



To: Mr. Douglas McLean,  
Town Planner  
Town of Coventry, RI

Date: January 3, 2025

Memorandum

Project #: 73562.00

From: Robert J. Clinton, PE  
Project Manager - Transportation

Re: Coventry Centre  
Major Land Development Project  
666 Arnold Road & 2271 New London Turnpike  
Coventry, RI  
Traffic Assessment Introduction

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VHB has performed an initial assessment of existing and future traffic conditions at the proposed retail development to be located at 666 Arnold Road and 2271 New London Turnpike in Coventry, RI. The following memorandum discusses the preliminary findings and discusses the scope of the full traffic study that will be performed during the next phases of the approval process.

### **Existing Conditions**

The project area is located on the northwest corner of the signalized New London Turnpike/Arnold Road intersection. For the purposes of this memo, New London Turnpike will be referred to as north and south, and Arnold Road will be considered east and west. New London Turnpike and Arnold Road are minor arterials under jurisdiction of the Town of Coventry. At the northern limits of the site, New London Turnpike consists of two lanes (one lane in each direction) and widens at the signalized intersection with Arnold Road to provide turn lanes and/or additional through capacity. There are currently three traffic signals along New London Turnpike which are located at the I-95 South Ramps, Center of New England Boulevard, and Arnold Road. During peak periods there is some congestion that will be further studied to determine if optimizing the traffic signal timings and improving the lane configuration/signage can improve operations. VHB will review existing pedestrian facilities along Town roadways to determine where accommodations can be improved.

### **Future Conditions**

The proposed redevelopment plan includes the construction of up to 135,000 square feet (sf) of retail development. The current plan shows 106,600 sf of retail development; however, additional space could be added if the site is reconfigured or if additional stories are added to some of the buildings. The proposal includes one full access driveway and one limited access driveway on both New London Turnpike and Arnold Road, for a total of four access points. Providing four access points will disperse the traffic minimizing delays and traffic impacts. The proposed driveways will be constructed at locations that provide acceptable sight distance and will not significantly impact operations of the existing traffic signal. Mitigation measures will be implemented along New London Turnpike and Arnold Road to mitigate impacts of the proposed development. Such improvements may include modifications to the roadway geometry, traffic signal operations, and lane configurations. The appropriate mitigation measures will be determined as the project goes through the permitting process and further traffic analysis/assessment is conducted.

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## Projected Trip Generation

In order to determine the incremental increase in traffic due to the proposed retail development, VHB used trip generation rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation*<sup>1</sup>. After reviewing the trip generation characteristics, VHB used "Shopping Plaza (40-150k)" (Land Use Code [LUC] 821) to determine the traffic characteristics of the proposed development. The tenants of the proposed development have not been finalized at this time; however, "Shopping Plazas" typically include retail, office, restaurants, banks, and various other uses. It should be noted that a significant portion of the projected traffic will be drawn from the existing traffic streams passing the site in the form of pass-by traffic or from roadways in the vicinity of the site in the form of diverted-link traffic. The primary destination of pass-by traffic and diverted-link traffic is elsewhere, and the primary trip will be resumed following a stop at the site. Based on data from ITE, a pass-by rates of 42% was used to determine the number of new trips that are projected to be generated by the full buildout of the site. The proposed development is projected to generate approximately 140 new vehicles traveling to/from the site during the morning peak hour and approximately 335 traveling to/from the site during the evening peak hour. These projected trips will be distributed among the four proposed driveways based on the direction that they are traveling to/from and the location on the site that they are visiting.

The fact that the site is located on the corner of a signalized intersection results in many benefits to accessing/egressing the site. The traffic signal provides gaps in the traffic which will allow vehicles to enter/exit the driveways. The traffic signal also has a northbound left-turn phase on New London Avenue, making it convenient for vehicles to turn left from New London Turnpike onto Arnold Road and then turn right into the site.

## Parking Requirements

In order to determine the number of parking spaces that should be provided for the proposed retail development, VHB used parking generation rates published by the Urban Land Institute (ULI). ULI recommends that 4 spaces (3.2 spaces for visitors and 0.8 spaces for employees) per 1000 sf be provided for retail developments less than 400,000 sf a ratio. It should also be noted that many cities/towns in Rhode Island require a minimum parking ration of 4 spaces per 1,000 sf of retail space in their zoning ordinances. Based on the information provided above; VHB recommends that the minimum amount of proposed parking meet a ratio of 4 spaces per 1,000 sf of retail space. It should be noted that this will be a mixed-use development that will contain various uses that will have slightly higher or lower parking demands and that the various uses will not have their peak demands at the same time; therefore, 4 spaces per 1,000 sf will accommodate the needs of the entire plaza. Most importantly, this parking ratio has been reviewed by prospective tenants who best know what their parking demand is and will be the ones that rely on adequate parking for their customers.

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<sup>1</sup> Trip Generation, 11th Edition, Institute of Transportation Engineers, Washington, D.C.



## Conclusions

During peak periods there is some congestion that will be further studied to determine if optimizing the traffic signal timings and improving the lane configuration/signage can improve operations. A full traffic study will be prepared as the proposed development goes through the permitting process to determine the appropriate mitigation measures that will be required. Based on ULI calculations, zoning requirements in similar communities in Rhode Island, and prospective tenant demands and as previously stated, VHB recommends that the minimum amount of proposed parking meet a ratio of 4 spaces per 1,000 sf of retail space.