



Appendix A

20% Preliminary Engineering Plans and Design Reports



A-4

Urban Design Process and Focus Area Summary Report



D2 Subway

Urban Design Process & Focus Area Summary Report

March 2020

First Draft - 20% Submittal





INTRODUCTION

The Dallas Area Rapid Transit (DART) Agency is currently in the preliminary design phase for the Dallas Central Business District (CBD) Second Light Rail Alignment, commonly referred to as D2 Subway (D2), which includes the development of urban design guidelines, preliminary engineering and environmental documentation.

The D2 subway is a substantial project within Dallas' urban core. See page 4 for a description of the D2 alignment. Completion of the D2 project will provide another layer of mobility options to residents and employees living and working in the Downtown Dallas CBD. Based on the locally preferred alternative (LPA), Commerce via Victory and Swiss, this mobility option and access to transportation throughout the DART service area could be within easy walking distance from almost anywhere in the CBD. This improves the quality of life for those working or living in Downtown Dallas by providing a convenient and cost-effective way to travel without relying on private automobiles, while also facilitating access to jobs and residential opportunities for those outside of the CBD. Combining the D2 subway with DART's existing light rail, bus service and streetcar system supports Dallas' desire to activate a more pedestrian and bike-friendly street environment, and integrate a multi-modal Complete Streets transportation system.

The D2 subway will also improve light rail transit service through the CBD by reducing congestion on the existing rail lines. Moving the Orange and Green Line trains to the new D2 subway will improve system capacity by allowing additional Red and Blue Line trains to run in time slots previously allocated to Green and Orange Line trains. This also improves redundancy and system reliability by providing an alternative route through the CBD.

The D2 subway offers a rare opportunity to establish a new urban architectural vernacular for subway stations and pedestrian portals in downtown. The purpose of this report is to outline the process for D2 Urban Design and show its development through open and informative stakeholder engagement.

Good urban design has the potential to encourage ridership, maximize the project purpose, enhance the livability of downtown and create long-term value. For this reason, DART is conducting a comprehensive urban design approach to consider feedback from stakeholders, riders, agencies and the City of Dallas before implementing design decisions. How well D2 fits within its urban context will ultimately impact customer perceptions and influence their decisions whether or not to ride the train as an alternative transportation mode.

This report provides an overview of the Urban Design Approach. It will highlight existing policy that has been adopted by The City of Dallas, DART and participating agencies and provides the 'starting point' for D2 design.

The report also outlines other documents supported by Dallas stakeholders and future studies being conducted by other agencies that require a level of coordination in the preliminary design considerations for D2. The D2 Subway LPA Map is provided along with corresponding text and a description or definition of Urban Design Elements. Finally the report reviews the stakeholder engagement, guiding principles for design, and the design factors established through stakeholder input.

URBAN DESIGN APPROACH

Focus Areas Meetings

At the time of this draft, DART and the Urban Design team facilitated a series of six (6) Focus Area Meetings with DART staff, partner agencies and stakeholders to obtain input and explore a variety of ideas related to the station and portal configurations and locations. The Focus Areas are as follows:

- Victory - Perot Focus Area
- Metro Center Focus Area
- Commerce Focus Area
- CBD East Focus Area (two meetings)
- Deep Ellum Focus Area

The meetings were structured to encourage a spirit of collaboration and cooperation in attaining a common vision for the development of the D2 project that is integral to the fabric of the CBD. The input provided in these meetings builds upon the guiding principles, found on page 6 of this report. Focused stakeholder input in these meetings developed an overall comprehensive urban design vision for the project specific to these focus areas. Design goals and objectives established in these meetings were translated into Urban Design Plans, cross sections and illustrations and have been used to indicate site design and inform architectural design and engineering design decisions related to enhanced access, public safety and security, recognition and wayfinding, quality of life, experience and context sensitivity.

Communication, was not limited to Focus Area Meetings. Additional meetings, including public and stakeholder meetings, small group meetings and one-on-one meetings were held to maintain open lines of communication and support coordination efforts. Information on the status of the project, reference material, prior studies, meeting presentations and materials, and meeting summaries and comments for both the public and stakeholder meetings can be obtained at www.DART.org/D2. Documentation of project communication will also be available as part of Chapter 6 of the Dallas CBD Second Light Rail Alignment Supplemental Draft Environmental Impact Statement (SDEIS) - Public and Agency Consultation and Coordination.

DALLAS POLICY

As DART moves forward in the Project Development Phase for D2, there is a responsibility to support the policy decisions that affect urban design direction. The following documents all contain key design information created through stakeholder involvement and adopted, as policy, by agencies and the City of Dallas. The urban design process began with an understanding of these documents and projects.

D2 Subway

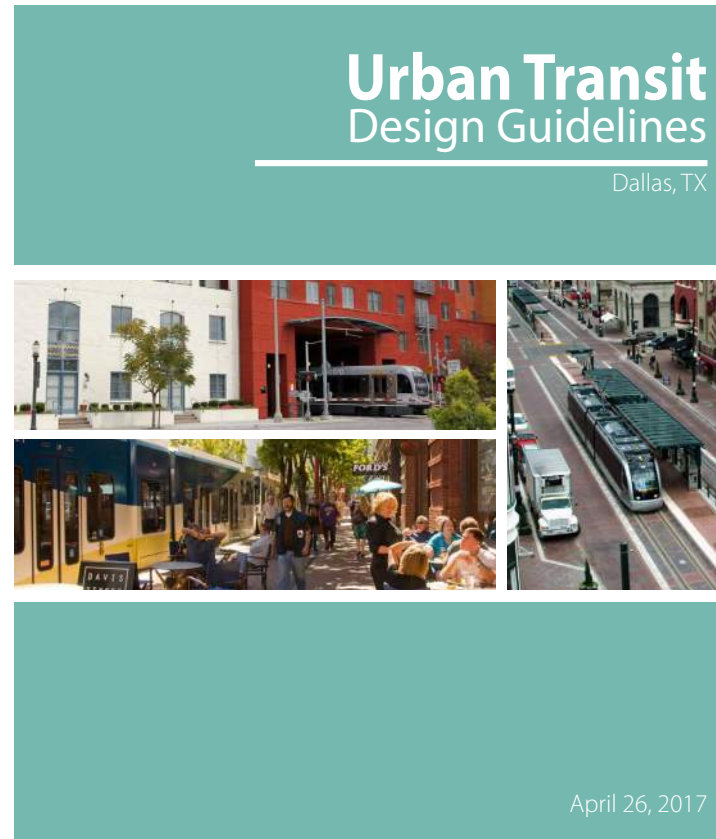
The D2 Subway project is a future second light rail line through downtown Dallas. DART began planning for D2 in 2007. Since then, several studies and planning efforts have been completed including changing D2 from an at-grade alignment into a subway in 2016. The most recent efforts resulted in both the Dallas City Council and the DART Board of Directors approving the D2 Subway LPA in September 2017. The D2 Subway LPA (Commerce via Victory-Swiss) extends from Victory Park to Deep Ellum, primarily below Commerce Street through the heart of downtown Dallas.

Urban Transit Design Guidelines

Adopted by Dallas City Council in April of 2017, the impetus for the Urban Transit Design Guidelines arose from Downtown stakeholders' desire for well-designed integration of D2 Light Rail and Central Dallas Streetcar projects into the urban fabric. Drafted by City staff in partnership with the Downtown Dallas Inc. (DDI) Mobility Committee with input from DART staff, the Urban Transit Design Guidelines were developed based on best practices in consultation with:

- Downtown Dallas 360 Plan
- Dallas Complete Streets Design Manual
- DART Light Rail Project Design Criteria
- City of Dallas Tax Increment Financing Districts Urban Design Guidelines
- National Association of City Transportation Officials (NACTO) Transit Street Design Guide

The Urban Transit Design Guidelines are intended to apply to all future DART operated transit projects in and around Downtown, and address City of Dallas and DART rights-of-way for the full length of transit project corridors within this geography. They are intended to be advisory in nature and to supplement existing DART Design Criteria through a review process that focuses on quality of the public realm, comfort and experience of pedestrians and transit passengers, and compatibility with adjacent development that adds to a vibrant downtown.



Urban Transit Design Guidelines

The 360 Plan – A Complete and Connected City Center

Adopted by Dallas City Council in December of 2017, The 360 Plan is a strategic document that sets a clear, cohesive vision of Downtown Dallas and its surrounding neighborhoods, guiding the City Center to continued long-term success. Building upon the strategies found in the original plan, adopted in 2011, the 360 Plan is organized around the idea of creating a complete and connected City Center that provides an enriching urban experience for area residents, workers and visitors. The public-private planning process coalesced into a unified vision and three transformative strategies to:

- Advance urban mobility
- Build complete neighborhoods, and
- Promote great placemaking

A primary charge of The 360 Plan is to focus public investment – whether in streetscape improvements, new infrastructure, housing subsidies, or other initiatives – in a manner that garners the most significant and transformative impacts from private development. Building from the overall vision, The 360 Plan presents six major Catalytic Development Areas and three Corridors of Interest to prioritize physical, economic, and other improvements in order to synergize public and private development opportunities and achieve coordinated success over time.

Three of these Catalytic Development Areas - Northern West End, AT&T Discovery District and Carpenter Park Area, overlay or come in close proximity to D2. As a partner, DART will employ design opportunities for the project that complement the vision established in the Catalytic Development Areas.



The 360 Plan Document



Downtown 360 Study Area

DOWNTOWN DALLAS CONTEXT

D2, the Urban Transit Design Guidelines and The 360 Plan outline design decisions that affect the context of the downtown environment. CityMAP and the recently begun Texas Department of Transportation (TxDOT) Interstate 345 (I-345) Feasibility Study also play a big role recommending agency coordination and project considerations for the benefit of downtown commuters, business owners, developers and residents and the overall success on the east side of Downtown Dallas and Deep Ellum.

CityMAP

The City Center Master Assessment Process or -- CityMAP, conducted by TxDOT, is an assessment of the challenges, opportunities and the redesign options for the aging interstate corridors and adjacent neighborhoods in and around Downtown Dallas, completed in September 2016. TxDOT funded, City of Dallas supported and stakeholder driven, the process began in early 2015 to understand how congestion relief and city design can be considered comprehensively as the major highway system converging in and around Downtown Dallas is improved.

The assessment provides different yet related scenarios for each of the corridors that demonstrate a level of balance between mobility, livability and economics as defined by local stakeholders. Each scenario studies these three vital factors as part of the overall improvement of the corridor.

The D2 Subway alignment interacts with both Spur 366 (Woodall Rodgers) to the north and I-345 to the east. DART recognizes the importance of CityMAP to its stakeholders and to the City of Dallas. For this reason, with a

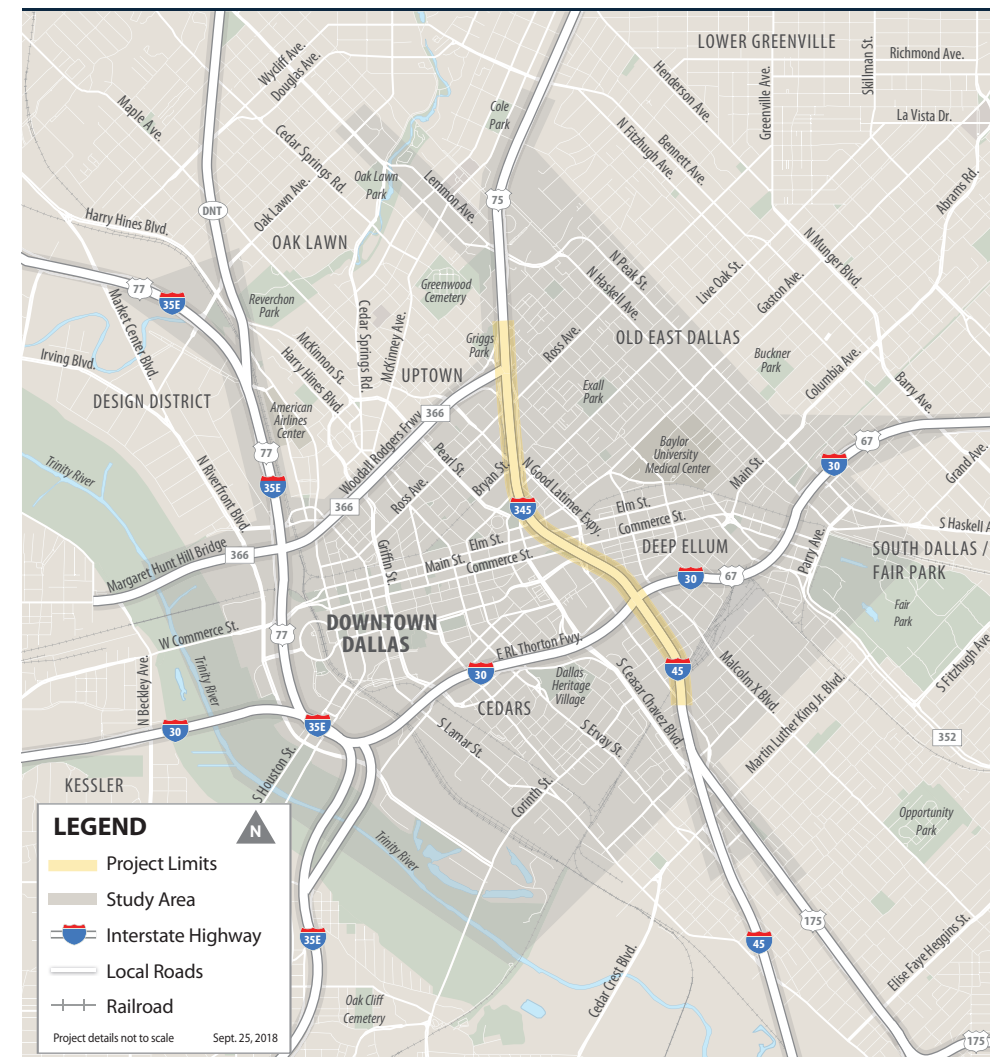


Dallas CityMAP Document - Courtesy of TxDOT at www.dallascitymap.com

good understanding of the I-345 scenarios and by closely coordinating with TxDOT through this preliminary design process, DART will be making design decisions based on key stakeholder feedback that does not preclude any of the CityMAP scenarios. DART will also coordinate the Museum Way Station, tracks and north tunnel portal design adjacent to and under Woodall Rodgers.

TxDOT I-345 Feasibility Study

I-345 is located on the east side of Downtown Dallas and carries traffic traveling north from I-30 and U.S. 75/I-45 to Woodall Rodgers and other regions north of the City Center. TxDOT is continuing its effort for I-345 where Dallas CityMAP concluded. TxDOT is studying the design feasibility for this corridor based on the various scenarios developed in CityMAP. TxDOT will look at traffic data, land use and economic development studies to develop potential options for the freeway.



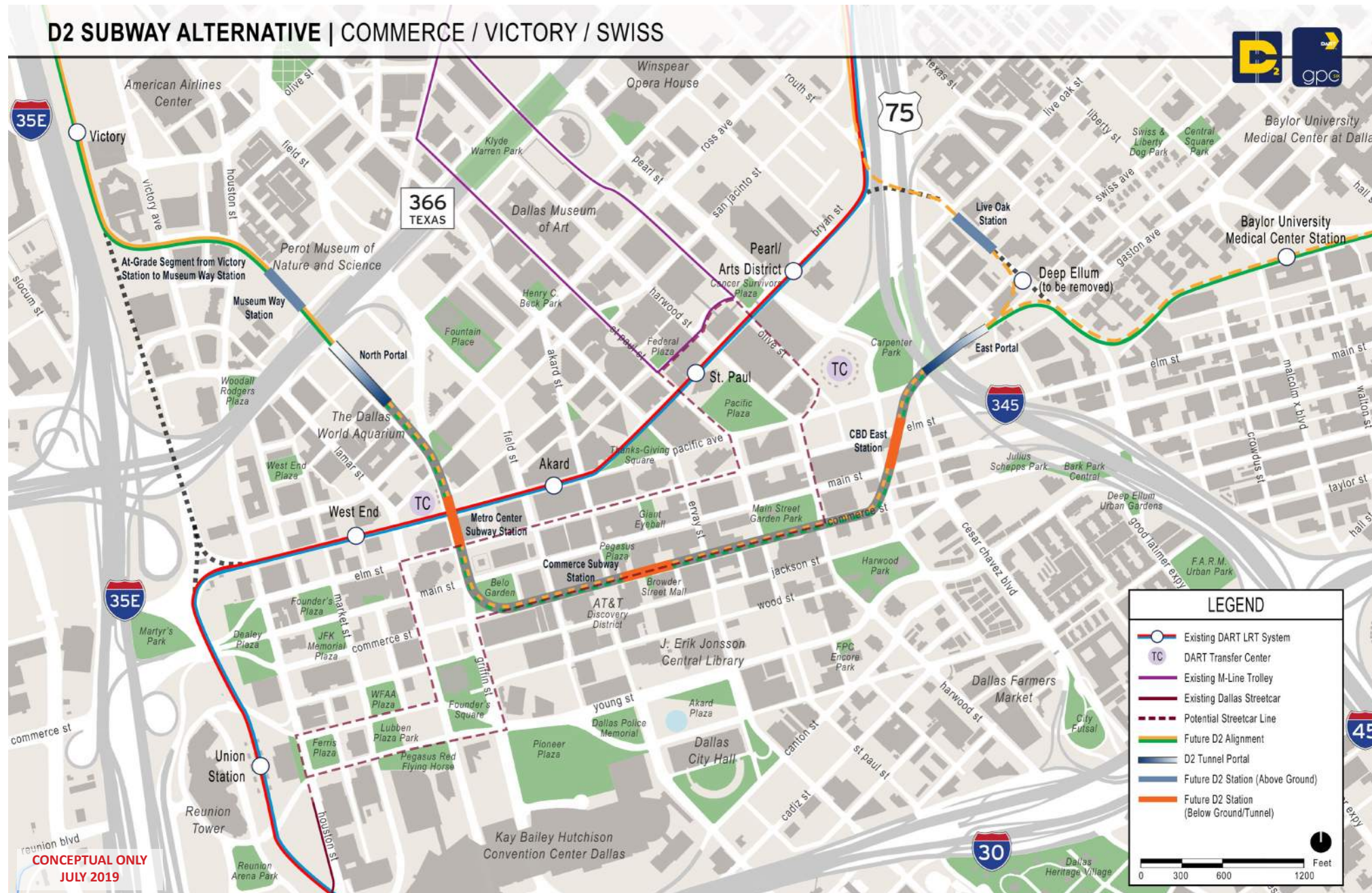
I-345 Project Map - Courtesy of TxDOT at www.keepingmovingdallas.org

D2 Subway LPA - Commerce via Victory/Swiss

As shown on the graphic map on the following page, the Commerce alignment begins south of Victory Station. It moves through a switch off the existing alignment and then proceeds in a southeasterly direction within DART-owned right-of-way (ROW) in the center of Museum Way and through an existing parking lot adjacent to west of the Perot Museum of Nature and Science. Adjacent to the Perot Museum will be an at-grade light rail station (Museum Way Station). After leaving the station, the alignment crosses under Woodall Rodgers Freeway at street level, and then begins its transition underground into a tunnel portal just south of McKinney Avenue. As it descends, the alignment runs toward Griffin Street and turns under Griffin Street for several blocks where it remains. Between San Jacinto Avenue and Elm Street would be an underground station (Metro Center Subway Station). This station would provide the ability to transfer to the West Transfer Center and the West End and Akard light rail stations. The Metro Center Station is envisioned as a major transit hub in the future.

After crossing under Main Street, the alignment would turn east under Belo Garden and follow under Commerce Street. While under Commerce Street another underground station (Commerce Subway Station) is planned approximately between Akard Street and Ervay Street. As the alignment approaches Pearl Street, it turns north and the next subway station (CBD East Subway Station) sits at a diagonal between Main Street and Elm Street.

The alignment continues at a diagonal and after passing under Cesar Chavez Boulevard the alignment transitions back to the surface in a tunnel portal. This portal would be under I-345 and nearly parallel to Swiss Avenue to the south of the street. Soon after coming to the surface, the alignment splits into a wye with tracks tying back to the alignment in the center of Good Latimer Expressway (Expy). Track alignment will remain in the center of Good Latimer Expy similar to the existing condition. Modifications to the track and street will occur along Good Latimer Expy from just north of Live Oak Street until the tracks tie into the existing condition just north of Elm Street. Due to these changes the Deep Ellum Station would be removed and a new station (Live Oak Station) would be located to the north. The new station would be placed just south of Live Oak Street and in the center of the northbound and southbound travel lanes of Good Latimer Expy similar to the existing Deep Ellum Station condition.



The graphic map above is the most current. All preceding maps developed and presented in public and stakeholder meetings, can be found at www.DART.org/D2.

Urban Design Elements

Tunnel Portals – D2 proposes tunnel portals on the north and east ends of the alignment. Urban design concepts will indicate tunnel portal location within the context of existing streets, sidewalks, parks and buildings. Location of the tunnel portal considers potential future development. The tunnel portal design may include screening and/or buffering techniques or air rights opportunities to minimize visual impacts and enhance public safety and exploring options and configurations for vehicular, bicycle and pedestrian traffic, signalization and rail interface.

Station Locations – D2 proposes to create five new station locations. The Museum Way and Live Oak at-grade stations and the Metro Center, Commerce and CBD East subway stations. Just like any other public space, the urban design approach for the stations recognizes that these spaces accommodate social interaction and should respond to the passengers needs for safety, security, lighting and access.

Station Configurations – The station configurations are a result of partner agency, stakeholder, public and passenger feedback and engineering and architectural design that offer desired access while minimizing potential negative impacts to current and future infrastructure and citizens daily lives.

Station Headhouse - The station headhouse sits above ground and provides access to the subway station platform below. They offer the opportunity for a unique and positive first impression of the station facilities and should introduce a consistent brand identity while integrating with the context of the downtown. Often a larger covered structure, the station headhouse provides an opportunity for a controlled climate and includes space for ticketing, elevators, escalators and stairs. Stakeholder feedback has guided locations and configurations that offer desired access while minimizing potential negative impacts to current and future infrastructure and citizens daily lives. Headhouses will require compliance with local public safety, emergency, visibility and accessibility requirements.

Pedestrian Portal Access – Portals provide users direct access into the subway station platform below. They offer the opportunity for a unique and positive first impression of the station facilities and should introduce a consistent brand identity while integrating with the context of public infrastructure and private development. Similar to the other elements, stakeholder feedback has guided preferred portal locations and configurations that offer desired access while minimizing potential negative impacts to current and future infrastructure and citizens daily lives. Portals will require compliance with local public safety, visibility and accessibility requirements, and will include elevators possibly combined with escalators or stairs.

Public and Agency Involvement

DART has a robust public involvement plan for D2 including public meetings, stakeholder meetings, agency meetings, technical committee meetings, and one-on-ones. The graphic below captures the multiple engagement opportunities. As part of the urban design for D2, Focus Area meetings were established to engage smaller groups of invested stakeholders for candid conversations about downtown and D2.



Deep Ellum Focus Area Meeting

Guiding Principles

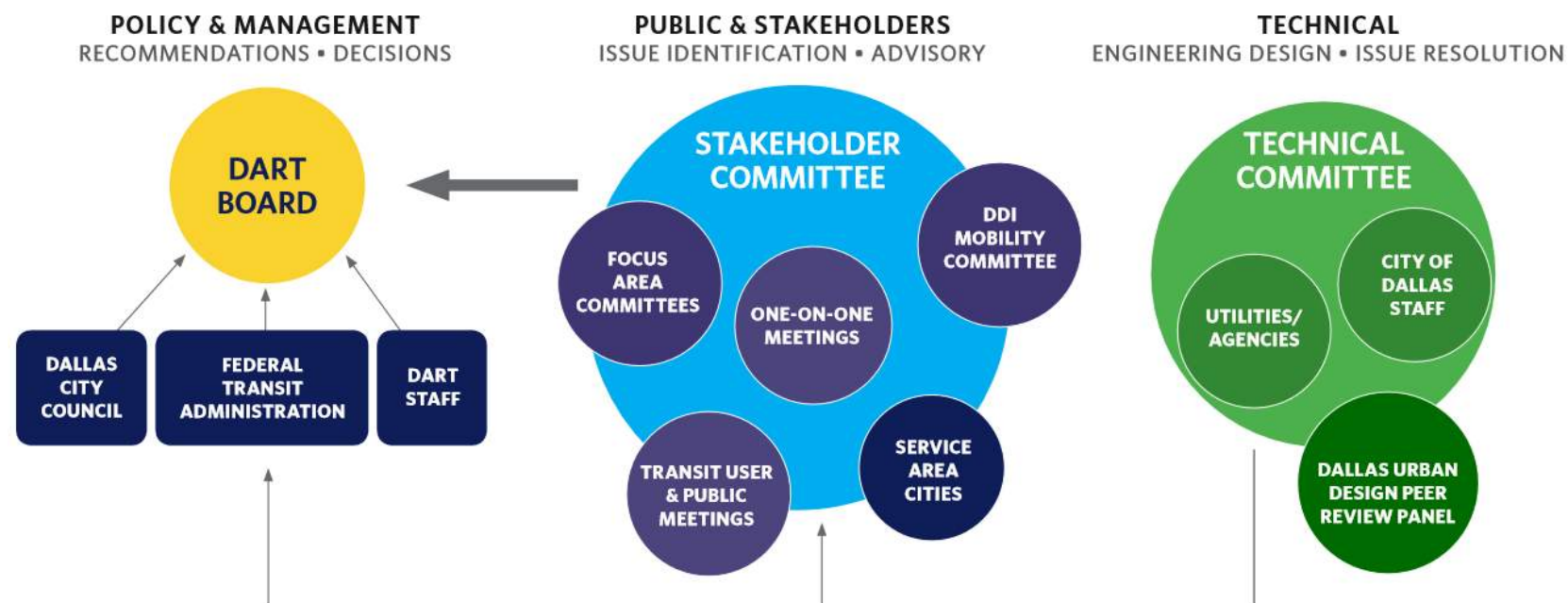
As mentioned previously, City of Dallas staff in partnership with the DDI Mobility Committee and participation from DART staff developed the Urban Transit Design Guidelines for the City of Dallas. Adopted by City Council in April of 2017, this document outlines the key principles that DART used as its starting point to define the urban design direction for D2. The four key principles are as follows:

- Creation of pedestrian friendly stations that are accessible, safe, encourage transit ridership and contribute to the public realm through street-level activation and high quality materials and detailing
- Contribution to a sustainable urban environment that follows low impact development standards and incorporates appropriate native landscaping
- Integration of streetscapes that enhance and encourage pedestrian activity while safely accommodating all other modes of transportation
- Enhancement of economic development potential along transit corridors and transit-oriented development around station

Review Process

The review process associated with the Urban Transit Design Guidelines is integrated into DART's project development process by introducing a series of reviews by the City of Dallas Urban Design Peer Review Panel. The Urban Design Peer Review Panel's role is to provide ongoing urban design review at key stages through project development and engineering to facilitate a desirable urban design outcome. The Urban Design Peer Review Panel has provided urban design review for private projects receiving City incentives for over 5 years. The Urban Transit Design Guidelines will serve as the basis for this review. The guidelines and review process are not intended to replace the need for stakeholder input for individual projects. City of Dallas and DART are responsible for timely review of all project submittals and active engagement of appropriate stakeholders.

Documentation of meetings to the Peer Review Panel can be found in Chapter 6 of the SDEIS.



Public and Agency Involvement Framework



CBD East Focus Area Meeting

PRECEDENTS

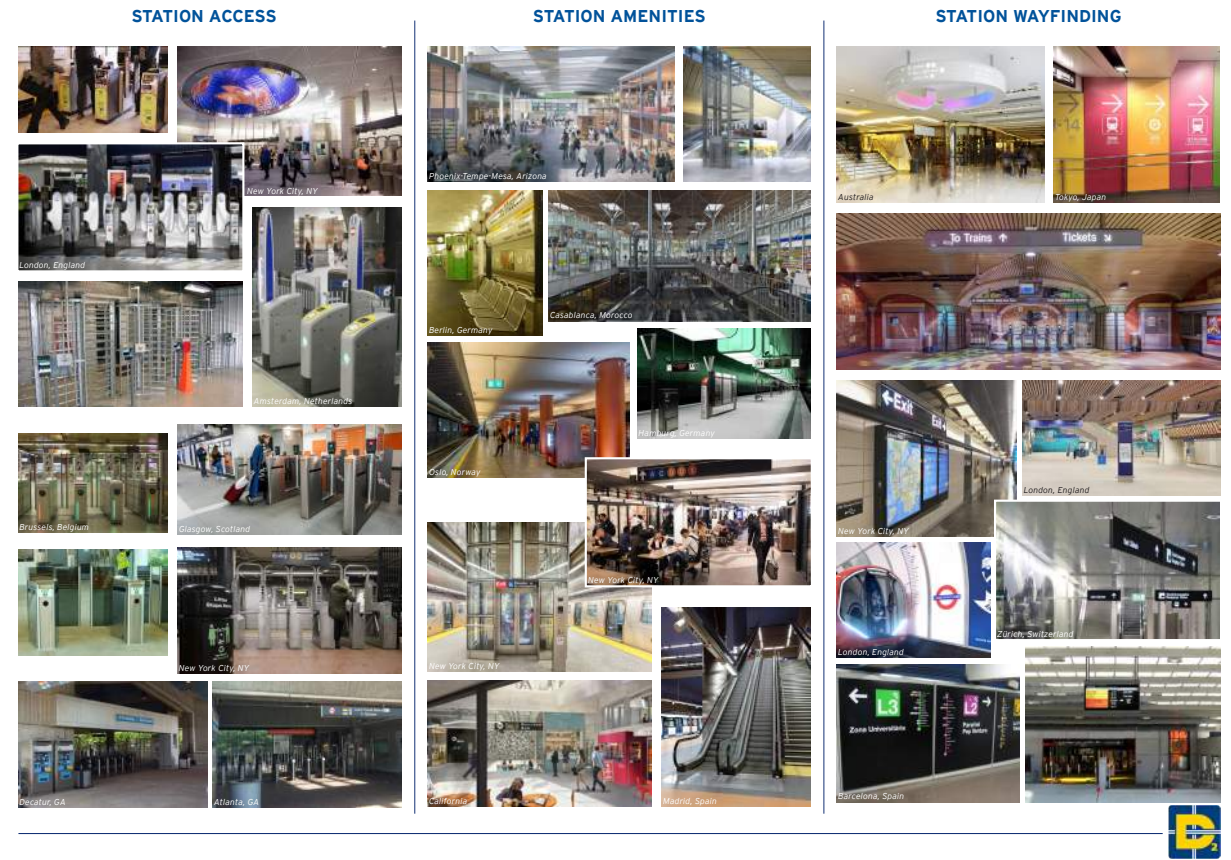
Precedents

Precedent image boards were created to generate reactions and encourage conversation at Focus Area meetings. Their intent was to provide built or imagined examples around the world to convey different design approaches to elements of a subway or a transit system.

The boards were often referred to in Focus Area meetings to aid in explaining or defining design elements. Some of the images focus specifically on the creation of social space in, around or sometimes over a system. The relationship of public space and transit activity is important.

These precedent boards will continue to be used as part of public involvement. The team is responsible to listen to stakeholder feedback and preferred imagery and capture input regarding supported design ideas and direction.

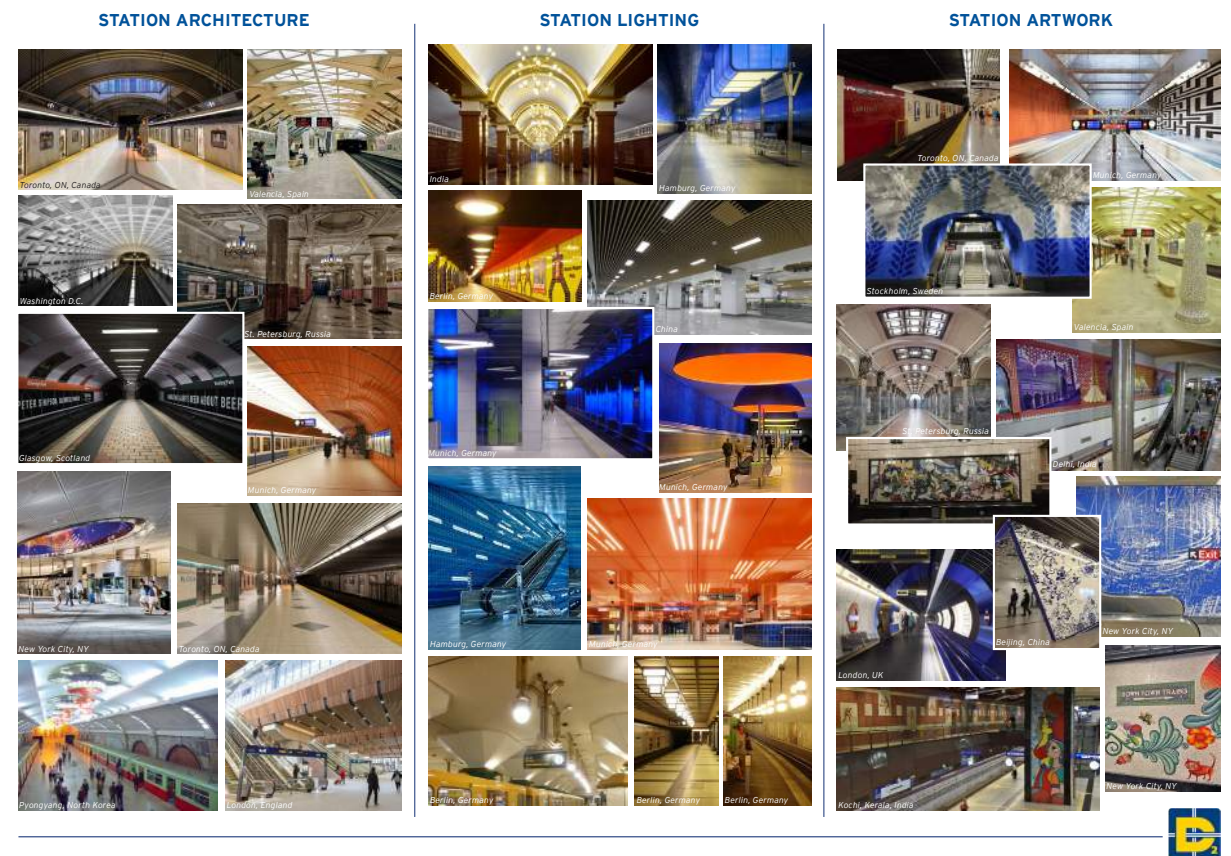
PRECEDENTS



PRECEDENTS



PRECEDENTS



PRECEDENTS

PRECEDENTS

BUS TRANSFER CENTERS

BUS SHELTERS

BIKE PARKING & FACILITIES

D

PRECEDENTS

VENTILATION SHAFT & OPERATIONAL FACILITIES

D

PRECEDENTS

PEDESTRIAN CROSSINGS

TUNNEL PORTALS & CONNECTIONS

ELEVATED CONNECTIONS

D

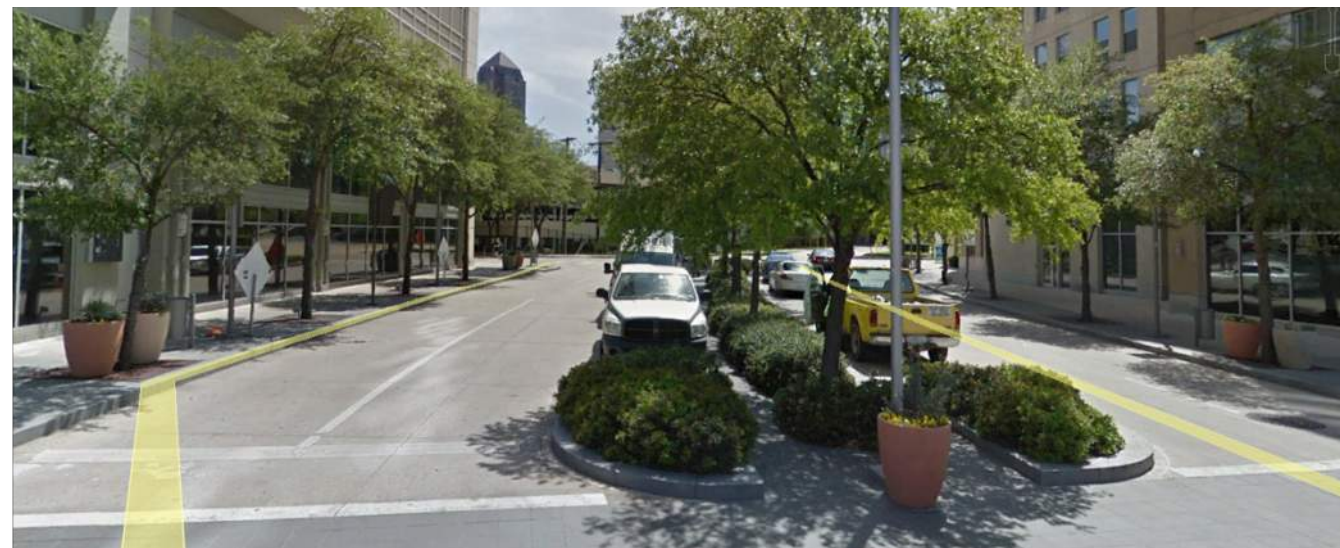


VICTORY-PEROT

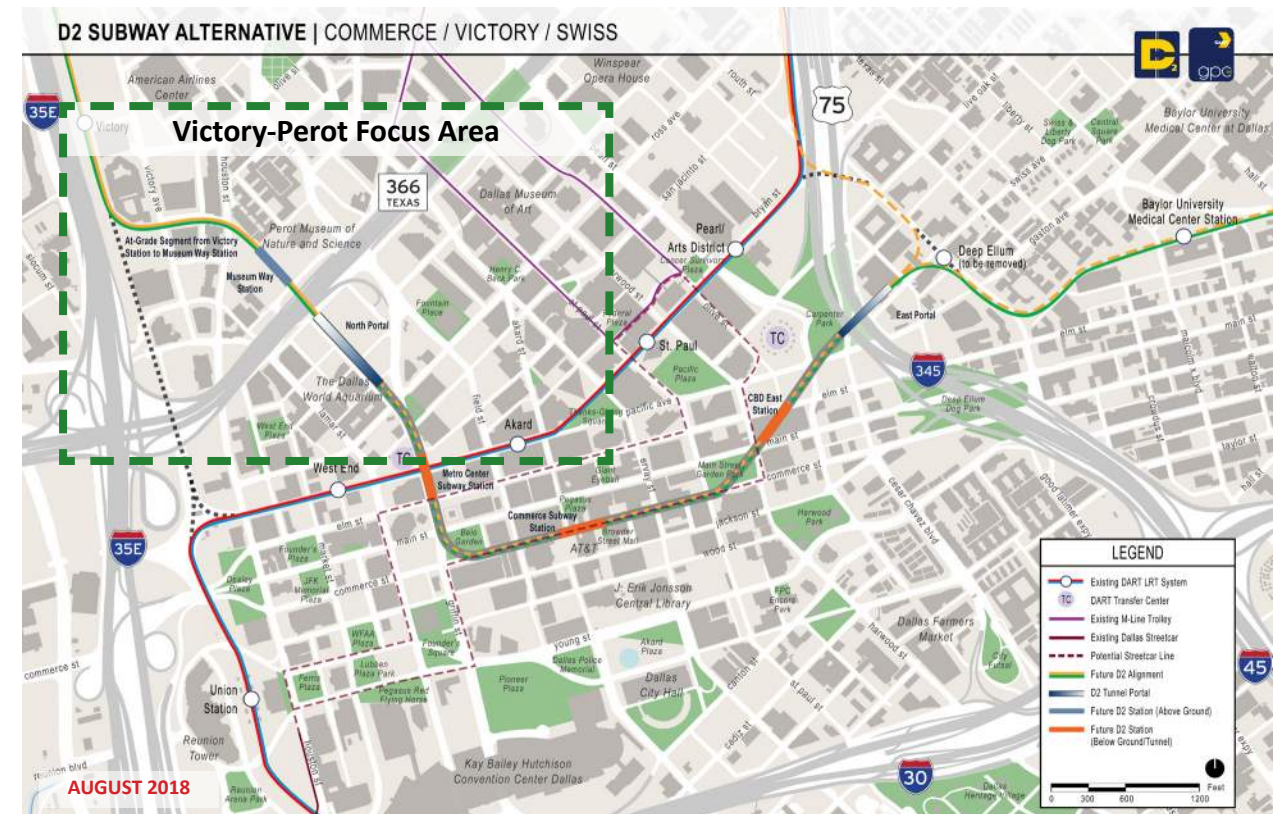
Victory-Perot Focus Area Meeting (August 2018)

The following captures ideas, messages or considerations from the focus area meeting that received group consensus. Full meeting summary notes, meeting details including the presentation, attendees and other corresponding materials can be found at www.DART.org/D2.

- Stakeholders asked about the proposed new cross section for Museum Way. DART currently owns a 35'-0" wide section centered in the Museum Way ROW. The D2 tracks will replace the current median and parking in this location. Stakeholders want to maintain mid-block access for parking garage entries. The cross section will need to be coordinated with the City - it could potentially be one lane of travel each direction either side of the new tracks with on street parking and bike lanes.
- Noise and vibration will be a concern for residential/hotels. The group discussed that speeds would be 10-15 mph max through this area, but noise can still be a concern where the alignment curves. DART will be doing a noise and vibration analysis in the area.
- Pedestrian access should be accommodated in all directions at the Woodall Rodgers/Field intersection to provide improved connections north and south under Woodall across Broom Street and McKinney Avenue, and east to Klyde Warren Park.
- The group discussed the potential for development over the portal or even a raised access over it. DART indicated it might be possible for the portal to be integrated with development over it.
- Keeping Hord Street open south of the portal is important. DART indicated that it will likely be feasible since the alignment will be deeper at that location.
- Wayfinding to help people get from the stations to attractions in the area will be key.



Museum Way - Existing Street View

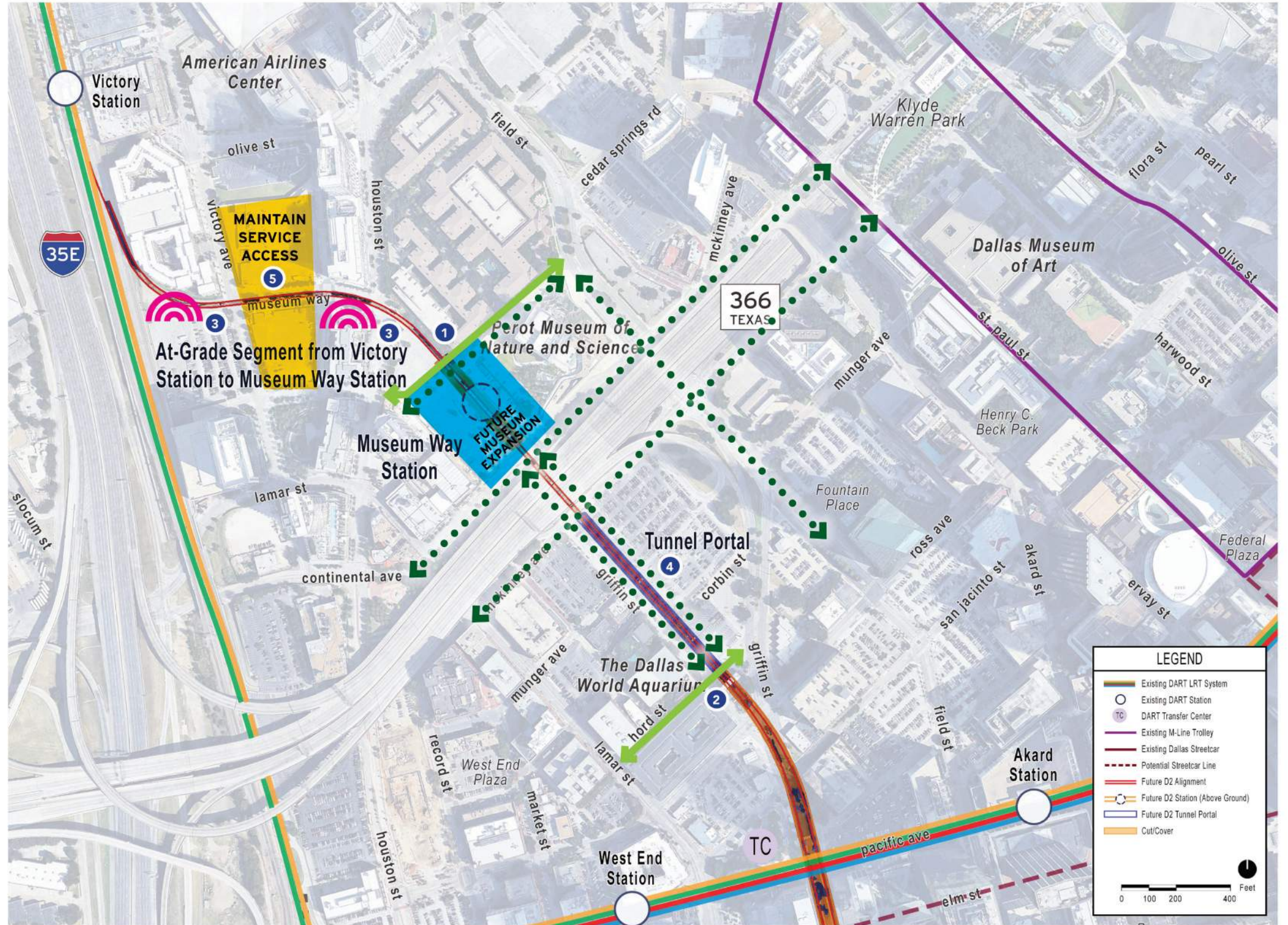


Victory-Perot Focus Area Meeting

STAKEHOLDER COMMENTS (AUGUST 2018) FOCUS AREA SUMMARY



- 1 Stakeholders indicated potential redevelopment north of the Perot Museum with River Street being an important connector. Traffic signalization would be proposed at River Street and Field Street. It would be desirable for River Street to cross the tracks north of the DART Museum Way Station in this location.
- 2 Just as it is important to allow for vehicles and pedestrians to cross the tracks at River Street north of the Museum Way Station, it is also important to maintain the existing Hord Street connection south of the Tunnel Portal. Based on this stakeholder feedback, DART will look at the possibility of maintaining this important grid connection.
- 3 Noise is a stakeholder concern where the train tracks curve near Victory Park residential buildings.
- 4 Based on the vision of the Dallas 360 Plan for this area, pedestrian connections along Broom Street and McKinney Avenue adjacent to Woodall Rodgers and along Field Street could see future improvements. Stakeholders propose additional pedestrian connections along either side of the tunnel portal and Museum Way Station in this area. *See Examples 1, 2 and 3 photos*
- 5 DART tracks will exist in the center of Museum Way within the 35 feet of DART owned ROW. DART will work with stakeholders on the cross section of the new Museum Way condition to include vehicular travel lane(s), a possible bike lane, on-street parking and a pedestrian zone. Stakeholder discussion included maintaining service and garage access points that exist mid-block along Museum Way. *See Existing Museum Way photo.*



LEGEND

- Noise Concern
- Vehicular Connection
- Pedestrian Connection

Victory-Perot Focus Area Coordination

Multiple coordination meetings have been held with various property owners, developers, boards, other agencies and interested parties. Meetings in small groups or in one-on-one settings will continue to be held to gather feedback and maintain open communication.

Urban Design Vision

The hand drawn Urban Design Vision, as seen on this page, was developed to capture information shared in the initial Focus Area coordination and inform future urban design decisions.

River Street was identified by stakeholders as an important connection. For this reason an improved city street is shown. The Museum Way Station has been modified to shorten the platform length to an acceptable standard to allow a connection of River Street (by others) to the north of the station. South of the station, reconfiguration of Broom Street to provide a wider pedestrian edge to the Perot Museum and adjacent destinations is seen as a positive to all stakeholders. Depressing the tracks at the station may also allow for D2 to pass under Woodall Rodgers without any reconstruction of the on-ramp west of the Field Street intersection. This may also shorten the length of the tunnel portal in order to maintain Hord Street as a vehicular connection. Maintaining a strong pedestrian connection north and south connecting both sides of Woodall Rodgers is important.

DART is open to plans for future expansion of the museum over the station and future development and connections over the tunnel portal. The design (by others) would be subject to review and coordination with DART. DART recognizes the potential that future development has for unifying this area of downtown.

Urban Design Plan

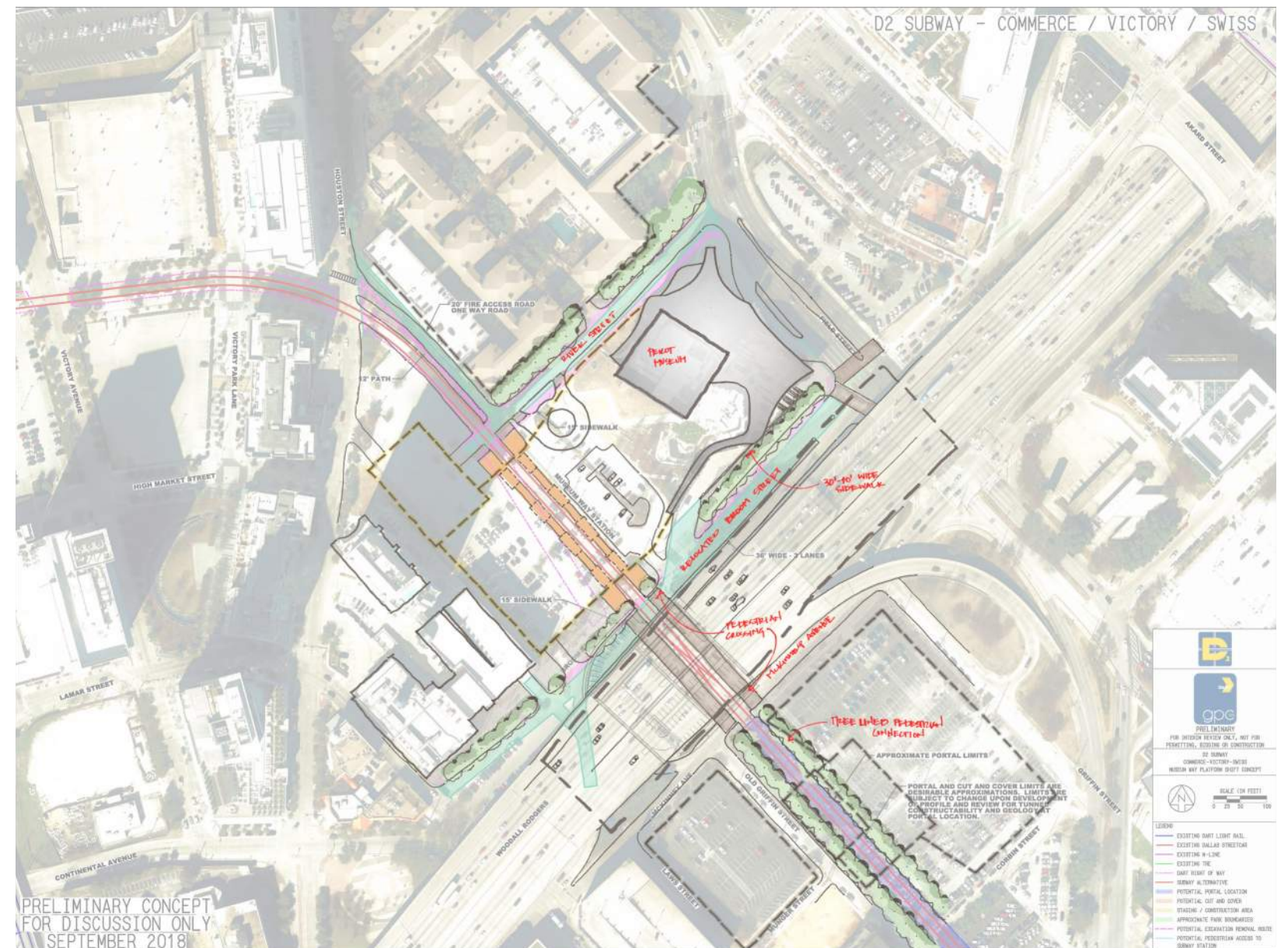
Based on the Urban Design Vision, and through continued stakeholder communication, the Urban Design Plan was created. The Urban Design Plan, on the following page, documents important elements of the D2 project and shows it in the context of the surrounding downtown environment. This plan has continued to be modified to document alignment revisions, future development decisions, and stakeholder input. The Urban Design Plan shown in this report is the most current. All preceding plans developed and presented in public and stakeholder meetings can be found at www.DART.org/D2.

Urban Design Plan - D2 Project Limits

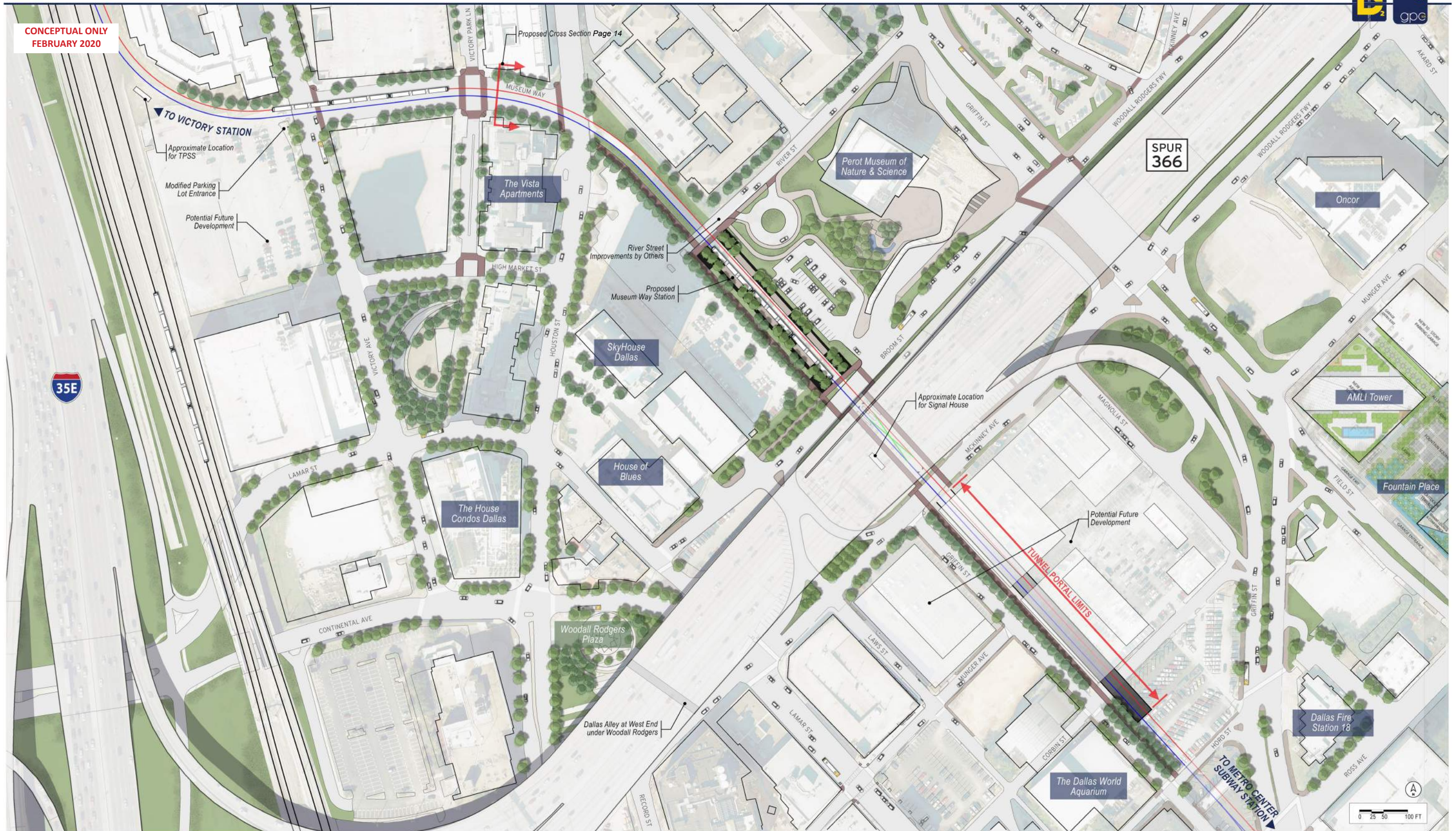
The “haloed” information overlaid on the Urban Design Plan, was developed in order to show the potential limits of the D2 Project.

For detailed track alignment, signalization and crossing information, as well as, street and sidewalk modifications and fencing locations the engineering plans may be referenced. For design of the Museum Way Station, architectural plans, cross sections and details may be referenced.

Urban Design Vision

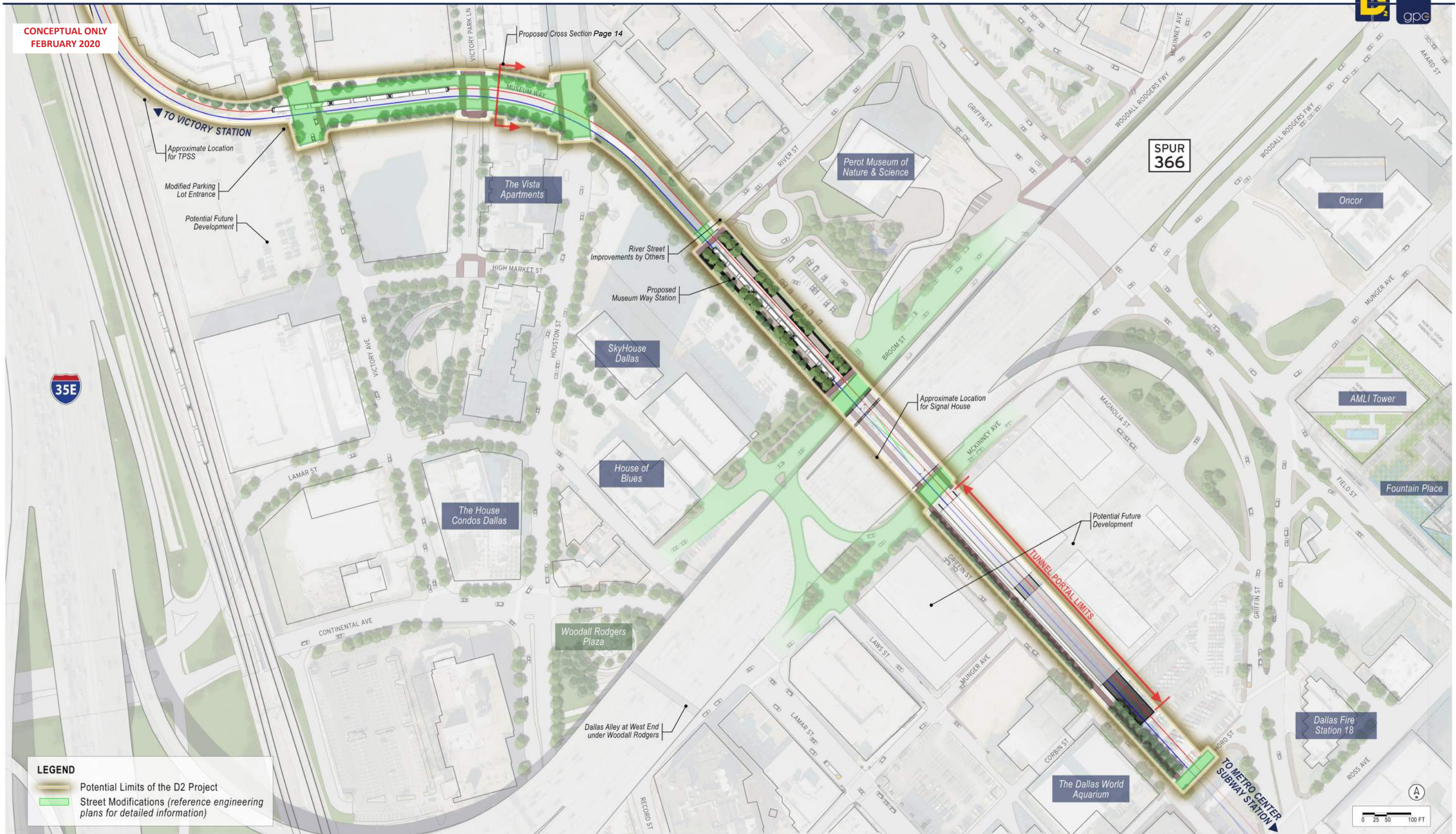


CONCEPTUAL ONLY
FEBRUARY 2020



This illustration is graphic in nature and includes context outside the limits of the D2 project. Elements are subject to change. Engineering and Architectural plans, profiles and details govern.

CONCEPTUAL ONLY
FEBRUARY 2020



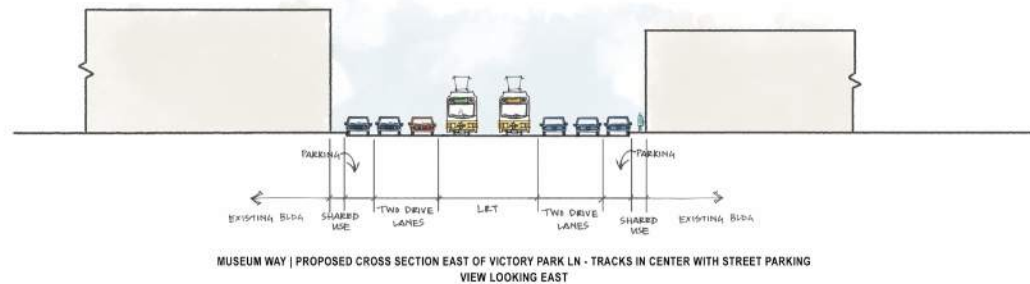
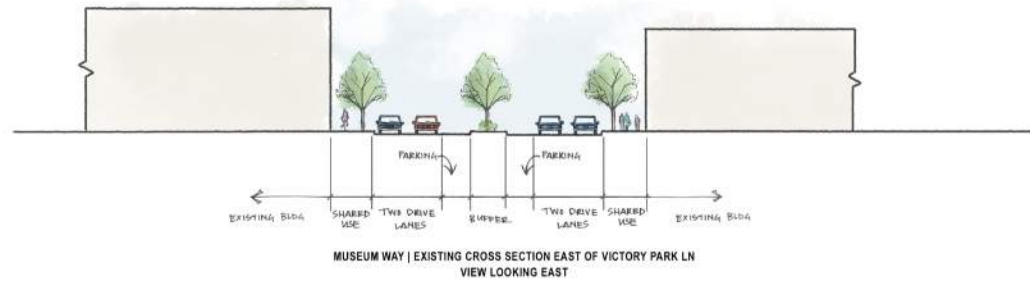
This illustration is graphic in nature and includes context outside the limits of the D2 project. Elements are subject to change. Engineering and Architectural plans, profiles and details govern.

Museum Way Cross Section

DART maintains open communication with stakeholders to define the new cross section of Museum Way. DART owns and will use approximately 35'-0" in width down the center of Museum Way to transition D2 at grade from the existing Victory Station to the proposed Museum Way Station west of the Perot Museum. The remainder of that cross section with regard to vehicular lanes, bicycle and pedestrian access is indicated based on stakeholder feedback and mutual consensus among the City of Dallas and surrounding property owners and developers. The cross section shown here is preliminary and has been provided in recent public and stakeholder meetings for review. Detailed information regarding the track alignment and vehicular and pedestrian track crossing can be found as part of the engineering design.

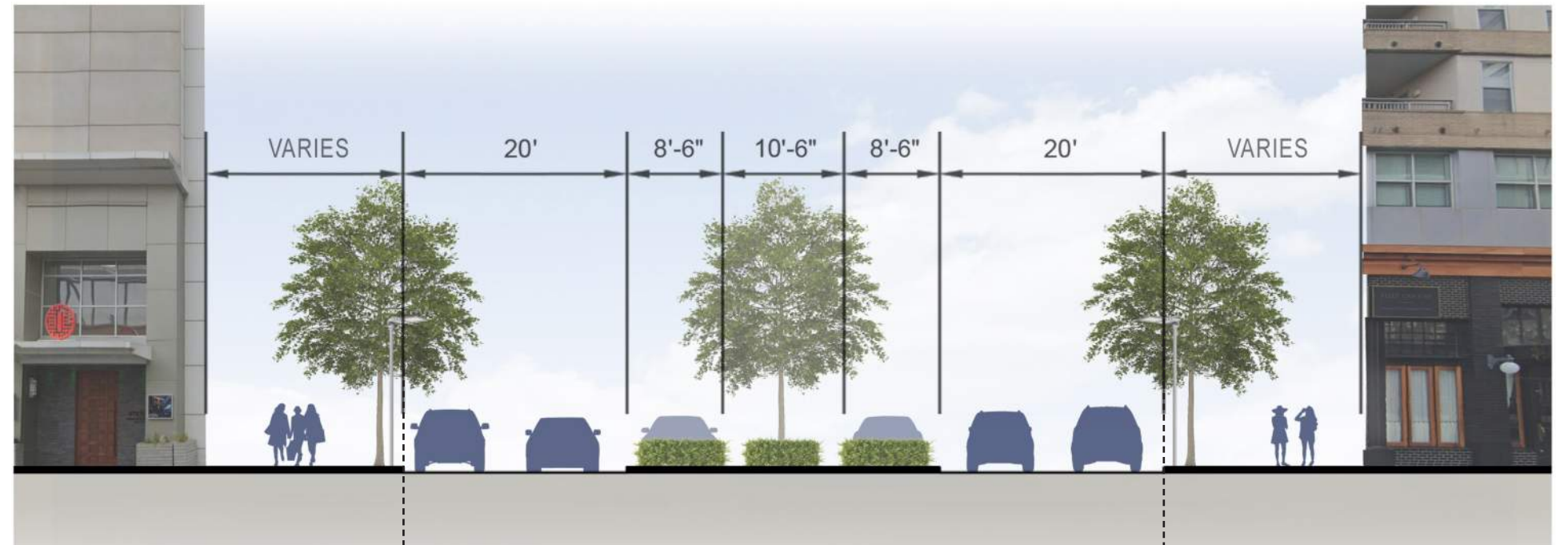
D2 SUBWAY | MUSEUM WAY CROSS SECTIONS - LPA AND LPA-DESIGN MODIFICATION 1

CONCEPTUAL ONLY
JULY 2019



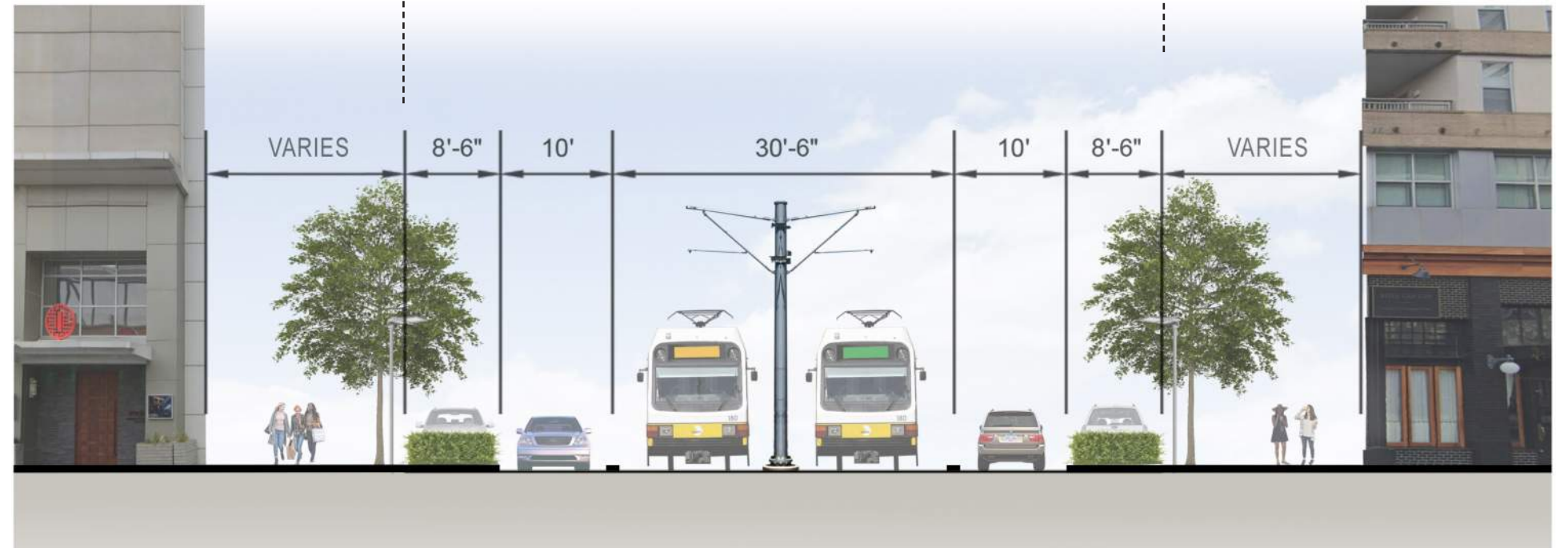
Museum Way Cross Sections

CONCEPTUAL ONLY
OCTOBER 2019



Museum Way | Existing Cross Section (view looking east)

CONCEPTUAL ONLY
OCTOBER 2019



Museum Way | Proposed Cross Section - Tracks in Center with Street Parking (view looking east)



METRO CENTER

Metro Center Focus Area Meeting (August 2018)

The following captures ideas, messages or considerations from the focus area meeting that received group consensus. Full meeting summary of notes, meeting details including the presentation, attendees and other corresponding materials can be found at www.DART.org/D2.

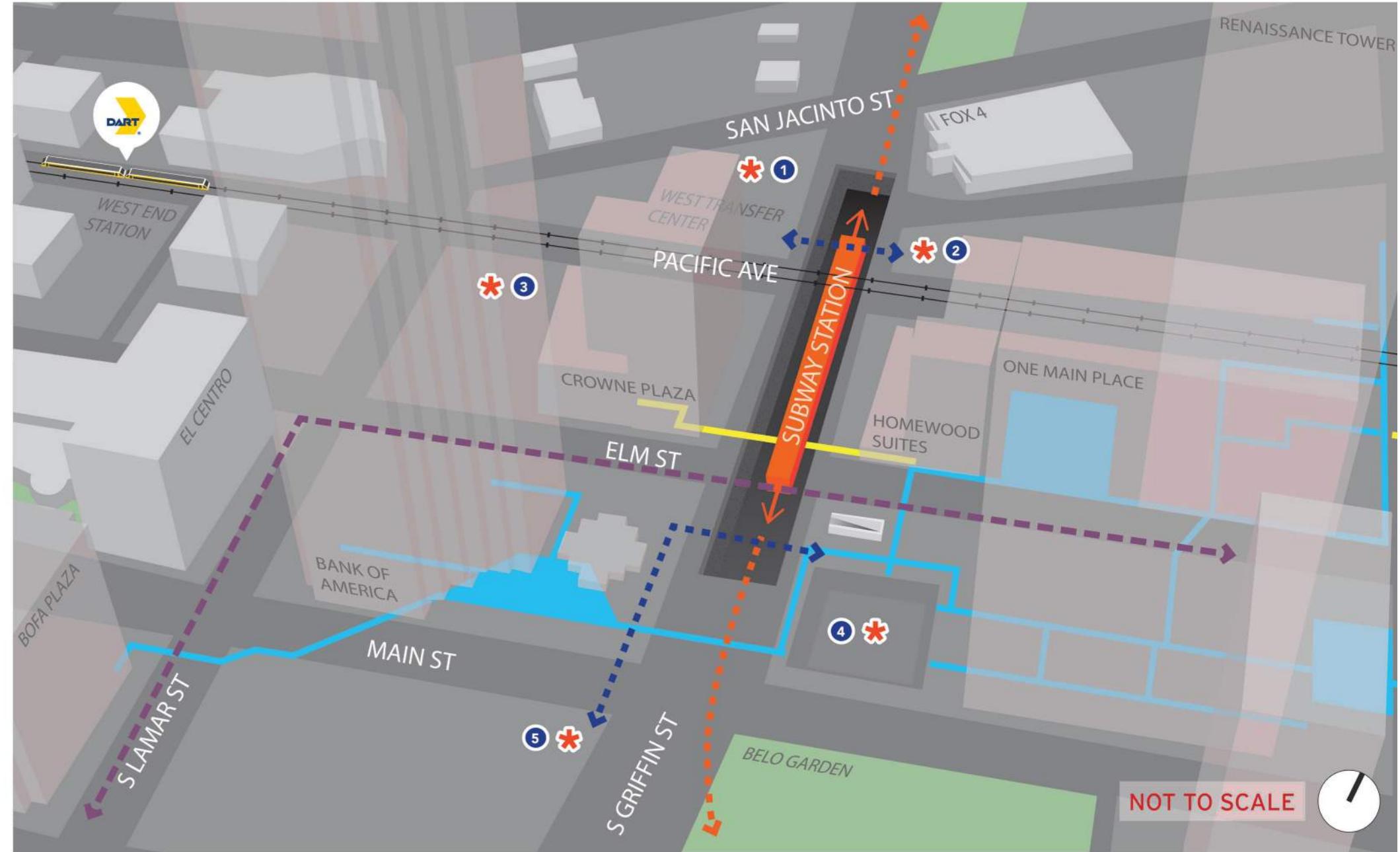
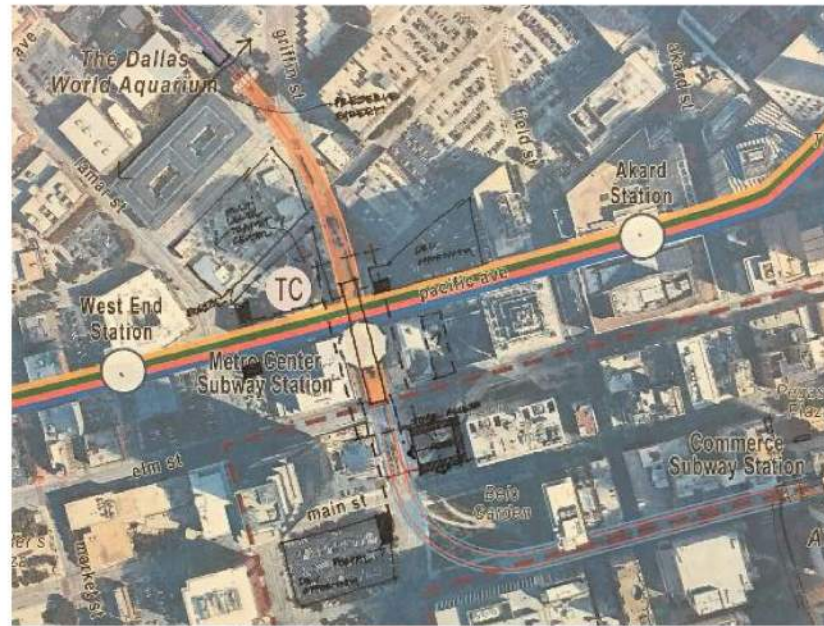
- Stakeholders supported the potential sites identified for pedestrian portals in the presentation such as West Transfer Center (WTC) and the parking lot east of WTC, Rosa Parks Plaza, and the sunken plaza west of the Westin Hotel. Stakeholders agree that tying into the existing pedestrian tunnel network in this area should be considered.
- Stakeholders discussed the potential for possibly reimagining the WTC to include a potential multi-story transit center. Stakeholders indicated that the block north of the existing transfer center may be needed as part of this potential development plan.
- Stakeholders agreed on several potential sites for pedestrian portals on either side of Griffin Street and at either end of the station. The portal suggested directly across from the transfer center on the east side of Griffin Street at the corner of existing at grade parking could be built with the flexibility to complement future multi-story development. This portal would also allow subway users to decide which side of Griffin Street they wish to access before coming to the surface. Their choice would be based on destination or access to the West End Facilities or Akard Station to continue their travel.
- The group discussed pedestrian portal size. DART will be following the Urban Design Technical Guidelines recommendations for portal placement and will design portals based on available space and accessibility requirements. The stakeholders shared their vision to prioritize the streetscape and pedestrian experience in downtown. The majority of the portals could be kept to a minimum size/minimum obstruction designed to support the vision of a vibrant and active pedestrian zone along the downtown streets and fit into the urban context.
- Stakeholders can envision a successful larger portal opportunity at the sunken plaza west of the Westin Hotel / One Main Place that better connects from the street level to existing subsurface and future restaurant and retail. This location would require thought for security and access as it connects multiple towers, buildings and public spaces.



Metro Center Focus Area Meeting viewing future station location below

STAKEHOLDER COMMENTS (AUGUST 2018)

FOCUS AREA SUMMARY



- 1 Stakeholders agreed on several potential sites either side of Griffin Street and at either end of the station, including a potential multi-story transit center that completely reimagines the space that currently serves as the West Transfer Center. Thinking big, stakeholders felt that the block north of the existing transfer center may be needed as part of this potential development plan. See Example 1 photo.
- 2 A second portal is suggested directly across from the transfer center on the east side of Griffin Street at the corner of existing at grade parking. A portal location in this area built with the flexibility to complement future multi-story development would be encouraged. This would also allow subway users to decide which side of Griffin Street they wish to access before coming to the surface. Their choice would be based on destination or access to the West End Facilities or Akard Station to continue their travel. See Example 2 photo.
- 3 The DART owned Rosa Parks Plaza is also a potential space for a portal location. The portal would reach west and provide direct access to Lamar Street. Many stakeholders have indicated their desire to access the portals in urban plaza areas and near parks. See Example 3 photo.
- 4 Reimagining the sunken plaza directly west of the Westin Dallas Downtown Hotel is another potential site for a subway pedestrian portal. National precedents and projects around the world show the possibility this space has if redesigned to allow direct at grade pedestrian access on all three sides into the plaza. The design could be accomplished to keep the space vibrant and active, take full advantage of existing and future restaurant and retail services, connect where appropriate to the existing tunnel system in this location and provide direct subway portal access. See Example 1 photo.
- 5 An additional potential portal is indicated directly south of Bank of America at the corner of existing surface parking. A portal location in this area built with the flexibility to complement future multi-story development would be encouraged. This would also be the most southern reaching portal for this subway and provides access to multiple destinations, employment and education areas. See Example 4 photo.

LEGEND

- Park/Plaza
- ✱ Potential Access to Subway
- Existing Pedestrian Tunnel
- Closed Pedestrian Tunnel
- Potential Streetcar
- D2 Subway Route
- Potential Subway Portal Access Routes



Metro Center Focus Area Coordination

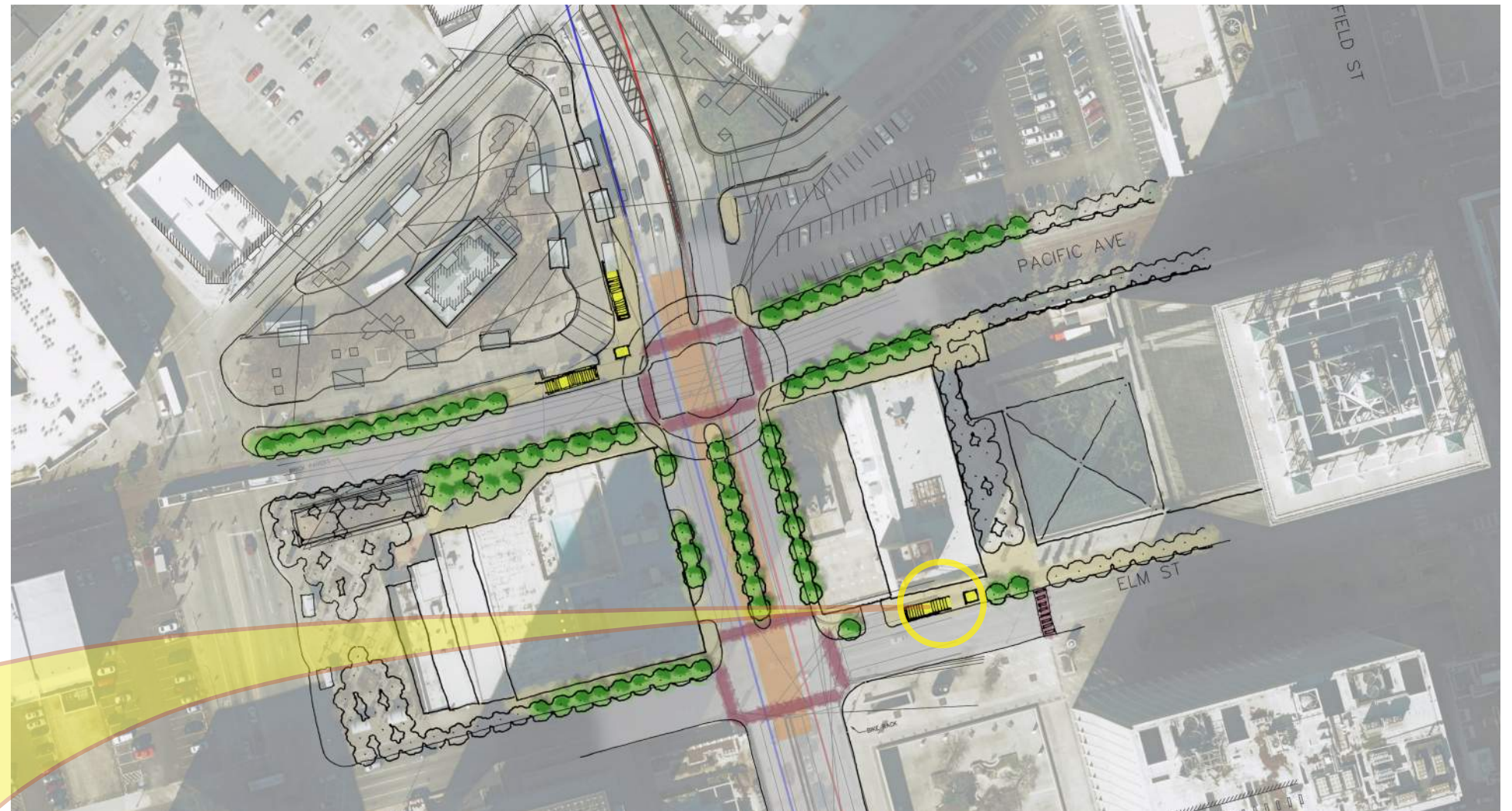
Based on feedback received after the Focus Area meeting held August 23, 2018, a few pedestrian portal areas originally identified by stakeholders as opportunities have been ruled out for various reasons.

Urban Design Vision

The hand drawn Urban Design Vision was developed to capture information shared in the initial focus area coordination and inform future urban design decisions. At the time this vision was created, potential pedestrian access was considered at the northeast corner of Griffin Street and Elm Street. Options for stair and elevator access on Elm Street were proposed in a curb bump-out segment. The photos depict a conceptual progression from the existing condition in front of the Homewood Suites garage entry to a potential pedestrian station portal. This sketch simulation is provided to show scale spatially only and does not reflect portal or elevator design or materials.

Through continued design development, it has become a challenge to locate pedestrian portals that provide direct access to the south end of the subway platform. Constraints including existing utilities and limited available public ROW make placing portals along Elm Street difficult. The Urban Design Plan will focus on the development of pedestrian portals at the WTC, Rosa Parks Plaza, the northwest corner of Lamar Street and Pacific Avenue and the northeast corner of Griffin Street and Pacific Avenue as potential locations based on stakeholder feedback.

Urban Design Vision



Griffin St and Elm St - Existing



Griffin St and Elm St - Pedestrian Portal Overlay



Griffin St and Elm St - Pedestrian Portal Overlay Illustrative

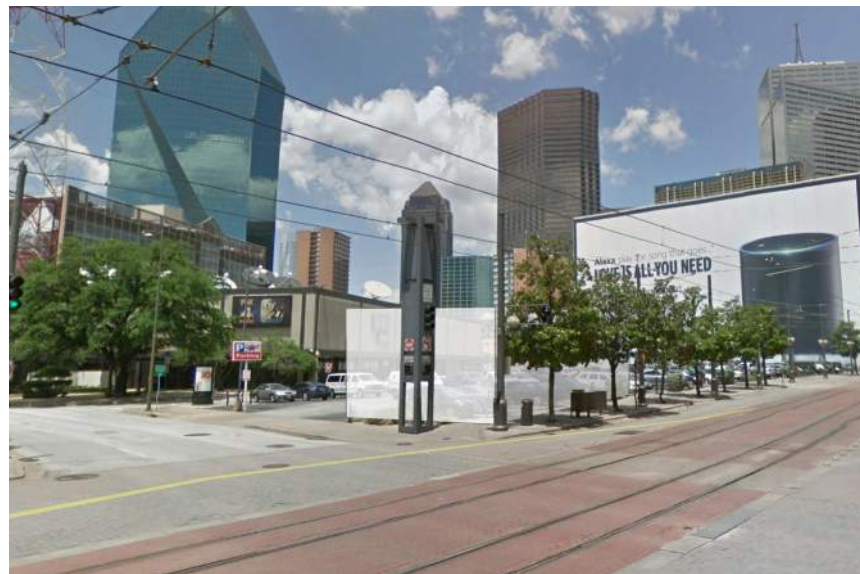
Metro Center Station - Pedestrian Access



① Griffin Street / Pacific Avenue Tracks - Headhouse Shape Overlay



② Rosa Parks - Pedestrian Portal Shape Overlay



③ NE Corner of Griffin Street / Pacific Avenue - Pedestrian Portal Shape Overlay



④ Lamar Street / Pacific Avenue Tracks - Pedestrian Portal Shape Overlay

Metro Center Subway Station - Shape Overlays

As an intermediate step in identifying pedestrian access points, shape overlays were created and placed into a photo image. The shape roughly shows the size and scale for the portal being considered in each location.

Image 1 indicates the volume for a larger headhouse planned in this location. The headhouse will be on the northwest corner of Griffin Street and Pacific Avenue on DART owned property that is currently in use as the WTC. It is anticipated that bus transfers will be temporarily relocated during construction and this site will be redesigned to accommodate the headhouse when construction is complete. The redesign could include additional property to the north of the WTC. The larger headhouse is anticipated to have two or more points of entry at the surface with direct access to and from bus transfers a direct access to and from Akard and West End Stations and downtown destinations. The current design considers a ticketing area, a lower mezzanine, and transitions that allow access to the subway platform below. The transitions include elevator, stair and escalator options. Natural light is also an important consideration of the design. Light would filter from surface to the mezzanine and platform levels.

Image 2 indicates the volume for a smaller headhouse planned at Rosa Parks Plaza. Redesign in this area would respect all the components, sculpture and art that currently exist. The smaller headhouse is anticipated to have two points of entry at the surface with direct access from West End Station and downtown destinations. The smaller headhouse planned on this DART owned property provides ticketed access under Pacific Avenue and connects riders to the mezzanine level of the larger headhouse discussed above. From the larger headhouse, passengers will be able to access the subway platform. The current design considers a combination of elevator, stair and escalator.

Image 3 shows the volume for a proposed pedestrian portal on the northeast corner of Griffin Street and Pacific Avenue. This would be a smaller scaled portal that would allow ticketed riders to transition under Griffin Street and provides direct access to Akard Station and downtown destinations. The current design considers elevators and stair and connects to the north end of the subway platform below.

Image 4 shows the volume for a potential pedestrian portal on the northwest corner of Lamar Street and Pacific Avenue. This would be the smallest scaled portal for the station and would allow ticketed riders to transition under Lamar Street and connect to the mezzanine level of the larger headhouse. From the larger headhouse, passengers will be able to access the subway platform as indicated above. The current design considers elevators only at this location.

As indicated, shape overlays were used to provide an early understanding of space requirements. The ghosted shapes are meant to estimate potential volume and scale in the context of the area for which they are being planned. For detailed design of the Metro Center Subway Station reference architecture plans, cross sections and details.

Urban Design Plan

Based on the Urban Design Vision, and through continued stakeholder communication, the Urban Design Plan was created. The Urban Design Plan documents important elements of the D2 project and shows it in the context of the surrounding downtown environment.

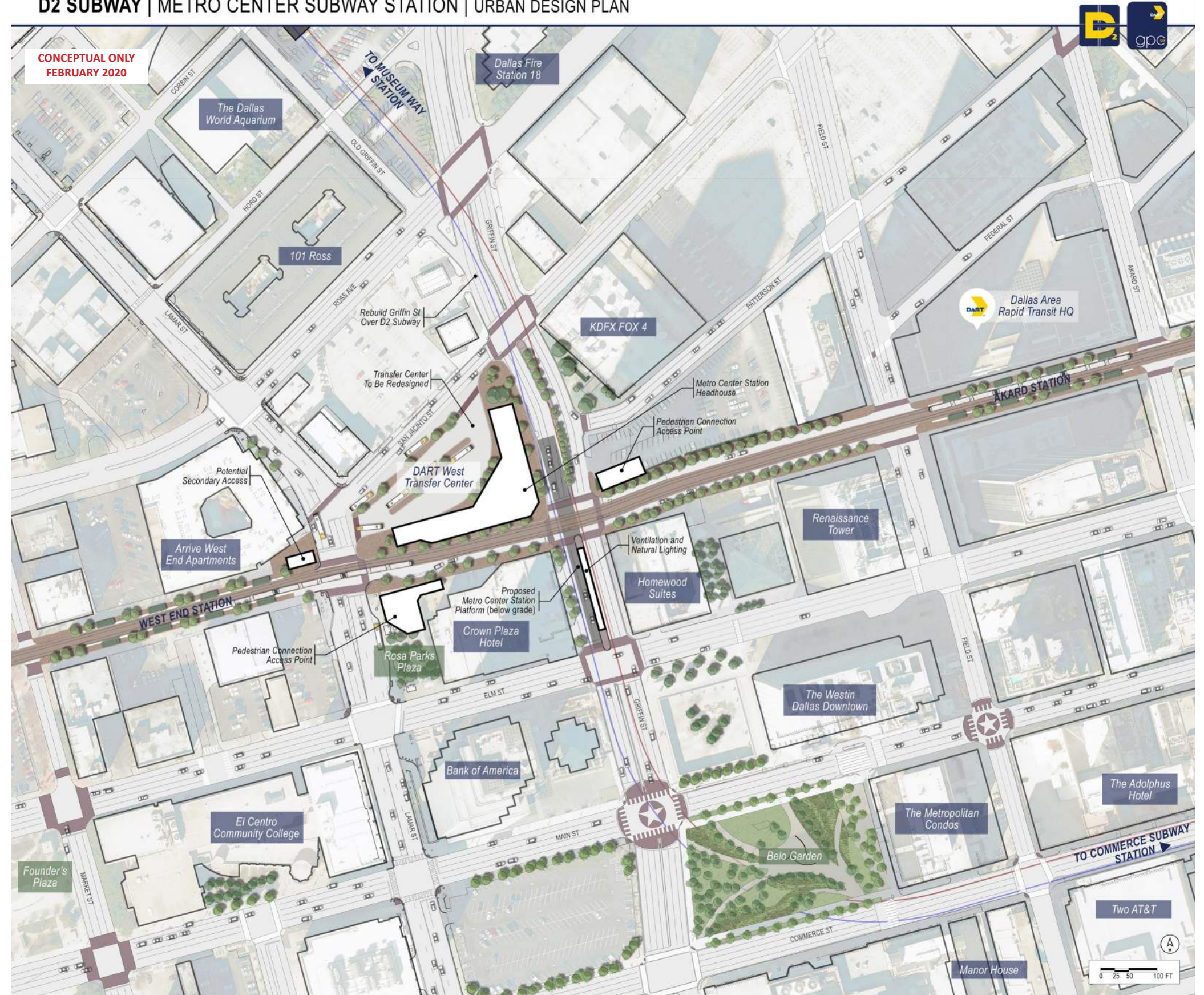
The plan indicates a headhouse at the northwest corner of Griffin Street and Pacific Avenue at the DART WTC. The existing transfer facility has been modified to accommodate the design for the headhouse. The Metro Center Subway Station will provide transfer opportunities from the subway station to the existing light-rail stations and bus at grade.

Pedestrian access, shown at Rosa Parks Plaza, allows access to the West End pedestrian traffic and serves Bank of America Tower, across the street to the south, and surrounding destinations. Additional points of pedestrian access are indicated on the northeast corner of Griffin Street and Pacific Avenue and the northwest corner of Lamar Street and Pacific Avenue. Due to constraints, there are no pedestrian points of access south of Pacific Avenue as had been considered in the Urban Design Vision.

This Urban Design Plan continues to be modified to document alignment revisions, future development decisions, and stakeholder input. The plan shown in this report is the most current. All preceding plans developed and presented in public and stakeholder meetings can be found at www.DART.org/D2.

For detailed track alignment, signalization and crossing information, as well as, street and sidewalk modifications, the engineering plans may be referenced. For design of the Metro Center Subway Station, architectural plans, cross sections and details may be referenced.

D2 SUBWAY | METRO CENTER SUBWAY STATION | URBAN DESIGN PLAN



This illustration is graphic in nature and includes context outside the limits of the D2 project. Elements are subject to change. Engineering and Architectural plans, profiles and details govern.

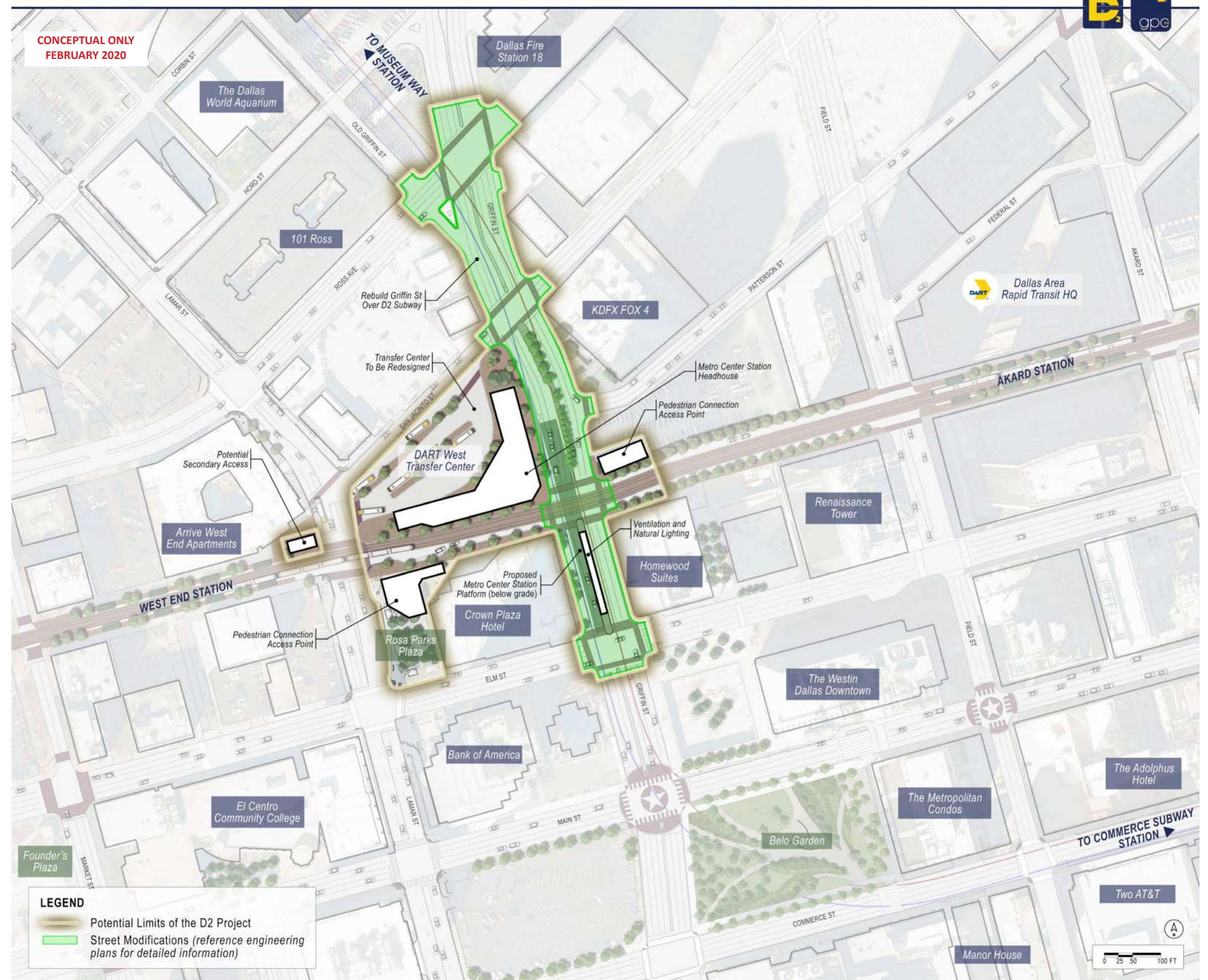
Urban Design Plan - D2 Project Limits

The “haloed” information overlaid on the Urban Design Plan was developed in order to show the potential limits of the D2 Project.

This plan continues to be modified to document alignment revisions, future development decisions, and stakeholder input. The plan shown in this report is the most current. All preceding plans developed and presented in public and stakeholder meetings can be found at www.DART.org/D2.

For detailed track alignment, as well as, street and sidewalk modifications, the engineering plans may be referenced. For design of the Metro Center Subway Station, architectural plans, cross sections and details may be referenced.

D2 SUBWAY | METRO CENTER SUBWAY STATION | URBAN DESIGN PLAN



This illustration is graphic in nature and includes context outside the limits of the D2 project. Elements are subject to change. Engineering and Architectural plans, profiles and details govern.

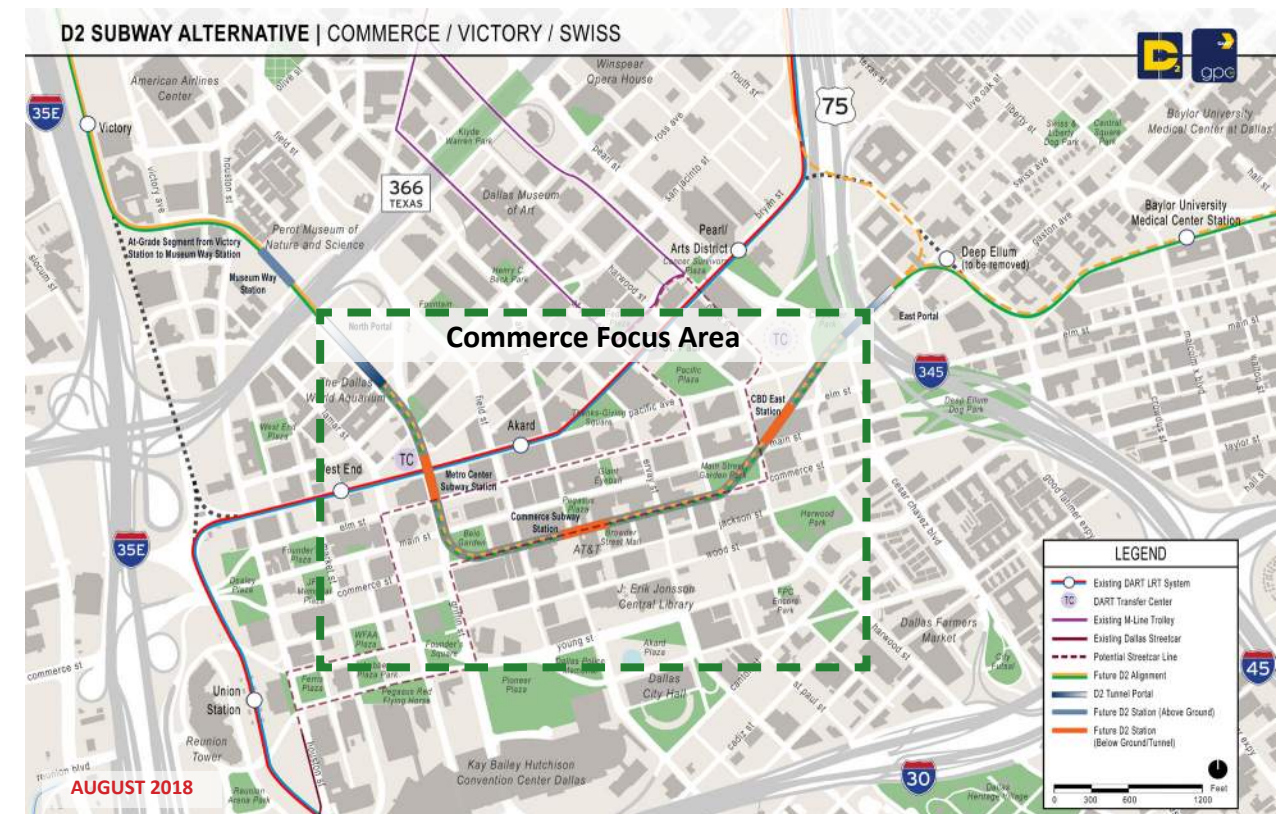


COMMERCE

Commerce Focus Area Meeting (August 2018)

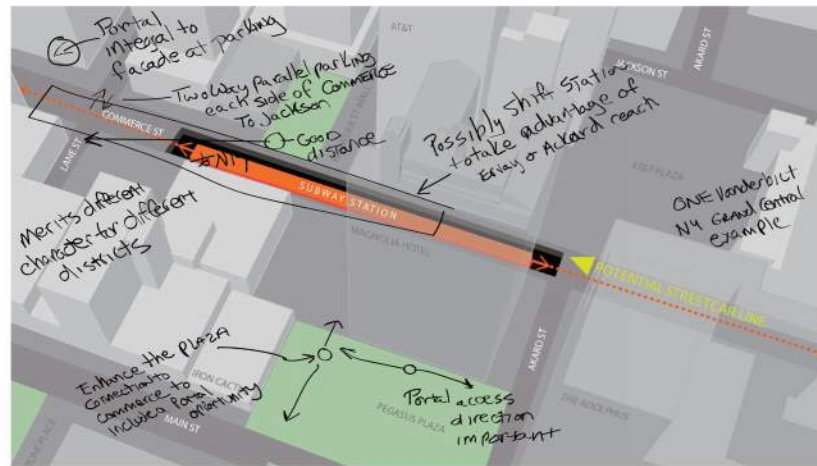
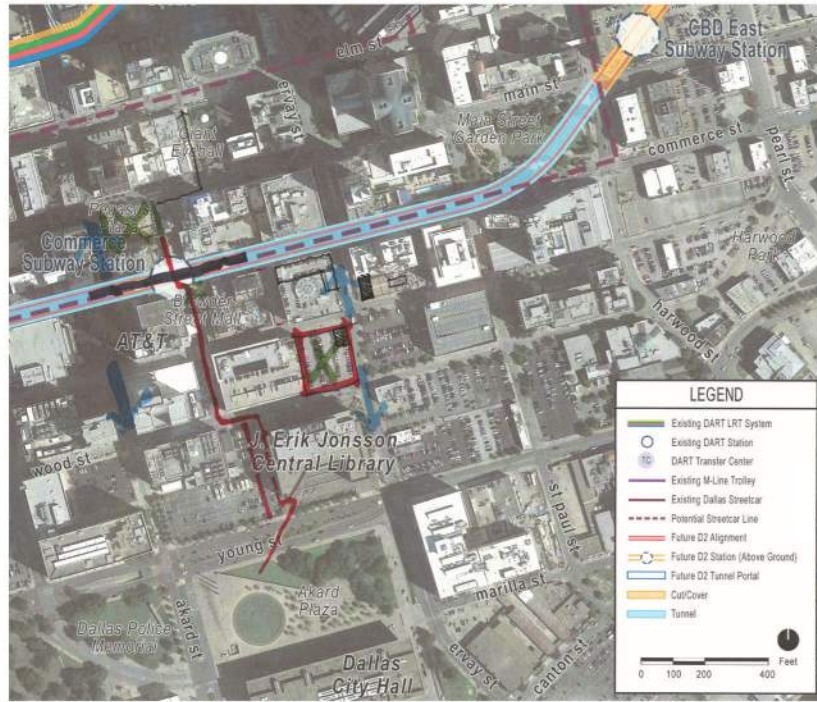
The following captures ideas, messages or considerations from the focus area meeting that received group consensus. Full meeting summary of notes, meeting details including the presentation, attendees and other corresponding materials can be found at www.DART.org/D2.

- The stakeholders discussed the project construction. The construction start date is anticipated late 2020. The specific construction sequencing has not been determined. Vehicular lanes along Commerce Street are anticipated to be temporarily closed, however, the majority of construction should be happening underground with the exception of pedestrian portals and other necessary points of access. Survey is being completed to locate utilities in the area and minimize impacts during construction.
- Stakeholders like the idea of Browder Street Mall and Pegasus Plaza for a pedestrian portal and agree it would be positive to activate these spaces. The City indicated support for the possibility of a pedestrian portal at both of these locations. DART will work with the City when determining a final location.
- The stakeholders suggested shifting the Commerce subway station east to be equidistant to Akard and Ervay Streets in order to anchor north-south connections. The City indicated that Akard is the most comfortable street for walk access to City Hall. This path would be through the AT&T Discovery District that is currently under construction and will be open to the public. In addition to the DalPark garage, stakeholders selected a second potential option for a portal that would provide direct access to Ervay, south of the DalPark garage in the open parking lot area, which could be built with the flexibility to complement future multi-story development.
- The group discussed design of the pedestrian portals and referenced the Portal Precedents display board. The City noted that consistency is important with respect to symbols, signage and wayfinding. New York City was suggested as a good reference as all the signs are banded and consistent, but noted portal design there is different.
- Stakeholders agree that portal design should reflect the area and complement the urban fabric around it. Design should consider combining vent shafts with portals where possible to integrate, hide or minimize visual and space disruptions.

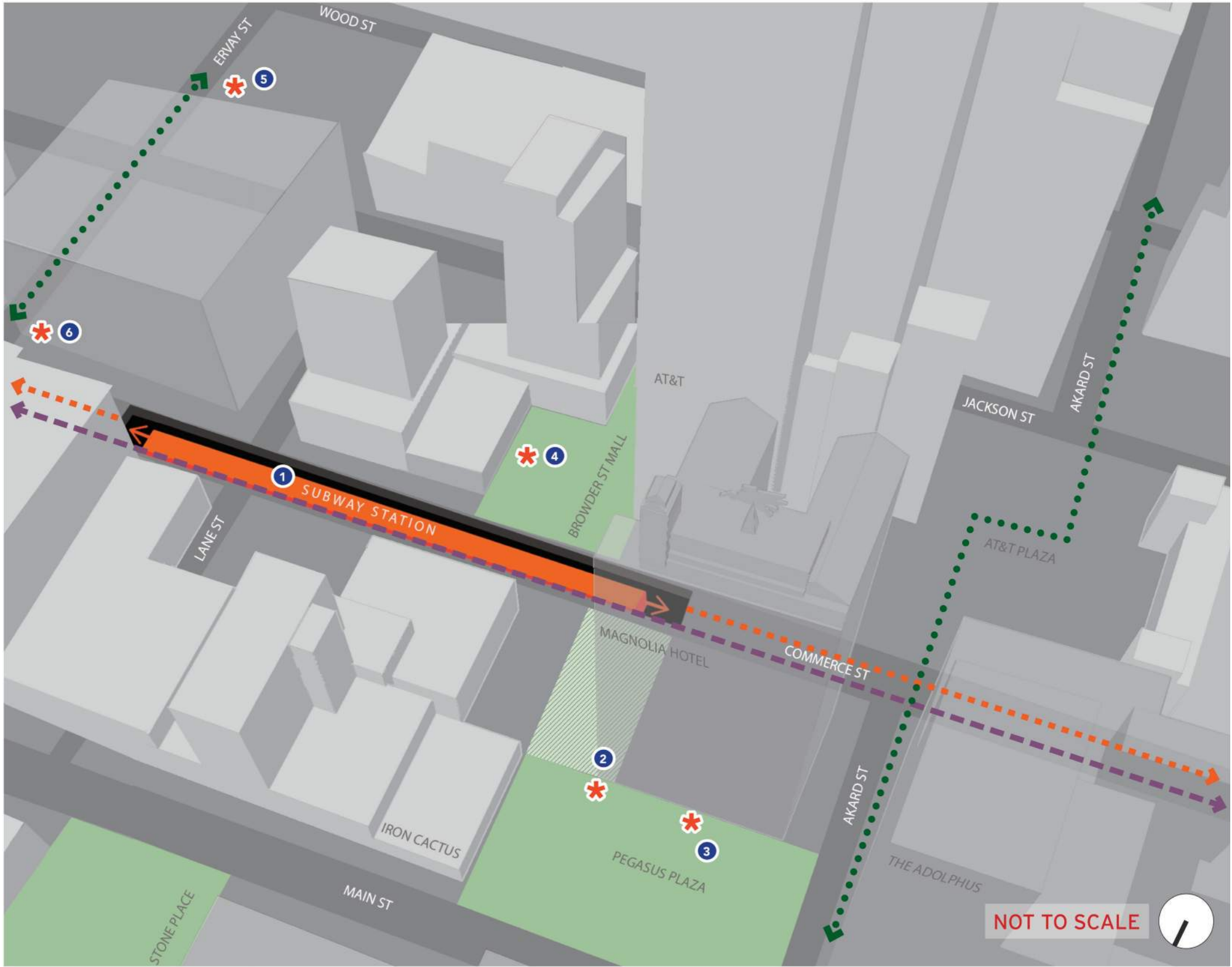


Commerce Focus Area Meeting

STAKEHOLDER COMMENTS (AUGUST 2018) FOCUS AREA SUMMARY



- 1 Stakeholders suggest shifting the Commerce Station to the east and position it equidistant from Ervay and Akard Streets. Providing pedestrian portals to these streets allows riders direct access to strong pedestrian connections at grade to the north into the heart of downtown and south to important employment areas and the public library and city hall.
- 2 The Magnolia Pass Through is a proposed connection to move pedestrians from the existing Browder Street Mall across Commerce Street and connect Pegasus Plaza and Main Street. Stakeholders indicate an opportunity to strengthen this connection by also incorporating a multi-directional portal in this space.
- 3 A second portal location within Pegasus Plaza, at the 'back' of the Magnolia Hotel was suggested in the event that a quick study of this location in comparison to the portal above indicates better opportunity for pedestrian connection to both Akard Street and the Browder Street Mall, positively activating the plaza and complementing the area patio dining experience and surrounding services.
- 4 A third access point in the vicinity of the Browder Street Mall could provide an additional entry into the subway. The design would consider a smaller footprint and possibly incorporate needed tunnel ventilation all designed to keep within the aesthetic of the smaller space and complement the scale of services like ground floor retail and restaurant dining surrounding it.
- 5 Stakeholders indicated the potential for a portal in the at grade parking currently bound by Jackson, Ervay and Wood Streets and the Interurban Building Apartments. This portal would be located in the northeast corner at Jackson and Ervay Streets and provide important pedestrian connection to the north and south. Stakeholders felt a portal location in this area built with the flexibility to complement future multi-story development would be encouraged.
- 6 Secondary to the portal listed above, stakeholders discussed the possibility of an integral portal entry at the first floor of the existing garage bound by Lane, Commerce, Jackson and Ervay Streets. This, and the Browder Street Mall portal, would provide riders access to Neiman Marcus and other commercial and business destinations.



LEGEND

- Park/Plaza
- ✱ Potential Access to Subway
- Potential Streetcar
- D2 Subway Route
- ... Pedestrian Connection

Commerce Focus Area Coordination

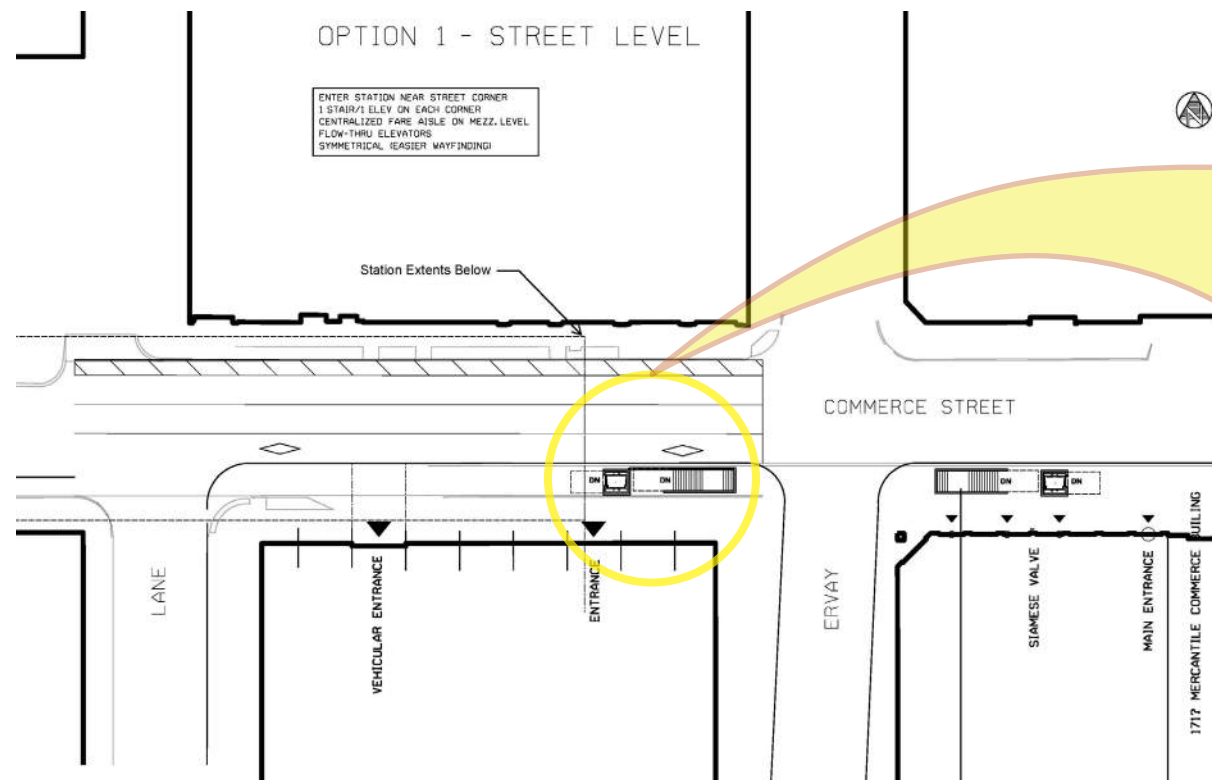
Design in this Focus Area is challenging in part due to the vibrancy and development along Commerce Street. There is very little unused or unplanned space. Based on feedback from stakeholders in the Focus Area meeting held August 22, 2018, Akard Street and Ervay Street serve as strong pedestrian corridor connections running north and south in the CBD. Placing the station below Commerce Street and providing access to both Akard Street and Ervay Street via headhouse or pedestrian portals is preferred.

Urban Design Vision

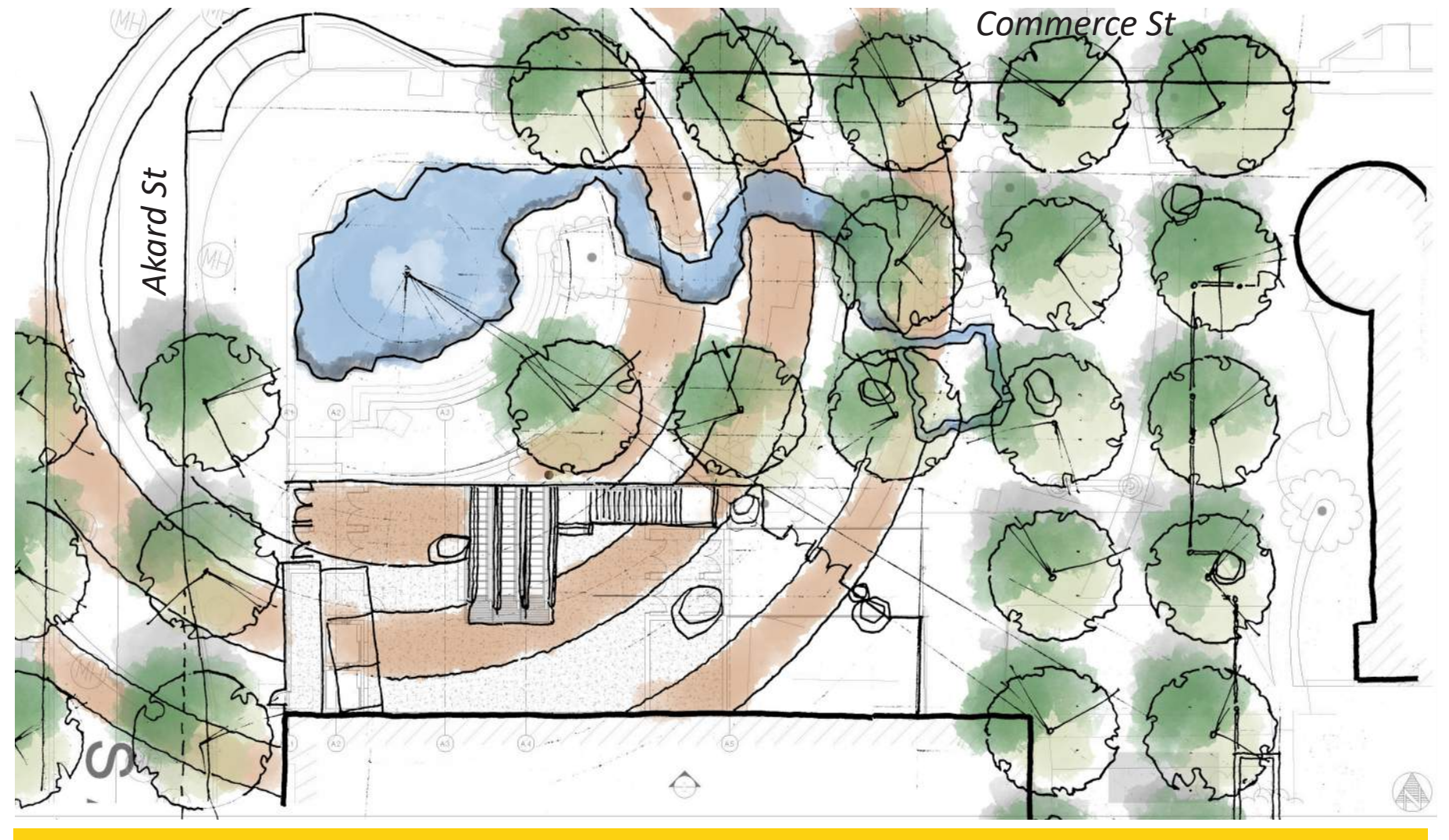
The hand drawn Urban Design Vision was developed to capture information in ongoing stakeholder communication and guide future urban design decisions. Pegasus Plaza continues to be supported as a location for a station headhouse providing access to Akard Street to the north and south. Through continued meetings with the City, participating agencies, area developers, property and business owners and stakeholders, the re-imagining of this space will be mutually determined.

The architectural study was created to address the stakeholder’s desires to provide pedestrian access from the station to Ervay Street to the north and south. Options for stair and elevator access on Commerce Street were proposed where currently a vehicular travel lane exists. The photos beside the study indicate a conceptual progression from the existing condition to a potential pedestrian portal. The sketch simulation is provided to show scale spatially only and does not reflect portal or elevator design or materials. For current design of the pedestrian portal in this location reference architecture plans, cross sections and details.

Architecture Study - East Portal Entry (January 15, 2019 - Subject to Change)



Pegasus Plaza - Portal Conceptual Plan Design



Commerce St and Ervay St - Existing



Commerce St and Ervay St - Pedestrian Portal Overlay



Commerce St and Ervay St - Pedestrian Portal Overlay Illustrative

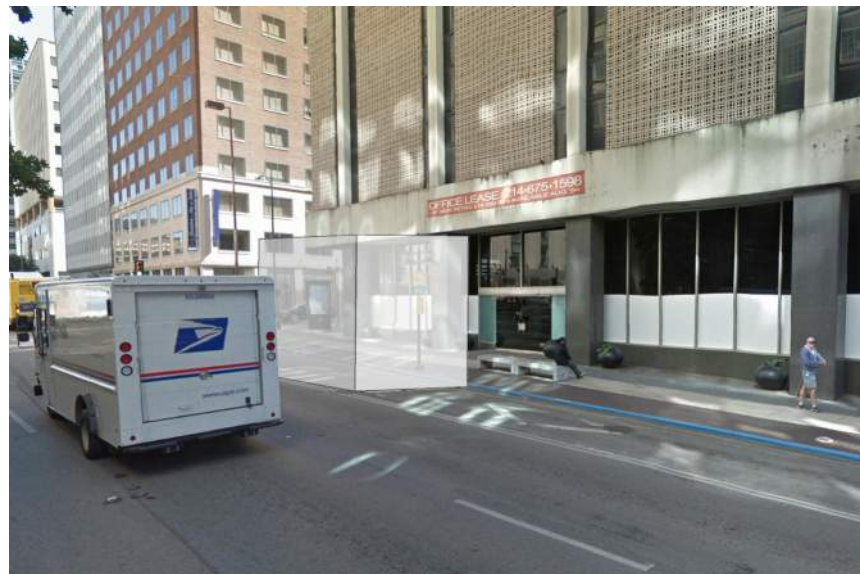
Commerce Station - Pedestrian Portals



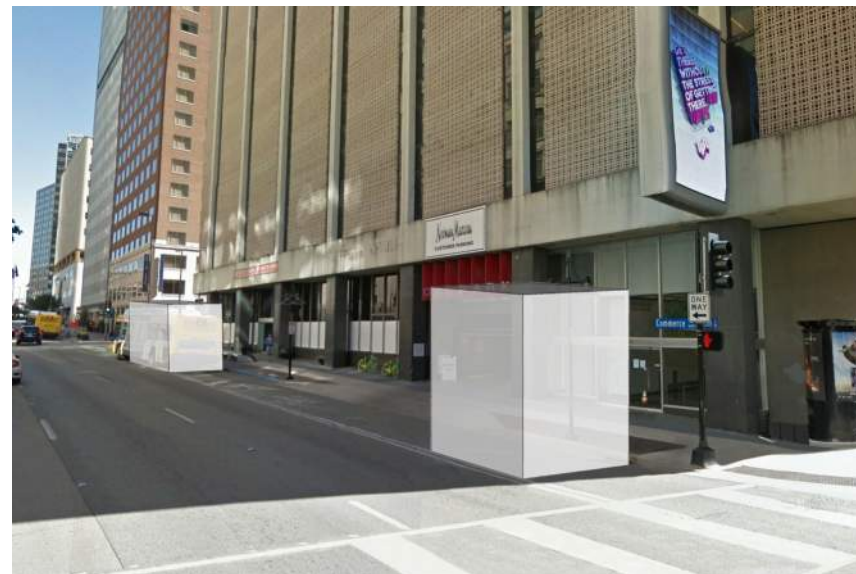
① Pegasus Plaza - Headhouse Shape Overlay



② Pegasus Plaza - Headhouse Shape Overlay



③ Commerce Street / Ervay Street - Pedestrian Portal Shape Overlay



④ Commerce Street / Ervay Street - Pedestrian Portal Shape Overlays with Elevator and Stairway

Commerce Subway Station Shape Overlays

As an intermediate step in identifying pedestrian access points, shape overlays were created and placed into a photo image. The shape roughly shows the size and scale for the access being considered in each location.

Images 1 and 2 indicate the volume for a headhouse planned in this location. The headhouse will be on the southeast corner of Main Street and Akard Street in Pegasus Plaza. It is anticipated that the plaza would be completely disassembled and temporarily stored off site in a location to be determined during the construction. The headhouse, mezzanine and underground pedestrian connections would then be constructed, and a cross cavern built to connect riders from the surface to the west side of the subway platform under Commerce Street. The headhouse is anticipated to have two points of entry at the surface. The current design considers a ticketing area one level below and access includes elevator, stair and escalator. Redesign of the plaza, when construction of the subway is complete, has not been finalized.

Working with the Parks and Recreation Board (Board) at the City of Dallas both DART and the Board have agreed to a resolution that supports the consideration of a station headhouse at this location and the reconstruction of Pegasus Plaza. DART will be coordinating and participating in a series of meetings with the City, participating agencies and area developers, property and business owners, and stakeholders to further discuss design of the future plaza.

Image 3 and 4 indicate the volume for a proposed pedestrian portal on the southwest corner of Commerce Street and Ervay Street. The City of Dallas has approved a Thoroughfare Amendment to Commerce Street that removes the southernmost vehicular lane of Commerce Street where this pedestrian portal is proposed. Multiple points of pedestrian access in this location are being considered. Ticketing may occur at surface or one level below based on preferred access opportunities. This portal would allow passengers access to the east side of subway platform in the station below.

This intermediate step was developed in order to provide an early understanding of space requirements. The ghosted shapes are meant to estimate potential volume and scale in the context of the area for which they are being planned. For detailed design of the Commerce Subway Station reference architecture plans, cross sections and details.

Urban Design Plan

Based on the Urban Design Vision and Architectural Studies, and through continued stakeholder communication, the Urban Design Plan was created. The Urban Design Plan documents important elements of the D2 project and shows it in the context of the surrounding downtown environment.

The plan indicates a headhouse in Pegasus Plaza placed against the north face of the Magnolia Hotel. From the headhouse, through a series of levels, passengers would connect via elevator, stair and escalator to the west side of the subway platform at the Commerce Station.

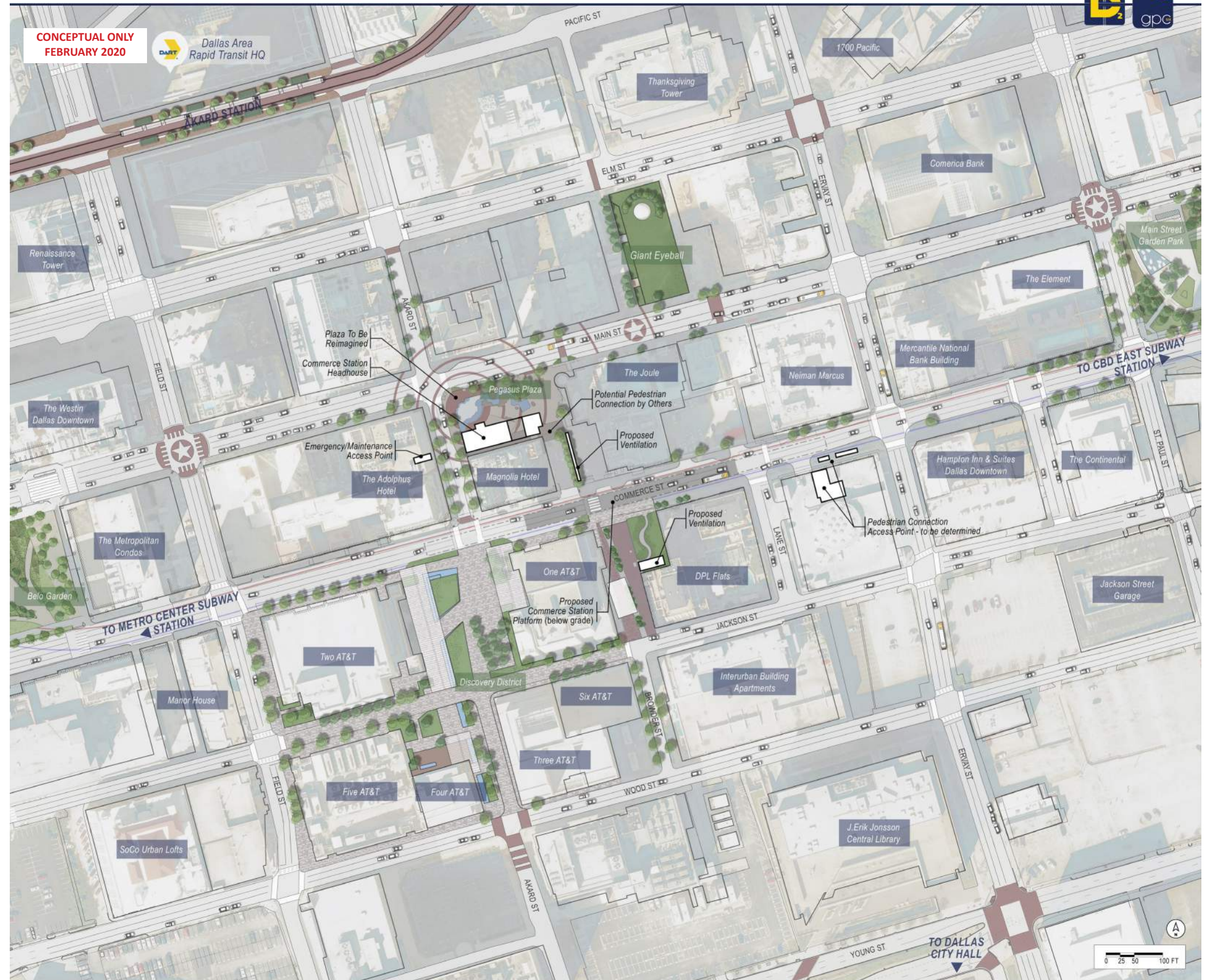
Pegasus Plaza would be completely disassembled, fenced and used during construction. Final design for Pegasus Plaza is not complete. DART will be coordinating and participating in a series of meetings with the City, participating agencies and area developers, property and business owners, and stakeholders to further discuss design of the reimagined space.

Passengers leaving the station on the east end of the subway platform would connect to pedestrian portals located on the southwest corner of Commerce Street and Ervay Street. There are multiple options for a portal in this location and a preferred location will be determined based on continued communication, design, and stakeholder support.

This Urban Design Plan continues to be modified to document alignment revisions, future development decisions, and stakeholder input. The plan shown in this report is the most current. All preceding plans developed and presented in public and stakeholder meetings can be found at www.DART.org/D2.

For detailed track alignment, as well as, street and sidewalk modifications, the engineering plans may be referenced. For design of the Commerce Subway Station, architectural plans, cross sections and details may be referenced.

D2 SUBWAY | COMMERCE SUBWAY STATION | URBAN DESIGN PLAN



This illustration is graphic in nature and includes context outside the limits of the D2 project. Elements are subject to change. Engineering and Architectural plans, profiles and details govern.

D2 SUBWAY | COMMERCE SUBWAY STATION | URBAN DESIGN PLAN

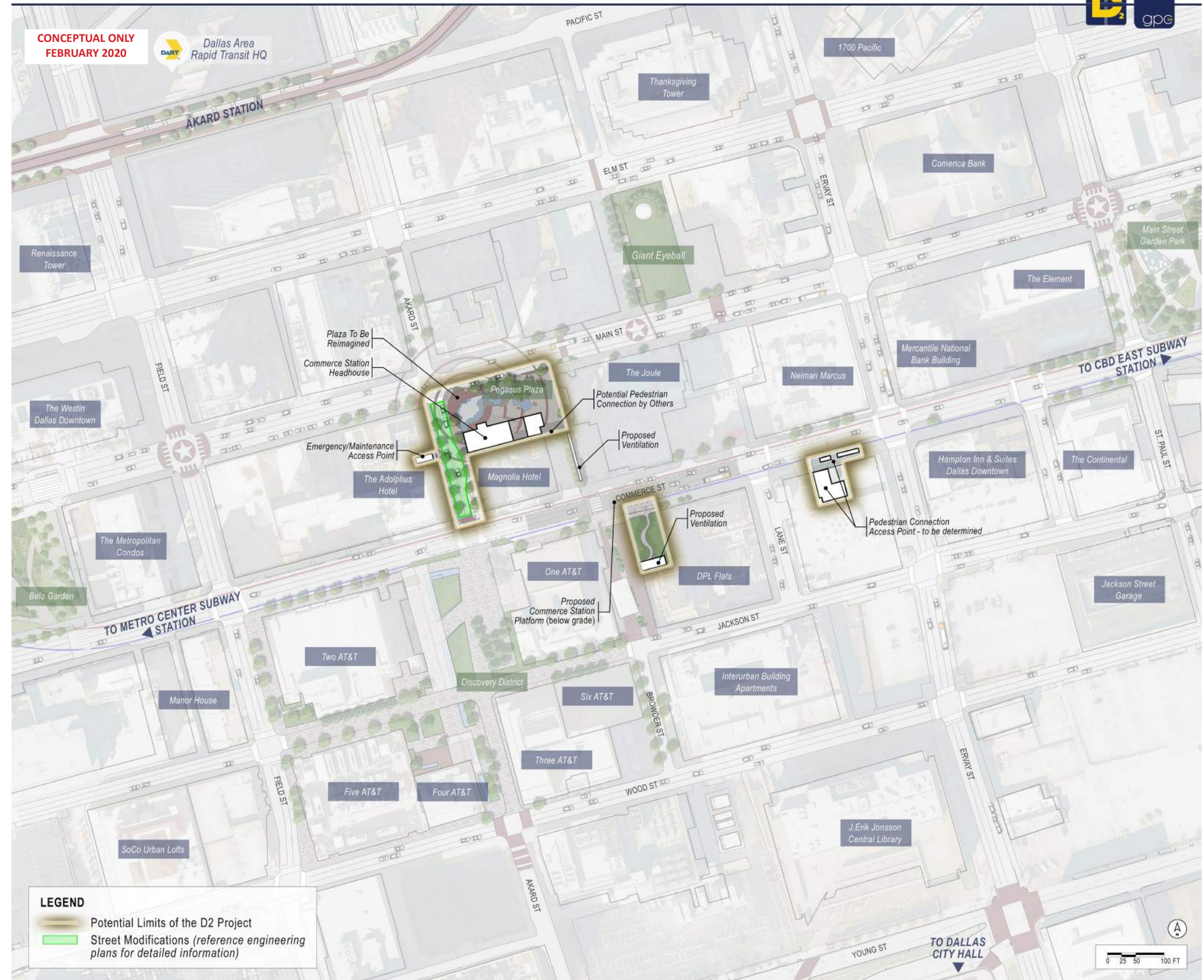


Urban Design Plan - D2 Project Limits

The “haloed” information overlaid on the Urban Design Plan was developed in order to show the potential limits of the D2 Project.

This plan continues to be modified to document alignment revisions, future development decisions, and stakeholder input. The plan shown in this report is the most current. All preceding plans developed and presented in public and stakeholder meetings can be found at www.DART.org/D2.

For detailed track alignment, as well as, street and sidewalk modifications, the engineering plans may be referenced. For design of the Commerce Subway Station, architectural plans, cross sections and details may be referenced.



This illustration is graphic in nature and includes context outside the limits of the D2 project. Elements are subject to change. Engineering and Architectural plans, profiles and details govern.

Commerce Subway Station - Headhouse at Pegasus Plaza

In order to minimize disruption to Commerce Street, DART proposed the possibility of using Pegasus Plaza as part of the construction of D2. The proposal includes complete disassembly of the space to be temporarily stored in an off-site location to be determined. When construction in this location is complete the plaza would be re-built in a manner that respected the story of Pegasus, the sculpture, the crystal, and the stonework featured in the original construction.

The Commerce Subway Station headhouse, the primary point of entry to the station, would sit at the back of the plaza against the north face of the Magnolia Hotel. The size and scale of the headhouse would be designed to accommodate appropriate ingress and egress, required queuing space, pedestrian access to lower levels via elevator, stair and escalator, and ancillary space(s) required for ventilation, operation and emergency use.

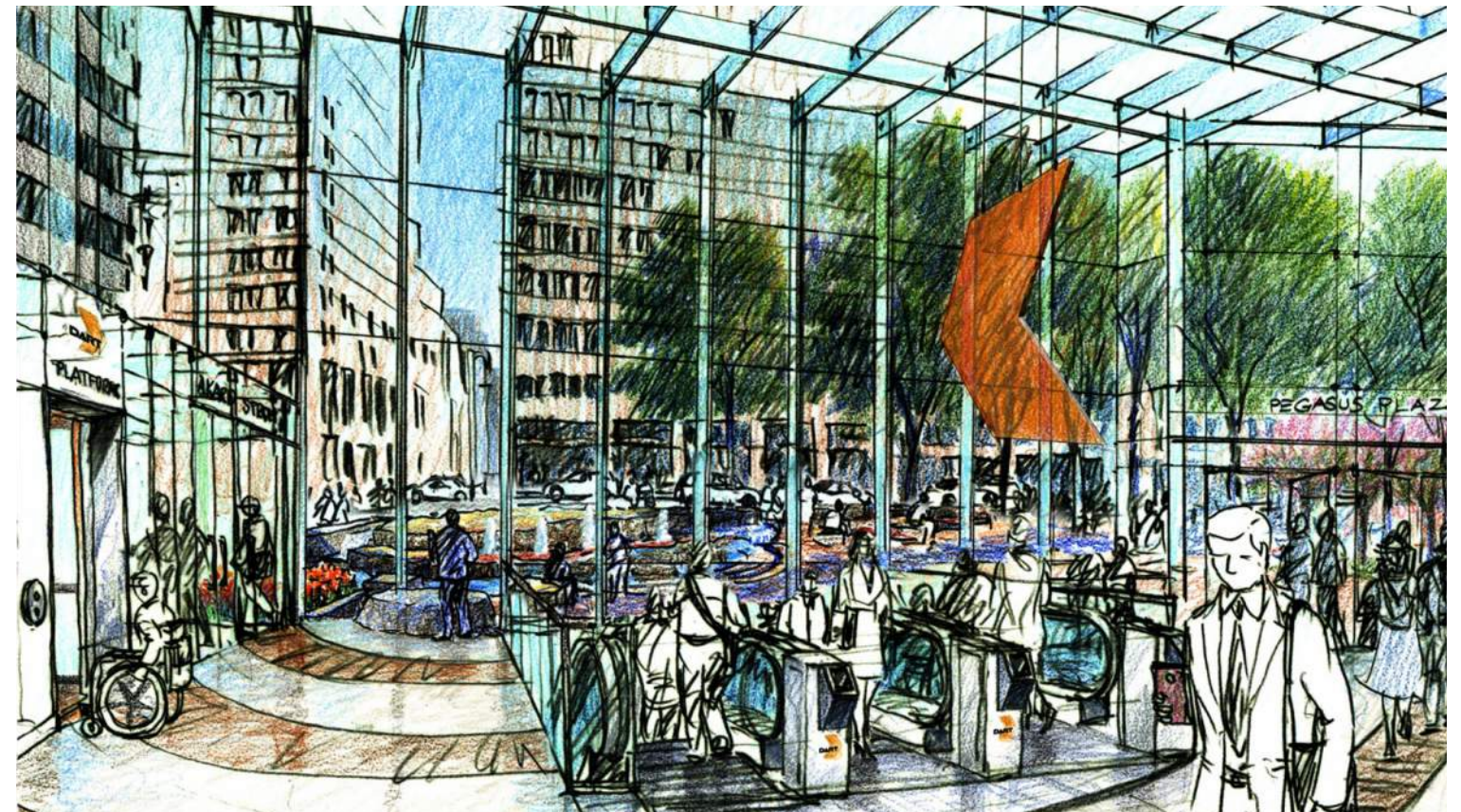
As stated earlier, DART worked with the Parks and Recreation Board at the City of Dallas to develop an approved resolution that supports the consideration of a station headhouse at this location and the future reconstruction of Pegasus Plaza. For documentation of this resolution, reference the SDEIS.

The illustrations on this page depict the integration of a headhouse and plaza design as well as the sense of arrival up into the plaza from the subway station below. Reflective and transparent materials are proposed for the headhouse structure to allow views directly into the plaza and reflect the design of the space. The design should consider opportunities for natural light. DART supports the idea of incorporating key elements of the plaza design into the headhouse. This encourages a seamless plaza experience. Detailed design of the headhouse walls and floors can incorporate artwork and story-telling. Select sculpture may be placed inside the plaza or the headhouse providing a unique experience to both the plaza user and DART passenger. The illustrations are conceptual only and will be used to guide future discussions and architectural design.

DART will be coordinating and participating in a series of meetings with the City, participating agencies and area developers, property and business owners, and stakeholders to further discuss design of the reimagined plaza.



Pegasus Plaza Concept (view looking south)



Pegasus Plaza Concept (view looking north)

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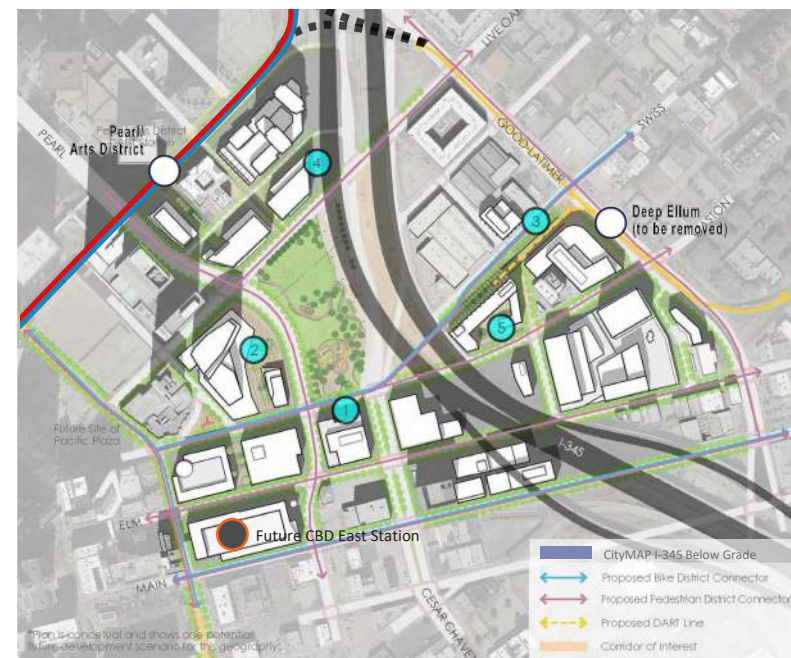
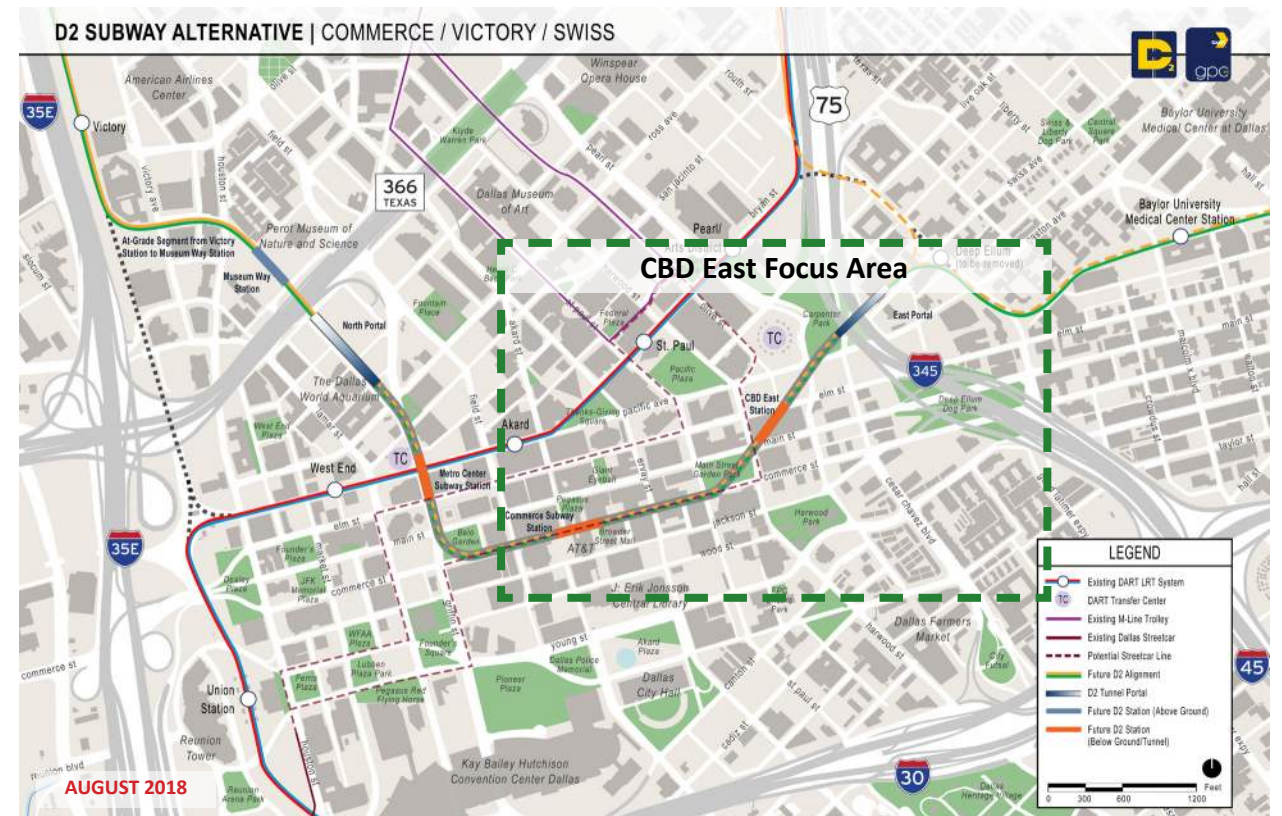


CBD EAST

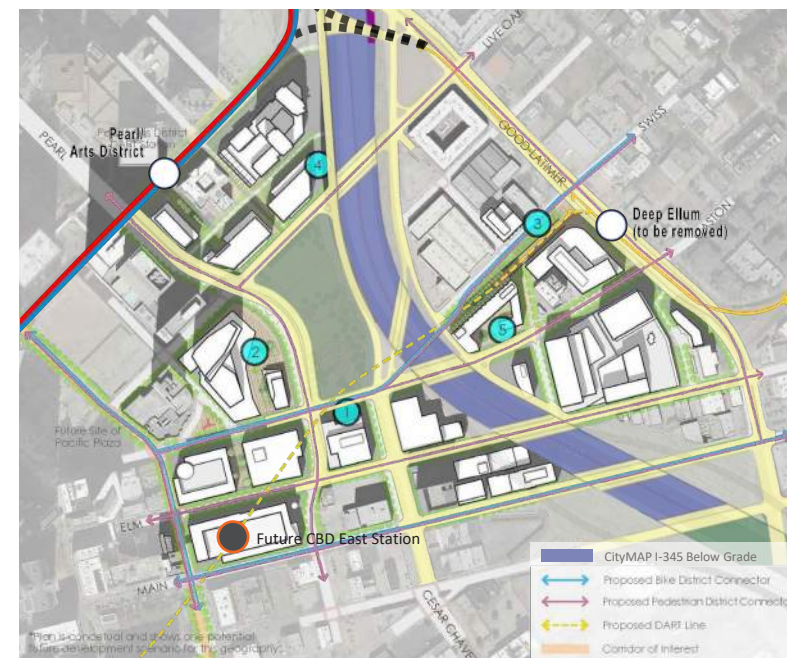
CBD East Focus Area Meeting (August 2018)

The following captures ideas, messages or considerations from the focus area meeting that received group consensus. Full meeting summary of notes, meeting details including the presentation, attendees and other corresponding materials can be found at www.DART.org/D2.

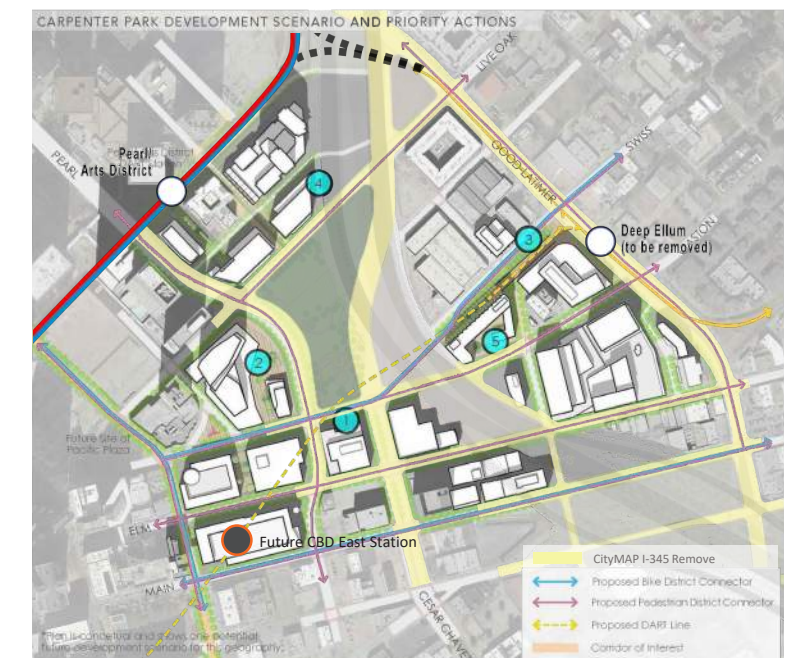
- Stakeholders supported the potential sites identified in the presentation such as the East Transfer Center (ETC), adjacent to Main Street Garden Park, and the open space and plaza spaces south of Elm Street between St. Paul Street and Harwood Street. Stakeholders indicated their desire to access the portals in urban spaces, plaza areas and near parks. When locating potential portals in open lot or at-grade parking, stakeholders preferred a design that could be integrated into future development on that site.
- Stakeholders discussed impacts to parks and specifically Carpenter Park. The City indicated that construction design plans for Carpenter Park will be done in mid-2019 and construction is set to begin the following fall. D2 cut and cover sections indicated in the LPA would have impacted the park. However, as noted earlier, a refinement to move the alignment out from underneath one of the garages and east one block indicates that D2 will avoid impacts to Carpenter Park. DART will continue ongoing City coordination to inform staff as D2 design development progresses.
- The group discussed the I-345 scenarios outlined in CityMAP. DART indicated that the D2 project is being designed to not preclude any of the CityMAP scenarios. DART continues to coordinate with TxDOT and noted that TxDOT is currently conducting a feasibility study to evaluate options for I-345.



I-345 Elevated Existing Condition (modified from Dallas 360 Plan)

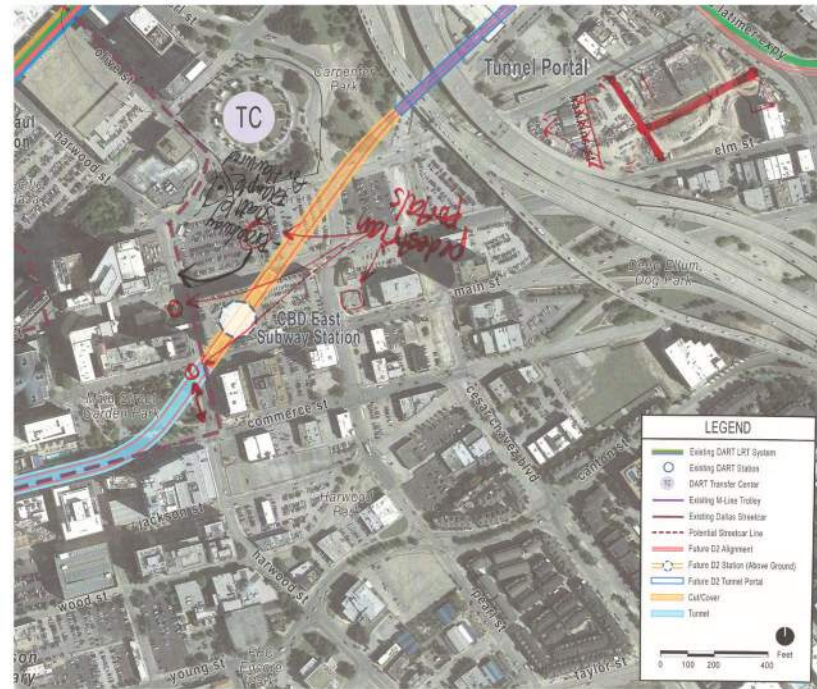


I-345 Below Grade Condition (modified from Dallas 360 Plan)



I-345 Removed Condition (modified from Dallas 360 Plan)

STAKEHOLDER COMMENTS (AUGUST 2018) FOCUS AREA SUMMARY



- 1 Stakeholders have indicated their desire to access the portals in urban spaces, plaza areas and near parks. Main Street Garden, being located close to this station, provides the opportunity to exit the subway into public space. The exact location of the portal is left undetermined and coordination with the City of Dallas, Park and Recreation Department and other partnering agencies would solidify a supported opportunity -- be it in the park, at the edge or along the street. This decision would also indicate size and accommodation for the portal. See Example 1 photo.
- 2 Additional plaza and open space exists along Elm Street at the corner of Harwood Street and further west at mid-block. Both of these spaces could be viewed as underutilized and stakeholders identified them as possible opportunities for portal locations because of their adjacency to the UNT System Administration, UNT Dallas College of Law and Municipal Courthouse and direct proximity to destinations such as the Majestic. See Example 2 photo.
- 3 Stakeholders support potential redevelopment of the existing East Transfer Center to include multiple stories, ground floor services, ground floor or below grade bus transfer, drop-off and pick-up capabilities with adjacency to future streetcar. A portal could be located to allow for an experience accessing the heart of the development or taking advantage of its proximity to Carpenter Park or providing a portal along Pearl Street. See Example 3 photo.

LEGEND

- Park/Plaza
- ✱ Potential Access to Subway
- Existing Pedestrian Tunnel
- Existing Pedestrian Skywalk
- Potential Streetcar
- - - D2 Subway Route
- - - Pedestrian Connection



CBD East Focus Area Coordination

The LPA showing the CBD East Subway Station under the Elm Street Garage has been refined. The refined alignment moves the station east to the next block, out from under the garage. A Focus Area meeting for this new location was held March 28, 2019. This included a conversation about revised pedestrian portal access based on the refined location of the station.

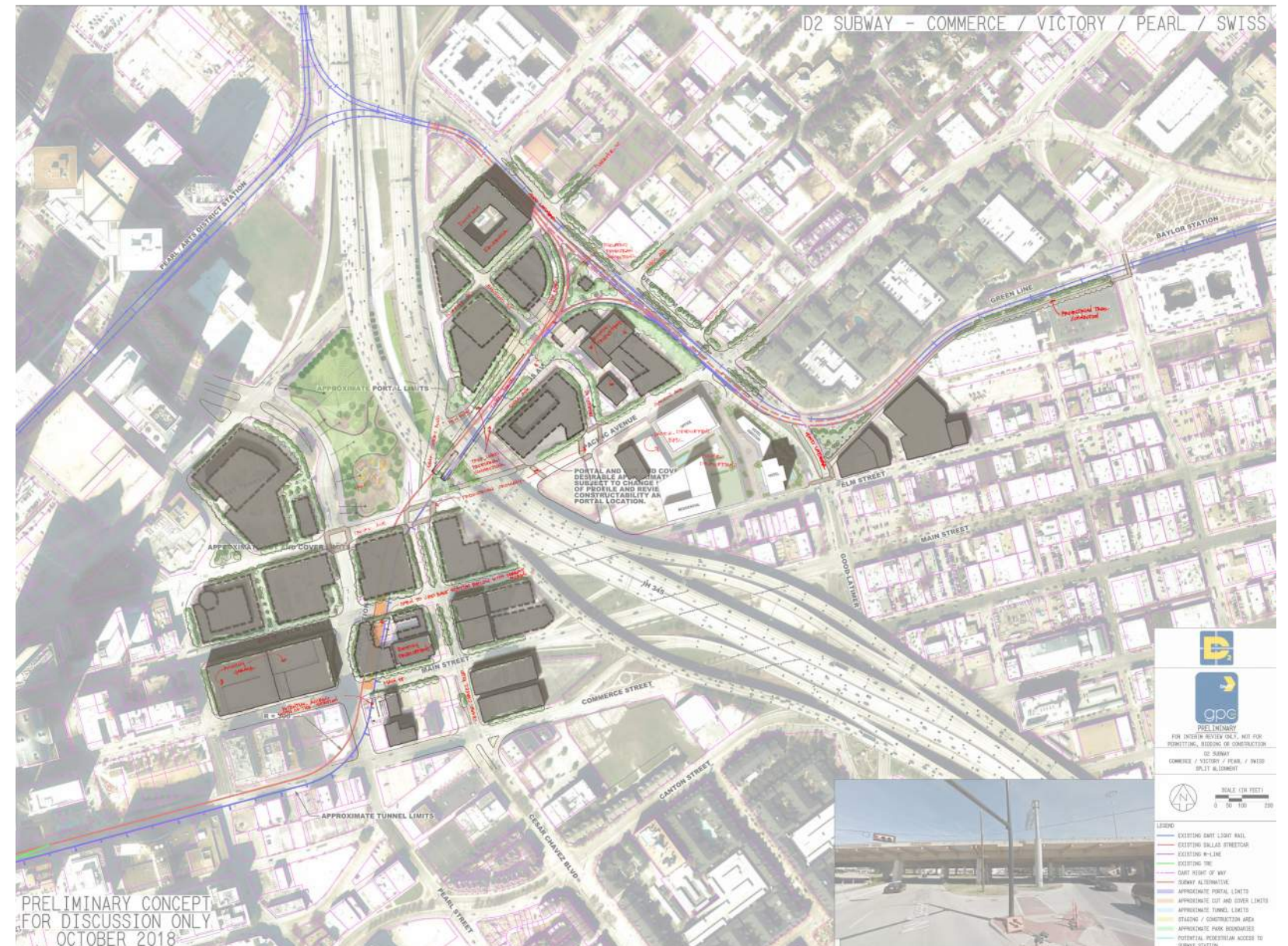
Documentation of the Focus Area meeting can be found at www.DART.org/D2 and Chapter 6 of the SDEIS.

Urban Design Vision

The hand drawn Urban Design Vision was developed to capture information in Focus Area coordination and ongoing stakeholder communication, and guide future urban design decisions. At the time this vision was created, stakeholders supported the idea of a subway station that could accommodate future development above and adjacent to pedestrian portals.

The vision indicates potential future development north of the station as shown in the Dallas 360 Plan, including the reimagining of the DART East Transfer Station (ETC). The alignment of D2 has been refined since this vision was developed and includes modifications east of I-345 along with the incorporation of a light-rail station on Good Latimer Expy just south of Live Oak Street.

Urban Design Vision



Urban Design Plan

Based on the Urban Design Vision, and through continued stakeholder communication, the Urban Design Plan was created. The Urban Design Plan documents important elements of the D2 project and shows it in the context of the surrounding downtown environment.

The plan indicates a larger headhouse at the southeast corner of Pearl Street and Elm Street. The headhouse fronts Pearl Street and is anticipated to have one or more points of entry at the surface to the subway platform. The current design considers a ticketing area and transitions to include elevator, stair and escalator access to the subway platform below. Natural light is also an important consideration of the design. Light would filter from surface to the platform level. The CBD East Subway Station will provide transfer opportunities from the subway station to the existing ETC one block to the north as well as downtown destinations west and Deep Ellum destinations to the east.

A small headhouse, shown at the southeast corner of Pearl Street and Main Street is anticipated to have one or more points of access and provides connections to downtown destinations to the south including Farmer's Market and East Quarter.

An additional point of pedestrian access is being considered mid-block on the north side of Elm Street between Pearl Street and Cesar Chavez Boulevard.

DART is open to plans for future development adjacent to and over the headhouse(s). The design (by others) would be subject to review and coordination with DART. DART recognizes the potential that future development has for unifying this area of downtown.

This Urban Design Plan continues to be modified to document alignment revisions, future development decisions, and stakeholder input. The plan shown in this report is the most current. All preceding plans developed and presented in public and stakeholder meetings can be found at www.DART.org/D2.

For detailed track alignment, signalization and crossing information, as well as, street and sidewalk modifications, the engineering plans may be referenced. For design of the CBD East Station, architectural plans, cross sections and details may be referenced.

D2 SUBWAY | CBD EAST SUBWAY STATION | URBAN DESIGN PLAN



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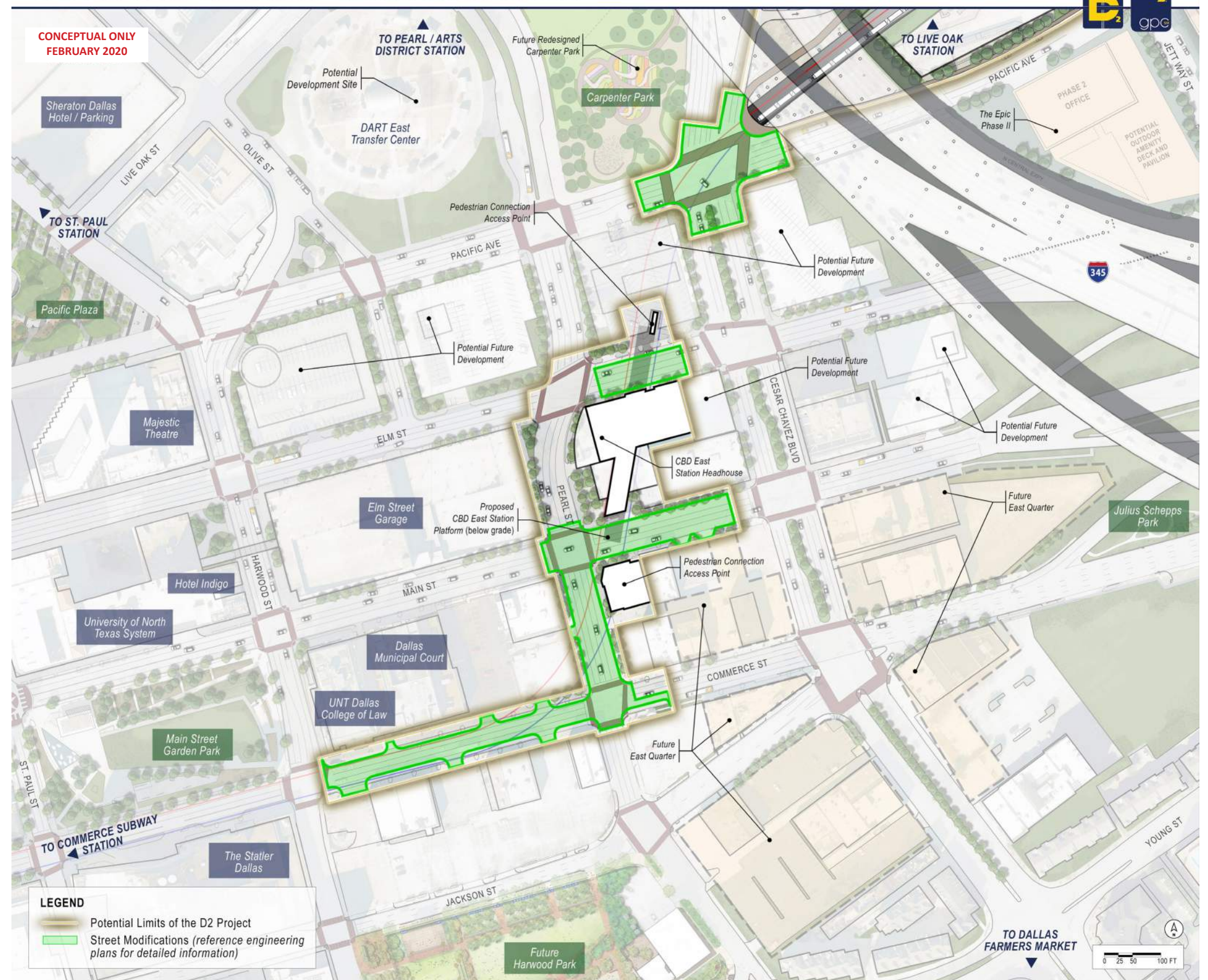
Urban Design Plan - D2 Project Limits

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For detailed track alignment, as well as, street and sidewalk modifications, the engineering plans may be referenced. For design of the CBD East Subway Station, architectural plans, cross sections and details may be referenced.

D2 SUBWAY | CBD EAST SUBWAY STATION | URBAN DESIGN PLAN



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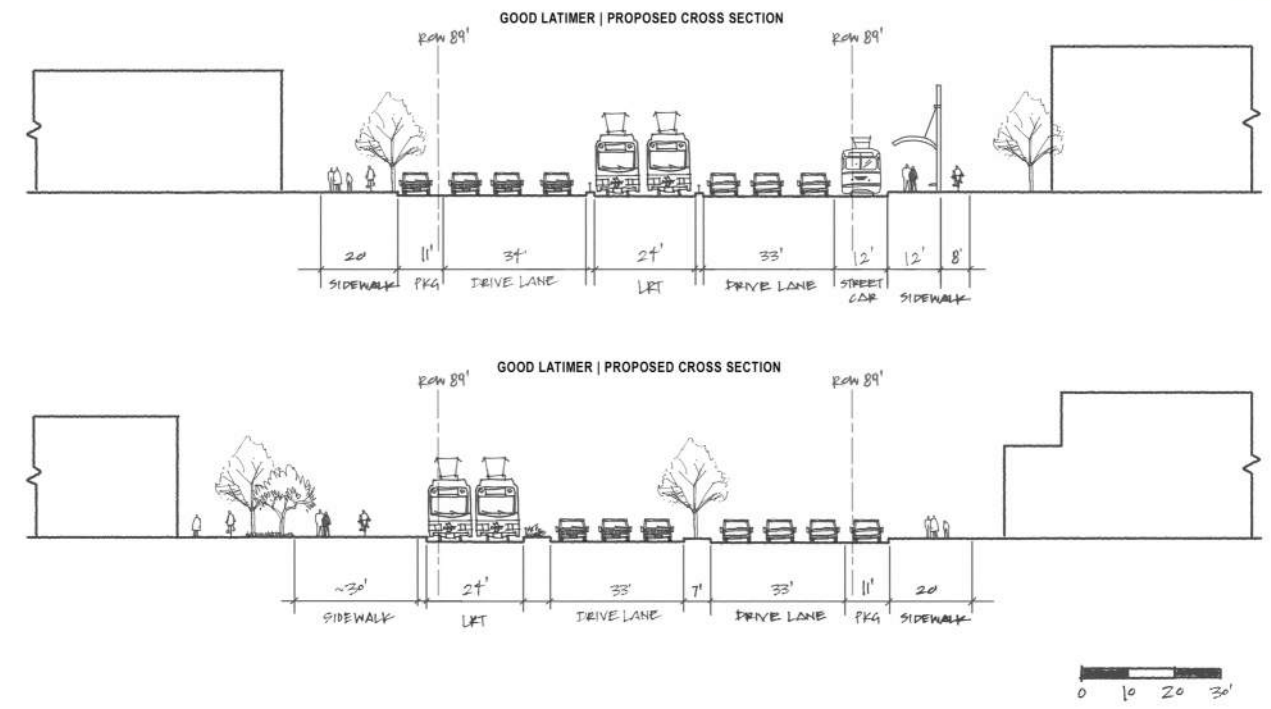


DEEP ELLUM

Deep Ellum Focus Area Meeting (August 2018)

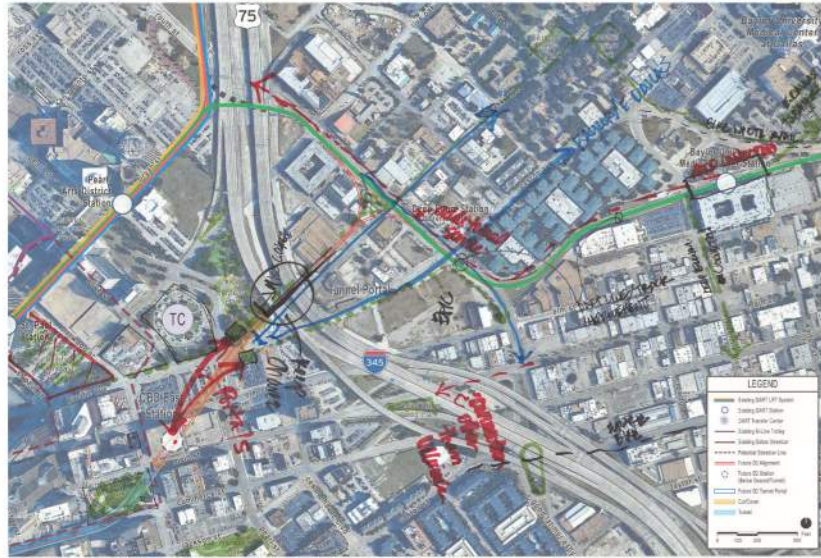
The following captures ideas, messages or considerations from the focus area meeting that received group consensus. Full meeting summary of notes, meeting details including the presentation, attendees and other corresponding materials can be found at www.DART.org/D2.

- Stakeholders discussed the current and proposed cross section for Good Latimer Expy. Stakeholders support the proposed modification of Good Latimer Expy to move the rails from the center of the north and south bound travel lanes and place the tracks to one side (west side) of the street. This provides a shorter pedestrian crossing distance. Stakeholders believe it will provide better flow and noted that it is the primary entrance to the Deep Ellum neighborhood from the north. Good Latimer Expy presents a complete street opportunity.
- Stakeholders indicated their desire to access the pedestrian portals in urban spaces, plaza areas and near parks. With the loss of the Deep Ellum Station, stakeholders would like to maintain some level of connectivity to the nearest subway station by including a pedestrian portal that would come up near or at Carpenter Park.
- The stakeholders discussed the tunnel portal location. Stakeholders indicated Cesar Chavez Boulevard as a critical connection that cannot be permanently closed. Short term closures during construction are understandable. Permanently closing the N. Central Expy frontage road east of I-345 is recognizably unavoidable and acceptable to the majority of stakeholders.
- Stakeholders discussed the tunnel portal design and design of the tracks and the wye. Stakeholders encourage a design to minimize or cover the portal and minimize or design elevated public space at the wye. Design features that would better accommodate pedestrians should be considered.



Good Latimer Expy Cross Sections

STAKEHOLDER COMMENTS (AUGUST 2018) FOCUS AREA SUMMARY



- 1 Stakeholders support the reconstruction of Good Latimer from North Central Expressway (I-345 frontage road) to the north to Elm Street to the south. North and south bound lanes of traffic on Good Latimer would be rebuilt adjacent to one another. Existing DART tracks would be removed from the center of Good Latimer and placed to the west. This will provide a shorter crossing distance for pedestrians. DART will prepare Complete Street cross sections of Good Latimer in this area for review and stakeholder feedback.
- 2 Stakeholders overwhelmingly support the placement of pedestrian access portals in or near the edge of Carpenter Park. See Example 1 photo.
- 3 Maintaining access to Pacific Avenue and Gaston Avenue during construction is very important to stakeholders. Stakeholders understand there will be short term impacts to the downtown grid in several locations through the cut and cover construction process.
- 4 Temporary construction closures at Cesar Chavez is understandable for stakeholders, but the connection north and south bound on Cesar Chavez must be maintained long term. Stakeholders understood the tunnel portal location will however disconnect the North Central Expressway frontage road east of I-345 at Swiss Avenue.
- 5 Based on the vision of the Dallas 360 Plan for this Catalytic Development Area, stakeholders support very strong pedestrian connections adjacent to the tunnel portal. This would connect Swiss Avenue east of Good Latimer to Carpenter Park west of Cesar Chavez, continuing on to Pacific Plaza.
- 6 With the loss of the Deep Ellum Station, DART should consider improvements at the existing Baylor Station. Improved security measures are a desire of stakeholders as well as improved access into Deep Ellum streets to the south from the existing Baylor Station. Possibly renaming the station 'Baylor/Deep Ellum' so as to provide intuitive arrival/destination information should be considered.
- 7 Engineering design of the D2 Subway in Deep Ellum shall not preclude any of the CityMAP Scenarios for I-345 from happening.



Example 1 - Cincinnati, Ohio



Deep Ellum Focus Area Coordination

A series of meetings and workshops have been held with stakeholders in this focus area. The Deep Ellum Focus Area Meeting kicked off with urban design communication on August 8, 2018. Since then, multiple one-on-one and small stakeholder meetings and agency meetings have been held.

The Deep Ellum Foundation formed a Good Latimer Committee to review design in greater detail with regards to multi-modal connections, conceptual development of the pedestrian and street connections, and ultimate configuration of Good Latimer Expy.

The area around Swiss Avenue east of I-345 remains the preferred location for the tunnel portal placement and wye track by majority consensus. The DART Board of directors and Dallas City Council approved resolutions to support the LPA that shows the tunnel portal south of Swiss Avenue. A series of concepts on the following pages were developed to show potential city street grid connections, pedestrian access and future development as guided by the Dallas 360 Plan.

Keeping the stakeholders' desires in mind to maintain Good Latimer Expy traffic flow north and south, plans were developed that show the D2 tracks in the center of Good Latimer Expy and on the west side of Good Latimer Expy. Maintaining the tracks in the center of Good Latimer Expy and separating northbound and southbound Good Latimer Expy as it exists today was seen by some stakeholders as beneficial based on southbound right turn connections to private properties to the west. This center-running option however, increases the number of track crossings, which would in turn affect signalization at intersections and automobile queuing.

In contrast, moving the tracks to the west would consolidate the northbound and southbound lanes of Good Latimer Expy with fewer track crossings but may eliminate connections to developments to the west or make them more difficult. In this condition, providing access from Good Latimer Expy across the tracks to developments to the west via Miranda Street, Swiss Avenue or Florence Street continues to be reviewed by DART operationally.

Based on stakeholder feedback, DART explored an alignment that placed the tunnel portal north of Swiss Avenue. DART prepared a series of concepts to show potential city street grid connections, pedestrian access and future development. Plans were developed that show the D2 tracks in the center of Good Latimer Expy and on the west side of Good Latimer Expy. Both options have similar opportunities and constraints as indicated above.

Through several internal staff workshops, DART recognized challenges to the north of Swiss Avenue alignment that would potentially have traffic impacts at major street intersections. Moving the wye further north, lessens the length in which to store a train between the proposed junction and the existing junction to the north. In this condition, there would be the potential for a train to block major street intersections like Live Oak Street. Stakeholders prefer fewer future rail operation impacts to the current street grid.

Urban Design Vision

Based on the series of concepts, continued stakeholder communication, and through further refinement the Urban Design Vision in this area should accommodate multi-mobility for a growing and transforming area of downtown. The tunnel portal will remain south of Swiss Avenue to maintain the important bicycle and pedestrian connections identified in the Dallas 360 Plan. The track alignment will be modified down Good Latimer Expy, but remain centered between north and southbound lanes similar to its current condition today. This maintains connections to existing and future development. The center alignment also allows DART to plan for a light-rail station just north of the Deep Ellum Station that is removed as part of this project.

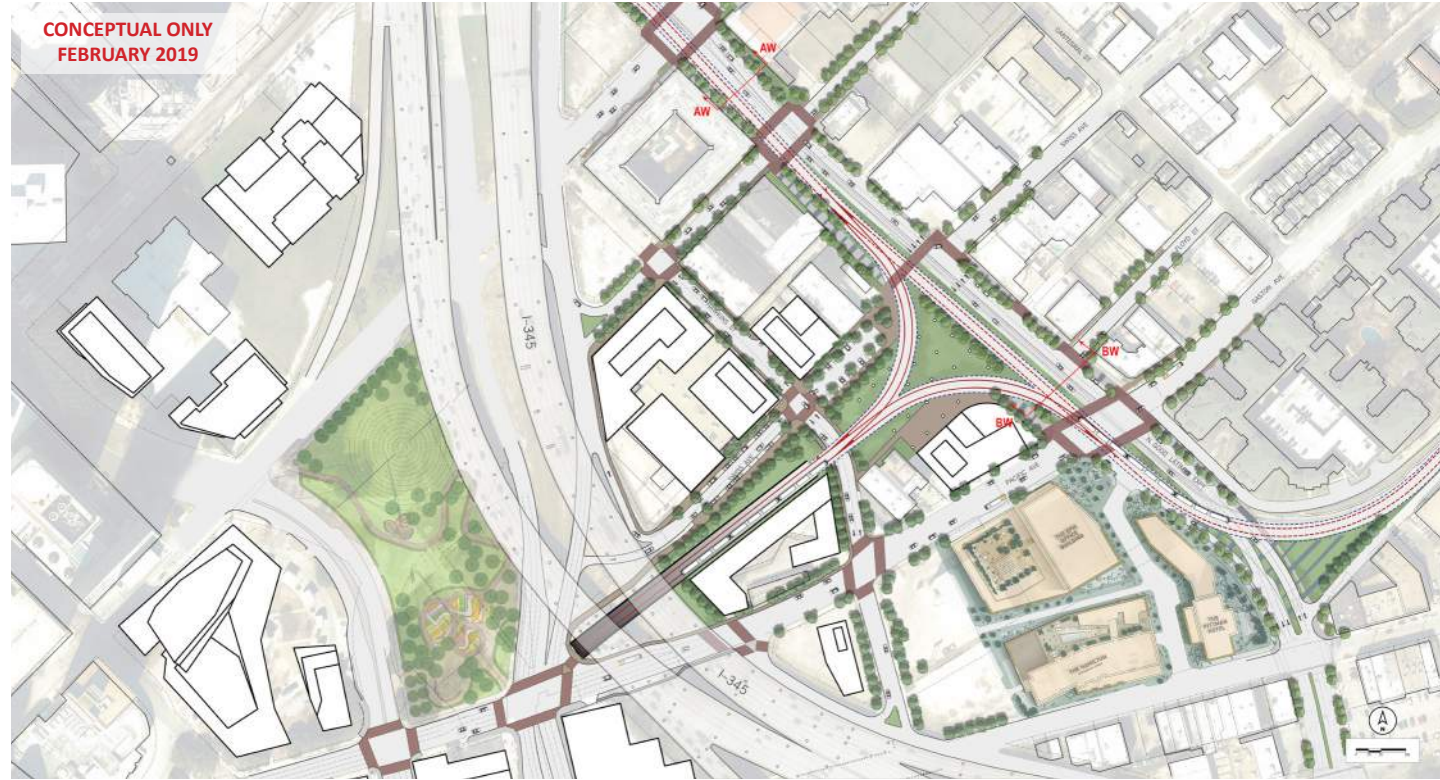
DART is open to plans for future development and connections over the tunnel portal and track alignment. The design (by others) would be subject to review and coordination with DART. DART recognizes the potential that future development has for unifying this area of downtown.



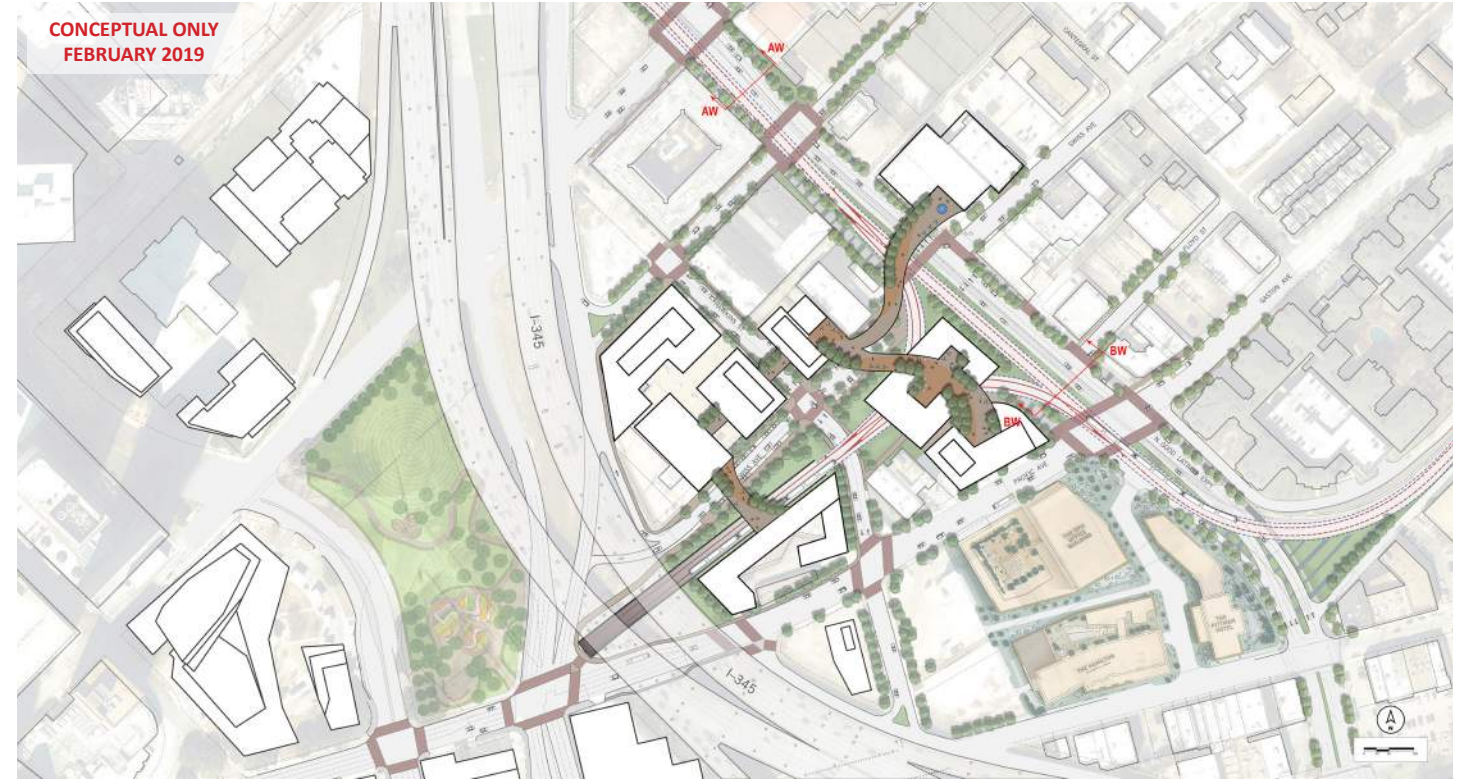
Good Latimer Expy Street View

East Tunnel Portal - LPA

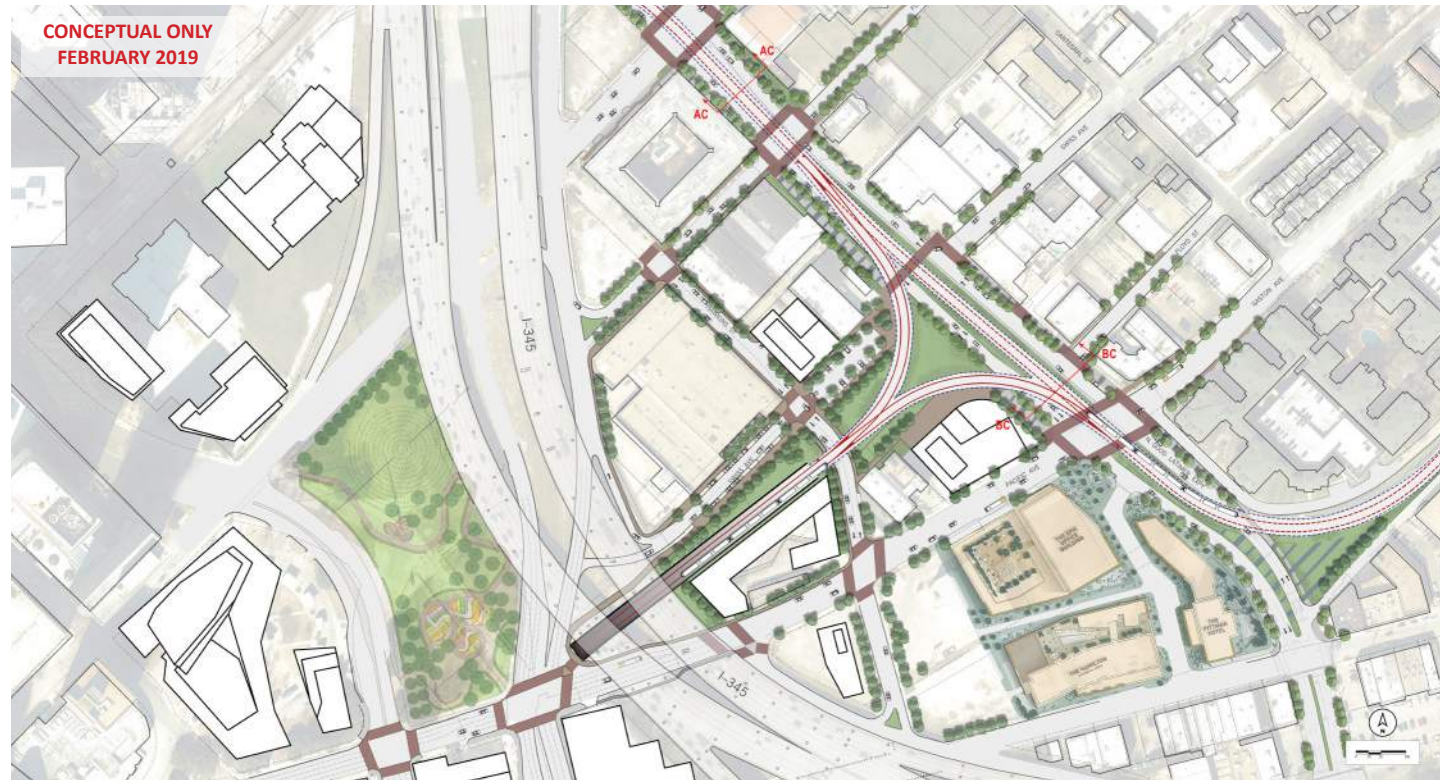
The conceptual urban design plans below depict various scenarios for track alignment south of Swiss Avenue with both west and center track alignments at Good Latimer Expy.



West Tracks



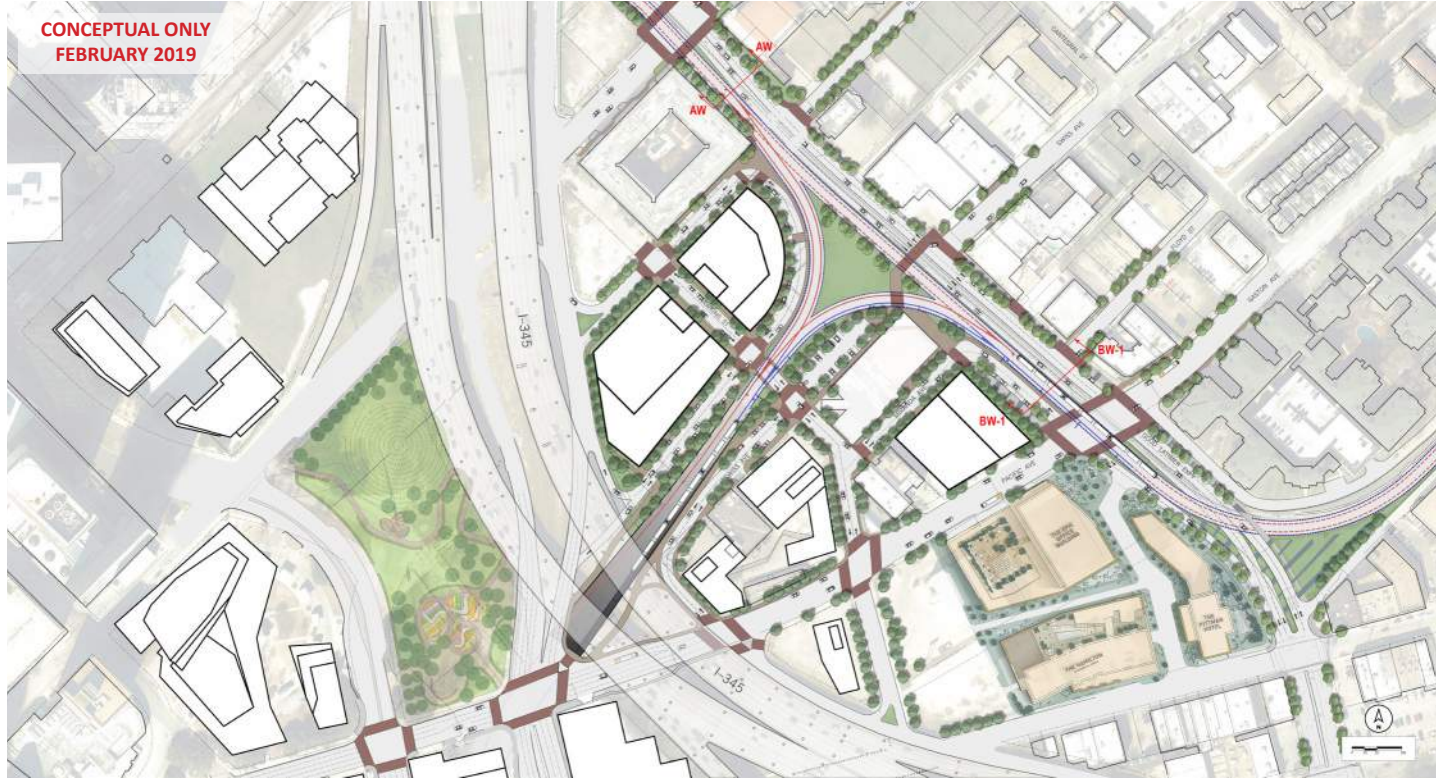
West Tracks



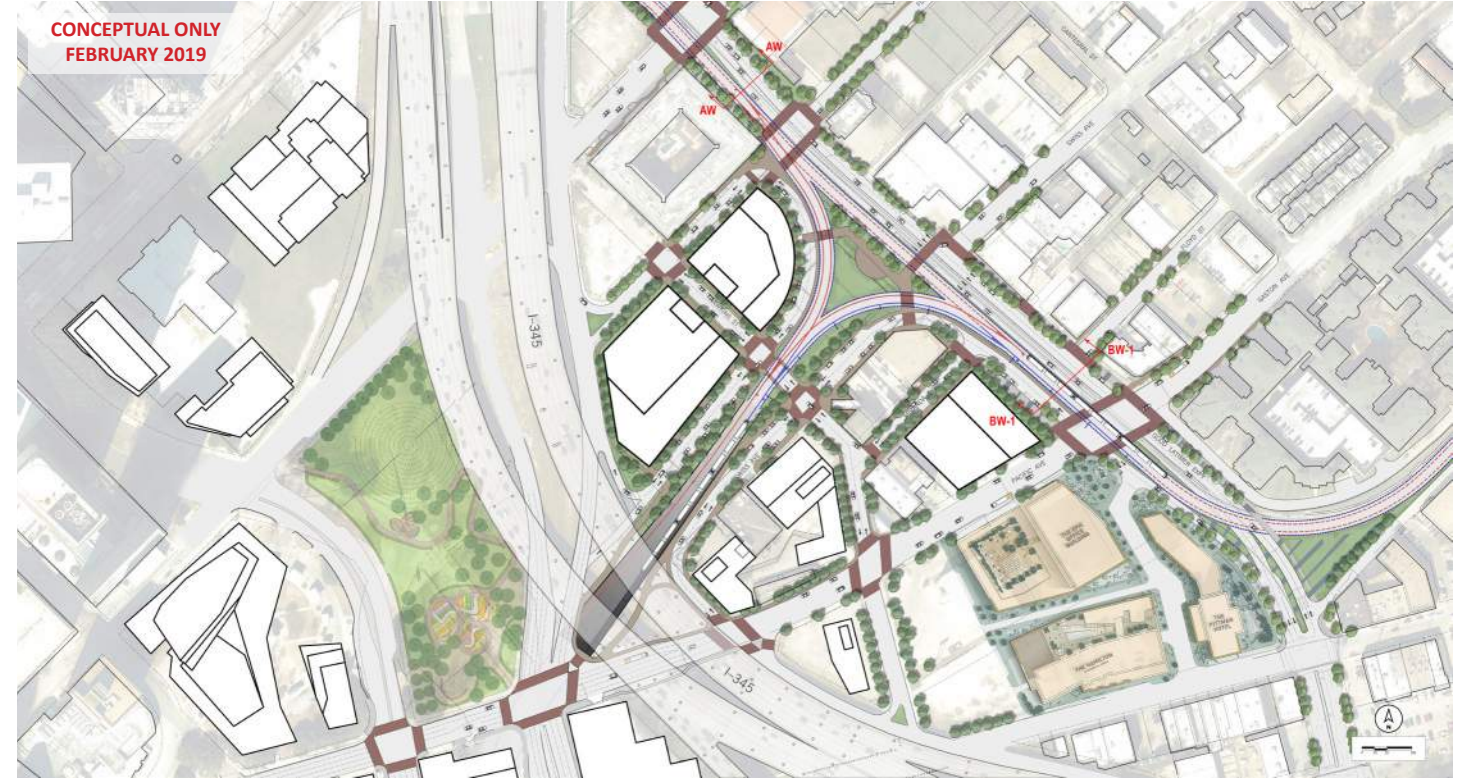
Center Tracks

East Tunnel Portal - LPA Design Modification 1

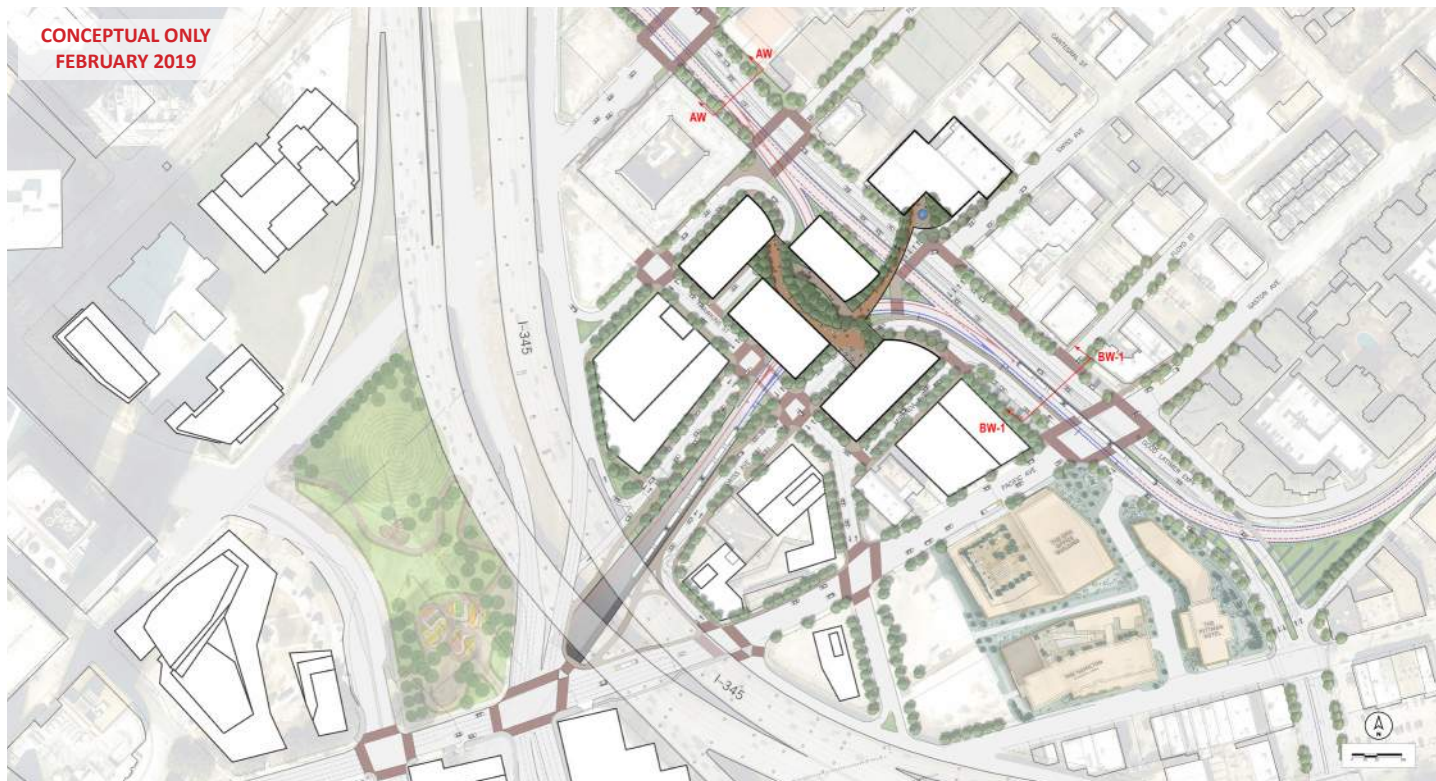
The conceptual urban design plans below depict various scenarios for track alignment north of Swiss Avenue with both west and center track alignments at Good Latimer Expy



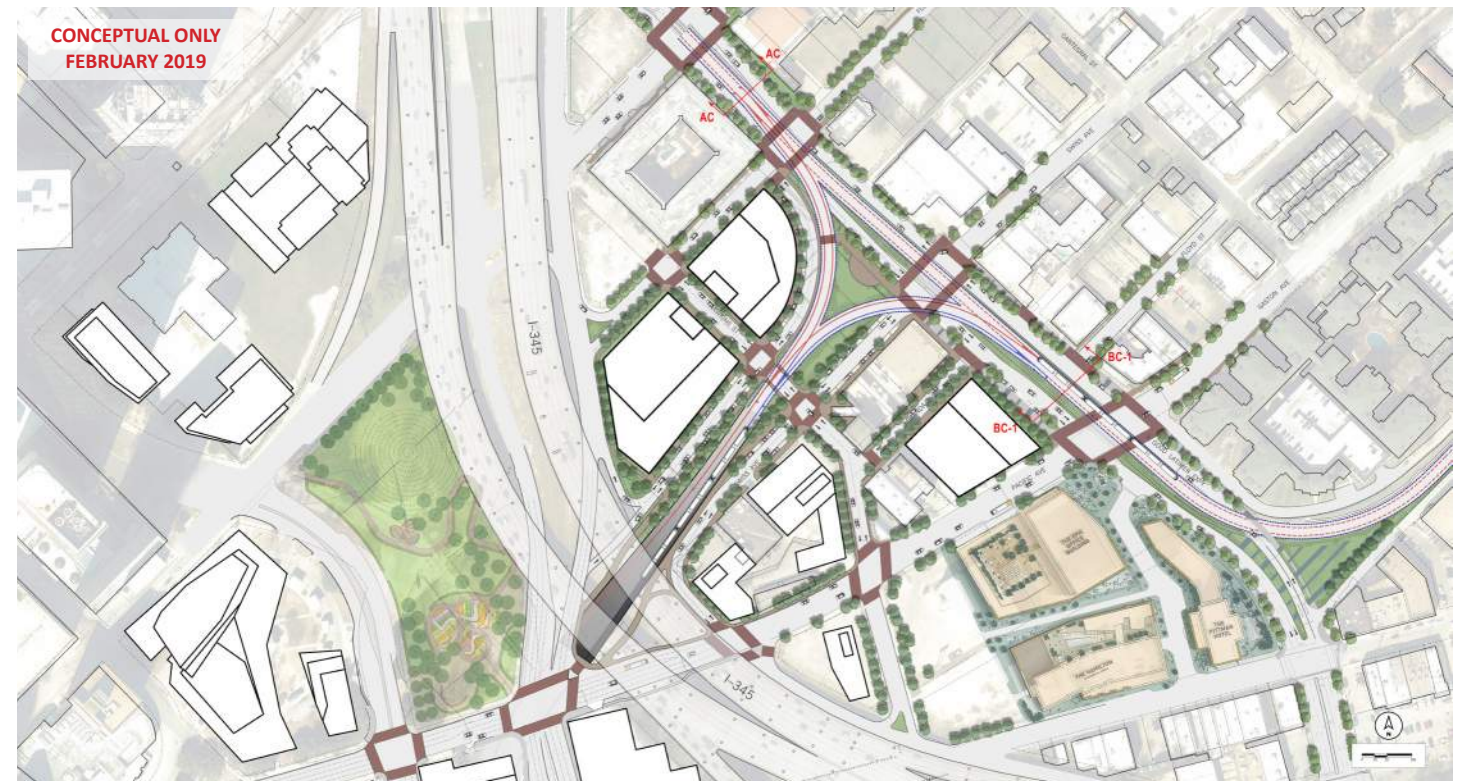
West Tracks Option 1A



West Tracks Option 1B



West Tracks Option 1C



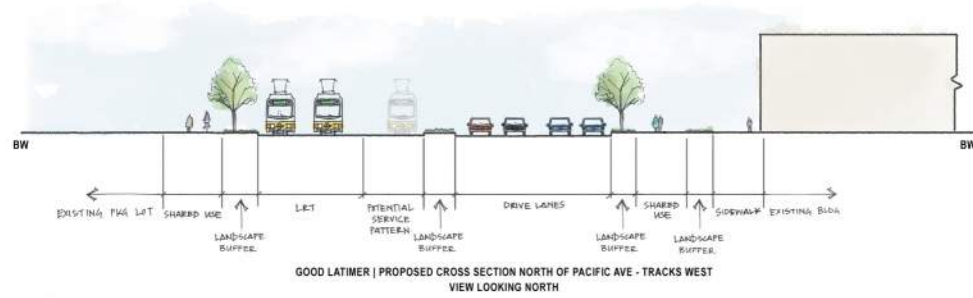
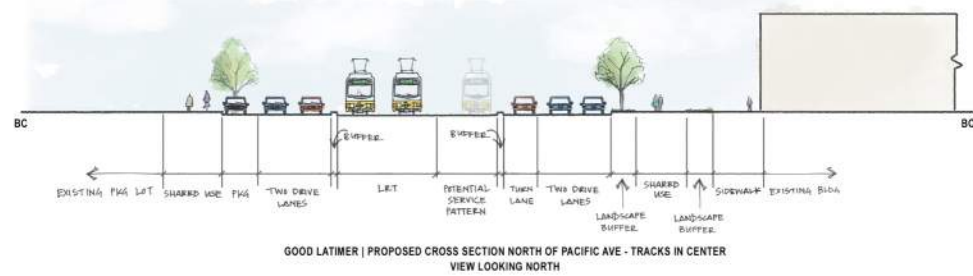
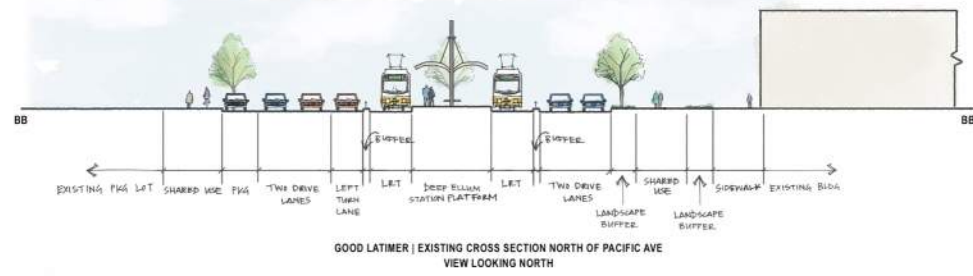
Center Tracks Option 2A

Good Latimer Expy Cross Sections

D2 SUBWAY | GOOD LATIMER CROSS SECTIONS - LPA



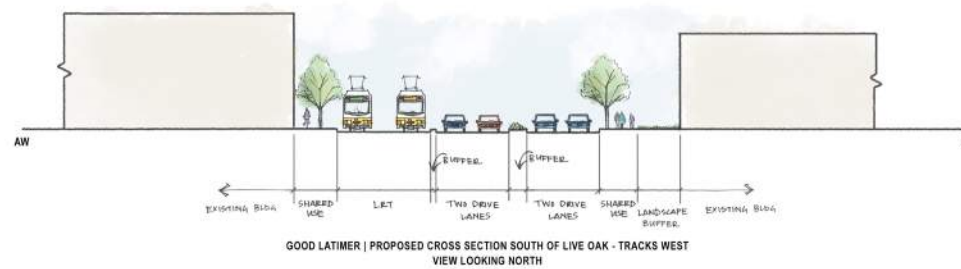
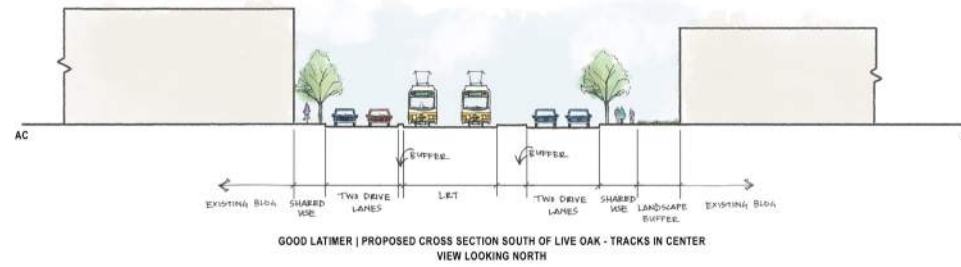
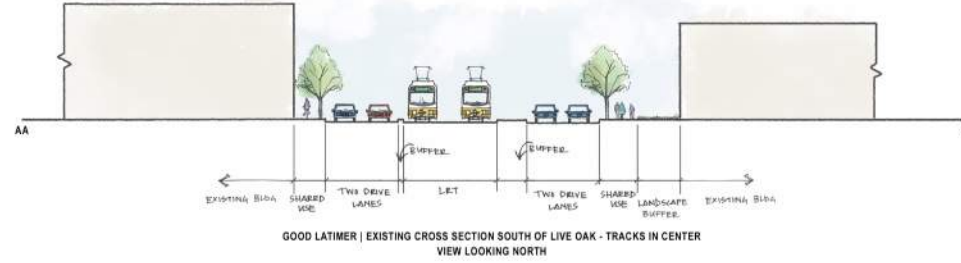
CONCEPTUAL ONLY
FEBRUARY 2019



D2 SUBWAY | GOOD LATIMER CROSS SECTIONS - LPA AND LPA-DESIGN MODIFICATION 1



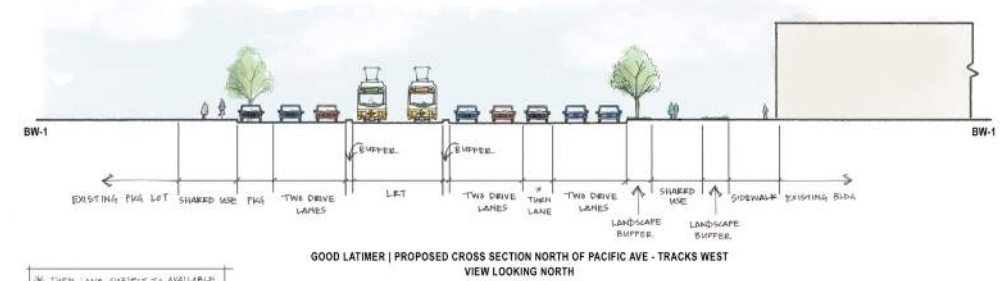
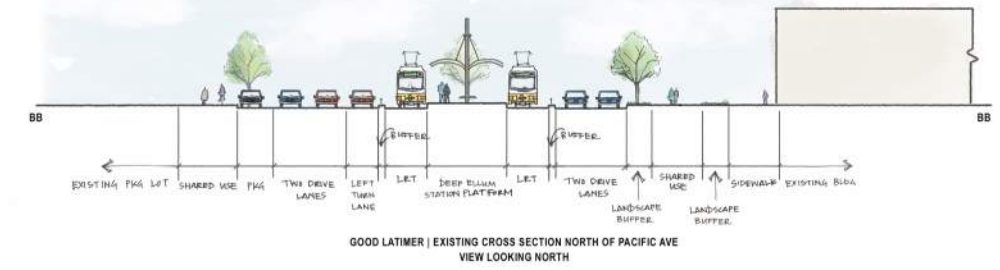
CONCEPTUAL ONLY
FEBRUARY 2019



D2 SUBWAY | GOOD LATIMER CROSS SECTIONS - LPA-DESIGN MODIFICATION 1



CONCEPTUAL ONLY
FEBRUARY 2019



* TURN LANE SUBJECT TO AVAILABLE SPACE BASED ON FINAL ROAD AND TRACK GEOMETRY



Urban Design Plan

Based on the Urban Design Vision, and through continued stakeholder communication, the Urban Design Plan was created. The Urban Design Plan documents important elements of the D2 project and shows it in the context of the surrounding downtown environment. This plan has continued to be modified to document alignment revisions, future development decisions, and stakeholder input.

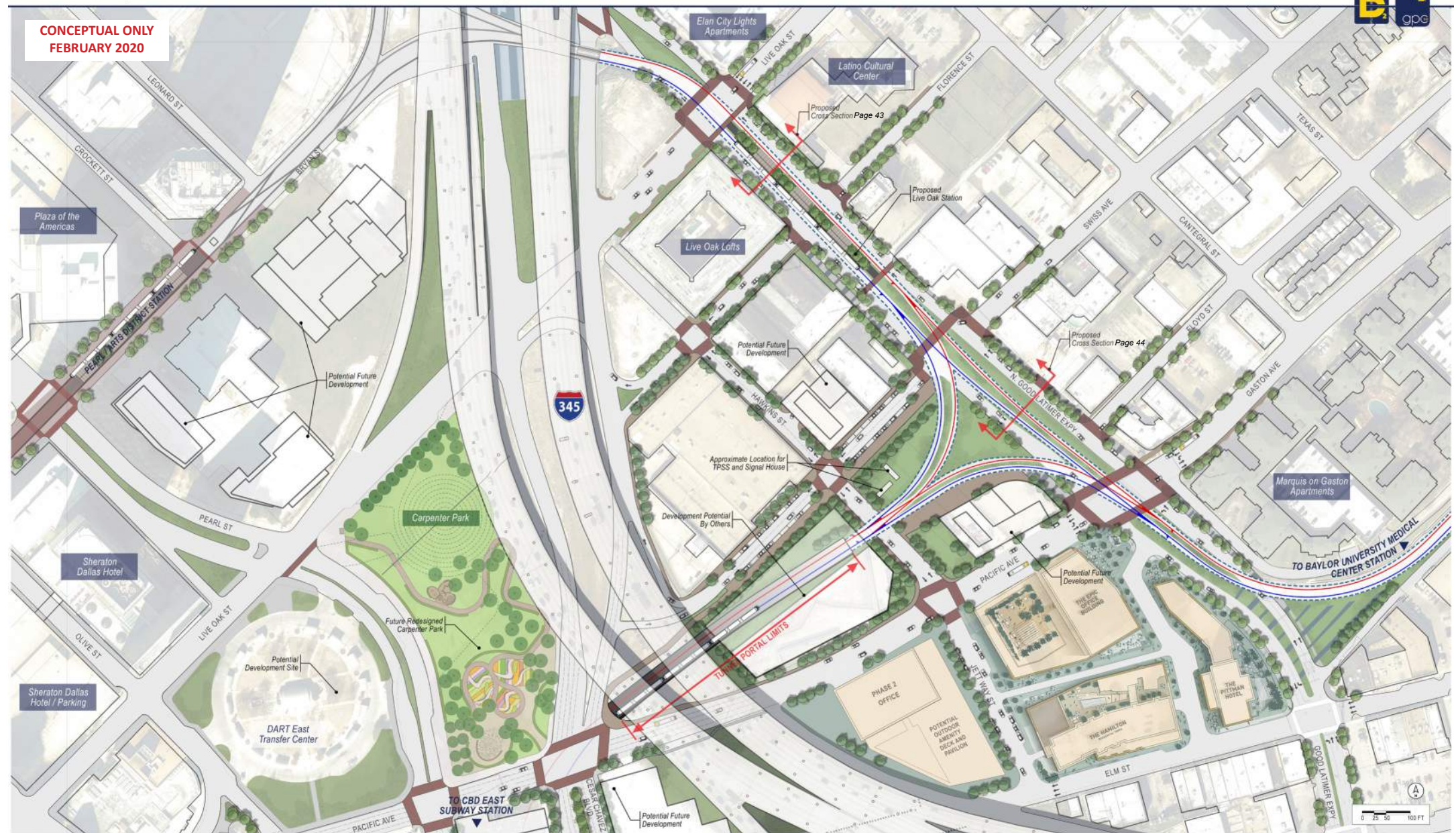
The Urban Design Plan indicates the tunnel portal under the existing I-345 at the northeast corner of Cesar Chavez Boulevard and Pacific Avenue. Placement of the tunnel portal in this location maintains existing circulation to the city grid streets and supports the mobility vision in this area. The addition of the Live Oak Station on Good Latimer Expy just south of Live Oak Street also supports the vision for a growing and transforming area of downtown.

DART is open to plans for future development and connections over the tunnel portal and track alignment that would maximize connectivity to adjacent development. The design (by others) would be subject to review and coordination with DART. DART recognizes the potential that future development has for unifying this area of downtown.

The Urban Design Plan shown in this report is the most current. All preceding plans developed and presented in public and stakeholder meetings can be found at www.DART.org/D2.

For detailed track alignment, signalization and crossing information, as well as, street and sidewalk modifications and fencing locations the engineering plans may be referenced. For design of the Live Oak Station, architectural plans, cross sections and details may be referenced.

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



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



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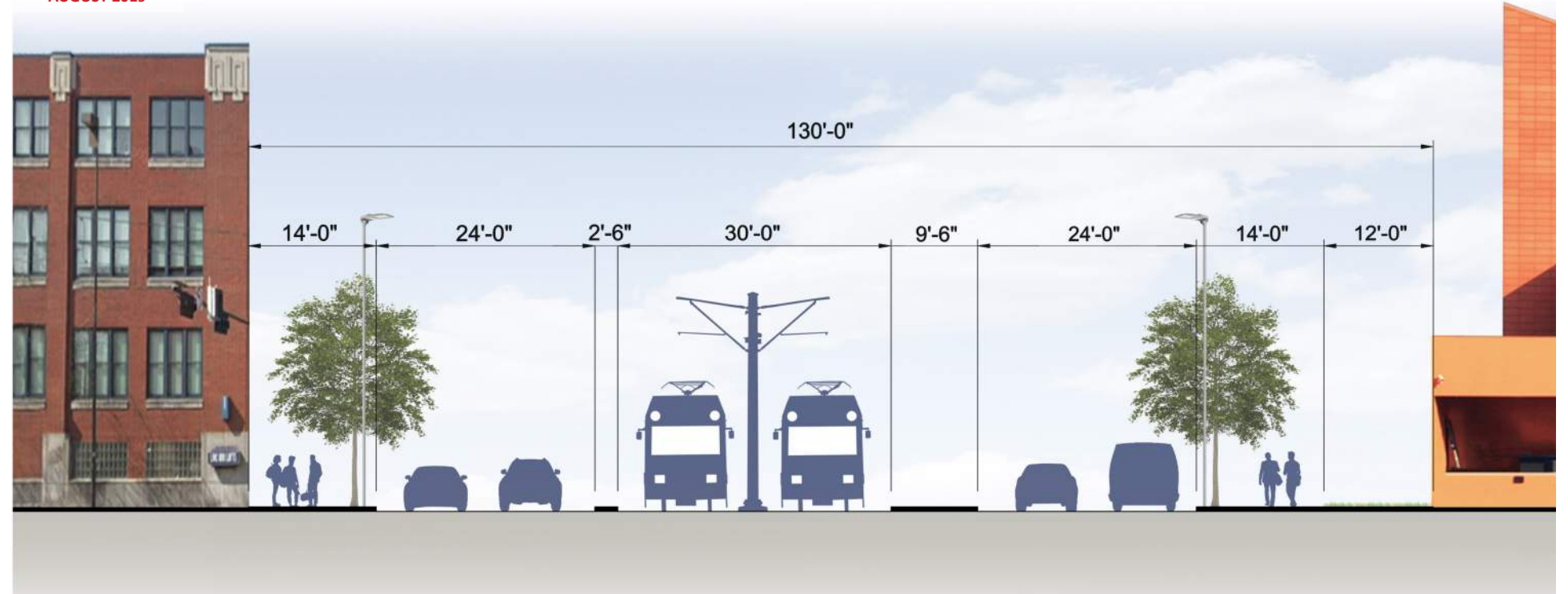
Good Latimer Expy Cross Section

The cross sections are provided to depict the refinements to Good Latimer Expy, the pedestrian connections that are maintained and the future Live Oak Station.

For detailed track alignment, signalization and crossing information, as well as, street and sidewalk modifications and fencing locations the engineering plans may be referenced. For design of the Live Oak Station, architectural plans, cross sections and details may be referenced.

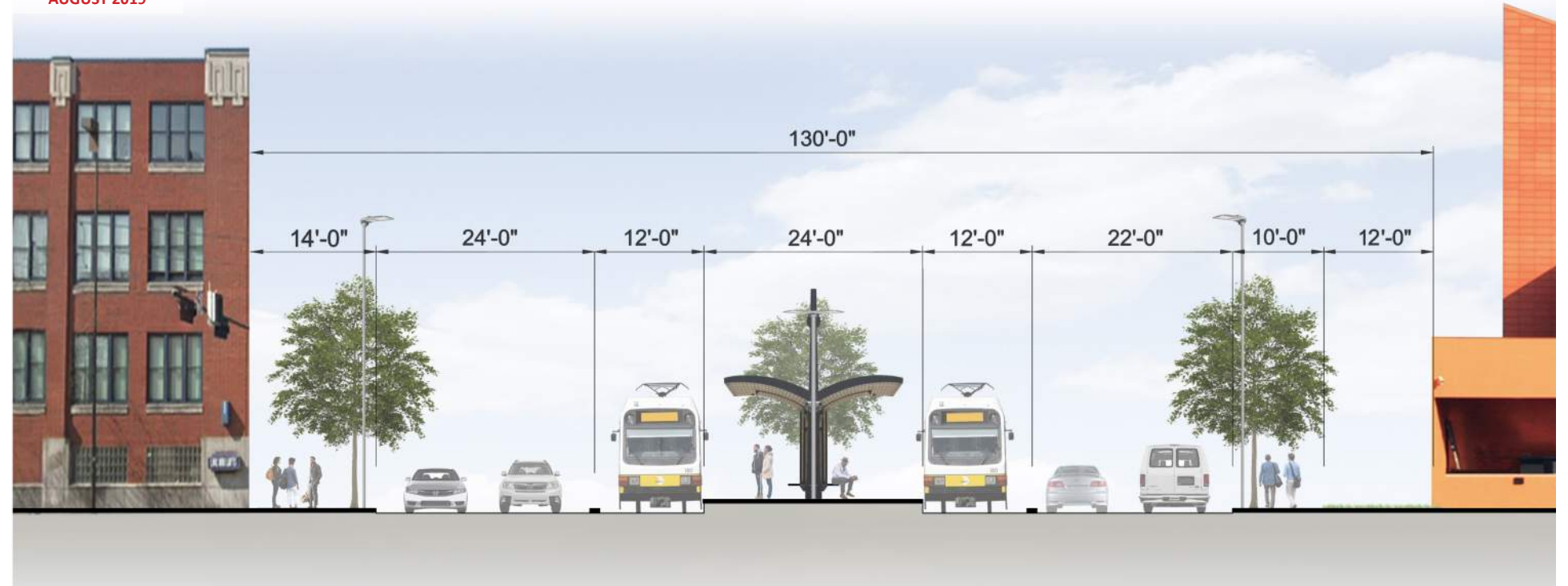
Good Latimer Expy Cross Sections

CONCEPTUAL ONLY
AUGUST 2019



Existing Cross Section South of Live Oak Street - Tracks in Center (view looking north)

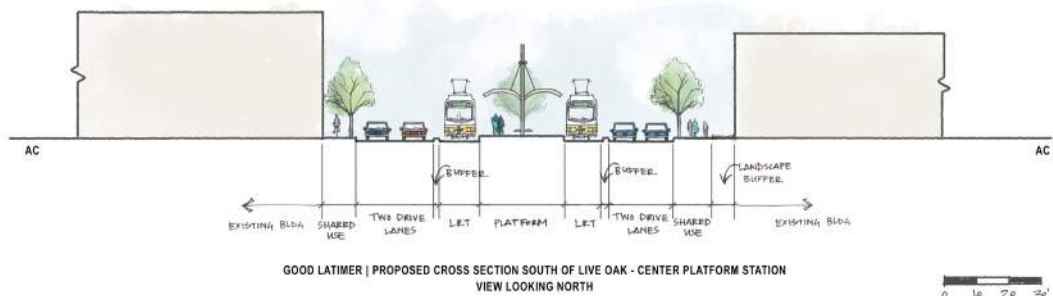
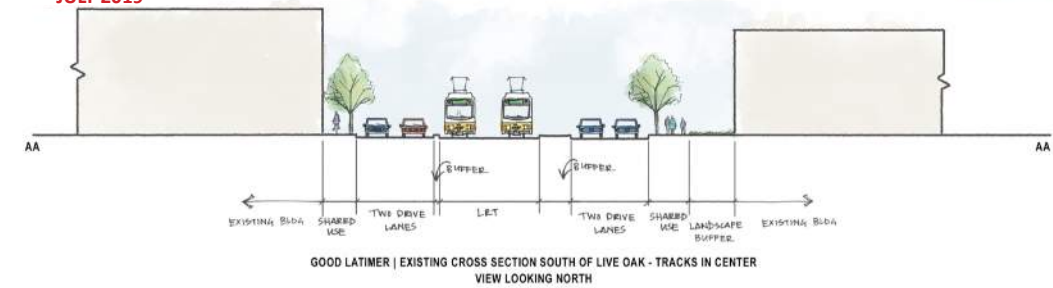
CONCEPTUAL ONLY
AUGUST 2019



Proposed Cross Section South of Live Oak Street - Live Oak Station (view looking north)

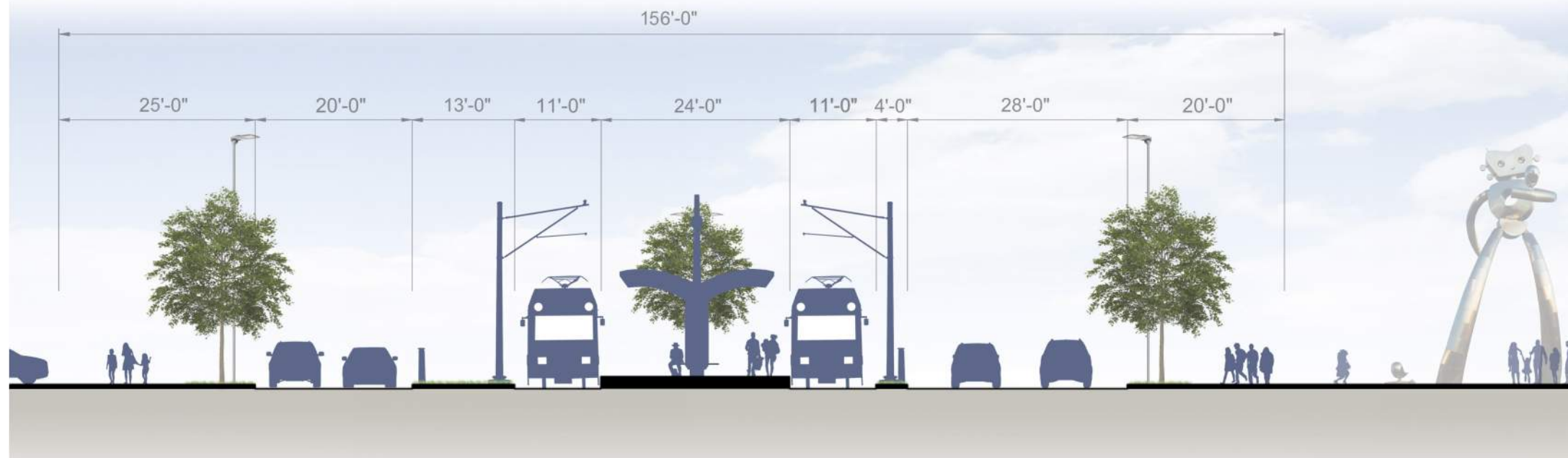
D2 SUBWAY | GOOD LATIMER CROSS SECTIONS - CENTER PLATFORM STATION - LPA AND LPA-DESIGN MODIFICATION 1

CONCEPTUAL ONLY
JULY 2019



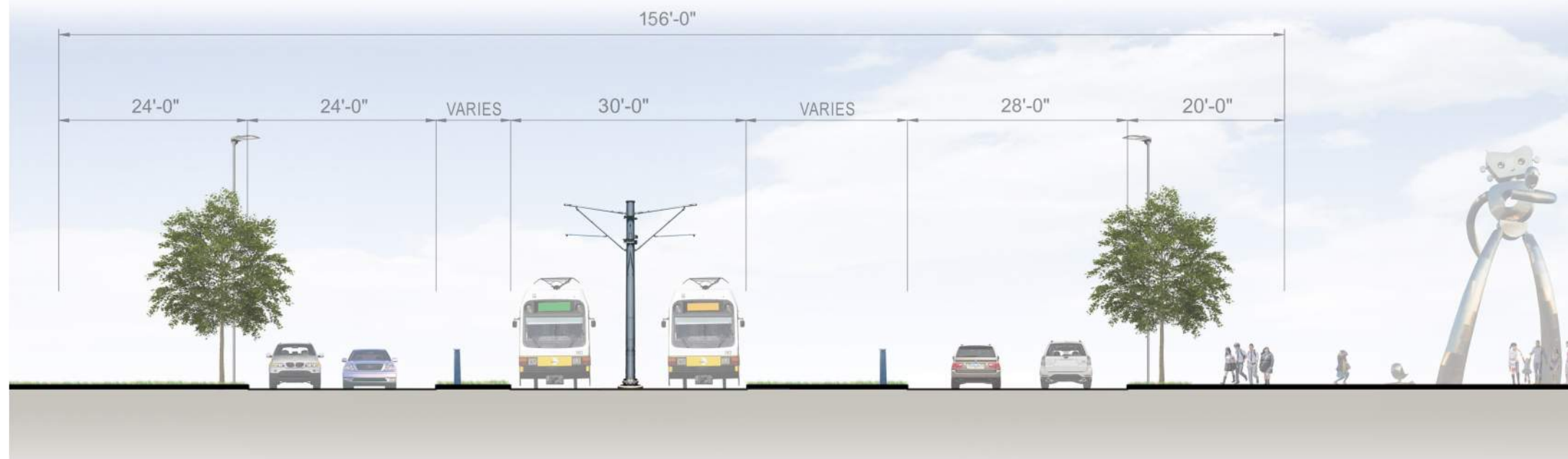
Good Latimer Expy Cross Sections

CONCEPTUAL ONLY
DECEMBER 2019



Existing Cross Section South of Miranda Street (view looking north)

CONCEPTUAL ONLY
DECEMBER 2019



Proposed Cross Section South of Miranda Street - Tracks in Center (view looking north)

Urban Design Factors

In order to deliver a D2 project reflecting the broad range of goals and objectives from multiple partner agencies and stakeholders, the Urban Design team is using the information gathered in the Focus Area Meetings and stakeholder communication to develop a list of Urban Design Factors for use in evaluating station design and pedestrian portal access. The following factors are outlined as follows and a brief description is provided:

Increase & Ease of Service

Increase and ease of service across the transit system is important to stakeholders. Urban design can support these needs through appropriate signage, wayfinding and location of access points.

Transfer Options

Transfer options should be a consideration during design. Location of a subway station or pedestrian portal and the proximity to change trains or connect to bus, streetcar or other mode should be considered.

Improved Transit Centers

Stakeholders support the possibility of improved transit centers that combine multiple transit options and consider multi-story and mixed-use opportunities.

Last Mile Connection

Last mile connection options, be they bus, streetcar, scooter, bike or pedestrian, should be considered.

Link to Pedestrian Zones

Connecting to major north-south or east-west streets that carry higher volumes of pedestrian traffic and connecting to plaza and communal spaces should be considered. The existing pedestrian tunnel and skybridge system should also be considered but not at the expense of prominent, street level portals.

Parks & Green Space

Stakeholders have expressed the desire to access and exit pedestrian portals in urban spaces, open areas and near parks.

Streets

Pedestrian portal location should be considered with street typology. Maintaining city grid connections is important.

Trails

Connections to pedestrian and bike trails should be considered.

Accessibility

Each station will have a minimum of two (2) pedestrian portals for access with as many as possibly four (4) being considered based on opportunities around the station. A combination of stairs, escalators and elevators will be determined further into design and based on accessibility requirements.

Enhanced Pedestrian Experience

Enhancing the pedestrian experience may include design considerations that accommodate a higher volume of pedestrian traffic located in and around urban spaces.

Equity

Provide all riders equitable advantage to move around the city from places of residence to employment and entertainment destinations.

Residential Proximity

Pedestrian portals locations should consider residential adjacency.

Civic/Entertainment

Pedestrian portals should take advantage of and accommodate traffic to civic and entertainments districts.

Noise

Noise should be considered in residential areas and near hotels and communal spaces.

Safety & Security

Pedestrian safety is a priority with events, field trips, linkages between activity centers and existing/new developments, and vehicular and pedestrian track crossing. Integrated security and lighting design will be important at all portal locations.

Signage & Wayfinding

Consider wayfinding as a means to aid users to connect from stations to local attractions and destinations and signage to provide recognition at pedestrian portal locations. Stakeholders agree portals should have wayfinding and signage standards that are intuitive, but overall design could respond to the urban fabric of area.

User Experience

Consider ticketing, secured access, standing and waiting area experience when determining design.

Technology

Stakeholders desire for technology enhancements to assist in route planning, arrival and departure times and continuous wireless capabilities that enable a ride and work experience.

Construction Activities

Minimize to the extent possible, lane closures, traffic impacts, utility conflicts and patron disruptions during construction.

Service Disruptions

Consider higher volumes of traffic during event times, evacuation procedures and emergency issues.

Employment & Economic Centers

Locate pedestrian portals to accommodate employment and economic centers.

Local Context

Stakeholders agree that portal design should reflect the area and complement the urban fabric around it. Design should consider combining vent shafts with portals where possible to integrate, hide or minimize visual and space disruptions.

Development

Allow for development to occur over tunnel portals. The design of D2 should not preclude vertical development. Tunnel and pedestrian portals considered in existing open areas should be built with the flexibility to complement future development.

Cultural Centers

There should be coordination where the alignment runs near cultural centers. Bus route planning, signage, wayfinding and appropriate pedestrian zones and crossings should be considered by multiple partners.

Government Institutions

Design pedestrian portals appropriately for access to government institutions.

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Portal integral to facade at parking

Two way parallel parking each side of Commerce to Jackson

Merits different character for different districts

Enhance the PLAZA
Connection to Commerce to
Include a portal opportunity