575 Herndon Parkway

Traffic Impact Study

Herndon, VA

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575 HERNDON PARKWAY

EXECUTIVE SUMMARY

This report presents the results of a Traffic Impact Study (TIS) for the proposed redevelopment of 575 Herndon Parkway in the Town of Herndon, Virginia and has incorporated first submission review comments received. This study was completed in accordance with the Town of Herndon's TIS Guidelines and in support of the proposed General Development Plan (GDP) application within the Herndon Transit Oriented Core (HTOC).

Site Location and Study Area. The site is located along the south side of Herndon Parkway immediately adjacent to the Herndon Metro Station. The site is located approximately 0.3 miles east of the Van Buren Street / Herndon Parkway intersection and approximately 0.6 miles west of the Spring Street / Herndon Parkway intersection. Per the scoping agreement with Town of Herndon Staff, 11 intersections were included within the study area.

Proposed Development. The site is currently improved with a 139,200 SF office building and surface parking. As proposed, the site would be razed and redeveloped with a mixed-use development with up to approximately 525 residential units and 13,788 square feet of commercial uses. The development will meet or exceed bike and vehicular parking requirements and include commitments to implementation of a Transportation Demand Management (TDM).

The proposal is estimated to generate approximately 219 AM peak hour trips and 207 PM peak hour trips. This assumes a 45% non-auto mode share for the residential use and a 25% non-auto mode share for commercial uses.

This resubmission presents the current development program based on first submission review comments and reflects minor revisions to the uses compared to the scope of work and first submission documents. The proposal is planned to be constructed and occupied by 2028.

Multimodal Facilities. The site is located in a transit rich environment that includes direct access to the Herndon Metro Station located on the Silver Line and is served by numerous bus routes operated by WMATA, Fairfax Connector and Omni Bus. Sidewalks existing along both sides of Herndon Parkway and the site will improve the existing bus stops along the site's Herndon Parkway frontage, the pedestrian promenade along the site's western boundary connecting the Metro Station to Herndon Parkway and provide for the regional Sugarland Run Stream Valley Trail along the site's southern boundary that will ultimately connect the eastern HTOC limits to the Herndon Metro Station.

Methodology and Assumptions. The following assumptions were agreed to with Town of Herndon staff during the scoping process and used to complete the operational analysis contained herein.

- Existing vehicular, pedestrian, and bicycle traffic counts were conducted in March and April 2024 at the following intersections from 7:00 to 10:00 AM and 4:00 to 7:00 PM.
  - Worldgate Drive and Van Buren Street
  - Van Buren Street and The Atrium Driveway
  - Van Buren Street and Herndon Parkway
  - Herndon Parkway and Signalized Pedestrian Crossing
  - Herndon Parkway and Site Entrance West/Monroe Business Center Entrance
  - Herndon Parkway and Site Entrance East
  - Herndon Parkway and Exchange Place
  - Herndon Parkway and Fairbrook Drive
  - Herndon Parkway and Sunset Business Park
  - Herndon Parkway and Spring Street
- It is assumed the proposed redevelopment would be constructed and fully occupied by 2028.
- A regional growth rate of 1 percent was applied to all major movements within the studied area.
- Three pipeline developments were identified within the study area for inclusion in this study. They include:
  - 555 Herdon Parkway (Phase 1) – Located immediately east of the proposed site, this parcel is planned to include 400 residential units and 25,000 SF of retail. This development will have a shared access drive along its west façade with the subject development proposal.
  - Fairbrook Business Park (Phase 1) – This site is located to the east of the subject site, and is planned for 1,080 residential units, a 10,000 SF daycare and 10,000 SF of retail in two (2) mixed-use buildings.
  - Herndon Hotel – This site is located just northeast of the Fairbrook Business Park site and is planned as a 250-room facility. Access to this hotel will be initially provided via Herndon Parkway through Sunset Business Park, with additional future access via the Fairbrook Drive Extension to Spring Street.
- Planned capacity improvements to Spring Street / Herndon Parkway, assumed to be completed by 2028, include:
  - Improvements to the eastbound Herndon Parkway approach to include a shared thru-right and right turn lane provided.
  - Improvements to the westbound Herndon Parkway approach include a second left turn lane.
  - Additional through capacity to southbound Spring Street, and
  - Extensions of existing left and right turn lanes on northbound Spring Street.
- The stop-controlled intersections included in this report are assumed to be the locations for future traffic signals along Herndon Parkway, based on information provided by the Town of Herndon, as development occurs along the northern and southern frontages.

Existing Conditions – Operational Analysis. The four existing signalized study intersections currently operate at overall acceptable levels of service (LOS) "D" or better during the AM and PM peak hours, with most operating at LOS "B" or "C". All turning movements also operate at acceptable levels of service, with only two (2) movements at LOS "E": the westbound left/thru movement on Worldgate Drive at Van Buren Street during the PM peak, and the eastbound left on Spring Street at Herndon Parkway during both the AM and PM peak periods. At the stop-controlled intersections, all lane groups currently operate at LOS "C" or better during the AM and PM peak periods.

Future Conditions without Development – Operational Analysis. With increases in traffic due to regional growth and pipeline developments, all signalized study intersections would continue to operate at acceptable overall LOS "D" or better during the AM and PM peak hours. Additionally, all lane groups at signalized study intersection would continue to operate at LOS "E" or better during peak periods.

All of the stop-controlled study intersections would continue to operate similar to existing conditions, with all movements operating at LOS "E" or better with the exception of select movements at the driveway approaches to the Sunset Business Park driveway (Intersection #10) during the PM peak hour. These delays are a result of the low side street volumes and incremental increases in traffic along Herndon Parkway. A review of the peak hour queueing indicates these approaches would have queues of approximately one (1) vehicle.

Future Conditions with Development – Operational Analysis. With the proposed development, all signalized study intersections would continue to operate at acceptable overall LOS "D" or better during the AM and PM peak hours. Additionally, all lane groups at signalized study intersection would continue to operate at LOS "E" or better during peak periods.

All of the stop-controlled study intersections would continue to operate similar to the 2028 future conditions without development, with the exception of the Herndon Parkway and Sunset Business WBLT movement, which degrades from LOS "E" to LOS "F". It is to be noted that potential future signalization, per conversations with the Town of Herndon Staff, may result in the mitigation of these lower levels of service. With the addition of the proposed developments and planned 555 Herndon Parkway development the Herndon Parkway / East Driveway intersection would realize an increase in delays during the PM peak period on the side street due to the addition of new trips. Potential signalization, pending a signal warrant analysis, would mitigate side street delays at the main site access point to/from Herndon Parkway.