



City of Virginia Beach

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DEPARTMENT OF PUBLIC WORKS
OFFICE OF THE CITY ENGINEER
(757)385-4131
FAX (757) 385-5668
TTY 711

MUNICIPAL CENTER
BUILDING 2
2405 COURTHOUSE DRIVE
VIRGINIA BEACH, VIRGINIA 23456-9035

INTER-OFFICE MEMORANDUM

DATE: August 27, 2018

TO: Mark A. Johnson, P.E., Director of Public Works

FROM: Ric Lowman, Acting City Traffic Engineer, PW/Engineering 

SUBJECT: Virginia Beach Sports Center Traffic Assessment

This memo provides Traffic Engineering's assessment of the traffic impacts of the proposed Virginia Beach Sports Center that will be located in the Oceanfront area. This 285,000 s.f. facility will be located to the southwest of the Convention Center across 19th Street and will share parking with the Convention Center. The shared 2,463 parking spaces will be accessed by both 19th Street and Virginia Beach Boulevard. This traffic assessment is meant to document the existing traffic volumes and the roadway capacities for the roadways around the Sports Center/Convention Center site and to describe the traffic scenarios associated with the planned operations of the Sports Center.

The three major City streets that will be used to access the Sports Center are Birdneck Road, 19th Street and Virginia Beach Boulevard. These roadways are all four lane Minor Urban Arterials. The table shown below includes the average daily traffic volumes for these roadways, which were collected in the June 2016 time period, the daily capacity of the roadways, and the corresponding volume to capacity ratio for each of the roadways.

Roadway		2016 Daily Traffic Volume	Roadway Capacity	Volume to Capacity Ratio
Birdneck Road	weekday	30,500	32,700	93.3%
19th Street	weekday	4,500	25,100	17.9%
	Saturday	5,000	25,100	19.9%
Virginia Beach Boulevard	weekday	10,800	25,100	43.0%
	Saturday	12,500	25,100	49.8%

The table shows that each of these roadways are below capacity, with Virginia Beach Boulevard and 19th Street well below capacity.

The Virginia Beach Sports Center is anticipated to host 40 to 50 events per year, occurring mainly on Saturday and Sundays in the fall, winter and spring seasons. These events are expected to have 2,500 to 3,000 people in attendance, with about 1,500 cars per event. The nature of the events to be held at the Sports Center, which will be all-day or weekend tournament style events, will lead to a staggered arrival and departure of the 1,500 cars throughout the day. There will not typically be a peak hour arrival or departure period that will require special traffic control to get vehicles in during a peak hour or out at the conclusion of an event. A previous study for the Arena/Sports Center area indicated that the peak hour arrival of vehicles for the Sports Center would only be 330 vehicles. This number was based on traffic counts from a sports event held at the Convention Center. For comparison purposes to the arena that was proposed on the same site, the Arena Traffic Impact Study planned for 3,126 vehicles to enter the parking areas off of 19th Street and Virginia Beach Boulevard in the peak hour.

Associated with the construction of the new parking areas to support the Sports Center and Convention Center, left turn lanes will be installed on Virginia Beach Boulevard at both proposed entrances to the parking area. The first entrance on Virginia Beach Boulevard will be located opposite Birch Lake Drive and this entrance will likely capture approximately one-third of the total entering vehicles. The second entrance will be located opposite Seabridge Road and this entrance will also likely capture one-third of the total entering vehicles. The remaining one-third of the entering vehicles are expected to enter the parking area from 19th Street. The primary movements at the Virginia Beach Boulevard access points will be lefts into the parking area and rights out of the parking area.

Traffic Engineering has performed a preliminary assessment of the two unsignalized intersections on Virginia Beach Boulevard associated with the Sports Center access. Based on all of the traffic data presented in this Traffic Assessment, it is the professional opinion of Traffic Engineering that a traffic signal will not be required at either intersection. However, Traffic Engineering will work with the Sports Center staff to monitor these two intersections, as well as the access point on 19th Street, to ensure that there are not any peak hour traffic issues for through traffic on Virginia Beach Boulevard or 19th Street or residents using Seabridge Road or Birch Lake Drive to access Virginia Beach Boulevard. If there are ingress or egress issues on Virginia Beach Boulevard, the City will work with the Traffic Operations and the Police Department for traffic management during the peak periods for the Sports Center events.

If you need additional information, please contact me at extension 5693 or you may email me at RLowman@vbgov.com.

RL/wej

cc: Phillip D. Pullen, P.E., City Engineer, Public Works/Engineering



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PUBLIC WORKS DIRECTORS OFFICE
(757)-385-8760
FAX (757) 385-8387

MUNICIPAL CENTER
BUILDING 2, ROOM 300
2405 COURTHOUSE DRIVE
VIRGINIA BEACH, VA 23456

INTER-OFFICE MEMORANDUM

DATE: August 28, 2018

TO: Thomas M. Leahy, Deputy City Manager
Ronald H. Williams, Jr., Deputy City Manager

FROM:  Mark A. Johnson, P.E., Director of Public Works

SUBJECT: Virginia Beach Sports Center Traffic Assessment

Attached is a memo, from Public Works/Traffic Engineering, which provides an assessment of the traffic impacts of the proposed Virginia Beach Sports Center that will be located in the Oceanfront area.

If you have any questions or need additional information, please contact me at extension 8740 or Ric Lowman, P.E., Acting City Traffic Engineer at extension 5693.

MAJ/RTL/wej

Attachment: Memo

cc: Phillip D. Pullen, P.E., City Engineer, Public Works/Engineering
Richard T. Lowman, P.E., Acting City Traffic Engineer – PW/Engineering