PARSONS

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From: Odalys Delgado, Parsons Project Manager

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Subject: Alton Road segment between 5th Street and Dade Blvd.

When the expanded area in Miami Beach was added to the Beach Corridor PD&E scope of work, the City indicated an alignment loop from MacArthur Causeway along 5th Street to Washington Avenue, north on Washington Avenue to Dade Blvd and 17th street, then west to Alton Road, and south on Alton Road to 5th street. This loop was identified in the 2015 Beach Connection study conducted by the Miami-Dade TPO. As indicated in that study, the segment of Alton Road from Dade Blvd. to 5th Street was deemed a future extension of a potential Miami Beach rapid transit project. However, the main transit alignment to reach the Convention Center destination point was Washington Avenue. Subsequently, in March 2017, the City of Miami Beach completed their environmental and engineering draft reports for their proposed transit improvements that would tie into the Beach Corridor project. The locally preferred alternative resulting from this City study included 5th Street from MacArthur Causeway to Washington Avenue and north along Washington Avenue to the Convention Center. The locally preferred alternative did not include Alton Road. Moreover, the City's current plans are to improve Washington Avenue for future transit implementation, consistent with their Transportation Master Plan. Although this information would appear to indicate Washington Avenue as the preferred alignment to reach the Convention Center area, our team conducted additional comparative corridor analysis between Washington Avenue and Alton Road to confirm the best location for a rapid transit connection to the Convention Center area. The corridor analysis information is as follows:

Travel Market

A. Land Use and Demographics

A1. Employment and Population

Work commute trips are a significant portion of transit trips on Miami Beach, linked to lower-wage leisure industry service jobs and scarce and expensive parking making it important to consider employment densities. Estimates for the proportion of transit trips that are work trips vary, and include:

- A 2015 MDT Metrobus survey indicated 20% - 30% of MDT bus trips are work-related
- A 2013 Tri-Rail on-board survey indicated 50% of trips terminate at work locations
- The 2004 Baylink study forecast 43% of trips to be work commute trips

As indicated in **Figure 1**, there is a far greater density of jobs located in the eastern part of southern Miami Beach, in proximity to the Washington Avenue corridor, with far less employment density near Alton Road. Additionally, these jobs tend to be tourism-related (shown in green in the figure) and lower-wage jobs which therefore have a high transit propensity.

Source: U.S. Census Bureau, Longitudinal Employment Household Dynamics (2015). Dot locations randomized within census block groups

Figure 1. Employment Density, 2015

Population densities are another key driver of potential transit ridership demand. **Figure 2** indicates a higher level of population density in the western part of the beach, closer to Alton Road. However, it should be noted that these homes are characterized by several newer (built or upgraded in the last ten years) high-rise condominium buildings along Biscayne Bay and West Avenue, which tend to be high-value homes with a far lower transit propensity than the dense employment opportunities located in the Washington Avenue corridor. This is borne out also by the distribution of household income – which shows lower incomes in the Washington Avenue corridor (**Figure 3**), supporting higher transit propensity there.

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

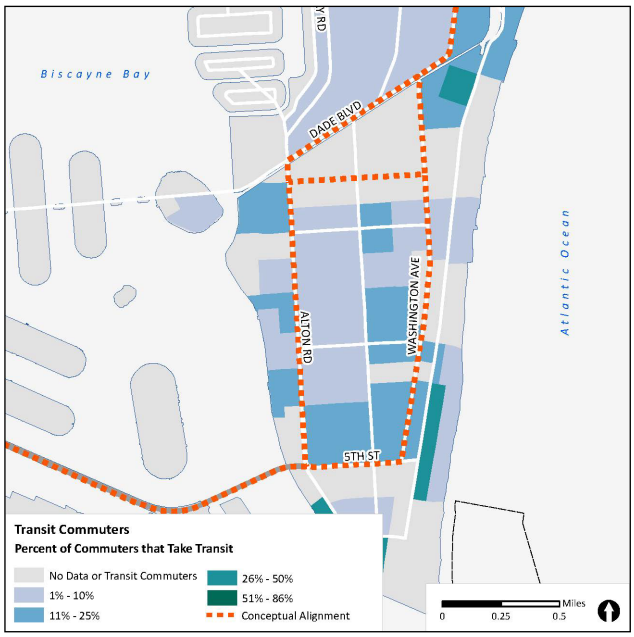
Figure 2. Population Density, 2016

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

Figure 3. Median Household Income, 2016

A2. Transit Commute Share

In Miami-Dade County, 86 percent of commuters drive to work (either alone or by carpool), while six percent take transit and five percent bike or walk. Non-auto commuting is more prevalent in the study area than for the County as a whole, with somewhat higher levels of transit commuters in the center and east sides of South Beach, as shown in **Figure 4**, favoring the Washington Avenue Corridor. Additionally, shares of bicycle and pedestrian commuters are significantly higher in South Beach than for the County as a whole, as might be expected.



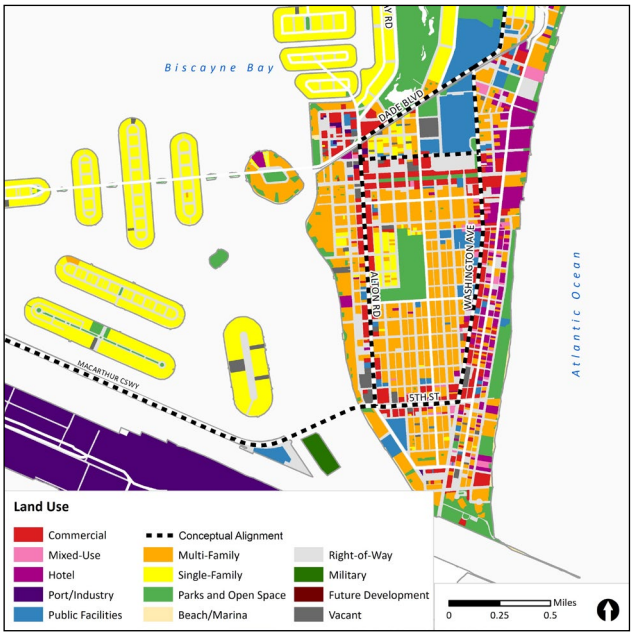
Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

Figure 4. Transit Commute Share, 2016

A3. Land Uses Served

When comparing alignments along Alton Road and Washington Avenue, it is evident that the Washington Avenue corridor serves many more high-intensity land uses: these include several municipal and commercial uses; many large and small retail businesses including many along nearby Collins Avenue; restaurants and hotels, museums, and educational institutions **(Figure 5).**

By comparison, Alton Road, as noted, is more characterized by residential buildings, supplemented with several lower-intensity commercial and retail businesses, which also tend to be more automobile-oriented with on-site parking at a number of properties. The two corridors are shown in the photographs below.



Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

Figure 5. Land Use, 2016

Alton Road

Washington Avenue

B. Existing Transit and Transportation Conditions

Existing transit services are evenly distributed between Alton Road and Washington Avenue, with three routes on Alton Road (113/M, 119/S and Miami Beach's South Beach Loop) and four routes (102/C, 120, 150 and South Beach Loop) on Washington Avenue. The South Beach Loop consists of three separate variants: Loop A (clockwise on Washington and Alton); Loop B (counterclockwise) and 11th Street (makes a figure 8, crossing over on 11th Street). The routes operating on each roadway currently carry similar numbers of passengers – about 12,000 per day. A review of bus stop activities (number of boarding and alighting passengers) shows slightly higher activities along Washington Avenue which corresponds to the higher densities of trip generators in that corridor, as well as more buses serving this roadway.

Alton Road carries higher average daily traffic volumes (32,000 compared with 15,000 on Washington Avenue) and marginally higher mean travel speed (12 mph on Alton Road versus 10 mph on Washington Avenue). This is consistent with it serving as somewhat of a bypass route, avoiding the activity that impedes traffic along Washington Avenue, but also contributes to identifying Washington Avenue as the more appropriate alignment for the Beach Corridor transit investment.

Summary

The following criteria was used to compare the suitability of Alton Road versus Washington Avenue for the north-south connection on Miami Beach from the perspective of travel markets and ridership demand:

A. Land use and demographics
- Employment and population
- Transit commute share
- Land uses served and transit propensity

B. Existing transit and transportation conditions

The summary table below compares Alton Road with Washington Avenue based on each of the five criteria evaluated in the above analysis.

Table 1. Summary Results- Demographics and transit/transportation conditions

	Alton Road	Washington Avenue
Employment		●
Population	◑	
Transit commute share		◑
Land uses served and transit propensity		◑
Transportation and transit conditions		◑

Where: ● represents a clear preference and ◑ represents a partial preference.

Traffic and Multi-modal Conditions

From a traffic perspective, based on current counts, Alton Road carries more vehicles than Washington Avenue (32,348 vs. 15,542 vehicles). As a result of this volume, mean travel time along Alton Road is lower than Washington Avenue (7.5 vs. 11.5 minutes). Pedestrian counts were higher along Washington Avenue than Alton Road (703 (AM) and 1343 (PM) along Washington Avenue; 419 (AM) and 634 (PM) along Alton Road). The Florida Department of Transportation recently reconstructed this segment of Alton Road to accommodate the City's higher road elevation requirements and improve the roadway for vehicle traffic. FDOT is currently designing improvements along Alton Road north of the study area as well. As a State Route, Alton Road is considered a major thoroughfare for north/south vehicle travel.

Environmental Resources

From a natural resources' perspective, there is no difference between Alton Road and Washington Avenue.

Land uses along Washington Avenue are predominantly businesses and employment centers whereas there are a higher number of residences along Alton Road. Residences along Alton Road have a higher potential to be adversely impacted by noise and vibration created by transit vehicles and potential aesthetic concerns.

Due to the presence of Flamingo Park adjacent to Alton Road, there is a higher potential for impacts to parks or recreational facilities from the introduction of adjacent transit (noise, vibration). There are no parks adjacent to Washington Avenue.

The Washington Avenue alignment is preferred over the Alton Road alignment from a contamination perspective. There are more potential contamination concerns (underground storage tanks etc.) that could be impacted by the introduction of a transit facility along Alton Road than along Washington Avenue.

From a cultural resources perspective, Alton Road between Dade Blvd and MacArthur bridge was surveyed in 2008. It was determined that portions could be incorporated into the Miami Beach Historic District (to the east) or be a new separate district. There were 78 recorded historic resources, 8 considered eligible, and 40 could be included in an expanded Historic District. This was based on a 1959 cut off and if surveyed today the cut off would be 1969, so the number of properties potentially historic would probably increase. However, Alton Road is currently not in a designated Historic District. Washington Avenue is incorporated in the Historic District established in 1979 and 103 parcels were built before 1969, 23 of which have been recorded. Therefore, there are approximately 80 properties that would need to

be recorded along Washington Avenue. Based on this information, there appears to be little difference between Alton Road and Washington Avenue as new infrastructure on either road could potentially have impacts to historic properties in Miami Beach.

Table 2. Summary Results- Environmental

	Alton Road	Washington Avenue
Parks		●
Contamination		●
Cultural Resources	◑	
Land use		◑

Where: ● represents a clear preference and ◑ represents a partial preference.

Conclusions and Recommendations

Based on the information analyzed for Alton Road between Dade Blvd. and 5th Street, our recommendation is to continue to identify the Washington Avenue corridor as the preferred main alignment for reaching the Convention Center area. The travel market characteristics indicate that there is a higher ridership potential along Washington Avenue; the traffic information indicates that there are more pedestrians along Washington Avenue and a clear strategy by FDOT to address the need for north/south vehicle travel along Alton Road. From an environmental perspective, Alton Road has more potential impacts to residences, parks and contamination.

This recommendation is consistent with the desires of Miami Beach, as they have designated Washington Avenue as their main transit corridor. This was also the corridor in their locally preferred alternative for their streetcar project.