CORRIDOR CITIES TRANSITWAY

Presented to:

Montgomery County
RTS Steering Committee

March 25, 2015

Corridor Cities Transitway

MTA Maryland
Maryland Department of Transportation

Agenda

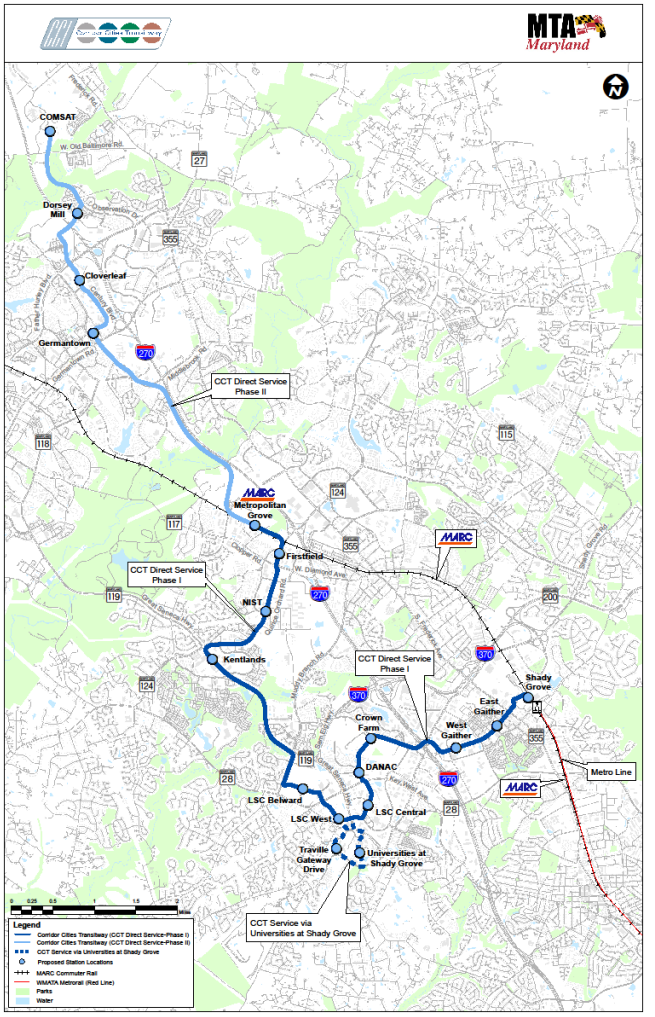
- Schedule
- Transitway Alignment
- Typical Sections
- Station Architecture
- Operations Planning

Schedule

- August 2014 – Draft EA and 15% Design Submittal
- June 2015 – EA Release/Public Hearing
- August 2015 – 30% Design Submittal
- Fall 2015 – FONSI
- Winter 2015/2016 – Initiate design activities
- Winter 2016/2017 – Begin Right-of Way Acquisition/ Permitting/ Agreements
- Spring 2018 – Begin Construction
- 2021 – Begin Service

CCT - Phase I and II

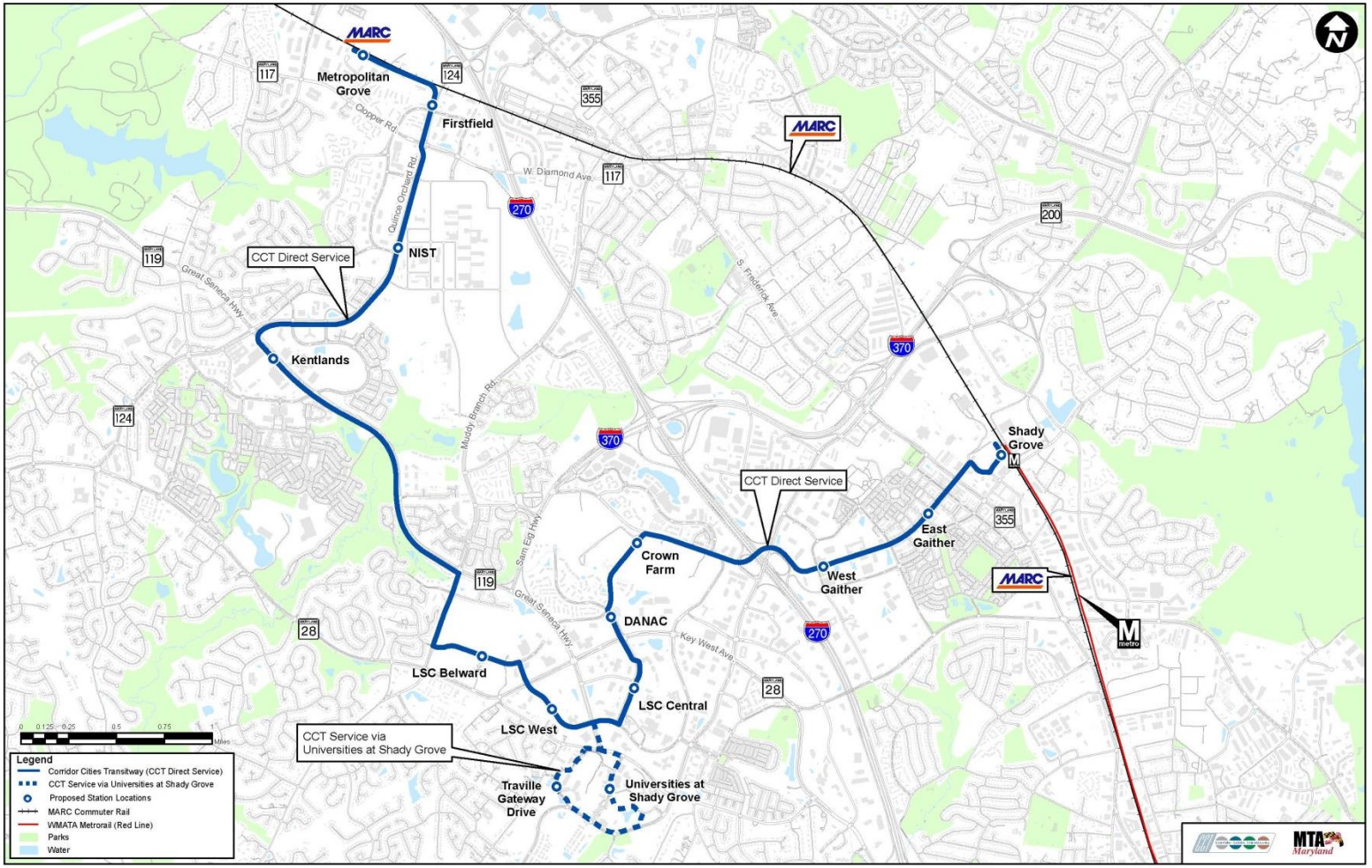
- 16 mile alignment
- Phase I: Metropolitan Grove to Shady Grove (9 miles)
- Phase II: COMSAT to Metropolitan Grove (7 miles)



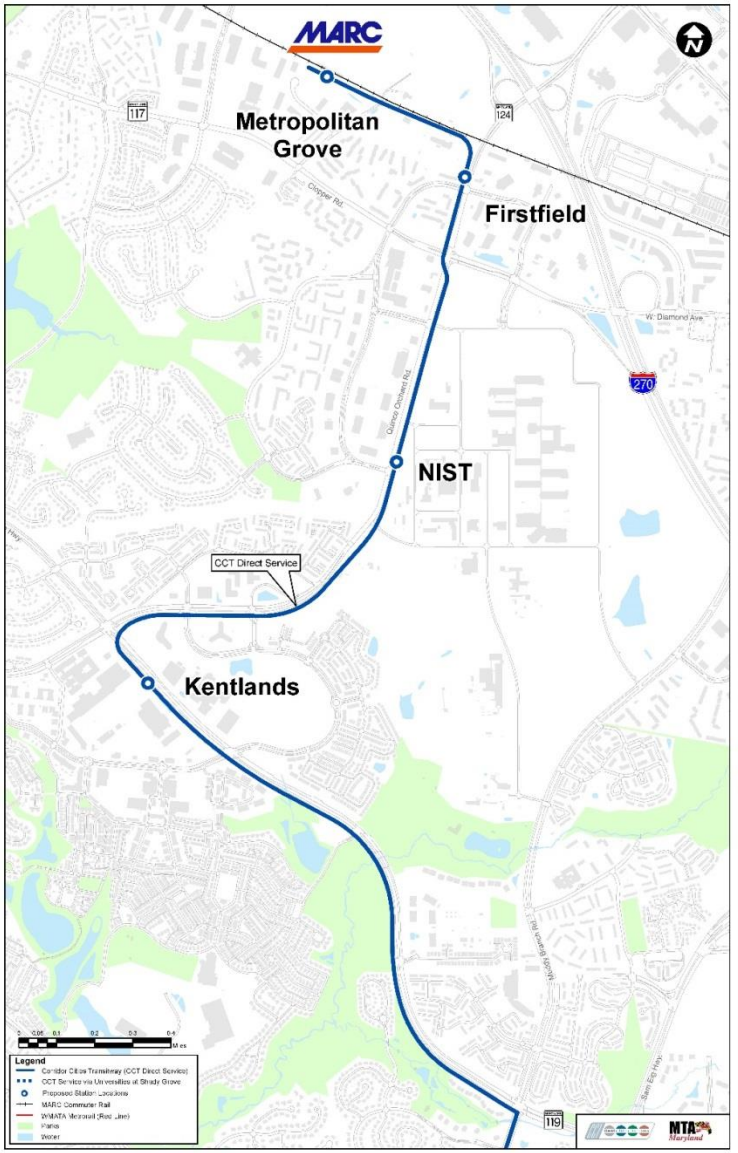
Transitway Alignment

- Nine miles dedicated right-of-way
- Side running along SHA and Montgomery County roadways
- Median running on Montgomery County and City of Rockville roadways
- Mixed traffic along CCT via Universities of Shady Grove (USG) Service

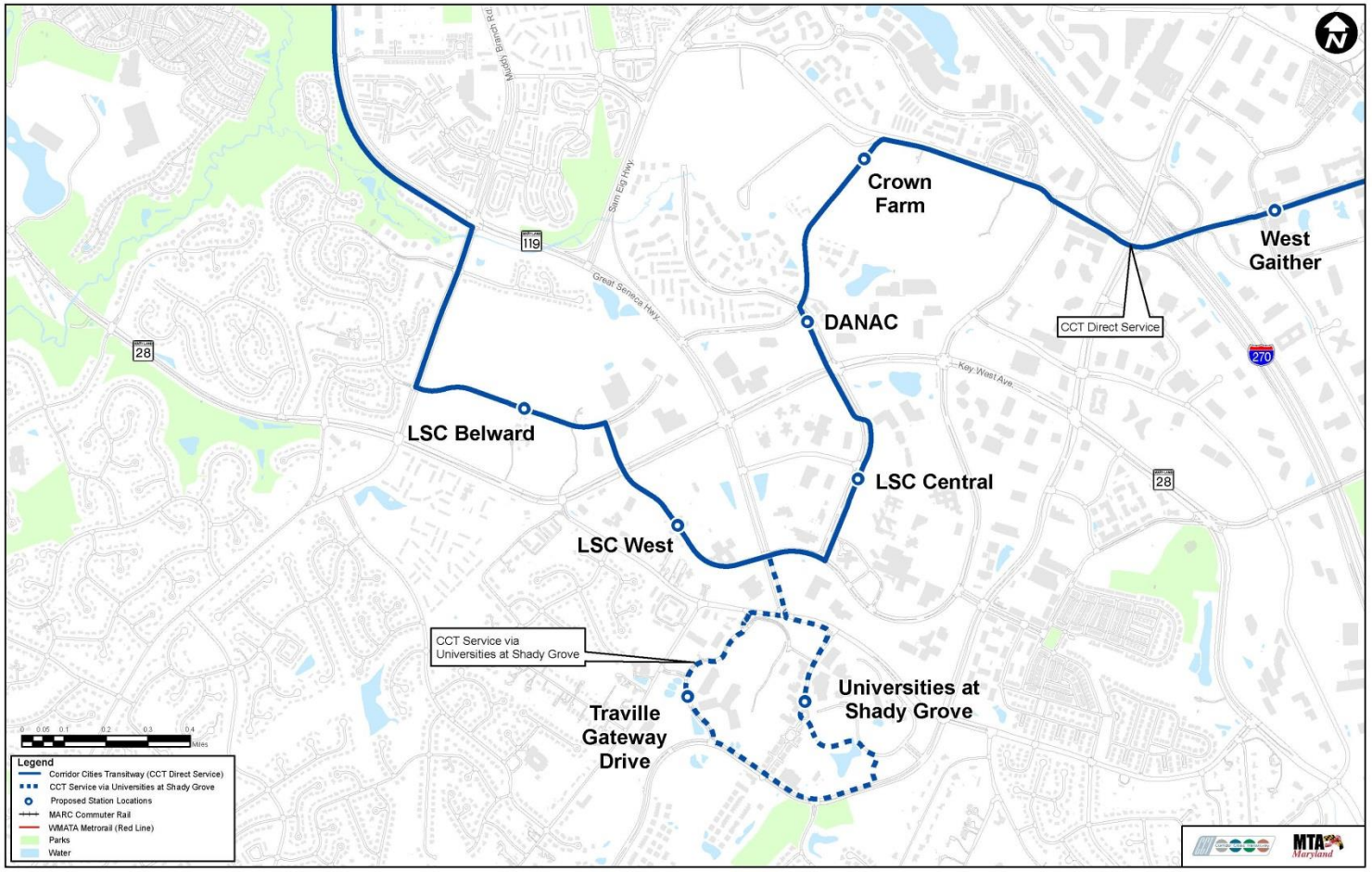
Phase I - Project Map



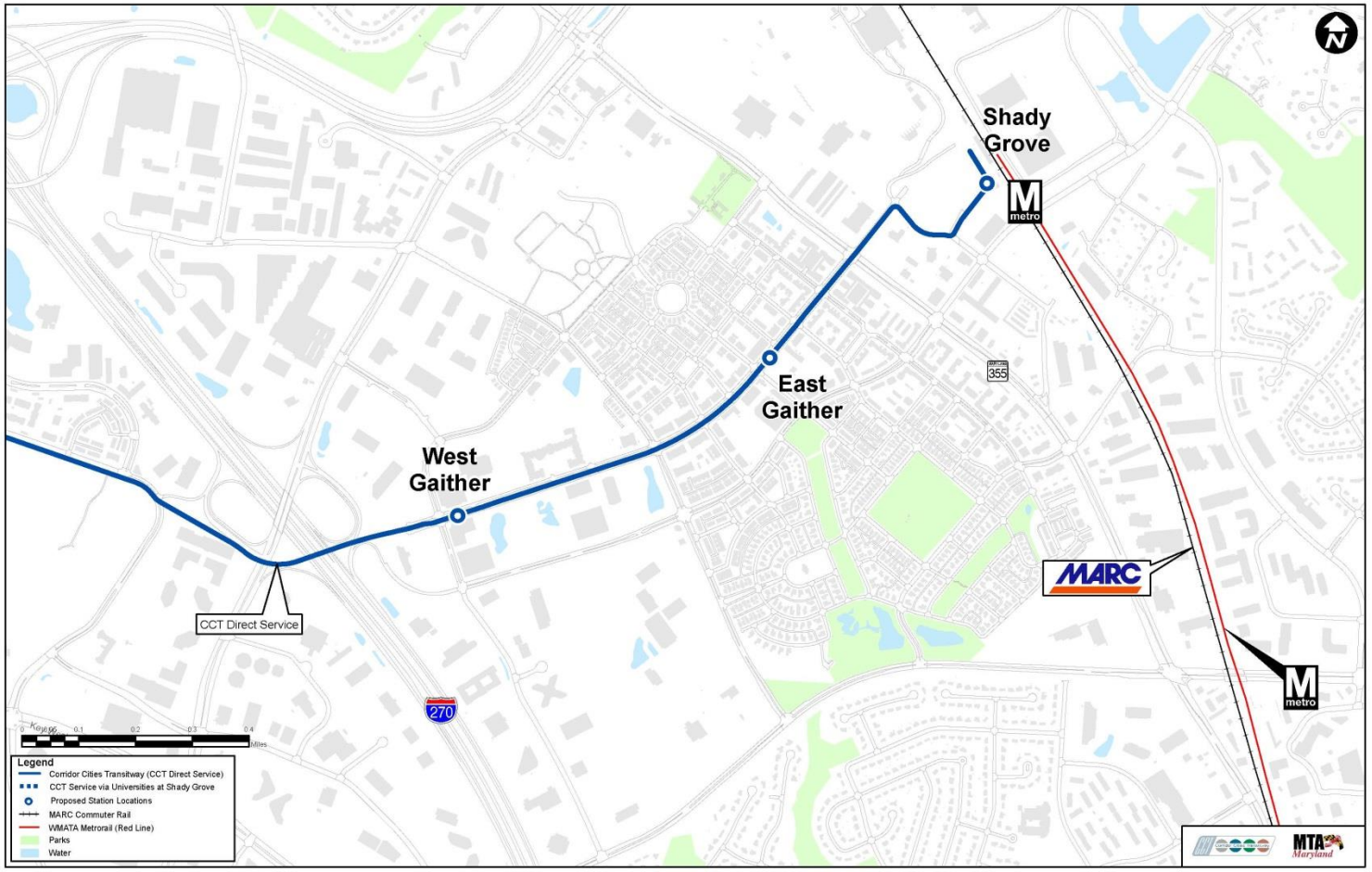
Metropolitan Grove to Muddy Branch



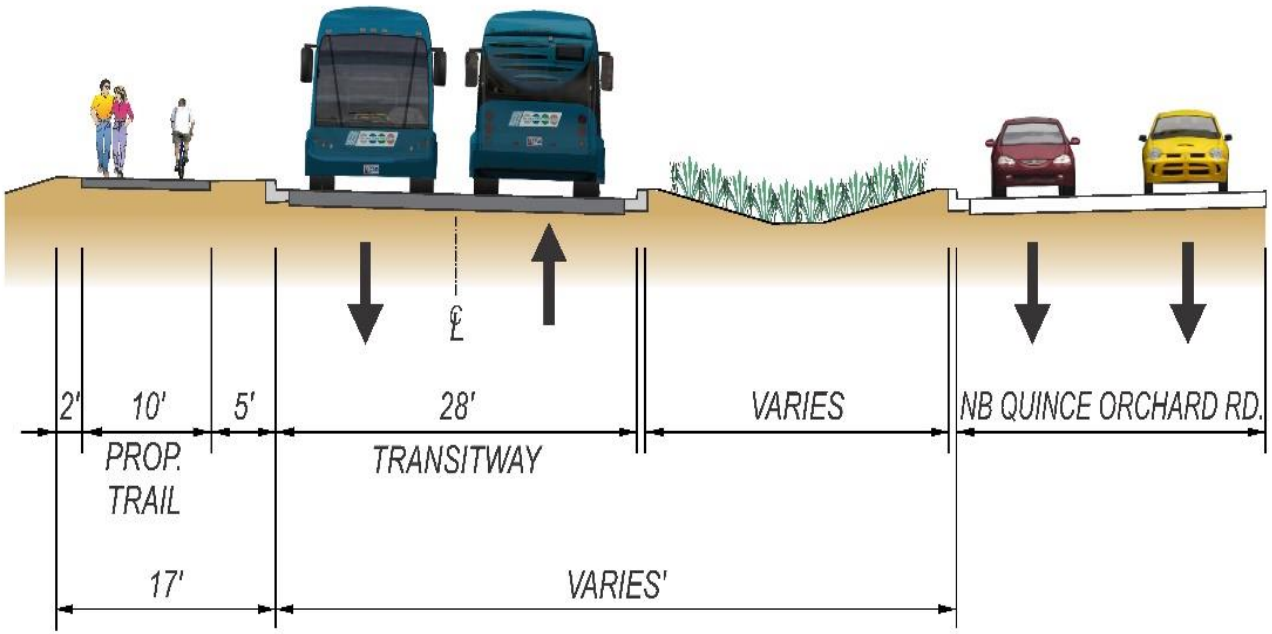
Muddy Branch to I-270



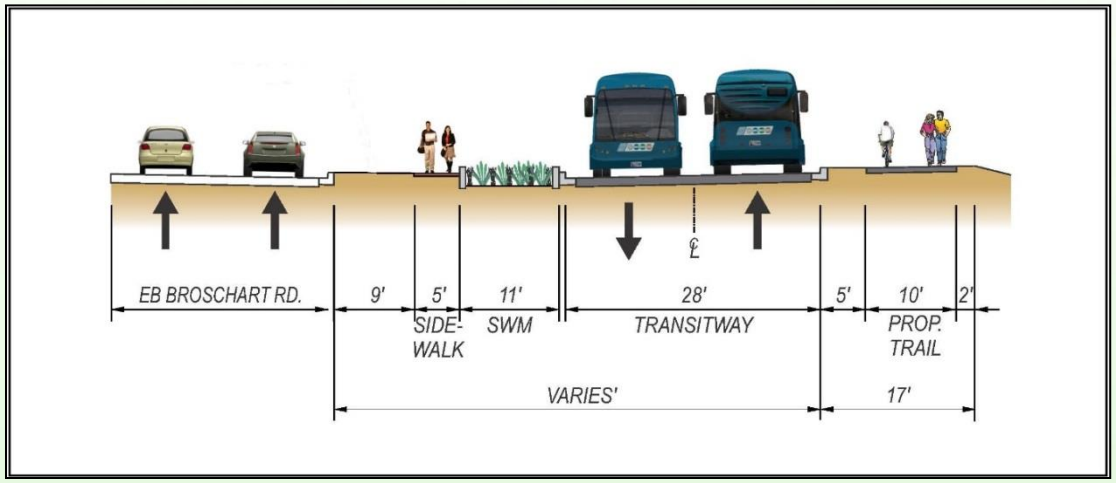
I-270 to Shady Grove

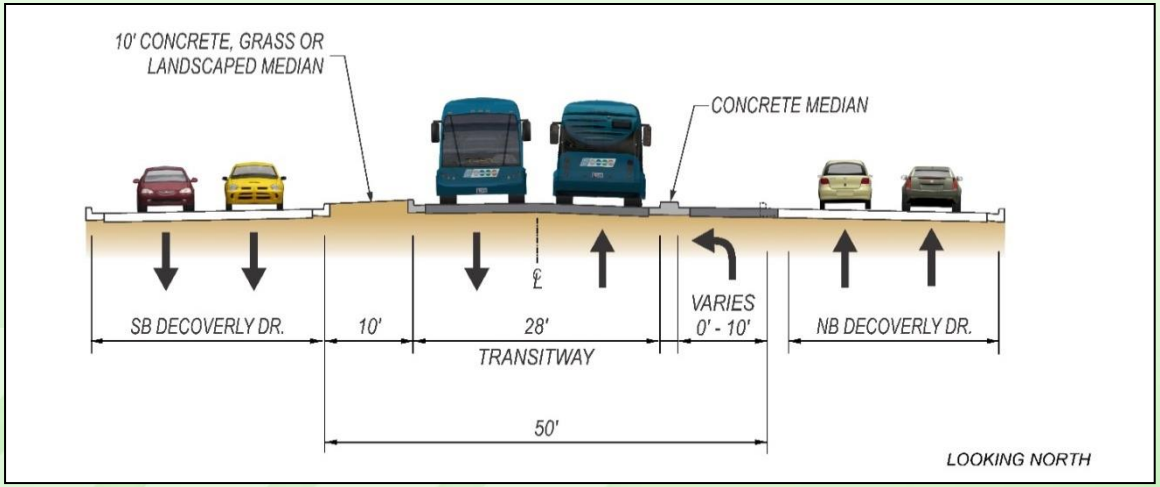


CCT Typical Sections



CCT Typical Sections

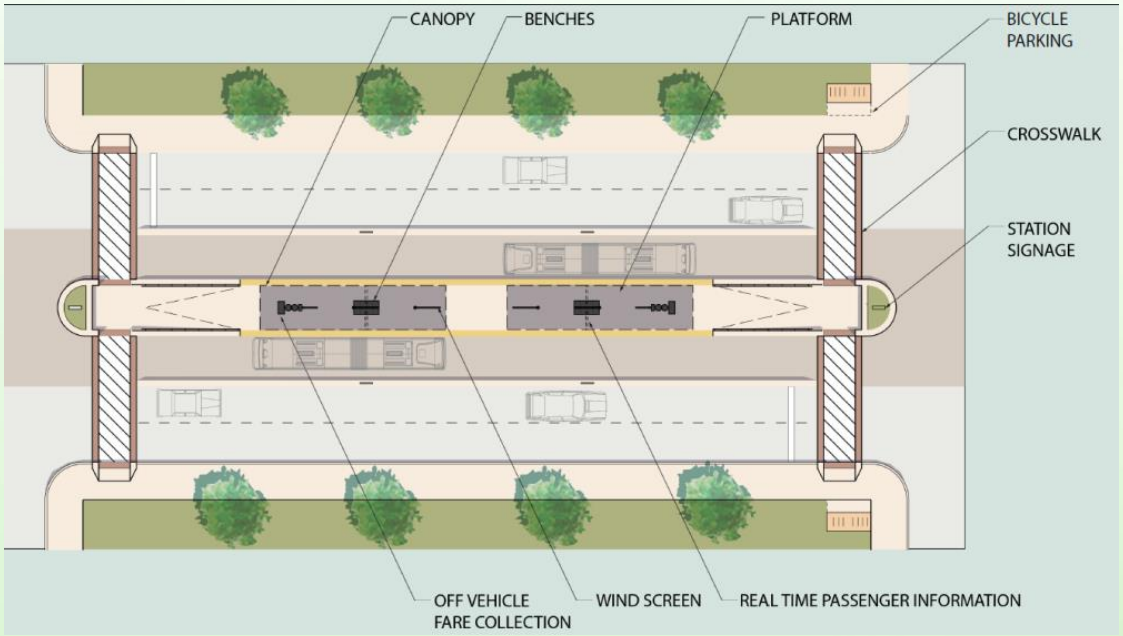




Station Architecture

Process – Prototype

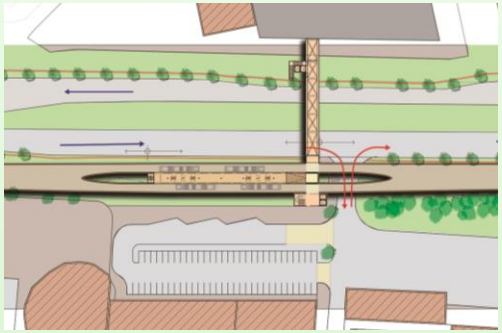
- Platforms: 150’ x 18’
- Entrances: Primary and Secondary
- Canopy: 60% Coverage
- Amenities: Ticketing, Benches, etc.



Process – Station Specific

Station Areas

Station Sites



Process – 6 Station Types

Median Center (5)

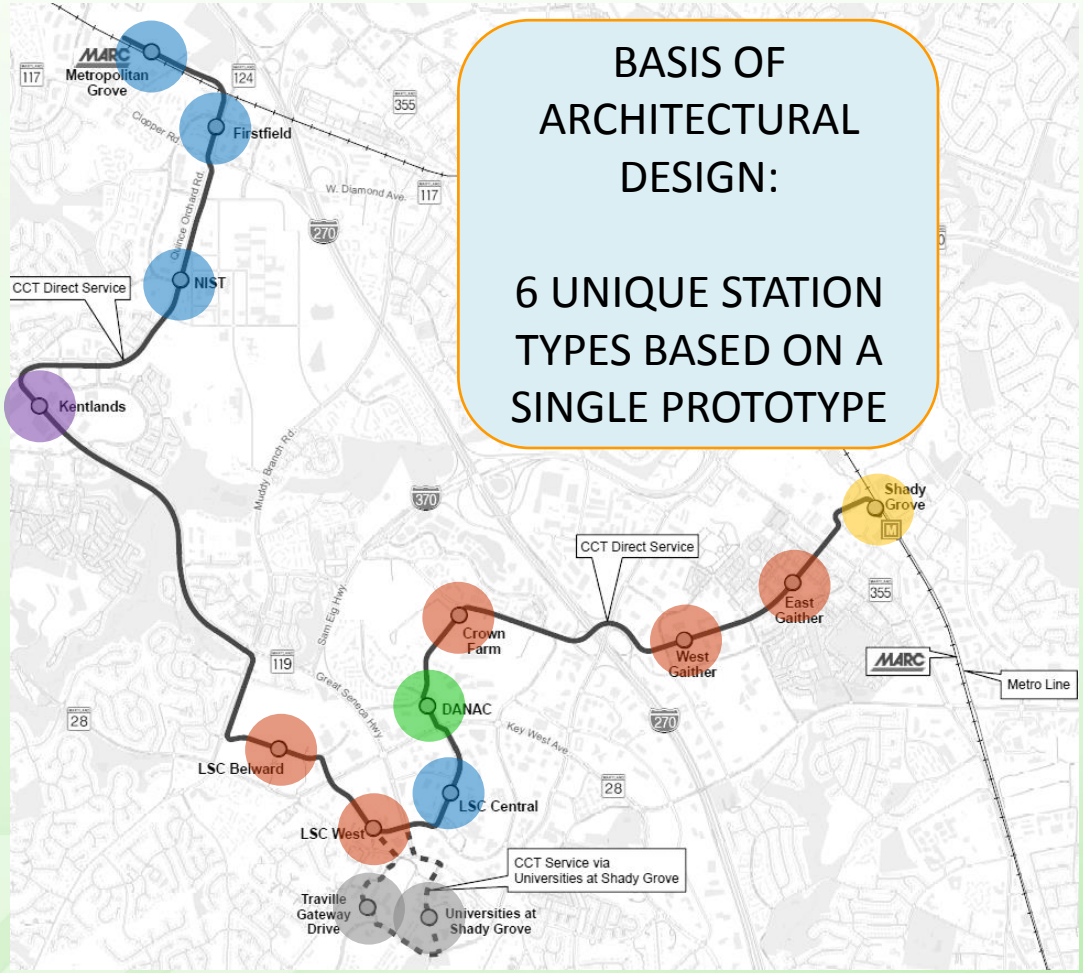
Side-Aligned Center (4)

Side (1)

Aerial (1)

Sidewalk (2)

Split-Side (1)



System-wide Architecture

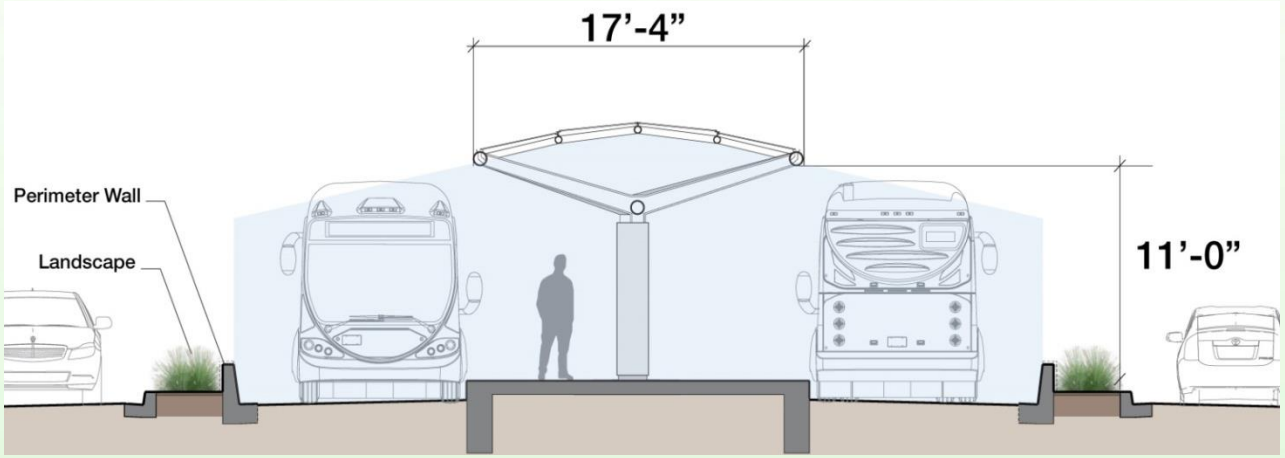
Goal: Create a system-wide architectural scheme for stations that symbolizes the premium BRT project that the CCT is by creating an image for the system while also establishing the stations as amenities for the communities they serve.

Conceptual Context

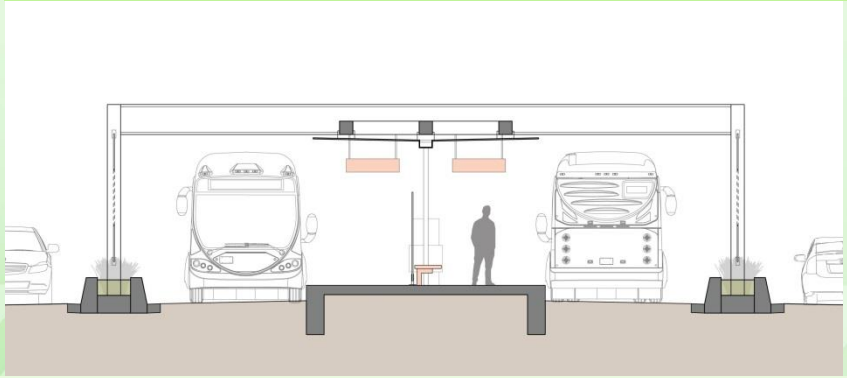
Design Development

Themes

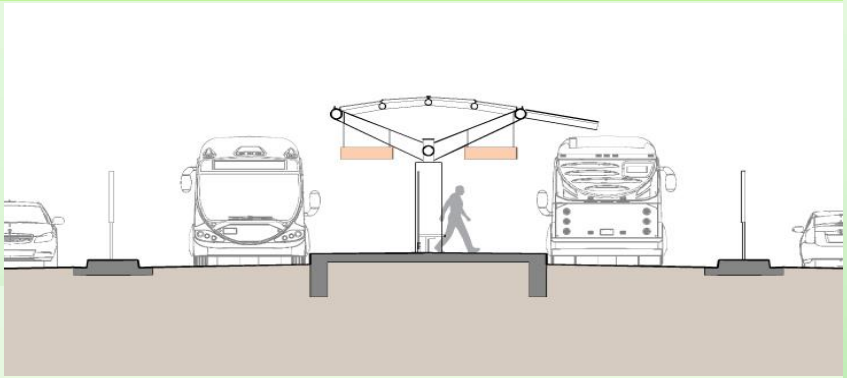
- Weather Protection
- Enclosure
- Safety
- Landscape



MEDIAN STATION
CURRENT HELIX DESIGN OPTION



MEDIAN STATION
PREVIOUS FRAMEWORK DESIGN OPTION



MEDIAN STATION
PREVIOUS HELIX DESIGN OPTION

Median Center

Helix

- Contextual Influence: Bioscience
- Helix as Generative Form
- Translucent Canopy
- Tree Structure
  - Concrete Column
  - Steel Pipe Frame

EAST GAITHER STATION
AERIAL VIEW

EAST GAITHER STATION
PLATFORM VIEW

Side-Aligned Center

Helix

- Contextual Influence: Bioscience
- Helix as Generative Form
- Translucent Canopy
- Tree Structure
  - Concrete Column
  - Steel Pipe Frame

FIRSTFIELD STATION
SIDEWALK VIEW

FIRSTFIELD STATION
PLATFORM VIEW

Side

Helix

- Contextual Influence: Bioscience
- Helix as Generative Form
- Translucent Canopy
- Tree Structure
  - Concrete Column
  - Steel Pipe Frame

DANAC STATION
AERIAL VIEW

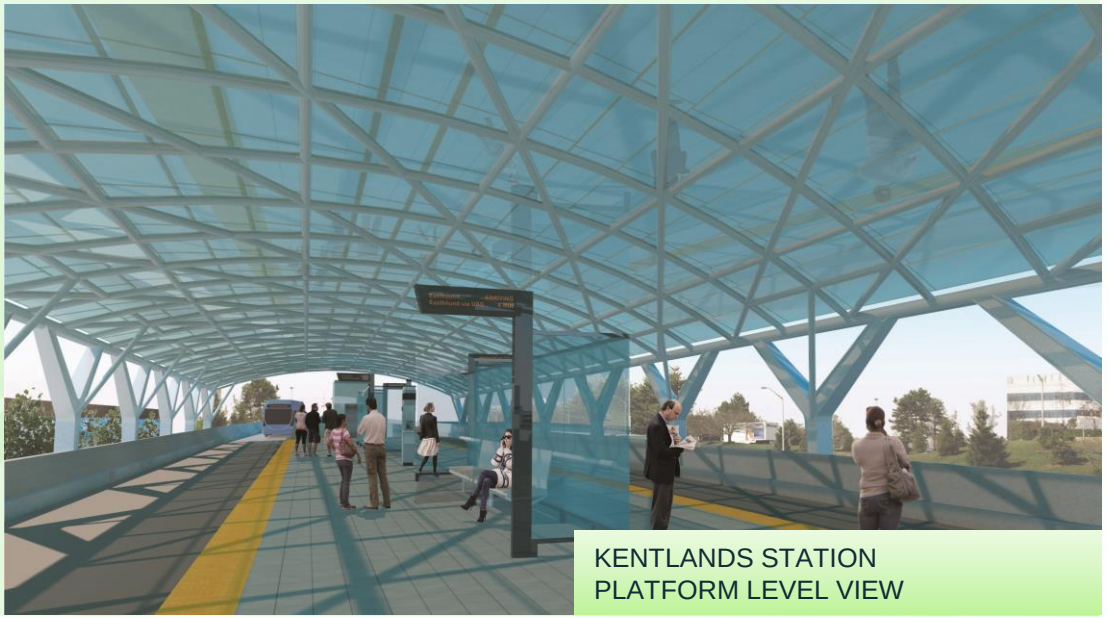
DANAC STATION
PLATFORM VIEW

Aerial

Helix

- Contextual Influence: Bioscience
- Helix as Generative Form
- Translucent Canopy
- Tree Structure
  - Concrete Column
  - Steel Pipe Frame
- Community Space
- Vertical Circulation

KENTLANDS STATION
PLAZA LEVEL VIEW



KENTLANDS STATION
PLATFORM LEVEL VIEW

Sidewalk

Helix

- Contextual Influence: Bioscience
- Helix as Generative Form
- Translucent Canopy
- Tree Structure
  - Concrete Column
  - Steel Pipe Frame

USG STATION
AERIAL VIEW

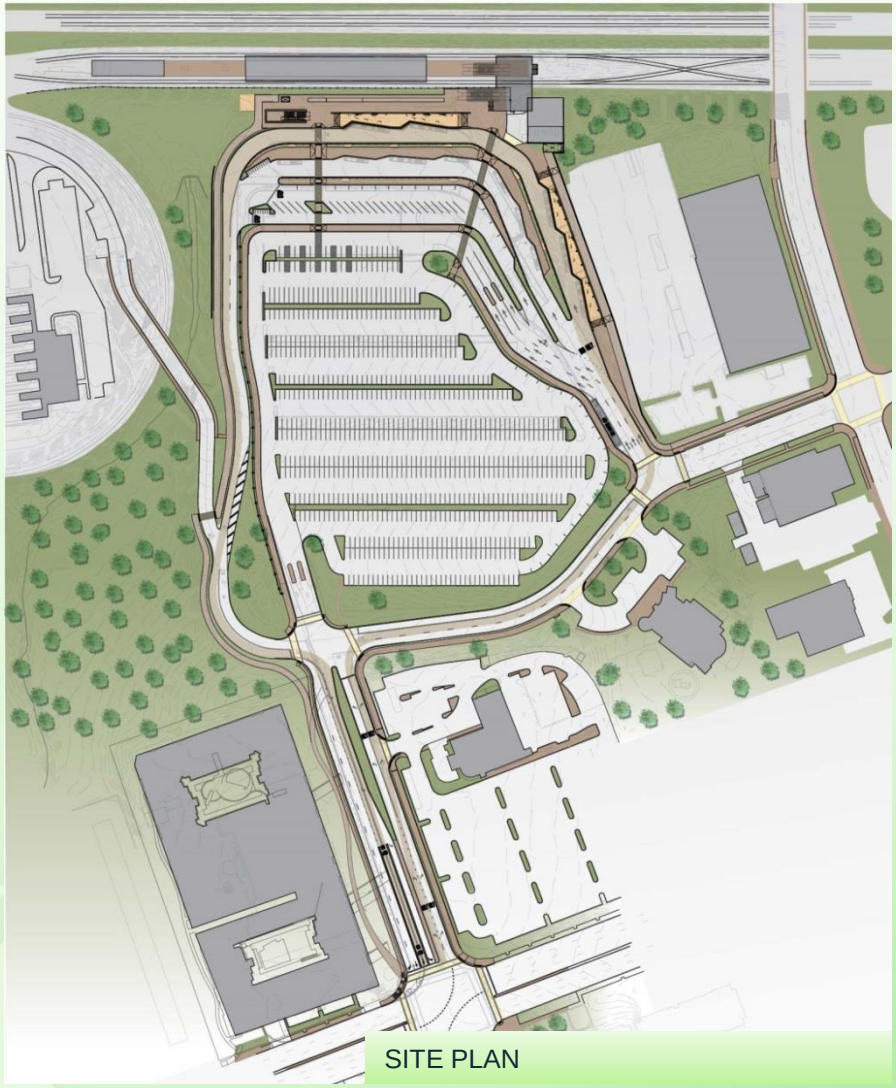
USG STATION
PLATFORM VIEW

Split-Side

Helix

- Maintain WMATA Focus
- Integrate CCT into existing condition

WMATA STANDARD



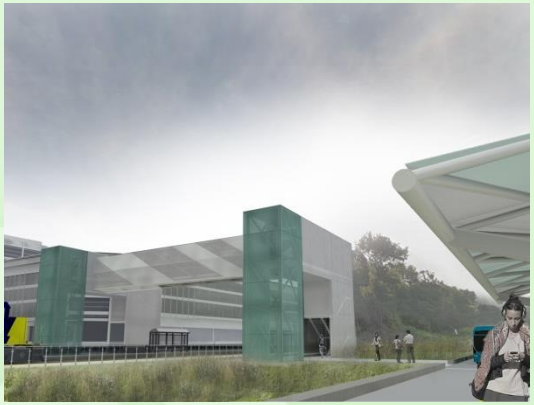
SITE PLAN

System-wide Architecture

Goal: Create a system-wide architectural scheme for stations that symbolizes the premium BRT project that the CCT is by creating an image for the system while also establishing the stations as amenities for the communities they serve.








Operations Planning

Operations Planning

- Operations Planning
  - Required buses per hour
  - Bus fleet size

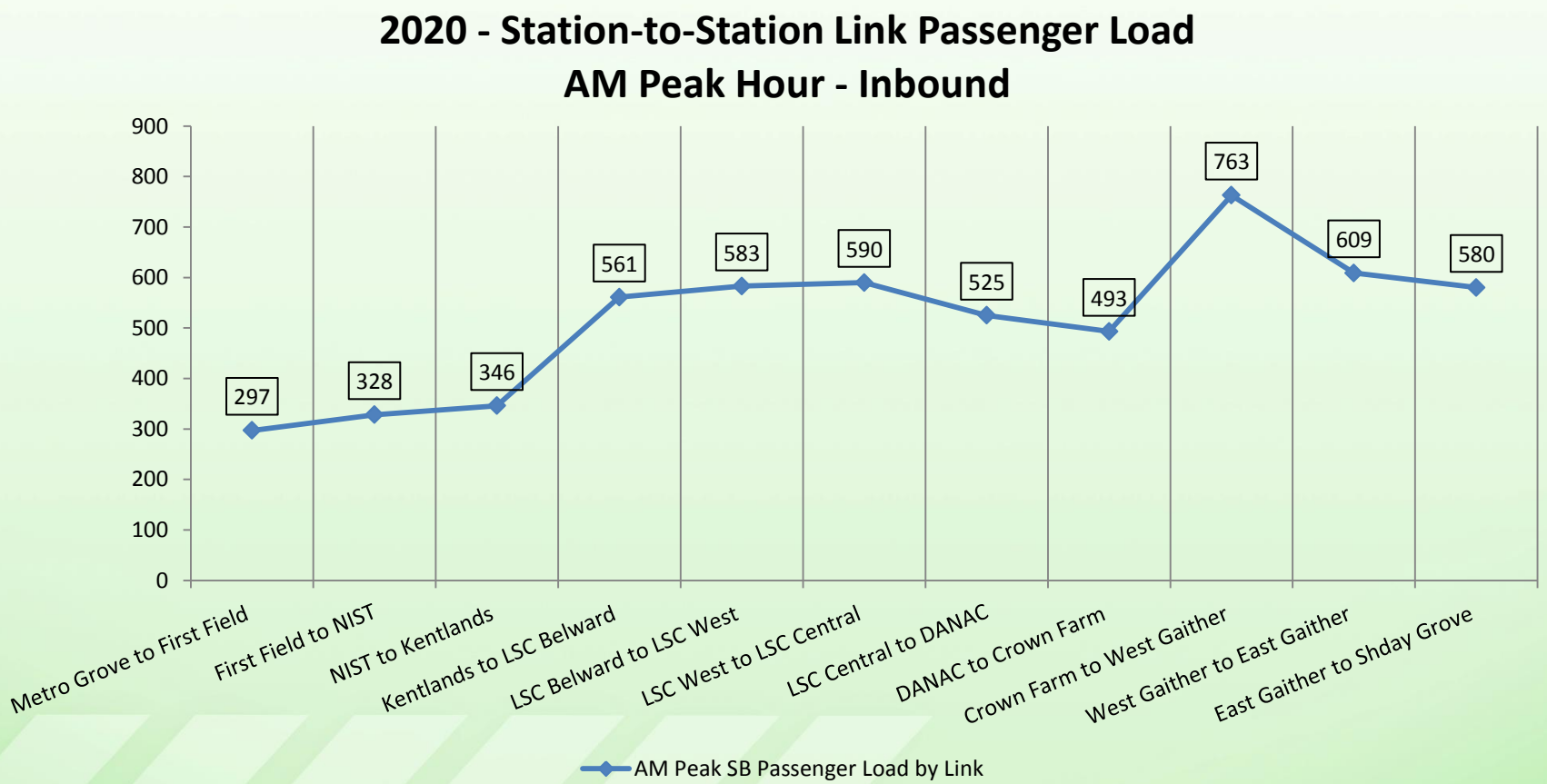
Operations Planning

- Step 1 – Final Policy Guidelines
  - Vehicle type
    - 60’ articulated vehicle with 60 seats
    - Diesel-Electric Hybrid
  - Acceptable maximum passenger load
    - 60 seated/30 standing passengers per vehicle (industry standard)
  - Services utilizing transitway
    - Only CCT branded vehicles
      - Two route patterns – CCT Direct and CCT via USG
  - No proposed changes to RideOn, WMATA, or local shuttle Networks
    - Ongoing coordination with agencies
  - Elements impacting CCT operations
    - Fare collection approach
    - Transit Signal Priority
    - Vehicle configuration

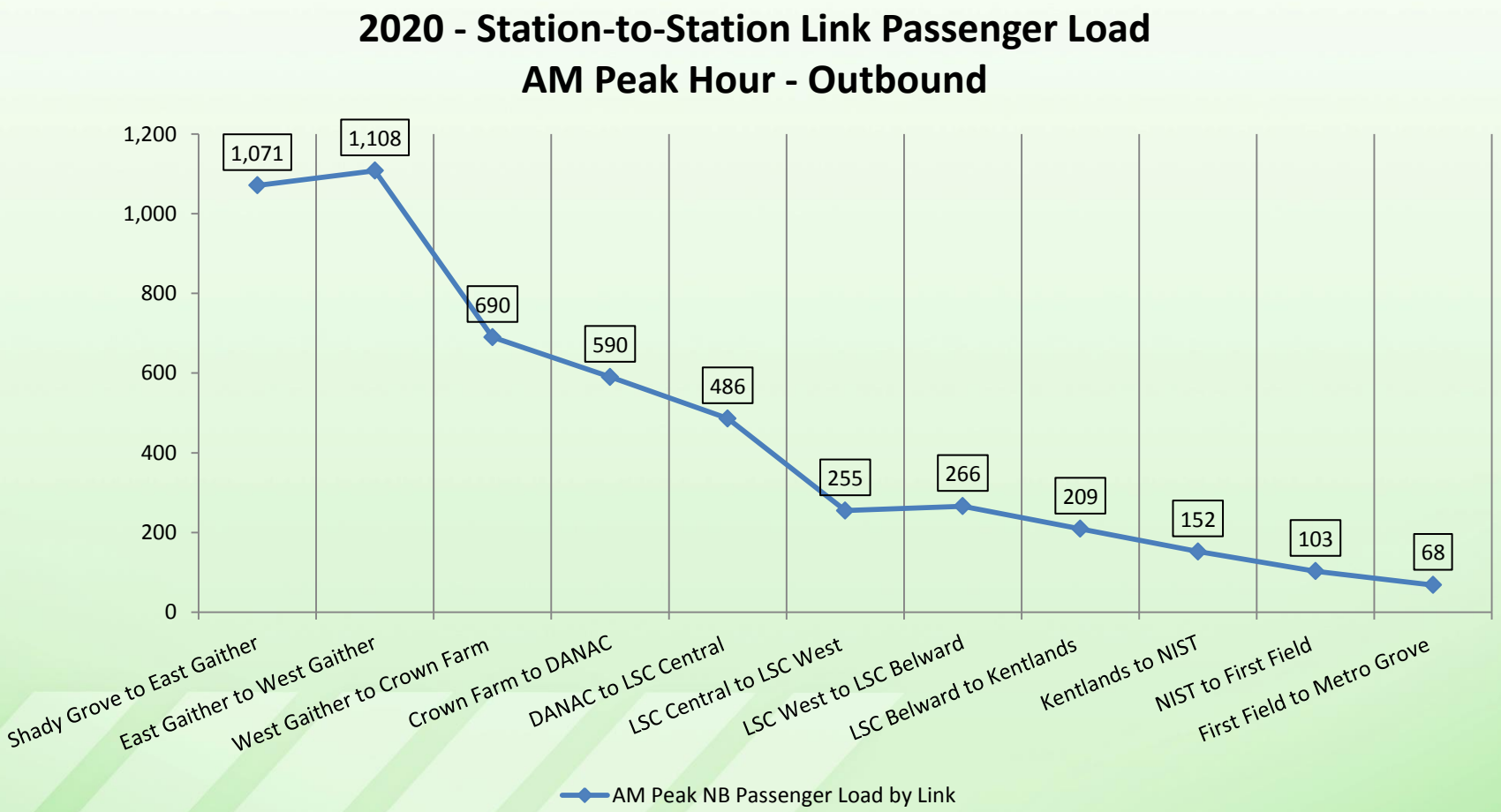
Los Angeles Metro - Orange Line

Lane Transit District (Eugene, Oregon) – Emerald Express (EmX) Green Line

Operations Planning (cont.)



Operations Planning (cont.)



Operations Planning (cont.)

- Step 2 – Calculate required # of buses per hour
  - Ridership forecast - determine maximum passenger load location and hour
    - AM Peak
    - Mid-Day
  - Maximum load will dictate the required number of buses per hour

Operations Planning (cont.)

- Step 2 – cont.
  - Maximum Load – 893
    - Northbound between East Gaither and West Gaither
  - Required # of Bus Arrivals
    - 893/90 passengers (allowable load) = 9.92 = 10 buses on CCT Direct required per hour to meet demand
      - Frequency = 60/10 = a bus every 6 minutes