



# D2 Subway

Dallas City Council Transportation  
and Infrastructure Committee  
Briefing

January 21, 2020

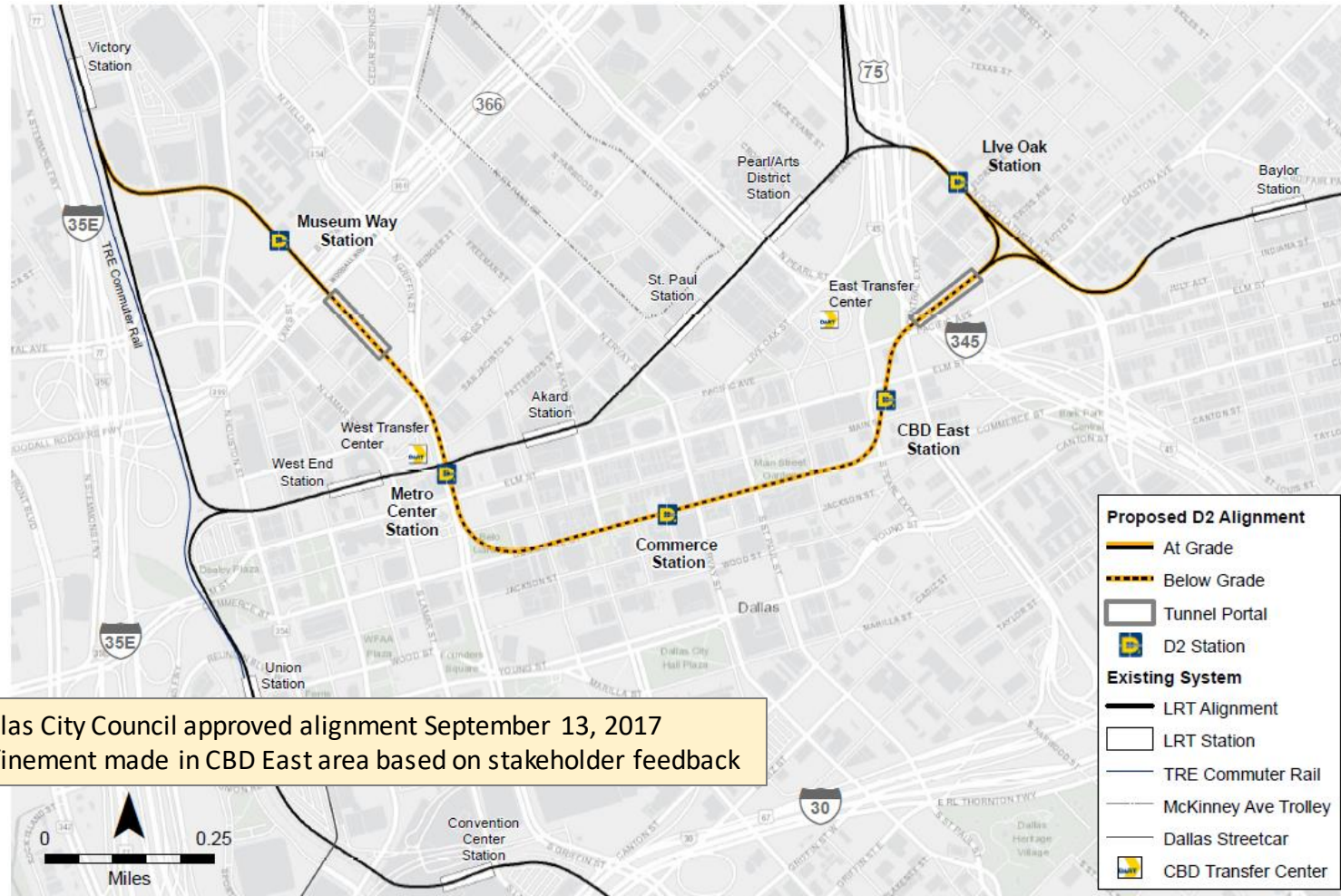


# Agenda

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- D2 Subway Background
- Federal Process
- Project Overview
- Key Issues and Opportunities
- Schedule

# D2 Subway Alignment and Stations



- Dallas City Council approved alignment September 13, 2017
- Refinement made in CBD East area based on stakeholder feedback

# Project Purpose

- Add **Core Capacity** to and through downtown
  - Some trains will be at capacity within a few years
- Provide **Operational Flexibility** for the system
  - Continuity of service during incidents
  - System expansion/added service
- Enhance **Mobility and Access** for existing and future riders
  - Get our riders where they need to go
- Enhance **Economic Development**
  - Add value through context sensitive design



**CORE CAPACITY**

**OPERATIONAL FLEXIBILITY**

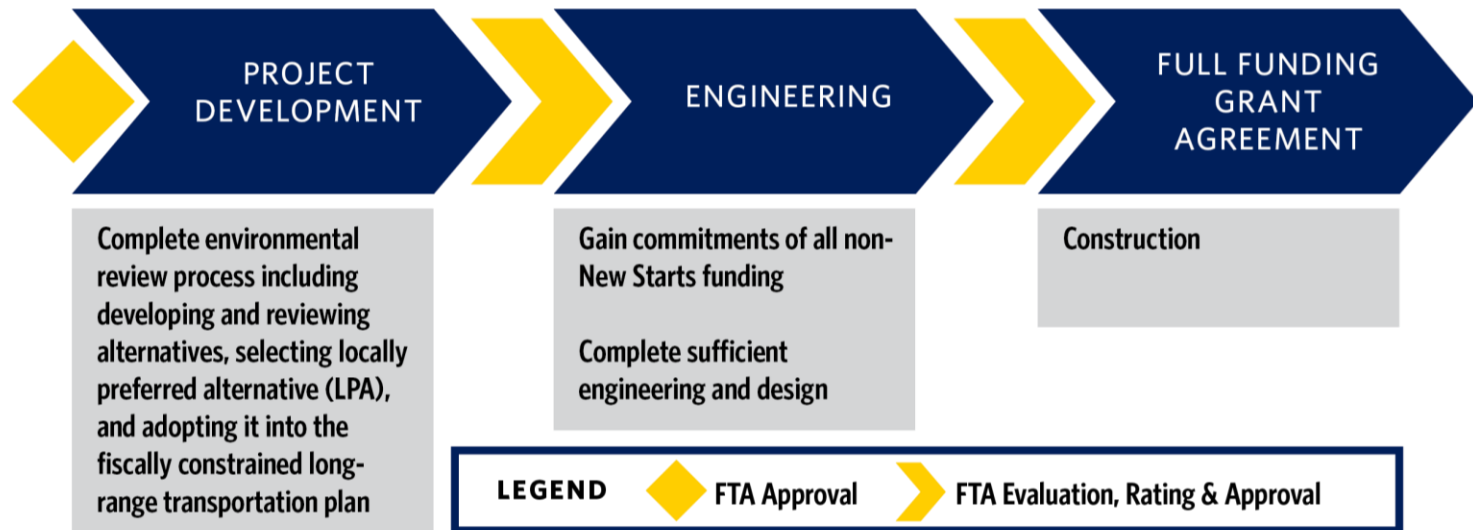
**MOBILITY & ACCESS**

**LAND USE / URBAN DESIGN**



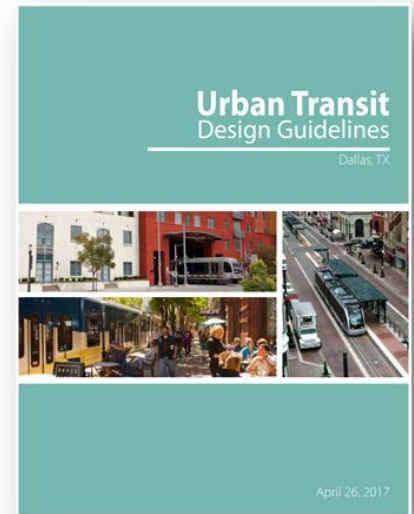
# FTA Capital Investment Grant Process

- Project Development is the first phase of the federal funding process.
- DART is doing Project Development locally and will request entry into Engineering after this phase is complete.
- D2 received **MEDIUM-HIGH** ratings in 2015, 2016, and 2017.



# Project Status

- 10% Preliminary Engineering (PE) is complete.
- Supplemental Draft Environmental Impact Statement (SDEIS) is in development to update 2010 document.
- DART is advancing design to 20% level by March 2020 to support SDEIS:
  - Coordination with City staff and TxDOT ongoing
  - Supportive urban design plans
- Final EIS will incorporate 30% design to complete FTA Project Development phase.
- Service Plan approvals will require public hearing and would occur concurrent with Final EIS by Fall 2020.



*City Council  
approved Guidelines*

A blue and yellow tram is traveling on a city street. The tram has 'LED BETTER' on its destination sign and the number '171' on its side. The street is paved with cobblestones and has tram tracks. In the background, there are modern buildings, including one with a large '1505' sign. A blue sign on the left reads 'Akard St 100 ft'. A yellow rectangular box with a black border is overlaid on the image, containing the text 'Project Overview'.

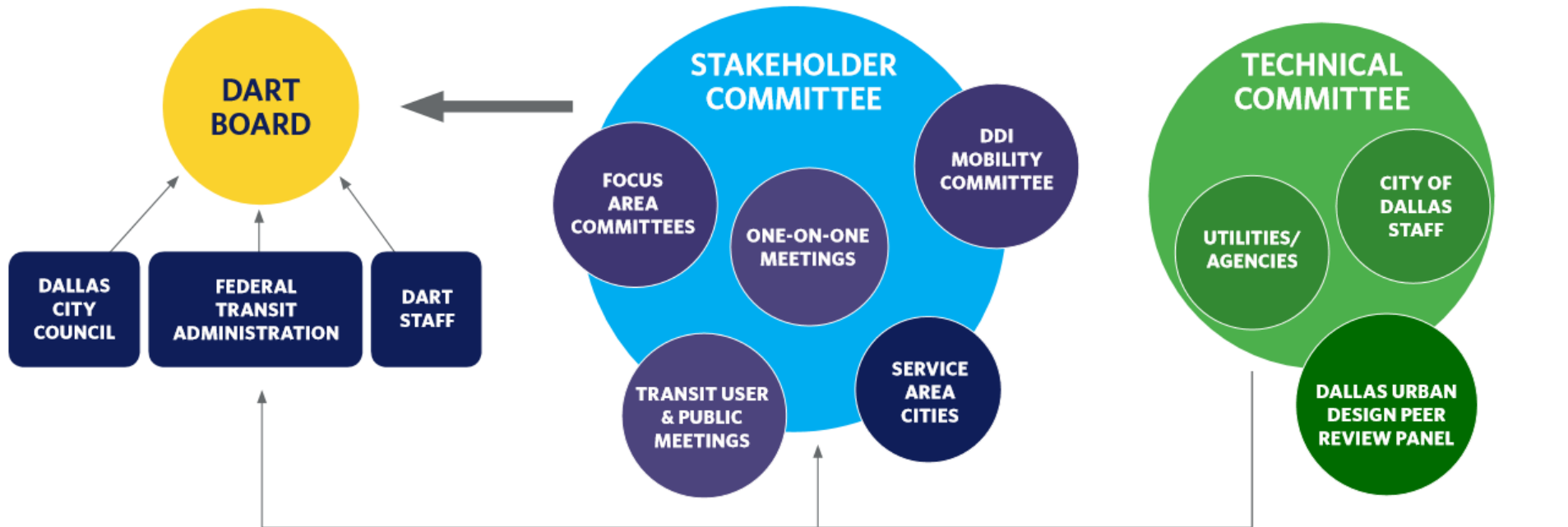
# Project Overview

# Public and Agency Involvement Framework

**POLICY & MANAGEMENT**  
RECOMMENDATIONS • DECISIONS

**PUBLIC & STAKEHOLDERS**  
ISSUE IDENTIFICATION • ADVISORY

**TECHNICAL**  
ENGINEERING DESIGN • ISSUE RESOLUTION



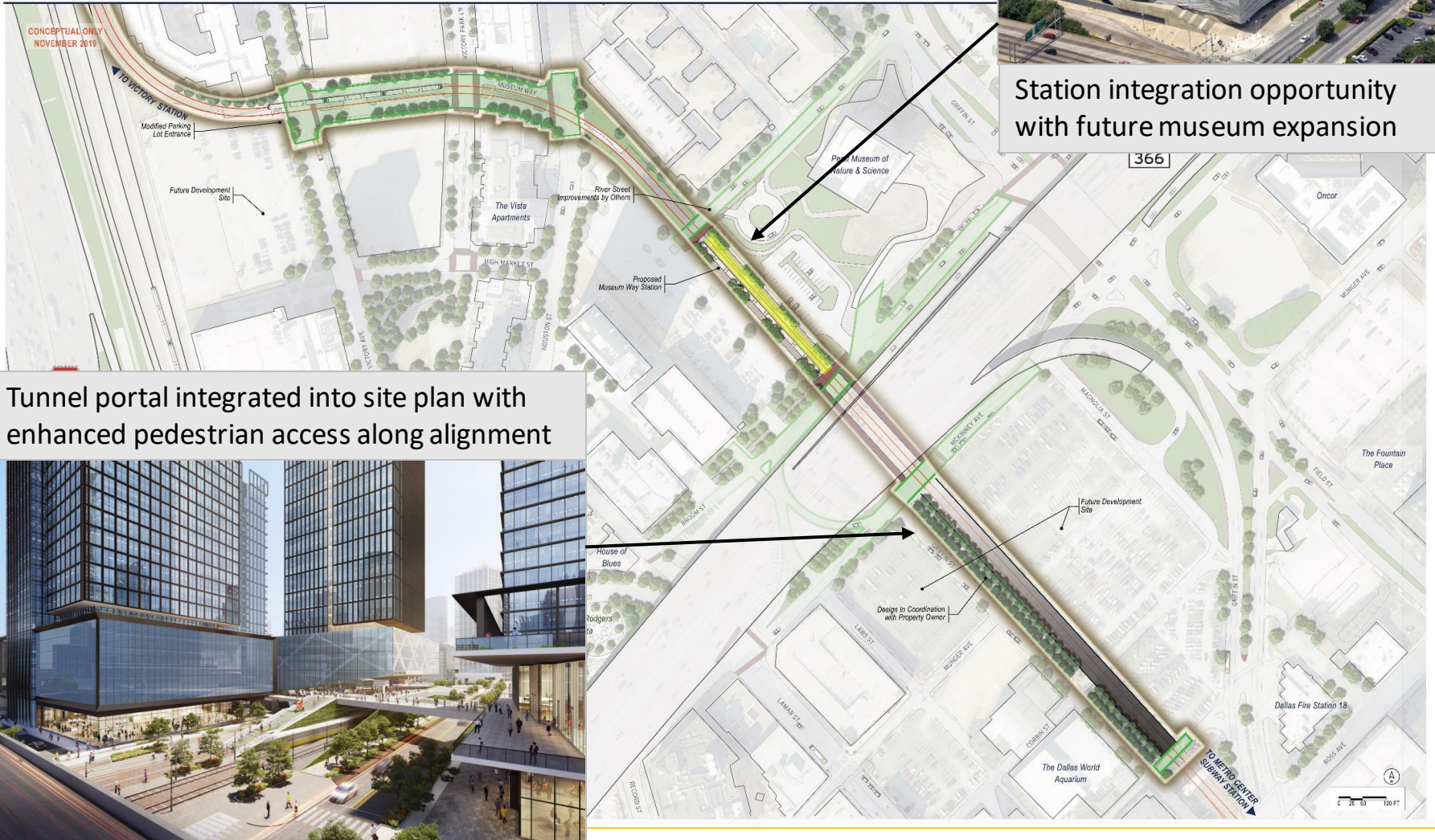


# Museum Way Station Urban Design Plan

D2 SUBWAY | MUSEUM WAY STATION & NORTH TUNNEL PORTAL AREA | URBAN DESIGN PLAN



Station integration opportunity with future museum expansion



Tunnel portal integrated into site plan with enhanced pedestrian access along alignment





# Metro Center Station Urban Design Plan

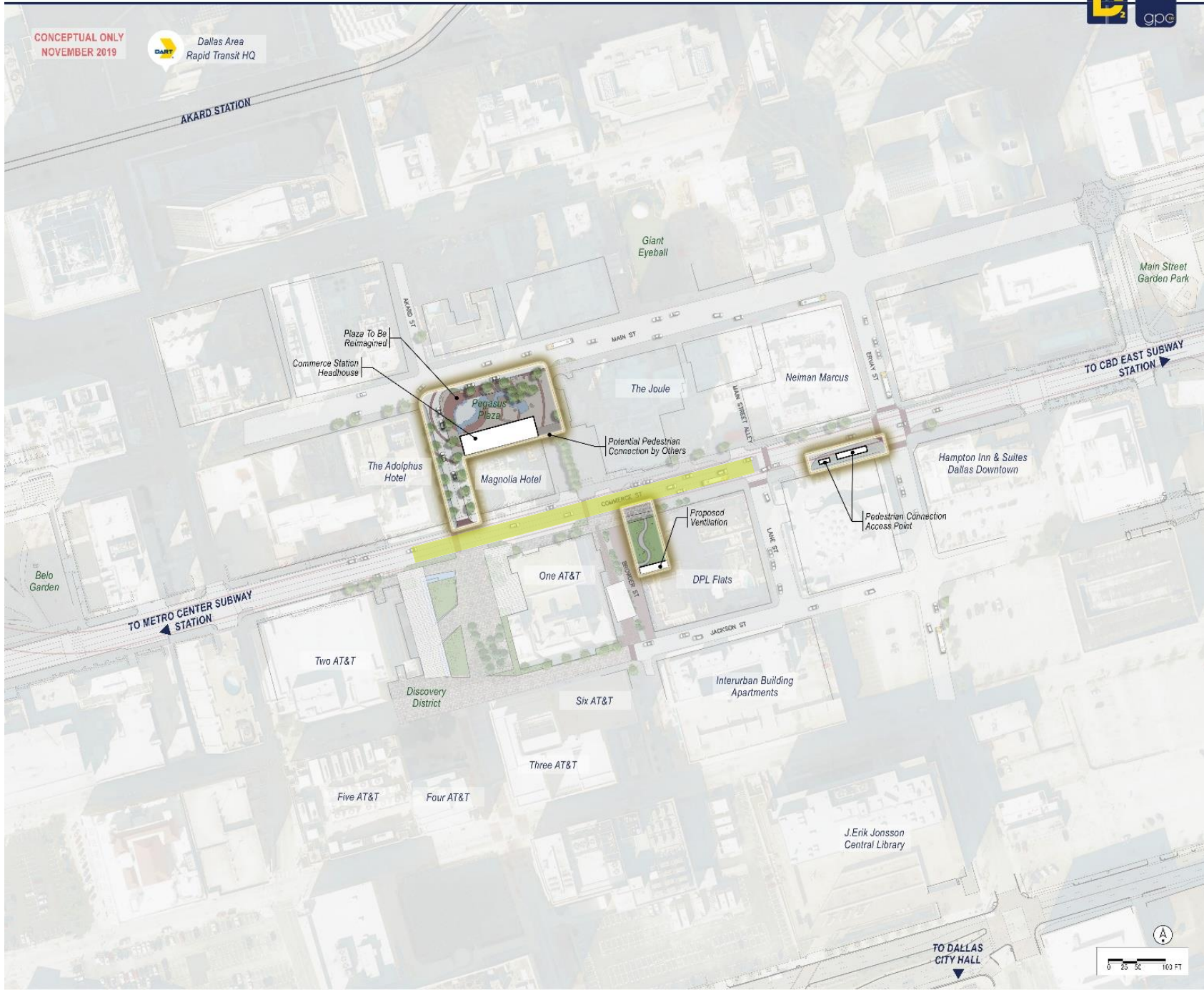
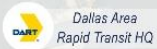


Opportunity to reimagine bus transfer center with headhouse



# Commerce Station Urban Design Plan

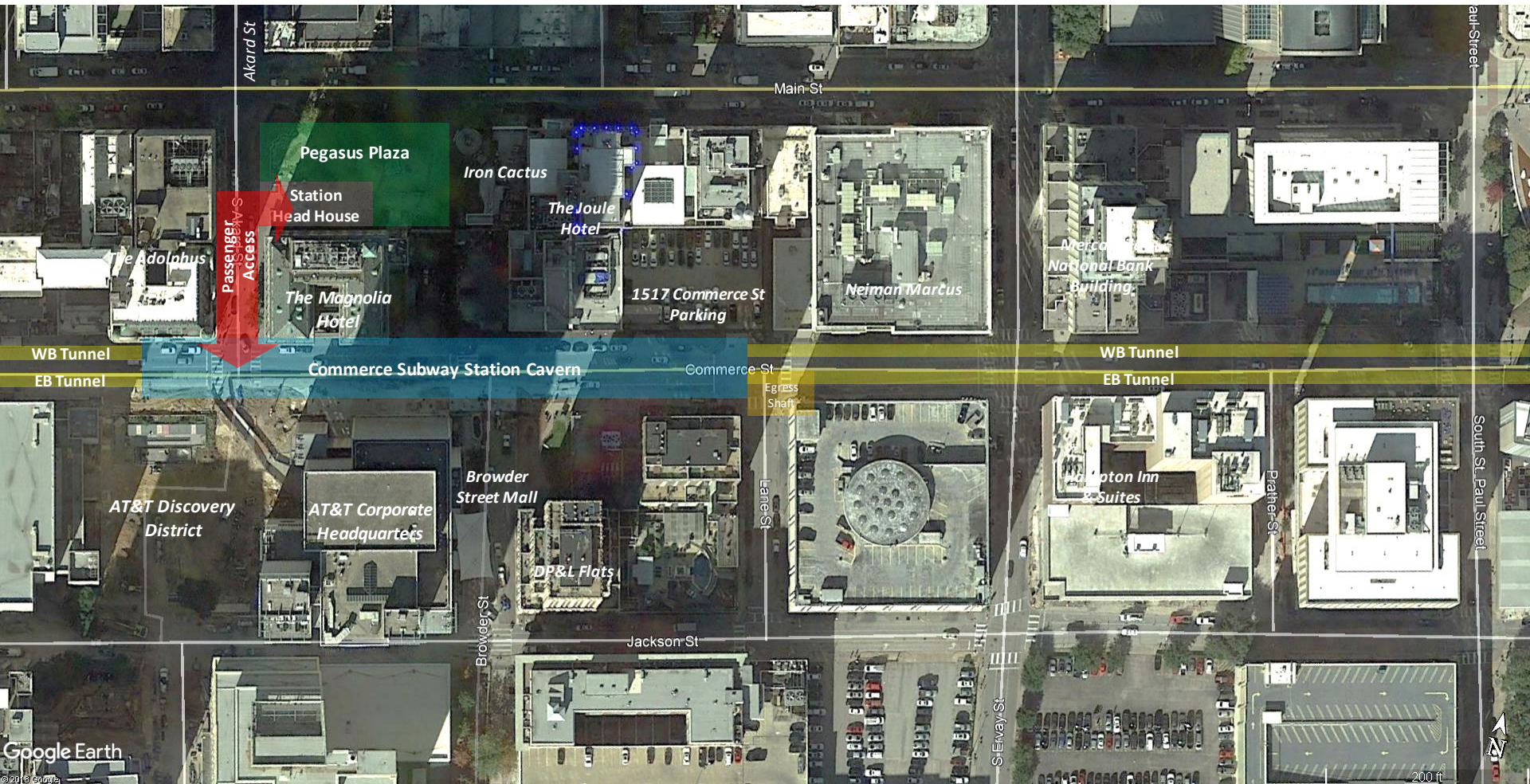
CONCEPTUAL ONLY  
NOVEMBER 2019





# Commerce Station Headhouse

Proposed approach to avoid Cut-and-Cover along Commerce Street





# Pegasus Plaza Existing Condition

## Opportunities

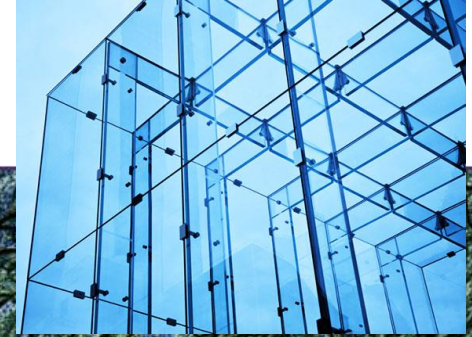
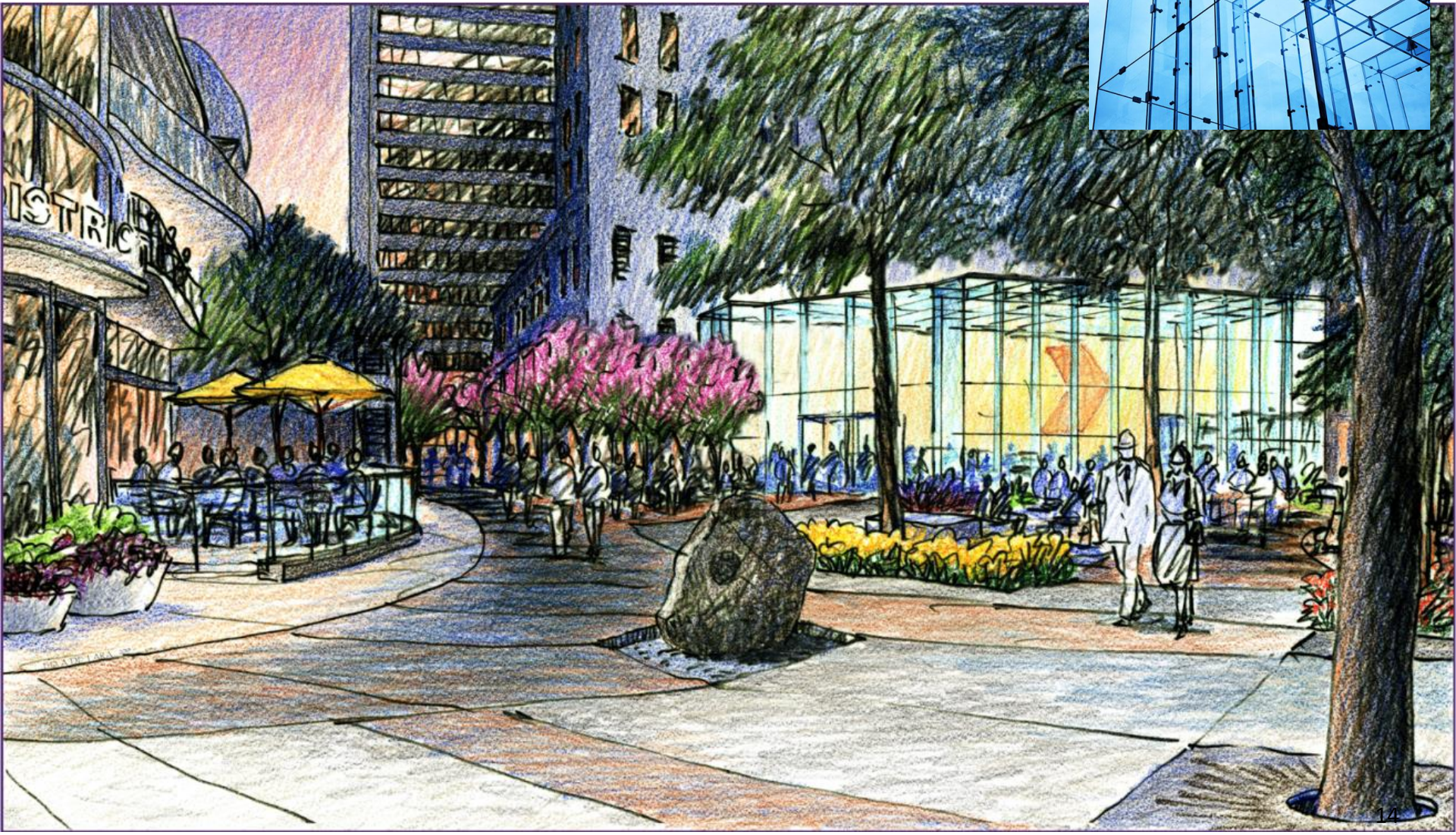
- Arrival portal to heart of downtown
- First Dallas experience for visitors
- Renewed purpose for Plaza
- Retains plaza design
- Can help activate the park
- Blend station with Plaza
- Links public uses – Plaza/Station





# Pegasus Plaza Headhouse Concept

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# Park and Recreation Board Considerations

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- Park and Recreation Board briefed by DART on September 5, 2019.
- Park and Recreation Board approved resolution on September 19, 2019 to advance concept of integrated station headhouse with re-imagined plaza.
- Small stakeholder group meeting will be held in late January to begin to discuss future vision and framework for reimagined plaza.
- DART will return to Park and Recreation Board in spring with refined concept and approvals/agreements needed as part of environmental process.

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### Proximity to growing East Quarter and Farmers Market



# East Portal Urban Design Plan

D2 SUBWAY | LIVE OAK STATION & EAST TUNNEL PORTAL AREA | URBAN DESIGN PLAN

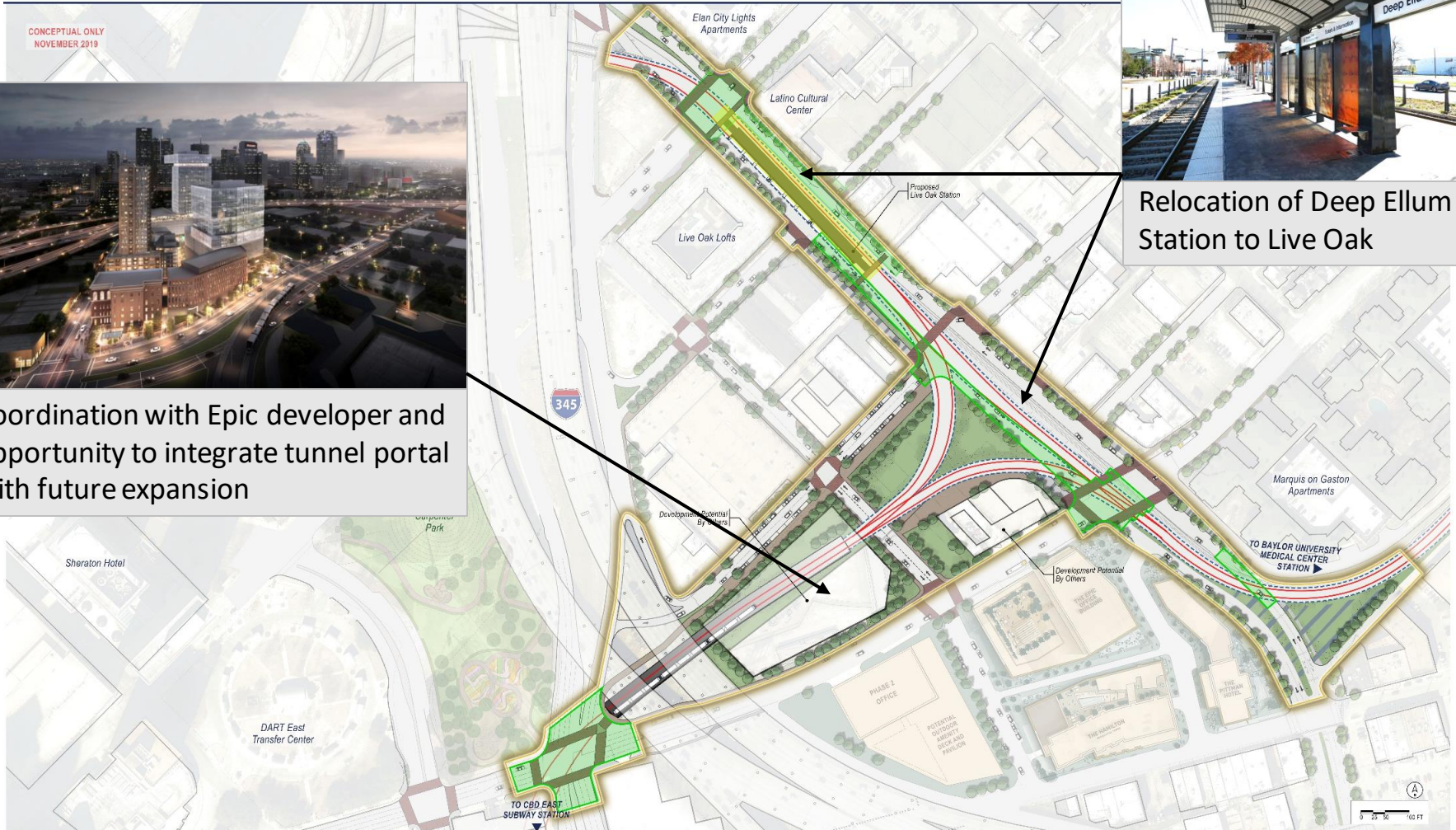
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Coordination with Epic developer and opportunity to integrate tunnel portal with future expansion



Relocation of Deep Ellum Station to Live Oak







# **Key Issues and Opportunities**

# FTA TOD Planning Grant Opportunity

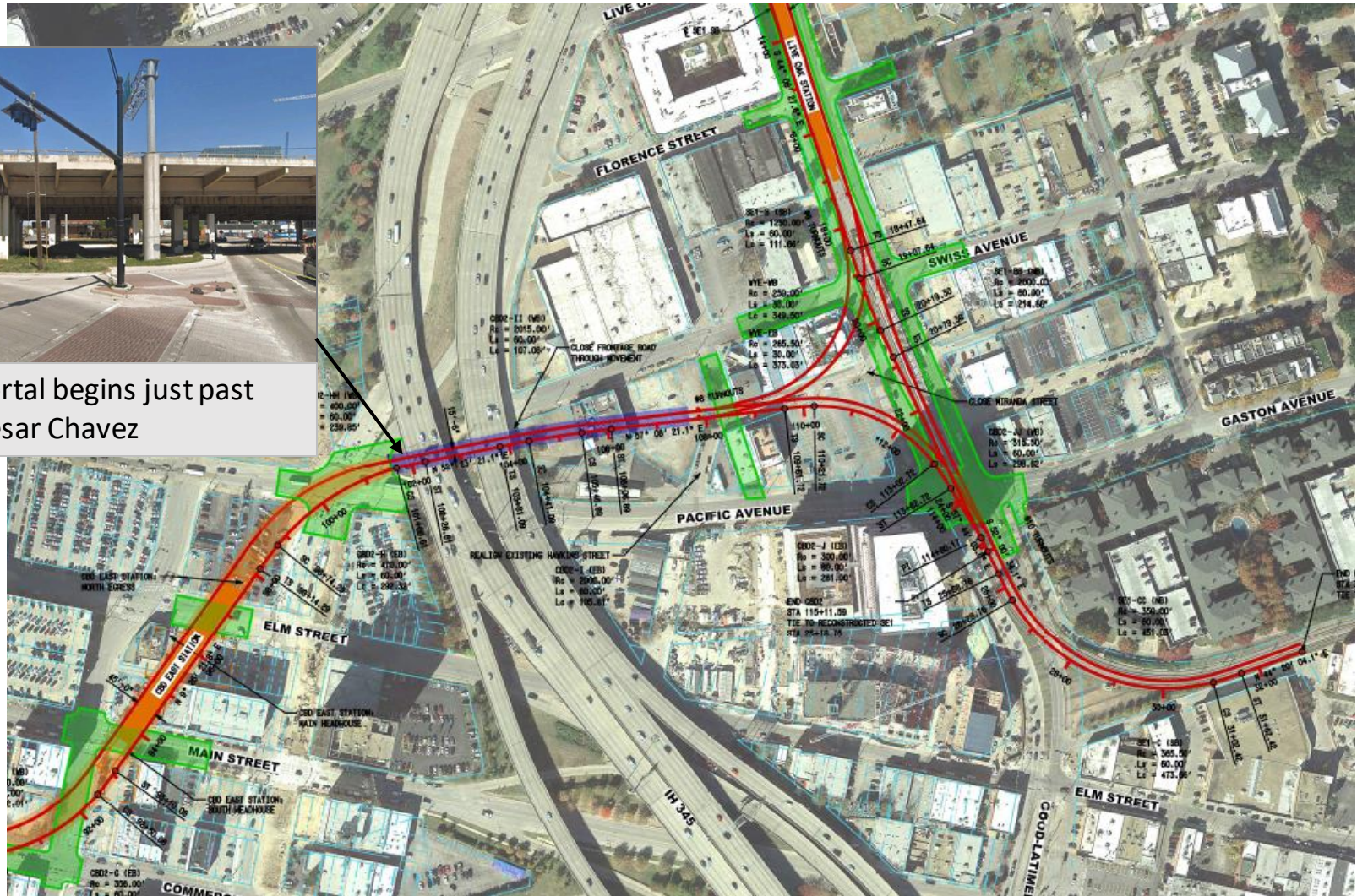
- DART and the City of Dallas jointly applied for comprehensive transit-oriented development (TOD) planning grant along D2 Subway Corridor.
  - Anticipated 2 year effort as sub-plan concurrent with city's comprehensive plan update.
- TOD plan would support economic development, ridership, multimodal connectivity and accessibility, increased transit access for pedestrian and bicycle traffic, and mixed-use development near transit stations.
  - Encourages identification of infrastructure needs and engagement with the private sector.
  - Opportunity to identify future city bond program needs.



# D2 Subway Alignment LPA with portal under IH 345



Tunnel portal begins just past Pacific/Cesar Chavez



# Path Forward for D2/I-345

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- TxDOT plans to generate a range of conceptual alternatives from now through May/June based on public input.
- DART and TxDOT will meet monthly during this timeframe to discuss project coordination.
- A preliminary depressed I-345 concept will be available for discussion in late January 2020.
- Process may identify possible additional funding or infrastructure support from the City of Dallas and/or NCTCOG that would be required to advance a coordinated design or to modify the D2 profile.
- DART will continue to advance the D2 Subway project as planned concurrent with the TxDOT effort.



A blue and yellow tram is traveling on a city street. The tram has "LED BETTER" on its front display and the number "171" on its side. The background shows modern buildings, including one with a large "1505" sign. A blue sign on the left reads "Akard St 100 ft". A yellow rectangular box with a black border is overlaid on the image, containing the text "Schedule & Next Steps".

# **Schedule & Next Steps**



# Key Milestones for FTA Schedule

Activity	Date
Preliminary notice of Request to Enter Engineering - <i>Initiate Readiness Documents/Letter of No Prejudice</i>	February 2020
20 percent design	March 2020
Draft Supplemental Environmental Impact Statement	March 2020
Complete SDEIS Public and Agency Review Period	June 2020
30 percent design/FTA Core Capacity Submittal/Six month notice to Request to Enter Engineering	August 2020
Final Environmental Impact Statement/Record of Decision (FEIS/ROD)	August/Sept 2020
Entry into Engineering - <i>FTA Review/Rating</i> - <i>Readiness documents review complete</i>	Late 2020/ Early 2021

# Next Steps and Future Briefings

- Complete 20% PE design and Supplemental Draft EIS and publish for public and agency review.
- Continue to work with City, TxDOT, and NCTCOG on I-345 integrated design.
- Continue to work with City Park Department and Board on integrated concept for Pegasus Plaza vision and related process requirements.
- Coordinate with City on anticipated eminent domain needs.
- Future City Council committee briefings in Spring 2020:
  - Station architecture
  - Construction methods



# Appendix





# Project History

**2007**

● D2 STUDY LAUNCHED BY DART AND FEDERAL TRANSIT ADMINISTRATION (FTA).

**2010**

● PHASE ONE OF THE STUDY INCLUDED AN ALTERNATIVES ANALYSIS (AA) AND A DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS).

● ECONOMIC DOWNTURN RESULTED IN THE D2 PROJECT BEING DEFERRED TO POST YEAR 2030.

**2013**

● PHASE TWO OF THE STUDY EVALUATES NEW AND REFINED ALTERNATIVES BASED ON PUBLIC COMMENTS ON THE AA/DEIS AND CHANGED CONDITIONS.

● D2 PROJECT IDENTIFIED AS CANDIDATE FOR NEW FTA CORE CAPACITY FUNDING PROGRAM.

**2015**

● THE DART BOARD APPROVES THE LOCALLY PREFERRED ALTERNATIVE (LPA) AS B4 - LAMAR/YOUNG/JACKSON STREET.

● FTA GIVES APPROVAL TO DART TO INITIATE TWO-YEAR PROJECT DEVELOPMENT (PD) PHASE FOR THE D2 PROJECT.

**2016**

● STAKEHOLDER CONCERNS LEAD DART TO CONSIDER SUBWAY ALTERNATIVES.

**2017**

● THE DART BOARD AND DALLAS CITY COUNCIL APPROVE A REFINED LPA SUBWAY PROJECT USING COMMERCE VIA VICTORY/SWISS.

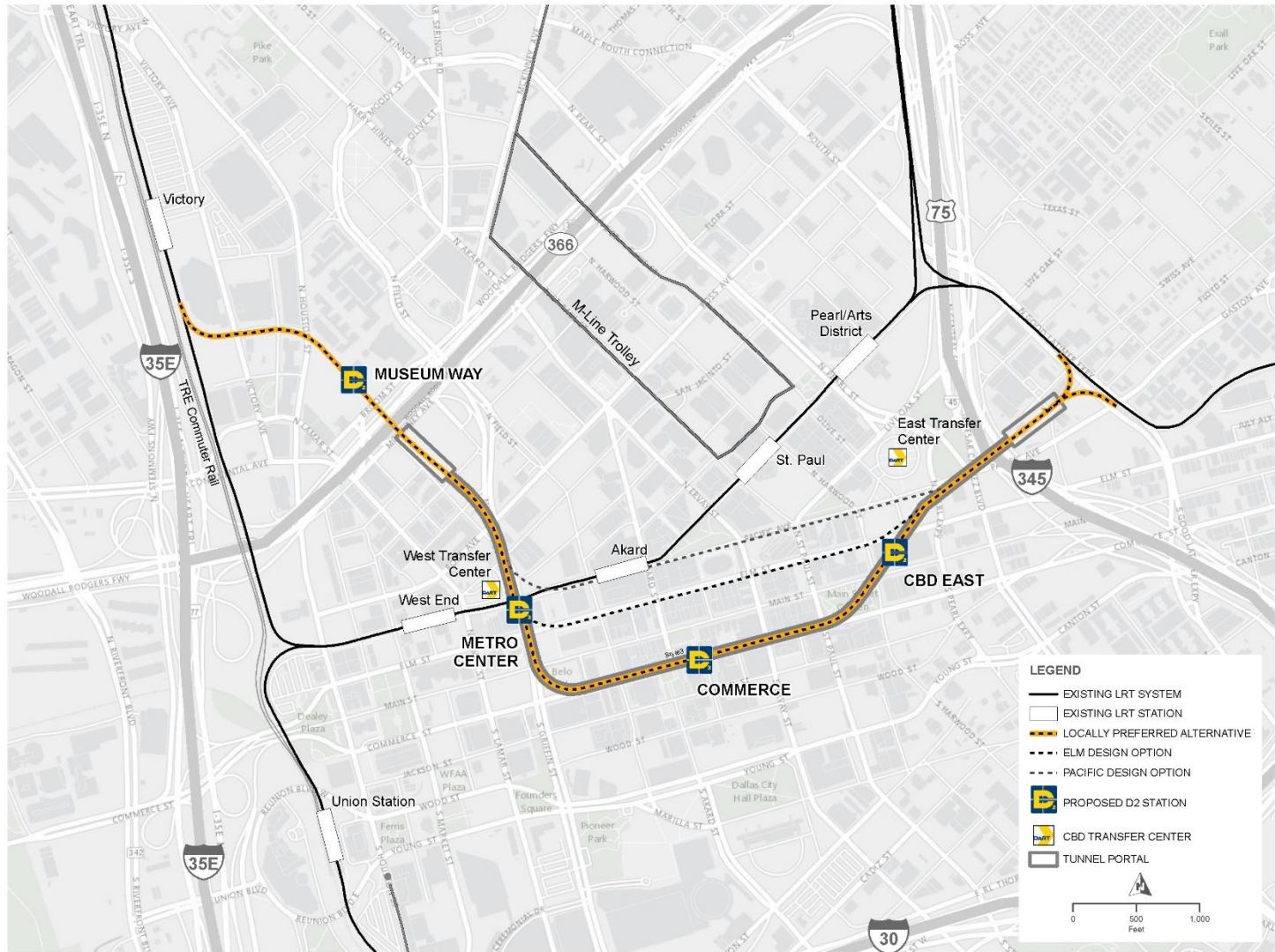
**2018**

● DART RE-INITIATES LOCAL PD EFFORTS FOR THE D2 SUBWAY.



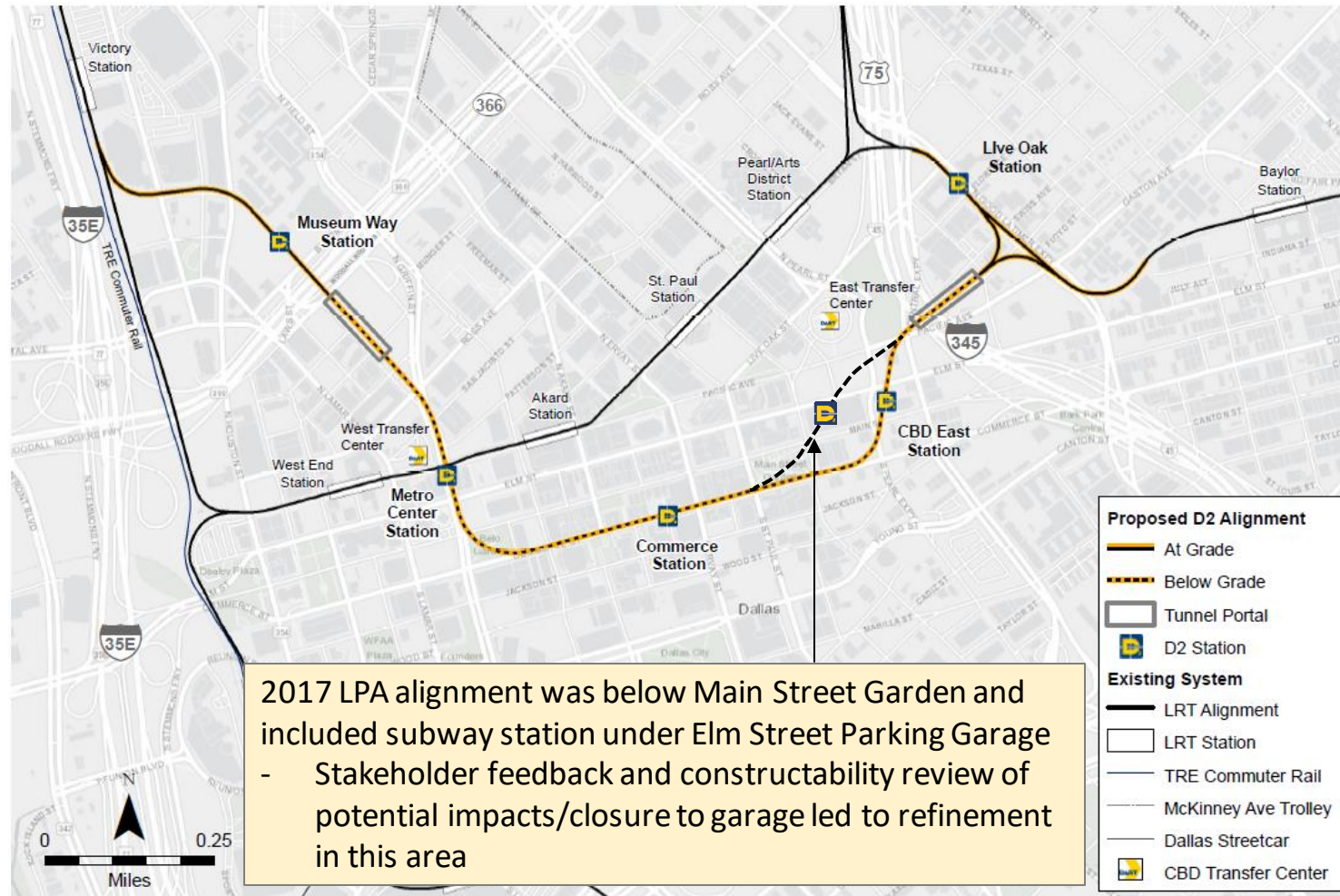
DART is conducting PD locally for the subway as the original two-year Federal timeline requirement was not met given the change in project definition in 2017.

# 2017 Locally Preferred Alternative Commerce via Victory/Swiss





# D2 Subway Alignment and Stations



# September 2017 City Council Resolution 171426

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- (a) Integration of the at-grade light rail line segments within street rights-of-way will be designed and constructed in a manner that enhances the quality of the street environment through balanced consideration of multimodal accessibility to adjacent buildings and development sites.
- (b) Sufficient engineering analysis will be undertaken during the design process to study and take into consideration the impact of train operations on street-level traffic operations.
- (c) Alternative locations of the transition from at grade to below grade rail will be examined to optimize development potential on adjacent property, and to minimize street closures.
- (d) The alignment will be refined to minimize to the extent feasible negative impacts on adjacent properties.
- (e) A minimum of four new stations will be added in order to maximize transit oriented development potential.
- (f) Necessary planning and design will be undertaken to maximize the flexibility of D2 to accommodate, to the extent possible, the operation of all lines through downtown, and to preserve the option for future extension of the D2 alignment or other appropriate linkages to connect to the Red and Blue line alignment south of downtown.

# September 2017 City Council Resolution 171426

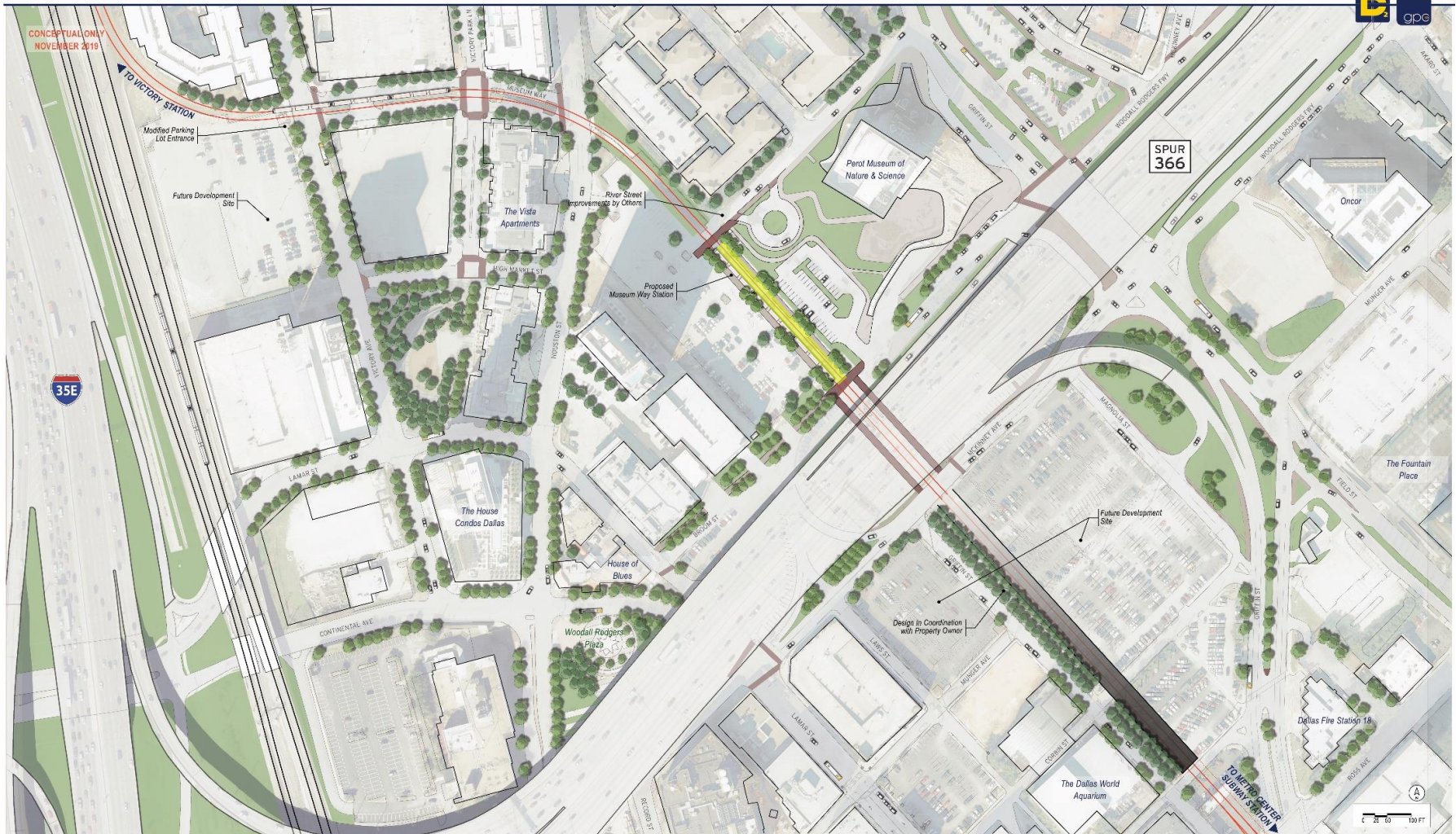
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**SECTION 2.** That the D2 alignment will be brought back for City Council approval, once the FTA Project Development Phase (ten percent design stage) is complete and prior to incorporation of the alignment into the DART Service Plan under section 452.304 of the Texas Transportation Code, with regard to integration of the at-grade light rail line within street rights-of-way and the analysis of impacts on adjacent properties.



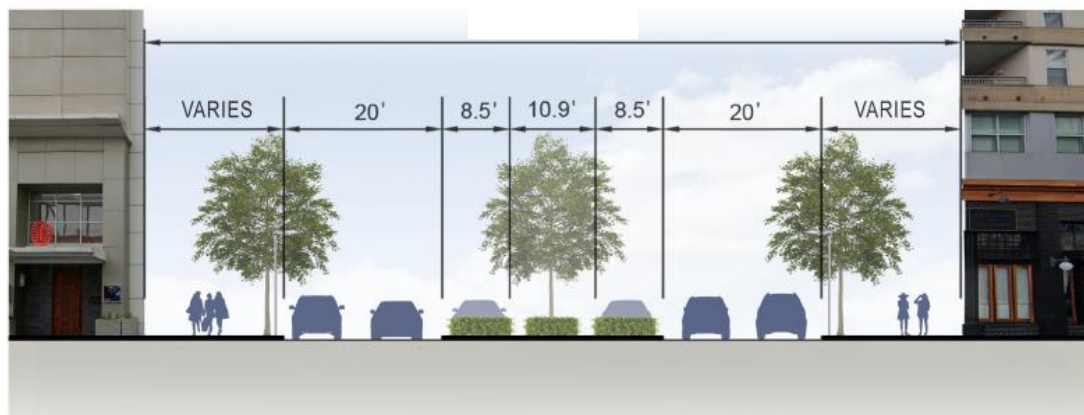
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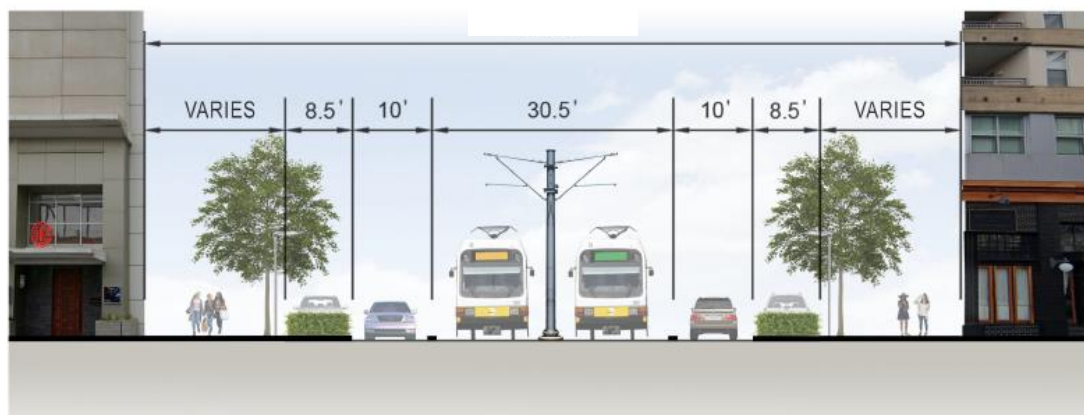


# Museum Way Cross-Section Houston Street to Victory Avenue

- DART owns 35' of median right-of-way
- Current approach is to revise cross section to include parking/valet lane along sidewalk and 10' travel lane
- Maintain curb line and preserve wide sidewalk and existing street trees
- Working with area stakeholders on details



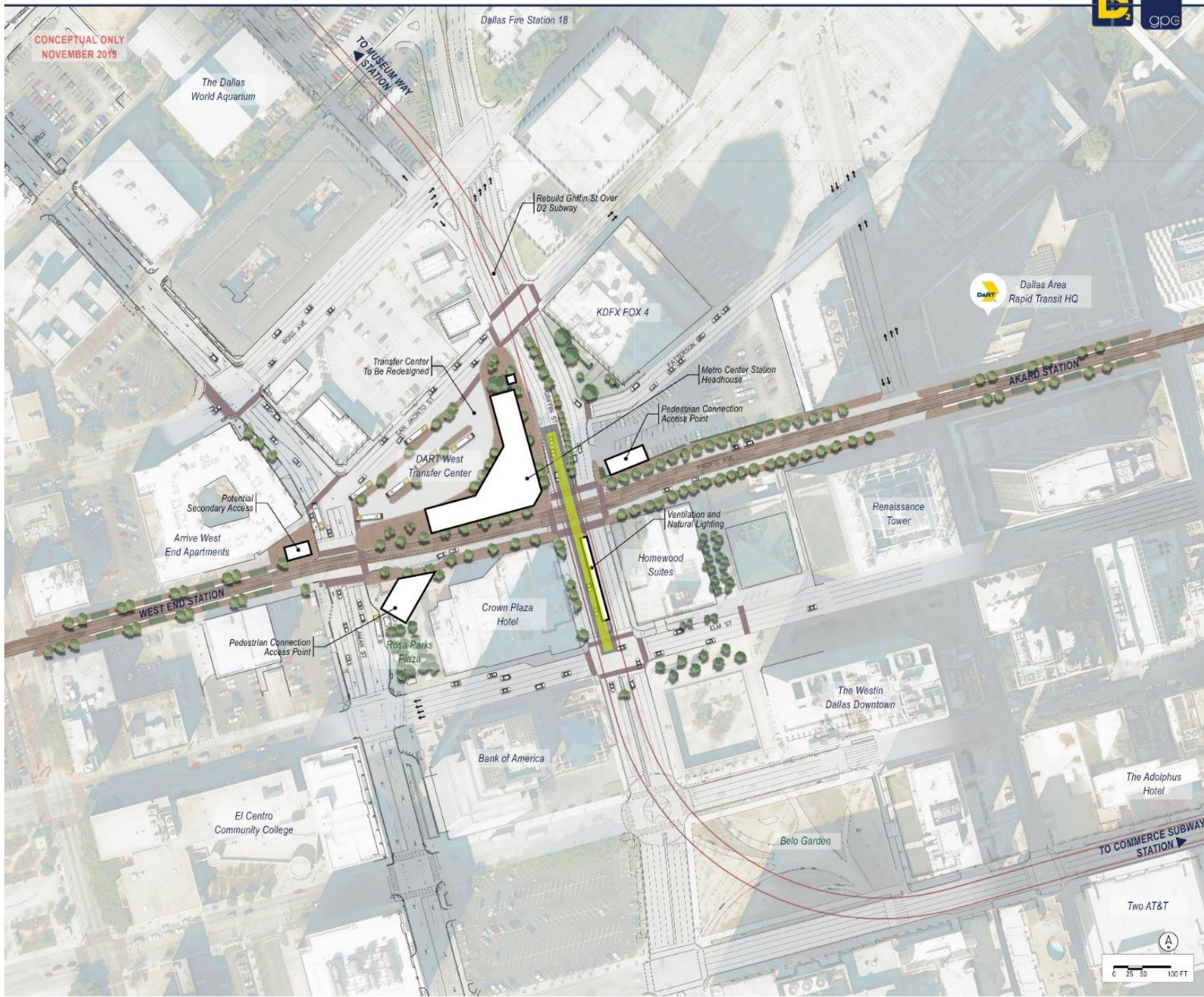
MUSEUM WAY | EXISTING CROSS SECTION  
VIEW LOOKING EAST



MUSEUM WAY | PROPOSED CROSS SECTION - TRACKS IN CENTER WITH STREET PARKING  
VIEW LOOKING EAST




# Metro Center Station Urban Design Plan

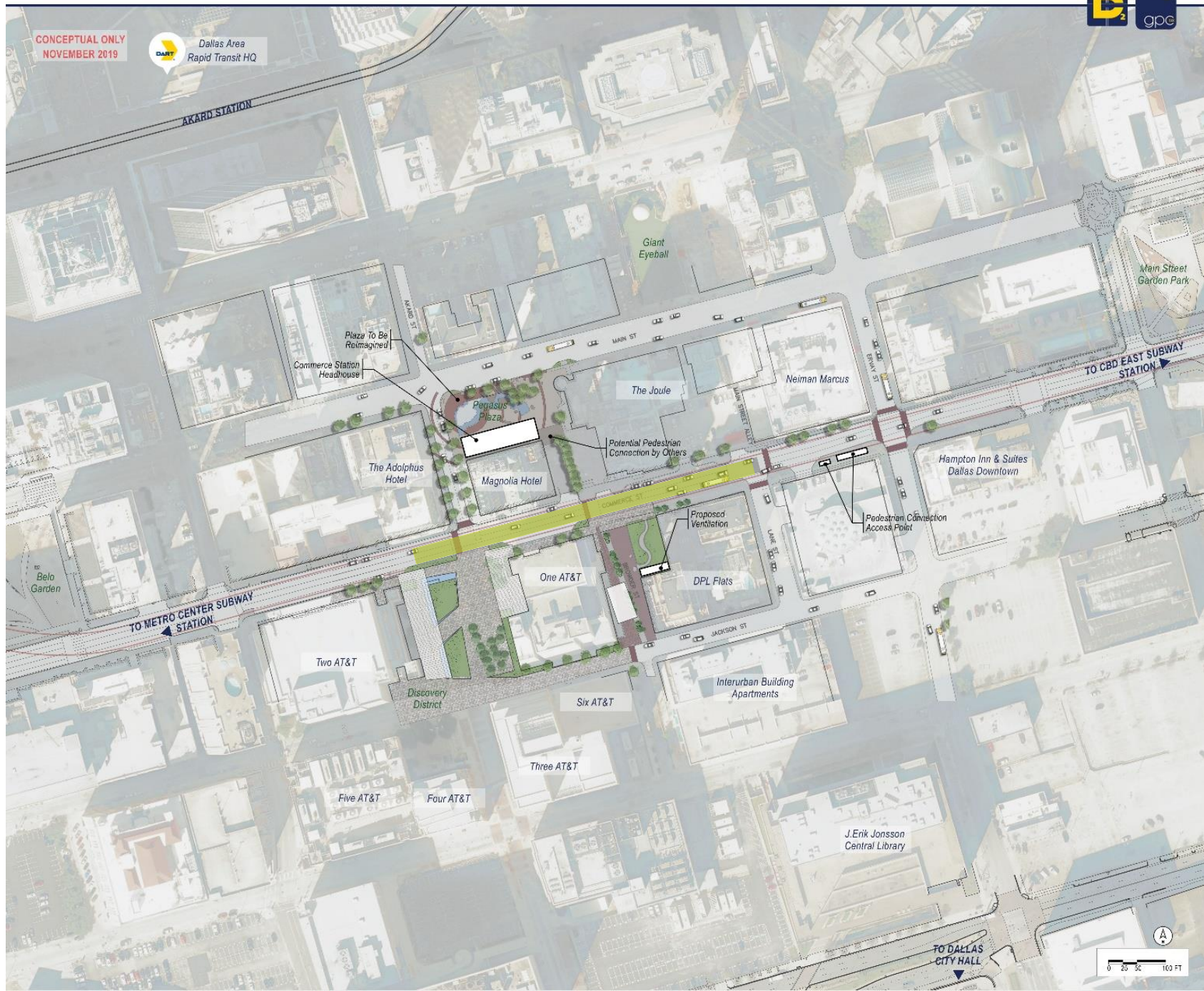




# Commerce Station Urban Design Plan

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 Dallas Area  
Rapid Transit HQ



# Metro Center Station Architectural Concept

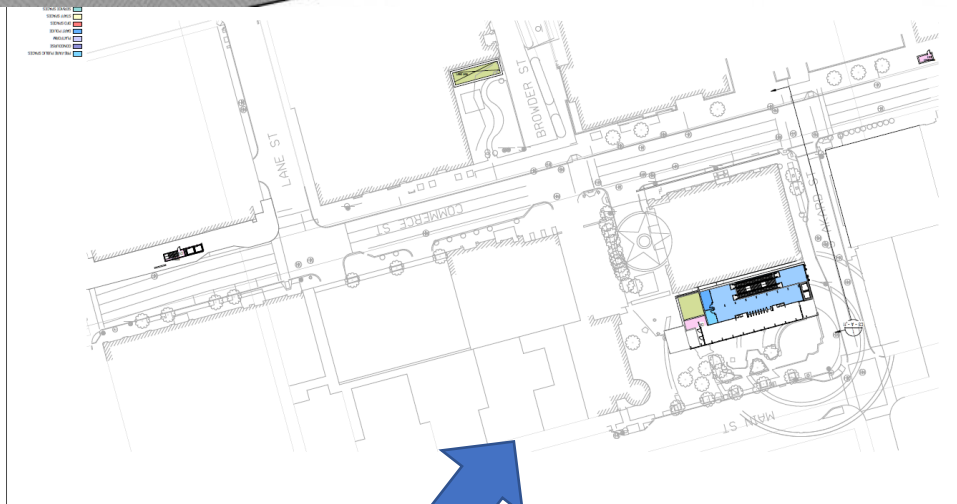
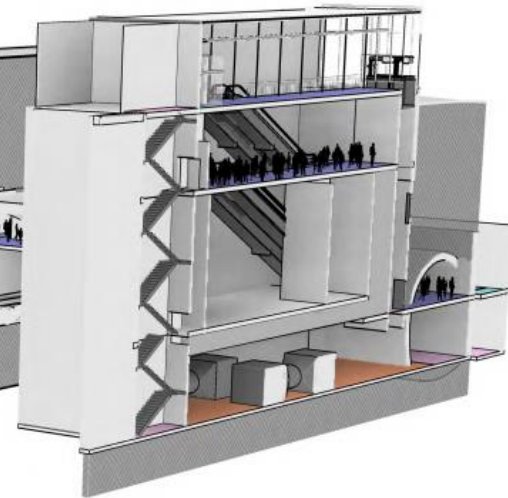
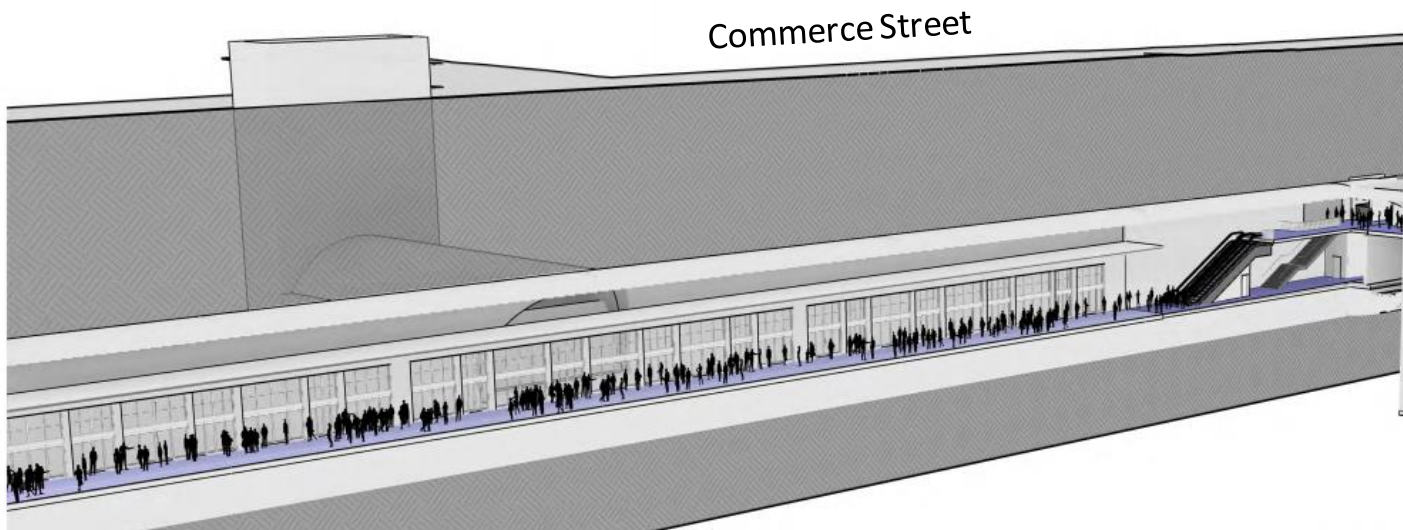
- PUBLICLY ACCESSIBLE AREAS
- PRE-FARE PUBLIC SPACES
  - CONCOURSE
  - PLATFORM
  - CONCESSIONS
  - DART POLICE
  - VERTICAL CIRCULATION
  - VERTICAL CIRCULATION SERVICE
  - EMERGENCY EGRESS ONLY
  - DFD SPACES
  - STAFF SPACES
  - SERVICE SPACES
  - MECHANICAL
  - ELECTRICAL
  - VENTILATION





# Commerce Station Architectural Concept

Pegasus Plaza  
Headhouse Concept



Pegasus Plaza

- PUBLICLY ACCESSIBLE AREAS**
- PRE-FARE PUBLIC SPACES
  - CONCOURSE
  - PLATFORM
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  - SERVICE SPACES
  - MECHANICAL
  - ELECTRICAL
  - VENTILATION

# Commerce Station Alternative Concepts

- Alternative architectural concepts are under development for Commerce Station including:
  - Options for more intuitive passenger circulation with natural light
  - Potential for place fare control areas and mechanical under Pegasus Plaza and Akard Street
  - Options to place ventilation requirements
  - Options for Ervay access point on east end of platform

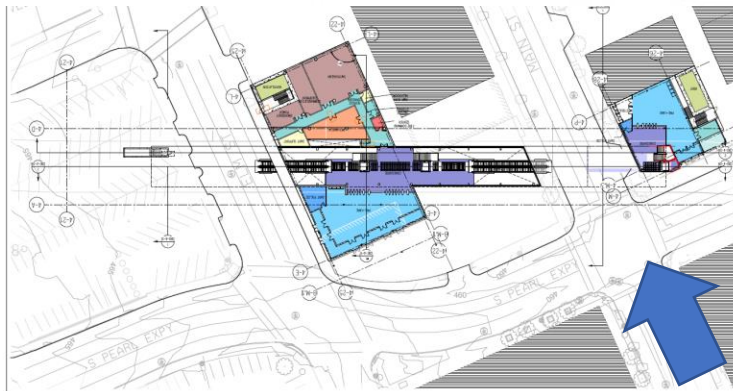
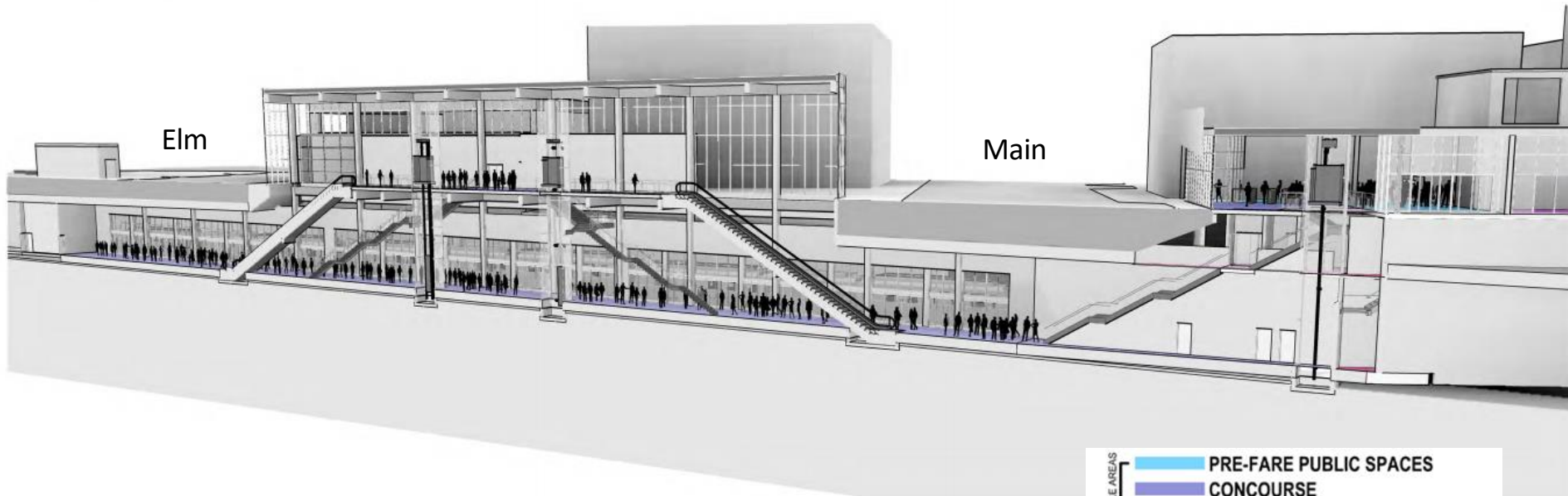


# CBD East Station Urban Design Plan





# CBD East Station Architectural Concept

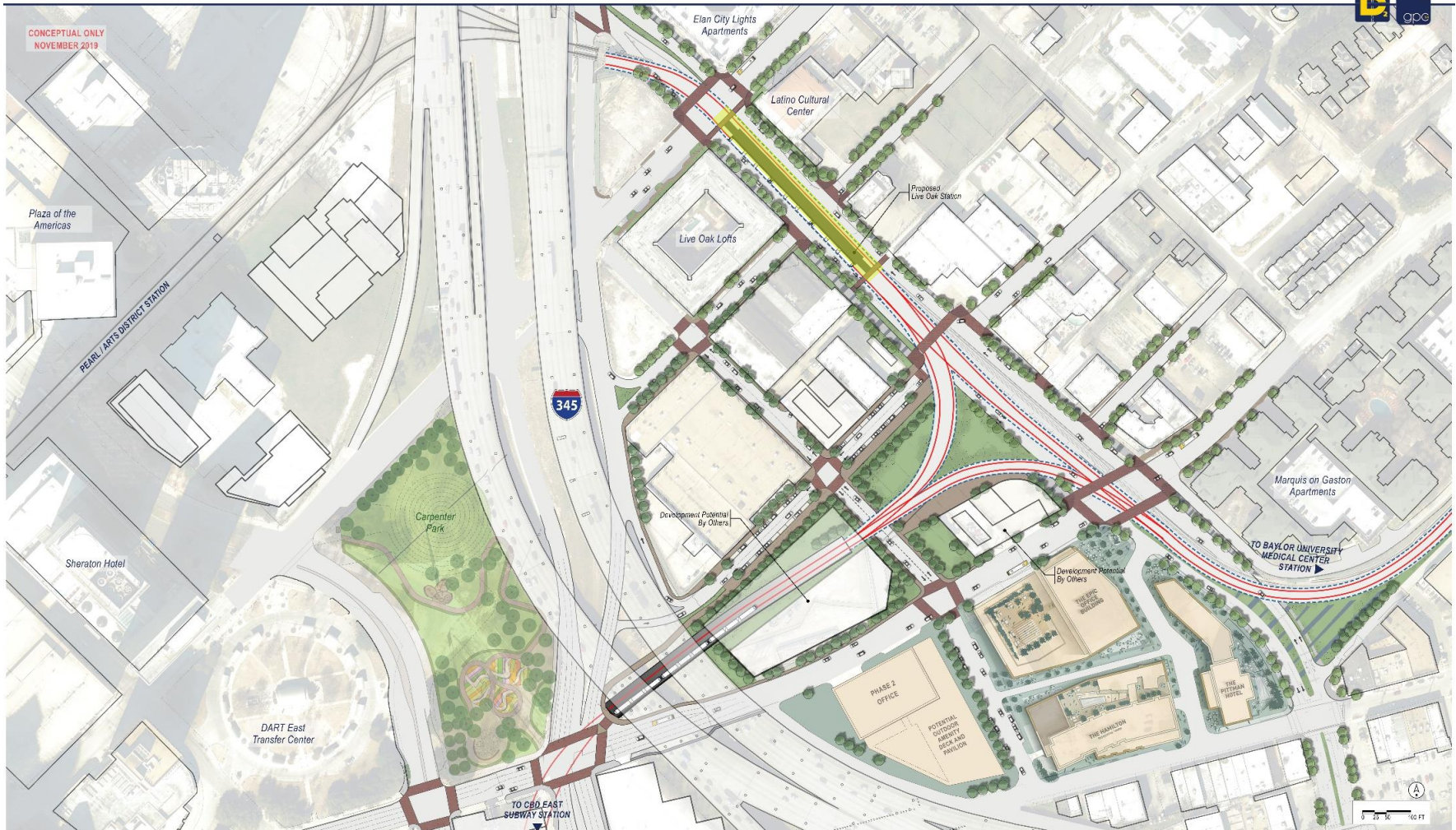


- PUBLICLY ACCESSIBLE AREAS
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# East Portal Urban Design Plan

D2 SUBWAY | LIVE OAK STATION & EAST TUNNEL PORTAL AREA | URBAN DESIGN PLAN





# Construction Methods

- Tunnel construction approaches:
  - Sequential Excavation Method (SEM)
  - Tunnel Boring Machine (TBM)
  - Cut-and-Cover
- DART will likely leave final method(s) up to contractor based on best time/cost efficiencies and considering staging area needs

**SEM**



**TBM**



**Cut-and-Cover**

