

Packet #1
for Sept 15 ma

MEMORANDUM

TO: Board Members
Land Use Counsel
Pat Brennan, Amory Engineers
ZEO, Building Commissioners
Judi Barrett
Kym, Recording Secretary

FROM: Candi

DATE: August 12, 2020

SUBJECT: Shinglemill Hearing on September 15th @7:30

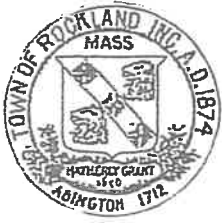
Enclosed is the following information the ZBA has received as of this date since the July 21st meeting on Shinglemill.

In comments written to Pat Brennan's letter, the ZBA will be receiving another set of revised plans around the 25th of August. I will deliver them once received.

All of the enclosed info will be uploaded and electronically sent to Town Clerk's office and those listed above next week.

Items enclosed:

- Memo from Candi re: delivery dates of Submission Package – REV 1.
- Traffic study report filed from Gillon Associates dated July 27, 2020.
- Email from Liza Fitzgerald dated July 25, 2020.
- Letter from Abington & Rockland Joint Water Works dated July 30, 2020.
- MDEP WPA Form 4B – Order or Resource Area Delineation with date of issuance October 23, 2018 – Mass DEP File Number SE273-0399.
- List of Requested Exceptions, Waivers and Permits – Exhibit "A"
- Correspondence from Tighe & Bond dated July 30, 2020 re: Limited Summary of Environmental and Geotechnical Conditions.
- Correspondence from Hadco Prima – re: lighting.
- Copy of Wetland location plan dated June 8, 2018 (larger size will be in email)
- Copy of Comments made from Applicant regarding Amory Engineers, PC letter dated June 10, 2020. Yellow area highlighted is from Applicant.



ROCKLAND ZONING BOARD OF APPEALS

MEMORANDUM

TO: Town Counsel – received package on 7/20/2020
ZBA Members – received package on 7/18/2020
Amory Engineer – received package on 7/20/2020
Town Clerk – received package on 7/20/2020
Planning Board – received package on 7/20/2020
Board of Health - to be delivered on 7/22/2020
Bldg. Commissioner/ZEO – received package on 7/20/2020
~~Conservation Commission – to be delivered on 7/22/2020 –~~
Board of Water Commissioners – to be delivered on 7/22/2020
Board of Sewer Commissioners – to be delivered on 7/22/2020
Highway Superintendent – to be delivered on 7/22/2020
Fire Department – to be delivered on 7/22/2020
Police Department – to be delivered on 7/22/2020
Asst. Town Administrator for BOS – to be delivered on 7/22/2020
Judi Barrett – received package by email on 7/20/2020

FROM: Candi

DATE: July 22, 2020

SUBJECT: Comprehensive Permit (40B) Zoning Application
Shinglemill LLC – Submission Package – REV 1
0 Pond Street and 152 Wilson Street

The ZBA received a Submission Package – REV 1 on July 16, 2020 from Mr. Rick Lincoln of Coneco Engineers and Scientists. I mentioned to Mr. Lincoln that some of these new plans show Jones Street Residential as the Applicant and it should say Shinglemill LLC. He is aware of this and will look into the matter.

The next virtual ZBA meeting is scheduled for September 1, 2020 at 7:30 P.M. If you would like to comment on the new submission package, please send your comments to zoning@rockland-ma.gov **before August 10th** so the secretary can deliver your comments to the Board members, Land Use Counsel, ZEO, Town Engineer and Judi Barrett during the week before the meeting.

If you have any questions, please feel free to call the office 781-871-1874 extension 1195 or email zoning@rockland-ma.gov. Thank you.

242 UNION STREET, ROCKLAND, MASSACHUSETTS 02370
PHONE: 781-871-1874 extension 1195
E-MAIL: zoning@rockland-ma.gov



111 River Street
N Weymouth, MA 02191-2104
Telephone: (781) 589-7339
e-mail: jt.gillon@comcast.net

July 27, 2020

Robert Rosa, Chairman
Rockland Zoning Board of Appeal

Attn: Pat Brennan, P.E., Board Peer Review Consultant

Reference: Traffic Study Peer Review
Residential Development – 40B
Pond Street, Rockland, MA

Dear Mr. Rosa:

At your request, we are pleased to provide this comprehensive Traffic Impact Study review for a residential development on Pond Street in Rockland. The Study has been prepared by McMahon Transportation Engineers & Planners as Dated November 2019. Their report has been prepared in support of 236 residential dwelling units with a 3,129 square-foot community building and 293 surface parking spaces. The Project is to be located off Pond Street with access just 330 feet northwest of Longwater Drive and just 650 feet from the Hingham Street signalized intersection in Rockland, Massachusetts.

I – Study Area

The project Study Area as defined by the proponent has been reviewed to assure any measurable traffic impact possibly generated by the project was examined within the report as presented, providing evidence of a workable future traffic network. The Study Area included:

- Pond Street at the new site driveway access
- Pond Street at Longwater Drive
- Pond Street at Hingham Street (Route 228)/ MassDOT Park & Drive

Although the proponent has assigned 15% of the site traffic to Pond Street south of Longwater Drive, no other intersection was looked at in that direction. Upon examination, this amounted to 12 morning peak hour trips and 16 evening peak hour trips with a total of 193 vehicle trips. Moreover, 25% of the daily traffic (321 vehicle trips) was assigned toward the Hingham Street/ Rte. 3 southbound Ramp at Home Depot and 50% of the daily traffic (642 vehicle trips) was assigned toward the Hingham Street/ Rte. 3 northbound Ramp near Burger King.

The MassDOT TIA (Traffic Impact Study) guidelines of Analytical Procedures require an intersection to be studied if site generated traffic volume increases peak hour traffic by five percent (5%) or by 100 vehicles or more. It appears the proponent has assigned 20 new morning peak hour trips and 24 new evening peak hour trips through the Hingham Street / Route 3 southbound ramp intersection at Home Depot.

Under these circumstances the evaluation of this intersection would not be required by the State. However, the Guidelines further states...Intersections that do not meet the five percent threshold

may be included if the intersection is highly congested and prone to deterioration from even a small increment in traffic or there are special circumstances related to that location that merit review.

The Route 3 southbound / Hingham Street / Home Depot intersection is part of a Route 228 advanced traffic control system including at least the following three intersections:

- Pond Street at Hingham Street (Route 228)/ MassDOT Park & Drive
- Hingham Street (Route 228)/ Route 3 Northbound Ramp
- Hingham Street (Route 228)/ Route 3 Southbound Ramp / Home Depot

Since these three signalized intersections are synchronized, they operate at an identical traffic signal cycle length even if they are traffic responsive. Therefore, the intersection of Pond Street at Hingham Street (Rte. 228) / MassDOT Park & Drive must operate within the parameters of that system. In essence, if we do not know the southbound ramp intersection operating condition, we do not know the restraints on green-time for Hingham Street and consequently green time for Pond Street and queuing ramifications on all approaches at that intersection. It is therefore my opinion that the intersection of Hingham Street (Rte. 228) at the southbound Route 3 Ramp / Home Depot Driveway should be added to the Study Area.

II – Traffic Volume Data

Both Automatic Traffic Recorder (ATR) and manual turning movement Counts (TMCs) have been reviewed for consistency and historical continuity. The raw traffic count data was obtained in March of 2019, a year before the Covid-19 shutdown. I have compared the peak hour counts with those of another project prepared for the Town of Norwell and find the proponent's peak hour traffic volumes are slightly higher and are, therefore, acceptable.

III – Network Traffic Flow

Schematic graphics have been thoroughly reviewed where they show existing weekday morning and evening, peak hour traffic flow, existing seasonal adjusted peak flow, baseline flow (including 7-year normal growth), site generated flow with the new ITE 10th Edition Generation Report correct land-use code and projected traffic flow. Traffic generated volumes expected by this project are provided below:

<u>Source of Data</u>					
ITE Report (10th Edition)					
ITE Land Use Code: 221–Multifamily Housing (Mid-Rise)					
Volume 2, Pages 71–102					
Trips per Unit	AM (Page 74)			PM (Page 75)	
	<u>IN OUT TOTAL</u>			<u>IN OUT TOTAL</u>	
	$\ln(T) = 0.98 \ln(x) - 0.98$			$\ln(T) = 0.96 \ln(x) - 0.63$	
Directional Split	26%	74%		61%	39%
Trips Projected	21	59	80	62	101
(Based on 236 Units)					
<u>Trips per Weekday</u>					
$T = 5.45 (x) - 1.75$ (Page 73)					
Trips Based on 236 Units = 1,284			642 inbound and 642 outbound		

My calculated trip generation volumes for these five-story buildings are identical to those identified by the proponent although I have also shown the expected daily site generated traffic volume of almost 1,300 vehicles per weekday.

Directional distributed site trips has also been reviewed for both existing desire lines toward Route 3 and Route 53 as well as the US Census Journey to work evaluation. The proponent had used the 2010 US Census Journey to Work data with the data provided in Appendix I of their report. This data shows approximately 74% of work related vehicle trips are oriented toward the north with the remaining 26% oriented toward the south. It appears the morning northerly traffic volume of 44 vehicles and the evening 46 vehicles were split at Hingham Street may have also based on the U.S. Census proportion.

It appears the approximate 45 vehicles per peak hour toward or from the north should have considered the location of the Route 3 access and egress ramps on Hingham Street. This effort may decrease the Pond Street intersection evening conflicting movements but increase the evening peak hour left-turn conflicts at the southbound ramp intersection. Moreover, the U.S. Census does not consider public transit such as the MBTA commuter line station at Union Point. Such a vehicle assignment would still have included vehicle trips through the southbound Rte. 3 ramp intersection to Reservoir Park Drive at Hingham Street.

Perhaps the proponent could look at these assignments to see if it would make sense to assign the bulk of the 74% work related trips to the Route 3 northbound ramp in the morning and to the Route 3 southbound ramp in the evening.

Projected traffic flow with a horizon year seven years out has been reviewed for morning and evening peak hours. While the proponent did a good job keeping track of existing, baseline, site generated, and projected assignments, these figures may vary a bit if re-assignments are provided.

IV – Capacity Calculations

Capacity calculations, based on the most recent Highway Capacity Manual, has been reviewed for existing, base, and build conditions for weekday morning and evening peak hours at relevant intersections. The proponent did use Synchro 10th edition software by "Trafficware" which is the correct methodology. While Levels of Service (LOS), delay, and volume to capacity (v/c) ratios are provided in Table 3, a summary of the anticipated queue or stacking length in feet back from an intersection is not shown although these values are shown in the detailed analysis provided.

Pond Street currently queues or stacks back in the morning with a 95th percentile length of #500 feet, characterized with a pound sign (#) indicating the existing traffic volume on this approach at an "E" LOS with 39 seconds of delay, exceeds capacity and the queue or stacking length could be longer since the calculated length is theoretically infinite and blocking problems may occur. Once the project is open for residents, this stacking back from Hingham Street is expected to reach #668 feet, again indicating the "Build" traffic volume on this approach exceeds capacity and the queue length is theoretically infinite. As a matter of fact, the Home Depot delivery drive is only about 315 feet from Hingham Street and the new site driveway is only about 660 feet back from Hingham Street. In essence, even without looking at an infinite queue, the new site drive may be blocked in the morning peak hour.

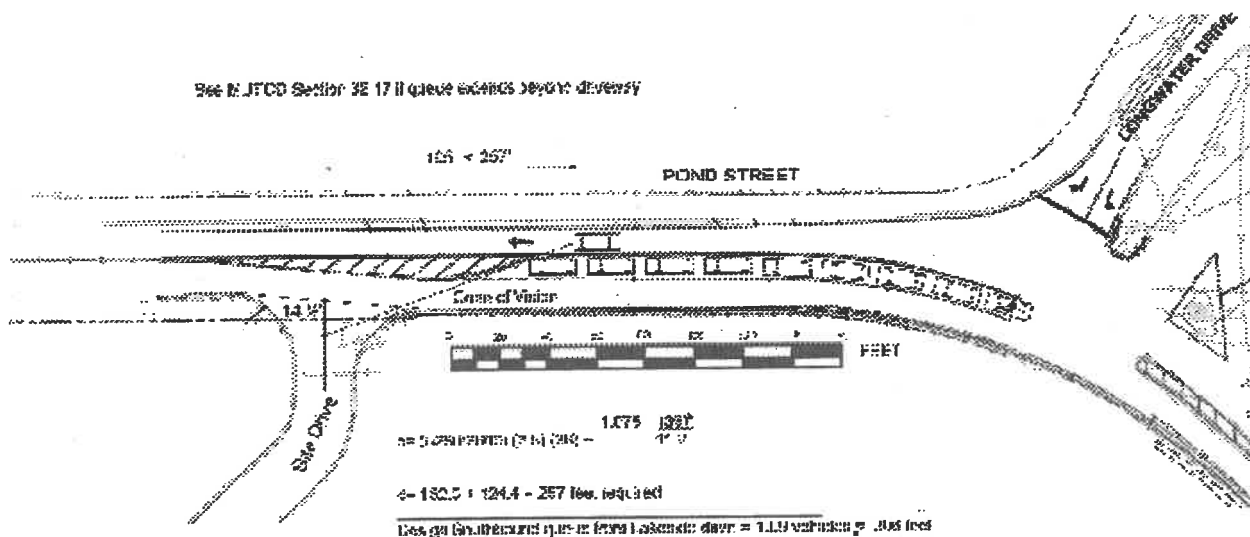
In the morning peak hour, the Pond Street southbound queue at Longwater Drive is expected to reach 14 vehicles or about 310 feet. Since the new site driveway is about 330 feet north of Longwater Drive, it appears the southbound queue being 310 feet will not block the driveway from that direction.

The peak hour factors were reviewed for each approach during both the morning and evening peak hours. For the most part, the correct peak hours were used in each approach. However, the morning PHF from the north was only 0.54 but 0.80 was used in the calculations. Similarly, the evening PHF from the south was only 0.62 but again 0.80 was used in the calculations. These low default values probably do not affect the overall assessment of approach delay or queuing but the approach from the south will include site related traffic in the Build condition.

Build conditions at the site driveway onto Pond Street indicate only the site driveway itself will suffer an "F" level of service. While it could be said that that LOS and delay should not matter to the through traffic, you have to be careful the site drive motorists do not start accepting shorter than what would be considered safe gaps on Pond Street resulting in issues down the line.

V – Site Driveway Stopping Sight Distance

The proposed site driveway onto Pond Street has been evaluated for adequate stopping sight distance based on existing vehicle speed characteristics including mean, median, mode, 85th mph percentile pace and range. Required stopping sight distance for the driveway has been calculated in accordance with State and Federal standards. The proponent did a good job in citing the sections of AASHTO requirements and measuring the available stopping sight distance including to the south for northbound traffic when site traffic is turning left. However, as seen in the sketch, southbound left-turning traffic destined for Longwater Drive will queue back beyond the new left-turn storage lane to the site driveway. Their calculations show a 14 car queue demand while the slot can only store about nine.



Moreover, some agencies allow both left and right-turn maneuvers through a gore area while others prefer a brake in the pavement markings for these maneuvers. As can be seen in this sketch, the morning left-turn queue from Longwater Drive will extend back and periodically block stopping sight distance to the south. This is primarily due to the long delay (32.4 seconds) for each vehicle to make this maneuver across the opposing 550 through vehicles destined northbound at Longwater Drive. Although the queued vehicles will move slowly forward in an accordion type fashion, the proponent should investigate and assure the Board an approaching vehicle could be seen. Consideration should also be given to introducing "DO NOT BLOCK THE BOX" treatment as prescribed in the Manual on Uniform Traffic Control Devices (MUTCD – Section 32.17) so site traffic isn't forced to turn right and make a U-Turn at Longwater drive.

VI – Crash Data

Crash data as obtained by the Massachusetts Department of Transportation (MassDOT) for the most recent three-year has also been reviewed as provided. Although complete crash data summaries have been provided for five years from 2012 through 2016, the year 2017 is now also available. Although this one additional year may not provide any new relevant data, the proponent may want to glean this new information.

VII – Site Circulation

The proposed site plan has been reviewed for stacking, turn capabilities, emergency and truck turning requirements and pedestrian flow. There are no obvious problems with passenger car turns but the Rockland Fire Department may have their own design vehicle turn capabilities evaluated. The site plan does not clearly show where moving vans would be parked and loading/unloading operations for these 236 dwelling units. A sidewalk should be provided from Hingham Street to within the site lobby areas. Residents may want to walk to the car-pool lot for the bus to Boston or the casino in Everett. It is my understanding this parking area may be re-worked since the current design included about 1 1/4 parking spaces per unit while the Institute of Transportation Engineers (ITE) recommends 2.05 spaces per unit on a Sunday morning and the Urban Land Institute recommends 1.85 spaces per unit if owned and 1.65 spaces per unit if rented. Bicycle accommodations between Hingham Street and the site as well as on-site should also be discussed.

VIII – Hingham Street (Rte. 228) Signal System

The proposal includes adding site generated traffic volume to the Pond Street / Hingham St. (Rte. 228) signalized intersection. It is my understanding this intersection is included within the advanced traffic signal control system currently progressing vehicles within the Hingham Street corridor. The proponent seems to be including some signal timing modifications to either the Pond Street approach timing or cycle length, or both. Since improvements were identified in an earlier "Road Safety Audit" and as mitigation for "Union Point", the status of these two issues should be more clearly documented. Route 228 traffic signal progression plans should be reviewed to ensure there are no deficiencies in corridor progression or time-bands, due to the re-timing of the Pond Street intersection.

IX – Construction Impacts

It appears there will be significant truck usage during site development prior to occupancy.

The Highway capacity Manual (HCM) says an individual truck's operational characteristics vary on basis of weight, load, and horse power. Its impact is also dependent on where it is in queue at a signalized intersections. If it is at the "Stop Line" it will affect all of the vehicles behind it. If it is near the back it may not have to fully stop and the effect would be less with less vehicles behind it. Based on a stop at a traffic signal, a passenger car can accelerate 8 to 23 times faster than a heavily loaded large truck.

An off-quoted federal study once found that road damage from one 18-wheeler is equivalent to the impact of 9,600 cars. A fully loaded tractor-trailer weighs 80,000 pounds, 20 times more than a typical passenger car at 4,000 pounds, but the wear and tear caused by the truck is exponentially greater.

Most site preparation work commences at about 7:00 am on a weekday when many Rockland residents are exiting the neighborhood onto Hingham Street (863 vehicles). Perhaps the proponent would like to assure the Town that construction does not have to start until after 8:30 am when most residents have left the neighborhood.

X – Summary

The proponent did a nice job in generally preparing the "Traffic Impact Study" in conformance with Industry Standards, however, I believe it would help the Board to know if the proposed signal timing on Hingham Street at Pond Street and the Car Pool Lot could be made without degrading the Hingham Street through traffic flow. The new southbound left-turn storage lane to Longwater Drive is essential with or without this project. I'm sure Town emergency vehicles would welcome a way to by-pass the queued vehicles while serving the southerly end of Pond Street. The proponent should either revise trip assignments to consider the northerly section of Route 3 as a couplet or provide the reasoning for not doing so.

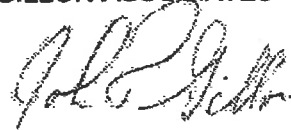
Perhaps the proponent could re-look at the Pond Street / Site Driveway intersection to ensure stopping sight distance will not be obscured. Additional signage and pavement markings should also be reviewed.

The proponent should be in contact with MassDOT to ensure any changes proposed to the Town would be welcomed by that Agency.

Construction trucking impacts should be identified and mitigated if necessary.

I hope you find these comments helpful but please let me know if you have any questions regarding this material.

Sincerely,
GILLON ASSOCIATES



John T. Gillon, P.E

8/11/2020

Re: Continuance Hearing 0 Pond Street Map #9 Lot#13 and 152 Wilson Street Map #10 Lot #68

From: lisaf26@gmail.com,

To: zoning@rockland-ma.gov,

Subject: Re: Continuance Hearing 0 Pond Street Map #9 Lot#13 and 152 Wilson Street Map #10 Lot #68

Date: Sat, Jul 25, 2020 3:53 am

Good morning,

It was just posted in the Patriot Ledger that there was a zoning board meeting on the Shinglemill Development. Why weren't the abutting residents notified of this meeting? No notice went out just the paper reports no neighbors opposed. How are we supposed to oppose if we weren't notified on the meeting?

Thank you,
Lisa Fitzgerald

On Wed, Jun 10, 2020 at 6:46 PM Lisa Fitzgerald <lisaf26@gmail.com> wrote:
Good Evening,

Thank you for the opportunity to express my concerns regarding the Shinglemill LLC, c/o Coneco Comprehensive Permit 40B Application for 0 Pond Street Map #9 Lot #13 and 152 Wilson Street Map #10 Lot #68. My husband and I are the owners of our residence at 10 Wright Street. After reviewing the application and plans for this project, I am deeply concerned about the opening of 0 Pond Street as the main means of entry for this project. Additionally, as a direct abutter this project will directly impact our residence and quality of life. We have lived at our residence for the past 19 years, the site map plans indicate that the road that will be built is right on top of my property leaving us wide open to the new street that will be created and destroying the quality of life we have enjoyed as according to the site map both 10 and 13 Wright Street will be encroached upon at the corner of both properties by a catch basin that will be placed directly at the end of Wright Street. What will this due to the water table and flooding within our neighborhood?

Also, traffic on Pond Street is extremely busy and congested due to the Assinnippi Office Park, Home Depot Traffic and traffic exiting the highway. Cars that travel to and from these three locations make exiting our small neighborhood very difficult already. By adding additional traffic for the 200+ units, movement in our small neighborhood will be impossible. This poses a serious safety issue as wells increased sound issues. We have lived in a very secluded quiet place for years and now will be exposed to noise, traffic, exhaust.

I assume street or complex lighting will also be added for visibility leaving us wide open and exposed to the new entrance way. The size of this project in an already overwhelmed traffic pattern area with approximately 500 cars coming and going will overwhelm our street, neighborhood community and quality of life. What is planned for the quality of life for the houses on Wright Street?

To push this through during a Pandemic when the Zoning Board can't even hold an open meeting outside of a zoom call is sneaky! What about our elderly neighbors, neighbors who aren't tech saavy, this leaves them without a voice to rebut what is now being pushed through.

Thank you for listening to my concerns. Please let us know what will be done for the residence on Wright Street!

Thank you,

Lisa and George Fitzgerald
10 Wright Street
Rockland, MA 02370

8/11/2020

Re: Continuance Hearing 0 Pond Street Map #9 Lot#13 and 152 Wilson Street Map #10 Lot #68

I would like to know what will be done regarding the privacy of for us and our neighbors? What will be done regarding the co



ABINGTON & ROCKLAND JOINT WATER WORKS

366 CENTRE AVENUE
ROCKLAND, MASSACHUSETTS 02370



ABINGTON COMMISSIONERS

RICHARD D. MUNCEY
CHAIRMAN

ROBERT L. TOOMEY, JR.

MICHAEL EGAN

TELEPHONE (781) 878-0901

FAX (781) 982-8332

jlapointe@abrockwater.com

JOSEPH LAPOINTE
SUPERINTENDENT

ROCKLAND COMMISSIONERS

JUNE R. DONNELLY

WILLIAM T. LOW
SECRETARY

ROBERT CORVI, JR.

July 30, 2020

Rockland Zoning Board Of Appeals

Re: 0 Pond Street, Shinglemill Apartments.

Dear Board Members;

The Abington/Rockland Joint Water works has severe concerns as to the construction of this proposal.

As you are aware the John F. Hannigan Water Treatment Plant and Reservoir abuts this proposed development and the Board of Water Commissioners have serious concerns on the impact to our water supply.

The uniqueness of the proposal lends credence to the additional concerns that during construction, heavy equipment and the amount of fill being brought on to the site will be too close to the wetlands for comfort, and thus elevating the potential for a mishap that could contaminate our supply.

Therefore at this time the Abington/Rockland Joint Water Works are requesting that the proponent perform, and file with the Abington/Rockland Joint Water Works, the necessary evaluations assuring us that our supply will neither be impacted, nor contaminated in any manner through this proposal. Such evaluations shall include, but not be limited to, construction accidents and long-term contamination of the aquifer.

That being said it should be stated, "The policy of the Abington/Rockland Joint Water Works pertaining to any development requiring a water supply from the municipality requires the following.

Any plans submitted to, and/or approved by other Boards does not constitute water availability. The process for water approval will require that the proponent meet with the Abington/Rockland Joint Water Works Commissioners to establish an acceptable plan of action to obtain approval for water availability.

Joseph LaPointe, Superintendent





Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
**WPA Form 4B – Order of Resource Area
Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

SE 273-0399

MassDEP File Number

eDEP Transaction Number

Rockland

City/Town

A. General Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

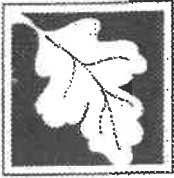
From: Rockland
1. Conservation Commission

2. This Issuance is for (check one):
a. ☒ Order of Resource Area Delineation
b. ☐ Amended Order of Resource Area Delineation

3. Applicant:
Maurizio Caparrotta, Trustee
a. First Name b. Last Name
Seven Hills Holding Trust
c. Organization
195 Libbey Parkway, Unit 2
d. Mailing Address
Weymouth MA 02370
e. City/Town f. State g. Zip Code

4. Property Owner (if different from applicant):
a. First Name b. Last Name
c. Organization
d. Mailing Address
e. City/Town f. State g. Zip Code

5. Project Location:
Off Pond Street Rockland 02370
a. Street Address b. City/Town c. Zip Code
Map 9 Lot 13
d. Assessors Map/Plat Number e. Parcel/Lot Number
Latitude and Longitude d m s d m s
(in degrees, minutes, seconds):
August 3, 2018 October 23, 2018 October 23, 2018
6. Dates: a. Date ANRAD filed b. Date Public Hearing Closed c. Date of Issuance



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area
Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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A. General Information (cont.)

7. Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

Wetland Location Plan for Pond Street, Rockland, MA - Stamped and
signed by Richard J. Tabaczynski, P.E. & Timothy R. Callahan, P.L.S.

October 1, 2018

b. Date

c. Title

d. Date

B. Order of Delineation

1. The Conservation Commission has determined the following (check whichever is applicable):

- a. ☐ **Accurate:** The boundaries described on the referenced plan(s) above and in the Abbreviated Notice of Resource Area Delineation are accurately drawn for the following resource area(s):

1. ☐ Bordering Vegetated Wetlands
2. ☐ Other resource area(s), specifically:

a.

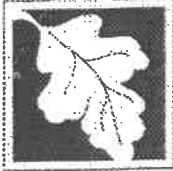
- b. ☒ **Modified:** The boundaries described on the plan(s) referenced above, as modified by the Conservation Commission from the plans contained in the Abbreviated Notice of Resource Area Delineation, are accurately drawn from the following resource area(s):

1. ☒ Bordering Vegetated Wetlands
2. ☐ Other resource area(s), specifically:

a. *ANRAD only requested confirmation of Bordering Vegetated Wetlands.

- c. ☐ **Inaccurate:** The boundaries described on the referenced plan(s) and in the Abbreviated Notice of Resource Area Delineation were found to be inaccurate and cannot be confirmed for the following resource area(s):

1. ☐ Bordering Vegetated Wetlands
2. ☐ Other resource area(s), specifically:



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area
Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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B. Order of Delineation (cont.)

3. ☐ The boundaries were determined to be inaccurate because:

C. Findings

This Order of Resource Area Delineation determines that the boundaries of those resource areas noted above, have been delineated and approved by the Commission and are binding as to all decisions rendered pursuant to the Massachusetts Wetlands Protection Act (M.G.L. c.131, § 40) and its regulations (310 CMR 10.00). This Order does not, however, determine the boundaries of any resource area or Buffer Zone to any resource area not specifically noted above, regardless of whether such boundaries are contained on the plans attached to this Order or to the Abbreviated Notice of Resource Area Delineation.

This Order must be signed by a majority of the Conservation Commission. The Order must be sent by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate DEP Regional Office (see <http://www.mass.gov/eea/agencies/massdep/about/contacts/find-the-massdep-regional-office-for-your-city-or-town.html>).

D. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate DEP Regional Office to issue a Superseding Order of Resource Area Delineation. When requested to issue a Superseding Order of Resource Area Delineation, the Department's review is limited to the objections to the resource area delineation(s) stated in the appeal request. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order of Resource Area Delineation will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order or Determination, or providing written information to the Department prior to issuance of a Superseding Order or Determination.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act, (M.G.L. c. 131, § 40) and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal bylaw or ordinance, and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area
Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

SE 273-0399

MassDEP File Number

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Rockland

City/Town

October 23, 2018

Date of Issuance

E. Signatures

Please indicate the number of members who will sign this form.

1. Number of Signers

[Signature]
Signature of Conservation Commission Member

Signature of Conservation Commission Member

[Signature]
Signature of Conservation Commission Member

Signature of Conservation Commission Member

[Signature]
Signature of Conservation Commission Member

Signature of Conservation Commission Member

[Signature]
Signature of Conservation Commission Member

This Order is valid for three years from the date of issuance.

If this Order constitutes an Amended Order of Resource Area Delineation, this Order does not extend the issuance date of the original Final Order, which expires on _____ unless extended in writing by the issuing authority.

This Order is issued to the applicant and the property owner (if different) as follows:

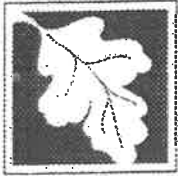
2. ☒ By hand delivery on

3. ☐ By certified mail, return receipt requested on

October 23, 2018

a. Date

a. Date



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
**Request for Departmental Action Fee
Transmittal Form**

DEP File Number:

SE 273-0399

Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. Request Information

1. Location of Project

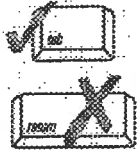
a. Street Address

b. City/Town, Zip

c. Check number

d. Fee amount

important:
When filling
out forms on
the computer,
use only the
tab key to
move your
cursor - do
not use the
return key.



2. Person or party making request (if appropriate, name the citizen group's representative):

Name

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

3. Applicant (as shown on Determination of Applicability (Form 2), Order of Resource Area Delineation (Form 4B), Order of Conditions (Form 5), Restoration Order of Conditions (Form 5A), or Notice of Non-Significance (Form 6)):

Name

Mailing Address

City/Town

State

Zip Code

Phone Number

Fax Number (if applicable)

4. DEP File Number:

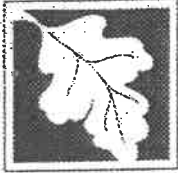
B. Instructions

1. When the Departmental action request is for (check one):

- ☐ Superseding Order of Conditions – Fee: \$120.00 (single family house projects) or \$245 (all other projects)
- ☐ Superseding Determination of Applicability – Fee: \$120
- ☐ Superseding Order of Resource Area Delineation – Fee: \$120

Send this form and check or money order, payable to the *Commonwealth of Massachusetts*, to:

Department of Environmental Protection
Box 4062
Boston, MA 02211



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
Request for Departmental Action Fee
Transmittal Form

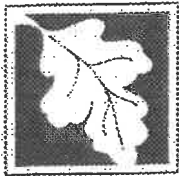
DEP File Number:

SE 273-0399
Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Instructions (cont.)

2. On a separate sheet attached to this form, state clearly and concisely the objections to the Determination or Order which is being appealed. To the extent that the Determination or Order is based on a municipal bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.
3. Send a **copy** of this form and a **copy** of the check or money order with the Request for a Superseding Determination or Order by certified mail or hand delivery to the appropriate DEP Regional Office (see <http://www.mass.gov/eea/agencies/massdep/about/contacts/>).
4. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

**WPA Form 4B – Order of Resource Area
Delineation**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

SE 273-0399

MassDEP File Number

eDEP Transaction Number

Rockland

City/Town

Recording Information

Prior to commencement of work, this Order of Resource Area Delineation must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Resource Area Delineation. The recording information on this page shall be submitted to the Conservation Commission listed below.

Rockland

Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Conservation Commission

Please be advised that the Order of Resource Area Delineation for the Project at:

Project Location

MassDEP File Number

Has been recorded at the Registry of Deeds of:

County

Book

Page

For:

Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Resource Area Delineation issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant

File

EXHIBIT "A"

Shinglemill LLC ("Applicant") hereby requests the following waivers and, as specified below, will be subject to the specific condition that any and all waivers are being granted only to the extent necessary to allow for the construction of the project according to the plans presented to the approved by the Rockland Zoning Board of Appeals ("Board"). Final plans to be submitted by the Applicant shall conform to the Board's decision and these specific waivers

SHINGLEMILL **LIST OF REQUESTED EXCEPTIONS, WAIVERS, AND PERMITS**

<u>Local Regulation</u>	<u>Waiver Requested</u>
1. Chapter 407 Wetlands Protection By-Law, § 407-5 Permit and Conditions C.	A 25 foot vegetated no disturbance area is not included in the project design (See attached letter to the Conservation Commission).
2. Chapter 415 Zoning By-law, § 415-19 H-1 Industrial Park-Hotel District A. Permitted principal uses	The proposed project use is residential apartment buildings which is not included in permitted principal uses for the Industrial Park-Hotel District.
3. Chapter 415 Zoning By-law, § 415-22 Table: Minimum Yard Dimensions (Feet): Side	The proposed community building is within 1.5 feet of the Wilson Street Right-of-Way. This is 45 foot reduction from the 50 foot setback to an abutting land that is within a residential district. (50.0' to 1.2' = 48.8' reduction)
4. Chapter 415 Zoning By-law, § 415-22 Table: Maximum Height (Stories/Feet)	The proposed apartment buildings will be 5 stories tall and approximately 69 feet about finished grade. This is 2 stories and 33 feet taller than the maximum building height for this district. (3 stories to 5 stories = 2 stories greater) (36.0' to 69.0' = 33.0' greater)
5. Chapter 415 Zoning By-law, § 415-22 Building and lot Regulations A. Parking/access and egress requirements (1)	All proposed non-accessible designated parking spaces are 9'x18' spaces. Parking spaces as required by this bylaw shall be a minimum of 10 feet in width by 20 feet in length for full size vehicles; and nine feet in width by 18 feet in length for compact vehicles. (10.0'x 20.0' to 9.0'x 18.0')
6. Chapter 415 Zoning By-law, § 415-22 Building and lot Regulations A. Parking/access and egress requirements (2)(e)	The emergency access/parking lot is 3.1 feet from the cedar street ROW. This is 26.9 feet less than the minimum set back of 30 feet from any property line. (30.0' to 3.1' = 26.9' reduction)
7. Chapter 415 Zoning By-law, § 415-22 Building and lot Regulations B. Yard regulations (4)	The proposed community building is within 1.2 feet of the Wilson Street Right-of-Way. This is 10 feet less than the 15 foot minimum side yard setback for an accessory structure greater than 400 square feet. (15.0' to 1.2' = 13.2' reduction)

<u>Local Regulation</u>	<u>Waiver Requested</u>
8. Chapter 415 Zoning By-law, § 415-22 C. Height regulations	The proposed apartment buildings will be 5 stories tall and approximately 69 feet about finished grade. This is 2 stories and 33 feet taller than the maximum building height for this district. (3 stories to 5 stories = 2 stories greater) (36.0' to 69.0' = 33.0' greater)
9. Chapter 415 Zoning By-law, § 415-22 Building and lot Regulations F. Multi-family developments. (4)	The proposed project does not conform to the Off-street parking requirements in § 415-35 of this bylaw as stated above.
10. Chapter 415 Zoning By-law, § 415-29 Number of buildings on single lot.	The project site design includes two principal use apartment buildings and 1 commons building. Only one principal residential building is allowed by this bylaw.
11. Chapter 415 Zoning By-law, § 415-35 Off street parking requirements A. Residential Uses (1)	The projects site is design with a 1.25 parking ratio. This is 1.75 spaces less than the required 3 spaces for multi-family residence. (3 spaces/unit to 1.25 spaces/unit = 1.75 space/unit reduction)
12. Chapter 415 Zoning By-law, Article XIII Design Review board § 415-94 Types of sites and properties	This project is being submitted for approval from the ZBA, however, we welcome input from the Design Review Board during the ZBA review process
13. Rules & Regulation of the Planning Board, § I.I.2. Location Map	All buildings and zoning district boundaries within 200 feet of the site are not shown on the site plans per this regulation.
14. Rules & Regulations of the Planning Board, § III.B.1. Location and Alignment.	Although we do not believe that the Pond St. Access Driveway is not a Roadway, The access driveway begins to curve off a right angle at station 0+50.36 which is 49.64 feet less than the required distance of 100 feet from the intersecting street lines of Pond Street. (100.0' to 27.13' = 72.87' reduction)
15. Rules & Regulations of the Planning Board, § III.C.2.e. Drainage Structures. 1)	All drain pipes are HDPE rather than Class III reinforced concrete pipe. (Class III RCP to HDPE)
16. Rules & Regulations of the Planning Board, § III.C.2.f. Drainage Basins 1)	Subsurface infiltration chambers are proposed but are not permitted not be permitted unless approved by the board.
17. Rules & Regulations of the Planning Board, § III.C.2.f. Drainage Basins 6)	Test Pits were performed throughout the site and infiltration rates were based on NRCS Web Soil Survey Values. Test pits and Percolation tests were not performed within the footprint of the subsurface structures.

<u>Local Regulation</u>	<u>Waiver Requested</u>
18. Rules & Regulations of the Planning Board, Section IV.H. Shade Trees	Shade trees, of species and size as directed by the Board, shall be retained or planted. There shall be at least three (3) trees for every one hundred (100) feet, spaced evenly, on each side of the street. They shall be located as directed by the Board or the Tree Warden. The usual location will be five (5) to six (6) feet behind the sidewalk. Trees to be planted shall have a minimum height of twelve (12) feet with eight (8) foot head clearance and shall be at least three (3) inch caliper at forty-two (42) inches from ground level.
19. Rules & Regulations of the Planning Board, Section IV.I. Side Slopes	All side slopes are graded at a 3:1 horizontal to vertical section. This regulation requires fill slopes are graded no greater the 4:1.
To the extent that the Project requires additional exemptions and waivers not expressly set forth above, the Applicant requests that such exemptions and waivers be granted to the extent necessary to complete the Project as shown on the Project Plans, as they may be amended throughout the hearing process.	

J-5019
July 30, 2020

Mr. David C. Andronico, Director of Facilities & Project Management
Jones Street Residential
100 High Street, Suite 2500
Boston, MA 02110

Re: **Limited Summary of Environmental and Geotechnical Conditions
0 Pond Street
Rockland, Massachusetts**

Dear Mr. Andronico:

Tighe & Bond is pleased to provide you with this Preliminary Subsurface Environmental Investigation Letter for the proposed development of the property identified as 0 Pond Street in Rockland, Massachusetts (the "Site") on behalf of Jones Street Residential (JSR). Environmental and geotechnical services included a limited subsurface investigation including the excavation of shallow test pits and advancement of soils borings in select areas of the Site. Soil sampling was completed as part of the investigations. Groundwater monitoring from newly installed monitoring wells and an existing series of shallow piezometers previously installed at the Site is ongoing.

This preliminary letter summarizes our findings and provides recommendations to support soil and groundwater management for the proposed development. A Massachusetts Geographic Information Systems (MassGIS) Resource Map (Figure 1), and Orthographic Site Plan (Figure 2) are included in Appendix A for reference.

The information provided below was summarized from the Geotechnical Evaluation and Preliminary Subsurface Environmental Investigation Letter prepared for the Site by Tighe & Bond.

Site Conditions

The Site consists an approximate 28.6-acre parcel which is located off Pond Street in Rockland, Massachusetts. The Site location is shown on Figures 1 and 2 in Appendix A.

Historic - Based on a review of historical aerial photography for the Site, the parcel was first developed from an access point off Wilson Street in the early 1950's. One building was present at the Site near the west end of Wilson Street. Portions of the Site appear to have been used as an automotive junkyard / salvage yard from the mid-1950's through the early 1990's. Historic environmental reports prepared for abutting properties reference the subject property as Joe Smith's Scrap Metal Junkyard. Tighe & Bond could not identify any previous environmental conditions or remediation reports for the subject property.

Existing - The Site is currently vacant and not improved with any permanent structures. The site consists primarily of wetlands / filled wetlands with an elevated area in the approximate center of the site, partially cleared from vegetation. An unpaved access road provides access from Pond Street in the northeast portion of the site. Additional access is available from Wilson Street. Based on a review of historical aerial photographs, several portions of the site, including the main access drive, may be filled wetlands. The majority of the property appears to have been cleared of above-grade junkyard debris, however, mounded piles of debris were noted in several areas of the property. In addition, buried consolidated rubber tire debris was noted at the Site as described later in this letter.

Proposed - It is Tighe & Bond's understanding that JSR plans to develop the central portion of the property with multi-unit residential apartment buildings and associated amenities. The

planned buildings are slab-on-grade multi-story wood timber construction. Other features include ground level parking and retaining wall structures to support development. The proposed site grading will generally require substantial fills across the developed areas of the Site.

Surrounding Resource Areas

According to MassGIS mapping (Figure 1, Appendix A), the majority of the parcel is comprised of areas of designated MassDEP Inland Wetlands. The majority of the wetland areas and their buffer are considered part of a Zone A for Public Surface Water Supply Protection Area located to the southwest of the Site. Portions of the southeastern portion of the parcel area are located in a Potentially Productive Medium Yield Aquifer.

A Natural Heritage and Endangered Species Program Certified Vernal Pool and Potential Vernal Pool are also located in the southeast portion of the parcel outside of the area of proposed development.

Tighe & Bond Subsurface Investigations

In June 2020, Tighe & Bond completed the following subsurface investigations.

Test Pits

Two days of shallow test pitting was completed at the Site on June 3 and June 4, 2020. A total of 17 test pits were completed ranging in depths from 6.5 to 9 feet below the ground surface. Environmental samples were collected from select test pits. Test pits were terminated in native soils approximately 2 to 3 feet below the groundwater interface as observed visually in the test pits. The location of the test pits, TP-1 through TP-17 are included on Figure 2 in Appendix A.

General soil descriptions typically included two to nine feet of sand a gravel fill containing varying amounts of debris including glass, metal and plastic (likely associated with former salvage yard operations). Fill in select areas of the Site were underlain with an organic peat layer. In additional, low lying areas of the property near the noted areas of first development at the western end of Wilson Street appear to have been filled prior to historical site operations. Fill in these areas was observed to contain less evidence of debris from usage as an automotive salvage yard.

Test Borings

Between June 3 and June 10, 2020, 14 geotechnical test borings (TB-1 through TB-14) were completed on Site. The locations are shown on Figure 2 in Appendix A. Soil borings were advanced to a maximum explored depth of 60 feet bsg. Shallow soil conditions identified in shallow soils during the advancement of the soil borings are consistent with soil conditions identified during test pit excavation. Test boring TB-4 was completed with groundwater monitoring well MW-1.

Summary of Findings

Geotechnical Summary

In general, subsurface conditions observed in the borings consisted of topsoil and fill underlain by an upper stratum of loose to medium dense sand & gravel, or loose to medium dense sand & silt, a lower stratum of medium dense to dense sand & gravel and glacial till. Borings TB-2, TB-5, TB-7, TB-11, TB-12, and TB-13 had approximately 2-10 feet of peat or organic silt beneath the fill. Boulders, up to approximately 3.5 feet in diameter were encountered within the sand & silt or lower sand & gravel layer, in borings TB-4, TB-5, TB-6 and TB-7, performed within the footprint of the proposed buildings.

Due to the relatively thick unsuitable fill and organics layers and the presence of liquefaction susceptible soils underneath the unsuitable fill and organics, the use of shallow foundations is not recommended without mitigating the potential for settlement and liquefaction in these unsuitable strata. Foundation systems will likely include shallow foundations installed after a ground improvement program has been performed.

The ground improvement alternatives currently being considered consists of ram aggregate piers (RAPs). Additional geotechnical recommendations for retaining walls and parking lots were incorporated into the complete Geotechnical Evaluation completed by Tighe & Bond.

Environmental Conditions Summary of Soil

Eight composite soil samples were collected from fill soil and natural soils from the test pits and submitted for laboratory analysis. Soil analytical results are summarized in Table 1 in Appendix B. As seen in Table 1, only select EPH analyte concentration in TP-14 from 2 to 4.5 feet, specifically polycyclic aromatic hydrocarbon (PAH) concentrations were identified slightly above the applicable RCS-1 Reportable Concentrations and could constitute a 120-day reporting requirement to MassDEP in accordance with 310 CMR 40.0315 if not addressed.

Based on field observations in this area and the results of additional microscopic analysis, in accordance with 310 CMR 40.0317 (9), the identified PAH concentrations have been attributed to the presence of coal, coal ash or wood ash present in the sample and are being considered except from MassDEP reporting. There were no additional RC exceedances identified in the balance of the soil data collected to date.

Soils Management During Construction

Site development calls for soil fill across the developed portion of the Site. We recommend the reconsolidation and reuse of excavated soil excavated during construction within the boundaries of development.

The following strategies have been proposed for soils management:

- Geotechnically unsuitable soils, including topsoil, should be consolidated and used as as non-structural fill. Existing soils that have visible debris should be placed beneath newly imported fill soils;
- Use of Best Management Practices (BMPs) for soil relocation, including not reusing existing soils with visible debris within the top 12 to 24 inches of ground surface where soils may become accessible to future residents, including not using existing soils for gardening or growing of fruit/vegetables. It should be noted however that MassDEP reportable soil contamination has not been identified to date.
- Fill imported to the Site for construction will be completed under review of a Licensed Site Professional and in compliance with a Site-specific soils management plan. Options being evaluated include the acceptance of clean imported borrow from "like" Sites accompanied by an acceptance package documenting the origin of the soils and analytical data to document the geotechnical and environmental suitability of the soils.

Delineation and Removal of Buried Solid Waste and Solid Waste Piles

Various amounts of buried debris have been identified in the subsurface. Separation of the debris from surficial soils across the majority of the Site is likely infeasible and environmentally not warranted. Larger piles of debris disturbed during earth work should be segregated as identified and recycled off-Site.

We also identified a consolidated area mainly buried rubber tires along the access roadway leading to the southern portion of the parcel (area of TP-15 and TP-17). Multiple mounded areas of consolidated solid waste including metals scraps and rubber tires. The buried tires and mounded areas were generally located outside of the limits of development.

To the extent feasible, we recommend the delineation of the buried tire waste and the off-Site management of the tires and mounded solid waste piles. Mechanical screening of select debris piles may be warranted.

Groundwater Assessment

Groundwater monitoring at the Site is ongoing. Once a complete assessment of groundwater is complete, a summary of findings will be provided.

According to information provided by JSR, the proposed development will be municipally supplied with potable water.

Stormwater and Groundwater Management during Construction

Since site disturbances for construction are greater than 1 acre, compliance with EPA's General Permit for Discharges from Construction Activities will be required, including preparing a Stormwater Pollution Prevention Plan (SWPPP). Tighe & Bond is under agreement with JSR to prepare the SWPPP.

Depth to groundwater as calculated from the existing Site grades is between 4 and 7 feet bsg. Large-scale dewatering and groundwater management is considered unlikely during construction based on the proposed filling to occur in conjunction with construction.

If limited dewatering is necessary to support select deeper excavations, our initial recommendation would be to re-infiltrate on-site in an area upgradient of the dewatering point following best management practices (BMPs) outlined in EPA's NPDES General Permit for Discharges from Construction Activities. If discharges to abutting surface water is required, compliance with the NPDES Remediation General Permit may be required.

The Subsurface Investigation Limitations applicable this letter are included as Appendix c.

Notes:

1. *Subsurface conditions may vary widely across the Site given the former Site usage and the identified presence of buried waste. Actual conditions encountered during construction may vary. Additional disturbance of Site soils may reveal conditions that vary from what has been documented to date.*
2. *As identified above additional groundwater assessment is ongoing at the Site, pending the results of the ongoing groundwater assessment, our management recommendations may change.*

Please contact Matt Abraham at (617)686-2310 if you should have any questions, comments, or require additional information.

Very truly yours,

TIGHE & BOND, INC.


Matt Abraham
Senior Project Manager


Marc Richards, PE, LSP
Senior Vice President

Enclosures: Appendix A – Figures
 Figure 1: Priority Resources Map
 Figure 2: Orthograph Site Plan
 Appendix B – Analytical Data Tables
 Table 1: Soil Analytical Data
 Appendix C – Subsurface Investigation Limitations

Tighe&Bond

APPENDIX A



Legend

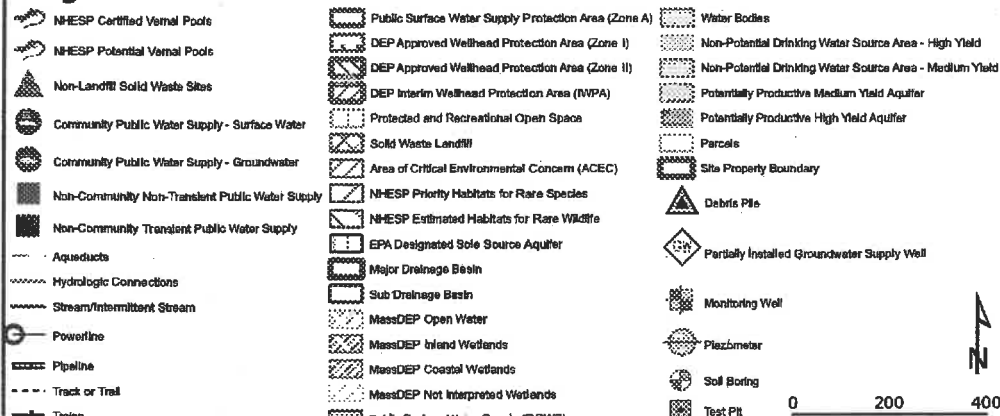


FIGURE 1
PRIORITY RESOURCES

Environmental Site Assessment
0 Pond Street
Rockland, Massachusetts

Data source: Bureau of Geographic Information (MassGIS),
Commonwealth of Massachusetts, Executive Office of Technology
Circles indicate 100-foot and 500-foot radii.
Data valid as of July 2020.

Tier 1 & Bond



Tighe&Bond

APPENDIX B

TABLE 1

Summary of Soil Analytical Data
 Jones Street Residential
 Pond Street,
 Rockland, Massachusetts

Sample ID Sample Depth Sample Date	MassDEP Reportable Concentration RCS-1	TP-5 2-3 ft 06/03/2020	TP-6 2-3 ft 06/03/2020	TP-7 3- 06/03/2020
MCP 14 Total Metals (mg/Kg)				
Antimony	20	<4.12	<4.56	<4
Arsenic	20	2.41	3.32	<2
Barium	1,000	50.2	34.2	13
Beryllium	90	0.24	0.31	0.
Cadmium	70	2.73	1.15	<0
Chromium (Total)	100	13.8	12.6	8.
Lead	200	140	79.5	16
Mercury (7471B)	20	0.032	0.082	<0.
Nickel	600	15.7	15.5	8.
Selenium	400	<4.12	<4.56	<4
Silver	100	<0.41	<0.91	<0
Thallium	8	<4.12	<4.56	<4
Vanadium	400	15.8	18.7	11
Zinc	1,000	290	152	53
TCLP Metals (mg/L)				
Lead	NS	0.267	-	.
Volatile Organic Compounds (VOCs) (mg/Kg)				
Acetone	6	<0.0113	0.0314	0.0
Methyl Ethyl Ketone (MEK; 2-Butanone)	4	<0.0113	<0.0075	<0.0
Naphthalene	4	<0.0056	<0.0038	<0.0
Polychlorinated Biphenyls (PCBs) (mg/Kg)				
Aroclor 1260	1	0.1	0.1	<0
Aroclor 1268	1	<0.05	<0.05	<0
PCBs (Total)	1	0.1	0.1	<0
Extractable Petroleum Hydrocarbons (EPH) (mg/Kg)				
Aliphatic Hydrocarbons C9-C18	1,000	<15.3	<15.4	<1
Aliphatic Hydrocarbons C19-C36	3,000	59	28.9	<1
Aromatic Hydrocarbons C11-C22	1,000	<15.3	<15.4	<1
Acenaphthene	4	<0.41	<0.41	<0
Acenaphthylene	1	<0.2	<0.21	<0
Anthracene	1,000	<0.41	<0.41	<0
Benzo(a)anthracene	7	<0.41	<0.41	<0
Benzo(a)pyrene	2	<0.41	<0.41	<0
Benzo(b)fluoranthene	7	<0.41	<0.41	<0
Benzo(g,h,i)perylene	1,000	<0.41	<0.41	<0

Tighe&Bond

APPENDIX C

1. This report has been prepared on behalf of and for the exclusive use of the Client and is subject to and issued in accordance with the Agreement and the provisions thereof. Documents provided on this project shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party without the prior written consent of Tighe & Bond. Reuse of documents by Client or others without Tighe & Bond's written permission and mutual agreement shall be at the user's sole risk, without liability on Tighe & Bond's part and Client agrees to indemnify and hold Tighe & Bond harmless from all claims, damages, and expenses, including attorney's fees, arising out of such unauthorized use or reuse.
2. Tighe & Bond acknowledges and agrees that, subject to the Limitations set forth herein and prior written approval by Tighe & Bond, this report may be provided to specific financial institutions, attorneys, title insurers, lessees and/or governmental agencies identified by Client at or about the time of issuance of the report in connection with the conveyance, mortgaging, leasing, or similar transaction involving the real property which is the subject matter of a report and any work product. Use of this report for any purpose by any persons, firm, entity, or governmental agency shall be deemed acceptance of the restrictions and conditions contained therein, these Limitations and the provisions of Tighe & Bond's Agreement with Client. No warranty, express or implied, is made by way of Tighe & Bond's performance of services or providing an environmental site assessment, including but not limited to any warranty with the contents of a report or with any and all work product.
3. Tighe & Bond performed the subsurface investigation in accordance with our Agreement (including any stated scope and schedule limitations) and used the degree of care and skill ordinarily exercised under similar circumstances by members of the profession practicing in the same or similar locality. The objective of a subsurface investigation is to evaluate the presence or absence of contamination. Where access was denied or conditions obscured, Tighe & Bond provides no opinion or report on such areas. The subsurface investigation may not identify all contaminated media as our scope may be limited to certain locations within a site or due to geologic variability, contamination variability, seasonal conditions, obstructions such as buildings, utilities, or other site features and/or other unknown conditions. Tighe & Bond performed the subsurface investigation using reasonable methods to access and identify the presence of contaminated media. Therefore, additional contaminated media may be present at the site and may be discovered during development and site work, so an appropriate cost contingency should be carried by the Client based on their risk tolerance. Tighe & Bond also makes no opinion or report of contamination that may have migrated off site unless off-site investigations are specifically included in the scope of services.
4. Findings, observations, and conclusions presented in this report, including but not limited to the extent of any subsurface explorations or other tests performed by Tighe & Bond, are limited by the scope of services outlined in the Agreement, which may establish schedule and/or budgetary constraints for an environmental assessment or phase thereof. Furthermore, while it is anticipated that each assessment will be performed in accordance with generally accepted professional practices and applicable standards (such as ASTM, etc.) and applicable state and Federal regulations, as may be further described in the report and/or the Agreement, Tighe & Bond does not assume responsibility for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of its services.

5. In preparing this report, Tighe & Bond, Inc. may have relied on certain information provided by governmental agencies or personnel as well as information and/or representations provided by other persons, firms, or entities, and on information in the files of governmental agencies made available to Tighe & Bond at the time of the site assessment. To the extent that such information, representations, or files may be inaccurate, missing, incomplete or not provided to Tighe & Bond, Tighe & Bond is not responsible. Although there may be some degree of overlap in the information provided by these various sources, Tighe & Bond does not assume responsibility for independently verifying the accuracy, authenticity, or completeness of any and all information reviewed by or received from others during the course of the site assessment.
6. The assessment presented is based solely upon information obtained or received prior to issuance of the report. If additional environmental or other relevant information is developed at a later date, Client agrees to bring such information to the attention of Tighe & Bond promptly. Upon evaluation of such information, Tighe & Bond reserves the right to recommend modification of this report and its conclusions.
7. Emerging contaminants, including per- and poly-fluorinated alkyl substances (PFAS), are hazardous materials or mixtures (including naturally occurring or manmade chemical, microbial, or radiological substances) that are characterized by having a perceived or real threat to human health, public safety, or the environment for which there are no published health standards or guidelines and there is insufficient or limited available toxicological information or toxicity information that is evolving or being re-evaluated; or there is not significant new source, pathway, or detection limit information. The state of these compounds is constantly being updated and therefore, Tighe & Bond cannot be held liable for not including these compounds in the list of analytes that are analyzed when our services are performed. Unless otherwise specified, Tighe & Bond will only analyze for compounds ordinarily included under similar circumstances by members of the profession practicing in the same or similar locality. Tighe & Bond will not be liable for not including these or any other compounds in the list of target analytes if information regarding their use is not made available by current or former operators/owners at the facility being evaluated. We will also not be liable for not analyzing for the presence of an emerging contaminant, even if that compound is detected at a later date.
8. Tighe & Bond makes no guarantee or warranty that this report (if provided to a regulatory agency) will pass a regulatory audit/review. The Licensed Site Professional (LSP), Licensed Environmental Professional (LEP), Professional Geologist (PG), Professional Engineer (PE) or other relevant professional licensure and the applicable regulatory reviewing agency may have differences of opinion on aspects of (and approaches to) the assessment, remediation, risk evaluation or closure and the regulatory agency may request additional information, sampling data, analysis and/or remediation. Such differences of opinion will not be interpreted to imply that Tighe & Bond's services were not performed competently and in accordance with the standard of care. If additional investigations, response action evaluations, or discussions are needed following a regulatory audit/review, Tighe & Bond can provide these services under a separate Agreement.
9. If an Opinion of Probable Construction Costs (OPCC) is provided, Tighe & Bond has no control over the cost or availability of labor, equipment or materials, or over market conditions or the contractor's method of pricing, and that the opinion of probable costs

is made on the basis of Tighe & Bond's professional judgment and experience is based on currently available information. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the actual costs of the construction work will not vary from the OPCC.

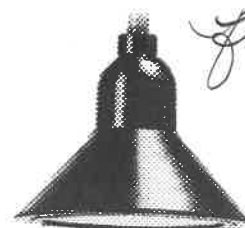
HADCO

by Signify

Urban

Prima

CXF6 Pendant



File



Project: _____
 Location: _____
 Cat No: _____
 Type: _____
 Lamp: _____
 Notes: _____

The Hadco Prima pendant family offers a simple modern take on the traditional pendant lantern, providing style and elegance to downtown areas, commercial developments, parks and residential communities. These pendants use the latest LED technology which maximizes energy savings and provides uniform and comfortable light.

Ordering guide:

Example: CXF6-32-G2-A-A-2-W-A-3-DA-AST-SP2-N

Series	LED's	Generation	Mounting	Finish	Optics	CCT	Voltage	Drive current
CXF6		G2						
CXF6	32¹ 32 LEDs	G2	A Side arm	A Black	2 Type II	W 3000K	A 120-277 VAC	3 350mA
Swan	48 48 LEDs		T Top arm	B White	3 Type III	N 4000K	B^{1,3} 347-480 VAC	5 530 mA
	64 64 LEDs		W Wall mount	G Verde	4 Type IV			7² 700mA
	80² 80 LEDs			H Bronze	5 Type V			
				I Gray				
				J Green				

Footnotes

Ordering guide (continued)

Optional programs					
Optional dimming	1 st option	2 nd option	3 rd option	Surge protection	Luminaire options
DA 4 Hrs 25% Reduction	AST Adjustable start up	CLO Constant light output	OTL Over the life	SP1 10kV/20kA	H House side shield
DB 4 Hrs 50% Reduction				SP2 20V/20kA	N No options
DC 4 Hrs 75% Reduction					
DD 6 Hrs 25% Reduction	N No 1 st option	N No 2 nd option	N No 3 rd option		
DE 6 Hrs 50% Reduction					
DF 6 Hrs 75% Reduction					
DG 8 Hrs 25% Reduction					
DH 8 Hrs 50% Reduction					
DJ 8 Hrs 75% Reduction					
DALI Compatible with DALI					
N No dimming					

- 32 LED at 350mA and 530mA are not compatible with 347-480V.
- Can't use 700mA with 80LED's.
- 347-480V not compatible with optional dimming or optional programming.

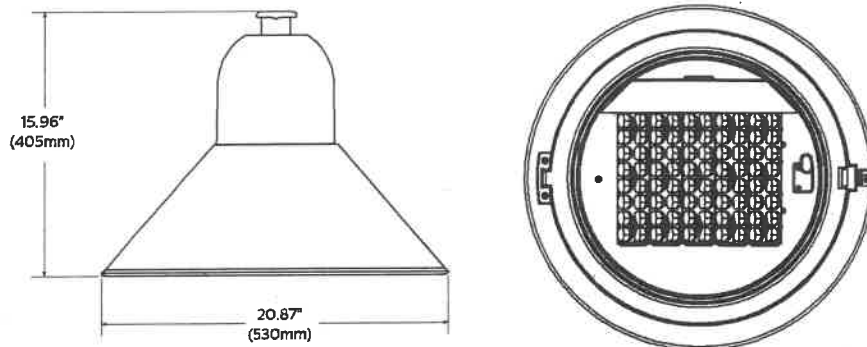


CXF6 Prima

Pendant

Dimensions

Width: 21" diameter
 Height: 16-1/2"
 EPA: 0.93 sq. ft
 Weight: 27 lbs (12.25 kg)
 (maximum)



Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L70 is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-II. Published L70 hours limited to 6 times actual LED test hours.

Ambient Temperature °C	Driver mA	Calculated L70 Hours	L70 per TM21	Lumen Maintenance % at 60,000 hrs
25°C	700 mA	>100,000 hours	>60,000 hours	>87%

LED Wattage and Lumen Values: Prima CXF6

4000K					Type 2			Type 3			Type 4			Type 5		
Ordering Code	Total LEDs	LED Current (mA)	Average System Watts ¹	Color Temp.	Delivered Lumens ²	Efficacy (LPW)	BUG Rating	Delivered Lumens ²	Efficacy (LPW)	BUG Rating	Delivered Lumens ²	Efficacy (LPW)	BUG Rating	Delivered Lumens ²	Efficacy (LPW)	BUG Rating
CXF632-G2-N3-16	32	350	35	4000K	4,134	117	B1-U0-G1	4,012	114	B1-U0-G1	3,913	111	B1-U0-G1	3,803	108	B3-U0-G1
CXF632-G2-N5-16	32	530	51	4000K	5,850	114	B1-U0-G1	5,678	111	B1-U0-G1	5,537	108	B1-U0-G1	5,381	105	B3-U0-G1
CXF632-G2-N7-16	32	700	71	4000K	7,671	109	B2-U0-G1	7,445	106	B1-U0-G2	7,260	103	B1-U0-G2	7,055	100	B3-U0-G2
CXF648-G2-N3-16	48	350	52	4000K	5,994	116	B1-U0-G1	5,818	113	B1-U0-G1	5,673	110	B1-U0-G2	5,514	107	B3-U0-G1
CXF648-G2-N5-16	48	530	75	4000K	8,483	113	B2-U0-G2	8,232	110	B2-U0-G2	8,028	107	B2-U0-G2	7,802	104	B3-U0-G2
CXF648-G2-N7-16	48	700	103	4000K	11,122	108	B2-U0-G2	10,794	104	B2-U0-G2	10,528	102	B2-U0-G2	10,230	99	B4-U0-G2
CXF664-G2-N3-16	64	350	68	4000K	7,602	112	B2-U0-G1	7,378	108	B1-U0-G2	7,195	106	B1-U0-G2	6,993	103	B3-U0-G2
CXF664-G2-N5-16	64	530	99	4000K	10,758	109	B2-U0-G2	10,441	105	B2-U0-G2	10,182	103	B2-U0-G2	9,895	100	B4-U0-G2
CXF664-G2-N7-16	64	700	137	4000K	14,106	103	B3-U0-G2	13,690	100	B2-U0-G2	13,350	98	B2-U0-G2	12,974	95	B4-U0-G2
CXF680-G2-N3-16	80	350	87	4000K	10,214	117	B2-U0-G2	9,913	114	B2-U0-G2	9,667	111	B2-U0-G2	9,394	108	B4-U0-G2
CXF680-G2-N5-16	80	530	127	4000K	14,453	114	B3-U0-G2	14,027	111	B2-U0-G2	13,679	108	B2-U0-G2	13,294	105	B4-U0-G2

- System input wattage may vary based on input voltage, by up to +/- 10%, and based on manufacturer forward voltage, by up to +/- 8%.
 - Lumen values based on photometric tests performed in compliance with IESNA LM-79.
- Note: Some data may be scaled based on tests of similar, but not identical, luminaires.

CXF6 Prima

Pendant

LED Wattage and Lumen Values: Prima CXF6

3000K

Ordering Code	Total LEDs	LED Current (mA)	Average System Watts ¹	Color Temp.	Type 2			Type 3			Type 4			Type 5		
					Delivered Lumens ²	Efficacy (LPW)	BUG Rating	Delivered Lumens ²	Efficacy (LPW)	BUG Rating	Delivered Lumens ²	Efficacy (LPW)	BUG Rating	Delivered Lumens ²	Efficacy (LPW)	BUG Rating
CXF632-G2-W3-16	32	350	35	3000K	3,618	103	B1-U0-G1	3,511	100	B1-U0-G1	3,424	97	B1-U0-G1	3,395	96	B2-U0-G1
CXF632-G2-W5-16	32	530	51	3000K	5,119	100	B1-U0-G1	4,968	97	B1-U0-G1	4,845	95	B1-U0-G1	4,708	92	B3-U0-G1
CXF632-G2-W7-16	32	700	71	3000K	6,712	95	B2-U0-G1	6,514	92	B1-U0-G1	6,352	90	B1-U0-G2	6,176	88	B3-U0-G1
CXF648-G2-W3-16	48	350	52	3000K	5,245	102	B1-U0-G1	5,090	99	B1-U0-G1	4,964	96	B1-U0-G1	4,824	94	B3-U0-G1
CXF648-G2-W5-16	48	530	75	3000K	7,422	99	B2-U0-G1	7,203	96	B1-U0-G2	7,025	94	B1-U0-G2	6,827	91	B3-U0-G2
CXF648-G2-W7-16	48	700	103	3000K	9,732	94	B2-U0-G2	9,445	91	B2-U0-G2	9,210	89	B2-U0-G2	8,951	87	B3-U0-G2
CXF664-G2-W3-16	64	350	68	3000K	6,652	98	B2-U0-G1	6,456	95	B1-U0-G1	6,296	92	B1-U0-G2	6,118	90	B3-U0-G1
CXF664-G2-W5-16	64	530	99	3000K	9,413	95	B2-U0-G2	9,136	92	B2-U0-G2	8,909	90	B2-U0-G2	8,658	87	B3-U0-G2
CXF664-G2-W7-16	64	700	137	3000K	12,342	90	B2-U0-G2	11,978	88	B2-U0-G2	11,681	86	B2-U0-G2	11,352	83	B4-U0-G2
CXF680-G2-W3-16	80	350	87	3000K	8,937	103	B2-U0-G2	8,673	100	B2-U0-G2	8,458	97	B2-U0-G2	8,220	94	B3-U0-G2
CXF680-G2-W5-16	80	530	127	3000K	12,647	100	B2-U0-G2	12,274	97	B2-U0-G2	11,969	94	B2-U0-G2	11,632	92	B4-U0-G2

Specifications:

Housing

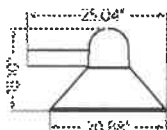
In a round shape, this housing is constructed of low copper die-cast aluminum and 0.090" thick spun aluminum. All non-ferrous fasteners prevent corrosion and ensure longer life.

Access-mechanism

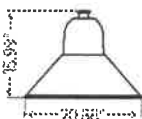
The hinged lens frame is cast aluminum with a stainless steel spring latch for tool-less access

Mounting

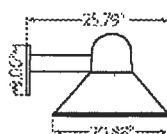
A: Side arm mount



T: Top arm mount



W: Wall mount



Light engine

LEDgine is composed of five main components: **Heat Sink, Lens, LED lamp, Optical System, and Driver.**

Electrical components are RoHS compliant.

LED module

LED type Lumileds LUXEON T. Composed of high-performance white LEDs. Color temperature as per ANSI/NEMA bin Neutral White, 4000 Kelvin nominal (3985K +/- 275K or 3710K to 4260K) or Warm White, 3000 Kelvin nominal (3045K +/- 175K or 2870K to 3220K), CRI 70 Min.

Heat sink

Made of cast aluminum optimizing the LEDs efficiency and life. Product does not use any cooling device with moving parts (only passive cooling device).

Finish

Color in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with +/- 1 mils / 24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard. The surface treatment achieves a minimum of 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

Optical system

(2) Type II, (3) Type III, (4) Type IV and (5) Type V are composed of high performance optical grade PMMA acrylic refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. Optical system is rated IP66. Performance shall be tested per LM 63, LM 79 and TM 15 (IESNA) certifying its photometric performance. Street side indicated.

CXF6 Prima

Pendant

Specifications (continued)

Driver

Driver comes standard with dimming compatible 0-10V. High power factor of 95%. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. Maximum ambient operating temperature from 40°F (4°C) to 130°F (55°C). Certified in compliance to UL1310 cULus requirement (dry and damp location). Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221°F (105°C). The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5kV (min).

Driver options

Optional programming 1

AST: Pre-set driver for progressive start-up of the LED module(s) to optimize energy management and enhance visual comfort at start-up.

Optional programming 2

CLO: Pre-set driver to manage the lumen depreciation by adjusting the power given to the LEDs offering the same lighting intensity during the entire lifespan of the LED module.

Optional programming 3

OTL: Pre-set driver to signal end of life of the LED module(s) for better fixture management.

Dimming options

DA: 4 Hrs 25% Reduction

DB: 4 Hrs 50% Reduction

DC: 4 Hrs 75% Reduction

DD: 6 Hrs 25% Reduction

DE: 6 Hrs 50% Reduction

DF: 6 Hrs 75% Reduction

DG: 8 Hrs 25% Reduction

DH: 8 Hrs 50% Reduction

DJ: 8 Hrs 75% Reduction

DALI: Pre-set driver compatible with the DALI logarithmic control system.

Surge protection

Surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line Ground, Line Neutral and Neutral Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid State Street Lighting Consortium) model specification for LED roadway luminaires electrical immunity requirements for High Test Level 10kV / 10kA.

Wiring

Gauge 18 wires. Top mount option come with quick disconnects. Arm mount options provide a 6" Minimum exceeding from luminaire.

Hardware

All non-ferrous fasteners prevent corrosion and ensure longer life.

Luminaire useful life

Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, using LM-80 data from LED manufacturers and engineering prediction methods, the luminaire useful life is expected to reach 100,000+ hours with >L70 lumen maintenance @ 25°C. (48 LED and 64 LED@700mA is 82,000) Luminaire useful life accounts for LED lumen maintenance and additional factors, including LED life, driver life, PCB substrate, solder joints on/off cycles and burning hours for nominal applications.

LED products manufacturing standard

The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340 5 1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product

Quality control

The manufacturer must provide a written confirmation of its ISO 9001 2008 and ISO 14001 2004 International Quality Standards Certification.

Vibration resistance

Meets the ANSI C136.31 2001, American National Standard for Roadway Luminaire Vibration specifications for normal Applications.

Certifications and Compliance

cETL listed to Canadian safety standards for wet locations. Manufactured to ISO 9001:2008 Standards. UL8750 and UL1598 compliant. ETL listed to U.S. safety standards for wet locations. cETL listed to Canadian safety standards for wet locations. LM80 & LM79 tested. IP Rating: The LED optics chamber is IP66 rated. The LED driver is IP66 rated. Pima LED luminaires are DesignLights Consortium qualified.

Warranty

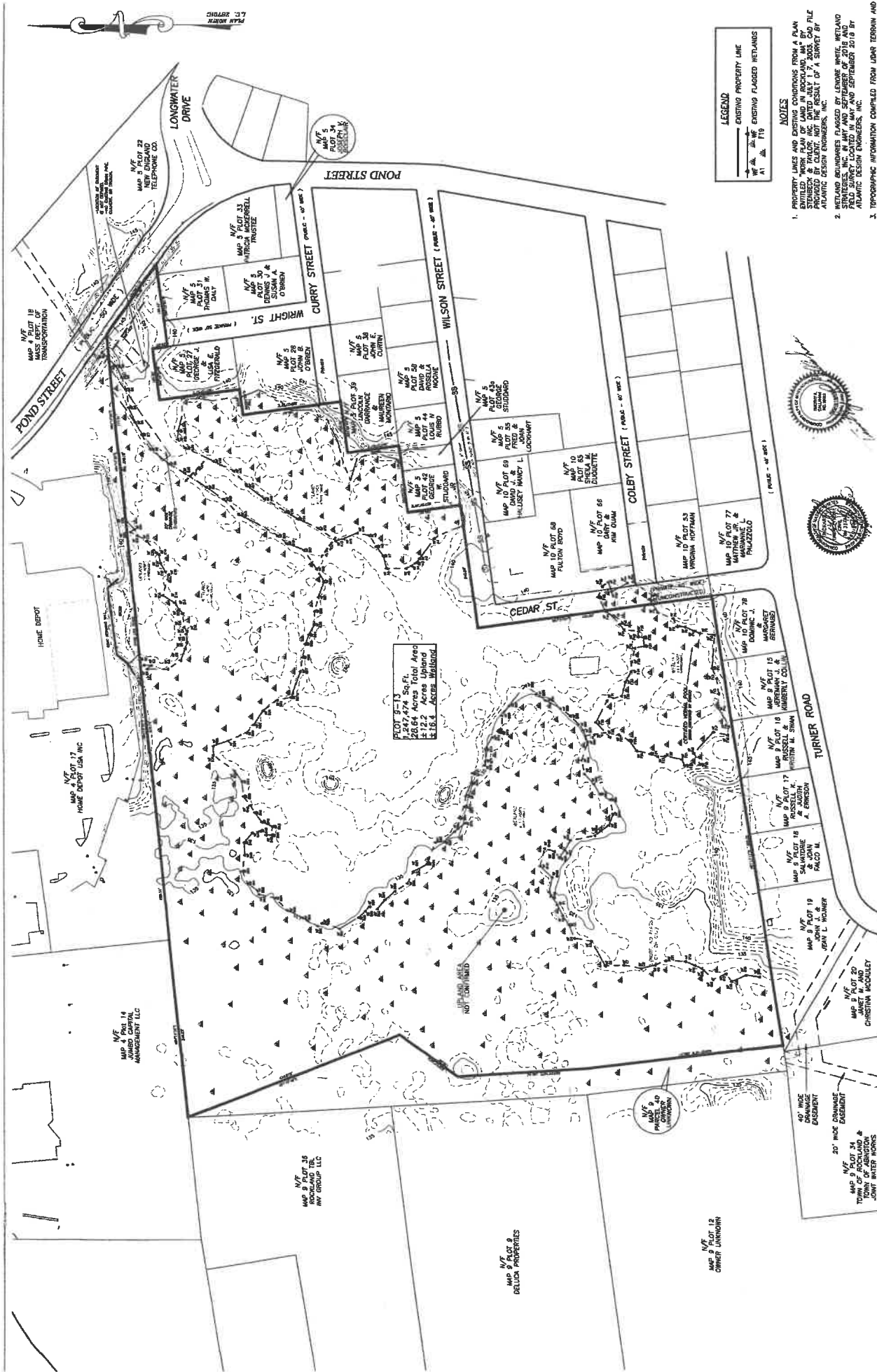
5 year extended warranty.

signify

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Atlantic® DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563 (508) 888 - 9282

Designed by: _____
Drawn by: _____
Checked by: _____
Survey chg. by: _____
Approved by: _____

SCALE: 1" = 80'
1" = 80'
1" = 80'

DATE: _____

PREPARED FOR:
SEVEN HILLS HOLDING TRUST
195 LIBBY PARKWAY, UNIT TWO
WETMOUTH, MASSACHUSETTS 02189

WETLAND LOCATION PLAN
FOR
POND STREET
ROCKLAND, MASSACHUSETTS
JUNE 8, 2018

Sheet 1 of 1
JOB NUMBER 2878.02

NOTES:
1. PROPERTY LINES AND EXISTING CONDITIONS FROM A PLAN
ENTITLED, "WETLAND LOCATION PLAN FOR POND STREET, ROCKLAND, MASSACHUSETTS" WAS PROVIDED BY CLIENT. NOT THE RESULT OF A SURVEY BY
ATLANTIC DESIGN ENGINEERS, INC.
2. WETLAND BOUNDARIES FLAGGED BY LEONARD WHITE, WETLAND
CONSULTANTS, INC. (LWC) IN 2018. LWC FIELD SURVEY LOCATED IN MAY AND SEPTEMBER 2018 BY
ATLANTIC DESIGN ENGINEERS, INC.
3. TOPOGRAPHIC INFORMATION COMPILED FROM JOHN TERNAN AND
BLENTHAM DATA FROM MASSGIS.

file

✓

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WWW.AMORYENGINEERS.COM

June 10, 2020

Rockland Zoning Board of Appeals
Town Offices
242 Union Street
Rockland, MA 02370

Subject: Shinglemill – Chapter 40B Comprehensive Permit

Dear Zoning Board of Appeals:

This is to advise that we have reviewed the following documents related to the proposed Shinglemill Chapter 40B development off Pond Street:

- Shinglemill LLC Comprehensive Permit Submission Package
- Shinglemill Apartments Comprehensive Permit Plans (24 sheets), dated May 14, 2020, prepared by Coneco Engineers & Scientists (Coneco)
- Stormwater Management Report, dated May 14, 2020, prepared by Coneco
- Project Eligibility Letter from MassHousing to the Applicant, dated February 19, 2020
- Correspondence:
 - Email from David Taylor, Highway Superintendent, dated April 3, 2020
 - Memo from John Loughlin, Sewer Superintendent, dated March 18, 2020
 - Email from Jack Egan, dated April 7, 2020
 - Letters from Virginia Hoffman, dated March 27 and June 6, 2020
 - Email and letter from John Wojner, dated April 4, 2020
 - Emails from Sheila Duquette, dated April 6 and 7, 2020

The purpose of our review has been to evaluate conformance with the Rockland Zoning Bylaws (ZBL), Rules and Regulations of the Planning Board of the Town of Rockland (R&R), Massachusetts Department of Housing and Community Development (DHCD) Comprehensive Permit Regulations (760 CMR 56.00), Massachusetts Department of Environmental Protection (DEP) Stormwater Management Standards (SMS) and good engineering practice.

Background

The ±29.4-acre site proposed for development is located off the southwest side of Pond Street, south of the Home Depot property. It is comprised of two parcels, a ±28.64-acre parcel which is located within the Industrial Park-Hotel (H-1) zoning district and a ±0.78-acre parcel which is located within the Residential-2 (R-2) zoning district. The property is mostly wetlands which border upland areas located somewhat centrally on the site. The majority of the site is undeveloped woodland with some cleared areas of gravel in the upland area proposed for

development. There is an existing single-family dwelling on the smaller parcel, which is located at 152 Wilson Street.

The proposed development includes construction of two hundred and thirty six residential apartment units in two, five-story buildings, one with 109 units and the other with 127 units. A 3,129 square foot (s.f.) clubhouse building is also proposed. The buildings would be accessed by a new roadway which would extend from Pond Street approximately 750 feet to the first building. The roadway would have a 24-foot wide paved travel way with 12-inch Cape Cod berms on each side. The roadway would be constructed on fill so steel guard rails and retaining walls would be located along each side of the roadway. An emergency access path would connect to the end of Wilson Street. Surface parking lots would provide for 296 parking spaces, eight of which would be handicap accessible. All of the proposed parking spaces, except for the handicapped spaces, would be nine feet by eighteen feet (compact spaces). In addition to the access road, the rest of the area proposed for development would be constructed on fill which requires retaining walls along most of the perimeter of the development. There are offsite improvements proposed to Pond Street at the project roadway and at the Pond Street/Longwater Drive intersection.

The stormwater system would include catch basins, drain manholes, piping, proprietary treatment units, rain gardens and a subsurface infiltration system consisting of plastic chambers surrounded by crushed stone. The buildings would be connected to a new 8-inc PVC sewer line which is proposed to connect into an existing sewer manhole near the end of Wilson Street. The water system would include a new water main installed along the proposed roadway which would connect to the distribution system in Pond Street. The water main would also be connected to the distribution system in Wilson Street to create a looped connection. Underground electric, telephone, cable television and gas utilities would be installed along the proposed roadway connected to existing utilities in Pond Street.

Comments

We note the following with respect to the list of requested exceptions, waivers and permits (Exhibit A under Tab 3 of the Shinglemill LLC Comprehensive Permit Submission Package):

1. The list does not identify the relief that is requested from each bylaw/rule/regulation. The Board needs to know what relief is sought in order to determine the impacts of granting each waiver. Forthcoming
2. Waiver 1 appears to ask that the Applicant not be required to submit a Notice of Intent to the Conservation Commission. This is a State requirement and cannot be waived under Chapter 40B. Noted, an NOI will be submitted for this project to MassDEP.
3. 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. Forthcoming. The project is filing under 40B

General and roadway:

1. As noted above, essentially the entire site proposed for development will be constructed on fill. A mass balance analysis should be provided so that the Board understands the amount of fill required along with an estimated number of truck trips required to import the fill. Based on the attached plan, we will be importing 57,800 cy of fill to bring the site up to grade. We will also be importing an additional 16,000 cy of gravel, top-soil, and material for pipe bedding, bringing the total to 72,800 cy. The bulk of the material would be brought in at the beginning of the project (approx. 42,000 cy) and would account for the heaviest truck traffic we could expect. Using that as a baseline, assume the following:
 - 1,68 truck loads
 - Avg. 50 truckloads a day
 - Duration of 34 days
2. The proposed retaining walls reach heights of up to 13.5 feet. Railings, fences or other fall protection should be provided on the walls. Also, retaining walls in excess of four feet require a building permit and must be designed by a registered professional engineer. Retaining wall heights have been reduced. A typical guardrail section detail is provided on Sheet C-502 for guardrail detail. In addition, roadway sections at every 100ft will be included in the next Site Plan package to be submitted by August 25th that will provide more detail for the roadway retaining walls.
3. Some of the proposed retaining walls are shown to be right along the wetland lines. The type of wall should be provided with construction details so that the potential impacts to the wetlands may be assessed. See response to Item 2.
4. Additional guard rails should be provided where parking areas are adjacent to retaining walls. See sheet C-102.2 for proposed locations of guard rails and sheet C-502 for guardrail detail.
5. An analysis should be provided to demonstrate that the Rockland Fire Department's largest apparatus may freely maneuver within the proposed roadway and around the site. See sheet C-701 for FD maneuverability analysis.
6. A typical roadway section should be included on the plans to show dimensions, materials of construction, utility locations, etc.
See sheet C-502 for typical roadway detail. Per request of the ZBA, roadway cross-sections at every 100ft will be included in the next Site Plan package to be submitted by August 25th
7. The four-inch gravel and eight-inch gravel layers on the Typical Pavement Section on Sheet 22 should be specified to be dense-graded crushed stone (M2.01.7) and Type C gravel (M1.03.0, 2-inch largest stone), respectively. The detail on Sheet C-502 will be modified in the next Site Plan package to be submitted by August 25th to match these specifications and also to include a note that "A geosynthetic reinforcement, such as Mirafi RSi series, Tensar TriAx TR series, or similar, should be used to improve distribution of the expected vehicular loads, in paved areas of the site where grades are

not expected to be raised by more than 18 inches, if unsuitable soils are encountered at the proposed pavement subgrade” as per recommendation in the geotechnical evaluation.

8. We recommend that the Cape Cod berm along the access road be installed integrally with the binder and wearing courses of pavement. Confirmed, the next Site Plan package to be submitted by August 25th will include cape cod berm along the roadway and parking lot perimeter. Monolithic curb will be constructed along all sidewalks.
9. We note that there is no pedestrian access proposed along the proposed roadway between Pond Street and the proposed buildings. Pedestrian facilities should be considered and if proposed there should be lighting.
In consideration that there is no pedestrian access along Pond Street, we have omitted sidewalks along the “Pond Street access road” as it would dead end once Pond Street was reached.
10. It is not clear where the proposed sidewalk ends behind the larger building (northeast corner). See sheet L1.1 for proposed sidewalk and walkways.
11. The Bituminous Concrete Sidewalk detail on Sheet 22 should specify that the maximum allowable cross slope is two percent (2%) in accordance with the Americans with Disabilities Act (ADA) and Massachusetts Architectural Access Board (AAB) requirements. Confirmed, Note 5 on the Broom Finish Concrete Paving detail on Sheet LD1.0 indicates the max slope shall be 2%.
12. Truck access to the dumpster location west of the smaller building will be difficult. There will be no open dumpster on the site. We have opted to use trash compactor room within the buildings.
13. Dumpster pad dimensions should be clarified. They are shown to be 10-ft. by 10-ft. on the Dumpster Enclosure Detail on Sheet 22 but shown to be 10-ft. by 25-ft. in plan on Sheet 12.
There will be no open dumpster on the site. We have opted to use trash compactor room within the buildings.
14. The Zoning Table on Sheet 2 should include a column for required dimensions.
See Site Plan, Sheet 102.2 for Zoning Table.
15. Proposed landscaping should be shown on the plans.
See sheet LP1.1 for the proposed planting plan.
16. We assume that there will be exterior lighting. Documentation should be provided to demonstrate compliance with R&R §11.4.b.10), including the proposed location, kind, direction, intensity and time of proposed lighting.
See sheet E1.0 for proposed lighting plan

Utilities:

1. The size, type and materials of construction of the proposed water main should be specified on the plans. An 8-inch ductile iron water main is proposed. See Utilities Plans, Sheets C-104.1 & 2.
2. Documentation should be provided to demonstrate that there will be adequate water supply for domestic use and fire flow. We are coordinating water supply with Water Department. In addition, Fire Pumps will be included in the buildings.
3. Documentation of adequate capacity in the existing municipal sewer system should be provided. We are coordinating sewer connection to the municipal system with the sewer department.

Stormwater and erosion control:

1. The drainage calculations indicate that the post-development rate and volume of stormwater runoff will not exceed existing conditions. However, the calculation time span should be extended to run from 5 to 48 hours to more accurately assess the total volume of runoff and verify that it will not be increased in the proposed conditions during the 2-, 10-, 25- and 100-year storm events. Confirmed, the calculation times will be 5 to 48 hours in an updated Drainage Analysis that Site Plan package to be submitted August 25th.
2. There are underdrains in the proposed rain gardens. However, the underdrains have not been modeled in the HydroCAD calculations. These need to be modeled to verify that post development runoff will not exceed existing. Discharge locations of the underdrains should also be shown/specified. The BMP has been revised to a gravel wetland.
3. The drain piping is proposed to be high-density polyethylene (HDPE). This would require a waiver from R&R §III.C.2.e.1) which requires reinforced concrete pipe. If the Board allows the HDPE pipe, for durability we recommend that flared end sections be reinforced concrete. The riprap at the flared ends should be specified to conform to M2.02.3. A waiver for HDPE pipe is indicated on the Grading, Drainage & Erosion Control Plan, Sheet C-103.2 and will also be included in the compiled list of waivers that is forthcoming as indicated in Comment 1 response.
4. There is a proposed 18-inch drain line between the larger building and a proposed retaining wall north of the building. Future maintenance/replacement of this pipe would essentially be impossible due to the wall being six feet from the building. Also, depending on the type of retaining wall, there may not be enough room for the pipe. The proposed retaining wall was revised to be 8ft at the closest point to building. In addition, the limit of retaining wall has been reduced and/or pulled further away from the building to provide additional separation. Also, manhole has also been added to the drain line run to allow for access.
5. The proposed subsurface infiltration system will require a waiver from R&R §III.C.2.f.1). Documentation should also be provided to verify that the system is capable of supporting the Fire Department's heaviest apparatus. A waiver for the infiltration system is indicated on the Grading, Drainage & Erosion Control Plan, Sheet C-103.2 and will also be

included in the compiled list of waivers that is forthcoming as indicated in Comment 1 response.

6. **The Catch Basin (CB) detail on Sheet 19 should specify a gas trap hood in the catch basins.** We recommend that hoods be The Eliminator, Snout or equal. Hoods have been specified as The Eliminator as per detail on Sheet C-504.
7. **In order to convey the design storm, catch basin CB-C1 should be equipped with a double frame and grate.** Double grates have been specified on PCB-11 and PCB-12 in the middle of the parking lot as indicated on the Grading, Drainage & Erosion Control Plan, Sheet C-103.2
8. **The Rain Garden section of the Operation and Maintenance Plan (O&M) should include annual soil/media addition.** The BMP has been revised to a gravel wetland and O&M requirements for the gravel wetland are included in the Stormwater Management Report.
9. **Rain garden plant types should be specified on the plans (Sheet 24).** Wetland Conservation Seed mix has been specified for the Gravel Wetland on the Overall Planting Plan, Sheet LP1.0.
10. **The Erosion Control Barrier detail on Sheet 17 should specify that the filter sock be a minimum of 12-inch diameter.** We don't believe that an 8-inch diameter is adequate for this site. Silt Sock detail on Sheet C-501 indicates it shall be 12-inches.
11. **Sheet 24 shows Flood Plain Impact and Flood Plain Compensation details.** The compensation/replication area and volume are essentially a 1:1 ratio. We believe that the flood plain compensation area should provide replication area and volume at a 2:1 ratio. See Floodplain Impact & Replication Detail on Sheet C-506 which shows that the impacted floodplain volume is 19.2 CY and the replication is 57 CY which is a ration of 3:1.
12. **There are existing reinforced concrete culverts under the proposed access road from Pond Street.** The condition of these culverts should be assessed and they should be replaced if necessary as part of this project since they will have at least ten feet of cover when the proposed road is constructed. The culverts must also be taken into consideration during the final design of the proposed retaining walls as wall construction will likely impact the culverts. Tighe & Bond performed a site observation on July 15, 2020. The existing culverts appear to be in good condition based on visual observation. Enclosed are photos the existing culverts crossing the proposed driveway and Pond Street.

At the Board's direction we will forward the Traffic Impact Study to Gillon Associates for traffic peer review.

We note that there are comments contained in the correspondences from other Town Departments that should also be addressed.

Should you have any question, please give us a call.

Rockland Zoning Board
June 10, 2020
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Very truly yours,

AMORY ENGINEERS, P.C.

By:

Patrick G. Brennan, P.E.

PGB