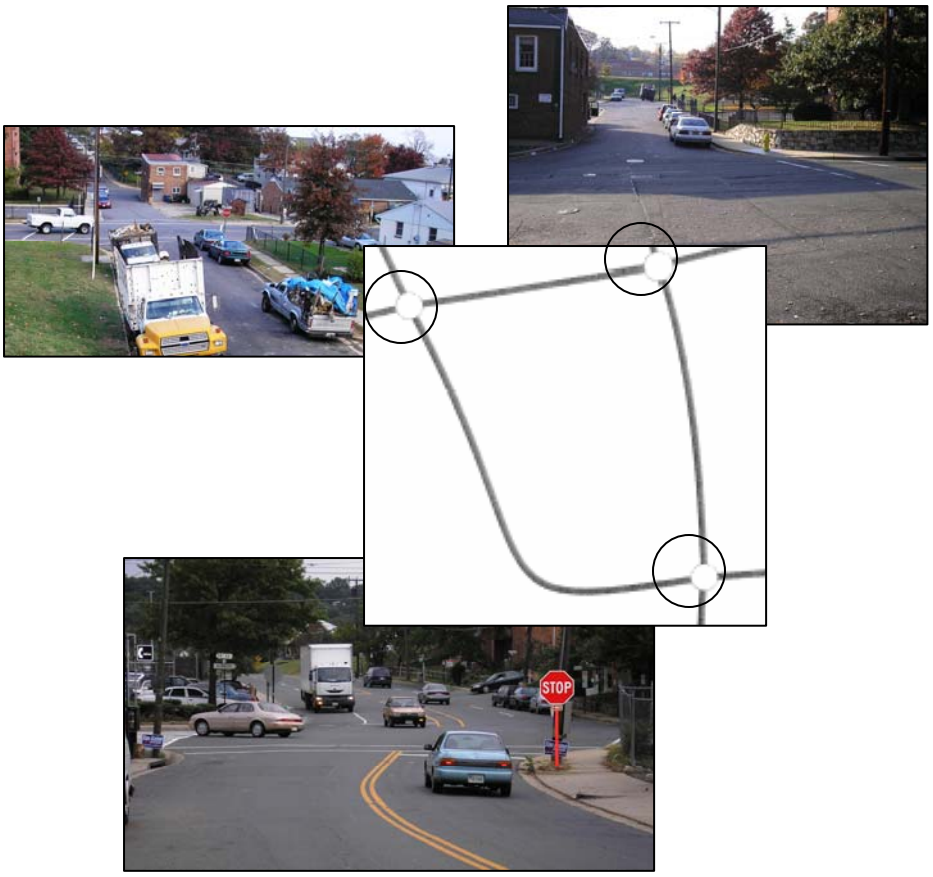
Transportation and Parking Study

Transportation

Traffic counts were conducted and existing conditions were observed on November 15, 2005 around the proposed Town Square. The counts were conducted at three different intersections surrounding the proposed site. The intersection of Shirlington Road and 24th Street and the intersection of Kenmore and 24th Street are both unsignalized intersections with stop control on 24th street. The intersection of Shirlington Road and 24th Road is an unsignalized 4-way stop intersection.



Counts conducted in the AM period identify the peak hour as 8 AM to 9AM.and in the PM period identify the peak hour as 4:30 PM to 5:30 PM. The heaviest approach volumes occur in northbound direction in each peak hour; the second highest approach volumes occur in westbound direction in each peak hour. The heaviest turning volumes occur traveling between the southern and eastern legs of the intersection. Analysis of the AM and PM peak hours reflect the following average vehicle delays and LOS[1] displayed in Table 1.

Table 1

Peak Hour	Eastbound Approach	Westbound Approach	Northbound Approach	Southbound Approach
AM	10 seconds LOS A/B	11 seconds LOS A/B	19 seconds LOS C	10 seconds LOS A/B
PM	10 seconds LOS A/B	14 seconds LOS B/C	15 seconds LOS B/C	12 seconds LOS B

[1] Synchro 6

As the above table shows, the intersection operates adequately during peak hours as an unsignalized intersection.

Traffic growth in the vicinity of Nauck is projected to occur at a rate of 1 – 1.2 percent annually between 2001 and 2025[2]. This results in an overall 6 percent growth in traffic between 2005 and 2010. Projecting the traffic in 2010, an analysis of the AM and PM peak hours reflect the following average vehicle delays and LOS[3] shown in Table 2.

Table 2

Peak Hour	Eastbound Approach	Westbound Approach	Northbound Approach	Southbound Approach
AM	10 seconds LOS A/B	12 seconds LOS B	23 seconds LOS C	10 seconds LOS A/B
PM	11 seconds LOS A/B	15 seconds LOS B/C	17 seconds LOS C	12 seconds LOS B

As shown in Table 2, the intersection in 2010 is still expected to operate adequately during peak hours as an unsignalized intersection.

As indicated previously, traffic growth in the vicinity of Nauck is projected to occur at a rate of 1 – 1.2 percent annually between 2001 and 2025[4]. This results in an overall 12 percent growth in traffic between 2005 and 2015. Projecting the traffic in 2015, an analysis of the AM and PM peak hours reflect the following average vehicle delays and LOS[5] shown in Table 3.

Table 3

Peak Hour	Eastbound Approach	Westbound Approach	Northbound Approach	Southbound Approach
AM	11 seconds LOS A/B	12 seconds LOS B	29 seconds LOS D	11 seconds LOS A/B
PM	12 seconds LOS B	17 seconds LOS C	20 seconds LOS C	13 seconds LOS B

The intersection in 2015 is still expected to operate adequately during peak hours as an unsignalized intersection.

[2] Source: Final Report – Nauck, Shirlington, Four Mile Run Transportation and Land Use Study (November 1, 2002), Exhibit 6, page 29
[3] Synchro 6
[4] Source: Final Report – Nauck, Shirlington, Four Mile Run Transportation and Land Use Study (November 1, 2002), Exhibit 6, page 29
[5] Synchro 6

As specific development applications are considered and approved, nearby traffic flows along Shirlington Road, 24th Road and Kenmore Street may increase and require modifications to the intersection to provide improved levels of service. At the present the intersection does not begin to meet MUTCD[6] warrants for a signal. Preliminary designs have been developed for the County to signalize the intersection. The design includes addition of separate left turn lanes on Kenmore and 24th Road. Even though the three intersections are expected to operate adequately with the proposed development of over 1,000 units in the Shirlington-Nauck area, the new signal planned would accommodate any increase in traffic in addition to improving pedestrian activity.

Pedestrian movements were observed during November 15, 2005. Pedestrian maneuvers were evenly distributed at intersection crossings and mid-block locations. Crossing Guards were present for the Elementary school children walking to and from school. Public transit and school bus routes were oriented to Kenmore Street.

Parking

As the Town Square and the surrounding area (including store-front retail activity) redevelopment, there will be an increased demand for parking. Approximately 25 on-street parking spaces are available on adjacent streets surrounding the proposed Town Square shown in Figure 1. On-street parking can accommodate some of the increased demand however off-street parking will also be needed for increased retail activity. Many of the properties across Shirlington Road from the Town Square already have off-street parking, including the Pharmacy. If the Lucky 7 relocates adjacent to the 24th street intersection with Shirlington Road, it will lose its off-street supply and place a

[6] Manual of Uniform Traffic Control Devices – 2003 Edition (FHWA), Part 4, Highway Traffic Signals

high-turnover parking demand upon on-street spaces near the Shirlington Road and 24th Street intersection.

Recommendations include:

- Maximize the redevelopment of on-street parking spaces by consolidating and relocating driveway access. For special events, it is expected that increased parking demand can be satisfied through coordination or use agreement with the school and the owners of other private parking facilities in the area.

- Enhance pedestrian connectivity to/from parking with widened sidewalks, intersection improvements and signage.

    - Replace all sidewalks surrounding Town Square and match sidewalk materials on opposite side of streets surrounding Town Square due to generally deteriorating, narrow and hazardous condition of existing sidewalks.

    - Improve intersection by restriping of crosswalks and lanes, reconstructing pedestrian ramps at all corners and relocating of public telephones to one foot back of sidewalks.

    - Locate guide signs (white on green background as per MUTCD) directing visitors to the Town Square one block in advance of Town Square along Shirlington Road, 24th Road, and Kenmore Street.

- Improve access management by consolidating access to off-street parking and loading zones away from roadway frontage.

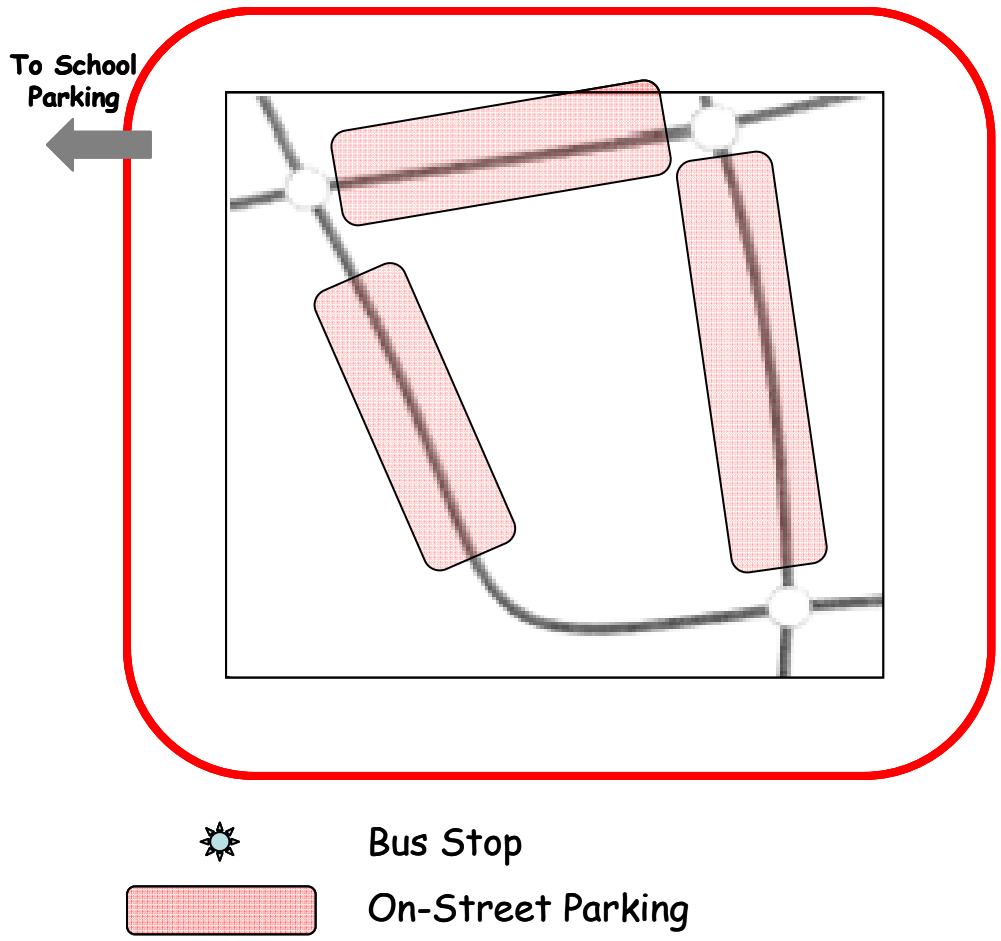


Figure 1. On-Street Parking Surrounding the Proposed Site.