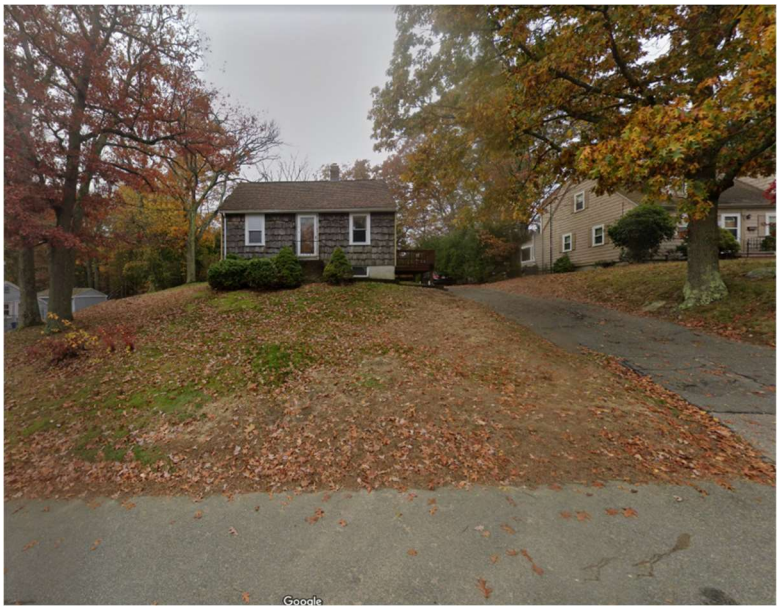

DeCelle-Burke-Sala & Associates, Inc.

PROJECT NARRATIVE

Proposed Preliminary Subdivision
217 Mill Street
Randolph, MA 02368

CLIENT:
217 Mill St, LLC
228 Park Avenue S, PMB35567
New York, NY 10003

PREPARED BY:
DeCelle-Burke-Sala & Associates, Inc.
1266 Furnace Brook Parkway, Suite 401
Quincy, MA 02169

OCTOBER 28, 2022

Section 1.0 Existing Conditions

1.1 Site Location

The subject property is located at 217 Mill Street in the Town of Randolph. The Town of Randolph Assessor's office currently identifies the as Assessors ID 51-H-8.01 with a total area of approximately 77,512± square feet (SF). The property is located within the Residential Single Family High Density (RSFHD) zoning district.

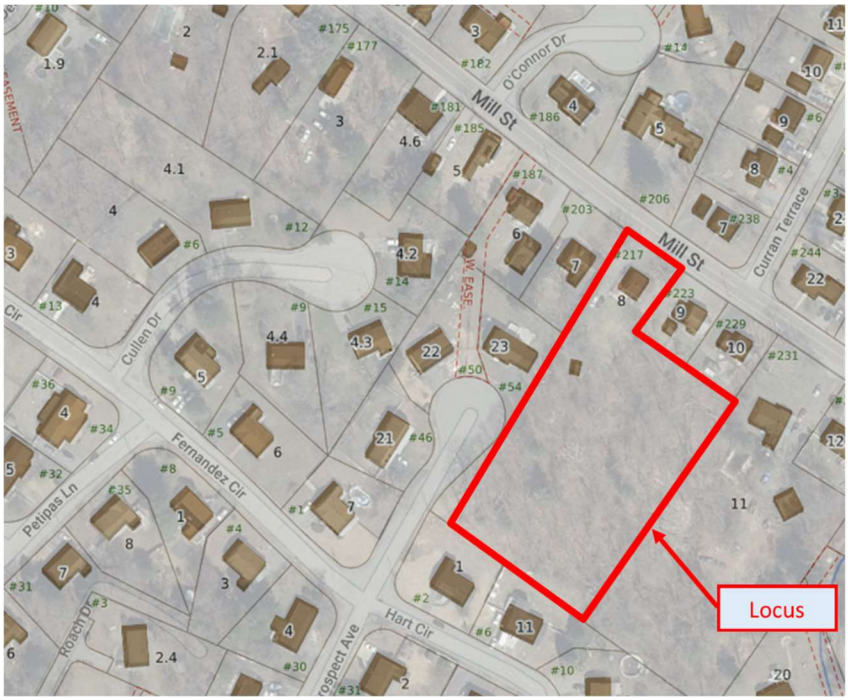

Figure 1 - Aerial Map (MassGIS)

1.2 Existing Site Conditions

The site is bounded by Mill Street to the northeast, and is abutted by single-family residential properties to the east, south, and west. The dead end of Prospect Avenue is close to the locus, however, the property does not have any frontage on Prospect Avenue. The lot contains a 675± S.F. residential single-family dwelling that was constructed around 1950 per the Town's online property record database. In addition to the dwelling, there are two sheds located on the property. Vehicular access to the site is provided off Mill Street by a single-lane asphalt driveway to the west of the dwelling. The dwelling improvements include a deck on the westerly side of the building adjacent to the driveway, a concrete patio in the backyard, and a concrete walkway along the front of the house. The vegetation in the northerly portion of the lot closest to Mill Street is predominately lawn, with several hedges, and trees. The majority of the lot is covered by trees and considered wooded. A vinyl and chain-link fence traverse the rear of the property near the abutters located on Hart Circle. Topography on the site varies throughout the property. Elevations along

the frontage of the property on Mill Street range from approximately elevation 126 in the northeasterly corner, to elevation 132 in the northerly corner. Topography slopes up roughly 27% from the northeasterly corner at elevation 126 up to the house at elevation 136. The driveway slopes approximately 13% up from Mill Street to the peak of the driveway. The high elevation on-site is located towards the center of the property within the woods. From the high point, the topography generally slopes down to the abutters to the east down to a low elevation of approximately 122. All elevations refer to the North American Vertical Datum of 1988 (NAVD 88).

The existing building is serviced by sewer, domestic water, and gas services that connect to the respective mains in Mill Street. Overhead wires connect from the dwelling to the existing overhead wires in Mill Street to provide power and communication services to the existing dwelling. A roof gutter system on the existing dwelling captures the majority of roof runoff and downspouts direct the water to flow overland. No other stormwater controls are located on-site, as flows from the asphalt driveway are not collected and runoff to Mill Street. The site is not located within a Special Flood Hazard Zone as delineated on FIRM 25021C0217E, effective 07/17/2012. There do not appear to be any jurisdictional wetlands within 100-feet of the project locus.

Section 2.0 Proposed Conditions

2.1 Proposed Site Conditions

The proposed project is a subdivision which will include the construction of four (4) new single-family houses and a proposed roadway. Access to the subdivision will be provided off Mill Street by a 40-ft. wide private way, which ends at a cul-de-sac with a 50-ft. radius. The proposed street layout will have 24-ft. of pavement with vertical granite curbing on both sides. Each proposed single-family house will be provided vehicular access to the proposed road by a curb cut and asphalt driveway.

The street will be graded to have a 2.9% grade for the first approximately 19-ft. before transition to a 100-ft. Type IV Sag Vertical Curve. The roadway will have a slope of approximately 7% for approximately 20-ft. before transitioning to a 150-ft. Type I Crest Vertical Curve. The highpoint of the roadway will be located towards the center of the cul-de-sac and will slope down toward the end of the road. A retaining wall is proposed along the easterly side of the roadway from approximately station 0+45 to approximately station 1+75. The retaining wall is approximately 9-ft. at its highest point. A smaller retaining wall is proposed along the westerly property line of the subdivision near Mill Street. This wall is approximately 2-ft. tall at its highest point.

The proposed subdivision will be improved by public utilities for the use of the four (4) proposed dwellings. A proposed 8-in. PVC sewer main is proposed be installed for the length of the roadway. The proposed sewer main will tie into the existing 8-in. PVC sewer main in Mill Street by constructing a doghouse manhole in Mill Street. A sewer manhole is proposed at the end of the proposed sewer main in the cul-de-sac of the proposed roadway. Each house will tie into the proposed sewer main by gravity with proposed 4-in. PVC sewer services. An 8-in. CLDI (cement-lined ductile iron) water main will be installed for the length of the roadway. The proposed water main will tie into the existing water main in Mill Street. Each house will be provided water service by a 1-in. “type K” copper pipe. A proposed gas main shall be installed by the local utility purveyors standards to provide gas service to each dwelling. Power and communication services will be provided by underground wires. A transformer will be installed within the subdivision.

2.2 Proposed Stormwater

Proposed stormwater controls shall comply with local, state and federal regulations. Stormwater generated by the proposed street will be collected, detained, and infiltrated to protect the down gradient abutting properties. The stormwater generated by the proposed street will be captured by a series of deep sump catch basins and detained and infiltrated using two underground infiltration structures. Two (2) catch basins are proposed near Mill Street to capture runoff flowing down the proposed road towards Mill Street. These captured flows will be directed to Underground Infiltration “System 1”. System 1 is an underground infiltration system consisting of (26) Shea

Concrete 4'x4'x4' concrete leaching structures. The concrete chambers will be surrounded by 12-in. of stone, and will have 24-in. of stone below to aid with infiltration. Outlet control for Underground Infiltration System 1 is provided by the catch basin during larger storms. Underground Infiltration System 1 is located on a proposed non-buildable lot that was created for the purpose of containing stormwater leaching structures capturing runoff from the proposed roadway. A series of three (3) catch basins adjacent to the cul-de-sac of the proposed road to capture runoff from the cul-de-sac and surrounding areas.. These captured flows will be directed to Underground Infiltration "System 2". System 2 is an underground infiltration system consisting of (54) Shea Concrete 4'x4'x4' concrete leaching structures. The concrete chambers will be surrounded by 24-in. of stone, and will have 24-in. of stone below to aid with infiltration. Outlet control for Underground Infiltration System 2 is provided by a 10-in. HDPE drain overflow during larger storm events. Runoff from portions of Lots 1,2,3, and 4 will flow overland and will be directed to one of two surface detention basins. Detention basin 1 is located partially on lots 2 and 3. Detention basin 1 will collect runoff from portions of lot 2,3, and 4. Outlet control for basin 1 is provided by a berm with an overflow elevation of 127.8 for larger storm events. This basin is proposed to collect stormwater runoff from roof, driveway, and lawns. Detention basin 1 will not be collecting any stormwater runoff from the proposed roadway. Detention basin 2 is located partially on lots 1 and 2. Detention basin 2 will collect runoff from portions of lot 1 and 2. Outlet control for basin 2 is provided by a berm with an overflow elevation of 123.8 for larger storm events. This basin is proposed to collect stormwater runoff from roof, driveway, and lawns. Detention basin 2 will not be collecting any stormwater runoff from the proposed roadway. It is DeCelle-Burke-Sala & Associates, inc. belief that the project complies with the Stormwater Management Standards. The project as proposed will protect the abutter in the short term through proper construction and erosion protection techniques. It will also protect the environment from long term impacts due to the improved stormwater controls.