

Department of Public Services
 Attn: Frank J. Brancely, B.A, M.A.
 55 Portland Street
 Portland, Maine 04101

November 14, 2014

Subject: East Bayside Lofts - Redfern Properties, LLC – Portland
 Re: Capacity to Handle Anticipated Wastewater Flows

Dear Mr. Brancely,

On behalf of Redfern Properties, LLC, we are pleased to submit the following request for the City of Portland Department of Public Services’ ability to serve the proposed development. East Bayside Lofts is a 53-unit vertical urban infill development located within Portland’s East Bayside community. The proposed building is anticipated to be four stories tall; the first story is anticipated to comprise of a restaurant, two additional commercial spaces, and an indoor parking facility; and the second through fourth stories are anticipated to contain a total of 12 studio apartments, 29 one-bedroom apartments, and 12 two-bedroom apartments for a total of 53 units within the building. An outdoor parking lot will also be included in the design.

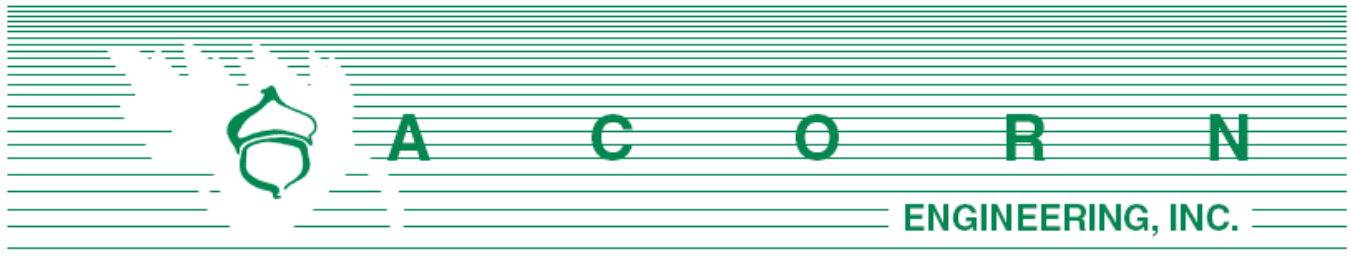
The proposed project is located at the easterly corner of Fox Street and Anderson Street in Portland. The proposed lot is a combination of two properties which presently include Portland Tax Map 012, Block I, Lots 1 and 5. There is an existing auto service building and two smaller associated buildings located on Lot 1 which are to be demolished as part of the proposed project.

Based upon the Section 4 of the Maine Subsurface Water Disposal Rules, the project anticipates the following design flows:

Conservative Estimate of Anticipated Design Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing flow to be removed				
Tire & Automotive Facility	Employees w/o On-Site Shower Facility	4	12	48
Proposed flow				
Restaurant: Base Flow	Per Seat	50	30	1,500
Restaurant: Employees	Per Employee	12	12	144
Commercial 2	Per Employee	10	12	120
Commercial 3	Per Employee	12	12	144
East Bayside Lofts	≤2 – Bedroom	53	180	9,540
Net Change				11,400

*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition

The proposed project is anticipated to add a net water usage from the development of 11,400 gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the State of Maine



Subsurface Wastewater Disposal Rules. The anticipated flow assumes a conservative wastewater estimate; a high seating capacity of 50 was used as an estimated flow for the restaurant, and many of the apartments are 1-bedroom apartments or studio apartments. For these reasons, the volume of actual wastewater conveyed from this location may be lower.

We are proposing separate sewer connections for the commercial and residential units within the building. For the residential units, a new gravity sewer main is proposed to convey sewerage from the northwestern corner of the building to the existing sewer main within Everett Street. There are three commercial buildings which are proposed to convey sewerage towards Anderson Street. Lateral sewer services for Commercial Space 2 and 3 are proposed to connect into the existing 24" sewer within Anderson Street. Whereas Commercial Space 1 is proposed to be a restaurant, we are also proposing a new lateral sewer service for the restaurant to convey sewerage through a grease interceptor to be located within the Anderson Street sidewalk, and then to the existing 24" sewer within Anderson Street. For similar reasons noted above, the grease interceptor sizing provided is using conservative numbers. Grease interceptor calculations are included below:

Grease Waste Interceptor Sizing						
Number of Meals/Peak Hour		Waste Flow Rate	Retention Time	Storage Factor	Calculated Size	Manufactured Size
Capacity	Meal Factor	Washing Machine	Commercial	10 HRS	(gallons)	(gallons)
50	1	6	2.5	1.25	937.5	1000

*Based on values from Uniform Plumbing Code Formula

These anticipated connection locations have been made in recognition of the proposed Fox Street and Anderson Street improvements, notably recognizing the inclusion of the municipal separate storm sewer system within the corridor improvements. Final design drawings are anticipated to be in cohesion with these corridor improvements.

Any additional information or any project recommendations that you may have would be appreciated. I have attached an updated preliminary utility plan to facilitate your review. We would also like to highlight at this time that we anticipate installing the grease interceptor in the Anderson Street sidewalk as this location is most easily accessible for maintenance, and that we would like to know of any additional necessary steps in order to install the grease interceptor in this location. Please let me know if you have any further questions or comments.

Sincerely,

Michael A. Guethle

Design Engineer
Acorn Engineering, Inc.

cc: Will Savage
Jonathan Cully
Ryan Senatore

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991



Mr. Frank J. Brancely,
Senior Engineering Technician,
Phone #: (207) 874-8832,
Fax #: (207) 874-8852,
E-mail: fjb@portlandmaine.gov

Date: 11/4/2014

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 89 Anderson Street

Chart Block Lot Number: Refer to Letter

Proposed Use: Commercial, Apartments

Previous Use: Car Garage

Existing Sanitary Flows: 48 GPD

Existing Process Flows: 0 GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.

Refer to the attached plan

Site Category	Commercial (<i>see part 4 below</i>)	<input checked="" type="checkbox"/>
	Industrial (<i>complete part 5 below</i>)	<input type="checkbox"/>
	Governmental	<input type="checkbox"/>
	Residential	<input checked="" type="checkbox"/>
	Other (<i>specify</i>)	<input type="checkbox"/>

(Clearly, indicate the proposed connections, on the submitted plans)

2. Please, Submit Contact Information.

City Planner's Name: Helen Donaldson Phone: 874-8723

Owner/Developer Name: Jonathan Culley- Redfern Properties, LLC

Owner/Developer Address: P.O. Box 8816, Portland, Maine 04104

Phone: 207-776-9715 Fax: _____ E-mail: jonathan@redfernproperties.com

Engineering Consultant Name: Acorn Engineering, Inc.

Engineering Consultant Address: PO Box 3372, Portland, Maine 04104

Phone: 207-775-2655 Fax: _____ E-mail: wsavage@acorn-engineering.com

(Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review)

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 9,540 GPD

Peaking Factor/ Peak Times: Diurnal Residential Flow Pattern

Specify the source of design guidelines: (*i.e.* "Handbook of Subsurface Wastewater Disposal in Maine," "Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)
STATE OF MAINE SUBSURFACE WASTEWATER DISPOSAL RULES

(Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet)

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:	22
Size of External Grease Interceptor:	1000 gallons
Retention Time:	2.5 hours
Peaking Factor/ Peak Times:	1 / 11:00AM-2:00PM, 5:00PM-8:00PM

(Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet)

5. Please, Submit Industrial Process Wastewater Flow Calculations N/A

Estimated Industrial Process Wastewater Flows Generated:	_____	GPD
Do you currently hold Federal or State discharge permits?	Yes _____ No _____	
Is the process wastewater termed categorical under CFR 40?	Yes _____ No _____	
OSHA Standard Industrial Code (SIC):	http://www.osha.gov/oshstats/sicser.html	
Peaking Factor/Peak Process Times:	_____	

(Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps)

(Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided below, or attached, as a separate sheet)

Notes, Comments or Calculation

Please refer to the attached letter with calculations, and plan