This page contains a detailed description of the Parcel ID you selected. Press the **New Search** button at the bottom of the screen to submit a new query.

Current Owner Information

Card Number	1 of 1
Parcel ID	013 K066001
Location	109 SHERIDAN ST
Land Use	VACANT LAND
Owner Address	COX THOMAS ALLEN 117 SHERIDAN ST PORTLAND ME 04101
Book/Page	14482/126
Legal	13-K-66 REAR SHERIDAN ST 109 1649 SF

Valuation Information

Land	Building	Total
$2,310	$ 0.00	$2,310

Property Information

Year Built	Style	Story Height	Sq. Ft.	Total Acres
				0.038

Bedrooms	Full Baths	Half Baths	Total Rooms	Attic	Basement

Outbuildings

Type	Quantity	Year Built	Size	Grade	Condition

Sales Information

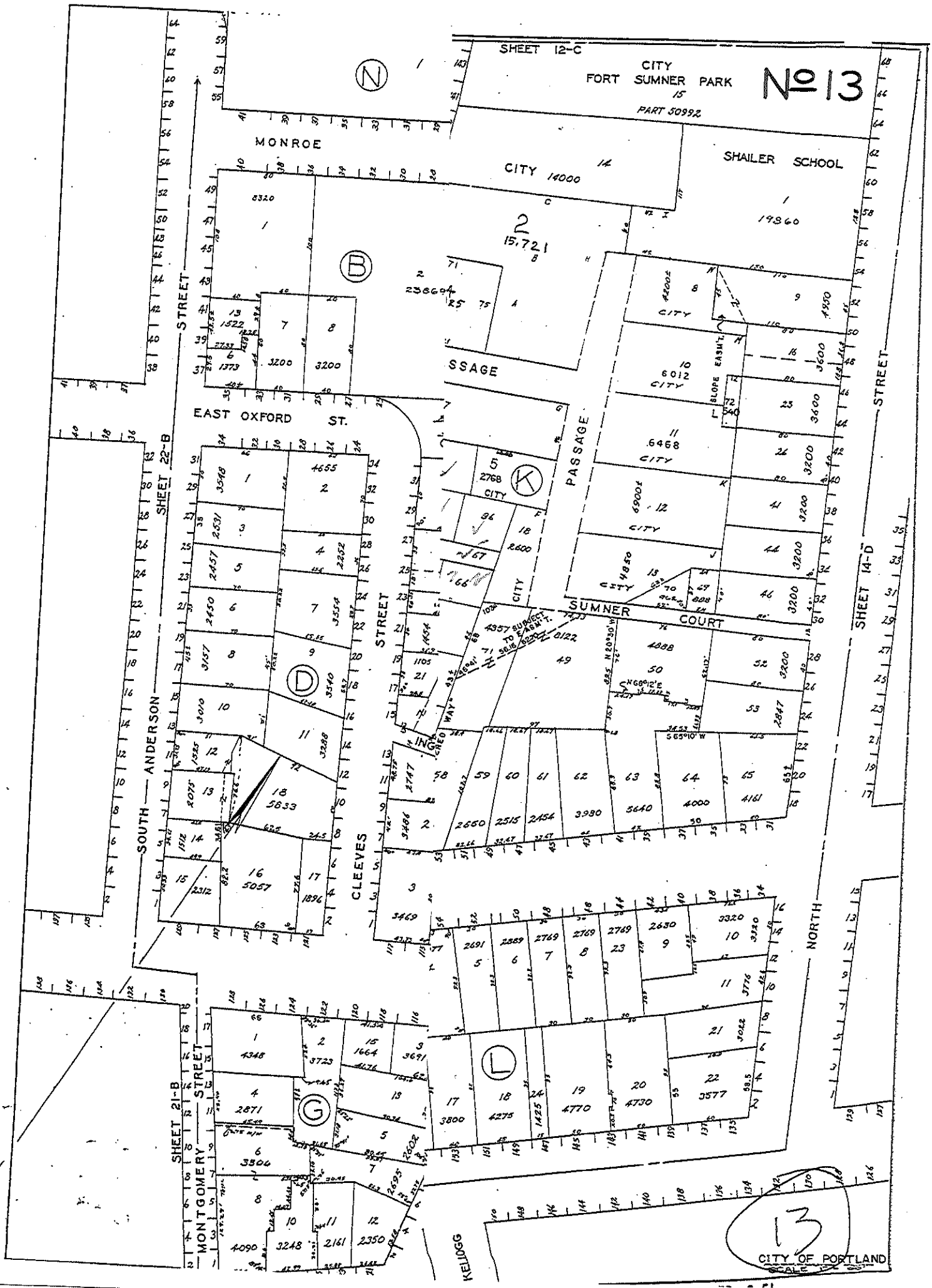
Date	Type	Price	Book/Page
01/01/1999	LAND + BLDING	$109,037	14482-126

Picture and Sketch

Picture Sketch

Click here to view Tax Roll Information.
Any information concerning tax payments should be directed to the Treasury office at 874-8490 or e-mailed.

New Search!


SHEET 12-C
CITY
FORT SUMNER PARK
No 13
PART 50992
MONROE
CITY 14000
SHAILER SCHOOL
19860
15,721
SSAGE
EAST OXFORD ST.
SHEET 22-B
SOUTH — ANDERSON — STREET
CLEEVES STREET
PASSAGE
SLOPE EASM'T.
SUMNER COURT
4357 SUBJECT TO EASM'T.
SHEET 14-D
NORTH
SHEET 21-B
MONTGOMERY — STREET
KELLOGG
CITY OF PORTLAND
SCALE

Marge Schmuckal

TFH ARCHITECTS 100 COMMERCIAL STREET PORTLAND MAINE 04101 TELEPHONE 207-775-6141 ARCHITECTURE AND PLANNING

MEMORANDUM

13-K-29

To: Kandice Talbot, Planner

From: T. Scott Teas, Project Architect

Date: 12 October 2004

Re: 8-Unit Residential, 117 Sheridan Street (Fort Sumner, LLC, applicant)

In response to the Planning Board Workshop held on September 14, 2004, your initial site plan evaluation memorandum of September 9, 2004, site plan review memorandum of September 14, 2004 by Jim Seymour or Sebago Technics, your e-mail of October 8, 2004 as well as discussions with Planning Staff, neighbors and abutters and on behalf of Laurence Eubank, my client, we offer the enclosed revised site plan drawings, details and specifications for approval at the Public Hearing to be held on October 26, 2004.

The following has been formatted in accordance with the checklist provided to us of "issues to be resolved prior to the Public Hearing."

1. Property Line Boundaries and Right of Way Disturbance:

After discussions with abutting Sheridan Street neighbors, the applicant has opted to move the building to the south 7.54 feet, thereby creating approximately 18'-0" distance between the two-story house to the north and the northerly side of the project building. The 18-foot distance maintains a 10'-0" side yard setback from the existing walkway, which historically was assumed to be the south boundary of the "O'Donnell" property.

A trade off agreement has been reached between the applicant and the owners of the triple-decker to the south, the Nobile property. This will allow for an 18-foot wide driveway, which in turn will contain a 16-foot wide access right-of-way connecting Sheridan Street to the City property to the east. (See S.G.C. drawing enclosed).

The developer proposes to provide the City with a 16-foot right-of-way along the southern property line, clear of identified parking spaces, connecting Sheridan Street with the City property to the east.

Laurence Eubank
12 Simonton Street
South Portland, Maine 04106
Tel./Fax 207-799-6340
Email: leubank@maine.rr.com

October 12, 2004

City of Portland Planning Board
City Hall
Portland, Maine 04101

Dear Members;

This is to report my efforts at resolving boundary issues associated with the property at 117 Sheridan Street and the eight-unit condominium project on that property that I have submitted for your consideration and approval.

To the south, I have reached verbal agreement with the abutting neighbor on a swap of land that is mutually satisfactory to each other and our respective counsel. As of this writing, professional work is in process to codify and legalize that agreement.

To the north, I have offered to give land and a proscriptive easement to the abutter. As of this writing, that offer has been refused.

Any questions regarding the above, please direct them to me at the earliest.

Best regards,

Laurence Eubank

2. Sewer Capacity Letter:

At the end of June the applicant sent a letter to the Department of Public Works requesting a letter stating the ability of the Department to service this project. The Department is currently reviewing the plans, and has indicated that a letter is forthcoming.

3. Water Capacity Letter: (See attached letter from Portland Water District)

Our engineers are currently sizing booster pumps in order to provide adequate water flow and pressure for both domestic and sprinkler systems.

4. Solid Waster Disposal:

The applicant proposes to have a well-ventilated solid waste storage room located in the cellar. Rubbish pick up will be provided by a independent solid waste removal contractor. Removal would take place through the rear stair, which is a half level below finish grade.

Portland Water District

225 Douglass St. • P.O. Box 3553 • Portland, ME 04104-3553

Customer Service Hotline (207) 761-8310
(207) 774-5961
FAX (207) 879-5837

July 12, 2004

Will Tinkelenberg
TFH Architects
100 Commercial St.
Portland, Me. 04101

RECEIVED
JUL 13 2004
BY:

Re: Sheridan Street Condominiums

Will:

This letter is to inform you there may not be an adequate supply of clean and healthful water to serve the needs of the proposed eight unit four story condominium project in Portland. Checking District records, I find there is a 2 ¼" water main installed in 1904 on the west side of Sheridan Street. Please note a 6" water main starting at Cumberland in Sherdian St. only extends down to the fire hydrant, # 360 and than changes to a 2 ¼" CI main after that.

The current data from the nearest hydrant indicates there should be adequate capacity of water to serve the needs of your proposed project.

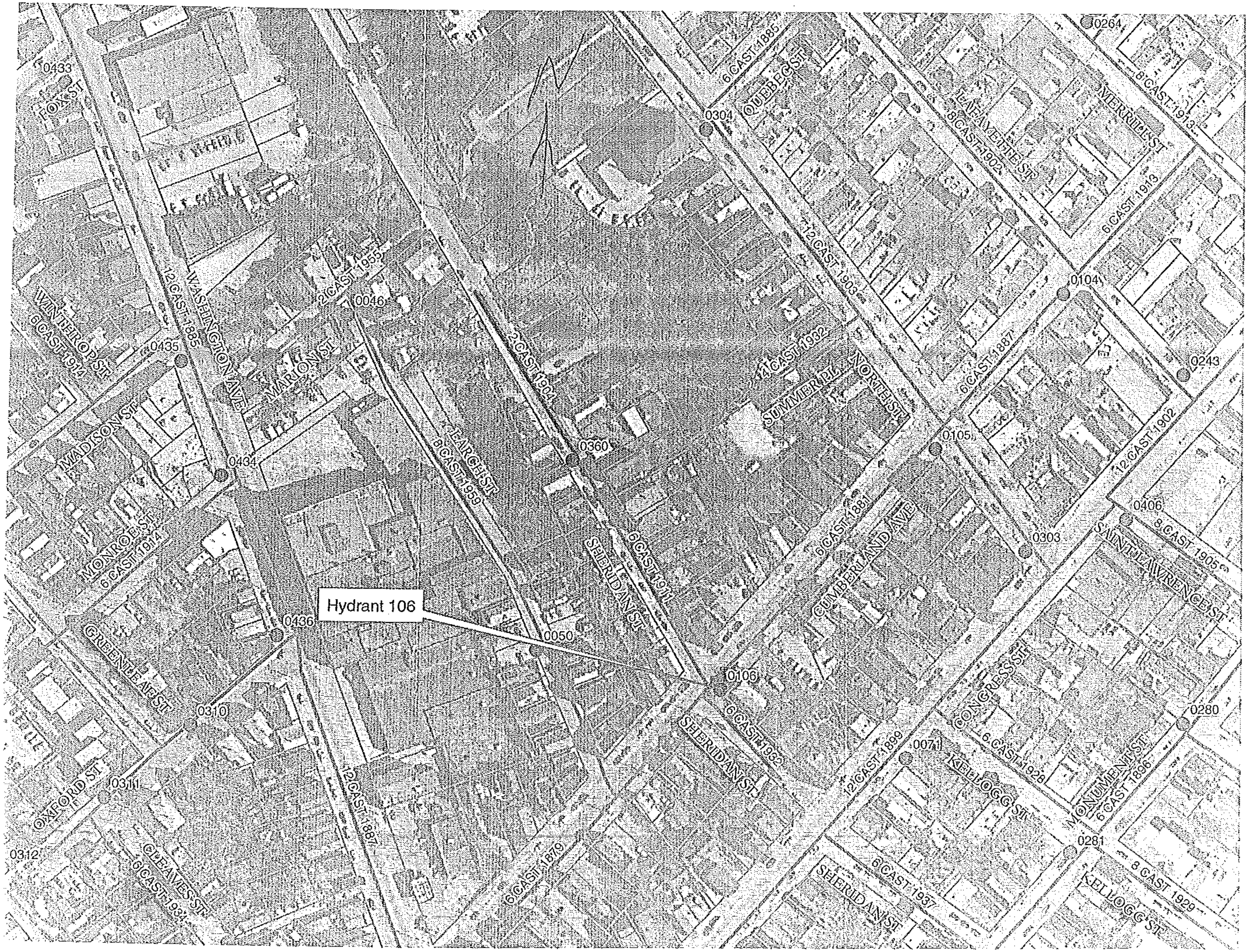
Hydrant Location: Cumberland Ave. @Sheridan St.
Hydrant # 106
Static pressure = 50 PSI
Flow = 787 GPM
Last Tested = 6/21/91

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

Jim Pandiscio
Means Coordinator

3. Water Capacity


Hydrant 106
0433
FOX ST
0264
6 CAST 1885
QUEBEC ST
0304
LAFAYETTE ST
8 CAST 1902
MERRILL ST
8 CAST 1913
6 CAST 1913
12 CAST 1903
0104
2 CAST 1955
0046
WASHINGTON AVE
12 CAST 1885
WINTHROP ST
6 CAST 1914
0435
MARION ST
2 CAST 1904
4 CAST 1932
SUMMER PL
NORTH ST
6 CAST 1887
0243
0105
12 CAST 1902
MADISON ST
0434
0360
LARCH ST
8 CAST 1959
0406
8 CAST 1905
SAINT LAWRENCE ST
0303
6 CAST 1881
CUMBERLAND AVE
SHERIDAN ST
6 CAST 1911
MONROE ST
6 CAST 1914
0436
0050
0106
GREENLEAF ST
0310
6 CAST 1932
SHERIDAN ST
12 CAST 1899
0071
CONGRESS ST
6 CAST 1928
0280
KELLOGG ST
MONUMENT ST
6 CAST 1896
0311
OXFORD ST
12 CAST 1887
0312
CLEAVES ST
6 CAST 1931
6 CAST 1879
6 CAST 1937
SHERIDAN ST
0281
8 CAST 1929
KELLOGG ST

5. Parking:

The applicant's revised design shows 17 parking spaces, which is in compliance with the R-6 zone requirements. All but one space will be assigned to condominium owners. There are (12) 9' x 19' full-size spaces and (5) 7'-6" x 16' compact spaces. Parking spaces numbered 16 and 17 (one of which will be visitor's parking) are parallel to the entry drive. Compact spaces numbered 7 through 11 widen the circulation area and now provide for adequate maneuvering space to allow cars parked in spaces numbered 1 through 15 to back out and reverse direction prior to exiting the site.

6. Open Space Ratio:

Calculations are based on the worst-case scenario with regards to lot line adjustments. As described in paragraph 1 above, the north line is adjusted to reflect its apparent location, that which has been assumed in the past. Even with these adjustments to property lines, there will be a minimum of 11,232 square feet. The impervious area as occupied by building or paving is 8,098 square feet leaving 3,134 square feet to attributed to open space. There will be a minimum of 28% open space.

7. Landscaping:

The revised landscaping design increases the tree count from the last proposal. Two additional street trees have been added as well as a landscape buffer to provide screening of the parking area from the City property to the rear. See Landscaping Plan C 3-1.

Laurence Eubank
12 Simonton Street
South Portland, Maine 04106
Tel./Fax 207-799-6340
Email: leubank@maine.rr.com

October 12, 2004

City of Portland Planning Board
City Hall
Portland, Maine 04101

Dear Members;

This is to request a waiver of the number of trees required as per zoning laws for the condominium project at 117 Sheridan Street in Portland that is before you for consideration and approval.

Further, this is to certify that I will provide appropriate landscaping for the project as requested and directed by your professional planning staff and the city's arborist.

Thank you and best regards,

Laurence Eubank

8. Lighting:

The site lighting will be in accordance with the City's lighting standards, whereby all lighting will consist of "cut-off" type fixtures to avoid light pollution onto adjacent properties. One pull-mounted fixture located to the east of the building will provide illumination for the parking lot without illuminating adjacent properties. (Lighting cut sheet is attached). Lighting levels can be seen on Lighting Plan C 3-1.

9. Building to the Street:

The building has been shifted 10 feet to the west and will now have a '0' lot line setback which is consistent with the flanking Sheridan Street buildings on either side.

LITHONIA LIGHTING

Catalog Number

Notes: EXTERIOR PAIMARY

Type: AA

FEATURES & SPECIFICATIONS

INTENDED USE – Ideal for use in car lots, street lighting or parking areas.

CONSTRUCTION – Rugged, .063" thick, aluminum rectilinear housing. Continuously seam welded for weather-tight seal and integrity.

Naturally anodized, extruded, aluminum door frame with mitered corners is retained with (two) .188" diameter hinge pins and secured with (one) quarter-turn, quick release fastener. Weatherproof seal between housing and door frame is accomplished with an integrally designed, extruded silicone gasket that snaps into door frame.

FINISH – Standard finish is dark bronze (DDB) polyester powder. Other powder architectural colors available.

OPTICAL SYSTEM – Reflectors are anodized and segmented for superior uniformity and control, which allows the flexibility to mix distributions without compromising the overall lighting job. Reflectors attach with tool-less fasteners and are rotatable and interchangeable. Three cutoff distributions available: Type II (Roadway), Type III (Asymmetric), Type IV (Forward Throw, Sharp Cutoff).

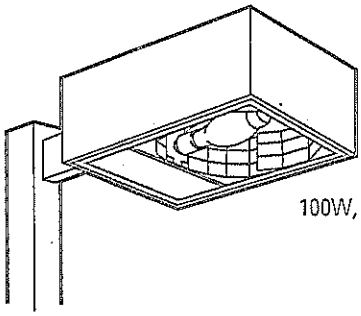
Lens is .125" thick, impact-resistant, tempered, glass with thermally-applied, silk screened power door shield.

ELECTRICAL SYSTEM – High reactance, high power factor ballast for 100W. Constant-wattage autotransformer ballast. Removable power door and positive locking disconnect plug for 150-250W. Super CWA Pulse Start ballast required for 200W (must order SCWA option). All ballasts are copper- wound and 100% factory-tested.

Porcelain, horizontally-oriented, socket with copper alloy, nickel-plated screw shell and center contact. Medium-base socket used with 100W and 150W, mogul-base socket used with 175-250W. UL listed 1500W-600V.

INSTALLATION – Extruded, 4" aluminum arm for pole or wall mounting is shipped in fixture carton. Optional mountings available.

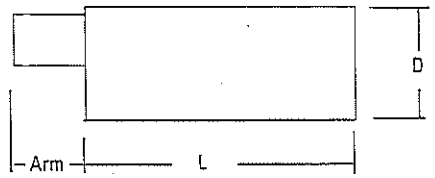
LISTING – UL listed for wet locations. Listed and labeled to comply with Canadian Standards (see Options).



Area Lighting

KSF1

METAL HALIDE
100W, 150W, 175W, 200W, 250W
15' to 25' Mounting



All dimensions are inches (centimeters) unless otherwise specified.

Specifications

EPA: 1.5 ft.² (.14m²) (includes arm)
Length: 22 (55.9)
Width: 16-3/16 (41.1)
Depth: 7-1/4 (18.4)
Weight: 35 lbs (15.9kg)
Arm: 4 (10.2)

Mounting Option	Drilling Template[6]
SPxx, RPxx, DA12P	5
WBxx, DA12WB	6
WWxx	7

ORDERING INFORMATION

Choose the boldface catalog nomenclature that best suits your needs and write it on the appropriate line. Order accessories as separate catalog number.

Example: **KSF1 250M R3 120 SP04 SF DDB**

KSF1 250M

Series/Wattage

- **KSF1 100M**
- **KSF1 150M**
- → **KSF1 175M**
- **KSF1 200M**
- **KSF1 250M**

Distribution

- **R2** IES Type II roadway
- **R3** IES Type III asymmetric
- **R4SC** IES Type IV forward throw, sharp cutoff

Voltage

- **120**
- **208**[1]
- **240**[1]
- **277**[1]
- **347**
- **480**[1]
- **TB**[2]

Mounting[6]

- **SP04** Square pole (4" arm) (standard)[3]
- **SP09** Square pole (9" arm)
- **RP04** Round pole (4" arm)[3]
- **RP09** Round pole (9" arm)
- **WW04** Wood pole or wall (4" arm)[3]
- **WW09** Wood pole or wall (9" arm)
- **WB04** Wall bracket (4" arm)
- **WB09** Wall bracket (9" arm)
- **MB** Mounting bracket
- **L/ARM** When ordering KMA, DA12

Optional Mounting (shipped separately)

- **DA12P** Degree arm (pole)
- **DA12WB** Degree arm (wall)
- **KMA** Mast arm adapter
- **KTMB** Twin mounting bar

Options

Shipped Installed In Fixture

- **SF** Single fuse (120, 277, 347V, n/a TB)
- **DF** Double fuse (208, 240, 480V, n/a TB)
- **PER** NEMA twist-lock receptacle only (no photocontrol)
- **QRS** Quartz restrike system (75W max; lamp not included, 120V only)
- **EC** Emergency circuit
- **CR** Corrosion-resistant finish
- **CSA** Listed and labeled to comply with Canadian Standards
- **SCWA** Super CWA Pulse Start Ballast (n/a 100W & 175W)

Shipped Separately[4]

- **PE1** NEMA twist-lock PE (120, 208, 240V)
- **PE3** NEMA twist-lock PE (347V)
- **PE4** NEMA twist-lock PE (480V)
- **PE7** NEMA twist-lock PE (277V)
- **SC** Shorting cap for PER option
- **KSF1HS** House side shield (R2, R3)
- **KSF1VG** Vandal guard

Architectural Colors (powder finish)[5]

Standard Colors

- **DDB** Dark bronze (standard)
- **DWH** White
- **DBL** Black

Classic Colors

- **DMB** Medium bronze
- **DNA** Natural aluminum
- **DSS** Sandstone
- **DGC** Charcoal gray
- **DTG** Tennis green
- **DBR** Bright red
- **DSB** Steel blue

CUSTOM COLOR

NOTES:

1. Consult factory for availability in Canada.
2. Optional multi-tap ballast (120, 208, 240, 277V). (120, 277, 347V in Canada).
3. The SP09, RP09, or WW09 must be used when two or more luminaires are oriented on a 90° drilling pattern.
4. May be ordered as accessory.
5. Additional architectural colors available; see Architectural Colors brochure, form no. 794.3.
6. Refer to technical data section in the Outdoor binder for drilling template.

Accessories: Tenon Mounting Slipfitter (Order separately)

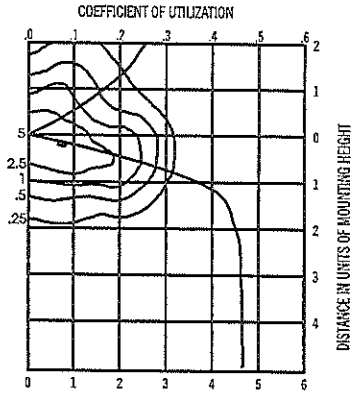
	Number of fixtures					
Tenon O.D.	One	Two@180°	Two@90°[3]	Three@120°	Three@90°[3]	Four@90°[3]
2-3/8"	T20-190	T20-280	T20-290	T20-320	T20-390	T20-490
2-7/8"	T25-190	T25-280	T25-290	T25-320	T25-390	T25-490
4"	T35-190	T35-280	T35-290	T35-320	T35-390	T35-490

KSF1 Arm-Mounted Rectilinear Cutoff Lighting

Coefficient of Utilization ——
Initial Footcandles ——

KSF1 250M R2

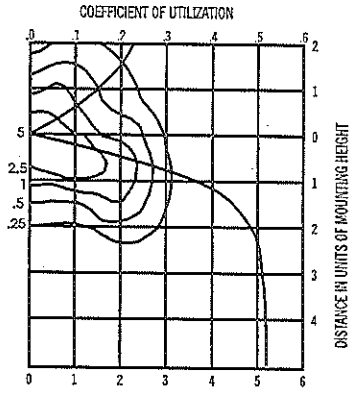
Test No. TEST NO. 1194090701



250W Metal Halide lamp, 20000 rated lumens. Footcandle values based on 35' mounting height, Distribution II , cutoff.

KSF1 250M R3

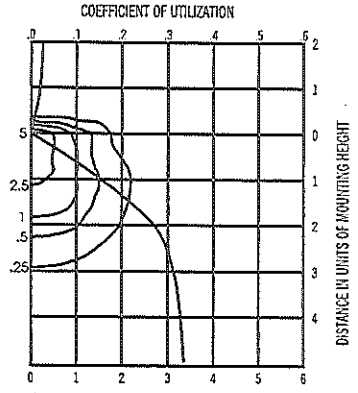
Test No. TEST NO. 1194080302



250W Metal Halide lamp, 20000 rated lumens. Footcandle values based on 35' mounting height, Distribution III , cutoff.

KSF1 250M R4SC

Test No. TEST NO. 1194080901



250W Metal Halide lamp, 20000 rated lumens. Footcandle values based on 35' mounting height, Distribution IV , sharp cutoff.

NOTES:

1 For electrical characteristics, consult technical data tab.
2 Tested to current IES and NEMA standards under stabilized laboratory conditions. Various operating factors can cause differences between laboratory and actual field measurements. Dimensions and specifications are based on the most current available data and are subject to change.
3 Photometric data for other distributions can be accessed from the Lithonia Lighting website. (www.lithonia.com)

Mounting Height Correction Factor

(Multiply the fc level by the correction factor)
15 ft.= 5.4
30 ft.= 1.36
40 ft.= .77

$$\left(\frac{\text{Existing Mounting Height}}{\text{New Mounting Height}}\right)^2 = \text{Correction factor}$$

LITHONIA LIGHTING
An AcuityBrands Company

KSF1-M

Lithonia Lighting
Acuity Lighting Group, Inc.
Outdoor Lighting
One Lithonia Way, Conyers, GA 30012-3957
Phone: 770-922-9000 Fax: 770-918-1209
In Canada: 1100 50th Ave., Lachine, Quebec H8T 2V3
www.lithonia.com

10. Financial and Technical Capability:

Letters from financial institutions were provided to the Project Planning Coordinator on Tuesday, September 14, 2004.

11. Neighborhood Meeting:

A neighborhood meeting was held on Tuesday, September 28. Several of the neighbors attended the meeting and asked questions. Laurence Eubank and Scott Teas answered questions. A copy of the minutes is attached.

Laurence Eubank
12 Simonton Street
South Portland, Maine 04106
Tel./Fax 207-799-6340
Email: leubank@maine.rr.com

NEIGHBORHOOD MEETING CERTIFICATION

I, Laurence Eubank, hereby certify that a neighborhood meeting was held on September 28, 2004 at Adams School, 48 Moody Street, Portland, Maine at 7:00 p.m.

I also certify that on Monday, September 20, 2004, invitations were mailed to all addresses on the mailing list provided by the Planning Division, including property owners within 500 feet of the proposed development and the residents on the 'interested parties' list.

Signed,

Laurence Eubank

10/12/04
Date

Attached to this certification are:

1. Copy of the invitation sent;
2. Sign-in sheet
3. Meeting minutes

Laurence Eubank
12 Simonton Street
South Portland, Maine 04106
Tel./Fax 207-799-6340
Email: leubank@maine.rr.com

September 20, 2004

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for an eight-unit condominium development at 117 Sheridan Street in Portland.

Meeting Location:	Adams School 48 Moody Street Gym/Cafeteria
Meeting Date:	Tuesday, September 28, 2004
Meeting Time:	7:00 pm

If you have any questions, please call me at 799-6340.

Sincerely,

Laurence Eubank

Note: Under Section 14-32 (C) of the City Code of Ordinances, an applicant for a major development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting at least seven days prior to the Planning Board public hearing on the proposal.

List of Attendees

Neighborhood Meeting
Sheridan Street Condominiums
September 28, 2004

Name	Address	Telephone
Chris [illegible]		781-3661 ext.100
James Gourie	32 North St	774-2365
William R. Gochan	34 North St	774-0768
Frah Brown	116 Sheridan St	772-8528

MINUTES OF MUNJOY HILL NEIGHBORHOOD MEETING
RE: SHERIDAN STREET CONDOMINIUMS

DATE: September 28, 2004
LOCATION: Adams School, Moody St., Portland

ATTENDEES:

Developer: Laurence Eubank, Fort Sumner LLC, 799,6340
Architect: Scott Teas, TFH Architects, Portland, 775,6141

Recorder of Minutes: Katherine Paul, 775.5172

Media: Chris Busby, *The Portland Forecaster,* 781.3661, ext. 100

Community Members (sign-in sheet attached):
James Courie, 32 North Street, 774.2365
William K. Gorham, 34 North Street, 774.0768
Fran Brown, 116 Sheridan Street, 772.8528

The meeting was convened by L. Eubank at 7:10 p.m. Eubank introduced himself and provided a brief history of his previous experience as a general contractor and developer in the greater Portland area. He then introduced S. Teas, of TFH Architects.

Teas told the group that he has been an architect in Portland for more than 30 years, and has worked on a number of infill housing projects similar to the proposed Sheridan Street development. He explained that these projects have all been successful, in part because they have been designed in context, with strict attention paid to local zoning regulations. The goal of these projects is to address Portland's need for additional housing without exceeding standards of reasonable density. Teas stated that the Sheridan Street condos will be sold at market value using conventional financing.

At this point, a couple of questions were raised:

- J. Courie asked for a clarification of the term "in-fill." S. Teas responded that the term refers to filling in an existing property with a building that is designed to fit the context of the neighboring properties. In this case, the building will incorporate 3-decker bay windows, in keeping with local architectural style, and will be similar in scale to surrounding 4-story buildings.

- J. Courie asked if all of the apartments will be two stories. S. Teas, referring to a model of the project, stated that there will be a total of 8 units, including 4 flats and 4 townhouses.

Teas resumed his description of the project with a discussion of property lines. A recent land survey revealed that the property lines for 117 Sheridan St. run through abutting property owner Peter O'Donnel's house on the north side, and through the garden of abutting property owner Linda Nobile, to the south. The Developer anticipates reaching agreements with both abutters that will resolve the property line issues to everyone's satisfaction. Parking for the development has been designed to be both safe and convenient. There will be 17 off-street parking spaces. The Developer will maintain a path clear to the city property that abuts the development to the east. Plans call for the installation of street trees and other landscaping features, in keeping with the overall landscaping characteristics of the neighborhood. Because these are 2-BR condos, it is anticipated that they will be purchased by either young professionals or empty nesters, as opposed to families.

A Question & Answer Session followed.

- W. Gorham asked if any blasting would be required at the site. S. Teas responded that it is not known for certain at this time. A geotechnical engineer consulted by the Developer and Architect has suggested there may be a need for blasting in a corner of the property designated for parking. However, Teas said he believes blasting may be avoided. Plans call for a full basement. However, if the excavator encounters any ledge, those plans could be modified. Should blasting be required, Teas explained that there are extensive procedural guidelines that will be followed, including: photographic documentation of existing buildings within the required radius; insurance coverage for potential damage caused by blasting; and adequate advance warning.

- J. Courie asked about the proposed building's proximity to the street. S. Teas responded that the building will be constructed in line with the existing buildings.

- J. Courie commented that he lives on North Street, where "we just had to endure a new apartment building." He stated that Munjoy Hill is the most densely populated neighborhood in the state. It seems that whenever there is an open lot on the Hill, the response is "let's put something there." Courie suggested that there must be other places in the city to build apartments, rather than in this already densely populated neighborhood. S. Teas responded that it is his belief that Parkside is actually the most densely populated neighborhood in Maine. He also said that he believes Maine is fortunate to have neighborhoods within walking distance of downtown Portland. He pointed out that population density supports public transportation, the arts, and city services. "For a lot of us, there's a vitality that goes along with density," he said, adding that the building of more housing in these areas is preferable to urban sprawl. W. Gorham commented that it's the decision to require 2- and 5-acre house lots that creates urban sprawl, "not what we do here in the city."

- F. Brown returned the conversation to the topic of blasting, asking when would it occur, and how loud would it be? S. Teas responded that the noise will be abated.

The size of the charge required to dislodge the ledge is what affects abutting properties. If any blasting occurs at this site, it would be limited to small, contained charges, he said. Extreme caution would be taken to limit the impact. If any damage to neighboring properties occurs, the Developer's insurance will cover it. L. Eubank stated that he would not hesitate to shrink the basement to avoid blasting. Brown asked if blasting would occur during daytime hours. Teas said yes.

- W. Gorham asked L. Eubank if he has built other multi-unit buildings in Portland. Eubank said that he has worked on numerous multi-family restorations in Portland, and has built single-family homes in the Greater Portland area, including in Bramblewood and North Deering.

- C. Busby asked for confirmation of the existing house number as 117, and asked what the other house numbers will be. S. Teas responded that they do not yet know.

- J. Courie wished the Developer and Architect good luck.

The attendees dispersed, and the meeting ended.

12. Traffic Engineer's Issue:

As previously indicated, the parking space count has been increased to 17. By creating compact spaces to the rear of the property, adequate maneuvering space has been created to allow those cars at the rear of the property to back up and reverse direction to exiting the site. Tip down curbs will be created at either side of the new entry drive to allow for handicap transit along Sheridan Street.

13. Development Review Coordinator Items:

See herein and revised drawings.

14. Encroachments of Buildings, etc.:

To the best of the applicant's knowledge, the revised site plan is "as of right" with regards to the R-6 zone requirements.

15. Public Easement Access:

As requested by Planning Staff, a 16-foot wide public access easement has been provided in the vicinity of the existing driveway connecting the City's "public land" to Sheridan Street.

16. Condo Documents:

See enclosed.

SUMNER COURT

Developed by Fort Sumner LLC
117 Sheridan Street, Portland, Maine

Specifications

FEBRUARY 3, 2005

Fort Sumner LLC is referred to herein as "Owner" and TFH Architects, P.A. is referred to herein as "Architect."

Engineering and other consultants:

Geo-technical.....Sebago Technics
Civil.....Pinkham & Greer Consulting Engineers
Structural.....Structural Design Consulting
Mechanical and Plumbing.....Whitney Engineering

DIVISION 1—GENERAL REQUIREMENTS

00010 GENERAL CONTRACTOR RESPONSIBILITIES

Project management, supervision, coordination, safety program
Field layout, submittals, testing services, quality control
Transportation of all contract materials to and from site
Provision of all accessory types of items necessary to complete work, such as mortar, fasteners, hurricane ties and anchor bolts
General liability, workman's compensation
Builder's risk insurance, building permits, scheduling inspections
Temporary service (electrical, water, sanitary, power, heat, fire protection, enclosures/barriers)
Erosion control fence, dust and water control
Construction cleaning, final cleanup, legal disposal of waste
Site Security
Record Drawings

00020 OWNER RESPONSIBILITIES

Reasonable, unimpeded access to the site
Timely decision making
Third-party materials testing (compaction, concrete strength, etc.)
Site surveys
Soil report

01010 SUMMARY OF THE WORK

Project Description:

New Construction: ..... 8- Unit Multi-family Residential
Size: Approximately 10,700 gross square feet (plus basement)
Building Codes: IBC03/Life Safety 101
Owner occupancy: ..... No
Contract for Construction: ..... To be determined
General Conditions: ..... AIA A201

01040 COORDINATION

The General Contractor is responsible for coordinating schedules for all parties involved in the project, and for coordinating all of the systems of the Subcontractors, especially those involving design build such as heating, ventilating, plumbing, sprinkler, electrical and technology work as well as all site work.

01230 ALTERNATES

No 1: 8" cement fiber clapboards in lieu of red cedar.

No. 2: Rigid insulation and GWB on exterior concrete walls in basement.

01300 SUBMITTALS

Provide submittals for all components of the project; proceed with related work only after such submittals have been reviewed. Provide one set of reproducible originals for each shop drawing. Note: an asterisk (*) precedes all sections where submittals required.

01631 PRODUCT SUBSTITUTIONS

Materials may not be substituted without written consent of the Architect; different manufacturers may be used where items are indicated with "or equal"; the burden of proof that another manufacturer's product is equivalent is the General Contractor's responsibility.

01740 WARRANTIES AND BONDS

Transfer all materials warranty information to Owner at completion of project. Unless indicated, otherwise all work will be warranteed for one year from substantial completion by each subcontractor entity.

DIVISION 2—SITEWORK

02200 EARTHWORK

Ledge removal: Initial site exploration suggests no ledge present; any cost associated with ledge removal should it be encountered will be at Owner's expense.

Ledge removal trench: Any cost associated with ledge removal will be at owner's expense.

Topsoil: As indicated on drawings. Where applicable the existing loam may be utilized.

Common borrow fill: Inorganic; stone size 4" maximum. Provide as fill to achieve rough grade (assume 20 cubic yards/ building, for estimating purposes).

Granular backfill: Sand/gravel; inorganic; stone sizes #200 to 2 ½", provide 6" beneath basement slab, compacted in all cases.

¾" Crushed Stone: Inorganic; clean; stone sizes 3/8" to 1", provide beneath footings, compacted to 95% if required; provide 6" minimum around perforated drainpipe & wrap with filter fabric and where indicated on drawings.

02700 DRAINAGE

Perforated Drain Pipe: Provide 4" perforated / corrugated PVC at exterior of structure, at 6" below basement concrete slab; extend 8'-0" from structure and tie into storm sewer extension, provided by Owner. Install perforations down. Provide 4 Schedule 40 PVC for cleanouts to grade or access inside basement.

Site Drainage: Provide positive drainage away from all building edges – 6" pitch over the first 10' minimum. Special care to be taken at rear entry to assure pitch to trench drain outside rear door.

02900 LANDSCAPING

Seed: Seeding and associated maintenance by Owner.

Trees: Size and species as indicated on site drawings.

* **Plantings:** all plantings shall be provided in accordance with materials approved by the City of Westbrook or Portland Arborists.

Bituminous concrete: Contractor to provide and install bituminous concrete base and top courses to pavement and sidewalk areas as shown on the drawings. Bituminous material shall conform to Maine DOT specification, Section 702.01, viscosity grade AC-20. Nominal asphalt content shall be 6%. Aggregates shall conform to MDOT specifications, Section 703.09 Grade B for Pavement base course, Grade C for pavement top course, D for sidewalk base and top course.

* **Granite curbing:** Contractor to supply and install granite curbs to edges of bituminous paving and sidewalk. Curbing to be installed in conformance with MDOT specifications, Section 609.04

* **Concrete pavers**: Contractor to supply and install concrete pavers to the area outside the rear entrance.

* **CMU retaining wall**: Contractor to supply and install CMU retaining wall system by Keystone Industries or approved equal. Maximum height without additional engineering 4'-0".

Pavement marking: Apply paint in accordance with MDOT Standard Specifications, Section 627.04, 627.05, and 627.06. (Delete references to glass beads.) Stripe parking lot spaces and any other pavement graphics shown/detailed on Drawings with 4" wide striping. Fire lanes, crosswalks, etc. to be marked as shown on Drawings.

DIVISION 3—CONCRETE

03200 CONCRETE REINFORCEMENT

Re-bar: Reinforcing bars; ASTM A 615; Grade 60; deformed. Provide in concrete piers and footings and in concrete pads as indicated on foundation drawings.

03310 CONCRETE WORK

Concrete: All concrete work shall be in accordance with ACI 301 and ACI 318. Typical design mix, unless noted otherwise:

Compressive Strength at 28 days:	3000 psi for footings and interior flatwork
Compressive Strength at 28 days:	3500 psi for foundation walls & exterior flatwork
Air Entrainment:	4% ±1% for exterior concrete
Water/Cement Ratio:	0.49 maximum
Slump: General:	not less than 1"; not more than 4"
Footing, Piers and Pads:	not less than 1"; not more than 3"
HRWR Admixtures:	not more than 8"
Aggregate Size:	3/4" maximum

* **Concrete slab on grade:** 4" thick, reinforced; with WWF.

Concrete foundation wall: 10" thick; reinforced as indicated on drawings unless shown otherwise.

Wall footing: 3" beyond wall thickness; bottom on undisturbed soil or compacted fill; reinforced with 2 #5 bars.

Thickened slab: Provide 8" thick slab beneath center basement stud bearing walls.

DIVISION 4—MASONRY

04810 UNIT MASONRY (none)

04811 BRICK VENEER

* **Common brick**, Old Port Blend by Morin Brick Co. or approved equal. Provide ¼" drainage membrane, weeps and necessary flashing at brick shelf and stair landing to receive steel plate as detailed on drawings.

DIVISION 5—METALS

05120 STRUCTURAL STEEL: plate ½" steel sandwiched between two 11-1/4" LVL to form "dig leg" at stair landing (typical for two). (flitch beam)

05300 METAL DECKING (none)

05400 COLD-FORMED METAL FRAMING (none)

DIVISION 6—WOOD AND PLASTICS

06100 ROUGH CARPENTRY

Structural Lumber: See structural drawings.

Pressure Treated (PT) Lumber: No. 2 or better southern yellow pine. All wood in contact with concrete and masonry to be pressure treated. All pressure treated lumber shall meet the manufacturers requirements for installation location. Stainless steel fasteners. No contact between galvanized metal & PT lumber.

Framing: 2x Spruce-Pine-Fir (SPF) Lumber; kiln dried; pressure treated where indicated. Provide 2x6 studs @ 16" or 12" o.c. at exterior walls as indicated and 2x4 studs @ 16" o.c. at interior walls. 19% maximum moisture content. Finger spliced framing optional.

Engineered framing: LVL "Micro-Lam" laminated veneer lumber (PVL, Parallam) or truss type wood. Framing systems may be incorporated as required.

* **Truss:** Engineered prefabricated parallel chord wood truss. Includes girder truss and jack truss. Final engineering of these systems will be by manufacturer. See drawings for load tables. Shop drawing approval required.

* **Sub-floor:** ¾" T&G CDX plywood or "Advantec"; decking to be glued and power nailed in accordance with APA recommendations.

* **Exterior sheathing:** 1/2" sheathing over 2 x 6 studs 24" o.c. first floor per ULU356. Studs to be 2 x 6 plus 2 x 4 for added carrying capacity.

Adjoining walls: Double framing 2 x 4 @ 12" or 24" o.c. with sound channels and 5/8" GWB on outside of assembly and one larger of 5/8" GWB on inside of double stud assembly.

Roof sheathing: ¾" T&G CDX plywood or Advantec.

Strapping: 1x3 @ 16"o.c; kiln dried; sheathing as indicated on wall sections. Shim as required.

Blocking: Provide blocking as required for cabinetry and shelving and electrical devices

Fire separation: See drawings for location and composition of fire rated assemblies.

Miscellaneous metal: Provide 1-1/2" x 11-1/2" steel stair nosings on rear stair 132.

06200 FINISH CARPENTRY

* **Wood base:** 1" x 4" base molding with applied cap trim; clear pine or poplar; select from standard profiles. Provide throughout including bathrooms where base is to be held up ¼" to receive caulking. Paint finish. Back prime all wet locations.

Interior trim, typical: 1" x 4" with 5/4 bullnose edge trim clear pine or poplar. Provide at window and door casings, wood window stools and aprons. Paint finish. Finger jointed is acceptable.

Stair: Open stairway; plywood treads to receive carpet with maple edge trim; painted pine stringers; clear vertical grain fir handrail/guardrail. All unit interior stairs to have stringer boards, all treads to be 1" maple as shown on drawings. All common stairs shall provide a minimum clear width of 42".

Threshold: Slate. Provide at doors between rooms with carpet and adjacent spaces with linoleum.

Doorway casings: Provide and install pre-cut clear pine or poplar doorway casings. Carry bead cap over head trim.

06401 EXTERIOR ARCHITECTURAL WOODWORK

Trim: Cellular Polyvinyl Chloride, Manufacturer: AZEK Trim Boards or Primelock Wood, nominal 1" and 5/4" thick, as indicated on drawings. Note: crown trim over double hung windows.

Finish Mounting Blocks and Porch and Eave Soffits: Cellular Polyvinyl Chloride, Manufacturer: AZEK Trim Boards, soffits ½", mounting boards or Primelock Wood 1" thick. Match clapboard module.

Decking: Composite tongue & groove, Manufacturer: Timber-tech, tongue & groove planks, associated & required trim, stainless screw fasteners. Nail gun fastening not permitted. Color gray.

Railings: Composite system by Timber-tech, or PVC system by Endurance (or equal). Engineered shop drawings required. Color gray or white.

Siding: 8" clear red cedar pine pre-primed, prime all end cuts.

Alternate 1: 8" cement fiber plank pre-primed, prime end cuts. Hardy Plank or equal.

06402 INTERIOR ARCHITECTURAL WOODWORK

AWI; Wood architectural cabinets; hardwood plywood panels set in hardwood frames, wood face frame with plywood box. Drawer glides with roller bearings; Adjustable shelves; Solid drawer faces; Painted or natural finish; Door & drawer pulls.

Kitchen Cabinets: see above. Natural maple finish.

Bathroom Vanity: see above. Paint finish.

Bathroom Cabinet: See above paint finish.

Shelving: Vinyl coated steel wire shelving (white); white painted wood.

Countertop: Solid surface (Corian or equal). Provide in Kitchen and Bathrooms.

DIVISION 7—THERMAL AND MOISTURE PROTECTION

07100 GENERAL

The building thermal envelope shall exceed the requirements of the Maine State Energy Code.

07190 VAPOR AND AIR RETARDERS

Filter Fabric: Provide and install under separate contract Mirafi 140 NS or equal over foundation perforated piping.

Polyethylene Moisture Barrier: 2 layers of polyethylene reinforced with nylon cord or polyester scrim; 25lb/1000 sf, minimum; .0507 perm maximum.

Air Infiltration Barrier: Typar, Tyvek or other approved air infiltration barrier; install with appropriate lap and seals in accordance with manufacturer's instructions over sheathing of all exterior walls.

Vapor Retarder: Provide continuous vapor retarder on warm side of all insulation of exterior walls and at fourth floor ceilings; install between studs and furring with foil facing to inside; seal all joints with tape; reflective bubble insulation; 4 mil film, 5/16" double bubble with facing on both sides; complying with ASTM C 1224; foil on warm side, white polyethylene on cold side; Fi-Foil RBI Shield or equal; www.fifoil.com, 800-448-3401.

07200 INSULATION

Blown in Insulation:

Batt Insulation: R-20 fiberglass insulation; unfaced, provide in exterior walls. Min. R-38 above fourth floor ceiling. Min. R-10 at foundation wall.

Roof Insulation: Tapered polyisocyanurate with two internal drains and fixed edge elevation. Average "R" value not less than 38.

* **Sound Insulation:** R-11 fiberglass insulation. Provide at all interior walls and ceilings between units and enclosing bathrooms and utility rooms, also between bedrooms, and between bedrooms and adjacent spaces.

* **Rigid Insulation:** Expanded polystyrene insulation (EPS); high density (minimum 1.80 pounds per cubic foot)at basement walls (Alternate No. 2) and as otherwise shown on drawings.

* **Rain Screen:** Homeslicker by Benjamin Obedyke or approved equal under all clapboards and trim. See manufacturer's details.

07531 EPDM ROOFING

* **EPDM:** EPDM Roofing membrane to shallow slope roof areas; ASTM D 4637, Type 1 non-reinforced; 60 mil; install ½" fiberboard substrate over insulation.

07600 FLASHING

* **Head Flashing:** Zinc-tin coated copper; "Z" profile. Provide at head trim over door, window and louver openings. Provide over water table. Cut slit in house wrap, to receive upper leg of flashing.

* **Sill Flashing:** Provide 2" +/- aluminum "Z" flashing under sill to allow for drip edge over exterior trim. Zinc-tin coated copper.

Ice and Water Shield: 40-mil adhesive membrane waterproofing. Provide 6" strip around all sides of all windows, doors and louvers. See SK on drawings.

Fascia/Roof Edge: Zinc-tin coated copper with copper back flashing as required. Install instructions in accordance with SMACNA Guidelines. Maximum length to be 8'-0". Joints to be ¼" space with back flashing of same materials exposed. Hold sealant back 2" from joint. Apply 6" strip of self-adhering EPDM roofing under each butt joint. Leave ¼" gap between flashings.

Door Pans: Install formed zinc-tin copper pans with end dams at all exterior door openings.

07700 ROOF VENTILATION

* Skylights (typical for four) 36" x 36" Wasco Model DDCV with manual operator eye and double clear acrylic domes with 9" insulated raised curb. Hinged with manual operation. Provide (1) one 72" crank per unit.

07900 JOINT SEALERS

* Provide sealants compatible with adjacent materials and install according to manufacturer's instructions. Urethane or modified silicone.

DIVISION 8—DOORS AND WINDOWS

08110 STEEL DOORS AND FRAMES

HMF: Hollow Metal Frame; ANSI/SD1100; concealed fasteners; minimum 0.0478 inch thick cold-rolled steel sheet; galvanized; rated where required; mitered or coped and continuously welded corners (knock-down frames are not acceptable).

Metal Door: Grade II; extra heavy-duty; galvanized cold-rolled steel sheet faces; fire-rated where required; insulated doors where indicated, .41 minimum U-value; 5/8" tempered, insulated glass lite as indicated.

08210 WOOD DOORS

* **Exterior Front Entry:** 3070 1-3/4" fir with glass lights Simpson Master Mark with laminated stiles and rails and cored bottom panels. Somerset or approved equal.

* **Interior Doors and Frames:** 1 3/8" thick; five panel wood frame pre-hung; all surfaces of doors and frames shall be factory primed and painted. Provide rated doors between unit to corridors in rated steel frames.

08600 WINDOWS

* **Double Hung:** Wood/aluminum Marvin Windows or equal. Rating DP 40 minimum.

* **Casement & Awning:** Wood/aluminum Marvin Windows or equal. Rating DP 40 minimum.

* **Fixed Window:** Wood/aluminum Marvin Windows or equal.

* **Tempered Glass:** Provide tempered glass at all units less than 18" AFF (typical for 22 awning type units on fourth floor) as required by code.

* **Spandral Glass:** Opaque tempered coated glass in insulated glazing unit as indicated on construction drawings.

08700 HARDWARE

Exterior Hardware: High quality residential grade lever grade handle on exterior with rim type surface applied exit/panic hardware (see below). Main Entry Doors to have electric latch devices tied into apartment intercom system.

Interior Hardware: round "mushroom" trim such as Schlage/Plymouth or approved equal. All entry doors to receive lever type trim with retractable dead bolt. Submit samples to Architect for approval. Finish to be dull chrome US 26D.

Butt Hinges: Entry doors to have 1-1/2 pair ball bearing with spring closer as required.

Closers: Sargent 1430 Series or equal@ front and rear doors and to basement storage areas typical for (4) total.

Panic Hardware: Sargent 8800 Series or equal; provide with outside lever trim front and back doors.

DIVISION 9—FINISHES

09260 GYPSUM DRYWALL

Steel Studs and Runners: ASTM C 645; .0312 inch minimum base metal thickness; sizes as indicated on drawings; ASTM A 653, G60 hot-dip galvanized; see structural drawings for load-bearing framing.

GWB: Gypsum Wall Board; Three-coat joint treatment. Provide at all interior wall surfaces, ceilings, and soffits; 5/8" thick; Type-X where rated construction is indicated. Install horizontally with as long of unbroken runs as possible. Back 4'-0" horizontal joint with wood or GWB extending 3" each side of joint.

MR moisture resistant GWB: Install in bathrooms and behind kitchen counters.

½" Exterior Gypsum Sheathing: ½" thick gypsum board; fire-resistant; water- resistant; water repellent paper both sides.

Accessories: Trim shapes by Beadex as follows (provide mud-type edge treatments only):

90-degree outside corners: B-1-W

90-degree inside corners: B-2

Non-90-degree corners: B-1 Flex-Bead

Metal Furring Channel: ½" Roll-formed, hat-shaped section; 20 gauge corrosion-resistant steel. For sound transmission reduction walls and ceilings as indicated on drawings.

09300 SHEET FLOORING

Provide and install wood/linseed composite(linoleum) flooring to all bathroom areas of all residential units. Vinyl to be 60 mils overall thickness, Marmolium.

09640 **Wood Flooring:** engineered T&G laminated hardwood vertical grain, natural finish, face veneer 3" wide with 1.25" beech veneer by Green Mountain Hardwood Flooring or approved equal.

09680 CARPET

Carpet: All carpet to meet UM44d. Provide and install carpet over high density recycled shredded urethane foam pad. Carpet to be Shaws industries or approved equal, 100% nylon, textured loop pile minimum 32oz. Public areas 32 oz. minimum level loop. To residential units, total weight of finished carpet to be 40oz minimum.

Recycled rubber flooring: Install Eco surface on treads on landings at rear stair.

09900 PAINTING

Benjamin Moore & Company or equal. (Following products listed are Benjamin Moore).

GWB:

1. Prime Coat: Moorcraft #253 Super Spec Latex enamel underbody and primer sealer.
2. Final Coats: 2 coats Moorcraft #274 Super Spec Latex Eggshell Enamel.

Interior Wood:

1. Filler: Benwood Interior Wood Finishes wood Grain Filler.
2. Intermediate: Moorcraft #245 Super Spec Alkyd enamel underbody and primer sealer.
3. Finish: 2 coats Moorcraft #276 Super Spec Latex semigloss enamel.

Transparent Finish: (natural)

1. Filler: Benwood Interior Wood Finishes Wood Grain Filler, match wood species.
2. Finish:
   i. 3 coats Benwood Polyurethane Finish High Gloss.
   ii. 1 coat Benwood Polyurethane Finish Satin Lustre.

Exterior Wood:

1. Primer: Moorcraft #176 Super Spec Alkyd Exterior Primer.
2. Finish: 2 coats Moorcraft #170 Super Spec Latex House and Trim Paint.

Steel Door:

1. Finish: 2 coats Ironclad #363 Latex low luster metal and wood enamel.

Fiber Cement: (if used)

1. Primer: Moore's #077 Alkyd masonry sealer.
2. Finish: 2 coats Moorcraft #170 Super Spec Latex House and Trim Paint.

DIVISION 10—SPECIALTIES

10520 FIRE PROTECTION

Hour Fire Separations: Provide 2 hour fire separations to all wall assemblies around the main stair, rear stair. Provide 1 hour separations for trash room and boiler room. Doors and frames to have1 hour rating

Unit Fire Separations: Provide 1 hour separation minimum to all wall and floors between all residential units.

Smoke Detectors: Install detectors in corridors, bedrooms and living space as shown on electrical plans and as required by the Portland Fire Chief and State Fire Marshall. Hard-wired with battery back-up; provide temporary disarm at kitchen.

10800 TOILET AND BATH ACCESSORIES

Toilet and Bath Accessories: Includes items such as toilet paper dispenser and towel racks; Premium residential grade as manufactured by Hewi, color to be approved by architect. Provide wood blocking for all accessories.

Medicine Cabinet: Recessed with mirror. Provide one each in bathrooms and lavatories.

Gas fireplace: 30,000 BTU gas insert with 3-piece slate (typical for four) surround by Vermont Casting or equal.

DIVISION 11—EQUIPMENT

11450 RESIDENTIAL EQUIPMENT

Residential Appliances: Contractor to provide and install the following appliances.

Refrigerator: Freestanding, frost-free, two-door, freezer below model, minimum 15.50 cu.ft. refrigerator on adjustable rollers, with five shelves minimum in each door.

Range: Porcelain enamel free standing 30" gas range with four burner cooktop, oven, full width storage drawer, and observation window..

Exhaust Hood: Stainless steel exhaust hood suspended from upper cabinets; dual speed fan with light, duct exhaust to the exterior. Provide over Kitchen range.

Dish Washer: Maytag stainless steel.

DIVISION 12—ROLLER SHADES

12494 ROLLER SHADES (NIC)

Roller shades: Contractor to provide and install roller shades to all bedroom windows of residential units. Shades to be PVC coated fiberglass or PVC-coated polyester, with spring operated wood roller.

DIVISION 13—SPECIAL CONSTRUCTION

13900 FIRE SUPRESSION AND SUPERVISORY SYSTEMS

Sprinkler System: Provide fully automated supervised sprinkler system in accordance with State of Maine Residential NFPA-13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height; provide all necessary components for complete installation; sprinkler head locations to be coordinated with design and approved by Architect prior to installation.

DIVISION 14—CONVEYING SYSTEMS

Not Used

DIVISION 15—MECHANICAL

15300 SPRINKLER SYSTEM: 13R system designed and installed in strict accordance with the State of Maine's Fire Marshall's Hydropro / supervised requirements.

15400 PLUMBING SYSTEM

Water Supply Piping: Above grade piping to be Type L copper throughout the building. Below grade interior piping to be Type K copper. **No type M copper** allowed on projects.

Heat System Piping: Above grade piping to be Type L copper or Pex tubing throughout the building. Below grade interior piping to be Type K copper.

Waste Piping: Cast iron and/or PVC waste piping as required by code.

Cleanouts and traps in all waste lines as required by code and good design practice.

Roof Drain: Zurn Z-100 or equal; 15" diameter; 3" outlet; cast iron body with combination membrane flashing clamp/gravel guard and low silhouette cast iron dome; roof sump receiver; under-deck clam; static extension as required or approved highest quality PVC; line size vertical expansion joint as required due to inflexibility of drainage piping.

Roof Drainage Piping: 3" PVC; provide cleanouts.

Deck Drains: As indicated on drawings plus one scupper for each fourth level deck.

15450 PLUMBING FIXTURES AND TRIM

Sink: Provide double 20 gauge 18-8 stainless steel kitchen sink.

Lavatory: Porcelain vitreous pedestal lavatory Kohler, Wellworth or approved equal china / white.

Water Closet: Elongated water-saver, vitreous china / white; Kohler, Wellworth or approved equal.

Tub/Shower: One-piece, fiberglass / white. Veracruz 60" by Kohler or approved equal.

Shower: 36" x 36" fiberglass unit with shower rod located @ 74" AFF Valcarta by Kohler or approved equal.

Faucets: Provide compact or 4" center dual handle for lavatories Classic Series by Grohe or approved equal residential grade. 135-WFTP in kitchen and 500 series in bathroom.

Bath/Shower Fittings: Anti-scald, Tempera 4000 by Grohe or approved equal.

Disposal: ½ HP Insinerator Badgor 5 or approved equal.

15500 HEATING AND VENTILATING

Boilers: (8) eight high efficiency gas fire boilers. Include all fittings and accessories needed for boiler operation, including safety valves, gauges, oil burner and controls. Through exhaust and make up air as indicated on drawings.

Domestic hot water: To be off boilers with eparate holding tank and circulators for third and fourth floor levels only.

Direct venting: Vent to the outdoors all kitchen exhaust hoods, bathrooms, trash room and Laundry Room dryers with mechanical fan assisted vents. Review all through wall penetrations with Architect prior to execution.

Temperature Controls: Provide Honeywell T-87 electric thermostats and control wiring to sequence 2-way control valve installed in baseboard radiation furnished and installed in each apartment.

Laundry room: To have gas fired 80 gal. water heater with radiation loop and fin tube on outside wall.

Radiators: Install Buderus or Myson radiators on the fourth level as required to provide even comfortable heating to all rooms. Install slant fin radiation elsewhere using wall-to-wall covers where practical.

DIVISION 16—ELECTRICAL

16400 SERVICE AND DISTRIBUTION

Service & Distribution: All work to be in accordance with the National Electric Code and Good Practice for Residential Construction. Installation to be by licensed electricians. 100 AMP service for each residential unit plus; one 150 AMP service for Community Room; 220V service to ranges and Laundry. Service to be provided underground. Unit panels to be located behind master bedroom entry door.

16500 LIGHTING

Lighting: Contractor to furnish, install and connect complete to the wiring system. Lights are generally to be incandescent and compact fluorescent fixtures/ lamps.

Residential Units: See electrical plans in general provide: Entry area to have one center ceiling light; Living room to have two switched receptacles in lieu of ceiling fixtures; Dining area to have dimmer switch for overhead light; Bedrooms to have one center ceiling light or switched receptacles; Closets to have fluorescent lights over doors; Kitchen to have low voltage under-cabinet lighting at upper cabinets, plus one center ceiling light; Bathrooms to have one or two wall mounted switched lights plus one central ceiling light integral with exhaust fan.

General Building: Exterior entry porch to have two surface mounted ceiling lights; common stairs and corridors to have wall sconces. Rear canopy to have one surface light.

Emergency lighting: As indicated on drawings and Contractor to provide in accordance with codes.

Outdoor lighting: See site plans. Two building mounted metal halide cut off fixtures and one pole light mounted.

16600 SAFETY: Provide direct wire smoke and heat detectors as required by code and as is good practice with multi-family dwelling.

16700 COMMUNICATIONS

Apartment intercom system to be NuTone Compact Directory w/ Direct-a-Com Apartment Speaker or approved equal.

END

TFH ARCHITECTS 100 COMMERCIAL STREET PORTLAND MAINE 04101 TELEPHONE 207-775-6141 ARCHITECTURE AND PLANNING

1 M Sheridan St.

To: Mike Nugent
Office of Inspections, City Hall
389 Congress Street
Portland, ME 04101

From: Chris Cavendish
TFH Architects
100 Commercial Street
Portland, ME 04101

Date: March 11, 2005

Re: Response to Plan Review Questions for Sumner Court

Dear Mike,

Thank you for your time and thoroughness in reviewing our project for compliance with the applicable codes. After coordinating with the owner and design team we have prepared the following itemized response to your questions. We believe the additional information in this letter and the accompanying documents will answer your questions from your email dated March 2, 2005.

For your convenience your questions have been listed below in underlined text. Our response to those questions follows in italics and may point you towards a specific document, included with this letter, for further information.

(Mike Nugent wrote) Here is my plan review list of questions, comments:

1) <u>There is no geotechnical report</u>. *Geotechnical report enclosed.*

2) <u>There are additional Special Inspections required, please look at Section 1707 etc.</u> *Additional Special Inspections enclosed.*

3) <u>The Shaft enclosure must have a 2 hr. rating</u>. *Sheets A1-1, A1-2, A1-3 have been revised.*

4) <u>There is no door schedule</u>. *Sheet A5-2 has been added.*

5) <u>Please provide a fir separation assembly penetration plan</u>. *Refer to Sheet A4-7 for Penetration Plan*

6) <u>What is the STC rating of "1D"?</u> *Sheet A1-1 has been revised.*

7) <u>Does this project comply with Federal Fair Housing Standards</u>? *After careful review we found it necessary to modify the plans and elevations to allow accessible entry to the ground floor units in order to comply with the standards. Refer to Sheets C2-1, A1-1, A1-2, A1-3, A1-4, and A2-1.*

NEED STRUCTURAL ON NEW ENTRY

8) <u>Please provide UL listings and STC and Fire resistance ratings for the Floor Ceiling Assemblies and the Attic Floor/4th Ceiling assembly</u>. *Refer to Sheets 3-1, and 3-2.*

9) <u>Need Guard Details w/ loads.</u> *Our structural engineer, Dave Tetreault, has run structural calculations on the interior railing system and the design has been revised accordingly. Refer to*

13 K 28

Sheet A4-7 for details and to the Specification Book: Section 6200, Railings, Performance requirements.

10) Is there a headroom issue in the third floor baths below the stairs? *Refer to Sheet A3-3.*

11) Need exterior stair/guard details. *Refer to the Specification Book: Section 06200, Railings, Performance requirements.*

12) Please provide ASTM standards used for assessing the proposed weather tightness of the exterior wall and roof assemblies as well as the fire classification of the roof covering. Exterior walls. Refer to the Specification Book, Section 07532, EPDM Roofing; and Section 08900, Exterior Wall Systems. *Specifications have been revised to incorporate.*

13) Please provide info on interior finished relative to chapter 8 of the Code. *Refer to the general notes on Sheet A1-1*

14) Please review Section 1910.4.3.1 w/ the design engineer, is there sufficient rebar???

15) How far will the building be from the left line...The plan shows 10 feet but it scales to 13 feet? *Refer to Sheet C2-1*

16) Will there be a vapor barrier in the slab? *Yes. Refer to Sheet 4-2.*

17) Is there a more comprehensive spec book? *No*

18) Shear walls??? *Refer to Structural sheets for identification of shear walls*

19) Also there is s vent from the trash room into the exit stairway enclosure, can you explain? *The vent located in the trash room passes through a 2 hour rated soffit assembly into the storage unit 6 where it then travels through the mechanical chase to be exhaust to exterior at roof level. Refer to Sheet A1-1 for additional notation.*

Copy: Laurence Eubank, Scott Teas

SUMNER COURT

Developed by Fort Sumner LLC
117 Sheridan Street, Portland, Maine

Specifications

March 11, 2005

Fort Sumner LLC is referred to herein as "Owner" and TFH Architects, P.A. is referred to herein as "Architect."

Engineering and other consultants:

Geo-technical.....Sebago Technics
Civil.....Pinkham & Greer Consulting Engineers
Structural.....Structural Design Consulting
Mechanical and Plumbing.....Whitney Engineering

DIVISION 1—GENERAL REQUIREMENTS

00010 GENERAL CONTRACTOR RESPONSIBILITIES

Project management, supervision, coordination, safety program
Field layout, submittals, testing services, quality control
Transportation of all contract materials to and from site
Provision of all accessory types of items necessary to complete work, such as mortar, fasteners, hurricane ties and anchor bolts
General liability, workman's compensation
Builder's risk insurance, building permits, scheduling inspections
Temporary service (electrical, water, sanitary, power, heat, fire protection, enclosures/barriers)
Erosion control fence, dust and water control
Construction cleaning, final cleanup, legal disposal of waste
Site Security
Record Drawings

00020 OWNER RESPONSIBILITIES

Reasonable, unimpeded access to the site
Timely decision making
Third-party materials testing (compaction, concrete strength, etc.)
Site surveys
Soil report

01010 SUMMARY OF THE WORK

Project Description:

New Construction: ..... 8- Unit Multi-family Residential
Size: Approximately 10,700 gross square feet (plus basement)
Building Codes: IBC03/Life Safety 101
Owner occupancy: ..... No
Contract for Construction: ..... To be determined
General Conditions: ..... AIA A201

01040 COORDINATION

The General Contractor is responsible for coordinating schedules for all parties involved in the project, and for coordinating all of the systems of the Subcontractors, especially those involving design build such as heating, ventilating, plumbing, sprinkler, electrical and technology work as well as all site work.

01230 ALTERNATES

No 1: 8" cement fiber clapboards in lieu of red cedar.

No. 2: Rigid insulation and GWB on exterior concrete walls in basement.

01300 SUBMITTALS

Provide submittals for all components of the project; proceed with related work only after such submittals have been reviewed. Provide one set of reproducible originals for each shop drawing. Note: an asterisk (*) precedes all sections where submittals required.

01631 PRODUCT SUBSTITUTIONS

Materials may not be substituted without written consent of the Architect; different manufacturers may be used where items are indicated with "or equal"; the burden of proof that another manufacturer's product is equivalent is the General Contractor's responsibility.

01740 WARRANTIES AND BONDS

Transfer all materials warranty information to Owner at completion of project. Unless indicated, otherwise all work will be warranteed for one year from substantial completion by each subcontractor entity.

DIVISION 2—SITEWORK

02200 EARTHWORK

Ledge removal: Initial site exploration suggests no ledge present; any cost associated with ledge removal should it be encountered will be at Owner's expense.

Ledge removal trench: Any cost associated with ledge removal will be at owner's expense.

Topsoil: As indicated on drawings. Where applicable the existing loam may be utilized.

Common borrow fill: Inorganic; stone size 4" maximum. Provide as fill to achieve rough grade (assume 20 cubic yards/ building, for estimating purposes).

Granular backfill: Sand/gravel; inorganic; stone sizes #200 to 2 ½", provide 6" beneath basement slab, compacted in all cases.

¾" Crushed Stone: Inorganic; clean; stone sizes 3/8" to 1", provide beneath footings, compacted to 95% if required; provide 6" minimum around perforated drainpipe & wrap with filter fabric and where indicated on drawings.

02700 DRAINAGE

Perforated Drain Pipe: Provide 4" perforated / corrugated PVC at exterior of structure, at 6" below basement concrete slab; extend 8'-0" from structure and tie into storm sewer extension, provided by Owner. Install perforations down. Provide 4 Schedule 40 PVC for cleanouts to grade or access inside basement.

Site Drainage: Provide positive drainage away from all building edges – 6" pitch over the first 10' minimum. Special care to be taken at rear entry to assure pitch to trench drain outside rear door.

02900 LANDSCAPING

Seed: Seeding and associated maintenance by Owner.

Trees: Size and species as indicated on site drawings.

* **Plantings:** all plantings shall be provided in accordance with materials approved by the City of Westbrook or Portland Arborists.

Bituminous concrete: Contractor to provide and install bituminous concrete base and top courses to pavement and sidewalk areas as shown on the drawings. Bituminous material shall conform to Maine DOT specification, Section 702.01, viscosity grade AC-20. Nominal asphalt content shall be 6%. Aggregates shall conform to MDOT specifications, Section 703.09 Grade B for Pavement base course, Grade C for pavement top course, D for sidewalk base and top course.

* **Granite curbing:** Contractor to supply and install granite curbs to edges of bituminous paving and sidewalk. Curbing to be installed in conformance with MDOT specifications, Section 609.04

* **Concrete pavers**: Contractor to supply and install concrete pavers to the area outside the rear entrance.

* **CMU retaining wall**: Contractor to supply and install CMU retaining wall system by Keystone Industries or approved equal. Maximum height without additional engineering 4'-0".

Pavement marking: Apply paint in accordance with MDOT Standard Specifications, Section 627.04, 627.05, and 627.06. (Delete references to glass beads.) Stripe parking lot spaces and any other pavement graphics shown/detailed on Drawings with 4" wide striping. Fire lanes, crosswalks, etc. to be marked as shown on Drawings.

DIVISION 3—CONCRETE

03200 CONCRETE REINFORCEMENT

Re-bar: Reinforcing bars; ASTM A 615; Grade 60; deformed. Provide in concrete piers and footings and in concrete pads as indicated on foundation drawings.

03310 CONCRETE WORK

Concrete: All concrete work shall be in accordance with ACI 301 and ACI 318. Typical design mix, unless noted otherwise:

Compressive Strength at 28 days:	3000 psi for footings and interior flatwork
Compressive Strength at 28 days:	3500 psi for foundation walls & exterior flatwork
Air Entrainment:	4% ±1% for exterior concrete
Water/Cement Ratio:	0.49 maximum
Slump: General:	not less than 1"; not more than 4"
Footing, Piers and Pads:	not less than 1"; not more than 3"
HRWR Admixtures:	not more than 8"
Aggregate Size:	3/4" maximum

* **Concrete slab on grade:** 4" thick, reinforced; with WWF.

Concrete foundation wall: 10" thick; reinforced as indicated on drawings unless shown otherwise.

Wall footing: 3" beyond wall thickness; bottom on undisturbed soil or compacted fill; reinforced with 2 #5 bars.

Thickened slab: Provide 8" thick slab beneath center basement stud bearing walls.

DIVISION 4—MASONRY

04810 UNIT MASONRY (none)

04811 BRICK VENEER

* **Common brick**, Old Port Blend by Morin Brick Co. or approved equal. Provide ¼" drainage membrane, weeps and necessary flashing at brick shelf and stair landing to receive steel plate as detailed on drawings.

DIVISION 5—METALS

05120 STRUCTURAL STEEL: plate ½" steel sandwiched between two 11-1/4" LVL to form "dig leg" at stair landing (typical for two). (flitch beam)

05300 METAL DECKING (none)

05400 COLD-FORMED METAL FRAMING (none)

DIVISION 6—WOOD AND PLASTICS

06100 ROUGH CARPENTRY

Structural Lumber: See structural drawings.

Pressure Treated (PT) Lumber: No. 2 or better southern yellow pine. All wood in contact with concrete and masonry to be pressure treated. All pressure treated lumber shall meet the manufacturers requirements for installation location. Stainless steel fasteners. No contact between galvanized metal & PT lumber.

Framing: 2x Spruce-Pine-Fir (SPF) Lumber; kiln dried; pressure treated where indicated. Provide 2x6 studs @ 16" or 12" o.c. at exterior walls as indicated and 2x4 studs @ 16" o.c. at interior walls. 19% maximum moisture content. Finger spliced framing optional.

Engineered framing: LVL "Micro-Lam" laminated veneer lumber (PVL, Parallam) or truss type wood. Framing systems may be incorporated as required.

* **Truss:** Engineered prefabricated parallel chord wood truss. Includes girder truss and jack truss. Final engineering of these systems will be by manufacturer. See drawings for load tables. Shop drawing approval required.

* **Sub-floor:** ¾" T&G CDX plywood or "Advantec"; decking to be glued and power nailed in accordance with APA recommendations.

* **Exterior sheathing:** 1/2" sheathing over 2 x 6 studs 24" o.c. first floor per ULU356. Studs to be 2 x 6 plus 2 x 4 for added carrying capacity.

Adjoining walls: Double framing 2 x 4 @ 12" or 24" o.c. with sound channels and 5/8" GWB on outside of assembly and one larger of 5/8" GWB on inside of double stud assembly.

Roof sheathing: ¾" T&G CDX plywood or Advantec.

Strapping: 1x3 @ 16"o.c; kiln dried; sheathing as indicated on wall sections. Shim as required.

Blocking: Provide blocking as required for cabinetry and shelving and electrical devices

Fire separation: See drawings for location and composition of fire rated assemblies.

Miscellaneous metal: Provide 1-1/2" x 11-1/2" steel stair nosings on rear stair 132.

06200 FINISH CARPENTRY

* **Wood base:** 1" x 4" base molding with applied cap trim; clear pine or poplar; select from standard profiles. Provide throughout including bathrooms where base is to be held up ¼" to receive caulking. Paint finish. Back prime all wet locations.

Interior trim, typical: 1" x 4" with 5/4 bullnose edge trim clear pine or poplar. Provide at window and door casings, wood window stools and aprons. Paint finish. Finger jointed is acceptable.

Stair: Open stairway; plywood treads to receive carpet with maple edge trim; painted pine stringers; clear vertical grain fir handrail/guardrail. All unit interior stairs to have stringer boards, all treads to be 1" maple as shown on drawings. All common stairs shall provide a minimum clear width of 42".

Threshold: Slate. Provide at doors between rooms with carpet and adjacent spaces with linoleum.

Doorway casings: Provide and install pre-cut clear pine or poplar doorway casings. Carry bead cap over head trim.

Rev. 3-11 Railings:

A. Performance requirements of handrails and railings: Provide handrails and railings capable of withstanding the following structural loads without exceeding allowable design working stresses of materials for handrails, railings, anchors, and connections

1. Top Rail of guards: capable of withstanding the following loads applied as indicated:
    a. Concentrated load of 200 lbf (890 N) applied at any point in any direction.
    b. Uniform load of 50 lbf/ft (730 N/m) applied horizontally and concurrently with uniform load of 100 lbf/ft (1460) applied vertically downward.
    c. Concentrated and uniform loads above need not be assumed to act concurrently.
2. Handrails Not serving as top rails: capable of withstanding the following loads applied as indicated:
    a. Concentrated load of 200 lbf (890 N) applied at any point in any direction.
    b. Uniform load of 50 lbf/ft (730 N/m) applied horizontally and concurrently with uniform load of 100 lbf/ft (1460) applied vertically downward.
    c. Concentrated and uniform loads above need not be assumed to act concurrently.

B. Thermal Movements: Provide handrails and rails that allow for thermal movements resulting from the maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature change (range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

06401 EXTERIOR ARCHITECTURAL WOODWORK

Trim: Cellular Polyvinyl Chloride, Manufacturer: AZEK Trim Boards or Primelock Wood, nominal 1" and 5/4" thick, as indicated on drawings. Note: crown trim over double hung windows.

Finish Mounting Blocks and Porch and Eave Soffits: Cellular Polyvinyl Chloride, Manufacturer: AZEK Trim Boards, soffits ½", mounting boards or Primelock Wood 1" thick. Match clapboard module.

Decking: Composite tongue & groove, Manufacturer: Timber-tech, tongue & groove planks, associated & required trim, stainless screw fasteners. Nail gun fastening not permitted. Color gray.

Railings: Composite system by Timber-tech, or PVC system by Endurance (or equal). Engineered shop drawings required. Color gray or white.

A. Performance requirements of handrails and railings: Provide handrails and railings capable of withstanding the following structural loads without exceeding allowable design working stresses of materials for handrails, railings, anchors, and connections

3. Top Rail of guards: capable of withstanding the following loads applied as indicated:
    a. Concentrated load of 200 lbf (890 N) applied at any point in any direction.
    b. Uniform load of 50 lbf/ft (730 N/m) applied horizontally and concurrently with uniform load of 100 lbf/ft (1460) applied vertically downward.
    c. Concentrated and uniform loads above need not be assumed to act concurrently.
4. Handrails Not serving as top rails: capable of withstanding the following loads applied as indicated:
    a. Concentrated load of 200 lbf (890 N) applied at any point in any direction.
    b. Uniform load of 50 lbf/ft (730 N/m) applied horizontally and concurrently with uniform load of 100 lbf/ft (1460) applied vertically downward.
    c. Concentrated and uniform loads above need not be assumed to act concurrently.

B. Thermal Movements: Provide handrails and rails that allow for thermal movements resulting from the maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature change (range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

Siding: 8" clear red cedar pine pre-primed, prime all end cuts.

Alternate 1: 8" cement fiber plank pre-primed, prime end cuts. Hardy Plank or equal.

06402 INTERIOR ARCHITECTURAL WOODWORK

AWI; Wood architectural cabinets; hardwood plywood panels set in hardwood frames, wood face frame with plywood box. Drawer glides with roller bearings; Adjustable shelves; Solid drawer faces; Painted or natural finish; Door & drawer pulls.

Kitchen Cabinets: see above. Natural maple finish.

Bathroom Vanity: see above. Paint finish.

Bathroom Cabinet: See above paint finish.

Shelving: Vinyl coated steel wire shelving (white); white painted wood.

Countertop: Solid surface (Corian or equal). Provide in Kitchen and Bathrooms.

DIVISION 7—THERMAL AND MOISTURE PROTECTION

07100 GENERAL

The building thermal envelope shall exceed the requirements of the Maine State Energy Code.

07190 VAPOR AND AIR RETARDERS

Filter Fabric: Provide and install under separate contract Mirafi 140 NS or equal over foundation perforated piping.

Polyethylene Moisture Barrier: 2 layers of polyethylene reinforced with nylon cord or polyester scrim; 25lb/1000 sf, minimum; .0507 perm maximum.

Air Infiltration Barrier: Typar, Tyvek or other approved air infiltration barrier; install with appropriate lap and seals in accordance with manufacturer's instructions over sheathing of all exterior walls.

Vapor Retarder: Provide continuous vapor retarder on warm side of all insulation of exterior walls and at fourth floor ceilings; install between studs and furring with foil facing to inside; seal all joints with tape; reflective bubble insulation; 4 mil film, 5/16" double bubble with facing on both sides; complying with ASTM C 1224; foil on warm side, white polyethylene on cold side; Fi-Foil RBI Shield or equal; www.fifoil.com, 800-448-3401.

07200 INSULATION

Blown in Insulation:

Batt Insulation: R-20 fiberglass insulation; unfaced, provide in exterior walls. Min. R-38 above fourth floor ceiling. Min. R-10 at foundation wall.

Roof Insulation: Tapered polyisocyanurate with two internal drains and fixed edge elevation. Average "R" value not less than 38.

* **Sound Insulation:** R-11 fiberglass insulation. Provide at all interior walls and ceilings between units and enclosing bathrooms and utility rooms, also between bedrooms, and between bedrooms and adjacent spaces.

* **Rigid Insulation:** Expanded polystyrene insulation (EPS); high density (minimum 1.80 pounds per cubic foot)at basement walls (Alternate No. 2) and as otherwise shown on drawings.

* **Rain Screen:** Homeslicker by Benjamin Obedyke or approved equal under all clapboards and trim. See manufacturer's details.

07531 EPDM ROOFING

Rev. 3-11 * **EPDM:** EPDM Roofing membrane to shallow slope roof areas; ASTM D 4637, Type 1 non-reinforced; 60 mil; install ½" fiberboard substrate over insulation.

07600 FLASHING

* **Head Flashing:** Zinc-tin coated copper; "Z" profile. Provide at head trim over door, window and louver openings. Provide over water table. Cut slit in house wrap, to receive upper leg of flashing.

* **Sill Flashing:** Provide 2" +/- aluminum "Z" flashing under sill to allow for drip edge over exterior trim. Zinc-tin coated copper.

Ice and Water Shield: 40-mil adhesive membrane waterproofing. Provide 6" strip around all sides of all windows, doors and louvers. See SK on drawings.

Fascia/Roof Edge: Zinc-tin coated copper with copper back flashing as required. Install instructions in accordance with SMACNA Guidelines. Maximum length to be 8'-0". Joints to be ¼" space with back flashing of same materials exposed. Hold sealant back 2" from joint. Apply 6" strip of self-adhering EPDM roofing under each butt joint. Leave ¼" gap between flashings.

Door Pans: Install formed zinc-tin copper pans with end dams at all exterior door openings.

07700 ROOF VENTILATION

* Skylights (typical for four) 36" x 36" Wasco Model DDCV with manual operator eye and double clear acrylic domes with 9" insulated raised curb. Hinged with manual operation. Provide (1) one 72" crank per unit.

07900 JOINT SEALERS

* Provide sealants compatible with adjacent materials and install according to manufacturer's instructions. Urethane or modified silicone.

DIVISION 8—DOORS AND WINDOWS

08110 STEEL DOORS AND FRAMES

HMF: Hollow Metal Frame; ANSI/SD1100; concealed fasteners; minimum 0.0478 inch thick cold-rolled steel sheet; galvanized; rated where required; mitered or coped and continuously welded corners (knock-down frames are not acceptable).

Metal Door: Grade II; extra heavy-duty; galvanized cold-rolled steel sheet faces; fire-rated where required; insulated doors where indicated, .41 minimum U-value; 5/8" tempered, insulated glass lite as indicated.

08210 WOOD DOORS

* **Exterior Front Entry:** 3070 1-3/4" fir with glass lights Simpson Master Mark with laminated stiles and rails and cored bottom panels. Somerset or approved equal.

* **Interior Doors and Frames:** 1 3/8" thick; five panel wood frame pre-hung; all surfaces of doors and frames shall be factory primed and painted. Provide rated doors between unit to corridors in rated steel frames.

08600 WINDOWS

* **Double Hung:** Wood/aluminum Marvin Windows or equal. Rating DP 40 minimum.

* **Casement & Awning:** Wood/aluminum Marvin Windows or equal. Rating DP 40 minimum.

* **Fixed Window:** Wood/aluminum Marvin Windows or equal.

* **Tempered Glass:** Provide tempered glass at all units less than 18" AFF (typical for 22 awning type units on fourth floor) as required by code.

* **Spandral Glass:** Opaque tempered coated glass in insulated glazing unit as indicated on construction drawings.

08700 HARDWARE

Exterior Hardware: High quality residential grade lever grade handle on exterior with rim type surface applied exit/panic hardware (see below). Main Entry Doors to have electric latch devices tied into apartment intercom system.

Interior Hardware: round "mushroom" trim such as Schlage/Plymouth or approved equal. All entry doors to receive lever type trim with retractable dead bolt. Submit samples to Architect for approval. Finish to be dull chrome US 26D.

Butt Hinges: Entry doors to have 1-1/2 pair ball bearing with spring closer as required.

Closers: Sargent 1430 Series or equal@ front and rear doors and to basement storage areas typical for (4) total.

Panic Hardware: Sargent 8800 Series or equal; provide with outside lever trim front and back doors.

Rev. 3-11
08900 EXTERIOR WALL SYSTEMS - GENERAL

PART 1 – GENERAL

1.1 SUMMARY
A. General Requirements: This section includes minimum performance requirements for the design and installation of all exterior wall systems. Comply with the following minimum requirements and performance criteria for the exterior wall components as listed above. Additional performance requirements are specified in each of the technical specification sections listed.
1. Provide the engineering and coordination of all submittals, shop drawings, components and materials, as well as installation of exterior wall components.
2. Installed exterior wall components shall maintain an airtight and waterproof assembly on the structure, within the established performance requirements specified for each individual component.
3. Design and engineer the systems with the information provided.
a. As performance documents, the Drawings and Specifications do not indicate or describe all the work required for the performance and completion of the Work. Provide all items required for compliance with performance requirements.
b. Provide reinforcements in order to comply with the design and performance criteria.
4. Dimension and profile adjustments may be made in the design in the interest of fabrication, erection methods or techniques, the weatherability, or the ability of the design to satisfy the design and performance requirements, provided that the design intent and the intent of the specifications are maintained.
a. Adjustments to dimensions and profile may only be made within the limits of the established by the Drawings, and any and all such adjustments are subject to the Architect's review.
5. Methods of fabrication and assembly shall be at the discretion of the Contractor, provided that the exterior and interior visible architectural effect is not changed, the work of other trades is not affected, and the weathertightness (air and water infiltration) and structural performance, as demonstrated by engineering calculations and measured by the results of the tests for performance requirements, are not reduced.
B. Exterior wall systems shall accommodate the tolerances of the surrounding conditions, including the structural support.
1. The work shall be designed to accommodate variation in location of surrounding and supporting work, as specified in other sections of these specifications or as may exist at the site, as determined by field measurements of the existing work taken by the Contractor.
C. Exterior wall systems, as installed, shall meet or exceed the following minimum structural and weather resistance requirements, as demonstrated by engineering calculations and testing of mock-ups:
1. Provision for Thermal Movements: As specified in respective specification sections.
2. Structural Properties:
a. Design Wind Loads: Exterior wall systems shall be designed to withstand wind loads indicated on the Structural Drawings
1) Design corners for simultaneous inward design pressure on both surfaces, and simultaneous outward design pressure on both surfaces. Partial loading on one surface shall be considered.
b. Exterior wall systems shall sustain, without damage, 1.5 times design wind

loads when tested in accordance with ASTM E330.
c. Deflection Criteria: As specified in respective specifications sections.
d. Provision for Movement of the Structure:
1) The work shall be designed to accommodate dead load and live load deflection, thermal expansion, elastic shortening and/or sway and torsion of the building, as may be anticipated.
2) Obtain necessary projected data and make such provision in the work as may be necessary. The amount of such movement that is accommodated in the Contractor's design shall be identified on Contractor's submittal drawings.
3) Allow for ½" differential movement at the mid-point bay for perimeter floor slab deflection, when this load is transferred through exterior wall support system.
4. Seismic Design: Comply with requirements shown on Structural Drawings.
e. air and water penetration
1. Air Infiltration: Air leakage through exterior wall systems shall not exceed the following, as a minimum, when tested in accordance with ASTM E-283:
a. Not less than 0.06 cfm per square foot of fixed wall area, at a test pressure of 2.24 psf and as specified in respective specifications sections.
3. Water Penetration: Water penetration is defined as the appearance of uncontrolled water on the indoor face of any part of the work. "Controlled" water or condensation is that which is demonstrably drained to the exterior of the work without endangering or wetting adjacent surfaces or insulation, and is not visible in the final construction.
a. No uncontrolled water penetration shall occur when the work is tested in accordance with ASTM E331 at a test pressure of not less than 8 psf minimum and as specified in respective specifications sections.
b. Exterior wall systems shall include the design of a dual line of air and water control at joints.
c. Provision shall be made at each floor level to drain to the exterior face of the work, any water entering at joints, and/or any condensation occurring within the work. Exterior wall systems shall be designed to collect and remove all secondary water from the surrounding conditions. At insulated areas, gutter shall extend to the inside vertical plane of the insulation.
4. Condensation Resistance: Provide system with condensation-resistance factor (CRF) of not less than the following when tested according to AAMA 1503.1 for framing:

DIVISION 9—FINISHES

09260 GYPSUM DRYWALL

Steel Studs and Runners: ASTM C 645; .0312 inch minimum base metal thickness; sizes as indicated on drawings; ASTM A 653, G60 hot-dip galvanized; see structural drawings for load-bearing framing.

GWB: Gypsum Wall Board; Three-coat joint treatment. Provide at all interior wall surfaces, ceilings, and soffits; 5/8" thick; Type-X where rated construction is indicated. Install horizontally with as long of unbroken runs as possible. Back 4'-0" horizontal joint with wood or GWB extending 3" each side of joint.

MR moisture resistant GWB: Install in bathrooms and behind kitchen counters.

½" Exterior Gypsum Sheathing: ½" thick gypsum board; fire-resistant; water- resistant; water repellent paper both sides.

Accessories: Trim shapes by Beadex as follows (provide mud-type edge treatments only):

90-degree outside corners: B-1-W

90-degree inside corners: B-2

Non-90-degree corners: B-1 Flex-Bead

Metal Furring Channel: ½" Roll-formed, hat-shaped section; 20 gauge corrosion-resistant steel. For sound transmission reduction walls and ceilings as indicated on drawings.

09300 SHEET FLOORING

Provide and install wood/linseed composite(linoleum) flooring to all bathroom areas of all residential units. Vinyl to be 60 mils overall thickness, Marmolium.

09640 **Wood Flooring:** engineered T&G laminated hardwood vertical grain, natural finish, face veneer 3" wide with 1.25" beech veneer by Green Mountain Hardwood Flooring or approved equal.

09680 CARPET

Carpet: All carpet to meet UM44d. Provide and install carpet over high density recycled shredded urethane foam pad. Carpet to be Shaws industries or approved equal, 100% nylon, textured loop pile minimum 32oz. Public areas 32 oz. minimum level loop. To residential units, total weight of finished carpet to be 40oz minimum.

Recycled rubber flooring: Install Eco surface on treads on landings at rear stair.

09900 PAINTING

Benjamin Moore & Company or equal. (Following products listed are Benjamin Moore).

GWB:

1. Prime Coat: Moorcraft #253 Super Spec Latex enamel underbody and primer sealer.
2. Final Coats: 2 coats Moorcraft #274 Super Spec Latex Eggshell Enamel.

Interior Wood:

1. Filler: Benwood Interior Wood Finishes wood Grain Filler.
2. Intermediate: Moorcraft #245 Super Spec Alkyd enamel underbody and primer sealer.
3. Finish: 2 coats Moorcraft #276 Super Spec Latex semigloss enamel.

Transparent Finish: (natural)

1. Filler: Benwood Interior Wood Finishes Wood Grain Filler, match wood species.
2. Finish:
   i. 3 coats Benwood Polyurethane Finish High Gloss.
   ii. 1 coat Benwood Polyurethane Finish Satin Lustre.

Exterior Wood:

1. Primer: Moorcraft #176 Super Spec Alkyd Exterior Primer.
2. Finish: 2 coats Moorcraft #170 Super Spec Latex House and Trim Paint.

Steel Door:

1. Finish: 2 coats Ironclad #363 Latex low luster metal and wood enamel.

Fiber Cement: (if used)

1. Primer: Moore's #077 Alkyd masonry sealer.
2. Finish: 2 coats Moorcraft #170 Super Spec Latex House and Trim Paint.

DIVISION 10—SPECIALTIES

10520 FIRE PROTECTION

Hour Fire Separations: Provide 2 hour fire separations to all wall assemblies around the main stair, rear stair. Provide 1 hour separations for trash room and boiler room. Doors and frames to have1 hour rating

Unit Fire Separations: Provide 1 hour separation minimum to all wall and floors between all residential units.

Smoke Detectors: Install detectors in corridors, bedrooms and living space as shown on electrical plans and as required by the Portland Fire Chief and State Fire Marshall. Hard-wired with battery back-up; provide temporary disarm at kitchen.

10800 TOILET AND BATH ACCESSORIES

Toilet and Bath Accessories: Includes items such as toilet paper dispenser and towel racks; Premium residential grade as manufactured by Hewi, color to be approved by architect. Provide wood blocking for all accessories.

Medicine Cabinet: Recessed with mirror. Provide one each in bathrooms and lavatories.

Gas fireplace: 30,000 BTU gas insert with 3-piece slate (typical for four) surround by Vermont Casting or equal.

DIVISION 11—EQUIPMENT

11450 RESIDENTIAL EQUIPMENT

Residential Appliances: Contractor to provide and install the following appliances.

Refrigerator: Freestanding, frost-free, two-door, freezer below model, minimum 15.50 cu.ft. refrigerator on adjustable rollers, with five shelves minimum in each door.

Range: Porcelain enamel free standing 30" gas range with four burner cooktop, oven, full width storage drawer, and observation window..

Exhaust Hood: Stainless steel exhaust hood suspended from upper cabinets; dual speed fan with light, duct exhaust to the exterior. Provide over Kitchen range.

Dish Washer: Maytag stainless steel.

DIVISION 12—ROLLER SHADES

12494 ROLLER SHADES (NIC)

Roller shades: Contractor to provide and install roller shades to all bedroom windows of residential units. Shades to be PVC coated fiberglass or PVC-coated polyester, with spring operated wood roller.

DIVISION 13—SPECIAL CONSTRUCTION

13900 FIRE SUPRESSION AND SUPERVISORY SYSTEMS

Sprinkler System: Provide fully automated supervised sprinkler system in accordance with State of Maine Residential NFPA-13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height; provide all necessary components for complete installation; sprinkler head locations to be coordinated with design and approved by Architect prior to installation.

DIVISION 14—CONVEYING SYSTEMS

Not Used

DIVISION 15—MECHANICAL

15300 SPRINKLER SYSTEM: 13R system designed and installed in strict accordance with the State of Maine's Fire Marshall's Hydropro / supervised requirements.

15400 PLUMBING SYSTEM

Water Supply Piping: Above grade piping to be Type L copper throughout the building. Below grade interior piping to be Type K copper. **No type M copper** allowed on projects.

Heat System Piping: Above grade piping to be Type L copper or Pex tubing throughout the building. Below grade interior piping to be Type K copper.

Waste Piping: Cast iron and/or PVC waste piping as required by code.

Cleanouts and traps in all waste lines as required by code and good design practice.

Roof Drain: Zurn Z-100 or equal; 15" diameter; 3" outlet; cast iron body with combination membrane flashing clamp/gravel guard and low silhouette cast iron dome; roof sump receiver; under-deck clam; static extension as required or approved highest quality PVC; line size vertical expansion joint as required due to inflexibility of drainage piping.

Roof Drainage Piping: 3" PVC; provide cleanouts.

Deck Drains: As indicated on drawings plus one scupper for each fourth level deck.

15450 PLUMBING FIXTURES AND TRIM

Sink: Provide double 20 gauge 18-8 stainless steel kitchen sink.

Lavatory: Porcelain vitreous pedestal lavatory Kohler, Wellworth or approved equal china / white.

Water Closet: Elongated water-saver, vitreous china / white; Kohler, Wellworth or approved equal.

Tub/Shower: One-piece, fiberglass / white. Veracruz 60" by Kohler or approved equal.

Shower: 36" x 36" fiberglass unit with shower rod located @ 74" AFF Valcarta by Kohler or approved equal.

Faucets: Provide compact or 4" center dual handle for lavatories Classic Series by Grohe or approved equal residential grade. 135-WFTP in kitchen and 500 series in bathroom.

Bath/Shower Fittings: Anti-scald, Tempera 4000 by Grohe or approved equal.

Disposal: ½ HP Insinerator Badgor 5 or approved equal.

15500 HEATING AND VENTILATING

Boilers: (8) eight high efficiency gas fire boilers. Include all fittings and accessories needed for boiler operation, including safety valves, gauges, oil burner and controls. Through exhaust and make up air as indicated on drawings.

Domestic hot water: To be off boilers with eparate holding tank and circulators for third and fourth floor levels only.

Direct venting: Vent to the outdoors all kitchen exhaust hoods, bathrooms, trash room and Laundry Room dryers with mechanical fan assisted vents. Review all through wall penetrations with Architect prior to execution.

Temperature Controls: Provide Honeywell T-87 electric thermostats and control wiring to sequence 2-way control valve installed in baseboard radiation furnished and installed in each apartment.

Laundry room: To have gas fired 80 gal. water heater with radiation loop and fin tube on outside wall.

Radiators: Install Buderus or Myson radiators on the fourth level as required to provide even comfortable heating to all rooms. Install slant fin radiation elsewhere using wall-to-wall covers where practical.

DIVISION 16—ELECTRICAL

16400 SERVICE AND DISTRIBUTION

Service & Distribution: All work to be in accordance with the National Electric Code and Good Practice for Residential Construction. Installation to be by licensed electricians. 100 AMP service for each residential unit plus; one 150 AMP service for Community Room; 220V service to ranges and Laundry. Service to be provided underground. Unit panels to be located behind master bedroom entry door.

16500 LIGHTING

Lighting: Contractor to furnish, install and connect complete to the wiring system. Lights are generally to be incandescent and compact fluorescent fixtures/ lamps.

Residential Units: See electrical plans in general provide: Entry area to have one center ceiling light; Living room to have two switched receptacles in lieu of ceiling fixtures; Dining area to have dimmer switch for overhead light; Bedrooms to have one center ceiling light or switched receptacles; Closets to have fluorescent lights over doors; Kitchen to have low voltage under-cabinet lighting at upper cabinets, plus one center ceiling light; Bathrooms to have one or two wall mounted switched lights plus one central ceiling light integral with exhaust fan.

General Building: Exterior entry porch to have two surface mounted ceiling lights; common stairs and corridors to have wall sconces. Rear canopy to have one surface light.

Emergency lighting: As indicated on drawings and Contractor to provide in accordance with codes.

Outdoor lighting: See site plans. Two building mounted metal halide cut off fixtures and one pole light mounted.

16600 SAFETY: Provide direct wire smoke and heat detectors as required by code and as is good practice with multi-family dwelling.

16700 COMMUNICATIONS

Apartment intercom system to be NuTone Compact Directory w/ Direct-a-Com Apartment Speaker or approved equal.

END

Sebago Technics
Engineering Expertise You Can Build On

Report on Subsurface and Limited Foundation Investigation

Proposed Sheridan Street Condominiums
Portland, Maine

for

TFH Architects
100 Commercial Street
Portland, ME 04101

November 10, 2004

One Chabot Street, P.O. Box 1339, Westbrook, Maine 04098-1339 Ph. 207-856-0277 Fax 856-2206

Sebago Technics determined the locations of test pits by taping from existing site features.

The test pit logs and related information depict subsurface conditions and water levels only at their specific locations at the time of excavation. Soil conditions at other locations may differ from conditions at these locations. Also, the passage of time may result in a change in groundwater conditions at exploration locations.

Subsurface Conditions

The test pits encountered three principal soil units at the site: topsoil, fill and glacial outwash. Encountered thickness and generalized descriptions of these units are presented below in order of increasing depth below ground surface. Due to the complexity of the deposition process, strata thickness will vary and may be absent at specific locations.

Topsoil – Topsoil consists of brown to dark brown, silty SAND (SM), with grass roots. Encountered thickness varied from 0.6 foot to 0.7 foot.

Fill – Fill consists of brown to dark brown to gray brown, silty SAND with gravel (SM); to well-graded SAND with gravel (SW); to well-graded GRAVEL (GW) with up to 40 percent oversized (cobbles and boulders). Encountered thickness varied from 0.6 foot to 3.3 feet.

Glacial Outwash – Glacial outwash consists of light brown to brown, well-graded SAND with gravel (SW) with up to 15 percent oversized (cobbles and boulders). Test pits penetrated up to 6.8 feet into the stratum.

Groundwater was not observed in the test pits. However, observations of water were made over a relatively short period of time and may not represent the stabilized water level. In addition, water levels at the site will vary with season, precipitation, temperature and construction activity in the area. Therefore, water levels during and following construction will vary from those encountered in the test pits.

Recommendations for Foundation Design

Recommended Foundation Type and Design Criteria

The topsoil and existing fill are not suitable for support of the building or ground floor slab. All topsoil, fill and existing construction should be removed from within the building limits. We recommend that the building be supported on spread and continuous footings bearing on the undisturbed, naturally deposited sand (glacial outwash) or on compacted structural fill placed after removal of unsuitable soil.

Footings should be proportioned for an allowable bearing stress of 1,000 pounds per square foot (psf) multiplied by the least lateral dimension of the footing in feet up to 3,000 psf. All footings should be at least 1.5 feet wide.

Exterior footings should be founded at least 4.5 feet below the lowest adjacent ground surface exposed to freezing. Interior footings should be founded a minimum of 1.5 feet below the ground floor slab.

Compacted structural fill supporting footings should extend laterally from the footings to at least the limits defined by 1 horizontal to 1 vertical lines sloped outward and downward from points located at least 2 feet horizontally beyond the bottom edges of the footings.

Ground Floor Slab

We recommend that the lowest floor slab (basement) be designed as an earth-supported slab-on-grade bearing on a minimum of 4 inches of ½ or ¾ inch crushed stone. We recommend a perimeter and underslab drain system be constructed on the outside of the foundation walls and below the slab to minimize hydrostatic pressure and seepage into the basement of the building. The crushed stone layer below the floor slab, in combination with perforated pipes, may be used to collect any groundwater or surface water that infiltrates into the system.

We anticipate that gravity discharge is available for the system. If gravity discharge is not available, discharge will require collection into sumps and pumping. Normal dampproofing and vapor barrier should be provided for the lower level slab and walls.

Seismic Design Considerations

We recommend that the buildings be designed in accordance with the seismic requirements of the latest edition of the International Building Code, the site classification is Class D; the site response coefficient F_a is 1.5 for a short period spectral response acceleration S_s of 0.37g; the site response coefficient F_v is 2.4 for the 1-second period spectral response acceleration S_1 of 0.10g. The subgrade soils are not considered liquefaction susceptible.

Lateral Foundation Loads

We recommend that lateral loads be resisted by bottom friction on footings. We recommend that a coefficient of friction equal to 0.35 be used for footings bearing on soil or crushed stone. If this does not provide sufficient resistance, we will study the problem in more detail to take into account other factors.

Lateral Soil Pressure

We recommend that foundation walls which are restrained at the top and backfilled be designed to resist a lateral earth pressure calculated on the basis of an equivalent fluid unit weight of 55 pounds per cubic feet. This fluid unit weight assumes an at rest earth pressure coefficient of 0.45 and a free-draining backfill.

Backfill Materials

Structural fill used below foundations and floor slabs and for backfill adjacent to walls should consist of sandy gravel to gravelly sand. It should be free of organic material, loam, trash, snow, ice, frozen soil and other objectionable material, and should conform to the following gradation:

Sieve Size	Percent Finer by Weight
3 in.	100
No. 4	30 to 90
No. 40	10 to 50
No. 200	0 to 8

Compacted structural fill should be placed in layers not exceeding eight inches in loose measure and compacted by self-propelled vibratory equipment at the approximate optimum moisture content to a dry density of at least 95 percent of the maximum dry density, as determined in accordance with ASTM Test Designation D1557. In confined areas, the loose layer thickness should be reduced to 6 inches and compaction performed by hand-guided vibratory equipment.

Compacted structural fill on the outside of the foundation walls should extend laterally a minimum of 2 feet from the wall. Backfill beyond this limit on the outside of the building may consist of common fill. The top 12 inches of fill on the exterior of the building should consist of low permeability material to minimize water infiltration next to the building. Grading should provide for runoff away from the building.

Common fill may consist of inorganic mineral soil that can be placed in layers not exceeding 12 inches in thickness and compacted with a minimum of two systematic passes of the equipment placing the fill.

Construction Considerations

General

The primary purpose of this section of the report is to comment on items related to excavation, earthwork and related geotechnical aspects of proposed construction. It is written primarily for the engineer having responsibility for preparation of plans and specifications. Since it identifies potential construction problems related to foundations and earthwork, it will also aid personnel who monitor the construction activity.

Excavation, Lateral Support and Control of Water

We anticipate that foundation excavation can be accomplished with sloped open excavation through the overburden soils, provided safe side slopes can be maintained. It may be necessary to provide lateral support of the excavation along Sheridan Street if the existing sidewalk must be maintained during construction. Some sloughing and raveling should be

anticipated in temporary slopes. Temporary excavations should be made in accordance with all OSHA and other applicable regulatory agency requirements. Existing foundations within the limits of proposed foundations and floor slabs should be completely removed and the excavation to bearing level backfilled with compacted structural fill or crushed stone, as appropriate. Existing foundations below drives and the parking area should be removed to at least 2 feet below the pavement.

We anticipate that groundwater may be encountered during excavation for footings. If encountered, open pumping from sumps can likely control groundwater. In general, the contractor should control groundwater and water from other sources by methods that prevent disturbance of adjacent soils and allow construction in-the-dry.

Subgrade Preparation

The subgrade soil is susceptible to disturbance from construction traffic. Equipment and personnel should not be permitted to travel across exposed footing bearing surfaces or exposed slab subgrades. Any subgrade areas that are disturbed should be recompacted or excavated and replaced with compacted structural fill prior to placing of concrete. Subgrades should be protected against freezing temperatures if exposed during construction. Final excavation to subgrade should be performed using equipment with smooth-edge buckets.

Construction Monitoring

The foundation recommendations contained herein are based on the known and predictable behavior of a properly engineered and constructed foundation. Monitoring of the foundation construction is required to enable the geotechnical engineer to keep in contact with procedures and techniques used in construction. Therefore, we recommend that a person qualified by training and experience be present to provide monitoring at the site during excavation of bearing surfaces and placement of compacted structural fill.

Limitations of Recommendations

This report has been prepared for specific application to the subject project in accordance with generally accepted geotechnical engineering practices. In the event that any changes in the nature, design or location of the buildings are planned, the conclusions and recommendations contained in this report should not be considered valid, unless the changes are reviewed and the conclusions of this report modified or verified in writing.

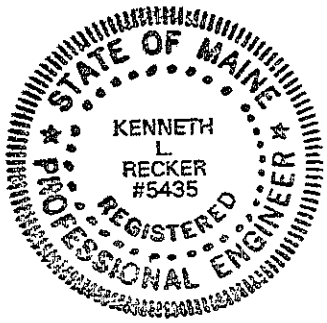
The recommendations presented herein are based in part on the data obtained from the referenced test pits. The nature and extent of variations between the explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.

We request that we be provided the opportunity for a general review of final design and specifications in order to determine that our earthwork and foundation recommendations have been interpreted and implemented in the design and specifications as they were intended.

It has been a pleasure to work with you on this project. Please do not hesitate to contact us if you have any questions or need additional information.

Sincerely,

SEBAGO TECHNICS, INC.



Kenneth L. Recker, P.E.
Geotechnical Engineering Manager

KLR:klr/jc
Enclosures:

Sheet 1	- Site and Subsurface Exploration Plan
Appendix A	- Logs of Test Pits

Appendix A

Logs of Test Pits

SEBAGO TECHNICS, INC.

TEST PIT LOG

Test Pit No. **TP1**

Page 1 of 1

PROJECT	SHERIDAN STREET CONDOMINIUMS	PROJECT NO.	04446
LOCATION	SHERIDAN STREET, PORTLAND, MAINE	PROJECT MGR.	K. RECKER
CLIENT	TFH ARCHITECTS	FIELD REP	K. B. STEPHENSON
CONTRACTOR	W. H. LAVIGNE	DATE	11/4/04
EQUIPMENT	LINK BELT 2700	WEATHER	Sunny, 40s

Ground El. 41.5 ft | Location See Plan | Groundwater depths/entry rates (in/min): N/E

El. Datum

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Group Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, % oversized, max particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test: Dilatancy	Toughness	Plasticity	Strength
		0.9	SM	Dark brown silty SAND with gravel (SM), roots, mps = 3.0 in., dry	10	10	30	10	25	15				
				-FILL-										
	1.6	1.6	SW-SM	Brown well-graded SAND with silt and gravel (SW-SM), bricks, 25% oversized, mps = 12.0 in., trace wood, dry	20	10	30	20	10	10				
2	S1		GW	Brown well-graded GRAVEL with sand (GW), mps = 3.0 in., roots, trace silt, dry	30	40	20	5	5					
	2.3	2.3		-FILL-										
			SW	Light brown well-graded SAND with gravel (SW), 10% oversized, mps = 6.0 in., dry	10	10	40	30	10					
4														
				-GLACIAL OUTWASH DEPOSITS-										
6														
8														
				Bottom of exploration at 8.0 ft. below ground surface										
				No refusal										
10														

Obstructions:

Remarks: Fill is deeper on up-slope wall of test pit

Standing water in completed pit:

at depth _____ ft.

measured after _____ hrs. elapsed

Boulders:

Diameter (in.)	Number		Approx. vol. (cu. ft.)
12 to 24	3	≈	
over 24	–	≈	

Test Pit Dimensions:

Pit Depth 8.0 Ft.

Pit Length X Width 11.0 Ft. X 4.0 Ft.

SEBAGO TECHNICS, INC.

TEST PIT LOG

Test Pit No. **TP2**

Page 1 of 1

PROJECT	SHERIDAN STREET CONDOMINIUMS	PROJECT NO.	04446
LOCATION	SHERIDAN STREET, PORTLAND, MAINE	PROJECT MGR.	K. RECKER
CLIENT	TFH ARCHITECTS	FIELD REP	K. B. STEPHENSON
CONTRACTOR	W. H. LAVIGNE	DATE	11/4/04
EQUIPMENT	LINK BELT 2700	WEATHER	Sunny, 40s

Ground El. 38.1 ft | Location See Plan | Groundwater depths/entry rates (in/min): N/E

El. Datum

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Group Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, % oversized, max particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test: Dilatancy	Toughness	Plasticity	Strength
		0.3		-BITUMINOUS CONCRETE-										
		0.5	SW	Brown well-graded SAND with gravel (SW), mps = 2.0 in., dry -FILL-	15	10	30	20	25					
		0.6		-BITUMINOUS CONCRETE-										
		0.8	SW	Brown well-graded SAND with gravel (SW), mps = 2.0 in., dry -FILL-										
2		1.8	GW-GM	Brown well-graded GRAVEL with silt and sand (GW-GM), mps = 4.0 in., wood, brick, dry	30	30	20	5	5	10				
			SW	Light brown well-graded SAND with gravel (SW), 10% oversized, mps = 6.0 in., dry	10	10	40	30	10					
4														
				-GLACIAL OUTWASH DEPOSITS-										
	5.0													
	S1													
6	6.0													
8				Bottom of exploration at 8.0 ft. below ground surface No refusal										
10														

Obstructions:

Remarks:

Standing water in completed pit:
at depth ft.
measured after hrs. elapsed

Boulders:

Diameter (in.)	Number		Approx. vol. (cu. ft.)
12 to 24	--	=	
over 24	--	=	

Test Pit Dimensions:
Pit Depth 8.0 Ft.
Pit Length X Width 10.0 Ft. X 4.0 Ft.

SEBAGO TECHNICS, INC.

TEST PIT LOG

Test Pit No. **TP3**

Page 1 of 1

PROJECT	SHERIDAN STREET CONDOMINIUMS	PROJECT NO.	04446
LOCATION	SHERIDAN STREET, PORTLAND, MAINE	PROJECT MGR.	K. RECKER
CLIENT	TFH ARCHITECTS	FIELD REP	K. B. STEPHENSON
CONTRACTOR	W. H. LAVIGNE	DATE	11/4/04
EQUIPMENT	LINK BELT 2700	WEATHER	Sunny, 40s

Ground El. / El. Datum: 37.1 ft | Location: See Plan | Groundwater depths/entry rates (in/min): N/E

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Group Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, % oversized, max particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test: Dilatancy	Toughness	Plasticity	Strength
		0.3		-BITUMINOUS CONCRETE-										
		0.9	SM	Brown silty SAND with gravel (SM), mps = 3.0 in., dry -FILL-	25	15	30	10	5	15				
			SM	Gray-brown silty SAND with gravel (SM), bituminous concrete, ash, brick, rebar, mps =	20	10	25	15	10	20				
		1.5		4.0 in., dry -FILL-										
2			SW	Brown well-graded SAND with gravel (SW), 40% oversized, mps = 12.0 in.,	25	20	40	10	5					
	S1	2.2		dry -FILL-										
			SW	Light brown well-graded SAND with gravel (SW), 10% oversized, mps = 8.0 in., dry	10	10	40	30	10					
4														
				-GLACIAL OUTWASH DEPOSITS-										
6														
	6.0													
	S2													
	7.0													
				Bottom of exploration at 7.0 ft. below ground surface										
8				No refusal										
10														

Obstructions:

Remarks: Test pit walls collapse rapidly

Standing water in completed pit:
at depth _____ ft.
measured after _____ hrs. elapsed

Boulders:

Diameter (in.)	Number		Approx. vol. (cu. ft.)
12 to 24	12	=	
over 24	--	=	

Test Pit Dimensions:
Pit Depth 7.0 Ft.
Pit Length X Width 10.0 Ft. X 4.0 Ft.

SEBAGO TECHNICS, INC.

TEST PIT LOG

Test Pit No. TP4

Page 1 of 1

PROJECT	SHERIDAN STREET CONDOMINIUMS	PROJECT NO.	04446
LOCATION	SHERIDAN STREET, PORTLAND, MAINE	PROJECT MGR.	K. RECKER
CLIENT	TFH ARCHITECTS	FIELD REP	K. B. STEPHENSON
CONTRACTOR	W. H. LAVIGNE	DATE	11/4/04
EQUIPMENT	LINK BELT 2700	WEATHER	Sunny, 40s

Ground El. 37.1 ft | Location See Plan | Groundwater depths/entry rates (in/min): N/E

El. Datum

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Group Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, % oversized, max particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test: Dilatancy	Toughness	Plasticity	Strength
			SM	Dark brown silty SAND (SM), mps = 1.0 in., grass roots, dry	5	5	15	20	40	15				
		0.7		-TOPSOIL/FILL-										
			SM	Gray-brown silty SAND with gravel (SM), brick, glass, shells, mps = 3.0 in., dry	10	10	30	10	25	15				
		1.5		(Note: varies in depth from 1.2 to 1.5 ft.) -FILL-										
2			SW	Brown well-graded SAND with gravel (SW), 40% oversized, mps = 24.0 in., root mass at 2.5 ft., dry	20	10	30	30	10					
				-FILL-										
4		4.0												
			SW	Brown well-graded SAND with gravel (SW), 15% oversized, mps = 10.0 in., dry	20	15	30	25	10					
6				-GLACIAL OUTWASH DEPOSITS-										
8				Bottom of exploration at 8.4 ft. below ground surface No refusal										
10														

Obstructions:

Remarks:

Standing water in completed pit:
at depth ____ ft.
measured after ____ hrs. elapsed

Boulders:

Diameter (in.)	Number		Approx. vol. (cu. ft.)
12 to 24	20	=	
over 24	10	=	

Test Pit Dimensions:
Pit Depth 8.4 Ft.
Pit Length X Width 10.0 Ft. X 4.0 Ft.

SEBAGO TECHNICS, INC.

TEST PIT LOG

Test Pit No. **TP5**

Page 1 of 1

PROJECT	SHERIDAN STREET CONDOMINIUMS	PROJECT NO.	04446
LOCATION	SHERIDAN STREET, PORTLAND, MAINE	PROJECT MGR.	K. RECKER
CLIENT	TFH ARCHITECTS	FIELD REP	K. B. STEPHENSON
CONTRACTOR	W. H. LAVIGNE	DATE	11/4/04
EQUIPMENT	LINK BELT 2700	WEATHER	Sunny, 40s

Ground El. 38.3 ft | Location See Plan | Groundwater depths/entry rates (in/min): N/E

El. Datum

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Group Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, % oversized, max particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel % Coarse	Gravel % Fine	Sand % Coarse	Sand % Medium	Sand % Fine	% Fines	Field Test: Dilatancy	Toughness	Plasticity	Strength
			SM	Brown silty SAND (SM), 15% oversized, mps = 6.0 in., grass roots, dry	5	5	20	20	35	15				
		1.2		-TOPSOIL/FILL-										
2			SW	Light brown well-graded SAND with gravel (SW), 10% oversized, mps = 8.0 in., dry	15	10	40	25	10					
4														
6				-GLACIAL OUTWASH DEPOSITS-										
8				Bottom of exploration at 8.0 ft. below ground surface No refusal										
10														

Obstructions:

Remarks:

Standing water in completed pit:
at depth _____ ft.
measured after _____ hrs. elapsed

Boulders:

Diameter (in.)	Number		Approx. vol. (cu. ft.)
12 to 24	--	=	
over 24	--	=	

Test Pit Dimensions:
Pit Depth 8.0 Ft.
Pit Length X Width 10.0 Ft. X 4.0 Ft.

04446

TABLE I
SUMMARY OF TEST PITS
PROPOSED CONDOMINIUMS
SHERIDAN STREET
PORTLAND, MAINE

Test Pit Number	Depth (Ft)	Depth to Water (Ft)	Strata Thickness (Ft)		
			Topsoil	Fill	Glacial Outwash
TP1	8.0	NE	--	2.3	5.7*
TP2	8.0	NE	--	1.8	6.2*
TP3	7.0	NE	--	2.2	4.8*
TP4	8.4	NE	0.7	3.3	4.4*
TP5	8.0	NE	0.6	0.6	6.8*

NOTES:

1. NE INDICATES GROUNDWATER NOT OBSERVED WITHIN DEPTH OF TEST PIT.
2. -- INDICATES STRATUM NOT ENCOUNTERED WITHIN DEPTH OF TEST PIT.
3. * INDICATES DEPTH OF PENETRATION INTO STRATUM.

Sebago Technics
Engineering Expertise You Can Build On

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Westbrook, Maine
04098-1339
Ph. 207-856-0277
Fax 856-2206

November 10, 2004
04446

Mr. Scott Teas
TFH Architects
100 Commercial Street
Portland, ME 04101

Report on Subsurface and Limited Foundation Investigation
Proposed Sheridan Street Condominiums, Portland, Maine

Dear Scott:

This report presents our evaluation of the subsurface conditions and limited foundation requirements for the proposed condominiums at 115 Sheridan Street in Portland, Maine. This work was undertaken in accordance with our proposal dated October 27, 2004.

In summary, we recommend that the building be supported on undisturbed, naturally deposited sand or on compacted structural fill placed after removal of unsuitable soil. In addition, an earth-supported slab-on-grade may be used for the lowest ground floor. Specific recommendations regarding subsurface conditions and limited foundation requirements are presented below.

Introduction

The proposed site is located at 115 Sheridan Street. The site is relatively flat except for the northeast corner, which slopes up 4 to 5 feet. The site is presently developed with several one-story automobile parking garages and a two-story house. We understand that these structures will be demolished and the foundations removed prior to construction. The proposed condominiums will consist of a four-story building with eight dwelling units and a full basement. Site development will include paved parking and access drive. The northeast corner of the parking will require an excavation of approximately 5 feet for parking construction.

Subsurface Explorations

On November 4, 2004, W. H. Lavigne (Lavigne) excavated five test pits, TP1 to TP5, at locations shown on Sheet 1, Site and Subsurface Exploration Plan. Lavigne excavated the test pits to depths below ground surface varying from 7.0 feet to 8.4 feet using a Link Belt 2700 excavator. Sebago Technics, Inc. monitored the test pits and prepared the logs included in Appendix A. Table I summarizes the results of test pits. Lavigne backfilled the test pits with the excavated material.