CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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

Date: August 14, 2015

Mr. Frank J. Brancely,
Senior Engineering Technician,
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1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 85 & 101 York Street

Chart Block Lot Number: 40-C: 3, 4, 5, 9, 18, 21, 22, 25, 33 and High Street Court

Proposed Use: mixed-use commercial tenant space

Previous Use: restaurant, parking, office

Existing Sanitary Flows: 3,880 GPD

Existing Process Flows: n/a GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.
Existing 36" sewer main in York Street

Site Category		
	Commercial *(see part 4 below)*	X
	Industrial *(complete part 5 below)*	
	Governmental	
	Residential	X
	Other *(specify)*	

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

2. Please, Submit Contact Information.

City Planner's Name: Helen Donaldson Phone: 207-874-8723

Owner/Developer Name: 101 York Street, LLC / J.B. Brown & Sons

Owner/Developer Address: 36 Danforth Street, Portland, ME 04101-4502

Phone: 207-774-5908 Fax: 207-774-0898 E-mail: veroneau@jbbrown.com

Engineering Consultant Name: Gorrill-Palmer

Engineering Consultant Address: 15 Shaker Road, Gray, ME 04039

Phone: 207-657-6910 Fax: n/a E-mail: APalmer@gorrillpalmer.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: 17,790 GPD

Peaking Factor/ Peak Times: 6am to 8am

Specify the source of design guidelines: *(i.e* [X] *"Handbook of Subsurface Wastewater Disposal in Maine,"*
__ *"Plumbers and Pipe Fitters Calculation Manual,"* __ *Portland Water District Records,* _ *Other (specify)*
see attached

(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: The first floor is flexible commercial space and its tenants is undetermined.

Size of External Grease Interceptor:

Retention Time: If a restaurant is proposed, the grease trap will be an in-kitchen device.

Peaking Factor/ Peak Times:

(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 not applicable

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

See attached calculation my Gorrill-Palmer

GORRILL PALMER	JOB	York Street Mixed Use Development		
	SHEET NO.	1	OF	2
	CALCULATED BY	CEH	DATE	8/6/2015
	CHECKED BY	AMP	DATE	8/7/2015
	SCALE	None		

Task: Compute Existing Design Flow for the York Street space based on Table 4C of the Maine Subsurface Wastewater Disposal Rules for comparison to the Proposed Flow

Assumptions: Facility Information (Office Space, Restaurant Capacity) Provided by Opechee Construction

Table 4C of the Maine Subsurface Wastewater Disposal Rules

Existing Use: 101 York Street - 1,300 sf Eating Place - Assumed 2 Meals per day. Assumed 20 Employees Per Day

85 York Street - 1,300 sf Eating Place - Assumed 2 Meals per Day, 15 Employees Per Day

- 9,000 sf Office Space - Assumed 45 Employees Per Day

Wastewater Flow Per Use:

Office Space- Place of Employment with no showers	12	gpd/employee			
101 York St Eating Place	20	gpd/seat (2 meals)	plus	12	gpd/employee
85 York St Eating Place	20	gpd/seat (2 Meals)	plus	12	gpd/employee

Calculations: See Below

Conclusion: Based on current DHS Methodolgy (Facility Usage) the current Design Flow is **3,880** gallons/day

Existing Design Flow is less than proposed design flow.

Water Use Calculations Based on Facility Usage

Per Table 4C of the Maine Subsurface Wastewater Disposal Rules

85 York St Office Space

Number of Employees	45	(Assumed)	
Flow Rate	12	gpd/employee	Per Table 4C
Subtotal	540	gallons/day	
Subtotal Design Flow	**540**	**gallons/day**	

85 York St Eating Place

Number of Seats	56	(Per Opechee)	
Flow Rate	20	gpd/seat	Per Table 4C
Subtotal	1,120	gallons/day	
Number of Employees	15	(Assumed)	
Flow Rate	12	gpd/employee	Per Table 4C
Subtotal	180	gallons/day	
Subtotal Design Flow	**1,300**	**gallons/day**	

101 York St Eating Place

Number of Seats	90	(Per Opechee)	
Flow Rate	20	gpd/seat	Per Table 4C
Subtotal	1,800	gallons/day	
Number of Employees	20	(Assumed)	
Flow Rate	12	gpd/employee	Per Table 4C
Subtotal	240	gallons/day	
Subtotal Design Flow	**2,040**	**gallons/day**	

Total Design Flow **3,880** **gallons/day**

GORRILL PALMER	JOB	York Street Mixed Use Development		
	SHEET NO.	2	OF	2
	CALCULATED BY	CEH	DATE	8/10/2015
	CHECKED BY	AMP	DATE	8/10/2015
	SCALE	None		

Task: Compute Proposed Design Flow for York Street based on Tables 4A and 4C of the Maine Subsurface Wastewater Disposal Rules for comparison to the Existing Flow

Assumptions: Facility Information (Retail/Restaurant Space, Number of Condominiums) Provided by Opechee Construction

Tables 4A and 4C of the Maine Subsurface Wastewater Disposal Rules

Proposed Use: Condominiums - Four stories. 59 two-bedroom units and 4 three-bedroom units

Eating Place - 7,000 sf- Assumed 175 seats, 30 employees per day

Specialty Retail- 9.555 sf- Assumed 5 spaces at 8 Employees per space/day= 40 employees/day

Wastewater Flow Per Use:

2 Bedrooms or less	180	gpd/dwelling unit			
3 Bedroom	270	gpd/dwelling unit			
Eating Place	30	gpd/seat (3 Meals)	plus	12	gpd/employee
Specialty Retail- Place of Employment with no showers	12	gpd/employee			

Calculations: See Below

Conclusion: Based on current DHS Methodolgy (Facility Usage) the proposed Design Flow is **17,790** gallons/day

Proposed Design Flow is greater than the existing flow

Water Use Calculations Based on Facility Usage

Per Table 4C of the Maine Subsurface Wastewater Disposal Rules

2 Bedroom or less

Number of Condos	59	(Per Opechee)	
Flow Rate	180	gpd/bed	Per Table 4A
Subtotal	10,620	gallons/day	
Subtotal Design Flow	**10,620**	**gallons/day**	

3 Bedroom

Number of Condos	4	(Per Opechee)	
Flow Rate	270	gpd/seat	Per Table 4A
Subtotal	1,080	gallons/day	
Subtotal Design Flow	**1,080**	**gallons/day**	

Eating Place

Number of Seats	175	(Assumed)	
Flow Rate	30	gpd/seat	Per Table 4C
Subtotal	5,250	gallons/day	
Number of Employees	30	(Assumed)	
Flow Rate	12	gpd/employee	Per Table 4C
Subtotal	360	gallons/day	
Subtotal Design Flow	**5,610**	**gallons/day**	

Specialty Retail

Number of Employees	40	(Assumed)	
Flow Rate	12	gpd/employee	Per Table 4C
Subtotal	480	gallons/day	
Subtotal Design Flow	**480**	**gallons/day**	

Total Design Flow	**17,790**	**gallons/day**