Cotton Belt Corridor

Area Focus Group (AFG)

Carrollton/Addison

August 29, 2017

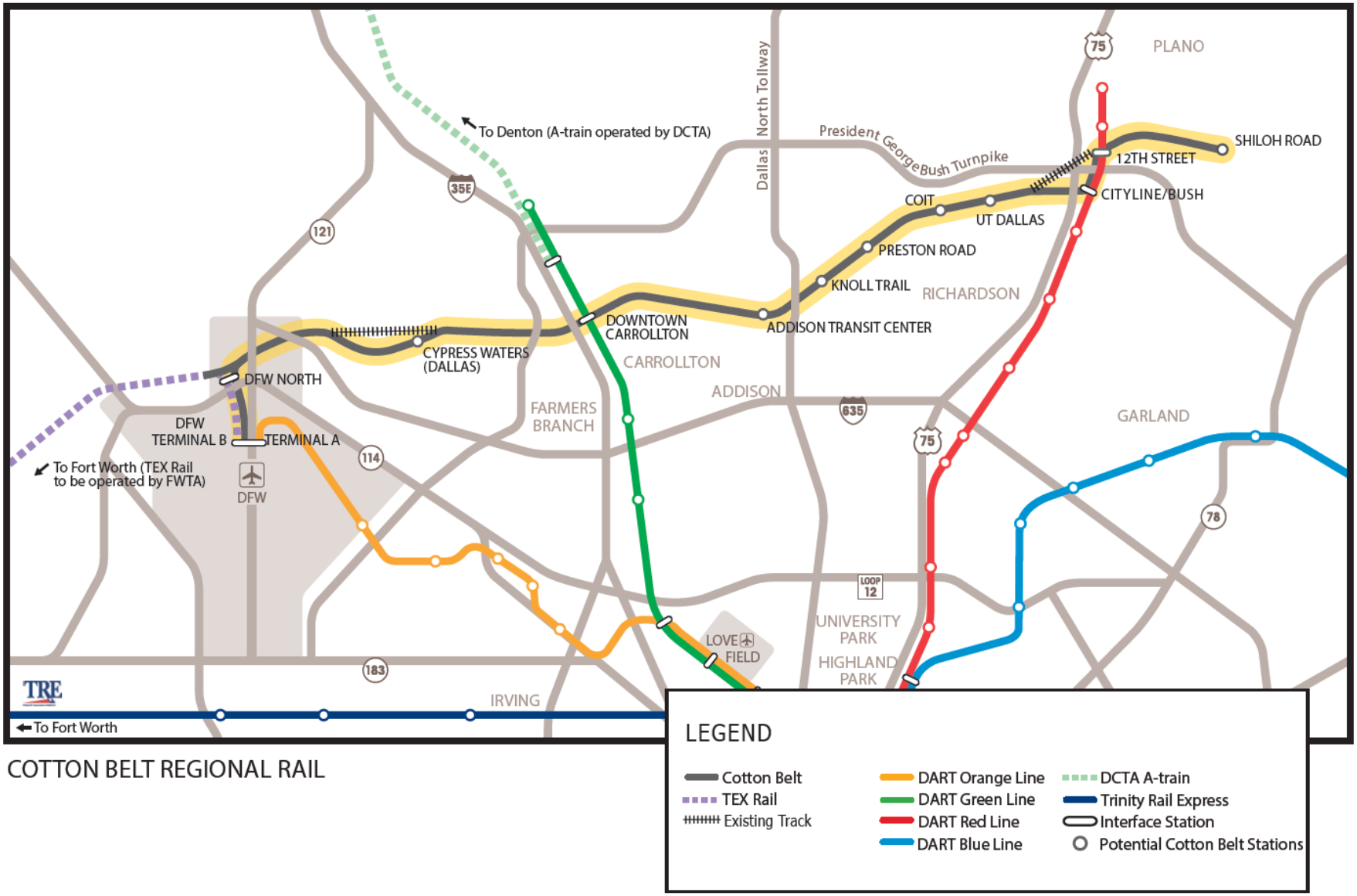
John Hoppie, Capital Planning

DART let's go.

Agenda

- Design Update
  - Alignment/Cross-section/Stations/Facilities
- Environmental Update
  - Documentation of Existing Conditions
- Traffic Update
- Arapaho Bridge
- Ridership
- Community Integration
- Community Open Houses

DART let's go.



COTTON BELT REGIONAL RAIL

DART let's go.

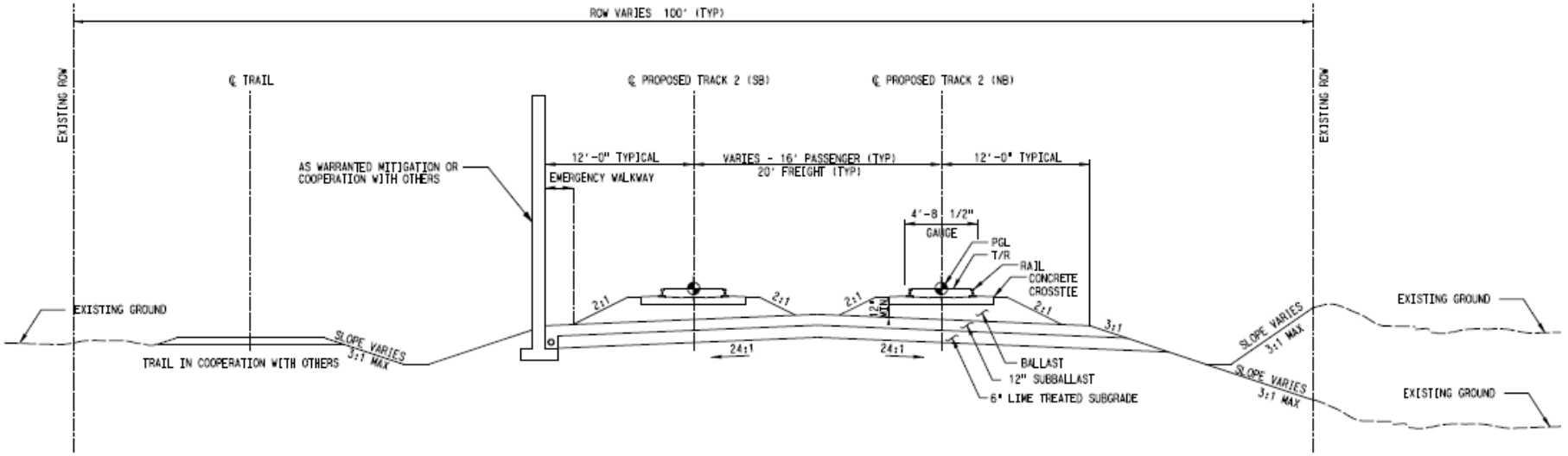
Design Update: Engineering

Revised Drawings: (Double Track Scenario)

- Horizontal alignment
- Vertical alignment
- Typical sections
- Downtown Carrollton

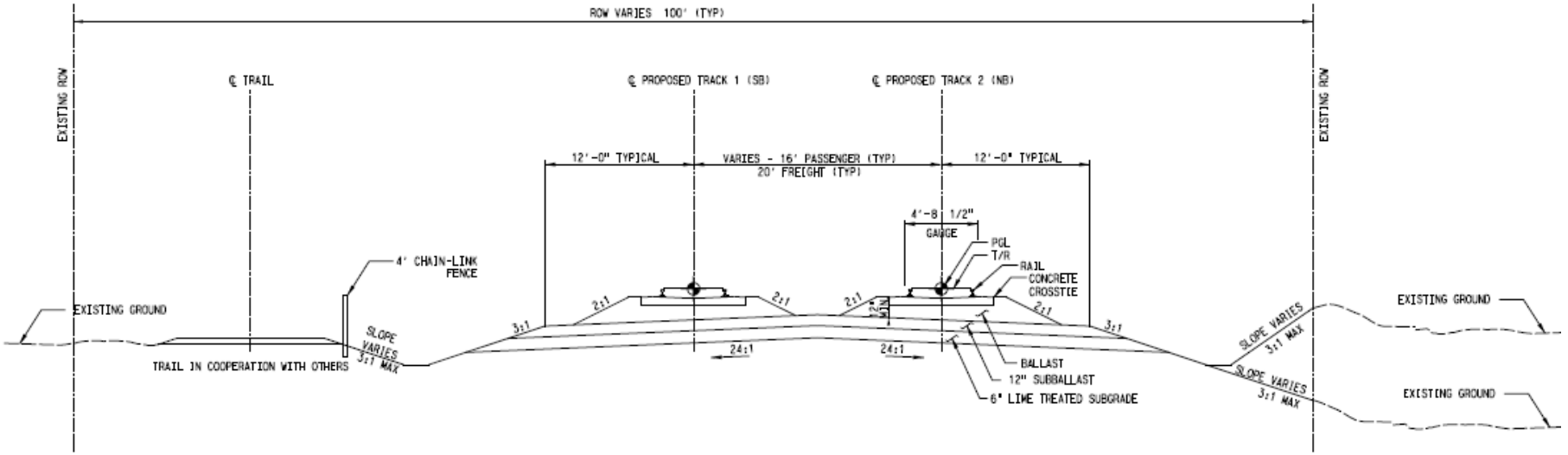
Facilities

- Mercer Yard
- Equipment Maintenance Facility



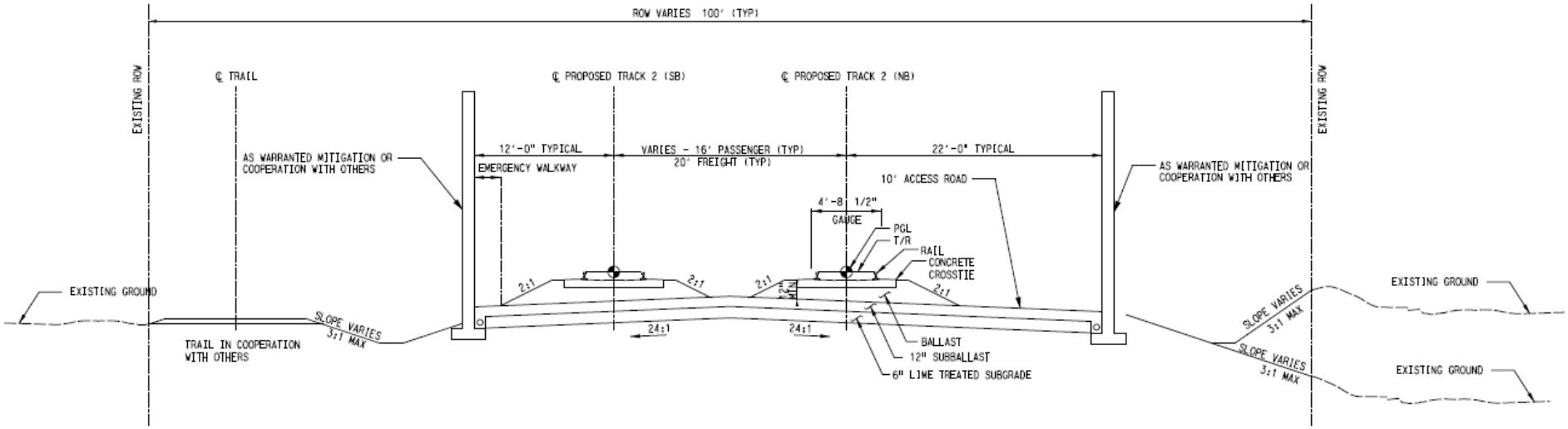
DOUBLE TRACK AT-GRADE #2

NTS



DOUBLE TRACK AT-GRADE #1

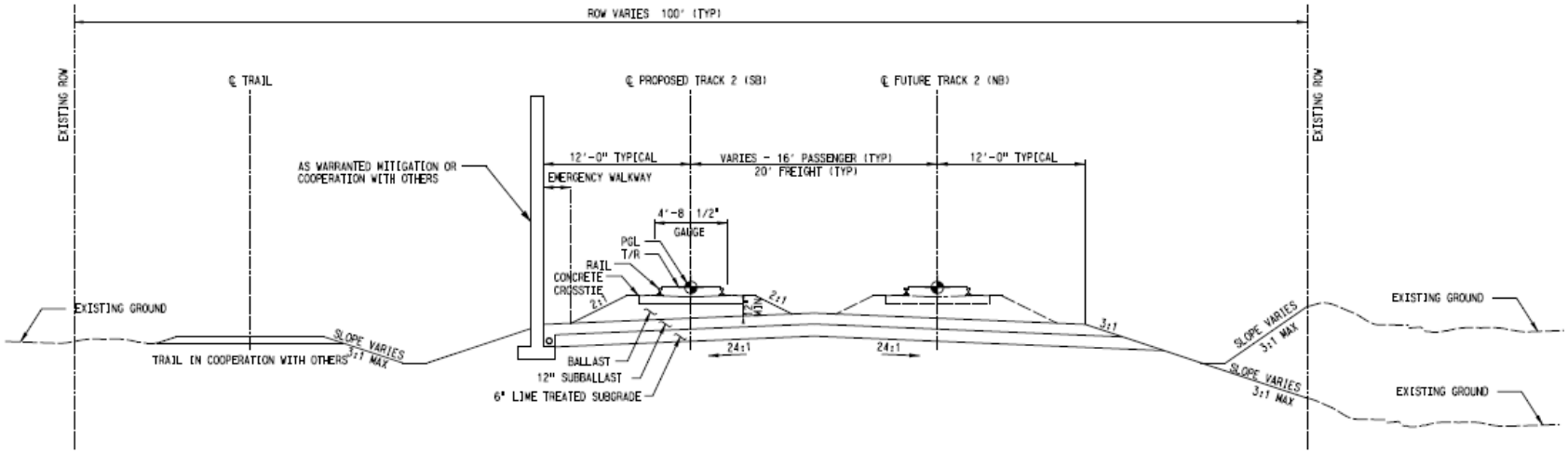
NTS



DOUBLE TRACK AT-GRADE #3

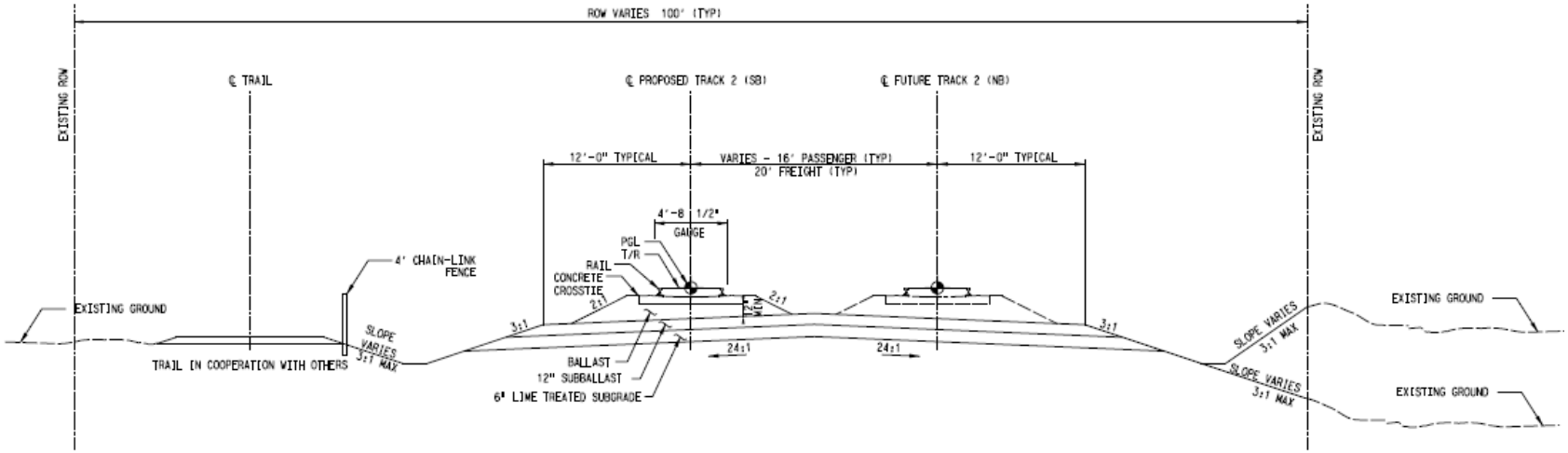
NTS

DART let's go.



INITIAL BUILD AT-GRADE #2

NTS

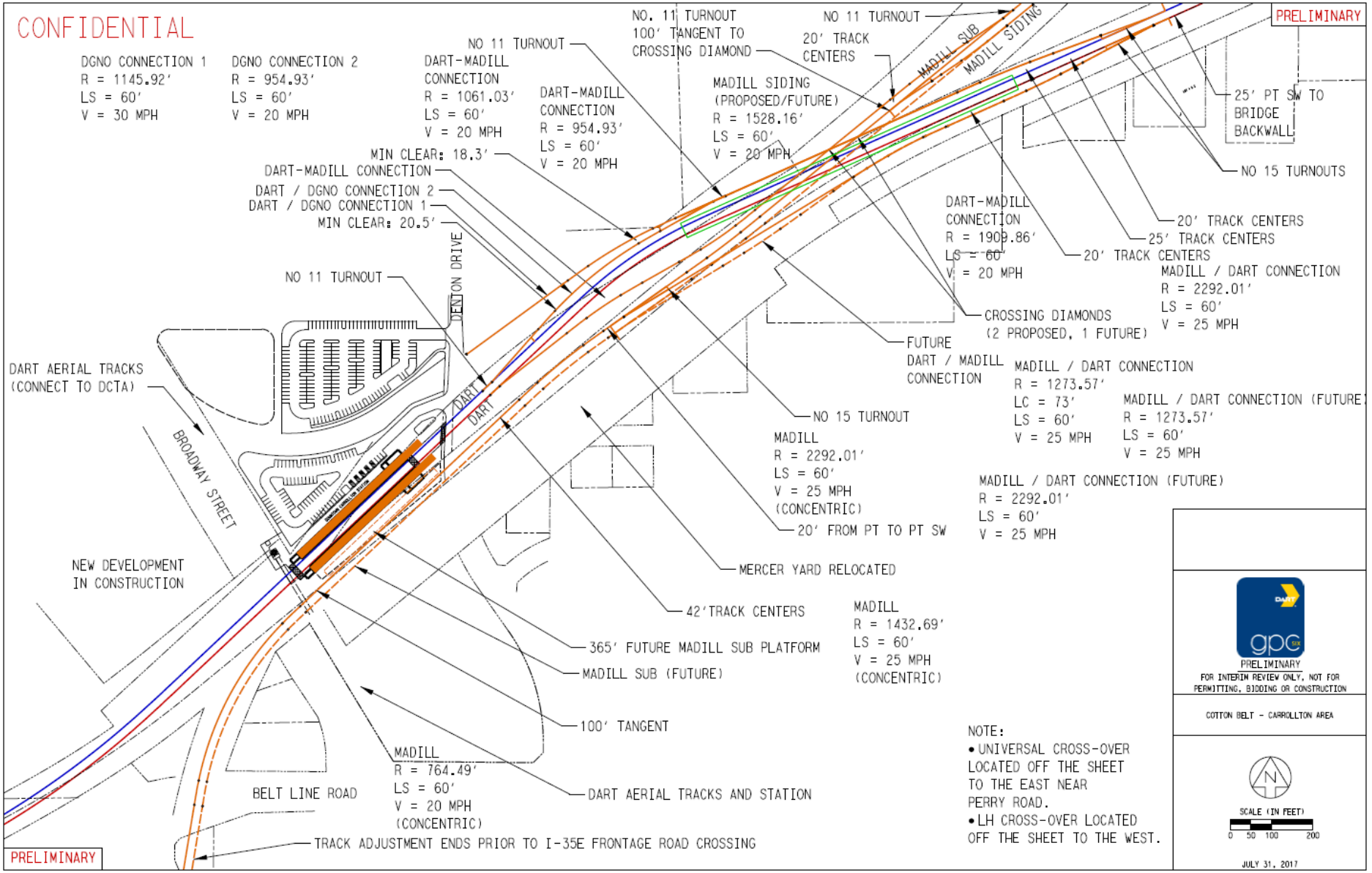


INITIAL BUILD AT-GRADE #1

NTS

DART let's go.

Downtown Carrollton

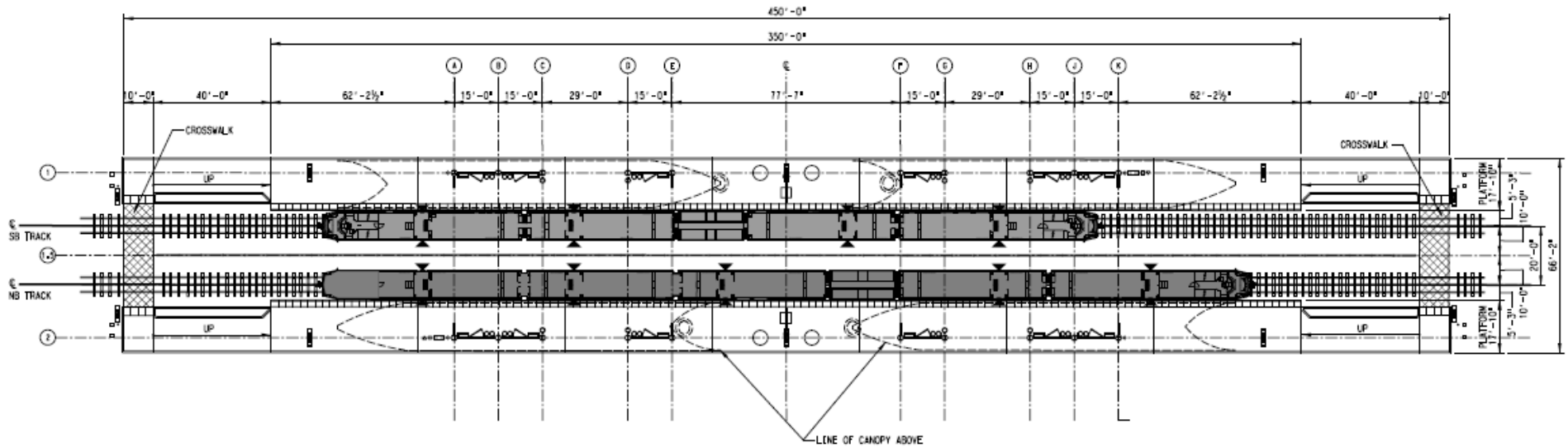


Design Update: Stations

Revised Station Location and Length (350-foot)

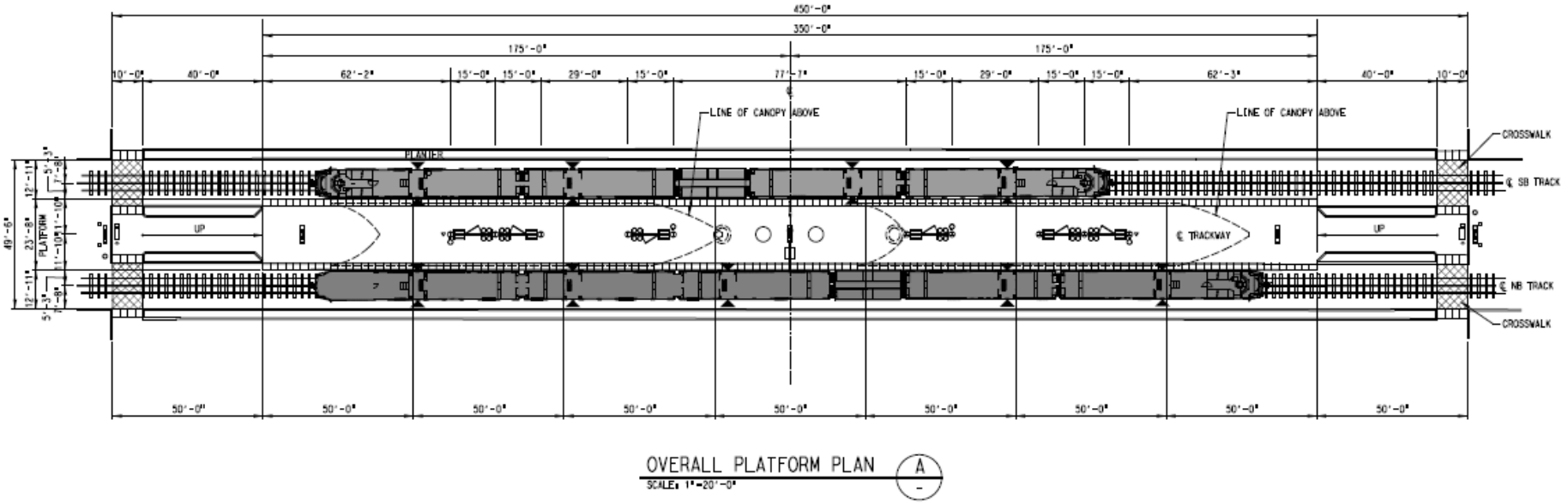
- Side Platform Concept
- Center Platform Concept
- Conceptual Architectural Rendering
- Station Plan Views

Design Update: Stations



OVERALL PLATFORM PLAN (A)
SCALE: 1"=20'

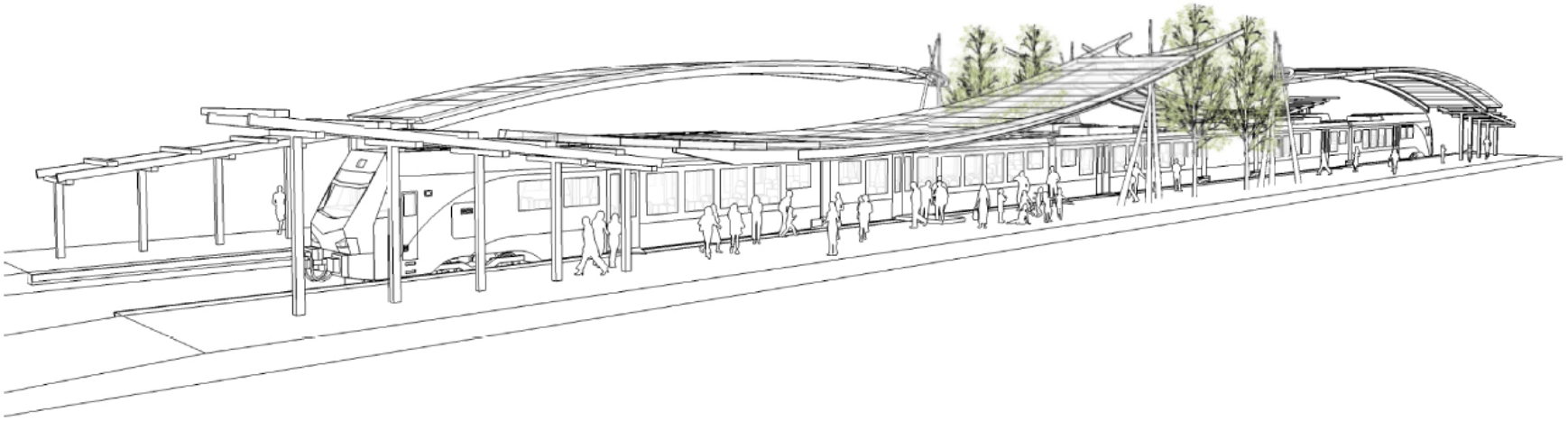
Design Update: Stations



OVERALL PLATFORM PLAN (A)

SCALE: 1"=20'-0"

Design Update: Stations



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Focus Area Stations

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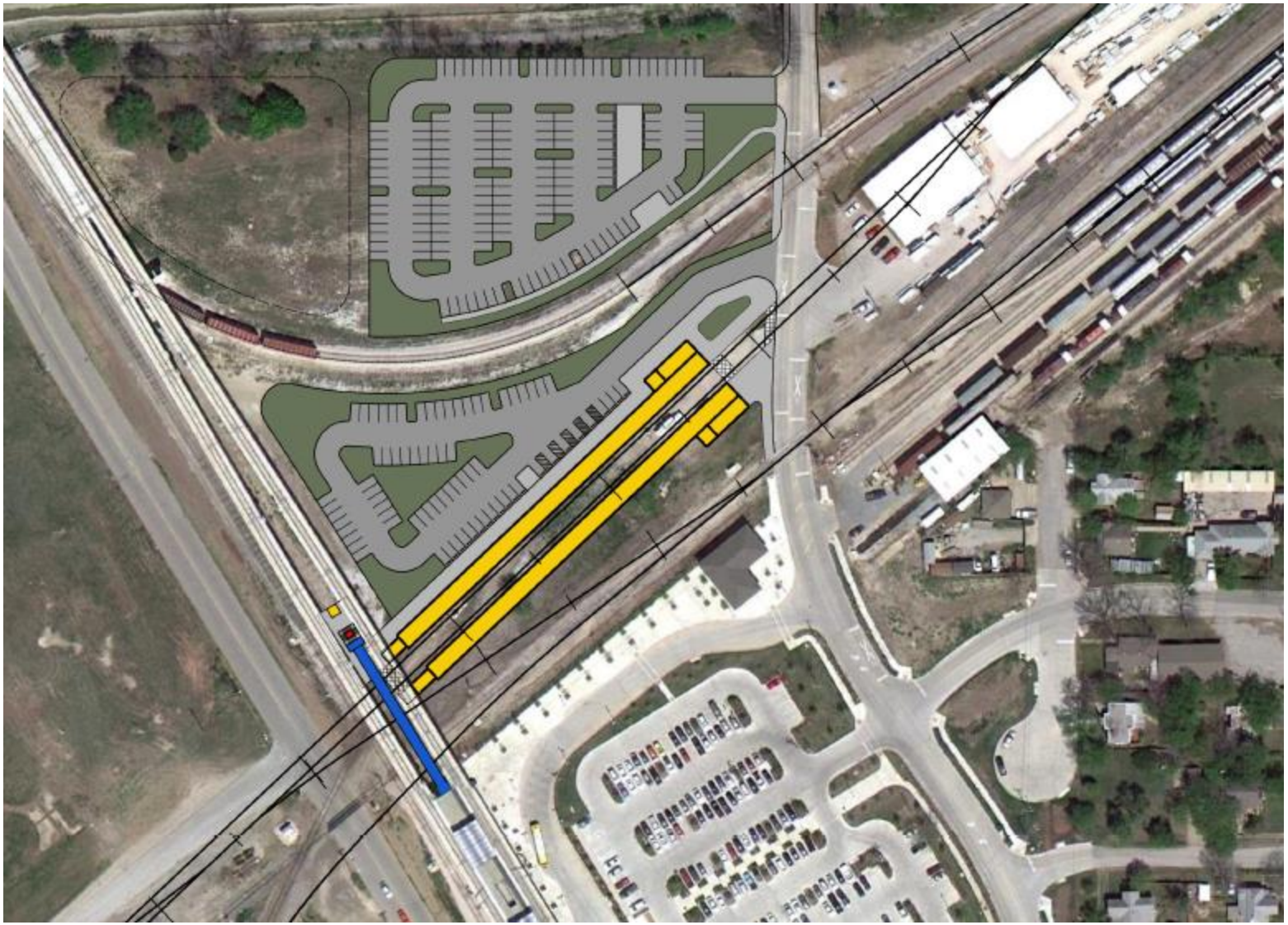
Downtown Carrollton Station



DART let's go.

Addison Station

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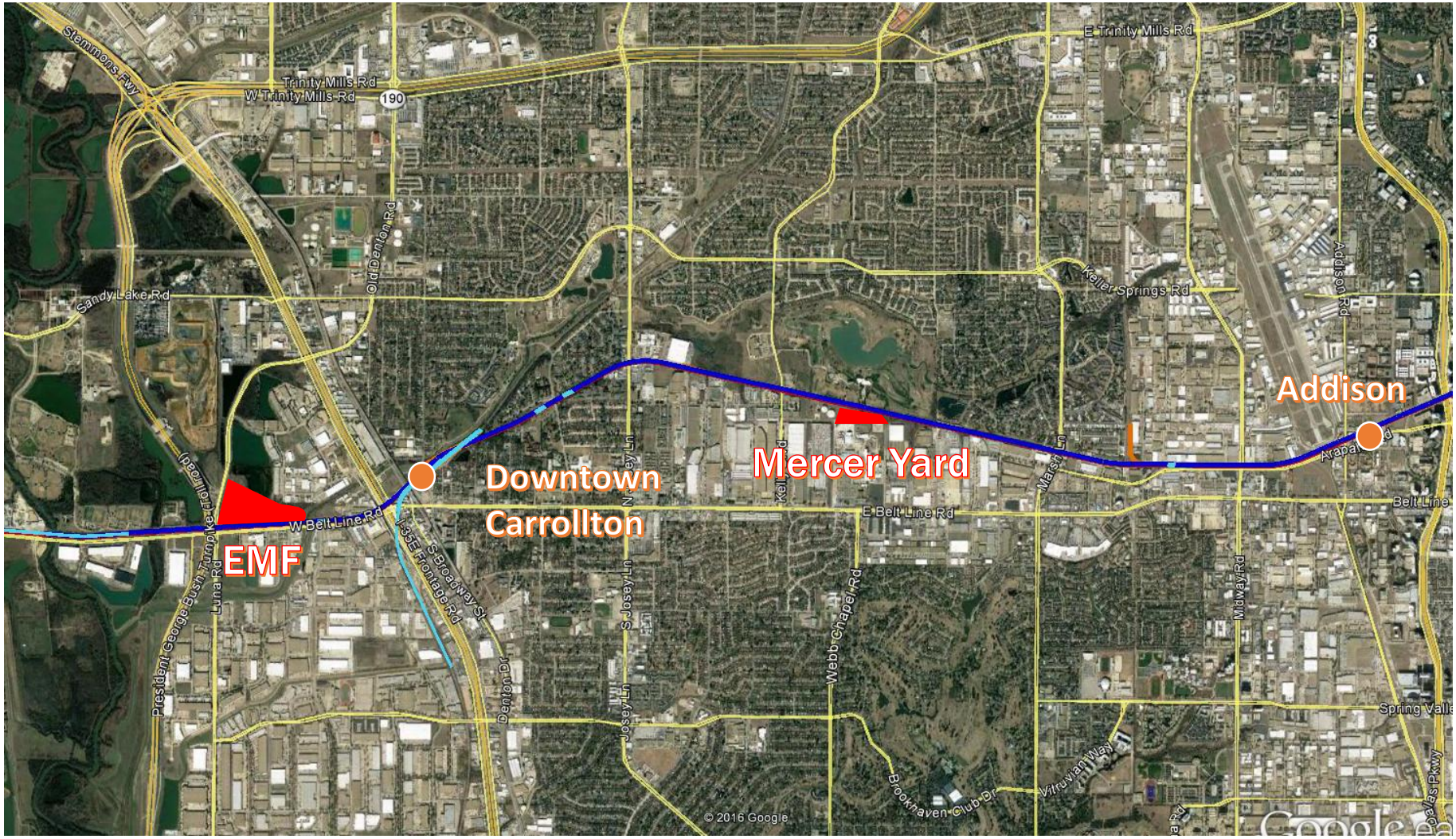
Cotton Belt Facilities



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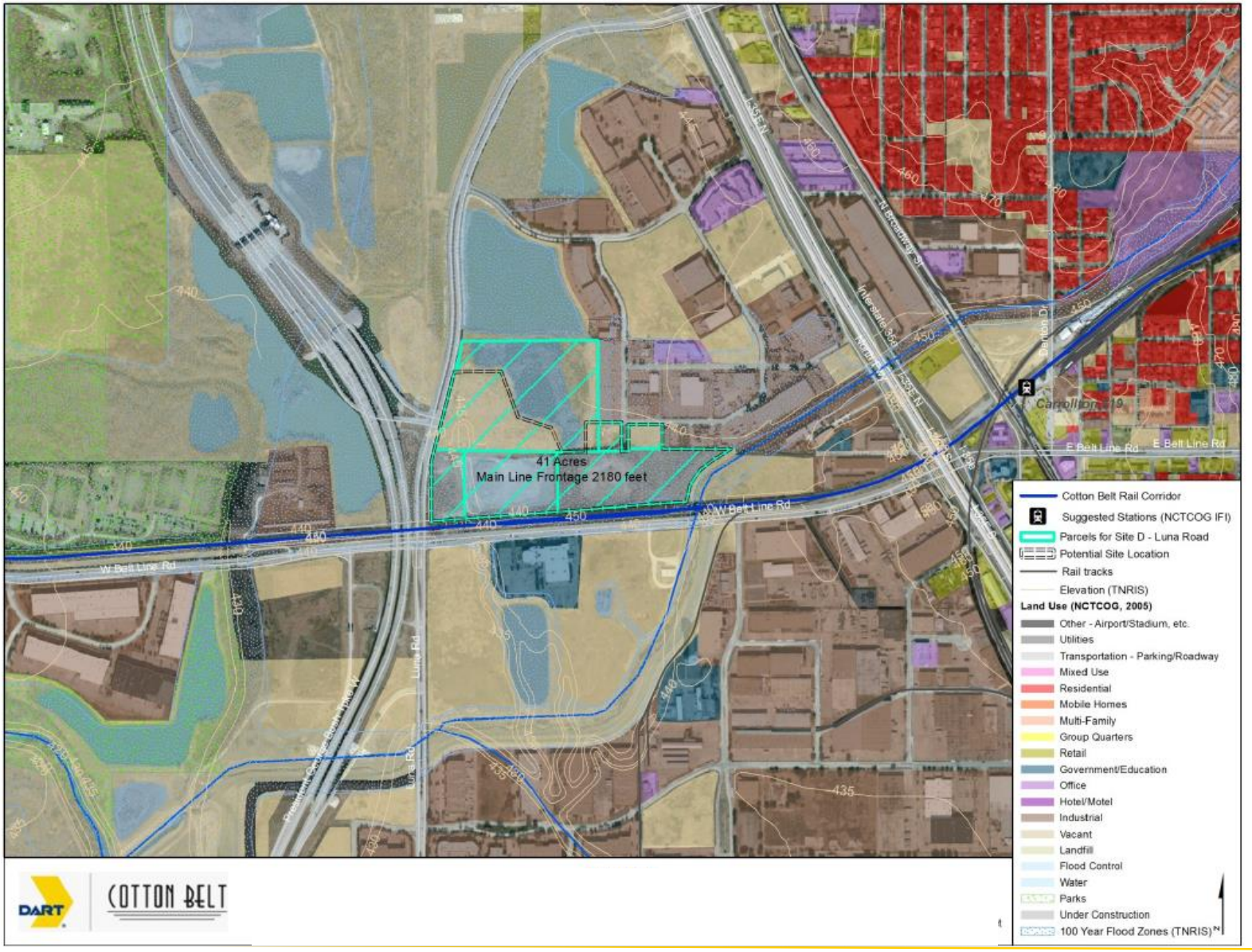
Equipment Maintenance Facility (EMF)



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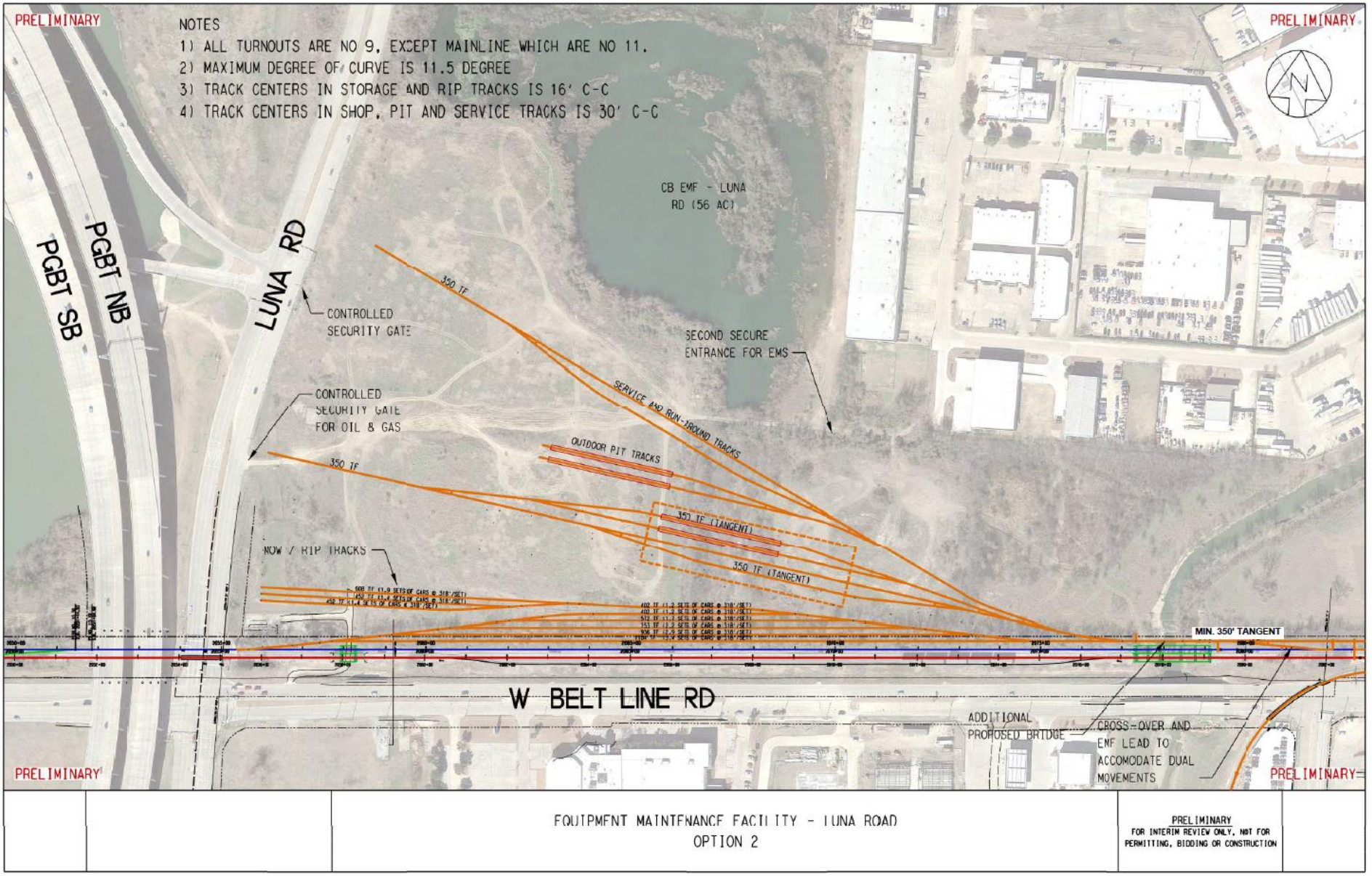
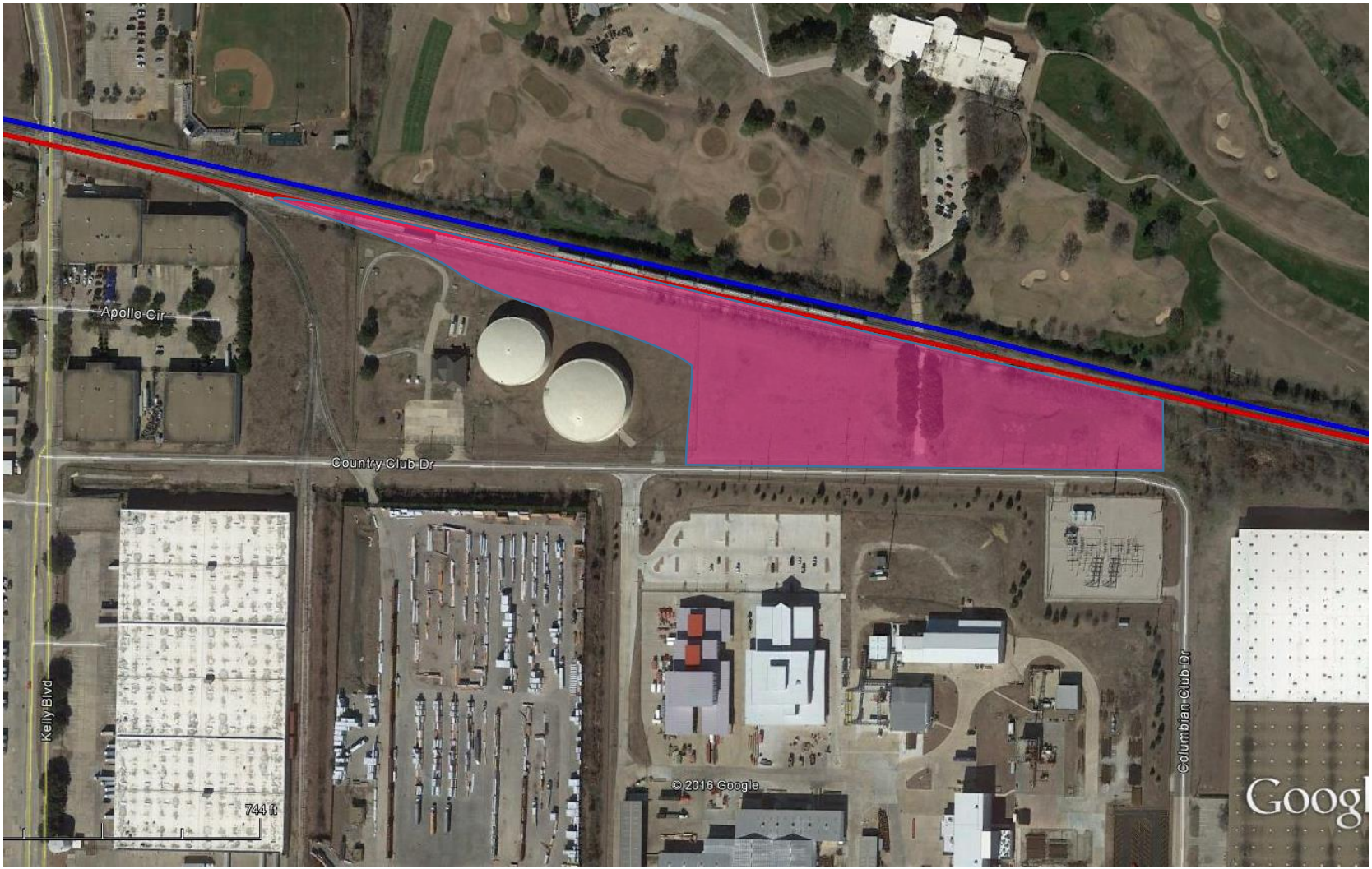
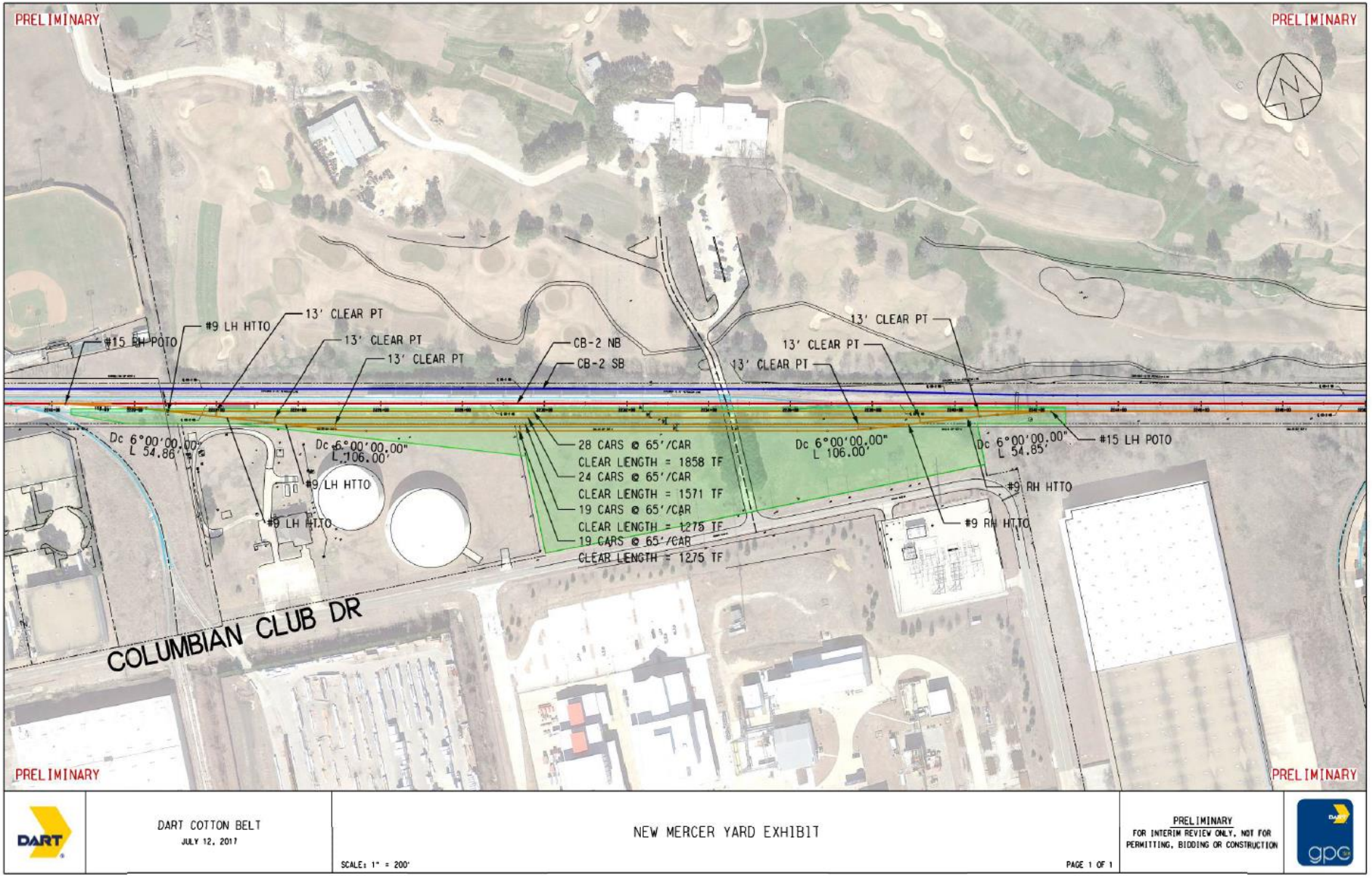


Relocated Mercer Yard



DART let's go.

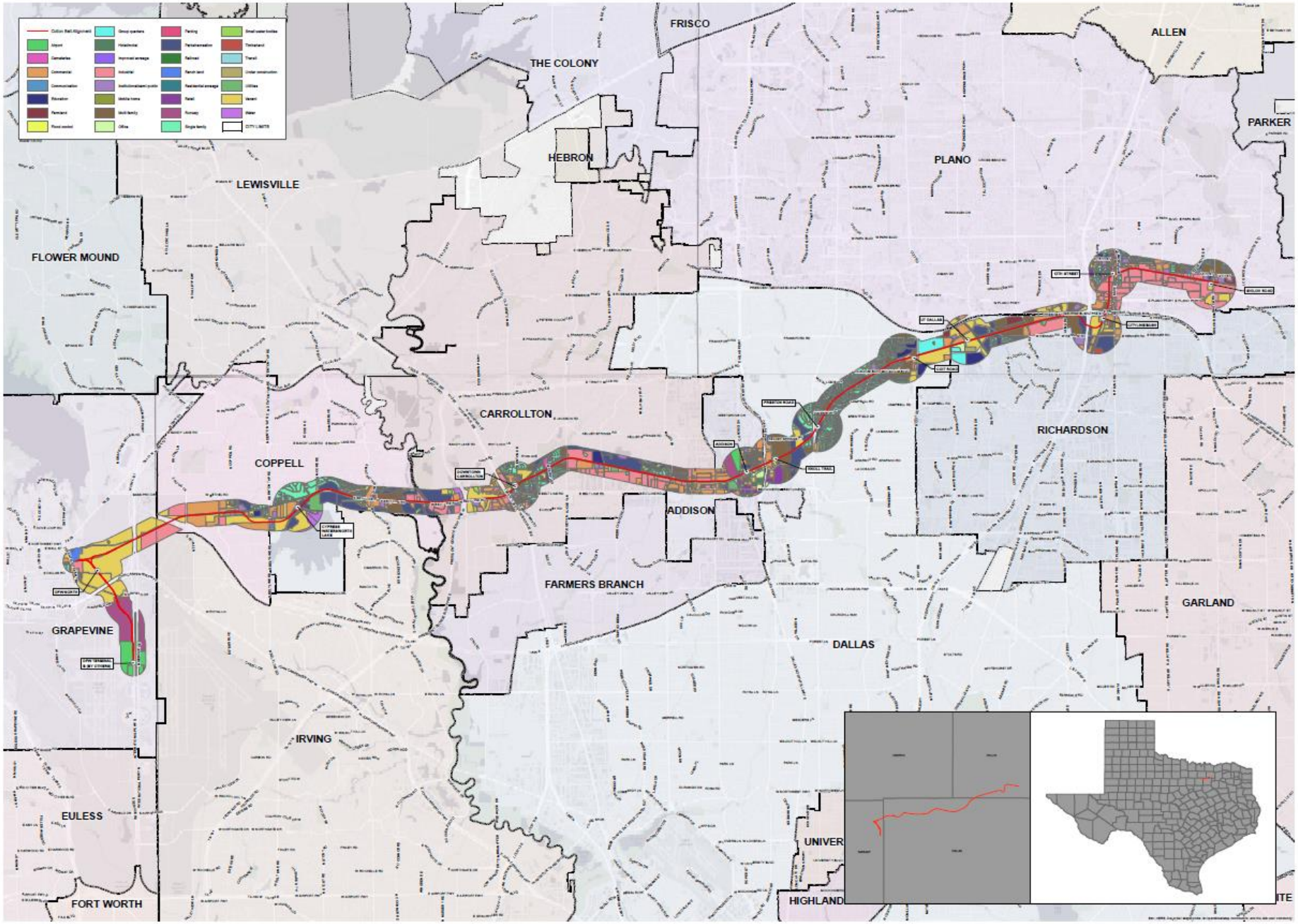
Relocated Mercer Yard



Environmental Update

Documentation of Existing Conditions

- Land Use
- Parks and Recreation
- Vegetation and Waters Resources
- Historic Resources

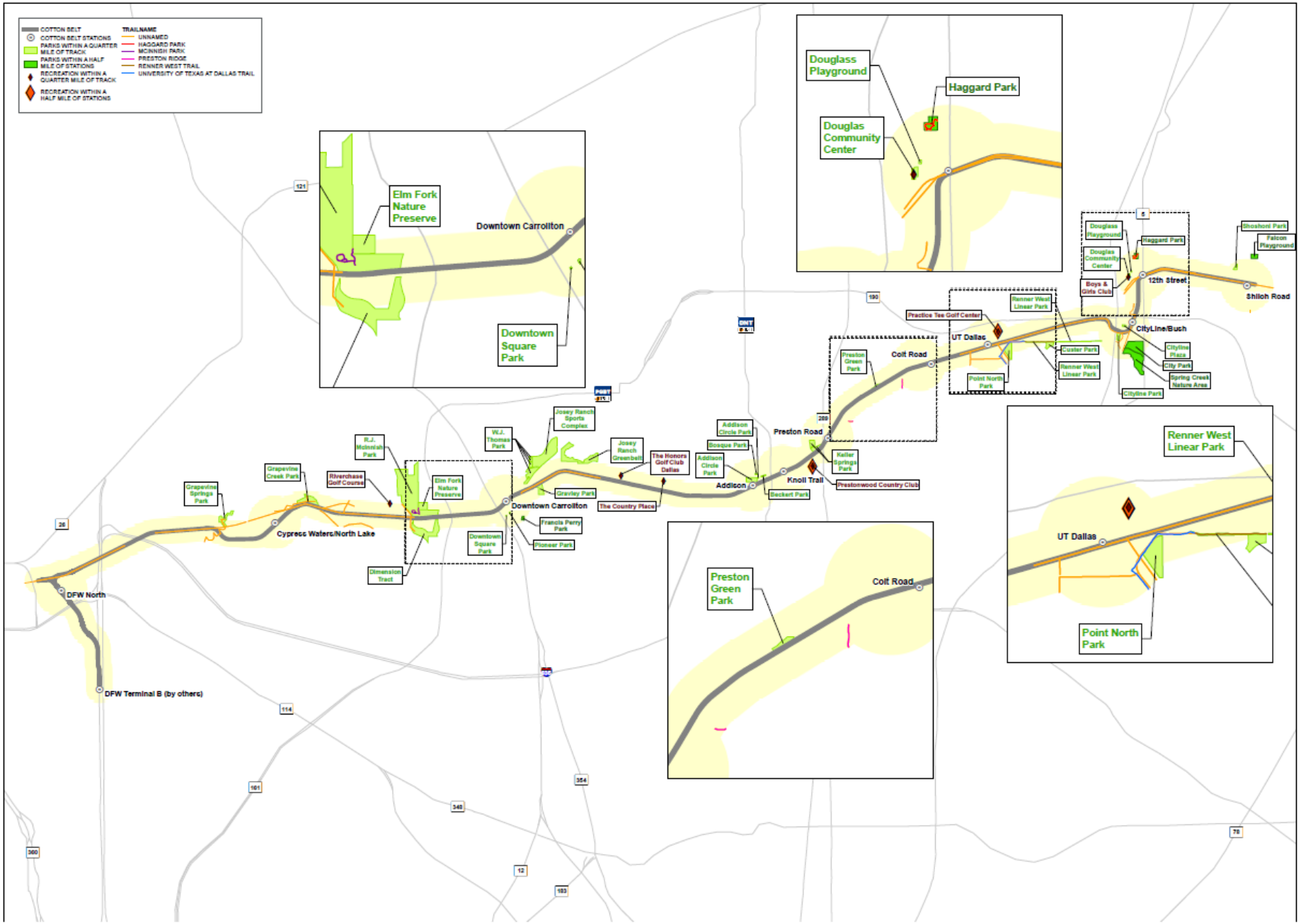


DART

COTTON BELT

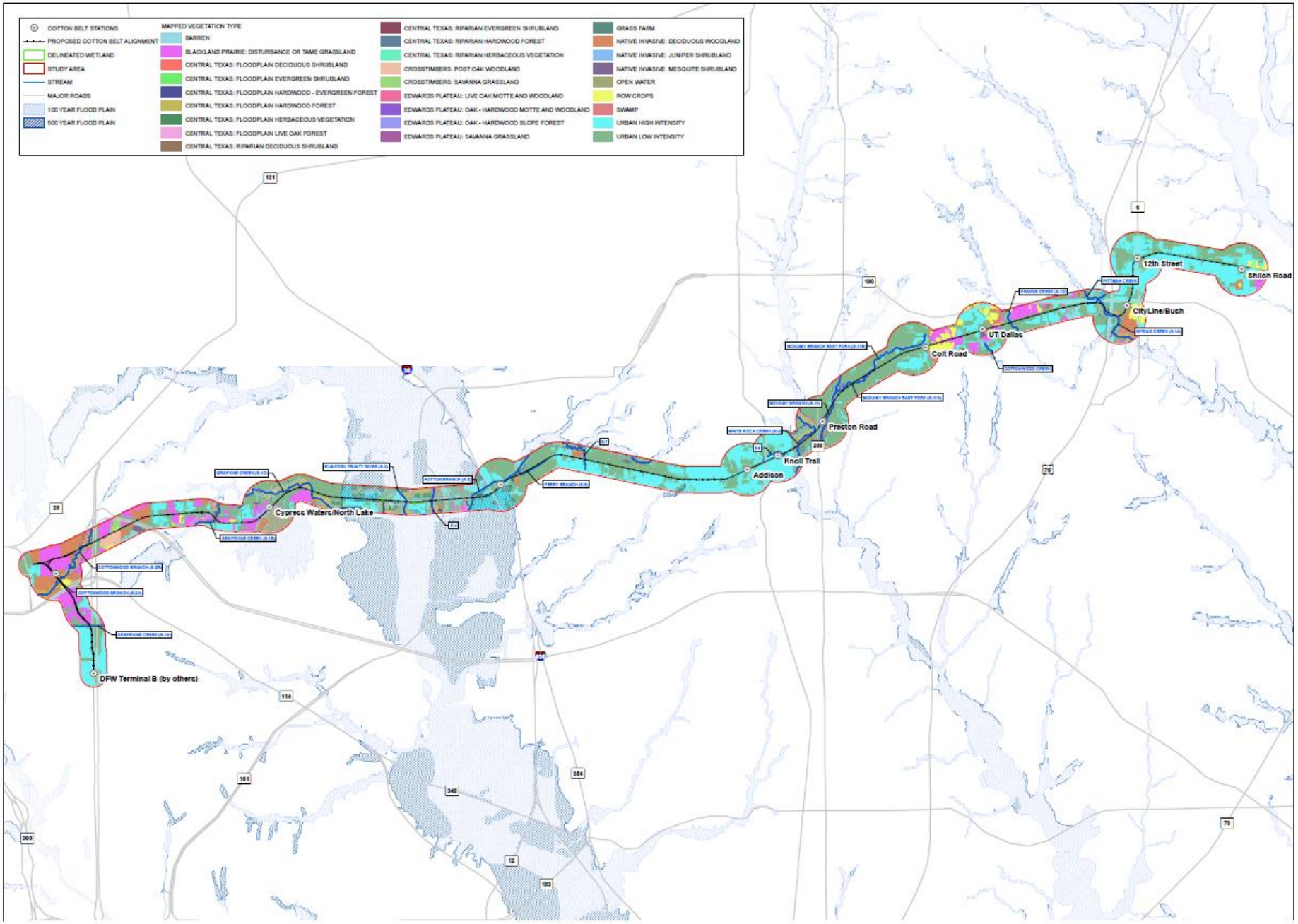
DART Cotton Belt
Land Use

Source: North Central Texas Council of Governments, 2015



DART Cotton Belt
Parks and Recreation

Source: North Central Texas Council of Governments, 2015



DART

COTTON BELT

DART Cotton Belt

Vegetation Types and Water Resources

Source: FEMA 2017, TPWD 1984, HDR 2017

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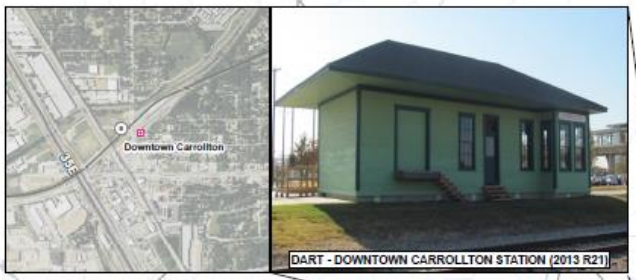
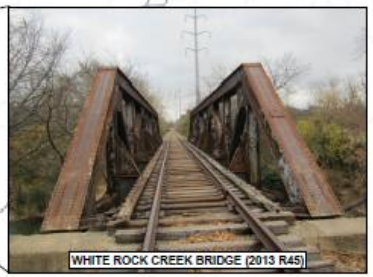
COTTON BELT
COTTON BELT STOPS
HISTORIC RESOURCE SITE



12th Street
Shiloh Road
CityLine/Bush
UT Dallas
Colt Road
Preston Road
Addison
Knoll Trail
Downtown Carrollton
Cypress Waters/North Lake
DFW North
DFW Terminal B (by others)



DART
COTTON BELT

DART Cotton Belt
Historic Resources Sites
Source: North Central Texas Council of Governments, 2015

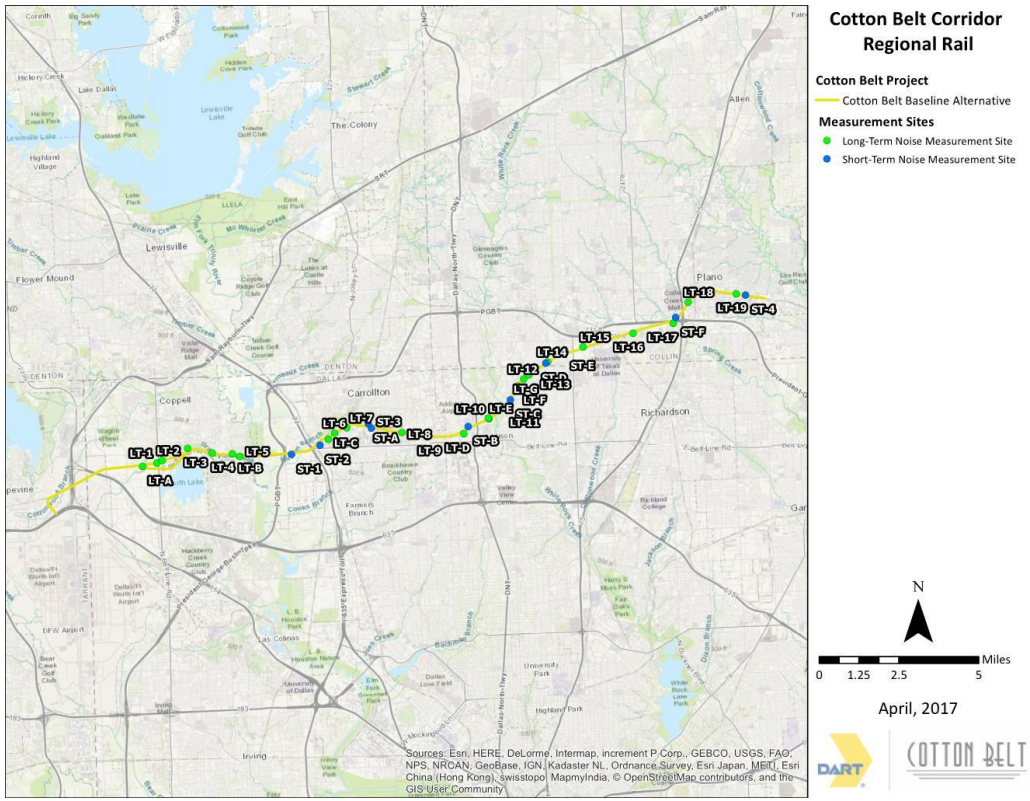
N

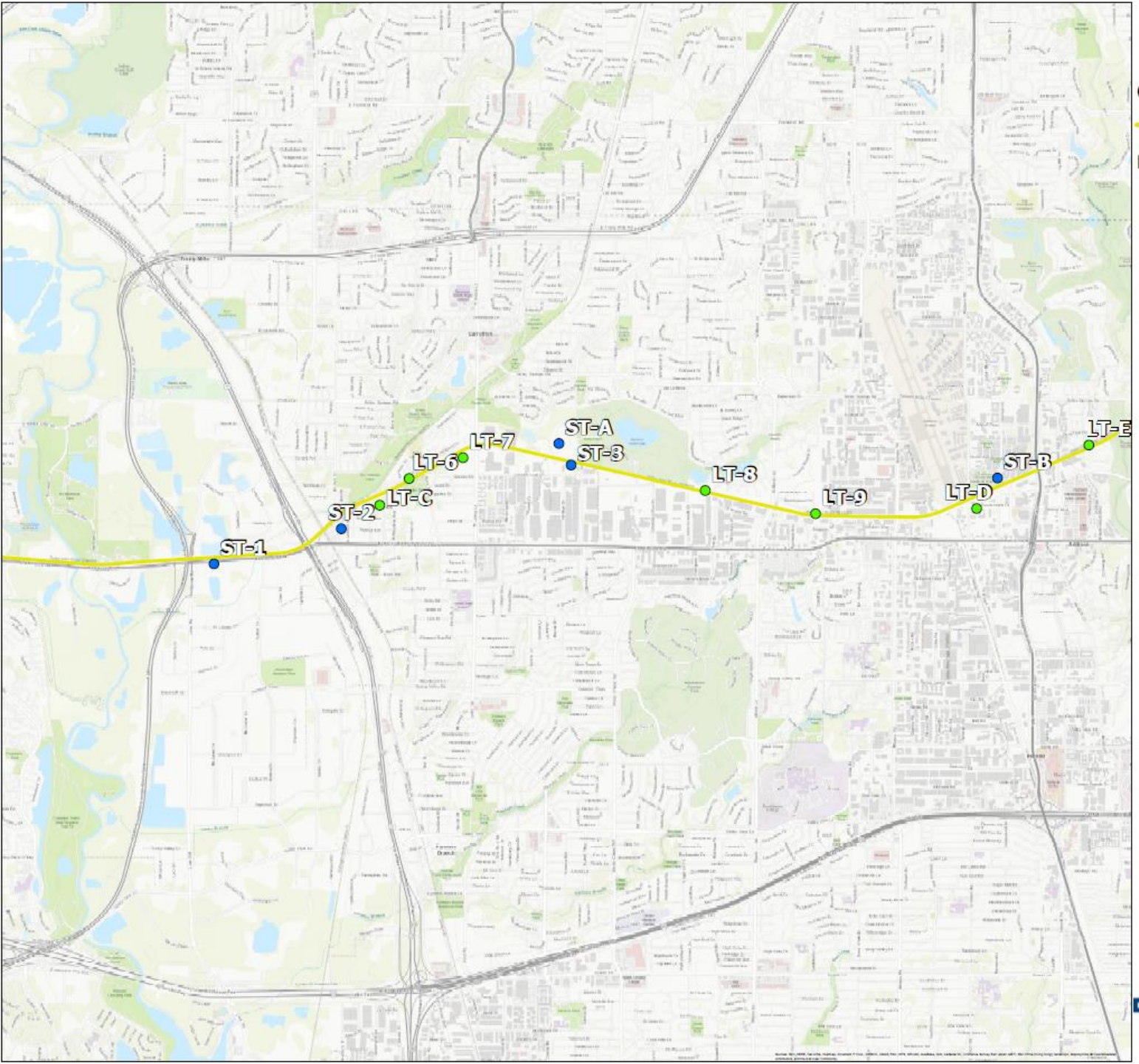
Noise Methodology

A noise monitoring program has been initiated to characterize the existing noise conditions at representative noise-sensitive receptors along the Cotton Belt Corridor.

- Noise Monitors* were installed at 27 locations to collect long-term (24- hour) noise measurements along the corridor.
- Noise Monitors* were installed at 11 locations to measure short-term noise (1 hour).

*Noise Monitors were NTi Audio model XL2 that conform to American National Standards Institute (ANSI) Standard S1.4 for Type 1 (Precision) sound level meters





Cotton Belt Corridor Regional Rail

Cotton Belt Project

Cotton Belt Baseline Alternative

Measurement Sites

Long Term Noise Measurements

Short Term Noise Measurements

Site No.	Noise Levels* (dBA)		
	2017 (measured)	2017 (w/o train noise)	2010**
LT-6	60	57	62
LT-7	60	60	59
LT-8	59	59	57
LT-9	57	57	55
LT-10	56	56	54
LT-C	56	56	--
LT-D	61	61	--
ST-1	66	66	64
ST-2	61	59	61
ST-3	56	56	55
ST-A	54	54	--
ST-B	60	60	--

*Noise levels at Long-Term (LT) measurement sites represent Ldn values. Noise levels at Short-Term (ST) measurement sites represent one-hour Leq values.

** Measurement results obtained in December 2010 at the same or nearby location for a previous study

N

Miles

0 0.5 1 2

April, 2017

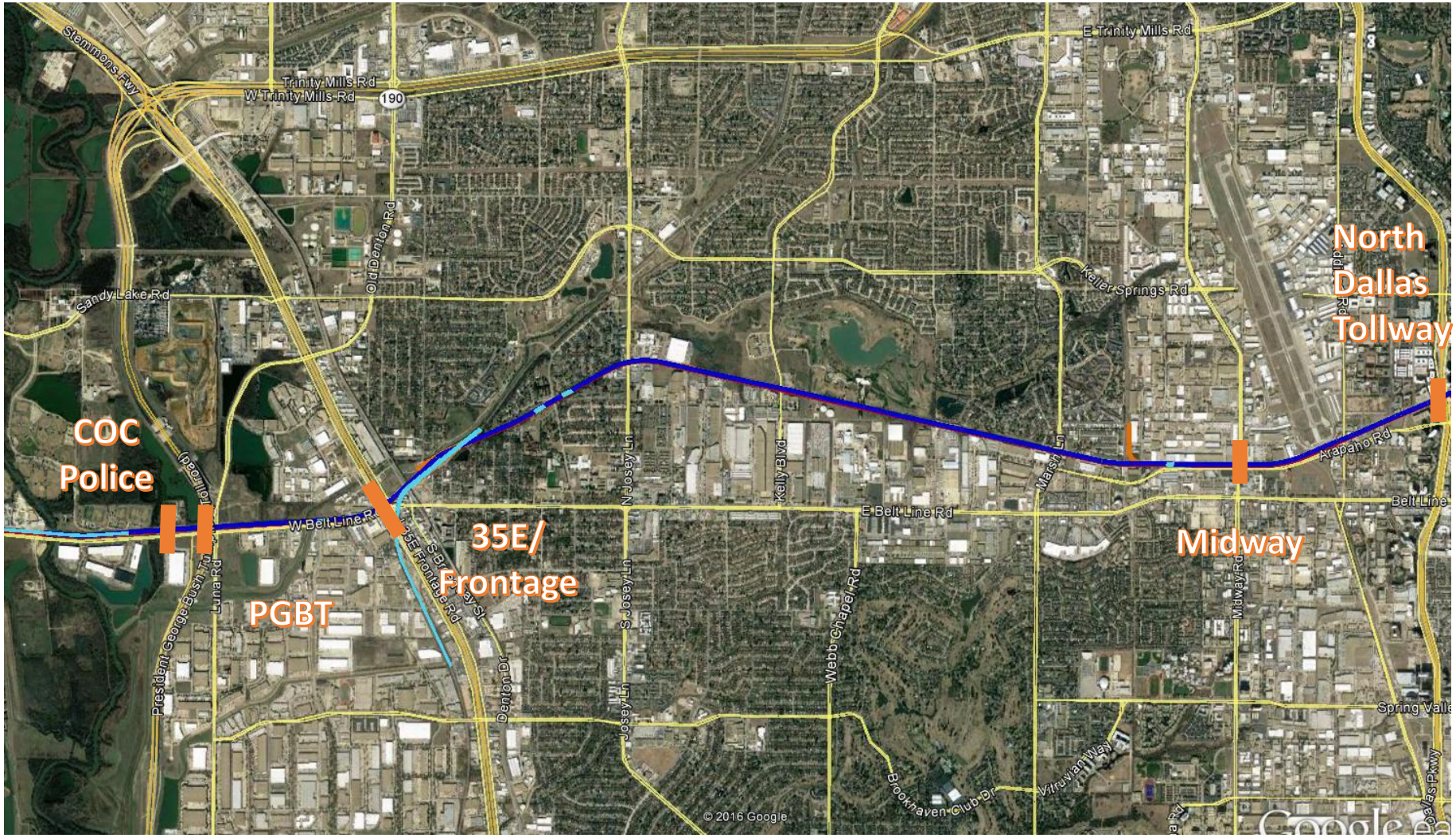
DART

COTTON BELT

Noise - Next Phase

- Assessment
- Identification of Impacts (Per FTA Criteria)
- Recommend Mitigation
- Generally Quiet Zones will be recommend along the most of the corridor

2010 Proposed Grade Separations



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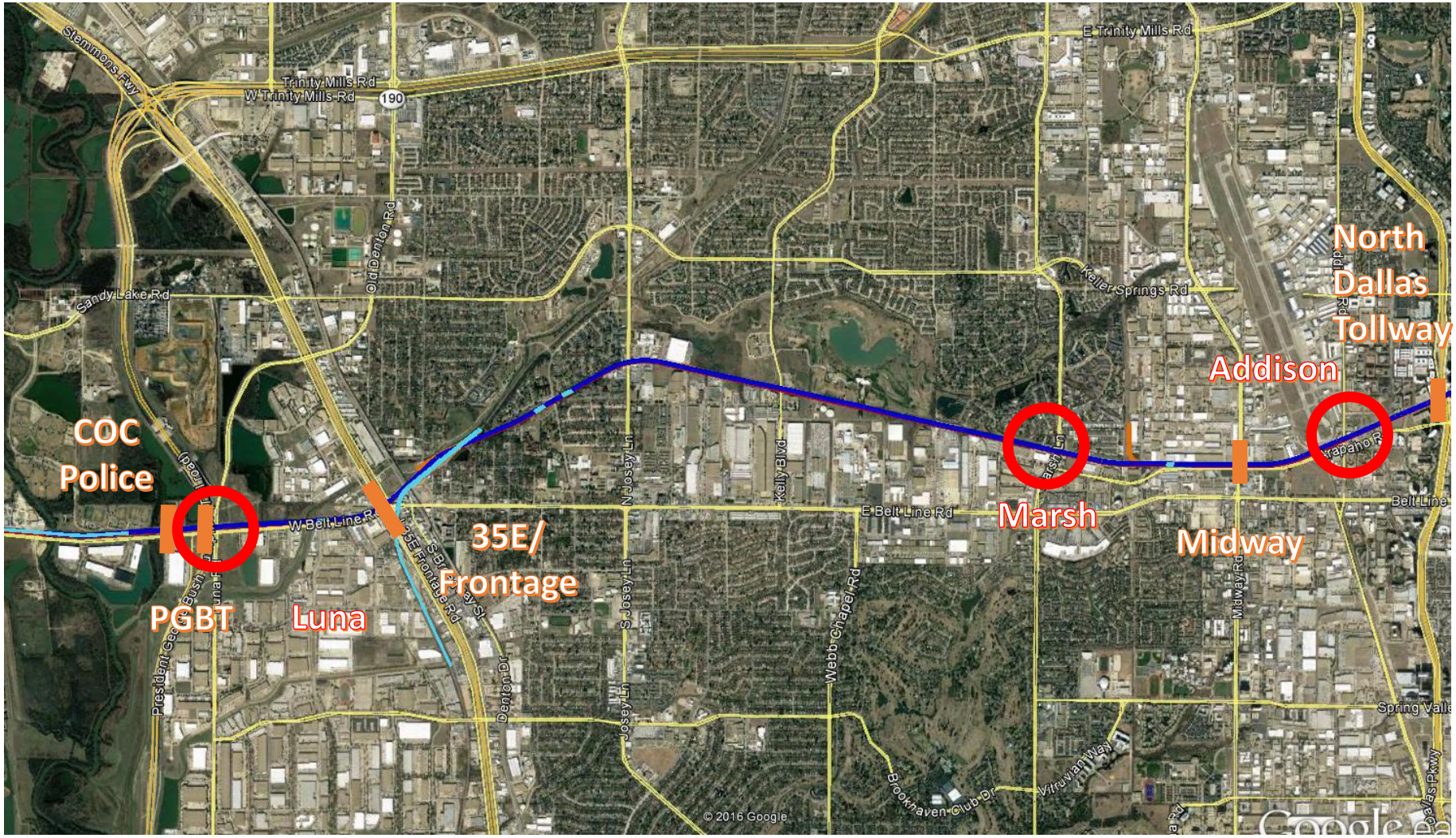
2017 Crossings Requiring Mitigation



DART let's go.

Traffic Update

STREET CROSSING LOCATION (Carrollton/Addison AFG)	CITY	ANALYSIS RESULTS	MITIGATION REQUIRED *
Addison Road	Addison	The northbound queue length extends beyond Arapaho Road during the pm peak hour and the southbound queue length extends beyond Lindbergh Road during the am peak hour. **Aeronautical and physical constraints to grade separation.**	**Yes**
Midway Road	Addison	Analysis reconfirms need for grade separation of Midway Road..	**Yes**
Marsh Lane	Addison	The northbound queue length extends beyond Arapaho Road during the pm peak hour and the southbound queue length extends beyond Country Square Drive during the am peak hour.	**Yes**
Luna Road	Carrollton	The northbound queue length extends beyond the PGB Turnpike Exit Ramp intersection during the evening peak hour and the southbound queue length extends beyond the PGB Turnpike Exit/Entrance Ramps intersection during the morning peak hour. **Physical constraints to grade separation.**	**Yes**

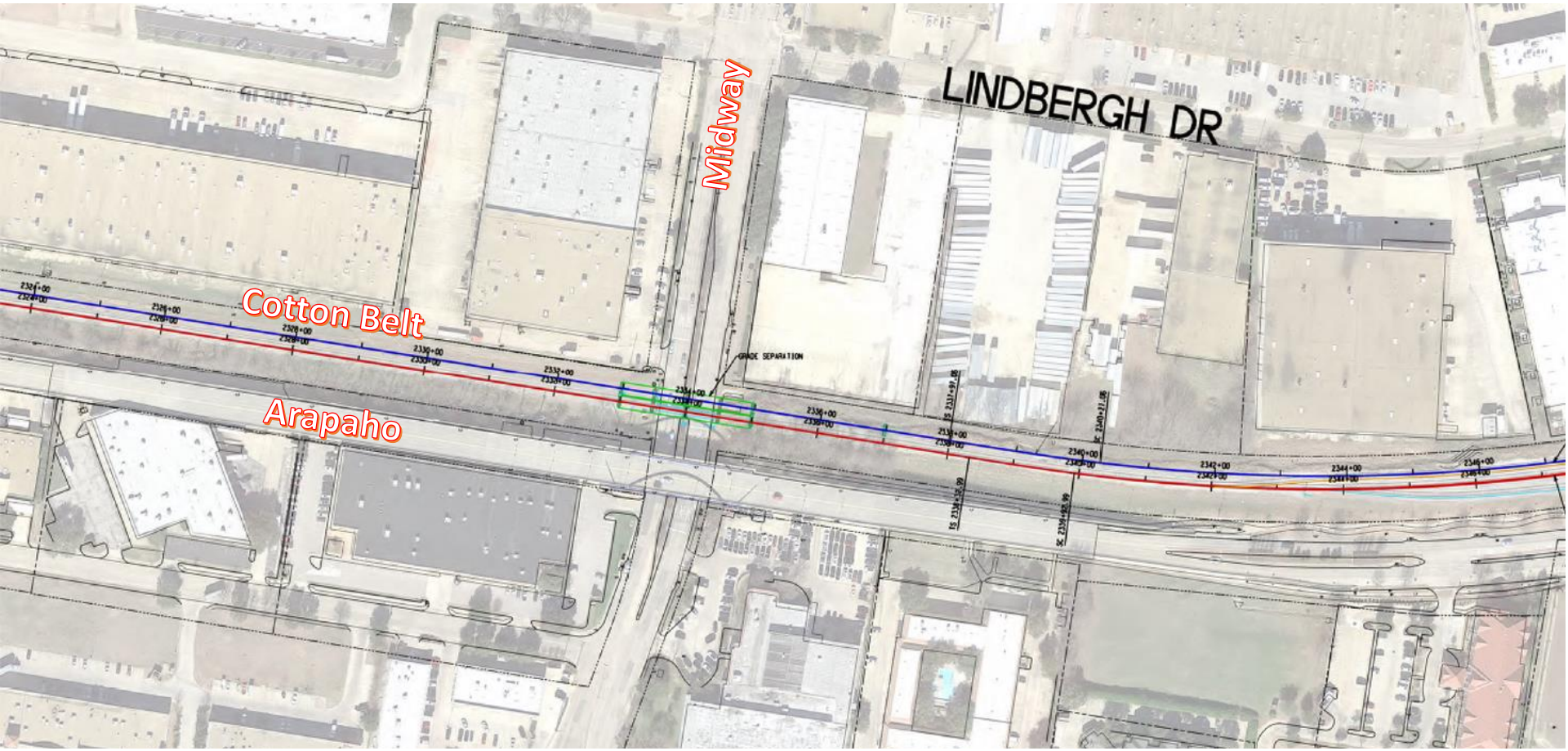
*Mitigations could include: Signal synchronization, intersection improvements adding capacity, or grade separation

DART let's go.

Midway Grade Separation

DART let's go.

Midway Grade Separation



DART let's go.

Arapaho Bridge

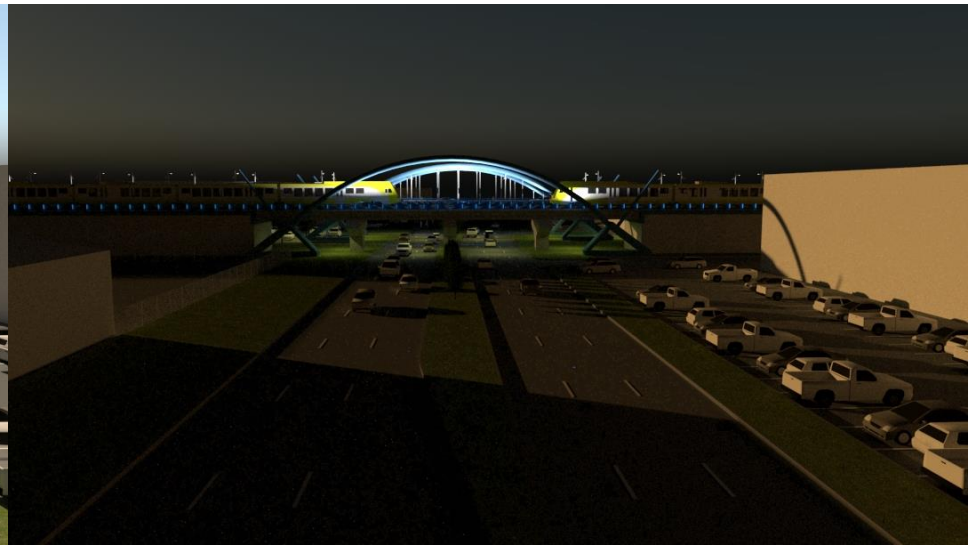
DART let's go.

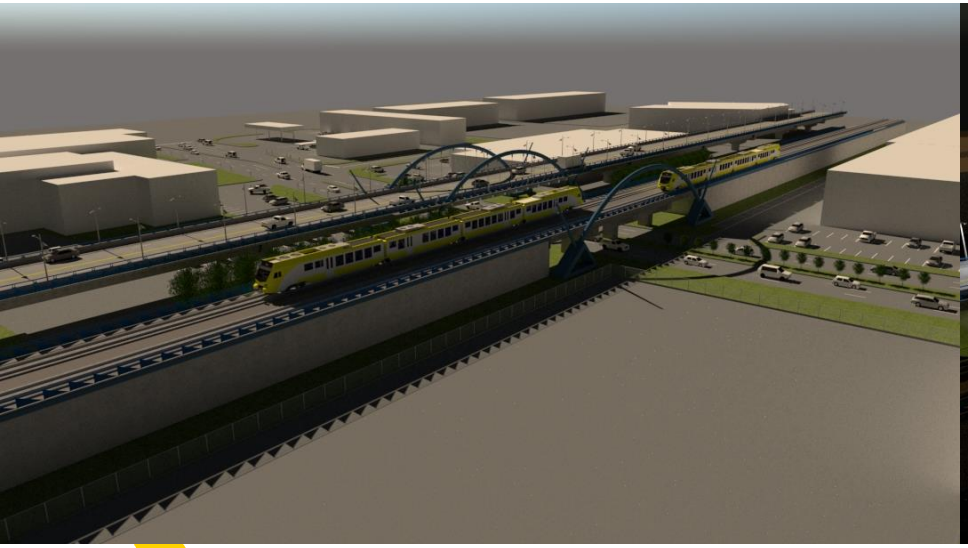
Cotton Belt Bridge (No Arch)

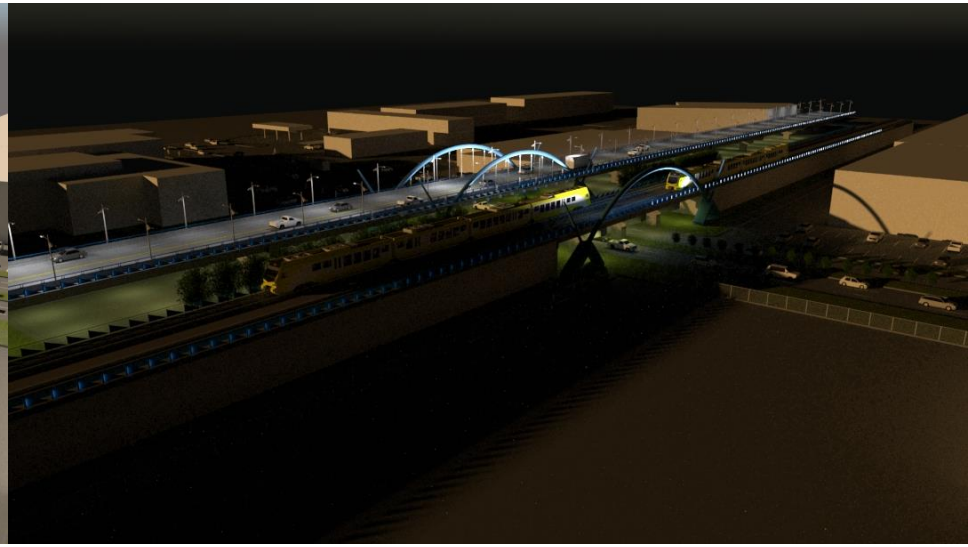
DART let's go.

Cotton Belt Bridge (Arch)

Cotton Belt Bridge (Arch)

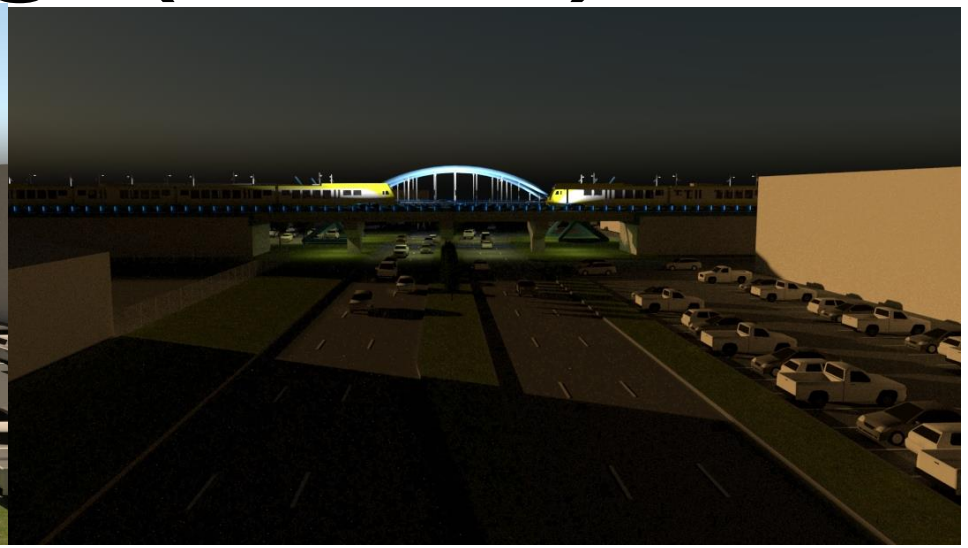


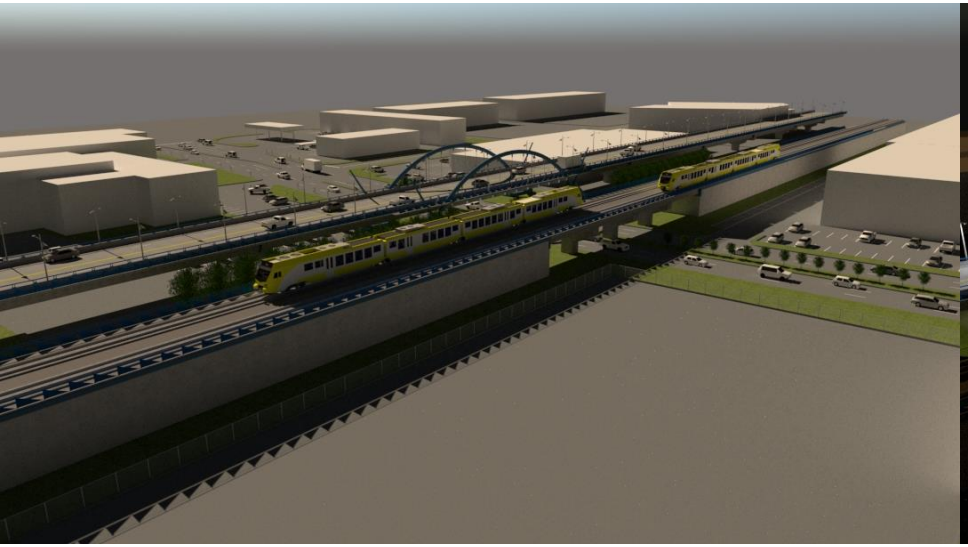


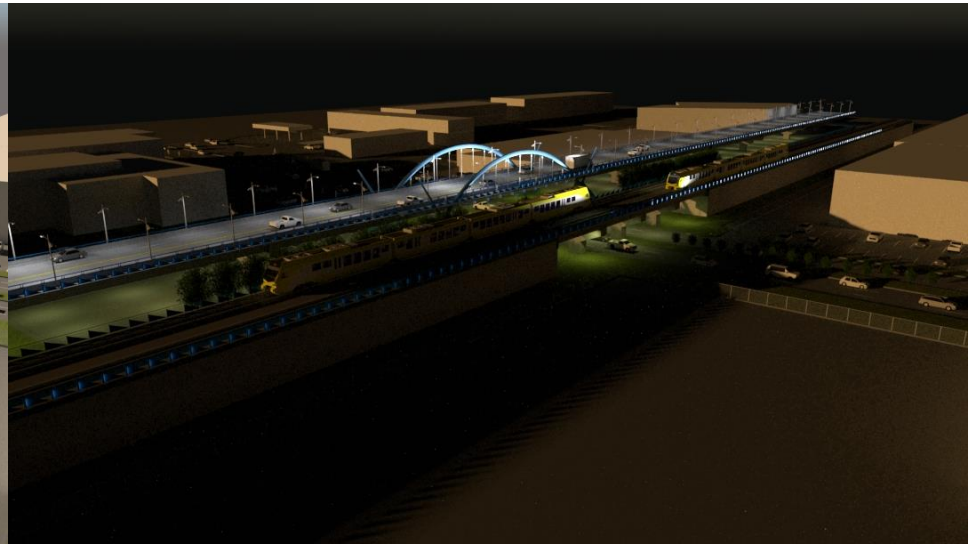


DART let's go.

Cotton Belt Bridge (No Arch)







DART let's go.

Cotton Belt Ridership

STATION NAME	DAILY RIDERSHIP	
	Opening Day	2040
DFWIA AB Terminal Station	1,200	1,200
North DFW Station	800	1,300
Cypress Waters Station	200	900
Downtown Carrollton Station	1,000	2,000
Addison Station	1,000	1,700
Knoll Trail Station	500	600
Preston Rd Station	300	500
Coit Rd Station	600	700
UT Dallas Station	700	900
CityLine/Bush Station	1,000	1,400
12th Street Station	200	300
Shiloh Station	400	700
Total	***7,900***	***12,200***

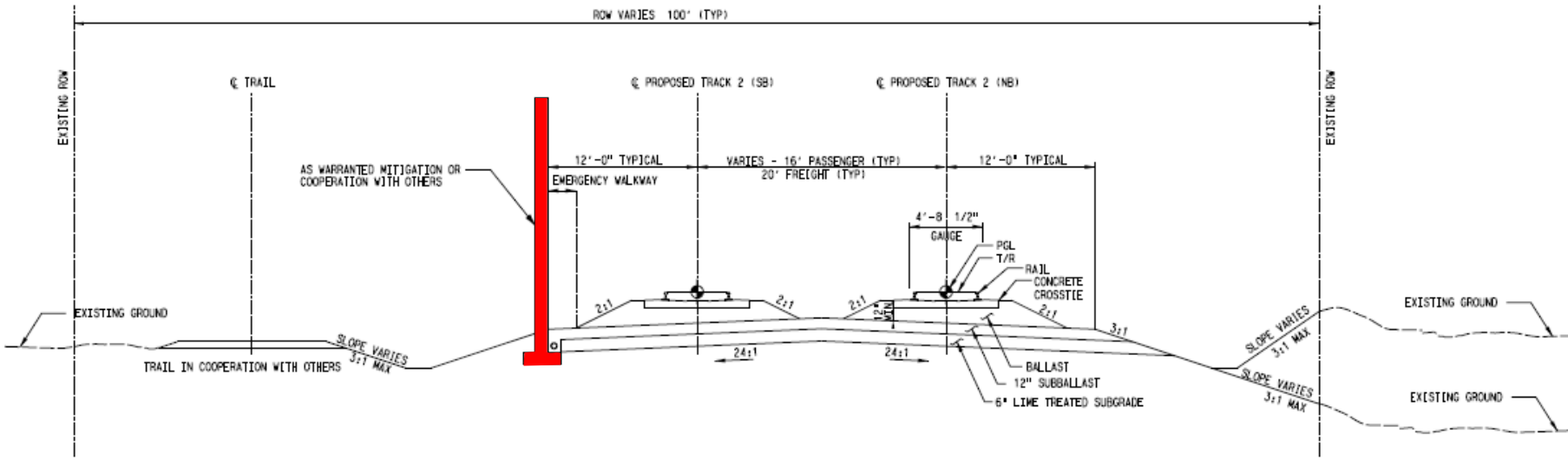
DART let's go.

Community Integration

Community Integration features such fences, walls, trails, landscaping, etc. will be incorporated into the project subsequent to identification of impacts and required mitigation.

- DART will work in cooperation with NCTCOG and local jurisdictions for implementation community integration features.

Sound Walls



DOUBLE TRACK AT-GRADE #2

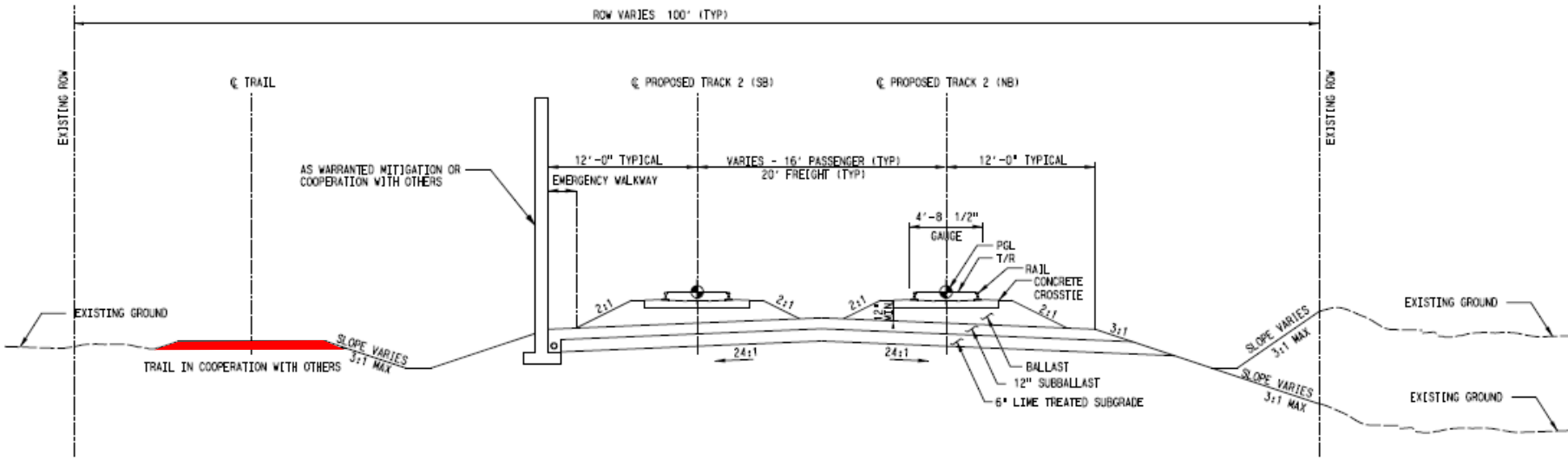
NTS

Sound Walls:

- Noise impact analysis will determine where walls are required.
- DART will work in cooperation with local jurisdictions for consideration of additional walls

DART let's go.

Trails



DOUBLE TRACK AT-GRADE #2

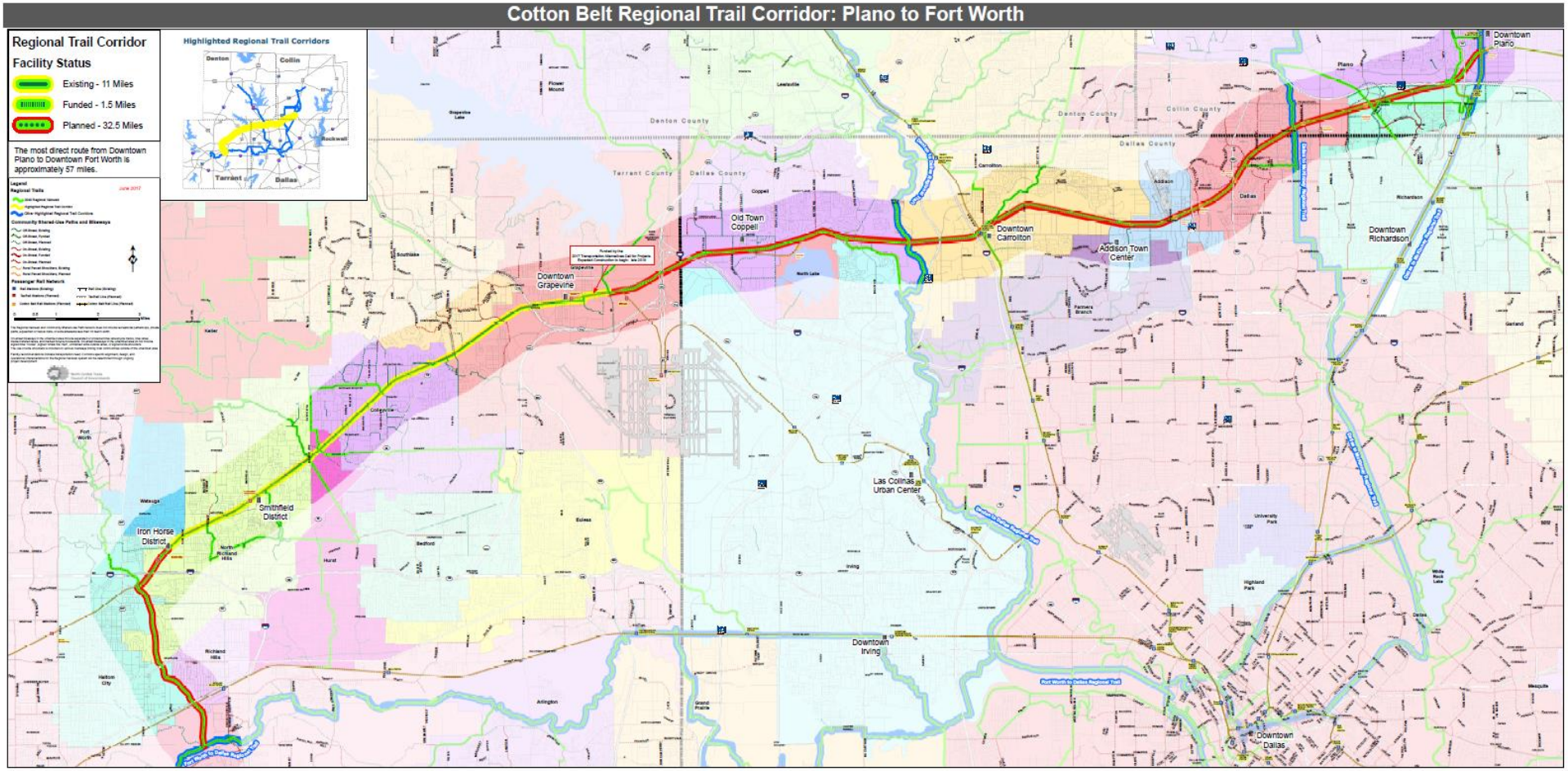
NTS

Trails:

- DART will work in cooperation with NCTCOG and local jurisdictions for implementation of trails along corridor

DART let's go.

Cotton Belt Regional Trail (NCTCOG)



DART let's go.

Open Houses

Monday, September 18, 2017, 6:30 p.m.
DeWitt Perry Middle School Cafeteria
1709 East Belt Line Road, Carrollton, TX 75006
(Parking and entrance off Warner Street)

Wednesday, September 20, 2017, 6:30 p.m.
Richardson Civic Center
411 West Arapaho Road, Richardson, TX 75080

Monday, September 25, 2017, 7:00 p.m.
Parkhill Junior High School Cafeteria
16500 Shady Bank Drive, Dallas, TX 75248

DART let's go.

DART let's go.