

**Narrative for the  
17 Park Street – Stormwater Amendment #8879-9015  
DATE: March 7, 2024**

**1. Introduction**

Krebs & Lansing Consulting Engineers, Inc. is writing on behalf of the applicants for the 17 Park Street project to apply for a State Stormwater Discharge Permit pursuant to General Permit 3-9050 for the above referenced project. This will be a permit revision to the existing permit 8879-9050.

**2. Project Description**

This Project is proposing to demolish the existing buildings located at 15-19 Park Street in the City of Essex Junction, Vermont. The applicant is proposing a new mixed use commercial and residential building on the existing lot which is currently an unused multi-unit commercial building. The new building will have 2 commercial spaces on the first floor and 52 dwelling units on the upper stories. The 52 residential dwelling units will be a combination of studio units, single bedroom units, and double bedroom units. Most of the units are studio apartments. The new building will be interconnected with 11 Park Street Building.

As discussed above this Project is interconnected with 11 Park Street and will be a common plan of development. Therefore, this project will seek to amend that building's existing State of Vermont Operation Stormwater Discharge Permit #8879-9015 which has 1.09 acres of existing permitted impervious. The Project will add another 0.59 acres of impervious surface to the permit and overflows from the new Project will tie into the City's stormwater infrastructure at a different existing drainage structure. This Project's receiving water is the groundwater within the Winooski River watershed with overflow to the City of Essex Junction's municipal storm system. The municipal system drains to the Winooski River. The proposed stormwater design for this project will closely mimic the stormwater design for 11 Park Street.

**3. Existing Condition**

This project is located on a developed surrounded by development on all sides. There is the new 11 Park Street building which is north of the Project parcel with retaining walls which separate the spaces. East of the Project is Route 2A, sidewalks, parking lots for the neighboring properties, and eventually the railroad. South of the Project is the access road to Park Street School and then the railroad. Finally, west of the Project is an existing apartment building, which is part of the common plan of development, and is separated from this lot by a retaining wall. All the surrounding lots are mixed use residential and commercial.

In General, the terrain of the Project lot is flat sloping slightly from the northwest to the southeast with grades between 0-2%. The site is surrounded on the northern and western property lines by a block retaining wall which supports a grade difference of 0'-7'. There are some slight slopes up to the walls for support, but those slopes are gentle between 2-5%. The surrounding area either drains away from the site or has existing stormwater infrastructure draining around the site. No properties drain to this Project site. sites.

The soils on the project parcel are mapped by the Natural Resource Conservation Service to be Adams and Windsor loamy sands which are classified as Hydrologic Soil Group A. Soil test pits and infiltration tests were performed by Krebs and Lansing Consulting Engineers on 4/13/2017. The test pits were dug to a depth of 7'-8' and the soils were found to be predominantly coarse. No ledge was encountered to the depth dug but evidence of high seasonal ground water was found in all four test pits, further information can be found on page C-1.00 of the site plans. Krebs and Lansing also performed toe infiltration tests, the tests found rates 46 and 68 in/hr. We have elected to use a rate of 20 in/hr for infiltration trenches/chambers, as a factor of safety.

Regarding Hazardous Sites, we have reviewed the findings and conversations the previous project had with the State Stormwater Program. The former project concluded there are Hazardous Sites in the general vicinity and this project but the proposed stormwater system will have no impact to existing down gradient sites with contaminants. The proposed Project's infiltration practices are similarly located with the practices of 11 Park Street project. It appears the same conclusions can be made that the project would not impact these locations.

#### 4. Existing Stormwater System

The existing site does not currently have a stormwater treatment system. The existing runoff from the Project site currently infiltrates into the existing sandy soils or puddles in the existing gravel parking lot behind the existing building. The front of the building is nearly all paved with water being collected straight to the City's stormwater infrastructure. All stormwater not infiltrated on the small grass patched or puddled onsite drains directly to the municipal system.

#### 5. Proposed Stormwater System:

SN001: Existing Stormwater Permit #8879-9015 – 1.09 acres impervious (remains unchanged)

SN002: Proposed 17 Park Street Project

a) Description of Impervious Area:

- Existing Impervious Area = 0.50 acres
- New Impervious (treated) = 0.12 acres
- Redeveloped Impervious Area (treated) = 0.40 acres
- New/Redeveloped Impervious Area (untreated) = 0.07 acres

b) Receiving Body: Groundwater to the Winooski River and the Winooski River

c) Fish Habitat Designation for Receiving Water: Winooski River is designated a cold-water fish habitat.

d) Description of compliance with each of the treatment standards in the 2017 VSMM including the treatment practices or waivers used to meet each of the following standards:

i) **Post-Construction Soil Depth and Quality Standard:**

The Post Construction Soil Restoration is outlined on sheet C-1.03 and further detailed on C-2.05. The plan outlines the areas of the site that must meet the standard, which is the entire limit of disturbance. There will be very little area within the proposed limit of disturbance which will not be covered by hardscape or drainage gravel. Post construction

the vegetated area's soil will be tested per the details outlined on C-2.05, two locations have been identified on site plan C-1.03.

Furthermore, to the extent practical areas outside of construction will be left undisturbed and protected from compaction during construction. However, most of these areas are also covered by existing hardscape. In areas disturbed, topsoil will be removed and stockpiled during construction. Topsoil will be used to restore proposed vegetated areas post construction.

ii) **Groundwater Recharge Standard:**

SN-002: The Groundwater Recharge Standard is met within the infiltration practices, including the infiltration trench and chambers.

iii) **Water Quality Treatment Standard (WQ<sub>v</sub>):**

SN-002: The Water Quality Treatment Standard is met by infiltrating the entire WQ<sub>v</sub> within the proposed infiltration practices. The project is treating 0.52 acres of the 0.59 acres impervious, the remaining 0.07 will drain directly to the municipal system. This small amount is compensated for using site balancing and treating 100% of the remaining redeveloped impervious area.

iv) **Channel Protection Standard (CP<sub>v</sub>):**

SN-002: The Channel Protection Standard is met by the Hydraulic Condition Method (HMC) using the proposed infiltration practices for the new and redeveloped impervious areas.

v) **Overbank Flood Protection Standard (Q<sub>P10</sub>):**

SN-002: The Overbank Flood Protection standard is met by infiltrating a portion of the Q<sub>P10</sub> storm within the proposed infiltration practices. Then by evaluating the pre and post development hydrologic models in HydroCAD using the values created from the State's Worksheets and Workbook. Below are the values:

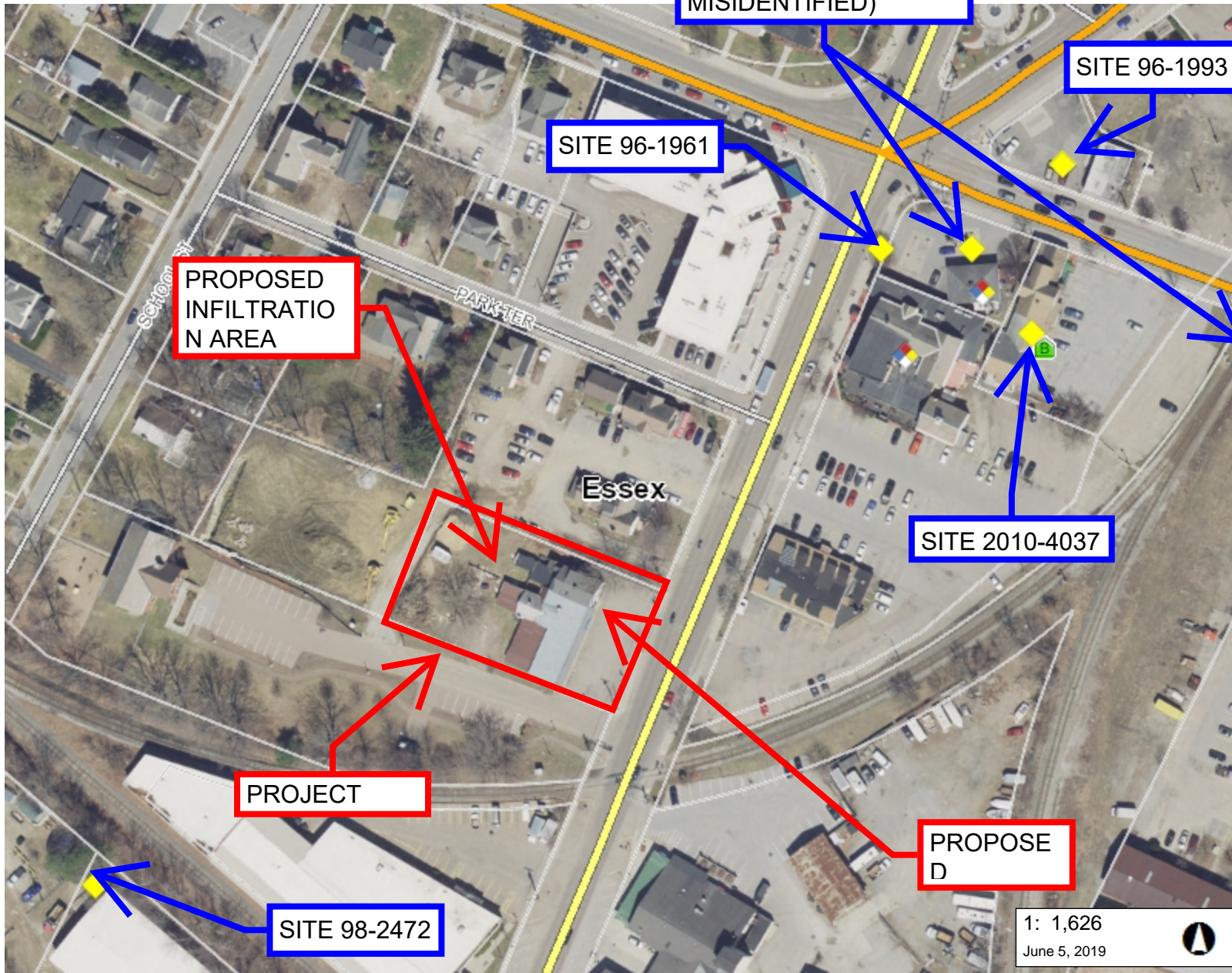
- Predevelopment 10-year, 24-hour Storm = 3.11 cfs
- Pre-routed Post Development 10-year, 24-hour Storm = 3.30 cfs
- Routed Post Development 10-year, 24-hour Storm = 2.06 cfs

vi) **Extreme Flood Protection Standard (Q<sub>P100</sub>):**

SN-002: The overbank flood protection standard is not required because the permit is still less than 10 acres of impervious. However, the project's design would meet the standard by infiltrating a portion of the Q<sub>P100</sub> storm within the proposed infiltration practices. Then by evaluating the pre and post development hydrologic models in HydroCAD using the values created from the State's Worksheets and Workbook. Below are the values:

- Predevelopment 100-year, 24-hour Storm = 4.57 cfs
- Pre-routed Post Development 100-year, 24-hour Storm = 4.98 cfs
- Routed Post Development 100-year, 24-hour Storm = 4.00 cfs

SITE 88-0261  
(CLOSED, LOCATION MISIDENTIFIED)



**LEGEND**

- Hazardous Site
- Hazardous Waste Generators
- Brownfields
- Parcels (standardized)
- Parcels (non-standardized)
- Roads**
- Interstate
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local
- Not part of function Classification S
- Waterbody
- Stream
- Town Boundary

1: 1,626  
June 5, 2019

**NOTES**

Map created using ANR's Natural Resources Atlas



WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
© Vermont Agency of Natural Resources  
1" = 136 Ft. 1cm = 16 Meters  
THIS MAP IS NOT TO BE USED FOR NAVIGATION

**DISCLAIMER:** This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

Nick Smith

---

From: Wilson, William <William.Wilson@vermont.gov>  
Sent: Monday, September 16, 2019 2:35 PM  
To: Nick Smith  
Subject: RE: 9 & 11 Park Street - Infiltration Restriction?

Nick,

Thank you for providing the information used for infiltration analysis at the 9&11 Park Street location in Essex Junction. Based on the information provided infiltration would be an acceptable approach on this site.

Thank you,  
Winn

Winn Wilson, Environmental Analyst  
Vermont DEC- Stormwater Program  
P: 802-490-8019 Email : [william.wilson@vermont.gov](mailto:william.wilson@vermont.gov)  
New Website: <http://dec.vermont.gov/watershed/stormwater>

---

From: Nick Smith <Nick@ldengineering.com>  
Sent: Wednesday, September 11, 2019 9:09 AM  
To: Wilson, William <William.Wilson@vermont.gov>  
Subject: RE: 9 & 11 Park Street - Infiltration Restriction?

Good morning Winn,

Thank you for the call yesterday, our office has been having some issue with regards to the identification of hazardous sites and hotspot applicability in the past, so we appreciate a clear approach for the future.

Please find attached our justification for the proposed infiltration practice proposed at 9 & 11 Park Street. We are requesting your department review the information provided and let our office know if you take an exception to our findings. Please let me know if you need any additional information.

Thank you,

Nick Smith  
Lamoureux & Dickinson  
14 Morse Drive  
Essex, VT 05452  
Tel: 802-878-4450  
Cell: 716-778-4353

---

From: Wilson, William <[William.Wilson@vermont.gov](mailto:William.Wilson@vermont.gov)>  
Sent: Friday, September 06, 2019 9:04 AM  
To: Nick Smith <[Nick@ldengineering.com](mailto:Nick@ldengineering.com)>  
Subject: RE: 9 & 11 Park Street - Infiltration Restriction?

Soil Map—Chittenden County, Vermont  
(17 Park Street Project)



Soil Map may not be valid at this scale.

Map Scale: 1:591 if printed on A landscape (11" x 8.5") sheet.

0 5 10 20 30 Meters

0 25 50 100 150 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84




## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Chittenden County, Vermont

Survey Area Data: Version 27, Sep 10, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 18, 2020—Jun 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AdA	Adams and Windsor loamy sands, 0 to 5 percent slopes	0.9	100.0%
<b>Totals for Area of Interest</b>		<b>0.9</b>	<b>100.0%</b>





**NOAA Atlas 14, Volume 10, Version 3**  
**Location name: Essex Junction, Vermont, USA\***  
**Latitude: 44.4894°, Longitude: -73.1124°**  
**Elevation: 343 ft\*\***  
 \* source: ESRI Maps  
 \*\* source: USGS



**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

[PF\\_tabular](#) | [PF\\_graphical](#) | [Maps & aerials](#)

**PF tabular**

<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
<b>5-min</b>	<b>0.306</b> (0.243-0.388)	<b>0.362</b> (0.287-0.459)	<b>0.453</b> (0.358-0.577)	<b>0.528</b> (0.414-0.675)	<b>0.631</b> (0.477-0.834)	<b>0.711</b> (0.524-0.955)	<b>0.791</b> (0.562-1.09)	<b>0.873</b> (0.593-1.24)	<b>0.983</b> (0.639-1.44)	<b>1.07</b> (0.675-1.59)
<b>10-min</b>	<b>0.434</b> (0.344-0.550)	<b>0.512</b> (0.406-0.650)	<b>0.641</b> (0.506-0.814)	<b>0.748</b> (0.587-0.956)	<b>0.895</b> (0.675-1.18)	<b>1.01</b> (0.743-1.35)	<b>1.12</b> (0.796-1.55)	<b>1.24</b> (0.840-1.76)	<b>1.39</b> (0.906-2.04)	<b>1.51</b> (0.957-2.26)
<b>15-min</b>	<b>0.510</b> (0.405-0.647)	<b>0.603</b> (0.478-0.765)	<b>0.754</b> (0.595-0.959)	<b>0.879</b> (0.690-1.12)	<b>1.05</b> (0.795-1.39)	<b>1.18</b> (0.873-1.59)	<b>1.32</b> (0.937-1.82)	<b>1.46</b> (0.987-2.07)	<b>1.64</b> (1.07-2.40)	<b>1.78</b> (1.13-2.65)
<b>30-min</b>	<b>0.701</b> (0.556-0.888)	<b>0.827</b> (0.655-1.05)	<b>1.03</b> (0.816-1.32)	<b>1.20</b> (0.946-1.54)	<b>1.44</b> (1.09-1.91)	<b>1.62</b> (1.20-2.18)	<b>1.81</b> (1.28-2.49)	<b>1.99</b> (1.35-2.83)	<b>2.24</b> (1.46-3.29)	<b>2.43</b> (1.54-3.63)
<b>60-min</b>	<b>0.891</b> (0.707-1.13)	<b>1.05</b> (0.833-1.33)	<b>1.32</b> (1.04-1.67)	<b>1.53</b> (1.20-1.96)	<b>1.83</b> (1.38-2.42)	<b>2.06</b> (1.52-2.77)	<b>2.30</b> (1.63-3.17)	<b>2.53</b> (1.72-3.60)	<b>2.85</b> (1.85-4.17)	<b>3.09</b> (1.96-4.61)
<b>2-hr</b>	<b>1.11</b> (0.889-1.40)	<b>1.30</b> (1.04-1.64)	<b>1.61</b> (1.28-2.03)	<b>1.86</b> (1.47-2.37)	<b>2.22</b> (1.68-2.91)	<b>2.48</b> (1.84-3.32)	<b>2.76</b> (1.97-3.78)	<b>3.04</b> (2.07-4.29)	<b>3.42</b> (2.23-4.97)	<b>3.70</b> (2.35-5.49)
<b>3-hr</b>	<b>1.25</b> (0.999-1.56)	<b>1.45</b> (1.16-1.82)	<b>1.79</b> (1.43-2.26)	<b>2.07</b> (1.64-2.62)	<b>2.46</b> (1.87-3.21)	<b>2.75</b> (2.05-3.66)	<b>3.05</b> (2.19-4.18)	<b>3.36</b> (2.30-4.73)	<b>3.79</b> (2.48-5.49)	<b>4.12</b> (2.62-6.09)
<b>6-hr</b>	<b>1.47</b> (1.19-1.83)	<b>1.72</b> (1.38-2.14)	<b>2.12</b> (1.70-2.65)	<b>2.46</b> (1.96-3.09)	<b>2.92</b> (2.24-3.80)	<b>3.26</b> (2.45-4.33)	<b>3.62</b> (2.63-4.96)	<b>4.02</b> (2.76-5.62)	<b>4.58</b> (3.00-6.59)	<b>5.03</b> (3.21-7.37)
<b>12-hr</b>	<b>1.69</b> (1.37-2.09)	<b>1.99</b> (1.61-2.47)	<b>2.48</b> (2.00-3.08)	<b>2.89</b> (2.32-3.61)	<b>3.45</b> (2.67-4.48)	<b>3.87</b> (2.93-5.12)	<b>4.32</b> (3.16-5.90)	<b>4.83</b> (3.32-6.71)	<b>5.58</b> (3.67-7.98)	<b>6.20</b> (3.97-9.03)
<b>24-hr</b>	<b>1.95</b> (1.59-2.40)	<b>2.30</b> (1.88-2.83)	<b>2.89</b> (2.35-3.56)	<b>3.37</b> (2.72-4.18)	<b>4.03</b> (3.14-5.20)	<b>4.53</b> (3.45-5.96)	<b>5.06</b> (3.73-6.89)	<b>5.68</b> (3.92-7.83)	<b>6.59</b> (4.35-9.37)	<b>7.36</b> (4.73-10.6)
<b>2-day</b>	<b>2.30</b> (1.89-2.80)	<b>2.70</b> (2.22-3.30)	<b>3.35</b> (2.74-4.11)	<b>3.90</b> (3.16-4.80)	<b>4.64</b> (3.63-5.94)	<b>5.20</b> (3.98-6.78)	<b>5.79</b> (4.28-7.81)	<b>6.47</b> (4.49-8.87)	<b>7.47</b> (4.95-10.5)	<b>8.29</b> (5.35-11.9)
<b>3-day</b>	<b>2.56</b> (2.11-3.11)	<b>2.98</b> (2.46-3.63)	<b>3.68</b> (3.02-4.49)	<b>4.26</b> (3.47-5.22)	<b>5.05</b> (3.97-6.43)	<b>5.65</b> (4.33-7.33)	<b>6.28</b> (4.64-8.41)	<b>6.99</b> (4.86-9.53)	<b>8.02</b> (5.33-11.3)	<b>8.86</b> (5.73-12.7)
<b>4-day</b>	<b>2.78</b> (2.30-3.37)	<b>3.22</b> (2.67-3.91)	<b>3.96</b> (3.26-4.81)	<b>4.56</b> (3.73-5.58)	<b>5.40</b> (4.25-6.85)	<b>6.02</b> (4.62-7.78)	<b>6.68</b> (4.95-8.92)	<b>7.42</b> (5.17-10.1)	<b>8.49</b> (5.65-11.9)	<b>9.36</b> (6.06-13.4)
<b>7-day</b>	<b>3.34</b> (2.78-4.03)	<b>3.84</b> (3.20-4.64)	<b>4.66</b> (3.86-5.65)	<b>5.35</b> (4.40-6.50)	<b>6.28</b> (4.97-7.92)	<b>6.99</b> (5.39-8.98)	<b>7.73</b> (5.74-10.2)	<b>8.55</b> (5.98-11.6)	<b>9.72</b> (6.49-13.5)	<b>10.7</b> (6.92-15.1)
<b>10-day</b>	<b>3.88</b> (3.24-4.66)	<b>4.43</b> (3.70-5.33)	<b>5.34</b> (4.43-6.43)	<b>6.08</b> (5.02-7.37)	<b>7.11</b> (5.64-8.93)	<b>7.89</b> (6.10-10.1)	<b>8.70</b> (6.47-11.5)	<b>9.59</b> (6.72-12.9)	<b>10.8</b> (7.26-15.0)	<b>11.8</b> (7.70-16.7)
<b>20-day</b>	<b>5.55</b> (4.67-6.62)	<b>6.24</b> (5.24-7.45)	<b>7.37</b> (6.16-8.82)	<b>8.30</b> (6.89-9.99)	<b>9.59</b> (7.64-11.9)	<b>10.6</b> (8.20-13.4)	<b>11.6</b> (8.62-15.1)	<b>12.6</b> (8.90-16.9)	<b>14.1</b> (9.46-19.4)	<b>15.2</b> (9.90-21.3)
<b>30-day</b>	<b>6.97</b> (5.88-8.28)	<b>7.77</b> (6.55-9.24)	<b>9.07</b> (7.61-10.8)	<b>10.1</b> (8.46-12.2)	<b>11.6</b> (9.30-14.4)	<b>12.8</b> (9.94-16.1)	<b>13.9</b> (10.4-18.0)	<b>15.1</b> (10.7-20.1)	<b>16.7</b> (11.3-22.9)	<b>17.9</b> (11.7-25.0)
<b>45-day</b>	<b>8.75</b> (7.42-10.4)	<b>9.67</b> (8.19-11.5)	<b>11.2</b> (9.43-13.3)	<b>12.4</b> (10.4-14.8)	<b>14.2</b> (11.4-17.4)	<b>15.5</b> (12.1-19.4)	<b>16.8</b> (12.6-21.6)	<b>18.2</b> (12.9-24.1)	<b>19.9</b> (13.5-27.2)	<b>21.2</b> (13.9-29.5)
<b>60-day</b>	<b>10.2</b> (8.71-12.1)	<b>11.3</b> (9.57-13.3)	<b>13.0</b> (11.0-15.4)	<b>14.4</b> (12.1-17.1)	<b>16.3</b> (13.1-20.0)	<b>17.8</b> (13.9-22.1)	<b>19.2</b> (14.4-24.6)	<b>20.7</b> (14.7-27.3)	<b>22.6</b> (15.3-30.8)	<b>24.0</b> (15.7-33.3)

<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

**PF graphical**

April 10, 2024

Chris Yuen  
Community Development Director  
City of Essex Junction  
2 Lincoln Street  
Essex Junction, VT 05452

Re: 17 Park Street Project – Proposed Mixed Use Commercial and Residential Building

Dear Chris,

Below are detailed responses to each request from City Staff and the City's Engineer. Please let us know if there is anything more you need.

1. **Sewer Allocation:** The applicant has confirmed that 53 residential dwelling units are proposed; however, the applicant must still submit an updated sewer allocation form. The form is available on the City's website, under "Ordinance & Codes -> Forms & Applications". Upon receipt of this form, the City should be able to provide a preliminary water/sewer capacity letter to the applicant.

[The project sent this revision to the City on 2/9 and 3/11. I have reattached these items.](#)

2. **Landscaping Plan:** Landscape Plan, sheet #L1.0, appears to be missing from the latest submission. Paper and electronic copies should be provided.

[The Landscaping Plans were not revised from the 2/9 submission. However, we added information for the tree grates and guards. I have attached the revised pdf to this submission. I will bring down additional as soon as possible.](#)

3. **Silva Cells:** The proposed location of the trees bordering Park Street presents a challenging environment for trees. The City's Tree Advisory Committee strongly recommend that silva cells be used in that location in order for the trees to thrive and contribute to a green streetscape. They have proven to be successful. City Staff understand that the applicant disagrees. The applicant should be prepared to discuss this item with the DRB during the hearing.

[The Project Owner has not had success with the Silva Cell product. Structural Soil or "CU" soil is an equal material, the CU soils is outlined in my details. We can discuss this with the Board during the hearing.](#)

4. **Tree Grates and guards:** The Landscape Plan should be amended to reference to tree grates and tree guards on the landscape plans that match the others used on Park Street.

[Updated Landscape plans, see details.](#)

5. **Bike Racks near front entrances:** Short-Term Bike Parking Spaces near the front entrances of the building and business are required by the LDC but have not been proposed. City Staff understands that the applicant would like to discuss this with the DRB.

We look forward to discussing this with the Board.

6. **City Engineer's comments:** See the attached City Engineer's comments for additional item

See additional information below.

#### Engineers Questions:

1. The applicant has submitted a letter dated February 9, 2024 to the Water Quality Superintendent requesting additional sewer and water allocations for this project from the City. This letter indicates a proposed 52 residential dwelling units. The computations attached to the letter reflect 53 residential dwelling units. The applicant should confirm the correct number of proposed residential dwelling units as part of the project.

Updated and attached again.

2. We recommend a condition of approval of this project requiring the submission of record drawings for site utilities to the City of Essex Junction upon completion of construction, in both AutoCAD and PDF format. The City would also like to request this information be provided in shapefile format in Vermont State Plane US Survey Feet, NAD83(2011).

Revised note on page C-2.02.

6. We recommend a condition of approval that the location of the fire department connection for the proposed building be approved by the City of Essex Junction Fire Department. **The applicant has indicated that this condition is acceptable. Accordingly, we recommend a condition of approval that the location of the fire department connection for the proposed building be reviewed and approved by the City of Essex Junction Fire Department.**

We are fine with this condition and happy to discuss anything with the Essex Junction FD.

7. We recommend a condition of approval that copies of any necessary easements be submitted by the applicant to the City prior to final approval. **The applicant has indicated that this condition is acceptable. Accordingly, we recommend a condition of approval that copies of any necessary easements be submitted by the applicant to the City prior to final approval.**

We are fine with this condition.

2. The plans should be revised to include a pavement matching detail. **The applicant indicated that a Replacement of Existing Road Subbase and Bituminous Pavement detail was included on sheet #C-2.02. This detail is acceptable with one revision. The replacement of gravel subbase shall match**

**the existing depth with a 24” minimum, instead of an 18” minimum as shown. This detail should be revised accordingly.**

Revised note on page C-2.02.

6. In the parking area beneath the proposed building, the parking spaces that are in the area of the building support columns are only 8 feet wide at their narrowest point due to the support columns. The LDC requires a minimum width of 9 feet for parking spaces. **Same comment. The applicant has stated that “The project is still working on the structural design of the building and will continue to evaluate the supports. Currently, they are preliminarily shown as 18’ on center. We will work to get them to meet 9’ parking space requirements.”**

Same comment, we will discuss with the board as needed. This area is a under canopy car parking and there needs to be structural support for the upper floors. Maybe large vehicles do not park on this level, but we are working to get the 9’ parking spaces required.

3. The applicant should be required to submit copies of the stormwater system annual inspection reports to the City of Essex Junction as a condition of approval. **The applicant has indicated that this is acceptable. Accordingly, we recommend a condition of approval requiring the applicant to submit copies of the stormwater system annual inspection reports to the City of Essex Junction.**

We are fine with this condition.

4. The Landscape Plan, sheet #L1.0, shows a proposed ‘Armstrong Maple’ directly over the proposed water service for the new building. The plans should be revised to provide a minimum of 10’ of horizontal clearance between these elements. **The applicant stated that “Revision made.” However, sheet #L1.0 was not included in this submission package, so we were unable to confirm whether this comment has been addressed. The applicant should submit the revised sheet #L1.0 for review and approval.**

See revised landscaping plans.

2. The Lighting Plan, sheet #L1.1, shows proposed ‘String Lights’ between the buildings. Based on catalog cut information presented on the Lighting Details, sheet #L2.2, it does not appear these fixtures are shielded and directed downward and have concealed light sources, as required by the LDC. The applicant should provide clarification and revise the plans accordingly. **Same comment. The applicant has stated “See revised lighting plans. We have added the detail sheet showing the down casted availability.” Based on our review, it appears that the ‘String Lights’ specified are not shielded and directed downward and do not have concealed light sources, as required by the LDC. We recommend that the use of the ‘String Lights’ be reviewed and discussed with the City Planning staff and Development Review Board.**

We look forward to a discussion with the Board.

**Included Materials:**

- Revised Civil detail page C-2.02
- Revised Sewer cover letter with typo fixed
- Sewer Allocation Request
- Water/Sewer Flow Calculation Page
- Updated Lighting plan
- Updated Lighting Detail
- Updated Landscape Plan
- Updated Landscape Detail
- Updated Landscape Cost Estimate

Please let me know if there is anything more you need to evaluate this project. I would be happy to answer any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Dixon", written in a cursive style.

Greg Dixon, P.E.