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January 3, 2022

Mr. Robert Rosa  
Rockland Zoning Board of Appeals  
242 Union Street  
Rockland, MA 02370

**Re: "Site Development Plans, (Assessor's Map 57, Parcel 70), 320 Concord Street, Rockland, Massachusetts"**

Dear Mr. Rosa and members of the Rockland Zoning Board of Appeals,

This letter is in response to an Engineering Peer Review Letter dated December 9, 2021 from Patrick G. Brennan, P.E. of Amory Engineers, P.C.

Enclosed herewith are the following:

- Plans entitled "Site Development Plans, (Assessor's Map 57, Parcel 70), 320 Concord Street, Rockland, Massachusetts" prepared by McKenzie Engineering Group, Inc. (MEG) dated November 30, 2021 with a latest revision date of January 3, 2022.
- Drainage Calculations and Stormwater Management Plan prepared by MEG dated November 30, 2021 with a latest revision date of January 3, 2022.
- Proposed Water Demand Spreadsheet prepared by MEG dated December 29, 2021.

The following are responses to the comments that were highlighted in the Engineering Peer Review Letter that warrant further clarification (MEG responses are shown in *blue italics*).

Requested Exceptions and Waivers Comments:

1. The proposed development would require Site Plan Review if not applied for under Chapter 40B. The list of waivers should identify waivers requested from the Rules and Regulations of the Planning Board (R&R) as they relate to Site Plan Review, Design Standards and Construction Specifications.  
*A revised List of Waivers and Exceptions will be submitted by the Applicant.*
2. The Applicant is seeking relief from fees associated with the Abington-Rockland Joint Water Works (ARJWW). The Zoning Board of Appeals does not have the authority to waive the requirements of Abington/Rockland Joint Water Works.  
*The Applicant will discuss the requested relief from fees with the Abington Rockland Joint Water Works.*

3. The Applicant is seeking relief from all requirements associated with infiltration and inflow (I&I) mitigation requirements of the Rockland Sewer Commission. The Board should consult with the Sewer Commission prior to granting any relief from its requirements.

*The Applicant will discuss the requested relief from infiltration and inflow mitigation requirements with the Rockland Sewer Commission.*

General and Roadway Comments:

1. The proposed layout does not allow for large vehicles to turn around on site, especially if there are vehicles parked in the individual driveways at the units. The Fire Truck Turning Plan shows that the Rockland aerial truck will need to back out onto Concord Street. This should be discussed with the Fire Department.

*A proposed 22 ft. wide emergency vehicle turnaround area has been added to the Site Plans between Buildings #3 & #4. The Fire Truck Turning Plan, Sheet T-1 has been revised to show the Rockland Aerial Fire Truck backing into the emergency vehicle turnaround area and exiting the site. The Rockland Fire Dept. has been contacted regarding the proposed emergency turnaround area.*

2. With the width of the main driveway at twenty feet, parking should be prohibited along the sides of the driveway.

*'No Parking Any Time' (MUTCD R7-1D) signs have been added to both sides of the proposed access driveway, and adjacent to the emergency vehicle turnaround area.*

3. We recommend a guardrail along the end of the main driveway to prevent vehicles from driving off the end and either off the proposed retaining wall or onto the golf course.

*A proposed wooden guardrail has been added to the Site Layout Plan, Sheet C-1.*

4. The Monolithic Bituminous Concrete Berm (Cape Cod Berm) Detail on Sheet D-1 appears to show the berm to only be installed with the top course of pavement. The berm should be installed with both the binder and top courses of pavement so that the stormwater system will be operational when the binder course is placed.

*The Cape Cod Berm construction detail on Sheet D-1 has been revised to show the berm installed when the binder course is placed.*

5. A landscaping plan should be submitted to the Board for review. Abutter screening should be incorporated into the plan.

*A Landscaping Plan prepared by a Registered Landscape Architect is forthcoming and will be submitted to the Rockland Zoning Board for review.*

6. We assume that snow storage would be along the edges of the site driveways. However, without a landscape plan we cannot determine if there will be adequate room for the snow (or if trees and/or shrubs, etc. would be in the way). We also note that snow storage along the south side of the main driveway will increase runoff onto the Wong property as the snow melts since the grade drops from the edge of roadway about two to three feet to the property line.

*Snow storage areas will be located in landscaped areas adjacent to driveways as shown on the Site Layout Plan, Sheet C-1. Snow storage that cannot be accommodated on-site shall be hauled off-site, snow collection and transfer off-site shall be paid for by the Homeowner's Association. Snow storage from the proposed roadway will not be stored along the south side of the roadway to prevent runoff as noted.*

7. The Report on Existing Municipal Facilities and Services/Impacts indicates that the “access drive, once constructed, will have traditional low-impact street lighting.” Specifications on fixtures, height, etc. should be provided.  
*A Lighting Plan prepared by others is forthcoming and will be submitted to the Rockland Zoning Board for review.*
8. The Construction Sequence listed on Sheet ESC-1 and included in the Construction Phase Pollution Prevention and Erosion and Sedimentation Control Plan (CPPP) should include when building construction would take place.  
*The Construction Sequence on the Sheet ESC-1 has been revised to include when the foundations and building structures will be constructed.*
9. The Applicant should explain how trash service will be provided.  
*Subject to discussion with the Town of Rockland’s Trash Collector, the development will utilize private trash collection which shall be paid for by the Homeowner’s Association.*
10. With the high water table, basements could be problematic. The Applicant should provide information on whether the dwellings will have basements or be slab-on-grade construction.  
*Foundations for each structure will be set with a basement floor elevation 1 foot above the observed season high groundwater elevation.*
11. The architectural plans show decks on some of the units. If decks are proposed they should be shown on the Site Development Plans, especially since this will further reduce setbacks from abutters.  
*Wooden stairs with 4’x4’ landings have been added to the rear of each unit on the Site Development Plan, Sheet C-1.*
12. The August 30, 2021 Project Eligibility Letter from Mass Housing recommended a number of issues to be addressed in the application to the Zoning Board of Appeals. The Applicant should review these with the Board.  
*Comment noted.*

Utility Comments:

1. Documentation should be provided to demonstrate that there will be adequate water supply for domestic use and fire flow.  
*Please see attached Proposed Water Demand Spreadsheet. The proposed development will demand approximately 1,320 gal/day of water. The Abington Rockland Joint Water Works has been contacted regarding the development’s water demand and water availability.*
2. The proposed location of the existing hydrant that is currently within the limits of the proposed main driveway should be shown on the plan so that it is relocated as part of this project.  
*The existing hydrant located within the limit of the proposed roadway is shown as being relocated on the Utility Plan, Sheet C-3. A proposed location for the relocated hydrant has been added to the plan.*
3. The Fire Department and ARJWW should be consulted about the location of the proposed hydrant on site.

*The Abington Rockland Joint Water Works and Rockland Fire Department have been consulted regarding the location of the proposed hydrants. There is no issue at this time.*

4. The proposed water main is specified to be PVC in plan but ductile iron in General Note 4 on Sheet D-3. ARJWW should be consulted to confirm which material is acceptable.  
*The Abington Rockland Joint Water Works has been contacted regarding acceptable materials. The Utility Plan, Sheet C-3 has been revised to specify a proposed 8" Cement Line Ductile Iron (Class 52) Water Main accordingly.*
5. The water main should be shown on the Typical Roadway Cross Section on Sheet D-1.  
*The Typical Roadway Cross Section has been revised as noted.*
6. Documentation of adequate capacity in the existing municipal sewer system should be provided. We note that this project is currently the fifth project listed on the Sewer Commission's Waiting List for Connections after Current Sewer Moratorium is Lifted.  
*The Rockland Sewer Commission has been contacted regarding the capacity of the municipal sewer system.*
7. The proposed sewer main on site will be installed below seasonal high groundwater. The design should incorporate check dams along the pipe so that groundwater does not follow the pipeline. Additional methods to prevent infiltration should also be discussed with the Sewer Commission.  
*The Utility Plan, Sheet C-3 has been revised to propose clay check dams installed in the sewer trench every 50 ft between the proposed sewer cleanout (SCO-1) and doghouse manhole (SMH-2). Utility Note #17 has been added to Sheet C-3 accordingly. A Clay Trench Dam Detail has been added to the Construction Details, Sheet D-4.*
8. Invert elevations should be specified for the house connections to the sewer main and at the cleanout.  
*Invert elevations have been added to the Utility Plan, Sheet C-3.*

Stormwater and Erosion Control Comments:

1. The proposed silt sock erosion control barrier should be installed around the entire perimeter of the site.  
*The proposed silt sock erosion control barrier has been revised to be installed around the entire perimeter of the site.*
2. We note that in order to provide adequate separation from seasonal high groundwater, the majority of the site will be filled between two and three feet.  
*Comment noted.*
3. Invert elevations should be specified for the roof drain piping to confirm that there will be adequate pitch to convey water to the subsurface infiltration system. We question whether the piping shown will be adequate to connect to all downspouts on the dwellings.  
*Invert elevations for proposed roof drain pipes have been added to the Grading and Drainage Plan, Sheet C-2.*

4. We recommend cleanout manholes and additional inspection ports (minimum of one on each end chamber) for the proposed subsurface infiltration system. These, along with header pipe configurations should be shown/specified on the plans.  
*Additional inspection ports at the end of each row of subsurface chambers have been added to the Grading and Drainage Plan, Sheet C-2. The Cultec Recharger 150XLHD Detail Sheet shows internal feed connector pipes used to distribute stormwater between chamber columns. Internal feed connector pipes have been added to Sheet C-2, spaced every three rows.*
5. Rain garden plantings should be specified on the Rain Garden detail on Sheet D-2. We question what the layer between the bioretention soil and the undisturbed earth is proposed to be.  
*Rain garden plantings will be provided on the Landscaping Plan prepared by a registered Landscape Architect. Rain Garden Plantings will be in compliance the "Plant Species Suitable for Use in Bioretention" table found in Volume 2, Chapter 2 of the Massachusetts Stormwater Handbook. The layer between the bioretention soil and undisturbed earth shown on the Rain Garden Detail on Sheet D-2 will be crushed stone. The Rain Garden Detail has been revised accordingly.*
6. A Temporary Sedimentation Basin detail is included on Sheets ESC-1 and D-5. The proposed location of the discharge pipe should be shown on the plans.  
*A Faircloth skimmer outlet is not anticipated for the project. A proposed emergency rip-rap spillway has been added to the temporary sedimentation basin on Sheet ESC-1.*
7. The Long Term Pollution Prevention Plan (LTPPP) should specify that a Homeowners Association will be responsible for post construction operation and maintenance of the site and stormwater system (not the developer).  
*The Post-Development Best Management Practice Operation and Maintenance Plan has been revised to specify that "All structural BMPs as identified on the site plans will be owned and maintained by the developer until such a time that a homeowner's association is created, then the homeowner's association will maintain the BMP's."*
8. The Rain Garden section of the LTPPP should include annual soil/media addition.  
*The Rain Garden Section of the Post-Development Best Management Practice Operation and Maintenance Plan & Long-Term Pollution Prevention Plan has been revised as noted to include annual maintenance of the soil media and hardwood mulch layers.*
9. The note specifying sift sacks to be installed in the existing catch basins on Concord Street should indicate that the silt sacks are 'to be removed upon completion of construction.'  
*The callout referring to silt sack catch basin inlet protection has been revised as noted.*

Very truly yours,

MCKENZIE ENGINEERING GROUP, INC.

  
Erik Schoumaker, P.E.  
Project Engineer

CC: Wall Street Development Corp