

University Environment Committee
Report 18.01
Concerning Pedestrian and Bicycle Access to
Stony Brook University from the East

March 21, 2018

Stony Brook University is crowded with vehicular traffic, and parking during the middle of the day is often hard to find. It is in the best interests of the University to discourage use of personal vehicles by making it safe and easy to travel to and from campus by other means, including the LIRR, busses, bicycles, and on foot. Here we address pedestrian and bicycle approaches to Stony Brook University (SBU) from the east.

1 The Pedestrian Approach from Nassakeague

The Brookhaven Town bike path from Rocky Point approaches SBU along Upper Sheep Pasture Rd. It enters the Nassakeague section of East Setauket along University Drive before turning right on Daniel Webster Drive, which is closed to vehicular traffic. Shortly after entering University property, the bike path terminates on Health Sciences Drive, near the northwest terminus of a 90 degree curve. A map of the area is provided in Figure 1.

The Simons Bike Path circles SBU, but it does not connect with the town bike path.

The approach to campus from Daniel Webster Drive is unsafe in either direction. Health Sciences Drive is a 4 lane road with minimal shoulders and a 30 mph speed limit (which is often not observed, especially by the downhill north/westbound traffic).

While we focus on westbound traffic, similar issues exist for eastbound traffic leaving campus.

1.1 Approach to the Main Entrance

There are no shoulders on Health Sciences Drive, and the only sidewalk is on the south side near Nicolls Rd. The sidewalk, which in poor repair, does not extend as far as Daniel Webster Drive. See Figure 2.

Pedestrians can walk on the grass weather-permitting, but when there is snow on the ground they must walk on the pavement, in the road.

Bicycles must ride on the road with traffic. There is no pedestrian crossing at Nicolls Rd. on the north side, so westbound bicyclists must either cross with vehicular traffic or cross to the south side of Health Sciences Drive, where they can activate the pedestrian crossing signal. The traffic lights at Nicolls Rd. are activated by in-ground sensors, but there is no bicycle trigger. Outside of rush hours, there can be times when the light does not permit crossing east to west on the north side of Health Sciences Drive.



Figure 1: A map of the area under discussion. North is up. Daniel Webster Drive is not marked, but runs west from University Drive to Health Sciences Drive. The narrow section is pedestrian-only.



Figure 2: The view west from the end of Daniel Webster Drive towards the main entrance to campus. Note the lack of any significant shoulders.

1.2 Approach Towards the Hospital

There are neither shoulders nor sidewalks on Health Sciences Drive heading south (uphill) towards the hospital (Figure 3). Pedestrians can walk in the wide grassy area to the east of Health Sciences Drive, but when this is covered with snow they must share the pavement with vehicular traffic.

Bicyclists wishing to cross the road and ride south must navigate a drainage culvert (see Figure 3), or ride against traffic past the end of the culvert (near the entrance to the LI Incubator) in order to avoid dismounting.

From here, a bicyclist can ride through the HSC surface lot and pick up the pedestrian path near the west side of the parking garage, or can ride through the hospital loading dock. Neither approach is marked as a bike lane, and both can have lots of vehicular traffic. The loading dock is particularly treacherous, with poorly-maintained pavement and truck traffic. After navigating either of these approaches, pedestrians and bicyclists can pick up the Simons Bike Path, which terminates at the Nicolls Rd. underpass.

Note that students living in the Chapin Apartments often walk through the loading dock on their way to/from west campus.



Figure 3: The view south from the end of Daniel Webster Drive along Health Sciences Drive towards the hospital. Note the lack of shoulders. The culvert is on the right, about 15 yards up the road. Traffic permitting, it is possible to ride through this without dismounting to reach the southbound lanes.

2 Campus Access from the Chapin Apartments

Access to west campus from the Chapin Apartments raises other potential safety issues. There are two walking/biking paths to/from west campus, both of which are problematic.

1. The safest path heads south on Health Sciences Drive, crosses Nicolls Rd at the South Entrance, and proceeds along South Drive to Marburger Drive. One can pick up the Simons Bike Path at South Drive.

2. The other paved access follows the roads into the Hospital grounds, either past the Main entrance or along Edmund D. Pellegrino Dr., and passing west of the HSC (construction-permitting) to the Nicolls Rd. underpass.

The distances along these routes to the Javits Lecture Center are 1.8 and 1.1 miles, respectively, while the direct route under the Hospital Loading dock (or through the hospital) is 0.7 miles. Naturally students tend to take the route through the loading dock, which raises safety concerns, or walk through the Hospital/HSC, which raises security concerns.

A survey was conducted in November/December 2017 of the Chapin Apartments Residence Association. Of the 78 respondents, 72% have felt unsafe walking or biking on the East Campus. Half (52%) of the respondents currently use a bicycle to get to campus, and an additional third (35%) responded that they would bicycle if safe options existed. Most (91%) of the respondents would use a path connected east and west campuses; while 73% would utilize a connection to the Brookhaven Town bike path at Daniel Webster Drive.

3 Proposed Solutions

3.1 Access from Brookhaven Town Bike Path

In both directions it would be advisable to widen the road, or narrow the lanes, to allow for bike paths, and to add sidewalks on at least one side of Health Sciences Drive. The length of the sidewalk will be about 280 yards. It would also be advisable to add signage alerting drivers to the presence of pedestrian and bicycle traffic.

A bicycle-triggered traffic light sensor on the north side of the Nicolls Rd. intersection is desirable.

Because both approaches towards the hospital involve risks for bicyclists, and for pedestrians under inclement conditions, we propose that a paved off-road bike path/pedestrian walkway be constructed to connect the Brookhaven Town bike path at Daniel Webster Drive with the Simons Bike Path at the Nicolls Rd. underpass. A possible route is shown in Figure 4. If the path were to follow the north/west sides of the parking lots, as shown in Figure 4, the length of the path would be about 685 yards (≈ 3000 cubic feet of asphalt for a 6 foot-wide paved path). At a median cost of \$261,000 per mile for a paved bike path (Bushell et al. 2013), the cost of this bike path would be about \$100,000. We note that the cost of paved bike paths varies significantly; costs could be reduced by running parts of the path through part of the already-paved parking lots. Costs then would be for barriers rather than for asphalt.

There will have to be a crosswalk and ample signage to permit safe crossing of Health Sciences Drive at the terminus of the town bike path.

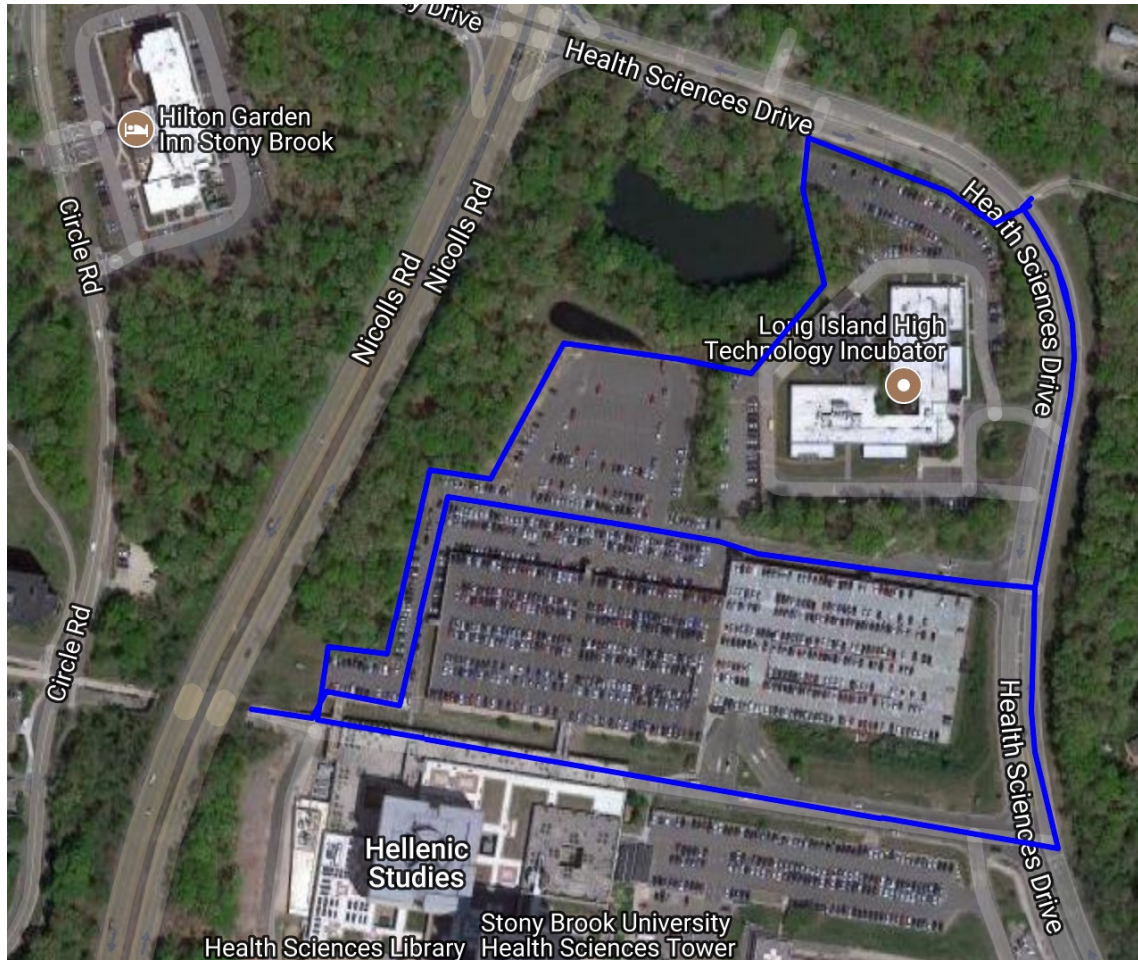


Figure 4: An image of the area under discussion. North is up. Three approaches from Daniel Webster Drive to the Nicolls Rd. underpass are indicated. The southernmost approach is through the hospital loading dock. The central approach is through the surface parking lot, connecting to the pedestrian path under the underpass. The north (uppermost) path outlines a possible location for a paved off-road bike path that connects the Brookhaven Town bikepath at Daniel Webster Drive to the Simons Bike Path. This proposed path follows the north and west sides of parking lots for the LI Incubator and the HSC, and passes a wetland area.

3.2 Access from Chapin Apartments

The simplest approach would be to complete a sidewalk on the north side of road leading into the loading dock. This could connect to the existing sidewalk to the west of the entrance to the parking garage, which leads to the Nicolls Rd. underpass. However, the parking garage entrance is multi-lane, and very busy at the times of shift changes at the hospital. A better solution would avoid the loading dock road all-together, because the entrance to the doctor's parking lot on the south side can also be very busy. A possible solution would route pedestrian traffic across the patio on the north side of the HSC on the way to the Nicolls Rd underpass. This does not solve the problem for bicyclists. For them a protected bike path leading up Pellegrino Drive and then north between Nicolls Rd. and the Children's Hospital towards the underpass may be a solution.

4 Acknowledgements

Figure 1 is from Google Maps. The image and routes in Figure 4 were generated with gmap-pedometer (www.gmap-pedometer.com). Sidewalk and bike path lengths were estimated using gmap-pedometer.

Sean Deery conducted the survey of bicycle usage by the Chapin Apartments Residence Association. The responses quoted here are a subset of a larger survey.

5 References

- Bushell, M.A., et al., 2013, "Costs for Pedestrian and Bicyclist Infrastructure Improvements", UNC Highway Safety Research Center, online at http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs_Report_Nov2013.pdf