City of Portland

Development Review Application Planning Division Transmittal Form

Application Number:	2015-204	Application Date:	11/16/2015
CBL:	234 A001001	Application Type:	Level II Site Plan
Applicant:	City of Portland Public Serv	vices Dept. /John Eme	erson
Project Name:	Water Resources Modular (Office Space	
Address:	109 District Road		
Project Description:	2 pre-fabricated office build	dings.	
Zoning:	IM		
Other Required Revie	ws:		4
☐ Traffic Movemen	nt 🗆 14-403 Streets	☐ Housing R	Replacement
☐ Storm Water	# Units	☐ Historic P	reservation
☐ Subdivision	☐ Flood Plain	☐ Other:	
# Lots	☐ Shoreland		
☐ Site Location	☐ Design Review		

Distribution List:

Unit

Planner	Barbara Barhydt	Parking	John Peverada
Zoning	Ann Machado	Design Review	Caitlin Cameron
Traffic Engineer	Tom Errico	Corporation Counsel	Jennifer Thompson
Civil Engineer	David Senus	Sanitary Sewer	John Emerson
Fire Department	Keith Gautreau	Inspections	Tammy Munson
City Arborist	Jeff Tarling	Historic Preservation	Deb Andrews
Engineering	David Margolis-Pineo	DRC Coordinator	Phil DiPierro
		Outside Agency	

Comments needed by 11/23/2015

distributed 16-17-15 determined no reg for stormwater review Barbara Ana clarified to Journa



Jeff Levine, AICP, Director Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a *legal signature* per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

reviewed unt	igned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be il payment of appropriate application fees are <i>paid in full</i> to the Inspections Office, City of the by method noted below:
	Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to call the Inspections Office at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
	Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered. I intend to call the Inspections Office at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
	I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.
Applicar	STEPHEN WEATHERHEAD TOR JOHN EMERSON (APPLICANT) 1//12/15 Date: 11/12/15
I have pr	rovided digital copies and sent them on: Date:
NOTE:	All electronic paperwork must be delivered to <u>buildinginspections@portlandmaine.gov</u> or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3 rd Floor, Room 315.

389 Congress Street * Portland Maine 04101-3509 * Phone: (207) 874-8703 * Fax: (207) 874-8716 http://www.portlandmaine.gov/planning/buildinsp.asp * E-Mail: buildinginspections@portlandmaine.gov



Level II – Preliminary and Final Site Plans Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level II: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Level II: Site Plan Development includes:

- New construction of structures with a total floor area of less than 10,000 sq. ft. in all zones, except in Industrial Zones.
- New construction of structures with a total floor area of less than 20,000 sq. ft. in Industrial Zones.
- Any new temporary or permanent parking area, paving of an existing unpaved surface parking area in excess of 7,500 sq. ft. and serving less than 75 vehicles, or creation of other impervious surface area greater than 7,500 sq. ft.
- Building addition(s) with a total floor area of less than 10,000 sq. ft. (cumulatively within a 3 year period) in any zone, except in Industrial Zones.
- Building addition(s) with a total floor area of less than 20,000 sq. ft. in Industrial Zones.
- Park improvements: New structures or buildings with a total floor area of less than 10,000 sq. ft., facilities
 encompassing an area of greater than 7,500 sq. ft. and less than 20,000 sq. ft. (excludes rehabilitation or
 replacement of existing facilities).
- New construction of piers, docks, wharves, bridges, retaining walls, and other structures within the Shoreland Zone.
- Land disturbance between 1 and 3 acres that are stripped, graded, grubbed, filled or excavated.
- A change in the use of a total floor area between 10,000 and 20,000 sq. ft. in any existing building (cumulatively within a 3 year period).
- Lodging house, bed and breakfast facility, emergency shelter or special needs independent living unit.
- Signage subject to approval pursuant to Section 14-526 (d) 8.a. of the Land Use Code.
- Any new major or minor auto service station with less than 10,000 sq. ft. of building area in any permitted zone other than the B-2 or B-5 zones.
- The creation of day care or home babysitting facilities to serve more than 12 children in a residential zone (not permitted as a home occupation under section 14-410) in any principal structure that has not been used as a residence within the 5 years preceding the application.
- Any drive-through facility that is not otherwise reviewed as a conditional use under Article III.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: http://me-portland.civicplus.com/DocumentCenter/Home/View/1080

Design Manual: http://me-portland.civicplus.com/DocumentCenter/View/2355
Technical Manual: http://me-portland.civicplus.com/DocumentCenter/View/2356

Planning Division Fourth Floor, City Hall 389 Congress Street (207) 874-8719 Office Hours Monday thru Friday 8:00 a.m. – 4:30 p.m.

PROJECT NAME: City of Portland Water Resources Modular Office Space				
PROPOSED DEVELOPMEN				
109 DI	strict Road, Portland			
Units will be supported of by btiumnious at an area	on Block Piers bearing on a ne	dings. One being 28' x 76' and one being 28' x 68'. www base pad of compacted structural fill overlayed g. Sewer, water, and electrical connections will be made		
CHART/BLOCK/LOT:O UNABLE TO DETERM FROM ONLINE TAX M CONTACT INFORMATION	INE. PLOT IS MISSING AP DATABASE	PRELIMINARY PLAN (date) FINAL PLAN (date)		
Applicant – must be owner, Le	essee or Buyer	Applicant Contact Information		
Name:		E-mail: Jwe@portlandmaine.gov		
John Emerson Business Name, if applicable:		Home #:		
City of Portland, Public S Address: 55 Portland St.	ervices	Work#: 207-318-0239		
City/State : Portland. ME	Zip Code: 04101	Cell #: Fax#:		
Owner – (if different from Ap	plicant)	Owner Contact Information		
Name:		E-mail: SAME AS APPLICANT		
City of Portland Address:		Home #:		
389 Congress Street City/State: Portland, ME	Zip Code:	Work #:		
	04101	Cell #: Fax#:		
Agent/ Representative		Agent/Representative Contact information		
Name: Steve Weatherhead, Win	ton Scott Architects	E-mail: sweatherhead@wintonscott.com		
Address:		Home #:		
5 Milk Street City/State :	Zip Code:	Work #: 207-774-4811, ext. 3		
Portland, ME	04101	Cell #: Fax#:		
Billing Information	M	Billing Information		
Name: NOT APPLICABLE	E / FEES WAIVED	E-mail: NOT APPLICABLE / FEES WAIVED		
Address:		Home #:		
City/State :	Zin Code:	Work#:		

Cell #:

Fax#:

Engineer	Engineer Contact Information	
	E-mail: john.mahoney@ransomenv.com	
Name:	,	
John Mahoney, PE, Ransom Consulting, Inc.	Home #:	
400 Commercial Street, Suite 404		
City/State : Zip Code:	Work #: 207-772-2891 ext. 32	
Portland, ME 04101	Cell #: Fax#:	
	CCII II.	
Surveyor	Surveyor Contact Information	
524	E-mail:	
Name:	L man	
Address:	Home #:	
Add 635.	5555 (25.544	
City/State : Zip Code:	Work#:	
	Cell #: Fax#:	
Architect	Architect Contact Information	
Name:	E-mail: sweatherhead@wintonscott.com	
Steve Weatherhead, PA, Winton Scott Architects		
Address:	Home #:	
5 Milk Street	Work #: 207-774-4811 ext. 3	
City/State : Zip Code:	WOIK #.	
Portland, ME 04101	Cell #: Fax#:	
Attorney	Attorney Contact Information	
30.0000000000 3	E-mail:	
Name:	E-IIIdii.	
Address:	Home #:	
Audress.		
City/State : Zip Code:	Work #:	
9	Cell #: Fax#:	
	Cell #.	
N. I.A. E. II. O'I. D. I		
APPLICATION FEES: Not Applicable - City Proje		
Check all reviews that apply. (Payment may be made by Cre		
Level II Development (check applicable reviews)	Other Reviews (check applicable reviews)	
Less than 10,000 sq. ft. (\$400)	Traffic Movement (\$1,000)	
After-the-fact Review (\$1,000 plus	Stormwater Quality (\$250)	
applicable application fee)	Site Location (\$3,000, except for residential	
	projects which shall be \$200/lot)	
The City invoices separately for the following:	# of Lots x \$200/lot =	
Notices (\$.75 each)	Other	
 Legal Ad (% of total Ad) 	Change of Use	
 Planning Review (\$40.00 hour) 	Flood Plain	
 Legal Review (\$75.00 hour) 	Shoreland	
Third party review fees are assessed separately. Any outside	Design Review	
reviews or analysis requested from the Applicant as part of the	Housing Replacement	
development review, are the responsibility of the Applicant and	Historic Preservation	

are separate from any application or invoice fees.

APPLICATION SUBMISSION:

- All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the Electronic Plan and Document Submittal page of the City's website at http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal
- In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

- 1. One (1) full size site plans that must be folded.
- 2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-527 (c), including evidence of right, title and interest.
- A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
- 4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
- One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

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 Planning Authority and Code Enforcement'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.

This application is for a Level II Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	Date:			
	11/2/10		*	
Heat Vicality	11/12/15	88		

(CITY OF PORTLAND -

PROJECT DATA

The following information is required where applicable, in order to complete the application.

Total Area of Site	831,996 sq. ft.
Proposed Total Disturbed Area of the Site	0 sq. ft.
If the proposed disturbance is greater than one acre, then the ap	
(MCGP) with DEP and a Stormwater Management Permit, Chapter	er 500, with the City of Portland
Impervious Surface Area	
Impervious Area (Total Existing)	164,890 sq. ft.
Impervious Area (Total Proposed)	0 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	77,414 sq. ft.
Building Footprint (Total Proposed)	4,032 sq. ft.
Building Floor Area (Total Existing)	77,414 sq. ft.
Building Floor Area (Total Proposed)	4,032 sq. ft.
Zoning	
Zoning Existing	INA Industrial Madausta Insu-st
Proposed, if applicable	IM-Industrial- Moderate Impact
торозец, п аррпсавіе	-
Land Use	
Existing	Vehicle ,Equipment, materials Storage
Proposed	Same-with added office space
Residential, If applicable	
# of Residential Units (Total Existing)	
# of Residential Units (Total Proposed)	
# of Lots (Total Proposed)	
# of Affordable Housing Units (Total Proposed)	
Proposed Bedroom Mix	
# of Efficiency Units (Total Proposed)	
# of One-Bedroom Units (Total Proposed)	
# of Two-Bedroom Units (Total Proposed)	
# of Three-Bedroom Units (Total Proposed)	
Parking Spaces	
# of Parking Spaces (Total Existing)	
# of Parking Spaces (Total Proposed)	
# of Handicapped Spaces (Total Proposed)	
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	
# of Bicycle Spaces (Total Existing) # of Bicycle Spaces (Total Proposed)	
,	
Estimated Cost of Project	\$225,000

			FINAL PLAN - Level II Site Plan
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
•		1	* Completed Application form
N/A		1	* Application fees
•		1	* Written description of project
•		1	* Evidence of right, title and interest
N/A		1	* Evidence of state and/or federal permits
•		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
•		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
•		1	* Evidence of financial and technical capacity
•		1	Construction Management Plan
N/A		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
•		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
•		1	Stormwater management plan and stormwater calculations, including description of project, hydrology and impervious area.
N/A		1	Written summary of project's consistency with related city master plans
		1	Evidence of utility capacity to serve
•	<u> </u>	1	Written summary of solid waste generation and proposed management of solid waste
•		1	A code summary referencing NFPA 1 and all Fire Department technical standards
N/A		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
•	8	1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Applicant	Planner	# of	SITE PLAN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were
Checklist	Checklist	Copies	submitted for that phase and only updates are required)
•		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
	72	1	Final Site Plans including the following:
		Existing a	and proposed structures, as applicable, and distance from property line
•			g location of proposed piers, docks or wharves if in Shoreland Zone);
•		Existing a	and proposed structures on parcels abutting site;
		1	s and intersections adjacent to the site and any proposed geometric
N/A	- 4		tions to those streets or intersections;
			, dimensions and materials of all existing and proposed driveways, vehicle
		- CONT	estrian access ways, and bicycle access ways, with corresponding curb
•		lines;	
NI/A			red construction specifications and cross-sectional drawings for all
N/A			d driveways, paved areas, sidewalks; and dimensions of all proposed loading areas including turning templates
N/A		1 100	cable design delivery vehicles;
14/74	7		and proposed public transit infrastructure with applicable dimensions and
N/A			ing specifications;
13/75		-	of existing and proposed vehicle and bicycle parking spaces with
•		applicable dimensional and engineering information;	
N/A		Location of all snow storage areas and/or a snow removal plan;	
N/A		A traffic control plan as detailed in Section 1 of the Technical Manual;	
		Proposed buffers and preservation measures for significant natural features,	
N/A		where applicable, as defined in Section 14-526(b)(1);	
N/A		Location and proposed alteration to any watercourse;	
		10-70 0070-0070-0070-000	ation of wetlands boundaries prepared by a qualified professional as
N/A			in Section 8 of the Technical Manual;
N/A			d buffers and preservation measures for wetlands;
N/A			soil conditions and location of test pits and test borings;
			vegetation to be preserved, proposed site landscaping, screening and
N/A			d street trees, as applicable;
NI/A		A stormwater management and drainage plan, in accordance with Section 5 of the	
N/A			ll Manual;
N/A		Grading	
N/A			water protection measures;
•			and proposed sewer mains and connections;
•			of all existing and proposed fire hydrants and a life safety plan in
-			nce with Section 3 of the Technical Manual; , sizing, and directional flows of all existing and proposed utilities within
•			ect site and on all abutting streets;
500		the proje	second and on an abatting streets,

- Continued on next page -

Location and dimensions of off-premises public or publicly accessible
infrastructure immediately adjacent to the site;
Location and size of all on site solid waste receptacles, including on site storage
containers for recyclable materials for any commercial or industrial property;
Plans showing the location, ground floor area, floor plans and grade elevations for
all buildings;
A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
A note on the plan identifying the Historic Preservation designation and a copy of
the Application for Certificate of Appropriateness, if applicable, as specified in
Section Article IX, the Historic Preservation Ordinance;
Location and dimensions of all existing and proposed HVAC and mechanical
equipment and all proposed screening, where applicable;
An exterior lighting plan in accordance with Section 12 of the Technical Manual;
A signage plan showing the location, dimensions, height and setback of all existing
and proposed signs;
Location, dimensions and ownership of easements, public or private rights of way,
both existing and proposed.



PORTLAND FIRE DEPARTMENT SITE REVIEW FIRE DEPARTMENT CHECKLIST



A separate drawing[s] shall be provided as part of the site plan application for the Portland Fire Department's review.

- 1. Name, address, telephone number of applicant
- 2. Name address, telephone number of architect
- 3. Proposed uses of any structures [NFPA and IBC classification]
- 4. Square footage of all structures [total and per story]
- 5. Elevation of all structures
- 6. Proposed fire protection of all structures
 - As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)
- 7. Hydrant locations
- 8. Water main[s] size and location
- 9. Access to all structures [min. 2 sides]
- 10. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.

Some structures may require Fire flows using annex H of NFPA 1

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services, David Margolis-Pineo 55 Portland Street, Deputy City Engineer Portland, Maine 04101-2991 207-874-8850 207-400-6696 Date: dmp@portlandmaine.gov 1. Please, Submit Utility, Site, and Locus Plans. Site Address: Chart Block Lot Number: Proposed Use: Commercial (see part 4 below)
Industrial (complete part 5 below)
Governmental
Residential
Other (specify) Previous Use: Existing Sanitary Flows: **GPD** Existing Process Flows: **GPD** Description and location of City sewer that is to receive the proposed building sewer lateral. Clearly, indicate the proposed connections, on the submitted plans. 2. Please, Submit Contact Information. City Planner's Name: Phone: Owner/Developer Name: Owner/Developer Address: Phone: E-mail: Engineering Consultant Name: Engineering Consultant Address: Phone: Fax: E-mail: 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: **GPD** Peaking Factor/ Peak Times: Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"

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.

"Plumbers and Pipe Fitters Calculation Manual," __ Portland Water District Records, __ Other (specify)

NOT APPLICABLE: Wastewater to be routed to existing on site underground holding tank and maintained by City DPS personnel

4. Please, Submit External Grease Interceptor Calculations.	
Total Drainage Fixture Unit (DFU) Values:	
Size of External Grease Interceptor:	
Retention Time:	
Peaking Factor/ Peak Times:	
Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Not detailed calculations showing the derivation of your restaurant process water design flows, and please submit de showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached.	e: Please submit tailed calculations
5. Please, Submit Industrial Process Wastewater Flow Calculations	ann.
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 industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewe city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the local strainers, or grease traps. Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provide a separate sheet.	r laterals enter the ions of filters,

Portland, Maine



Yes. Life's good here.

Jeff Levine, AICP Director, Planning & Urban Development Department

DRAFT

December x, 2015

John Emerson

City of Portland Public Works Department

55 Portland Street

Portland, ME 04101

Steve Weatherhead

Winton Scott Architects

5 Milk Street

Portland ME 04101Consultant

Project Name:

Installation of Modular Offices near existing storage building

Project ID:

#2015-204

109 District Road

CBL: 234-A-1

Address: Applicant:

John Emerson, Department of Public Works, City of Portland

Planner:

Jean Fraser

Dear John:

On December X, 2015, the Planning Authority approved with conditions a Level II site plan for the installation of two one-story modular office buildings totaling 4032 square feet, along with 15 parking spaces, near the existing storage building at 109 District Road. The decision is based upon the application, documents and plans as submitted by John Emerson of the City of Portland Public Works Department and prepared by Steve Weatherhead of Winton Scott Architects (L1.2 Site Layout Plan 11.11.15 and A1 Elevations 11.10.15). The proposal was reviewed for conformance with the standards of Portland's site plan ordinance.

SITE PLAN REVIEW

The Planning Authority found the plan is in conformance with the Site Plan Standards of the Land Use Code subject to the following conditions of approval and the standard conditions of approval:

i.

That the applicant shall ensure that the ramp accessing the modular offices meets all applicable ADA requirements; and

ii. That a bicycle parking "hitch" shall be installed per the City of Portland Technical Standards, to allow for two bicycles to be parked near the modular offices; and

That the applicant shall ensure that the 20,000 gallon underground tank, to be used as a iii. sewage holding tank, is regularly pumped in accordance with the "Tank Capacity Analysis" prepared by Ransom Consulting Inc dated 10.21.2015; and

That the exterior lighting shall be full cut-off and comply with the City of Portland Technical Standards Section 12 - Site Lighting; and

That the dimensions of the parking spaces shall comply with the City of Portland Technical Standards Section 1.14 Parking Lot and Parking Space Design.

The approval is based on the submitted site plan. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.



Planning Division at 874-8632. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. <u>Please</u> schedule any property closing with these requirements in mind.

If there are any questions, please contact Jean Fraser, Planner at (207) 874-8728.

Sincerely,

Stuart G. O'Brien City Planning Director

Electronic Distribution:

cc:

Jeff Levine, AICP, Director of Planning and Urban Development Barbara Barhydt, Development Review Services Manager Jean Fraser, Planner Philip DiPierro, Develpment Review Coordinator, Planning Ann Machado, Zoning Administrator, Inspections Division Tammy Munson, Inspections Division Director Jonathan Rioux, Inspections Division Deputy Director Jeanie Bourke, Plan Reviewer/CEO, Inspections Division Brad Saucier, Administration, Inspections Division Katherine Earley, Engineering Services Manager, Public Services Bill Clark, Project Engineer, Public Services David Margolis-Pineo, Deputy City Engineer, Public Services Doug Roncarati, Stormwater Coordinator Public Services Greg Vining, Associate Engineer, Public Services Michelle Sweeney, Associate Engineer John Low, Associate Engineer, Public Services Rhonda Zazzara, Field Inspection Coordinator, Public Services Mike Farmer, Project Engineer, Public Strvices Jane Ward, Administration, Public Services Jeff Tarling, City Arborist, Public Services Jeremiah Bartlett, Public Services Keith Gautreau, Fire Department Jennifer Thompson, Corporation Counsel Thomas Errico, P.E., TY Lin Associates David Senus, P.E., Woodard and Curran Rick Blackburn, Assessor's Department Approval Letter File

November 12, 2015

Ms. Barbara Barhydt City of Portland Planning Division Portland City Hall, 4th Floor 389 Congress Street Portland, ME 04101



RE:

Level II Development Review Application: City of Portland Public Services Department - Water Resources Division Offices at 109 District Road

Dear Ms. Barhydt,

Enclosed please find a completed Level II Development Review Application along with required supporting documents and drawings for the above referenced project.

The project involves the placement of two one story modular office buildings totaling 4,032 s.f. at the City's existing facilities at 109 District Street adjacent to the existing former sludge storage shed building currently being used to store Water Division equipment and trucks as well as sand and gravel. The site is also currently used as a snow dump for City snow removal operations.

This project represents the first phase of a multi-year master plan to move the Water Resources Division which oversees waste water, storm drainage and street maintenance operations, to the site. The modular office buildings are a temporary solution to meet immediate space needs for personnel until a bay of the shed building can be renovated to create permanent office space for the division.

The site is located in the IM Industrial-Moderate Impact Zone. The proposed buildings will be placed on a reinforced paved pad located on an existing paved area so there is no increase to impervious surface area. The structures will be tied to existing utilities at the site and parking for the office use will be provided in the existing paved area.

A more complete project description addressing specific submission requirements of the application is included on the following pages.

Sincerely,

Stephen Weatherhead, Senior Associate Winton Scott Architects

City of Portland Public Services

And Wentell

Water Resources Division Proposed Office Facilities at 109 District Road

Level II Development Review Application November 12, 2015

I. Written Project Description:

A. General Context and Project Intent:

The project involves the placement of two, one story modular wood framed office buildings - one 28' x 68' and the other 28' by 76' totaling 4,032 s.f. on an existing paved area adjacent to the former sludge storage shed at the City of Portland's property at 109 District Road.

As shown on the attached L1.1 Existing Site Context Plan, the site is located off the south side of outer Congress Street at 109 District Road which also serves as the access road to the Turnpike Authority Office Building located on an adjacent parcel. Originally constructed as a sludge storage and dewatering facility constructed circa 1979, the site is currently used as a storage facility for Public Services trucks and equipment and is also a snow dump area in support of City snow removal operations.

The east most bay of the existing storage building is currently leased to Portland Water District for storage of equipment and vehicles as well as offices. The lease agreement will be terminated at the end of this year.

The site is located in the flight path of the main east/west runway of the Portland Jetport. Jetport Director, Paul Bradbury has been informed of the proposed placement of buildings and he indicated that there are no FAA concerns given the small size and low height of the structures.

This project is the first phase of a multi-year master plan to provide permanent administrative facilities for the Water Resources Division which oversees wastewater, stormwater and street maintenance operations for the City. The modular office space is planned as a temporary solution to meet immediate space needs (for approximately 20 people initially with expectations for growing up to 40 people within a year) while funding for renovation of a bay of the existing building to create permanent administrative facilities is secured.

B. Utilities:

The modular buildings are proposed to be located on a reinforced area of existing paving supported on an engineered system of block piers engineered by the modular building supplier. The buildings will tie to existing utilities at the site including water, sanitary and electrical. The site is not served by City sewers due

to its remoteness from Congress Street. However, there is an existing 20,000 gal storage tank on site that was originally used to catch runoff from the stored sludge during the drying process. This system is no longer in use as originally designed and it is proposed to have the new buildings tie into the storage tank that will be monitored and pumped by the City as required. An engineering report has been completed to evaluate anticipated flow rates and the ability of the tank to support those flows with a reasonable frequency of tank pumping. This report and utility connection details are attached to this application. The City has done a complete inspection of the tank and has confirmed it to be in operational condition with no leaks or cracks.

C. Parking:

The site currently includes a large paved area running the length of the existing storage building of approximately 740' x 93' that is used for unstructured truck movement and access to the storage bays. A portion of this paved area adjacent to the new office building structures will be configured for passenger car parking for office workers.

2. Evidence of Right, Title, and Interest:

The parcel is owned by the City of Portland. Existing information and documentation of the property boundaries is limited. The Jetport is near completing a masterplan study that has included inventorying of property parcels and abutting parcels. The attached Exhibit A site plan provides an inventory of parcels including ownership and deed information that lists the property for this project as City owned.

3. Evidence of State and/or Federal Permits:

As the project is minor in nature, occupies previously improved land, does not propose an increase to existing impervious areas, storm drainage, or traffic patterns, it is not anticipated that State or Federal permits are required.

4. Zoning Summary:

- Zone: The project site is within the IM- Industrial Moderate Impact Zone.
- Use: General Business and Professional Offices are included as an allowable use in the zone. The new offices could also be classified as an incidental accessory use to the existing operations already existing on the site.
- Minimum Lot Size: None.
- Max Impervious Surface Ratio: 75% (MET)
- Max. Building Height 45' (MET)

- Setbacks: Side and rear setbacks in this zone are 25' and the front yard

setback is set at 1' per 1' of building height. The location of the proposed buildings is over 400' from any property line so setback

requirements are not pertinent.

-Parking:

Off Street parking is required in accordance with Division 20. Off street parking is required at a rate of 1 car per 400 s.f. for office use. Total sq. ft. proposed is 4,032 so 11 spaces are required.

15 spaces are proposed at an existing paved area.

5. Summary of Easements, Covenants, Rights of Way:

- Exhibit A and sheet L1.1- Existing Site Context provide information on existing burdens on the site.

6. Evidence of Financial and Technical Capacity:

 The project was approved for funding through the City's 2015 CIP budget process.

7. Construction Management Plan:

The proposed buildings are pre-manufactured by the Schiavi Company.
 Construction of the support pad and utility connections is being managed directly by Water Resources Division staff.

8. Traffic Study/Transportation Plan:

-The project is very minor and will not result in any significant change to existing trip generation counts at the site.

9. Summary of Natural Features:

-The project site has been previously developed resulting in the existing storage shed, a paved apron and entry drive. The balance of the site used for snow storage is an open field with a tree and brush line along the perimeter. There are no significant natural features on the site. All proposed work will be within the existing impervious area (paved apron) so there will be no impact on any undeveloped areas of the site.

10. Stormwater Management Plan:

The proposed buildings will be installed at the existing paved apron area on raised foundation piers and will therefore not add any impervious area or impact existing stormwater runoff. No change to existing site hydrology is anticipated.

11. **Consistency with City Master Plans:**

Not applicable.

12. **Evidence of Utility Capacity to Serve:**

The site is served by an 8" water main and a 250 Amp electrical service. There is no connection to City sewer but the site has a 20,000 gal underground holding tank that was originally used for collection of leachate from the drying sludge in the storage shed. This system is no longer in use but the tank has been inspected and is in working condition without holes or cracks. Expected flow rates from the new buildings have been calculated by the civil engineer and he has determined that the tank has sufficient capacity to handle the load. Water Resources will directly monitor the tank and have it pumped on a regular schedule as required.

The existing electrical service and distribution system has been evaluated by our electrical engineer and it has been determined that sufficient capacity exists to serve the proposed buildings.

13. Summary of Solid Waste Generation:

Solid waste will be stored in an onsite dumpster that will be maintained by the City's Solid Waste Department. See plan for location.

14. Code Summary (NFPA / IBC / PFD Technical Standards):

- Construction Type: 5B -IBC allows Business Use up to 2 stories w/ 9.000

s.f. per floor for non-sprinkled building. (1 story

proposed.)

 Occupancy: **Business Use**

- Occupant Load (NFPA) = 100 s.f. /person - Bldg. 1 = 1,900 s.f. = 19 people

Bldg. 2 = 2,128 s.f. = 22 people

-Protection: Buildings are not protected by sprinker systems. The buildings will

be equipped with a fire alarm system as shown on the drawings. 2 fire extinguishers shall be provided for each proposed building.

-Exiting: Each building is divided into two open office spaces with central

bathrooms. Each office space in each building is served by two remote exits leading directly to unenclosed exterior stairs leading

to grade.

-Exterior Per NFPA 7.2.2.6.3-exception 2, exterior unenclosed exit stairs Stairs:

are not required to be protected from interior of building in

buildings 2 stores in height or less.

-Exit

Exterior exit doors are equipped with panic hardware (Not

Doors:

required)

15. Consistency with City of Portland Design Manual:

Not Applicable.

16. Manufacturer's verification that HVAC Equip. Meets applicable State & Federal emissions requirements:

COMCheck Certificates included. HVAC system meets 2009 IMC requirements

LIST OF ATTACHED DOCUMENTS & DRAWINGS

Documents:

Wastewater Storage Tank Capacity Analysis COMCheck Calculations for 28'x68' Modular Building COMCheck Calculations for 28'x72' Modular Building

Site Drawings:

Exhibit A

L1.1 Existing Site Context Plan

L1.2 Site Layout Plan

C1

Utility Plan

C2

Utility Details

Modular Building Drawings:

CV1 Cover Sheet and Notes - 28'x68' Unit A1 Building Elevations - 28'x68' Unit

A2 Floor Plan - 28'x68' Unit

P1 Plumbing Schematics & Fire Rating Details - 28'x68' Unit

E/H1 Elec./HVAC Plan - 28'x68' Unit X1 Building Section - 28'x68' Unit

FD1C Foundation Plan/Concrete - 28'x68' Unit FD1A Foundation Plan/ABS - 28'x68' Unit

CV1 Cover Sheet and Notes - 28'x76' Unit A1 Building Elevations - 28'x76' Unit

A2 Floor Plan - 28'x76' Unit

P1 Plumbing Schematics & Fire Rating Details - 28'x76' Unit

E/H1 Elec./HVAC Plan - 28'x76' Unit X1 Building Section - 28'x76' Unit

FD1C Foundation Plan/Concrete - 28'x76' Unit FD1A Foundation Plan/ABS - 28'x76' Unit

Jean Fraser - 109 District road Modular office buildings

From:

Stephen Weatherhead <sweatherhead@wintonscott.com>

To:

Jean Fraser <JF@portlandmaine.gov>

Date:

12/2/2015 11:58 AM Subject: 109 District road Modular office buildings

Hi Jean,

Thanks for your message regarding the site plan review for above referenced project. Yes, the intent of the ramps is to meet A.D.A. requirements. I did not detail the exact ramp length because I'm not certain of the floor elevation above grade but I should have designated in my detail that the ramp slope will be a maximum slope of 1†of rise per 12†of run.

I will also add a note for a bike rack. You also mentioned the lighting in your message and I presume the issue is that the exterior porch lights at the doors don't meet the City's cut-off requirements(?). The lights are provided by the modular manufacturer but I can see if an alternate could be provided. Cut off didn't seem to be a big concern as the whole area is so isolated from abutters and streets and with the equipment traffic they have ongoing at the site there are already building mounted lights on the existing shed that make much more of an impact.

Is this email sufficient for your records or should I follow up with some sketches reflecting the described changes?

Thanks, Steve

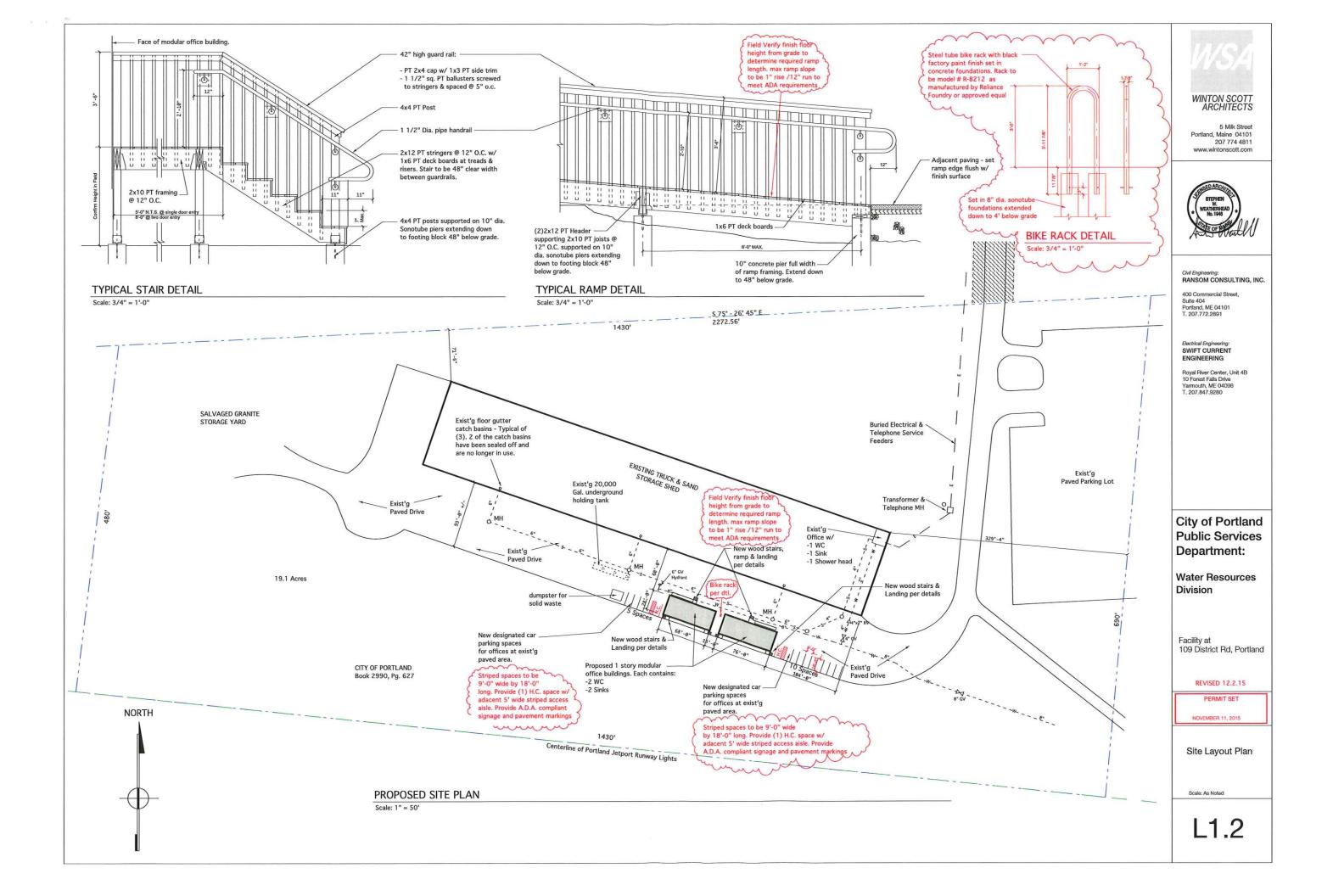
Stephen Weatherhead Maine Licensed Architect

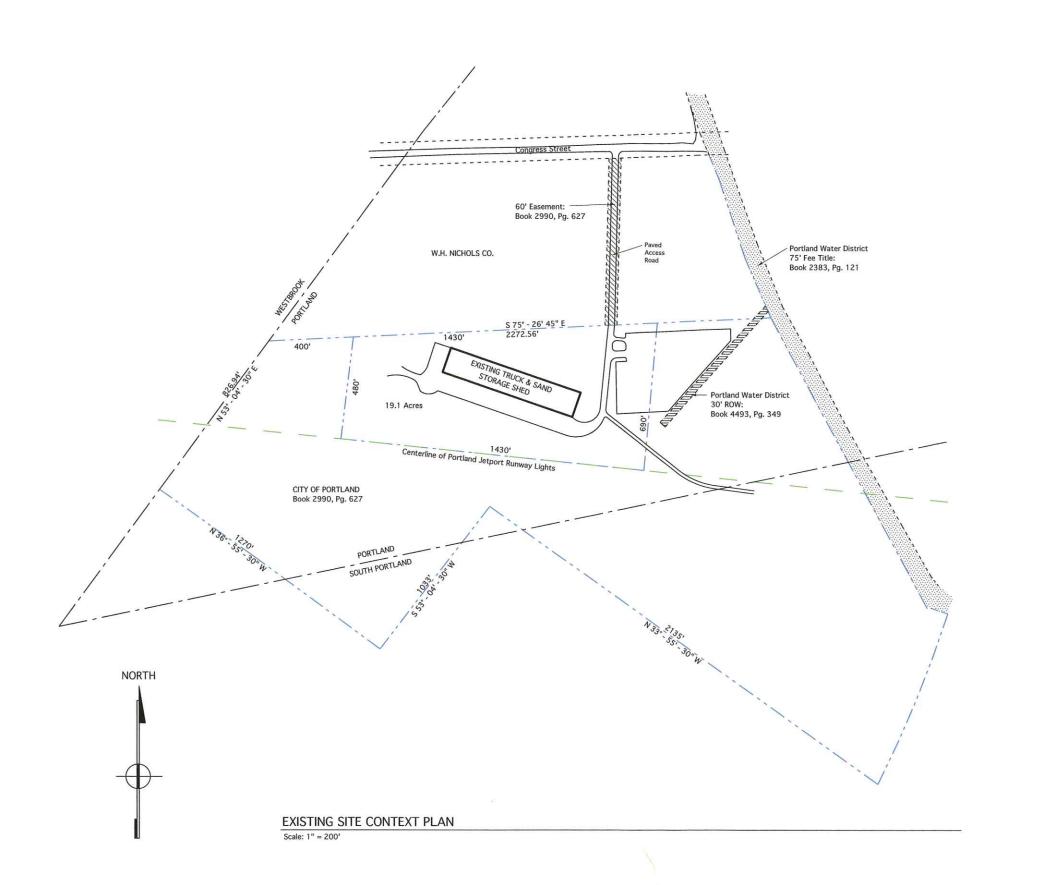


5 Milk Street, Portland, Me 04101

http://wintonscott.com T. 207.774.4811 ext. 3

See our Newsletter here







ARCHITECTS
5 Milk Street
Portland, Maine 04101
207 774 4811
www.wintonscott.com



Civil Engineering: RANSOM CONSULTING, INC.

400 Commercial Street, Suite 404 Portland, ME 04101 T. 207.772.2891

Electrical Engineering: SWIFT CURRENT ENGINEERING

Royal River Center, Unit 4B 10 Forest Falls Drive Yarmouth, ME 04096 T. 207.847.9280

City of Portland Public Services Department:

Water Resources Division

Facility at 109 District Rd, Portland

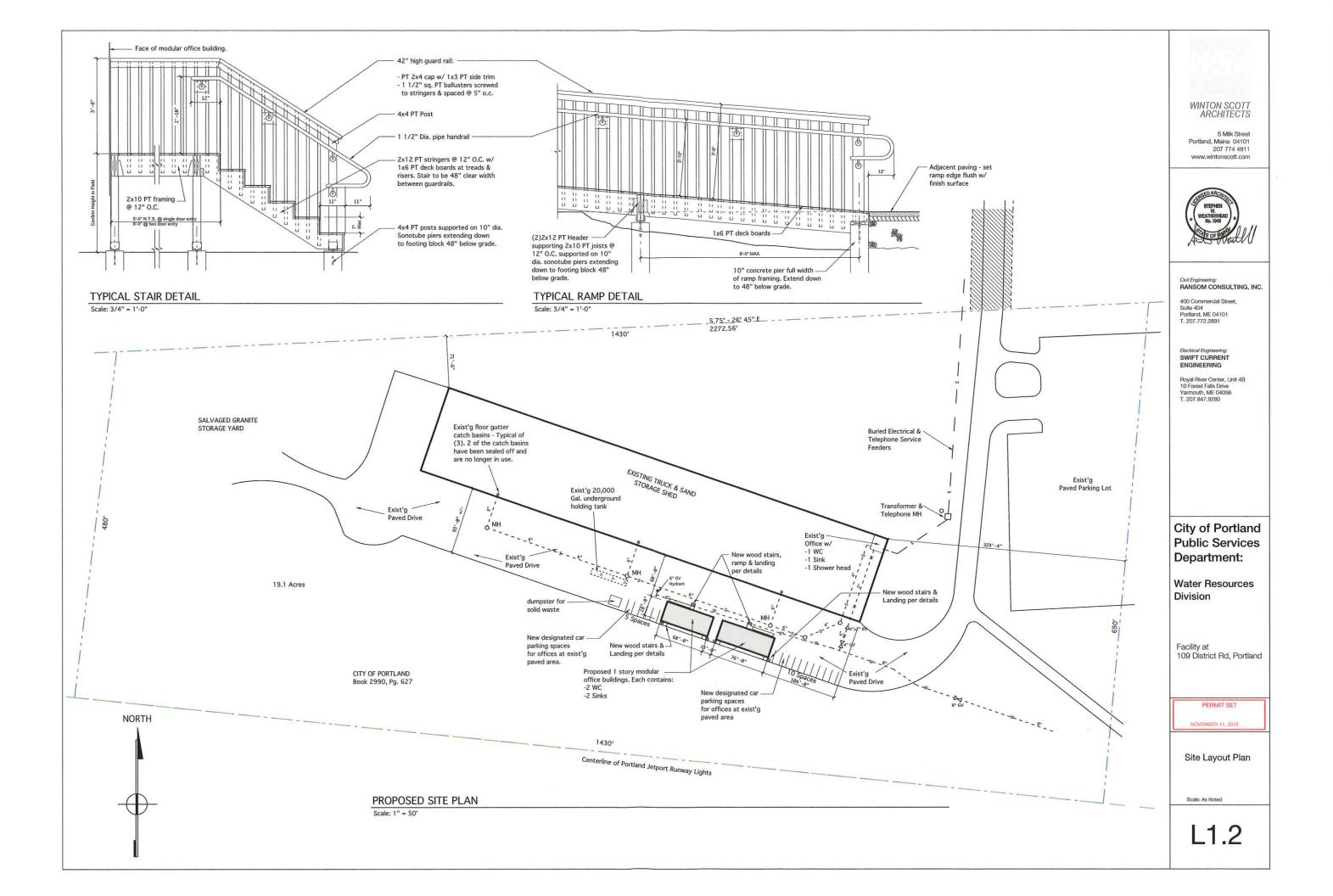
PERMIT SE

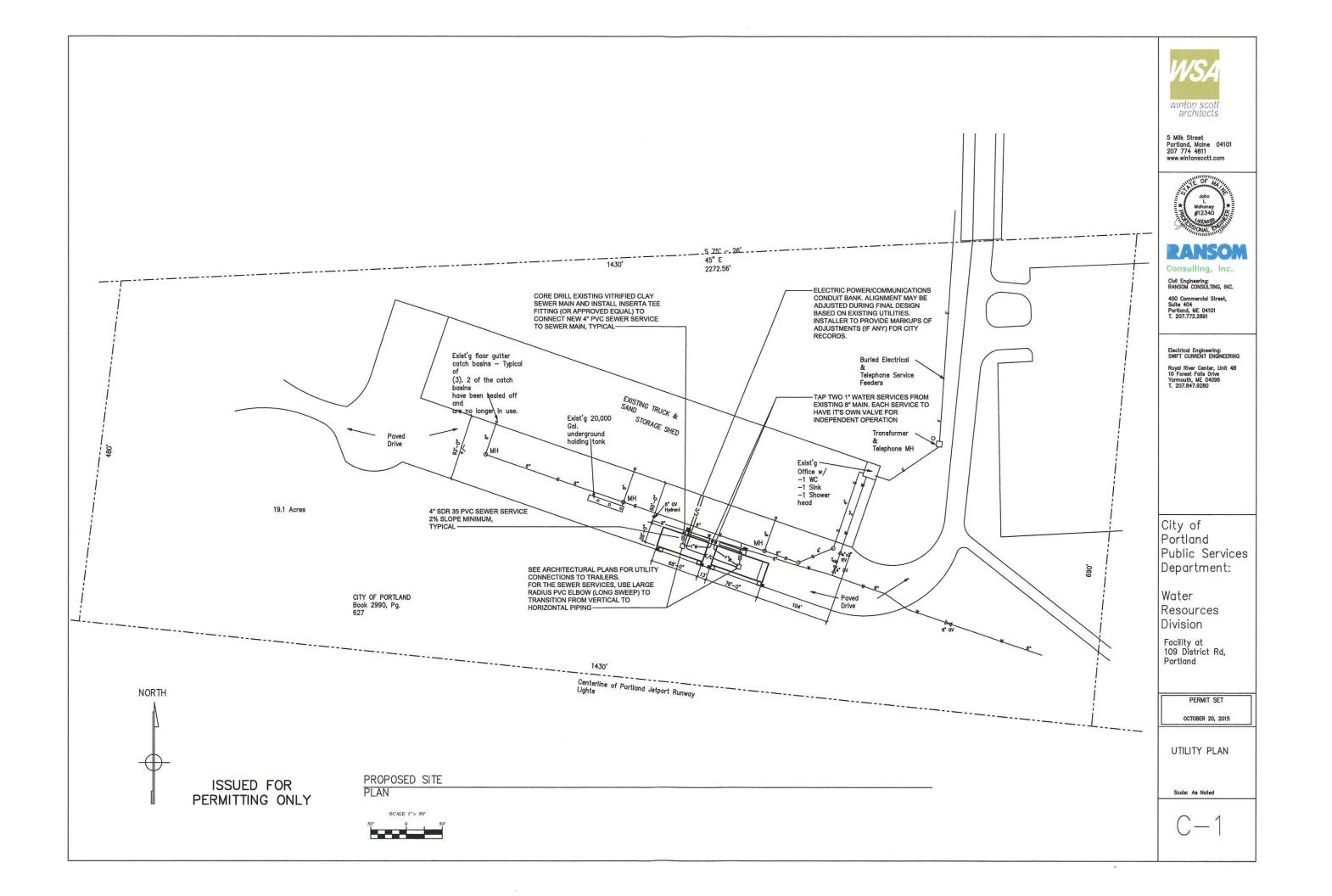
NOVEMBER 11, 2015

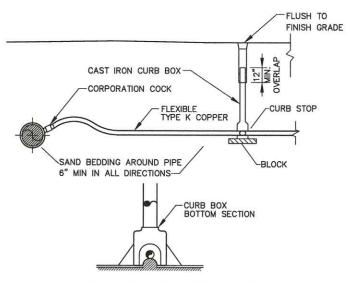
Existing Site Context Plan

Scale: As Noted

L1.1



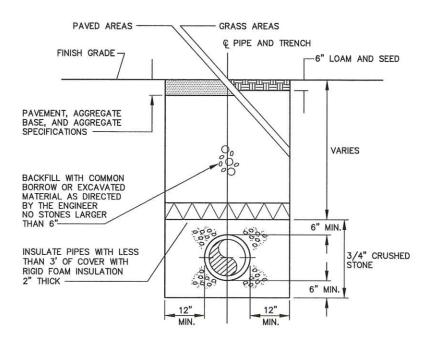




ALL MATERIALS AND WORKMANSHIP SHALL MEET PORTLAND WATER DISTRICT STANDARDS CONTRACTOR TO COORDINATE WITH PDW FOR SERVICE TAP

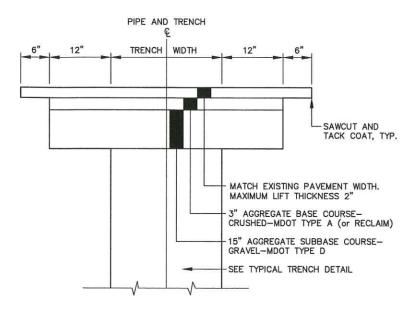
TYPICAL COPPER DOMESTIC SERVICE DETAIL

NOT TO SCAL

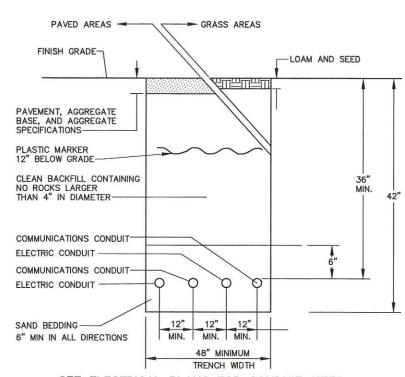


TYPICAL TRENCH - STORMDRAIN & SEWER NOT TO SCALE

ISSUED FOR PERMITTING ONLY



TYPICAL TRENCH PAVING DETAIL NOT TO SCALE



SEE ELECTRICAL PLANS FOR CONDUIT SIZES

UNDERGROUND UTILITY TRENCH DETAIL
NOT TO SCALE



5 Milk Street Portland, Maine 04101 207 774 4811 www.wintonscott.com



RANSON

Consulting, Inc.

Civil Engineering: RANSOM CONSULTING, INC.

400 Commercial Street, Suite 404 Portland, ME 04101 T. 207.772.2891

Electrical Engineering: SWFT CURRENT ENGINEERING

Royal River Center, Unit 4B 10 Forest Fails Drive Yarmouth, ME 04096 T. 207.847.9280

City of Portland Public Services Department:

Water Resources Division

Facility at 109 District Rd, Portland

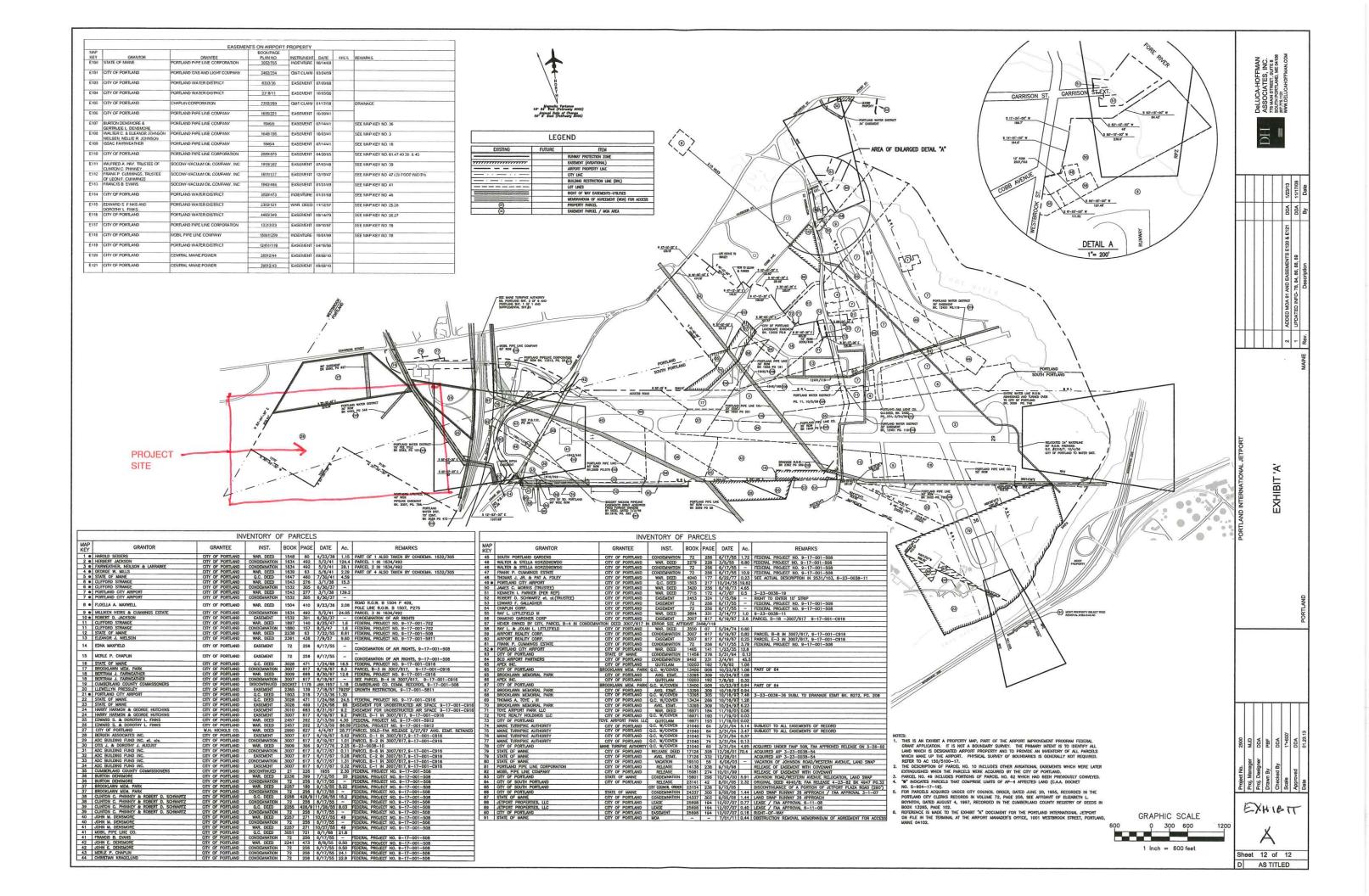
PERMIT SET

OCTOBER 20, 2015

UTILITY DETAILS

Scale: As Noted

C-2



GENERAL NOTES:

- ACCESS TO BUILDING FOR PERSONS IN WHEELCHAIRS IS DESIGNED BY AND FIELD BUILT BY OTHERS AND SUBJECT TO LOCAL JURISDICTION. AT LEAST 50% OF PUBLIC ENTRANCES (INCLUDING PRIMARY ENTRANCE) AND ALL REQUIRED EXITS MUST BE ACCESSIBLE.
- ALL DOORS SHALL BE OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY TOOL, SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS SHALL NOT BE USED.
- ALL GLAZING WITHIN A 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET.
- FLOOR DESIGN LIVE LOAD 40 PSF.
- MAXIMUM WIND SPEED 100 MPH EXP. C. OCCUPANCY IS EDUCATIONAL.
- OCCUPANT LOAD IS (77) BASED ON 1 PERSON PER 20 SQUARE FEET OF CLASSROOM FLOOR AREA FOR MEANS OF EGRESS PURPOSES.
- CONSTRUCTION IS TYPE V-B. UNPROTECTED, UNSPRINKLERED.
- ALL STEEL STRAPS REFERENCED ON FLOOR PLAN SHALL BE 1.5 INCH x 30 GA. w/(6) 16 GA, x 7/16 INCH CROWN x 1 1/4 INCH STAPLES WITH A MINIMUM OF 1" PENETRATION EACH END OF STRAP OR EQUIVALENT FROM RIDGE BEAM TO COLUMN, AND COLUMN TO FLOOR.
- 10. PLAN REVIEW AND INSPECTION REQUIRED BY CHAPTER 633 F.S. TO BE DONE BY THE LOCAL FIRE SAFETY INSPECTOR.

 11. PORTABLE FIRE EXTINGUISHER PER N.F.P.A. - 101 INSTALLED BY OTHERS ON SITE, AND
- SUBJECT TO LOCAL JURISDICTION AND APPROVAL.

 12. THIS BUILDING REQUIRES A FIRE SEPARATION DISTANCE OF GREATER THAN 10 FEET.
- ANYTHING LESS THAN 10 FT MUST MEET THE CRITERIA IN TABLE 600 OF THE FBC SUBJECT TO LOCAL JURISDICTION AND APPROVA
- 13. WHEN LOW SIDE OF ROOF PROVIDES LESS THAN 6" OF OVERHANG GUTTERS AND DOWNSPOUTS WILL BE REQUIRED, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICITON.

ELECTRICAL NOTES:

- 1. ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE PPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
- 2. WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "STORAGE AREA" AS DEFINED BY NEC 410-8(a).
- 3 WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DIS-CONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
- HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
- PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
- THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
 ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH
- APPROVED ACCESSIBLE JUNCTION BOXES OR CABLE CONNECTORS. REFERENCE STATE APPROVED PACKAGE FOR ELECTRICAL RISER DIAGRAM
- FIRE ALARM PULL STATION OPERABLE DEVICE SHALL BE LOCATED 42 TO 45 INCHES ABOVE THE FLOOR. FIRE ALARM HORN/STROBE DEVICE SHALL BE WALL MOUNTED WITH THE BOTTOM EDGE 80 INCHES ABOVE THE FLOOR.
- EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE AND SHALL BE CONNECTED TO A PHOTOCELL OR TIMER.
- ALL RECPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE IN WEATHER PROOF (W.P.) ENCLOSURES. THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN AN ATTACHMENT PLUG CAP IS INSERTED OR REMOVED.

MECHANICAL NOTES:

- ALL SUPPLY AIR REGISTERS SHALL BE 12 INCHES x 12 INCHES ADJUSTABLE w/10 INCHES x 20 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT, UNLESS OTHERWISE SPECIFIED. DUCTS LOCATED IN VENTILATED ATTIC SPACES SHALL HAVE AN R-8 INSULATION VALUE. DUCTS LOCATED IN UNCONDITIONED INTERIOR SPACES SHALL HAVE AN R-5 INSULATION VALUE.
- INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR FOR AIR RETURN AND/OR AS NOTED ON FLOOR PLAN.
- 3. RESTROOM VENT FANS SHALL PROVIDE 75 CFM MINIMUM PER WATER CLOSET
- 4. VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN
- APPROVED VENT CAP.
 HVAC EQUIPMENT SHALL BE EQUIPPED WITH OUTSIDE FRESH AIR INTAKES PROVIDING 15 CFM FOR EACH OCCUPANT OR 75 CFM FOR EACH WATER
- CLOSET AND EACH URINAL, WHICHEVER IS GREATER.

 MECHANICAL SYSTEM IS DEIGNED FOR AN AVERAGE OCCUPANT LOAD OF 57 OCCUPANTS OR A PEAK OCCUPANCY OF 114 OCCUPANTS BASED ON AN

PLUMBING NOTES:

- THE USE OF THE BUILDING WITHOUT THE REQUIRED NUMBER OF PLUMBING FACILITIES IS
- SUBJECT TO THE REVIEW AND APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY. THE USE OF THIS BUILDING WITHOUT THE REQUIRED NUMBER OF WATER FOUNTAINS AND/OR SERVICE SINKS IS SUBJECT TO THE REVIEW AND APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY. IF REQUIRED THESE ARE TO BE SUPPLIED AND SITE INSTALLED BY OTHERS.
- PLUMBING FACILITIES TO BE LOCATED WITHIN 500' BY OTHER IN THE FIELD TOILETS SHALL BE ELONGATED WITH NON-ABSORBENT OPEN FRONT SEATS

ACCESSIBILITY NOTES:

- THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE
- ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT HEIGHT NO HIGHER THAN 36 INCHES ABOVE THE ELOOR AND EDGE OF BASIN NO HIGHER THAN 34 INCHES. ABOVE THE FLOOR FOR INDIVIDUALS IN WHEELCHAIRS. ADDITIONALLY, DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY IN BENDING
- WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS, AND DRAWERS ARE PROVIDED AT LEAST ONE OF EACH TYPE PROVIDED SHALL CONTAIN STORAGE SPACE COMPLYING WITH THE FOLLOWING: DOORS, ETC. TO SUCH SPACES SHALL BE ACCESSIBLE (ie. TOUCH LATCHES, U-SHAPED PULLS); SPACES SHALL BE WITHIN 15 INCHES MINIMUM AND 48 INCHES MAXIMUM OF THE FLOOR FOR FORWARD REACH OR 9 INCHES MINIMUM AND 54 INCHES MAXIMUM, OF THE FLOOR FOR SIDE REACH; CLOTHES RODS SHALL BE A MAXIMUM OF 54 INCHES ABOVE THE FLOOR (48 INCHES MAXIMUM WHEN DISTANCE FROM WHEELCHAIR TO ROD EXCEEDS 10 INCHES).
- CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE FOUIPMENT SHALL BE NO HIGHER THAN 45 INCHES ABOVE THE FLOOR FOR FRONT APPROACH OR 54 INCHES ABOVE THE FLOOR FOR SIDE APPROACH. RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR. EXCEPTION: HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
- WHERE EMERGENCY WARNING SYSTEMS ARE PROVIDED. THEY SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. THE VISUAL ALARMS SHALL BE LOCATED THROUGH-OUT, INCLUDING RESTROOMS, AND PLACED 80 INCHES ABOVE THE FLOOR OR
- 6 INCHES BELOW CEILING, WHICHEVER IS LOWER.
 DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (ie. LEVER-OPERATED, PUSH-TYPE, U-SHAPED) MOUNTED NO HIGHER THAN 48 INCHES ABOVE THE FLOOR.
- ALL DOORS SHALL BE OPENABLE BY A SINGLE FEFORT. THE MAXIMUM FORCE REQUIRED TO OPEN A DOOR SHALL NOT EXCEED 8.5 LBS. FOR EXTERIOR SWINGING DOORS AND 5 LBS. FOR ALL SLIDING, FOLDING, AND INTERIOR SWINGING DOORS.
- FLOOR SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT. CHANGES IN LEVEL BETWEEN 0.25 INCH AND 0.5 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. CHANGES IN LEVEL GREATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 INCH MAX. GRATINGS IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCH WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.
- ACCESSIBLE WATER CLOSETS SHALL BE 19 INCHES FROM THE FLOOR TO THE TOP OF THE SEAT. GRAB BARS SHALL BE 36 INCHES LONG MINIMUM WHEN LOCATED BEHIND THE WATER CLOSET AND 42 INCHES MINIMUM WHEN LOCATED ALONG THE SIDE OF THE OF WATER CLOSET, AND SHALL BE MOUNTED 33 INCHES FROM THE FLOOR TO
- ACCESSIBLE URINALS SHALL BE STALL-TYPE OR WALL HUNG WITH ELONGATED RIMS AT A MAXIMUM OF 17 INCHES ABOVE THE FLOOR.
- ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR AND A CLEARANCE OF AT LEAST 29 INCHES ABOVE
- THE FLOOR TO THE BOTTOM OF THE APRON.

 ACCESSIBLE SINKS SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR AND A CLEARANCE OF AT LEAST 27 INCHES HIGH, 30 INCHES WIDE, AND 19 INCHES DEEP UNDERNEATH SINK. THE SINK DEPTH SHALL BE 6.5
- 13. HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. INSULATION OR PROTECTION MATERIAL MAY BE SITE INSTALLED. THERE SHALL BE NO SHARP OR
- ABRASIVE SURFACES UNDER ACCESSIBLE LAVATORIES AND SINKS.

 14. ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESSIBLE FAUCETS (ie. LEVER-OPERATED, PUSH-TYPE, ELECTRONICALLY CONTROLLED).
- WHERE MIRRORS ARE PROVIDED IN RESTROOM, AT LEAST ONE SHALL BE PROVIDED WITH ITS BOTTOM EDGE NO HIGHER THAN 40 INCHES ABOVE THE FLOOR.
- 16. WHERE MEDICINE CARINETS ARE PROVIDED, AT LEAST ONE SHALL BE LOCATED WITH A USABLE SHELF NO HIGHER THAN 44 INCHES ABOVE THE FLOOR.

 17. GRAB BARS REQUIRED FOR ACCESSIBILITY SHALL BE 1.25 INCHES TO 1.5 INCHES IN
- DIAMETER WITH 1.5 INCHES CLEAR SPACE BETWEEN THE BAR AND THE WALL TOILET STALL DOORS SHALL BE THE SELF-CLOSING TYPE
- 19. A TOWEL DISPENSER SHALL BE LOCATED ADJACENT TO ALL ACCESSIBLE LAVATORIES. WATER CLOSET FLUSH CONTROL SHALL BE MOUNTED ON THE WIDE SIDE
- 21. A VERTICAL GRAB BAR 18 INCHES MINIMUM IN LENGTH SHALL BE LOCATED ON THE SIDE WALL ADJACENT TO THE WATER CLOSET DIRECTLY ABOVE THE 42 INCH LONG HORIZONTAL GRAB BAR. THE VERTICAL BAR SHALL BE MOUNTED WITH THE BOTTOM OF THE BAR LOCATED BETWEEN 39 INCHES AND 41 INCHES ABOVE THE FLOOR AND

WITH THE CENTERLINE OF THE BAR LOCATED BETWEEN 39 AND 41 INCHES FROM THE

- RESTROOM WALLS SHALL BE COVERED WITH NON-ABSORBENT MATERIAL TO A MINIMUM HEIGHT OF 48 INCHES A.F.F.
- ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUT-OFF VALVES. WATER HEATER SHALL HAVE SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR, T & P RELIEF VALVE WITH DRAIN TO EXTERIOR, AND A SHUT OFF VALVE WITHIN
- 3 FEET ON A COLD WATER SUPPLY LINE. DWV SYSTEM SHALL BE FITHER ABS OR PVC - DWV
- WATER SUPPLY LINES SHALL BE PEX INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS. WATER CLOSETS ARE TANK TYPE AND URINALS ARE FLUSH TANK TYPE UNLESS OTHERWISE SPECIFIED
- BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
- SHOWERS SHALL BE CONTROLLED BY AN APPROVED MIXING VALVE WITH A MAXIMUM WATER OUTLET TEMPERATURE OF 120° F (48.8° C).
 THERMAL EXPANSION DEVICE, IF REQUIRED BY WATER HEATER INSTALLED, AND IF
- NOT SHOWN ON PLUMBING PLAN. IS DESIGNED AND SITE INSTALLED BY OTHERS. SUBJECT TO LOCAL JURISDICTION AND APPROVAL

SITE INSTALLED NOTES:

- NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIALS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION AND APPROVAL
- THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
- RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING
- PORTABLE FIRE EXTINGUISHERS(S) DRINKING FOUNTAIN, SERVICE SINK, BUILDING DRAINS, CLEAN-OUTS, AND
- HOOK-UP TO PLUMBING SYSTEM. ELECTRICAL SERVICE HOOK-UP (INCLUDING FEEDERS) TO THE BUILDING. THE MAIN ELECTRICAL PANEL AND SUB-FEEDERS (MULTI-UNITS ONLY).

CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATING

- LINES(S) (MULTI-UNITS ONLY). STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN
- MODULES (MULTI-UNITS ONLY). WINDOW AND DOOR HIGH WIND STORM COVERINGS PER CODE
- GUTTERS & DOWNSPOUTS (IF APPLICABLE)
 GAS PIPING DESIGN, SUPPLIED AND SITE INSTALLED BY OTHERS

STRUCTURAL LOAD LIMITATIONS:

BUILDING OCCUPANCY CATEGORY: II

FLOOR LIVE LOAD: 40 PSF 1000 LB. (CONCENTRATED)

ROOF LIVE LOAD

ROOF SNOW LOAD

GROUND SNOW LOAD A. Pg = 70 PSF Pg = 53.9 PSF B. Pf = 46.20 PSF GROUND SNOW LOAD @ 300' A.S.L. FLAT ROOF SNOW LOAD

C. Ce = 1.0 SNOW EXPOSURE FACTOR SNOW IMPORTANCE FACTOR SNOW THERMAL FACTOR E. Ct = 1.1

WIND LOAD: 110 MPH

WIND SPEED
WIND IMPORTANCE FACTOR. II [ASCE 7-05] BUILDING CATEGORY

WIND EXPOSURE CATEGORY 4 FNCLOSURE CLASSIFICATION: ENCLOSED INTERNAL PRESSURE COEFFICIENT

5. COMPONENT & CLADDING LOAD: (ROOFS)

Pr = -24.30 ZONE 1 -38.80 -57.20 PSF PSF ZONE 2

(WALLS / WINDOWS / DOORS): Pw = -26.30 PSF ZONE 4 -32.50 PSF

6. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15

- SEISMIC IMPORTANCE FACTOR A. le = 1.0 SITE CLASS A13 SEISMIC FORCE RESISTING SYSTEM. SEISMIC DESIGN CATEGORY.
- **EQUIVALENT** ANALYSIS PROCEDURE. Ss = < .35 S1 = < .09 Sds < .501 Sd1 < .348 V = 4,428# MAPPED SPECTRAL RESPONSE COEFFICIENT SPECTRAL RESPONSE COEFFICIENT.
- SPECTRAL RESPONSE COEFFICIENT. DESIGN BASE SHEAR RESPONSE MODIFICATION COEFFICIENT K. R = 6.5 Cd = 0.08SEISMIC RESPONSE COEFFICIENT

THIS BUILDING IS NOT DESIGNED TO BE SUBMERGED OR SUBJECTED TO WAVE ACTION WHEN LOCATED IN A FLOOD PRONE OR ZONE AREA. THE FINISH FLOOR ELEVATION MUST BE LOCATED ABOVE THE BUILDING SITE FLOOD PLANE LEVEL FOR THIS BUILDING TO BE LOCATED IN A FLOOD PRONE OR ZONE AREA SUBJECT TO LOCAL JURISDICTION

STATE CODES: MAINE

PORTLAND, ME

BUILDING: IRC 2009 MUREC (MAINE UNIFORM BUILDING AND ENERGY CODE)

PLUMBING MAINE STATE INTERNATIONAL PLUMBING CODE (2007 UPC w/ME AMENDS)

MECHANICAL: 2009 IMC ELECTRICAL: 2011 NFC

LIFE SAFETY: ADAAG/ICC/ANSI A117 1-2010 ACCESSIBILITY: 2009 Maine Uniform Building and Energy ENERGY:

ELEVATION NOTES (TYP.) 1.) SEE CROSS SECTION FOR METHOD OF ROOF VENTILATION

2.) HANDICAP RAM(S), STAIR(S), AND HANDRAILS ARE TO BE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION AND APPROVAL.

3.) FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET VENT AREA PER 1/150th OF THE FLOOR AREA, AND AN 18" x 24" MINIMUM CRAWL SPACE ACCESS, SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL

BUILDING DESIGN PARAMETERS

1.	USE/OCCUPANCY:	E
2.	CONSTRUCTION TYPE:	V-B (UNSPRINKLD)
3.	SPRINKLER SYSTEM:	NO
4.	BUILDING AREA:	1870 S.F.
5.	BUILDING HEIGHT:	≤ 15 FEET
6.	NUMBER OF STORIES:	1
7.	NUMBER OF MODULES:	1

- 8. OCCUPANT LOAD 77 BASED ON 20 NET SF/PERSON IN CLASSROOM AREAS FOR EGRESS PURPOSES
- NOT RATED 9. EXTERIOR WALL FIRE RATING:
- 10. THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPERATION DISTANCES AS REQUIRED BY IBC TABLE 602 AND SECTION 704.3

LOCATED ADJACENT TO THE ELECTRICAL PANEL

- 11. ENGERGY CODE COMPLIANCE: SEE ATTACHED ENERGY CALCS 12. MANUFACTURER'S DATA PLATE AND STATE LABELS ARE TO BE
- 13. MODIFICATIONS TO THIS BUILDING COMPLY WITH ALTERATION LEVEL II REQUIREMENTS

DRAWING INDEX:

Ī	SHEET	1	of	6	C1	COVER SHEET
	SHEET	2	of	6	A1	EXTERIOR ELEVATIONS
	SHEET	3	of	6	A2	FLOOR PLAN
	SHEET	4	of	6	P1	PLUMBING RISER / SCHEDULES
	SHEET	5	of	6	E1	ELEC/HVAC PLAN
	SHEET	6	of	6	X1	BUILDING CROSS SECTION
	SHEET	1	of	1	FD1	FOUNDATION PLAN AND DETAILS

ENERGY CODE:

SOLID DOOR U-FACTOR: .25 WINDOW U-FACTOR: .28 WINDOW SHGC: 50 GLASS DOOR U-FACTOR: .54 GLASS DOOR SHGC: 38

OF Mann TE OF MAIN PIN-SHI PETER LEE No.12156 CENSED CENSE OF Nov. 11, 2015

PETER LEE, P.E. M.S. ENGINEERING INTERNATIONAL. INC NGINEER: PETER LEE, P.E., M.S. ONSULTING ENGINEER 23329 CENTURY DRIVE

LKHART, IN 46514 This document and all information contained herein, are the proprietary data and trade secrets of Vanguard Modular Building Systems (YMBS), and Schlavi Leasing Corporation (Schlavi). This document and the information contained herein may not be reproduced, used, or disclosed in any manner, or to any extent. Written authorization by a current employee of VMBS or Schlavi must be obtained profe to use of this information, in any form, including

Drawing Date 11-10-2015 PORTLAND, M J.L.B. Scale prior to use of this information, in any form, including that which is represented by this complete page. NONE 1 of 6

SCHIAVI LEASING JENNIFER CURRIER 103 AIRPORT ROAD OXFORD, ME 04270 PH: (207) 539-8211 OCCUP: WWW.VANGUARDMODULAR.COM

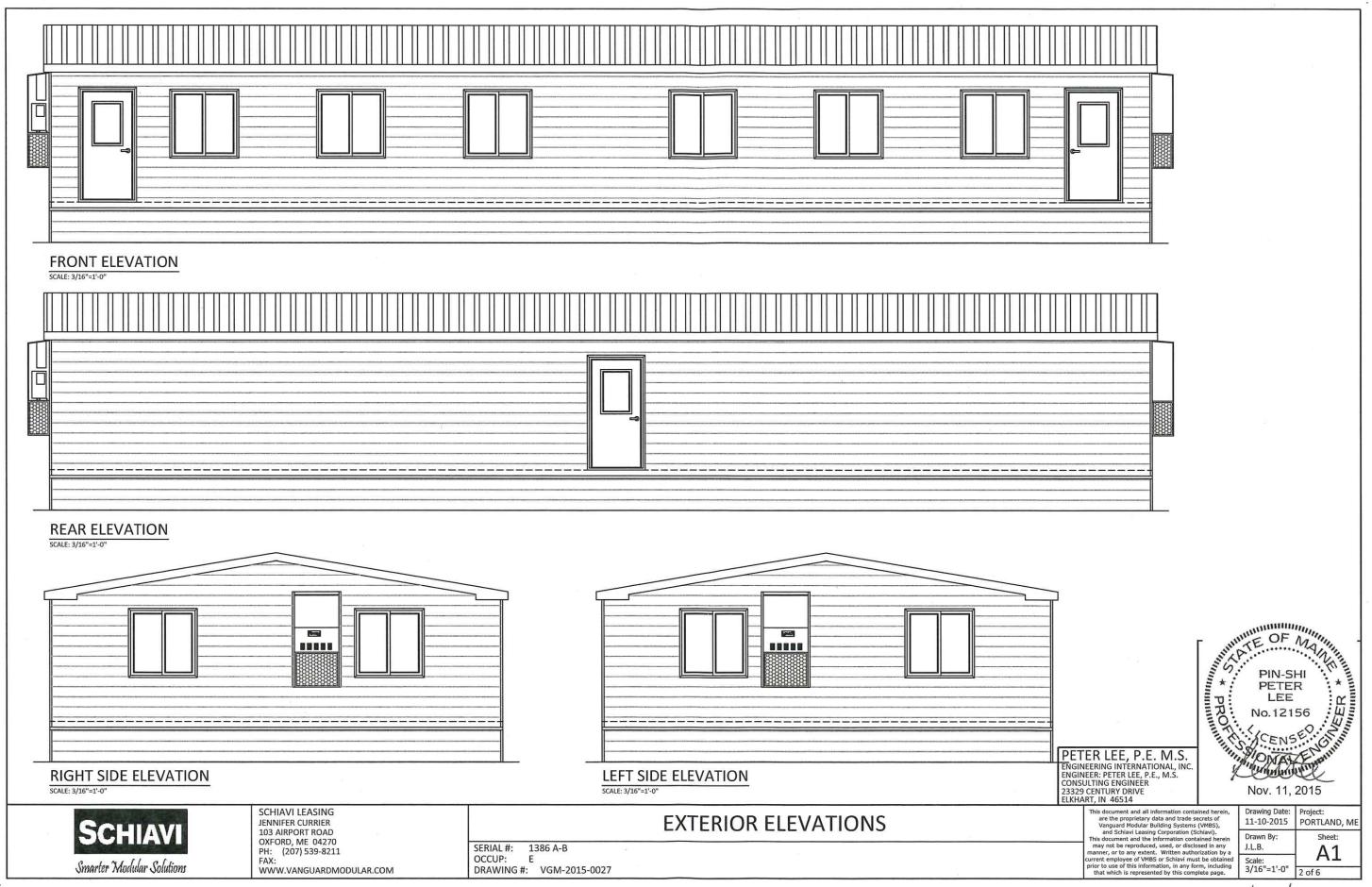
COVER SHEET / NOTES

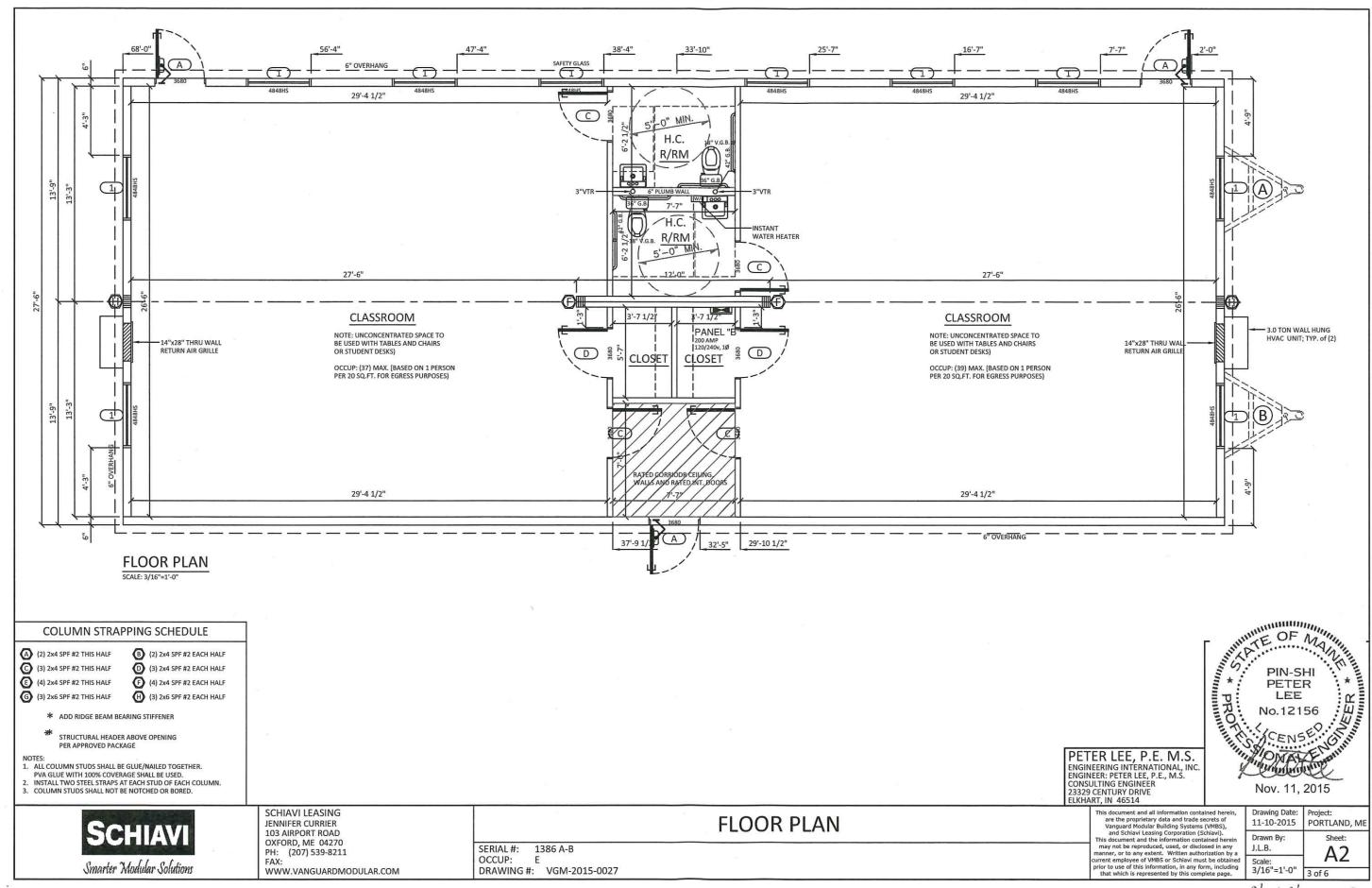
1386 A-B DRAWING #: VGM-2015-0027

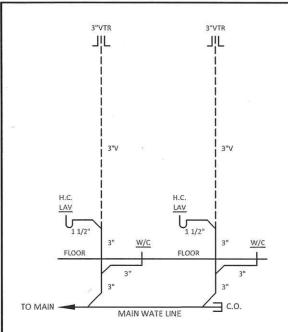
28 X68 UNIT

Sheet

CV1





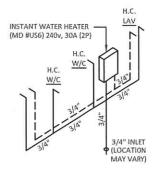


D.W.V. RISER NOTES:

- THE D.W.V. RISER INDICATES ONE METHOD OF INSTALLING
 THE BELOW THE FLOOR PIPING. OTHER APPROVED METHODS
 MAY BE USED AS NEEDED TO ACCOMODATE THE ACTUAL
 SITE CONDITIONS.
- 2. ALL BELOW FLOOR PIPING AND FITTINGS ARE TO BE SUPPLIED AND INSTALLED ON SITE BY OTHERS.
- 3. 1 1/2 INCH AND 2 INCH HORIZONATL DRAIN LINES SHALL BE INSTALLED WITH A SLOPE OF 1/4 INCH PER FOOT.
- 4. 3 AND 4 INCH HORIZONTAL DRAIN LINES SHALL BE INSTALLED WITH A SLOPE OF 1/8 INCH PER FOOT.
- 5. BELOW FLOOR HORIZONTAL DRAIN LINES ARE 3 INCH MINIMUM DIAMETER UNLESS INDICATED OTHERWISE.
- A MAXIMUM OF 3 WATER CLOSETS MAY DISHCARGE INTO A 3 INCH LIN.
- CHANGES IN DIRECTION SHALL BE MADE WITH FITTINGS AS INDICATED IN TABLE 706.3. VERTICAL TO HORIZONTAL AND HORIZONTAL TO HORIZONTAL CHANGES OF DIRECTION ARE TO BE MADE WITH LONG SWEEP FITTINGS.

D.W.V. RISER

SCALE: N.T.S.



ALL PLUMBING FIXTURES TO HAVE SHUT-OFF VALVES. VALVES NOT SHOWN FOR CLARITY.

SUPPLY RISER

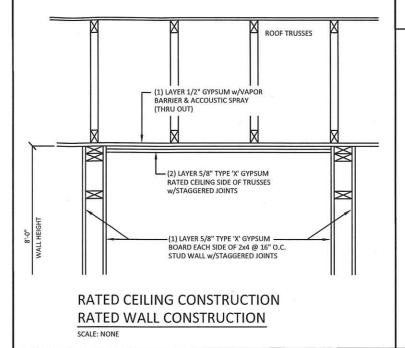
SCALE: N.T.S.

HOT ----

COLD —

ALL SUPPLY LINES SHALL BE 3/4" AND ALL STUB-UPS SHALL BE 1/2" UNLESS OTHERWISE SPECIFED. SUPPLY LINE SIZING IS BASED ON AN ASSUMED AVAILABLE PRESSURE OF 46 TO 60 PSI AT MAIN INLET AND SHOULD BE VERIFIED PRIOR TO CONSTURCTION.

		DOOR SCHI	EDUL	Ξ									
#	SIZE	DESCRIPTION	QTY	HEADER	JACKS	KINGS							COMMENTS
	36"x80"	EXT. DOOR - STEEL - INSULATED	2	TRIPL 2x6	1	2							
	w/20"x30" SAFETY GLASS VIEW PANEL, WOOD FRAME, KEYED LEVER LOCKSET, CLOSER, WEATHERSTRIPPING, H.C. THRESHOLD												
	36"x80"	INT. DOOR - WOOD - SOLID CORE - 20 MIN. RATED		SNGL 2x4	-	1							
(B)	w/5"x20" WIRE GLASS VIEW PANEL, RATED FRAME, KEYED LEVER LOCKSET, CLOSER, WEATHERSTRIPPING, H.C. THRESHOLD												
	36"x80"	INT. DOOR - WOOD - SOLID CORE	2	SNGL 2x4		1							
(C)	w/PRE-HUNG WOOD FRAME, PRIVACY LEVER LOCKSET, CLOSER												
	36"x80"	INT. DOOR - WOOD - HOLLOW CORE	2	SNGL 2x4		1							
		WINDOW S	CHEC	ULE									
#	SIZE	DESCRIPTION	QTY	HEADER	JACKS	KINGS	U-VALUE	SHGC	VT	LIGHT SF	VENT SF	DP	COMMENTS



FIRE ASSEMBLY NOTES:

CEILING: 1 HOUR PER UL NO. FC 5406 - (1) LAYER OF 5/8" TYPE-X GYPSUM BOARD EACH SIDE, WITH BUTT JOINTS STAGGERED

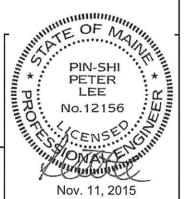
WOOD STUD WALLS: 1 HOUR PER UL NO. WP3520 - (2) LAYER OF 5/8" TYPE-X GYPSUM BOARD EACH SIDE, WITH BUTT JOINTS STAGGERED

EXCEPTION: USE GYPSUM ASSOC. FILE NO. WP3520 ON WALLS WHERE THE 5/8" TYPE-X GYPSUM BOARD HAS PREDECORATED OR VINYL COVERED FINISH AND FASTEN IT WITH 6d COATED NAILS 1 7/8" LONG, 0.0915" SHANK, 1/4" HEADS, 7" 0.C AT JOINTS AND TOP AND BOTTOM PLATES AND 3/8" BEAD OF ADDRESUF AT INTERMEDIATE STILDS

PENETRATION OF FIRE RESISTANT WALLS AND CEILINGS:

- COMBUSTIBLE CABLES AND WIRES, COMBUSTIBLE PIPES, TUBES, AND CONDUITS SHALL MEET
 THE TESTING REQUIREMENTS OF ASTM E119 AS PART OF THE FIRE RESISTANT ASSEMBLY
 OR SHALL HAVE THROUGH-PENETRATION FIRESTOP SYSTEMS LUSTED AND TESTED AS PER
 ASTM E814 AND BE TESTED AT A POSITIVE PRESSURE DIFFERENTIAL BETWEEN THE EXPOSED
 AND UNEXPOSED SURFACES OF NOT LESS THAN .01 INCH OF WATER AND HAVE AN "F"
 RATING OF AT LEAST 14 HOUR BUT NOT LESS THAN THE ARTEO OF THE ASSEMBLY.
- CABLES AND WIRES WITHOUT COMBUSTIBLE INSULATIONS AND NON-COMBUSTIBLE PIPES, TUBES, AND CONDUITS SHALL BE PROTECTED AS DESCRIBLED ABOVE OR SHALL HAVE THE ANNULAR SPACE FILLED WITH A MATERIAL MEETING THE REQUIREMENT OF ASTM £119 TESTED UNDER A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF .01 INCH OF WATER FOR A PERIOD EQUIVALENT TO THE RATING OF THE ASSEMBLY.
- ELECTRICAL BOXES SHALL BE METAL OR LISTED FOR USE IN FIRE RESISTANT ASSEMBLIES AND SHALL NOT EXCEED 16 SQUARE INCHES. BOXES ON OPPOSITE SIDES OF FIRE RESISTANT WALLS SHALL BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES.
- 4. ALL CEILING FIXTURES SHALL BE SURFACE MOUNTED.
- 5. DUCTS PENETRATING FIRE RESISTANT CEILINGS SHALL HAVE AN ACCESSIBLE LISTED FIRE
 - DAMPER LOCATED AT THE CEILING LINE.
- ALL FIRE RATED DOORS SHALL HAVE LISTED DOOR, FRAME AND HARDWARE NO LESS THAN THE TIME RATING SPECIFIED ON THE FLOOR PLAN. IN ADDITION FIRE RATED DOORS SHALL BE WITH SELF CLOSERS UNLESS OTHERWISE SPECIFIED.

ALL PLUMBING FIXTURES TO HAVE SHUT-OFF VALVES. VALVES NOT SHOWN FOR CLARITY.



PETER LEE, P.E. M.S.
ENGINEERING INTERNATIONAL, INC.
ENGINEER: PETER LEE, P.E., M.S.
CONSULTING ENGINEER
23329 CENTURY DRIVE
ELKHART, IN 46514

RT, IN 46514

This document and all information contained herein, are the proprietary data and trade secrets of Vanguard Modular Building Systems (VMBS), and Schlavi Leasing Corporation (Schlavi). This document and the information contained herein may not be reproduced, used, or disclosed in any amaner, or to any extent. Written authorization by a current employee of VMBS or Schlavi must be obtained prior to use of this information, in any form, including that which is represented by this complete page.

NONE

Drawing Date: Project: PORTLAND, ME Drawn By: J.L.B. Scale: NONE 4 of 6

SCHIAVI
Smarter Modular Solutions

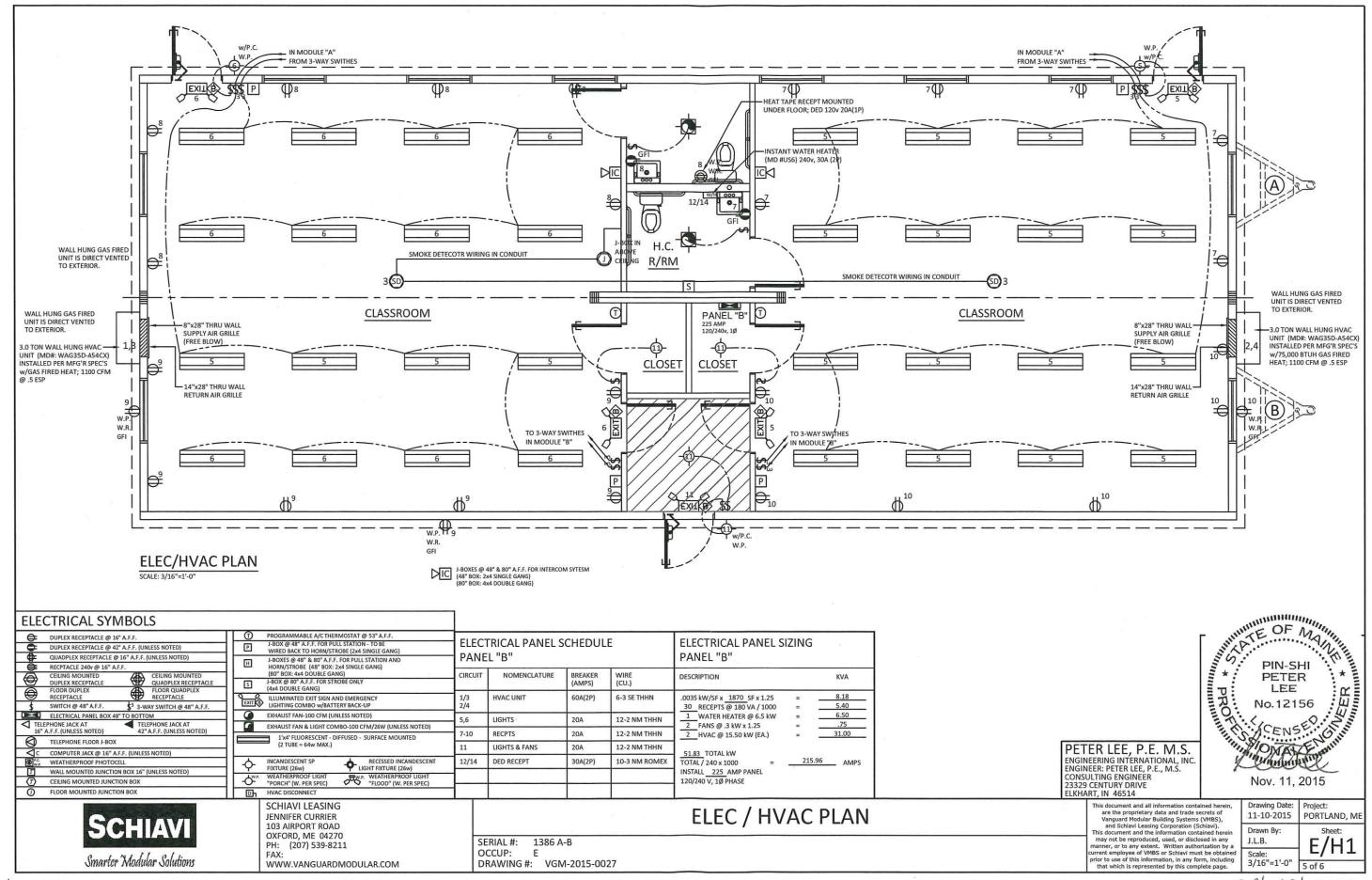
SCHIAVI LEASING JENNIFER CURRIER 103 AIRPORT ROAD OXFORD, ME 04270 PH: (207) 539-8211

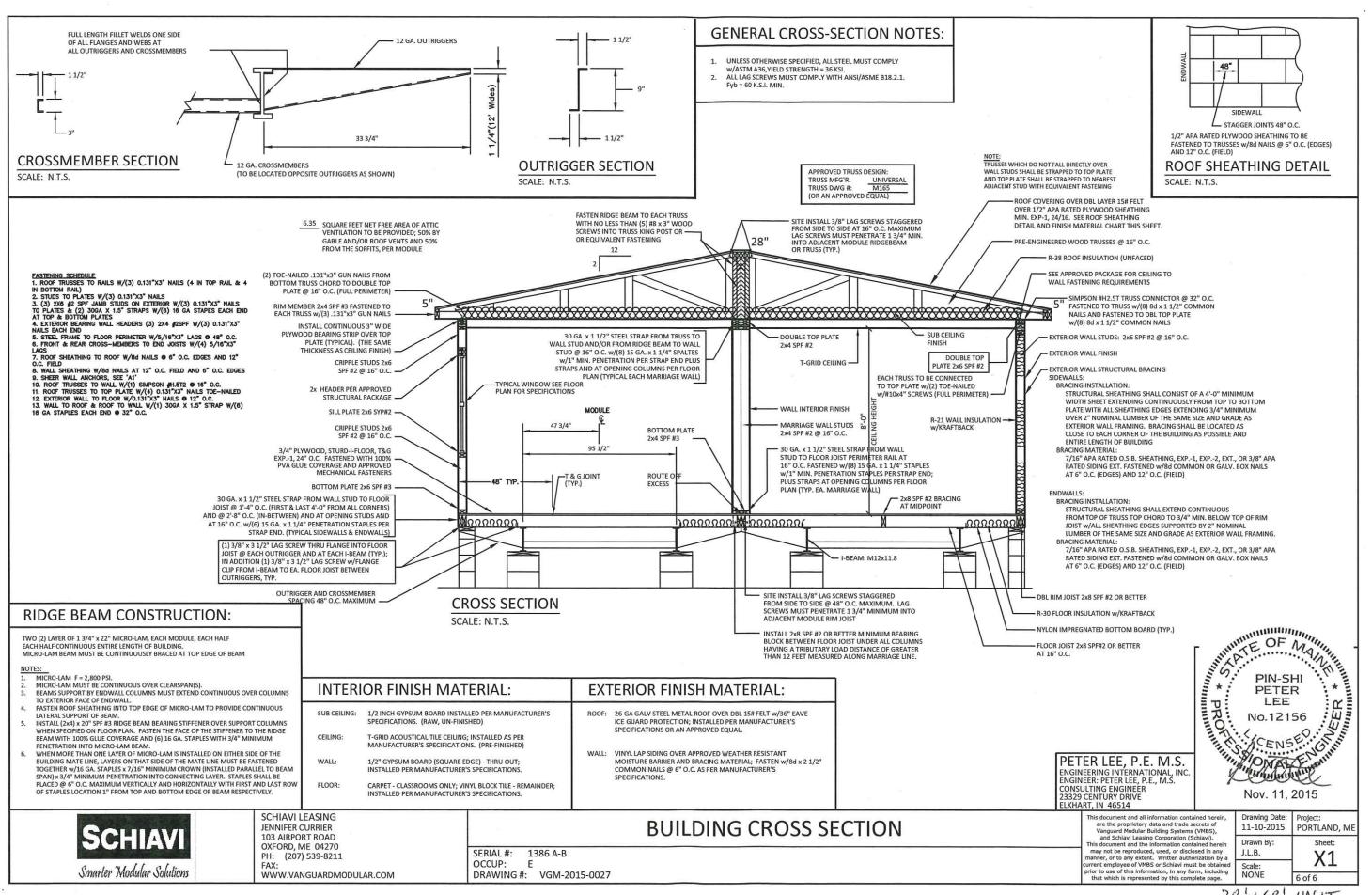
WWW.VANGUARDMODULAR.COM

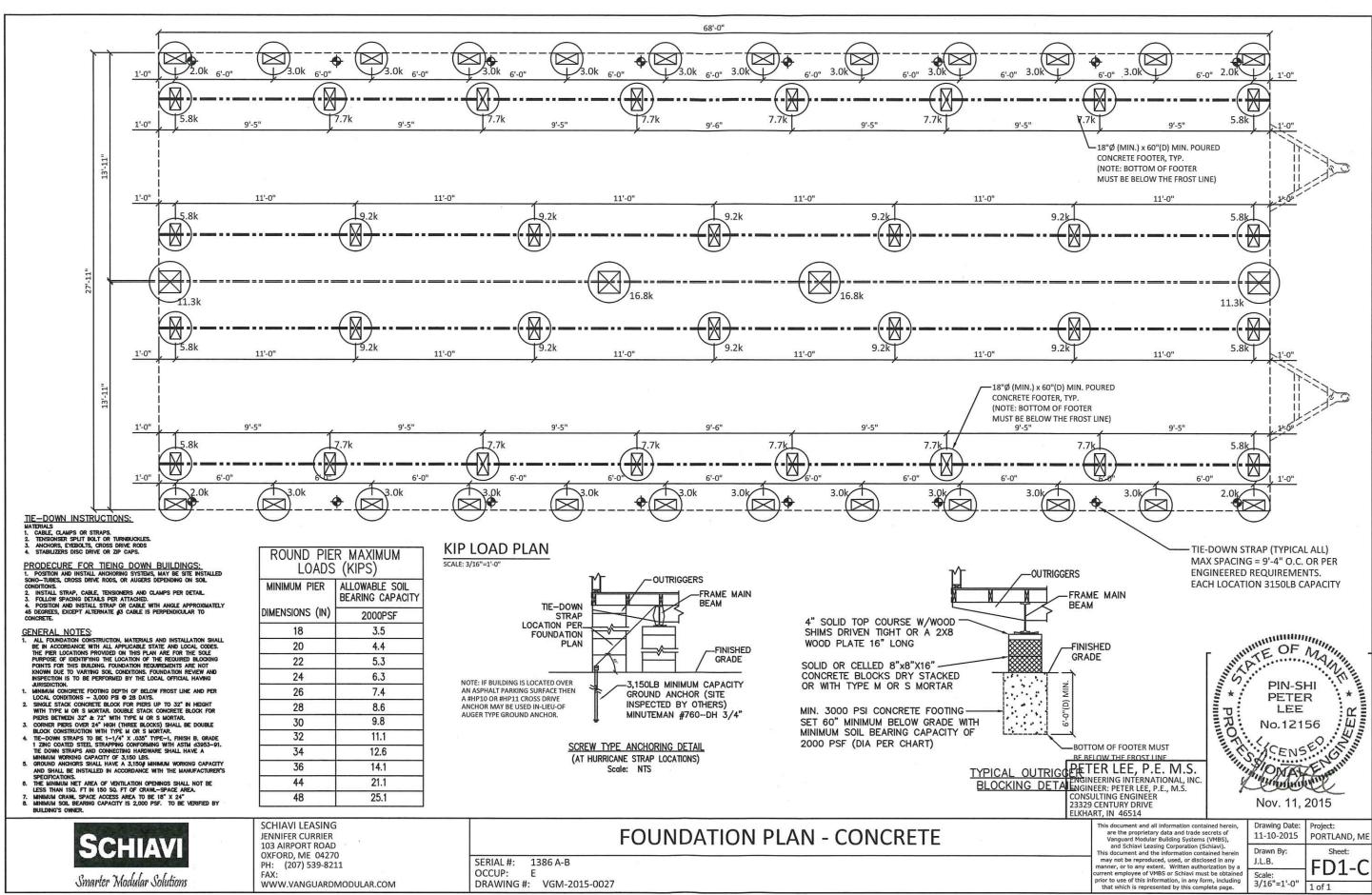
PLUMBING SCHEMATICS & FIRE RATING DETAILS

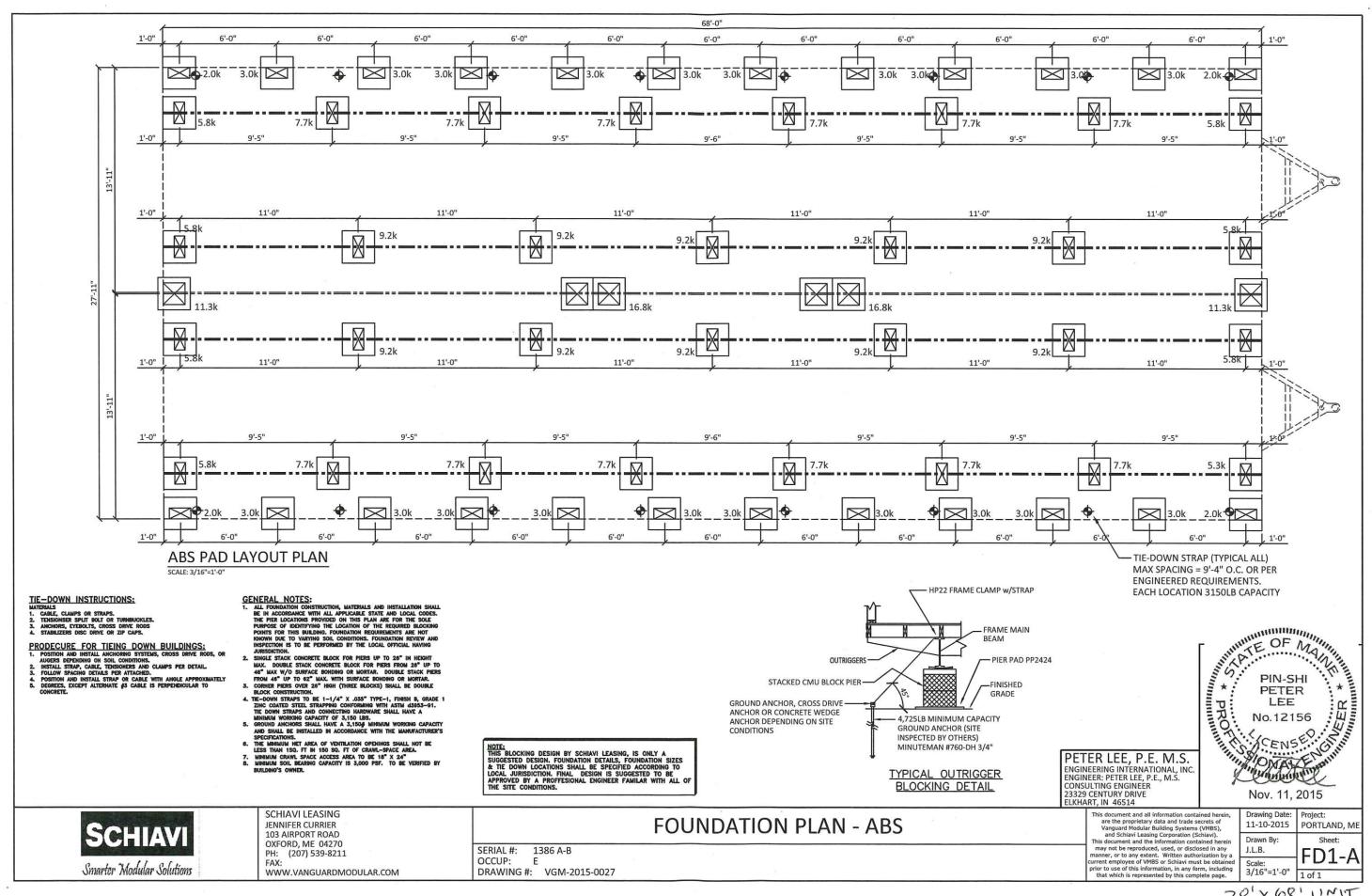
SERIAL #: 1386 A-B OCCUP: E DRAWING #: VGM-2015-0027

28'x68' UNIT









GENERAL NOTES:

- 1. ACCESS TO BUILDING FOR PERSONS IN WHEELCHAIRS IS DESIGNED BY AND FIELD BUILT BY OTHERS AND SUBJECT TO LOCAL JURISDICTION. AT LEAST 50% OF PUBLIC ENTRANCES (INCLUDING PRIMARY ENTRANCE) AND ALL REQUIRED EXITS MUST BE ACCESSIBLE
- ALL DOORS SHALL BE OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED FLUSH BOLTS OR SURFACE
- ALL GLAZING WITHIN A 24 INCH ARC OF DOORS, WHOSE BOTTOM FDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET.
- FLOOR DESIGN LIVE LOAD 40 PSF.
- MAXIMUM WIND SPEED 110 MPH EXP. C.
- OCCUPANCY IS EDUCATIONAL
- OCCUPANT LOAD IS (94) BASED ON 1 PERSON PER 20 SQUARE FEET OF CLASSROOM FLOOR AREA FOR MEANS OF EGRESS PURPOSES.
- CONSTRUCTION IS TYPE V-B, UNPROTECTED, UNSPRINKLERED
- ALL STEEL STRAPS REFERENCED ON FLOOR PLAN SHALL BE 1.5 INCH x 30 GA. w/(6) 16 GA. x 7/16 INCH CROWN x 1 1/4 INCH STAPLES WITH A MINIMUM OF 1" PENETRATION EACH END OF STRAP OR EQUIVALENT FROM RIDGE BEAM TO COLUMN, AND COLUMN TO FLOOR
- 10. PLAN REVIEW AND INSPECTION REQUIRED BY CHAPTER 633 F.S. TO BE DONE BY THE LOCAL FIRE SAFFTY INSPECTOR.
- PORTABLE FIRE EXTINGUISHER PER N.F.P.A. 101 INSTALLED BY OTHERS ON SITE, AND SUBJECT TO LOCAL JURISDICTION AND APPROVAL.
- 12 THIS BUILDING REQUIRES A FIRE SEPARATION DISTANCE OF GREATER THAN 10 FEET ANYTHING LESS THAN 10 FT MUST MEET THE CRITERIA IN TABLE 600 OF THE FBC. SUBJECT TO LOCAL JURISDICTION AND APPROVAL.
- 13. WHEN LOW SIDE OF ROOF PROVIDES LESS THAN 6" OF OVERHANG GUTTERS AND DOWNSPOUTS WILL BE REQUIRED, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICITON.

ELECTRICAL NOTES:

- ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
- WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES
- FROM "STORAGE AREA" AS DEFINED BY NEC 410-8(a).
 WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DIS-CONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
 HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT
- TO THE FOLIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
- PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
- THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL. ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH
- APPROVED ACCESSIBLE JUNCTION BOXES OR CABLE CONNECTORS.
- REFERENCE STATE APPROVED PACKAGE FOR ELECTRICAL RISER DIAGRAM FIRE ALARM PULL STATION OPERABLE DEVICE SHALL BE LOCATED 42 TO 45 INCHES ABOVE THE FLOOR. FIRE ALARM HORN/STROBE DEVICE SHALL BE WALL MOUNTED WITH
- THE BOTTOM EDGE 80 INCHES ABOVE THE FLOOR 10. EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE AND SHALL BE CONNECTED TO A OTOCELL OR TIMER.
- 11. ALL RECPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE IN WEATHER PROOF (W.P.) ENCLOSURES. THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN AN ATTACHMENT PLUG CAP IS INSERTED OR REMOVED.

MECHANICAL NOTES:

- 1. ALL SUPPLY AIR REGISTERS SHALL BE 12 INCHES x 12 INCHES ADJUSTABLE w/10 INCHES x 20 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT, UNLESS OTHERWISE SPECIFIED. DUCTS LOCATED IN VENTILATED ATTIC SPACES SHALL HAVE AN R-8 INSULATION VALUE. DUCTS LOCATED IN UNCONDITIONED INTERIOR SPACES SHALL HAVE AN R-5 INSULATION VALUE
- 2. INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR
- FOR AIR RETURN AND/OR AS NOTED ON FLOOR PLAN.
 RESTROOM VENT FANS SHALL PROVIDE 75 CFM MINIMUM PER WATER CLOSET AND/OR URINAL
- VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
- 5. HVAC FOUIPMENT SHALL BE FOUIPPED WITH OUTSIDE FRESH AIR INTAKES PROVIDING 15 CFM FOR EACH OCCUPANT OR 75 CFM FOR EACH WATER CLOSET AND EACH URINAL, WHICHEVER IS GREATER.
- MECHANICAL SYSTEM IS DEIGNED FOR AN AVERAGE OCCUPANT LOAD OF __57 OCCUPANTS OR A PEAK OCCUPANCY OF 114 OCCUPANTS BASED ON AN INTERMITTENT OCCUPANCY.

PLUMBING NOTES:

- 1. THE USE OF THE BUILDING WITHOUT THE REQUIRED NUMBER OF PLUMBING FACILITIES IS
- SUBJECT TO THE REVIEW AND APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY.
 THE USE OF THIS BUILDING WITHOUT THE REQUIRED NUMBER OF WATER FOUNTAINS AND/OR SERVICE SINKS IS SUBJECT TO THE REVIEW AND APPROVAL OF THE LOCAL JURISDICTION HAVING AUTHORITY. IF REQUIRED THESE ARE TO BE SUPPLIED AND SITE INSTALLED BY OTHERS.
- PLUMBING FACILITIES TO BE LOCATED WITHIN 500' BY OTHER IN THE FIELD.
 TOILETS SHALL BE ELONGATED WITH NON-ABSORBENT OPEN FRONT SEATS.

ACCESSIBILITY NOTES:

- THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
- ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT HEIGHT NO HIGHER THAN 36 INCHES ABOVE THE FLOOR AND EDGE OF BASIN NO HIGHER THAN 34 INCHES ABOVE THE FLOOR FOR INDIVIDUALS IN WHEEL CHAIRS, ADDITIONALLY, DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY IN BENDING
- WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS, AND DRAWERS ARE PROVIDED AT LEAST ONE OF EACH TYPE PROVIDED SHALL CONTAIN STORAGE SPACE COMPLYING WITH THE FOLLOWING: DOORS, ETC. TO SUCH SPACES SHALL BE ACCESSIBLE (ie. TOUCH LATCHES, U-SHAPED PULLS); SPACES SHALL BE WITHIN 15 INCHES MINIMUM AND 48 INCHES MAXIMUM OF THE FLOOR FOR FORWARD REACH OR 9 INCHES MINIMUM AND 54 INCHES MAXIMUM, OF THE FLOOR FOR SIDE REACH-CLOTHES RODS SHALL BE A MAXIMUM OF 54 INCHES ABOVE THE FLOOR (48 INCHES MAXIMUM WHEN DISTANCE FROM WHEELCHAIR TO ROD EXCEEDS 10 INCHES).
- CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE NO HIGHER THAN 45 INCHES ABOVE THE FLOOR FOR FRONT APPROACH OR 54 INCHES ABOVE THE FLOOR FOR SIDE APPROACH. RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR. EXCEPTION: HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
- WHERE EMERGENCY WARNING SYSTEMS ARE PROVIDED, THEY SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. THE VISUAL ALARMS SHALL BE LOCATED THROUGH-OUT, INCLUDING RESTROOMS, AND PLACED 80 INCHES ABOVE THE FLOOR OR 6 INCHES BELOW CEILING, WHICHEVER IS LOWER.
- DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (ie LEVER-OPERATED, PUSH-TYPE, U-SHAPED) MOUNTED NO HIGHER THAN 48 INCHES ABOVE THE ELOOR
- ALL DOORS SHALL BE OPENABLE BY A SINGLE EFFORT. THE MAXIMUM FORCE REQUIRED TO OPEN A DOOR SHALL NOT EXCEED 8.5 LBS. FOR EXTERIOR SWINGING DOORS AND 5 LBS. FOR ALL SLIDING, FOLDING, AND INTERIOR SWINGING DOORS.
- FLOOR SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT, CHANGES IN LEVEL BETWEEN 0.25 INCH AND 0.5 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. CHANGES IN LEVEL GREATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 INCH MAX. GRATINGS IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCH WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.
- ACCESSIBLE WATER CLOSETS SHALL BE 19 INCHES FROM THE FLOOR TO THE TOP OF THE SEAT. GRAB BARS SHALL BE 36 INCHES LONG MINIMUM WHEN LOCATED BEHIND THE WATER CLOSET AND 42 INCHES MINIMUM WHEN LOCATED ALONG THE SIDE OF THE OF WATER CLOSET, AND SHALL BE MOUNTED 33 INCHES FROM THE FLOOR TO THE TOP OF THE RAIL WITH 0.5 INCH MAXIMUM VARIATION.
- ACCESSIBLE URINALS SHALL BE STALL-TYPE OR WALL HUNG WITH ELONGATED RIMS AT A MAXIMUM OF 17 INCHES ABOVE THE FLOOR.
- ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR AND A CLEARANCE OF AT LEAST 29 INCHES ABOVE THE FLOOR TO THE BOTTOM OF THE APRON.
- 12 ACCESSIBLE SINKS SHALL BE MOLINTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR AND A CLEARANCE OF AT LEAST 27 INCHES HIGH, 30 INCHES WIDE, AND 19 INCHES DEEP UNDERNEATH SINK. THE SINK DEPTH SHALL BE 6.5
- 13. HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT, INSULATION OR PROTECTION MATERIAL MAY BE SITE INSTALLED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER ACCESSIBLE LAVATORIES AND SINKS.
- 14. ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESSIBLE FAUCETS (ie. LEVER OPERATED, PUSH-TYPE, ELECTRONICALLY CONTROLLED).
- 15. WHERE MIRRORS ARE PROVIDED IN RESTROOM, AT LEAST ONE SHALL BE PROVIDED WITH ITS BOTTOM EDGE NO HIGHER THAN 40 INCHES ABOVE THE FLOOR
- WHERE MEDICINE CABINETS ARE PROVIDED, AT LEAST ONE SHALL BE LOCATED WITH A USABLE SHELF NO HIGHER THAN 44 INCHES ABOVE THE FLOOR.
- GRAB BARS REQUIRED FOR ACCESSIBILITY SHALL BE 1.25 INCHES TO 1.5 INCHES IN DIAMETER WITH 1.5 INCHES CLEAR SPACE BETWEEN THE BAR AND THE WALL. 18. TOILET STALL DOORS SHALL BE THE SELF-CLOSING TYPE.
- A TOWEL DISPENSER SHALL BE LOCATED ADJACENT TO ALL ACCESSIBLE LAVATORIES.
 WATER CLOSET FLUSH CONTROL SHALL BE MOUNTED ON THE WIDE SIDE
- OF THE CLOSET. A VERTICAL GRAB BAR 18 INCHES MINIMUM IN LENGTH SHALL BE LOCATED ON THE SIDE WALL ADJACENT TO THE WATER CLOSET DIRECTLY ABOVE THE 42 INCH LONG HORIZONTAL GRAB BAR. THE VERTICAL BAR SHALL BE MOUNTED WITH THE BOTTOM OF THE BAR LOCATED BETWEEN 39 INCHES AND 41 INCHES ABOVE THE FLOOR AND WITH THE CENTERLINE OF THE BAR LOCATED BETWEEN 39 AND 41 INCHES FROM THE
- RESTROOM WALLS SHALL BE COVERED WITH NON-ABSORBENT MATERIAL TO A MINIMUM HEIGHT OF 48 INCHES A.F.F.
 ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUT-OFF VALVES.
- WATER HEATER SHALL HAVE SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR, T & P RELIEF VALVE WITH DRAIN TO EXTERIOR, AND A SHUT OFF VALVE WITHIN
- 3 FEET ON A COLD WATER SUPPLY LINE.
 DWV SYSTEM SHALL BE EITHER ABS OR PVC DWV.
- WATER SUPPLY LINES SHALL BE PEX INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS. WATER CLOSETS ARE TANK TYPE AND URINALS ARE FLUSH TANK TYPE UNLESS
- BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS. SUBJECT TO LOCAL JURISDICTION APPROVAL
- SHOWERS SHALL BE CONTROLLED BY AN APPROVED MIXING VALVEWITH A MAXIMUM WATER OUTLET TEMPERATURE OF 120° F (48.8° C).
- THERMAL EXPANSION DEVICE, IF REQUIRED BY WATER HEATER INSTALLED, AND IF NOT SHOWN ON PLUMBING PLAN, IS DESIGNED AND SITE INSTALLED BY OTHE SUBJECT TO LOCAL JURISDICTION AND APPROVAL.

SITE INSTALLED NOTES:

- NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIALS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION AND APPROVA
- THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
- RAMPS STAIRS AND GENERAL ACCESS TO THE BUILDING PORTABLE FIRE EXTINGUISHERS(S).
- DRINKING FOUNTAIN, SERVICE SINK, BUILDING DRAINS, CLEAN-OUTS, AND
- HOOK-UP TO PLUMBING SYSTEM.
 ELECTRICAL SERVICE HOOK-UP (INCLUDING FEEDERS) TO THE BUILDING. THE MAIN ELECTRICAL PANEL AND SUB-FEEDERS (MULTI-UNITS ONLY) CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATING
- LINES(S) (MULTI-UNITS ONLY) STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN
- MODULES (MULTI-UNITS ONLY). WINDOW AND DOOR HIGH WIND STORM COVERINGS PER CODE
- GUTTERS & DOWNSPOUTS (IF APPLICABLE) GAS PIPING DESIGN, SUPPLIED AND SITE INSTALLED BY OTHERS

STRUCTURAL LOAD LIMITATIONS:

BUILDING OCCUPANCY CATEGORY: II

FLOOR LIVE LOAD:

1000 LB. (CONCENTRATED)

ROOF LIVE LOAD

- ROOF SNOW LOAD: A. Pg = 70 PSF Pg = 53.9 PSF B. Pf = 46.20 PSF GROUND SNOW LOAD GROUND SNOW LOAD @ 300' A.S.L. FLAT ROOF SNOW LOAD
 - SNOW EXPOSURE FACTOR 1.0 SNOW IMPORTANCE FACTOR 1.1 SNOW THERMAL FACTOR

WIND LOAD:

- 1. 110 MPH lw = 10 II [ASCE 7-05]
- WIND SPEED WIND IMPORTANCE FACTOR **BUILDING CATEGORY**
- WIND EXPOSURE CATEGORY ENCLOSURE CLASSIFICATION: ENCLOSED
- INTERNAL PRESSURE COEFFICIENT. GCpi = 0.18 COMPONENT & CLADDING LOAD:
- (ROOFS) -24.30 PSF ZONE 1 PSF PSF ZONE 2 -38.80 Pr = -57.20 ZONE 3

(WALLS / WINDOWS / DOORS):

- PSF PSF -32.50 ZONE 5
- 6. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEFT IN HEIGHT

SEISMIC LOAD:

- SEISMIC IMPORTANCE FACTOR le = 1.0 SEISMIC FORCE RESISTING SYSTEM. A13 SEISMIC DESIGN CATEGORY.
- ANALYSIS PROCEDURE.
 MAPPED SPECTRAL RESPONSE COEFFICIENT EQUIVALENT MAPPED SPECTRAL RESPONSE COEFFICIENT SPECTRAL RESPONSE COFFEIGENT
- Ss = < .35 S1 = < .09 Sds < .501 Sd1 < .348 V = 4,428# DESIGN BASE SHEAR. R = 6.5RESPONSE MODIFICATION COFFEIGENT

L. Cd = 0.08 FLOOD LOAD:

THIS BUILDING IS NOT DESIGNED TO BE SUBMERGED OR SUBJECTED TO WAVE ACTION WHEN LOCATED IN A FLOOD PRONE OR ZONE AREA. THE FINISH FLOOR ELEVATION MUST BE LOCATED ABOVE THE BUILDING SITE FLOOD PLANE LEVEL FOR THIS BUILDING TO BE LOCATED IN A FLOOD PRONE OR ZONE AREA SUBJECT TO LOCAL JURISDICTION

SEISMIC RESPONSE COEFFICIEN

STATE CODES: MAINE

PORTLAND, ME

- IBC 2009 MUBEC (MAINE UNIFORM BUILDING AND ENERGY CODE)
- MAINE STATE INTERNATIONAL PLUMBING CODE PLUMBING (2007 UPC w/ME AMENDS)
- MECHANICAL:
- FI FCTRICAL: 2011 NFC LIFE SAFETY: **NFPA 101**
- ACCESSIBILITY: ADAAG/ICC/ANSI A117.1-2010 **ENERGY:** 2009 Maine Uniform Building and Energy

ELEVATION NOTES (TYP.)

- 1.) SEE CROSS SECTION FOR METHOD OF ROOF VENTILATION
- 2.) HANDICAP RAM(S), STAIR(S), AND HANDRAILS ARE TO BE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION AND APPROVAL
- 3.) FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQUARE FOOT NET VENT AREA PER 1/150th OF THE FLOOR AREA, AND AN 18" x 24" MINIMUM CRAWL SPACE ACCESS, SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION AND APPROVAL

BUILDING DESIGN PARAMETERS

- USE/OCCUPANCY V-B (UNSPRINKLD) 2. CONSTRUCTION TYPE: NO SPRINKLER SYSTEM: 4. BUILDING AREA: 2128 S.F. ≤ 15 FEET 5. BUILDING HEIGHT: NUMBER OF STORIES:
- 7. NUMBER OF MODULES 8. OCCUPANT LOAD 94 BASED ON 20 NET SE/PERSON IN CLASSROOM AREAS FOR EGRESS PURPOSES
- 9. EXTERIOR WALL FIRE RATING: NOT RATED 10. THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPFRATION
- DISTANCES AS REQUIRED BY IBC TABLE 602 AND SECTION 704.3 11. ENGERGY CODE COMPLIANCE: SEE ATTACHED ENERGY CALCS
- 12. MANUFACTURER'S DATA PLATE AND STATE LABELS ARE TO BE LOCATED ADJACENT TO THE ELECTRICAL PANEL 13. MODIFICATIONS TO THIS BUILDING COMPLY WITH ALTERATION

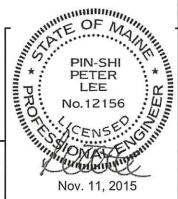
DRAWING INDEX:

LEVEL II REQUIREMENTS.

- COVER SHEET SHEET 1 of 6 SHEET 2 of 6 **EXTERIOR ELEVATIONS** SHEET 3 of 6 FLOOR PLAN SHEET 4 of 6 SHEET 5 of 6 P1 PLUMBING RISER / SCHEDULES E1 ELEC/HVAC PLAN SHEET 6 of 6 X1 **BUILDING CROSS SECTION**
- SHEET 1 of 1 FD1 FOUNDATION PLAN AND DETAILS

ENERGY CODE:

SOLID DOOR U-FACTOR: .25 WINDOW U-FACTOR: .28 WINDOW SHGC: .50 GLASS DOOR U-FACTOR: .54



CONSULTING ENGINEER 23329 CENTURY DRIVE LKHART, IN 46514 This document and all information contained herein

are the proprietary data and trade secrets of Vanguard Modular Building Systems (VMBS), and Schiavi Leasing Corporation (Schiavi).
document and the information contained herei may not be reproduced, used, or disclosed in any nanner, or to any extent. Written authorization by a oyee of VMBS or Schiavi must be obta prior to use of this information, in any form, including that which is represented by this complete page.

PETER LEE, P.E. M.S.

ENGINEERING INTERNATIONAL, INC ENGINEER: PETER LEE, P.E., M.S.

Drawing Date: 11-10-2015 PORTLAND M J.L.B. CV1 Scale: NONE 1 of 6

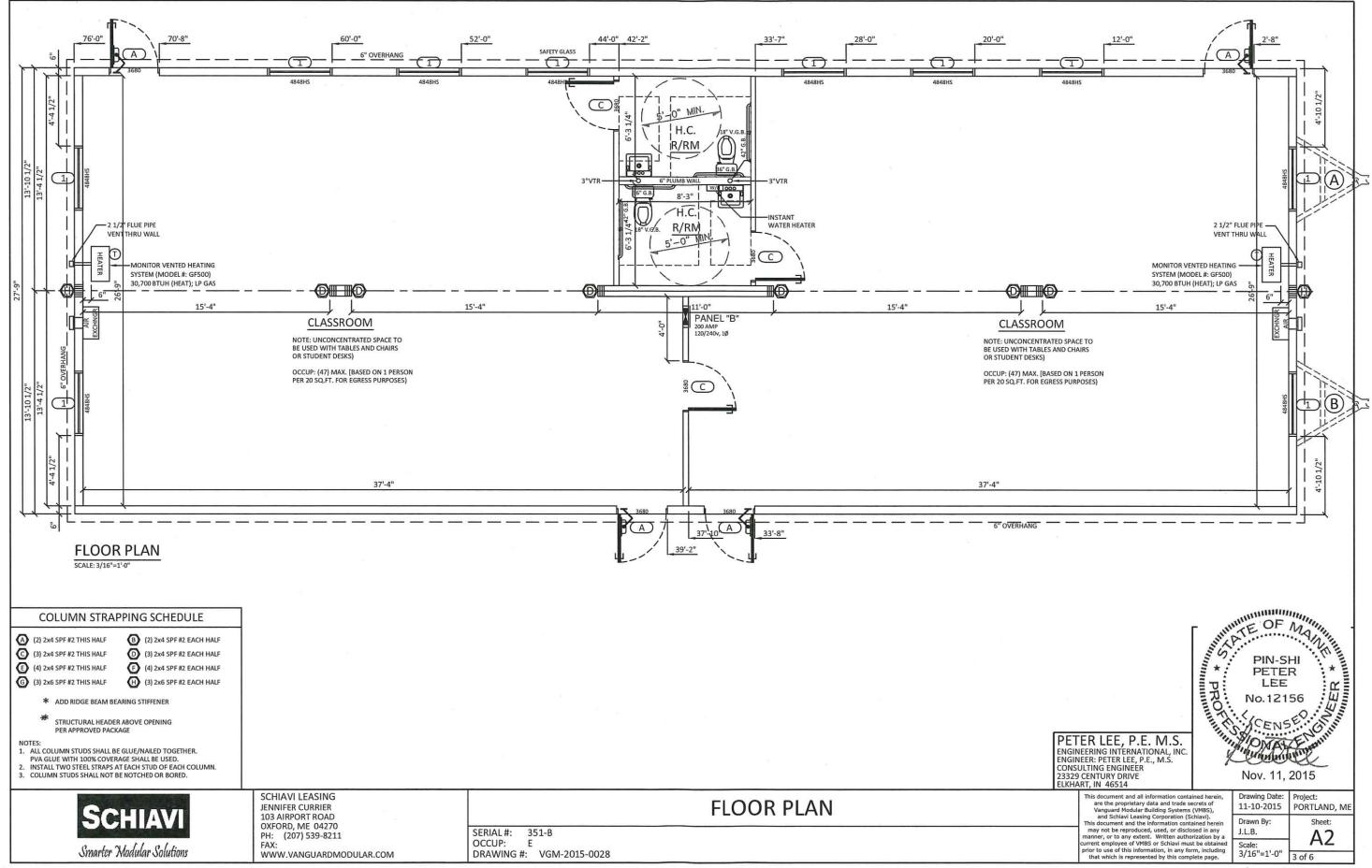
SCHIAVI LEASING JENNIFER CURRIER 103 AIRPORT ROAD OXEORD ME 04270 PH: (207) 539-8211 FAX: WWW.VANGUARDMODULAR.COM

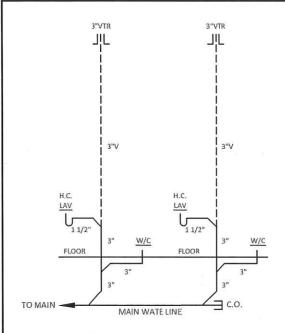
SFRIAL #:

351-B OCCUP: DRAWING #: VGM-2015-0028 **COVER SHEET / NOTES**

28×76 UNIT

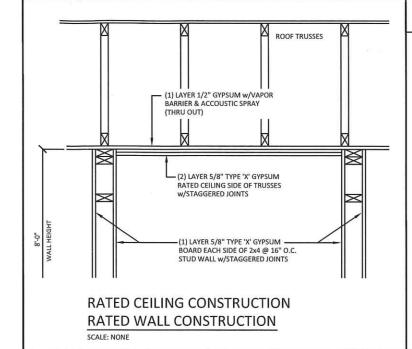






D.W.V. RISER NOTES:

- 1. THE D.W.V. RISER INDICATES ONE METHOD OF INSTALLING THE BELOW THE FLOOR PIPING. OTHER APPROVED METHODS MAY BE USED AS NEEDED TO ACCOMODATE THE ACTUAL SITE CONDITIONS.
- 2. ALL BELOW FLOOR PIPING AND FITTINGS ARE TO BE SUPPLIED AND INSTALLED ON SITE BY OTHERS.
- 3. 1 1/2 INCH AND 2 INCH HORIZONATL DRAIN LINES SHALL BE INSTALLED WITH A SLOPE OF 1/4 INCH PER FOOT.
- 4. 3 AND 4 INCH HORIZONTAL DRAIN LINES SHALL BE INSTALLED WITH A SLOPE OF 1/8 INCH PER FOOT.
- 5. BELOW FLOOR HORIZONTAL DRAIN LINES ARE 3 INCH MINIMUM DIAMETER UNLESS INDICATED OTHERWISE.
- 6. A MAXIMUM OF 3 WATER CLOSETS MAY DISHCARGE INTO A
- 7. CHANGES IN DIRECTION SHALL BE MADE WITH FITTINGS AS INDICATED IN TABLE 706.3. VERTICAL TO HORIZONTAL AND HORIZONTAL TO HORIZONTAL CHANGES OF DIRECTION ARE TO BE MADE WITH LONG SWEEP FITTINGS.



FIRE ASSEMBLY NOTES:

1 HOUR PER UL NO. FC 5406 - (1) LAYER OF 5/8" TYPE-X GYPSUM BOARD EACH SIDE, WITH BUTT JOINTS STAGGERED

WOOD STUD WALLS: 1 HOUR PER UL NO. WP3520 - (2) LAYER OF 5/8" TYPE-X GYPSUM BOARD EACH SIDE, WITH BUTT JOINTS STAGGERED

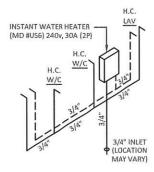
EXCEPTION: USE GYPSUM ASSOC. FILE NO. WP3520 ON WALLS WHERE THE 5/8" TYPE-X GYPSUM BOARD HAS PREDECORATED OR VINYL COVERED FINISH AND FASTEN IT WITH 6d COATED NAILS 1 7/8"
LONG, 0.0915" SHANK, 1/4" HEADS, 7" O.C. AT JOINTS AND TOP AND BOTTOM PLATES AND 3/8" BEAD OF ADHESIVE AT INTERMEDIATE STUDS.

PENETRATION OF FIRE RESISTANT WALLS AND CEILINGS:

- COMBUSTIBLE CABLES AND WIRES, COMBUSTIBLE PIPES, TUBES, AND CONDUITS SHALL MEET
 THE TESTING REQUIREMENTS OF ASTM E119 AS PART OF THE FIRE RESISTANT ASSEMBLY OR SHALL HAVE THROUGH-PENETRATION FIRESTOP SYSTEMS LISTED AND TESTED AS PER ASTM E814 AND BE TESTED AT A POSITIVE PRESSURE DIFFERENTIAL BETWEEN THE EXPOSED AND UNEXPOSED SURFACES OF NOT LESS THAN .0.1 INCH OF WATER AND HAVE AN "F" RATING OF AT LEAST 1 HOUR BUT NOT LESS THAN THE RATED OF THE ASSEMBLY.
- CABLES AND WIRES WITHOUT COMBUSTIBLE INSULATIONS AND NON-COMBUSTIBLE PIPES, TUBES, AND CONDUITS SHALL BE PROTECTED AS DESCRIBLED ABOVE OR SHALL HAVE THE ANNULAR SPACE FILLED WITH A MATERIAL MEETING THE REQUIREMENT OF ASTM £119 TESTED UNDER A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF .01 INCH OF WATER FOR A PERIOD EQUIVALENT TO THE RATING OF THE ASSEMBLY.
- ELECTRICAL BOXES SHALL BE METAL OR LISTED FOR USE IN FIRE RESISTANT ASSEMBLIES AND SHALL NOT EXCEED 16 SQUARE INCHES. BOXES ON OPPOSITE SIDES OF FIRE RESISTANT WALLS SHALL BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES.
- ALL CEILING FIXTURES SHALL BE SURFACE MOUNTED.
- DUCTS PENETRATING FIRE RESISTANT CEILINGS SHALL HAVE AN ACCESSIBLE LISTED FIRE
- DAMPER LOCATED AT THE CEILING LINE.
- ALL FIRE RATED DOORS SHALL HAVE LISTED DOOR, FRAME AND HARDWARE NO LESS THAN THE TIME RATING SPECIFIED ON THE FLOOR PLAN. IN ADDITION FIRE RATED DOORS SHALL BE WITH SELF CLOSERS UNLESS OTHERWISE SPECIFIED.

D.W.V. RISER

SCALE: N.T.S.



ALL PLUMBING FIXTURES TO HAVE SHUT-OFF VALVES. VALVES NOT SHOWN FOR CLARITY.

SUPPLY RISER

SCALE: N.T.S.

COLD -

ALL SUPPLY LINES SHALL BE 3/4" AND ALL STUB-UPS SHALL BE 1/2" UNLESS OTHERWISE SPECIFIED. SUPPLY LINE SIZING IS BASED ON AN ASSUMED AVAILABLE PRESSURE OF 46 TO 60 PSI AT MAIN INLET AND SHOULD BE VERIFIED PRIOR TO CONSTURCTION.

		DOOF	R SCHEDULE										
#	SIZE	DESCRIPTION	QTY	HEADER	JACKS	KINGS							COMMENTS
	36"x80"	EXT. DOOR - STEEL - INSULATED	4	TRIPL 2x6	1	2							
(A)	w/20"x30"	SAFETY GLASS VIEW PANEL, WOOD FRAME, KE	YED LEVER LOCKSE	r, closer, we	ATHERST	RIPPING, F	I.C. THRESHO	OLD					
$\overline{}$	36"x80"	INT. DOOR - WOOD - SOLID CORE	2	SNGL 2x4	-	1							
B	w/PRE-HUN	NG WOOD FRAME, PRIVACY LEVER LOCKSET, CL	LOSER										
	36"x80"	INT. DOOR - WOOD - SOLID CORE	1	SNGL 2x4	-	1							
\bigcirc	w/PRE-HUN	NG WOOD FRAME, PASSAGE LEVER LOCKSET, C	LOSER										
$\overline{}$	-	2	-	127	- 4	-							
	21												
		WIND	OW SCHED	ULE									
#	SIZE	DESCRIPTION	QTY	HEADER	JACKS	KINGS	U-VALUE	SHGC	VT	LIGHTSF	VENT SF	DP	COMMENTS
"													

WWW VANGUARDMODULAR COM

PETER LEE No.12156 Nov. 11, 2015

PETER LEE, P.E. M.S. ENGINEERING INTERNATIONAL, INC. ENGINEER: PETER LEE, P.E., M.S. CONSULTING ENGINEER 23329 CENTURY DRIVE ELKHART, IN 46514

This document and all information contained herein, are the proprietary data and trade secrets of Vanguard Modular Building Systems (VMBS), and Schiavi Leasing Corporation (Schiavi). This document and the information contained herein may not be reproduced, used, or disclosed in any manner, or to any extent. Written authorization by a current employee of VMBS or Schiavi must be obtained prior to use of this information, in any form, including that which is represented by this complete page. Drawing Date: Project: 11-10-2015 PORTLAND, ME Sheet J.L.B. NONE

SCHIAVI LEASING JENNIFER CURRIER 103 AIRPORT ROAD OXFORD, ME 04270 PH: (207) 539-8211 Smarter Modular Solution

PLUMBING SCHEMATICS & FIRE RATING DETAILS

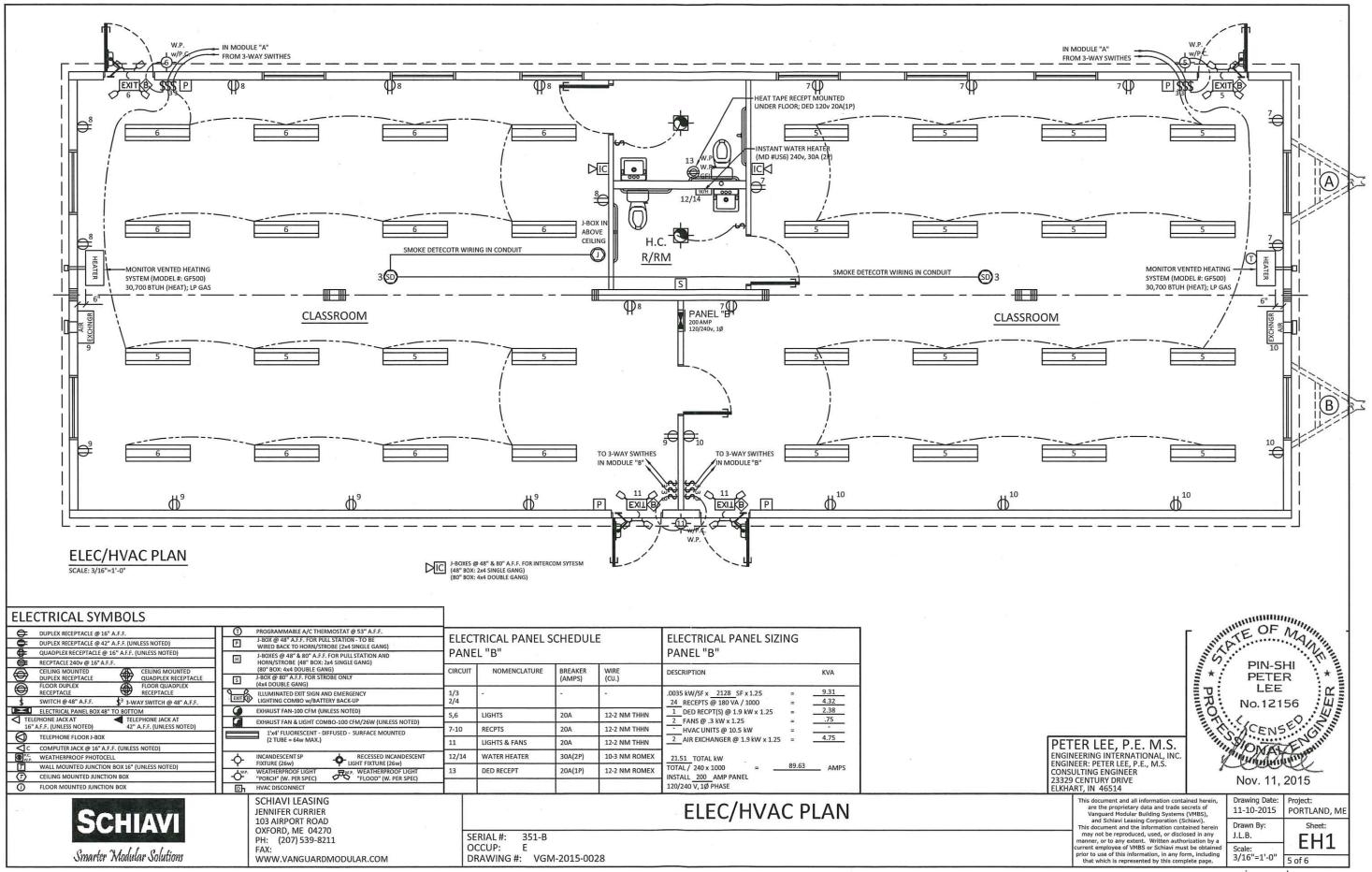
SERIAL#: 351-B

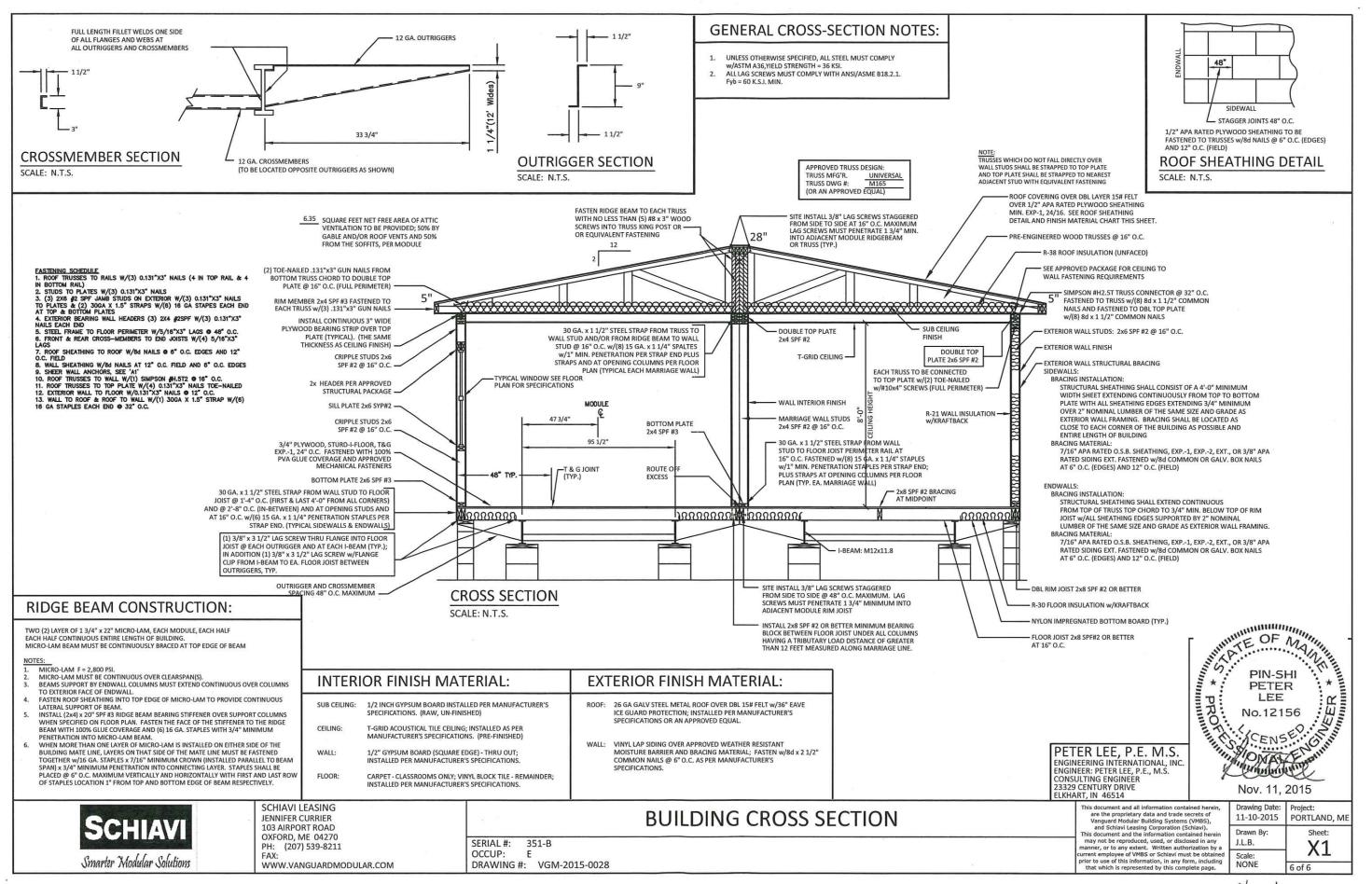
OCCUP:

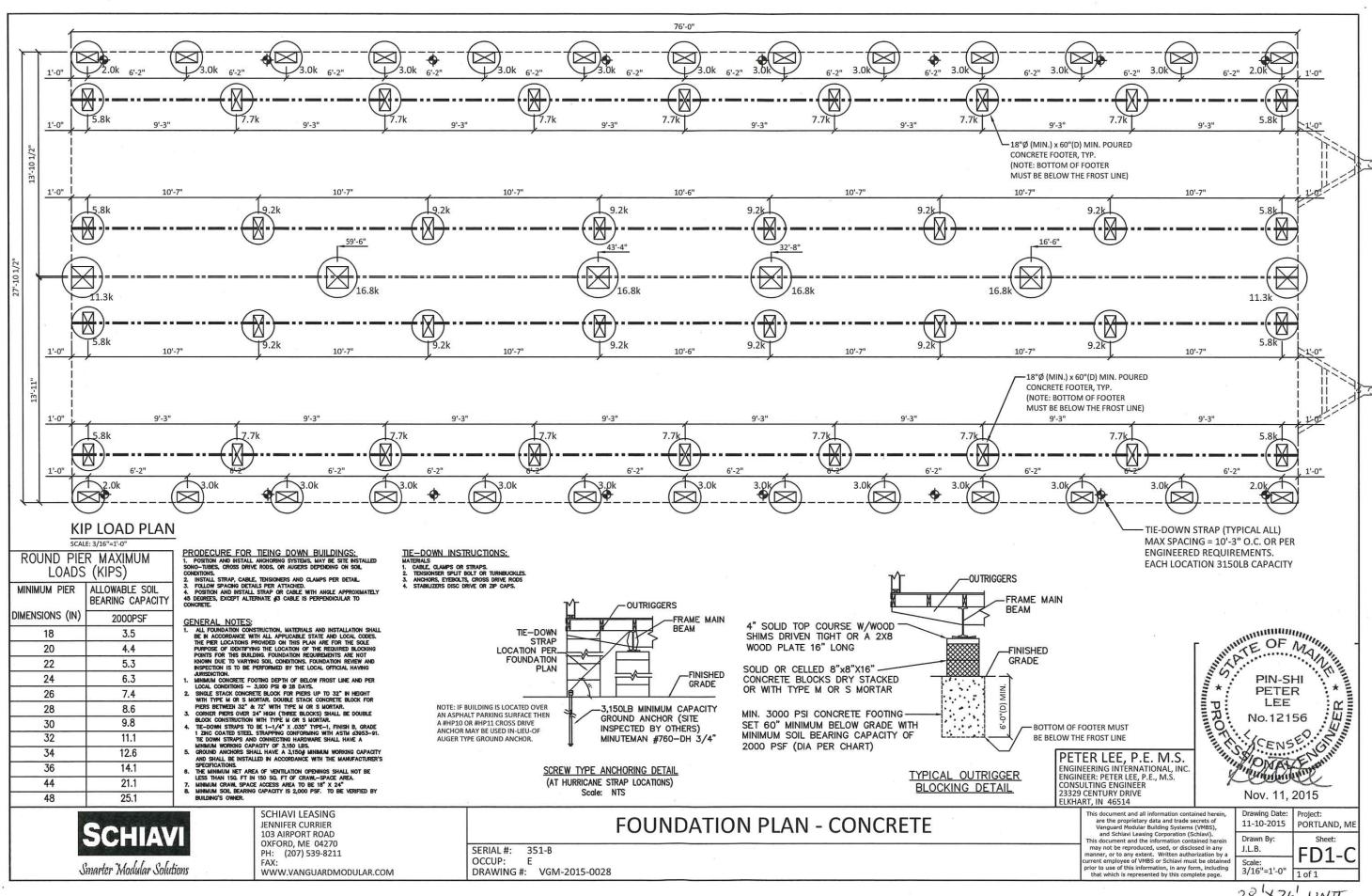
DRAWING #: VGM-2015-0028

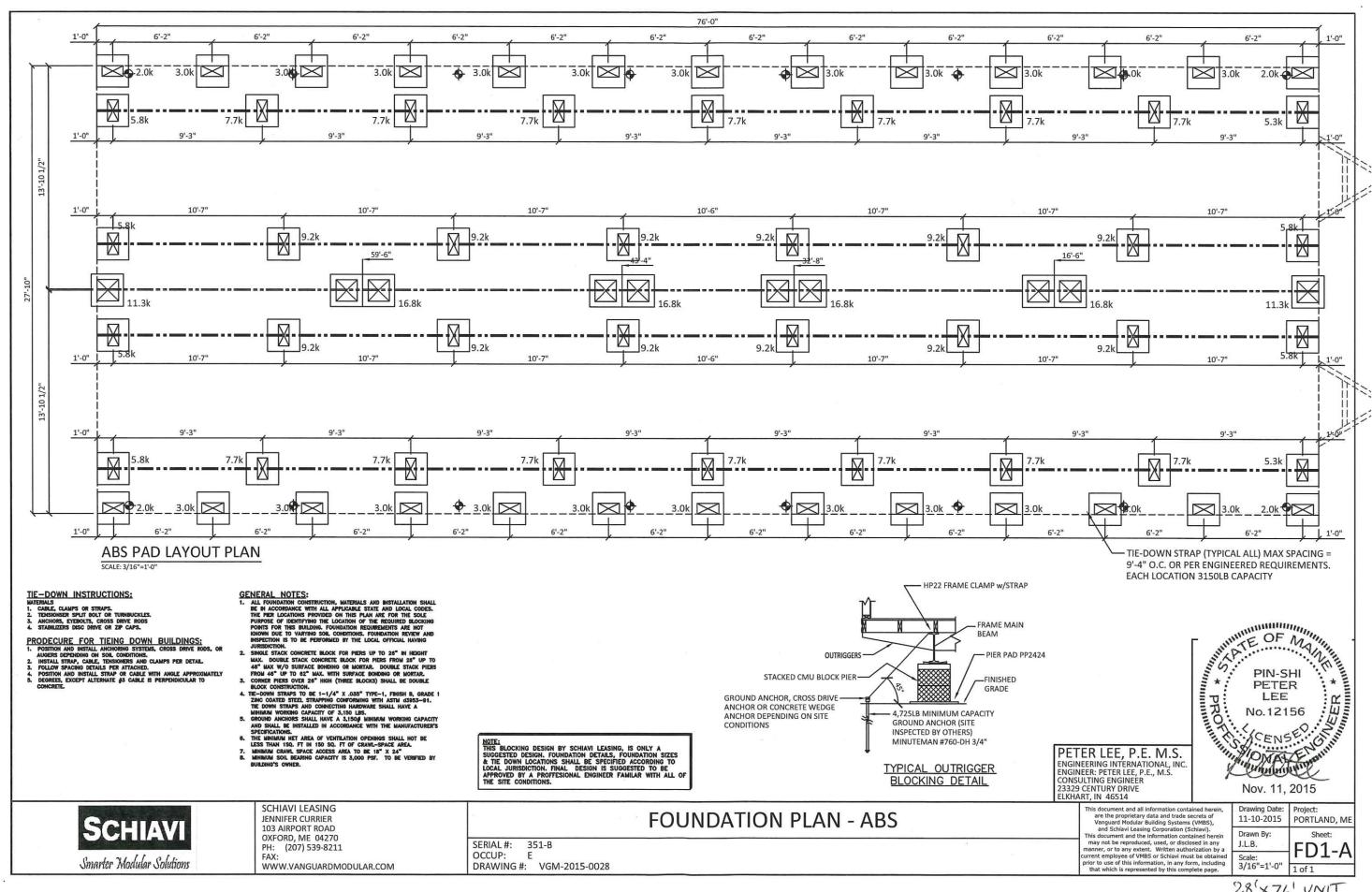
28 × 76' UNIT

4 of 6











109 District Road: Sewer Holding Tank Capacity Analysis

Date:

October 21, 2015

To:

John Emerson

Utility Coordinator, Portland Public Services 55 Portland Street, Portland, Maine 04101

From:

John Mahoney, P.E.

Subject:

Capacity Analysis to support the Location of Two Office Trailers at 109 District Road

PROJECT UNDERSTANDING

Winton Scott Architects is assisting the City of Portland with the installation of two portable office trailers within the City's stock yard and storage facility at 109 District Road off of Outer Congress Street. Ransom has been retained to provide utility design for the installation of these trailers. The trailers will provide office space for the City's Department of Public Services (DPS) staff. Each trailer will have two bathrooms for a total of 4 bathrooms.

The existing large storage shed on this site also contains a single bathroom, which will remain active. The storage shed was formally a sludge storage facility and contains a leachate collection system which drains to a 20,000 gallon underground holding tank. The leachate collection system consists of 3 catch basins and a piping network to capture leachate runoff from sewer sludge and convey it to the holding tank.

Based on conversations with John Emerson onsite on Monday October, 2 of the 3 catch basins that connect to the lechate system are currently plugged. The third catch basin is used periodically to capture runoff from catch basin sediment that is stored in the shed for dewatering. This third catch basin is plugged when not in use so that rain water is not conveyed to the holding tank. The City currently monitors the water level in the holding tank and pumps the tank when needed using City equipment.

John also indicated that the City's *longer* term plan is to pump wastewater from this site to a point where it could flow by gravity into the City's sanitary sewer system. This could be accomplished by installing a pump in the holding tank or installing a separate-small pump station/grinder pump.

The plan is to install the two new trailers onsite and pipe the wastewater from the bathrooms by gravity into the 20,000 gallon storage tank. Each trailer is proposed to have its own 4" sewer service that connects to a 6" sewer, which is part of the leachate collection system and drains to the 20,000-gallon holding tank (see Sheet C-1). The existing bathroom in the storage shed is currently and will remain connected to the storage tank.



Byfield, Massachusetts Providence, Rhode Island Portsmouth, New Hampshire Portland, Maine Hamilton, New Jersey

978-465-1822 401-433-2160 603-436-1490 207-772-2891 609-584-0090

PROJECT NO. 151,06151	_ SITE Bore Yord
SHEET NO.	OF
CALCULATED BY JIM	DATE 9/18/15
CHECKED BY JUS	DATE
SCALE	

_	namilion, New Jersey	609-584-0090	
			5 A.A. 5 = 10
	Capacity	of Ablding Tak at Former,	d .
	Studge	of Holding Tall at former strage Facility 109 District	Road
	Tank lister	as 20,000 gallons on Record Da	andry 5
	Assume and that	that tank his Drayed are 90% tank remains 10% Gull after pump	£11
			ing
	20,000.	(80% = 16,000 galons	
	Assume !	0 empoyees at 12 galdayles	mooke-
	= 600 8	callday.	
	16,000	- 0/1 du = m	1
	600	= 26.7 dess = maximum time between pumpir	3
		(Say 26)	1
			*

Energy Code: **2009 IECC** Project Title: VGM-2015-0027 Project Type: New Construction

Construction Site:

28'x68' CLASSROOM BLDG

Portland, ME

Building Location (for weather data):

Climate Zone:

Vertical Glazing / Wall Area Pct.:

Portland, Maine 6a

Owner/Agent:

8%

<u>Building Use: Activity Type(s)</u> 1-School/University: Nonresidential Floor Area

Designer/Contractor:
Psi-Peter Lee, P.E.
Elkhart, IN
PETER
LEE
No. 12156

Nov 11 2015

Section 2: Envelope Assemblies and Requirements Checklist

Envelope PASSES: Design 1% better than code.

Envelope Assemblies:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - School/University]	1904	38.0	0.0	0.027	0.027
Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - School/University]	224	19.0	0.0	0.067	0.051
Window 1: Vinyl Frame:Double Pane with Low-E, Perf. Specs.: Product ID ****, SHGC 0.28, [Bldg. Use 1 - School/University] (b)	16			0.280	0.350
Exterior Wall 2: Wood-Framed, 16" o.c., [Bldg. Use 1 - School/University]	224	19.0	0.0	0.067	0.051
Window 2: Vinyl Frame:Double Pane with Low-E, Perf. Specs.: Product ID ****, SHGC 0.28, [Bldg. Use 1 - School/University] (b)	16			0.280	0.350
Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - School/University]	544	19.0	0.0	0.067	0.051
Window 3: Vinyl Frame:Double Pane with Low-E, Perf. Specs.: Product ID ****, SHGC 0.28, [Bldg. Use 1 - School/University] (b)	96			0.280	0.350
Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - School/University]	40			0.350	0.700
Exterior Wall 4: Wood-Framed, 16" o.c., [Bldg. Use 1 - School/University]	544	19.0	0.0	0.067	0.051
Door 2: Insulated Metal, Swinging, [Bldg. Use 1 - School/University]	20			0.350	0.700
Floor 1: Wood-Framed, [Bldg. Use 1 - School/University]	1904	30.0	0.0	0.033	0.033

⁽a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

Air Leakage, Component Certification, and Vapor Retarder Requirements:

- 1. All joints and penetrations are caulked, gasketed or covered with a moisture vapor-permeable wrapping material installed in accordance with the manufacturer's installation instructions.
- ☐ 2. Windows, doors, and skylights certified as meeting leakage requirements.
- 3. Component R-values & U-factors labeled as certified.
- ☐ 4. No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- 5. 'Other' components have supporting documentation for proposed U-Factors.

Project Title: VGM-2015-0027

Data filename: D:\DWG\COMCHECK\COM CHECK\VGM-2015-0027 - (28'x68' - E - ME) - 2009 IECC.cck

Report date: 11/10/15

Page 1 of 9

⁽b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

Nam	e - Title	Signature	Date
and o	chiance Statement: The proposed envelope design represent ther calculations submitted with this permit application. The ements in COMcheck Version 4.0.1 and to comply with the	proposed envelope system has been desig	ned to meet the 2009 IECC
Sec	tion 3: Compliance Statement		
	☐ Doors opening directly from a sleeping/dwelling unit.		
	Doors used primarily to facilitate vehicular movement or	or materials handling and adjacent personne	el doors.
	☐ Doors that open directly from a space less than 3000 s	q. ft. in area.	
	$\hfill \square$ Doors not intended to be used as a building entrance.		
	☐ Building entrances with revolving doors.		
☐ 10	Building entrance doors have a vestibule equipped with se Exceptions:	elf-closing devices.	
9.	Recessed lighting fixtures installed in the building envelope	e are Type IC rated as meeting ASTM E283	3, are sealed with gasket or caulk
□ 8.	Cargo doors and loading dock doors are weather sealed.		
□ 7.	Stair, elevator shaft vents, and other outdoor air intake and dampers.	d exhaust openings in the building envelope	are equipped with motorized
ш -	achieves the rated R-value without compressing the insul	ation.	ing insulated, and in a manner th





Energy Code: **2009 IECC** Project Title: VGM-2015-0027 Project Type: New Construction

Construction Site:

28'x68' CLASSROOM BLDG

Portland, ME

Owner/Agent:

Designer/Contractor:

Psi-Peter Lee, P.E.

Elkhart, IN



Nov. 11, 2015

Section 2: Interior Lighting and Power Calculation

	A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B x C)
School/University		1904	1.2	2285
		Tot	al Allowed Watts =	2285

Section 3: Interior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	(C X D)
School/University (1904 sq.ft.)				
Linear Fluorescent 1: 48" T8 32W (Super T8): Electronic:	2	32	54	1728
Compact Fluorescent 1: Spiral 27W: Electronic:	1	5	28	140
	To	tal Propose	ed Watts =	1868

Section 4: Requirements Checklist

Interior I	ighting D	ACCEC Design 1	8% better than co	do

Lighting Wattage:

ח 1	1.	Total	proposed	watts mus	t be	less	than o	or equal	to	total	allowed v	vatts.
------------	----	-------	----------	-----------	------	------	--------	----------	----	-------	-----------	--------

Allowed Watts Proposed Watts Complies 2285 1868 YES

Controls, Switching, and Wiring:

- 2. Daylight zones under skylights more than 15 feet from the perimeter have lighting controls separate from daylight zones adjacent to vertical fenestration.
- 3. Daylight zones have individual lighting controls independent from that of the general area lighting.

Exceptions:

- Contiguous daylight zones spanning no more than two orientations are allowed to be controlled by a single controlling device.
- Daylight spaces enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.
- ☐ 4. Independent controls for each space (switch/occupancy sensor).

Exceptions:

- ☐ Areas designated as security or emergency areas that must be continuously illuminated.
- ☐ Lighting in stairways or corridors that are elements of the means of egress.
- ☐ 5. Master switch at entry to hotel/motel guest room.

Project Title: VGM-2015-0027

Data filename: D:\DWG\COMCHECK\COM CHECK\VGM-2015-0027 - (28'x68' - E - ME) - 2009 IECC.cck

Report date: 11/10/15

Page 3 of 9

Nam	Name - Title Signature	Date
and o	Compliance Statement: The proposed lighting design represented in this document is consistent wi and other calculations submitted with this permit application. The proposed lighting system has been requirements in COMcheck Version 4.0.1 and to comply with the mandatory requirements in the Re	n designed to meet the 2009 IECC
Sec	Section 5: Compliance Statement	
	Exceptions: Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available	pair.
- 11	Exceptions: Lighting intended for 24 hour use. 11.Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).	
□ ¹⁰	☐ Sleeping units, patient care areas; and spaces where automatic shutoff would endanger s☐ 10.Photocell/astronomical time switch on exterior lights.	safety or security.
□ ^{9.}	 ☐ Areas that use less than 0.6 Watts/sq.ft. ☐ 9. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft. Exceptions: 	
	☐ The area is a corridor, storeroom, restroom, public lobby or sleeping unit.	
	☐ An occupant-sensing device controls the area.	
	Exceptions: Only one luminaire in space.	
□ 8.	8. Each space required to have a manual control also allows for reducing the connected lighting controlling all luminaires, dual switching of alternate rows of luminaires, alternate luminaires lamp luminaires independently of other lamps, or switching each luminaire or each lamp.	g load by at least 50 percent by either , or alternate lamps, switching the middle
	 7. Medical task lighting or art/history display lighting claimed to be exempt from compliance has of the nonexempt lighting. 	s a control device independent of the conf
\Box 6	☐ 6. Individual dwelling units separately metered.	





Energy Code: 2009 IECC Project Title: VGM-2015-0027 Project Type: New Construction

Exterior Lighting Zone: 2 (Neighborhood business district)

Construction Site:

Owner/Agent:

Elkhart, IN

Designer/Contractor Psi-Peter Lee, P.E.



28'x68' CLASSROOM BLDG

Portland, ME

Section 2: Exterior Lighting Area/Surface Power Calculation

A Exterior Area/Surface	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B x C)	F Proposed Watts
Main entry	3 ft of door width	20	Yes	60	28
Other door (not main entry)	3 ft of door width	20	Yes	60	28
Main entry	3 ft of door width	20	Yes	60	28
		Total Trac	dable Watts* =	180	84
		Total All	lowed Watts =	180	
	Total Allow	ed Suppleme	ntal Watts** =	600	

^{*} Wattage tradeoffs are only allowed between tradable areas/surfaces.

Section 3: Exterior Lighting Fixture Schedule

A Fixture ID: Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	(C X D)
Main entry (3 ft of door width): Tradable Wattage				
Compact Fluorescent 1: Spiral 27W: Electronic:	1	1	28	28
Other door (not main entry) (3 ft of door width): Tradable Wattage				
Compact Fluorescent 2: Spiral 27W: Electronic:	1	1	28	28
Main entry (3 ft of door width): Tradable Wattage				
Compact Fluorescent 3: Spiral 27W: Electronic:	1	1	28	28
	Total Tradab	le Propose	ed Watts =	84

Section 4: Requirements Checklist

Lighting Wattage:

□ 1. Within each non-tradable area/surface, total proposed watts must be less than or equal to total allowed watts. Across all tradable areas/surfaces, total proposed watts must be less than or equal to total allowed watts. Compliance: Passes.

Controls, Switching, and Wiring:

- 2. All exemption claims are associated with fixtures that have a control device independent of the control of the nonexempt lighting.
- ☐ 3. Lighting not designated for dusk-to-dawn operation is controlled by either a a photosensor (with time switch), or an astronomical time switch.

Project Title: VGM-2015-0027

Data filename: D:\DWG\COMCHECK\COM CHECK\VGM-2015-0027 - (28'x68' - E - ME) - 2009 IECC.cck

Report date: 11/10/15

Page 5 of 9

^{**} A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Nam	lame - Title Signal	ure	Date
and o	compliance Statement: The proposed exterior lighting design represented other calculations submitted with this permit application. The proposequirements in COMcheck Version 4.0.1 and to comply with the mandates.	sed lighting system has been designed	to meet the 2009 IECC
Sec	ection 5: Compliance Statement		
	Lighting that is controlled by motion sensor.		
	Emergency lighting that is automatically off during normal buil	ding operation.	
	Lighting that is specifically designated as required by a health	or life safety statue, ordinance, or reg	ulation.
	Lighting that has been claimed as exempt and is identified as	such in Section 3 table above.	
	Exceptions:		
☐ 6.	6. All exterior building grounds luminaires that operate at greater that	an 100W have minimum efficacy of 60	lumen/watt.
	Exterior Lighting Efficacy:		
	All time switches are capable of retaining programming and the times.		
1 7	4. Lighting designated for dusk-to-dawn operation is controlled by a	n astronomical time switch or photose	neor





Energy Code: 2009 IECC Project Title: VGM-2015-0027 Project Type: New Construction

Construction Site:

Owner/Agent:

PIN-SHI PETER LEE No.12 Designer/Contractor: Psi-Peter Lee, P.E.

Elkhart, IN

28'x68' CLASSROOM BLDG

Portland, ME

Section 2: General Information

Building Location (for weather data): Climate Zone:

Portland, Maine

6a

Section 3: Mechanical Systems List

Quantity System Type & Description

HVAC System 1 (Single Zone): Heating: 1 each - Other, Gas, Capacity = 50 kBtu/h No minimum efficiency requirement applies

Cooling: 1 each - Other, Capacity = 36 kBtu/h, Evaporatively Cooled Condenser, Unknown Economizer

No minimum efficiency requirement applies

Fan System: None

Section 4: Requirements Checklist

Requirements Specific To: HVAC System 1:

None

Generic Requirements: Must be met by all systems to which the requirement is applicable:

	_	energy traduction made by the by an eyetome to which the requirement is applicable.
		Plant equipment and system capacity no greater than needed to meet loads Exception(s):
		☐ Standby equipment automatically off when primary system is operating
	3. 4. 5.	Multiple units controlled to sequence operation as a function of load Minimum one temperature control device per system Minimum one humidity control device per installed humidification/dehumidification system Load calculations per ASHRAE/ACCA Standard 183. Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup Exception(s):
_	7.	Continuously operating zones Outside-air source for ventilation; system capable of reducing OSA to required minimum R-5 supply and return air duct insulation in unconditioned spaces R-8 supply and return air duct insulation outside the building R-8 insulation between ducts and the building exterior when ducts are part of a building assembly Exception(s):
	9.	Ducts located within equipment Ducts with interior and exterior temperature difference not exceeding 15°F. Mechanical fasteners and sealants used to connect ducts and air distribution equipment Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts; UL 181A or 181B tapes and mastics Hot water pipe insulation: 1.5 in. for pipes <=1.5 in. and 2 in. for pipes >1.5 in. Chilled water/refrigerant/brine pipe insulation: 1.5 in. for pipes <=1.5 in. and 1.5 in. for pipes >1.5 in.

Project Title: VGM-2015-0027

Data filename: D:\DWG\COMCHECK\COM CHECK\VGM-2015-0027 - (28'x68' - E - ME) - 2009 IECC.cck

Report date: 11/10/15 Page 7 of 9

		m pipe insulation: 1.5 in. for pipes <=1.5 in. and 3 in. fotion(s):	for pipes >1.5 in.	PIN-SHI PETER LEE No.12156				
		Piping within HVAC equipment.		THE DESCRIPTION OF THE PROPERTY OF THE PERSON OF THE PERSO				
		Fluid temperatures between 55 and 105°F.		PIN-SHI				
		Fluid not heated or cooled with renewable energy.		* PETER *				
		Piping within room fan-coil (with AHRI440 rating) and	unit ventilatore (with AUDIR40 rating)	No 12156				
		Runouts <4 ft in length.	unit vertilators (with At Indoa rating).					
☐ 11.Operation and maintenance manual provided to building owner				No.12156				
<u></u>	The state of the s							
		Thermostats requiring manual changeover between h	neating and cooling	Nov. 11, 2015				
		Special occupancy or special applications where wide having jurisdiction.	e temperature ranges are not acceptable					
	4.Dem syst airfle	3. Balancing devices provided in accordance with IMC 603.17 4. Demand control ventilation (DCV) present for high design occupancy areas (>40 person/1000 ft2 in spaces >500 ft2) and served by systems with any one of 1) an air-side economizer, 2) automatic modulating control of the outdoor air damper, or 3) a design outdoor airflow greater than 3000 cfm. Exception(s):						
		Systems with heat recovery.						
		Multiple-zone systems without DDC of individual zone	es communicating with a central control p	panel.				
		Systems with a design outdoor airflow less than 1200	cfm.					
1 כ	Spaces where the supply airflow rate minus any makeup or outgoing transfer air requirement is less than 1200 cfm. 5.Motorized, automatic shutoff dampers required on exhaust and outdoor air supply openings Exception(s):							
_	Gravity dampers acceptable in buildings <3 stories 16.Automatic controls for freeze protection systems present 17.Exhaust air heat recovery included for systems 5,000 cfm or greater with more than 70% outside air fraction or specifically exempted Exception(s):							
		Hazardous exhaust systems, commercial kitchen and prohibits the use of energy recovery systems.	clothes dryer exhaust systems that the	nternational Mechanical Code				
		Systems serving spaces that are heated and not cooled to less than 60°F.						
☐ Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy.								
		Heating systems in climates with less than 3600 HDD	i.					
		Cooling systems in climates with a 1 percent cooling of	design wet-bulb temperature less than 64	1°F.				
		Systems requiring dehumidification that employ energ	y recovery in series with the cooling coil					
		Laboratory fume hood exhaust systems that have eith volume to 50 percent or less of design values or, a sea) at least 75 percent of exhaust flow rate, b) heated than 3°F above room setpoint temperature, d) no hundred	eparate make up air supply meeting the to no more than 2°F below room setpoin	following makeup air requirements: t temperature, c) cooled to no lower				
Se	ctio	n 5: Compliance Statement						
and o	other ca	e Statement: The proposed mechanical design represe alculations submitted with this permit application. The parts in COMcheck Version 4.0.1 and to comply with the many complete the proposed submitted in the parts of the proposed submitted in the proposed mechanical design representations.	proposed mechanical systems have been	designed to meet the 2009 IECC				
Name - Title			Signature	Date				
Se	ctio	n 6: Post Construction Comp	liance Statement					
HVAC record drawings of the actual installation, system capacities, calibrat provided to the owner.			pacities, calibration information, and perf	ormance data for each equipment				
]	HVAC O&M documents for all mechanical equipment and system provided to the owner by the mechanical contractor. Written HVAC balancing and operations report provided to the owner.							
	above p	post construction requirements have been completed.						
			-					

Project Title: VGM-2015-0027
Data filename: D:\DWG\COMCHECK\COM CHECK\VGM-2015-0027 - (28'x68' - E - ME) - 2009 IECC.cck

Report date: 11/10/15

Page 8 of 9

