



PUBLIC WORKS DEPARTMENT

Traffic Analysis for Micco Road and Babcock Street

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The proposed Ashton Park project is 1,567.6 acres of vacant land located along the southside of Micco Road, classified as a rural major collector per the Brevard County TPO and maintained by Brevard County.

Using the Trip Generation Rates per ITE 11th Edition Trip Generation Manual, trips shown in table 1 below were calculated per land use as identified in the Ashton Park Preliminary Development Plan dated August 2024. Proposed revisions to the Future Land Use previously submitted are included in this analysis as ‘proposed changes’. These changes include the addition of a Town Center which includes a reduction in overall multifamily units and increase in overall residential, townhomes, and downtown apartment units.

Table 1. Trips Generated per Land Use for Ashton Park development.

| Land Use (Code) | Units | ADT Trips | 60% (WB Traffic) | 40% (EB Traffic) |
|------------------------|----------------------|--------------------|-----------------------------|-----------------------------|
| • Residential (210) | 3,793 DU 22 DU* | 35,768 207* | 21,461 124 | 14,307 83 |
| • Townhomes (215) | 533 DU 206 DU* | 3,838 1,483* | 2,303 890 | 1,535 593 |
| • Multifamily (221) | 746 DU (-)354 DU* | 3,387 (-)1,607* | 2,032 (-)964 | 1,355 (-)643 |
| • Downtown Apt (222) | 867 DU 455 DU* | 3,936 2,066* | 2,362 1,240 | 1574 826 |
| • Office (710) | 20,000 SF | 217 | 130 | 87 |
| • Commercial (821) | 50,000 SF | 4,725 | 2,835 | 1,890 |
| • Industrial (110) | 22,000 SF | 107 | 64 | 43 |
| • Park Soccer Complex | 30.4 acre | 285 | 171 | 114 |
| • School (536) | 1,000 students | 1,850 | 1,110 | 740 |
| • +Police/Fire (575) | 34,000 SF | 16 | 10 | 6 |

Total ADT 33,767 (WB) 22,511 (EB)

Note: Values identified with an ‘*’ represent proposed changes.

Micco Road and Babcock Street are two-travel lane undivided roadways with posted speeds of 45 mph. Recent traffic counts from the latest 2023 TPO show the annual average daily traffic (AADT) with the following volumes:

- Micco Road: from Fleming to Dottie 4,170 AADT
- Micco Road: from Dottie to Babcock 2,210 AADT
- Babcock Street: from Micco to SJHP 5,820 AADT

The Maximum Allowable Volumes (MAV) are per the Space Coast Transportation Planning Organization Traffic Counts (2014-2023). Maximum Allowable Volumes (MAX) based on FDOT 2020 Quality/LOS Handbook Table 1: Generalized Annual Average Daily Volumes for Florida’s Urbanized areas (45 mph posted speed). Table 2 below illustrates the maximum allowable volumes per roadway characteristic compared to the projected traffic from the development and the existing traffic along the roadway segments being analyzed.

Table 2. Maximum allowable volume vs. projected development traffic.

| Street Segments | Existing AADT per TPO | No. of Lanes | Level of Service (LOS) | 2-lane Max Allowable Volume (MAV) | Available Capacity without Annexation | 4-lane Max Allowable Volume (MAX) | 6-lane Max Allowable Volume (MAX) | Volume from Ashton & Annexation | Volume over capacity 2 lanes | No. of lanes needed |
|----------------------------|-----------------------|--------------|------------------------|-----------------------------------|---------------------------------------|-----------------------------------|-----------------------------------|---------------------------------|------------------------------|---------------------|
| Micco Rd Fleming to Dottie | 4,170 | 2 | D (County) | 17,700 | 13,530 | 35,820 | 53,910 | 26,681 | Yes | 4 |
| Micco Rd Dottie to Babcock | 2,210 | 2 | D (County) | 17,700 | 15,490 | 35,820 | 53,910 | 35,977 | Yes | 4 |
| Babcock St Micco to Grant | 5,820 | 2 | D (County) | 14,200 | 8,380 | 35,820 | 53,910 | 39,587 | Yes | 6 |

Findings:

The proposed Ashton Park PUD including the proposed change will impact the existing 2 lane roadway capacity of Micco Road and Babcock Street to be deficient in level of service (D). Micco Road along the project site westward to Babcock Street, and to the east from Dottie Drive to Fleming Grant Road will need to be widened to four (4) lanes, Babcock Street from Micco Road to St. John’s Heritage Parkway (SJHP) will need to be widen to six (6) lanes to accommodate the resulting traffic projected to be produced from the proposed development to maintain the adopted level of service (D).

This analysis does not take into consideration the future SJHP extension, as there is currently no official agreement with the developer and the maintaining agency to fund and construct that roadway extension.