



ATLANTA TO CHARLOTTE

PASSENGER RAIL CORRIDOR INVESTMENT PLAN

Tier 1 Draft Environmental Impact Statement



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PUBLIC INFORMATION OPEN HOUSES

Atlanta, Georgia

10/22/19, 5:30pm – 8:00pm
Georgia Department of Transportation
600 West Peachtree Street NW
Atlanta, GA 30308

Greenville, South Carolina

10/23/19, 5:30pm – 8:00pm
Greenville County Square
301 University Ridge Suite 400
Greenville, SC 29601

Charlotte, North Carolina

10/24/19, 5:30pm – 8:00pm
Metrolina TMC
2327 Tipton Drive
Charlotte, NC 28206

INTRODUCTION

As part of the Atlanta to Charlotte Passenger Rail Corridor Investment Plan (the Project), the Federal Railroad Administration (FRA) and the Georgia Department of Transportation (GDOT) prepared a Tier 1 Draft Environmental Impact Statement (DEIS) for the extension of the Southeast High Speed Rail (SEHSR) corridor from Charlotte to Atlanta. The vision of the SEHSR Corridor is to develop an integrated passenger rail transportation solution for the Southeast, including proposed high-speed rail from Washington, DC through Richmond, VA, Charlotte and Raleigh, NC, and from Charlotte to Atlanta, GA. GDOT and FRA recently reached a major milestone for the Project with the release of the Tier 1 DEIS on September 20, 2019, a result of multiple years of technical analysis and collaboration with agencies and the public.

This newsletter provides information on the Tier 1 DEIS, including analysis of three Corridor Alternatives and key findings. FRA and GDOT encourage the public, agencies and interested organizations to provide comments on the Tier 1 DEIS. The comments received on the Tier 1 DEIS will help determine the identification of a Preferred Corridor Alternative for the Tier 1 Final Environmental Impact Statement (FEIS) and Record of Decision (ROD).

The agency and public comment period for the Tier 1 DEIS is open from September 20, 2019 to November 4, 2019. Materials are available online at dot.ga.gov/IS/Rail/AtlantatoCharlotte. The website will have the same materials as the in-person meetings.

The public can submit comments and questions to:
AtlantaCharlotteHSR@dot.ga.gov

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The National Environmental Policy Act (NEPA) requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. FRA determined that a tiered NEPA process is appropriate for a project of this scale, as tiering involves a staged environmental review process applied to complex projects covering large geographic areas.

For the project, this Tier 1 DEIS establishes:

- Purpose and Need
- A broad assessment of the potential transportation, social, economic, and environmental impacts of Corridor Alternatives
- The outcomes of public and agency coordination

The Tier 1 DEIS also identifies general locations for potential stations; and discusses potential train technology, speed, and frequency necessary to support the Purpose and Need of the Project. After the public and interested agencies provide comments on the Tier 1 DEIS, FRA and GDOT will publish the Final Environmental Impact Statement/Record of Decision (FEIS/ROD). The FEIS will respond to comments on the Tier 1 DEIS, discuss any changes made since the release of the DEIS, and FRA and GDOT will select a Preferred Corridor Alternative that could be evaluated further in a Tier 2 study. At this time, funding has not been identified to initiate a Tier 2 study for the Atlanta to Charlotte corridor. The exhibit on the right illustrates the tiered NEPA process.

TIER 2 NEPA PROCESS

Decisions that are discussed in this Tier 1 DEIS, but will be deferred to a Tier 2 Analysis include: station locations, rail alignment within the Preferred Corridor Alternative, airport connections, train technology, and the Atlanta Approach. Future NEPA steps following this Tier 1 DEIS could also include the following: (1) Tier 2 EIS; (2) Preliminary Engineering (could be concurrent with Tier 2 study); (3) Service Development Plan (could be concurrent with Tier 2 study); (4) Identification of Project Funding; (5) Final Design; (6) Right-of way (ROW) acquisition; and (7) Construction. Tier 2 EIS studies focus on the analysis of project and alignment specific impacts, whereas the Tier 1 EIS focuses on defining broader, corridor-wide impacts.

Tier 1 NEPA PROCESS

1

Publish a Notice of Intent (NOI) to formally initiate the program. It notifies agencies and the public that a federal agency intends to undertake and prepare an EIS.

2

Initiate the scoping process by the lead agency. Preliminary information is provided to affected federal, state, and local agencies and the public, who are invited to provide comments on the proposed project.

3

Prepare Tier 1 Draft EIS (DEIS). Evaluate environmental impacts based on criteria established through NEPA.

4

FRA approves Tier 1 DEIS; document made available for agency and public comment.

5

Based on public input and results of the Tier 1 analyses, the FRA recommends a preferred alternative.

6

FRA publishes a notice that the Tier 1 FEIS/ROD is available.

7

Identify funding and sponsor for Tier 2 environmental process.

TIER 2 NEPA PROCESS

Preliminary Engineering (PE) includes design work and analysis that leads to the production of construction plans and cost estimates for the Project. PE could include track alignment, station locations, bridge designs, and engineering and traffic surveys. Final Design concludes the engineering and design work with the production of final plans and prepares the project for right-of-way (ROW) acquisition and construction. A Service Development Plan (SDP) defines the service improvements, transportation network, operational and financial aspects for the Preferred Alternative selected through the NEPA process.

ATLANTA TO CHARLOTTE CORRIDOR

PURPOSE

The Purpose of the Project is to improve intercity passenger travel between Atlanta and Charlotte by expanding the region’s transportation system capacity, and improving trip time and reliability through high-speed passenger rail services.

NEED

GDOT has identified seven transportation system needs relevant to the study area with each corresponding to the anticipated population and employment growth with increasing travel demand.

The Project would satisfy the following needs:

- Population and Employment Growth
- Improve Regional Transportation System Connectivity
- Increase Transportation System Capacity
- Improve Travel Times and Reliability
- Provide an Alternative Travel Mode
- Traveler Safety
- Improve Energy Efficiency and Air Quality
- Maintain and Enhance Economic Growth and Vitality

PROJECT SCHEDULE



ALTERNATIVES CONSIDERED

ALTERNATIVES DEVELOPMENT PROCESS

GDOT started with six Corridor Alternatives identified by a 2008 United States Department of Transportation (USDOT) study. Three of the six alternatives were advanced by GDOT for further analysis based on their performance and conformity to the Purpose and Need: the Southern Crescent, I-85, and Greenfield. GDOT conducted high-level operational and performance analysis of the three Corridor Alternatives and identified potential station opportunities, considered rail technology and speed considerations, and identified two options for approaching metro Atlanta (the Atlanta Approach). Finally, GDOT evaluated potential environmental impacts of the three Corridor Alternatives using high-level measures appropriate for Tier 1 environmental analysis.

Three Corridor Alternatives

Southern Crescent Corridor Alternative

The Southern Crescent Corridor Alternative is 268 miles and primarily follows the Norfolk Southern (NS) Piedmont Division ROW, which hosts the existing Amtrak Crescent long-distance service between Atlanta and Charlotte. This Corridor Alternative proposes operating fully on shared freight and passenger tracks for the standard operating speed or proposes constructing some sections of passenger only track for the higher speed alternative. This corridor could serve three stations in North Carolina at Charlotte Gateway, Charlotte-Douglas International Airport (CLT) airport, and Gastonia; four stations in South Carolina in Spartanburg, Greer, Greenville, and Clemson; and six stations in Georgia in Toccoa, Gainesville, Suwanee, Doraville, downtown Atlanta, and Hartsfield–Jackson Atlanta International Airport (H-JAIA).

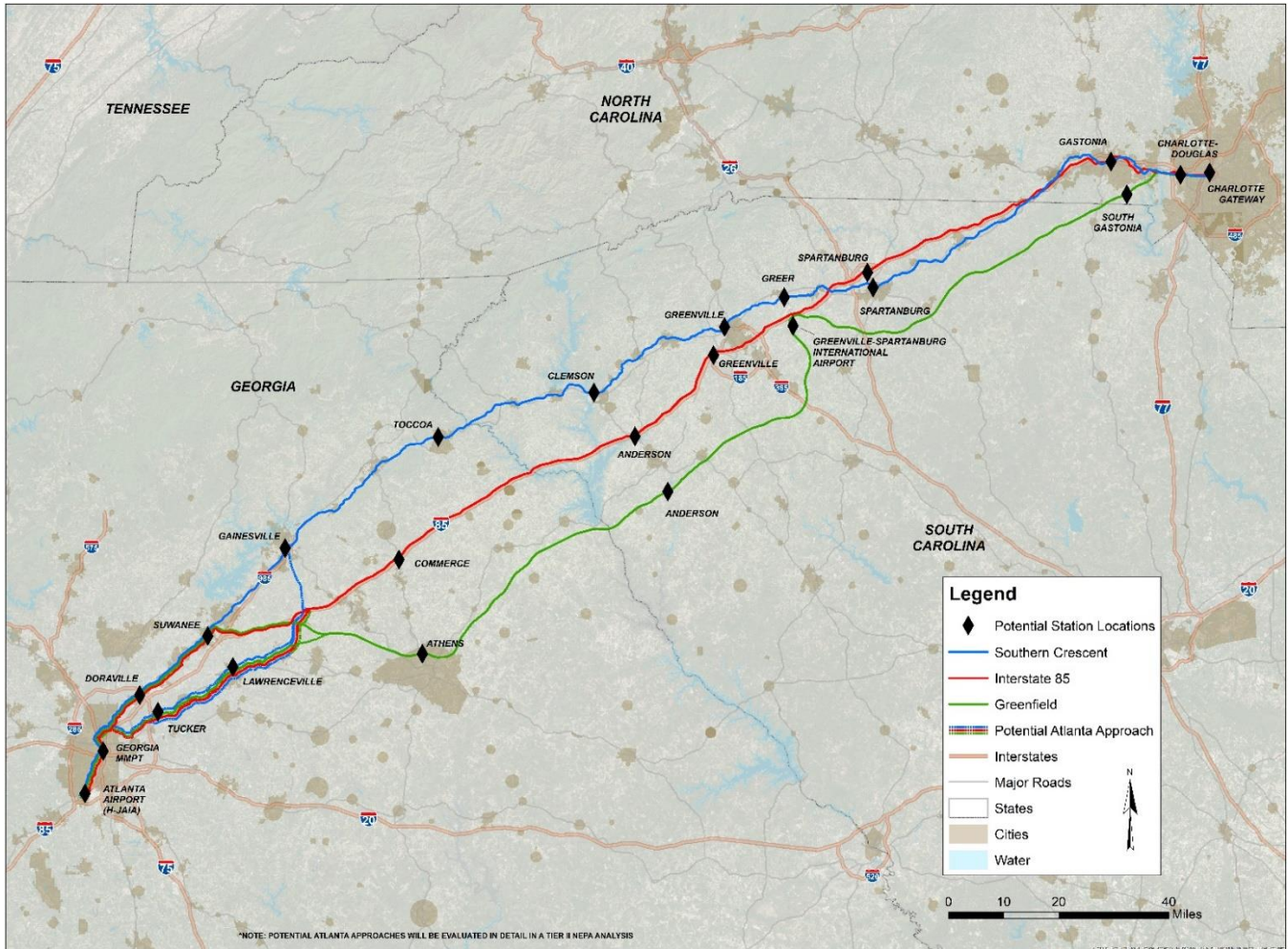
I-85 Corridor Alternative

The I-85 Corridor Alternative is 255 miles and located primarily within the interstate highway ROW on a dedicated high-speed passenger rail alignment following I-85 between Gastonia, NC and Suwanee, GA, then following a shared railroad ROW in the approaches to the Charlotte and Atlanta termini. This corridor could serve three stations in North Carolina at Charlotte Gateway, CLT airport, and Gastonia; three stations in South Carolina in Spartanburg, Greenville, and Anderson; and four stations in Georgia in Suwanee, Doraville, downtown Atlanta, and H-JAIA.

Greenfield Corridor Alternative

The Greenfield Corridor Alternative is 274 miles and primarily on a new “greenfield” corridor on land without prior transportation use. This Corridor Alternative proposes a dedicated high-speed passenger rail alignment for a majority of the corridor, then follows shared freight railroad ROW in the approaches to the Charlotte and Atlanta termini. This route could serve three stations in North Carolina at Charlotte Gateway, CLT airport, and South Gastonia; two stations in South Carolina at Greenville-Spartanburg International airport (GSP) and Anderson; and five stations in Georgia in Athens, Suwanee, Doraville, downtown Atlanta, and H-JAIA.

CORRIDOR ALTERNATIVES MAP



ALTERNATIVES ANALYSIS

The table below summarizes the results of the Tier 1 operational and performance analysis including 2050 projections:

Alternative	Top Operating Speed* (MPH)	End to End Travel Time (hrs.:mins.)	Frequency (daily round trips)	Capital Cost**	2050 Projected Annual Ridership	2050 Projected Annual Revenue***	2050 Projected Annual O&M Cost	Revenue/O&M Cost (over 30-year period)
Southern Crescent	79-110	4:35-5:34	4	\$2.0B-\$2.3B	0.94M-1.18M	\$43.5M-\$56.9M	\$63.17M-\$66.1M	0.66 to 0.82
I-85	125-180	2:42-2:50	14	\$13.3B-\$15.4B	5.50M-5.62M	\$369.0M-\$377.2M	\$192.9M-\$169.9M	2.05 to 2.30
Greenfield	125-220	2:06-2:44	16 – 22	\$6.2B-\$8.4B	5.38M-6.30M	\$397.9M-\$475.8M	\$205.7M-\$211.9M	2.08 to 2.32

* As described in DEIS Section 2.2.2.4, operating speeds are a function of equipment technology, geometry, topography, and other corridor characteristics. Generally, top speeds are only sustained for portions of the trip, the extent of which varies by Corridor Alternative.

** Costs shown in 2012 dollars, reflecting the year of analysis

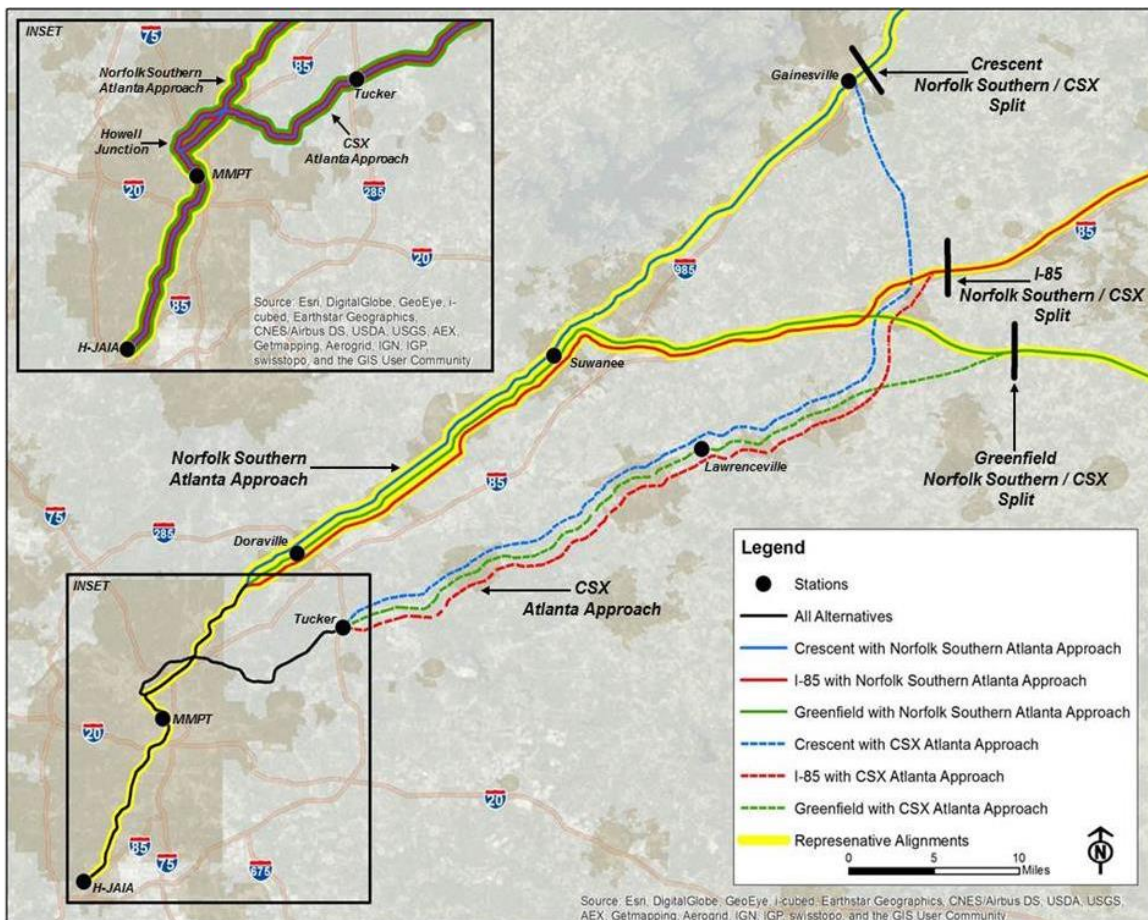
*** Revenue includes tickets and on-board services

ATLANTA APPROACH

GDOT evaluated two options for each of the Corridor Alternatives to approach downtown Atlanta in this Tier 1 Draft EIS document: the Southern Crescent ROW, operated by Norfolk Southern (NS), and the CSX ROW. The NS ROW travels through Gainesville, Suwanee, and Doraville. The CSX ROW travels through Lawrenceville and Tucker before entering downtown from the east. Both approaches converge at Howell Junction and follow a common Class I railroad ROW along the NS/CSX corridor to access a station in downtown Atlanta and H-JAIA. GDOT assumes the Southern Crescent Corridor Alternative could use either approach; however, operating on shared tracks due to the modest level of service and limited operating speed. GDOT also assumes the I-85 and Greenfield Corridor Alternatives could use either approach; however, operating on dedicated tracks and sharing the freight railroad ROW. Both options have similar travel time, but they would serve different station locations in the metro Atlanta suburbs.

Due to the complex environment of the approaches to and through Atlanta, and the nature of a tiered NEPA process, this Tier 1 EIS defers the selection of the preferred Atlanta Approach to a future Tier 2 EIS. In addition to the two potential Atlanta Approaches defined in this DEIS (NS and CSX), a future Tier 2 EIS could also identify additional feasible approaches or construction methods traversing the Atlanta metro area.

ATLANTA APPROACH OPTIONS MAP



TECHNOLOGY AND SPEED OPTIONS

Generally classified into two categories of operating speeds, the three Corridor Alternatives anticipate maximum operating speeds between 79 mph and 125 mph utilizing diesel technology, compared to an anticipated operating speed of up to 220 mph with electric technology. Operating speeds will vary along each corridor depending on a range of factors such as: topography (i.e. grade), geometry (i.e. curves), distance between stations and electric vs. diesel train technology.

Diesel

This Tier 1 EIS evaluated diesel powered trains paired with both conventional (non-tilting) and tilting technologies. Conventional trains travel at speeds ranging from 79 mph to 115 mph compared to trains with tilting cars traveling at speeds up to 125 mph. Tilting cars allow trains to maintain higher speed on curves that would otherwise limit travel speed.

Electric

Electric train technology utilizes electric power delivered directly to the trainset using overhead catenary power lines. The Tier 1 DEIS evaluated electric train technology with tilting passenger coaches in alternatives with speeds above 125 mph to 220 mph. The table below summarizes the two speed options evaluated for each of the three Corridor Alternatives.



OPERATING SPEED & TRAVEL TIME SUMMARY

The table below summarizes the two speed options evaluated for each of the three Corridor Alternatives. Trains cannot reach top operating speeds on all portions of the corridor. All Corridor Alternatives propose utilizing freight rail ROW for the Atlanta Approach reflected in the total travel time.

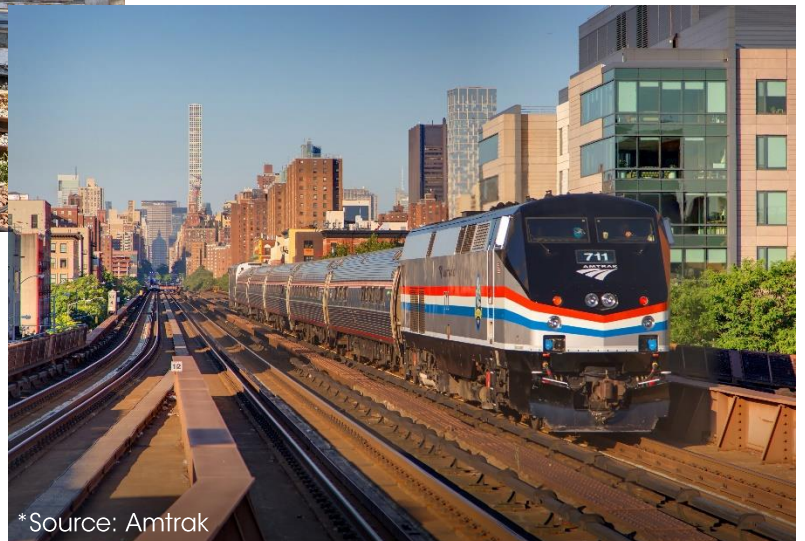
Corridor Alternative	Rail Technology & Infrastructure	Top Operating Speed	Travel Time (hours: minutes)
Southern Crescent	Diesel trains sharing tracks with freight traffic	79 mph	5:34
	Diesel trains using a combination of shared and dedicated tracks	110 mph	4:35
I-85	Diesel trains on dedicated tracks	125 mph	2:50
	Electric trains on dedicated tracks	180 mph	2:42
Greenfield	Diesel trains on dedicated tracks	125 mph	2:44
	Electric trains on dedicated tracks	220 mph	2:06

ELECTRIC



*Stock Photo by Bellend

DIESEL




































*Source: Amtrak

KEY FINDINGS

ENVIRONMENTAL RESOURCES IN THE TIER 1 DEIS

GDOT evaluated each of the three Corridor Alternatives and the two Atlanta Approach options for potential impacts to environmental resources. GDOT generally used a 600-foot wide screening area around each Corridor Alternative and the No-Build Alternative as a baseline for comparison purposes. The No-Build Alternative is the future condition of an area in the absence of a project; it assumes that no improvements will be made with the exception of periodic maintenance and minor enhancements needed to maintain safe operation and those improvements already designated in an approved plan. The table below summarizes the results of the environmental screening process. For more detailed information about environmental resources and methodologies, refer to Chapter 3 of the DEIS.

ENVIRONMENTAL IMPACTS COMPARISON

Categories	Definitions	Southern Crescent	I-85	Greenfield
Diverted Trips	Projected Automobile, Air, and Bus Trips Diverted To Rail			
Socioeconomic and Environmental Justice	Percentage of Census Block Groups Meeting EJ Criteria For Minority and Low-Income Populations			
Noise	Number of Potential Noise Receptor Impacts			
Vibration	Number of Potential Vibration Receptor Impacts			
Parklands and Wildlife Refuges	Acres of Parklands and Wildlife Refuge Sites			
Cultural and Historic Resources	Number of Known Cultural Resources			
Threatened and Endangered Species Habitats	Number of Known Threatened and Endangered Species Habitats			
Wetlands	Acres of Wetlands			
Waterbody Crossings	Number of Waterbody Crossings (Rivers, Streams, Lakes)			
Floodplains	Acres of Floodplains			
Community Facilities	Number of Known Community Facilities			

● **Lowest Potential Impact**
● **Moderate Potential Impact**
● **Highest Potential Impact**

The results are based on a comparison of the three Corridor Alternatives against the No Build alternative.

PIOH INFORMATION AND COMMENT PERIOD

GDOT invites the public and interested agencies to any of three Public Information Open House (PIOH) events during October 2019 to better understand the project, review the information in the Tier 1 DEIS, and provide comments and questions on the project. Additionally, the public may review materials from the PIOH online at: <http://www.dot.ga.gov/IS/Rail/AtlantatoCharlotte>.

GDOT will accept public and agency comments for this Tier 1 DEIS from September 20, 2019 to November 4, 2019. Please submit comments by way of email to the address AtlantaCharlotteHSR@dot.ga.gov or by regular mail to:

Kaycee Mertz
Rail and Transit Planning Manager
Georgia Department of Transportation
Division of Intermodal
600 West Peachtree Street NW
Atlanta, GA 30308

Atlanta, Georgia

Tuesday, October 22, 2019
Georgia Department of
Transportation
600 West Peachtree Street NW
Atlanta, GA 30308
5:30pm – 8:00pm

Greenville, South Carolina

Wednesday, October 23, 2019
Greenville County Square
301 University Ridge Suite 400
Greenville, SC 29601
5:30pm – 8:00pm

Charlotte, North Carolina

Thursday, October 24, 2019
Metrolina Transportation
Management Center (TMC)
2327 Tipton Drive
Charlotte, NC 28206
5:30pm – 8:00pm

NEXT STEPS

TIER 1 FEIS/ROD

Following the public and agency comment period, FRA and GDOT will select a Preferred Alternative and document this process likely in a combined Final FEIS/ROD document. GDOT will base the Preferred Alternative decision on feedback and comments from the public and agencies, performance of each Corridor Alternative, and the potential environmental impacts of each Corridor Alternative. The Final EIS/ROD document will include a list of all revisions made to address feedback received during the 45-day review period.

The following decisions will be deferred to a Tier 2 Analysis: station locations, project alignment within the Preferred Corridor Alternative, airport connections, technology, and the Atlanta Approach.