

APPENDIX C

TRAFFIC ANALYSIS AND BUS OPERATIONS CONCEPTS

Five Points

Scenario Assessment

December 2021

THIS PAGE INTENTIONALLY LEFT BLANK FOR PRINTING

TABLE OF CONTENTS

1. INTRODUCTION 1

1.1 Project Purpose and Background 1

1.2 Report Organization..... 1

2. STUDY AREA OVERVIEW 1

3. CURRENT AND FUTURE DEVELOPMENT 3

3.1 Existing Land Use..... 3

3.2 Future Development 5

4. STATION AREA SCENARIOS..... 13

4.1 Option A: Broad Street Not Reopened 18

4.2 Option B: Broad Street Opened, Bus Only 19

4.3 Option C: Broad Street Opened, Bus Only..... 20

4.4 Option D: Broad Street Opened, Bus Only..... 21

4.5 Option E: Broad Street Opened (One Way/SB), Bus Only 22

4.6 Option F: Broad Street Opened (One Way/NB), Bus Only 24

4.7 Summary of Station Scenarios 25

5. BUS OPERATIONS FOR PROPOSED SCENARIOS 27

5.1 Route 186..... 28

5.2 Route 21.....33

5.3 Route 49.....38

5.4 Route 55.....43

5.5 Route 26.....48

5.6 Route 42.....53

5.7 Route 358

5.8 Route 40..... 64

5.9 Route 813..... 69

5.10 Route 816..... 74

5.11 CobbLinc Route 100 & 101..... 79

5.12 Xpress Routes 84

5.13 Summary 89

6. CURB MANAGEMENT UPDATES..... 92

7. PEDESTRIAN IMPROVEMENTS AND SAFETY	97
8. CONCLUSIONS	98

FIGURES

FIGURE 1. STUDY AREA.....	2
FIGURE 2. EXISTING LAND USE IN STUDY AREA	3
FIGURE 3. CURRENT ZONING IN STUDY AREA	4
FIGURE 4. DEVELOPMENT POTENTIAL OF FIVE POINTS STATION BY ATLANTA CITY STUDIO	6
FIGURE 5. CURRENT PERMITTING ACTIVITY IN STUDY AREA	8
FIGURE 6. ARTISTIC INTERPRETATION OF NEAR-TERM VISION FOR FIVE POINTS PLAZA	10
FIGURE 7. ARTISTIC INTERPRETATION OF LONG-TERM VISION FOR FIVE POINTS PLAZA	11
FIGURE 8. PROPOSED REDEVELOPMENT STRATEGY AT 143 ALABAMA STREET	12
FIGURE 9. EXISTING BUS STOPS AT MARTA FIVE POINTS STATION.....	14
FIGURE 10. STATION ENTRY POINTS AND EXISTING STREET CONDITIONS	16
FIGURE 11. EXISTING STATION BUS STOP LOCATIONS.....	17
FIGURE 12. OPTION A: BROAD STREET NOT REOPENED.....	18
FIGURE 13. OPTION B: BROAD STREET OPENED, BUS ONLY	19
FIGURE 14. OPTION C: BROAD STREET OPENED, BUS ONLY	20
FIGURE 15. OPTION D: BROAD STREET OPENED, BUS ONLY	21
FIGURE 16. OPTION E: BROAD STREET OPENED ONE-WAY SB	22
FIGURE 17. OPTION F: BROAD STREET OPENED ONE-WAY NB	24
FIGURE 18. OPTION B: BROAD STREET OPENED, ALL TRAFFIC.....	26
FIGURE 19. ROUTE 186 OPTION A OPERATIONAL STRATEGY.....	29
FIGURE 20. ROUTE 186 OPTION B OPERATIONAL STRATEGY	30
FIGURE 21. ROUTE 186 OPTIONS C & D OPERATIONAL STRATEGY.....	31
FIGURE 22. ROUTE 186 OPTION E OPERATIONAL STRATEGY	32
FIGURE 23. ROUTE 186 OPTION F OPERATIONAL STRATEGY	33
FIGURE 24. ROUTE 21 OPTION A OPERATIONAL STRATEGY.....	34
FIGURE 25. ROUTE 21 OPTION B OPERATIONAL STRATEGY	35
FIGURE 26. ROUTE 21 OPTIONS C & D OPERATIONAL STRATEGY.....	36
FIGURE 27. ROUTE 21 OPTION E OPERATIONAL STRATEGY	37
FIGURE 28. ROUTE 21 OPTION F OPERATIONAL STRATEGY	38
FIGURE 29. ROUTE 49 OPTION A OPERATIONAL STRATEGY.....	39
FIGURE 30. ROUTE 49 OPTION B OPERATIONAL STRATEGY	40
FIGURE 31. ROUTE 49 OPTIONS C & D OPERATIONAL STRATEGY.....	41
FIGURE 32. ROUTE 49 OPTION E OPERATIONAL STRATEGY	42
FIGURE 33. ROUTE 49 OPTION F OPERATIONAL STRATEGY	43
FIGURE 34. ROUTE 55 OPTION A OPERATIONAL STRATEGY.....	44
FIGURE 35. ROUTE 55 OPTION B OPERATIONAL STRATEGY	45
FIGURE 36. ROUTE 55 OPTIONS C & D OPERATIONAL STRATEGY.....	46
FIGURE 37. ROUTE 55 OPTION E OPERATIONAL STRATEGY	47
FIGURE 38. ROUTE 55 OPTION F OPERATIONAL STRATEGY	48
FIGURE 39. ROUTE 26 OPTION A OPERATIONAL STRATEGY.....	49
FIGURE 40. ROUTE 26 OPTION B OPERATIONAL STRATEGY	50
FIGURE 41. ROUTE 26 OPTIONS C & D OPERATIONAL STRATEGY.....	51
FIGURE 42. ROUTE 26 OPTION E OPERATIONAL STRATEGY	52

FIGURE 43. ROUTE 26 OPTION F OPERATIONAL STRATEGY	53
FIGURE 44. ROUTE 42 OPTION A OPERATIONAL STRATEGY	54
FIGURE 45. ROUTE 42 OPTION B OPERATIONAL STRATEGY	55
FIGURE 46. ROUTE 42 OPTIONS C & D OPERATIONAL STRATEGY	56
FIGURE 47. ROUTE 42 OPTION E OPERATIONAL STRATEGY	57
FIGURE 48. ROUTE 42 OPTION F OPERATIONAL STRATEGY	58
FIGURE 49. ROUTE 3 OPTION A OPERATIONAL STRATEGY	59
FIGURE 50. ROUTE 3 OPTION B OPERATIONAL STRATEGY	60
FIGURE 51. ROUTE 3 OPTIONS C & D OPERATIONAL STRATEGY	61
FIGURE 52. ROUTE 3 OPTION E OPERATIONAL STRATEGY	62
FIGURE 53. ROUTE 3 OPTION F OPERATIONAL STRATEGY	63
FIGURE 54. ROUTE 40 OPTION A OPERATIONAL STRATEGY	64
FIGURE 55. ROUTE 40 OPTION B OPERATIONAL STRATEGY	65
FIGURE 56. ROUTE 40 OPTIONS C & D OPERATIONAL STRATEGY	66
FIGURE 57. ROUTE 40 OPTION E OPERATIONAL STRATEGY	67
FIGURE 58. ROUTE 40 OPTION F OPERATIONAL STRATEGY	68
FIGURE 59. ROUTE 813 OPTION A OPERATIONAL STRATEGY	69
FIGURE 60. ROUTE 813 OPTION B OPERATIONAL STRATEGY	70
FIGURE 61. ROUTE 813 OPTIONS C & D OPERATIONAL STRATEGY	71
FIGURE 62. ROUTE 813 OPTION E OPERATIONAL STRATEGY	72
FIGURE 63. ROUTE 813 OPTION F OPERATIONAL STRATEGY	73
FIGURE 64. ROUTE 816 OPTION A OPERATIONAL STRATEGY	74
FIGURE 65. ROUTE 816 OPTION B OPERATIONAL STRATEGY	75
FIGURE 66. ROUTE 816 OPTIONS C & D OPERATIONAL STRATEGY	76
FIGURE 67. ROUTE 816 OPTION E OPERATIONAL STRATEGY	77
FIGURE 68. ROUTE 816 OPTION F OPERATIONAL STRATEGY	78
FIGURE 69. COBBLINC ROUTES 100 & 101 OPTION A OPERATIONAL STRATEGY	79
FIGURE 70. COBBLINC ROUTES 100 & 101 OPTION B OPERATIONAL STRATEGY	80
FIGURE 71. COBBLINC ROUTES 100 & 101 OPTIONS C & D OPERATIONAL STRATEGY	81
FIGURE 72. COBBLINC ROUTES 100 & 101 OPTION E OPERATIONAL STRATEGY	82
FIGURE 73. COBBLINC ROUTES 100 & 101 OPTION F OPERATIONAL STRATEGY	83
FIGURE 74. XPRESS ROUTES OPTION A OPERATIONAL STRATEGY	84
FIGURE 75. XPRESS ROUTES OPTION B OPERATIONAL STRATEGY	85
FIGURE 76. XPRESS ROUTES OPTIONS C & D OPERATIONAL STRATEGY	86
FIGURE 77. XPRESS ROUTES OPTION E OPERATIONAL STRATEGY	87
FIGURE 78. XPRESS ROUTES OPTION F OPERATIONAL STRATEGY	88
FIGURE 79. OPTION A CURB UPDATES	92
FIGURE 80. OPTION B CURB UPDATES	93
FIGURE 81. OPTIONS C & D CURB UPDATES	94
FIGURE 82. OPTION E CURB UPDATES	95
FIGURE 83. OPTION F CURB UPDATES	96

TABLES

TABLE 1. SUMMARY OF CURRENT PERMITTING ACTIVITY	9
TABLE 2. CURRENT ROUTES AT MARTA FIVE POINTS STATION	13
TABLE 3. SUMMARY OF STATION AREA SCENARIOS AND OPTIONS	25
TABLE 4. SUMMARY OF STATION AREA SCENARIOS	28

TABLE 5. BUS BAY ASSIGNMENTS IN OPTION A 89

TABLE 6. BUS BAY ASSIGNMENTS IN OPTION B 89

TABLE 7. BUS BAY ASSIGNMENTS IN OPTIONS C OR D 90

TABLE 8. BUS BAY ASSIGNMENTS IN OPTION E 90

TABLE 9. BUS BAY ASSIGNMENTS IN OPTION F 91

TABLE 10. TOP THREE STATION AREA SCENARIOS 101

1. Introduction

This memo documents a bus operation plan for routes connecting to the Metropolitan Atlanta Regional Transit Authority (MARTA) Five Points Station. The memo will outline a survey of current, or planned, development impacting the study area, a summary of forecasted or planned bus service changes, recommendations to improve access between bus stops and station entrances, and pedestrian improvement recommendations. This document will also provide analyses of different scenarios for bus operations on Broad Street if it remains closed or is reopened.

1.1 PROJECT PURPOSE AND BACKGROUND

Over the next five years, the MARTA Five Points Station will undergo a tremendous transformation, and so will the fixed route bus operations and how they interact with the Five Points Station. The purpose of this project is to assess the current conditions around the station, conduct a full assessment of MARTA's bus operations at the station, and make recommendations for future operations. Recommendations include stop locations and pedestrian circulation improvements and consider the potential that Broad Street may be developed for bus operations.

1.2 REPORT ORGANIZATION

This document was developed under MARTA's Five Points Bus Operations Assessment Plan project. It is the second of two technical documents to be produced from this study. This document was preceded by an Existing Conditions Report providing an overview of current bus operations, curb and street usage, and safety conditions that will be used in developing recommendations for the most viable location for bus operations in the Five Points Station Study Area.

This Bus Operations Assessment Plan includes the following sections:

- Study Area Overview
- Current and Future Development
- Station Area Scenarios
- Bus Operations for Proposed Scenarios
- Curb Management Recommendations
- Pedestrian Improvements and Safety
- Conclusions

2. Study Area Overview

The study area is in downtown Atlanta surrounding the MARTA Five Points Station, as shown in **Figure 1** below. The boundaries of the station area include Peachtree Street to the east and Forsyth Street to the west, intersecting with Marietta/Decatur Street to the north and Alabama Street to the south. The Five Points station is the central transfer point for all four heavy rail lines and is a connecting point for multiple bus routes and services. The

predominant land use around the station on the street level is commercial and retail, including national and locally owned fast-food restaurants, pharmacies, and other locally owned businesses.

Broad Street Plaza is a pedestrian-only zone north of the station, dotted with clothing and convenience stores. The skyscrapers on Decatur Street and Peachtree Street are primarily multi-tenant office buildings, home to banks and other businesses with street facing store-front properties. There are also residential condominiums housed in these buildings. Georgia State University (GSU) owns a few of the properties in the vicinity—the campus buildings are identifiable by the flags embossed with their signature University insignia and logo. The Sam Nunn Federal Center (the largest federal building in the southeast United States) lies south of the station—it is a combination of four separate buildings along Alabama Street and Forsyth Street, housing various federal agencies such as the Equal Employment Opportunity Commission and the US Labor Department. The Peachtree Fountains Plaza is a public park to the east of the station, which serves as an entry point to Underground Atlanta, a shopping and entertainment district southeast of the station on Alabama Street. There is a multi-story parking garage for patrons of the park and Underground Atlanta on Peachtree Street. The area is also home to historic buildings such as the Atlanta Constitution Building to the west and the Connally Building (now the Fairfield Hotel and Inn) to the southeast.

Figure 1. Study Area



3. Current and Future Development

This section documents the existing and future land use plans as well as development activities in the study area. Land use plans have been reviewed to gauge level of transit supportiveness of the station study area as part of the Bus Operations Assessment.

3.1 EXISTING LAND USE

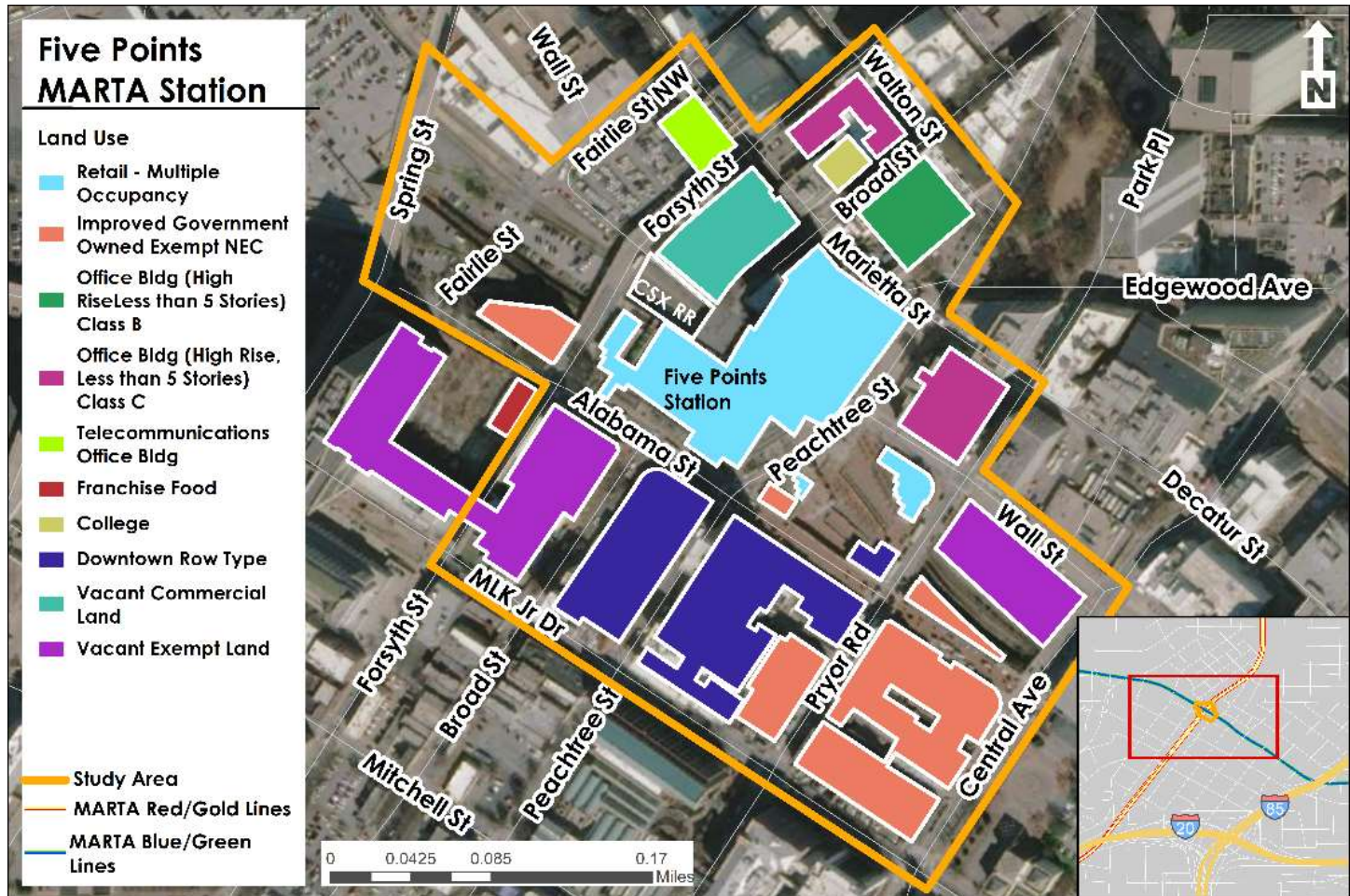
An analysis of existing land uses in the study area shows the most prominent land use in the study area to be commercial with institutional land uses also comprising significant portions of the study area **Figure 2**. Five Points Station is central to the larger MARTA rail system and is the only transportation-communication-utilities (TCU) land use in the study area. A small section north of Marietta Street is comprised of multi-family residential.

Figure 2. Existing Land Use in Study Area



Commercial land is the most prevalent land use in the study area. These include office buildings and commercial areas. In the area surrounding Five Points Station, particularly between the station and Marietta Street, buildings are zoned as mainly multiple occupancy retail, offices, and food shops, such as Five Points Plaza, Rainbow Apparel, Accessory Land, City Gear and Krispy Krunch Chicken **Figure 3**.

Figure 3. Current Zoning in Study Area



3.2 FUTURE DEVELOPMENT

The study area lies within the City of Atlanta and Fulton County. Each of these jurisdictions, including community development organizations, such as Central Atlanta Progress' (CAP) Atlanta Downtown Improvement District (ADID), currently feature elements of transit-supportive land uses and policies in their comprehensive plans or recently completed studies. The land use and Transit-Oriented Development (TOD) policies of MARTA have also been examined in this section, due to its property ownership and influence over development around the Five Points Station. The major role these jurisdictions have on TOD planning is discussed for their relevance.

The following factors were studied to gauge transit support:

- Community goals, policies, implementation strategies, and short-term action items supporting transit found in comprehensive plans;
- Transit-supportive land uses shown or indicated by future development plans and/or maps; and
- Support for and experience with TOD.

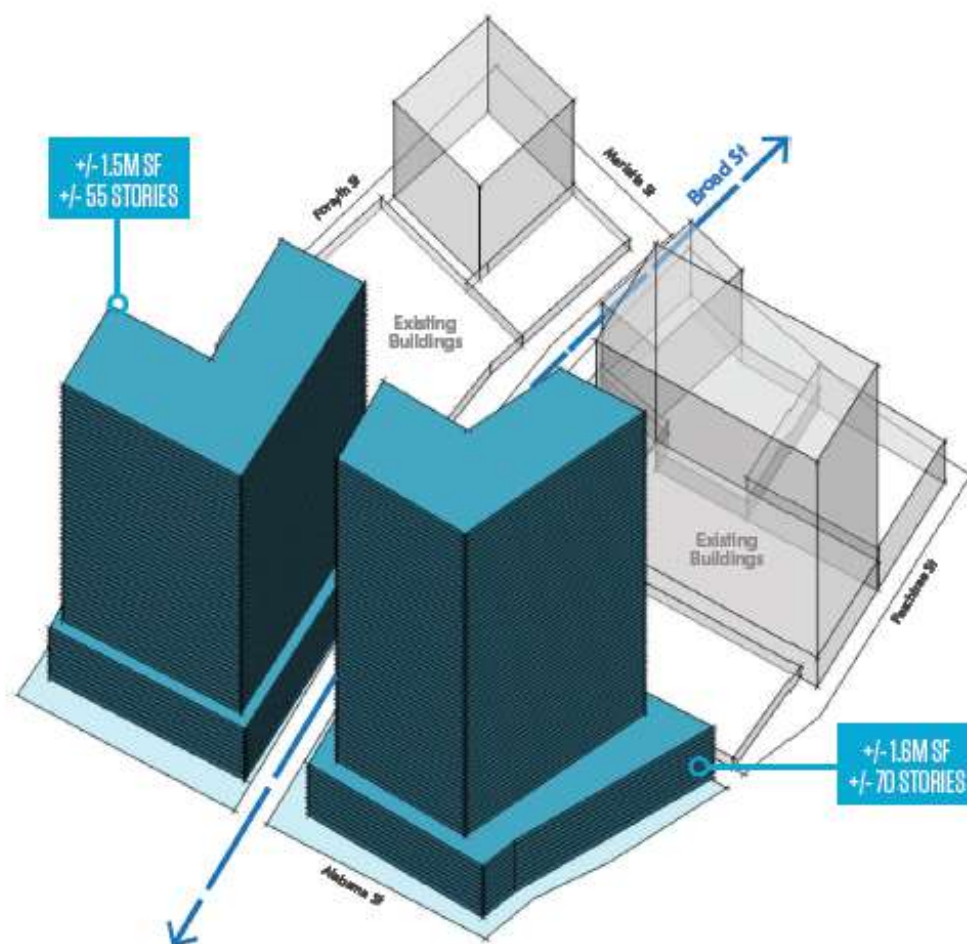
3.2.1 City of Atlanta

The City of Atlanta is the primary jurisdiction of the Five Points Station study area. The City has developed transit supportive policies and implementation strategies that have informed the various station configurations, bus operational strategies, and future development.

ATLANTA CITY STUDIO

The Atlanta Department of City Planning's Atlanta City Studio has proposed the reopening of Broad Street from Marietta Street to Alabama Street and removal of the station canopy to create a more "seamless public realm" at the street level **Figure 4**. Atlanta City Studio cites the reopening of Broad Street as an opportunity to restore two blocks of valuable urban land for TOD, accommodation of Station Soccer and AgLanta programs, and improved rider experience for existing and new transit users.

Figure 4. Development Potential of Five Points Station by Atlanta City Studio



Source: Atlanta Department of City Planning/Atlanta City Studio

REZONING ACTIVITY

The Department of City Planning was consulted to identify other redevelopment areas in the study area. As of fall 2021, permitting activity in the study area can be seen in **Figure 5**. Permit activity shows that while there are active applications in the study area, or just along the bounds of the study area, none are currently active adjacent to station property. A summary of properties with current permits is in

Table 1. Permitting activity currently consists of commercial permits only.

Figure 5. Current Permitting Activity in Study Area

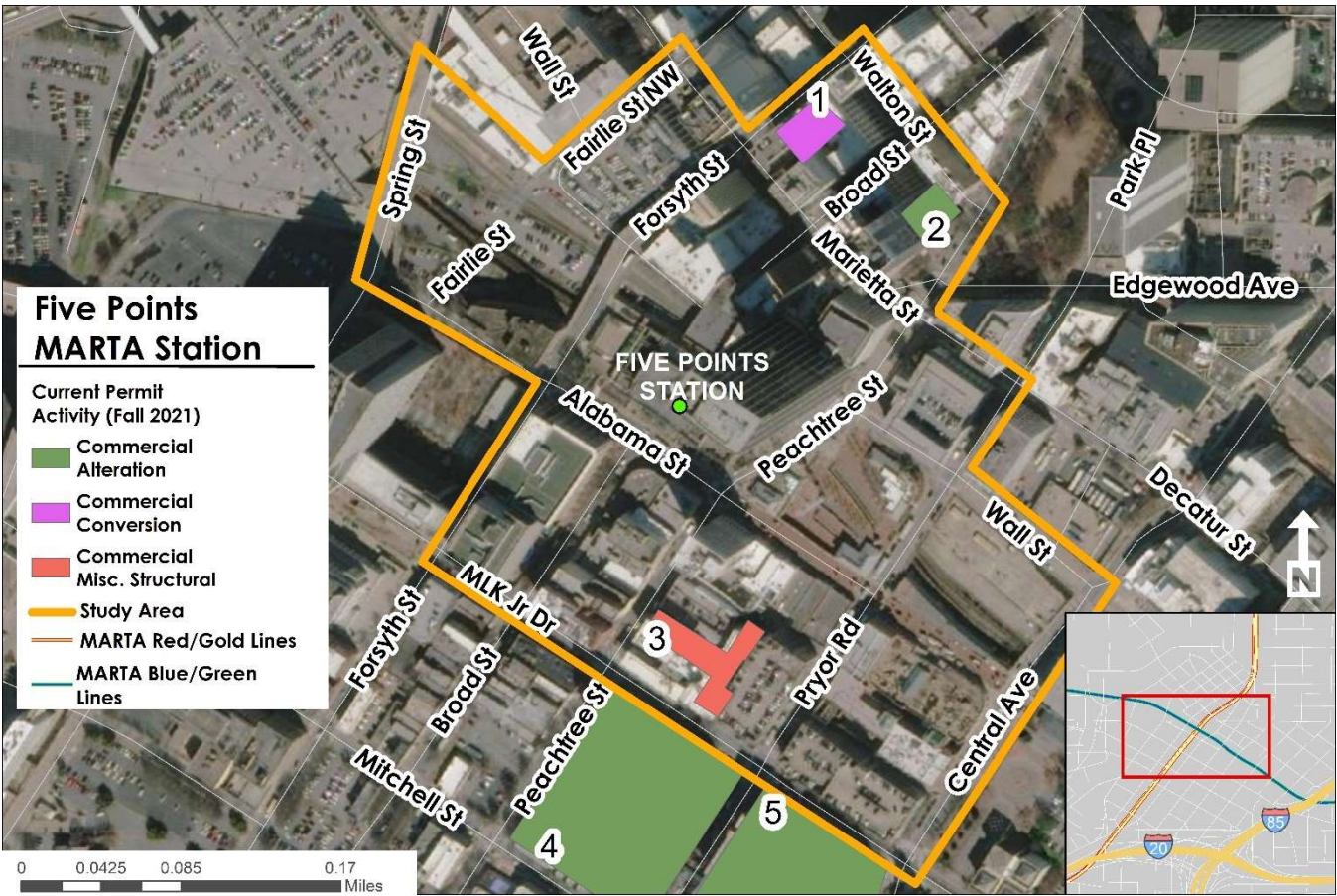


Table 1. Summary of Current Permitting Activity

	Site Address	Parcel ID	Owner	Application Type
1	41 MARIETTA ST NW	14 007800110609	TFOMS LLC	Commercial Conversion
2	34 PEACHTREE ST NW	14 007800130623	ONE PARK TOWER HOLDINGS LLC	Commercial Alteration
3	82 PEACHTREE ST SW	14 007700030840	NEWPORT 82 PEACHTREE STREET L P	Commercial Misc. Structural
4	141 PRYOR ST SW	14 007700061068	FULTON COUNTY	Commercial Alteration
5	136 PRYOR ST SW	14 007700070010	FULTON COUNTY	Commercial Alteration

3.2.2 Atlanta Downtown Improvement District (ADID)

The Central Atlanta Progress (CAP)/Atlanta Downtown Improvement District (ADID) has a strong role in development throughout downtown Atlanta. They have an active role in coordinating infrastructure and bus operations with the intent to alleviate conflicts and improve operations for everyone traveling throughout downtown Atlanta.

3.2.2.1 ATLANTA DOWNTOWN COMMUTER BUS ROUTING AND INFRASTRUCTURE STUDY

The Atlanta Downtown Commuter Bus Routing and Infrastructure Study completed by CAP and ADID in January 2021 highlights the existing commuter bus routing for services provided by CobbLinc, Gwinnett County Transit (GCT), and the Atlanta Regional Transit Link Authority's (ATL) Xpress brand. This study was used extensively for the Existing Conditions Report of this Bus Operations Assessment, but also provides insight in future development plans that may impact the station area and commuter busses serving the Five Points Station.

An assessment of commuter bus routing and ridership resulted in recommendations to remove, relocate, and streamline travel paths for routes currently connecting at Five Points Station. Recommended infrastructure improvements that would impact the station area due to their ability to transform multimodal trips in downtown Atlanta include the addition of bus lanes, Transit Signal Priority (TSP), staging locations and other signalization changes.

The recommendations yielded in the study have not yet gone through public review processes so are subject to change significantly before implementation but are provided so that there can be further coordination as infrastructure improvements are planned and implemented.

3.2.3 MARTA

In 2010, the MARTA Board adopted TOD Guidelines with strategic goals:

- Generating greater transit ridership through clustering mixed use development around the stations and along corridors;

- Promote a sustainable, affordable, and growing future for the people of metro Atlanta; and
- Generate a return on MARTA's transit investment through enhanced passenger revenues, greater federal support, and development on MARTA property.

TOD at the appropriate scale around Five Points Station will support achieving these goals.

3.2.3.1 FIVE POINTS TOD TRANSFORMATION

In 2019, MARTA's Board of Directors approved the Five Points Station transformation as part of the More MARTA Atlanta project sequencing. Subsequently, the Board approved the selection of Skidmore, Owings & Merrill (SOM) to lead the transformation of the station and oversee the deconstruction of the station's canopy, the potential connection via Broad Street of Marietta Street to Alabama Street, and creating a public plaza space adaptable to future TOD. MARTA has worked closely with SOM, the City of Atlanta, developers, and stakeholders to understand how the station transformation can best serve transit customers. MARTA also consulted with the Urban Land Institute (ULI) to set short- and long-term visions for the station.

In its assessment, ULI drew upon case studies of TOD around the country, connecting themes and recommended elements to determine that the Five Points Station in its short-term activation and long-term use should:

- Contribute to the aesthetics and feel of downtown Atlanta as a unique place;
- Improve the transit experience for current and future riders; and
- Attract non-transit users to the site.

Therefore, the short-term vision for Five Points Station consists of maintaining most existing entry points into the station, creating recreational venues, bus queuing and staging areas, adding art murals or monuments, retail and food opportunities and improving walkability **Figure 6**. The proposed visioning also restores the Broad Street connection through the plaza, connecting Marietta and Alabama Streets.

Figure 6. Artistic Interpretation of Near-Term Vision for Five Points Plaza



Source: Urban Land Institute (2020)

In the long-term vision for the station, ULI proposed development of the plaza as a public-private partnership driven by market conditions. The parcels on each side of Broad Street have the potential to be developed independently as residential, office and mixed-use developments **Figure 7**.

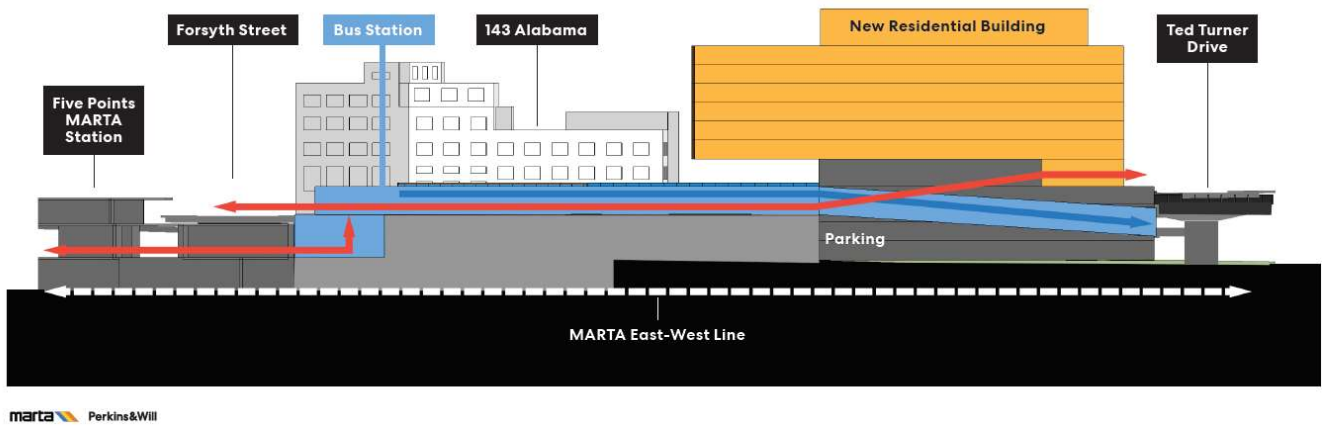
Figure 7. Artistic Interpretation of Long-Term Vision for Five Points Plaza



Source: Urban Land Institute (2020)

3.2.3.2 143 ALABAMA STREET

The feasibility of redeveloping 143 Alabama Street (Atlanta Constitution Building) for use by the City of Atlanta and/or MARTA has been previously assessed. One strategy for the property would be transforming it to serve as a City-led adaptive reuse project, locating a permitting center, design studio, retail, and office spaces into the building. Another strategy is to utilize a sale-leaseback agreement with a private developer. A strategy to utilize the City of Atlanta and MARTA's ownership of the building has also included connecting a bus station at the level of the rail tracks between Five Points Station, 143 Alabama and Ted Turner Drive **Figure 8**. While the future of 143 Alabama Street remains uncertain, it is worth noting its redevelopment potential given its proximity to the Five Points Station, and the proposed strategy of using the building to improve bus connections to the station.

Figure 8. Proposed Redevelopment Strategy at 143 Alabama Street

Source: MARTA, Perkins & Will

3.2.4 Adjacent Development

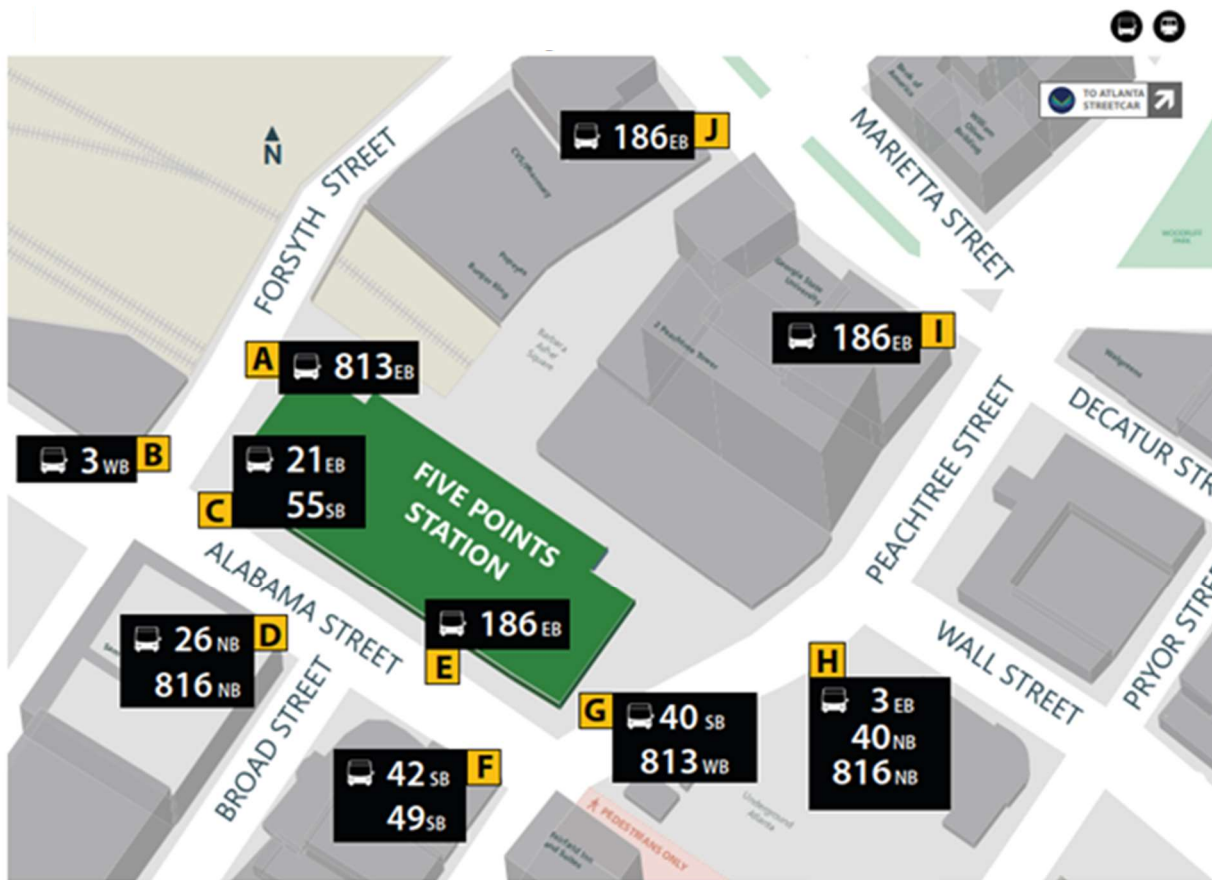
There is currently more than \$6 billion of investment in development currently under construction or planned in the study area or within walking distance to the station. Plans include mixed-use development at Centennial Yards (approximately .4 miles away), Underground Atlanta (approximately .3 miles away), and South Downtown (approximately .4 miles away). Not only will Five Points Station serve as a transit connection for those accessing these developments, but they will have a significant influence on the “fabric” of downtown Atlanta. Therefore, station area scenarios and resulting bus operational strategies in the following sections serve as a starting point for actualizing transit-friendliness of Five Points Station in the long-term and will require ongoing coordination between bus operations and infrastructure.

4. Station Area Scenarios

The bus-operation station designs, and scenarios provided in the following sections of this report are intended to provide MARTA, SOM, and other partners with physical design scenarios that can be integrated with short- and long-term activation of TOD at the Five Points Station. The recommended scenarios and accompanying bus operation routing for the 18 MARTA, Xpress and CobbLinc routes, shown in **Table 2** below, connecting at Five Points Station **Figure 9** below may also be used as a basis for future network redesigns and planned markups.

Table 2. Current Routes at MARTA Five Points Station

Bus Stop	Service Provider	Service Route
A	MARTA	813 EB, CobbLinc 100/101
B	MARTA	3 WB, CobbLinc 100/101
C	MARTA	21 EB, 55 SB
D	MARTA	26 NB, 816 NB
E	MARTA	186 EB
F	MARTA	42 SB, 49 SB
G	MARTA	40 SB, 813 WB
H	MARTA	3 EB, 40 NB, 816 NB
	Xpress	430, 432, 440/441, 442, 453
I	MARTA	186 EB
J	MARTA	186 EB

Figure 9. Existing Bus Stops at MARTA Five Points Station

Source: MARTA

The station area scenarios are based on a review of current bus operations, as outlined in the previous Existing Conditions Report, discussions with MARTA staff, a review of MARTA design standards and guidelines for its bus stops, and the preceding review of future development plans relevant to the station area.

The following four station design scenarios in this section are organized as follows:

- **Option A:** Broad Street is not re-opened, but Alabama Street is converted to a 1-way facility with traffic moving from east to west. Bus bays are reconfigured to consolidate stops at bus bays along the north side of Alabama Street. This scenario retains the existing bus only access along Alabama Street.
- **Option B:** Broad Street is re-opened with two travel lanes and two parallel bus bay lanes that provide 4 bus bays along Broad Street, staying within the MARTA property. Two bays are retained on the north side of Alabama Street.
- **Option C:** Broad Street is re-opened with two travel lanes and two parallel bus bay lanes that continue past the MARTA property line. This provides 6 bus bays on Broad Street.
- **Option D:** Broad Street is re-opened with two travel lanes and two saw-tooth bus bay lanes. This provides 6 bus bays on Broad Street within the MARTA property.
- **Option E:** Broad Street is re-opened with one southbound travel lane and a parallel or saw-tooth bus bay. A sawtooth design provides 3 bus bays on Broad Street within the MARTA property.

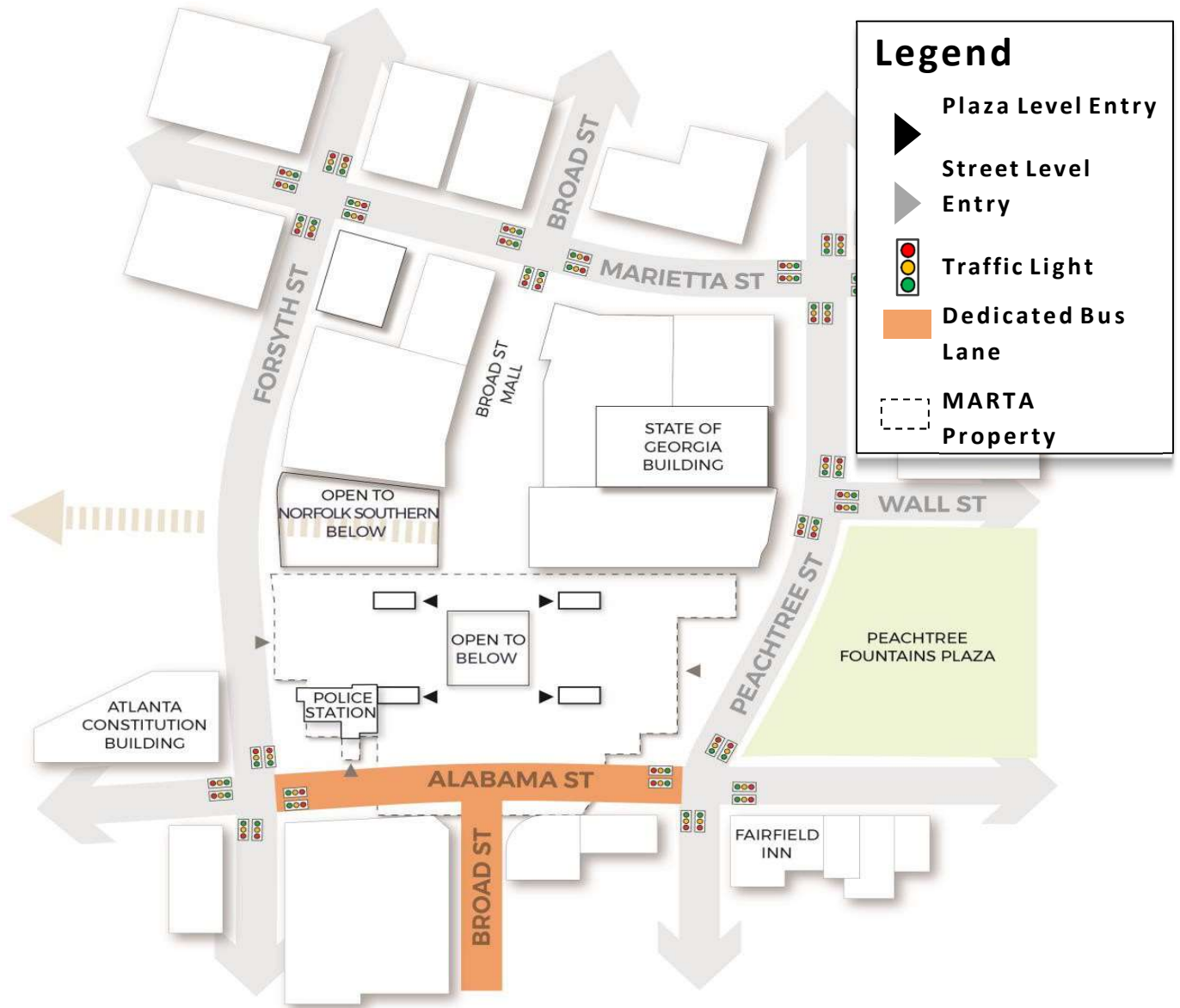
- **Option F:** Broad Street is re-opened with one northbound travel lane and a saw-tooth bus bay. A sawtooth design provides 3 bus bays on Broad Street within the MARTA property.

In all the scenarios, existing entry points to the station are maintained. **Figure 10** illustrates current station entry points, signalized intersections, and bus only streets within the study area. Current plaza level entry points to four staircases/escalators in four quadrants of the plaza level is preserved. Street level entry near the Alabama Street and Forsyth Street corner, the north curb of Alabama Street into MARTA Police Station, and the west curb of Peachtree Street across from the Peachtree Fountains Plaza, are also preserved. Alabama Street and South Broad Street as dedicated transit only roads are also assumed in the development of all options.

In the area between Marietta Street and MARTA property, labeled “Broad Street Mall” in **Figure 10**, there are currently a number of street elements including the “Phoenix” sculpture, bollards, kiosks, tree pits, and station vents. The scenarios assume the removal of the kiosks which are to be replaced by dedicated space for retail in future TOD. Eventual relocation of tree pits is also assumed. Remaining elements that are accommodated in each scenario is the sculpture, which travel lanes circumvent and station ventilation, which should not be blocked.

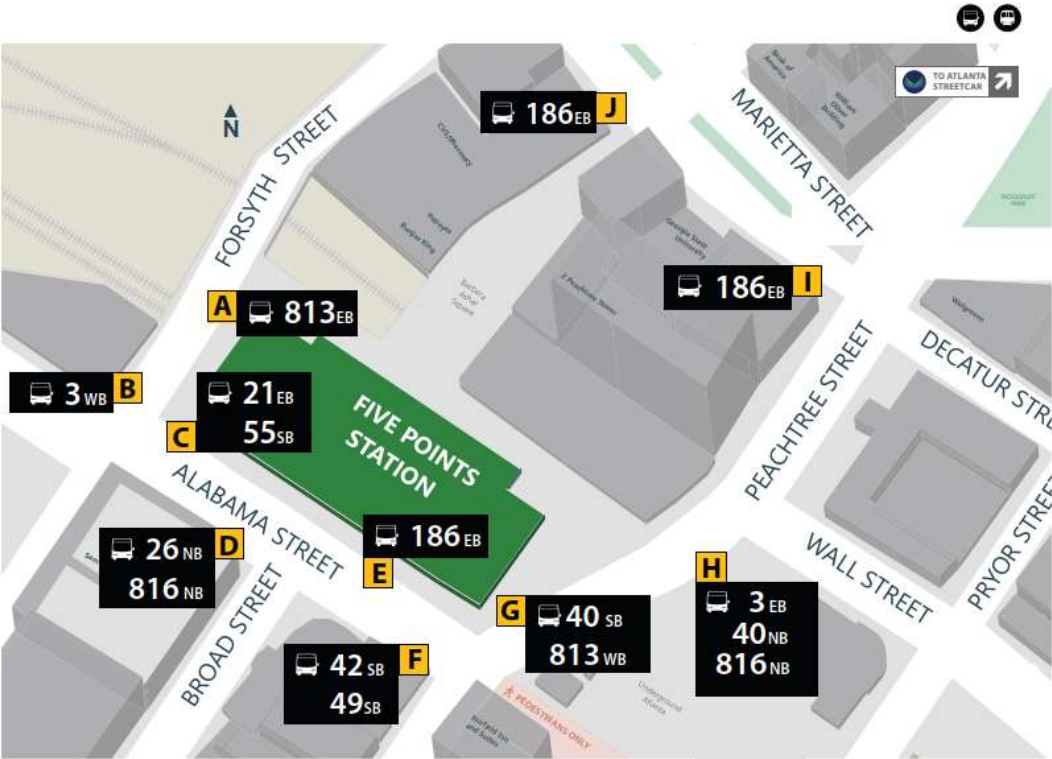
Previous studies have evaluated the potential of creating a Forsyth Street entrance between the proposed Transit Plaza on the reopened Broad Street by filling in the current opening above the Norfolk Southern rail line. The options presented assume there is no connection between Forsyth Street and a reopened Broad Street.

Due to the uncertainty of whether bays must be limited to MARTA property, as indicated by the dashed line in **Figure 10**, some scenarios offer bus stop positioning within and beyond the MARTA property lines bordering Broad Street Mall.

Figure 10. Station Entry Points and Existing Street Conditions

Further, each option may present relocation or consolidation of existing bus stop(s) shown in **Figure 11**, renaming of stop(s), or the addition of stop(s) for improved bus routing.

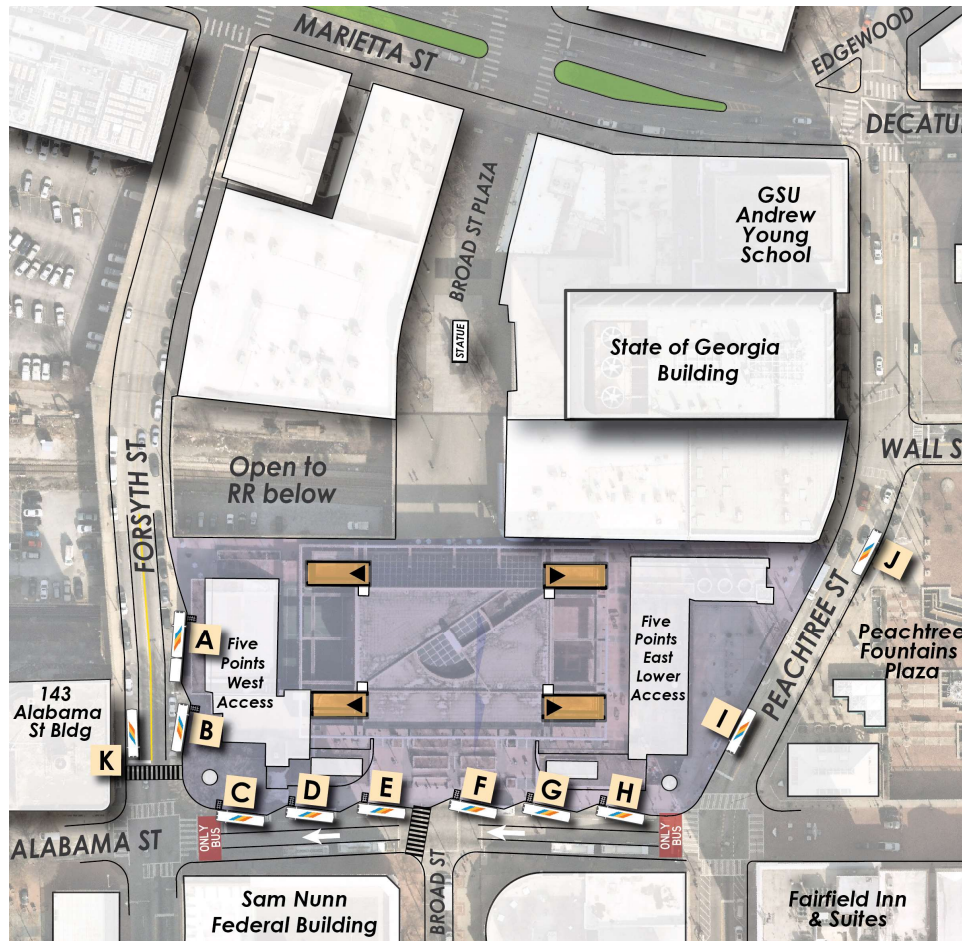
Figure 11. Existing Station Bus Stop Locations



Source: MARTA

4.1 OPTION A: BROAD STREET NOT REOPENED

Figure 12. Option A: Broad Street Not Reopened



In Option A (Broad Street Not Reopened), Alabama Street between Forsyth Street and Peachtree Street remains bus only and restricted to only MARTA and emergency vehicles **Figure 12**.

In this scenario, Broad Street is not reopened and there is no connection between Marietta and Alabama Streets.

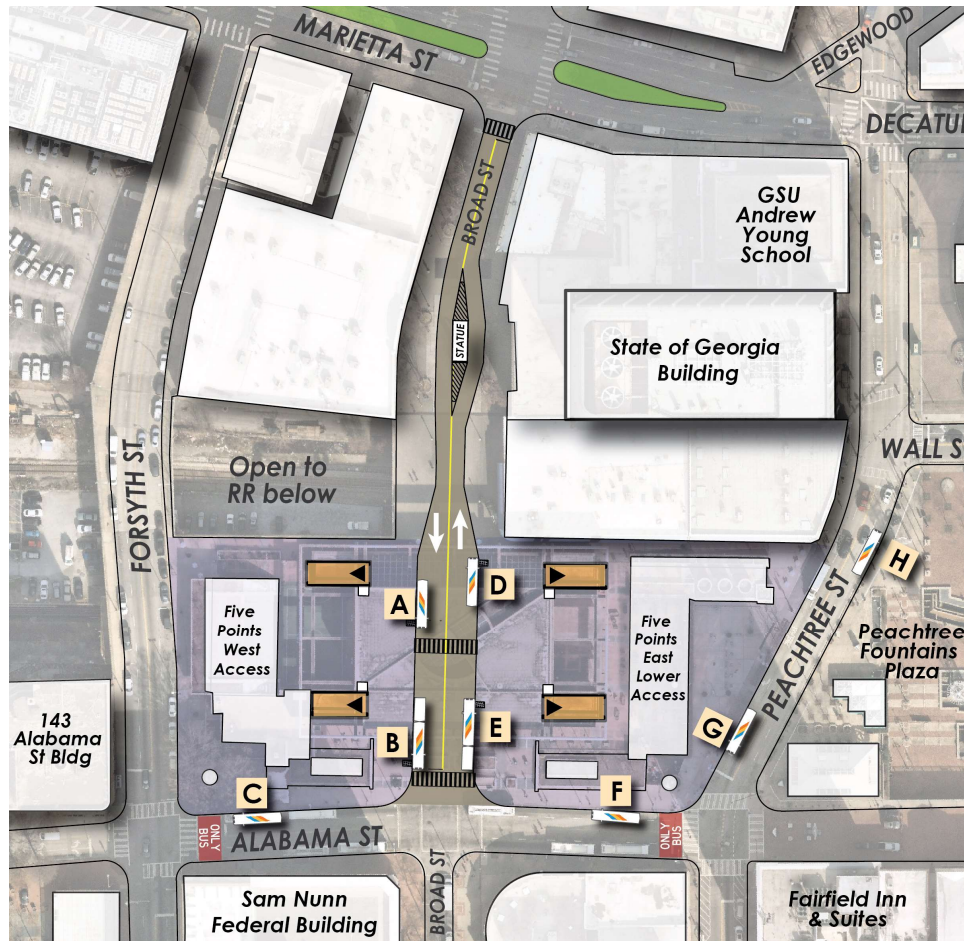
Based on MARTA bus design standards, there is sufficient space to add six 40' sawtooth bus bays on Alabama Street. A 40' and 60' bay would also be added to Forsyth Street near Alabama Street. Existing bus stops, now identified as "I" and "J," would be shifted to existing bus stop spaces at Peachtree Street between Alabama and Wall Streets. A Stop K would be added and shifted to existing bus stop space at Forsyth Street and Alabama Street northwest corner.

In this scenario, almost all stops would deliver passengers directly to station property, which minimizes pedestrian street crossings.

Alabama Street would be updated a three-lane configuration: a bus bay lane on the north curb, center travel lane, and curbside parking for MARTA vehicles on the south curb.

4.2 OPTION B: BROAD STREET OPENED, BUS ONLY

Figure 13. Option B: Broad Street Opened, Bus Only



In Option B (Broad Street Opened, Bus Only), Alabama Street between Forsyth Street and Peachtree Street, and Broad Street between Alabama and Marietta Streets, are bus only and restricted to only MARTA and emergency vehicles **Figure 13**.

In this scenario, Broad Street is reopened as a four-lane facility with one travel lane and one bus bay lane in each direction and Alabama Street would maintain its configuration as a dedicated bus only street segment.

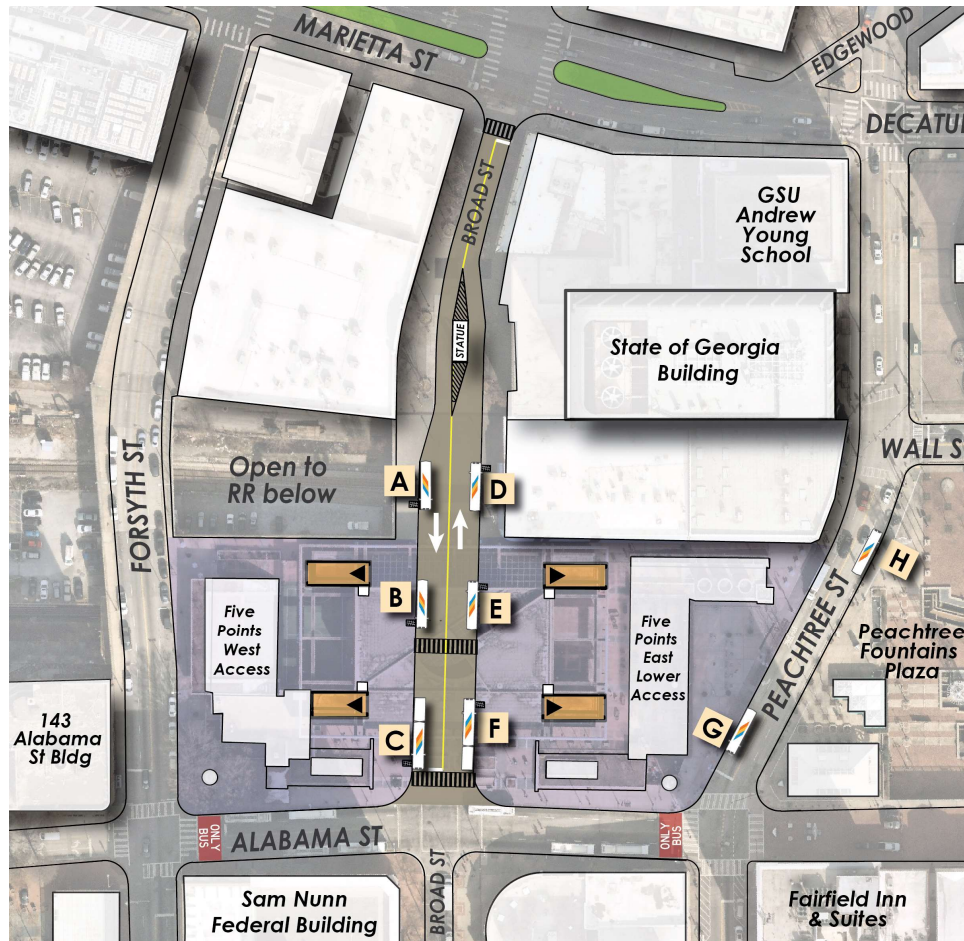
Based on MARTA bus design standards, there is sufficient space to add two 40' parallel bays, and two 60' parallel bays on Broad Street. The four bays would be limited to only MARTA property.

Existing bus stops would be retained on Alabama Street, with the Alabama Street stop east of South Broad Street being renamed “F.” Existing bus stops, now identified as “G” and “H,” would be shifted to existing bus stop spaces at Peachtree Street between Alabama and Wall Streets.

In this scenario, almost all stops would deliver passengers directly to station property, which minimizes pedestrian street crossings.

4.3 OPTION C: BROAD STREET OPENED, BUS ONLY

Figure 14. Option C: Broad Street Opened, Bus Only



In Option C (Broad Street Opened, Bus Only), Alabama Street between Forsyth Street and Peachtree Street, and Broad Street between Alabama and Marietta Streets, are bus only and restricted to only MARTA and emergency vehicles **Figure 14**.

In this scenario, Broad Street is reopened as a four-lane facility with one travel lane and one bus bay lane in each direction.

Based on MARTA bus design standards, there is sufficient space to add four 40' parallel bays, and two 60' parallel bays on Broad Street. The six bays would go beyond the MARTA property line.

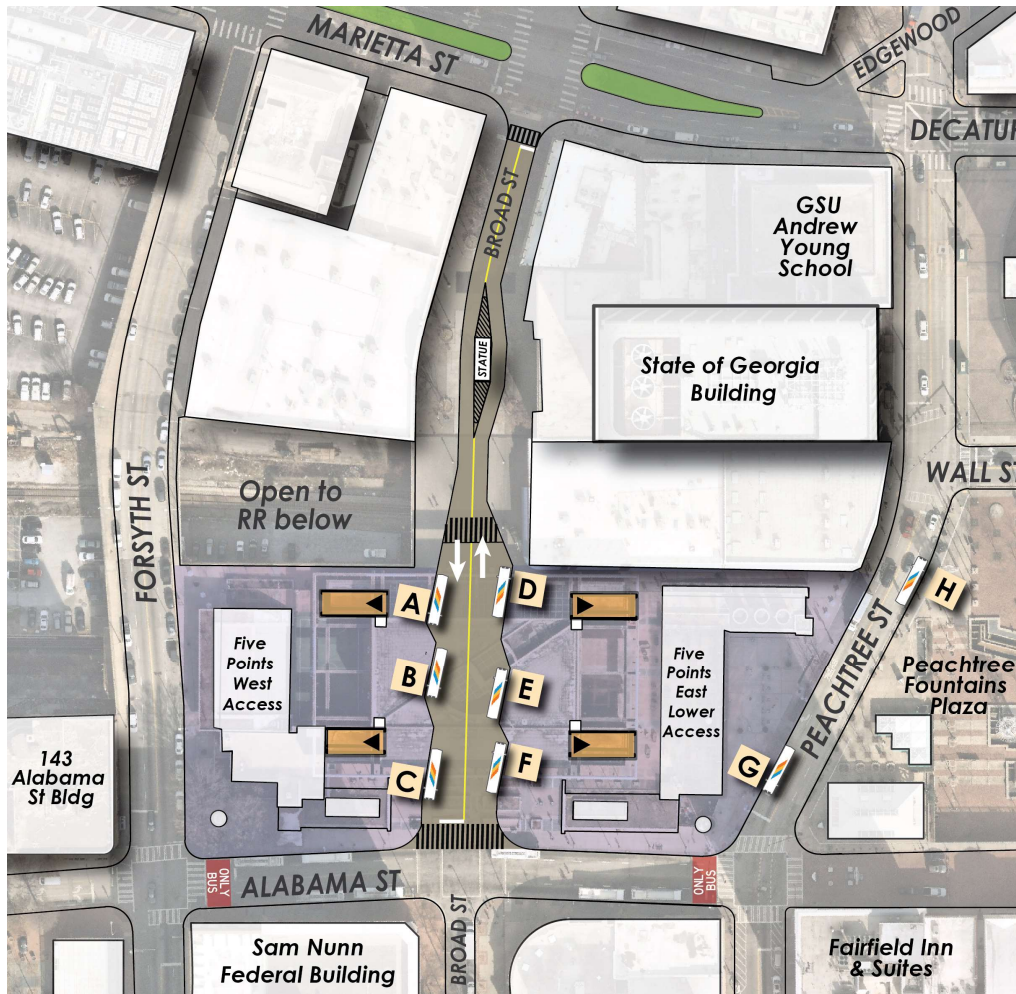
Existing bus stops, “G” and “H,” would be retained on Peachtree Street.

In this scenario, almost all stops would deliver passengers directly to station property and entrances.

Alabama Street would ideally maintain its configuration as a dedicated bus only street segment, with new uses for other MARTA vehicle parking or staging.

4.4 OPTION D: BROAD STREET OPENED, BUS ONLY

Figure 15. Option D: Broad Street Opened, Bus Only



In Option D (Broad Street Opened, Bus Only), Alabama Street between Forsyth Street and Peachtree Street, and Broad Street between Alabama and Marietta Streets, are bus only and restricted to only MARTA and emergency vehicles **Figure 15**.

In this scenario, Broad Street is reopened as a four-lane facility with one travel lane and one sawtooth bus bay lane in each direction.

Based on MARTA bus design standards, there is sufficient space to add four 40' sawtooth bus bays, and two 60' sawtooth bus bays on Broad Street. The six bays would be contained within the MARTA property line.

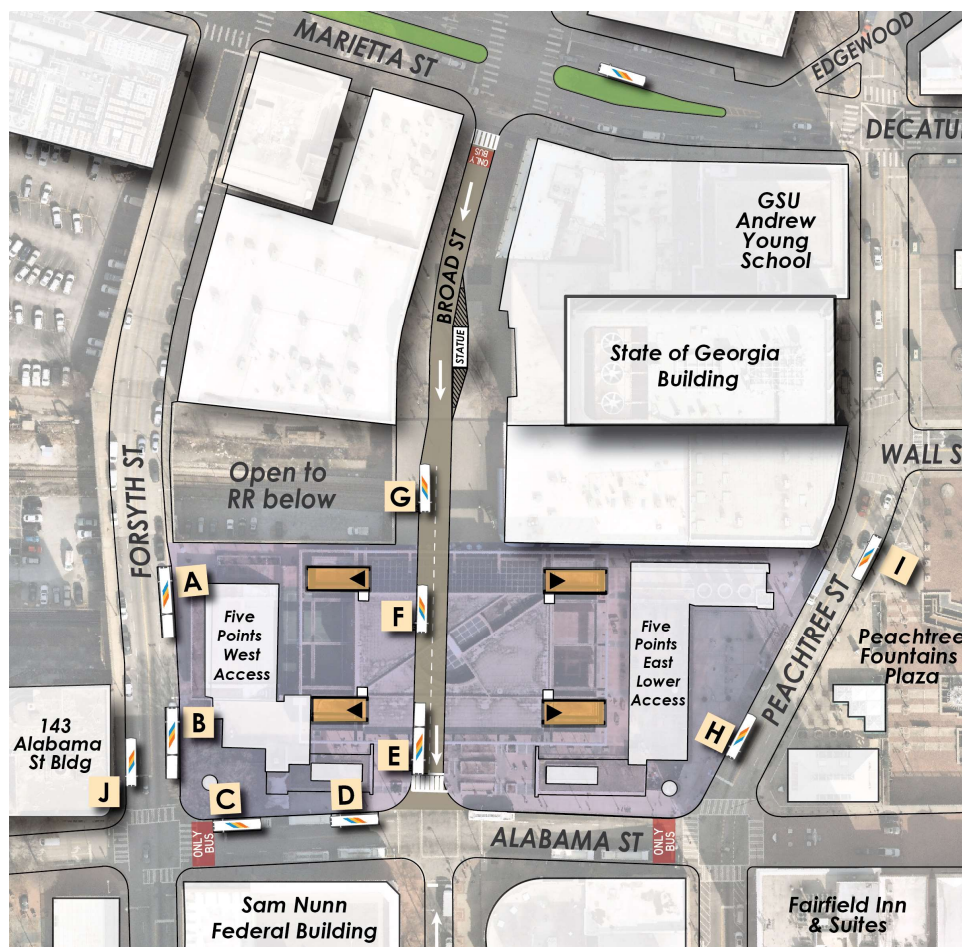
Existing bus stops, "G" and "H," would be retained on Peachtree Street.

In this scenario, almost all stops would deliver passengers directly to station property and entrances.

Alabama Street would ideally maintain its configuration as a dedicated bus only street segment, with new uses for other MARTA vehicle parking or staging.

4.5 OPTION E: BROAD STREET OPENED (ONE WAY/SB), BUS ONLY

Figure 16. Option E: Broad Street Opened One-way SB



In Option E (Broad Street Opened One-way/SB), Alabama Street between Forsyth Street and Peachtree Street remains bus only and restricted to only MARTA and emergency vehicles **Figure 16**. Alabama Street would be updated a three-lane configuration: a bus bay lane on the north curb, center travel lane, and curbside parking for MARTA vehicles on the south curb.

In this scenario, Broad Street is reopened as a one-way southbound facility.

Based on MARTA bus design standards, there is sufficient space to add three 40' parallel or sawtooth bays along the west side of Broad Street, two 40' parallel bays on Alabama Street between Broad and Forsyth Streets, and two 60' parallel bays on Forsyth Street. If the bays on Broad Street are parallel, they extend past the MARTA property, if they are designed as sawtooth they fit within the MARTA property.

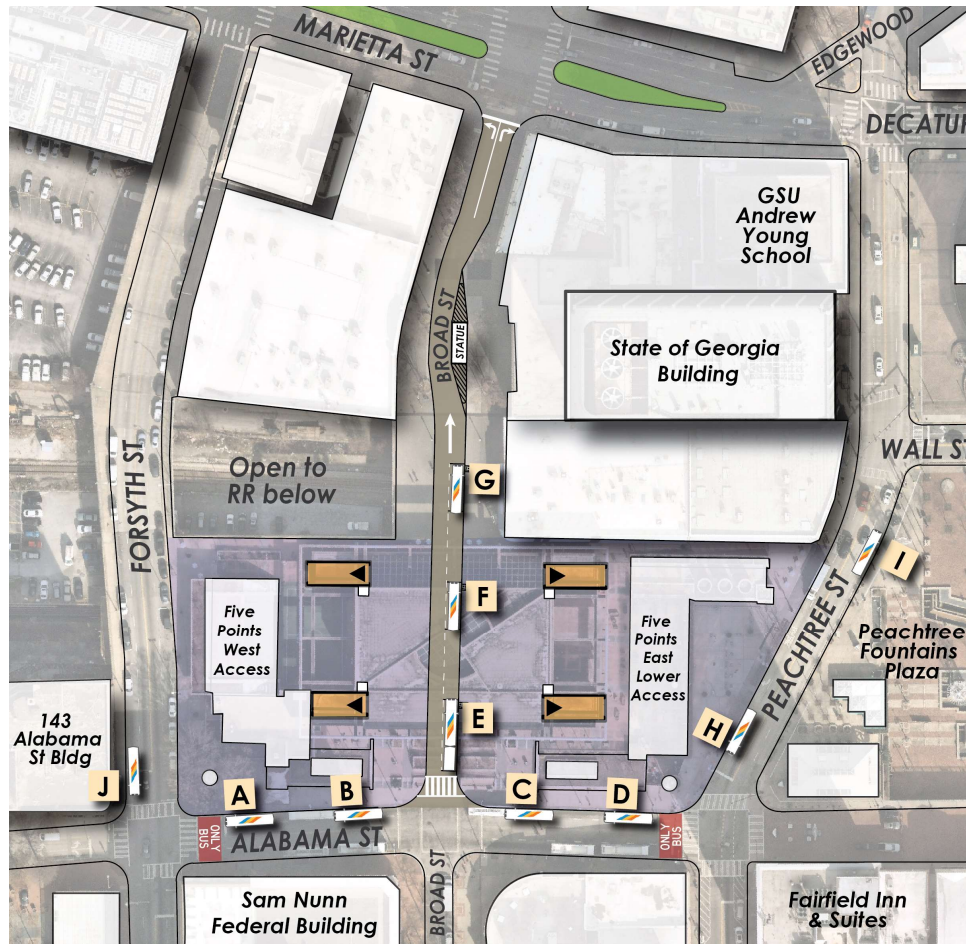
Existing bus stops would be retained on Alabama Street, with the Alabama Street stop east of South Broad Street being renamed “F.” Existing bus stops, now identified as “G” and “H,” would be shifted to existing bus stop spaces at Peachtree Street between Alabama and Wall Streets.

In this scenario, almost all stops would deliver passengers directly to station property, which minimizes pedestrian street crossings.

Bus operations in this configuration would flow in a “clockwise loop” around the station, serving the central station space by traveling southbound, which is a preferred operating design at bus facilities located at other MARTA rail stations the difference being in this scenario the entirety of the bus facility is *not* located internally on the MARTA property.

4.6 OPTION F: BROAD STREET OPENED (ONE WAY/NB), BUS ONLY

Figure 17. Option F: Broad Street Opened One-way NB



In Option F (Broad Street Opened One-way/NB), Alabama Street between Forsyth Street and Peachtree Street remains bus only and restricted to only MARTA and emergency vehicles **Figure 17**Figure 16.

In this scenario, Broad Street is reopened one-way northbound between Marietta and Alabama Streets.

Based on MARTA bus design standards, there is sufficient space to add six 40' sawtooth bus bays on Alabama Street. A 40' and 60' bay would also be added to Forsyth Street near Alabama Street. Existing bus stops, now identified as "I" and "J," would be shifted to existing bus stop spaces at Peachtree Street between Alabama and Wall Streets. A Stop K would be added and shifted to existing bus stop space at Forsyth Street and Alabama Street northwest corner.

In this scenario, almost all stops would deliver passengers directly to station property, which minimizes pedestrian street crossings.

4.7 SUMMARY OF STATION SCENARIOS

Table 3 provides a summary of the results for the four options. All the options retain stops on Peachtree Street (currently bus stops G and H). Options A, E, and F maintain the current stop on Forsyth Street at the southbound corner approaching Alabama Street (currently bus stop B).

Table 3. Summary of Station Area Scenarios and Options

Station Configuration	Broad St. Re-opened?	Bus Bays*	Fully on MARTA Property	Alabama St Configuration
Option A	No	Seven 40', one 60' Alabama & Forsyth Streets	Yes	3 lanes one-way, bays on north side
Option B	Yes, 2-way travel	Four 40', Four 60' Broad & Alabama Streets	Yes	Similar to current configuration, no bays on south side of Alabama Street
Option C	Yes, 2-way travel	Four 40', Two 60' Broad Street	No	Similar to current, no bays either side
Option D	Yes, 2-way travel	Four 40', Two 60' Broad Street	Yes	Similar to current, no bays either side
Option E	Yes, 1-way travel southbound	Four 40', Three 60' Broad, Forsyth & Alabama Streets	No	3 lanes one-way, bays on north side
Option F	Yes, 1-way travel northbound	Six 40', One 60' Broad & Alabama Streets	No	3 lanes westbound and eastbound, bays on north side

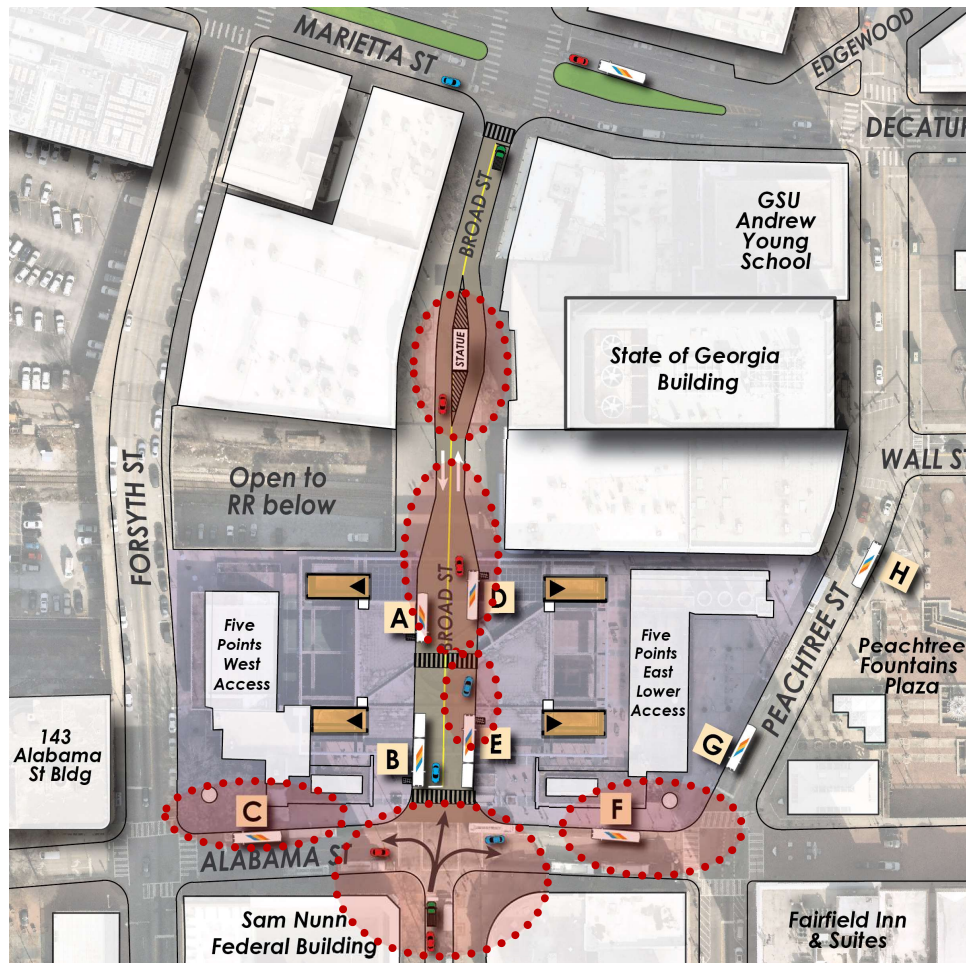
4.7.1 Opening Broad Street to All Traffic

In Options B, C, D, E, and F, it is feasible to make the reopened segment of Broad Street opened to all traffic. The introduction of other vehicles besides MARTA and emergency vehicles does create safety concerns, impediments to bus operations and risks for the TOD potential of the station. The one lane of travel in southbound and northbound directions proposed in Options E and F respectively, further heightens potential issues if all traffic is permitted on a one-way Broad Street between Marietta and Alabama Streets.

In **Figure 18**, Option B serves as an example of a scenario in which regular traffic is permitted to use the reopened segment of Broad Street, South Broad Street, and Alabama Street is shown. Similarly, to Options B, C, D, E, and F, this scenario introduces the potential for increased bus, car and pedestrian conflicts that can be anticipated at certain points around the station area and encourage unsafe pedestrian, or driver, behavior and consequently creates more potential conflicts elsewhere. Anticipated conflicts may include, but are not limited to:

- Intersection of Broad and Alabama Streets (Broad Street is one-way NB south of Alabama Street, but two-way north of Alabama Street)
- Blocked bus bays on Alabama and Broad Streets
- Disabled vehicles could block traffic around the statue on Broad Street near Marietta Street
- Bus-vehicle merging conflict near statue
- Vehicles making turns onto Alabama Street from Forsyth Street and Alabama Street

Figure 18. Option B: Broad Street Opened, All Traffic



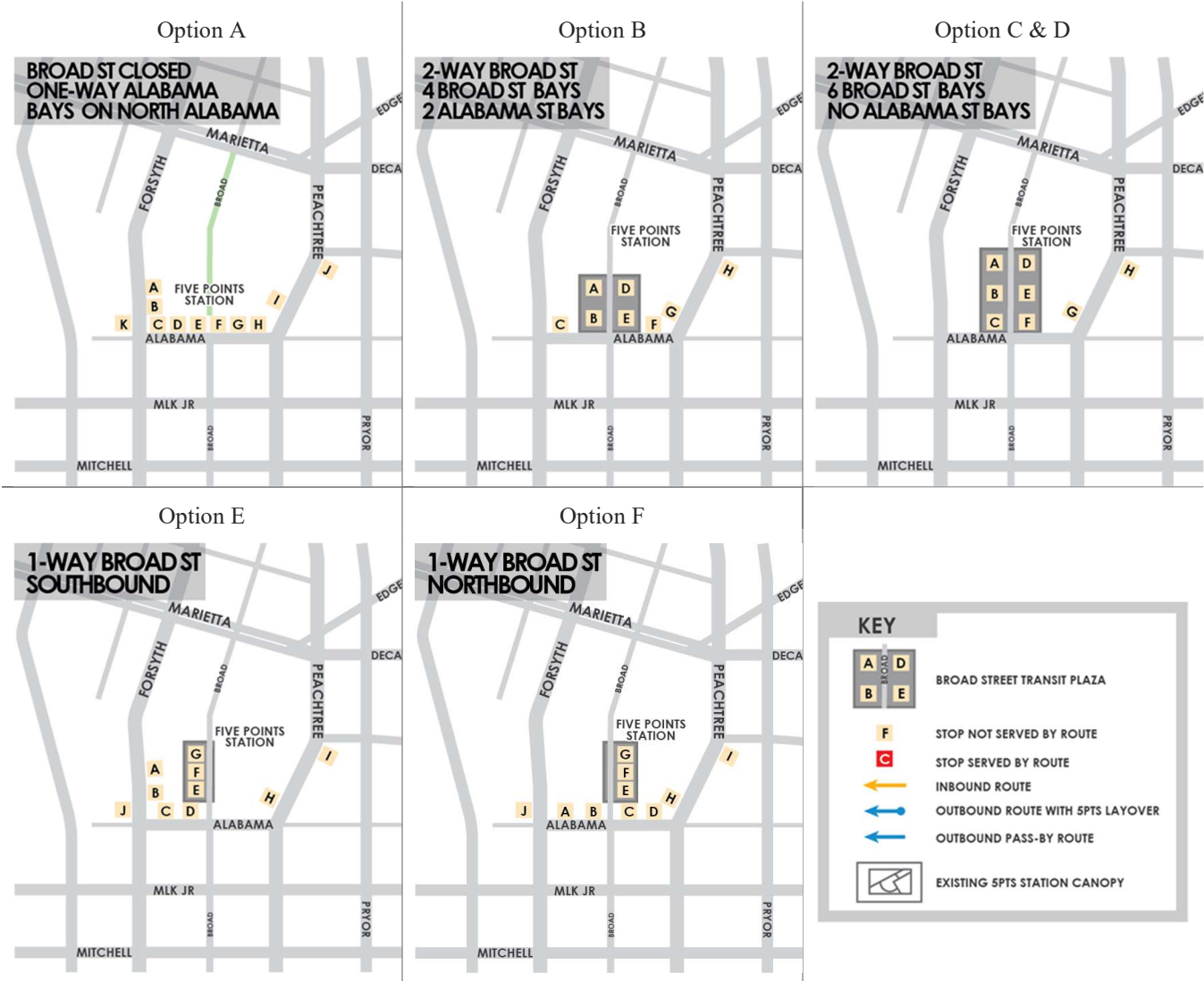
5. Bus Operations for Proposed Scenarios

The following bus stop operational strategies for each bus route connecting at Five Points Station are provided as guidelines. The strategies were derived based on the analysis of current bus routing, ridership data, bus stop boarding and alighting data and study area safety reports, which are provided in the Existing Conditions Report. The resulting route alignments are intended to reduce number of turns in the study area, minimize pedestrian crossings, allocate adequate space for high-ridership routes, and preserve space for potential vehicle updates, such as routes which may be upgraded to articulated buses.

To recap, the six proposed station configurates for each route's bus operational strategy (Table 4) are:

- **Option A:** Broad Street is not re-opened, but Alabama Street is converted to a 1-way facility with traffic moving from east to west. Bus bays are reconfigured to consolidate stops at bus bays along the north side of Alabama Street. This scenario retains the existing bus-only access along Alabama Street.
- **Option B:** Broad Street is re-opened with two travel lanes and two parallel bus bay lanes that provide 4 bus bays along Broad Street, staying within the MARTA property. Two bays are retained on the north side of Alabama Street. This option can work as a bus-only facility or a through-traffic scenario.
- **Options C & D:** Broad Street is re-opened with two travel lanes and two parallel or saw tooth bus bay lanes that continue past the MARTA property line. Both sawtooth and parallel designs provide 6 bus bays on Broad Street. These options can work as bus-only or through-traffic scenarios.
- **Options E:** Broad Street is re-opened with one travel lane in the southbound direction and three saw tooth bus bays on the west side of Broad Street contained to MARTA property. Two additional bays on the north side of Alabama Street and two bays on Forsyth Street create a 'clockwise loop' totaling 7 bays internal to the loop. This option can work as a bus-only or a through traffic scenario.
- **Options F:** Broad Street is re-opened with one travel lane in the northbound direction and three saw tooth bus bays on the east side of Broad Street contained to MARTA property. The four existing bus bays on the north side of Alabama Street are retained. This option can work as a bus-on or through traffic scenario.

Table 4. Summary of Station Area Scenarios



5.1 ROUTE 186

Route 186 is the busiest route serving the station area with 2,060 daily riders. As of fall 2021, the eastbound route connects at Five Points Station at Stop J on Marietta Street near the Broad Street Mall, and at Stop I at the south curb of Marietta Street at Peachtree Street.

5.1.1 Option A

In Option A **Figure 19**, the routing for Route 186 is the same as its current routing but originates in this concept from the center of the station on Alabama Street, at a “Stop F.” Eastbound trips nearly wrap around the station turning northbound on Forsyth Street as it departs Stop F then, turning right on Marietta Street before continuing to Decatur Street. Westbound trips enter the station area on Decatur Street before traveling south on Pryor Street, turning right on MLK Jr. Drive, and traveling north on Peachtree Street.

Figure 19. Route 186 Option A Operational Strategy



5.1.2 Option B

In Option B **Figure 20**, eastbound trips originate in this concept from the corner of Alabama Street and Forsyth Street, at a “Stop C,” and follows the same route as it existing eastbound trips: turning northbound on Forsyth Street as it departs Stop C then, turning right on Marietta Street before continuing to Decatur Street. Inbound trips, however, would be able to utilize the reopened Broad Street at Marietta Street, and travel through the station center to access Stop C on Alabama Street.

Figure 20. Route 186 Option B Operational Strategy



5.1.3 Option C & D

In Options C and D **Figure 21**, eastbound trips originate in these concepts from a bus bay in the opened Broad Street Transit Plaza at “Stop C.” Outbound trips would follow the same routing as the preceding options. Inbound trips, however, would be able to utilize the reopened Broad Street at Marietta Street, and travel through the station center to access Stop C in the Broad Street Transit Plaza.

Figure 21. Route 186 Options C & D Operational Strategy



5.1.4 Option E

In Option E **Figure 22**, eastbound trips originate in this concept from a bus bay in the opened Broad Street Transit Plaza at “Stop E.” Most routes in Option E operate in a clockwise flow around station property. Route 186 outbound buses would travel in a clockwise loop from Alabama Street and Broad Street. Inbound trips will also utilize the southbound travel lane on a reopened Broad Street at Marietta Street, and travel through the station center to access the Broad Street Transit Plaza.

Figure 22. Route 186 Option E Operational Strategy



5.1.5 Option F

In Option F **Figure 23**, trips originate and terminate in this concept from a bus bay in the opened Broad Street Transit Plaza at a “Stop E.” Route 186 outbound buses would travel in the one-way northbound lane towards Marietta Street before continuing east. Inbound trips travel southbound on Pryor Street to MLK Jr. Drive, turning right at Peachtree Street to access the Broad Street Transit Plaza via Alabama Street.

Figure 23. Route 186 Option F Operational Strategy



5.2 ROUTE 21

Route 21 is the second busiest route serving the station area. As of fall 2021, the eastbound route currently connects at Five Points Station at Stop C on the north corner of Alabama Street at Forsyth Street.

5.2.1 Option A

In Option A **Figure 24**, the routing for Route 21 is the same as its current routing, but originates and terminates in this concept at the center of the station on Alabama Street, at a “Stop E.”

Figure 24. Route 21 Option A Operational Strategy



5.2.2 Option B

In Option B **Figure 25**, eastbound trips originate in this concept from the corner of Alabama Street and Peachtree Street, at a “Stop F,” and follows the same route as its existing outbound trips: turning southbound on Forsyth Street as it departs Alabama Street at Stop F then, continuing eastbound on Mitchell Street. Inbound trips, however, would access Stop F by going northbound on Peachtree Street from MLK Jr. Drive.

Figure 25. Route 21 Option B Operational Strategy



5.2.3 Option C & D

In Options C and D **Figure 26**, eastbound trips originate in these concepts from a bus bay in the opened Broad Street Transit Plaza at a “Stop F.” Inbound and outbound trips are more circuitous, with Route 21 being able to utilize the Broad Street Transit Plaza. Inbound trips travel north on South Broad Street from MLK Jr. Drive and terminate at Stop F. Outbound trips would continue through the reopened Broad Street and turn left on Marietta Street, proceed southbound on Forsyth Street, and continue west via Mitchell Street.

Figure 26. Route 21 Options C & D Operational Strategy



5.2.4 Option E

In Option E **Figure 27**, eastbound trips originate in this concept from a bus bay on Alabama Street at a “Stop C.” It is one of the routes that would not circulate clockwise through the station center. Route 21 would continue southbound on Forsyth Street from Alabama Street, and turn left at Mitchell Street to proceed eastbound. Inbound trips operate westbound on MLK Jr. Drive, turning north on Broad Street and accessing “Stop C” on Alabama Street.

Figure 27. Route 21 Option E Operational Strategy



5.2.5 Option F

In Option F **Figure 28**, trips originate and terminate in this concept from a bus bay on Alabama Street at a “Stop C.” Route 21 outbound buses would continue westbound on Alabama Street before turning left at Forsyth Street. Outbound buses would then continue eastbound at Mitchell Street. Inbound trips travel westbound on MLK Jr. Drive, turning right at Peachtree Street to access its bus bay at Alabama Street.

Figure 28. Route 21 Option F Operational Strategy



5.3 ROUTE 49

Route 49 is the third busiest route serving the station area. As of fall 2021, the southbound route connects at Five Points Station at Stop F on the southern curb of Alabama Street at Peachtree Street.

5.3.1 Option A

In Option A **Figure 29**, the routing for Route 49 originates and terminates in this concept near center of the station on Alabama Street, at a “Stop G.” Route 49 buses would leave Stop G, operating southbound at Forsyth Street. Inbound trips access Stop G travelling northbound on Peachtree Street via Mitchell Street.

Figure 29. Route 49 Option A Operational Strategy



5.3.2 Option B

In Option B **Figure 30**, trips originate and terminate in this concept from a bus bay in the opened Broad Street Transit Plaza at a “Stop B.” Inbound trips are primarily on Forsyth Street. Inbound trips travel northbound on Forsyth Street and enter the reopened Broad Street at Marietta Street. Outbound trips travel southbound on Forsyth Street when it departs the Broad Street Transit Plaza at Alabama Street.

Figure 30. Route 49 Option B Operational Strategy



5.3.3 Option C & D

In Options C and D **Figure 31**, Route 49 would operate northbound and southbound following the same routing as Option B, originating, and terminating at a bus bay in the opened Broad Street Transit Plaza at a “Stop B.”

Figure 31. Route 49 Options C & D Operational Strategy



5.3.4 Option E

In Option E **Figure 32**, eastbound trips originate and terminate in this concept from a bus bay in the opened Broad Street Transit Plaza at “Stop F.” Most routes in Option E operate in a clockwise flow around station property. Outbound buses depart the Broad Street Transit Plaza southbound, turning right on Alabama Street as it exits the station, and then continuing southbound at Forsyth Street. Inbound buses will travel in a clockwise loop, utilizing the southbound travel lane on a reopened Broad Street at Marietta Street, and travel through the station center to access the Broad Street Transit Plaza.

Figure 32. Route 49 Option E Operational Strategy



5.3.5 Option F

In Option F **Figure 33**, trips originate and terminate in this concept from a bus bay in the opened Broad Street Transit Plaza at a “Stop F.” Outbound buses would travel in the one-way northbound lane towards Marietta Street and turn left. At Forsyth Street, buses would continue southbound. Inbound trips travel northbound on Forsyth Street to Alabama Street, turning right to access bus bay in the Broad Street Transit Plaza.

Figure 33. Route 49 Option F Operational Strategy



5.4 ROUTE 55

Route 55 is the fourth busiest route serving the station area. As of fall 2021, the southbound route connects at Five Points Station at Stop C on the north corner of Alabama Street at Forsyth Street.

5.4.1 Option A

In Option A **Figure 34**, the routing for Route 55 is the same as its current routing, but originates in this concept near the center of the station on Alabama Street, at a “Stop D.” As it approaches the Five Points Station, buses travel northbound on MLK Jr Drive turn right, continuing north on Peachtree Street and turning left on Alabama Street before ending at Stop D. Southbound vehicles start at Stop D before traveling southbound on Forsyth Street and turning eastbound on Mitchell Street as it leaves the station area.

Figure 34. Route 55 Option A Operational Strategy



5.4.2 Option B

In Option B **Figure 35**, northbound and southbound trips originate and terminate from a bus bay in the opened Broad Street Transit Plaza at a “Stop E.” Inbound and outbound trips are more circuitous, with Route 55 being able to utilize the reopened Broad Street. Inbound trips travel north on South Broad Street from MLK Jr. Drive and terminate at Stop E. Outbound trips would continue north from Stop E through the reopened Broad Street and turn left on Marietta Street, proceed southbound on Forsyth Street, and continue west via Mitchell Street.

Figure 35. Route 55 Option B Operational Strategy



5.4.3 Option C & D

In Options C and D **Figure 36**, Route 55 would operate northbound and southbound following the same routing as Option B, originating, and terminating at a bus bay in the opened Broad Street Transit Plaza at a “Stop E.”

Figure 36. Route 55 Options C & D Operational Strategy



5.4.4 Option E

In Option E **Figure 37**, eastbound trips originate in this concept from a bus bay on Alabama Street at a “Stop D.” It is one of the routes that would not circulate clockwise through the station center. Route 55 would continue southbound on Forsyth Street from Alabama Street, and turn left at Mitchell Street to proceed eastbound. Inbound trips operate westbound on MLK Jr. Drive, turning north on Peachtree Street and accessing “Stop D” on Alabama Street.

Figure 37. Route 55 Option E Operational Strategy



5.4.5 Option F

In Option F **Figure 38**, trips originate and terminate in this concept from a bus bay on the corner of Alabama Street and Peachtree Street at a “Stop D.” Outbound buses would continue westbound on Alabama Street before turning left at Forsyth Street. Outbound buses would then continue eastbound at Mitchell Street. Inbound trips travel westbound on MLK Jr. Drive, turning right at Peachtree Street to access its bus bay at the corner of Alabama Street.

Figure 38. Route 55 Option F Operational Strategy



5.5 ROUTE 26

Route 26 is the fifth busiest route serving the station area. As of fall 2021, the northbound route connects at Five Points Station at Stop D on the south corner of Alabama Street at Broad Street.

5.5.1 Option A

In Option A **Figure 39**, the routing for Route 26 originates and terminates in this concept at the corner of Alabama and Peachtree Streets, at a “Stop H.” Route 26 buses would leave Stop H, turning right at Forsyth Street from Alabama Street, and continuing westbound on Marietta Street. Inbound trips access Stop G travelling southbound on Forsyth Street from Marietta Street then, turn left on Mitchell to access Peachtree Street, before terminating at Stop H.

Figure 39. Route 26 Option A Operational Strategy



5.5.2 Option B

In Option B **Figure 40**, eastbound and westbound trips originate and terminate from a bus bay in the opened Broad Street Transit Plaza at a “Stop A.” Inbound and outbound trips would be being able to utilize the reopened Broad Street. Inbound trips travel south on Broad Street from Marietta Street and terminate at Stop A. Outbound trips would exit the opened Broad Street Transit Plaza at Alabama Street, then turn right and continue northbound on Forsyth before continuing westbound on Marietta Street.

Figure 40. Route 26 Option B Operational Strategy



5.5.3 Option C & D

In Options C and D **Figure 41**, Route 26 would operate eastbound and westbound following the same routing as Option B, originating, and terminating at a bus bay in the opened Broad Street Transit Plaza at a “Stop A.”

Figure 41. Route 26 Options C & D Operational Strategy



5.5.4 Option E

In Option E **Figure 42**, eastbound trips originate and terminate in this concept from a bus bay in the opened Broad Street Transit Plaza at “Stop G.” Most routes in Option E operate in a clockwise flow around station property. Outbound buses depart the Broad Street Transit Plaza southbound, turning right on Alabama Street as it exits the station, continuing northbound at Forsyth Street and then heading west at Marietta Street. Inbound buses will travel in a clockwise loop, utilizing the southbound travel lane on a reopened Broad Street at Marietta Street, and travel through the station center to access the Broad Street Transit Plaza.

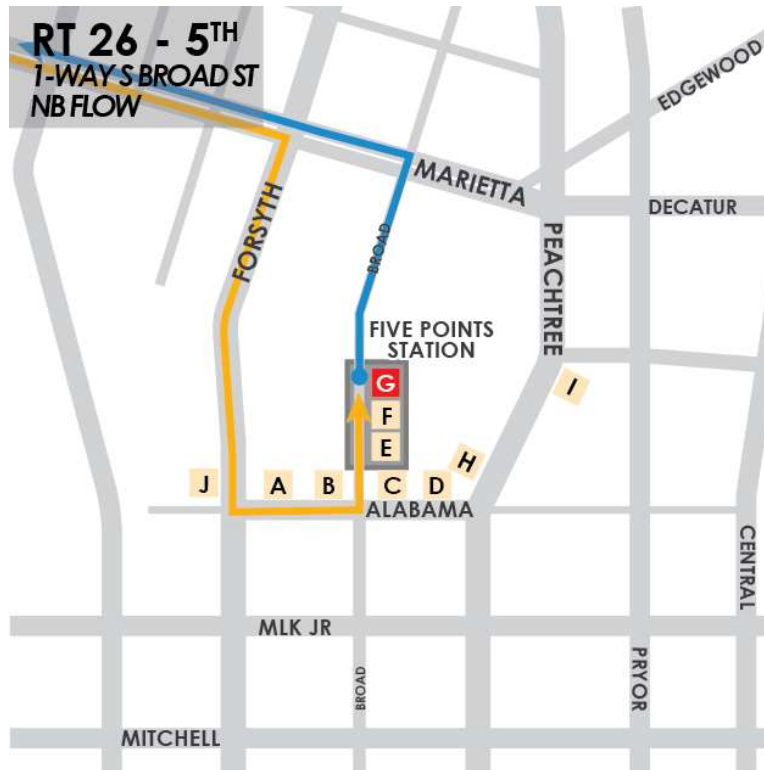
Figure 42. Route 26 Option E Operational Strategy



5.5.5 Option F

In Option F **Figure 43**, trips originate and terminate in this concept from a bus bay in the opened Broad Street Transit Plaza at a “Stop G.” Outbound buses would travel in the one-way northbound lane towards Marietta Street and turn left, continuing westbound. Inbound trips travel eastbound on Marietta Street, turning right at Forsyth Street to access the Broad Street Transit Plaza via Alabama Street.

Figure 43. Route 26 Option F Operational Strategy



5.6 ROUTE 42

Route 42 is the sixth busiest route serving the station area. As of fall 2021, the southbound route currently connects at Five Points Station at Stop F on the south corner of Alabama Street at Peachtree Street.

5.6.1 Option A

In Option A **Figure 44**, Route 42 operates north/south originating and terminating in this concept at the north corner of Alabama Street at Forsyth Street, at a “Stop C.” Route 42 buses would leave Stop C, turning left at Forsyth Street from Alabama Street, and travel southbound before continuing eastbound on Mitchell Street. Inbound trips access Stop A travelling westbound on MLK Jr. Drive, turning right on South Broad Street, and accessing Stop C on Alabama Street at the Forsyth Street approach.

Figure 44. Route 42 Option A Operational Strategy



5.6.2 Option B

In Option B **Figure 45**, southbound and northbound trips originate and terminate from a bus bay in the opened Broad Street Transit Plaza at a “Stop D.” Inbound and outbound trips would be being able to utilize the reopened Broad Street. Outbound trips continue southbound by traveling north on the reopened Broad Street, turning right at Marietta Street, and continuing south on Pryor Street. Inbound trips access the Broad Street Transit Plaza by traveling northbound on Central Avenue, turning left at MLK Jr. Drive, and continuing north into the Broad Street Transit Plaza via South Broad Street.

Figure 45. Route 42 Option B Operational Strategy



5.6.3 Option C & D

In Options C and D **Figure 46**, Route 42 would operate southbound and northbound following the same routing as Option B, originating, and terminating at a bus bay in the opened Broad Street Transit Plaza at a “Stop D.”

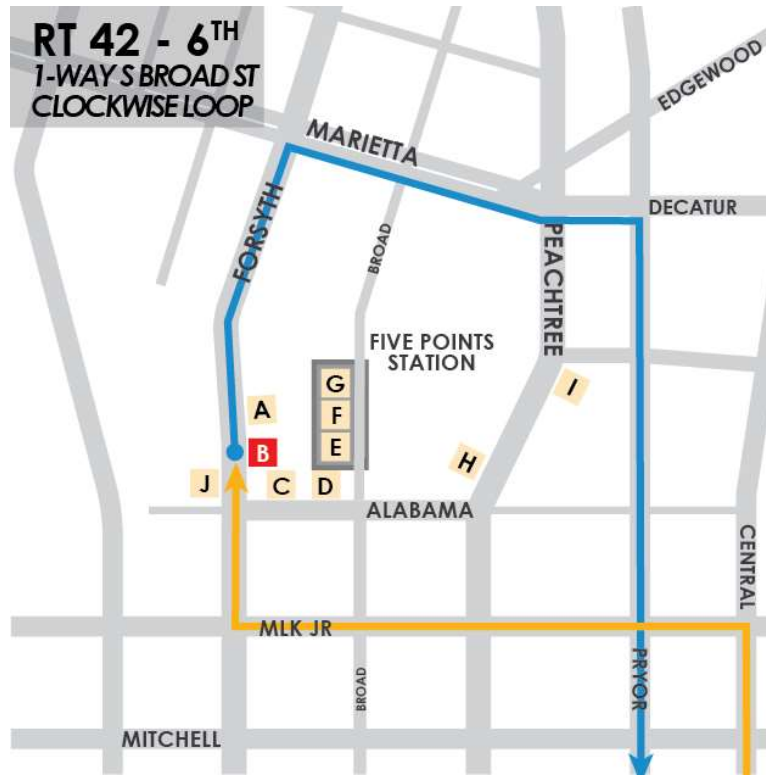
Figure 46. Route 42 Options C & D Operational Strategy



5.6.4 Option E

In Option E **Figure 47**, southbound trips originate in this concept from a bus bay on Forsyth Street at a “Stop B.” It is one of the routes that would not circulate clockwise through the station center. Route 42 would continue northbound on Forsyth Street and turn right at Marietta Street, before going southbound on Pryor Street. Inbound trips operate north on Central Avenue, turning left on MLK Jr. Drive, continuing northbound at Forsyth Street to access “Stop B” on Forsyth Street.

Figure 47. Route 42 Option E Operational Strategy



5.6.5 Option F

In Option F **Figure 48**, trips originate and terminate in this concept from a bus bay on Alabama Street at a “Stop B.” Outbound buses would continue westbound on Alabama Street before turning left at Forsyth Street. Outbound buses would then continue eastbound at Mitchell Street and continue south at Pryor Street. Inbound trips travel northbound on Central Avenue, turning left at MLK Jr. Drive, and continuing north on Peachtree Street to access its bus bay on Alabama Street.

Figure 48. Route 42 Option F Operational Strategy



5.7 ROUTE 3

Route 3 is the seventh busiest route serving the station area. As of fall 2021, the westbound route currently connects at Five Points Station at Stop B on the west corner of Forsyth Street at Alabama Street. The eastbound route connects at Five Points Station at Stop H on the east corner of Peachtree Street at Wall Street.

5.7.1 Option A

In Option A **Figure 49**, Route 3 operates eastbound and provides a connection to the Five Points Station at a “Stop B” on the east curb of Forsyth Street near Alabama Street. Buses would continue eastbound from Stop B, turning right at Marietta Street and continuing east on to Decatur Street. Westbound trips connect at the station at a “Stop K” on Forsyth Street at the Alabama Street approach by travelling westbound Edgewood Avenue and continuing southbound on Forsyth Street via Marietta Street.

Figure 49. Route 3 Option A Operational Strategy



5.7.2 Option B

In Option B **Figure 50**, southbound and northbound trips originate and terminate from bus bays in the opened Broad Street Transit Plaza. Eastbound trips travel northbound on South Broad Street from Mitchell Street and connect at a “Stop E” in the opened Broad Street Transit Plaza before turning right at Marietta Street and continuing east on to Decatur Street. Westbound trips would connect at the station at a “Stop K” by traveling west on Edgewood Avenue and continuing southbound at the reopened Broad Street via Marietta Street. Westbound trips would then exit the Broad Street Transit Plaza at Alabama Street, and continue west by traveling south on Forsyth Street and turning right on MLK Jr. Drive.

Figure 50. Route 3 Option B Operational Strategy



5.7.3 Option C & D

In Options C and D **Figure 51**, Route 3 would operate eastbound and westbound following the same routing as Option B. However, inbound buses would connect at the station at a “Stop A,” and outbound buses would connect at a “Stop D” within the opened Broad Street Transit Plaza.

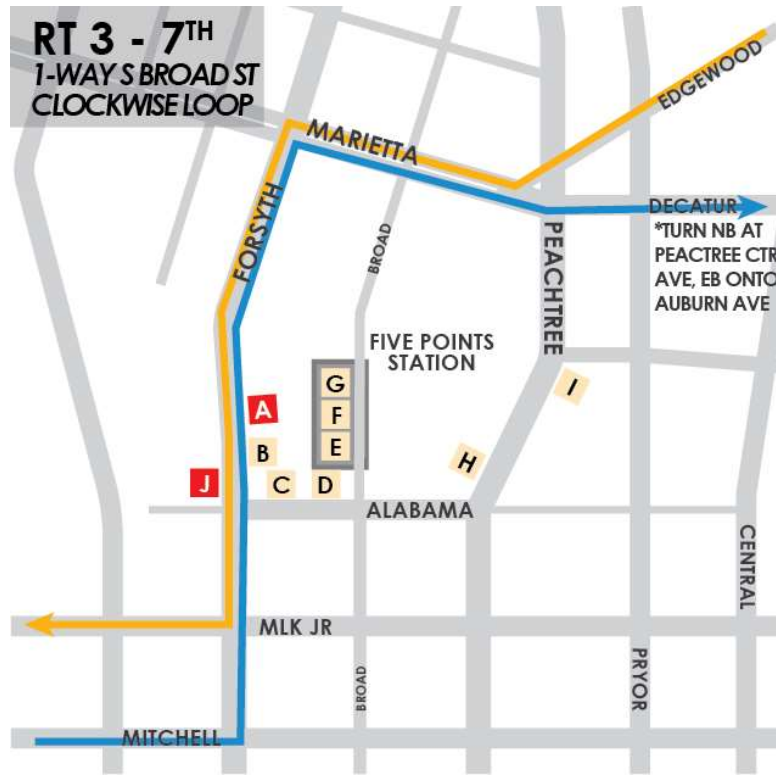
Figure 51. Route 3 Options C & D Operational Strategy



5.7.4 Option E

In Option E **Figure 52**, southbound trips connect to the station at a bus bay on Forsyth Street at a “Stop J,” and northbound trips connect at a “Stop A” on Forsyth Street. It is one of the routes that would not circulate clockwise through the station center. Buses stop at “Stop J” travelling southbound on Forsyth Street via Marietta Street. Outbound buses stop at “Stop A” on Forsyth Street as they travel northbound before continuing east at Marietta Street.

Figure 52. Route 3 Option E Operational Strategy



5.7.5 Option F

In Option F **Figure 53**, westbound trips connect to the station at a bus bay on Forsyth Street at a “Stop J,” and eastbound trips connect at a “Stop G” in the opened Broad Street Transit Plaza. Outbound buses travel north on South Broad Street from Mitchell Street, continuing north through the transit plaza where it connects at “Stop G,” and continues east at Marietta Street. Inbound trips travel access Marietta Street via Edgewood Avenue, turning left at Forsyth Street where buses would connect at a “Stop J” on the corner of Forsyth Street at Alabama Street. As inbound trips continue from “Stop J,” buses then continue westbound at MLK Jr. Drive.

Figure 53. Route 3 Option F Operational Strategy



5.8 ROUTE 40

Route 40 is the eighth busiest route serving the station area. As of fall 2021, the southbound route currently connects at Five Points Station at Stop G on the west corner of Peachtree Street at Alabama Street. The northbound route currently connects at Five Points Station at Stop H on the east corner of Peachtree Street at Wall Street.

5.8.1 Option A

In Option A **Figure 54**, operations for Route 40 are the same as its current routing but connects to the station at stops that would be renamed due to Option A's proposed station configurations. Inbound trips travel south on Peachtree Street, connecting at a "Stop I" on Peachtree Street approaching Alabama Street. Outbound trips travel north on Peachtree Street, connecting at a "Stop J" on Peachtree Street approaching Wall Street.

Figure 54. Route 40 Option A Operational Strategy



5.8.2 Option B

In Option B **Figure 55**, operations for Route 40 are the same as its current routing and Option A. Route 40 would connect to the station at stops that would be renamed due to Option B’s proposed station configurations. Inbound trips travel south on Peachtree Street, connecting at a “Stop G” on Peachtree Street approaching Alabama Street. Outbound trips travel north on Peachtree Street, connecting at a “Stop H” on Peachtree Street approaching Wall Street.

Figure 55. Route 40 Option B Operational Strategy



5.8.3 Option C & D

In Options C and D **Figure 56**, operations for Route 40 are the same as its current routing and the preceding Options A and B. Route 40 would connect to the station at stops that would be renamed due to Options C and D's proposed station configurations. Inbound trips travel south on Peachtree Street, connecting at a "Stop G" on Peachtree Street approaching Alabama Street. Outbound trips travel north on Peachtree Street, connecting at a "Stop H" on Peachtree Street approaching Wall Street.

Figure 56. Route 40 Options C & D Operational Strategy



5.8.4 Option E

In Option E **Figure 57** Route 40 inbound and outbound trips connect at the station on Peachtree Street. Buses traveling northbound connect at a “Stop I” on the west curb of Peachtree Street, and buses travelling southbound connect at a “Stop H” on the east curb of Peachtree Street.

Figure 57. Route 40 Option E Operational Strategy



5.8.5 Option F

In Option F **Figure 58** Route 40 inbound and outbound trips connect at the station on Peachtree Street. Buses traveling northbound connect at a “Stop I” on the west curb of Peachtree Street, and buses travelling southbound connect at a “Stop H” on the east curb of Peachtree Street.

Figure 58. Route 40 Option F Operational Strategy



5.9 ROUTE 813

Route 813 is the ninth busiest route serving the station area. As of fall 2021, the westbound route connects at Five Points Station at Stop G on the west corner of Peachtree Street at Alabama Street. The eastbound route connects at Five Points Station at Stop A on Forsyth Street near the rail overpass.

5.9.1 Option A

In Option A **Figure 59**, operations for Route 813 are the same as its current routing but connects to the station at stops that would be renamed due to Option A's proposed station configurations. Inbound trips travel north on Forsyth Street, connecting at a "Stop A" near Alabama Street, before continuing eastbound on Marietta Street. Outbound trips travel south on Peachtree Street from Wall Street, connecting at a "Stop I" on Peachtree Street approaching Alabama Street.

Figure 59. Route 813 Option A Operational Strategy



5.9.2 Option B

In Option B **Figure 60**, eastbound and westbound connect to the station at bus bays in the opened Broad Street Transit Plaza. Eastbound trips travel northbound on Forsyth Street and accesses the Broad Street Transit Plaza via Alabama Street, connecting at a “Stop D” before continuing north on the reopened Broad Street, and turning right on Marietta Street. Westbound trips would connect at the station at a “Stop A” by traveling southbound at the reopened Broad Street.

Figure 60. Route 813 Option B Operational Strategy



5.9.3 Option C & D

In Options C and D **Figure 61**, operations for Route 813 are the same as its current routing and the preceding Options A and B. Route 813 would connect to the station at stops that would be renamed due to Options C and D's proposed station configurations. Eastbound trips travel northbound on Forsyth Street and accesses the Broad Street Transit Plaza via Alabama Street, connecting at a "Stop E" before continuing north on the reopened Broad Street, and turning right on Marietta Street. Westbound trips would connect at the station at a "Stop B" by traveling southbound on the reopened Broad Street.

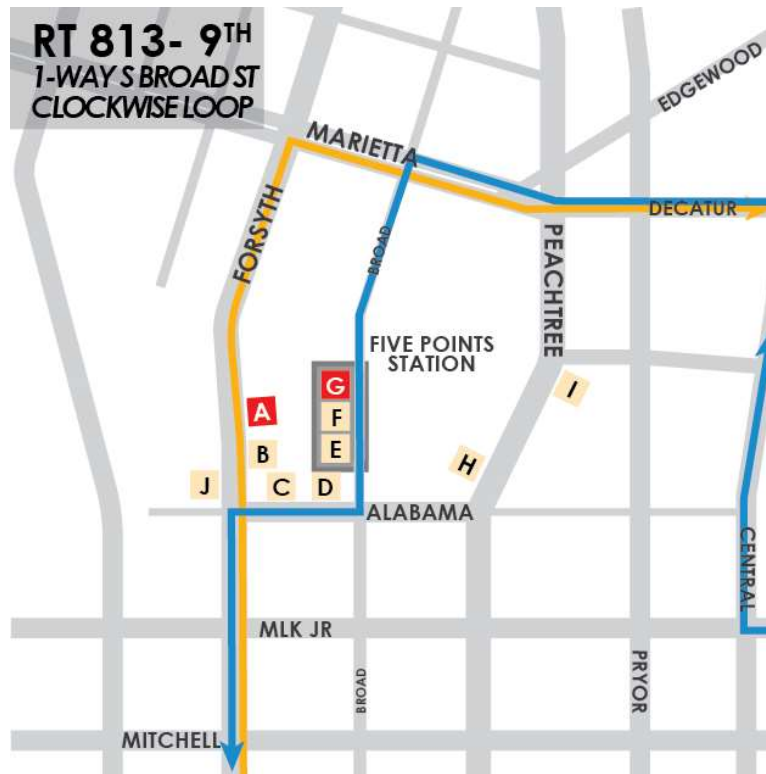
Figure 61. Route 813 Options C & D Operational Strategy



5.9.4 Option E

In Option E **Figure 62**, eastbound trips connect to the station in this concept at a bus bay on Forsyth Street at a “Stop A.” These inbound buses continue eastbound at Marietta Street. Outbound routes enter the study area on Central Avenue, turning left on Decatur Street and accessing the Broad Street Transit Plaza at Marietta Street.

Figure 62. Route 813 Option E Operational Strategy



5.9.5 Option F

In Option F **Figure 63**, inbound trips connect to the station in this concept at a bus bay in the Broad Street Transit Plaza at a “Stop F.” These inbound buses continue north on Broad Street to Marietta Street before continuing eastbound. Outbound routes enter the study area on Central Avenue, turning left on Wall Street, and left again at Peachtree Street to connect at “Stop H” on the west curb of Peachtree Street near Alabama Street. Buses then continue south on Peachtree Street to MLK Jr. Drive, before continuing south at Forsyth Street.

Figure 63. Route 813 Option F Operational Strategy



5.10 ROUTE 816

Route 816 is the tenth busiest route serving the station area. As of fall 2021, the northbound route currently connects at Five Points Station at Stop D on the south corner of Alabama Street at Broad Street and at Stop H on the east curb of Peachtree Street near Wall Street.

5.10.1 Option A

In Option A **Figure 64**, operations for Route 816 originate and terminate at a “Stop B” on Forsyth Street near Alabama Street. Outbound trips continue north on Forsyth Street from Stop B before turning right to continue eastbound on Marietta Street. Inbound routes would travel westbound on Edgewood Avenue, turning left on Pryor Street, right on Wall Street, and continuing southbound on Peachtree Street to access Forsyth Street via Alabama Street.

Figure 64. Route 816 Option A Operational Strategy



5.10.2 Option B

In Option B **Figure 65**, operations for Route 816 originate and terminate at a “Stop A” in the opened Broad Street Transit Plaza. Outbound trips exit the Broad Street Transit Plaza at Alabama Street, and turn left to continue north on Peachtree Street. Inbound routes would continue westbound on Marietta Street from Edgewood Avenue, and access the reopened Broad Street at Marietta Street to terminate at Stop A.

Figure 65. Route 816 Option B Operational Strategy



5.10.3 Option C & D

In Options C and D **Figure 66**, operations for Route 816 are the same as the previous Option B. Route 816 would connect to the station at stops that would be renamed due to Options C and D’s proposed station configurations. Inbound and outbound trips would connect at a “Stop C” in the opened Broad Street Transit Plaza near Alabama Street.

Figure 66. Route 816 Options C & D Operational Strategy



5.10.4 Option E

In Option E **Figure 67**, outbound trips originate in this concept from a bus bay on Forsyth Street at a “Stop A” before turning right at Marietta Street. It is one of the routes that would not circulate clockwise through the station center. Inbound buses travel south on Pryor Street via Edgewood Avenue. Inbound routes would turn right on Wall Street, left at Peachtree Street, and continue to “Stop A” on Forsyth Street from Alabama Street.

Figure 67. Route 816 Option E Operational Strategy



5.10.5 Option F

In Option F **Figure 68**, outbound trips originate and terminate in this concept from a bus bay on Alabama Street at a “Stop A.” Outbound buses leave “Stop A” before turning right on Forsyth Street, and taking another right at Marietta Street to continue eastbound. Inbound trips travel south on Pryor Street via Edgewood Avenue. Buses would then turn right on Wall Street, left at Peachtree Street, and continue to “Stop A” Alabama Street.

Figure 68. Route 816 Option F Operational Strategy



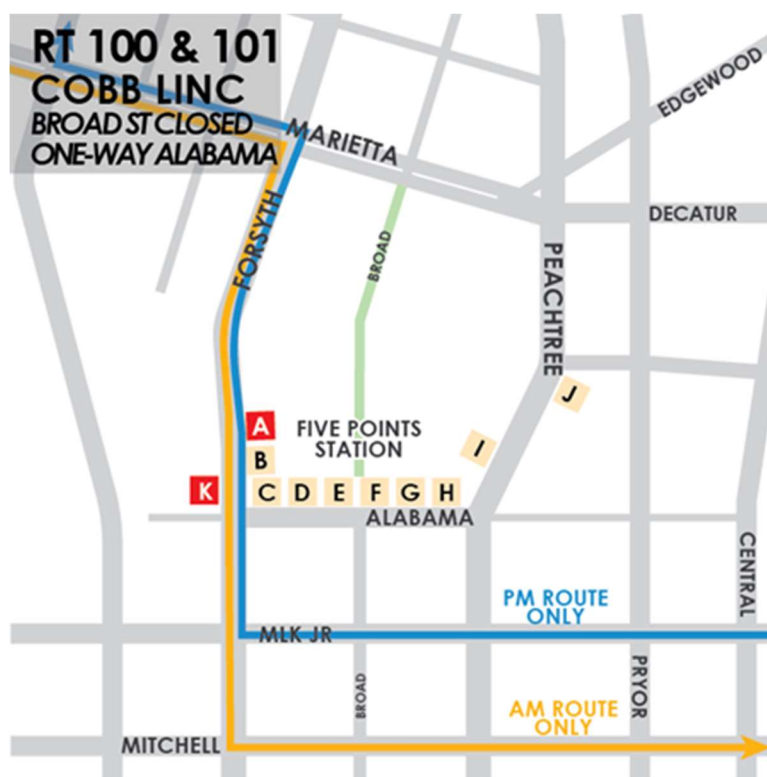
5.11 COBBLINC ROUTE 100 & 101

CobbLinc Routes 100 and 101 are commuter buses serving the station area. As of fall 2021, the routes connect at Five Points Station at Stop A and Stop B on Forsyth Street. Inbound CobbLinc routes operate during A.M. hours, while outbound routes operate during P.M. hours.

5.11.1 Option A

In Option A **Figure 69**, CobbLinc routes make connections at Five Points MARTA station (Figure 69). Inbound routes connect at a “Stop K” on Forsyth Street travelling northbound. Outbound routes connect at a “Stop A” on Forsyth Street travelling southbound.

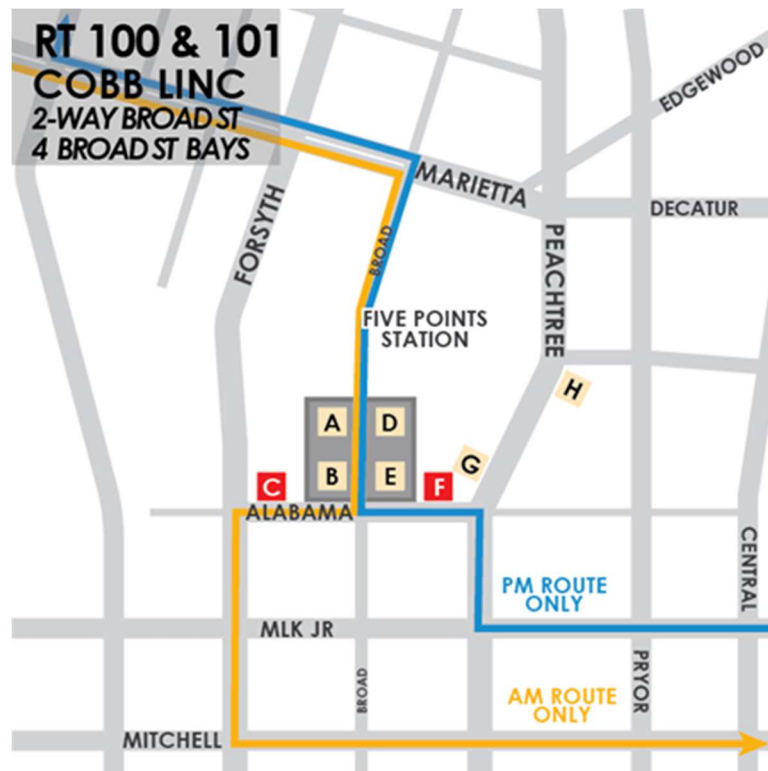
Figure 69. CobbLinc Routes 100 & 101 Option A Operational Strategy



5.11.2 Option B

In Option B **Figure 70**, CobbLinc routes make connections at Five Points MARTA station (Figure 70). Inbound routes would connect at a “Stop C” on Alabama Street accessing the stop by traveling southbound through the center of the station on a reopened Broad Street. Outbound routes would connect at a “Stop F” on Alabama Street at Peachtree Street and continue northbound through the center of the station on a reopened Broad Street.

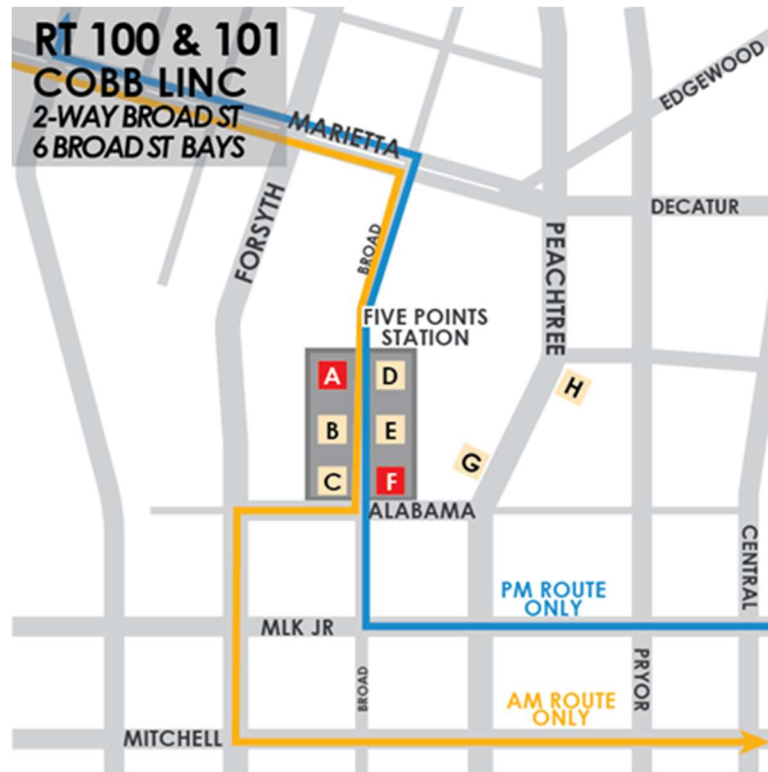
Figure 70. CobbLinc Routes 100 & 101 Option B Operational Strategy



5.11.3 Option C & D

In Options C & D **Figure 71**, inbound routes would connect at a “Stop A” in the Broad Street Transit Plaza by accessing a reopened Broad Street at Marietta Street. Outbound routes would connect at a “Stop F” in the Broad Street Transit Plaza accessing the Plaza via South Broad Street before continuing north.

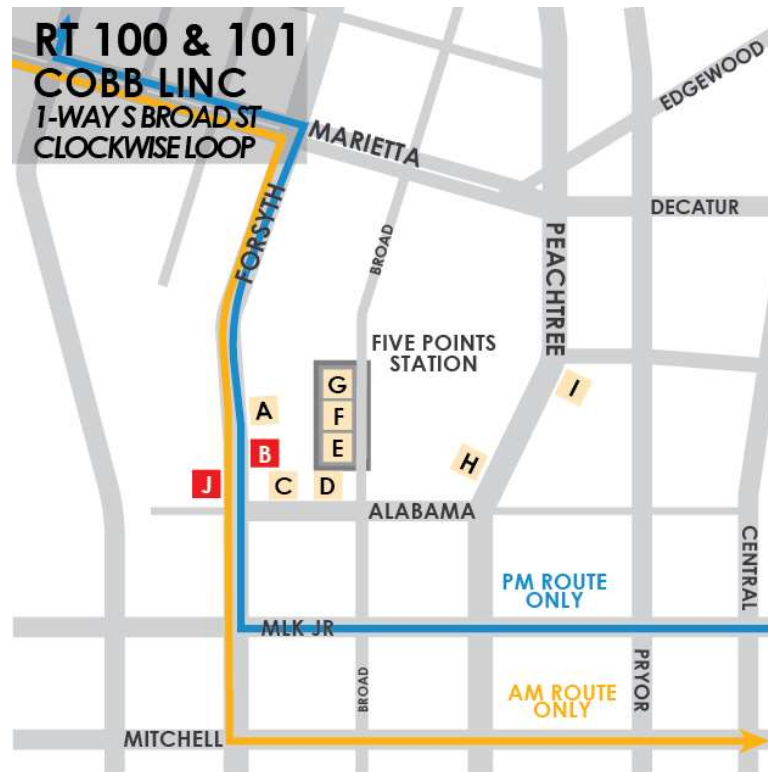
Figure 71. CobbLinc Routes 100 & 101 Options C & D Operational Strategy



5.11.4 Option E

In Option E **Figure 72**, inbound trips connect to the station at a bus bay on the corner of Forsyth and Alabama Streets at a “Stop J,” and outbound trips connect at a “Stop B” on the east curb of Forsyth Street. It is one of the routes that would not circulate clockwise through the station center in this option.

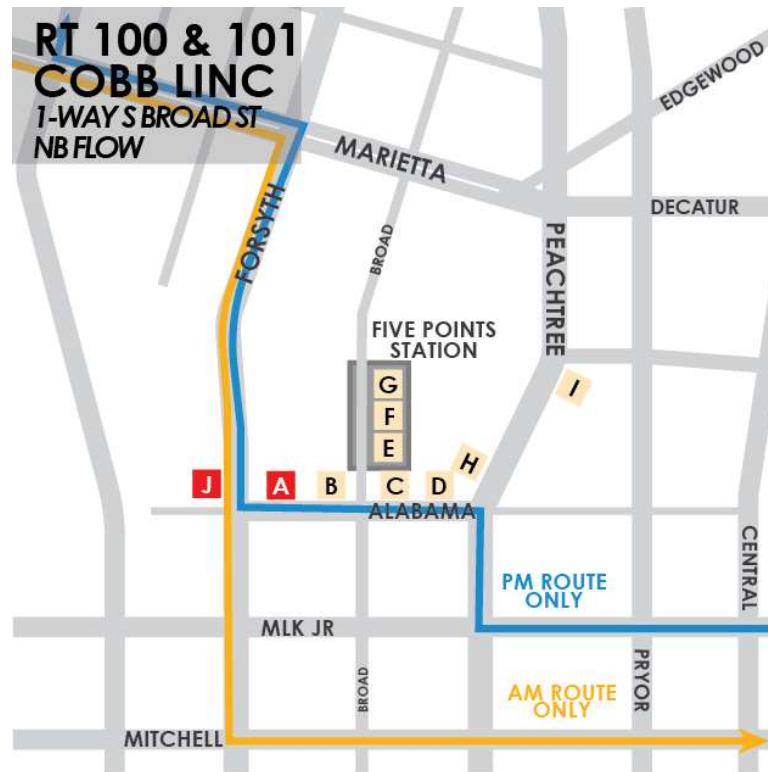
Figure 72. CobbLinc Routes 100 & 101 Option E Operational Strategy



5.11.5 Option F

In Option F **Figure 73**, inbound routes would connect at a “Stop J” on Forsyth Street at Alabama Street, and continue southbound. Outbound routes would connect at a “Stop A” on the north side of Alabama Street approaching Forsyth Street then, continue north on Forsyth Street.

Figure 73. CobbLinc Routes 100 & 101 Option F Operational Strategy



5.12 XPRESS ROUTES

Xpress Routes 430, 432, 440/441, 442 and 453 (Routes 4XX) are commuter buses serving the station area. As of fall 2021, these inbound routes connect at Five Points Station at Stop H on the east corner of Peachtree Street at Wall Street.

5.12.1 Option A

In Option A **Figure 74**, Xpress inbound routes make connections at the Five Points MARTA station at the same location of its existing stop, Stop H. However, in this scenario, Stop H is renamed as a “Stop J.” The route also maintains its same existing alignment.

Figure 74. Xpress Routes Option A Operational Strategy



5.12.2 Option B

In Option B, Xpress inbound routes make connections at the Five Points MARTA station at the same location of its existing stop, Stop H. **Figure 75.** In this scenario, Stop H keeps its designation as “Stop H.”

Figure 75. Xpress Routes Option B Operational Strategy



5.12.3 Option C & D

In Options C & D **Figure 76**, Xpress inbound routes make connections at the Five Points MARTA station at the same location of its existing stop, Stop H. In this scenario, Stop H keeps its designation as “Stop H.”

Figure 76. Xpress Routes Options C & D Operational Strategy



5.12.4 Option E

In Option E, Xpress inbound routes make connections at the Five Points MARTA station at the same location of its existing stop, Stop H. **Figure 77.** However, in this scenario, Stop H is renamed as a “Stop I.” The route also maintains its same existing alignment.

Figure 77. Xpress Routes Option E Operational Strategy



5.12.5 Option F

In Option F **Figure 78**, Xpress inbound routes make connections at the Five Points MARTA station at the same location of its existing stop, Stop H. Figure 69. However, in this scenario, Stop H is renamed as a “Stop I.” The route also maintains its same existing alignment.

Figure 78. Xpress Routes Option F Operational Strategy



5.13 SUMMARY

In the event Broad Street is not re-opened, but Alabama Street is converted to a 1-way facility with traffic moving from east to west, bus bays are reconfigured to consolidate stops at bus bays along the north side of Alabama Street. Recommended assignment of routes to each stop are summarized in **Table 5**.

Table 5. Bus Bay Assignments in Option A

Bay	Routes	
A	813 ^{NB}	CobbLinc 100
B	3 ^{NB}	816
C	42	
D	55	
E	21	
F	186	
G	49	
H	26	
I	40 ^{NB}	813 ^{SB}
J	40 ^{SB}	Xpress 4XX
K	3 ^{SB}	CobbLinc 100

In Option B, Broad Street is reopened with two travel lanes and two parallel bus bay lanes that provide 4 bus bays along Broad Street (but are contained within the MARTA property) and two bays are retained on the north side of Alabama Street. Recommended assignment of bus bays to routes based on the preceding operational strategies for each route in an Option A concept are summarized in **Table 6**.

Table 6. Bus Bay Assignments in Option B

Bay	Routes		
A	26	813 ^{SB}	816
B	49	3 ^{NB}	
C	186	CobbLinc 100	
D	42	813 ^{NB}	
E	55	3 ^{SB}	
F	21	CobbLinc 100	
G	40 ^{SB}		
H	40 ^{NB}	Xpress 4XX	

In Options C or D, if Broad Street is re-opened with two travel lanes and two parallel or saw tooth bus bay lanes that continue past the MARTA property line (total of 6 bus bays on Broad Street). Recommended assignment of bus bays to routes based on the preceding operational strategies for each route in Options C or D concepts are summarized in **Table 7**.

Table 7. Bus Bay Assignments in Options C or D

Bay	Routes			
A	26	3 ^{NB}	816	CobbLinc 100
B	49	813 ^{SB}		
C	186	816		
D	42	3 ^{NB}		
E	55	3 ^{NB}	813 ^{NB}	
F	21	CobbLinc 100		
G	40 ^{SB}			
H	40 ^{NB}	Xpress 4XX		

In Option E, Broad Street is reopened with one travel lane in the southbound direction and 3 bus bays along Broad Street near west entrances (a sawtooth bus bay design for the three stops would be contained within the MARTA property) and two parallel bus bays are retained on the north side of Alabama Street. Recommended assignment of bus bays to routes based on the preceding operational strategies for each route in an Option E concept are summarized in

Table 8.**Table 8. Bus Bay Assignments in Option E**

Bay	Routes		
A	3 ^{NB}	813 ^{NB}	816
B	42	CobbLinc 100	
C	21		
D	55		
E	186		
F	49		
G	26	813 ^{SB}	
H	40 ^{NB}	Xpress 4XX	
I	40 ^{SB}		
J	3 ^{SB}	CL 100	

In Option F, Broad Street is reopened with one travel lane in the northbound directions and 3 bus bays along Broad Street near east entrances (a sawtooth bus bay design for the three stops would be contained within the MARTA property) and four parallel bus bays are retained on the north side of Alabama Street. Recommended assignment of bus bays to routes based on the preceding operational strategies for each route in an Option F concept are summarized in **Table 9**.

Table 9. Bus Bay Assignments in Option F

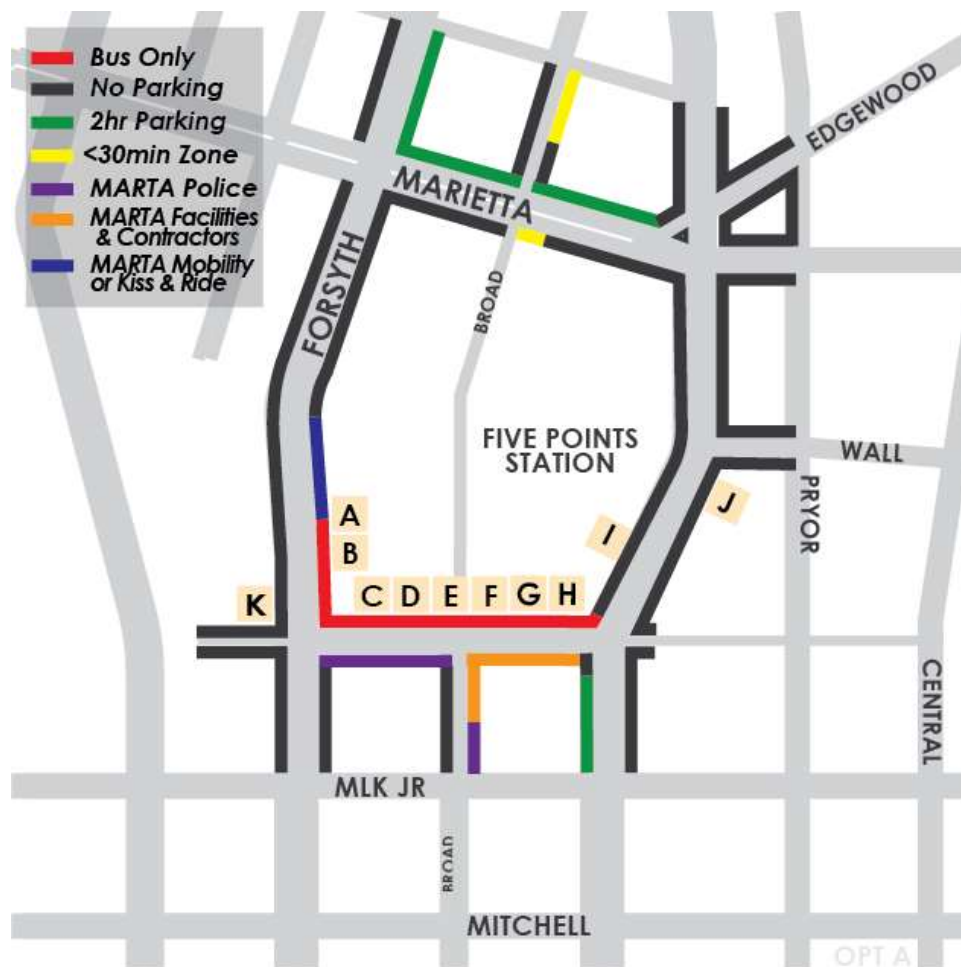
Bay	Routes	
A	816	CL 100
B	42	
C	21	
D	55	
E	186	
F	49	813 ^{NB}
G	26	3 ^{NB}
H	40 ^{SB}	813 ^{SB}
I	40 ^{NB}	Xp 4XX
J	3 ^{SB}	CL 100

6. Curb Management Updates

The various station area configurations, bus operational strategies and resulting bus stop updates provide opportunities to better allocate curb space to MARTA vehicles, especially its Mobility vans, and preserve space for future rideshare pickups/drop-off areas. Mobility Vans would ideally be placed on Forsyth Street near Alabama Street, where existing entry to the station from the street creates an easier connection. Curb regulation, management and enforcement updates and accessibility upgrades on the roads surrounding the station would improve bus operations and customer experience in the near and long-term.

Placing bays on north Alabama Street and the southern end of Forsyth Street, as proposed in Option A, requires management and enforcement of bus only access to the north curb of Alabama Street, and around the corner on Forsyth Street. Emergency vehicles, such as MARTA police vehicles, and MARTA contractors could then use the south curb of Alabama Street between Forsyth and Peachtree Streets **Figure 79**.

Figure 79. Option A Curb Updates



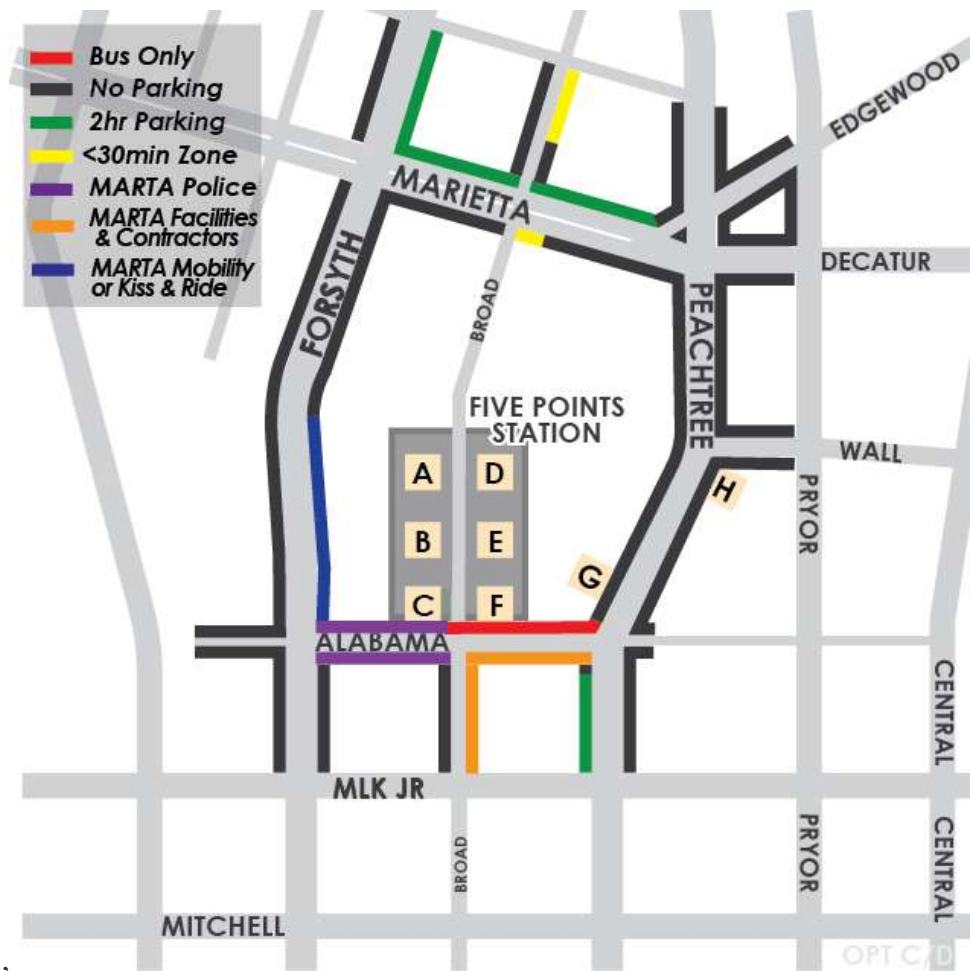
In the other scenarios, Options B, C, and D, the creation of a Broad Street Transit Plaza results in the opportunity to move stops off streets, and therefore presents more opportunities to reallocate curb space. In Option B, larger segments of Forsyth Street near Alabama Street can be used for MARTA Mobility vans **Figure 80**. The south curb of Alabama Street can also be used exclusively by MARTA or emergency vehicles.

Figure 80. Option B Curb Updates



Further, the ability to add more bus bays that extend beyond MARTA property lines in a Broad Street Transit Plaza, as shown in Options C and/or D, frees up curb space on Alabama Street. These options give way to a mix of uses for MARTA Police, agency contractors and MARTA Mobility vehicles on the north and south curbs of Alabama Street, the east curb of Forsyth Street and the east curb of South Broad Street **Figure 81**.

Figure 81. Options C & D Curb Updates



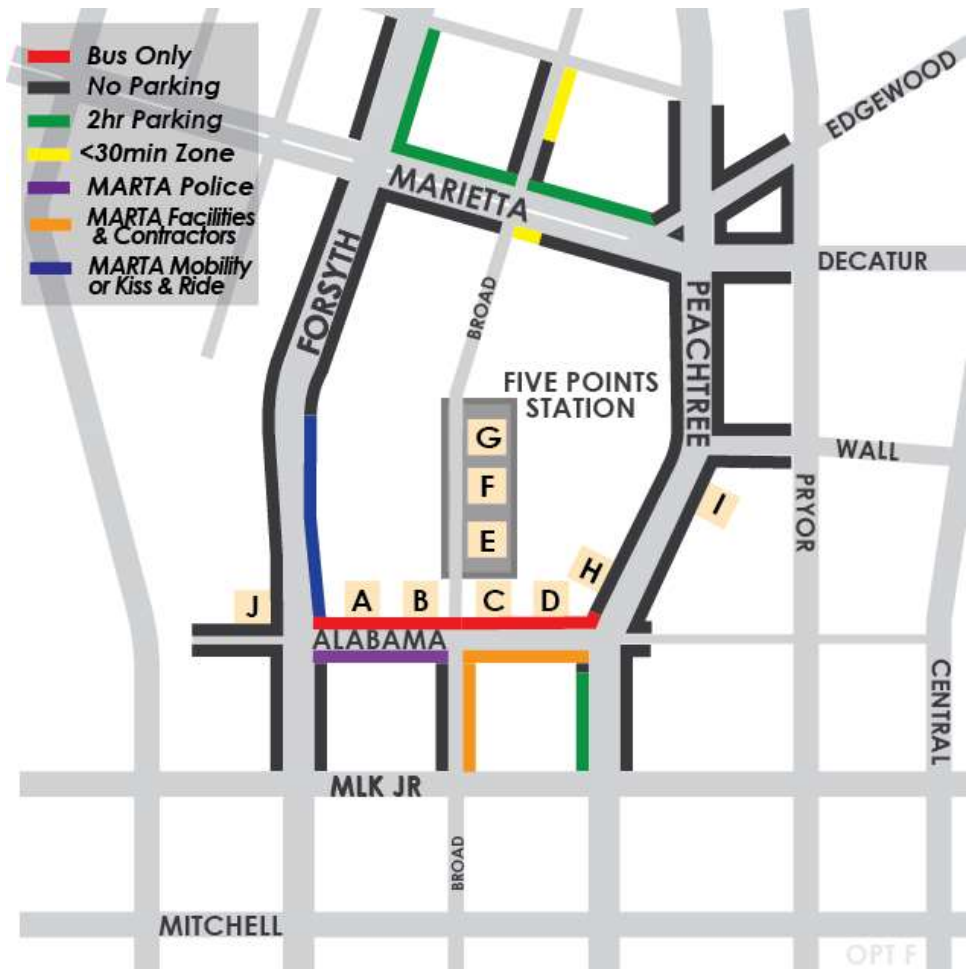
One-way configurations in the northbound or southbound directions on a reopened Broad Street creates a mixture of three bus bays in the Broad Street Transit Plaza and additional stops on Forsyth, Alabama, and Peachtree Streets. Reducing points where passengers would have to cross the street to access the station limits the ability for varied curb uses on MARTA property and will require greater enforcement of bus only spaces at the curb. Option E, shown in **Figure 82**, requires the southern portion of Forsyth Street approaching Alabama Street to be cleared and maintained for bus use. MARTA Mobility vehicles in this option, however, are placed close to the front station entrances on Alabama Street.

Figure 82. Option E Curb Updates



Option F relies heavily on continued enforcement of Alabama Street as a transit-only facility, with its south curb being used solely for MARTA police, facilities, and contractors **Figure 83**. MARTA Mobility and potential rideshare space in this option is then able to use the east curb of Forsyth Street.

Figure 83. Option F Curb Updates



7. Pedestrian Improvements and Safety

A key objective of the bus station scenarios and bus operational strategies is to locate stops as close as possible to existing station entrances. Note that bus stops for higher-ridership routes are generally placed closer to station entrances, particularly on the north curb of Alabama Street, or in the proposed Broad Street Transit Plaza. In scenarios utilizing existing stops farther away from main entrances, such as the corner of Peachtree and Wall Streets, walking distances could be up to 212 feet.

To address potential issues relating to pedestrian access between on-street bus stops or bays and station entrances/exits improved signalization at nearby intersections and a wayfinding signage system should be used. These improvements and safety measures should always be distributed to all segments of the population, and especially for the elderly and people with disabilities in accordance with federal policies.

The predominant travel corridor for the proposed bus operational strategies in Options A through F are Alabama Street whether Broad Street is reopened or not. During peak hours, buses operating on over 15 routes will access Alabama Street via Forsyth, South Broad, and Peachtree Streets. Due to the volume of buses that will be making turn movements, signalization at Alabama Street intersections near the station can facilitate pedestrian movements and accessing on street bus bays. The curb management updates presented in the previous section for each option presents more opportunities to serve both MARTA personnel and customer's transit experience with MARTA Mobility, kiss-and-ride, micromobility, or access paths to the nearby Atlanta Streetcar line. These curb updates, future TOD potential, combined with other transit mode options in the station and study area means that pedestrian circulation should be optimized. In the short-term or the long-term, this may require considering segregated pedestrian flows from other travel modes and minimizing travel distance. Any future parking provisions that may be associated with TOD should not override pedestrian improvements and safety, and limit congestion with pedestrians and buses.

An improved wayfinding system that reaches out to customers and guides them through the MARTA rail and bus system and the Five Points Station will improve the ease of accessing transit and people's general movement in and around the station area. Wayfinding will need to be updated should Broad Street be reconnected. A transit plaza in the center of the station would require re-evaluation of MARTA's station and transit operations and maintenance, as well as managing emergency response protocol. Signage must not only assist customers in traveling but facilitate safe pedestrian movement in the event of an emergency.

Signage is invaluable for motorists, delivery drivers and rideshare services as well. If Alabama Street and Broad Street are limited to MARTA vehicles only, motorists should be given this information throughout the study area, particularly in roadways surrounding the station, such as Forsyth, Marietta, South Broad and Peachtree Streets.

The location of fare machines and the ability for customers to reach them is also a component of improving the pedestrian experience with wayfinding improvements. On-street bus stops or bays may require customers to make additional crosses to reach a fare machine, and signs can assist in helping to find where they are located. Co-locating with fare machines is an ideal opportunity to provide rail and bus information for customers.

8. Conclusions

This Bus Operations Assessment Plan and the preceding Existing Conditions Report provides an assessment of the current state of bus operations at the Five Points MARTA Station and presents future recommendations as it undergoes complete redesign that will take effect in the next five years, and as its full TOD potential is actualized beyond that. Given the gradual station transformation design and the potential for the transformation program to change, there are trends, opportunities and constraints that may warrant further analysis as the project advances.

The following key findings of this assessment will serve as the basis to refine the transformation program for Five Points Station and assessing the impact and value of reconnecting and utilizing Broad Street. It also provides baseline information on what location or design changes are needed to align bus operations with the transformation and Broad Street considerations.

- **Predominate existing land uses in the study area support and encourage TOD and redevelopment in the station and/or study area.** There are land use plans, redevelopment and zoning ordinances in the City of Atlanta and Fulton County that support and accommodate transit supportive land uses comprised of high density, mixed-use centers. As a juncture of Atlanta's rail system, and connection point for numerous bus routes in Downtown Atlanta, the station is already a concentrated destination for transit trips. As automobile and transit travel times to central Atlanta continue to lengthen but development adjacent to the station proliferate, access to this center will become increasingly difficult. There is a demand not only for transit service in the city, but also transit-friendly spaces.
- **Upcoming development is predicted to be transit-oriented, therefore station area improvements should support the goals of improving pedestrian and customer experience.** The Five Points Station Study Area shows to be transit rich, but not transit-friendly. In its current state, the station and its plaza level are underutilized and can be difficult for visitors to navigate. The station transformation must occur at all levels of this station, for customers transferring to other lines, connecting to bus routes, accessing jobs, offices and retailers, station amenities (i.e., Station Soccer or farmers market), or exiting to the surrounding streets. Effective signage and wayfinding information is crucial throughout the duration of Five Points Station's transformation program and future TOD development.
- **Option A (4.1) demonstrates that it is possible to reconfigure Five Points Station to provide a better pedestrian and customer experience without opening Broad Street.** The design benefits of Option A include direct westbound and northbound entry into bus bays on Alabama Street's north curb and Forsyth Street's east curb. By moving all stops to the north side of Alabama Street, which would be converted to a one-way travel lane, less passengers must cross Alabama Street to transfer to another bus or rail. With recommended curb updates for Option A, there would be more dedicated space for MARTA vehicles. Additionally, there would be full use of the plaza space for TOD by not reopening Broad Street.
- **Option B (4.2) is contained within existing MARTA property with two-way travel on a reopened Broad Street.** The design benefits for Option B include the creation of a Broad Street Transit Plaza where all routes are central to the property. Further, if the reopened Broad Street segment provides northbound and southbound travel lanes, there is greater operational flexibility with multiple route approach options. However, compared to other options (see Option D), the parallel bus bay design does not make the best

use of space, and buses would still occupy space on Alabama Street where curb space could be repurposed.

- **Option C (4.3) extends past the MARTA property line but utilizes more flexible parallel bays.** A design benefit of Option C is the creation of a Broad Street Transit Plaza where most routes are central to the property. However, the transit plaza would go beyond the MARTA property line. Extending past the property line, particular in the area above the railroad may create constraints in the station's future TOD potential. Other options have also shown that parallel bus bays are not an efficient use of plaza level space.
- **Option D (4.4) is fully contained on MARTA property, but utilizes less flexible sawtooth bays.** The design benefits of Option D include the creation of a Broad Street Transit Plaza where all routes are central to the property. Further, if the reopened Broad Street segment provides northbound and southbound travel lanes, there is greater operational flexibility with multiple route approach options. Moving most stops that would otherwise be on Alabama Street to a transit plaza in the center of the station frees up curb space on Alabama and Forsyth Streets for other uses.
- **Option E (4.5) is contained to MARTA property and bus bays/stops are distributed around the station.** The distribution of stops on the lower parts of Forsyth Street, Peachtree Street and the north curb of Alabama Street creates a "bus loop" where passengers board/alight internal to the station on most routes. The station design in this scenario requires less plaza space since Broad Street would operate as a one-way travel lane. It also frees up curb space on Alabama Street east of Broad Street for other uses.
- **Option F (4.6) extends past the MARTA property but creates a transit plaza on Broad Street, effectively making Broad Street a single continuous, one-way, northbound facility from the MARTA Garnett Station to Marietta Street.** A design benefit of Option F is the creation of a Broad Street Transit Plaza where some routes would be central to the property. However, the transit plaza would go beyond the MARTA property line. Extending past the property line, particular in the area above the railroad may create constraints in the station's future TOD potential. Other options have also shown that parallel bus bays are not an efficient use of plaza level space. This design would also place four stops along the north curb of Alabama Street from Forsyth to Peachtree Streets.
- **Opening Broad and Alabama Streets to through traffic in all the scenarios negatively impacts the pedestrian and transit customer experience.** Due to the extensive use of Alabama Street in most scenarios for bus operations and pedestrian movements, it is recommended that Alabama Street be enforced as a street for MARTA use only. Visual cues, such as signage or roadway paint, can be used to inform other motorists about Alabama Street's transit-only use throughout the study area. If Broad Street is limited to MARTA vehicles as well, this should be enforced at South Broad and Marietta Streets.

- **In weighing the options of each station configuration and operational strategies the following factors were evaluated:**
 - The number of bus bays in a transit plaza or directly on station property
 - Station access
 - Pedestrian and customer experience
 - Pedestrian and customer safety
 - Bus routing efficiency and improvements
 - Resiliency of station design and operation strategies during special events or incidents
 - TOD and shared space opportunities
 - And curb usage for other MARTA needs (for example: MARTA Police, kiss-and-ride, facilities, staging, etc.)

Continuous communication and feedback from MARTA transit and TOD planners, operators and leadership contributed to this evaluation. Ultimately, the scenarios were narrowed down to three recommended scenarios: Options A, D, and E **Table 10**. Overall, Option E is subjectively ranked to provide the best location and design changes to inform SOM's preliminary Five Points Station design.

Table 10. Top Three Station Area Scenarios

Station Configuration	Transit Plaza Bus Bays*	Station Access	Pedestrian/ Customer Experience	Pedestrian / Customer Safety	Bus Routing Efficiency / Improvements	Special Event / Incident Resiliency	TOD / Shared Space Opportunities	Curb Usage for other MARTA needs (Police, Kiss-and-Ride, Facilities, Staging, etc.)
Option A: Broad Street Not Reopened	8 bays							
Option D: Broad Street Opened Two-way, Transit Plaza	6 bays							
Option E: Broad Street Opened One-way SB, Clockwise Transit Loop	7 bays							
*All Options retain existing stops on Peachtree Street (G&H); Options A & E retains a stop on Forsyth Street SB      Best - - - Worst								

Five Points Station Bus Operations Assessment

EXISTING CONDITIONS

October 2021

THIS PAGE INTENTIONALLY LEFT BLANK FOR PRINTING

TABLE OF CONTENTS

1. INTRODUCTION 1

1.1 Project Purpose and Background 1

1.2 Report Organization..... 1

2. STUDY AREA ERROR! BOOKMARK NOT DEFINED.

3. EXISTING BUS SERVICES..... 4

3.1 Existing Bus Stops..... 4

3.2 Existing Bus Routes..... 7

3.3 Stop Level Ridership..... 21

3.4 Existing Bus Headways and Layovers 22

3.5 On Time Performance 25

4. CURB, ROADWAY & SAFETY CONDITIONS..... 26

4.1 Curb Conditions and Usage..... 26

4.2 Crash and Safety Data 29

4.3 Traffic Operations 31

5. NEXT STEPS 33

FIGURES

Figure 1. Study area3

Figure 2. Existing Bus Stops at MARTA Five Points Station.....4

Figure 3. Stop C at Alabama Street.....5

Figure 4. Bus Stop B Bush Shelter at Alabama Street and Forsyth Street6

Figure 5. "No Parking" Sign at Bus Stop A.....6

Figure 6. Five Points Route Diagrams.....8

Figure 7. MARTA Route 66 at Bus Stops B & H9

Figure 8. MARTA Route 21 at Bus Stop C10

Figure 9. MARTA Route 26 at Bus Stop D11

Figure 10. MARTA Route 40 at Bus Stops G & H.....12

Figure 11. MARTA Route 42 at Bus Stop F13

Figure 12. MARTA Route 49 at Bus Stop F14

Figure 13. MARTA Route 55 at Bus Stop C15

Figure 14. MARTA Route 186 at Bus Stop E16

Figure 15. MARTA Route 813 at Bus Stops A & G17

Figure 16. MARTA Route 816 at Bus Stops D & H18

Figure 17. Express Routes19

Figure 18. CobbLinc Routes 100 & 10120

Figure 19. Daily Stop Use.....21

Figure 20. Stop Use PM Peak22

Figure 21. Stop Use AM Peak23

Figure 22. Bus Stop C, Left; Bus Stop F, Right.....27

Figure 23. Curb Usage in Five Points Study Area.....28

Figure 24: Crashes Occurring at Five Points Study Area Intersections30

TABLES

Table 1. Routes at Bus Stop.....5

Table 2. Days and Times of Operations7

Table 3: MARTA Bus Headways at Five Points Station24

Table 4. Estimated Bus Layover at Five Points Station24

Table 5. On Time Performance by Time Point25

Table 6. All Day On Time Performance.....26

Table 7. Average Curb-to-Curb Widths28

Table 8. Summary of Crash Types in Study Area by Year.....29

Table 9. Bus Crash History from 2016-202031

Table 10. Syncro Results AM Peak.....32

Table 11. Synchro Results Midday Peak32

APPENDIX

Appendix 1. Collision Type by Intersection34

1. Introduction

This memo documents the existing conditions in the vicinity of the Metropolitan Atlanta Regional Transit Authority (MARTA) Five Points Station. The memo will outline the current conditions for all MARTA routes connecting to the Five Points Station, frequency of routes, span of service, the location of each connecting route, Five Points Station End of Line (EOL) and outbound EOL trips, and regional routes within the Five Points study area. This document will also provide an overview of safety data and current curb space.

1.1 PROJECT PURPOSE AND BACKGROUND

Over the next five years, the MARTA Five Points Station will undergo a tremendous transformation, and so will the fixed route bus operations and how they interact with the Five Points Station. The purpose of this project is to assess the current conditions around the station, conduct a full assessment of MARTA's bus operations at the station, and make recommendations for future operations. Recommendations include stop locations and pedestrian circulation improvements and consider the potential that Broad Street may be developed for bus operations.

1.2 REPORT ORGANIZATION

This document was developed under MARTA's Five Points Bus Operations Assessment Plan project. It is the first of two technical documents to be produced from this study. A Bus Operations Assessment Plan will follow.

This Existing Conditions Report provides an overview of current bus operations, curb and street usage, and safety conditions that will be used in developing recommendations for the most viable location for bus operations in the Five Points Station Study Area. This memorandum includes the following sections:

- Study area Review
- Existing Bus Services
- Curb, Roadway and Safety Conditions
- Next Steps

2. Study Area

The study area is in downtown Atlanta surrounding the MARTA Five Points Station, as shown in Figure 1 below. The boundaries of the station area include Peachtree Street to the east and Forsyth Street to the west, intersecting with Marietta / Decatur Street to the north and Alabama Street to the south. The Five Points station is the central transfer point for all four heavy rail lines and is a connecting point for multiple bus routes and services. The predominant land use around the station on the street level is commercial and retail, including national and locally owned fast food restaurants, pharmacies and other locally owned businesses. Broad Street Plaza is a vibrant pedestrian-only zone north of the station, dotted with attractions such as clothing and convenience stores. The skyscrapers on Decatur Street and Peachtree Street are primarily multi-tenant office buildings, home to banks and other businesses with street facing store-front properties. There are also residential condominiums housed in these buildings. Georgia State University (GSU) owns a few of the properties in the vicinity – the campus buildings are conspicuous by flags embossed with their signature University insignia and logo. The Sam Nunn Federal Center (the largest federal building in the southeast United States) lies south of the station – it is a combination of four separate buildings along Alabama Street and Forsyth Street, housing various federal agencies such as the Equal Employment Opportunity Commission and the US Labor Department. The Peachtree Fountains Plaza is a public park to the east of the station, which serves as an entry point to Underground Atlanta, a shopping and entertainment district south of the station on Alabama Street. There is a multi-story parking garage for patrons of the park and Underground Atlanta on Peachtree Street. The area is also home to historic buildings such as the Atlanta Constitution Building to the west and the Connally Building (now the Fairfield Hotel and Inn) to the east.

Figure 1. Study Area



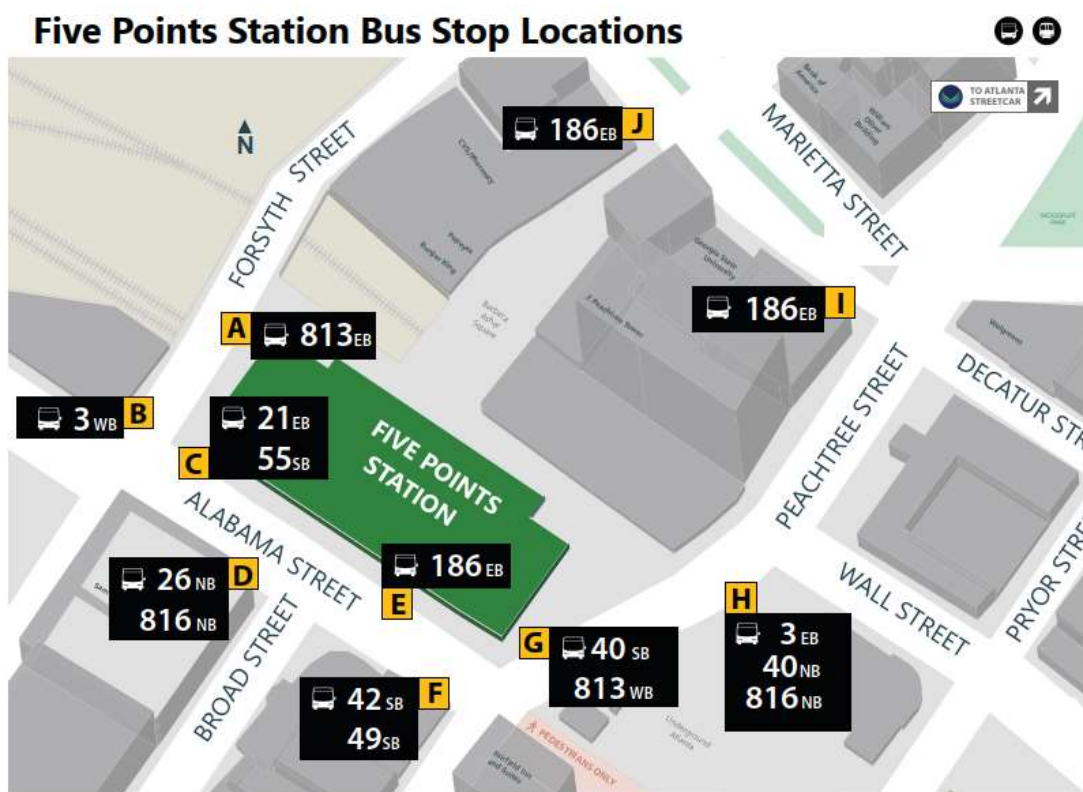
3. Existing Bus Services

This section documents existing bus operations at the MARTA Five Points Station. It includes current bus routes, stops, headway, boarding and alighting on adjacent streets. Observations made during field visits are also discussed.

3.1 EXISTING BUS STOPS

There are 12 primary MARTA bus stops, labelled A through J, that service the MARTA Five Points station on the four streets surrounding the station. Figure 2 shows MARTA's current signage and wayfinding to inform passengers where they can wait to board their buses. MARTA has installed signage at each of these stops to better assist customers with identifying their stop's letter and location. MARTA has also installed wayfinding signage at key locations showing the entirety of the bus stops immediately surrounding the Five Points Station.

Figure 2. Existing Bus Stops at MARTA Five Points Station



Source: MARTA

In addition to MARTA service, Xpress and CobbLinc also currently serve the Five Points area. Stop H on Peachtree Street is served by Xpress Routes 430, 432, 440/441, 442, and 453. Stops A and B on Forsyth Street are also serviced by CobbLinc. However, the recent Central Atlanta Progress (CAP) Regional Bus Study made service recommendations that would fully remove all regional service from the previously mentioned stop areas.

Table 1 summarizes each transit operator and its bus routes serving the MARTA Five Points Station. These routes are discussed in Section 3.2 below.

Table 1. Routes at Bus Stop

Bus Stop	Service Provider	Service Route
A	MARTA	813 EB, CobbLinc 100/101
B	MARTA	3 WB, CobbLinc 100/101
C	MARTA	21 EB, 55 SB
D	MARTA	26 NB, 816 NB
E	MARTA	186 EB
F	MARTA	42 SB, 49 SB
G	MARTA	40 SB, 813 WB
H	MARTA	3 EB, 40 NB, 816 NB
	Xpress	430, 432, 440/441, 442, 453
I	MARTA	186 EB
J	MARTA	186 EB

Existing bus operation facilities, facility needs and passenger activity at these stops have been observed multiple times in the past year. The passenger landing and boarding zones extend along the majority of Alabama Street between Peachtree Street and Forsyth Street, serving stops C and E (Figure 3).

Figure 3. Stop C at Alabama Street



Bus shelters were observed at Stops B and G (Figure 4). Canopies that extended from the MARTA Five Points station building were located nearby bus stops A, C and E.

Figure 4. Bus Stop B Bush Shelter at Alabama Street and Forsyth Street



Many stops require transferring rail-to-bus and bus-to-rail passengers to cross a road to access their connecting stop or station. Stops D and F require pedestrians to cross Alabama Street; Stop B requires crossing Forsyth Street, and stop H requires crossing Peachtree Street. Additionally, stops J and I are located north of the station along Marietta Street and are accessed from the station via the pedestrian plaza along the closed section of Broad Street.

Figure 5. "No Parking" Sign at Bus Stop A



With the high transit ridership at the Five Points Station, the commercial and retail businesses surrounding the station area and the traffic around the five points intersection, the station area stays busy with pedestrians, buses and cars.

At the bus stops along Forsyth and Alabama Streets “no parking,” “MARTA Police parking,” and “contractor only” parking signs have been posted to protect curb space for buses (Figure 5). This is discussed in more detail in Section 4.1.

3.2 EXISTING BUS ROUTES

All routes and services mentioned in this section are active routes as of summer of 2021. MARTA, Xpress, and CobbLinc are the three bus operators providing service and connections to the study area. Per Table 2, the routes serviced by these agencies in the study area include:

- MARTA routes 3, 21, 26, 40, 42, 49, 55, 186, 813, 816
- CobbLinc Routes 100, 101
- Xpress Routes 430, 432, 440/441, 442, and 453

The CobbLinc routes run on weekdays and have an AM outbound and a PM inbound route. Effective July 6, 2021, CobbLinc Route 100 operates on a reduced schedule, and Route 101 runs on limited operation.

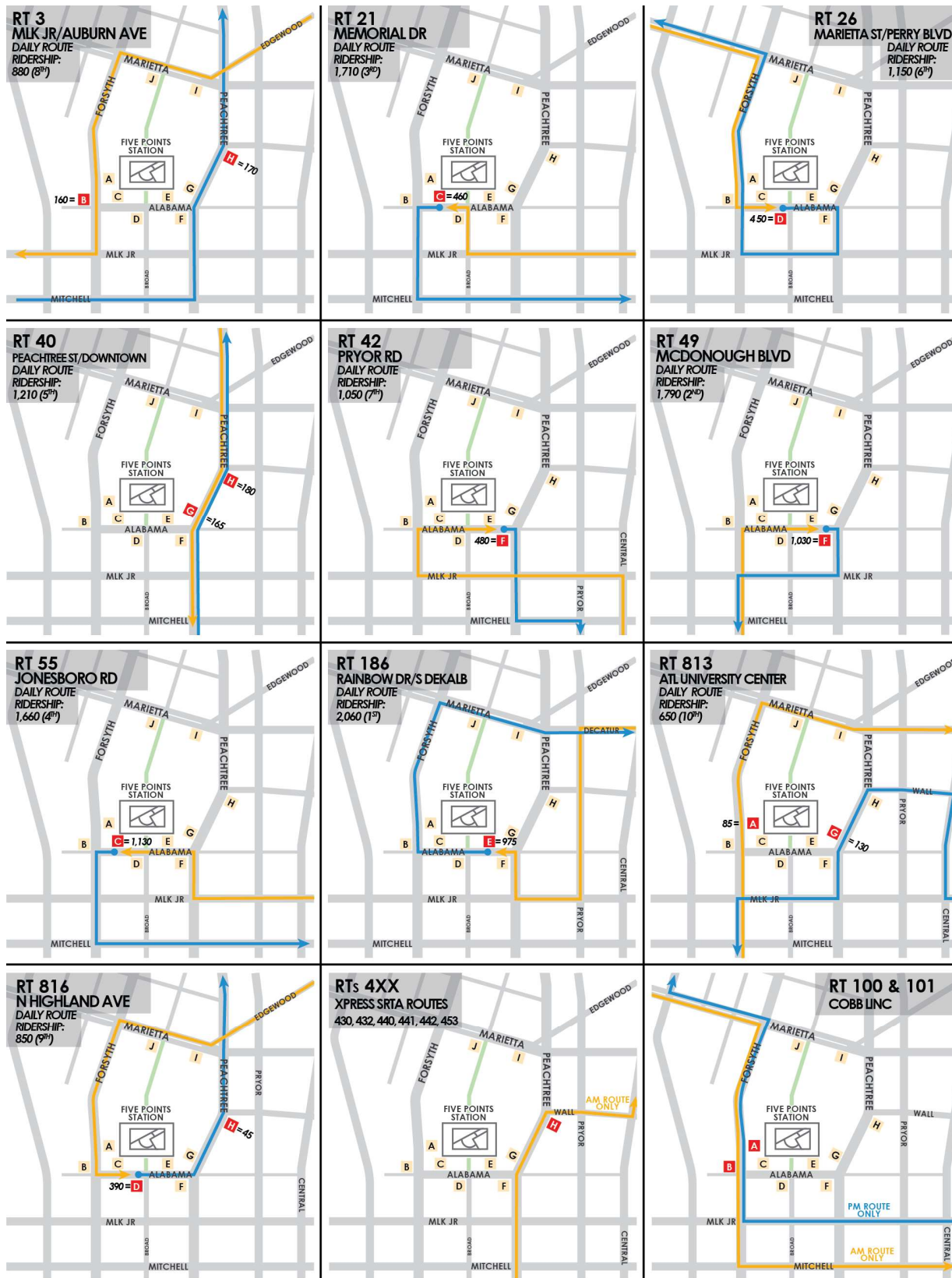
Since July 6, 2021, schedules for Xpress routes have been updated. Xpress routes in the Five Points study area are active weekday mornings and service one stop in the immediate Five Points area.

Though regional providers (CobbLinc and Xpress) are noted in this section, ongoing planning work sponsored by CAP recommends the focusing of the commuter service to the Civic Center station area, which would end the commuter services usage of the stops at Five Points station. Additionally, the CAP Regional Bus Study indicates that the overwhelming majority of regional transit customers board and alight at stops that are outside the study area. All routes considered in this study are shown in the route diagram chart in Figure 6. The following section describes each of the bus routes that serve the Five Points station and includes routing, ridership, and stop information.

Table 2. Days and Times of Operations

Service Provider	Route Number	Days and Times of Operation
MARTA	3, 21, 26, 40, 42, 49, 55, 186, 813, 816	Weekdays and Weekends
Xpress	430, 432, 440/441, 442, 453	Weekday AM Services at Stop H
CobbLinc	100, 101	AM Outbound and PM Inbound on Weekdays

Figure 6. Five Points Route Diagrams



MARTA's **Route 3** operates eastbound and westbound between Hamilton Holmes Station and Helene Mills Senior Center along Martin Luther King Jr. Drive (MLK Jr. Drive), via Five Points rail station, Auburn Avenue, and Edgewood Avenue. Within the study area, Route 3 buses travelling eastbound turn north from Mitchell Street on to Peachtree Street as they approach the Five Points Station, using the stop at Peachtree Street and Wall Street (H) as they continue northbound on Peachtree Street. An average of 170 passengers board or alight Route 3 at Stop H. Westbound buses approach Five Points Station via Edgewood Avenue, travelling west on Marietta Street NW before traveling south on Forsyth Street and stopping at Bus Stop B as they approach Alabama Street. On average, 160 passengers begin or terminate their trip on Route 3 at Stop B. Route 3 has an average daily ridership of 880, making it eighth in average daily ridership among the routes connecting at Five Points Station (Figure 7).

Figure 7. MARTA Route 66 at Bus Stops B & H



MARTA's **Route 21** operates eastbound and westbound between Kensington and Five Points Stations along Memorial Drive, Capitol Avenue, MLK Jr. Drive, Forsyth Street, and Mitchell Street. Five Points Station serves as the route's western End of Line using Stop C at Alabama Street and Forsyth Street. On average, 460 passengers board or alight using Stop C daily. Route 21 is the third highest route in ridership for buses serving Five Points Station with a daily average ridership of 1,710 (Figure 8).

Figure 8. MARTA Route 21 at Bus Stop C



MARTA's **Route 26** operates eastbound and westbound between Five Points and Bankhead Stations to Bolton Road along Marietta Street, West Marietta Street, Perry Boulevard, Hollywood Road, Peyton Road and Bolton Road, with select trips serving Carver Hills. Transporting a daily average of 1,150 passengers, it is the sixth highest ridership route in the Five Points Station area. Five Points station serves as the eastern End of Line and uses Stop D at Alabama Street and Broad Street. An average of 450 passengers board or alight at the stop from this route (Figure 9).

Figure 9. MARTA Route 26 at Bus Stop D



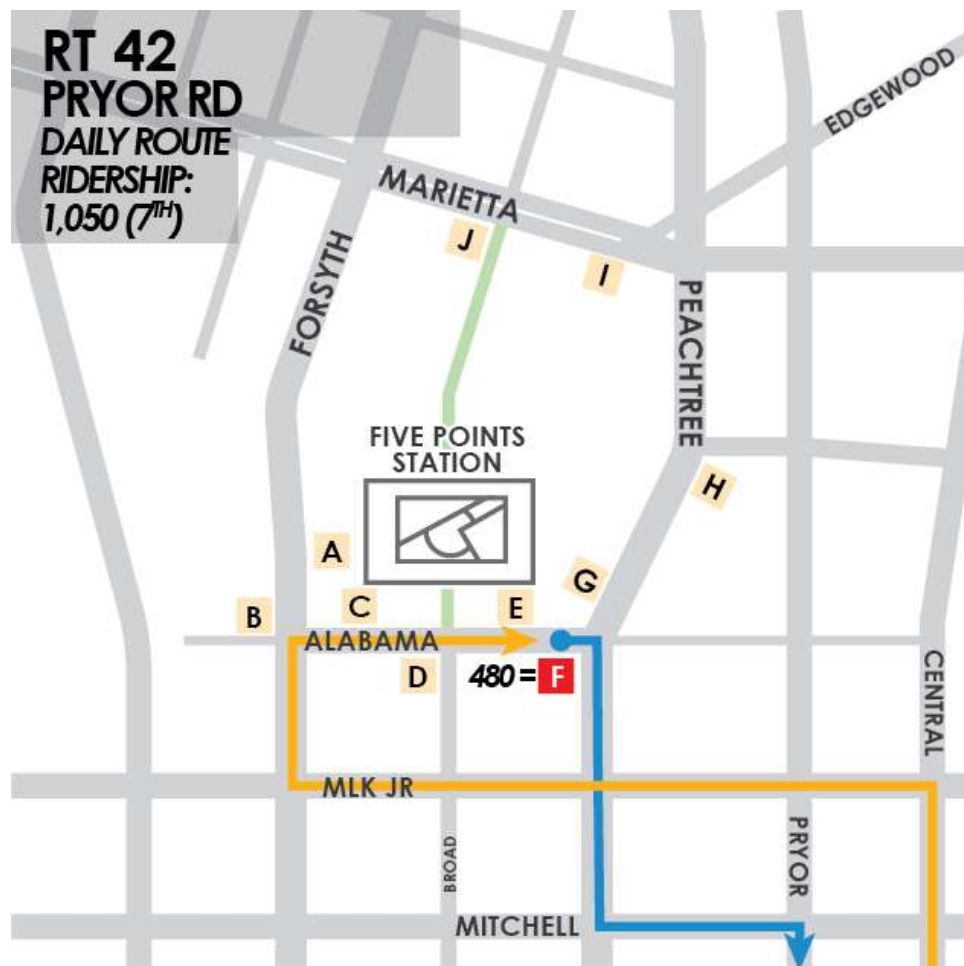
MARTA's **Route 40** northbound and southbound buses travel between West End and Arts Center Stations along Ralph David Abernathy Boulevard, McDaniel Street, Whitehall Street, and Peachtree Street. It is the fifth busiest route in the study area with an average of 1,210 daily riders. As they travel through the Five Points study area northbound and southbound on Peachtree Street, northbound buses stop at Bus Stop H as they approach Wall Street. An average of 180 riders board or alight at Stop H daily. Buses traveling southbound on Peachtree Street stop at Stop G nearing Alabama Street, where an average of 165 passengers board or alight each day (Figure 10).

Figure 10. MARTA Route 40 at Bus Stops G & H



Route 42 operates northbound and southbound between Lakewood/Ft. McPherson and Five Points Stations along Astor Avenue, Arthur Langford Jr. Parkway, Pryor Road, and Central Avenue with some select trips travelling via Amal Drive. Route 42 travels northbound and southbound along Peachtree Street within the study area, carrying 1,050 riders daily. The route's northern End of Line is Five Points station at Stop F at Alabama Street and Peachtree Street (Figure 11). On average, 480 riders board and alight daily at Stop F.

Figure 11. MARTA Route 42 at Bus Stop F



MARTA's **Route 49** operates northbound and southbound from Five Points Station to Metro Transition Center along Ted Turner Drive, Abernathy Boulevard, Hill Street, McDonough Boulevard and Moreland Avenue. Route 49 also has select trips via Englewood Avenue. Route 49 is the second highest ridership route serving the Five Points Station area with 1,790 daily riders. Northbound buses travel on Forsyth Street and reach the northern End of Line at the Five Points station using Stop F on Alabama Street. Southbound buses depart from Stop F, travel south on Peachtree Street, turn right on MLK Jr. Drive and continue southbound on Forsyth Street (Figure 12). The End of Line Stop F has an average of 1,030 daily boardings and alightings.

Figure 12. MARTA Route 49 at Bus Stop F



MARTA's **Route 55** operates northbound and southbound from Five Points Station to Forest Parkway in Clayton County via Capitol Avenue, Hank Aaron Drive, Pryor Street, Jonesboro Road, Hutchens Road and Forrest Park Road. As they approach the Five Points Station, buses travelling northbound on MLK Jr. Drive turn right, continue north on Peachtree Street and turn left on Alabama Street before reaching the northern End of Line at Stop C. Southbound vehicles depart from Stop C and travel southbound on Forsyth Street and turn eastbound on Mitchell Street before they leave the study area. Route 55 originates and terminates an average of 1,130 trips at Stop C at Alabama St and Forsyth Street (Figure 13). Route 55 has a daily route ridership of 1,660, making it the fourth busiest route serving the area.

Figure 13. MARTA Route 55 at Bus Stop C



MARTA **Route 186** operates eastbound and westbound from Five Points station to Snapfinger Woods Drive along Marietta Street, Decatur Street, Hill Street, Interstate 20, Candler Road, Rainbow Drive, and Wesley Chapel Road to Snapfinger Woods. There are also select trips completed via Snapfinger Road. Route 186 is the highest ridership route serving the station area with 2,060 daily riders. An average of 975 daily trips begin and end at Stop E at Alabama Street and Broad Street, which is the western End of Line stop (Figure 14). Route 186's eastbound routing nearly wraps around the station, turning northbound on Forsyth Street as it departs Stop E then, turning right on Marietta Street before continuing to Decatur Street. Westbound trips enter the study area on Decatur Street before traveling south on Pryor Street, turning right on MLK Jr. Drive and traveling north on Peachtree Street.

Figure 14. MARTA Route 186 at Bus Stop E



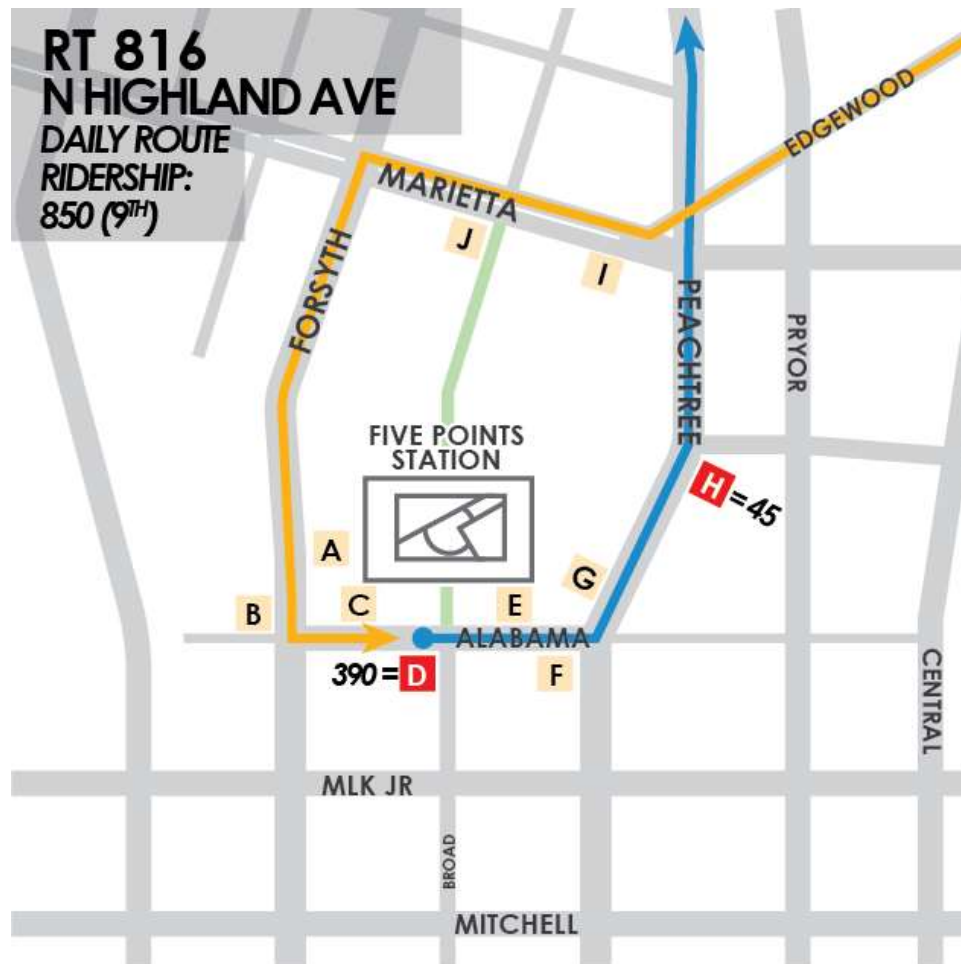
MARTA'S **Route 813** is a community circulator operating eastbound and westbound between West Lake and Georgia State Stations along MLK Jr. Drive. The circulator serves the Mozley Park community, Fair Street, Atlanta Student Movement Boulevard, Peters Street, Forsyth Street, Decatur Street, Piedmont Avenue, Coca-Cola Place and Jesse Hill Jr. Drive. Eastbound buses on this route stop at Forsyth Street and Alabama Street (A), while westbound buses stop at Peachtree Street and Alabama Street (G) (Figure 15). As a community circulator for the Atlanta University Center, eastbound and westbound vehicles travel throughout the study area. This is the lowest ridership route in the study area with a ridership of 650 daily riders on average.

Figure 15. MARTA Route 813 at Bus Stops A & G



MARTA's **Route 816** operates northbound and southbound to Michael Street and Rollins Way along Peachtree Street, Peachtree Center Avenue, Ralph McGill Boulevard, East Freedom Parkway, North Highland Avenue, Johnson Road, Briarcliff Road, Clifton Road and Michael Street. Route 816 Southbound buses travel on Edgewood Avenue, continue southbound on Forsyth Street via Marietta Street NW before they reach the southern End of Line at Stop D at Alabama and Broad Streets. Northbound buses depart from Stop D and travel northbound on Peachtree Street, stop at Stop H, and continue north as they leave the study area (Figure 16). This is the second lowest ridership route with 850 daily passengers on average.

Figure 16. MARTA Route 816 at Bus Stops D & H



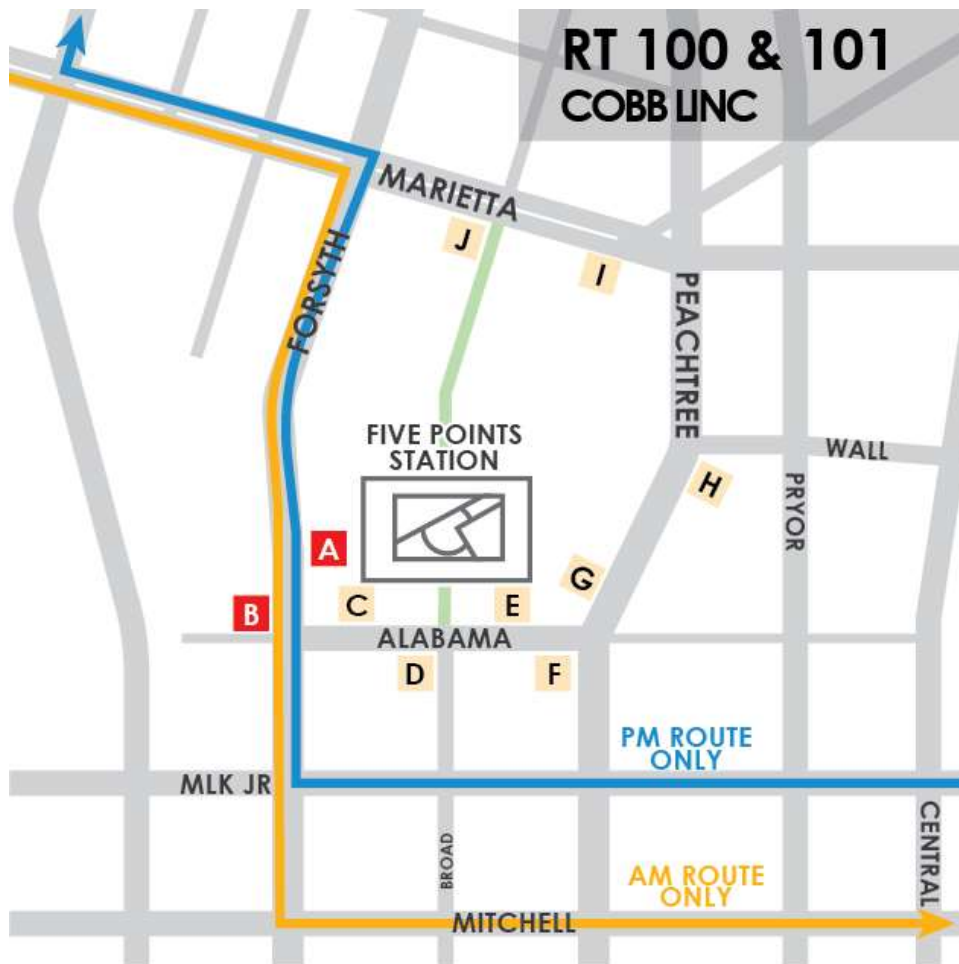
Xpress Routes pass by the Five Points station area during their morning routings only. The routes primarily drop off commuters at MARTA Civic Center Station and at regional stops in the downtown core, but the routes also serve stop H in the morning route pattern. The route uses Peachtree Street northbound and then turns east onto Wall Street after the H stop (Figure 17). The routes do not pass by the station during the PM patterns. As mentioned previously, the CAP Regional Bus Study recommends route pattern changes that would eliminate the stop at H. Therefore, this service should only minimally be considered in updates to the Five Points Bus Operations plan going forward.

Figure 17. Express Routes



CobbLinc's Routes 100 and 101 operate north and south on Forsyth Street and serve stop B in the morning route pattern and stop A in the afternoon pattern (Figure 18). The CAP Regional Bus Study recommends that these routes no longer serve these stops, instead focusing on MARTA Civic Center Station and other downtown locations. These routes should also only minimally be considered in updates to the Five Points Bus Operations plan going forward.

Figure 18. CobbLinc Routes 100 & 101



MARTA staff noted that road closures in the Five Points Station area for filming, particularly along Broad Street south of the station, have an overall impact on routing and accessing stops, which adversely impacts on-time performance. Data from the Office of Film & Entertainment on permitting for street closures was requested, but not provided. While street closures due to filming cannot be quantified at this time, on-street parking along Broad Street south of the station was observed as closed due to filming while doing the field survey.

3.3 STOP LEVEL RIDERSHIP

Average 2019 daily boarding and alightings at bus stops connecting at Five Points Station reveal the vast majority of bus riders board and alight from Alabama Street stops (C, F, E, and D in order). Stop C is the highest ridership stop, served by MARTA Routes 21 and 55, with 1,580 daily average riders. Stop F, served by Route 42 and 49, is the second busiest stop with an average of 1,510 boardings and alightings daily. Stops D and E are also high passenger traffic areas, serving nearly two-thirds of the C and F stops. Stops E and D have an average of 970 and 840, respectively, daily passengers. Of the stops not on Alabama Street, stop H on Peachtree is the next highest ridership stop with 390 daily passengers (Figure 19).

Figure 19. Daily Stop Use



Average daily boardings and alightings at the Five Points Station Bus Stops are higher in the PM Peak than in the AM peak (Figure 20 and Figure 21). During PM Peak, stops C and F are the highest-activity stops, with F serving slightly more passengers. In the AM peak, stop C is the highest activity station, with D and F following. Stop E is substantially less busy in the AM peak than it is overall.

Figure 20. Stop Use PM Peak



3.4 EXISTING BUS HEADWAYS AND LAYOVERS

Headways serve as an indication of transit frequency at a location. Bus headways were estimated based on the operating schedules for routes to the station, available on each agency's website. With data derived from 2019 schedules, these headways provide an estimated frequency of each route under typical operating conditions which were disrupted by the pandemic beginning in spring of 2020. With some agencies still operating limited service on certain routes as of summer of 2021, current headways may be greater than before the pandemic. Headways (in minutes) for MARTA routes are shown in Figure 21 and Table 3 below.

Figure 21. Stop Use AM Peak



Table 3: MARTA Bus Headways at Five Points Station

Route	Weekday Peak	Weekday Off Peak	Weekend
3 Martin Luther King Jr Dr/Auburn Ave	15	45	45
21 Memorial Drive	20	30	30
26 Marietta Street / Perry Boulevard	40	40	40
40 Peachtree Street / Downtown	45	45	45
42 Pryor Road	30	40	40
49 McDonough Boulevard	15	30	30
55 Jonesboro Road	20	30	30
186 Rainbow Drive / South DeKalb	15 /30*	30	30
813 Atlanta University Center	40	40	40
816 North Highland Avenue	40	45	45

*peak inbound vs outbound

Whereas headway is important to the passenger experience, understanding bus layover at the Five Points station is critical to assessing the space and time needed for efficient bus operation at Five Points facility as it is reimagined. Seven routes terminate at Five Points and involve some amount of layover. Layover was estimated using publicly available timetables for the routes and is reported in Table 4. Routes 26, 42, 49, 55, and 816 appear to have regular layover times with an average of 15 minutes. Additional specific run-cutting and blocking data will be requested from MARTA in the next phase to confirm the validity of the estimated times and will help assess the more complicated routes 21 and 186.

Table 4. Estimated Bus Layover at Five Points Station

Route	Estimated Typical Five Points Layover (min)	Stop
3 Martin Luther King Jr Dr/Auburn Ave	N/A	B, H
21 Memorial Drive	To Be Determined	C
26 Marietta Street / Perry Boulevard	0:15	D
40 Peachtree Street / Downtown	N/A	G, H
42 Pryor Road	0:10	
49 McDonough Boulevard	0:10 Peak, 0:15	F
55 Jonesboro Road	0:15	C
186 Rainbow Drive / South DeKalb	To Be Determined	E
813 Atlanta University Center	N/A	A, G
816 North Highland Avenue	0:15	D

3.5 ON TIME PERFORMANCE

On time performance data for routes that serve Five Points Station was examined using the same time period as ridership (2019, yearly average). On time performance was further broken down and examined at both the entire route-run level, and the specific Five Points Station time point(s) level for AM peak, PM peak, and all-day average time periods.

The best performing route overall was 49-McDonough Boulevard; the worst performing route was 816-North Highland Avenue. Most routes fell in a narrow band of 50 to 60 percent for all day average performance. For all routes, the AM peak performance was better (sometimes substantially) than the PM peak performance. See Table 5 for full results at the entire route level.

The on-time performance for the specific Five Points Station time points was slightly worse than the entire route level in aggregate with an all-day average performance of 55 percent. However, routes that did not terminate at Five Points (routes. 3, 40, 813), showed equivalent or better performance than their respective full-route performance. All other routes, all which have Five Points Station as their End of Line, had worse performance than at the full route level. Route 49-McDonough Boulevard was still the best performing route at the Five Points Station time point level, but route 21-Memorial Drive displaced route 816 for the lowest performing. See Table 6 for full results at the Five Points station time points.

For this analysis, time points that were not served all day were not included. This included special services as well as time points at the bus depots. The performance for these time points were significantly lower than for all other time points, often between 10-30 percent.

Table 5. On Time Performance by Time Point

Route	Time Point Type	AM Peak	PM Peak	All-Day Average
3 Martin Luther King Jr Dr/Auburn Ave	Mid Run	60%	42%	57%
21 Memorial Drive	End of Line	53%	53%	46%
26 Marietta Street / Perry Boulevard	End of Line	61%	56%	57%
40 Peachtree Street / Downtown	Mid Run	59%	47%	58%
42 Pryor Road	End of Line	51%	52%	55%
49 McDonough Boulevard	End of Line	63%	63%	60%
55 Jonesboro Road	End of Line	54%	51%	54%
186 Rainbow Drive / South DeKalb	End of Line	50%	48%	52%
813 Atlanta University Center	Mid Run	61%	51%	58%
816 North Highland Avenue	End of Line	53%	47%	53%
All Routes Average		51%	55%	51%

Table 6. All Day On-Time Performance

Route	AM Peak	PM Peak	All-Day Average
3 Martin Luther King Jr Dr/Auburn Ave	60%	43%	55%
21 Memorial Drive	64%	55%	60%
26 Marietta Street / Perry Boulevard	66%	53%	60%
40 Peachtree Street / Downtown	58%	47%	55%
42 Pryor Road	59%	52%	60%
49 McDonough Boulevard	70%	63%	64%
55 Jonesboro Road	60%	52%	58%
186 Rainbow Drive / South DeKalb	65%	57%	61%
813 Atlanta University Center	58%	48%	53%
816 North Highland Avenue	51%	46%	52%
All Routes Average	61%	52%	58%

4. Curb, Roadway & Safety Conditions

This section documents existing conditions beyond bus stops and routes at the MARTA Five Points Station. It will briefly summarize available crash and safety data from the Georgia Department of Transportation (GDOT) and key findings from field observations.

4.1 CURB CONDITIONS AND USAGE

A field assessment was done to review current curb usage, marking, and enforcement signage. There are bus-only areas along Alabama Street and Forsyth Street. There are specific areas for MARTA police and MARTA facilities and contractor vehicles all immediately around the Five Points station. The remaining curb surrounding the station is designated no parking. There are parking and loading zone areas nearby along Peachtree Street, Marietta Street and north of Marietta Street along Forsyth Street. MARTA staff has noted the challenges of parking enforcement in the vicinity of the station due to jurisdiction boundaries and lack of enforcement. Illegal parking does take critical curb space from buses compounding an already busy area. Curb space is painted according to its use, however the paint is worn and faded and not easily visible. Signage exists in all parking areas designating approved vehicles along a curb space. There is no designated drop-off/ride-share/MARTA Mobility area in the curb area immediately surrounding the station. Several drop-off/ride-share vehicles were observed using Alabama Street and Forsyth Street bus only areas for drop-offs and pick-ups during the field survey. Figure 22 shows bus stops C and F.

Figure 22. Bus Stop C, Left; Bus Stop F, Right

Alabama Street is a bus-only street between Forsyth and Peachtree Street adjacent to the MARTA Five Points Station. It is comprised of four lanes with an average curb-to-curb width of 48.3 feet. Both sides of the street are bus loading and unloading zones. Upper Alabama Street past Peachtree Street is a pedestrian facility with Underground Atlanta adjacent to it.

The average curb-to-curb width is 44.0 feet on Peachtree Street. Two-hour on-street parking is available to the north near Edgewood Avenue.

Marietta Street has an average curb-to-curb width of 81.5 feet with four travel lanes, divided by a raised median and highly utilized on-street parking between Peachtree Street and Forsyth Street. There is a truck loading zone by Forsyth Street as well, and a 30-minute loading and unloading zone by Broad Street.

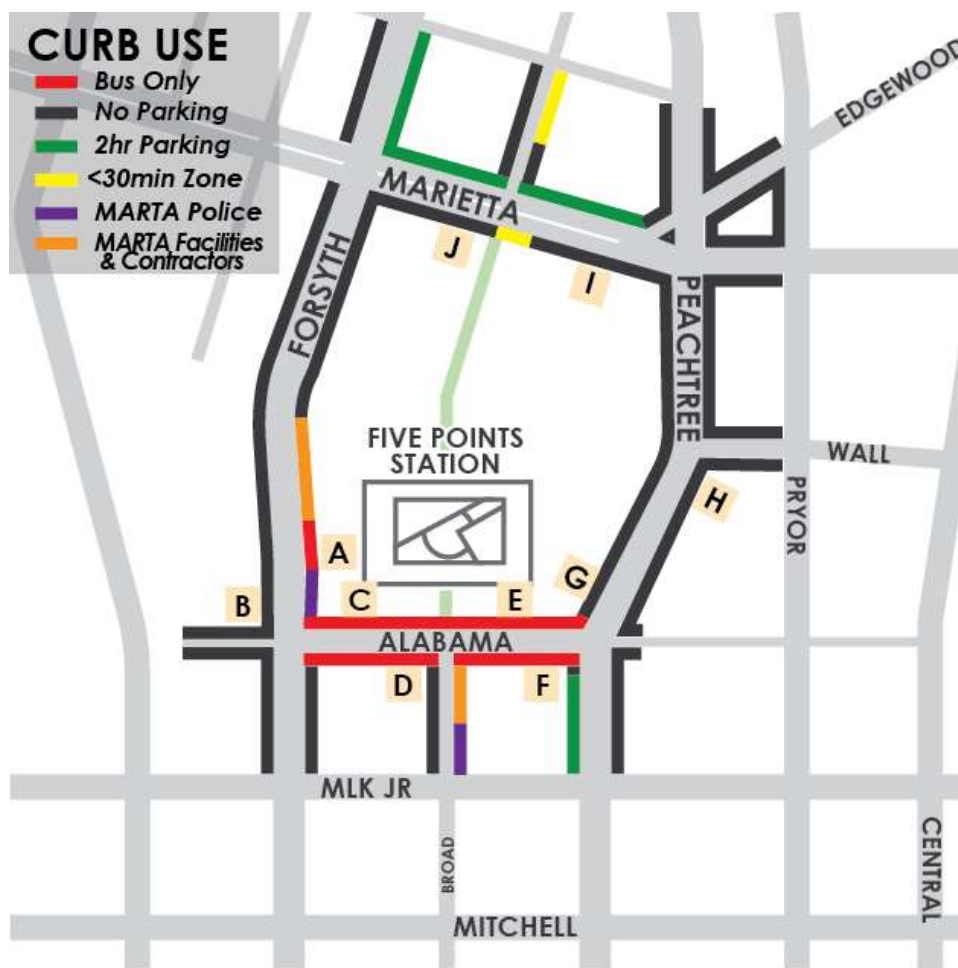
Forsyth Street is comprised of four travel lanes with an average curb-to-curb width of 42.5 feet. The segment of the street adjacent to the Five Points Station has bus loading and unloading zone along with spaces reserved for police and marked MARTA and contractor vehicles.

The average curb-to-curb widths of the four streets are summarized in Table 7, and the curb-space usage near the Five Points Station is summarized in Figure 23.

Table 7. Average Curb-to-Curb Widths

Street Name	Average Curb-to-Curb Width (Feet)	Average Thoroughfare Width (Feet)
Alabama Street	45.0	40.7
Peachtree Street	40.3	35.3
Marietta Street	81.5	42.7
Forsyth Street	42.5	42.5

Figure 23. Curb Usage in Five Points Study Area



4.2 CRASH AND SAFETY DATA

The tabulated and graphical data in this section has been sourced from Numetric, a traffic safety analysis platform. GDOT maintains the latest crash data in Numetric. A five-year crash history was used from this dataset working backward from the most recent year available, 2020. The crash counts of the intersections and roadway segments within the study boundary are summarized in Table 8 **Error! Reference source not found.** by crash types over the past five years.

Table 8. Summary of Crash Types in Study Area by Year

Crash Type	Year					Totals
	2016	2017	2018	2019	2020	
Sideswipe-Same Direction	89	73	83	109	46	400
Angle (Left, Right or Other)	67	68	91	79	53	358
Rear End	45	40	44	54	19	202
Not A Collision With A Motor Vehicle	13	14	13	17	6	63
Head On	2	13	8	15	3	41
Sideswipe - Opposite Direction	5	4	3	2	3	17
Other	2	1	3	3	2	11
Total Crashes	223	213	245	279	132	1,092
Total Non-Fatal Injury Crashes*	37	60	33	67	43	240
Total fatality crashes	0	0	0	0	0	0

*Includes “unknown” injuries.

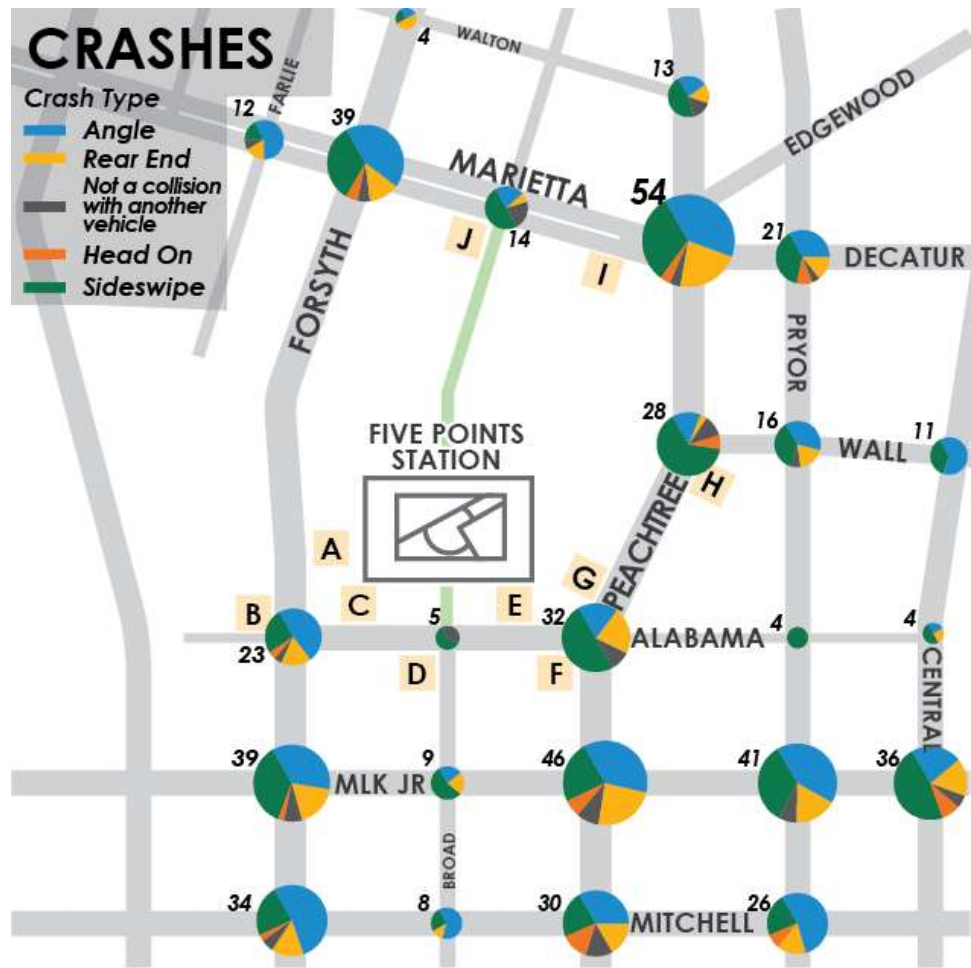
Source: Numetrics, GDOT

The most common crash types based on the data are side-swipe (same direction); angle (left, right and other) and rear-end, accounting for about 37%, 33% and 18% of total crash count, respectively. Of the 1,092 injury and non-injury crashes in the study area from 2016 to 2020, 552 of those crashes were intersection related. All intersections in the study area and the various collision types that have occurred in those intersections between 2016 and 2020 are shown in the table in Appendix 1.

Based on a comparison of intersection crash rates, the intersection of Edgewood Avenue, Marietta Street NW, Peachtree Street and Decatur Street, or, Five Points intersection, had the highest number of crashes of all intersections within the study area. Between 2016 and 2020, a total of 54 crashes were reported at the Five Points intersection. The most frequent crash type at this intersection was an angled (other) collision; this category accounted for 35 percent of the total crashes at the Five Points intersection. The other commonly occurring crash types at other high crash intersections –, MLK Jr. Drive at Peachtree Street, MLK Jr. Drive at Pryor Street, Marietta Street at Forsyth Street—were side-swipe (same direction) collisions and rear-end collisions. For all intersections in the study area, side swipe (same direction), angled (other), and rear-end collisions accounted for

34 percent, 26 percent, and 17 percent of the total crash count, respectively. Collisions by crash type at intersections within the study area from 2016 to 2020 can be found in Table 8.

Figure 24: Crashes Occurring at Five Points Study Area Intersections



It has been noted in recent observations that although Alabama Street is a bus-only route there are vehicles illegally utilizing the street. Among the crashes that have occurred on Alabama Street, several have been due to passenger vehicles accessing the street despite posted signage. These non-compliant vehicles have contributed to operational and safety problems on this segment. Similar traffic behavior was observed on MLK Jr Drive for vehicles turning onto Broad Street Southwest, which eventually leads to Alabama Street.

Broad Street and Forsyth Street are high circulation areas for MARTA riders, increasing the risk of crashes. Pedestrian safety needs to be considered at this intersection.

The station area experiences a heavy footfall of pedestrians. Multiple attractions around the station are accessible by foot, as well as passengers transferring between transit services. The presence of a dedicated pedestrian plaza contributes to a consistently high volume of pedestrian activity. The infrastructure present to accommodate the pedestrians includes wide sidewalks, mostly well-striped crosswalks and properly functioning LED signal heads. The pedestrian clearance time at all the intersections is adequate for crossing per ADA guidance. The crosswalks at the intersection of Alabama Street and Broad Street to the south of the station area are inadequately striped.

Many pedestrians tend to jaywalk across this intersection, which can be attributed to traffic restrictions on Alabama Street and the presence (mostly) of slow-moving buses. Table 9 presents the bus crash history in the study area from 2016 to 2020.

Table 9. Bus Crash History from 2016-2020

Bus and Passenger Car Collision Total:	158
Bus and CMV Collision	13
Bus and Pedestrian Collision	2
Bus and Bus Collision	4

Out of the 1,092 crashes occurring at intersections or in street segments within the study area from 2016 to 2020, 158 involved collisions with buses. These bus-related incidents include vehicles operated by MARTA, CobbLinc, and Xpress buses; however, most collisions occurred between privately operated buses and other vehicles. The two bus and pedestrian crashes occurred at, or near, Alabama Street and Broad Street and Forsyth Street and Alabama Street. The proximity of these bus and pedestrian interactions to Five Points Station's busiest stops and the bus-only segment of Alabama Street reveal a need for greater pedestrian safety efforts near bus facilities.

4.3 TRAFFIC OPERATIONS

Traffic operations were previously analyzed by WSP using Trafficware Synchro software. One Synchro analysis of seven intersections surrounding the Five Points Station utilized volume counts collected by All Traffic Data Service, Inc. in 2015 and 2016 under the GDOT Regional Traffic Operations Program (RTOP). Data collected includes vehicular volume, pedestrian volume, heavy vehicle percentage and Peak Hour Factor (PHF) for each approach by direction. Table 10 and Table 11 below report the intersection LOS and delay findings from these previous efforts.

One of the key findings from the analysis using 2015-2016 data is that the presence of heavy bus circulation and frequent stoppage increases the approach and overall intersection delay, especially during the AM and PM peaks which see shorter bus headways. It is important to note that this previous analysis, however, does not inform if stoppage is due to bus staging or bus layovers.

Another factor affecting traffic operations surrounding the station is the high volume of pedestrian crossings. Data from 2015 and 2016 shows that a total of 1,380 people used the crosswalks at Peachtree Street and Alabama Street during the PM peak period. The crossings affect left and right turning movements for both buses and vehicles alike.

A major takeaway from observations regarding the traffic behavior around these intersections is the non-compliance of vehicles to regulatory signage. Vehicles turn onto the bus-only Alabama Street despite the pavement marking the curbside lane south of Wall Street as bus only and the bus-only signage posted. The intersection at Peachtree Street and Marietta Street also doesn't allow any turns, but some personal vehicles have been observed as making those turns.

Table 10. Syncro Results AM Peak

Intersection: AM Peak (8:30 AM - 9:30 AM)	Approach Direction	EB	WB	NB	SB	Overall
1. Forsyth St @ Marietta St	<i>Delay (s)</i>	48	15.5	36.3	22.1	31.6
	<i>LOS</i>	D	B	D	C	C
2. Marietta St @ Broad St.	<i>Delay (s)</i>	10.9	11.7	-	31.8	12.4
	<i>LOS</i>	B	B	-	C	B
3. Peachtree St @ Marietta / Decatur St.	<i>Delay (s)</i>	7.5	20.9	71.4	1.4	43.9
	<i>LOS</i>	A	C	E	A	D
4. Peachtree St @ Wall St.	<i>Delay (s)</i>	-	19.7	23.1	7.6	20.1
	<i>LOS</i>	-	B	C	A	C
5. Forsyth St @ Alabama St	<i>Delay (s)</i>	9.2	19	9.9	1.1	7.5
	<i>LOS</i>	A	B	A	A	A
6. Peachtree St @ Alabama St	<i>Delay (s)</i>	16	0.4	9.1	7	8.8
	<i>LOS</i>	B	A	A	A	A
7. Peachtree St @ Edgewood Ave	<i>Delay (s)</i>	9.1	19	0.9	17.8	6.3
	<i>LOS</i>	A	B	A	B	A

Table 11. Synchro Results Midday Peak

Intersection: MD Peak (12:15 PM - 01:15 PM)	Approach Direction	EB	WB	NB	SB	Overall
1. Forsyth St @ Marietta St	<i>Delay (s)</i>	47.4	23.1	19.3	36.4	31.6
	<i>LOS</i>	D	C	B	D	C
2. Marietta St @ Broad St.	<i>Delay (s)</i>	11	11.8	-	35.7	14.4
	<i>LOS</i>	B	B	-	D	B
3. Peachtree St @ Marietta / Decatur St.	<i>Delay (s)</i>	10	20.5	13	3.6	11.7
	<i>LOS</i>	A	C	B	A	B
4. Peachtree St @ Wall St.	<i>Delay (s)</i>	-	13.9	13.3	6.6	10.5
	<i>LOS</i>	-	B	B	A	B
5. Forsyth St @ Alabama St	<i>Delay (s)</i>	14.1	19	2.9	1.6	5.2
	<i>LOS</i>	B	B	A	A	A
6. Peachtree St @ Alabama St	<i>Delay (s)</i>	22.2	29.6	3.7	7.8	6.8
	<i>LOS</i>	C	C	A	A	A
7. Peachtree St @ Edgewood Ave	<i>Delay (s)</i>	10.1	-*	0.7	20.1	13.1
	<i>LOS</i>	B	-	A	C	B

*No recorded observations for MD peak in the WB direction at Peachtree St and Edgewood Ave.

5. Next Steps

The Five Points Station is a bustling multi-modal transit hub with numerous interactions between heavy rail and bus users, automobiles, pedestrians and bikers. Its location in the heart of downtown Atlanta facilitates mobility to and from the multiple attractions that surround it.

As highlighted in the sections above, there are bus stops and routes entering and exiting the study area from all directions, there is high ridership, a large amount of pedestrian traffic, designated bus-only lanes, and designated parking for MARTA PD and MARTA facilities and contractors. The deficiencies at the station can be isolated to the following concern areas: frequent bus blocking, high staging/layover times, high volume of pedestrian crossings, insufficient signage at intersections to regulate turning movements, faded curb painting, and a lack of drop-off/ride-share areas. All these issues can negatively impact operations.

The deficiencies at the station can be isolated to the following concern areas:

- Frequent bus blocking
- High staging and layover times
- High volume of pedestrian crossings
- Insufficient signage at intersections to regulate turning movements
- Faded curb painting
- Lack of drop-off/ride-share areas.

All these issues can negatively impact operations.

Following this Existing Conditions Report, a Five Points Bus Operations Assessment Plan will be developed.

This Plan will include:

1. Survey of current or planned development impacting Study Area
2. Summary of forecasted or planned bus service changes
 - Connecting routes and location
3. Study area bus access points recommendations – this should be done without Broad Street as a consideration:
 - Location, supporting ArcGIS maps
 - Number of stalls per recommended access point
 - Constrained bus length if applicable
 - Walking distance to closest station entrance
 - Bus stall configuration (e.g. sawtooth)
 - Circulation plan
 - High level wayfinding and amenities
 - Conceptual layout, 10 percent design threshold
4. Study area pedestrian improvement recommendations
5. Broad Street Bus Operations Scenario Recommendations
 - Using the following Alternatives stemming from the Traffic Network Analysis, provide bus stop plans
 - 1) ALT2: Broad Street Bus-Only
 - 2) ALT3: Broad Street Open to All

Appendix: Collision Type by Intersection

	Sideswipe-Same Direction	Angle (Left)	Angle (Right)	Angle (Other)	Rear End	Not A Collision With A Motor Vehicle	Head On	Sideswipe - Opposite Direction	Total
FivePts Int	14	0	2	19	12	2	2	3	54
MLK @ Peachtree	11	2	4	11	11	4	3	0	46
MLK @ Pryor	14	3	0	14	7	3	0	0	41
Marietta @ Forsyth	12	3	3	11	5	2	2	1	39
MLK @ Forsyth	14	0	6	8	7	3	1	0	39
MLK @ Central	17	3	0	5	6	2	3	0	36
Mitchell @ Forsyth	7	1	0	17	5	2	1	1	34
Alabama @ Peachtree	15	1	1	4	7	3	0	1	32
Mitchell @ Peachtree	7	4	1	5	5	4	4	0	30
Wall @ Peachtree	18	1	1	2	1	3	2	0	28
Mitchell @ Pryor	6	4	0	10	4	0	2	0	26
Alabama @ Forsyth	5	3	1	7	4	1	1	1	23
Decatur @ Pryor	7	2	0	5	3	1	2	1	21
Wall @ Pryor	6	0	1	5	3	1	0	0	16
Marietta @ Broad	7	1	1	1	1	3	0	0	14
Walton @ Peachtree	6	0	0	3	2	2	0	0	13
Marietta @ Farlie St	2	4	1	2	2	1	0	0	12
Wall @ Central	4	1	0	6	0	0	0	0	11
MLK @ Broad	5	0	0	2	2	0	0	0	9
Mitchell @ Broad	2	0	1	4	1	0	0	0	8
Alabama @ Broad	2	0	0	0	0	2	0	1	5
Alabama @ Central	2	0	0	1	1	0	0	0	4
Alabama @ Pryor	4	0	0	0	0	0	0	0	4
Walton @ Forsyth	1	1	0	0	2	0	0	0	4

Five Points Station Transformation Project

Traffic Operations Analysis Technical Memorandum Addendum

Prepared by:



Prepared for:



Under Contract to:

**WSP
Atlanta, GA**

June 20, 2023

Table of Contents

1.	Introduction	1
1.1	Study Area	1
1.2	LOS Criteria	2
2.	Future Alternatives	3
2.1	Alternative 1: No-Build (Do Nothing)	3
2.2	Alternative 2: Broad Street Open to Bus	4
3.	Simulation Results of Future Alternatives	5
3.1	Network Performance	5
3.2	Vehicle LOS Comparison	7
3.3	Pedestrian LOS Comparison	11
3.4	MARTA Bus Travel Time Comparison	14
4.	Conclusions	16

List of Tables

Table 1-1: Intersections in Study area	1
Table 1-2: Intersection Vehicle LOS Criteria	3
Table 1-3: Intersection Pedestrian LOS Criteria	3
Table 3-1: AM Peak Hour Intersection Vehicle LOS	8
Table 3-2: PM Peak Hour Intersection Vehicle LOS	9
Table 3-3: Saturday Peak Hour Intersection Vehicle LOS	10
Table 3-4: AM Peak Hour Intersection Pedestrian LOS	11
Table 3-5: PM Peak Hour Intersection Pedestrian LOS.....	12
Table 3-6: Saturday Peak Hour Intersection Pedestrian LOS.....	13

List of Figures

Figure 1-1: Project Study Area	2
Figure 2-1: Network of Alternative 1	4
Figure 2-2: MARTA Five Points Bus Layout Concept.....	5
Figure 3-1: AM Average Delay	6
Figure 3-2: PM Average Delay.....	6
Figure 3-3: Saturday Average Delay.....	7
Figure 3-4: AM Average Bus Travel Time	14
Figure 3-5: PM Average Bus Travel Time	15
Figure 3-6: Saturday Average Bus Travel Time	15

1. Introduction

This is a supplemental memorandum to the MARTA Five Points Traffic Operations Tech Memo previously submitted. The purpose of this memo is to document traffic operations modeling methodologies and analysis results for the MARTA Five Points Station Project. This memo compares the traffic operations between a no-build scenario and the proposed MARTA bus layout concept. The report documents the methodology used to develop the traffic study. The VISSIM model was used to evaluate transit and vehicle travel time impacts for both alternatives. The methodology was intended to compare how the proposed bus layout concept would impact traffic and bus operations around the Five Points Station. Discussion on methodology, data collection, model development, traffic forecasting and existing conditions can be found in the MARTA Five Points Traffic Operations Tech Memo previously submitted.

This study evaluates commonly used measures of effectiveness (MOEs), such as intersection level of service (LOS) for vehicles and pedestrians, and travel time for MARTA buses. The traffic analysis brings a planning-level estimation of the traffic operations and possible impacts on the system. The traffic analysis was completed for the AM, PM, and Saturday peak hours for the future no-build conditions and the MARTA Bus Concept identified below.

- **Alternative 1 - No-Build (Do Nothing):** This alternative is the no-build condition, which will be considered as a reference condition for future scenarios. All the road facilities and transit will remain the same as the existing conditions, except for planned geometry modification.
- **Alternative 2 – Bus Layout Concept:** This alternative maintains the existing curb line on Alabama street. The existing outside through lane would be modified to a Bus Only Lane where buses would also load and unload passenger. The concept would also widen the existing curb line on Forsyth Street. The street would be widened to provide a 26' bus loading lane. All existing through lanes on Forsyth Street would be maintained.

1.1 Study Area

The study area is the area around the MARTA Five Points Station bordered by MLK, Jr. Drive to the south, Marietta Street/Decatur Street to the north, Forsyth Street to the west, and Pryor Street to the east. **Table 1-1** lists the study intersections, and **Figure 1-1** illustrates the vicinity of the study area including the study intersections identified in **Table 1-1**.

Table 1-1: Intersections in Study area

ID	Intersection
1	Marietta Street/Decatur Street @ Forsyth Street
2	Marietta Street/Decatur Street @ Broad Street
3	Marietta Street/Decatur Street @ Peachtree Street
4	Edgewood Avenue @ Peachtree Street
5	Marietta Street/Decatur Street @ Pryor Street
6	Wall Street @ Peachtree Street
7	Wall Street @ Pryor Street
8	Alabama Street @ Forsyth Street
9	Alabama Street @ Broad Street
10	Alabama Street @ Peachtree Street
11	Alabama Street @ Pryor Street
12	MLK, Jr. Drive @ Forsyth Street

ID	Intersection
13	MLK, Jr. Drive @ Broad Street
14	MLK, Jr. Drive @ Peachtree Street
15	MLK, Jr. Drive @ Pryor Street

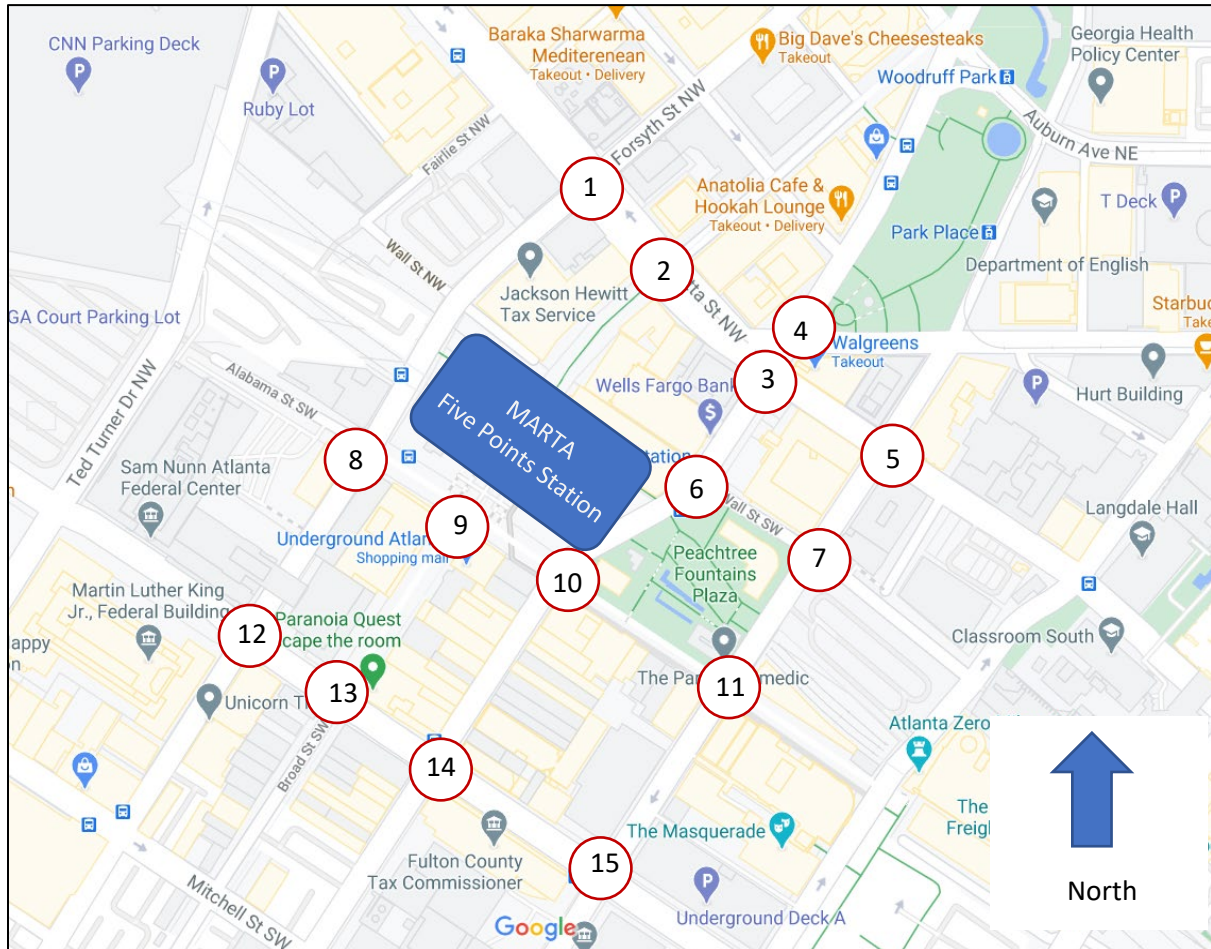


Figure 1-1: Project Study Area

1.2 LOS Criteria

The operational standards of intersections are expressed in terms of average delay per vehicle at intersections. LOS criteria for intersections are defined in the HCM 6 (Exhibit 19-8 for signalized intersections and Exhibit 20-2 for unsignalized intersections) are summarized in **Table 1-2**.

Table 1-2: Intersection Vehicle LOS Criteria

LOS	Control Delay (seconds/vehicle)	
	Signalized	Unsignalized
A	<10	<10
B	>10-20	>10-15
C	>20-35	>15-25
D	>35-55	>25-35
E	>55-80	>35-50
F	> 80	> 50

There are no pedestrian delay criteria defined in HCM 6. In this study, LOS criteria in HCM 2000 was used (Exhibit 18-9 for signalized intersections and Exhibit 18-13 for unsignalized intersections in HCM 2000), and are summarized in **Table 1-3**.

Table 1-3: Intersection Pedestrian LOS Criteria

LOS	Control Delay (seconds/pedestrian)	
	Signalized	Unsignalized
A	<10	<5
B	>10-20	>5-10
C	>20-30	>10-20
D	>30-40	>20-30
E	>40-60	>30-45
F	> 60	> 45

2. Future Alternatives

2.1 Alternative 1: No-Build (Do Nothing)

This alternative is the no-build condition, which will be considered as a reference condition for future scenarios. All the road facilities and transit will remain the same as the existing conditions. The network geometry is shown in **Figure 2-1**. Network modification from the existing year model include:

- Background traffic growth and pedestrian growth
- Extra traffic and pedestrian volume from Gulch Development
- Exclusive left turn lanes on eastbound and westbound of Marietta Street at Broad Street
- Driveway from Gulch Development on Forsyth Street between Marietta Street and Broad Street
- Permitted and protected left turn phase on Forsyth Street northbound left turn
- BRT lanes on MLK Jr Drive
- Road diet (four-lane converting to two-lane) on Peachtree Street between Alabama Street and MLK Jr Drive
- Bus only right turn lane on Peachtree Street southbound between Wall Street and Alabama Street.

- Signal timings of the network were optimized by Synchro and fine-tuned to eliminate queue spills.



Figure 2-1: Network of Alternative 1

2.2 Alternative 2: Alabama and Forsyth Bus Bays

This alternative converts the westbound outside lane on Alabama Street to a Bus Only Lane with Bus only parking. Alabama Street will be open to all vehicle types. Forsyth Street is widened to provide a MARTA bus loading zone in the northbound direction. **Figure 2-2** shows the proposed concept for the bus loading zones at the MARTA Five Points Station. The model modifications based on Alternative 1 include:

- Maintain curb line and use existing westbound outside through lane on Alabama Street as a loading bus lane.
- Move curb line on Forsyth Street to accommodate a bus loading lane in the northbound direction.
- Signal timings of the network were optimized by Synchro and fine-tuned to eliminate queue spills.

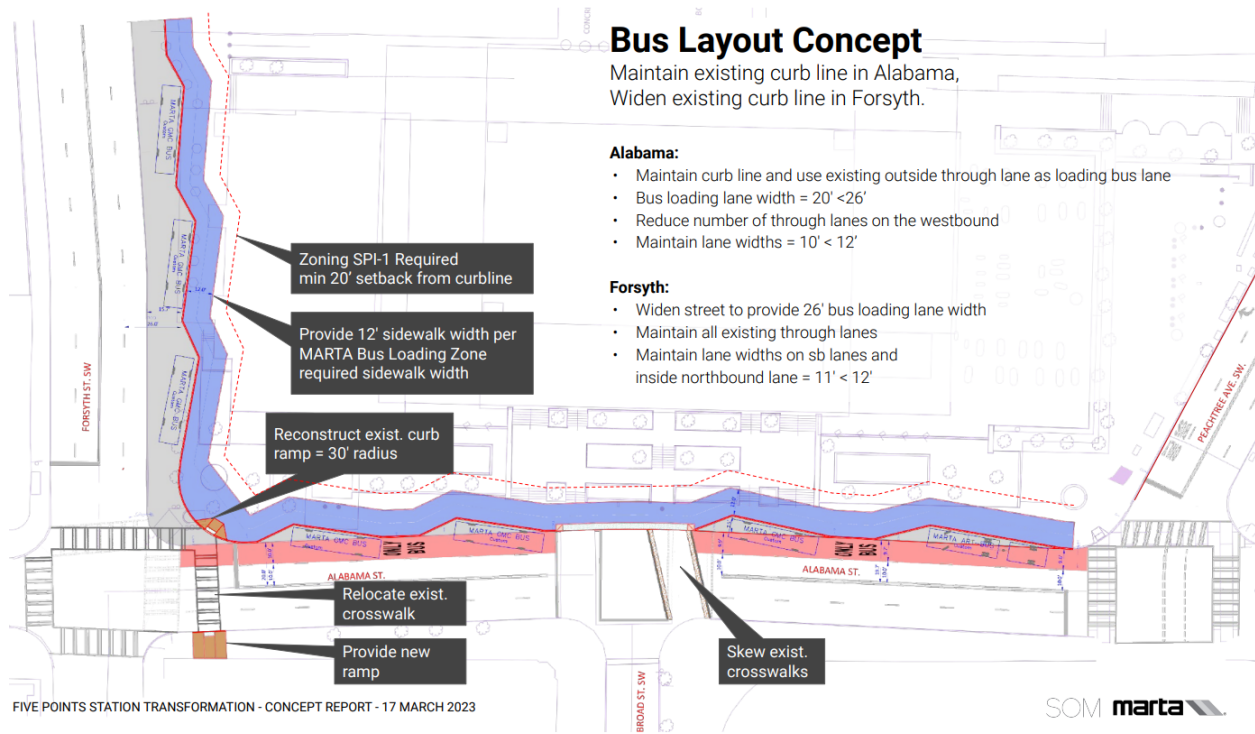


Figure 2-2: MARTA Five Points Bus Layout Concept

3. Simulation Results of Future Alternatives

Simulation runs of future year model will be same as the exiting year model, which is ten runs with different random seed numbers. Also same as the exiting model, the simulation periods will be half hour loading and 2 hours of evaluation periods. MOEs will be compared among the alternatives, which include:

- Network performance: average delay of the network
- Intersection LOS determined by delay: Average delays of vehicles and pedestrians at each intersection were compared among alternatives.
- Bus Travel Time: Average MARTA bus travel times were compared among alternatives.

3.1 Network Performance

Network performance examined the average delay, travel time, and vehicle in the network to give an overall performance of the network.

Figure 3-1 shows the average delay of each alternative for AM peak period for the project year 2035. The results show that there is no significant change during the AM peak period.

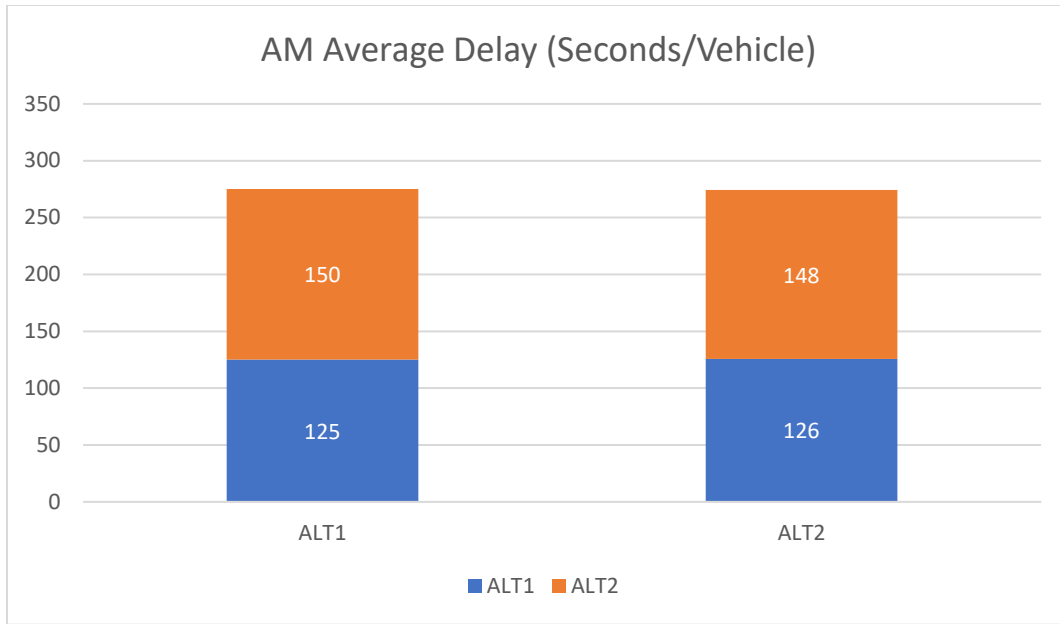


Figure 3-1: AM Average Delay

Figure 3-2 shows the average delay of each alternative for PM peak period for the project year 2035. The results show no significant change between the alternatives in the PM peak period.

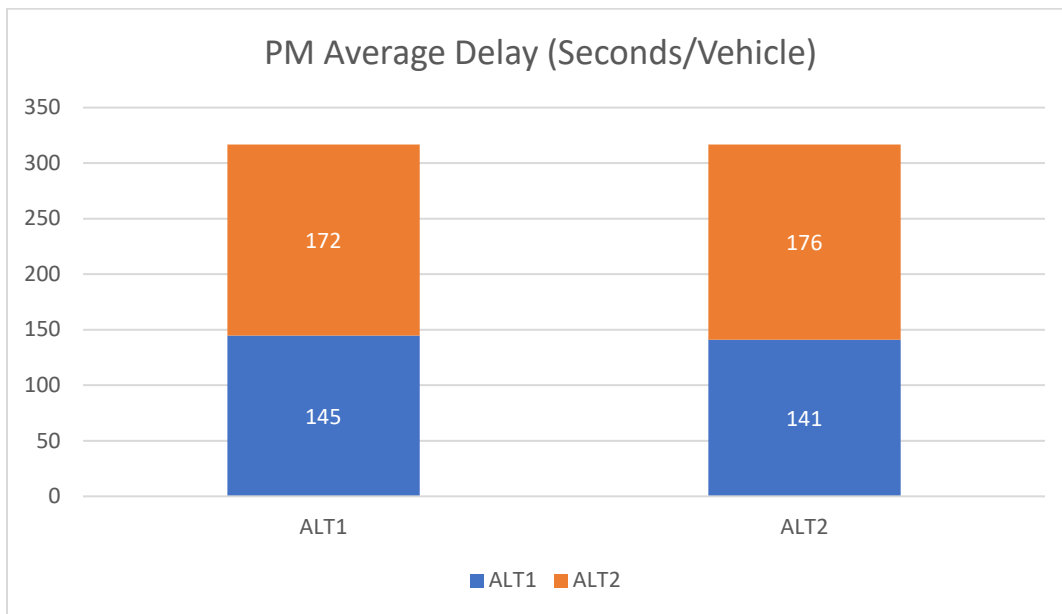


Figure 3-2: PM Average Delay

Figure 3-3 shows the average delay of each alternative for Saturday peak period for the project year 2035. The results show that there is no significant change on Saturday peak period. Both alternatives average the same amount of delay.

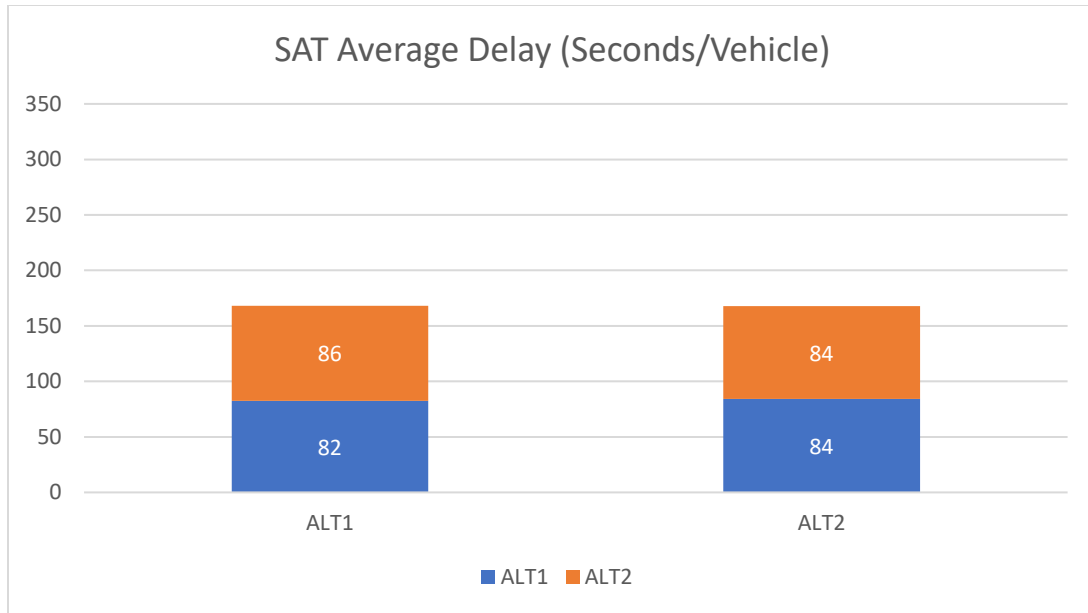


Figure 3-3: Saturday Average Delay

3.2 Vehicle LOS Comparison

LOS was compared for each intersection in the study area respectively for AM, PM, and Saturday peak periods.

Table 3-1, Table 3-2, and Table 3-3 shows minimal difference in delay and level of service between the alternatives for the AM, PM and Saturday peak periods. The percent difference was included in each table and typically shows only minor changes in delay between the alternatives. The level of service, if different, is within a letter grade of each scenario and at all locations the difference in delay between alternatives is within a few seconds.

Table 3-1: AM Peak Hour Intersection Vehicle LOS

ID	Intersection	Control	Alternative 1 Seconds/Veh (LOS)		Alternative 2 Seconds/Veh (LOS)		% Difference	
			Hour 1	Hour 2	Hour 1	Hour 2	Hour 1	Hour 2
1	Marietta Street/Decatur Street @ Forsyth Street	Signalized	54.5(D)	57.9(E)	53.9(D)	58.2(E)	1.10%	0.52%
2	Marietta Street/Decatur Street @ Broad Street	Signalized	30.6(C)	37.6(D)	30.4(C)	37.9(D)	0.65%	3.27%
3	Marietta Street/Decatur Street @ Peachtree Street	Signalized	24.1(C)	26.8(C)	24.8(C)	27.1(C)	2.90%	1.12%
4	Edgewood Avenue @ Peachtree Street	Signalized	15.8(B)	26.3(C)	18.2(B)	27.6(C)	15.19%	4.94%
5	Marietta Street/Decatur Street @ Pryor Street	Signalized	63.0(E)	75.0(E)	65.3(E)	75.3(E)	3.65%	0.40%
6	Wall Street @ Peachtree Street	Signalized	5.9(A)	8.0(A)	5.9(A)	7.9(A)	0.00%	1.25%
7	Wall Street @ Pryor Street	Signalized	9.7(A)	10.4(B)	10.0(A)	10.3(B)	3.09%	0.96%
8	Alabama Street @ Forsyth Street	Signalized	21.3(C)	26.9(C)	19.7(C)	23.7(C)	7.51%	11.90%
9	Alabama Street @ Broad Street	Unsignalized	2.5(A)	2.7(A)	2.5(A)	2.6(A)	0.00%	3.70%
10	Alabama Street @ Peachtree Street	Signalized	5.5(A)	6.1(A)	5.6(A)	6.1(A)	1.82%	0.00%
11	Alabama Street @ Pryor Street	Signalized	7(A)	7.2(A)	7.3(A)	7.7(A)	4.29%	6.94%
12	MLK, Jr. Drive @ Forsyth Street	Signalized	30.9(C)	43.6(D)	31.6(C)	44.0(D)	2.27%	0.92%
13	MLK, Jr. Drive @ Broad Street	Signalized	25.3(C)	28.2(C)	25.5(C)	27.0(C)	0.79%	4.26%
14	MLK, Jr. Drive @ Peachtree Street	Signalized	53.9(D)	67.4(E)	55.1(E)	66.4(E)	2.23%	1.48%
15	MLK, Jr. Drive @ Pryor Street	Signalized	55.5(E)	64.4(E)	54.6(D)	63.4(E)	0.91%	1.55%

Table 3-2: PM Peak Hour Intersection Vehicle LOS

ID	Intersection	Control	Alternative 1 Seconds/Veh (LOS)		Alternative 2 Seconds/Veh (LOS)		% Difference	
			Hour 1	Hour 2	Hour 1	Hour 2	Hour 1	Hour 2
1	Marietta Street/Decatur Street @ Forsyth Street	Signalized	63.1(E)	62.2(E)	61.1(E)	60.8(E)	3.2%	2.3%
2	Marietta Street/Decatur Street @ Broad Street	Signalized	63.5(E)	66.0(E)	58.5(E)	69.4(E)	7.9%	5.2%
3	Marietta Street/Decatur Street @ Peachtree Street	Signalized	20.4(C)	29.9(C)	18.2(B)	32.0(C)	10.8%	7.0%
4	Edgewood Avenue @ Peachtree Street	Signalized	79.0(E)	122.9(F)	82.1(F)	127.8(F)	3.9%	4.0%
5	Marietta Street/Decatur Street @ Pryor Street	Signalized	54.4(D)	63.3(E)	51.3(E)	62.6(E)	5.7%	1.1%
6	Wall Street @ Peachtree Street	Signalized	13.7(B)	15.5(B)	13.6(B)	19.3(B)	0.7%	24.5%
7	Wall Street @ Pryor Street	Signalized	24.0(C)	24.2(C)	24.0(C)	24.4(C)	0.0%	0.8%
8	Alabama Street @ Forsyth Street	Signalized	69.5(E)	69.0 (E)	70.4(E)	67.7(E)	1.3%	1.9%
9	Alabama Street @ Broad Street	Unsignalized	3.6(A)	3.0 (A)	3.7(A)	3.1(A)	2.8%	3.3%
10	Alabama Street @ Peachtree Street	Signalized	11.0(B)	12.4(B)	9.7(A)	16.7(B)	11.8%	34.7%
11	Alabama Street @ Pryor Street	Signalized	2.8(A)	2.8(A)	2.8(A)	3.0(A)	0.0%	7.1%
12	MLK, Jr. Drive @ Forsyth Street	Signalized	32.1(C)	32.0 (C)	31.5(C)	31.8(C)	1.9%	0.6%
13	MLK, Jr. Drive @ Broad Street	Signalized	64.6(E)	83.4(F)	62.0(E)	83.8(F)	4.0%	0.5%
14	MLK, Jr. Drive @ Peachtree Street	Signalized	39.0(D)	51.2(D)	35.8(D)	53.7(D)	8.2%	4.9%
15	MLK, Jr. Drive @ Pryor Street	Signalized	40.6(D)	68.6(E)	37.6(D)	64.9(E)	7.4%	5.4%

Table 3-3: Saturday Peak Hour Intersection Vehicle LOS

ID	Intersection	Control	Alternative 1 Seconds/Veh (LOS)		Alternative 2 Seconds/Veh (LOS)		Difference	
			Hour 1	Hour 2	Hour 1	Hour 2	Hour 1	Hour 2
1	Marietta Street/Decatur Street @ Forsyth Street	Signalized	56.2(E)	56.3(E)	56.6(E)	55.3(E)	0.71%	1.78%
2	Marietta Street/Decatur Street @ Broad Street	Signalized	45.2(D)	46.4(D)	47.4(D)	42.6(D)	4.87%	8.19%
3	Marietta Street/Decatur Street @ Peachtree Street	Signalized	8.8(A)	10.3(B)	10.5(B)	9.7(B)	19.32%	5.83%
4	Edgewood Avenue @ Peachtree Street	Signalized	48.7(D)	50.5(D)	50.0(D)	50.1(D)	2.67%	0.79%
5	Marietta Street/Decatur Street @ Pryor Street	Signalized	12.7(B)	13.6(B)	13.6(B)	12.8(B)	7.09%	5.88%
6	Wall Street @ Peachtree Street	Signalized	10.4(B)	11.1(B)	10.6(A)	11.1(A)	1.92%	0.00%
7	Wall Street @ Pryor Street	Signalized	9.5(A)	9.1(A)	9.3(A)	9.3(A)	2.11%	2.20%
8	Alabama Street @ Forsyth Street	Signalized	13.1(B)	14.4(B)	13.0(B)	14.3(B)	0.76%	0.69%
9	Alabama Street @ Broad Street	Unsignalized	3.7(A)	5.8(A)	3.1(A)	4.6(A)	16.22%	20.69%
10	Alabama Street @ Peachtree Street	Signalized	7.7(A)	8.1(A)	7.2(B)	7.6(A)	6.49%	6.17%
11	Alabama Street @ Pryor Street	Signalized	9.5(A)	8.7(A)	9.7(A)	8.8(A)	2.11%	1.15%
12	MLK, Jr. Drive @ Forsyth Street	Signalized	19.0(B)	19.8(B)	19.1(B)	19.9(B)	0.53%	0.51%
13	MLK, Jr. Drive @ Broad Street	Signalized	10.0(A)	10.4(B)	10.2(B)	10.5(B)	2.00%	0.96%
14	MLK, Jr. Drive @ Peachtree Street	Signalized	15.0(B)	15.0(B)	14.8(B)	14.7(B)	1.33%	2.00%
15	MLK, Jr. Drive @ Pryor Street	Signalized	17.5(B)	17.6(B)	17.4(B)	17.5(B)	0.57%	0.57%

3.3 Pedestrian LOS Comparison

Table 3-4, Table 3-5, and Table 3-6 show the pedestrian LOS of each intersection through both alternatives during project year 2035, and the results are very close. Because of the high pedestrian volume in the area, most intersections show pedestrian LOS rated E which signifies higher than normal delay.

Table 3-4: AM Peak Hour Intersection Pedestrian LOS

ID	Intersection	Control	Alternative 1		Alternative 2	
			Hour 1	Hour 2	Hour 1	Hour 2
1	Marietta Street/Decatur Street @ Forsyth Street	Signalized	E	E	E	E
2	Marietta Street/Decatur Street @ Broad Street	Signalized	E	E	E	E
3	Marietta Street/Decatur Street @ Peachtree Street	Signalized	E	E	E	E
4	Edgewood Avenue @ Peachtree Street	Signalized	E	D	E	E
5	Marietta Street/Decatur Street @ Pryor Street	Signalized	E	E	E	E
6	Wall Street @ Peachtree Street	Signalized	E	E	E	E
7	Wall Street @ Pryor Street	Signalized	C	C	C	C
8	Alabama Street @ Forsyth Street	Signalized	D	D	D	D
9	Alabama Street @ Broad Street	Unsignalized	A	A	A	A
10	Alabama Street @ Peachtree Street	Signalized	E	E	E	E
11	Alabama Street @ Pryor Street	Signalized	C	B	C	C
12	MLK, Jr. Drive @ Forsyth Street	Signalized	E	E	E	E
13	MLK, Jr. Drive @ Broad Street	Signalized	E	E	E	E
14	MLK, Jr. Drive @ Peachtree Street	Signalized	E	E	E	E
15	MLK, Jr. Drive @ Pryor Street	Signalized	E	E	E	E

Table 3-5: PM Peak Hour Intersection Pedestrian LOS

ID	Intersection	Control	Alternative 1		Alternative 2	
			Hour 1	Hour 2	Hour 1	Hour 2
1	Marietta Street/Decatur Street @ Forsyth Street	Signalized	F	F	F	F
2	Marietta Street/Decatur Street @ Broad Street	Signalized	F	F	F	F
3	Marietta Street/Decatur Street @ Peachtree Street	Signalized	F	F	F	F
4	Edgewood Avenue @ Peachtree Street	Signalized	F	F	F	E
5	Marietta Street/Decatur Street @ Pryor Street	Signalized	F	F	F	F
6	Wall Street @ Peachtree Street	Signalized	F	F	F	F
7	Wall Street @ Pryor Street	Signalized	E	F	E	E
8	Alabama Street @ Forsyth Street	Signalized	F	F	F	F
9	Alabama Street @ Broad Street	Unsignalized	A	A	A	A
10	Alabama Street @ Peachtree Street	Signalized	F	F	F	F
11	Alabama Street @ Pryor Street	Signalized	E	E	E	E
12	MLK, Jr. Drive @ Forsyth Street	Signalized	F	F	F	F
13	MLK, Jr. Drive @ Broad Street	Signalized	F	F	F	F
14	MLK, Jr. Drive @ Peachtree Street	Signalized	F	F	F	F
15	MLK, Jr. Drive @ Pryor Street	Signalized	E	F	E	E

Table 3-6: Saturday Peak Hour Intersection Pedestrian LOS

ID	Intersection	Control	Alternative 1		Alternative 2	
			Hour 1	Hour 2	Hour 1	Hour 2
1	Marietta Street/Decatur Street @ Forsyth Street	Signalized	E	E	E	E
2	Marietta Street/Decatur Street @ Broad Street	Signalized	E	E	E	E
3	Marietta Street/Decatur Street @ Peachtree Street	Signalized	E	E	E	E
4	Edgewood Ave @ Peachtree Street	Signalized	E	E	E	E
5	Marietta Street/Decatur Street @ Pryor Street	Signalized	E	E	E	E
6	Wall Street @ Peachtree Street	Signalized	E	E	E	E
7	Wall Street @ Pryor Street	Signalized	B	B	B	B
8	Alabama Street @ Forsyth Street	Signalized	C	C	C	C
9	Alabama Street @ Broad Street	Unsignalized	A	A	A	A
10	Alabama Street @ Peachtree Street	Signalized	E	E	E	E
11	Alabama Street @ Pryor Street	Signalized	B	B	B	B
12	MLK, Jr. Drive @ Forsyth Street	Signalized	E	E	E	E
13	MLK, Jr. Drive @ Broad Street	Signalized	E	E	E	E
14	MLK, Jr. Drive @ Peachtree Street	Signalized	E	E	E	E
15	MLK, Jr. Drive @ Pryor Street	Signalized	E	E	E	E

3.4 MARTA Bus Travel Time Comparison

MARTA bus travel times were compared through both alternatives. **Figure 3-4** shows the average travel time during AM Peak periods. The results show there is no significant difference between the alternatives with only one second difference between them.

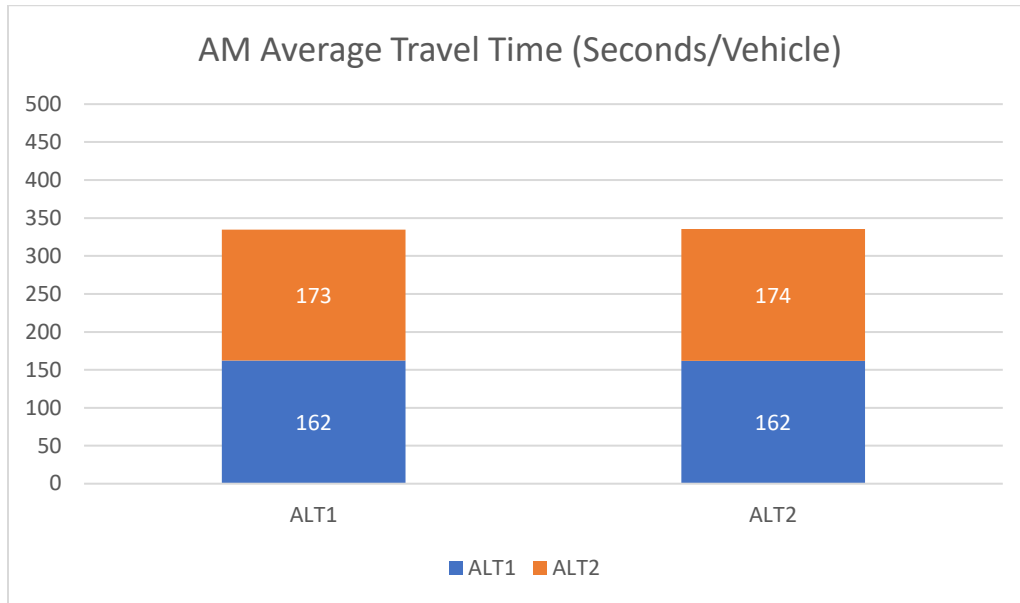


Figure 3-4: AM Average Bus Travel Time

Figure 3-5 shows the average travel times during PM Peak periods. The results show no significant difference in travel times between the build and no-build scenarios.

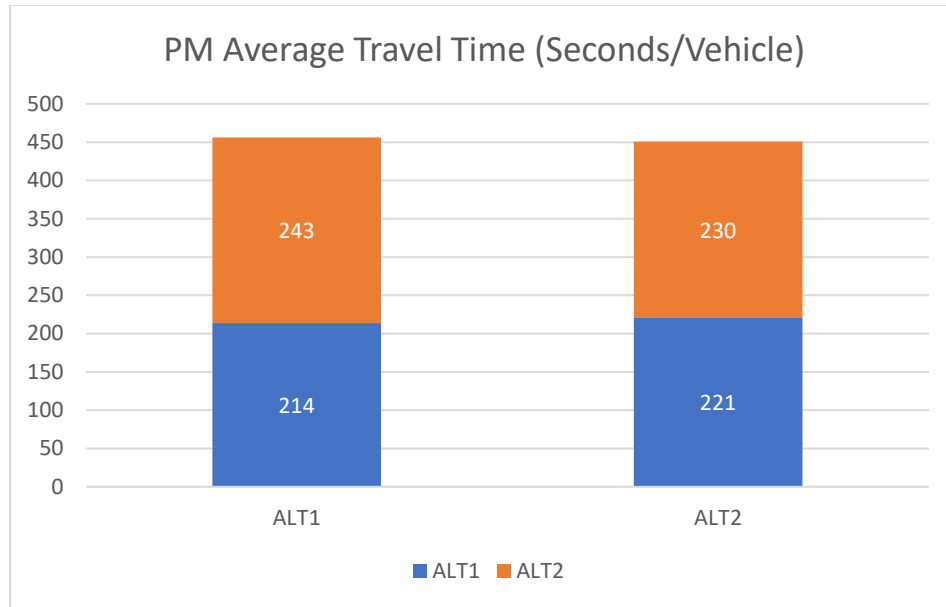


Figure 3-5: PM Average Bus Travel Time

Figure 3-6 shows the comparison of travel times for each alternative during Saturday Peak period. The results show no significant difference during the Saturday Peak period.

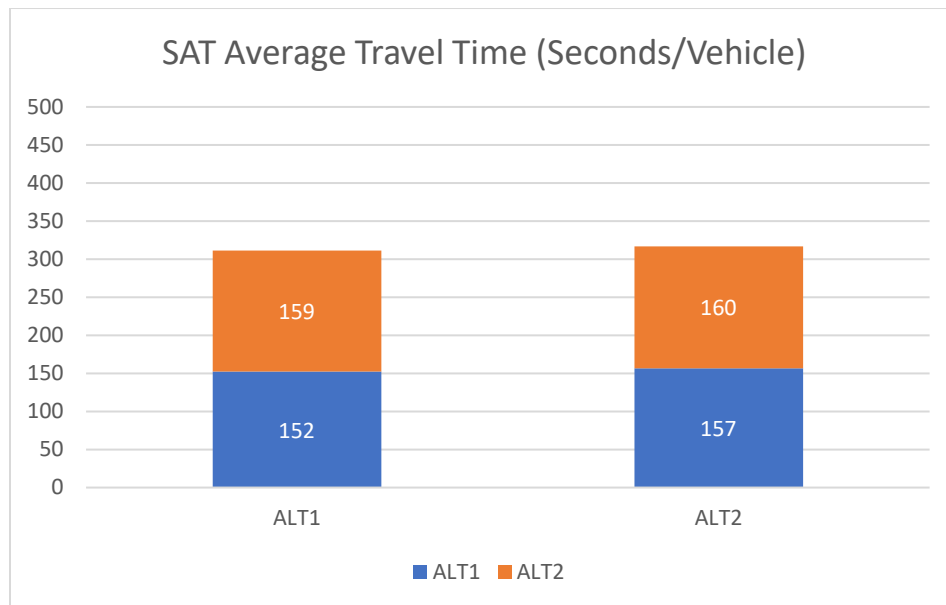


Figure 3-6: Saturday Average Bus Travel Time

4. Conclusions

The simulation models compared network performance, intersection vehicle LOS, intersection pedestrian LOS, and MARTA bus average travel time for both alternatives. The major findings of analysis show that there are no significant differences between the two alternatives in the 2035 design year. The conversion of the westbound outside lane on Alabama Street to a bus only lane and the addition of the bus loading zone on northbound Forsyth Street should not have a major impact to bus, pedestrian, or vehicle operations in the network.

Memorandum

Date: September 1, 2022

To: Greg Giuffrida, Director of Communications & Engagement

From: Ryan VanSickle, Manager of Special Projects & Analysis
Ezekiel Guza, Senior Service Planner

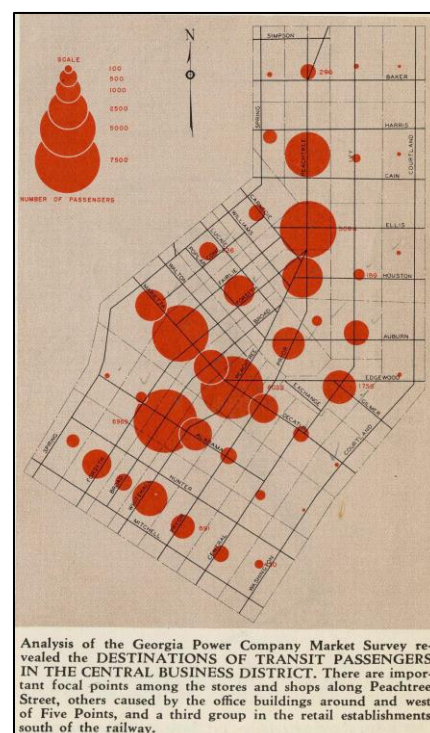
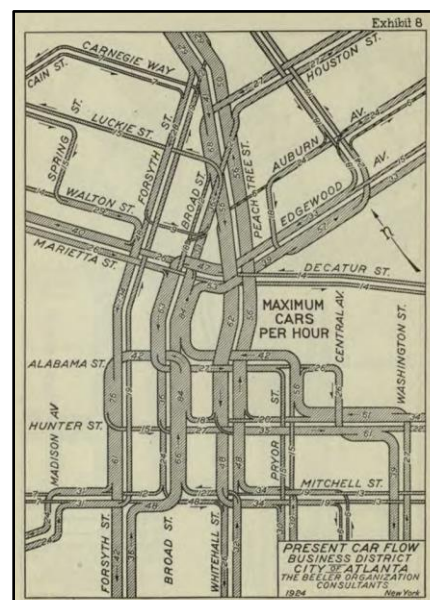
Subject: Bus Connections at Five Points Station

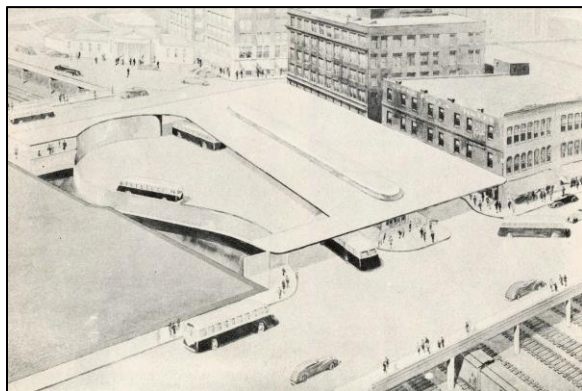
Background

Transit service in Atlanta has long converged near the downtown intersection known as Five Points. The intersection, named after the five-way intersection of Peachtree Street, Whitehall Street, Marietta Street, Decatur Street, and Edgewood Avenue – lies immediately adjacent to the railroad tracks that divide downtown Atlanta, splitting it North and South. Bridges crossing the tracks at Broad Street, Peachtree/Whitehall Street, and Forsyth Street further reinforced the centrality of this location. Historically, the city's primary passenger rail stations have also been located close to Five Points.

By the 1920s, two dozen electric streetcar lines and the first bus lines converged at Five Points. Though traffic engineers constructed new bridges and proposed schemes to realign streetcar routes into a more grid-like pattern, much of the service remained centered on the two blocks southwest of the Five Points intersection into the late 1940s. Streetcars were replaced with trackless trolleys, operating in a similar arrangement, while bus service to outlying areas increased. Plans as early as 1946 foresaw the need for a downtown bus station, but this was never built. Even as trackless trolleys gave way to buses, most transit service continued to be through-routed downtown. Routes that terminated in downtown laid by at various locations in the blocks surrounding Five Points.

Early on, various plans identified a need for a much more substantial transit investment centered on Five Points – a subway. Initially conceived in a 1924 report from the Beeler Organization, it was proposed as a way to keep local traffic from slowing down streetcars carrying passengers to and from the area. The idea was again raised in the 1946 Lochner plan as a way for streetcars and buses to bypass downtown congestion. Even in these early plans, the subway system was imagined as a plus sign, radiating north, south, east, and west from Five Points. As rapid transit gained momentum into the 1960s and 1970s, this strategy was embodied in then plans that would lead to MARTA's rapid rail system, with Five Points as a central hub.





While much bus service was converted to feed the new heavy rail stations as MARTA grew, many routes still remained downtown. Immediately following the completion of Five Points Station, Broad Street was partially redesigned as a transit mall to accommodate high volumes of bus connections at Five points. 12 routes terminated on Broad and Alabama Streets, and an additional 8 routes passed by the station, for a total of 20 local routes providing over 1,000 bus trips per day serving Five Points. During peak service, about 1 bus per minute made a stop at the station. This service

decreased over the following 4 decades, and ultimately most bus service was consolidated onto Alabama Street, with the last revenue service coming off of Broad Street in August of 2018.

Despite changes over the decades, the number of vehicles per hour serving the Five Points area has consistently remained high, even though bus volumes gradually reduced with the growth and expansion of MARTA's rail system.¹ Furthermore, despite the systemwide reduction in bus service resulting from the COVID-19 pandemic, bus volumes have continued to remain high enough to warrant significant inclusion in future plans for the station.

Existing Conditions

The majority of the bus service to Five Points Station is run by MARTA. MARTA operates 10 routes for about 19 hours per day, 7 days per week. Seven of these routes terminate on the bus only section of Alabama Street and three routes – 3, 40, & 813 – run through the area and terminate elsewhere in other neighborhoods.

Within the downtown area, only two local routes (107, & 899) and some university shuttles do not serve Five Points Station. Refer to the Appendix to see available bus connections at Five Points Station.

Aside from MARTA, regional transit operators also serve Five Points Station. Xpress and CobbLinc through-route express services through the area during the morning, operating on Forsyth St and Peachtree St with stops less than a block from station entrances. Gwinnett County Transit also operates nearby, making stops a block away on MLK Jr Dr. These services are designed around peak-period commutes from suburban counties outside of MARTA's service area, and operate primarily in the morning and afternoon peaks. When these services are accounted for, Five Points also serves as an important regional connection point from the greater Metro Atlanta to MARTA's rail and bus service.

Please refer to the Five Points Station Bus Operations Assessment for details of how various routes operate from Five Points Station. An excerpt of the Existing Conditions Document is included in the Appendix.

¹ Sources: Beeler Report; Lochner Plan; MARTA "You've Come a Long Way, South Broad Street" brochure; Downtown Transportation Management Study; and MARTA.

	MARTA Routes	Weekday Trips Operated	Weekend Trips Operated	Peak Vehicles per Hour
<i>Services Terminating at Five Points Station</i>	21 - Memorial Drive	93	71	3
	26 - Marietta Street / Perry Boulevard	59	57	1½
	42 - Pryor Road	66	58	2
	49 - McDonough Boulevard	102	72	4
	55 - Jonesboro Road	96	74	3
	186 - Rainbow Drive / South DeKalb	93	70	4
	816 - North Highland Avenue	50	49	1⅓
<i>Through-Routed Services at Five Points Station</i>	3 - Martin Luther King Jr. Drive / Auburn Avenue	51	48	2⅔
	40 - Peachtree Street / Downtown	48	46	2⅔
	813 - Atlanta University Center	57	55	3

Customer Considerations

Five Points is an important bus destination and key element of the MARTA network for many reasons. A key strength is that it is the only place in MARTA's rail system where buses connect to all four rail lines.

Connections at Five Points Save Customers Time (and Reduce Transfers)

Five Points Station is the only station served by all 4 rail lines. This unique characteristic means that, in general, trips that require a rail transfer are faster and simpler when they connect at Five Points than when they connect elsewhere. While rail connections are vital, the concentration of connecting buses at Five Points has the same effect - the 10 MARTA routes that serve the station allow for transfers among them and access to many destinations.

When these connections are made at Five Points, they save customer time and reduce transfers – trips often require one less leg and can be at least 7-10 minutes shorter than if the connection was made at a different rail station, which would require an additional transfer.

It is important to note that reducing the number of transfers and wait time has the most profound benefit to those who are travelling when service is least frequent, like nights and weekends.

Time Saved Provides Greater Access to Opportunity

In addition to transporting passengers faster, efficient connections at Five Points allow passengers to travel farther for their time. The increased range enabled by the time savings from this efficient connection means passengers have greater access to jobs, educational opportunities and other services.

To provide quantitative examples of the access gains at using Five Points, Service Planning staff used Remix to see how routing buses to Five Points Station increases access to jobs compared routing buses elsewhere. For example, using MARTA's pre-COVID network as a baseline (August 2019 service):

- A passenger starting at 7:30 am near South Dekalb Mall can access roughly 60,000 more jobs in 60 minutes using Route 186 to Five Points, compared to nearby stations.
- Job access within 60 minutes increases by about 45,000 for a passenger departing Jonesboro Road and Lakewood Avenue using Route 42

Disadvantaged Populations Benefit from Time Savings and Access Gains

Routes that connect to Five Points serve significant disadvantaged populations that benefit from the time savings and access gains detailed above. The population within 1/4 mile of routes serving Five Points has a higher level of poverty, disability, and zero-vehicle households than the network average:

- 22% is in poverty, compared to 18% network-wide
- 19% of households are zero-vehicle, compared to 13% system-wide
- 12% live with a disability, compared to 11% system-wide

Individually, many routes have significant minority, low-income, disabled, and zero-car populations².

Route	Minority	Poverty	Disability	Zero-Vehicle
<i>System-Wide</i>	72%	18%	11%	13%
3 – Martin Luther King Jr Dr	81%	30%	13%	27%
21 – Memorial Dr	57%	17%	12%	18%
26 - Marietta St/Perry Blvd	69%	24%	11%	19%
40 - Peachtree St/Downtown	55%	17%	11%	20%
42 - Pryor Rd	90%	34%	20%	30%
49 - McDonough Blvd	77%	36%	17%	28%
55 - Jonesboro Rd	88%	33%	17%	23%
186 - Rainbow Dr/South DeKalb	86%	26%	12%	20%
813 - Atlanta University Center	87%	33%	13%	30%
816 - North Highland Ave	49%	13%	8%	12%
<i>All Five Points Routes</i>	67%	22%	12%	19%

² Source: Remix

To summarize:

- Six routes serve higher-than-average minority populations (3, 42, 49, 55, 186, and 813)
- Seven routes serve higher-than average populations in poverty (3, 26, 42, 49, 55, 186, and 813)
- Seven routes serve higher-than-average disability populations (3, 21, 42, 49, 55, 186, and 813)
- Nine routes serve populations with more-than-average zero-car households (3, 21, 26, 40, 42, 49, 55, 186, and 813)

Communities along these routes benefit from the time savings and access gains of having direct bus connections at Five Points. These effects should be considered if changes to these connections are evaluated in the future.

Operational Considerations

While serving the station with buses is important to MARTA's passengers, laying over at the station is important to the operational efficiency and fiscal stewardship to Authority. Its ability to accommodate layover provides an efficient use of MARTA's resources and taxpayer dollars.

Five Points Provides Important Layover Space

7 routes are currently designed to layover out of operational efficiency and necessity. In urban places with legacy street designs, heavy traffic, limited curb space and dense pedestrian activity like downtown, convenient and appropriate places to layover buses are scarce. The turn restrictions at the Five Points intersection further complicate turning movements and add to potential safety challenges, difficulties, and inefficiencies of extending routes to elsewhere.

Nearby Stations Lack Bus Capacity

Furthermore, the four closest stations to Five Points either have no facility for buses to layover, or the existing facility is at capacity. For example, Georgia State Station has bus bays, but they are already near capacity. Other relatively nearby stations such as Garnett, GWCC/CNN Center, and Peachtree Center were designed without any dedicated space where buses could layover, relying on through-routing service to locations farther out and the use of on-street bus stops.

Rerouting Buses Could Increase Operating Costs

Rerouting buses to other stations, or other layover locations in downtown, would increase operating costs. More than 250 round trips per weekday and about 225 round trips per weekend day would need extend their alignments. When scaled, the additional annual cost to MARTA would be around \$150,000 per minute of extra time between Five Points and any identified alternative. Considering any alternative would likely be several minutes away, the costs would accumulate to millions over time. There is also the impact of unnecessary additional area congestion caused by buses circulating to any such alternative.

Future Opportunities

As it has been through history, Five Points is a focal point of transportation in Atlanta. While MARTA acknowledges that bus service in the area could be modernized and improved, designing the new Five Points Station with layover facilities is MARTA's best opportunity for safe, efficient, and consolidated bus connections and layovers. Rather than deemphasize bus service in the area or relocate it elsewhere, the renovation could be leveraged to implement best practices and innovations in station and street design to improve the experience for passengers and assure smoother, more efficient bus operations in the area.

Improvements being discussed include:

- Moving bus bays station-side, where MARTA has greater control over the waiting environment.
- Providing continuous cover between boarding/alighting areas and the station interior.
- Condense bus staging areas by converting bus bays to sawtooth configurations and utilizing bus-only lanes.
- Improve pedestrian safety around the busway by consolidating crossing locations and shortening the distance pedestrians must cross.
- Provide for bus circulation around the station, in order to afford passengers more direct routing to and from the station, and to provide resiliency during events or emergencies which might close various streets. One interesting approach to this may involve reconnecting the street grid over the railroad tracks.

MARTA's future plans for Five Points and its bus connections are in the planning stages, and these ideas are under consideration in the concepts in development.

Appendix

Figure A – Bus Stops Serving Five Points, August 2021

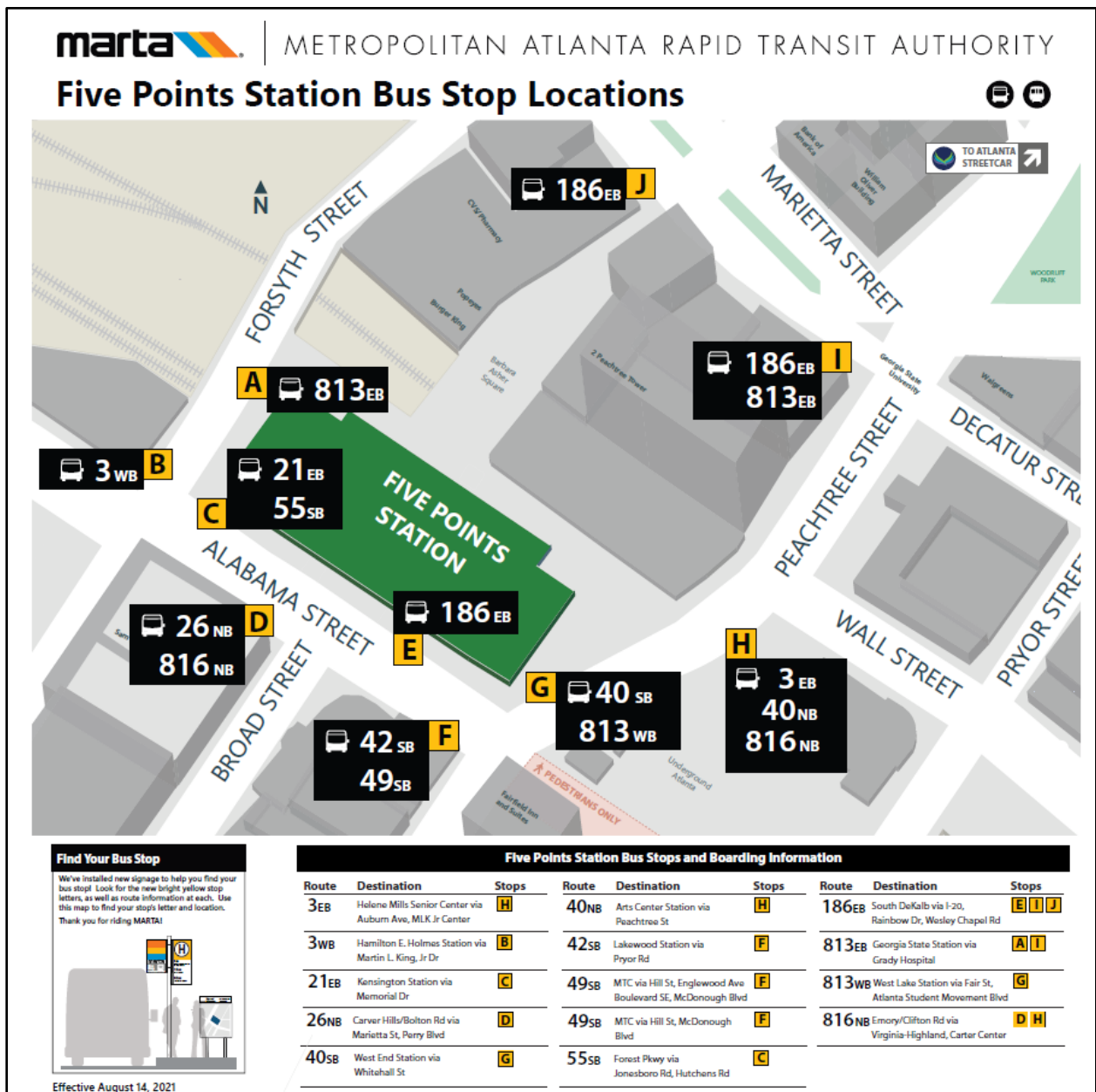


Figure B – Existing Bus Routing at Five Points
(from 2021 Five Points Bus Operations Assessment – Existing Conditions)

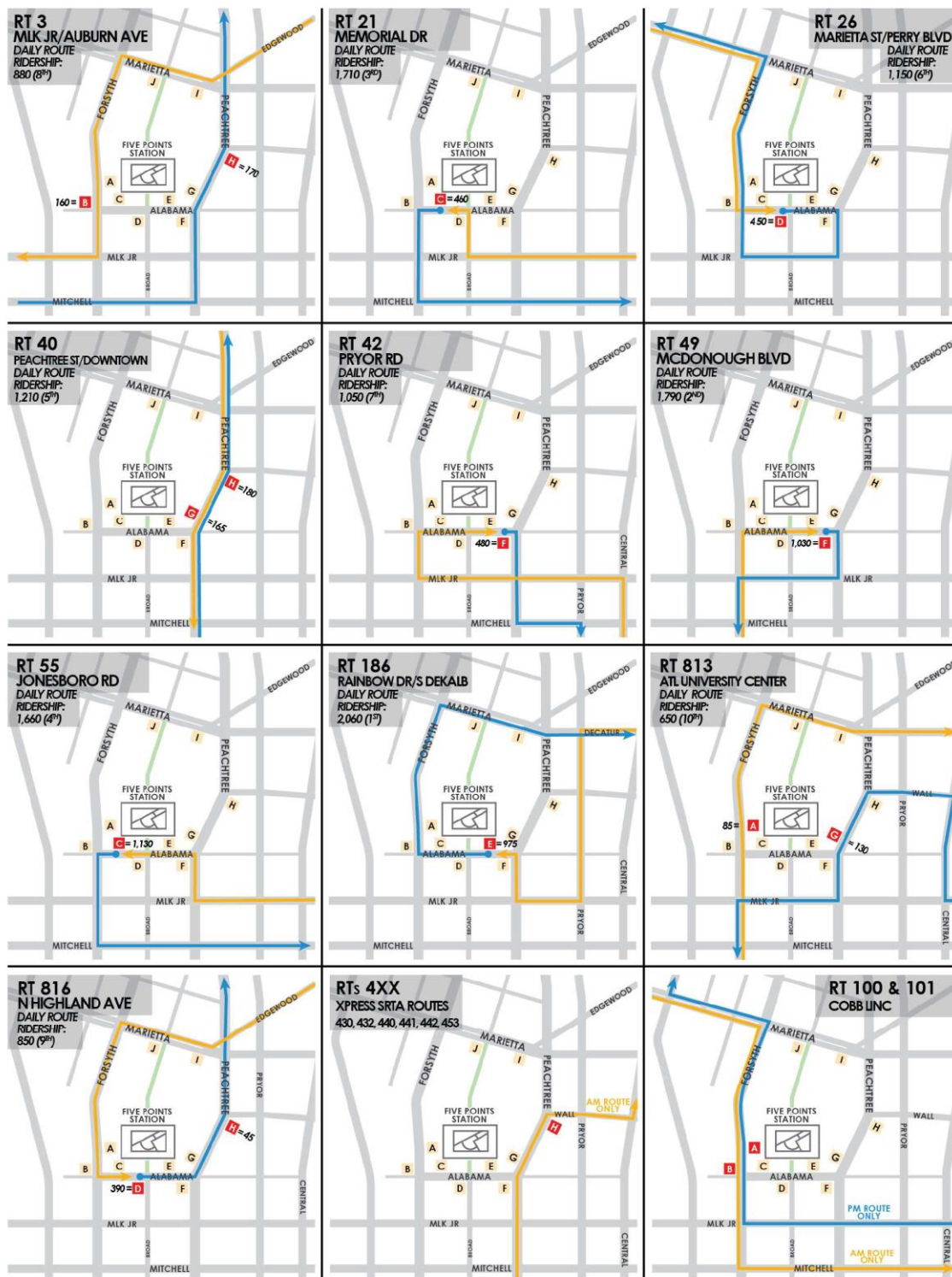


Figure C, D, E – Equity Populations and Routes Serving Five Points

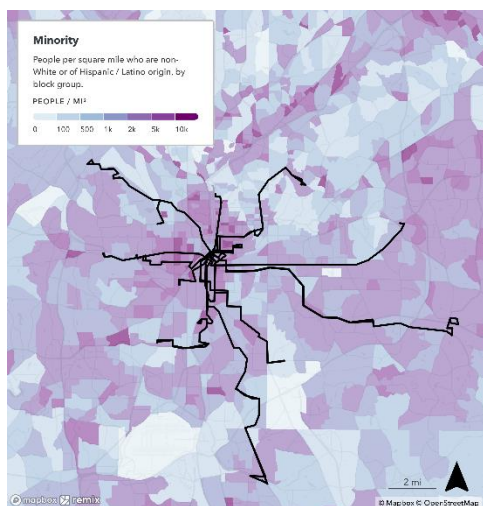


Figure C - Map of Minority Populations

Six Five Points routes serve higher-than-average minority populations:

- 3 – Martin Luther King Jr Dr
- 42 – Pryor Rd
- 49 – McDonough Blvd
- 55 – Jonesboro Rd
- 186 – Rainbow Dr/South DeKalb
- 813 – Atlanta University Center

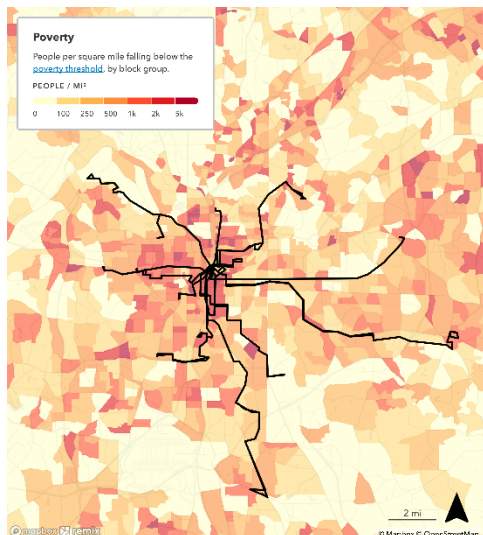


Figure D - Map of Populations in Poverty

Seven Five Points routes serve higher-than-average populations in poverty:

- 3 – Martin Luther King Jr Dr
- 26 – Marietta St/Perry Blvd
- 42 – Pryor Rd
- 49 – McDonough Blvd
- 55 – Jonesboro Rd
- 186 – Rainbow Dr/South DeKalb
- 813 – Atlanta University Center

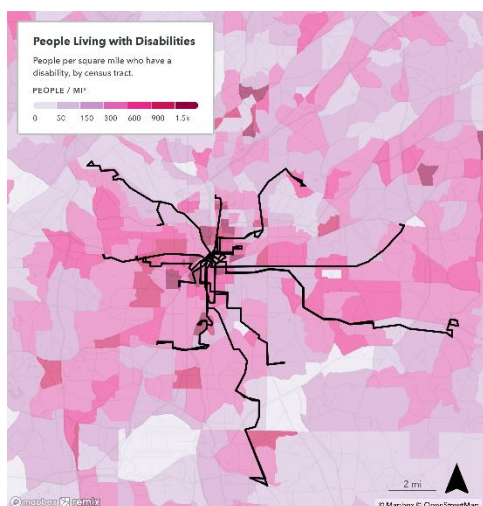


Figure E - Map of People Living with Disabilities

Seven Five Points routes serve higher-than-average disability populations:

- 3 – Martin Luther King Jr Dr
- 21 – Memorial Dr
- 42 – Pryor Rd
- 49 – McDonough Blvd
- 55 – Jonesboro Rd
- 186 – Rainbow Dr/South DeKalb
- 813 – Atlanta University Center