



4800 Ashford Dunwoody Road
 Dunwoody, Georgia 30338
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MEMORANDUM

To: Mayor and City Council

From: Michael Smith, Public Works Director

Date: January 9, 2023

Subject: **Chamblee Dunwoody Village Crossroad Project- Traffic and Overhead Utilities**

ACTION

Discuss proposed traffic improvements and overhead utilities for the Village Crossroads project on Chamblee Dunwoody Road between Womack Road and Roberts Drive

SUMMARY

At the March 28, 2022 city council meeting, the Mayor and Council discussed the conceptual design for the Village Crossroads. The Council supported the proposed cycle track, wide sidewalks and street trees but expressed concerns that the plan did not do enough to address traffic congestion along Chamblee Dunwoody Road. The design team has completed additional traffic analysis for the Mount Vernon intersection, which is the critical juncture for traffic flow in the Village, and has concluded that additional traffic improvements provide incremental benefits at significantly higher costs and impacts to adjacent property.

DETAILS

Background

The Village Crossroads project originated out of the recommendations in the 2011 Dunwoody Village Master Plan. In 2017, the city received federal funding through the Atlanta Regional Commission (ARC) to develop a conceptual design. The city elected to defer work on the conceptual design until the Village master plan update was completed in 2020. The proposed conceptual design was presented to the City Council in March 2022. In December 2022, ARC awarded an additional \$6.25 million for final design and construction.

Conceptual Plan

The proposed improvements presented in March 2022 consist of a cycle track and wider sidewalks on both sides of Chamblee Dunwoody Road from Womack Road to Roberts Drive. The cycle track will be separated from the vehicle travel lanes and raised to the level of the sidewalk. A landscape buffer with street trees and lighting will separate the cycle track from the sidewalk. In areas, such as in front of the farmhouse, where the public right of way is not as wide, the buffer width will be reduced and landscaped without street trees.

The proposed design for the roadway generally maintains the lane configurations as they currently exist with the exception of removing one of the southbound through-lanes south of Mount Vernon Road. In areas north of Mount Vernon Road where a center turn lane is not



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needed, the turn lane would be converted to a landscaped median with the goal of adding greenery, calming traffic and creating safer pedestrian crossings.

Traffic

Most weekday, daytime hours the traffic volume on Chamblee Dunwoody Road north of Mount Vernon Road is at or above the volume that can be accommodated with only one travel lane in each direction. However, the proposed concept does not include additional travel lanes based on the vision established in the master plan.

Absent widening Chamblee Dunwoody Road, the design team considered several alternatives to improve traffic flow at the Mount Vernon Road intersection. As the junction of two heavily traveled roadways, this intersection experiences the heaviest congestion and dictates traffic flow through the Village. An additional northbound left turn lane is included in the conceptual plan because it is projected to reduce travel delay for the intersection by 15% and can be added with minimal impact to adjacent parcels.

Several other alternatives configurations of the intersection have been considered but are not currently included in the plan. Traffic modeling indicates that additional turn lanes for the eastbound and southbound approaches could further reduce delay by a significant margin in the AM peak period but would provide little additional benefit in the PM peak. Significantly more right of way would be needed in the triangle between Chamblee Dunwoody Road and Nandina Lane to accommodate the turn lanes and a second northbound through lane would be needed from Mount Vernon Road to Roberts Drive.

A two-lane roundabout was also modeled and found to reduce delays during both the morning and afternoon peak travel periods. However, traffic would still back up on some of the approaches at certain times as far or further than it does today. Also, several commercial properties would have to be acquired to create enough right of way for the roundabout.

Overhead Utilities

The City Council and the public has expressed an interest in burying the overhead utilities in Dunwoody Village. Georgia Power has provided a high level cost estimate of \$8 million to bury all of the overhead utilities between Womack Road and Roberts Drive. This would be roughly a 50% increase in the cost to construct the project and would add significant time to the construction schedule.

RECOMMENDED ACTION

The federal and city funds currently allocated to the project account for about 40% of the estimated right of way and construction cost for the entire corridor from Womack Road to Roberts Drive. The construction will likely need to be completed in segments based on current funding. The city does not have the financial capacity to expand the Mount Vernon intersection or bury utilities as part of this project unless significant additional funding sources are identified.



City of Dunwoody Georgia

Village Crossroad-Chamblee Dunwoody Traffic and Overhead Utilities

January 9, 2023

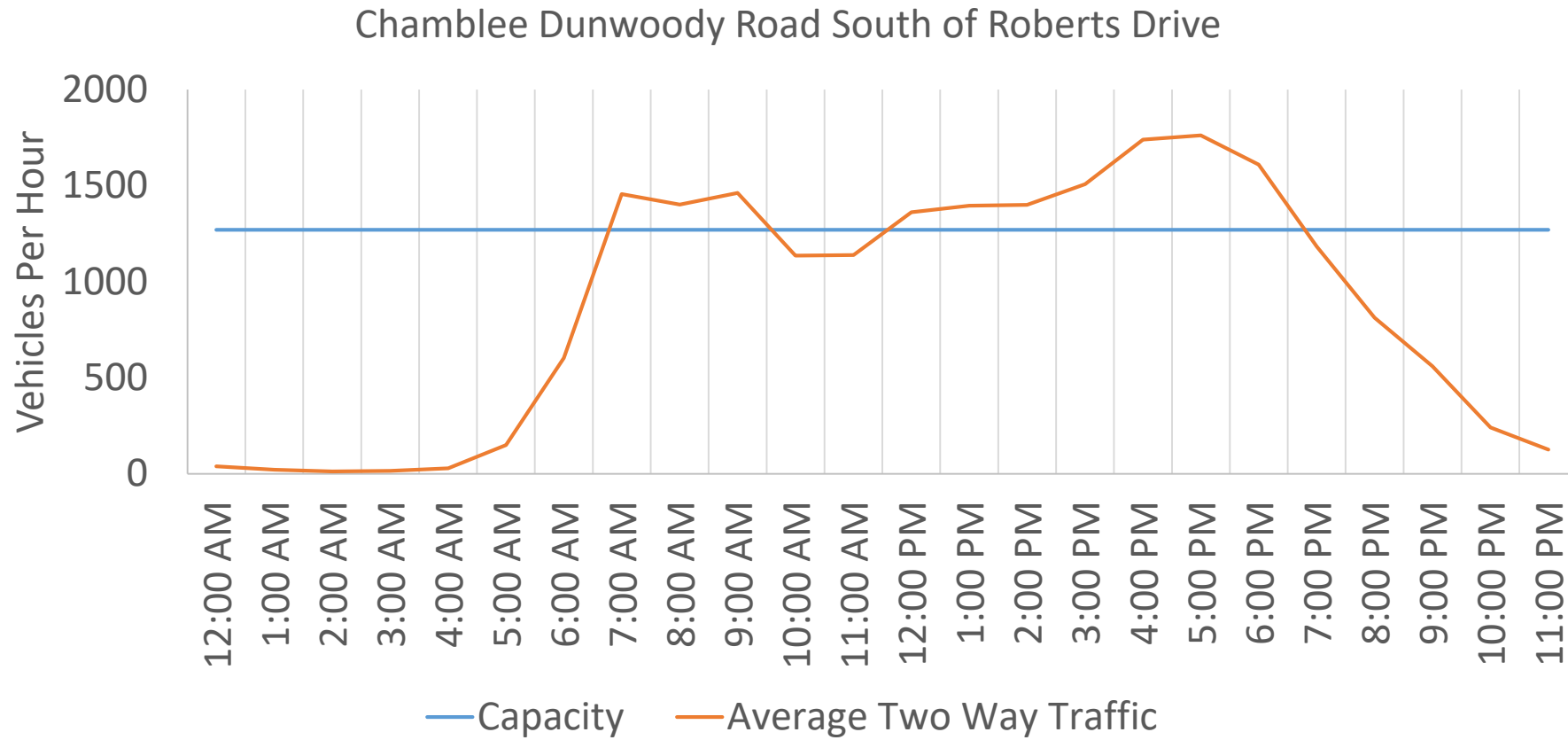


TYPICAL SECTION: CHAMBLEE DUNWOODY ROAD
PREFERRED TYPICAL: 1NB LANE + MEDIAN



TYPICAL SECTION: CHAMBLEE DUNWOODY ROAD
CONSTRAINED TYPICAL: 1NB LANE + MEDIAN





Traffic Conditions

Traffic volume is around the capacity limit for a two-lane roadway most hours of daytime and over capacity between 3 p.m. and 6 p.m.

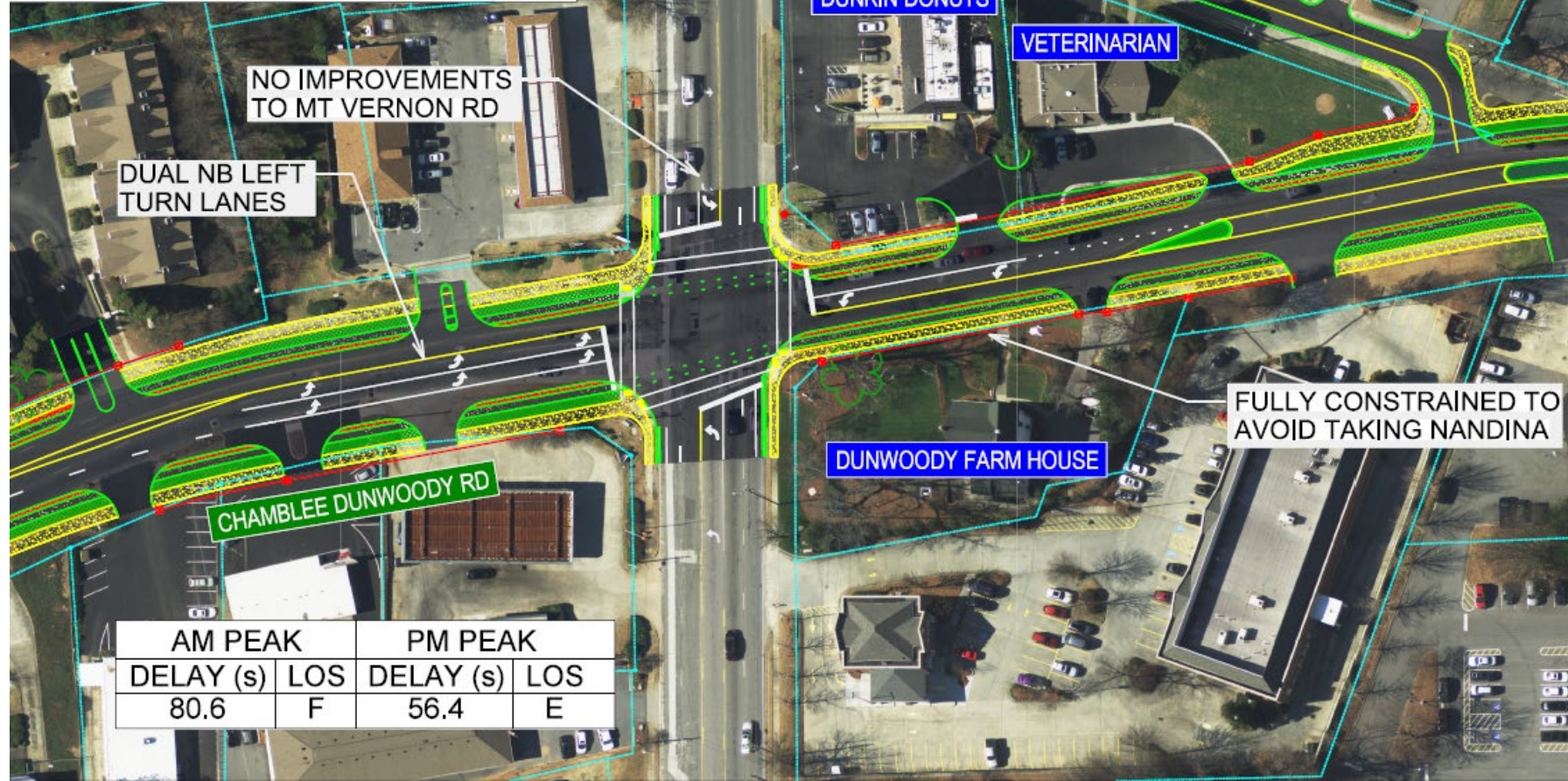
Traffic flow primarily regulated by Mount Vernon intersection

Chamblee Dunwoody Road (CDR) at Mount Vernon Road (MVR)

City of Dunwoody Georgia | AECOM | SCALE IN FEET

Alternative 1: Avoid Nandina Triangle Take

- Dual NB Left Turn Lanes
- 1 NB Thru Lane on CDR
- Nandina Lane must remain open
- Ped + Bike Friendly, short crossings
- Reorient Nandina to meet MVR at right angle. Protected signal for peds.



AM PEAK		PM PEAK	
DELAY (s)	LOS	DELAY (s)	LOS
80.6	F	56.4	E

Chamblee Dunwoody Road (CDR) at Mount Vernon Road (MVR)



Alternative 3: All Improvements

- Dual NB Left Turn Lanes
- Dual SB Right Turn Lanes
- Dual EB Left Turn Lanes
- 2 NB Thru Lane on CDR, increases vehicular throughput on CDR
- Nandina Lane closes
- Full Take of Nandina Triangle

