IH 35E Managed Lanes Project
SB 1420 Committee

November 30, 2011
Denton County Transportation Authority

Agenda Items 1-3

1. Welcome and Introductions – Presentation and handout materials are available on the following website:

   http://www.txdot.gov/project_information/projects/dallas/i35e/sb1420.htm

2. Approval of Minutes - **ACTION ITEM**

3. Proposed Memoranda of Understanding for the SB 1420 Committee and Stakeholders for the development of the IH 35E Managed Lanes Project

4. Discussion of Options

Scenario 6A

Managed Lanes

Provide two reversible Managed Lanes between IH 635 and Loop 288 (minor improvements up to US 77)

General Purpose and Frontage Roads

Re-use existing pavement where possible, no additional capacity

Lake Lewisville

- Connect frontage roads across Lake Lewisville using tolled bridges
- Build all new southbound frontage roads, general purpose lanes and managed lanes across Lake Lewisville

SH 121/IH 35E Interchange

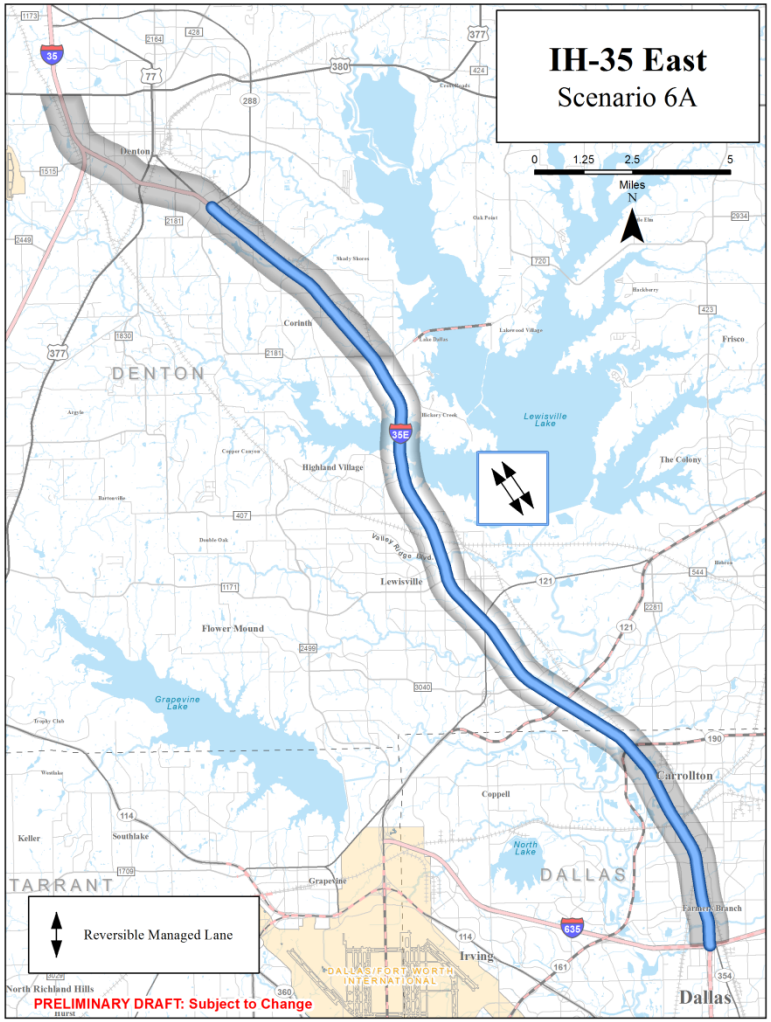
Construct the missing direct connector ramps to the North

Collector Distributor System at PGBT and SH 121

Construct full collector-distributor (CD) system between PGBT and SH121 (toll CD's)

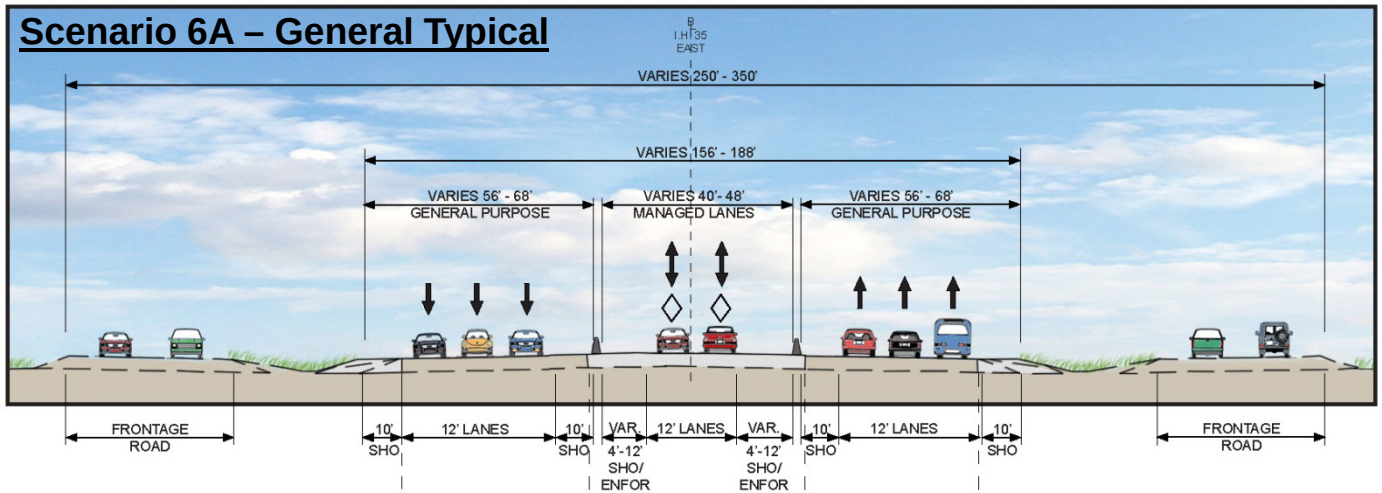
Right-of-Way Acquisition

Minimized ROW acquisition/utility relocation where possible



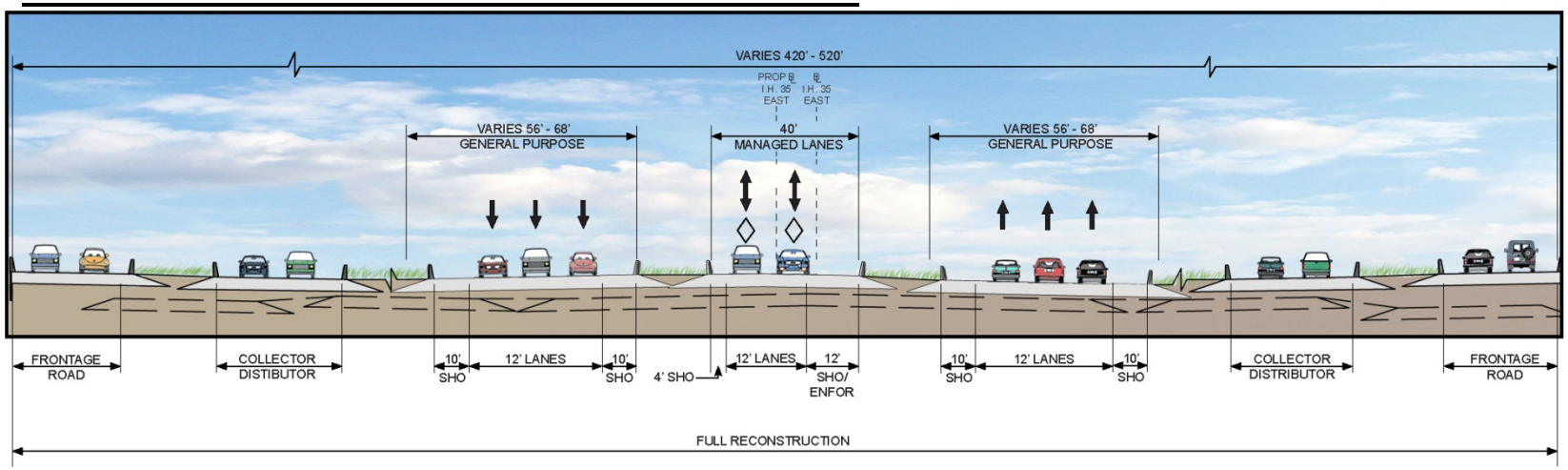
PRELIMINARY: SUBJECT TO CHANGE

4. Discussion of Options



Note: Two general purpose lanes each direction north of Corinth Parkway

Scenario 6A – General between PGBT and SH 121



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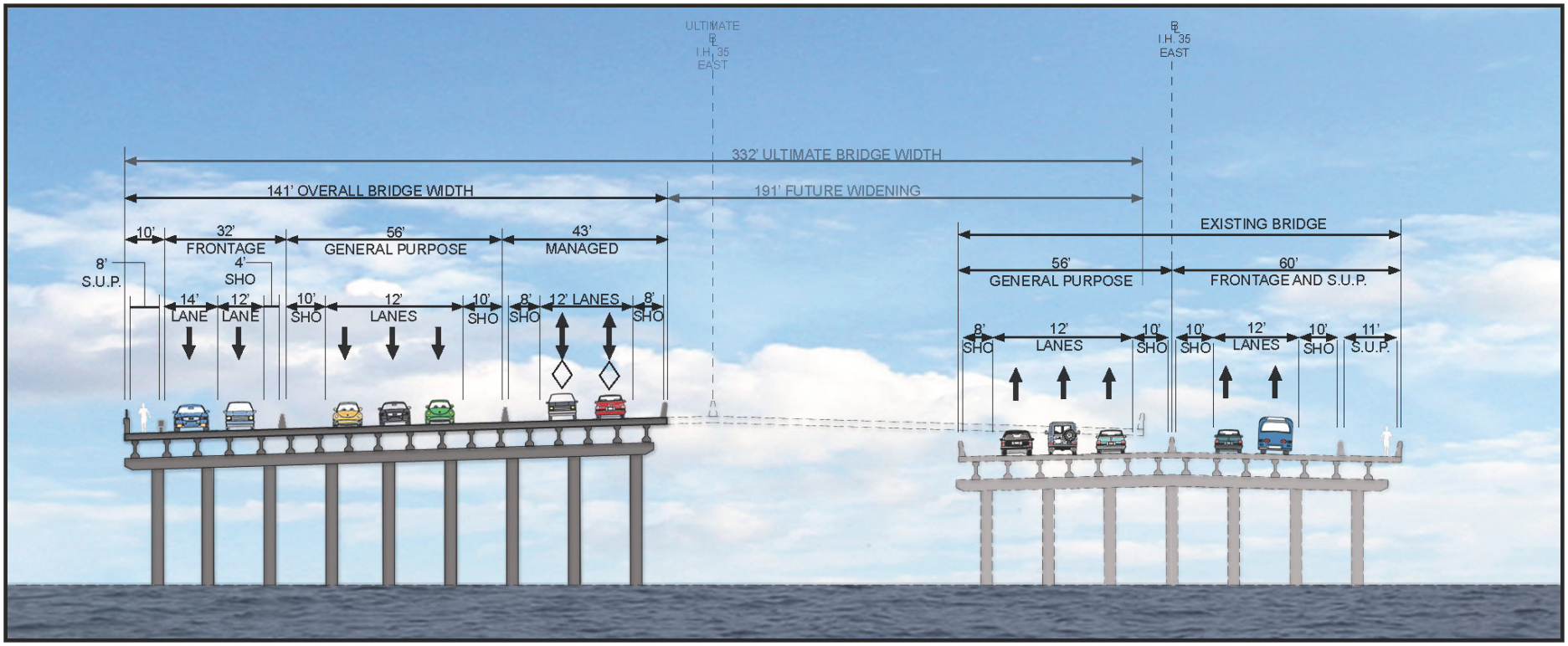


Scenario 6A – Typical Section over Lake Lewisville

PRELIMINARY: SUBJECT TO CHANGE

4. Discussion of Options
Financial Analysis 6A-6C

	6A	6B	6C	Ultimate*
Length (miles)	23.2	23.2	28.2	28.2
Limits	IH 635 - Loop 288	IH 635 - Loop 288	IH 635 - US 380	IH 635 - US 380
Capital Costs (nominal $ millions)	$2,011	$1,325	$1,161	$4,773
Design-Build Costs	$1,375	$918	$854	$3,345
ROW	$636	$407	$307	$1,428
Total Public Funds Requirement (includes $592 RTR Funds)				
Concession (nominal $ millions)	$812	$394	$0	$2,987
Availability Payment (nominal $ millions) Nominal Operational Shortfall	$592 upfront $198 year 1 $868-$4,109	$592 upfront $132 year 1 $375-$2,000	$592 upfront $125 year 1 $108-$747	Not analyzed
Municipal Finance (nominal $ millions)	$1,897	$1,264	$924	Not analyzed

**Cost estimate and financial analysis for the ultimate configuration were performed in 2010. Traffic and revenue analysis for the ultimate configuration was prepared based on the 2030 NCTCOG model and therefore some information is not comparable to more recent scenarios.*

The information and analysis contained herein is preliminary in nature and for planning purposes only, and cannot be relied upon by any third party. The scenarios and costs, traffic, revenue, and financial projections were prepared in good faith and with reasonable care but is limited by the conceptual nature of the design. Data provided is subject to change up until contract award. The scenarios and results provided may vary from those resulting from the procurement process.

4. Discussion of Options
Build Out Options for Scenario 6A+

Option	* Cost Range (2011 $ millions)
Construct additional Auxiliary Lanes between Corinth Parkway and Loop 288	$7 – $9
Construct additional General Purpose Lanes between IH-635 and Corporate Drive	$130 – $180
Extend Managed Lanes from Loop 288 to US 380	$52 – $60
Construct remainder of proposed Lewisville Lake Bridge and pavement approaches	$165 – $180
Reconstruct existing general purpose and frontage road pavement	$220 – $250

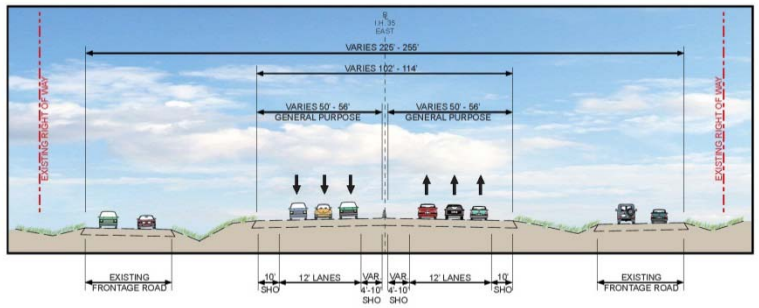
*** COST INCLUDES ROW AND UTILITY RELOCATIONS**

PRELIMINARY: SUBJECT TO CHANGE

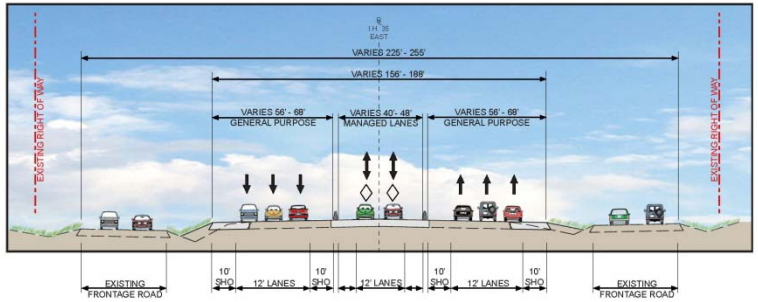
4. Discussion of Options
Adding a GP Lane to 6A

- **Analysis to add a general purpose lane in each direction to Scenario 6A**

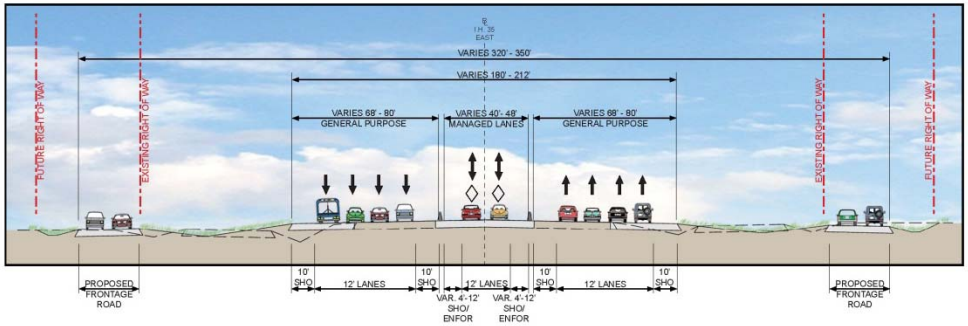
Existing Typical Section



Scenario 6A Typical Section



Scenario 6A Typical Section w/ additional GP Lane



4. Discussion of Options
Adding a GP Lane to 6A

Construction Costs

❑ **The additional GP lanes significantly increase ROW/Utility relocation requirements, resulting in an increase of $ 891 M in nominal construction costs**

Scenario 6A

Construction Costs by Segment (nominal $ millions)	Construction Costs	ROW/Utilities	Total
North	$ 157	$ 34	$ 191
Middle	845	341	1,186
South	373	260	633
Total	$ 1,375	$ 635	$ 2,010

Scenario 6A with additional GP lane

Construction Costs by Segment (nominal $ millions)	Construction Costs	ROW/Utilities	Total
North	$ 291	$ 273	$ 564
Middle	980	579	1,559
South	406	372	778
Total	$ 1,677	$ 1,224	$ 2,901

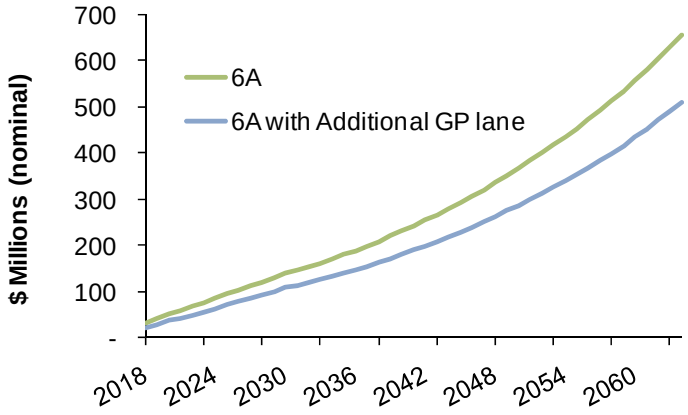
Note: Correction to total cost for Scenario 6A with additional GP lane made subsequent to meeting

4. Discussion of Options
Adding a GP Lane to 6A

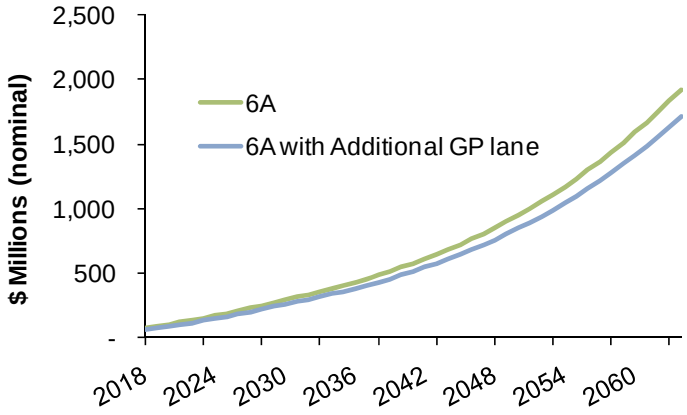
Revenue Impacts

- ❑ **The additional GP lane reduces overall congestion in the corridor**
- ❑ **The reduction in congestion reduces demand for the managed lanes, and as a result, revenue projections are lower when you include the additional GP lanes**

Conservative Forecast



Aggressive Forecast



- ❑ **Revenue over a 47 year term is reduced by about 22% in the conservative projection, and 11% in the aggressive projection**

4. Discussion of Options
Adding a GP Lane to 6A

Summary

- Upfront costs increase from Scenario 6A by $891M, mostly attributable to ROW/Utilities
- The revenue decrease from Scenario 6A ranges between 10% and 20%
- With more lanes under management; operations, maintenance, and lifecycle costs increase
- Scenario 6A under a concession estimates at $812 M public funds (includes $592 M)
- Summary:
  - Increased construction, ROW, Utility relocation and operating costs
  - Decreased revenue
- Public funds requirement increases by approximately $0.9 B
- High level assessment – endeavoring to refine these numbers

Note: Correction to total cost for Scenario 6A with additional GP lane made subsequent to meeting

Agenda Items 5-7

5. Report to Executive Director

6. Status Report on Partnership Funds

7. Adjourn - **ACTION ITEM**