

5.0 ALTERNATIVES ANALYSIS



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OVERVIEW

Peachtree Street has several different contexts and functions in Downtown Atlanta, ranging from historic buildings to high rises to parking lots prime for new development. It serves both local and regional trips, connecting Midtown and Downtown and serving as the front door to Atlanta for people visiting from across Metro Atlanta and the world. This context and the impacts changes to Peachtree Street would have on local and regional mobility were key considerations in determining if and where a shared space would be a good fit. Several alternative locations and treatments were considered for the shared space and demonstration project, as well as supporting design recommendations for the surrounding segments. This alternatives analysis also sets this project up for potential state and federal implementation funding, which require this type of consideration to be included in the Georgia Department of Transportation (GDOT) Concept Report, a companion document to this report.

What Factors Were Considered?

Several conditions were considered in identifying the preferred location for the shared space and supporting Complete Streets designs for surrounding blocks of Peachtree Street. Factors included:

- Community input
- Supportive surrounding activities and development
- Driveways and curb cuts
- Crash history and safety
- Impacts to vehicular traffic

Community Input

Participants in the online community input map, the Discovery Workshop, the Design Workshop, and the Public Space Working Group were asked where they thought a shared space would be most likely to succeed and would address a local need for excellent public space. More information about these activities is available beginning on page 32. Input from these participants about the best location for a shared space was relatively consistent:

North of the Connector

Most people thought the part of Peachtree Street between North Avenue and the Connector didn't have enough activity happening today to justify or support a shared space, especially in the parts with prominent surface parking lots. A Complete Street approach was considered more appropriate in these areas. The planned Stitch project in this area may also provide the needed greenspace as new development occurs.

South of the Connector

Many people found the Peachtree Center Area and the Woodruff Park Area to both be good locations for a shared space due to the existing surrounding development. They often noted that the Woodruff Park Area already has a park, activity from Georgia State University, and interesting, historic buildings working in its favor to make it a fairly welcoming place as it is. A shared space in this area would be nice, but may not be necessary for it to be a vibrant place. Peachtree Center, on the other hand, has a lot of dense activity, but was often perceived as being more cold and uninviting due to its architectural style, more prevalent blank walls and vacant storefronts, and lack of public spaces. They generally thought a shared space in this area would help to soften it and attract more people to the heart of the city by making it more beautiful, creating gathering spaces, and prioritizing the pedestrian experience.

Supportive Surrounding Activities and Development

Great public spaces tend to be surrounded by supporting development, meaning there are enough people living, working, and visiting nearby to keep it well used. The market trends analysis beginning on page 80 considered the amount of housing, office, hospitality, retail, institutional, and other uses along each part of Peachtree Street in Downtown. For every category except for housing, the Peachtree Center area had the highest share of businesses and/or square footage of these uses, in some cases significantly so. For example, it has 2.5 times the number of jobs as the next highest segment (Woodruff Park Area) and about 5 percent of all jobs in the City of Atlanta. For housing, the Connector Crossing area had the highest number of residents and residential units.

Driveways and Curb Cuts

Frequent driveways and curb cuts are not preferred with a shared space, as they prioritize vehicular access and create additional conflict points. Most of the driveways on Peachtree Street are north of West Peachtree Street, with the exception of the Hyatt Regency's circular driveway between Baker Street and John Portman Boulevard. Both the Peachtree Center Area and Woodruff Park Area would have minimal to no driveway conflicts. This also means that people driving to destinations in these areas would access parking garages from other streets, not from Peachtree Street and a reduction in lanes there would not directly affect garage access.

Crash Analysis

A high level crash analysis was conducted to understand where and why crashes have historically occurred in this area. There have been a significant number of historic crashes along the entire corridor. In fact, the segment from Baker Street to Ellis Street had a crash rate that varied between 8 to 17 times the statewide average for Minor Arterials. There are a several important findings and observations from a high-level review of crashes along this corridor.

Key Findings

The below provides an overview of crashes within the study area. Based on the community input and site conditions supporting the Peachtree Center Area as a strong candidate for the shared space and demonstration project, an analysis specific to that subarea was also conducted.

Overall Study Area

(NORTH AVENUE TO MARIETTA STREET)

- Crashes within a 5-year Period (2016-2020): 1,381
 - Crashes with Injury: 15%
 - Crashes with Fatalities: 0%
- Most prevalent crash type: Sideswipe Same Direction (33%) followed by Angle at Intersections (30%)
- Intersections with the Most Crashes:
 - North Avenue: 216 Crashes (16% of crashes within the corridor)
 - Andrew Young: 120 Crashes (9%)

Demonstration Project Area

(BAKER STREET TO ELLIS STREET)

- Crashes within a 5-year Period (2016-2020): 450
 - Crashes with Injury: 12%
 - Crashes with Fatalities: 0%
 - Most prevalent crash type: Sideswipe Same Direction (44%) followed by Angle at Intersections (26%)
 - Intersections with the Most Crashes:
 - Andrew Young: 120 Crashes (27%)
 - Ellis: 100 Crashes (22%)

Contributing Factors

On-site observations and a review of contributing factors of Sideswipe/Same Direction crashes, which is the most prevalent crashes along the corridor) can most likely be attributed to:

- Changing lanes improperly and misjudged clearance
- Narrow lanes
- Illegal parking in the outer travel lanes
- Pavement defects which drivers avoid by changing lanes quickly

Potential Countermeasures

The Federal Highway Administration (FHWA) provides guidance on potential safety countermeasures.

Benefits of Road Diets (which is being tested with the demonstration project) can include:

- An overall crash reduction of 19 to 47 percent
- Reduction of rear-end and left-turn crashes due to the dedicated left-turn lane
- Reduced right-angle crashes as side street motorists cross three versus four travel lanes
- Fewer lanes for pedestrians to cross
- Opportunity to install pedestrian refuge islands, bicycle lanes, on-street parking, or transit stops.
- Traffic calming and more consistent speeds

A more community-focused, “Complete Streets” environment that better accommodates the needs of all road users.

Vehicular Alternatives Analysis

Although impacts to vehicular travel patterns are not the deciding factor for transportation projects in walkable, transit-rich environments like Downtown Atlanta, understanding those impacts can help make informed decisions and develop network-wide solutions to support all modes. Traffic models are mathematical models of real-world traffic patterns used to analyze traffic conditions, identify impacts of potential projects, and select preferred scenarios. This transportation analysis used a subarea traffic model built for a recent Atlanta Downtown Improvement District (ADID) study to understand how the Downtown road network operates today and predict how it may be impacted by this project. It considers two future shared space scenarios:

- **Scenario 1:** Shared space from West Peachtree Street to Forsyth Street
- **Scenario 2:** Shared space (or equivalent lane reduction) from North Avenue to Marietta Street

For each scenario, three options were considered to address the impacts of potential major nearby street redesign projects:

- **A:** Peachtree Center does not become a transit priority street
- **B:** Peachtree Center Avenue becomes a transit priority street with dedicated bus lanes
- **C:** Peachtree Center Avenue becomes a transit priority street with dedicated bus lanes and bike lanes are installed along Courtland Street and Piedmont Avenue.

The model uses 2017 data from the Atlanta Regional Commission (ARC) travel demand model and was validated to reflect existing traffic counts and data. These data reflect pre-COVID-19 travel patterns and do not reflect the recent adoption of a citywide speed limit of 25 miles per hour (mph) as part of Atlanta’s Vision Zero initiative. The model does not include all qualitative factors, such as how the urban design treatment on Peachtree Street may cause people to choose to drive more slowly. The analysis area shown in Figure 16 includes the Peachtree Shared Space study area and surrounding streets Downtown. More detailed information about the transportation analysis, data sources, and methodology is available in the Appendix beginning on page 270.

Vehicular Traffic Analysis Scenarios		Changes to Nearby Streets		
		No Change to Peachtree Center Avenue	New Dedicated Bus Lanes on Peachtree Center Avenue	New Dedicated Bus Lanes on Peachtree Center Avenue and Bike Lanes Installed on Courtland Street and Piedmont Avenue
Extent	West Peachtree Street to Forsyth Street	Scenario 1a	Scenario 1b	Scenario 1c
	North Avenue to Marietta Street	Scenario 2a	Scenario 2b	Scenario 2c

Key Findings

Based on the traffic model analysis, key identified changes of an implemented shared space include:

Changes to Peachtree Street

- Overall decrease in vehicular capacity for the shared space segment
- Decrease in how long and how far people travel on shared space segment
- Moderate increase in travel time
- Increase in the safety for pedestrians and cyclists due to slight decrease in average speeds
- Improved vehicle safety by minimizing sideswipe crashes

Changes to Downtown Area

- Negligent impact to traffic operations
- Negligent impact in travel time (VHD)
- Nominal monetary impacts to fuel cost, delay cost, and vehicle operating cost, which are offset by non-monetized benefits

Figure 16. Vehicular Alternatives Analysis Study Areas

