-City of Newton

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
OFFICE OF THE CITY ENGINEER
1000 Commonwealth Avenue
Newton Centre, MA 02459-1449

Marc Laredo
Mayor

Date: July 7, 2026

To: Kevin McCormick, Chair, Chair, Planning Board acting as a Board of Survey, and Board of Survey Members

From: Alfredo Vargas, P.E. City Engineer & John Daghlian, Associate City Engineer

Subject: Definitive Subdivision Review: Chapin Road Extension

CC: Katie Wewell, Acting Director of Planning
Andrew Lee, Law Department
Shin-Yi Lao, Commissioner Health and Human Services

In reference to the above-proposed amendment to Definitive Subdivision, I have the following comments, for a plan entitled:

Chapin Road Extension
Definitive Subdivision Plan
Newton, MA
Owner/Applicant: Chapin Road Extension, LLC
Newton, MA
Last revised: June 25,2026

Executive Summary:

The applicant wishes to amend the approved three lot subdivision by combining two of the lots into a one single-family dwelling lot.

The updated & submitted plans, drainage report, Operations & Maintenance Plan & pump calculations have been reviewed and conforms to the Rules & Regulations of the Planning Board Acting as a Board of Survey dated 1977, with a few waivers being requested, and the City's Stormwater Management & Erosion Control Rules & Regulations. This memo also notes a few items that need correction.

For example, the drainage report needs pre/post watershed maps, the original subdivision provided one.

The following items need to be corrected before the plans are endorsed:

Sheet 2:

- The site plan shows a *"Proposed City of Newton Utility Easement (Entire Right of Way)."*
  There is no need for any City Easements, all stormwater systems, water & sewer services curbing, and pavement are to be privately owned and maintained.

Sheet 3:

- The plan shows a "*Proposed Snow Storage Area*". To be clear, snow removal on this proposed "roadway/driveway" will be the sole responsibility of the property owner, not the DPW.

- The plan shows some proposed arborvitae landscape strip, some of which extends over the proposed utility connections which DPW does not recommend.

- The discharge pressure pipe should be straightened out to avoid a bend in the alignment.

Sheet 4:

- The forced drainpipe & pump calculations indicate 3" PVC pipe, the PVC pipe is not rated for pressure, the pipe shall conform to ASTM D-2241 specifications and be SDR-21 rated for pressure pipe.

- The typical Cross-Section of Streets shown does not match the requested waivers, see below requested waivers, the cross section shall be updated to reflect the requested waivers.

Waivers Requested:

A vote is needed on each of the requested waivers, once they are approved, the approved waivers need to be listed on the cover sheet of the Final Definitive Subdivision plans that will be endorsed if the subdivision is approved.

1. Section V.B.3.a. Width:

   Requirement:3.a. The minimum width of street rights-of-way shall be forty-five (45) feet. Greater width shall be required by the Planning Board when deemed necessary for present and future vehicular traffic.

   Requesting: Chapin Road is an existing forty (40) foot wide Public Right-of-Way, and it is proposed to extend Chapin Road as a thirty (30) foot PRIVATE Right-of-Way to provide access to one lot.

   Recommendation: This is reasonable and has been granted in past subdivisions of recent filings. The original Chapin Road three lot subdivision was approved with a 30' wide right-of-way. The proposed right-of-way is a private road.

2. Section V.B.5.d (Dead End Street)

   Requirement 5.d. If the Planning Board allows a dead-end street, the dead-end street shall provide at the closed end with a turnaround (cul-de-sac) having a minim property line diameter of ninety-five (95) feet. The Planning Board may increase the diameter of said turnaround in specific cases if the public interest so requires.

   Requesting: Waive the requirement that dead end streets have a cul-de-sac with a property line diameter of ninety-five (95) feet.

   Recommendation: This is reasonable, as less impervious surfaces is desirable and has been granted in recent subdivision filings. The original Chapin Road three lot subdivision was approved without a cul-de-sac nor turnaround area.

3. Section VI.A.1. (Street & Roadway)

   Requirement: A.1. All construction for new streets shall be in accordance with the following: Revised Ordinances (1973) of the City of Newton Section 19-73, subsection (h); Specifications and General Construction Details established by the City Engineer; and Standard Specifications of the City of Newton (*see detail on page 3*).

   Requesting: Waive the minimum pavement width requirement from twenty-nine (29) to twelve (12) feet. A pavement width of 12 feet will provide adequate access for the one single-family dwelling whose driveway will be approximately 11+/- feet from the end of

the existing Chapin Road. This will reduce impervious area and site runoff. It is also proposed to provide the dwelling with a residential sprinkler system.

Recommendation: This is reasonable, as less impervious surfaces is desirable. The applicant has received approval from Newton Fire Prevention on the reduction from 18-ft to 12ft.

4. Section VI.C (Sidewalks)

Requirement: Sidewalks as shown in Specifications and General Construction Details, Typical Cross-Sections of Streets shall be constructed on both sides of each roadway on all streets shown on the Definitive Plan.

Requesting: Waive the requirement for full sidewalk construction to reduce impervious area and site runoff.

Recommendation: The design is essentially a driveway with no path of travel adding sidewalks does not make sense.

Guarantee:

As required by Section IV B.5., before endorsement of its approval of a plan, the Planning Board will require that the construction of ways and installations of municipal services and other utilities be secured by a Performance Guarantee, the Engineering Division recommends that the form of the guarantee be either a Performance Bond with the City of Newton as the Certificate holder, or a deposit of funds to the City. The value of the bond or the amount of the deposit will be determined by the City Engineer and shall be posted or deposited prior to the commencement of the road construction. The value of the Performance bond or the amount of the deposit will be calculated once all the waivers have been approved to reflect a final design.

Final approval, if granted, shall be endorsed on original drawings of the Definitive Plan by the signatures of the majority of the Planning Board, but not until the statutory twenty (20) days appeal period has elapsed following the filing of the Certificate of Action of the Planning Board that no appeal has been filed.

After the Plans have been approved & endorsed, the applicant will have to apply for a Site Plan, Building Permit and Stormwater permit.

General Comments:

1. Based upon a site visit, some trees will need to be cut down for this development. The applicant will have to address any tree cutting in accordance with the City Tree Ordinance.

2. If the subdivision is approved, the applicant will have to apply for a Utilities Connection, Street Opening, Trench Permits with the City DPW.

3. All trench excavation contractors shall comply with Massachusetts General Laws Chapter 82A, Trench Excavation Safety Requirements, to protect the general public from unauthorized access to unattended trenches. Trench Excavation Permit required. This applies to all trenches on public and private property.

4. The contractor is responsible for contacting the Engineering Division and scheduling an appointment 48 hours prior to the date when the utilities will be made available for an inspection of water services, sewer service, and drainage system installation. The utility in question shall be fully exposed for the inspector to view; backfilling shall only take place when the City's Inspector has given their approval.

5. The applicant will have to apply for a Building Permits with the Department of Inspectional Service prior to any construction.

6. Prior to a Certificate of Occupancy permit being issued, an As-Built Plan shall be submitted to the Engineering Division & Inspectional Services in both digital format and in hard copy. The plan should show all the two proposed dwellings, utilities and final grades, any easements, final grading, and swing ties for all underground utilities from building corners.

7. All site-work shall be completed before a Certificate of Occupancy is issued for the first building structure.

8. No Building permit shall be issued until the road is paved to the binder course (i.e., first layer of asphalt paving) and all utilities are installed per City requirements, tested, witnessed, and approved by the City Engineer.

9. A Certificate of Action will have to be drafted once the Board votes on the proposed subdivision.

   As noted by the Engineering Division, any development and construction on the lot must fully comply with the City's Stormwater Management and Erosion Control ordinance and Rules and Regulations. Under the Rules and Regulations, the City Engineer may waive strict compliance with the Rules & Regulations. Although the applicant has not indicated any such waiver will be requested and the City Engineer is currently unaware if any circumstance that would all the site to qualify for a waiver, should the Board of Survey approve the subdivision, the Engineering Division recommends that a condition be

included in the Certificate of Action that: "*No waiver from the Stormwater Ordinance nor the Stormwater Management & Erosion Control Rules & Regulation be permitted."*

10. The value of the Performance Bond or the amount of the deposit will be generated for the proposed subdivision once approved and plans updated.

The Engineering Division also had Frank Nichols, PE Senior Environmental Engineer, to review the updated plans and all submissions from Everett M. Brooks and memos from Chessia Consulting Services LLC dated May 29, 22026,as well as from Merrill Engineers & Surveyors dated May 26, 2026. Please see attached memo dated July 7, 2026.

This concludes my review, if you have any questions, please feel to contact me @ 617-796-1023.

-City of Newton

DEPARTMENT OF PUBLIC WORKS
STORMWATER DIVISION

Marc Laredo
Mayor

Date: July 7, 2026

To: Alfredo Vargas, P.E., City Engineer
John Daghlian, Associate City Engineer
Shawna Sullivan, DPW Commissioner
Andrew Lee, City Law Department

From: Frank Nichols, P.E.

Subject: Definitive Subdivision Review: Chapin Road Extension

As requested, I have reviewed the documents provided including the latest plans and stormwater report provided by Everett M. Brooks Company. I also reviewed the memo from Chessia Consulting Services LLC dated May 29, 2026, as well as the memo from Merrill Engineers and Land Surveyors dated May 26, 2026

Chessia Consulting Services. LLC

1. Items 3, 4 & 5 (Pg's 4 & 5) - Concerns were raised about the general concept of pumping stormwater to a recharge system on private property. There were other specific concerns regarding capacity, pump curves, maintenance etc., all of which were responded to by Everett M. Brooks Company.

2. Item 6 (Pg 5) – The constructability of the water (2), sewer services as well as the proposed electric and CTV without impacting the abutting property at 56 Chapin Road. This is a valid concern, and some modifications should be made.

3. Item 8 (Pg 5) – groundwater mounding analysis. Single family homes are exempt from the State Stormwater Regulations. The City of Newton to my knowledge has never required a mounding analysis for a single-family home.

4. Item 11 (Pg 6) – concerns about the exfiltration rate (Rawls number) used in design of the recharge systems. Everett Brooks memo dated June 26, 2026, addresses this concern.

Merrill Engineers and Land Surveyors
The majority of concerns have been addressed by Everett M. Brooks Company with the exception of the Impervious Membrane around each of the 3 recharge systems.

I agree with the concern that the elevations of the impervious membrane(s) must be included as side-slope breakout is a concern based on system(s) elevations

Summary:

1. In general, the plans meet the city requirements and comply with the city's Stormwater Rules and Regulations. The Hydrocad drainage analysis is correct for all 3 recharge systems clearly showing that each system can contain up to and including the 100-year storm event of 8.78 inches. Specifically, the 3 recharge systems are oversized based on the Hydrocad analysis for the 100-year event:

System No, 1 – Top of Galleys elevation 137.30 (100-year peak elevation 136.07)

System No. 2 – Top of Galleys elevation 134.50 (100-year peak elevation 133.27)

System No. 3 – Top of Galleys elevation 134.50 (100-year peak elevation = 133.39)

I do have some concerns regarding the impervious membrane as was as the constructability of the home utilities. These 2 items will be noted during the site plan review process.

Sincerely,

Frank Nichols, P.E.
City of Newton