<ul style="list-style-type: none"> <li>Spur 280</li> <li>SH 121 / US 377</li> </ul>	<ul style="list-style-type: none"> <li>Meacham Blvd.</li> <li>SH 183 / 28th St.</li> <li>Fourth St.</li> <li>Pharr St.</li> <li>FW &amp; Western RR/ Long St.</li> <li>BNSF RR/Dooling St.</li> <li>UPRR</li> <li>Yucca / E. Northside Dr.</li> <li>Sylvania Ave. @ SH 121</li> <li>DART RR</li> <li>Luella St.</li> </ul>	★	●	★	○	★
3A Ultimate			4 – 12' GP 2 – 12' ML 2-12' Frontage Roads		4 lanes							

Segment ID	Geographical Limits		Number, Type and Width of Lanes (by direction)	Length (miles)	General Purpose Capacity (by direction)	Interconnections		Development Factors				
						Major (Multi-Level Interchange)	Minor (Minor Interchange or Grade Separation)	Overall Benefit to Corridor	Political Support	Viable / Minimize Public Funds	Construction Cost	Environmental Progress
IH 35 / IH 820 Interchange Interim	IH 35W: Segment 3B  IH 820: Segment 1B	IH 35W: Segment 3A  IH 820: just east of Mark IV Parkway	2-3 – 12' GP plus auxiliary lanes 2 – 12' ML on IH 35W 1-2 – 12' ML on IH 820 2-12' Frontage Roads One-lane non-tolled Direct Connectors	1.70 along IH 35W /	2-3 Lanes	<ul style="list-style-type: none"> <li>IH35/IH820</li> <li>Mark IV Parkway (Ultimate configuration only)</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	★	★	○	●	★
IH 35 / IH 820 Interchange Ultimate			3 – 12' GP plus auxiliary lanes 2 – 12' ML 2-12' Frontage Roads Non-tolled Direct Connectors as shown on TxDOT schematics for environmental approval	1.87 along IH 820								
3B Interim	South of Fossil Creek Blvd.	North Tarrant Parkway	2-3 – 12' GP 2-3 – 12' ML 2-3 -12' Frontage Roads	3.4	2 lanes	<ul style="list-style-type: none"> <li>US 81 / 287</li> </ul>	<ul style="list-style-type: none"> <li>Basswood Blvd.</li> <li>Western Center Blvd.</li> </ul>	★	★	★	○	★
3B Ultimate			4-5 – 12' GP 2-3 – 12' ML 2-3 -12' Frontage Roads		3 lanes							

Segment ID	Geographical Limits		Number, Type and Width of Lanes (by direction)	Length (miles)	General Purpose Capacity (by direction)	Interconnections		Development Factors				
						Major (Multi-Level Interchange)	Minor (Minor Interchange or Grade Separation)	Overall Benefit to Corridor	Political Support	Viable / Minimize Public Funds	Construction Cost	Environmental Progress
3C	NTE Segment 3B	0.16 mile south of Eagle Parkway	3 – 12' GP 2 – 12' ML 2-12' Frontage Roads	7.2	3 lanes	▪ SH 170	<ul style="list-style-type: none"> <li>▪ North Tarrant Parkway</li> <li>▪ Heritage Trace Parkway</li> <li>▪ Golden Triangle Blvd.</li> <li>▪ Keller-Hicks Rd.</li> <li>▪ Westport Parkway</li> <li>▪ Alliance Blvd.</li> <li>▪ Texas Longhorn Way</li> </ul>	●	★	●	★	●
4	NTE Segment 2C (IH 820 / SH 121 / SH 183).	Randol Mill Road	3 to 4 – 12' GP 1 – 14' ML (as shown on current conceptual schematic) 2-12' Frontage Roads	3.7	3 to 4 lanes	<ul style="list-style-type: none"> <li>▪ IH 820/SH 121</li> <li>▪ IH 820/SH 121/SH 183</li> </ul>	<ul style="list-style-type: none"> <li>▪ Randol Mill Rd.</li> <li>▪ Trinity Blvd.</li> <li>▪ Handley-Ederville Rd.</li> <li>▪ SH 10 (Hurst Blvd.)</li> <li>▪ Glenview Dr. / W. Pipeline Rd.</li> </ul>	●	●	○	●	○

**Notes:**

All improvements are proposed as mixed-use.

Lengths shown are approximate and may not reflect the length of all elements within each Segment.

- ★ Positive Influencing Factor
- Neutral Influencing Factor
- Negative Influencing Factor

### **3.2.2. Segment 2E**

Segment 2E extends 4.5 miles along the existing SH 183 (Airport Freeway), from NTE Segment 2C (SH 183) at Industrial Blvd. (FM 157) eastward to the County Line Road, which is 0.77 miles east of International Parkway, DFW International Airport's principal north-south arterial road. Portions of Segment 2E are located in the cities of Fort Worth, Euless and Bedford. Segment 2E includes a stream crossing at Big Bear Creek and no rail crossings.

The interim configuration of Segment 2E consists of three 12-foot General Purpose Lanes (matching existing capacity), two 12-foot Managed Lanes and two-lane frontage roads in each direction. The ultimate configuration of Segment 2E contains one additional Managed Lane. East of SH 360, the westbound Managed Lanes begin at International Parkway and the eastbound Managed Lanes end at Amon Carter Blvd.

From the connection with the Concession Facility to west of American Blvd. / Bear Creek Parkway, the Segment 2E Managed Lanes are located in the center of the freeway, between the eastbound and westbound General Purpose Lanes. From the connection with the permanent construction of the Concession Facility to Manchester Drive, the westbound Managed Lanes are elevated and the eastbound Managed Lanes are at grade (see Figures Figure 3-2 and Figure 3-3). From Manchester Drive to Byers St., all Managed Lanes are on a fill retaining wall section. The Managed Lanes are elevated in both directions from Byers St. to east of the connection with International Parkway.

West of American Blvd. / Bear Creek Parkway, the elevated Managed Lanes diverge to the outside of the General Purpose Lanes to accommodate the interchanges at SH 360 and International Parkway (see Figures Figure 3-4 and Figure 3-5).

Figure 3-2: Typical Section - Segment 2E Interim Configuration  
Elevated Westbound Managed Lane Sections

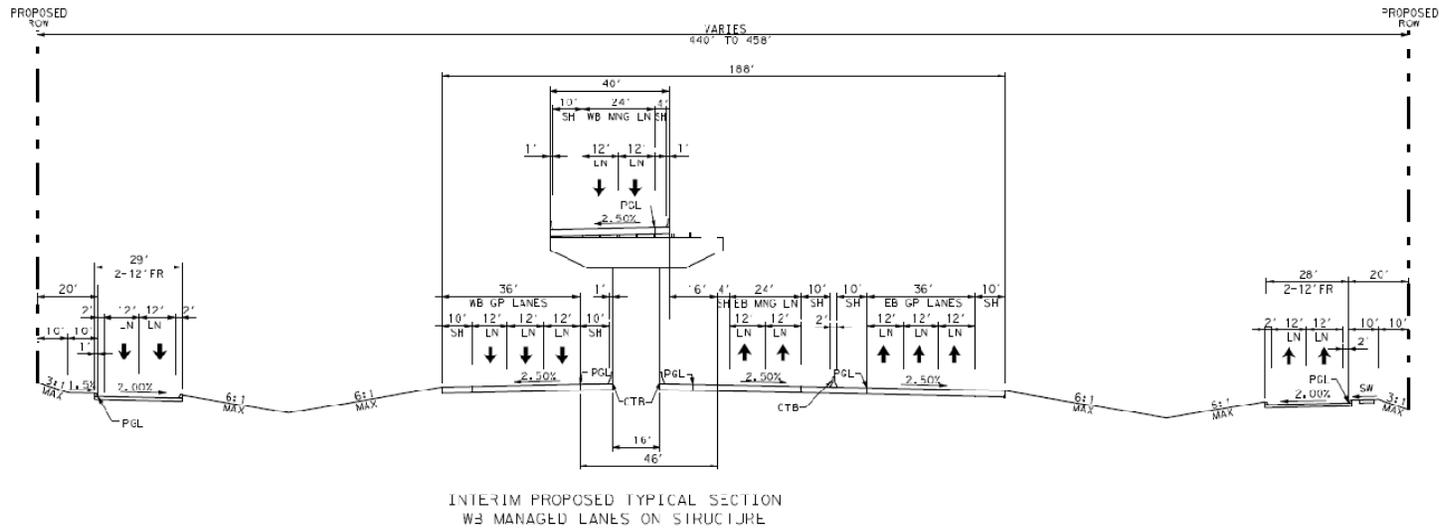


Figure 3-3: Typical Section - Segment 2E Ultimate Configuration  
Elevated Westbound Managed Lane Sections

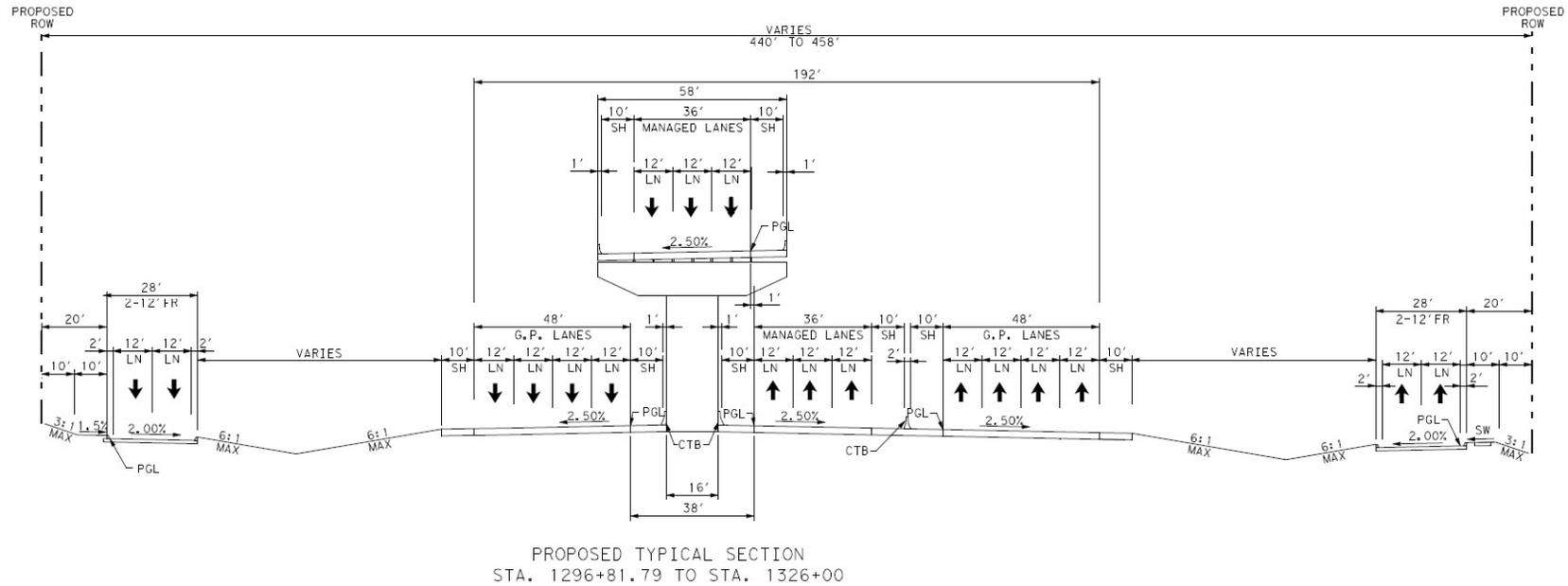


Figure 3-4: Typical Section - Segment 2E Interim Configuration  
Bear Creek Parkway / American Blvd.

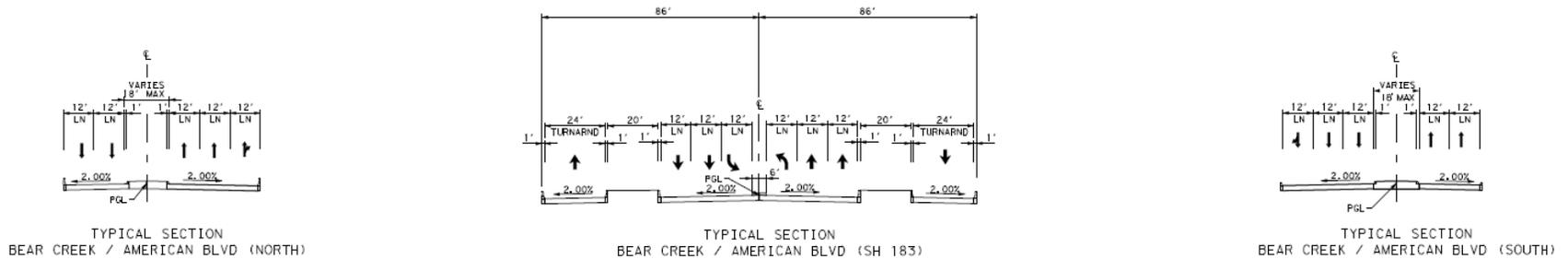
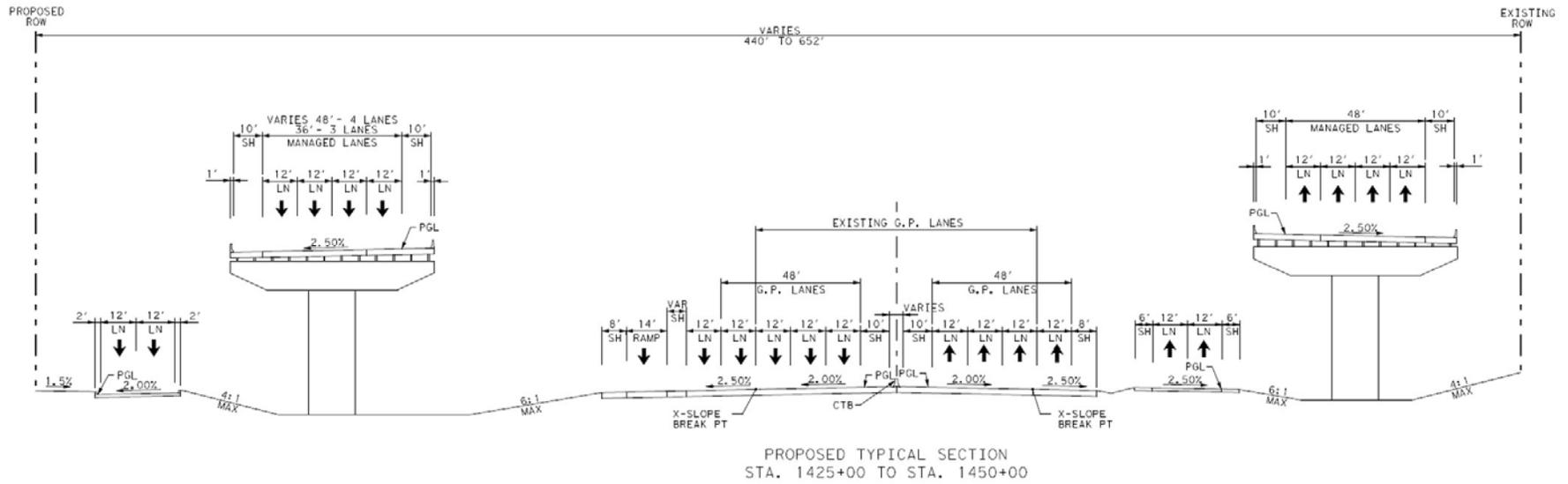


Figure 3-5: Typical Section - Segment 2E Ultimate Configuration  
West of American Blvd. / Bear Creek Parkway, Approaching Interchange with SH 360



The approximate locations of toll gantries on Segment 2E are presented in Table 3-2.

Table 3-2: Segment 2E Toll Gantry Locations

No.	Type	Interim	Ultimate	Road	Direction	Milepost
2E-1	Mainline	✓	✓	SH 183	EB	1313+00
2E-2	On-Ramp	✓	✓	SH 10	EB	1411+00
2E-3	On-Ramp		✓	SH 183 FR	EB	1525+00
2E-4	Mainline		✓	SH 183	WB	2537+00
2E-5	On-Ramp		✓	SH 183	WB	2540+00
2E-6	On-Ramp	✓		SH 183	WB	2510+00
2E-7	On-Ramp	✓	✓	Intl Pkwy	WB	2508+00
2E-8	On-Ramp	✓	✓	SH 183 FR	WB	2466+00

Interim and ultimate stick diagrams of Segment 2E are provided in Figures 3-6 and 3-7.

Figure 3-6: Segment 2E Stick Diagram - Interim Configuration

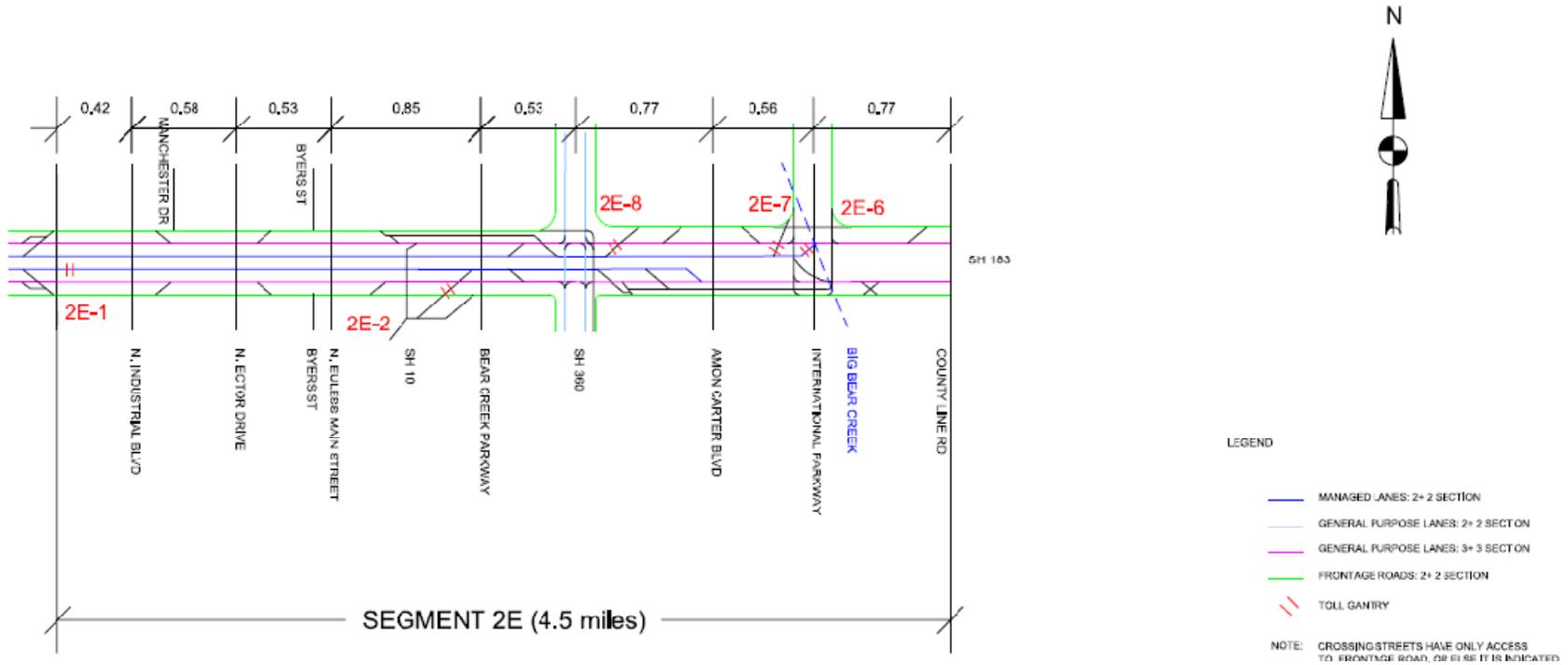
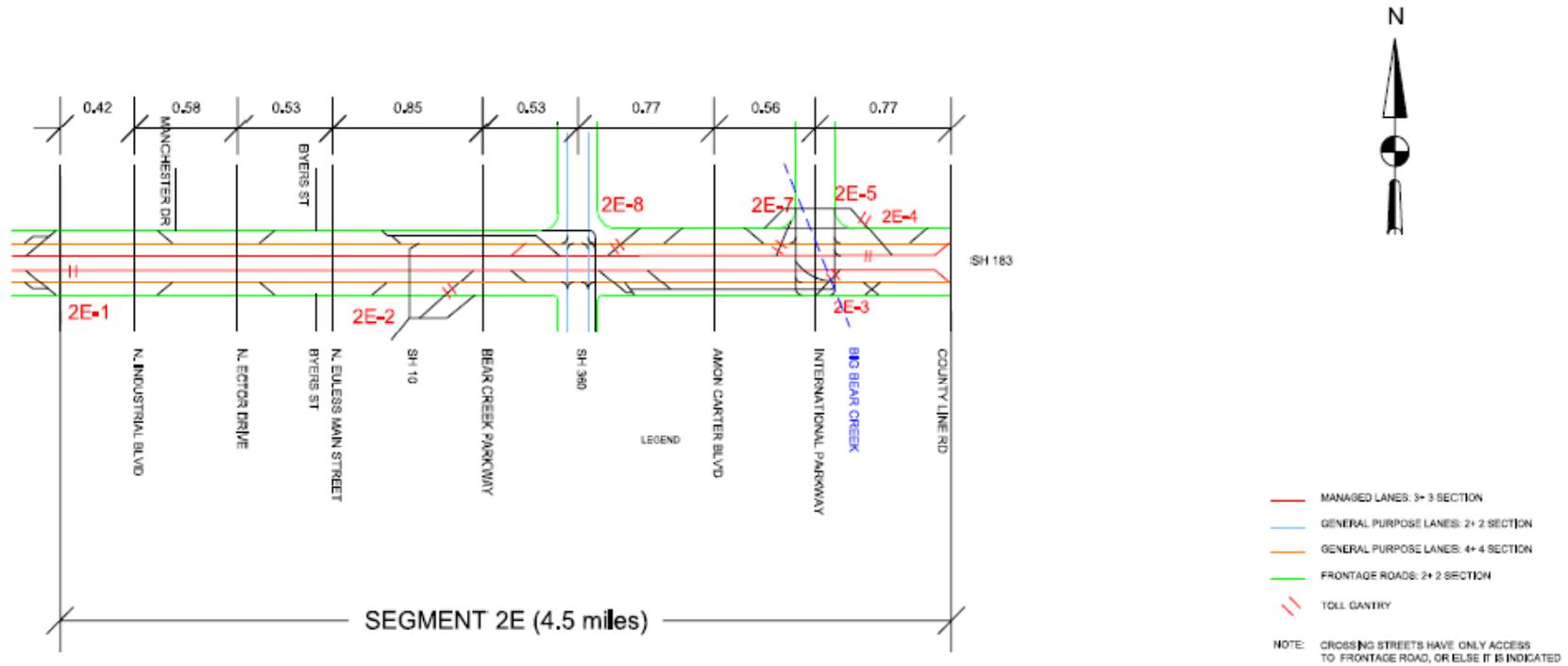


Figure 3-7: Segment 2E Stick Diagram - Ultimate Configuration



### **3.2.3. Segment 3A**

Segment 3A is 5.4 miles long and runs north-south along the existing IH 35W from north of Polaris Blvd. to IH 30, within the Fort Worth city limits.

Segment 3A includes crossings of the West Fork Trinity River in two locations – IH 35W South of E. Northside Dr. / Yucca Ave. and on SH 121 east of Oakhurst Scenic Dr.

Segment 3A includes rail crossings at the following locations:

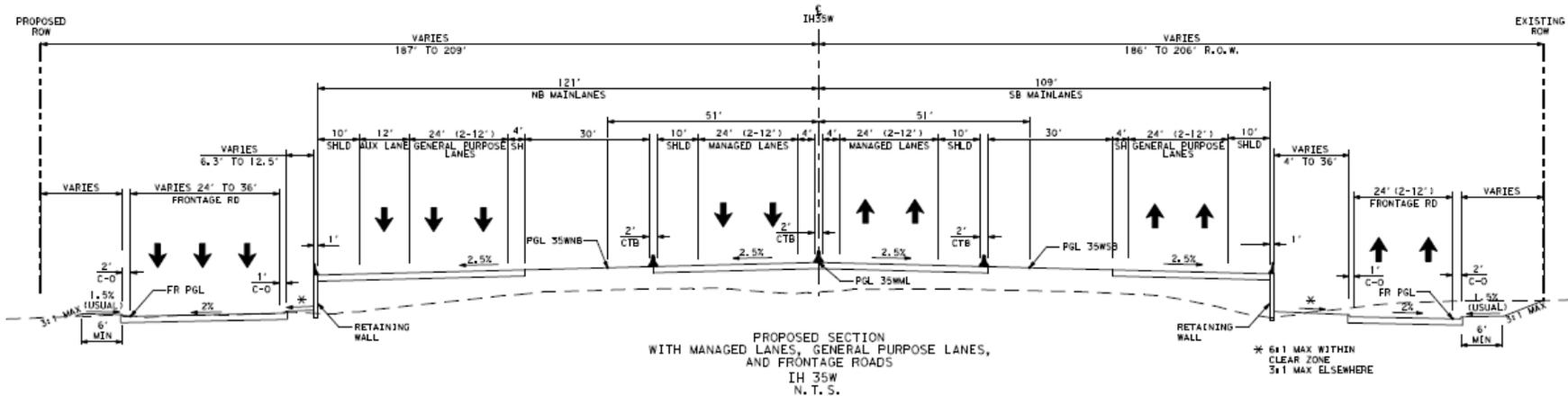
- E. Long Ave – Fort Worth and Western RR
- Dooling St. – Burlington Northern-Santa Fe (BNSF RR)
- Wautaga Rd. – Union Pacific (UPRR), Fort Worth Belt RR
- South of Fourth St. – DART / Trinity Railway Express

NTEMP24 has proposed a number of changes to TxDOT's original schematic for Segment 3A, for the purposes of financial feasibility while providing better connectivity and enhanced mobility.

NTEMP24's proposed interim configuration of Segment 3A maintains the existing capacity of the General Purpose Lanes, with two to three General Purpose Lanes, two Managed Lanes and two-lane frontage roads. In some areas, auxiliary lanes and other lanes may be provided to achieve lane balance. (See Figure 3-8)

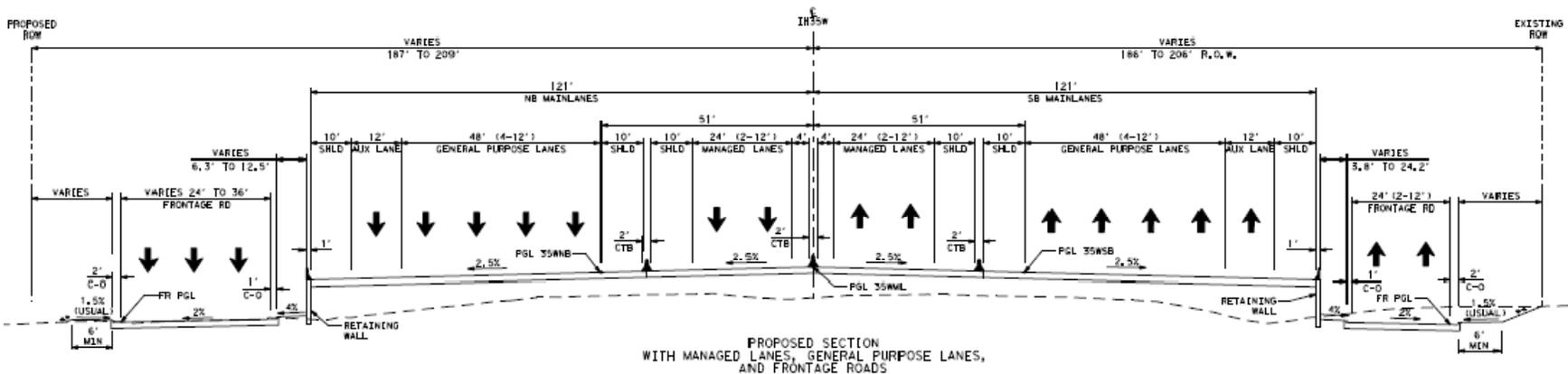
The proposed ultimate configuration of Segment 3A contains four General Purpose Lanes, two Managed Lanes and two-lane Frontage Roads, with auxiliary lanes and other lanes provided to achieve lane balance. (See Figure 3-9).

Figure 3-8: Typical Section - Segment 3A Interim Configuration



**Note:** Interim Frontage road not continuous. See Proposal Schematics for more details. Interim GPL capacity will match Existing Capacity.

Figure 3-9: Typical Section - Segment 3A Ultimate Configuration



**Note:** Ultimate Frontage road not continuous. See NTE MP 2-4 Ultimate schematics for more details

The main differences between the TxDOT schematic and the proposed interim configuration of Segment 3A include:

- Managed Lane entrance and exit ramps have been extended nearly one mile further south.
- The northbound General Purpose Lanes on IH 35W have been shifted slightly west between the pair of Managed Lane entrance and exit ramps north of northeast 28th St. / SH 183 to improve stopping sight distance.
- The number of Managed Lanes has been increased from one to two lanes in each direction south of the Trinity River.
- The curvature of entrance ramps and direct connectors has been revised in certain locations to comply with the technical requirements.
- Managed Lane connections have been added at Northbound US 287 to Northbound IH 35W and Southbound IH 35W to Southbound US 287 to accommodate Managed Lane connections to the existing IH 30.

Adding Managed Lane connections between IH 35W and US 287 is expected to improve connectivity between the Project and IH 30.

Traffic flow between the Project and IH 30 may also be improved by deferring construction of the interchange at SH 121. Preliminary analysis indicates that postponing construction of this interchange will attract more traffic to both Segment 3A and IH 30, improving the feasibility of Segment 3A and attracting traffic to facilities with more available capacity than SH 121, thereby improving overall mobility. Further, deferment of this construction will improve financial feasibility while providing better project connectivity and enhanced mobility. The Draft Facilities Report to be provided in Milestone 4 will discuss optimal phasing of the interchange at SH 121.

The approximate locations of toll gantries on Segment 3A are presented in Table 3-3 and interim and ultimate stick diagrams of Segments 3A, 3B and the IH 35W / IH 820 Interchange are provided in Figures 3-10 and 3-11.

Table 3-3: Segment 3A Toll Gantry Locations

No.	Type	Interim	Ultimate	Road	Direction	Milepost
3A-1	Transition On-Ramp	✓	✓	IH 35W	NB	925+00
3A-2	Connector	✓	✓	IH 35W	NB	925+00
3A-3	On-Ramp	✓	✓	IH 35W	NB	809+00
3A-4	On-Ramp	✓	✓	IH 35W	NB	767+00
3A-5	Mainline	✓	✓	IH 35W	SB	650+00
3A-6	On-Ramp	✓	✓	IH 35W	SB	703+00
3A-7	Connector		✓	SH 121	NB	923+00

Figure 3-10: Segments 3A-3B Stick Diagram - Interim Configuration

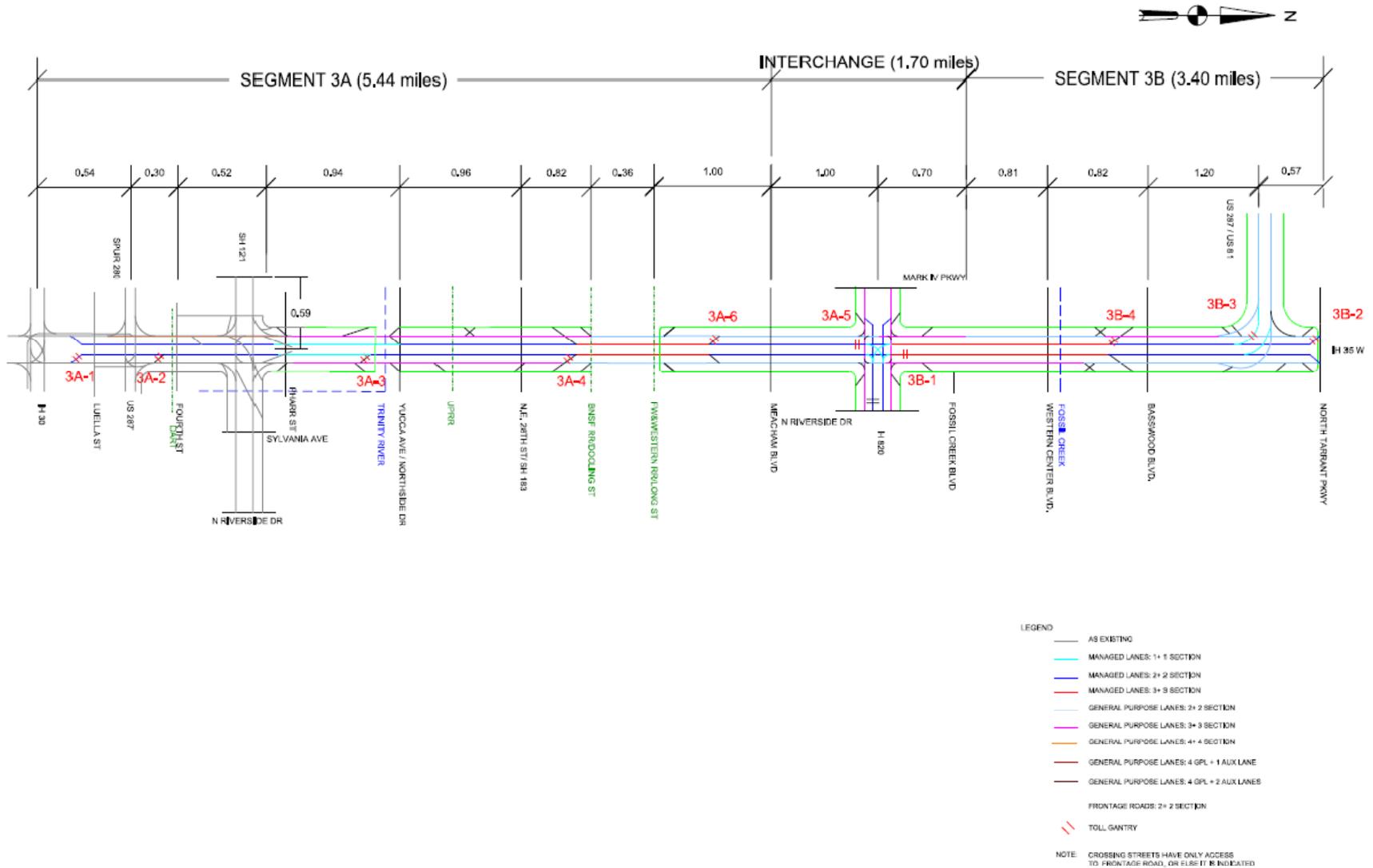
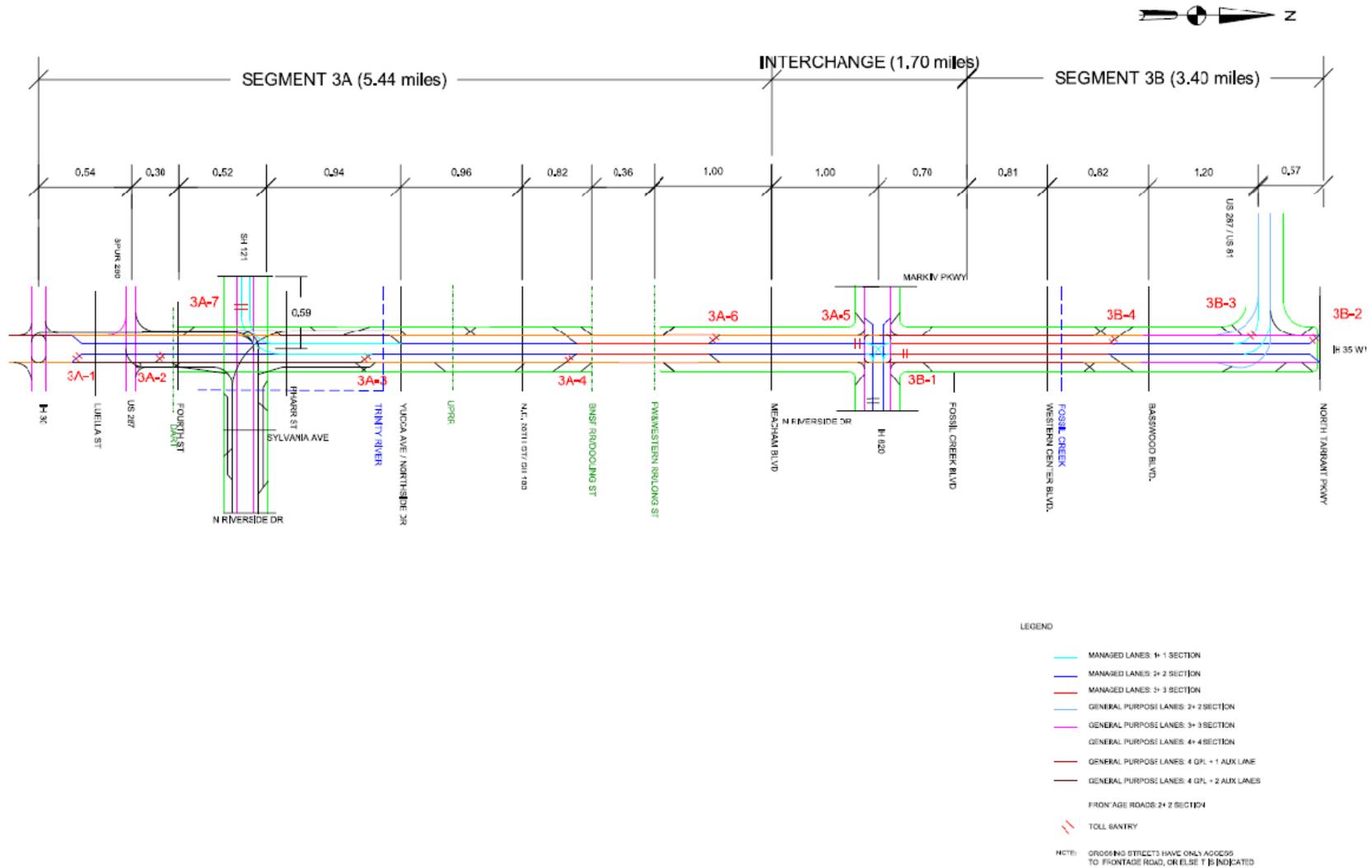


Figure 3-11: Segments 3A-3B Stick Diagram - Ultimate Configuration



### **3.2.4. IH 35 / IH 820 Interchange (Segment 1A)**

The IH 35 / IH 820 Interchange (Segment 1A) is located within the city limits of Fort Worth. Segment 1A extends approximately 1.7 miles along IH 35W and 1.9 miles along IH 820. It is bordered in the north by NTE Segment 3B, in the South by NTE Segment 3A, in the East by NTE Segment 1B (Concession Facility) and on the West it will merge with the existing infrastructure just east of Mark IV Parkway (Ultimate configuration extends west of Mark IV Parkway).

Segment 1A provides continuity to the Managed Lanes on IH 35W by connecting the Managed Lanes of NTE Segments 3A and 3B. It also extends the Managed Lanes on IH 820 further west of IH 35W. Besides the main interchange, the only major intersection on this Segment is Mark IV Parkway located on the west side of Segment 1A on IH 820 (to be constructed in Ultimate configuration only).

#### **3.2.4.1. Interim Configuration**

Under the currently proposed alternative, Work to be performed by the Developer on the IH 35W / IH 820 Interchange will consist of:

- Constructing the northbound and southbound IH 35W Managed Lanes.
- Constructing the eastbound and westbound IH 820 Managed Lanes.
- Constructing the IH 820 westbound to IH 35W southbound Managed Lane-to-Managed Lane Direct Connector
- Constructing the IH 820 westbound to IH 35W northbound Managed Lane-to-Managed Lane Direct Connector
- Constructing all remaining General Purpose Lane connectors (one lane only) to and from IH 35W
- Constructing the IH 35W General Purpose Lanes (Existing Capacity to be matched)
- Constructing the IH 820 General Purpose Lane (Existing Capacity to be matched)

#### **3.2.4.2. Ultimate Configuration**

Work to be deferred to Ultimate configuration consists of:

- Reconstructing the southbound to westbound Frontage Road from Sta. 401 to Mark IV Parkway and associated southbound Frontage Road to southbound General Purpose Lanes entrance ramp
- Reconstructing the eastbound to southbound Frontage Road from Mark IV Parkway to Sta. 395+00
- Reconstruction of Mark IV Parkway and associated u-turns

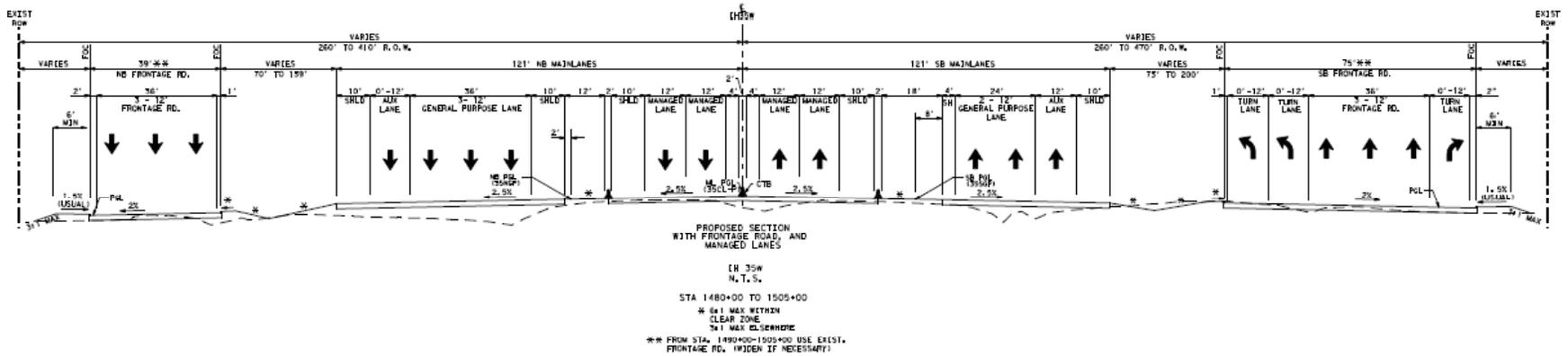
- Reconstruction of the IH 820 eastbound and westbound GPL west of approximately Sta. 648+00

### **3.2.5. Segment 3B**

Segment 3B is 3.4 miles long and runs north-south along the existing IH 35W from south of Fossil Creek Blvd. to North Tarrant Parkway, within the Fort Worth city limits. The Segment 3B Managed Lanes are at grade and located in the center of the freeway, between the northbound and southbound General Purpose Lanes. Segment 3B includes crossings of Fossil Creek (north of Western Center Blvd.). It does not cross any rail lines.

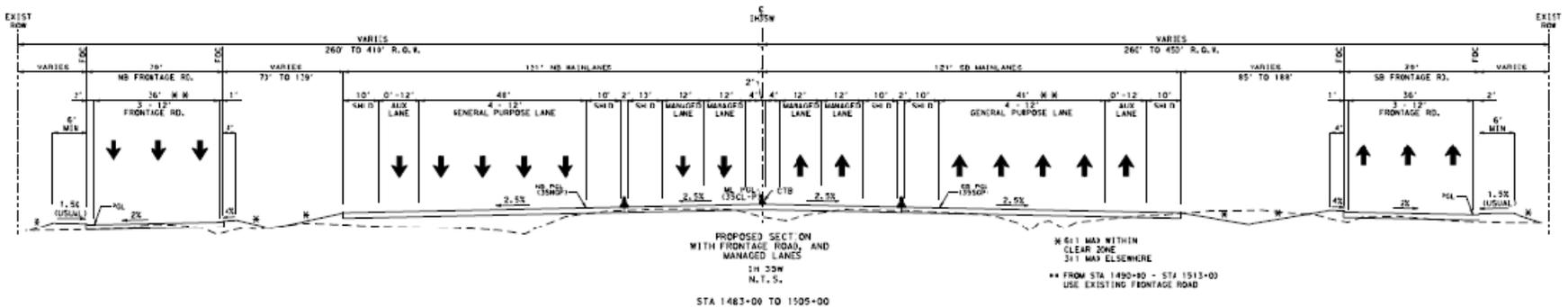
The interim configuration of Segment 3B consists of two southbound General Purpose Lanes, two to three northbound General Purpose Lanes, two Managed Lanes in each direction and two to three-lane Frontage Roads, as shown in Figure 11-Figure 3-12. The ultimate configuration contains four to five General Purpose Lanes in each direction, two to three Managed Lanes in each direction and two to three-lane Frontage Roads, as shown in Figure 3-13.

Figure 3-12: Typical Section - Interim Configuration of Segment 3B South of US 287



**Note:** Interim GPL capacity will match Existing Capacity.

Figure 3-13: Typical Section - Ultimate Configuration of Segment 3B South of US 287



The approximate locations of toll gantries on Segment 3B are presented in Table 3-4.

Table 3-4: Segment 3B Toll Gantry Locations

No.	Type	Interim	Ultimate	Road	Direction	Milepost
3B-1	Mainline	✓	✓	IH 35W	NB	1582+00
3B-2	Transition On-Ramp	✓	✓	IH 35W	SB	1403+00
3B-3	Connector	✓	✓	IH 35W	SB	1453+00
3B-4	On-Ramp	✓	✓	IH 35W	SB	1510+00

Stick diagrams of the interim and ultimate configurations of Segments 3A, 3B and the IH 35W / IH 820 Interchange are provided in Figures 3-10 and 3-11 (pages 18-19).

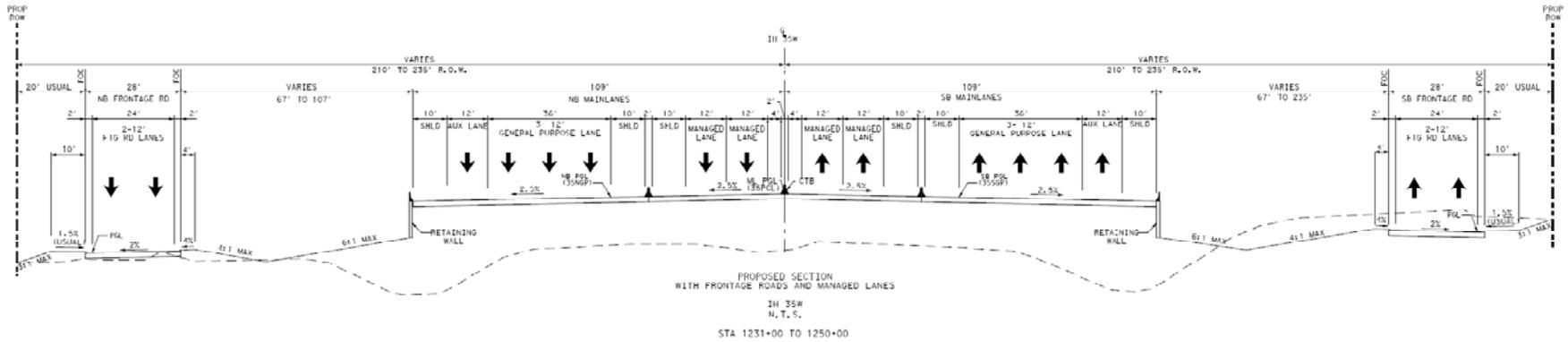
### 3.2.6. Segment 3C

Segment 3C is 7.2 miles long and runs north-south along the existing IH 35W, primarily within the city limits of Fort Worth (northernmost portion north of Texas Longhorn Way is in an unincorporated area of Denton County), from NTE Segment 3B (US 287) to 0.16 mile south of Eagle Parkway. Segment 3C crosses Henrietta Creek north of Westport Parkway and does not contain any rail crossings.

Segment 3C, in its ultimate configuration, consists of three 12-foot General Purpose Lanes and two 12-foot Managed Lanes. The Segment 3C Managed Lanes are at-grade and located in the center of the freeway, between the northbound and southbound General Purpose Lanes (see Figure 3-14).

The interim configuration of Segment 3C is currently under development. A detailed feasibility analysis is being conducted to determine the optimal number of lanes for the interim configuration to provide users with additional capacity while minimizing the public subsidy.

Figure 3-14: Typical Section - Segment 3C Ultimate Configuration



The approximate locations of toll gantries on Segment 3C are presented in Table 3-5.

Table 3-5: Segment 3C Toll Gantry Locations

No.	Type	Interim	Ultimate	Road	Direction	Milepost
3C-1	Mainline	✓	✓	IH 35W	NB	1400+00
3C-2	Connector		✓	SH 170	NB	1155+00
3C-3	On-Ramp		✓	IH 35W	SB	1070+00
3C-4	On-Ramp	✓		IH 35W	SB	1145+00
3C-5	On-Ramp	✓	✓	IH 35W	SB	1258+00
3C-6	On-Ramp	✓	✓	IH 35W FR	SB	1360+00

Interim and ultimate stick diagrams of Segment 3C are provided in Figures 3-15 and 3-16.

Figure 3-15: Stick Diagram - Segment 3C - Interim Configuration

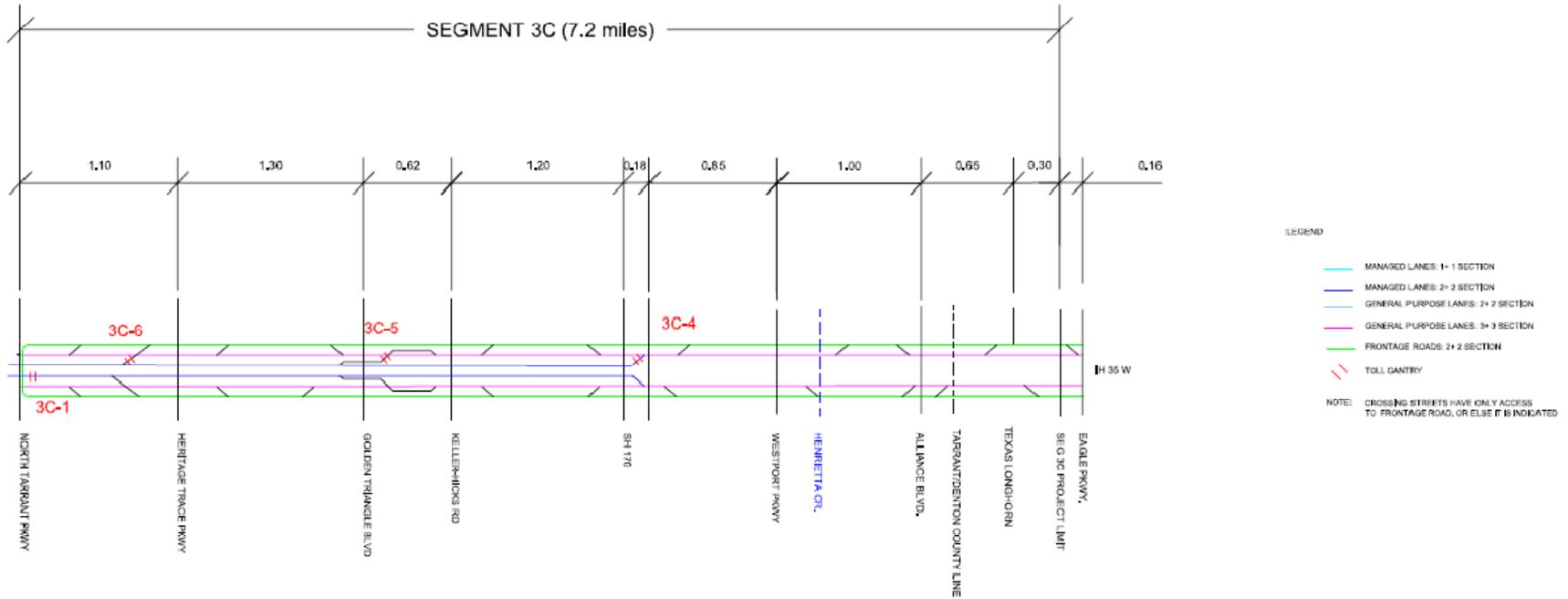
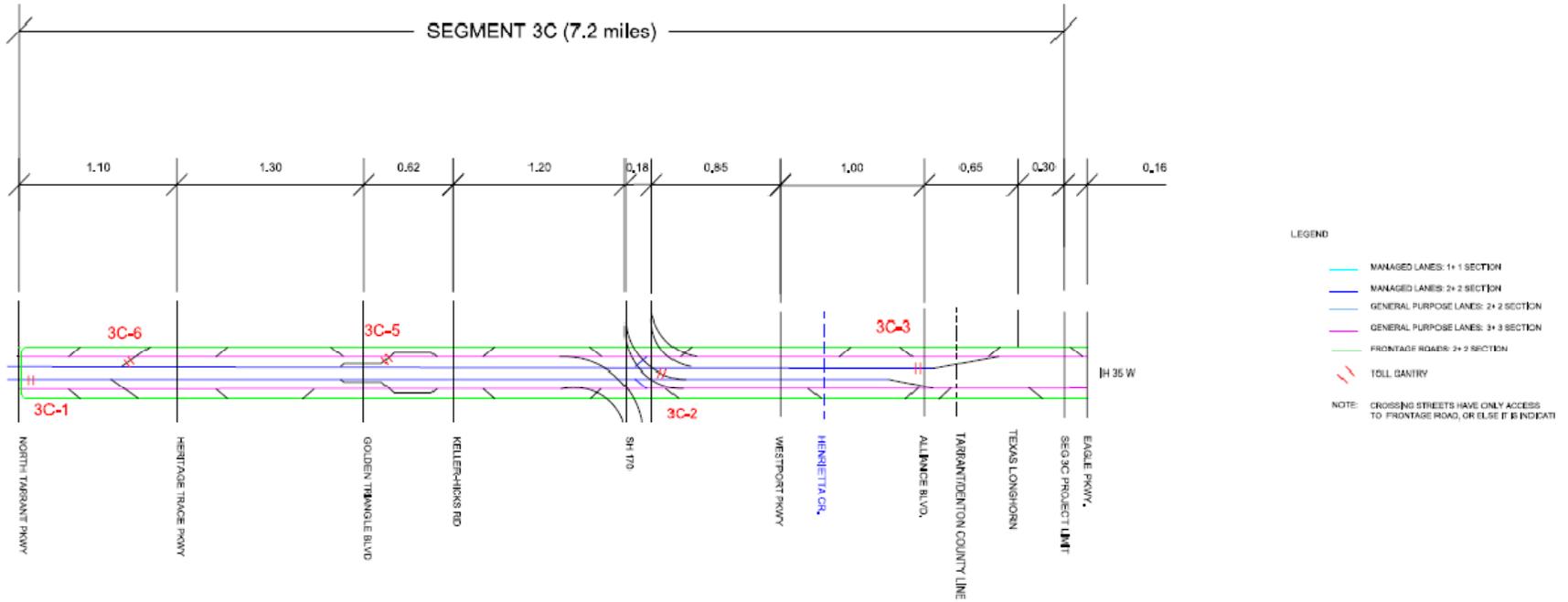


Figure 3-16: Stick Diagram - Segment 3C - Ultimate Configuration



### **3.2.7. Segment 4**

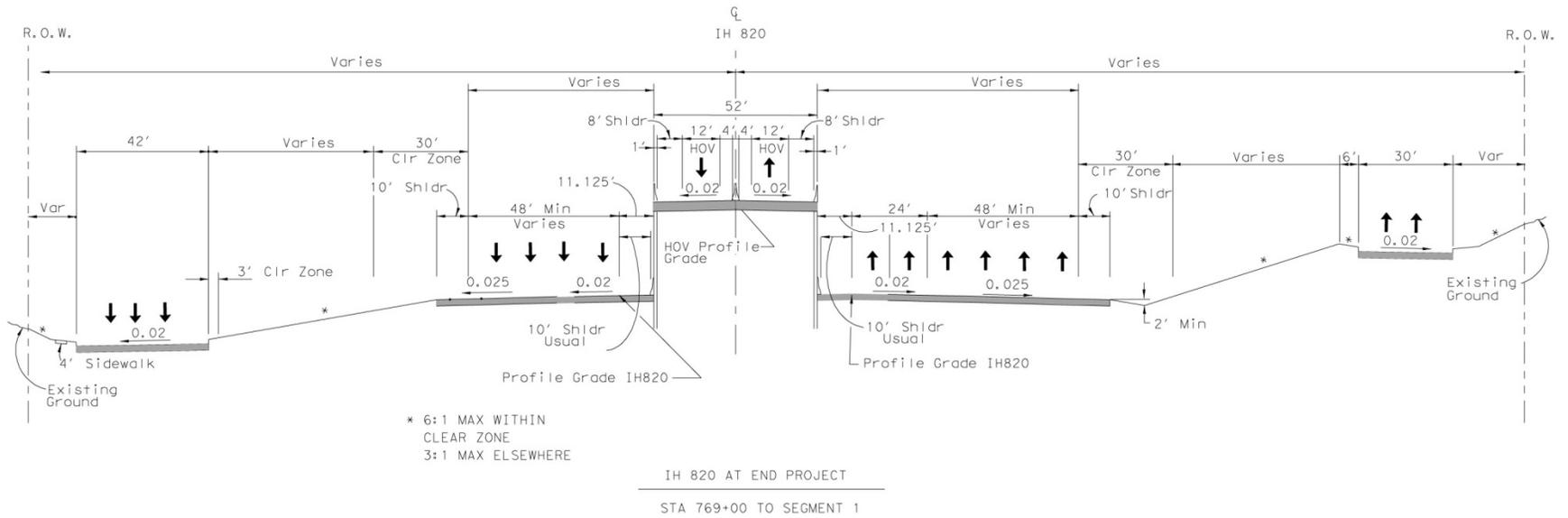
Segment 4 is 3.7 miles long and runs north-south along the existing IH 820/SH 121/SH 183 (Airport Freeway) and crosses the city limits of Fort Worth, Hurst and Richland Hills. The northern limit of Segment 4 begins at NTE Segment 2C (IH 820/SH 121/SH 183). Segment 4 splits south of W. Hurst Blvd. and comprises sections of both IH 820 (ending at Randol Mill Road) and SH 121 (ending at Handley Ederville Rd.).

Segment 4 consists of three to four 12-foot General Purpose Lanes and one 12-foot Managed Lane (lane width varies within this section, as shown on the current conceptual schematic). The Segment 4 Managed Lane is at-grade and located in the center of the freeway, between the northbound and southbound General Purpose Lanes, as shown in Figure 11-Figure 3-17.

At this time, a detailed feasibility analysis is being conducted to estimate what the optimum number of lanes in an interim configuration would be in order to provide the users with the new capacity while minimizing the efforts in terms of public subsidy.

Segment 4 contains a stream crossing at Calloway Branch north of Glenn Drive and crossings of the West Fork Trinity River in two locations north of Randol Mill Road. Segment 4 crosses the Missouri-Kansas-Texas (MKT) Railroad on IH 820, just south of the split with Airport Freeway.

Figure 3-17: Typical Section - Segment 4 Ultimate Configuration



The approximate locations of toll gantries on Segment 4 are presented in Table 3-6.

Table 3-6: Segment 4 Toll Gantry Locations

No.	Type	Interim	Ultimate	Road	Direction	Milepost
4-1	On-Ramp	✓	✓	IH 820	NB	770+00
4-2	Mainline	✓	✓	IH 820	SB	850+00
4-3	On-Ramp	✓	✓	SH 121 FR	NB	330+00
4-4	On-Ramp	✓	✓	SH 121	NB	352+00

Interim and ultimate stick diagrams of Segment 4 are provided in Figures 3-18 and 3-19.

Figure 3-18: Stick Diagram - Segment 4 - Interim Configuration

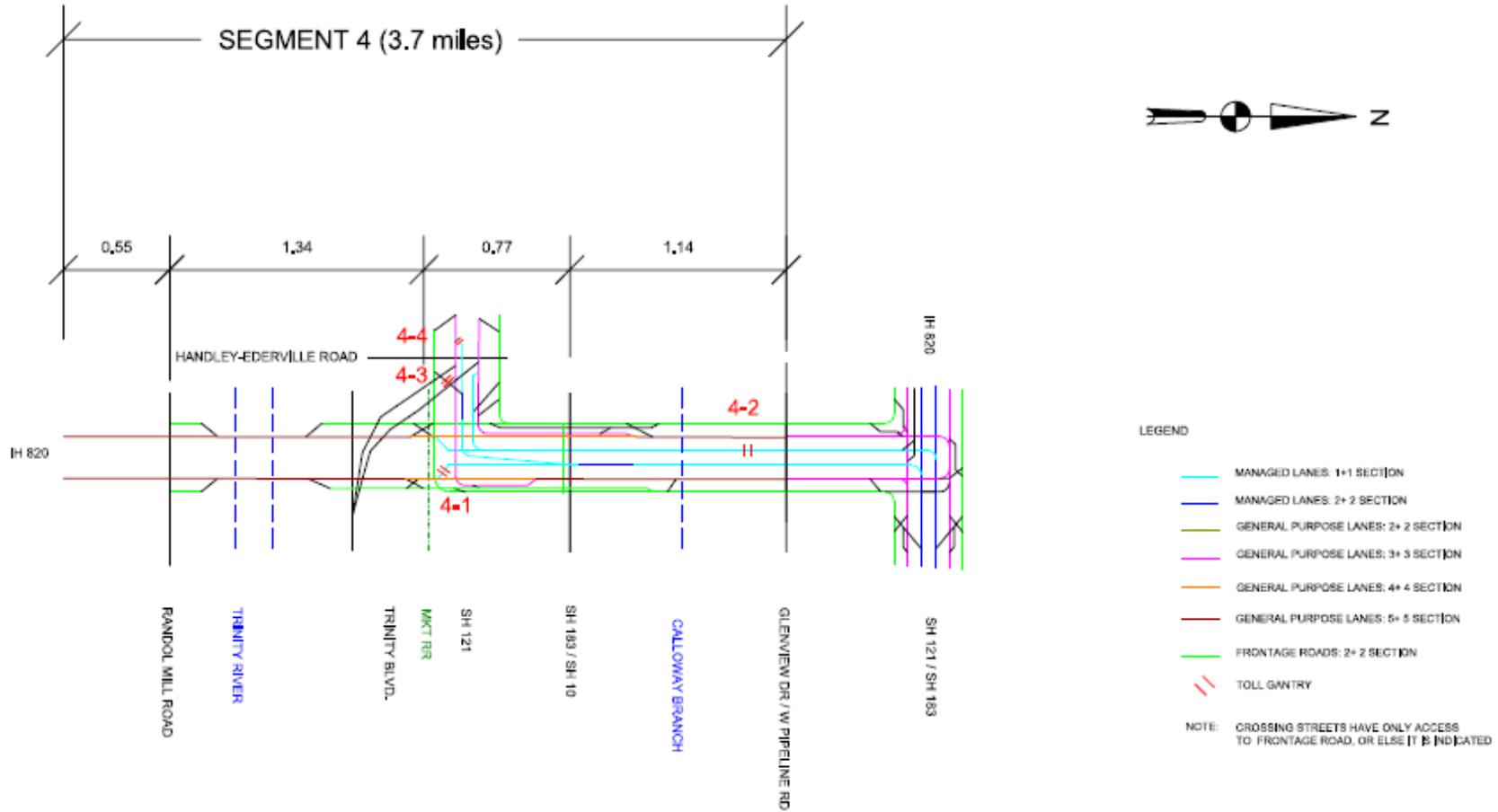


Figure 3-19: Stick Diagram - Segment 4 - Ultimate Configuration

