DATE 25 October 2013

to The Honorable Members of the Transportation and Trinity River Project Committee: Vonciel Jones Hill (Chair), Lee Kleinman (Vice Chair), Deputy Mayor Pro Tem Monica Alonzo, Mayor Pro Tem Tennell Atkins, Sandy Greyson, Sheffie Kadane

SUBJECT D2-CBD Second Alignment

At the Joint Transportation and Trinity River Project Council Committee and Dallas Area Rapid Transit (DART) Board Meeting on Monday, 28 October 2013, DART will present an Update on the D2-CBD Second Alignment. The material is attached for your review.

Jill Jordan, P.E.
Assistant City Manager

Attachment

c: A.C. Gonzalez, Interim City Manager
    Warren M. S. Ernst, City Attorney
    Judge Daniel F. Solis, Administrative Judge
    Rosa A. Rios, City Secretary
    Craig D. Kinton, City Auditor
    Ryan S. Evans, Interim First Assistant City Manager
    Forest E. Turner, Assistant City Manager
    Joey Zapata, Assistant City Manager
    Charles M. Cato, Interim Assistant City Manager
    Theresa O'Donnell, Interim Assistant City Manager
    Jeanne Chipperfield, Chief Financial Officer
    Frank Librio, Public Information Officer
    Elsa Cantu, Assistant to the City Manager – Mayor and Council
D2 - CBD Second Alignment

Joint Meeting of DART Board of Directors/City of Dallas
Transportation and Trinity River Project Council Committee
28 October 2013

Steve Salin, AICP
Vice President, Rail Planning
Presentation Outline

• Regional Context
• Project Overview Phase 1
  – Purpose and Need
  – Core Capacity
  – Alternatives Considered
• Project Overview Phase 2
• Next Steps
Regional Context
Regional Context - Rail

[Map of Funded Recommendations for Passenger Rail Improvements, showing various funding sources and integrated corridors.]

Corridor specific alignment, design, and operational characteristics for the intercity passenger, regional passenger, and freight rail systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in future rail corridors.

*See High Speed Rail map for additional inter-region rail access.
Downtown Dallas Transit Study
Study Area
Purpose and Need

• Near-Term:
  – Service reliability
  – Operational flexibility

• Long-Term:
  – System capacity

• Other Purposes:
  – Downtown access/circulation
  – Economic development
Background

• 2030 Transit System Plan included 2\textsuperscript{nd} CBD LRT alignment with revenue service date of 2016
  – DART completed the D2 Alternatives Analysis/Draft Environmental Impact Statement (AA/DEIS) in 2010

• Economic downturn (2007-2008) deferred D2 and other Transit System Plan projects

• Federal Transit Administration (FTA)
  – Supportive of D2 project as possible New Start Project
Background

• FTA grant awarded to continue D2 effort:
  – Address comments during Phase I AA/DEIS
  – Model and ridership forecasts
  – Coordinate with streetcar planning
  – Coordinate with High Speed Rail (HSR)
  – ROW preservation
  – Coordinate with downtown development

• Recommendations will be incorporated into 2040 Transit System Plan and Financial Plan
Moving Ahead for Progress in the 21st Century Act (MAP-21)

- Transportation bill signed into law in 2012
  - Two year bill
- Significant changes
  - Consolidates several programs and streamlines the major capital investment program
  - State of Good Repair (SOGR)
  - Asset Management
- Program guidance and rulemaking not yet completed
• New Starts/Small Starts
  – Competitive Program
  – Project Development Process modified
  – Project evaluation and ratings modified

• Core Capacity (new program)
  – DART was a key advocate for the new program
  – Projects must expand capacity
    – By at least 10% in the corridor that are at or above capacity or are expected to be at capacity in five years
  – Project selection guidelines undefined
  – Limited appropriations from New Starts
Core Capacity in Pictures
Core Capacity Issue

• Core of DART LRT system serves:
  – 43% of customers (total LRT riders)
  – 51% of transfer activity (LRT to LRT transfers)
  – 100% of LRT trips on existing mall
• Ridership forecasts through 2030
• Determined when ridership demand will exceed system capacity at various service levels and strategies
• Identified needed improvements to provide necessary system capacity to meet forecasted ridership demand
Factors Affecting System Capacity

• Maximum capacity determined by:
  – Number of trains per hour
  – Number of cars per train
  – Number of passengers per car
• Occurs at the maximum load points on each line
• Occurs at the peak one hour of each peak period
• DART considers line to be overcrowded when the average passenger load during the peak hour at a maximum load point exceeds 175 percent of seating capacity
LRT Operations at Buildout

6 Directional Trains
10 Minute Headway

18 Directional Trains
3 Minute Headway

24 Directional Trains
2.5 Minute Headway
West Junction Crossing Movements

- Union Station to Victory Station: 60 seconds
- Union Station to West End Station: 80 seconds
- Victory Station to West End Station: 60 seconds
- West End Station: 93 seconds

Speed = 15 mph
Initial Alternatives

• No Build Alternative
  – Required for comparison in the EIS
  – Includes existing and committed projects through 2030
• Bus Alternative
  – Lower cost, primarily bus
• Rail Alternative
  – Additional LRT capacity through downtown
• Expanded, modernized streetcar to complement and support any of the above
Initial LRT Corridor

City of Dallas Comprehensive Transportation Plan
for the Dallas Central Business District
First Phase Alternatives
Lamar—Commerce Alignment

**PROS**
- Supports existing high density development
- Underground has minimal surface disruptions

**CONS**
- Little to no coverage of Government district, Convention Center Hotel and Farmers Market
- Subway – Lack of visibility
- Perception as unsafe?
Lamar—Young Alignment

**PROS**
- Serves new market areas
- At-Grade visibility and “marketability”
- Leverages currently underdeveloped areas
- At-Grade stations perceived to be safer

**CONS**
- May affect access to some properties
Lamar—Marilla Alignment

**PROS**
- Centered Government District Station serves Convention Center Hotel and City Hall
- Utilizes cavern beneath City Hall
- South Portal area lies within underutilized street ROW

**CONS**
- Station spacing leaves small area underserved
- Subway-Lack of visibility
Lamar—Convention Center Alignment

**PROS**
- Direct service to Convention Center Hotel
- Additional station within City Hall cavern
- Longest corridor, more stations in South CBD to leverage investment

**CONS**
- Duplicates some coverage of existing Convention Center station
- Subway—Lack of visibility
- Perception as unsafe
Metro Center Station
(Alts - B4, B4a, B4b, B7)
Metro Center Station
(Alt B4 Elevated)
Commerce Street Tunnel
(Alt B7 Lamar-Commerce)
Vicinity of Union Station
Second Phase Alternatives
Next Steps

• Continue Coordination with FTA
  – Ridership model and forecast
  – Core Capacity Program

• Next public meetings in early 2014
  – Traffic
  – Capital, operating and maintenance costs
  – Visual and noise impact analysis
Summary

• Second Alignment is Key for:
  – Service reliability
  – Operational flexibility
  – System capacity
  – Downtown access/circulation
  – Economic development