

# DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND BUILDING PERMIT



This is to certify that <u>CM WATERFRONT PROPERTIES, LLC</u> Located At <u>250 COMMERCIAL ST</u> IN'FINITI

FINIT

CBL: 031- L-034-001

Job ID: 2012-05-3993-CH OF USE

has permission to <u>Change the Use to Brew pub & distillery w/interior renovations ADA ramp, NO REAR DECK APPROVED</u> provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED. A final inspection must be completed by owner before this building or part thereof is occupied. If a sertificate of occupancy is required, it must be

**Fire Prevention Officer** 

Cøde Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY PENALTY FOR REMOVING THIS CARD





Strengthening a Remarkable City, Building a Community for Life . www.portlandmaine.gov

Acting Director of Planning and Urban Development Gregory Mitchell

Job ID: 2012-05-3993-CH OF USE

Located At: 250 COMMERCIAL

CBL: 031- L-034-001

# **Conditions of Approval:**

# Zoning

1. Separate permits shall be required for any new signage.

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- 2. This permit is being approved on the basis of plans submitted including revised plans submitted May 24, 2012. Any deviations shall require a separate approval before starting that work.
- 3. This space shall remain a restaurant & small retail space. Any change of use shall require a separate permit application for review and approval.

## Fire

- 1. Installation shall comply with City Code Chapter 10. The occupancy shall comply with City Code Chapter 10 upon inspection.
- 2. This permit is being approved on the basis of the plans submitted. Any deviation from the plans would require amendments and approval.
- 3. The distillery shall be separated from the remainder of the building and all exits by one-hour rated construction with 45-minute rated opening protective.
- 4. A code analysis (NFPA 1, *Fire Code*) prepared by a Fire Protection Engineer in relation to the distillery and brewery is required. All requirements and recommendations of the fire protection engineer shall be complied with prior to occupancy.
- 5. Application requires State Fire Marshal approval.
- 6. Separate permits are required for fire alarm, sprinkler and suppression systems, kitchen hoods, and HVAC.
- 7. Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer. Contact Michelle Sweeney at 874-8682 for further information.
- 8. Central Station monitoring for addressable fire alarm systems shall be by point.
- 9. Any Fire alarm or Sprinkler systems shall be reviewed by a licensed contractor(s) for code compliance. Compliance letters are required.
- 10. Only one fire alarm system is permitted in the building. A separate Fire Alarm Permit is required. This review does not include approval of fire alarm system design or installation.
- 11. Fire Alarm system shall be maintained. If system is to be off line over 4 hours a fire watch shall be in place. Dispatch notification required 874-8576.
- 12. The fire alarm system shall comply with the City of Portland Standard for Signaling Systems for the Protection of Life and Property. All fire alarm installation and servicing companies shall have a Certificate of Fitness from the Fire Department.
- 13. All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS".
- 14. Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.
- 15. All smoke detectors and smoke alarms shall be photoelectric.
- 16. The sprinkler system shall be installed in accordance with NFPA 13.
- 17. A separate Suppression System Permit is required. This review does not include approval of sprinkler system design or installation.

Job ID: 2012-05-3993-CH OF USE

#### Located At: <u>250 COMMERCIAL</u> CBL: <u>031- L-034-001</u> ST

- 18. Sprinkler supervision shall be provided in accordance with NFPA 101, *Life Safety* Code, and NFPA 72, *National Fire Alarm and Signaling Code*.
- 19. Sprinkler protection shall be maintained. Where the system is to be shut down for maintenance or repair, the system shall be checked at the end of each day to insure the system has been placed back in service.
- 20. Fire department connection type and location shall be approved in writing by fire prevention bureau. The Fire Department will require Knox locking caps on all Fire Department Connections on the exterior of the building.
- 21. System acceptance and commissioning must be coordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.
- 22. Installation of a sprinkler or fire alarm system requires a Knox Box to be installed per city ordinance.
- 23. A firefighter Building Marking Sign is required.
- 24. Fire extinguishers are required per NFPA 1.
- 25. Occupancies with an occupant load of 100 persons or more require panic hardware on all doors serving as a means of egress.
- 26. All means of egress to remain accessible at all times.
- 27. No means of egress shall be affected by this renovation.
- 28. Emergency lights and exit signs are required. Emergency lights and exit signs are required to be labeled in relation to the panel and circuit and on the same circuit as the lighting for the area they serve.
- 29. Any cutting and welding done will require a Hot Work Permit from Fire Department.
- 30. Walls in structure are to be labeled according to fire resistance rating. IE; 1 hr. / 2 hr. / smoke proof.
- 31. A single source supplier should be used for all through penetrations.
- 32. Hood suppression system shall comply with NFPA 17A, 96, and UL 300. Activation of the suppression system shall activate the fire alarm system if available. A letter of compliance will be required at the time of final inspection stating: the date the system was tested for operation, fuel gas shut off, and fire alarm connection if applicable. The Class K fire extinguisher and proper signage should be located at the suppression system pull station.

# Building

- 1. Application approval based upon information provided by the applicant or design professional. Any deviation from approved plans requires separate review and approval prior to work.
- 2. All penetrations through rated assemblies must be protected by an approved firestop system installed in accordance with ASTM E 814 or UL 1479, per IBC 2009 Section 713.
- 3. Equipment shall be installed in compliance with the manufacturer's specifications and the UL listing.
- 4. New cafe, restaurant, lounge, bar or retail establishment where food or drink is sold and/or prepared shall meet the requirements of the City and State Food Codes.
- 5. Approval of City license is subject to health inspections per the Food Code.
- Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
- 7. Ventilation of this space is required per ASHRAE 62.2 or 62.1, 2007 edition.
- 8. The pre-treatment license shall be obtained from the Public Services Department prior to the issuance of the Certificate of Occupancy.

# BUILDING PERMIT INSPECTION PROCEDURES Please call 874-8703 or 874-8693 (ONLY) or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.
- Permits expire in 6 months. If the project is not started or ceases for 6 months.
- If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.

Footings/Setbacks prior to pouring concrete

Close In Elec/Plmb/Frame prior to insulate or gyp

Certificate of Occupancy/Final Inspection

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

# IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.

## City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2012-05-3993-CH OF USE	Date Applied: 5/14/2012		CBL: 031- L-034-001		
Location of Construction: 250 COMMERCIAL ST	Owner Name: CM WATERFRONT PR LLC	ROPERTIES,	Owner Address: P.O. Box 7467 PORTLAND, ME	Phone: 207-772-8160	
Business Name: In'finiti Fermentation & Distillation	Contractor Name: Donald Michaud		Contractor Addr 31 Leonard Lane, Y	Phone: 207-939-9108	
Lessee/Buyer's Name: Eric Michaud	-		Permit Type: BLDG - Building	Zone: WCZ	
Past Use: Photography Studio Proposed Project Description	ll course ine & space – fit e ramp 5 (86 sf)	Cost of Work: 250000.00 Fire Dept: $\overline{5}(30/1)^2$ Signature: Brit Pedestrian Activ	- V Approved w/ e Denied N/A Wald . E vities District (P.A.D.)	CEO District Not por 200 Inspection: Use Group A-2 Type: 3B DBC-2009 Stenature: MAR	
ch of use to restaurant – add rear o Permit Taken By: Lannie	egress & front ramp			Zoning Approva	1
<ol> <li>This permit application d Applicant(s) from meetin Federal Rules.</li> <li>Building Permits do not i septic or electrial work.</li> <li>Building permits are void within six (6) months of t False informatin may inv permit and stop all work.</li> </ol>	ng applicable State and include plumbing, I if work is not started the date of issuance. ralidate a building	✓ Shorelan — Wetland — Flood Zc preve — Subdivis _ Subdivis ✓ Site Plan → Qa — Maj	ne 13-zoneC	Zoning Appeal Variance Miscellaneous Conditional Use Interpretation Approved Denied Date:	Historic Preservation          Historic Preservation         Not in Dist or Landmark         Does not Require Review         Requires Review         Approved         Approved w/Conditions         Denied         Date:

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT

ADDRESS

DATE

DATE

PHONE

WU2

2012-05-3993

# ALL SURGAA

**General Building Permit Application** 

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Total Square Footage of Proposed Structure 4	,500 Sq. Ft.	Square Footage of Lot 14,9	48 sq.	ft.
Tax Assessor's Chart, Block & Lot Chart# 31 Block# L Lot# 34	PO	M Waterfront Properties LLC D Box 7467 ortland, ME 04112		Telephone: (207) 772-8160
Lessee/Buyer's Name (If Applicable) Eric Michard 207-752-4454	Da Ar 48 Po	Applicant name, address & telephone: David Lloyd Archetype, P.A. 48 Union Wharf Portland, ME 04101 (207) 772-6022		ost Of /ork: \$_250,000 fee: \$_2,520.00 of O Fee: \$75 Total: \$2,595.00
Current legal use (i.e. single family) Vacant If vacant, what was the previous use? Phot Proposed Specific use: Brew Pub Is property part of a subdivision? No Project description: Interior renovations to provio and exterior 200 sq. fr. docker	ography Studio	If yes, please name		Dept. of Bu City of S
Contractor's name, address & telephone: Done Who should we contact when the permit is rea Mailing address: CM Waterfront Properties LLC PO Box 7467 Portland, ME 04112		arlie Poole	h. 9	MAY 14 2012 Building Inspections 139-9108 Inspections

Please submit all of the information outlined in the Commercial Application Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at <u>www.portlandmaine.gov</u>, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

	-	$\sim$		
Signature of applicant:	3	R	Date:	: 5-14-12

This is not a permit; you may not commence ANY work until the permit is issued.

#### RECEIVED

23 May 2012

## MAY 2 4 2012

re: building permit application In'finiti Fermentation & Distillation 250 Commercial St Dept. of Building Inspections City of Portland Maine

Retail space: The proposed retail space will have available for sale the following: Logoed t-shirts, glassware, bags, bottle openers, and other such promotional items as well as bottles of beer and spirits that were made in-house.

Restaurant: Food sales will make up more than half of the business revenue. A full menu will be available from open to close daily. The beer and spirits made onpremise will predominantly be consumed on premise in the restaurant as an accompaniment to the food. A small amount will be packaged for off-premise consumption sold through the attached retail space, though the focus of the business is the restaurant and providing food and drink to be consumed on premise.

Eric Michaud 207-756-4454

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Schedule 4: Years 2013-2017 Totals Income	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
all values in thousands of dollars	aug-dec '12	2013	2014	2015	2016	2017
Ordinary Revenue/Expense						
Revenue						
beer 25%	190	622	685	759	801	843
spirits 11%	83	274	301	334	352	371
wine 2%	15	50	55	61	64	67
food 55%	418	1,368	1,507	1,670	1,762	1,855
miscellaneous 3%	23	75	82	91	96	101
spirits off premise 4% (rehil)	24	99	110	121	128	135
Total Revenue	753	2,488	2,740	3,036	3,203	3,372

Revenue Projections

In finit: Fermentanion & Distillation 250 Commercial St.

RECEIVED

MAY 2 4 2012

Dept. of Building Inspections City of Portland

In finiti Fermentation & Disrillation 250 Commercial ST

# **Infiniti Food Menu**

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# Tapas

Steak and Stilton bites with garlic sauce \$8

House made pretzel with mustard \$5

Pickled roots (turnip, carrot, beet) \$4

Crab and artichoke dip with crispy pita chips \$8

Chorizo and quail eggs \$9

Polenta fries with aioli \$5

Mixed tempura mushrooms with ponzu \$7

Thai chili and lemongrass crab cakes \$10

Bourbon BBQ wings \$9

Cheese and Charcuterie board \$12

Whitefish ceviche with lime and cilantro \$7

## Salads

Romaine lettuce with tomatoes, cucumber, broccoli, avocado and seared tuna with sesame soy ginger dressing \$12

Mixed local greens with sauteed mushrooms, beets, ramps, walnuts and manchego cheese with champagne mustard vinaigrette \$9

# **Pretzel Crust Pizzas**

Prosciutto, mushroom with arugula pesto \$12

Tomato, basil and fresh mozzarella \$10

Chorizo and roasted red peppers with white bean sauce \$12

Artichoke, kalamata olives and parmegiano \$11

RECEIVED

MAY 2 4 2012

Dept. of Building Inspections City of Portland Maine

# Entrees

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Moules et Frites / Steamed mussels in white beer butter broth with house fries and crusty bread \$14

Oktoberfest Roast Chicken / Buttery rotisserie-style chicken served with house fries or garlic mashed potatoes and seasonal vegetable \$16

Waterzooi / Classic Belgian whitefish stew with leek and julienned carrots in a rich creamy broth served with crusty bread \$18

Surf and Turf / Grilled lobster tail and locally raised rib-eye with house fries or garlic mashed potatoes and seasonal vegetable \$25

Scallops / Seared scallops in a coriander crust with coconut chili sauce served with crispy jasmine rice with scallions and shitake \$22

Lobster Mac and Cheese / Baked pasta with shallots and lobster claws in a gruyere cheddar sauce \$16

Vegan curry / Thai-style coconut red curry with soy-marinated tofu, seasonal vegetables and crispy onions served with jasmine rice \$13

Bangers and mash / House made English sausage served with garlic mashed potatoes and dubbel ale onion gravy \$13

Burger and Fries / Locally raised ground beef topped with sauteed onions and mushrooms with your choice of cheddar or blue cheese with house fries \$12

The Pork / Prosciutto-stuffed pork tenderloin with pancetta and raspberry lambic reduction served with house fries or garlic mashed potatoes and vegetable \$20

Crab Risotto / Creamy arborio rice with fresh crab, tarragon and parmegiano \$18

\*Entree accompaniments: house fries are hand-cut belgian-style fries and the seasonal vegetable changes with the season so please ask your server

## Desserts

Seasonal fruit tart with house made ice cream \$6

Cherry chocolate stout volcano cake \$7

Strong ale caramel custard served with crispy-fried vanilla biscuit \$6

# **Certificate of Design Application**

From Desig	gner:	Archetype, PA		
Date:	-	May 14, 2012		
Job Name:	_	In'finiti Fermentat	ion & Distill	ation
Address of	Construction:	250 Commercial Stre	eet	
	Construc	2009 2003 International ction project was designed to the	0	ia listed below:
Building Cod	e & Year <u>IBC 2009</u>	Use Group Classification	n (s)	
Type of Cons	struction(3) B			
Will the Struct	ure have a Fire suppr	ession system in Accordance with	Section 903.3.1 of the 2	2003 IRC Yes
		If yes, separated or non sep		
		Geotechnical/Soils report r	-	
Supervisory and	arin System: <u>Yes</u>	Oeolecinical/ Solis report i	iequited: (See Section )	(002.2)N/A
Structural De	sign Calculations		N/A	Live load reduction
		uctural members (106.1 – 106.11)	0	Roof <i>live</i> loads (1603.1.2, 1607.11)
			35 PSF	_ Roof snow loads (1603.7.3, 1608)
	s on Construction D		50 PSF	_ Ground snow load, Pg (1608.2)
Floor Area	buted floor live loads (7 Use Loa	ads Shown	35 PSF	If $P_g > 10$ psf, flat-roof snow load $B_f$
			1.0	_ If $P_g > 10$ psf, snow exposure factor, $C_e$
Dining & Outs	ide Deck 100 PSF		1.0	If $Pg > 10$ psf, snow load importance factor, $I_{k}$
			1.0	Roof thermal factor, $G(1608.4)$
			N/A	_Sloped roof snowload,p3(1608.4)
Wind loads (1	603.1.4, 1609)			_ Seismic design category (1616.3)
ASCE 7 6.4	Design option utilized	(1609.1.1, 1609.6)		Basic seismic force resisting system (1617.6.2)
100 MPH	Basic wind speed (1809	.3)		_ Response modification coefficient, RJ and
B	Building category and	table 1604.5, 1609.5)		deflection amplification factor <sub>Cl</sub> (1617.6.2)
D	Wind exposure categor	y (1609.4)		_ Analysis procedure (1616.6, 1617.5)
<u>N/A</u> +17.2 - 18.9 ps	Internal pressure coefficie			_ Design base shear (1617.4, 16175.5.1)
N/A	<ul> <li>Component and cladding</li> <li>Main force wind pressure</li> </ul>	pressures (1609.1.1, 1609.6.2.2) s (7603.1.1, 1609.6.2.1)	Flood loads (1	803.1.6, 1612)
Earth design	data (1603.1.5, 1614-			_ Flood Hazard area (1612.3)
N/A	Design option utilized			_ Elevation of structure
	Seismic use group ("Ca	. ,	Other loads	
	0	ficients, SDs & SD1 (1615.1)		Concentrated loads (1607.4)
V	Site class (1615.1.5)			_ Partition loads (1607.5)
			V	Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404



# Accessibility Building Code Certificate

Archetype, PA
250 Commercial Street
Interior renovations to provide for Brew Pub installation
and exterior 800 sq. ft. deck at rear of building.

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable.

SCENSED ARCHIA	Signature:	$\Omega$
AVID	Title:	Architect
(SEAL) (SEAL)	Firm:	Archetype, PA
OF WARKE	Address:	48 Union Wharf
	Phone:	(207) 772-6022

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

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# **Certificate of Design**

Date:	May 14,	, 2012

From:

Archetype, PA

These plans and / or specifications covering construction work on:

In'finiti Fermentation & Distillation

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the *2003 International Building Code* and local amendments.

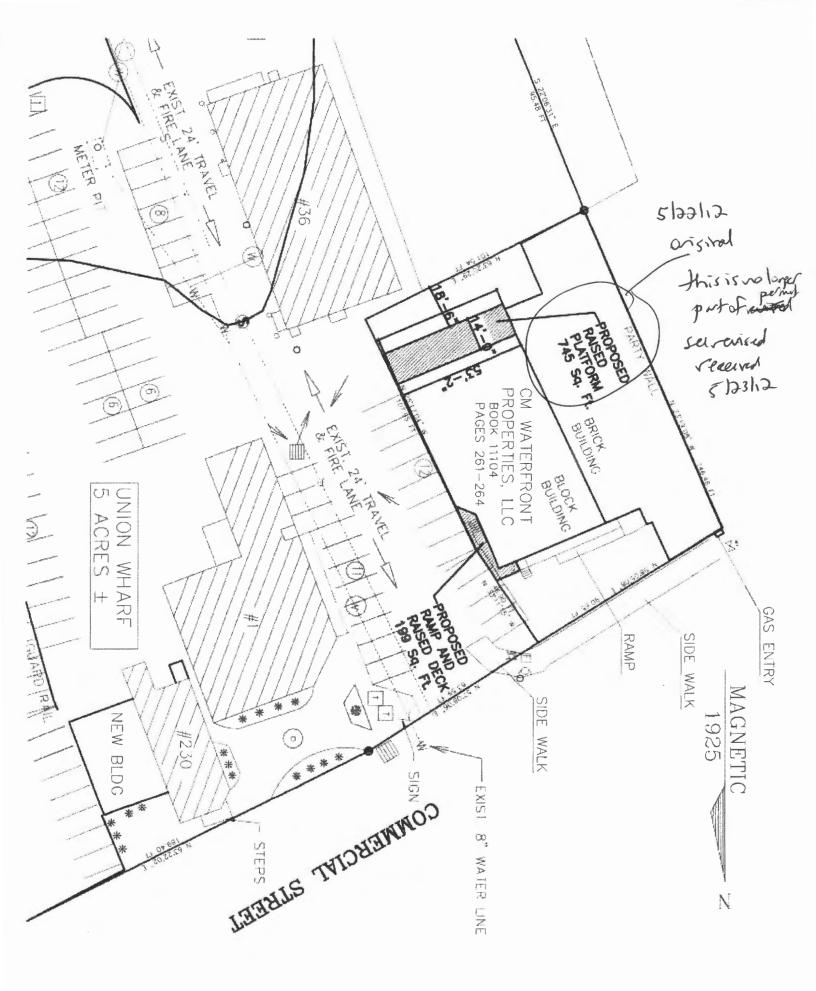
DAVID	Signature	- Rl
* LLOYD NO. 936 *	Title:	Architect
SEATON MAINE	Firm:	Archetype, PA
	Address:	48 Union Wharf
	Phone:	(207) 772-6022

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

Building Inspections Division • 389 Congress Street • Portland, Maine 04101 • (207) 874-8703 • FACSIMILE (207) 874-8716 • TTY (207) 874-8936

Date: \$ 5/24/12-Applicant: CM Wahrfort Properties TAR C-B-L: 31-L-34 Address: 250 Connertial St. CHECK-LIST AGAINST ZONING ORDINANCE Date - birt 1908. Zone Location - NC? (Interior)or corner lot -Proposed UserWork - change of vie from pholosophy studio to Brew Rub- add exterior officer Servage Disposal - in reg (860) - addremp at front enhance - (2890) Lot Street Frontage - 75 on connercial min- 90 shown - (019) Front Yard - none -\* min suborst from pivedge is 5' - 20 & Closest point (0) Rear Yard - none-Side Yard - none-Projections -Width of Lot - Sommin MMV02- 90,150 Height - Max 50' - (D)? Lot Area - no minimum regired Lot Coverage Ampervious Surface -100% Area per Family -A Off-street Parking - need one gra for each 300 for restaunt oner whereablic has wars - 2000 public prov - 300 = 6.67 spaces - 7 spaces required (0) Loading Bays seeplar received T/24/2 Sile Plan - administration authorization 2012 -507 Shoreland Zoning/Stream Protection - WC2 nor comment. Flood Plains - parel 13- 2000 C Hlouted whin NUVO2 except for sportion for that whin 25' of averychish tid







# Administrative Authorization Application Portland, Maine Planning and Urban Development Department, Planning Division

	ORTL	AN			Le	uft rises as in the
					-	Nul - Di Jesta
PR	OJECT NA	ME: <u>In</u>	'finiti Fermenta	tion & Dist	tillation	
PR	OJECT AD	DRESS:	250 Commercial S	Street	_ CHART/BLOCK/LOT:	31/L/34
AP	PLICATION	FEE:	(\$50.00)			
PR	OJECT DES	SCRIPTIC	ON: (Please Attach Sketc	h/Plan of the Pr	oposal/Development)	
			ations to provide			and exterior
80		t. dec	ck at rear of bu			9
	OWNER/A			CONSULT	TANT/AGENT	INE.
	Name:	CM Wa	aterfront Propert	ies Name:	Archetype	MAY 15 2
	Address:		ox 7467	Address:		Partiand
		Portl	and, ME 04112		Portland, ME 0	4101
	Work #:	(207)	772-8160	Work #:	(207) 772-6022	Plan
	Cell #:			Cell #:	(207) 831-8627	
	Fax #:			Fax #:	(207) 772-4056	
	Home #:			Home #:		
	E-mail:	cpoole	e@customfloat.com	m E-mail:	lloyd@archetyp	epa.com
			trative Authorization: on pg .2 of this appl.)		Applicant's Assess Y(yes), N(no), N/A	sment Planning Division Y(yes), N(no), N/A
a)	Is the prope	osal within	n existing structures?		Yes	
b)	Are there a	ny new b	uildings, additions, or dem	olitions?	Limited Demo and new exterior deck	
C)	Is the footp	rint increa	ase less than 500 sq. ft.?		Yes	
d)	Are there a	ny new c	urb cuts, driveways or par	king areas?	No	
e)	Are the cur	bs and si	dewalks in sound condition	n?	Yes	
f)	Do the curb	os and sid	dewalks comply with ADA?	?	Yes	
g)	Is there any	y addition	al parking?		No	
h)	Is there an	increase	in traffic?		Unknown	
i)	Are there a	iny knowr	n stormwater problems?		No	
j)	Does sufficient property screening exist?				<u>N/A</u>	
k)	Are there a	dequate	utilities?	Yes		
I)	Are there a	ny zoning	g violations?		No	
m)	ls an emer	gency ge	nerator located to minimiz	e noise?	<u>N/A</u>	
n)	Are there a	ny noise,	vibration, glare, fumes or	other impacts?	No	
Sig	inature of A	pplicant	.)0	Date	5-15-12	

Planning Division Use Only	Authorization Granted	Partial Exemption	Exemption Denied
Standard Condition of Approv from the Inspection Division (F			
Planner Signature		Date	
IMPORTANT NOTICE TO APPL	ICANT: The granting of an	Administrative Authorizat	tion to exempt a development

IMPORTANT NOTICE TO APPLICANT: The granting of an Administrative Authorization to exempt a development from site plan review <u>does not exempt</u> this proposal from other required approvals or permits, nor is it an authorization for construction. You should first check with the Building Inspections Office, Room 315, City Hall (207)874-8703, to determine what other City permits, such as a building permit, will be required.

#### PROVISION OF PORTLAND CITY CODE 14-523 (SITE PLAN ORDINANCE) RE: Administrative Authorization

#### Sec. 14-523 (b). Applicability

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No person shall undertake any development identified in Section 14-523 without obtaining a site plan improvement permit under this article. (c) Administrative Authorization. Administrative Authorization means the Planning Authority may grant administrative authorization to exempt a development proposal from complete or partial site plan review that meets the standards below, as demonstrated by the applicant.

- 1. The proposed development will be located within existing structures, and there will be no new buildings, demolitions, or building additions other than those permitted by subsection b of this section;
- 2. Any building addition shall have a new building footprint expansion of less than five hundred (500) square feet;
- The proposed site plan does not add any new curb cuts, driveways, or parking areas; the existing site has no more than one (1) curb cut and will not disrupt the circulation flows and parking on-site; and there will be no drive-through services provided;
- 4. The curbs and sidewalks adjacent to the lot are complete and in sound condition, as determined by the public works authority, with granite curb with at least four (4) inch reveal, and sidewalks are in good repair with uniform material and level surface and meet accessibility requirements of the Americans with Disabilities Act;
- The use does not require additional or reduce existing parking, either on or off the site, and the project does not significantly increase traffic generation;
- There are no known stormwater impacts from the proposed use or any existing deficient conditions of stormwater management on the site;
- 7. There are no evident deficiencies in existing screening from adjoining properties; and
- Existing utility connections are adequate to serve the proposed development and there will be no disturbance to or improvements within the public right-of-way.
- 9. There are no current zoning violations;
- 10. Any emergency generators are to be located to minimize noise impacts to adjoining properties and documentation that routine testing of the generators occur on weekdays between the hours of 9 a.m. to 5 p.m. Documentation pertaining to the noise impacts of the emergency generator shall be submitted; and
- 11. There is no anticipated noise, vibration, glare, fumes or other foreseeable impacts associated with the project.
- a. Filing the Application. An applicant seeking an administrative authorization under this subsection shall submit an administrative authorization application for review, detailing the site plan with dimensions of proposed improvements and distances from all property lines, and stating that the proposal meets all of the provisions in standards 1-11 of Section 14-423 (b)1. The application must be accompanied by an application fee of \$50.
- b. Review. Upon receipt of such a complete application, the Planning Authority will process it and render a written decision of approval, approval with conditions or denial, with all associated findings.
- c. Decision. If a full administrative authorization is granted, the application shall be approved without further review under this article, and no performance guarantee shall be required. In the event that the Planning Authority determines that standards a and b of Section 14-523 (b) (1) and at least four (4) of the remaining standards have been met, the Planning Authority shall review the site plan according to all applicable review standards of Section 14-526 that are affected by the standards in this subsection that have not been met. If an exemption or partial exemption from site plan review is not granted, the applicant must submit a site plan application that will undergo a full review by the Planning Board or Planning Authority according to the standards of Section 14-526.

#### Administrative Authorization Decision – Portland Maine

#### In'Finiti Fermentation and Distribution

250 Commercial Street

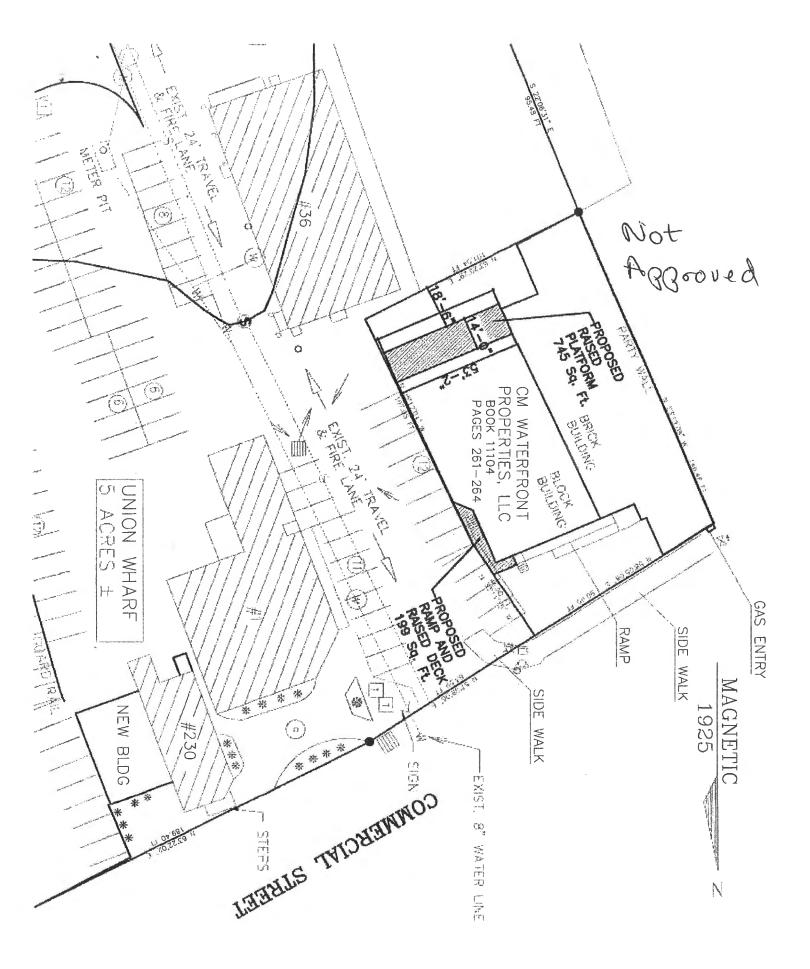
Criteria for an Adminstrative Authorizations: (See Section 14-523 (4) on page 2 of this application)	Applicant's Assessment Y(yes), N(no), N/A	Planning Division Use Only	
a) Is the proposal within existing structures?	Yes	Renovation and exterior changes	
b) Are there any new buildings, additions, or demolitions?	Limited demo and exterior deck	Plan revised to eliminate the deck and only has 2 exit stairs	
c) Is the footprint increase less than 500 sq. ft.?	yes	The 800 sf deck is not approved and has been removed from the plan dated May 23, 2012	
d) Are there any new curb cuts, driveways or parking areas?	no	No	
e) Are the curbs and sidewalks in sound condition?	yes	Yes	
f) Do the curbs and sidewalks comply with ADA?	yes	Yes	
g) Is there any additional parking?	no	No	
h) Is there an increase in traffic?	unknown	no	
i) Are there any known stormwater problems?	no	no	
j) Does sufficient property screening exist?	n/a	n/a	
k) Are there adequate utilities?	yes	Need to obtain license from DPS for Industrial Pretreatment	
l) Are there any zoning violations?	no	no	
m) Is an emergency generator located to minimize noise?	n/a	n/a	
n) Are there any noise, vibration, glare, fumes or other impacts?	no	no	

The Administrative Authorization for 250 Commercial Street was approved by Barbara Barhydt, Development Review Services Manager on June 1, 2012 with the following Condition(s) of Approval listed below:

- 1. The applicant shall obtain an Industrial Pre-Treatment License from the Department of Public Services prior to the issuance of a building permit. Please contact Steve Harris at 874-8843.
- 2. This approval is for the site plan dated May 23, 2012, which does not include a deck. Any proposal for an exterior deck shall be submitted for the appropriate level of site plan review.
- 3. <u>Standard Condition of Approval</u>: The applicant shall obtain all required City Permits, including building permits from the Inspection Division (874-8703) and any other permits required from the Department of Public Services (874-8801) prior to the start of any construction.

Barbara Barhydd

Barbara Barhydt, Development Review Services Manager June **1**, 2012



#### Ann Machado - 250 Commercial Street - Brew Pub

From: To:	Jared McKenna <jared@archetypepa.com> Ann Machado <amachado@portlandmaine.gov>, Jeanie Bourke</amachado@portlandmaine.gov></jared@archetypepa.com>		
	<jmb@portlandmai< th=""></jmb@portlandmai<>		
Date:	5/24/2012 3:23 PM		
Subject:	250 Commercial Street - Brew Pub		
CC:	David Lloyd <loyd@archetypepa.com>, Susan Geffers <sue@archetypepa.com></sue@archetypepa.com></loyd@archetypepa.com>		
Attachments:	250 Commercial St Survey.pdf		

Ann,

Attached is a revised survey showing the designated 7 parking spots based on the brew pub's 2000 sqft of public space. A hard copy will be dropped off to you as well.

#### Jared McKenna

Archetype, P.A. 48 Union Wharf Portland, ME 04101 (207) 772-6022 (207) 772-4056-Fax jared@archetypepa.com http://www.archetype-architects.com



## MAY 2 4 2012

Dept. of Building Inspections City of Portland Maine

#### Ann Machado - Re: 250 Commercial Street - Brew Pub

From:Ann MachadoTo:Jared McKennaDate:5/23/2012 2:44 PMSubject:Re: 250 Commercial Street - Brew Pub

Jared -

The pdfs are great, but we also need a full size scalable plan of each of these.

Thanks.

Ann

>>> Jared McKenna <jared@archetypepa.com> 5/23/2012 2:37 PM >>> Attached are new plans to show the ramp and stairs to be included in this permit. The footprint of both will total less than 500 sq ft of additional square footage to the existing footprint.

You'll note the that deck will now be another phase and we will be applying for a Level II Site Plan Review in the future for this.

Both phases are shown on the attached survey as well. If you have any questions please let me know. Thanks,

#### Jared McKenna

Archetype, P.A.

48 Union Wharf Portland, ME 04101 (207) 772-6022 (207) 772-4056-Fax jared@archetypepa.com http://www.archetype-architects.com

#### Ann Machado - RE: 250 Commercial Street - Brew Pub

From:Ann MachadoTo:David LloydDate:5/23/2012 1:08 PMSubject:RE: 250 Commercial Street - Brew Pub

Yes, as long as it is completely clear that the present permit application does not include the deck.

I have spoken to Charlie Poole about the survey that is required for any development within the NMUOZ and asked him to include any increase in footprint on it like the ramp and the egress stairs. He talked about having a second site plan for when the deck is applied for in the future.

Ann

>>> David Lloyd <lloyd@archetypepa.com> 5/23/2012 11:31 AM >>>

Ann

It would be better for us to show the deck as phase 2 and have a temporary stair detail added for egress. Can we resubmit like this?

#### David Lloyd

Archetype, P.A. 48 Union Wharf Portland, ME 04101 Tele: (207) 772-6022 Fax: (207) 772-4056 Cell: (207) 831-8627 <u>lloyd@archetypepa.com</u> http://www.archetype-architects.com

From: Ann Machado [mailto:<u>AMACHADO@portlandmaine.gov]</u> Sent: Wednesday, May 23, 2012 8:50 AM To: <u>lloyd@archetypepa.com</u> Cc: Barbara Barhydt Subject: 250 Commercial Street - Brew Pub

David -

I am doing the zoning review for this permit. I understand that you would like to move the permit forward without the rear deck. Could you submit revised plans that do not show the deck. If there are going to be

temporary steps for egress from the existing loading dock please indicate those on the plan.

Let me know if you have any questions.

Ann Machado Zoning Specialist 207.874.8709

## Ann Machado - Re: survey 250 Commercial ST.

From:	Ann Machado
То:	Charlie Poole
Date:	5/23/2012 8:44 AM
Subject:	Re: survey 250 Commercial ST.
CC:	eric@novareresbiercafe.com
Date: Subject:	5/23/2012 8:44 AM Re: survey 250 Commercial ST

#### Charlie -

This is the section from the ordinance that addresses the need for the site specific land survey in the NMUOZ overlay zone:

Non-marine use overlay zone (NMUOZ): The non-marine use overlay zone (NMUOZ) is a portion of the waterfront central zone, as described below, where new and existing development may be occupied with 100% non-marine use tenants listed under 14-307(b), subject to the standards and use limitations provided in section 14-311(b).

The geographic limits of the NUMUOZ are defined by parcels of land and piers within the waterfront central zone located on the landward side of a line established one hundred fifty (150) feet southerly from the southerly sideline of Commercial Street and modified as follows: the seaward limit of the NMUOZ extends to a line 500 feet southerly from the southerly sideline of Commercial Street in the area between the easterly sideline of Long Wharf to the westerly sideline of Union Wharf. Additionally, all areas subject to this provision are set back landward at least twentyfive (25) feet from the average high tide line of Portland Harbor and associated coastal wetlands. All offset distances are measured horizontally.

All applicants for development within the NUMUOZ are responsible for demonstrating their location within NMUOZ according to the findings of a site specific land survey conducted by a professional land surveyor licensed by the State of Maine. The limits of the NMUOZ shallbe shown on all site plans and subdivision plats for proposed development within the NMUOZ. A map showing the presumed boundaries of the NMUOZ is on file with the Departmetn of Planning and Urban Development. Said map is for illustrative purposes only and shall not be relied upon in determining whether a proposed development is located within the NMUOZ. On-Site shall mean that portion of any lot included within or directly impacted by a proposed development.

This is what the ordinance asks for. With this property, the 150' line from Commercial Street and the 25' setback line from the average high tide line of Portland Harbor should be located. Also the site plan should indicate the existing footprint and any proposed footprint. Since the deck is not being built at this time, if temporary access

steps are being built for egress in the rear, they should also be shown on the site plan.

Let me know if you have any questions.

Ann Machado Zoning Specialist 207.874.8709

>>> Charlie Poole <cpoole@customfloat.com> 5/22/2012 12:49 PM >>> Hi Anne:

When you have a minute, can you give me more information on the survey you mentioned. We have 250 Commercial St. on our site plan which was recently up dated by our surveyor, Downeast Surveying.

Thanks.

Charlie

#### Ann Machado - Fermentation and Distillation

From:	Charlie Poole <cpoole@customfloat.com></cpoole@customfloat.com>		
To:	"amachado@portlandmaine.gov" <amachado@portlandmaine.gov></amachado@portlandmaine.gov>		
Date:	5/21/2012 3:30 PM		
Subject:	Fermentation and Distillation		
CC:	"eric@novareresbiercafe.com" <eric@novareresbiercafe.com></eric@novareresbiercafe.com>		

Hi Anne:

I have cc Eric on this email too.

Eric Michaud – Fermentation and Distillation LLC 207-756-4454 – cell

Keep me in the loop as it regards the survey, footprint changes etc.. We are ready to get you what you need to keep the permit process moving along.

My cell is 939-1431 or 772-8160 – office.

Many thanks for your help with our projects down here. It is nice to see things happening and improvements being made our properties.

Charlie

#### Ann Machado - RE: FW: Union Wharf/ commercial street Brew pub

From:	David Lloyd <lloyd@archetypepa.com></lloyd@archetypepa.com>
To:	Barbara Barhydt <bab@portlandmaine.gov>, Marge Schmuckal <mes@portlandma< td=""></mes@portlandma<></bab@portlandmaine.gov>
Date:	5/22/2012 2:24 PM
Subject:	RE: FW: Union Wharf/ commercial street Brew pub
CC:	Charlie Poole <cpoole@customfloat.com>, Jeanie Bourke <jmb@portlandmaine< td=""></jmb@portlandmaine<></cpoole@customfloat.com>

Barbara

That is about right. . We even expanded the rear deck to 864 sq. ft. In the interest of getting this business operational we would like to apply for our building permit without the rear deck. We can build temporary stairs for egress . This will give us time to process our application for a level 2 site plan but still be under construction with the brew pub. Can that work on your end?

Thank You

David

RECEIVED

MAY 2 3 2012

Dept. of Building Inspections City of Portland Maine

David Lloyd Archetype, P.A. 48 Union Wharf Portland, ME 04101 Tele: (207) 772-6022 Fax: (207) 772-4056 Cell: (207) 831-8627

http://www.archetype-architects.com

lloyd@archetypepa.com

From: Barbara Barhydt [mailto:<u>BAB@portlandmaine.gov]</u>
Sent: Tuesday, May 22, 2012 1:43 PM
To: David Lloyd; Marge Schmuckal
Cc: Charlie Poole
Subject: Re: FW: Union Wharf/ commercial street Brew pub

David:

Thank you for this information. As I look at the plans, it appears that you are adding a new ramp with 199 sq. ft. and the deck is over 700 sq. ft. An administrative authorization is allowed for a footprint up to 500 sq. ft. As shown on this plan, it would require a Level II site plan. If I am mis-reading the plan or if some of this area is existing, please let me know.

Thank you. Barbara

Barbara Barhydt Development Review Services Manager Planning Division 389 Congress Street 4th Floor Portland, ME 04101 (207) 874-8699 Fax: (207) 756-8256 bab@portlandmaine.gov>>> David Lloyd <<u>lloyd@archetypepa.com</u>> Tuesday, May 22, 2012 12:34 PM >>> Barbara

Attached is the partial site plan I sent to you on 2/9 and a survey of the pier. Let me know if this is sufficient

David Lloyd Archetype, P.A. 48 Union Wharf Portland, ME 04101 Tele: (207) 772-6022 Fax: (207) 772-4056 Cell: (207) 831-8627 <u>lloyd@archetypepa.com</u>

http://www.archetype-architects.com

> -----Original Message-----

> From: David Lloyd [mailto:lloyd@archetypepa.com]

> Sent: Thursday, February 09, 2012 11:02 AM

> To: Barbara Barhydt (bab@portlandmaine.gov)

> Cc: Charlie Poole (cpoole@customfloat.com); 'eric@novareresbiercafe.com'

> Subject: Union Wharf/ commercial street Brew pub

>

> Barbara

>

> Attached is a partial site plan showing proposed location of brew pub at CM

> Waterfront properties and the additional raised platform , to be used as

> part time loading dock and part time brew pub seating at 745 square feet

> and proposed ramp entry area at front of building at approximately 199

> square feet.

> These areas will be in support to the proposed 6150 brew pub .

> I know you have discussed this with Charlie Poole and we are looking to

#### get

- > any questions
- >
- > David Lloyd
- > Archetype, P.A.
- > 48 Union Wharf
- > Portland, ME 04101
- > Tele: (207) 772-6022
- > Fax: (207) 772-4056
- > Cell: (207) 831-8627
- > lloyd@archetypepa.com
- > http://www.archetype-architects.com
- >

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>
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#### > > -----Original Message-----

- > > From: Toshiba Copier [mailto:sue@archetypepa.com]
- > > Sent: Thursday, February 09, 2012 10:22 AM
- > > To: David
- > > Subject: Scanned from MFP-05348103 02/09/2012 10:22

> >

- > > Scanned from MFP-05348103.
- > > Date: 02/09/2012 10:22
- > > Pages:1
- > > Resolution:300x300 DPI
- > > -----

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# FIRE RISK MANAGEMENT, INC



1 Front St., Bath, ME 04530 207/442-7200 [-7272 (fax)] FRM@fireriskmgt.com

# **Memo Report**

From: W. Mark Cummings, P.E.

To: Mr. Eric Michaud; Infiniti

CC: Capt. Chris Pirone; Fire Prevention Division, Portland Fire Department



# Subject: Fire Hazards Assessment of the In'finiti Fermentation & Distillation Site at 250 Commercial St., Portland, ME.

A review has been conducted of the proposed layout/construction for a new brew pub, with a small distilling operation, which is to be located within a newly renovated space on the 1<sup>st</sup> floor of a commercial building at 250 Commercial Street in Portland, ME. The purpose of this review was to evaluate the proposed inclusion of a small distillery operation within the brew pub, including the potential fire/explosion hazards that may exist and assess the need to provide adequate fire separation of this operation from the remainder of the brew pub. The end result for this assessment is to develop recommendations to ensure that adequate fire and life safety are provided within the facility.

#### Background

A new brew pub, In'finiti Fermentation & Distillation, is being designed that is to be located within a portion of the 1st floor level of the 3-story building located at 250 Commercial Street in Portland, ME. The brew pub will occupy approximately 5900 ft<sup>2</sup> of the 1<sup>st</sup> floor. The proposed design for the new brew pub includes a small area, approximately 400 ft<sup>2</sup>, which will be used to support distilling operations. The stated plan for the distilling operations is to produce quantities of a number of different alcoholic beverages (spirits). To produce these various beverages, a small still is to be installed in this space, which will be used to distill various liquid mixtures, producing a range of alcoholic beverages with alcoholic contents that will likely range from 40% to 60% by volume. Resulting from discussions with the owner (Mr. Eric Michaud), it was ascertained that a portion of this space will also be used to store some of the finished products, including some that will be stored in small wooden barrels as part of the overall aging process. Those products that will not require the "aging" process will only be stored temporarily, until being shipped to a State-authorized distribution facility. Subsequent to completing the distillation process, the products may be initially stored, temporarily, in one of the six (6) stainless steel holding tanks that are to be located inside the distillation area; each with a capacity of approximately 200 liters (55 gal). When ready for shipping, the product that does not require "aging" will be transferred into individual glass bottles; 750 ml each. These bottles will be packaged into cardboard cases, six (6) bottles to a case, in preparation for shipping. Although the exact quantity of the final distilled product (Class IC flammable liquid) that is likely to be stored in this area at any one time is not specifically known, the following represents the likely maximum that would be anticipated:

-	32 wooden barrels @ (approx.) 114 liters [30 gallons]:	3634 liters [960 gallons]
-	6 stainless steel holding tanks @ (approx) 208 liters [55 gallons]:	1248 liters [330 gallons]
-	24 cases of 750 ml bottles @ 4.5 liters [1.2 gallons]:	108 liters [ 29 gallons]
	Total Stored:	4990 liters [1319 gallons]

Based on the parameters outlined in the International Building Code (IBC), the brew pub would be generally classified as an "Assembly, A-2", occupancy. If that portion of this facility that will be used for the distillery

operations was to be considered as a separate occupancy, it would be classified as that of a "Factory, F-1, Moderate-hazard" occupancy. It was stated by the owner that the current design plan for this facility is to isolate the area in which the distilling operations are to take place from the remainder of the brew pub by a barrier that has a fire-resistance rating of at least one (1) hour.

The building appears to generally meet the requirements of a Type IIB construction, as defined by the IBC. The exterior walls are all listed as being of masonry construction; nominally 8 inches thick. The floor/ceiling assembly that separates the  $1^{st}$  and  $2^{nd}$  floors consists of a concrete slab that is supported by exposed steel beams and columns. The space that is to be dedicated for the distilling operations is to be installed along a portion of the northwest exterior wall; as shown in Attachment 1 of this report.

Mechanical ventilation is to be installed, just below the ceiling, throughout the brew pub area, including the space to be used for distilling operations. The mechanical systems design drawing indicates that the space to be used for distilling is scheduled to be supplied with approximately 532 cfm of conditioned air. No mechanical exhaust system is scheduled to be provided in this area. Primary access and egress to/from the brew pub is through three personnel doors installed near the northwest, southeast, and southwest corners of the facility. Although the space is currently, not provided with either an installed fire suppression or fire detection/notification system, both are to be added as part of the renovation efforts to accommodate the new brew pub.

#### Fire / Explosion Hazards

In general, all the individual, constituent materials used to support the distillation and packaging processes do not, by themselves, represent significant fire hazards. The primary fire fuel loading that may be present in the space used for distilling operations may be any empty wood barrels and the cardboard cases that will ultimately be used in storing the finished products.

The final stages of the distillation process are that which represent the greatest potential for a fire/explosion hazard; when the liquid has been distilled and the alcohol content is increased to the point that the beverage becomes a "flammable liquid" and the ethanol (vapor) that is being produced by the distillation (boiling) process could result in the development of an ethanol/air mixture that is within its lower flammability limit (LFL). The still design being used is very basic and employs steam, which is produced in the facility's mechanical room, to generate the heat necessary to boil the liquids. At ambient atmospheric pressure, ethanol will boil at just over 78°C (172°F). Should the boiling rate within the still increase beyond that for with the still was designed, it might result in excessive pressure within the still, causing the relief valve(s) to operate; possibly releasing the ethanol vapor into the space. With an auto-ignition temperature of approximately 426°C (800°F), it is unlikely that the surface temperatures of the still will ever approach the point that it might be expected that contact by an ethanol/air mixture with the still's hot surfaces could result in fire initiation. Other than the electrical systems, no other ignition sources are present within this area.

Due to the alcoholic content, 40% to 60% by volume, of the final products (liquids) being produced by the distillation process, these will primarily be classified as being Class IC flammable liquids, as defined by NFPA 30, the *Flammable and Combustible Liquids Code*. This classification stems from the fact that beverages with alcoholic contents in the range specified above will have flash points between 22.8°C and 37.8°C (73°F and 100°F). Another potential fire hazard that will be associated with the distillery's operation is that of a potential spill of these flammable liquids, such that they, and any vapor that might then be produced, could then be exposed to a potential ignition source. It is reported<sup>1</sup> that the evaporation rate for ethanol at "standard" ambient temperatures of approximately 25°C (77°F) is relatively low, such that even the presence of natural ventilation should be sufficient to prevent the development of an ethanol vapor cloud that would exceed its lower flammability limit. However, if a spill was of significant volume (quantity) or if the area where a spill occurred was subject to "stagnant" air, the potential still exists that the LFL could be achieved. It is beyond the

<sup>&</sup>lt;sup>1</sup> Potential Explosion Hazards due to Evaporating Ethanol in Whiskey Distilleries, HSL/2003/08, H.S. Ledin, Health & Safety Laboratory, Buxton, England.

FRM Memo Report; FHA - Infiniti Brew Pub

scope of this evaluation to attempt to determine a specific spill volume(s) that could result in such an occurrence.

The presence of other stored materials, such as the cardboard for the shipping cases and empty wood barrels, will also cause an increase in the overall fire fuel loading (fire potential) within this space. Given that the wood (oak) has a relatively high ignition energy requirement, this represents a very low potential as being an "initial" fire source. The cardboard is much more readily "ignitable", but must still have another ignition source to result in fire initiation.

Research into historical data regarding fires involving distilling facilities indicate that, in general, fires resulting from the distillation processes themselves are extremely rare. Most of the historical data indicates that the greatest risk of fires involving distilled beverages is primarily that resulting when these beverages are exposed to the effects of fires that originated from other sources not directly involving the distillation process. When these (flammable) liquids are exposed to the thermal insult from an adjacent fire, they will begin to rapidly evaporate, potentially producing significant volumes of a flammable vapor. Equally, an adjacent fire can result in the failure of the packaging of the stored liquids, thus resulting in spillage and a significant increase in fire intensity and if sufficient flammable vapors are produced; an explosion.

#### Review and Assessment of Code & Standards Requirements

The results of this evaluation indicate that the existing national building (IBC) and fire (NFPA) codes do not readily and directly apply to the type and scope of distillery operations that are being proposed for use at this brew pub. However, the requirements of the International Building and Fire Codes (IBC & IFC) (2009 ed.) were used as references in developing recommendations for this project. Other codes that the State of Maine has adopted that are applicable to this project and that were used in the code evaluation for fire and life safety include the latest editions of the National Fire Protection Association's codes; NFPA 30 – *Flammable and Combustible Liquids Code*, NFPA 70 – The *National Electrical Code*<sup>®</sup>, and NFPA 101 – The *Life Safety Code*<sup>®</sup>. Additionally, the applicable Factory Mutual (FM) Global Property Loss Prevention Data Sheet, 7-74 – Distilleries, was reviewed and used as a source of information and reference, since much of the fire protection information provided in these sheets is based on historical data specific to that industry.

A primary focus for the review of both the IBC/IFC and NFPA 30 was to ascertain if there would be any limits on the amounts of flammable liquids (Class IC) that could be present / stored within the brew pub space used for the distilling operations. The published limits on the amounts of flammable liquids that can be stored, listed in both of these codes, were specifically exempted for alcoholic beverages that are contained in individual containers that do not exceed 1.3 gallons (5 liters) or wood barrels; refer to para. 9.1.4 of NFPA 30 and para. 3401.2 of the IFC, respectively. It has been indicated that much of the product produced by the still at this brew pub will be stored in either wooden barrels or individual 750 ml (0.2 gal) bottles. As such no specific code limitations exist for the amounts to be stored on site within these containers. However, the codes do not specifically address distilled spirits that are to be temporarily stored within the stainless steel (metal) tanks. As such, if only the requirements for storage of a Class IC flammable liquid are imposed, this would limit the maximum quantity stored, ostensibly in these tanks, to only 240 gallons. However, the manner in which the codes are written would indicate that this is to be the maximum quantity allowed within this (control) area. Given the fact that the product stored in the wooden barrels and glass bottles is not limited, this simply does not make practical sense for this situation. Section 3404.3.4 of the IFC does have specific allowances for the storage of flammable liquids for wholesale and retail sales (Group M) occupancies. Although this facility does not specifically fall into this classification, the protection requirements outlined for this classification do appear to be an appropriate option for developing an acceptable configuration for this facility that will both be practical in supporting the distilling operations, while also ensuring that adequate protective measures are implemented. In general, it appears that when storing the flammable liquids in a sprinklered facility, the code would allow maximum quantities that far exceed that which is anticipated to be stored at any one time in this facility.

NFPA 30 does include specific requirements for "processing facilities" and those that "dispense, handle, transfer, or use" these liquids. The requirements that apply to this facility's operations are primarily to provide a fire detection/notification system and a ventilation system that is designed to prevent the accumulation of flammable vapors; refer to chapters 17 and 18 of NFPA 30. Without specifically performing calculations to ascertain a specific ventilation rate that will prevent the accumulation of flammable vapors, within 25% of the LFL, the code requires that a minimum ventilation rate of 1 cfm/ft<sup>2</sup> be provided. Given the approximate "foot print" of the distilling area, this would require that a ventilation system that can provide approximately 400 cfm be installed. Furthermore, this includes a requirement that the inlet and exhausts for this system be located within 12 inches of the floor and should be installed on opposite sides/ends of the room, such that the air movement will "sweep" vapors from all areas of the space.

The codes also have requirements to ensure that no electrical equipment will be exposed to flammable vapors. In this instance, it will be required that all electrical systems/equipment installed in the distilling area and that are within 3 feet of the floor, meet the requirements of NFPA 70 for a Class I, Division 2 (Zone 2) installation.

As outlined above, many of the requirements in NFPA 30 do not apply to distilled spirits. Although in finished form these liquids are classified as flammable, they would not be considered a "hazardous" material. NFPA 30 does include some requirements with regards to containing and/or controlling spillage from storage containers. The plan for this brew pub includes storage of the finished products in small glass containers, the larger wooden barrels, along with the temporary storage in the steel tanks. The code specifically exempts any need for containment systems for the products stored in the small containers ( $\leq 5$  liters). However, the need to provide containment around the steel tanks and where the barrels are to be stored is less clear. Currently, the facility is not provided with any floor drains that might prevent spillage from leaving the distilling area. It has been stated that liquid transfer from the still will be accomplished using an explosion proof alcohol pump to either the steel tanks or the wooden barrels. With the possible exception of this filling process, the greatest potential for spillage appears to be the possible failure of the glass containers. The wood barrels do not present a high risk of spillage or being accidently ruptured. Once filled, the barrels are not involved in any other process until such time has passed that the contents are ready to be transferred into the smaller containers for distribution/sale, which will also involve the filling process. Any time the products are being transferred to/from the different containers, which represents the highest risk for leakage/spillage, personnel will be present and can quickly take actions to mitigate any spill that might occur. For these reasons, along with the lack of any specific code applicability regarding distilled spirits, it is felt that the only area requiring "containment" would be that area surrounding the steel tanks. It would also be recommended that any containment area provided be of sufficient size to also accommodate the filling process within the containment area.

The actual code requirement for including a fire separation between the distilling area and the remainder of the brew pub area is a bit vague; in light of this specific application. However, it was stated by the owner that they had agreed to provide a 1-hour separation; which coincides with the IBC requirements for separation of an Assembly occupancy from a (low hazard) Factory/Industrial occupancy. However, it is also desired by the owners that the distilling operations be "viewable" by their patrons and the design of the separation wall(s) include the installation of glass viewing windows on two of the interior walls. Given the expense associated with fire-rated glass, coupled with the relatively low hazard nature of the distilled spirits, the use of an alternative approach to providing the adequate separation may be worth consideration. NFPA 101 allows for the use of sprinklers to protect glass installed in the walls of an atrium, where it is often desirous that the building design include the ability to view the atrium from adjacent spaces. Although this application is considerably different from that of an atrium, the basic premise is the same. This, coupled with the low fire hazards associated with the distilling operation and the fact that the spirits are miscible with water and would quickly be diluted below the point at which they would sustain combustion, use of this approach is considered to be an acceptable and safe alternative. If employed, the requirements of Section 8.6.7 (1)(c) of NFPA 101 must be followed; with respect to the window design/installation, along with the spacing of the sprinklers near the windows. Given that, unlike an atrium, a fire hazard exists on both sides of the barrier, it would be recommended that the sprinklers installed to protect the glass be installed on both sides of the barrier. This configuration should be adequate to provide the necessary protection of the glass to maintain the 1-hour fire separation.

In general, all other pertinent requirements associated with the Life Safety Code<sup>®</sup> (NFPA 101) are currently being met by the proposed design for the new brew pub.

#### Summary and Recommendations:

The research associated with this fire hazard assessment indicates that, in general, fires resulting directly from distillery operations are rare. However, should a fire occur that ultimately exposes/involves the distilled products (flammable liquids), the results could be severe. Based on this assessment and the historical data reviewed, it is likely that the other areas within the brew pub, such as the kitchen and dining areas, likely represent a greater risk of fire than does the actual distilling operations. This is based on the fact that the distilling operations will only occur while the area is manned, such that any problem that might occur during these operations would be immediately identified and corrective measures implemented. However, this is not meant to imply that the operation of this distillery is not without inherent fire risks. Equally, it is recommended that specific measures be implemented to further mitigate the potential for damage to the building and the operation of the adjacent tenants, along with complying with all pertinent code requirements.

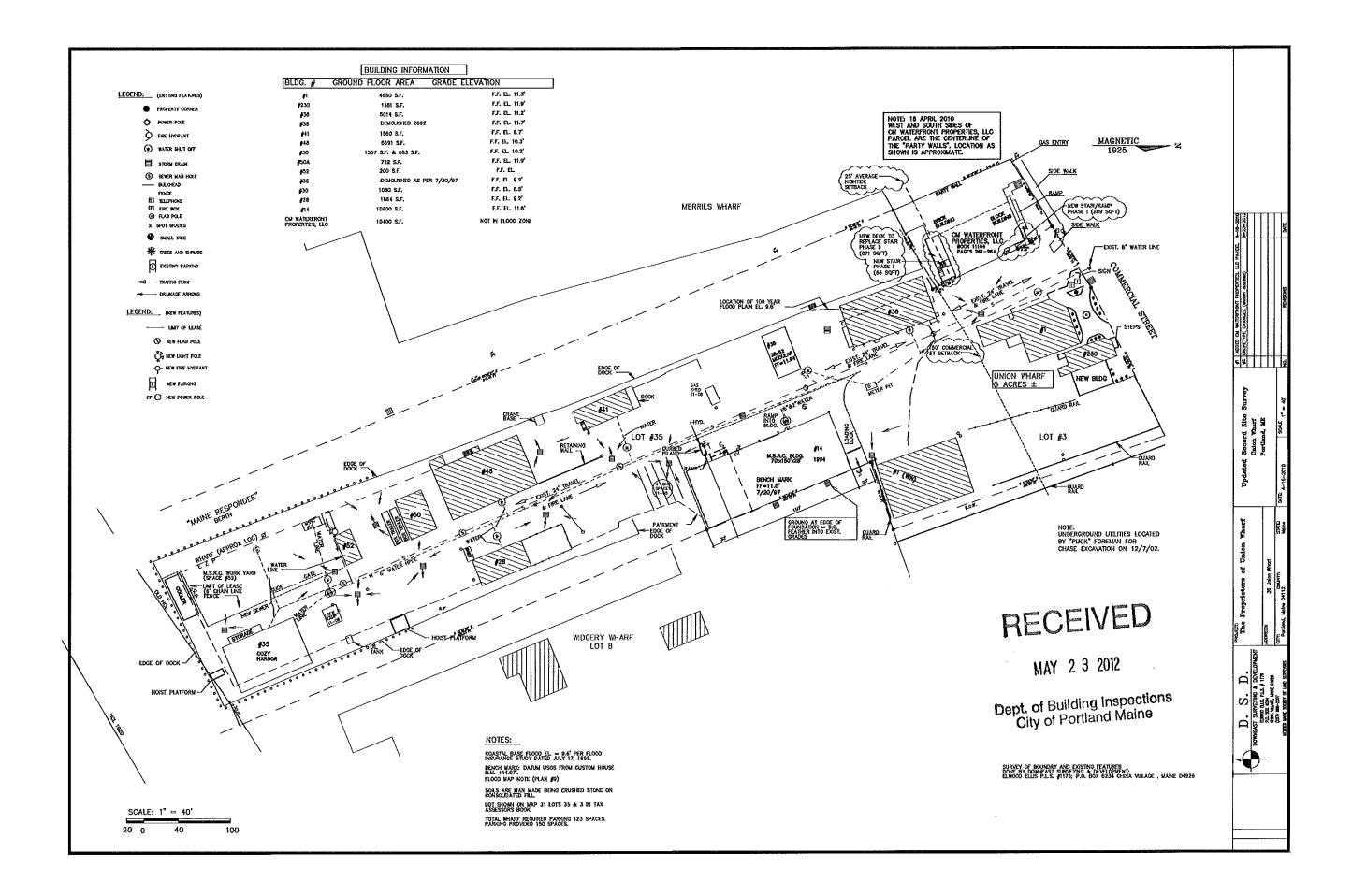
Based on the results of this assessment, the following recommendations are provided:

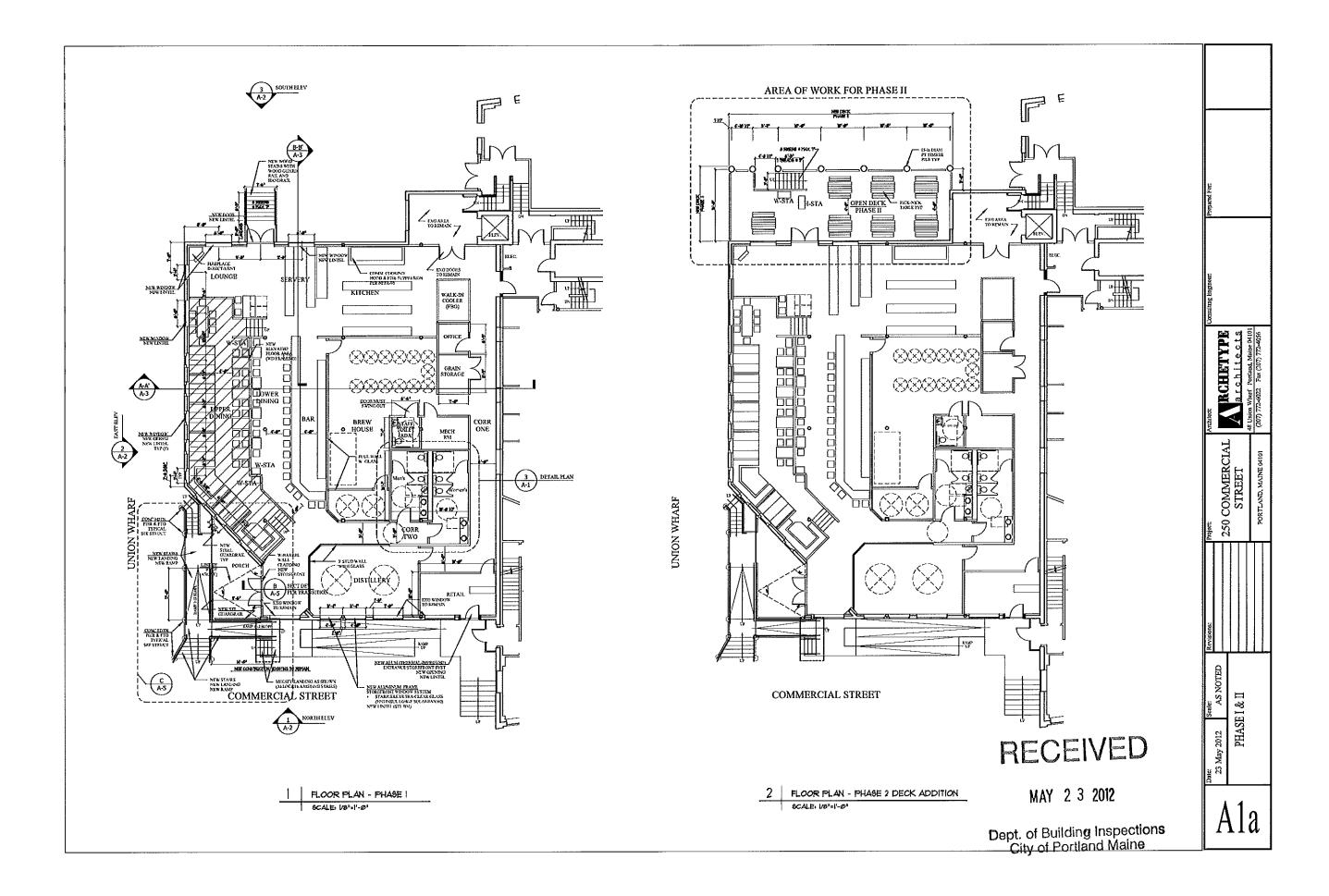
- 1. Incorporate the use of a containment "berm" that surrounds the areas where the still and stainless steel tanks, are to be installed, along with providing additional area within the containment berm to allow filling operations within this containment area.
- 2. Ensure that any electrical systems/equipment that is to be installed within the distilling area and that is within three (3) feet of the floor meet the requirements for a Class I, Division 2 (Zone 2) installation, as outlined by NFPA 70.
- 3. Consider a modification to the current supply ventilation ducting in the distilling area that would allow supply air to be provided at a level within 12 inches of the floor. An exhaust system needs to be added to this area; with the inlet within 12 inches of the floor and at a location that is opposite from the supply. An air flow rate (inlet and exhaust) of at least 400 cfm should be provided, but as a minimum, the exhaust rate must be equal to or greater than the supply rate to ensure that the area is not under "positive" pressure. This to prevent any vapors from exiting the distilling area.
- 4. If the sprinkler-protected glass option is to be used as part of the fire separation scheme to isolate the distilling area, ensure that all requirements within Section 8.6.7(1)(c) are adhered to.
- 5. To ensure that adequate fire protection is provided in light of the maximum quantities of flammable liquids (distilled spirits) that may be stored within the distilling area, it is recommended that the sprinkler system be designed to provide a water density that is commensurate with protection of an Ordinary Hazard, Group 2 occupancy classification, as outlined in NFPA 13, *The Standard for the Installation of Sprinkler Systems*.

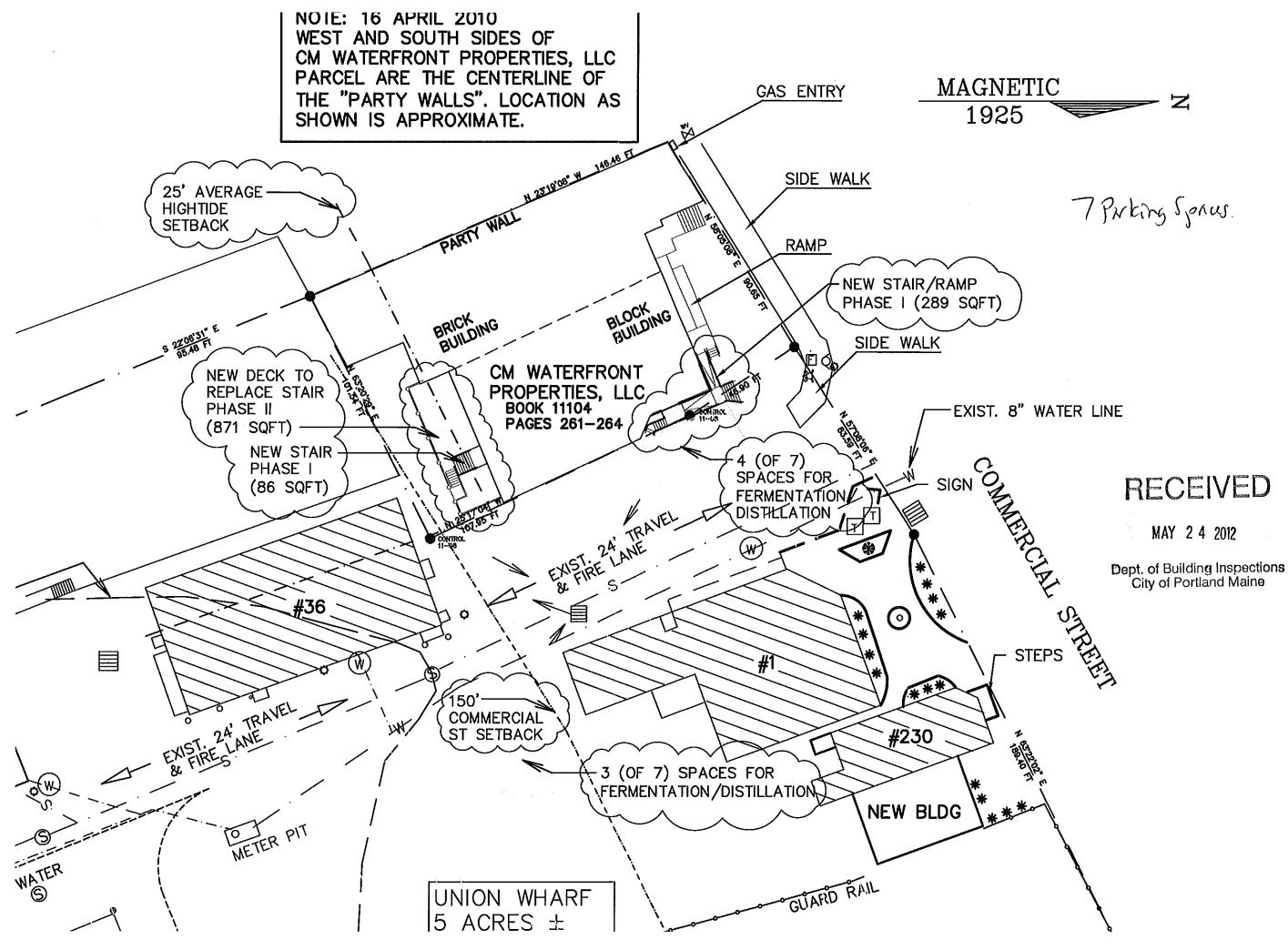
Should there be any questions regarding this assessment and the recommendations contained herein, please do not hesitate to contact me.

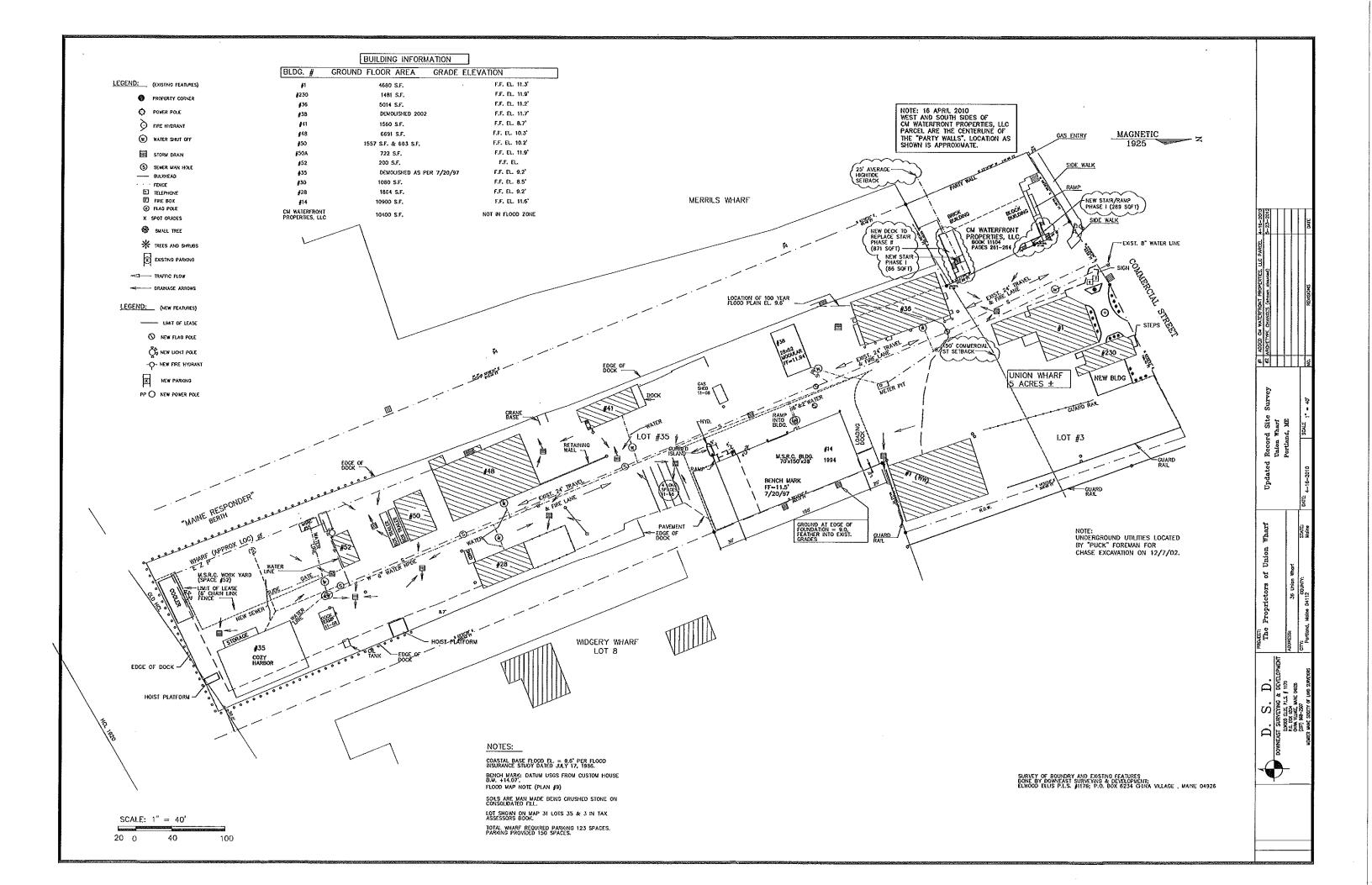
Mark Cummings, P.E.

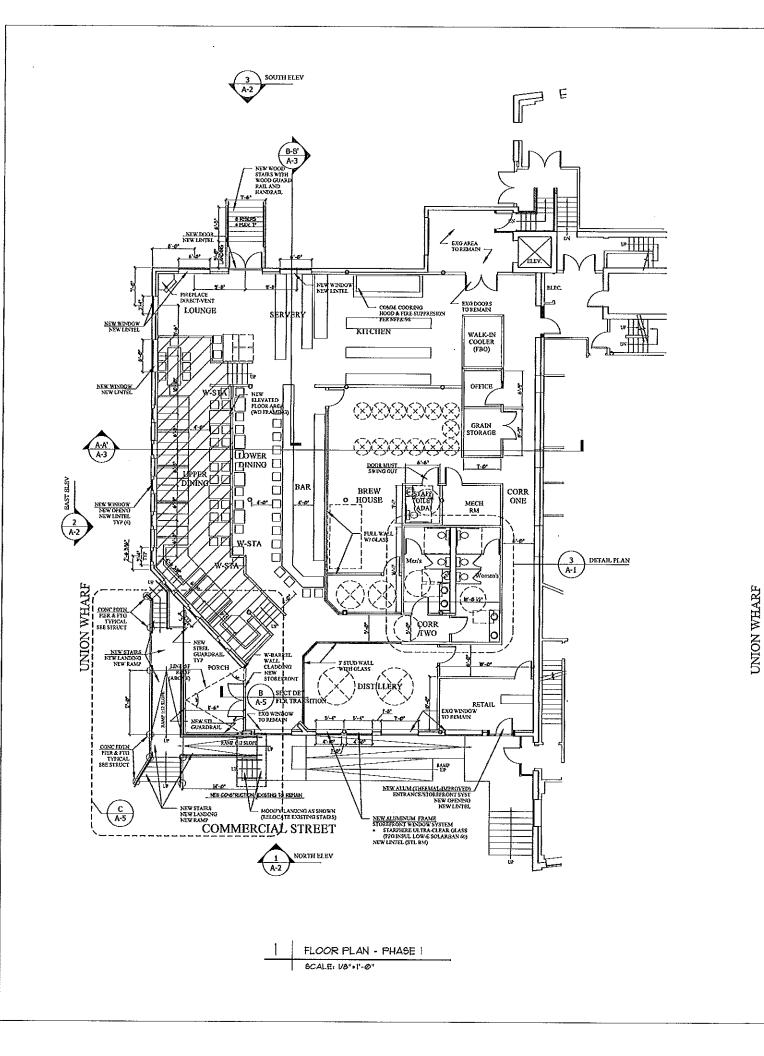
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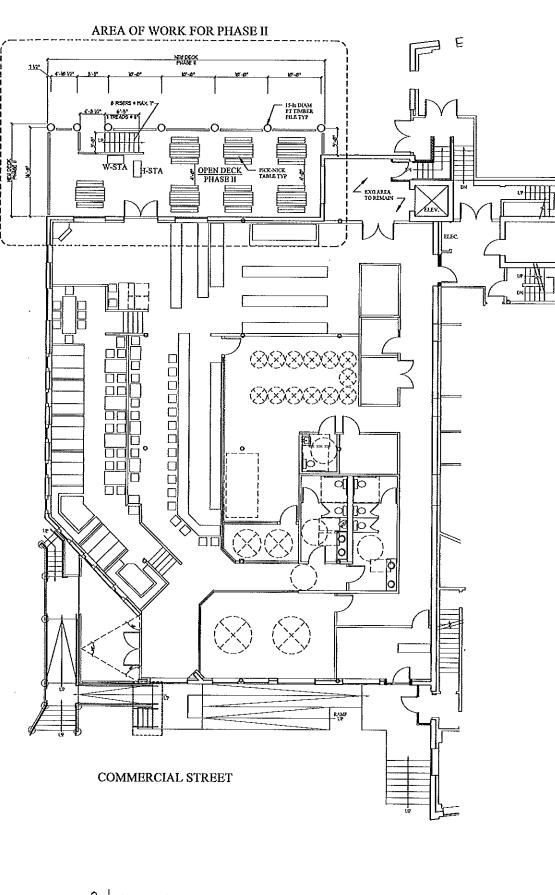














2 FLOOR PLAN - PHASE 2 DECK ADDITION 5CALE: 1/8"=1'-Ø"

