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150 Longwater Drive, Suite 101  
Norwell, MA 02061  
Tel: 781-792-3900  
Fax: 781-792-0333  
www.mckeng.com

June 6, 2022

Carver Planning Board  
108 Main Street  
Carver, MA 02330

**Re: Ricketts Pond Business Park, Lot 2 – Site Plan Review**  
**Property Owner: RPBP, LLC**  
**Applicant: Peter Sprague**  
**Spring Street**  
**Carver Massachusetts**

Dear Planning Board Members,

This letter is in response to a review letter dated May 19, 2022 from Andrew G. Glines, P.E. of Fuss & O'Neill on behalf of the Town of Carver Planning Board.

Enclosed herewith are thirteen (13) copies of the following:

- Plans entitled "Site Development Plans, Ricketts Pond Business Park, Lot 2, Off Spring Street, Carver, Massachusetts" prepared by McKenzie Engineering Group, Inc. (MEG) dated February 28, 2022 with a latest revision date of June 6, 2022.
- Drainage Calculations and Stormwater Management Plan prepared by MEG dated February 28, 2022 with a latest revision date of June 6, 2022.
- Wall Pack Cut Sheet prepared by ASD Lighting.

The following are responses to the comments that were highlighted in the Town of Carver Planning Board, May 19, 2022 review letter that warrant further clarification (MEG responses are shown in *italics*).

#### **General Comments**

1. F&O understands that Lot 2 and Ricketts Pond Drive are part of an active construction site. F&O requests and updated survey be completed to provide F&O and the Town with the information to verify that the proposed development of Lot 2 is consistent with the previously approved Definitive Plan.

*Updated topography for Lots 1 & 2 was prepared from an on the ground survey performed by McKenzie Engineering Group, Inc. and is shown on the Existing Conditions Plan, Sheet EX-1. The*

*updated topography for Lots 1 & 2 is shown in red overlaying the original survey performed in February of 2018.*

2. Now that Lot 2 is closer to the proposed subgrade elevation, test pit data shall be provided to verify seasonal high groundwater elevation and soil textural classification F&O requests copies of the test pits conducted for the septic system, as well as one within the vicinity of the existing Infiltration Basin No. 2.

*The proposed septic system for Lot 2 will be subject to Board of Health approval, soil testing for the proposed septic system will be provided prior to issuance of a Building Permit. Test pits which have been conducted for Lot 1 and the Form A Lot of the Ricketts Pond Business Park subdivision have been provided. Test pit locations are shown on the Existing Conditions Plan, Sheet EX-1. Soil Testing data can be found in Appendix E of the Drainage Calculations and Stormwater Management Plan.*

3. If approved, F&O recommends a condition requiring that Ricketts Pond Drive and associate utilities be constructed for the entire frontage of Lot 2 prior to the issuance of a Certificate of Occupancy.  
*No response required (NRR).*
4. If approved, F&O recommends a condition requiring a bond to be established to cover the cost of the remaining portion of Ricketts Pond Drive to ensure the rest of the road and associated stormwater components and utilities will be constructed.  
*NRR.*

### **Zoning By-Laws**

1. Section 2230 – Principal Use
  - a. The site is located within the Spring Street Innovation Zoning District (SSID).  
*NRR.*
  - b. Office is a permitted use authorized by Site Plan Review within this District.  
*NRR.*
  - c. Warehouse is a use authorized by Special Permit within this District.  
*NRR.*
  - d. Earth Removal is a prohibited use in this District. However, the proposed project does not meet the Town's definition of Earth Removal. Therefore, Earth Removal is not a proposed use.

*As noted the proposed development is for the construction of two office/warehouse buildings. An "Earth Removal Permit" was issued prior to an in consideration of the subsequent Ricketts Pond Business Park Definitive Subdivision.*

- i. The "Earth Removal" definition states that the following does not constitute earth removal: moving of earth materials under the provisions of a duly approved subdivision plan; work necessary for the construction of streets and the installation of utilities; work in connection with the excavation and grading of land incidental to construction of duly permitted structures. Since the Ricketts Pond Business Park received Definitive Plan approval, the excavation underway is required to construct the proposed Ricketts Pond Drive, utility distribution mains and services, as well as the associated commercial structures (which are each individually reviewed under Site Plan Review and/or Special Permit), the proposed earthwork and site grading does not meet the Town's current definition of "Earth Removal". Therefore, Earth Removal is not a proposed use.

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*As noted the proposed development is for the construction of two office/warehouse buildings. An "Earth Removal Permit" was issued prior to an in consideration of the subsequent Ricketts Pond Business Park Definitive Subdivision.*

2. Section 2330: The Planning Board shall include findings for this section within the Decision Letter.
  - a. Section 2331: F&O does not have any concerns with the building placement in regard to causing danger from fire. However, building layout shall also be reviewed and approved by the Fire Department.  
*NRR.*
  - b. Section 2332: F&O does not have any concerns with the emergency access. However, emergency access shall also be reviewed and approved by the Fire Department.  
*Please see Emergency Vehicle Access Plan, Sheet EVA-1 in the Site Plans.*
  - c. Section 2333: F&O does not have any concerns with the proposed pedestrian routes from parking facilities to the existing and proposed buildings.  
*NRR.*
3. Section 3130.c: Applicant shall address all Fire Department comments pertaining to fire protection measures. Including but not limited to dry fire protection hydrant network in Ricketts Pond Drive.  
*Comment noted.*
4. Section 3130.g: Applicant has requested a waiver for providing existing trees 10-inch in caliper. F&O requested that the applicant provide an updated survey showing the current vegetation limits before making a recommendation to the Planning Board regarding this request.  
*The site is devoid of trees from the Mining and Gravel Operation associated with the subdivision. Existing tree lines are shown on the Existing Conditions Plan, Sheet EX-1.*
5. Section 3130.h: Provide Site Lighting Plan and details. Building-mounted lighting must meet the requirements of Section 3166, and pole-mounted site lighting must meet the requirements of Section 3347.  
*Proposed wall pack lights been added to the plan over each pedestrian door. Please see attached Wall Pack Cut Sheet prepared by ASD Lighting.*
6. Section 3161: F&O requests the following items be provided so that concerns regarding the cut/fill volumes, risk of sedimentation, and risk of water pollution can be assessed.
  - a. Provide an updated survey of the lot which includes current topography represented with 2-foot contours.  
*Updated topography for Lots 1 & 2 was prepared from an on the ground survey performed by McKenzie Engineering Group, Inc. and is shown on the Existing Conditions Plan, Sheet EX-1. The updated topography for Lots 1 & 2 is shown in red overlaying the original survey performed in February of 2018..*
  - b. Provide Test Pit data which identifies soil textural classification, seasonal high groundwater, and presence of ledge (if encountered).  
*Test pits which have been conducted throughout the Ricketts Pond Business Park subdivision have been provided within Appendix E of the Drainage Calculations and Stormwater Management Plan. Test pit locations are shown on the Existing Conditions Plan, Sheet EX-1. Seasonal high groundwater was not encountered during any of the subsoil exploration, soil parent layers consisted of native sand.*

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7. Section 3168: F&O defers to Board of Health for the review and approval of the proposed wastewater treatment system.  
*Comment noted.*
8. Section 3200:
  - a. Add dimension to Landscape Plan to clarify buffer widths.  
*Landscaped buffer widths have been added to the plan.*
  - b. Section 3242: Applicant has requested a waiver for providing a 20-foot landscape buffer along the perimeter of at least three sides of the parking area. F&O would like to discuss with the Planning Board before making a recommendation on this waiver request.  
*Comment noted. Technical justification for the requested waiver, and landscaping provided can be found on the Legend, Abbreviations & General Notes, Sheet G-1.*
  - c. Section 3251: Confirm that proposed buildings will not contain public entrances, which would require landscaping adjacent to the building.  
*The proposed buildings are not intended for public access. Any future change will require modification of the application.*
  - d. Section 3260: F&O recommends adding more shrubs to the landscape buffers.  
*The Landscaping Plan, Sheet LA-1 has been revised as noted.*
  - e. Provide planting schedule identifying size and species.  
*A Plant List identifying size and species of proposed trees and shrubs has been added to the Landscaping Plan.*
9. Section 3341: Applicant has requested a waiver for locating parking spaces in front of the principal building. Ten spaces are proposed in front of one building. It should be noted that there is a 16-foot wide landscape island proposed between Ricketts Pond Drive and the parking along the front of the building, the row of parking includes landscape islands on the ends, and only 2 additional parking spaces are requested.  
*NRR.*
10. Section 3345: Applicant has requested a waiver for bicycle racks. Due to the location and proposed use, F&O recommends approval of this waiver.  
*Comment noted.*
11. Section 4364: The applicant shall provide an Emergency Response Plan per Section 4364. F&O defers to the Fire Department to review and approve the Emergency Response Plan.  
*Emergency Vehicle Access Plan, Sheet EVA-1 has been added to the Site Plans.*
12. Section 5330: The Planning Board shall include findings for this section within the Decision Letter. F&O believes that the benefits of the proposed Use outweigh any detrimental impacts, but ultimately defers to the Planning Board to make the determination.  
*NRR.*

## Drainage Report

1. Provide updated tables for:
  - a. Pre- and Post-Development peak rates of runoff  
*Peak rates of runoff for the pre- and post-development conditions have been added to the Drainage Calculations and Stormwater Management Plan.*

- b. Pre- and Post-Development peak volumes of runoff  
*Peak volumes of runoff for the pre- and post-development conditions have been added to the Drainage Calculations and Stormwater Management Plan.*
  - c. Groundwater recharge volume  
*Groundwater Recharge volume calculations have been added to the Drainage Calculations and Stormwater Management Plan.*
  - d. Water Quality volume required versus volume provided  
*Water Quality volume calculations have been added to the Drainage Calculations and Stormwater Management Plan.*
2. The peak rates of runoff and peak volume of runoff tables shall maintain consistent design points for pre-and post-development for ease of comparison and to clearly demonstrate, no increase in peak flow or volume. For example, pre-development Design Point 4 (Northeast Prop. Line) should also be Design Point 4 in the post-development, not renamed to Design Point 2 and the table should list all the design points (DP-1, DP-2, DP-3 and DP-4) in both the Pre-and Post-Development tables. The applicant shall review the tables to ensure there is no increase in peak runoff rates or volumes for the 2-, 10-, 25- and 100-year storm events.  
*The pre- and post-development peak rates and volumes of runoff have been revised and are included in the Drainage Calculations and Stormwater Management Plan as noted. A comparison of the pre-development and post-development peak rates and volumes of runoff indicates that the peak rates and volumes of runoff for the post-development condition will be equal or less than the pre-development condition for all storm events for Design Points 1, 2 & 3. Runoff directed at Design Point 4 will be captured and treated by infrastructure to be located on the Plympton Parcel to mitigate the increase in peak rates and volumes.*
3. Sediment Forebay sizing should be updated to confirm the required storage volume is provided for each basin. F&O noted that Subwatershed 3S is smaller than it was when the Definitive Plan stormwater design was conducted, which may warrant having the sediment forebay size revised.  
*Sediment Forebay Sizing Requirements have been included in the Drainage Calculations and Stormwater Management Plan. Sediment Forebay #F2 (Infiltration Basin #2, East Forebay) associated with the drainage design for Lot 1, has been resized to treat the revised contributing impervious area calculated for the subcatchment.*
4. Subwatershed 1S should be divided so show that each sediment forebay shown on the drainage area plan meets the required storage volume.  
*Subcatchment 1S is associated with the development of Lots 3, 4 & 5 located on the eastern side of Ricketts Pond Business Park. Drainage and impervious coverage calculations for Lots 3, 4 & 5 have not changed from the original Definitive Subdivision submittal approved by the Carver Planning Board. Further information regarding the development of Lots 3, 4 & 5 and their associated drainage designs will be included in the Site Plans submitted for each Lot.*
5. Provided updated pipe sizing calculations for the Lot 2 drainage system.  
*Please see revised Storm Drainage Computations within Appendix D of the Drainage Calculations and Stormwater Management Plan.*
6. Provide catch basin grate capacity calculations for on-site catch basins as well as catch basins adjacent to Lot 2 within Ricketts Pond Drive.  
*Please see revised Storm Drainage Computations within Appendix D of the Drainage Calculations and Stormwater Management Plan. Closed Drainage Calculations for the entire subdivision*

*roadway was submitted in the 2019 Drainage Report associated with the approved Definitive Subdivision Plan.*

7. Provide record information on the soil infiltration rate, test pit locations, and seasonal high- water table elevation to confirm the design model.

*Please see Appendix E of the Drainage Calculations and Stormwater Management Plan for all soil testing data.*

8. Provide site-specific Stormwater Pollution Prevention Plan (SWPPP).

*Prior to commencement of construction, a SWPPP will be prepared as part of the requisite Notice of Intent application to EPA for a National Pollution Discharge Elimination System (NPDES) Permit.*

## Plan Set

1. Existing Conditions Plan, Sheet EX-1

- a. Existing conditions plan does not reflect the current existing conditions such as the completed construction of the road, current topography, infiltration basin, or other current existing features. Survey shall be completed to provide up-to-date Existing Conditions Plan for Lot 2 and frontage of Ricketts Pond Drive.

*Updated topography for Lots 1 & 2 was prepared from an on the ground survey performed by McKenzie Engineering Group, Inc. and is shown on the Existing Conditions Plan, Sheet EX-1. The updated topography for Lots 1 & 2 is shown in red overlaying the original survey performed in February of 2018.*

2. Site Layout Plan, Sheet C-1

- a. Call locations and dimensions for bay doors as well as pedestrian doors.  
*Locations and sizes of proposed pedestrian and overhead doors have been added to the Site Layout Plan, Sheet C-1.*

- b. Add callout for 5-foot cement concrete walkway adjacent to eastern building.

*The requested callout has been added to the Site Layout Plan, Sheet C-1.*

- c. Show location of loading area (minimum 12-feet by 50-feet) for both buildings in accordance with Section 3240. Request waiver if 50-foot length will not be provided.

*Loading areas have been shown on the Site Layout Plan, Sheet C-1, to the rear of each building.*

- d. Identify dimension of dumpster pad and show any proposed gates.

*Dumpster pad dimensions and proposed gate locations associated with the vinyl fence have been added to the Site Layout Plan, Sheet C-1.*

- e. Show locations for all ADA accessible signs including van accessible signs.

*ADA accessibility signs have been added to the Site Layout Plan, Sheet C-1.*

- f. Definitive Plan approval required a sidewalk on one side of Ricketts Pond Drive. Either confirm that the sidewalk will be located on the other side of the road or add the plan. Presence of sidewalk will impact the grading and landscaping of the proposed landscape islands along the lot frontage.

*A 5' wide cement concrete sidewalk has been added to the Site Layout Plan on the eastern side of Ricketts Pond Drive.*

3. Grading & Utility Plan, Sheet C-2

- a. Change name to "Grading & Drainage Plan".

*The Grading and Drainage Plan, Sheet C-2 has been revised as noted.*

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- b. Provide rim and invert elevation for catch basins within Ricketts Pond Drive since a portion of this system will be relied on to manage stormwater from Lot 2.  
*Proposed rim and invert elevations have been added to the plan for the catch basins located on Ricketts Pond Drive.*
  - c. Add spot grades at northern curb cut.  
*Spot grades have been added to the northern curb cut as noted.*
  - d. Add spot grades along eastern curb to show grading and drainage intent.  
*Spot grades have been added along the eastern curb line adjacent to the front property line.*
  - e. Add spot grades at the ADA parking spaces to ensure proper construction and compliance with ADA requirements.  
*Spot grades are provided at the proposed ADA parking spaces on the Grading and Drainage Plan, Sheet C-2.*
  - f. Add spot grades for Dumpster Pad.  
*Proposed spot grades have been added to the cement concrete dumpster pad.*
  - g. Update top of wall elevation.  
*The top of wall elevation associated with the proposed modular block retaining wall has been revised.*
    - i. If project is approved, a Condition is recommended to reiterate that a Building Permit will be required for the retaining wall in excess of 4 feet.  
*Comment noted.*
  - h. Add missing pipe inverts to drainage structures.  
*Additional invert information has been added to the Grading and Drainage Plan, Sheet C-2.*
  - i. The plan does not identify how the roof will drain. Clarify roof drainage approach, roof drain locations, and associated storm drain pipe network. As discussed during the Technical Review Committee meeting, F&O suggests that roof drains be connected directly to storm drain pipe network which discharges to Infiltration Basin.  
*As discussed, proposed 6" HDPE roof drains have been added to the Grading and Drainage Plan for each proposed building. The 6" HDPE roof drains will connect to the proposed drainage pipe running in a southerly direction and located within the bituminous concrete parking area by tee-wye connections.*
  - j. Provide an identification label for each drainage structure (e.g. CB1, DMH1, etc.)  
*Drainage structure labels have been added to the Plan.*
4. Utility Plan, Sheet C-3
- a. Revise location of proposed propane tank on south end of property in order to meet horizontal setback requirements.  
*The propane tank located on the south end of the property has been relocated to the rear of the lot on the Utility Plan, Sheet C-3.*
  - b. Note water service material.  
*The water service material will be polyethylene. The Utility Plan, Sheet C-3 has been revised to specify the water service material.*
5. Erosion and Sediment Control Plan, Sheet ESC-1
- a. Revise the layout and limits of the compost filter tube barrier in the southwest corner of the property. Proposed layout will promote concentration of stormwater runoff.  
*The limit of the compost filter tube has been revised as noted.*

## 6. Phasing Plan, Sheet P-1

- a. Include the septic system components on the phasing plan.

*Septic components have been added to the Phasing Plan, Sheet P-1. The proposed soil absorption system, 5-outlet distribution box, 1,500 gallon septic tank and 4" PVC (Sch. 40) pipes are to be installed during Phase 1. A proposed 4" PVC (Sch. 40) pipe will be installed during Phase 1 for future connection to the 1,500 gallon septic tank to be installed during Phase 2 for the proposed westerly building.*

- b. If approved, it is recommended that the Planning Board and F&O discuss potential conditions for approving phased construction.

*NRR.*

## 7. Construction Details, Sheet D-1

- a. Provide sign details for ADA and Van Accessible.

*The Typical Sign Detail on Sheet D-1 has been revised as noted.*

Very truly yours,

MCKENZIE ENGINEERING GROUP, INC.



Erik Schoumaker, P.E.

Project Engineer

CC: Peter Sprague  
RPBP, LLC