

The New Gloucester Elementary School

East Gloucester and Veterans' Memorial School Building Project

**School Building Committee
Traffic Presentation**



@nitscheng

February 13, 2020

Building better communities with you

Veterans' Memorial Elementary School Site

Traffic Study for the Veterans' Memorial Elementary School Site

- Introduction: Locus, Traffic Data, Level of Service
- Proposed Conditions with the increased student population
- Recommendations
- Questions

New School Program

- Student Projections for New School
 - Existing Student Population : **233**
 - Design Enrollment: **440**
 - Staff (teachers, support, administration): **FTE=80**
- Existing Drop-off and Pick-up
 - Drop-off: **119**
 - Pick-up: **127**
- Projected Drop-off and Pick-up
 - Drop-off: **225**
 - Pick-up: **240**
 - Existing Number of Buses: **2 (+ 1 Minibus)**
 - Future Number of Buses: **4 (+ 1 Minibus)**

Parking

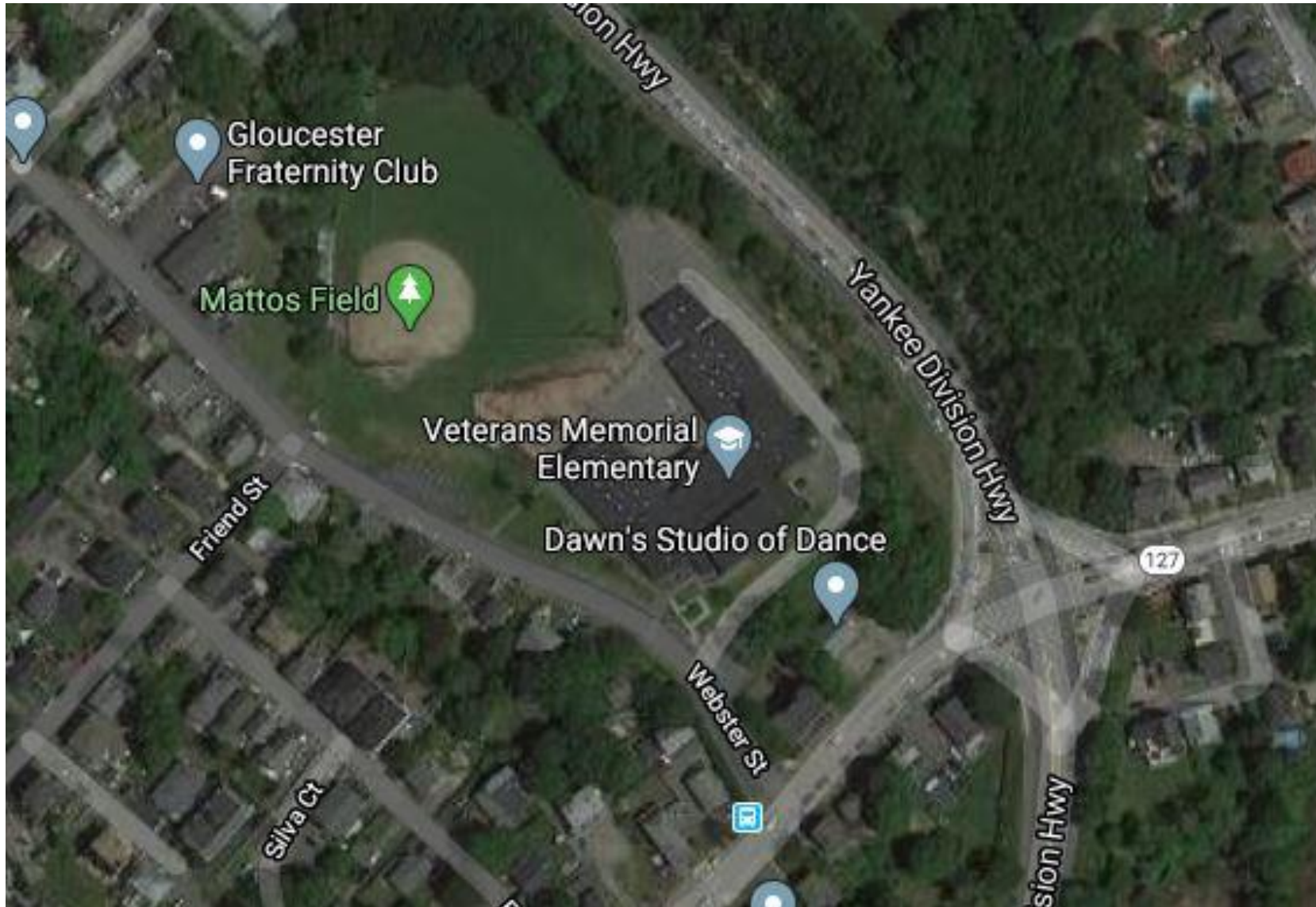
➤ Existing Parking:

- On Site: **36 Spaces (2HP)**
- Off Site: **10 Spaces, satellite lot on Webster Street (1 HP)**
- **Utilization: 87%**

➤ Future Parking:

- On Site: **110 (5 HP)**
- Off Site: **10 Spaces, satellite lot on Webster Street (1 HP)**

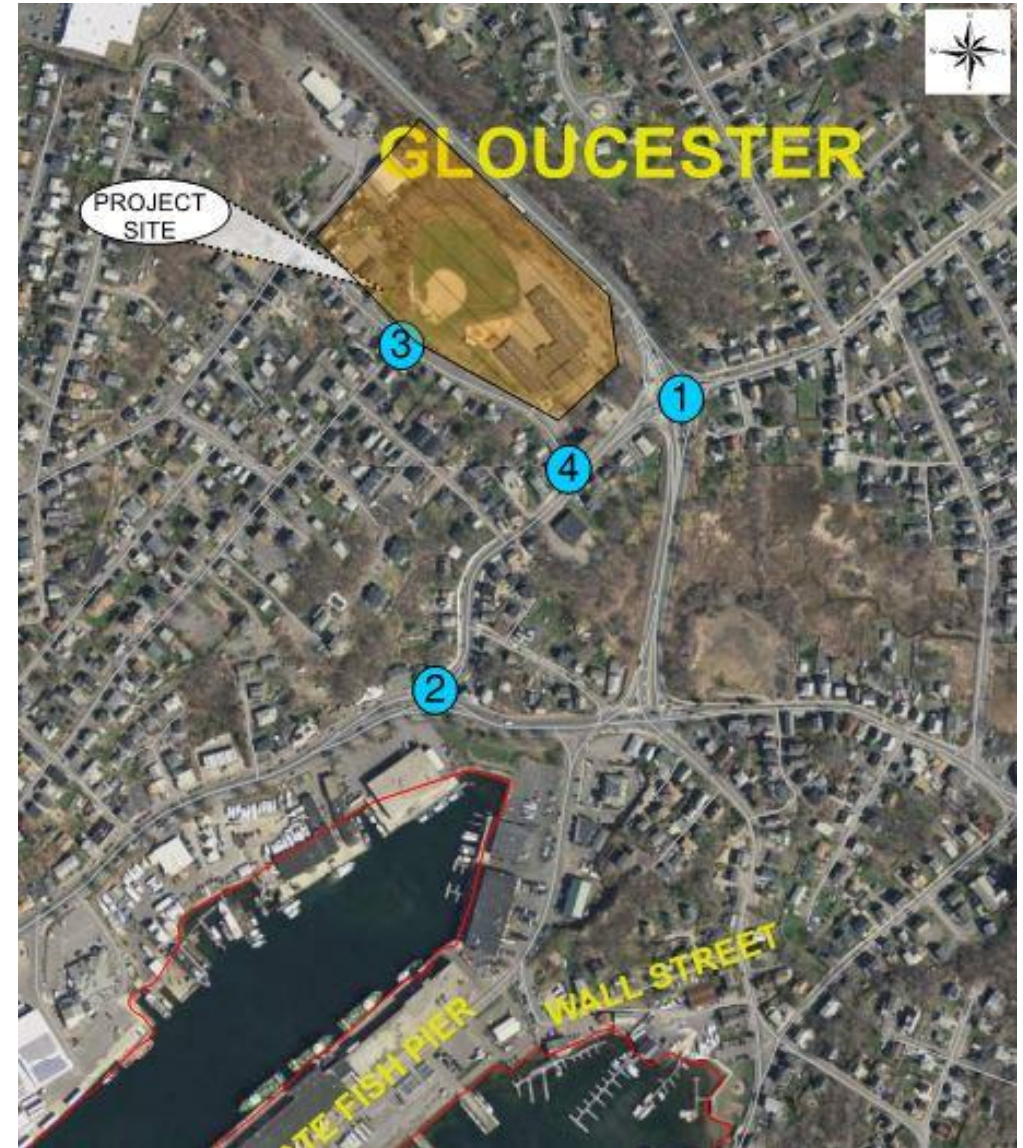
Existing Conditions



Traffic Data Collection Locations

Manual Turning Movements (MTM):

1. Yankee Division Highway (Route 128) at Eastern Avenue;
2. Eastern Avenue at East Main Street;
3. Webster Street at Friend Street; and
4. Webster Street at Eastern Avenue.



Traffic Level Of Service

LEVEL OF SERVICE (LOS)



LOS "A" Delay 0-10 Seconds



LOS "B" Delay 10-20 Seconds



LOS "C" Delay 20-35 Seconds



LOS "D" Delay 35-55 Seconds

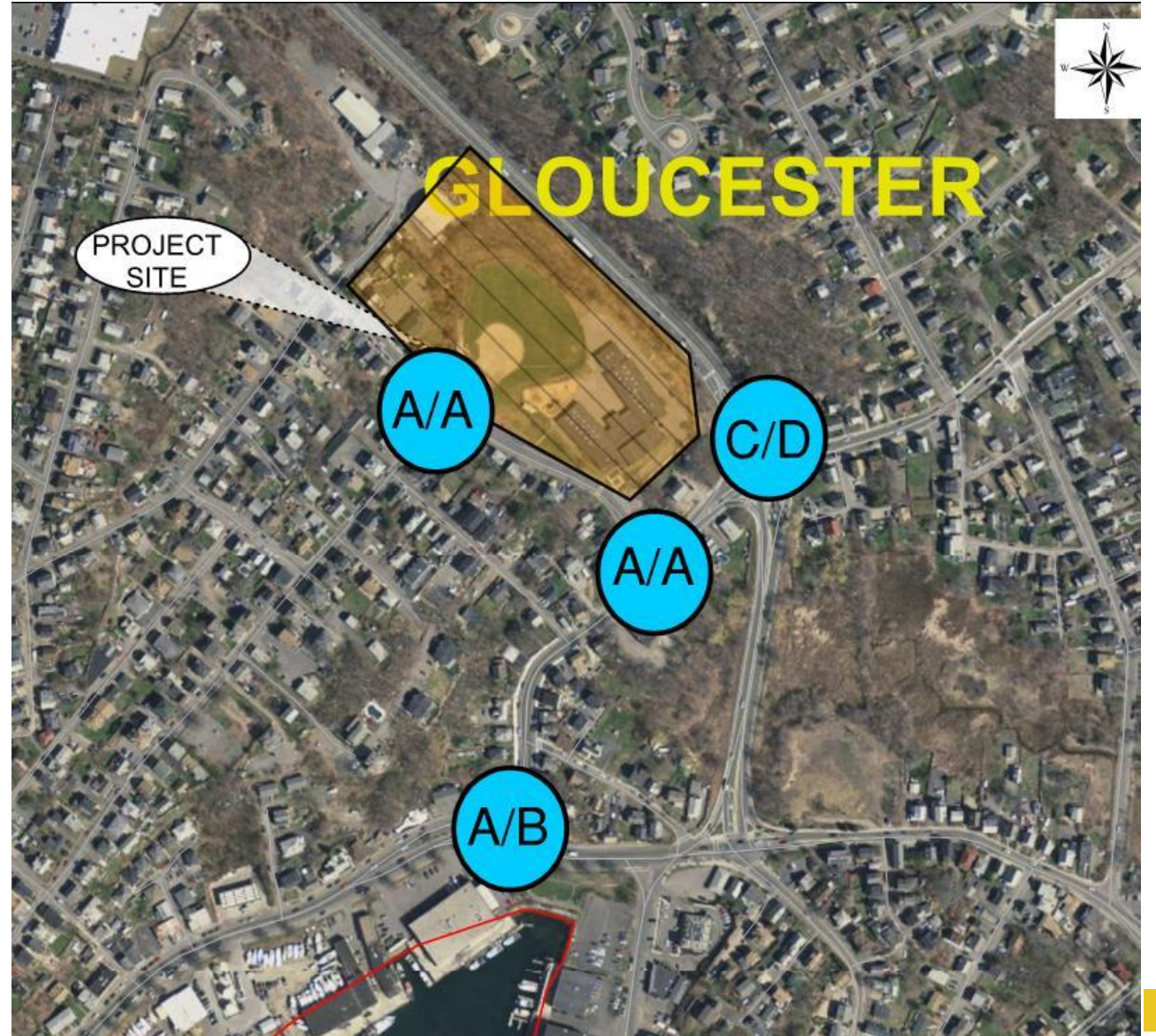
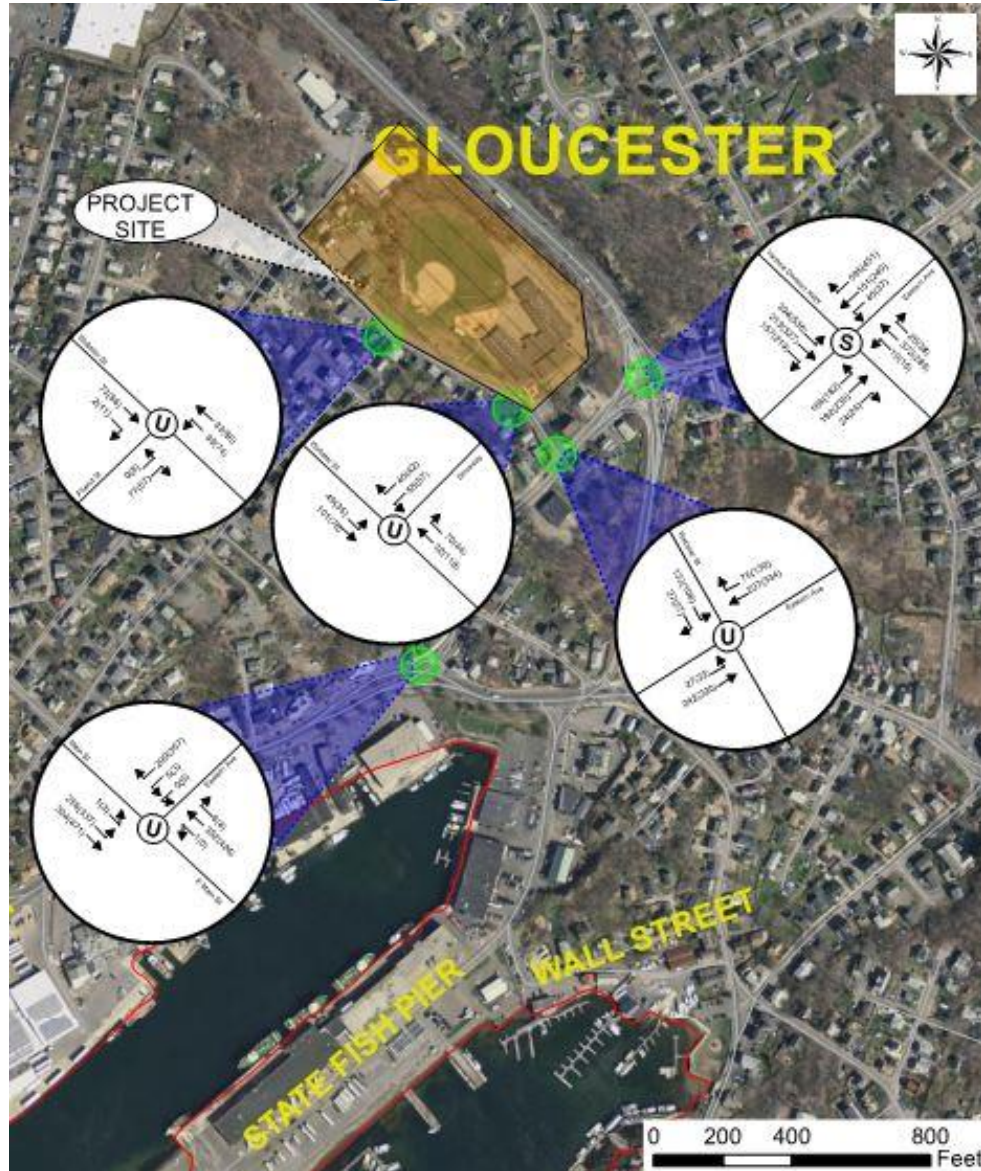


LOS "E" Delay 55-80 Seconds



LOS "F" Delay >80 Seconds

Existing Volumes & LOS



Background Growth Factor

MassDOT Count Station # 5091

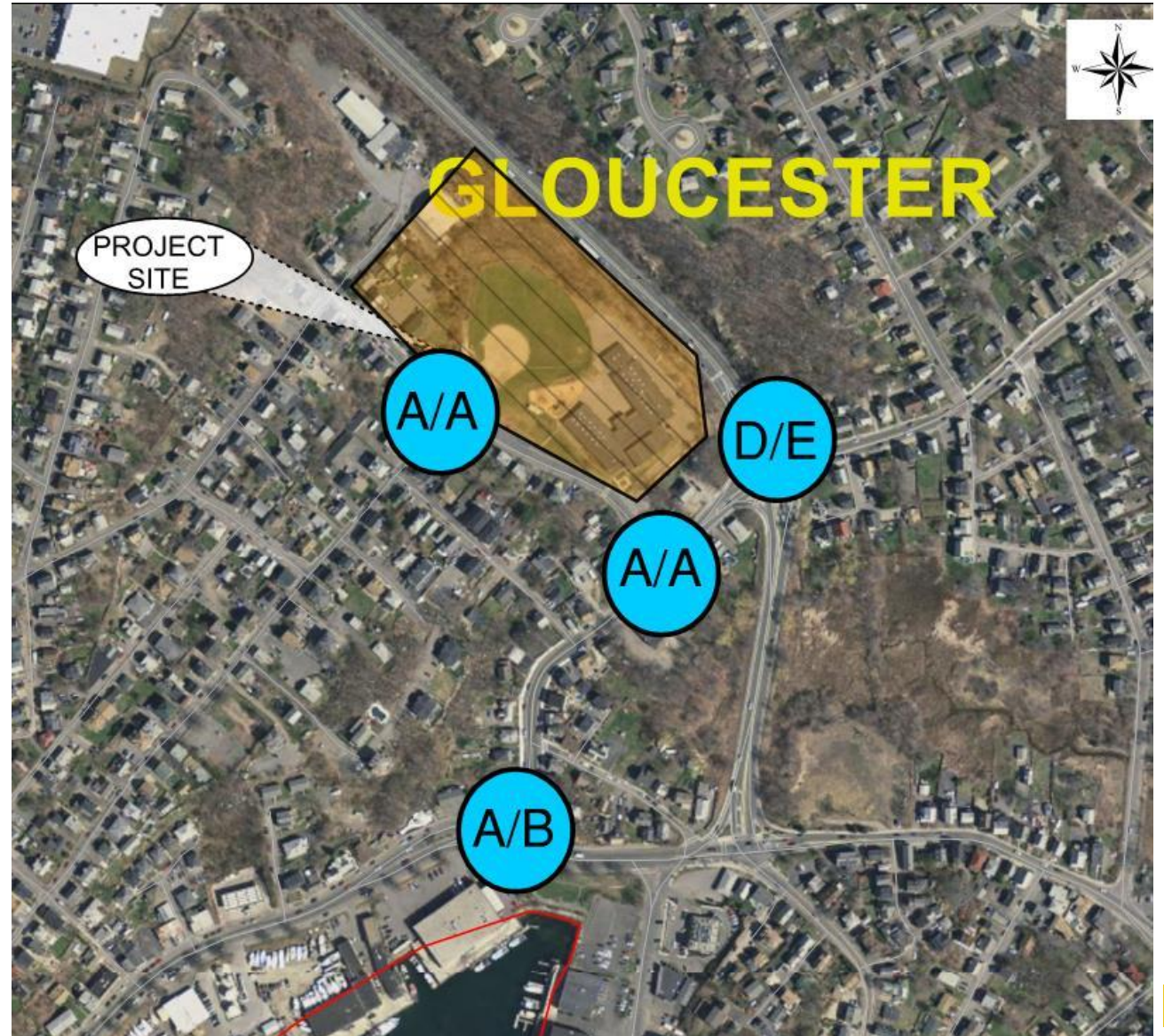
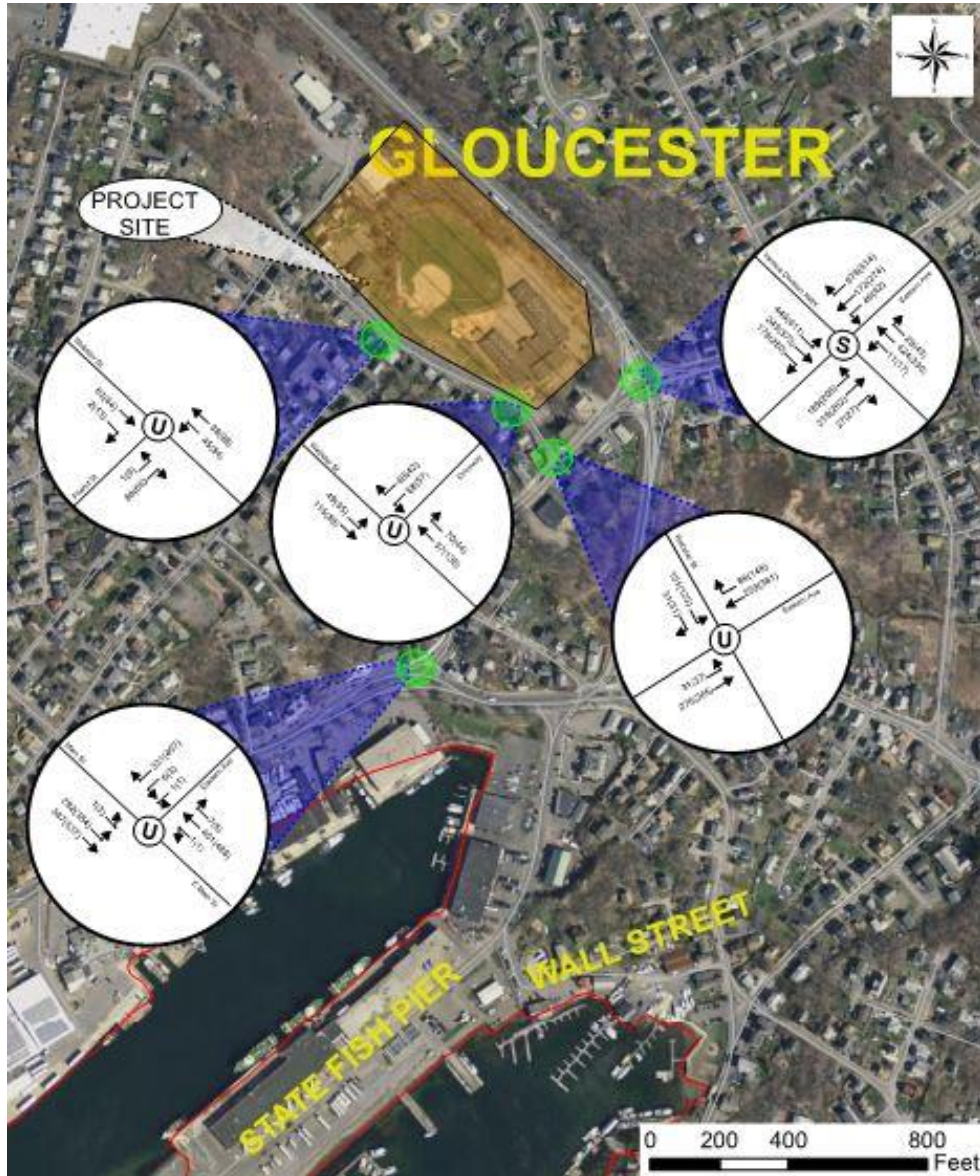
Yankee Division Highway East of Eastern
Avenue,
Gloucester, MA

Year	AADT	Annual Growth
2009	9,929	-
2010	9,966	0%
2011	10,935	10%
2012	10591	-3%
2013	10726	1%
2014	11,316	6%
2015	11,440	1%
2018	12,194	2%
TOTAL		17%

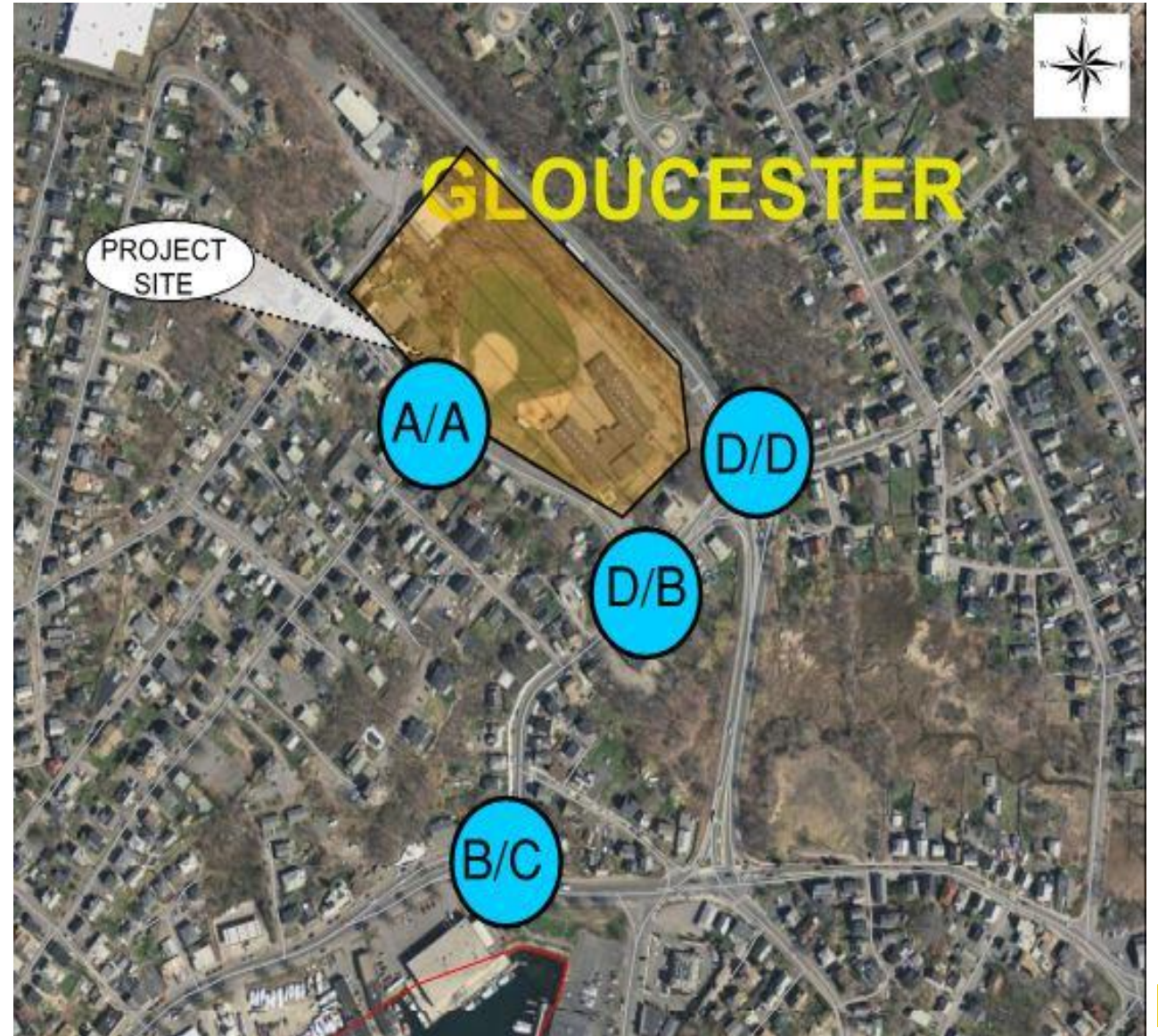
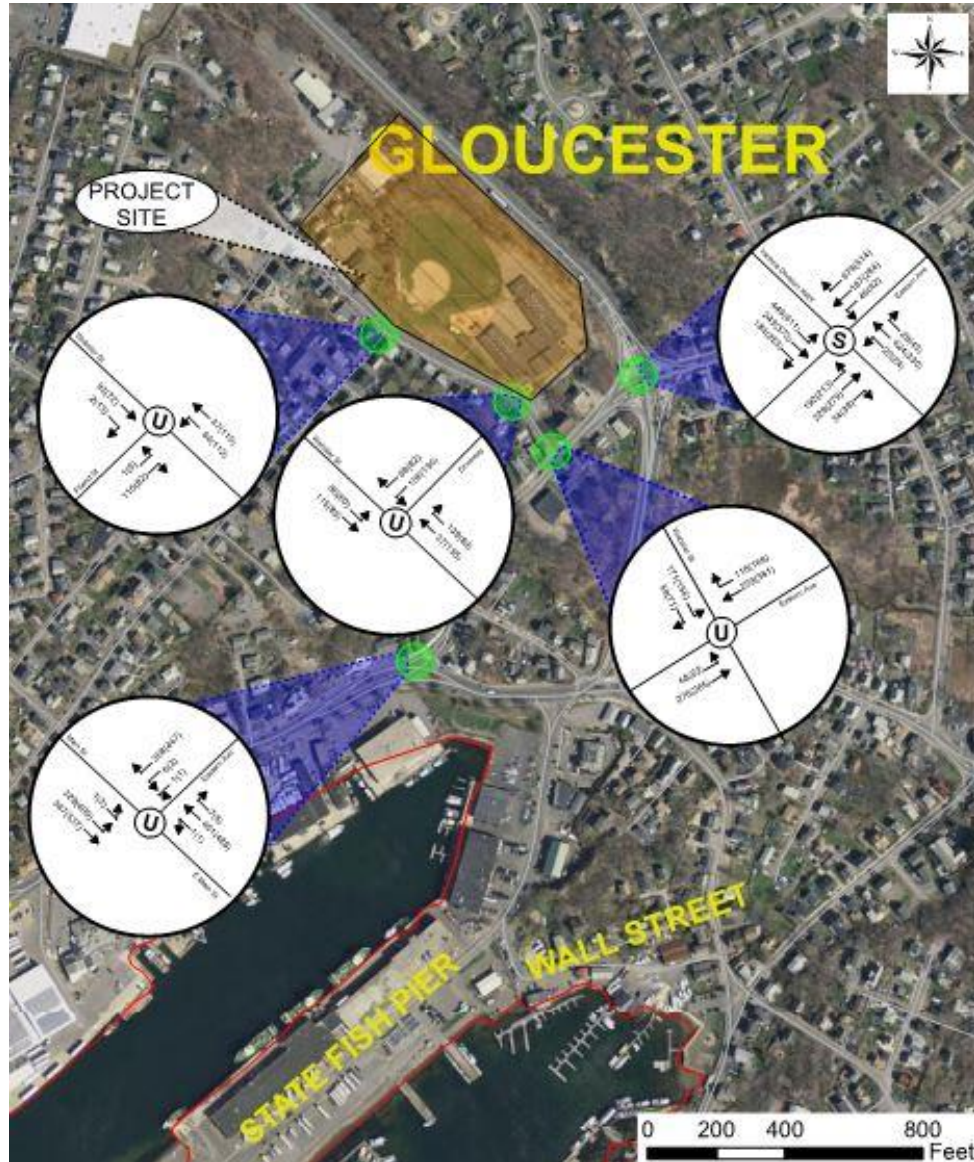
17% divided by 10 years= 1.7%

AADT = Annual Average Daily Traffic

Future No Build Volumes & LOS



Build Volumes & LOS



Morning Drop-Off



Afternoon Pick-Up



Recommended Mitigation

- Consider adding an exclusive left-turn lane on Webster Street southbound at the intersection of Webster Street at Eastern Avenue.
- Enhance pedestrian experience along Webster Street and Eastern Avenue by considering improvements to the sidewalks and accessible ramps where needed to accommodate children walking to school and Safe Route to School.
- Provide advanced warning along Webster Street to warn drivers of school-related entering and exiting traffic.
- Designate the area as a School Zone under State and Local Statute, and install the appropriate School Zone signs, which can also act as traffic calming devices.
- Reach out to parents via social media to increase safety awareness.