



TO: Zoning Board of Appeals

FROM: Todd M. Kirrane, Assistant Director

CC: Stephen S. Rolle, PE, Commissioner
Michelle M. Smith, Assistant Chief Development Officer

DATE: May 23, 2023

RE: 41 Whitmarsh Avenue

Following the May 22, 2023, email from DPRS outlining public comments at your recent meeting where neighbors voiced concerns about the safety of the intersection of Whitmarsh Ave and Leeds St, DTM staff conducted an internal safety review of the intersection and below are the results.

DTM understands the proposal to involve various changes in use, including establishment of a 24 bed temporary shelter and 1,250 SF of office space, but without any physical expansion of buildings or parking areas on site. As demonstrated on the parking schedule, the existing parking area provides compliant parking for all uses proposed on site. Traffic generated from the changes in use would be minimal given the limited size of office space proposed and nature and size of the temporary shelter. Traffic associated with the existing assembly hall and church structure would be of similar magnitude to that currently permitted, though the frequency of use proposed for those spaces is unknown. Public transportation is available on West Boylston Street (WRTA routes 30 and 31), with bus stops located less than ¼-mile from the subject site.

STREET NETWORK

Whitmarsh Avenue is classified by the Massachusetts Department of Transportation (MassDOT) as a Local Roadway under City Jurisdiction. The roadway is approximately 30 feet curb to curb, generally runs in a southeast-northwest direction in this segment and provides a neighborhood connection to West Boylston Street. The road includes two-way motor vehicle operations with 1 general purpose lane in each direction. On Street parking is permitted within the study area along both sides. There is a posted PASSENGER LOADING ZONE in front of 41 Whitmarsh Ave and a posted ONE HOUR PARKING 8AM TO 7PM to the west along the northern curblin. Parking along the southern curblin is unrestricted. The statutory (unposted) speed limit is 30 mph. Land use along this section is residential and institutional (church at 41 Whitmarsh Ave). There are continuous sidewalks along both sides of the street in this segment.

Leeds Street is classified by the Massachusetts Department of Transportation (MassDOT) as a Local Roadway under City Jurisdiction. The roadway is approximately 30 feet curb to curb, generally runs in a northeast-southwest direction in this segment and provides a residential connection to King Philip Road and Airlie Street. Leeds Street includes two-way motor vehicle operations with 1 general purpose travel lane in each direction. On street parking is permitted on both sides of the street within the study area. The statutory (unposted) speed limit is 30 mph. Land use along this section is residential. There are continuous sidewalks along both sides of the street in this segment.

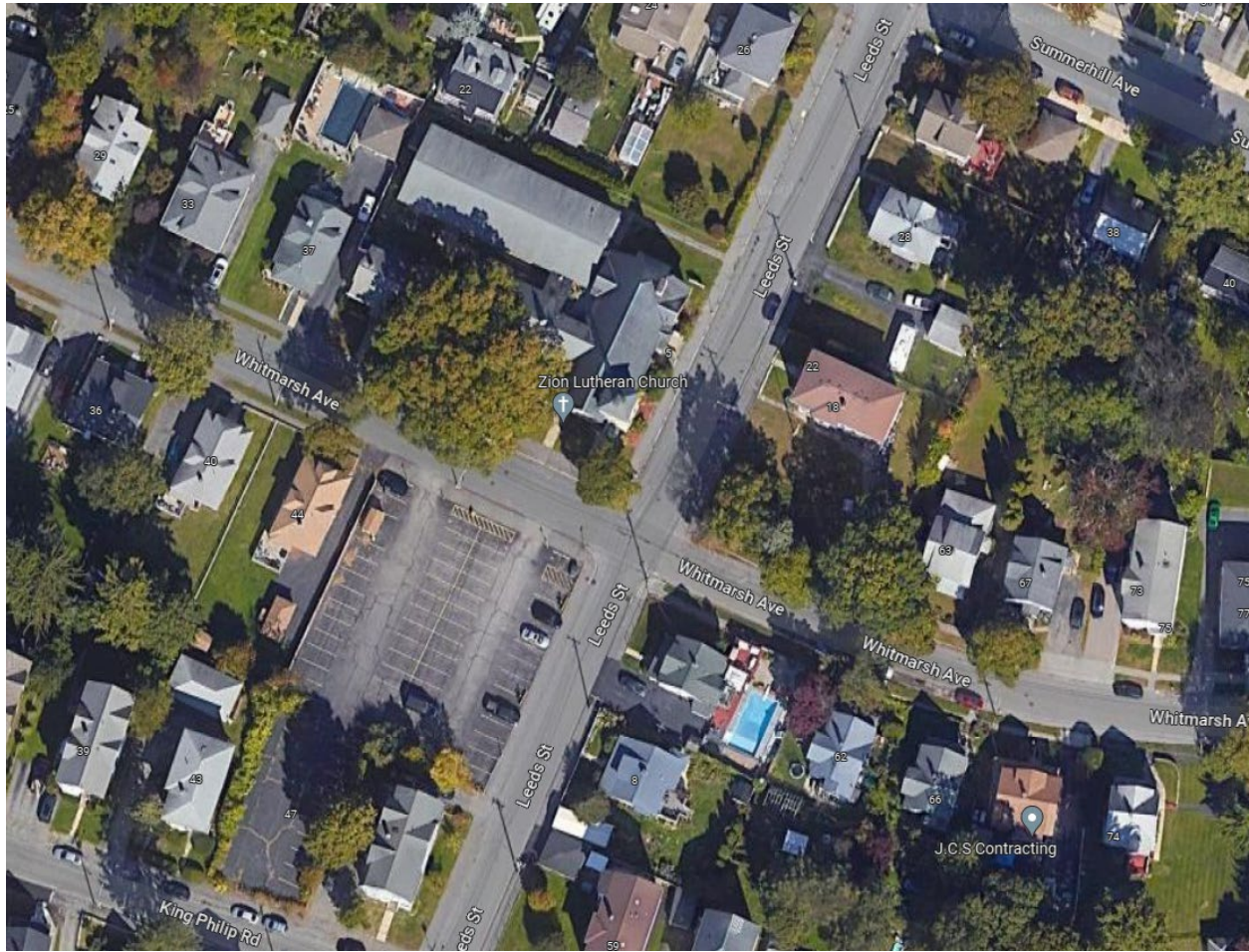


IMAGE 1: AERIAL VIEW OF LOCATION

Whitmarsh Avenue meets Leeds Street at a 90-degree angle to form a typical unsignalized four-way intersection. All approaches operate under STOP control. Only one approach, Whitmarsh Ave northwest, has the ALL WAY supplemental plaque. The intersection approaches all provide one general purpose travel lane in each direction. Land use at the intersection consists of residential and institutional. There are sidewalks and non-compliant curb ramps. Though historical records indicate the existence of crosswalks through at least 2014, they appear to not have been re-installed following roadway work in 2015-2016. A posted NO PARKING ANYTIME zone is present along the Whitmarsh northern curbline on both the approach and departure side. Otherwise, there was no posted NO PARKING ZONES, though the citywide ordinance prohibiting parking within 20 feet of a crosswalk, marked or unmarked, at an intersection is in effect (Chapter 13 Section 37(h)). There is a streetlight located on the southeast corner of the intersection.



IMAGE 2: WHITMARSH NW APPROACH



IMAGE 3: WHITMARSH SE APPROACH



IMAGE 4: LEEDS NORTH APPROACH



IMAGE 5: LEEDS SOUTH APPROACH

SPEED STUDY

Vehicle speeds were obtained on Whitmarsh Avenue and Leeds Street approaches using Streetlight Insight data.

The statutory (unposted) speed limit in the site vicinity is 30 miles per hour (mph). The average travel speed on Whitmarsh Avenue northwest approaching Leeds Street is 20 mph and the 85th percentile travel speed is 27 mph. The average travel speed on Whitmarsh Avenue southeast approaching Leeds Street is 17 mph and the 85th percentile travel speed is 26 mph. The average travel speed on Leeds Street north approaching Whitmarsh Avenue is 18 mph and the 85th percentile travel speed is 32 mph. The average travel speed on Leeds Street south approaching Whitmarsh Avenue is 14 mph and the 85th percentile travel speed is 23 mph.

TRAFFIC VOLUMES

Traffic volumes were obtained on Whitmarsh Avenue and Leeds Street approaches using Streetlight Insight data.

The average daily traffic volume on Whitmarsh Avenue northwest approaching Leeds Street is 418 vehicles per day. The average daily traffic volume on Whitmarsh Avenue southeast approaching Leeds Street is 629 vehicles per day. The average daily traffic volume on Leeds Street north approaching Whitmarsh Avenue is 135 vehicles per day. The average daily traffic volume on Leeds Street south approaching Whitmarsh Avenue is 157 vehicles per day.

CRASH ANALYSIS

To identify crash trends and safety characteristics for the study area crash reports were obtained from MassDOT Crash Database for a five-year period covering 2018 through May 2023. There was a total of 1 crash reported in the vicinity of the intersection on October 7, 2020. The angled crash was between two motor vehicles with no injury reported, property damage only. There are no records of crashes with pedestrians or cyclists.

STAFF OBSERVATION

DTM staff observed the intersection on May 23, 2023.

- The majority of vehicles approaching the intersection either came to a full stop or a rolling stop before proceeding through it. Three vehicles, including a smaller FedEx delivery truck, reduced speed but proceeded through the intersection without stopping. As demonstrated through Streetlight, most vehicles approached from Whitmarsh Avenue.
- Though curbside parking was minimal during the observation, the lack of a posted NO PARKING ANYTIME sign approaching each STOP sign could lead to deficient sightlines if parking becomes more heavily utilized.
- The lack of marked crosswalks and stop bar pavement markings, all existing pre-2016, when combined with the habit of vehicles coming to a rolling stop, presents a safety and access concern for pedestrians.
- The lack of ADA compliant ramps makes access for pedestrians, especially those with vision and mobility impairments difficult.
- The signage for the posted NO PARKING ANYTIME zone in front of 41 Whitmarsh Avenue is significantly deteriorated and needs to be replaced.

Recommendation: Based on the findings presented here within, DTM staff will coordinate with DPW&P to replace the faded sign, install the missing ALL WAY plaques, and coordinate the re-installation of the previous crosswalk and stop bar lane markings.

With respect to the lack of ADA-compliant wheelchair ramps, DTM is working with DPW&P to prioritize sidewalk and ADA ramp improvements, but a significant backlog exists and a timeframe for improvements at this location is unknown. If the Zoning Board of Appeals believes that improving accessible accommodations at the intersection is necessary for safety and access to this project, and should therefore not wait until programmed for replacement by the city at an unknown future time, the Board could consider placing a condition on the approval to construct or fund construction of concrete ADA compliant ramps on the Northwest and Southwest corners of the intersection to provide an accessible route between the parking lot and the building, subject to applicable permitting by the city.