



MEMORANDUM

TO: Aaron Henry, Senior Planner

FROM: Michael Sprague, Senior Civil Engineer

DATE: January 31, 2018

SUBJECT: 1106 Massachusetts Ave Definitive Special Permit Plan

CC: John Livsey, Town Engineer

The engineering division has reviewed the Definitive Special Permit Plans titled “1106 Massachusetts Avenue” dated December 12, 2017. We submit the following;

Comment to Planning:

Please be aware that the Massachusetts Department of Transportation will be resurfacing Massachusetts Avenue, including the sidewalks this construction season. Once complete the roadway will be under moratorium and any cuts will compromise the newly resurfaced roadway. It is necessary that the utility cuts be performed on Massachusetts Ave in advance of this work and Controlled density fill be used as backfill underneath the roadway base. Utility cuts should be done in the first few weeks after the winter moratorium ends on April 17th.

Utilities:

- It is recommended that the 1” copper water services for the two new houses be brought out to water main on Massachusetts Ave. This would be preferred over extension of water main with a hydrant on a dead end.
- The water main on Massachusetts Ave is not 6 inch diameter. We have an 8 inch and a 12 inch main. The 6 inch main was abandoned in 2016. Please make this change on the plans.
- If the water main extension goes to construction then the triple gate configuration should be adjusted so that all three gates are on Massachusetts Ave.
- Hydrants shall be American-Darling 5 ¼ inch B-84-B-5. Hydrant color; should conform to Lexington Fire Dept rules. We require this information be clearly noted on the plans.
- All hydrants, valves and valve boxes shall be American made only. Valves shall open **right (clockwise), hydrants shall open right (clockwise)**. We require this information be clearly noted on the plans.

- All proposed vertical and horizontal bends for the proposed water main shall be on plans with adequate restraining glands, rods and thrust restraints.
- Please identify locations of any bends in the water main, bends will require restraints in accordance with town standards.
- Maintain separation of utilities in particular the drain and sewer mains.
- A minimum two course brick detail shall be shown on all sewer and drain manhole details.
- All manhole frame and covers should be consistent with Town of Lexington Standards.
- All sewer and drain pipes should conform to Town of Lexington Standards, including SDR 35 sewer pipe. Sewer Trench detail calls out schedule 40, which is not consistent with plans.

Drainage for roadway, sidewalk, driveway aprons, and site grading:

- No drainage analysis report was submitted. It will be reviewed when submitted and additional comments will be provided.
- Any trees that may be cut should be reviewed with the Tree Warden, Chris Filadoro at the DPW.
- Stormwater management report and Operation and Maintenance report is acceptable.
- A structural design analysis will be required, by the Building Dept., for the proposed retaining walls greater than 4 feet..
- If the property is in a FEMA floodzone then the datum used should be stated. The “Lexington Sewer Datum” is not an acceptable datum for elevations.
- It is unclear as to the meaning of “unofficial soils information” on the plan set. Please provide explanation.
- Please provide calculation for disturbed area for the entire site. Any areas that will have earth disturbance should be included in the calculation.