1. Project Context
PROJECT CONTEXT:
NORTHWEST HIGHWAY AND PRESTON ROAD AREA PLAN

• Completed in December 2016
• Developed a vision for the study area
• Set forth recommendations for parking-related improvements in Preston Center
• Particular focus on a new, multi-purpose underground parking structure to replace the 60-year-old Preston Center Parking Garage
PROJECT CONTEXT:
NORTHWEST HIGHWAY AND PRESTON ROAD AREA PLAN

- Underground garage with community park above was preferred design concept.
- Area Plan included very limited study of design specifics, project feasibility, cost, and integration with road networks and bicycle/pedestrian connections.
- Further evaluation was recommended.
**OTHER REGIONAL TRANSPORTATION UPDATES**

**Dallas North Tollway (DNT): Walnut Hill Ramps**
- NTTA to begin larger study/review of DNT from downtown Dallas to Grayson County by early 2020; 2 years to complete.
- City of Dallas future lead for community feedback on Walnut Hill ramps (on hold for NTTA process).

**Northwest Highway, Inwood to Hillcrest: Feasibility Study**
- TxDOT has retained HDR to evaluate various transportation options such as grade separation/underpass and four-lane boulevard with bicycle and pedestrian features.
- The goal of all options will be to incorporate landscaping, sidewalks, stormwater improvements, median safety, & street lighting.
- Timeframe: TBD

**DNT: Texas U-turn (northbound to southbound) & other potential interchange intersection improvements**
- NCTCOG programming funds to advance initial feasibility study.
- NCTCOG and TxDOT coordinating on scope and next steps.

**Short-Term Improvements: Sidewalks**
- NCTCOG and City of Dallas in discussions on possible sidewalk project locations inventory and needs.
- City of Dallas traffic study with pedestrian component on Douglas Avenue at Sherry Lane south of Northwest Highway.
2. Project Objectives, Scope, and Schedule
PROJECT OBJECTIVES AND STUDY AREA

1. Take the parking garage-related elements of the Northwest Highway and Preston Road Area Plan from **vision to action**.

2. Identify and vet solutions for the Preston Center Parking Garage, **including design considerations, constraints, and costs**.

3. Review **interim options related to technology, garage access, and phased approach**, including analysis of safety concerns, connected land uses, and business access during construction.
PROJECT SCOPE AND SCHEDULE

COMMUNITY INTEREST, INNOVATION, EXPLORATION, AND POSSIBLE DESIGN OUTCOMES: JUNE 2018—OCTOBER 2019

PHYSICAL INVENTORY/DATA COLLECTION:
JUNE 2018 - DECEMBER 2018

STRATEGIC PATH FORWARD:
JANUARY 2019 - JUNE 2019

REPORTING AND DOCUMENTATION:
JULY 2019–OCTOBER 2019
3. Technical Analysis and Community Input
TECHNICAL FEASIBILITY ANALYSIS

Underground Parking

Technically Feasible?

Key Technical Considerations?

- Passive/Active security
- Technology
- Lighting
- Navigable design

Community Park

Technically Feasible?

Key Technical Considerations?

- Usable urban green space

Improved Access

Technically Feasible?

Key Technical Considerations?

- Maintain existing street pattern
- Clarify garage entry/exit
- Improve multimodal connections
COMMUNITY INPUT: WHAT WE HEARD

Shared through activities in September and January public open houses, as well as written comments.

Focused on the key considerations beyond the technical requirements.

Centered around ways to make the garage as attractive, usable, and valuable to the community, through aesthetic design, access, technology, security, and more.
COMMUNITY INPUT: WHAT WE HEARD

- Safety/Security
- Strong Lighting
- Simple and Safe Access For All
- Navigable Functional Design
- Appropriately-Sized Parking Asset
- Tech That Helps Drivers
COMMUNITY INPUT: WHAT WE HEARD

Traffic Mitigation

Accommodation for Bike/Ped

Help Existing Retailers

Unobtrusive, Inconspicuous Access Points

Simple, Multi-Use Park
4. Criteria for Developing Design Concepts
CRITERIA FOR DEVELOPING DESIGN CONCEPTS

**Blue** = Criteria heard directly from the community.

**Black** = Technical requirements identified by the Consultant Team.
## GARAGE SIZING (EXISTING GARAGE 800 SPACES)

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOW</strong></td>
<td>Based on actual projected parking demand in Preston Center, assuming 0% vacancy, as validated by Kimley Horn study (2016) and Walker study (2018).</td>
</tr>
<tr>
<td><strong>MEDIUM</strong></td>
<td>Based on actual projected parking demand in Preston Center, assuming 0% vacancy, plus an additional 20% supply cushion- an industry standard for retail centers meant to prevent excessive circulation and congestion.</td>
</tr>
<tr>
<td><strong>HIGH</strong></td>
<td>Based on supply recommendation in the Northwest Highway and Preston Road Area Plan.</td>
</tr>
</tbody>
</table>
1. The garage should provide at least 1,200 100% publicly-available spaces.

2. The parking garage should be right-sized to reflect actual needs.
VEHICULAR ACCESS, MULTIMODAL ACCESS, TRAFFIC GENERATION

1. There should be two clearly-defined vehicular entrances and two clearly-defined vehicular exits.

2. Existing street/vehicular circulation pattern should be maintained.

3. Bicycle and pedestrian access points should be clearly-defined and separated from vehicular access points.
SECURITY AND TECHNOLOGY

1. The garage should include both active and passive security measures.

2. The garage should be professionally-designed by a firm well-versed in mitigating potential security challenges.

3. Customer service and experience should guide technology and management decisions.
1. Visible elements of the garage should be sleek, inconspicuous, and appropriate for the setting.

2. Garage design should not impede vehicular or pedestrian access.
PARK DESIGN AND ACCESS

1. The park should be clearly publicly-accessible and maintained as a typical City of Dallas park.

2. The park should be at least partially, if not totally, at-grade.

3. The park should include a simple design with no major traffic-generating amenities or programming.
FUNDING AND ORGANIZATION

The garage/park design should meet the requirements of key partners and the community vision, and be eligible for available funding.
5. Conceptual Design Concepts
CONCEPTUAL DESIGN CONCEPTS

These are not the only possible design concepts, but are two concepts that are best able to meet community feedback and technical constraints at this time.

The criteria and scoring framework shown in this presentation can be used to evaluate any design concept for the Preston Center Parking Garage that is presented to the City and the community.
CONCEPT 1:
100% UNDERGROUND PARKING WITH FULL-SITE PARK

This concept is most similar to the vision set forth in the Northwest Highway and Preston Road Area Plan. It provides:
• Public parking spaces entirely underground
• Public park spanning the full site at ground level
• No opportunity for additional private development on-site
• The most green space for the area
CONCEPT 1:
100% UNDERGROUND PARKING WITH FULL-SITE PARK
CONCEPT 1: 100% UNDERGROUND PARKING WITH FULL-SITE PARK
## CONCEPT 1: 100% UNDERGROUND PARKING WITH FULL-SITE PARK QUANTITATIVE ANALYSIS

<table>
<thead>
<tr>
<th>Garage Size</th>
<th>Park Size</th>
<th>Est. Garage Cost Range</th>
<th>Est. Park Cost Range</th>
<th>Est. Total Cost Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 spaces for public use</td>
<td>2.9 acres</td>
<td>$29M - $34M</td>
<td>$5.5M - $6.5M</td>
<td>$34.5M - $40.5M</td>
</tr>
<tr>
<td>1,200 spaces for public use*</td>
<td>2.9 acres</td>
<td>$35M - $40M</td>
<td>$5.5M - $6.5M</td>
<td>$40.5M - $46.5M</td>
</tr>
<tr>
<td>1,600 spaces for public use</td>
<td>2.9 acres</td>
<td>$44M - $52M</td>
<td>$5.5M - $6.5M</td>
<td>$49.5M - $58.5M</td>
</tr>
</tbody>
</table>

*Recommended Sizing

**Note:** Costs do not include costs to mitigate garage/park construction impacts.
CONCEPT 2: HYBRID PARKING WITH PARTIAL-SITE PARK

This concept combines the vision set forth in the Northwest Highway and Preston Road Area Plan with feedback from the Stakeholder Working Group. It provides:

- Public parking spaces both underground and above-ground
- Public park on part of the site at ground level
- Opportunity for private development over the above-ground parking levels
CONCEPT 2: HYBRID PARKING WITH PARTIAL-SITE PARK
CONCEPT 2: HYBRID PARKING WITH PARTIAL-SITE PARK
CONCEPT 2: HYBRID PARKING WITH PARTIAL-SITE PARK

“Low” Garage Sizing Concept

Public Parking: 1,000 spaces
- Underground (2 Levels): 675
- Ground (1 Level): 112
- Above-Ground (2 Levels): 213

Public Park: 1.9 Acres

Above-Ground Garage Footprint: 42,000 SF
CONCEPT 2: HYBRID PARKING WITH PARTIAL-SITE PARK

“Medium” Garage Sizing Concept

Public Parking: 1,200 spaces
  Underground (2 Levels): 690
  Ground (1 Level): 170
  Above-Ground (2 Levels): 340

Public Park: 1.4 Acres

Above-Ground Garage Footprint: 63,000 SF
CONCEPT 2: HYBRID PARKING WITH PARTIAL-SITE PARK

“High” Garage Sizing Concept

Public Parking: 1,600 spaces
  Underground (2 Levels): 803
  Ground (1 Level): 265
  Above-Ground (2 Levels): 508

Public Park: 0.9 Acres

Above-Ground Garage Footprint: 85,000 SF
PARK SIZE COMPARISON
BELO GARDEN, DALLAS

Approx. 1.7 Acres (74,052 SF)
# HYBRID PARKING WITH PARTIAL-SITE PARK QUANTITATIVE ANALYSIS

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>1,000</td>
<td>1.9 acres</td>
<td>42,000 SF</td>
<td>$26M - $32M</td>
<td>$3.6M - $4.3M</td>
<td>$29.6M - $36.3M</td>
</tr>
<tr>
<td>1,200 spaces for public use*</td>
<td>1.4 acres</td>
<td>63,000 SF</td>
<td>$33M - $37M</td>
<td>$2.7M - $3.2M</td>
<td>$35.7M - $40.2M</td>
</tr>
<tr>
<td>1,600 spaces for public use</td>
<td>0.9 acres</td>
<td>85,000 SF</td>
<td>$38M - $44M</td>
<td>$1.8M - $2.1M</td>
<td>$39.8M - $46.1M</td>
</tr>
</tbody>
</table>

*Recommended Sizing

**Note:** Costs do not include costs to mitigate garage/park construction impacts.
ACCOUNTING FOR THE COST DIFFERENTIAL

1. **Above-grade parking** is cheaper to build than sub-grade parking, by a margin of approximately $10,000-$12,000 per space.

2. A fully sub-grade option means that **adding spaces must be done by adding full or partial underground levels**. Conversely, the hybrid option allows spaces to be added by reducing the size of the at-grade park and increasing the size of the above-grade levels.

3. **The park is smaller** and therefore less expensive in the hybrid option.

4. However, the **column sizing** must be slightly larger in the hybrid option because of needs for structural loads, and therefore the cost differential is not as large as one might expect.
# CONCEPTS COMPARISON
**ASSUMING 1,200 SPACES IN EACH**

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100% Underground</td>
<td>125,000 SF (2.9 acres)</td>
<td>0 SF</td>
<td>$40.5M - $46.5M</td>
<td>Yes</td>
<td>23 Months</td>
</tr>
<tr>
<td>Hybrid</td>
<td>62,229 SF (1.4 acres)</td>
<td>63,000 SF</td>
<td>$35.7M - $40.2M</td>
<td>Yes</td>
<td>22 Months</td>
</tr>
</tbody>
</table>

*Note: Costs do not include costs to mitigate garage/park construction impacts.*
6. Next Steps
CITY OF DALLAS

**Regulations:** Evaluate administrative review procedures for the parking structure and park, particularly the process for waivers of off-street parking requirements for Preston Center West tenants during demolition/construction.

**Park Details:** Discuss park needs with Parks and Recreation Department, including maintenance, signage, hours of operation, rules and regulations, etc.

**RFP:** Develop and issue an RFP(s) for complete design and construction of the parking structure and park, using the criteria developed in this study.
GET INFORMATION AND PROVIDE INPUT

PROVIDE WRITTEN COMMENT
Provide your written comments at the Comment Station.

GET INFORMATION
For updates on the project, visit https://www.nctcog.org/planningstudies.
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Teal Engineering (Vehicular Access and Circulation)

RS&H (Multimodal Access and Circulation)
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