

# I-285 TOP END TRANSIT FEASIBILITY STUDY

MAYORS MEETING  
June 25, 2020

..... Kimley»Horn

ATLAS

# PROCESS OVERVIEW

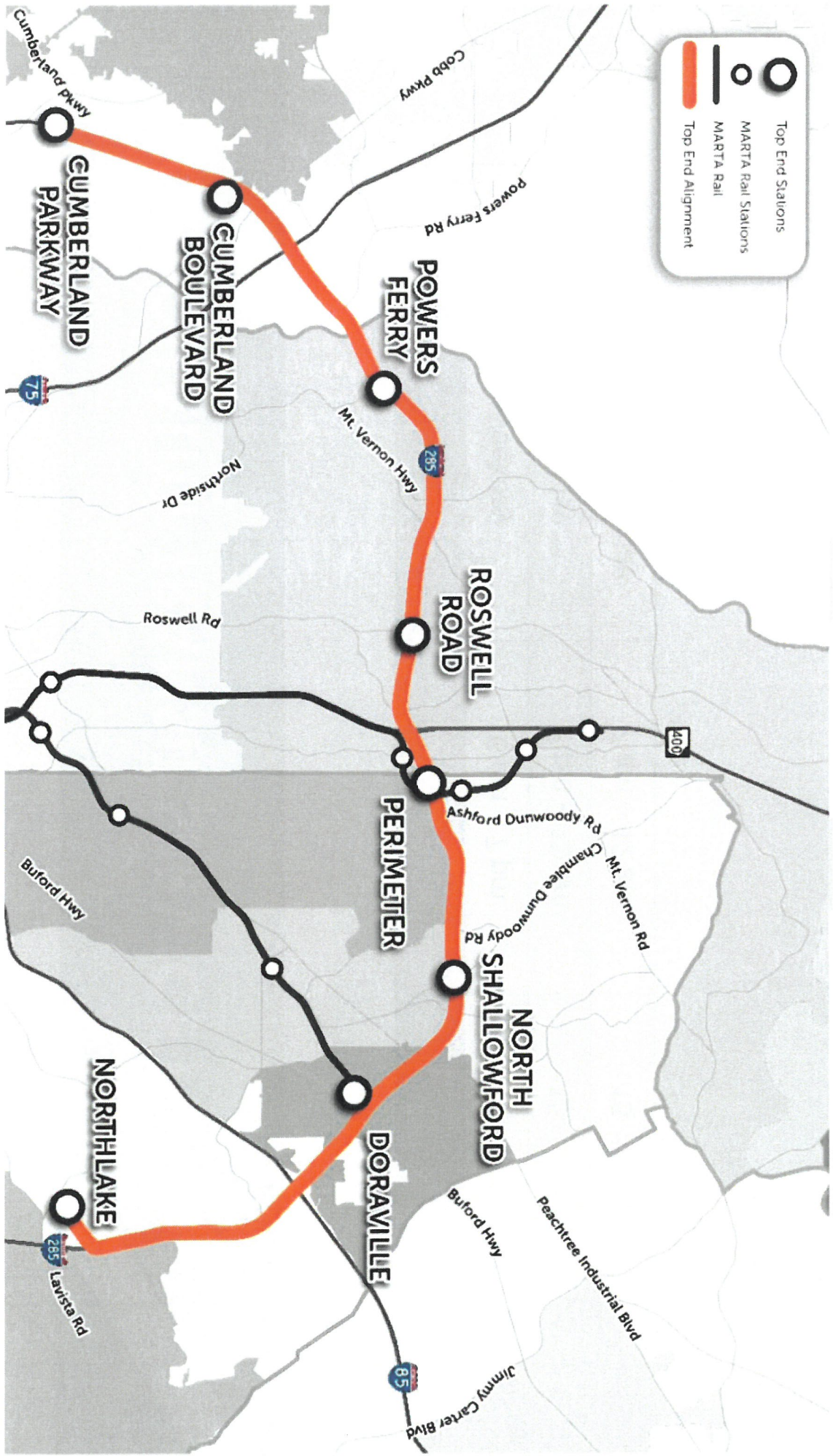
## Phase 1: 2018 Transit Feasibility Study

- Rail-based system versus rubber-wheel based system feasibility
- Evaluation of local special service districts and revenue

## Phase 2: 2019 Pre-Project Development Study

- Travel time analysis
- Ridership forecasting
- Updated project costs
- System maximization

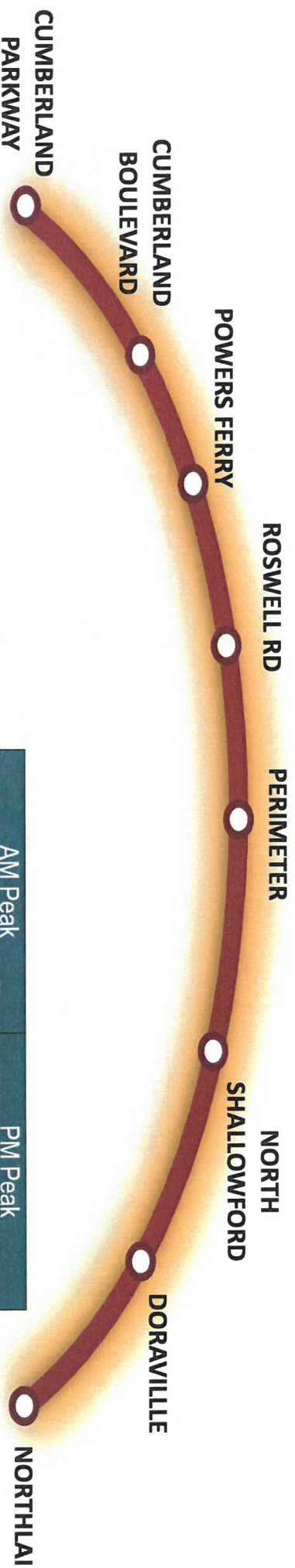
# Top End Rapid Transit Study Area



# HIGH-QUALITY TRANSIT SERVICE PLAN

Service Day	Service Span	Headway (minutes)
Weekday	6 am – 7 pm	10
Weekday	7 pm – 12 am	15
Weekend/Holiday	7 am – 12 am	15

# TRAVEL TIME ANALYSIS



Station 1	Station 2	AM Peak		PM Peak	
		Eastbound	Westbound	Eastbound	Westbound
Northlake	Cumberland Parkway	Light Blue	Light Blue	Light Blue	Light Blue
Northlake	Perimeter	Light Blue	Dark Blue	Dark Blue	Light Blue
Perimeter	Cumberland Parkway	Dark Blue	Light Blue	Light Blue	Dark Blue
Doraville	Cumberland Boulevard	Light Blue	Light Blue	Light Blue	Light Blue

- Light Blue: Top End Rapid Transit travel time faster than automobile planning time
- Dark Blue: Top End Rapid Transit travel faster than automobile average travel time

# RIDERSHIP FORECASTING

## *Initial Weekday Ridership Boardings Forecast*

2015 Build	2030 Build	2040 Build
5,500	6,600	7,200

## *Secondary Weekday Ridership Boardings Forecast*

2015 Build	2030 Build	2040 Build
8,600	10,400	11,800

# RIDERSHIP FORECASTING

## *Weekday Linked Transit Trip Forecasts*

Measure of Effectiveness	2015 Build	2030 Build	2040 Build
<b>Weekday Linked Transit Trips on Project</b>	<b>5,500</b>	<b>6,600</b>	<b>7,200</b>
Transportation-Vulnerable	2,300	2,600	2,800
Non-Transportation-Vulnerable	3,200	4,400	4,500
<b>Weekday Incremental Linked Transit Trips</b>	<b>3,600</b>	<b>4,700</b>	<b>5,200</b>
Transportation-Vulnerable	500	600	600
Non-Transportation-Vulnerable	3,000	4,100	4,500

# STOPS MODEL LIMITATIONS

**Highway Data** – based on a “typical” travel day (normal, non-incident congestion)

## **Planned Projects**

- SR 400 BRT
- Gwinnett I-85 BRT/Gold Line Extension
- Buford Highway BRT
- East Wall BRT or West Wall BRT
- Additional local service improvements including those from County Transit Plans

## **MARTA Red Line Connection Distance**

## **Special Markets**

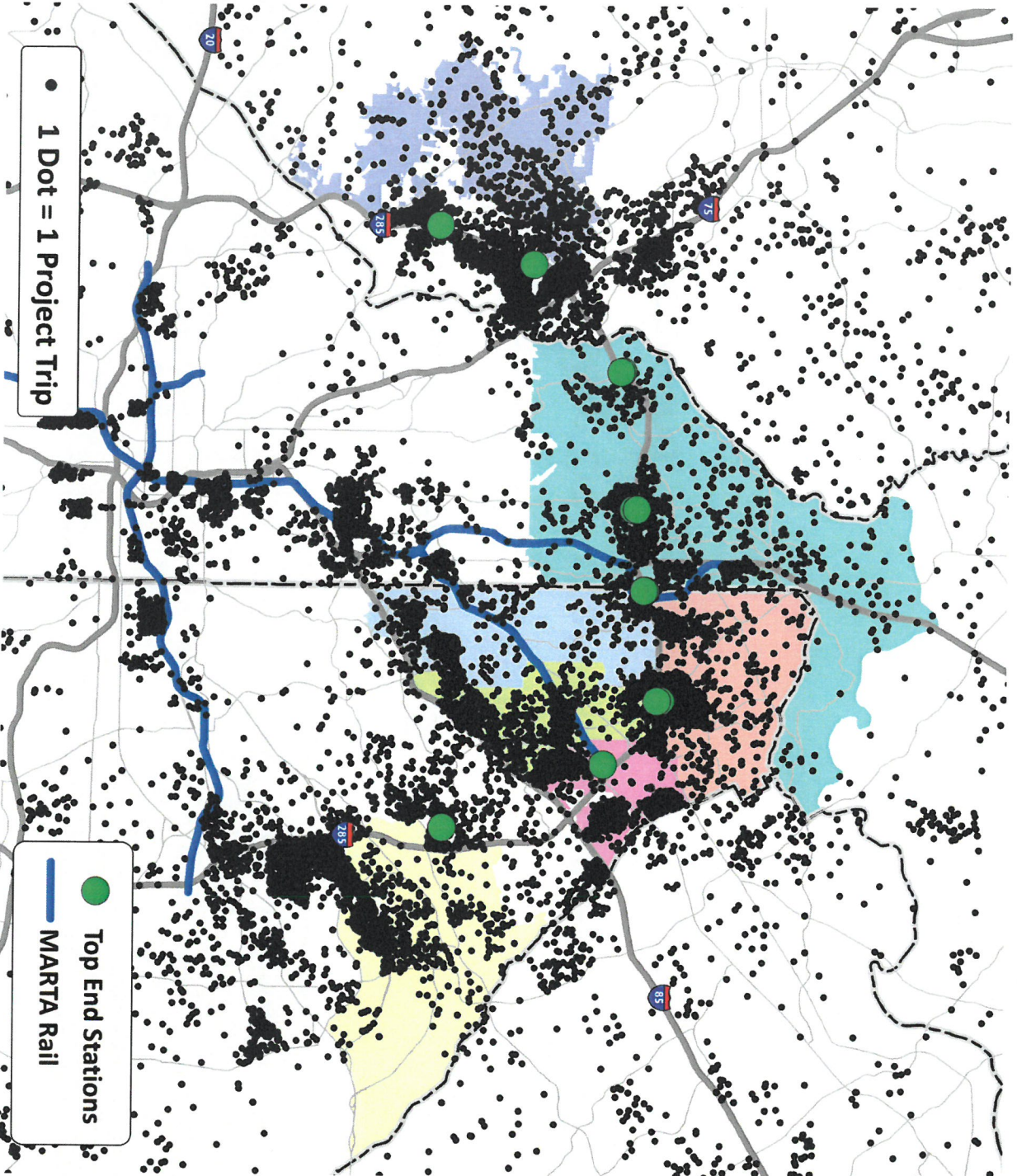
- Special Events (Truist Park, The Battery, colleges & universities)
- Airport trips



# COMPARABLE NORTH AMERICAN SYSTEMS – WEEKDAY BOARDINGS

- Boston- Silver Line 4&5: 16,000
- Cleveland- Health Line: 15,000
- Salt Lake City- Utah Valley Express: 14,600
- Richmond, VA- Pulse: 7,000

# 2040 Build – Project Trip Origins



# MMIP Schedule

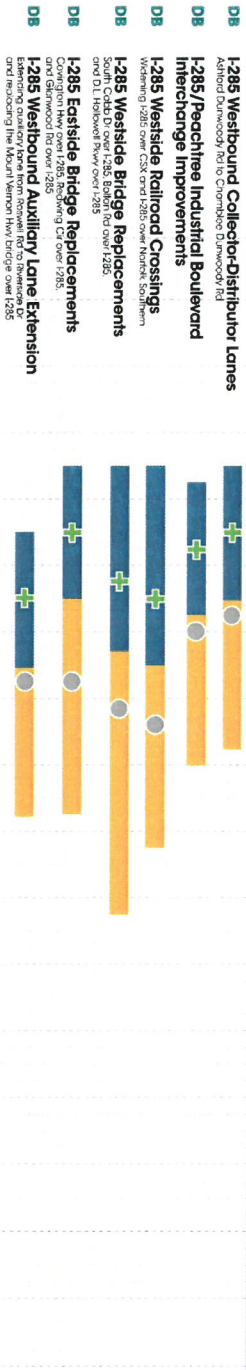
**Interchange Reconstruction:**



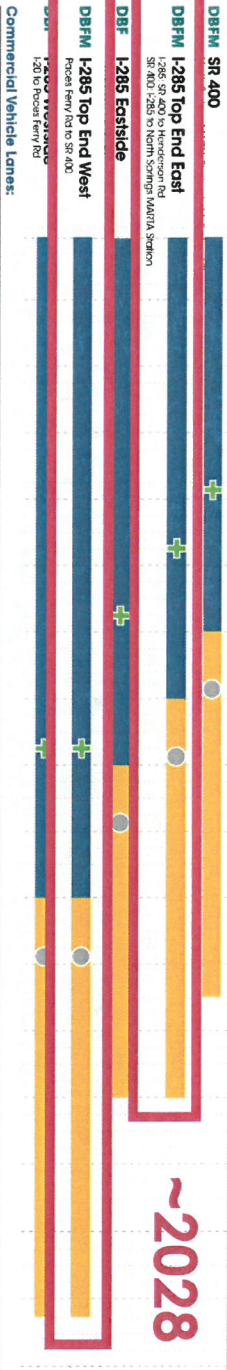
**Interstate Widening:**



**I-285 Advanced Improvement Projects:**



**Express Lanes:**



10/15/2019 | Delta implemented one calendar year | Schedules are subject to change or refinement. The design build process contracts project schedule by awarding design-build contracts. The design-build process contracts project schedule by awarding design-build contracts.

# SUMMARY OF UPDATED PROJECT COSTS

## Estimated Station Capital Costs by Phase

Station	Phase 1 (East)	Phase 2 (West)	Total
Northlake <sup>1</sup>	\$10M - \$35M	-	\$10M - \$35M
Doraville <sup>2</sup>	\$130M	-	\$130M
N Shallowford	\$16M	-	\$16M
Perimeter	\$13M	-	\$13M
Roswell Road	-	\$130M	\$130M
Cumberland Blvd	-	\$3M	\$3M
Cumberland Pkwy	-	\$22M	\$22M
<b>Total</b>	<b>\$169M - \$194M</b>	<b>\$155M</b>	<b>\$324 - \$349</b>

1 – Range result of off-line vs in-line station    2 – Includes \$55M for connection under Norfolk Southern/MARTA rail lines

# SUMMARY OF UPDATED PROJECT COSTS

## *Estimated Operating Costs*

Service	Annual Revenue Miles	Annual Revenue Hours	Annual Cost <sup>1</sup>
Phase 1 (East)	665,300	26,600	\$3,700,000
Phase 2 (West)	663,000	20,400	\$3,400,000
<b>Full System</b>	<b>1,328,300</b>	<b>47,000</b>	<b>\$7,100,000</b>

<sup>1</sup> — Reflects a blend of cost per service mile and cost per revenue mile for bus operations and station operating costs for Type A/Type B stations.

## *Estimated Vehicle Capital Costs by Phase*

Service	Vehicle Costs
Phase 1 (East)	\$6,000,000
Phase 2 (West)	\$5,000,000
<b>Full System</b>	<b>\$11,000,000</b>

# SYSTEM MAXIMIZATION

- Transit-supportive land use policies
- Transit network connectivity
- Improved walkability

# CONCLUSIONS

- High capacity transit on the Top End has competitive travel times on non-incident travel days and superior travel times on days with traffic incidents
- Forecasted ridership is strong and can be significantly enhanced through additional connections, improved walkability, and transit supportive measures
- Next steps will need to resolve connectivity to the MARTA Red Line (Perimeter Area Stations at Dunwoody and/or Medical Center)
- The updated GDOT Express Lane schedule necessitates two phases of implementation east and west
- Updated cost projections estimate each phase to be under \$200M in station capital costs

## NEXT STEPS/PHASE 3

- Project sponsorship/partnership with ATL
- Preliminary station plans and project development
- Project messaging and communication materials
- Funding refinement and draft legislation