



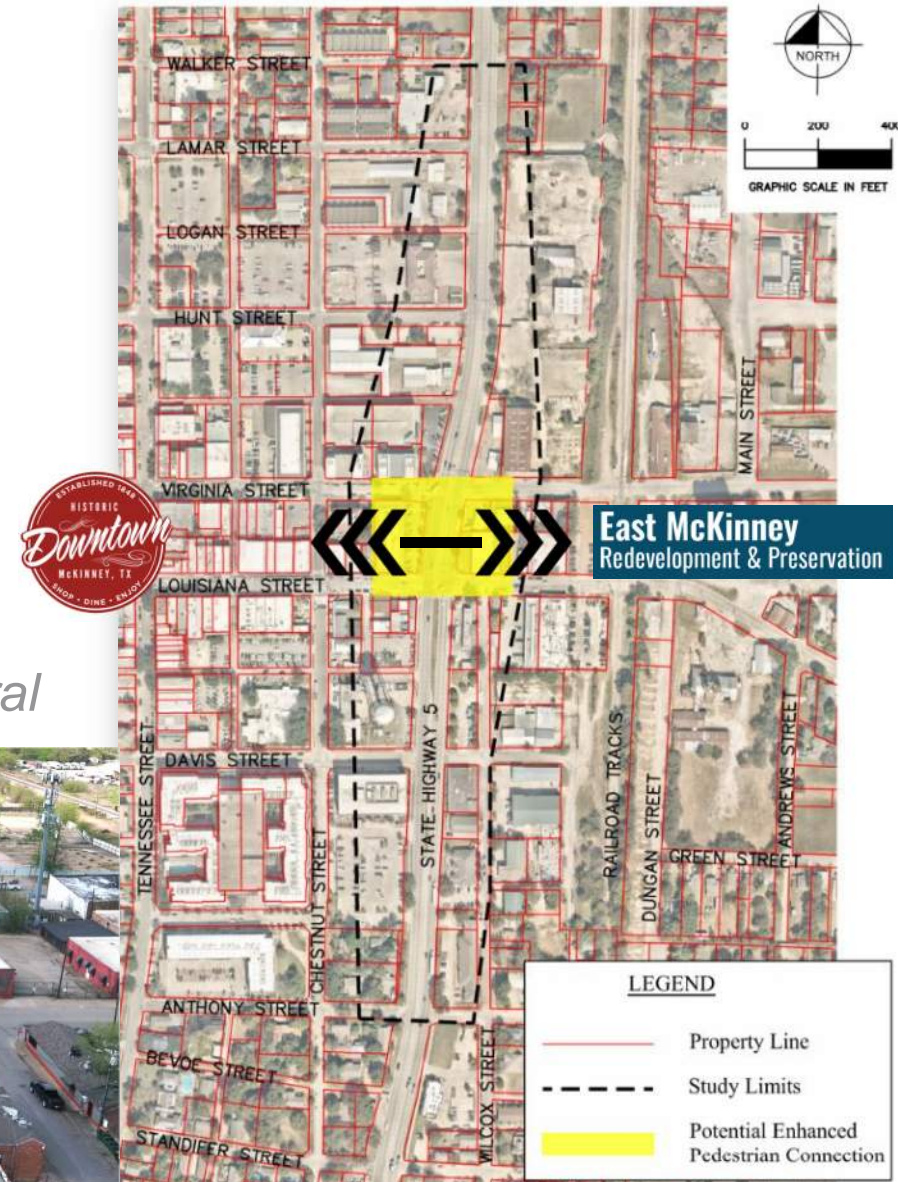
April 26, 2022

City Council Work Session

SH 5 Downtown Pedestrian Connection Feasibility Study Phase I Update

Study Objective

- Investigate “best in class” feasible alternatives to:
 - Connect communities east and west of State Highway 5
 - Enable safe crossing across the State Highway 5 corridor
 - Enrich the community
 - Enhance the *Downtown McKinney Cultural District*.



Presentation Agenda

- Overview
- Timeline and Schedule
- Evaluation of Alternatives
- Conceptual Alternative
- Public Engagement
- Next Steps & Discussion



Study Overview

Scope of the Phase I Study

- Team Structure (City, NCTCOG, Kimley-Horn)
- Development of Evaluation Criteria
 - Guiding Principles, et. al.
- Alternative Scenarios
 - Deck Park, Inverted Park, Enhanced At-Grade, No-Build TxDOT Standard
- Engineering Evaluations
 - Traffic Network Impacts, Drainage Feasibility, Structural Elements, etc.
- Public Outreach

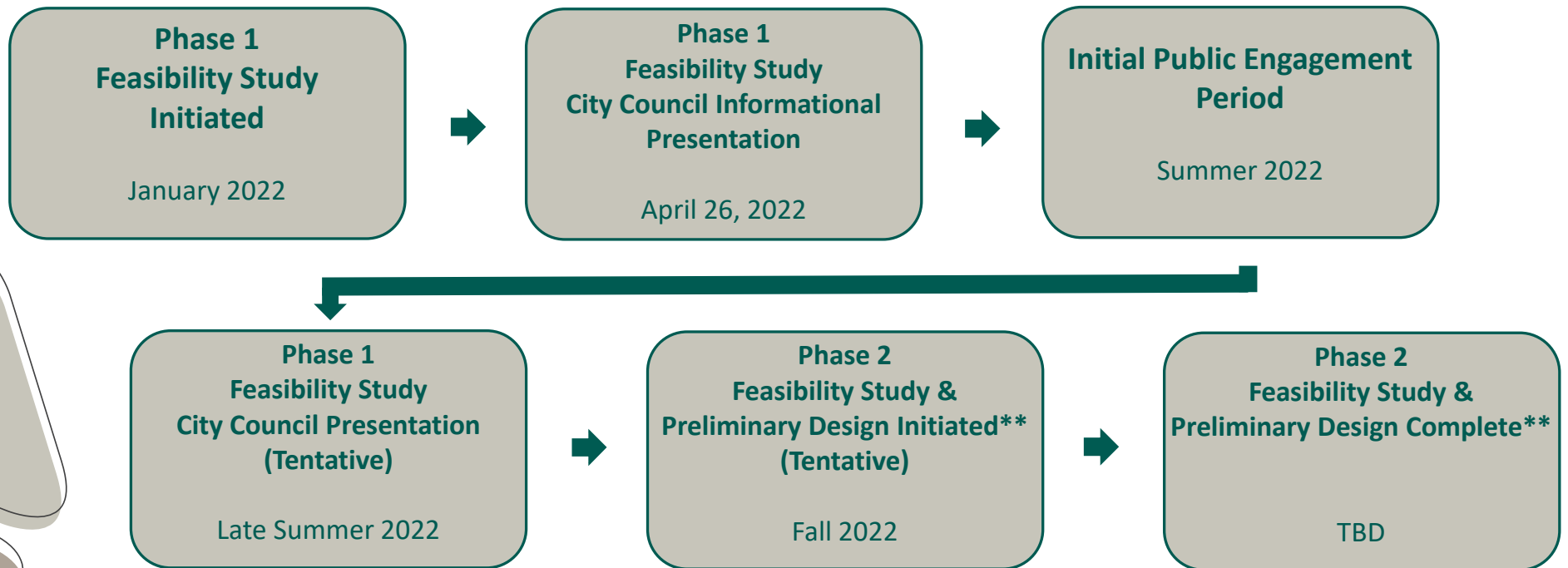


Key Takeaways

- Today is informational, and the beginning of the public engagement period.
- All options are viable, but they have varying levels of complexity and cost.
- Alternatives have been designed to a 'best in class' objective.
- The designs shown are not final. Refinement is expected once an alternative is selected.



Timeline



**** Phase 2 contingent upon City Council authorization**

Alternative Evaluation Matrix

- Quality of Life
- Mobility/Access
- Compatibility
- Economic Factors
- Coordination and Approvals

The evaluation matrix is a tool developed to help evaluate each alternative across several categories and guiding principles. All projects are viable, with varying levels of complexity and cost.

CATEGORIES

	Conceptual Alternative			
	Deck Park 1	Grade Separated (Inverted Deck Park) 2	Enhanced Crossing At-Grade 3	No-Build (TxDOT Standard) 4
A. Quality of Life				
1. Enhanced Public Space and Amenities Improve amenities and public accessible spaces to enhance community livability				
2. Enhanced Views and Local Character Preserves or enhances the physical, natural and/or community character of the project site and its surroundings				
3. Public Support Favorable public perception and support				
B. Mobility/Access				
1. Transportation Network Supports a connected transportation network for ALL modes				
2. Private Property Impacts Property/business displacements, access, etc.				
3. Safety Reduces number of conflict points between transportation modes (vehicle, pedestrian, etc.)				
C. Compatibility				
1. Existing Infrastructure Existing roadways, public/franchise utilities, etc.				
2. Future Development Integration potential with future development				
3. TxDOT - Planned SH 5 Improvements Compatibility with TxDOT planned improvements (TxDOT project timing, funding sources, design impacts, etc.)				
D. Economic Factors				
1. Resource Capital Initial project financial cost without O&M, time investment, human resource capital, etc.				
2. Operations and Maintenance Cost to maintain and enhance the facility				
3. Federal Grant Favorability Likelihood to qualify for federal grant funding				
E. Coordination and Approvals				
1. Agency Approvals Total number of agency approvals (TxDOT, DART, NEPA, FHWA, etc.)				
2. Timeline and Schedule Anticipated duration of time to obtain all necessary approvals and permits				

Conceptual Alternatives

1. Deck Park
2. Grade Separated Inverted Deck Park
3. Enhanced Crossing At-Grade
4. No-Build TxDOT Standard*

* Assumes planned TxDOT construction as currently designed



Alternative Baseline Guidelines

- Strengthens connection between Historic Downtown and redeveloping areas to the east.
- Maintains vehicular mobility and improves non-vehicular safety.
- Provides a community centered design that amplifies the existing identity and sense of place.
- Connects the community and people disconnected by the highway.
- Enhances the Downtown McKinney Historic Cultural District.
- Is technically feasible and fiscally sustainable.

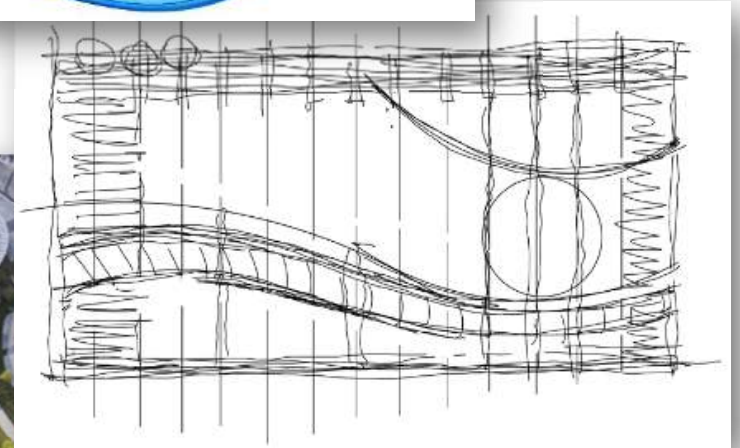
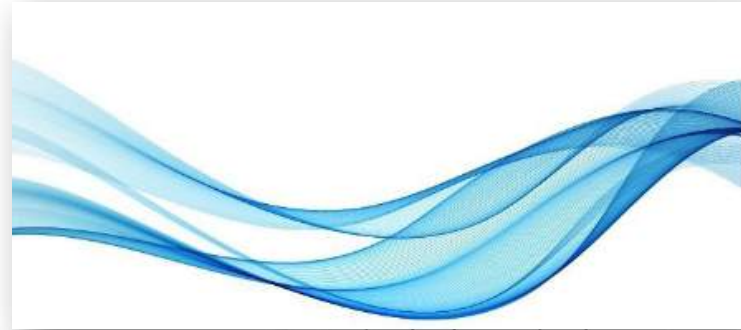


Conceptual Alternative #1

Deck Park

Overview

- Inspiration – Waves
 - Organic Forms
 - Natural Circulation Flow
 - Balanced
- Precedent
 - Pacific Plaza (Dallas)



Conceptual Alternative #1

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Conceptual Alternative #1

Deck Park



Conceptual Alternative #1

Deck Park



Conceptual Alternative #1

Deck Park



Conceptual Alternative #1

Deck Park



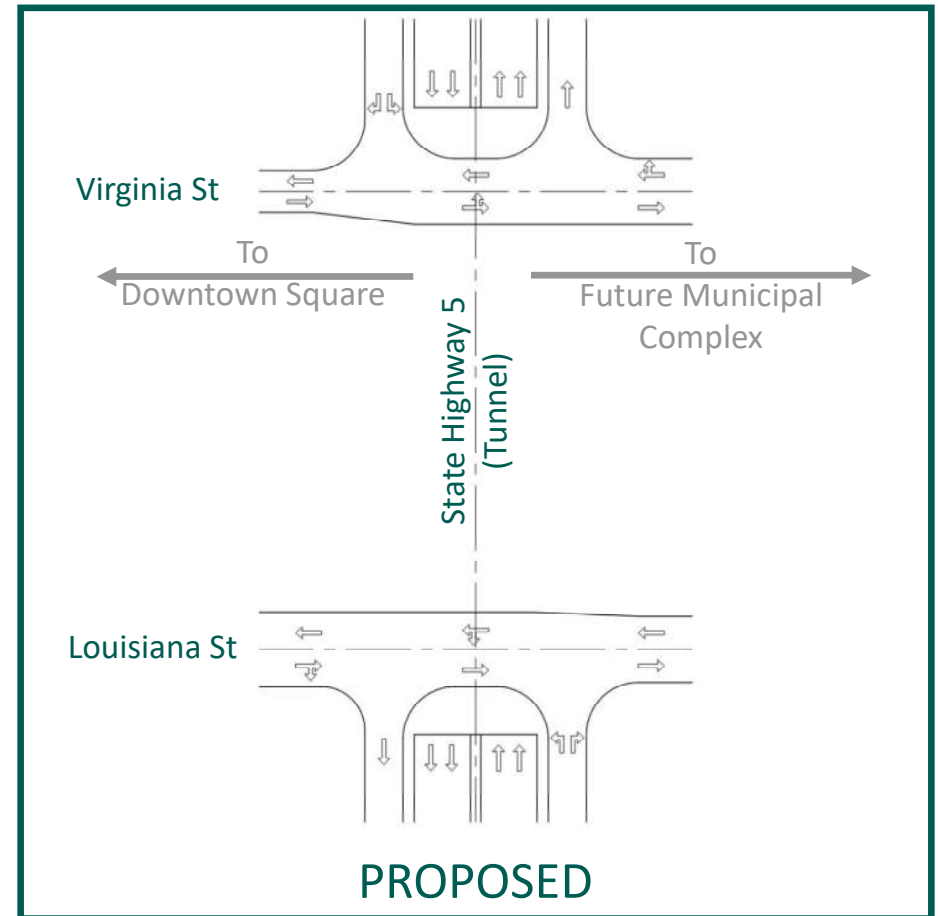
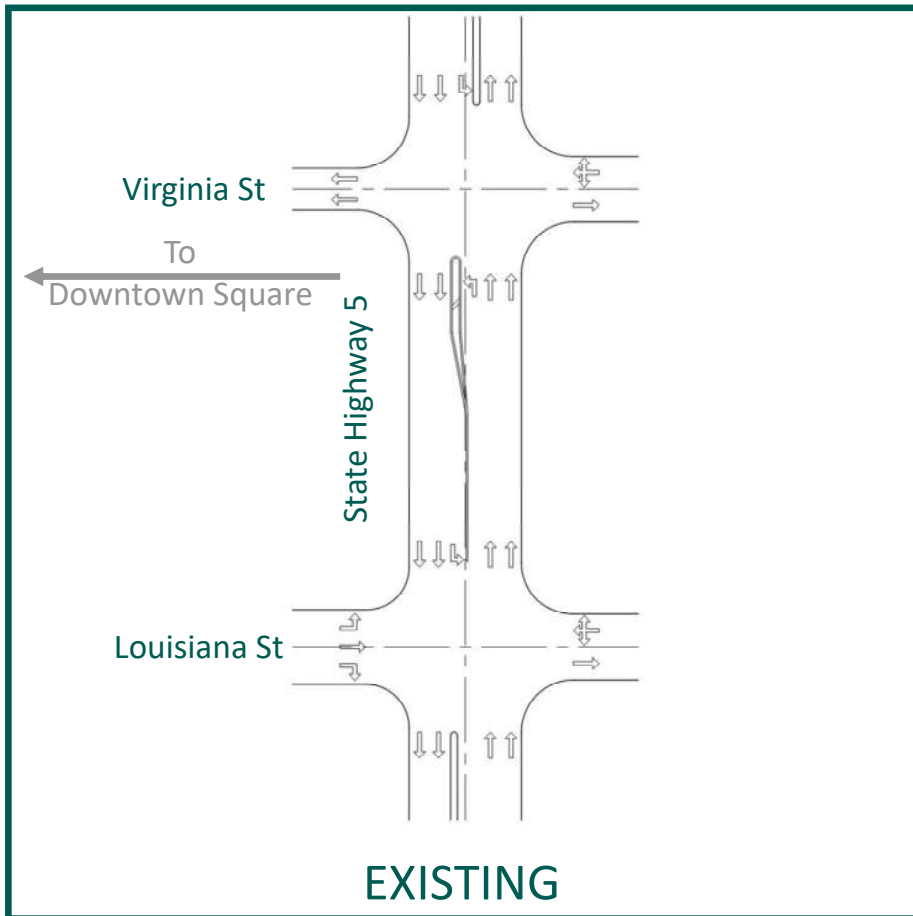
Conceptual Alternative #1

Deck Park



Conceptual Alternative #1

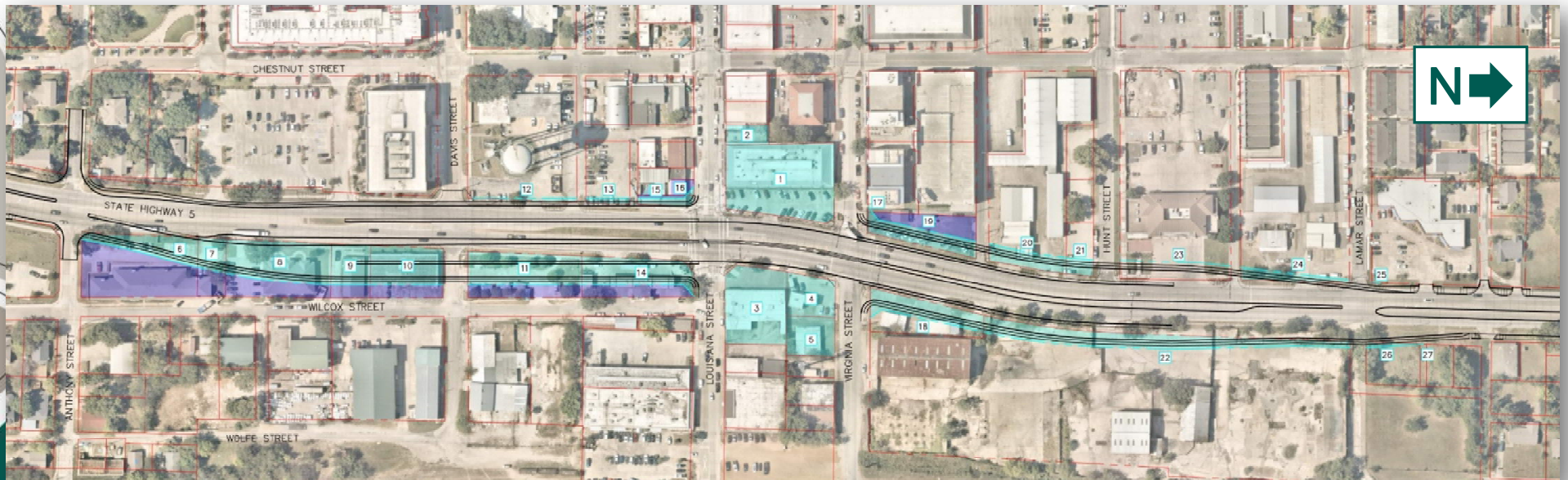
Deck Park



Conceptual Alternative #1 Deck Park

Property Acquisition
27 Properties Impacted

- 5 Total Parcel Takes
- 10 Partial Parcel Takes
 - Remainder Parcel may be Considered Unusable
- 12 Partial Parcel Takes
 - Remainder Parcel Remains Usable





Conceptual Alternative #1

Deck Park

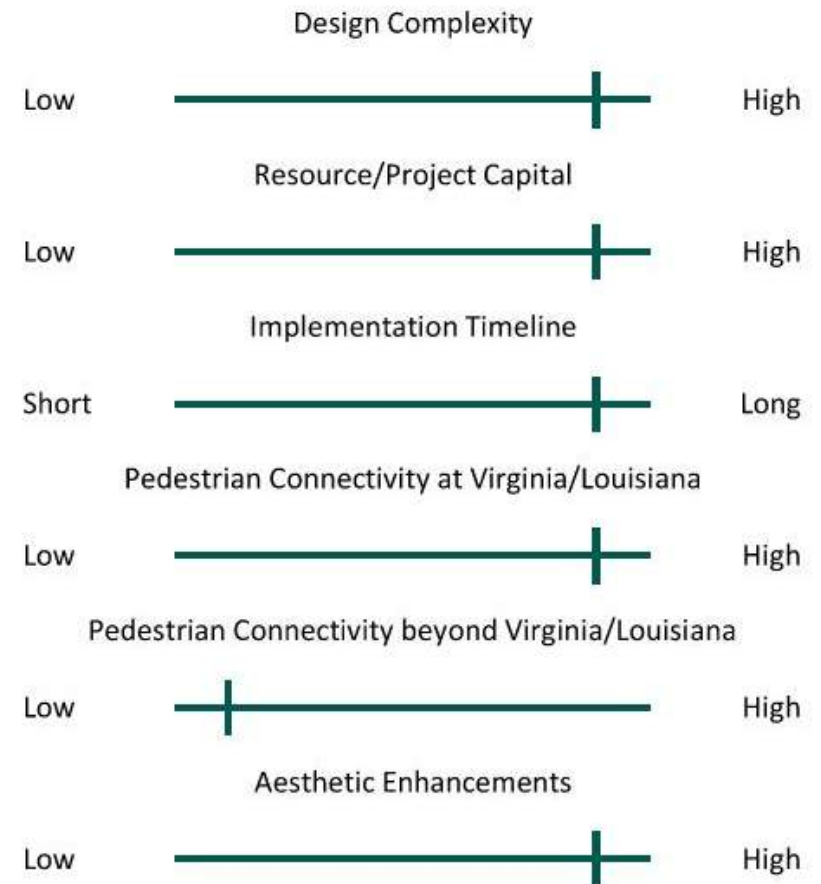
Technical Summary

- Structural:
 - Retaining Walls (30ft+)
 - Tunnel Safety Requirements
- Traffic:
 - State Highway 5 East/West Crossings
 - At-Grade Virginia/Louisiana Connection
- Drainage:
 - At Grade Re-routing
 - Deep Installation with Long Routing into Old Settlers Park
- Property:
 - Up to 27 Parcels Impacted
- Project Cost Range*:
 - \$50M - \$70M

* Does not include cost for installation of park amenities/features

Conceptual Alternative #1 Deck Park

Conceptual Alternative Considerations

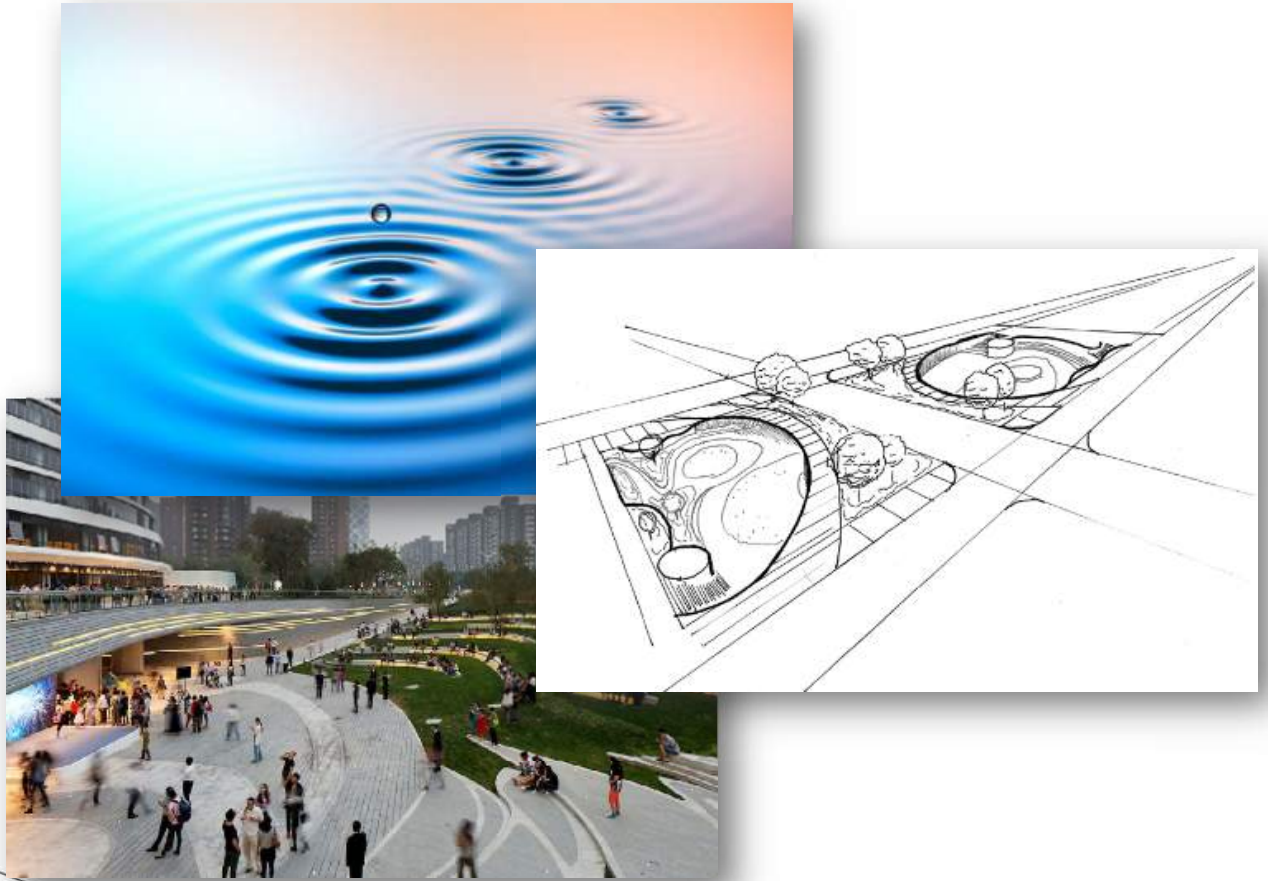


Conceptual Alternative #2

Grade Separate Inverted Deck Park

Overview

- Inspiration – Rings
 - Ripples in Water
 - Overlapping Rings
 - Varied Sized
- Precedent
 - Galaxy Soho Plaza (Beijing)



Conceptual Alternative #2

Grade Separate Inverted Deck Park

Overview

- Inspiration – Rings
 - Ripples in Water
 - Overlapping Rings
 - Varied Sized
- Precedent
 - Galaxy Soho Plaza (Beijing)

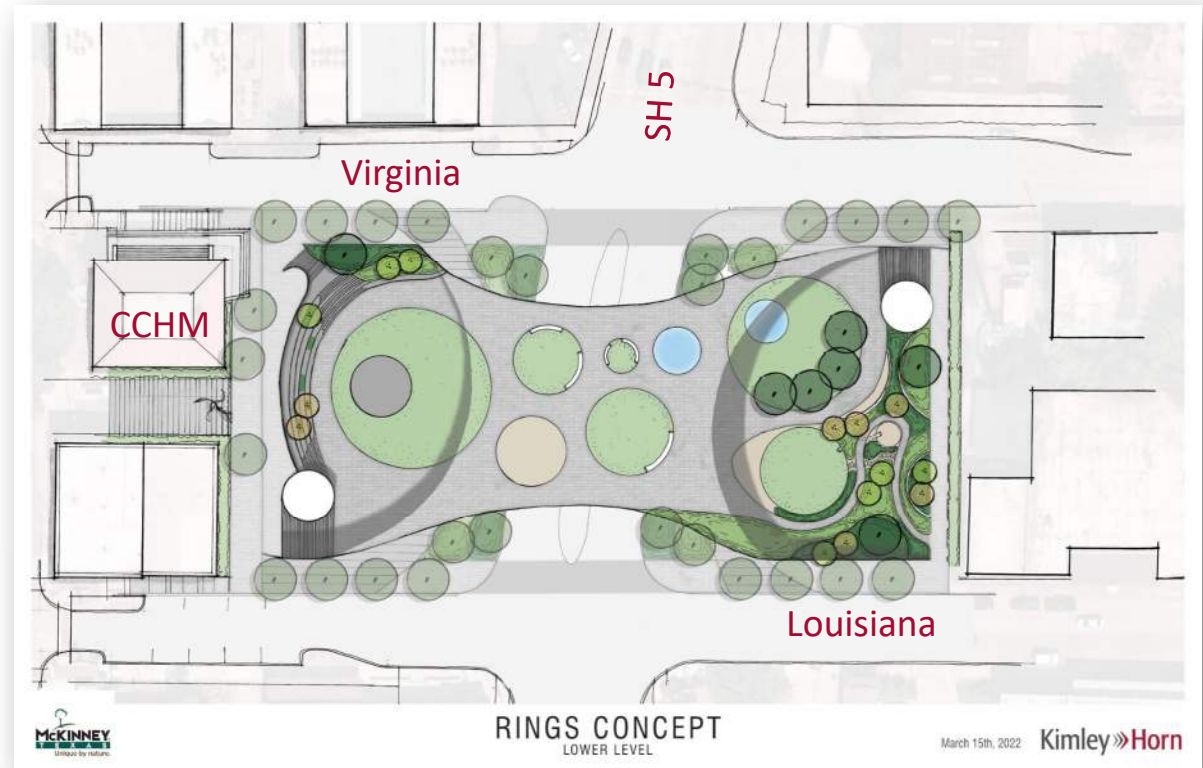


Conceptual Alternative #2

Grade Separate Inverted Deck Park

Overview

- Inspiration – Rings
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Conceptual Alternative #2

Grade Separate Inverted Deck Park



Conceptual Alternative #2

Grade Separate Inverted Deck Park



Conceptual Alternative #2

Grade Separate Inverted Deck Park



Conceptual Alternative #2

Grade Separate Inverted Deck Park



Conceptual Alternative #2

Grade Separate Inverted Deck Park



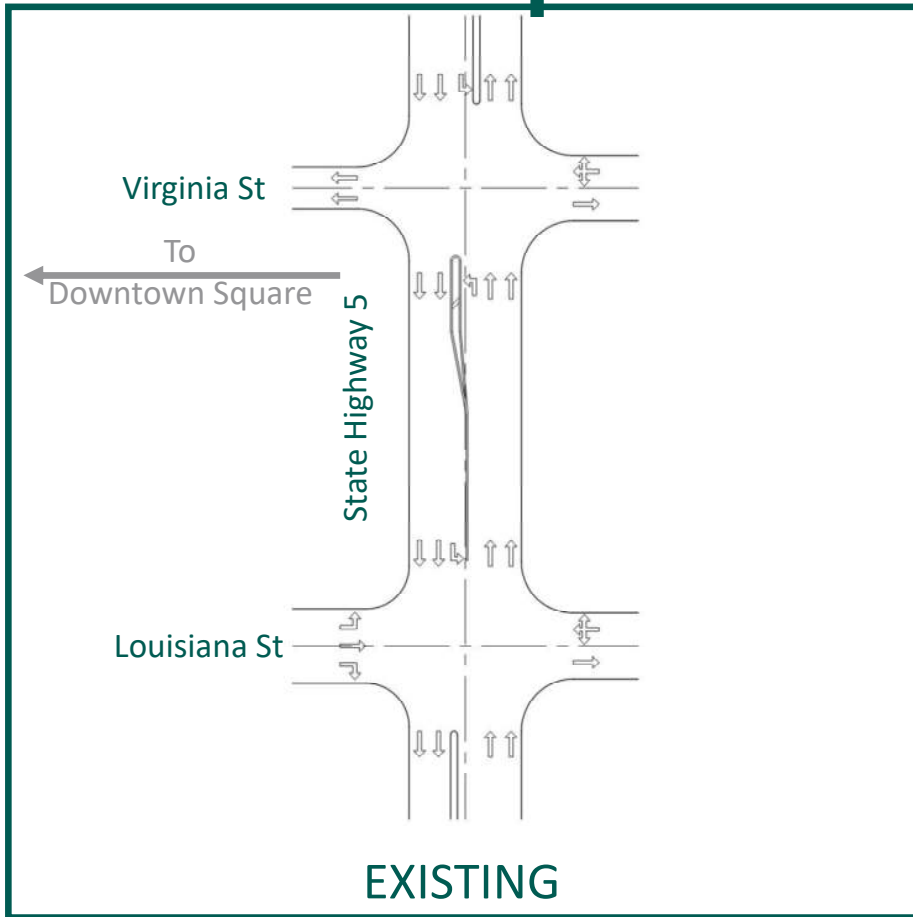
Conceptual Alternative #2

Grade Separate Inverted Deck Park

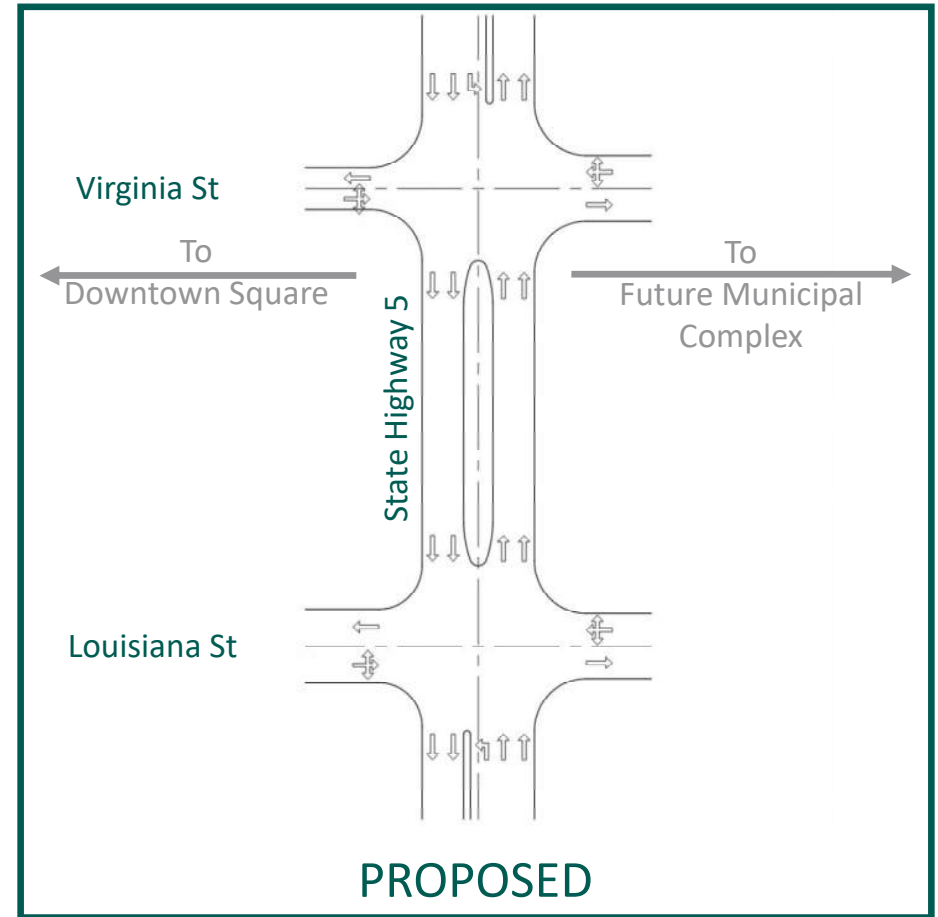


Conceptual Alternative #2

Grade Separate Inverted Deck Park



OR

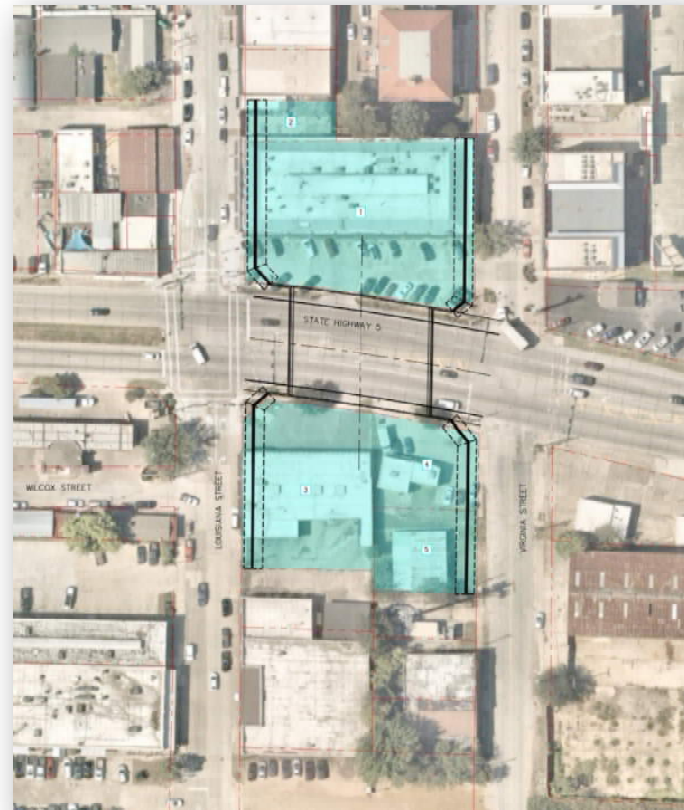


Conceptual Alternative #2

Grade Separate Inverted Deck Park

Property Acquisition

- 5 Properties Impacted
 - 5 Total Parcel Takes
 - 0 Partial Parcel Takes
 - Remainder Parcel may be Considered Unusable
- 0 Partial Parcel Takes
 - Remainder Parcel Remains Usable



Conceptual Alternative #2

Grade Separate Inverted Deck Park

Technical Summary

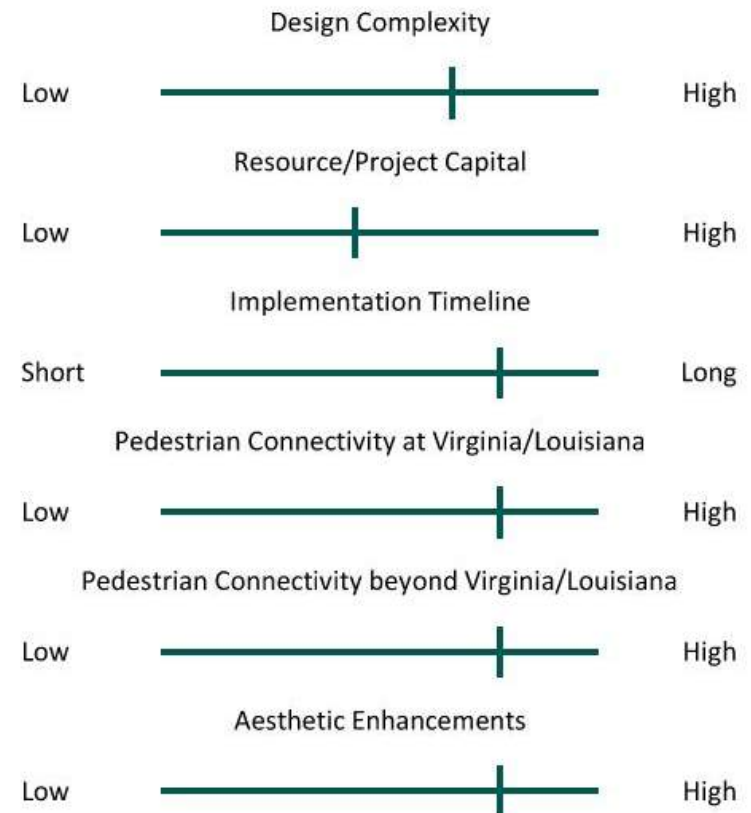
- Structural:
 - Retaining Walls (15ft+)
- Traffic:
 - One-way to Two-Way Conversions (Optional)
 - Virginia/Louisiana West of SH 5
- Drainage:
 - At-Grade Re-routing
 - Deep Installation with Intermediate Routing into near Throckmorton Street
- Property:
 - Up to 5 Parcels Impacted
- Project Cost Range*:
 - \$13M - \$20M

* Does not include cost for installation of park amenities/features

Conceptual Alternative #2

Grade Separate Inverted Deck Park

Conceptual Alternative Considerations

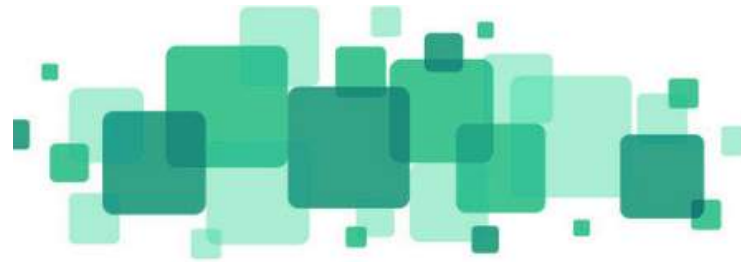


Conceptual Alternative #3

Enhanced Crossing At Grade

Overview

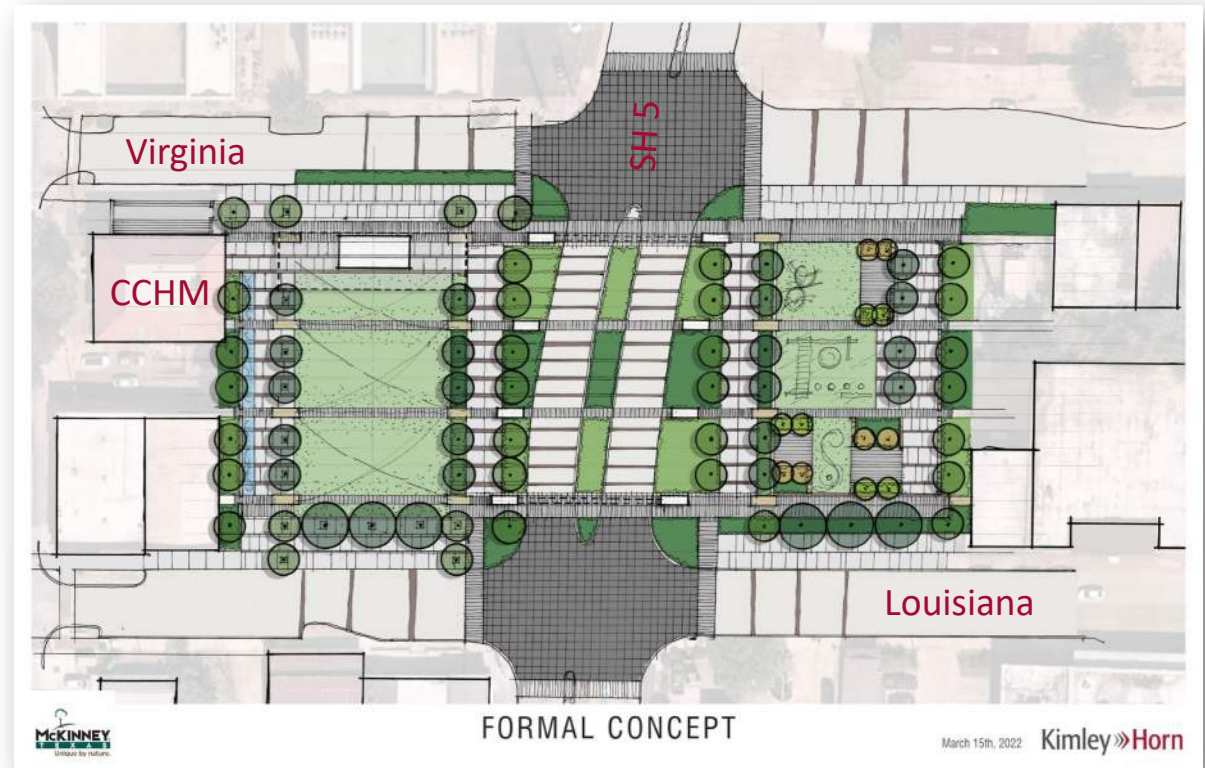
- Inspiration – Formal
 - Orthogonal, Organized
 - Bosque of Trees
 - Central Lawn
- Precedent
 - Northpark Mall (Dallas)
 - Cityplace (Houston)



Conceptual Alternative #3 Enhanced Crossing At Grade

Overview

- Inspiration – Formal
 - Orthogonal, Organized
 - Bosque of Trees
 - Central Lawn
- Precedent
 - Northpark Mall (Dallas)
 - Cityplace (Houston)



Conceptual Alternative #3 Enhanced Crossing At Grade



Conceptual Alternative #3 Enhanced Crossing At Grade



Conceptual Alternative #3 Enhanced Crossing At Grade



Conceptual Alternative #3 Enhanced Crossing At Grade



Conceptual Alternative #3 Enhanced Crossing At Grade

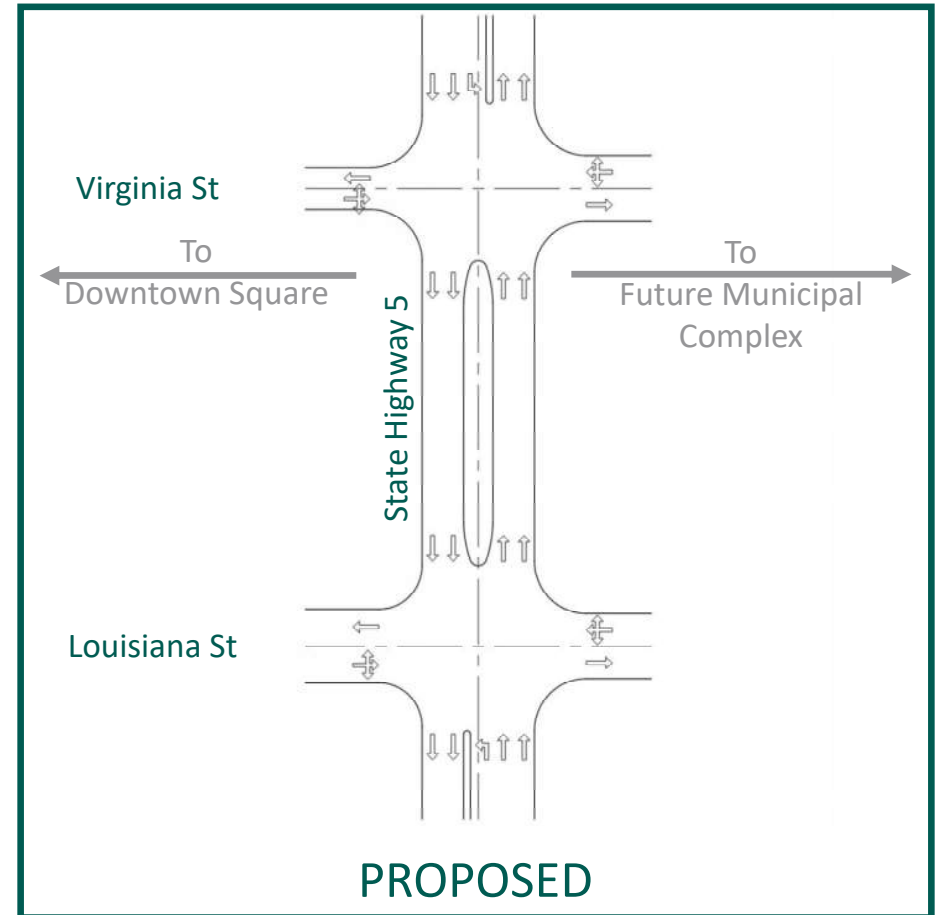
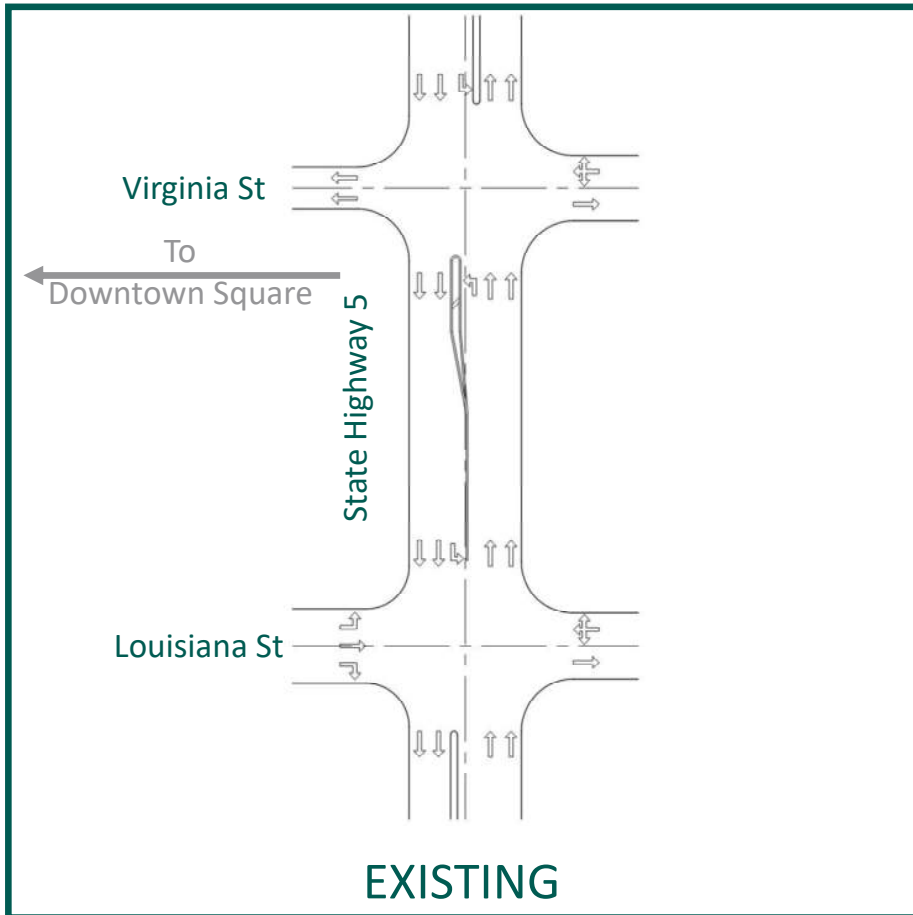


Conceptual Alternative #3 Enhanced Crossing At Grade



Conceptual Alternative #3

Enhanced Crossing At Grade

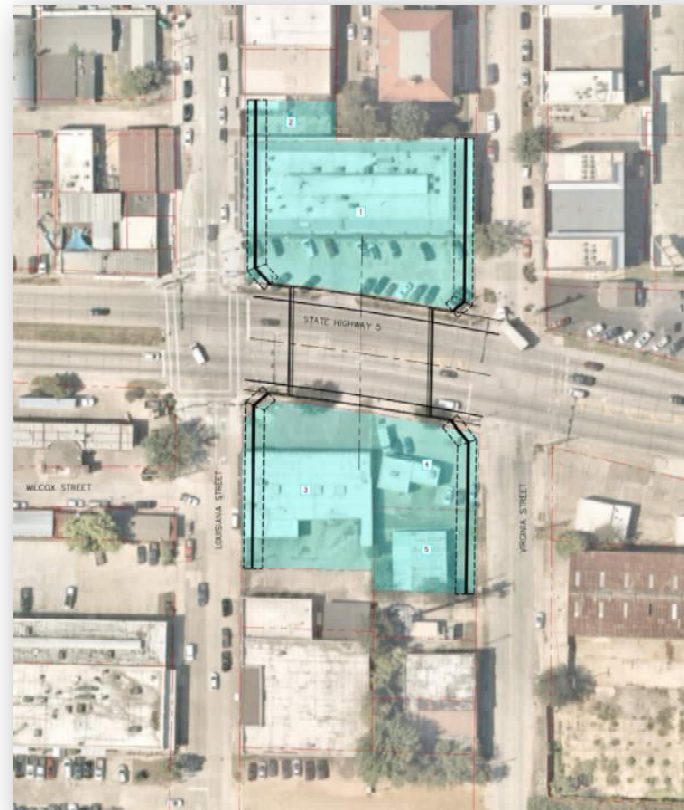


Conceptual Alternative #3

Enhanced Crossing At Grade

Property Acquisition

- 5 Properties Impacted
 - 5 Total Parcel Takes
 - 0 Partial Parcel Takes
 - Remainder Parcel may be Considered Unusable
- 0 Partial Parcel Takes
 - Remainder Parcel Remains Usable



Conceptual Alternative #3

Enhanced Crossing At Grade

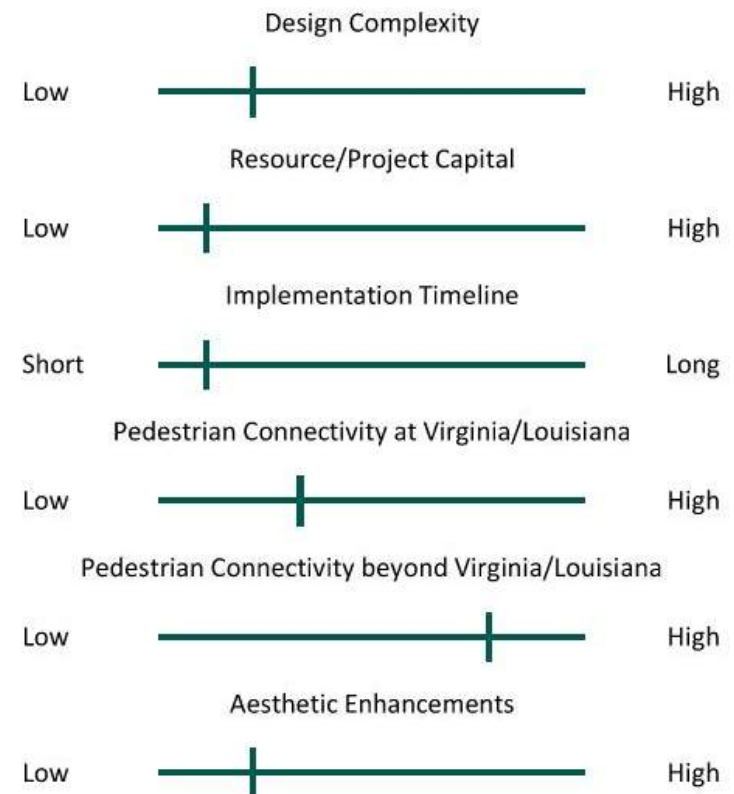
Technical Summary

- Structural:
 - None
- Traffic:
 - One-way to Two-Way Conversions
 - Virginia/Louisiana West of SH 5
- Drainage:
 - Minor At-Grade Improvements
- Property:
 - Up to 5 Parcels Impacted
- Project Cost Range*:
 - \$5M - \$7M

* Does not include cost for installation of park amenities/features

Conceptual Alternative #3 Enhanced Crossing At Grade

Conceptual Alternative Considerations

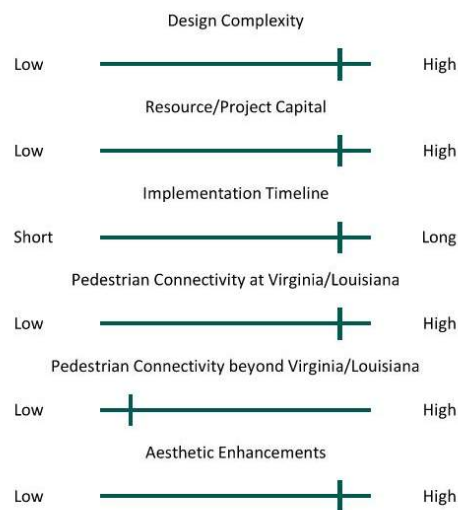


Conceptual Alternative Comparison

Conceptual Alternative #1



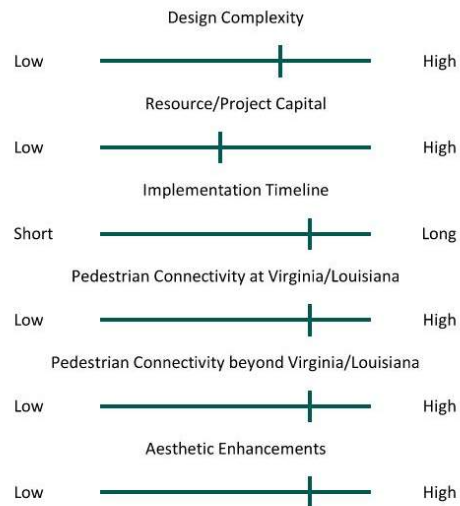
Deck Park



Conceptual Alternative #2



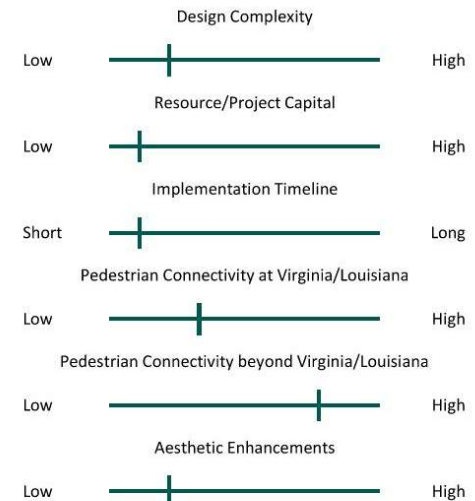
Inverted Deck Park



Conceptual Alternative #3



Enhanced At-Grade



Public Engagement Strategy

**Initial Public Engagement
Period**

Summer 2022

- Presentation of Viable Alternatives
- Open House Format with Presentation
- Opportunity for Public Comment (In-Person & Online)
- Response to Public Comment
- Additional Public Outreach Expected During Phase II



Next Steps and Discussion

- Summer 2022 – Phase I Public Engagement
- Late Summer 2022 – City Council Update & Phase II Direction
- Fall 2022 – Phase II Study Initiated





April 26, 2022

City Council Work Session

SH 5 Downtown Pedestrian Connection Feasibility Study Phase I Update

State Highway 5 / TxDOT

- SH 5 is currently on the TxDOT System (TxDOT Controlled/Maintained)
- SH 5 is current designated on the National Highway System (NHS)
- Request to remove SH 5 from TxDOT system would need to be from nearest southern system roadway (Harry McKillop / FM 546) to nearest northern system roadway (US 380)

Limits of Potential
Off-System
Request
(Harry McKillop/FM
546 to US 380)



Map of current TxDOT
System Roadways