Signed off by on Urban Issues 9/8/06

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM
Zoning Copy

2006-0168 — Application I. D. Number

Bjfc Llc — Applicant

8/29/2006 — Application Date

915 Forest Ave , Portland, ME 04103 — Applicant's Mailing Address

Caravan Beads — Project Name/Description

Consultant/Agent

915 - 915 Forest Ave, Portland, Maine — Address of Proposed Site

Applicant Ph: (800) 230-8941 Agent Fax: — Applicant or Agent Daytime Telephone, Fax

142 F004001 — Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): ☐ New Building ☑ Building Addition ☐ Change Of Use ☐ Residential ☐ Office ☑ Retail ☐ Manufacturing ☑ Warehouse/Distribution ☑ Parking Lot ☐ Other (specify)

Proposed Building square Feet or # of Units	Acreage of Site	Zoning
	51,087	B2

Check Review Required:

☑ Site Plan (major/minor)	☐ Subdivision # of lots	☐ PAD Review	☐ 14-403 Streets Review
☐ Flood Hazard	☐ Shoreland	☐ HistoricPreservation	☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB)	☐ Zoning Variance		☐ Other

Fees Paid: Site Pla $500.00 Subdivision Engineer Review Date 8/29/2006

Zoning Approval Status:

Reviewer Marge S. – Inspections

☐ Approved ☐ Approved w/Conditions See Attached ☐ Denied

Approval Date Approval Expiration Extension to ☐ Additional Sheets Attached

☐ Condition Compliance — signature — date

Performance Guarantee ☐ Required* ☐ Not Required

* No building permit may be issued until a performance guarantee has been submitted as indicated below

☐ Performance Guarantee Accepted	date	amount	expiration date
☐ Inspection Fee Paid	date	amount	
☐ Building Permit Issue	date		
☐ Performance Guarantee Reduced	date	remaining balance	signature
☐ Temporary Certificate of Occupancy	date	☐ Conditions (See Attached)	expiration date
☐ Final Inspection	date	signature	
☐ Certificate Of Occupancy	date		
☐ Performance Guarantee Released	date	signature	
☐ Defect Guarantee Submitted	submitted date	amount	expiration date
☐ Defect Guarantee Released	date	signature	

DEPT. OF BUILDING INSPECTION CITY OF PORTLAND, ME AUG 30 2006 RECEIVED

8/30/06

Land Use Consultants Inc.

David A. Kamila PE
Frederic J. Licht PE
Thomas N. Emery RLA
J. David Haynes RLA

planners
engineers
landscape
architects

August 29, 2006

4516

Sarah Hopkins
Development Review Program Manager
Department of Urban Development
Portland City Hall
389 Congress Street
Portland, ME 04101

Caravan Beads Expansion Site Plan Application
915 Forest Avenue, Portland, Maine (Assessor's Map 142-F-4)

Dear Sarah:

I am pleased to submit the attached Site Plan Application on behalf of BJFC, LLC owner of the property located at 915 Forest Avenue. This submission includes the following materials:

- Attachment 1: Site Plan Application & Checklist
- Attachment 2: Figures
- Attachment 3: Right, Title, & Interest
- Attachment 4: Financial Capacity
- Attachment 5: Technical Capability
- Attachment 6: Construction Plan
- Attachment 7: Blasting Plan
- Attachment 8: Stormwater Letter
- Attachment 9: Geotechnical Report
- Attachment 10: Parking Letter
- Attachment 11: Reduced (11x17) Plan Set

Background:

Caravan Beads leases the existing building from BJFC, LLC. The property is located in the B-2 Community Business Zone, which allows Retail, Retail Storage, General Office, Business not Retail, and Glass Studio Uses, under Section 14-182 (b) (4). However, Wholesale Distribution Use is a Conditional Use subject to a maximum gross floor area of 10,000 sq. ft. under 14-183 (b) (3). Caravan Beads received a Conditional Use Permit from the Zoning Board of Appeals on August 17, 2006, to expand their Wholesale Distribution portion of their business. BJFC, LLC originally received a Conditional Use Permit from the Zoning Board of Appeals on February 20, 2003 when Caravan Beads relocated to this site in 2003.

966 RIVERSIDE STREET
PORTLAND, MAINE 04103

voice (207) 878 · 3313
fax (207) 878 · 0201
email: landuse@landuseinc.net

LUC

See Next Pg

County

Existing Conditions:

The existing 9,622 sq. ft. building is located at 915 Forest Avenue, which is located on the easterly side of Forest Avenue and is just south of the intersection with Walton Street. The 51,087 sq. ft. lot is a developed lot, of which 39,853 sq ft or 78% of the site is impervious area. The only non-impervious area of the site are two small landscape areas in the front of the building and an overgrown bamboo brush area located in the northeast corner of the site along Walton Street. There are no watercourses, wetlands, or wooded areas located on this developed site. However, the site does contain 2 ledge outcroppings under the bamboo brush area at the rear of the lot.

The project site has 201.93 ft. of frontage on Forest Avenue and 78.81 ft. of frontage on Walton Street (Route 9). Caravan Beads is accessible, via vehicle and pedestrian traffic, from both Forest Avenue and Walton Street. The access from Walton Street is only a 10-ft driveway. There are two access points off Forest Avenue, a 20-ft curb cut of the south of the building and a 24-ft curb cut to the north of the building, which accesses the side parking lot.

Currently parking is provided in many areas. There is parking along the front and north of the building, as well as, along the southern side and rear side off the property boundary. Lastly there is a parking lot located to the north of the building in the north west corner of the lot adjacent to Forest Avenue. There is a total of 39 parking spaces, of which 2 are for handicapped parking. Additionally, a loading bay is located at the rear of the existing building near Walton Street.

7

39

Caravan Beads utilizes two dumpsters that located at the rear of the building, in the southeast corner of the site. Both dumpsters were provided by Troiano Waste Service. One dumpster is a 2-yard dumpster for trash, and the other is a 6-yard dumpster for cardboard.

The existing building is served by underground and overhead utilities. Underground water, sewer and gas utilities and overhead power, telephone and cable serve the existing building. Building mounted wall packs are used for lighting on-site. The signage on-site consists of the words Caravan Beads & Fabrics located on the Forest Avenue face of the building.

Currently, there is no stormwater infrastructure located on-site. The stormwater from the roof enters a gutter system that outlets along the sides of the building to the pavement. Therefore, all the stormwater on-site flows by sheet flow across the site's pavement to the stormwater catch basins located on Forest Avenue and Walton Street.

LUC

Proposed Development:

BJFC, LLC is proposing to increase the size of the existing 9,622 sq ft, Caravan Beads building by 16,124 sq ft to 25,746 sq ft. This proposed expansion will result in total impervious surface area of 37,401 sq ft, which is 73% of the site. Not only is this less than the maximum allowable of 80%, it is a reduction in the existing impervious area by 5% or 2,452 sq ft. This reduction in impervious area is due to the reconfiguration of the site's layout, increase in the setbacks maintained and removal of some paved areas.

The proposed expansion will be located adjacent to three sides of the existing building: the front, south side, and rear. This proposed addition would maintain a 10-foot setback from the rear and southern side property lines. A 9-foot setback would be maintained from the front (Forest Avenue) property line, which is in alignment with the abutting properties along Forest Avenue. The new retail entrance will be relocated to the front corner of the new addition adjacent to Forest Avenue along with a new curbed 7-foot walkway that meets ADA requirements.

With this proposed expansion, the 20-foot curb cut on Forest Avenue, located to the south of the existing building would be removed. The only access from Forest Avenue would be via the site's existing 24-foot curb cut, which is located to the north of the existing building. This 24-foot access way will be maintained, 4 ft from the building, all the way thru to Walton Street. Therefore, the existing 10-foot curb cut and access way from Walton Street will be widen to 24 feet.

Currently, retail customers and staff who drive to the site enter both from Forest Avenue and Walton Street. Due to the volume of traffic on Forest Avenue and the proximity to the traffic light located at the intersection with Walton Street, the owner advises everyone to exit via Walton Street. We are proposing to install signage with one-way entry from Forest Avenue and two-way traffic to Walton Street. All traffic will exit onto Walton Street.

This new addition will require the parking areas to be removed from around, (front, sides, and rear) the existing building. Instead the parking will be limited to two areas. First is the parking area in the northwest corner of the lot. This parking area will contain 15 parking spaces that are the standard 9 ft by 19 ft, two of these spaces are handicapped spaces with the required ADA van accessible 8 ft by 19 ft access isle in-between. Additionally, this parking area will maintain a 10-foot setback from the Forest Avenue sidewalk and a 5-foot setback from the northern property line, both of which are 5 feet greater than the current setbacks.

LUC

The second parking area is located along the northern side of the proposed 24-foot access way. These 17 parking spaces would be considered compact parking spaces because they are 7½ ft by 15 ft. These compact spaces are being proposed in place of the standard size spaces in an effort to save an existing tree. At our Zoning Board of Appeals meeting the abutter located at lot 142-F-2 requested that the tree be saved. To comply with the request, the parking had to be reconfigured so that there would be no paving or grading within 15 ft of the tree. Not only does using compact parking spaces allow for the necessary buffer needed for the tree's root ball, it also reduces the impervious area of the site.

In all, a total of 32 parking spaces will be provided, which complies with the parking requirements of the ordinance. However, a letter from the President of Caravan Beads is included in Attachment 10 of the application package. The letter states that 26 parking spaces would be more than adequate for the present and future parking needs for Caravan Beads. There are usually only ten employee cars along with 2 to 6 customer cars during the weekdays. While the number of customer cars may increase on the weekends, there are only 2 employee cars at that time.

This business does not generate a great deal of traffic. Currently there is one larger truck delivery each month along with a few UPS type deliveries and pick-ups each day. This new addition will reconfigure the loading bay, however it will remain to the rear of the site.

The dumpsters will be relocated and screened within a solid wood fenced enclosure located inbetween the proposed loading bay and Walton Street access way, at the rear of the site. The 2-yard trash dumpster consists mostly of office materials, kitchen refuse, packaging materials and small quantities of miscellaneous materials. The 6-yard dumpster is for cardboard. Both dumpsters are currently emptied once a week. This proposed addition is not expected to generate any changes in the type or quantity of solid waste produced. No materials will be stored outside the building.

The site currently has minimal landscaping, which we are proposing to enhance for screening and beautification purposes. Currently, the site is paved to the property lines, except in the northeasterly corner by Walton Street. Along Forest Avenue where the front yard setback would be increased to 9 ft for the building and 10 ft for the parking area, landscaping will replace the existing pavement. A 5-foot landscaped screening buffer is proposed for the northern property line along the parking area. A 10-foot grass buffer is proposed for the southern and rear property lines, in-between the building and fence. Additional, landscaping is proposed along the Walton Street entrance as well as in the bamboo area. Please refer to the Landscape Plan, Drawing C-3 of the Plan Set for the details.

LUC

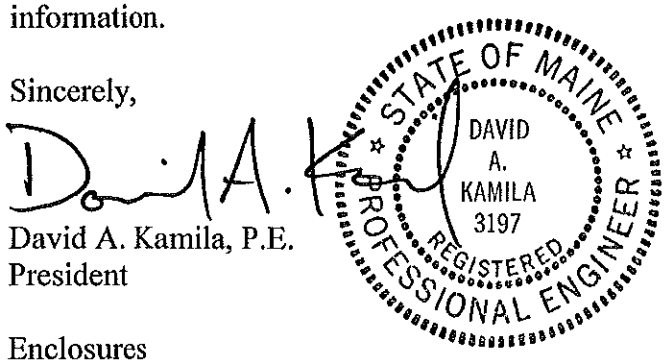
The signage on-site would consist of a traffic circulation one-way sign, handicap parking signs, and the business sign. The business sign would be relocated to the front of the addition on the Forest Avenue face of the building. Wall packs would continue to be used for the lighting on-site.

The proposed expansion would be served by the existing underground utilities consisting of water, sewer and gas that currently serve the existing building. The existing hydrant connection will remain unchanged on the existing building. Additionally, the sprinkler system located in the existing building would be extended into the proposed addition. The existing overhead power, telephone and cable will however be replaced by new underground services from the existing pole on Forest Avenue.

Currently, the stormwater on-site flows by sheet flow to the catch basins located on Forest Avenue and Walton Street. As part of this expansion project, two catch basins would be installed on-site to collect the site's stormwater. A gutter system would be used to collect the stormwater from the roof and pipe the stormwater to the catch basins. The stormwater collected in the catch basins from the site's impervious areas would be piped through a first defense treatment device into the City's stormwater system in Walton Street. Please refer to Attachment 10 for the full Stormwater Report.

I trust you will find this application complete and look forward to meeting with you and the Planning Board to discuss this matter in more detail. In the meantime, please call me with any questions or requests for additional information.

Sincerely,



David A. Kamila, P.E.
President

Enclosures

cc: Barry Kahn, Owner
Mike Charek, AIA

Attachment 1

Site Plan Application & Checklist

City of Portland Site Plan Application

If you or the property owner owes real estate taxes, personal property taxes or user charges on any property within the City, payment arrangements must be made before permit applications can be received by the Inspections Division.

Address of Proposed Development: 915 Forest Avenue, Portland			**Zone:** B-2 Community Busin.
Existing Building Size: 9,622 sq. ft.		**Proposed Building Size:** 25,746 sq. ft.	
Existing Acreage of Site: 51,087 sq. ft.		**Proposed Acreage of Site:** 51,087 sq. ft.	
Tax Assessor's Chart, Block & Lot: Chart# 142 Block# F Lot# 4	**Property owner's mailing address:** 915 Forest Ave Portland, ME		**Telephone #:** (800) 230-8941
Consultant/Agent, mailing address, phone # & contact person: (207) 878-3313 Land Use Consultants, c/o David Kamila 966 Riverside St, Portland, ME 04103	**Applicant's name, mailing address, telephone #/Fax#/Pager#:** BJFC, LLC, (800) 230-8941 915 Forest Ave, Portland		**Project name:** Caravan Beads

Fee For Service Deposit (all applications) ___X___ **($200.00)**

Proposed Development (check all that apply)

___ New Building _X_ Building Addition ___ Change of Use ___ Residential ___ Office _X_ Retail
___ Manufacturing _X_ Warehouse/Distribution _X_ Parking lot
___ Subdivision ($500.00) + amount of lots____ ($25.00 per lot) $_____ + major site plan fee if applicable
___ Site Location of Development ($3,000.00)
(except for residential projects which shall be $200.00 per lot_____)
___ Traffic Movement ($1,000.00) ___ Storm water Quality ($250.00)
___ Section 14-403 Review ($400.00 + $25.00 per lot)
___ Other_____

Major Development (more than 10,000 sq. ft.)

_X_ Under 50,000 sq. ft. ($500.00)
___ 50,000 - 100,000 sq. ft. ($1,000.00)
___ Parking Lots over 100 spaces ($1,000.00)
___ 100,000 - 200,000 sq. ft. ($2,000.00)
___ 200,000 - 300,000 sq. ft. ($3,000.00)
___ Over 300,000 sq. ft. ($5,000.00)
___ After-the-fact Review ($1,000.00 + applicable application fee)

Minor Site Plan Review

___ Less than 10,000 sq. ft. ($400.00)
___ After-the-fact Review ($1,000.00 + applicable application fee)

Plan Amendments

___ Planning Staff Review ($250.00)
___ Planning Board Review ($500.00)

~ Please see next page ~

Who billing will be sent to: **(Company, Contact Person, Address, Phone #)**

Caravan Beads
c/o Barry Kahn
915 Forest Ave
Portland, ME
(800) 230-8941

Submittals shall include (9) separate **folded** packets of the following:

a. copy of application
b. cover letter stating the nature of the project
c. site plan containing the information found in the attached sample plans checklist
d. 1 set of 11 x 17 plans

Amendment to Plans: **Amendment applications should include 9 separate packets of the above (a, b, & c)**

ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

Section 14-522 of the Zoning Ordinance outlines the process which is available on our web site: **portlandmaine.gov**

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

Signature of applicant:	**Date:** 8/24/06

This application is for site review ONLY; a building Permit application and associated fees will be required prior to construction.

City of Portland, Maine Site Plan Checklist

Caravan Beads, 915 Forest Ave, Portland

Project Name, Address of Project Number

Application

Submitted () & Date (b,c)	Item	Required Information	Section 14-525
X	(1)	Standard boundary survey (stamped by a registered surveyor, at a scale of not less than 1 inch to 100 feet and including:	1
X	(2)	Name and address of applicant and name of proposed development	a
X	(3)	Scale and north points	b
X	(4)	Boundaries of the site	c
X	(5)	Total land area of site	d
X	(6)	Topography - existing and proposed (2 feet intervals or less)	e
X	(7)	Plans based on the boundary survey including:	2
X	(8)	Existing soil conditions	a
X	(9)	Location of water courses, marshes, rock outcroppings and wooded areas	b
X	(10)	Location, ground floor area and grade elevations of building and other structures existing and proposed, elevation drawings of exterior facades, and materials to be used	c
X	(11)	Approx location of buildings or other structures on parcels abutting the site	d
X	(12)	Location of on-site waste receptacles	e
X	(13)	Public utilities	e
X	(14)	Water and sewer mains	e
X	(15)	Culverts, drains, existing and proposed, showing size and directions of flows	e
X	(16)	Location and dimensions, and ownership of easements, public or private rights-of-way, both existing and proposed	f
X	(17)	Location and dimensions of on-site pedestrian and vehicular access ways	g
X	(18)	Parking areas	g
X	(19)	Loading facilities	g
X	(20)	Design of ingress and egress of vehicles to and from the site onto public streets	g
X	(21)	Curb and sidewalks	g
X	(22)	Landscape plan showing:	h
X	(23)	Location of existing proposed vegetation	h
X	(24)	Type of vegetation	h
X	(25)	Quantity of plantings	h
X	(26)	Size of proposed landscaping	h
X	(27)	Existing areas to be preserved	h
X	(28)	Preservation measures to be employed	h
X	(29)	Details of planting and preservation specifications	h
X	(30)	Location and dimensions of all fencing and screening	i
X	(31)	Location and intensity of outdoor lighting system	j
X	(32)	Location of fire hydrants, existing and proposed	k
X	(33)	Written statement	c
X	(34)	Description of proposed uses to be located on site	l
X	(35)	Quantity and type of residential, if any	l
X	(36)	Total land area of the site	b2
X	(37)	Total floor area and ground coverage of each proposed building and structure	b2
N/A	(38)	General summery of existing and proposed easements or other burdens	c3
X	(39)	Method of handling solid waste disposal	4
X	(40)	Applicant's evaluation of availability of off-site public facilities, including sewer, water and streets	5
X	(41)	Description of any problems of drainage or topography, or a representation that there are none	6
X	(42)	An estimate of the time period required for completion of the development	7
N/A	(43)	A list of all state and federal regulatory approvals to which the development may be subject to. **	8

N/A	(44)	The status of any pending applications	8
N/A	(45)	Anticipated timeframe for obtaining such permits	h8
N/A	(46)	A letter of non jurisdiction	h8
X	(47)	Evidence of financial and technical capability to undertake and complete the development including a letter from a responsible financial institution stating that is has reviewed the planned development and would seriously consider financing it when approved.	

** If project consists of soil disturbance of over one acre, a Maine Construction General Permit is required from the Maine Department of Environmental Protection.

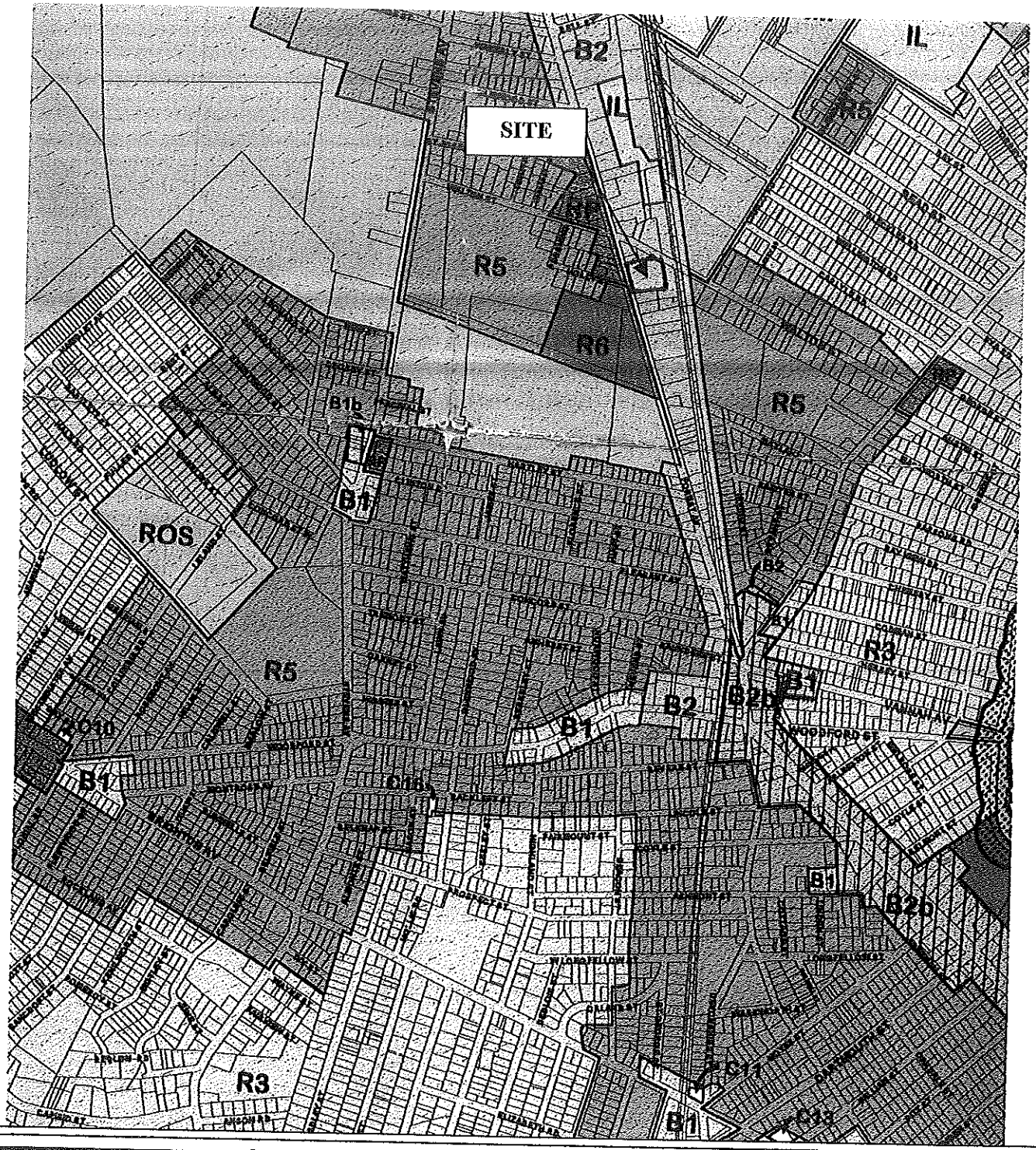
Note: Depending on the size and scope of the proposed development, the Planning Board or Planning Authority may request additional information, including (but not limited to):

- drainage patterns and facilities;
- erosion and sedimentation controls to be used during construction;
- a parking and/or traffic study;
- emissions; and
- a wind impact analysis.
- an environmental impact study;
- a sun shadow study;
- a study of particulates and any other noxious
- a noise study;

Other comments:

Attachment 2
Figures

REFERENCE : City of Portland, Maine, Zoning Map, dated December 2000



Land Use Consultants, Inc.

- PREPARED FOR:

BJFC, LLC
915 Forest Ave
Portland, Maine

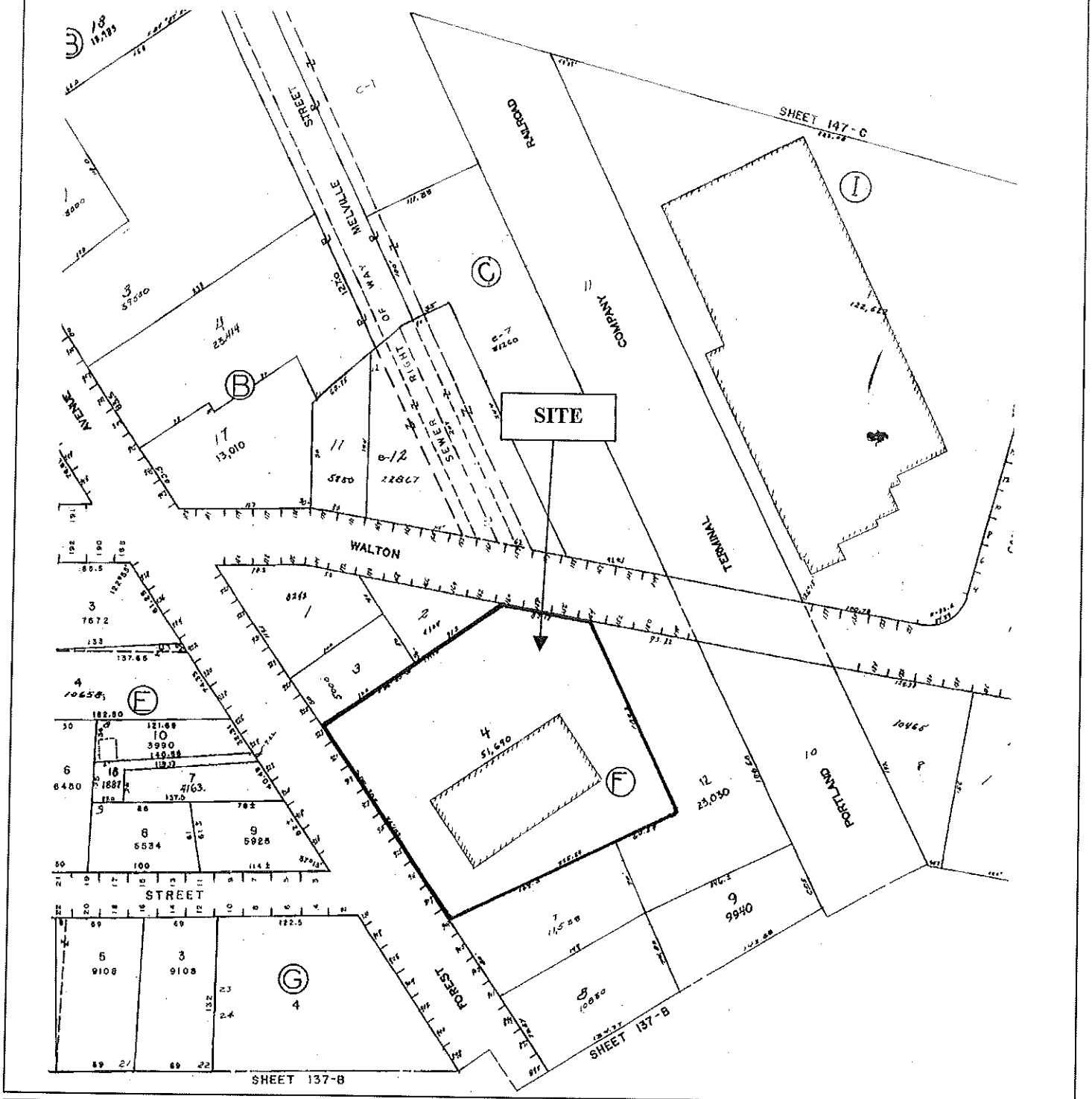
- TITLE:

Zoning Map

- DATE: 7/2006
- SCALE: N/A
- JOB NO: 4516

Figure 1

REFERENCE : City of Portland, Maine, Assessors Plan No. 142, dated April 17, 1967



PREPARED FOR:

BJFC, LLC
915 Forest Ave
Portland, Maine

TITLE:

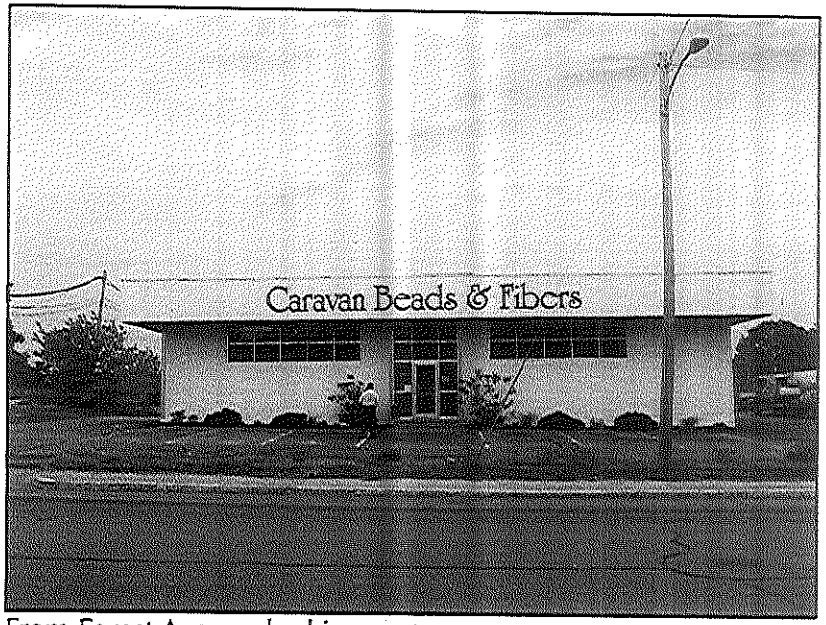
Assessor's Plan

DATE: 7/2006 SCALE: N/A JOB NO: 4516

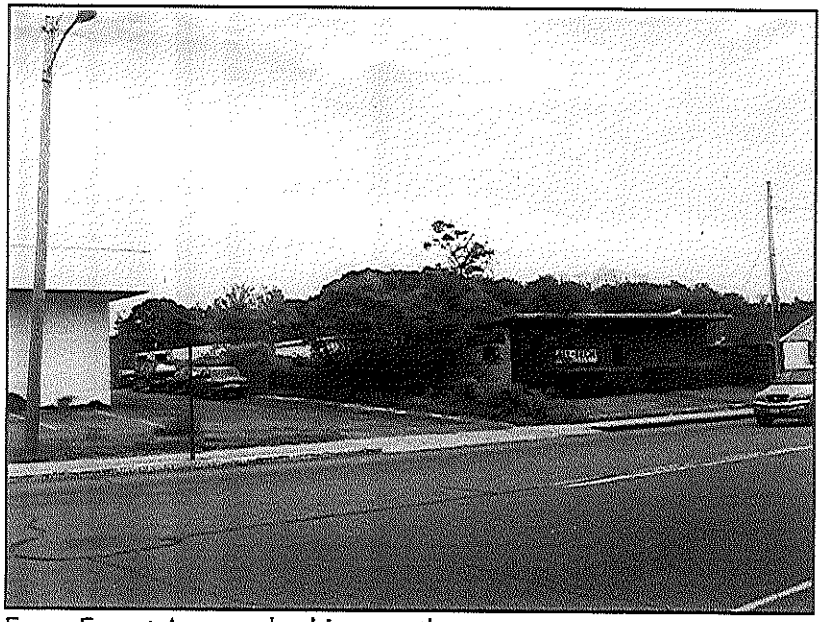
Figure 2

Land Use Consultants, Inc.

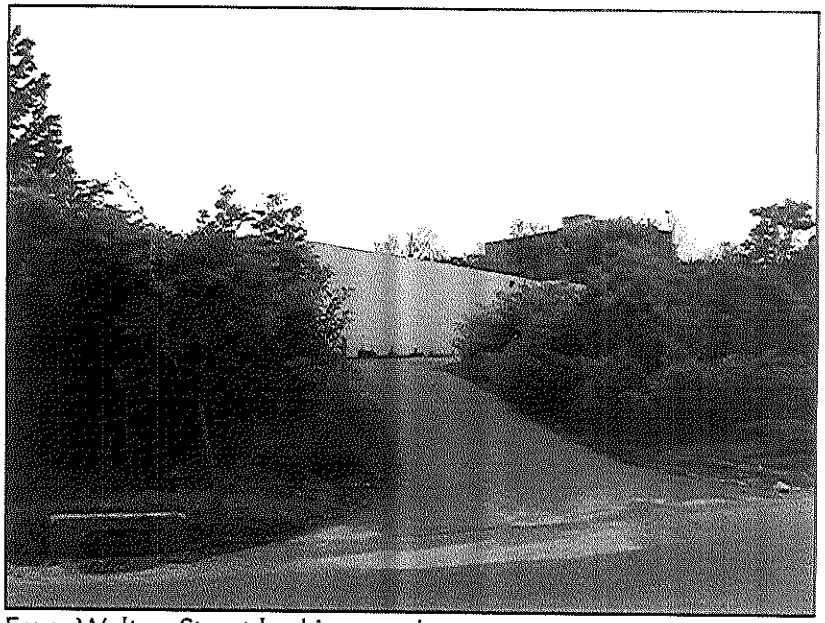
From Forest Avenue looking northeast



From Forest Avenue looking east

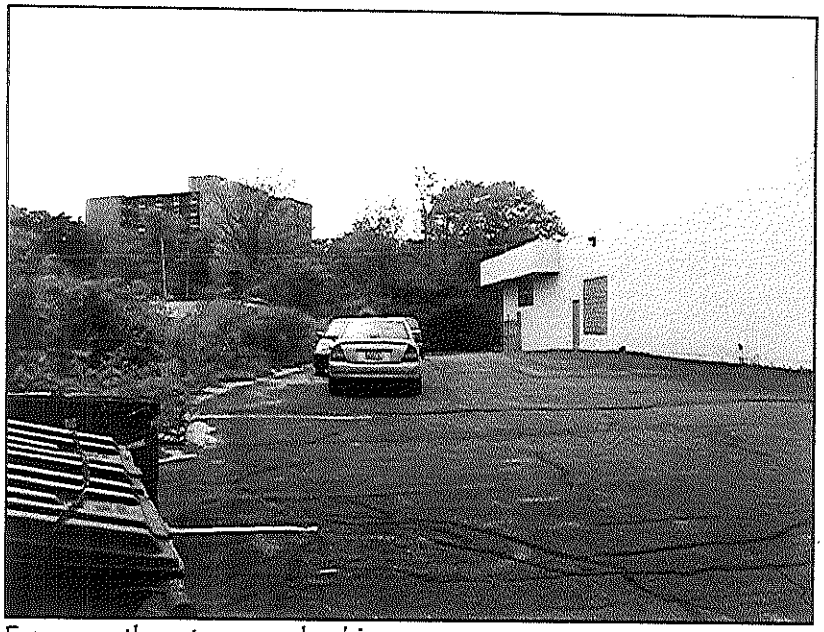


From Forest Avenue looking southeast



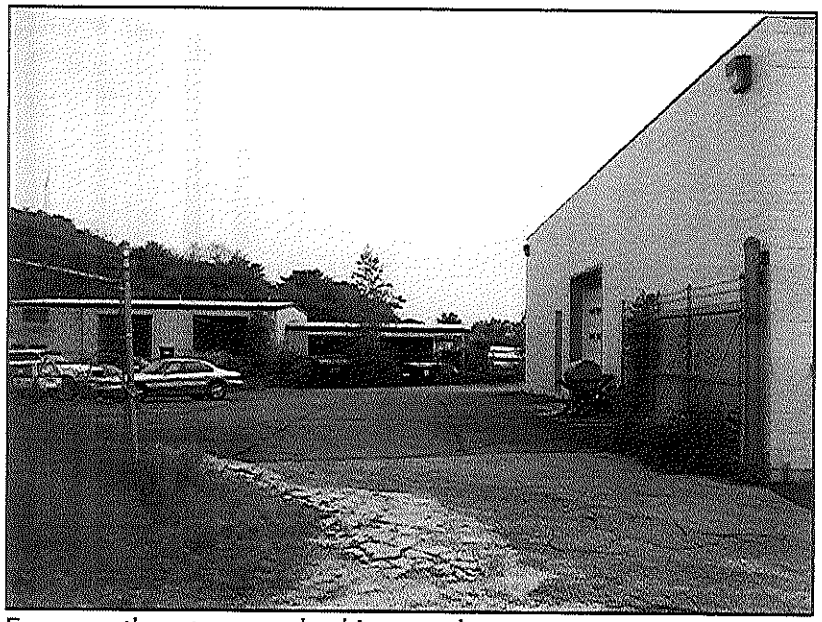
From Walton Street looking southwest

Figure 3

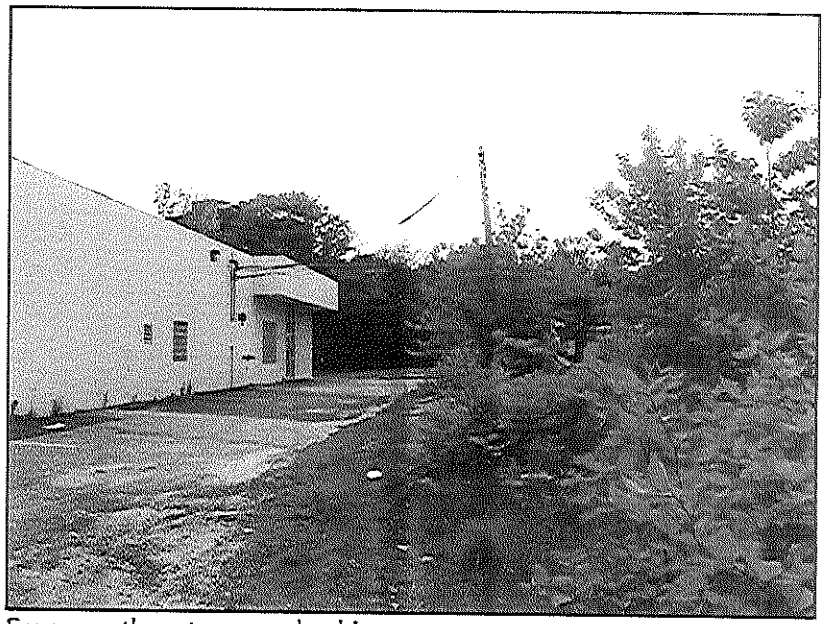


From southeast corner looking west

From southeast corner looking north



From northeast corner looking south



From northeast corner looking east

Figure 4

Attachment 3

Right, Title & Interest

QUITCLAIM DEED WITH COVENANT
KNOW ALL MEN BY THESE PRESENTS

THAT, GEORGE E. LIBBY of Portland, Maine, in consideration ofone dollar and other valuable consideration paid, grants to BJFC, LCC, a Maine limited liability company with mailing address of 449 Forest Avenue, Portland, Maine 04103, with quitclaim covenant the land in the City of Portland, County of Cumberland and State of Maine and more specifically described below:

MAINE REAL ESTATE TAX PAID

A certain lot or parcel of land with the buildings situated thereon on the easterly side of Forest Avenue in the City of Portland, County of Cumberland and State of Maine, and being further bounded and described as follows:

Beginning at a point on the easterly sideline of Forest Avenue distant one hundred sixty-nine and one-tenth (169.1) feet from the intersection of the southerly sideline of Walton Street and easterly sideline of Forest Avenue; thence South 03° 30' East by said easterly sideline of Forest Avenue two hundred one and ninety-three hundredths (201.93) feet; thence easterly on the line of land now or formerly of Samuel Elder two hundred twenty-five and thirty-four hundredths (225.34) feet; thence North 03° East and in a line parallel to and maintaining a distance of seventy-five (75) feet westerly from the Portland Terminal Company right-of-way one hundred eighty-four and two tenths (184.2) feet to the southwesterly side of Walton Street; thence in a northwesterly direction by the southwesterly sideline of Walton Street eighty-three and eighteen hundredths (83.18) feet; thence South 86° 30' West one hundred ninety-one and two tenths (191.2) feet to the point of beginning.

Being the same premises conveyed to the Grantor herein by deed of Riverside 1000, dated December 31, 1998 and recorded in said Registry of Deeds in Book 14471, Page 43.

To have and to hold the same, together with all the privileges and appurtenances thereunto belonging, to the said BJFC, LLC, its successors and and assigns forever.

IN WITNESS WHEREOF, I, the said George E. Libby have hereunto set my hands this 25 day of October, 2002.

Witness

George E. Libby

STATE OF MAINE
COUNTY OF CUMBERLAND

October 25, 2002

Then personally appeared the above-named George E. Libby and acknowledged the foregoing instrument to be his free act and deed.

Before me,

~~Notary Public~~/Attorney-at-Law

Thomas Jewell

Typed or printed name of person taking acknowledgment

Received
Recorded Register of Deeds
Oct 30,2002 03:13:09P
Cumberland County
John B. O Brien

Attachment 4
Financial Capacity

Banknorth
Maine

One Portland Square
P.O. Box 9540
Portland, ME 04112-9540
T: 207 761-8500
Toll Free: 800 761-3666

August 18, 2006

David A. Kamila, President
Land Use Consultants, Inc.
966 Riverside Street
Portland, ME 04103

RE: BJFC, LLC-915 Forest Avenue, Portland

Dear Mr. Kamila:

Barry Kahn has informed me of their plans to expand the Caravan Beads building at 915 Forest Avenue in Portland.

Caravan Beads has been a customer of the Bank since 1994 and BJFC, LLC has been a customer since 1999. Both entities have handled their banking relationships in a fully satisfactory manner, and have exhibited the financial capacity to undertake the proposed project.

Please call me at 761-8619 if you need any additional information.

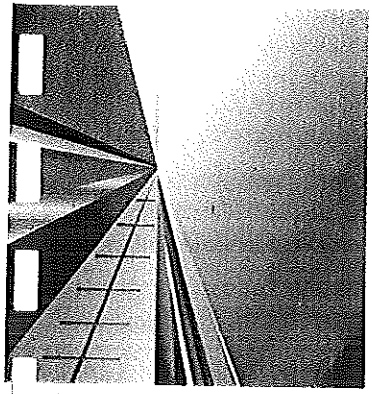
Sincerely,

Frederick G. Proctor
Vice President

/fgp

cc: Barry Kahn

Attachment 5
Technical Capability



ichael Charek Architects

25 Hartley Street
Portland, ME 04103
Phone 207 761 0556
Fax 207 761 7260
www.charekarchitects.com

RESUME

Education

Massachusetts Institute of Technology, Cambridge, Massachusetts
Master of Architecture, 1979
Bachelor of Science in Art & Design, 1975

Professional Registration

Registered Architect, State of Maine, since 1982
Registered Architect, State of New Hampshire, since 1995
NCARB Certificate Holder

Employment

Michael Charek Architects, Portland, Maine, 1983 - present
Oak Point Associates, Biddeford, Maine, 1983, 1985
Terrien Architects, Portland, Maine, 1981 - 1983
Americo Andrade Architect, Cambridge, Massachusetts, 1980 - 1981
Self-employed builder, Cambridge, Mass., 1977, 1979

Teaching Experience

Massachusetts Institute of Technology, 1978-1979
Teaching assistant, architectural design

Selected Projects

Caravan Beads — Portland, Maine
Renovation of 9,600 sf building for retail, office, and warehouse/distribution center for bead business.

Casco Inn — Casco, Maine
New 36-bed intermediate care facility.

Community Counseling Services — Portland, Maine
Renovation of 23,000 sf on two floors for mental health and social service offices.

Deering Place — Portland, Maine
Renovation of 44,500 sf warehouse building into office, childcare center, and 13 affordable housing units for People's Regional Opportunities Program

Lapoint Industries — Auburn, Maine
New 75,000 sf manufacturing plant and offices for environmental and industrial products manufacturer.

L.L. Bean Factory Store — North Conway, New Hampshire
Renovations to 20,000 sf two-story retail space to provide elevator, new stairs, and other handicapped-accessible features.

Radcliffe Glen Condominium — Portland, Maine
New 33-unit residential condominium development.

MICHAEL R. CHAREK
PRINCIPAL
Member
The American
Institute
Of Architects

Selected Projects continued

Rite Aid Pharmacy — Maine and New Hampshire
11 renovated and 13 new stores, in Maine and New Hampshire. Typical store size 11,000 sf.

Sappi Fine Paper — South Portland and Westbrook, Maine
Renovation of 30,000 sf of office space in two locations in five separate phases.

South Portland Neighborhood Housing Services — South Portland, Maine
Design and technical services consultant to nonprofit organization providing financial and technical assistance to the Ferry Village and Knightville neighborhoods.

South Portland Waterfront Market — South Portland, Maine
Consulting services to City of South Portland Planning Department and Waterfront Market Committee on design standards to be incorporated into zoning amendments. Prepared computer model of Knightville/Mill Creek area for use in neighborhood planning workshop.

Spurwink School Day Treatment — Portland, Maine
20,500 sf renovation of existing 1908 school building for high school-level educational and day treatment program for children with special needs.

Spurwink School Residential Treatment Facility — Cornville, Maine
New 6,000 sf 6-bed residential treatment facility for preadolescent children with special needs.

Tufts Associated Health Plans — South Portland, Maine
10,000 sf renovation of existing office space to provide for expansion of HMO service office.

Vermont Teddy Bear — Freeport, Maine
6,800 sf renovation of historic former town library building for retail space.

Organizations

Member, American Institute of Architects, Maine Chapter
Member, Maine AIA Committee on the Environment
Member, International Code Council
Member, National Trust for Historic Preservation

LUC

GENERAL BACKGROUND

Since 1972, **Land Use Consultants (LUC)** has had the opportunity to serve private, corporate, institutional and municipal clients throughout Northern New England. **LUC's** strong emphasis on team approach to project management and execution ensures efficiency and consistent high quality service to our customers. The concept of planners, landscape architects, and engineers working together as an integrated team has enabled **LUC** to bring comprehensive in-house problem solving techniques to complex issues. **LUC** is privileged to continually be selected to work on "the tough projects"; projects that, due to scale or complexity, require comprehensive thought, sound technical solutions, and multi-layered regulatory approvals. With over ***35*** years and 4,500 projects behind us, we welcome the opportunity to share our professional and technical knowledge, expertise and experience. Our services include:

CIVIL ENGINEERING

- Site Engineering
- Utilities Design
- Roadway Design
- Sewage Collection Systems
- Water Distribution Systems
- Soils Investigations
- Stormwater Management
- Erosion and Sedimentation Control
- Phosphorus Mitigation
- Construction Administration

PERMITTING SERVICES

- Municipal Peer Review
- Municipal Subdivision and Site Plan
- DEP Site Location of Development
- Natural Resource Protection Act Permits
- Storm Water Management Law Permits
- Wetlands Alteration

LAND USE PLANNING & LANDSCAPE ARCHITECTURE

- Urban Design
- Master and Site Planning
- Educational Facilities Site Planning
- Comprehensive Planning
- Park/Recreation Planning and Design
- Landscape Design
- Land Use Feasibility Studies
- Economic Feasibility Studies
- Industrial, Commercial and
- Residential Subdivision
- Environmental Assessments
- Campus Planning
- Visual Impact Assessment
- Graphic Design

Integration of creative design, sound engineering and regulatory knowledge distinguish **Land Use Consultants'** ability to balance client objectives with environmental concerns.

Attachment 6
Construction Plan

ATTACHMENT 6
CONSTRUCTION PLAN

Construction will begin once the Planning Board Approval and Building Permit are received. It is estimated that construction will take six months to complete.

Attachment 7
Blasting Plan

Land Use Consultants Inc.

David A. Kamila PE
Frederic J. Licht PE
Thomas N. Emery RLA
J. David Haynes RLA

planners
engineers
landscape
architects

CARAVAN BEADS
BUILDING EXPANSION
BLASTING PLAN

1. Assessment

1.1 Introduction

The proposed development will likely require the excavation and removal of earthen material where ledge conditions may be encountered. The following report sets guidelines for the blasting of ledge during the construction of this project. **It is the contractor's responsibility to review and abide by any City of Portland blasting ordinances or requirements in effect at the time of blasting which may exceed the standards set forth in this report or the attached rock excavation specifications.**

1.2 Site Conditions

Currently, the proposed site for development consists of an existing development (Caravan Beads) including an existing building and parking areas with several small rock-outcroppings apparent beneath the existing thick vegetation. Abutting parcels and surrounding area is developed as mostly commercial neighborhoods. The site is approximately 1.17 acres with rock excavation and potential blasting expected at various locations within the new building and parking areas. All utility companies with services within 500 feet must be notified of blasting within three (3) business days prior to blasting.

1.3 Proposed Blasting

Blasting will likely be required for the construction of driveways, parking areas, building, stormwater management structures and utilities. Special considerations have been made during the design process to minimize the amount grading to limit the need for blasting to the greatest extent possible. All blasting areas shall be kept to the minimum dimensions, depths and requirements as required for complete construction of all utilities, roads, walks and structures as specified on the plans.

1.4 Pre-Blast Survey

The pre-blast survey will document the existing conditions, proof of notice and whether the survey was accepted or rejected by each building owner and property included in the survey. The contractor

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shall submit the notification document for review by the City of Portland before mailing or distributing such notice. The contractor's qualified inspector shall examine the interior and exterior of structures within the study area. The study area shall include all structures within 500 feet of the blasting zone. Conditions shall be documented using photos, videotape and written descriptions. The pre-blast survey shall also include an assessment of any water supply wells in the study area.

The pre-blast survey shall be completed by a licensed professional engineer or licensed specialized consultant in the State of Maine. Copies of the pre-blast survey shall be supplied to the City of Portland two weeks prior to the commencement of any blasting.

2. Blasting Procedure

A Professional (licensed in the State of Maine) blasting contractor will be employed to conduct any blasting work in accordance with applicable State and local laws.

The blasting contractor will be required to prepare and submit a blasting plan as detailed in the attached Specifications prior to construction. Such a plan should include sketches of the proposed drill patterns, detailed blasting procedures, safety procedures and should conform with the additional requirements of this report and all applicable City of Portland requirements.

2.1 Monitoring and Instrumentation

The blasting contractor shall retain an independent firm to provide a seismograph to be set up at the nearest structure to any blasting activity. The seismograph equipment to be used onsite shall have been calibrated within the previous six (6) months to a standard which is traceable to the National Bureau of Standards. Daily blast and seismic reports shall be submitted within seven working days to the Owner's Representative and the City of Portland.

If a nearby property owner submits a complaint regarding alleged blasting related damages during construction, the independent seismologist or blasting consultant shall conduct a second survey of the property within 48 hours of receiving the complaint to identify any changes in the property conditions. A condition report summary shall be submitted to the Engineer, and copied to the City of Portland, within two weeks after the second survey is completed.

2.2 Blasting Procedures

1. Blasting operations shall be conducted only when all personnel and property are clear and traffic control is in place.

2. Access to the blasting area shall be regulated to protect the public from the effects of blasting. Access to the blasting area shall be controlled to prevent unauthorized entry at least ten minutes before each blast and until the blasting supervisor has inspected and given the *All Clear* signal that is safe to enter the blasting zone.
3. Areas in which charged holes are waiting firing shall be guarded, barricaded and posted, or flagged against unauthorized entry.
4. All blasts shall be made in the direction of the stress relieved face previously marked out, or previously blasted.
5. All stemming shall be minimum as specified using clean, dry 3/8" crushed stone.
6. The blasting contractor shall insure that extra safety and judgment is exercised by his blaster to prevent the simultaneous blasting of numerous holes where the accumulative additive poundage of explosives resulting from the detonation of like millisecond delays may exceed the desired scaled distance.
7. All shots will be fired as soon as possible after loading is completed. Blasts will be scheduled so that exposure time of a loaded shot is kept to a minimum. A standard procedure to clear the blast area of all personnel and equipment, block roads and post guards to access ways into the blast area will be enforced. A blast warning signal. Audible within ¼ mile will be used. (Normally three horns at 5 minutes pre blast, two horns at 1 minute pre blast and one immediately following the shot for an all clear). The road leading to the site will be marked with warning signs showing that blasting operations are being conducted.
8. Rubber blasting mats with a specific size and weight designed for work of this type will be utilized at the discretion of the blasting foreman.
9. Blasting shall only occur as needed and shall be limited to the hours of **9:00 am to 4:00 pm daily, Monday through Friday**. Explosives shall be delivered to the job site on a daily basis. Only that amount necessary for the day's work shall be brought to the site. Explosives shall be transported and stored in approved magazines when not in use. No overnight storage of explosives shall be permitted on site.
10. Contractor shall provide written notice to the City of Portland Office of Code Enforcement in advance of anticipated blasting work including estimated schedules and dates of blasting activities. **Blasting contractor shall request written authorization from City of Portland to proceed with blasting activities. Such written authorization shall be obtained prior to commencement of blasting activities.**

2.3 Blasting Records

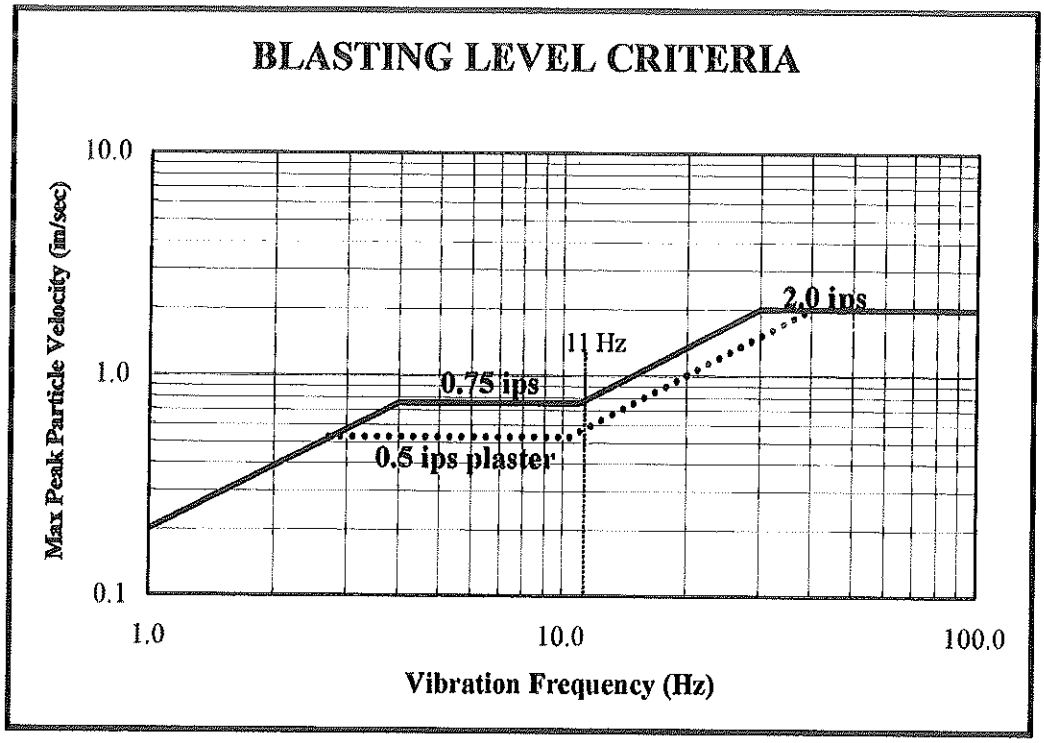
A record for each blast , including seismograph reports shall be kept for at least three years. The record shall include the following data:

1. Name of permittee, address and phone number of operator or other person conducting the blast
2. Location, dates and time of blast
3. Name, signature and license number of blaster in charge
4. Direction and distance, in feet, to nearest dwelling, school, Church or commercial or institutional building or other structure
5. Weather conditions
6. Type of material blasted
7. Number of holes, depth of hole, burden, spacing and stemming
8. Diameter of holes
9. Types of explosives
10. Total weight of explosives used
11. Maximum weight of explosives detonated within any eight (8) millisecond period
12. Method of firing and type of circuit
13. Type of method of stemming
14. Mats or other protections used
15. Type of delay detonator used and delay periods
16. Comments or recommendations by blaster
17. Seismograph record including
    a. Seismograph recording at exact location of seismograph and its distance from the blast
    b. Name of person taking the seismograph reading

2.4 Blasting Limits

To monitor ground vibrations and wave frequency, seismographs which measure peak ground particle velocities in the three special components of vertical, longitudinal and transverse directions along with their correlative dominant frequencies will be used. Velocities will be measured in inches per second (IPS), and the frequency is measured in hertz (Hz). These measurements are recorded with a range of 0.01 IPS to 5.00 IPS and 2 Hz to 150 Hz. The air overpressure is measured in decibels (dB), within range of 100-142 dB. The locations of the seismographs will be determined in the field by the blasting contractor but should include the nearest structure to any blasting activity.

The following table displays limits for the maximum peak ground particle velocities.



REFERENCE: OSM alternative blasting criteria (Modified from figure B-1, Bureau of Mines, RI 8507)

The maximum PPV of ground vibrations for structures and underground utilities will not be allowed to exceed 2.0 IPS. If information obtained from the pre-blast surveys indicates lower limits are required at certain structures, the independent seismologist or blasting consultant will identify the lower limits applicable to a specific structure, and the blasting contractor will incorporate such provisions in the features of the blasting plan applicable to this site area.

2.5 Penalties and Violations

Contractor shall comply with the terms of the Agreement between the owner as Developer and the City of Portland regarding blasting, and the Contractor acknowledges the terms of the said agreement reading as follows:

"In the event that the blasting contractor fails to comply with the Plan, as it may be amended from time to time, DEVELOPER shall be subject to the following penalties:

1st Offense	$250.00
2nd Offense	$500.00
Subsequent Offenses	$500.00

In the event that there are more than three documented violations of the Plan, the City of Portland shall have the right to issue a "**STOP WORK ORDER**" on the development. Developer shall then be required to obtain City approval of a revised Blasting Plan. Work shall not be allowed to continue on Development until the revised Plan is approved."

Contractor shall indemnify and hold owner harmless from such penalties and shall pay such amounts directly to the City.

In the event that the City of Portland issues a stop work order which results in an amendment to the Blasting Plan, then the Contractor shall agree to comply with such amendments at no cost to Owner.

Attachment 8
Stormwater Report

Land Use Consultants Inc.

David A. Kamila PE
Frederic J. Licht PE
Thomas N. Emery RLA
J. David Haynes RLA

planners
engineers
landscape
architects

August 28, 2006

4516

Sarah Hopkins
Department of Planning & Urban Development
Portland City Hall
289 Congress Street
Portland, ME 04101

Stormwater Management, Water Quality and Erosion Controls, Caravan Beads Expansion, Portland, Maine:

Dear Sarah,

Land Use Consultants, Inc. has reviewed the site at 915 Forest Avenue to evaluate the potential impacts which may result from the proposed development improvements. The existing site is almost entirely paved or impervious and includes approximately 40,000 sf of existing impervious area. The property includes 1.17 acres (51,087 sf) and currently includes an existing building and parking area. The existing site includes access drives from Forest Avenue and Walton Street. It is assumed that the site has been developed and has included impervious areas for many years. There is no evidence of significant erosion or drainage problems as a result of rainfall or runoff from the existing site. the existing vegetation is very well established. There is an existing catch basin adjacent to the site frontage in Forest Avenue and also an existing catch basin next to the existing driveway at Walton Street.

Most of the existing impervious surfaces drain via sheet flow to the existing catch basins. Roof drains from the existing building discharge to the parking lot surface via downspouts. Improvements to the site will include construction of a new storm drain to collect runoff and roof drains from the existing and proposed building and new parking areas. The new storm drain will connect to the existing catch basin in Walton Street.

Existing pavement and parking areas will be removed from the site. The proposed amount of impervious surfaces will be less than the existing site and will not result in increased runoff or create erosion problems. The proposed conditions include approximately 37,500 sf of total impervious area. This amounts to a decrease of approximately 2,500 sf of impervious area. Drainage patterns will remain essentially the same as the existing site. The proposed landscaping improvements to this area include the removal of several existing paved areas and proposed vegetation of these areas with grass or landscaped areas. An attempt was made to limit the amount of new impervious areas due to stormwater and water quality

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concerns as well as to preserve the existing large 30 inch diameter oak tree on the site.

This project results in a net reduction of impervious area and less than one acre of disturbance, and therefore, is not subject to the Stormwater Law pursuant to 38 M.R.S.A. § 420 D. Land Use Consultant's has not performed pre and post development runoff calculations in order to evaluate the reduction in peak discharge rates resulting from the proposed project. No stormwater detention is proposed for this project. New catch basins and storm drains are proposed for collection of on site runoff from the developed site. This new storm drain will tie into the existing catch basin in Walton Street Street.

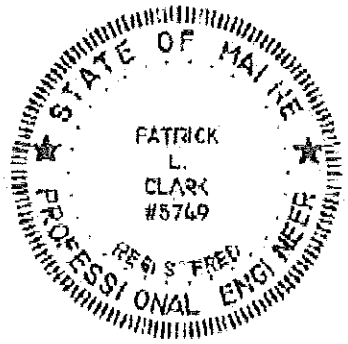
Based on preliminary discussions with Dan Goyette, Development Review Coordinator, the City will require treatment of the stormwater since it includes more than 25 parking spaces to be redeveloped. Mr. Goyette has requested that a proprietary treatment device be provided. LUC has chosen the First Defense, as manufactured by Hydro International. This device has been approved by Maine DEP for 60% TSS removals.

The site will require basic erosion control measures including silt fence barriers and drop inlet barriers for catch basin protection. Revegetation and preservation of existing vegetation will be effective in preventing erosion from the non-impervious areas.

In general, all of the improvements will serve to better control the runoff from the site and prevent erosion. Due to the decrease in impervious area and direct discharge of stormwater to the new storm drain system, it is our opinion that drainage calculations or stormwater management improvements will not be required. The project will significantly improve the drainage characteristics of the site.

Prepared by:

Patrick L. Clark, PE, CPESC



Attachment 9
Geotechnical Report

SUMMIT
GEOENGINEERING SERVICES

Geotechnical Report

Proposed Building Addition
Caravan Beads
Portland, Maine

Prepared for:

Caravan Beads

Prepared by:

Summit Geoengineering Services
Project #17088
August 2006

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GEOTECHNICAL ENGINEERING - CONSTRUCTION MATERIALS TESTING - GEOENVIRONMENTAL

SUMMIT
GEOENGINEERING SERVICES

August 10, 2006
Summit #17088

Barry Kahn
Caravan Beads
915 Forest Avenue
Portland, Maine 04103

Reference: Geotechnical Investigation
Building Addition, 915 Forest Avenue, Portland, Maine

Dear Barry;

We have completed the geotechnical investigation in connection with the construction of a new building addition to the existing Caravan Beads in Portland, Maine. Our scope of services included observing the drilling of 6 test borings and 12 probes at the proposed site and preparing this report summarizing our findings and geotechnical recommendations.

1.0 Project and Site

The site is located near the corner of Walton Street and Forest Avenue in Portland, Maine. Currently the existing facility and surrounding pavement areas reside at the site. The project consists of constructing a 11,464 square foot addition to the existing building. The addition will be a steel-framed single story structure with a conventional spread footing with slab-on-grade foundation.

Existing grades at the site around the perimeter of the existing building range 83 to 87 feet in elevation. Existing grades rise from elevation 87 feet to 90 feet at a small knoll located northeast of the existing building and rise from elevation 87 feet to 92 feet within an existing parking lot area located north of the existing building. We understand the proposed building addition will match the existing building finish floor elevation of 87.71 feet. Based on this and the existing site grading, minimal cut up to 4 feet of fill will be required to construction to proposed addition.

2.0 Exploration

Summit observed the subsurface conditions at the site with the drilling of 6 test borings and 12 probes on July 20, 2006. The test borings and probes were drilled to a depth of 0.5 to 7.2 feet using a Diedrich D50 ATV provided and operated by Northern Test Boring under contract to Summit. The test boring and probe locations were paced from existing site features by Summit.

Ground surface elevations at the boring and probe locations were interpolated from a topographic site plan prepared by Sebago Technics. Locations of the explorations shown Figure 1, a subsurface conditions summary table, and logs of the borings and probes are all attached at the end of this report. Due to some uncertainty of exact locations for onsite underground utilities, Dig Smart of Maine was contracted to mark existing utilities and verify that boring locations were free from subsurface obstructions.

One sample, #17087-1, of the existing fill collected from a depth of 0 to 2 feet at boring B-3, was tested for grain size analysis in accordance with ASTM D422. A copy of the lab results is attached at the end of this report.

3.0 Subsurface Conditions

The soil at the site generally consists of 1.75 to 2.5 inches of bituminous ***pavement*** (where encountered) overlying ***fill***, over relatively shallow ***bedrock***. ***Weathered bedrock*** was encountered at boring B-1, and probes P-1, P-4, P-5, and P-9 with a thickness range of 4 to 18 inches. At boring B-6, silty clay ***glacial marine deposits*** were encountered beneath the pavement layer to a depth of 5.5 feet.

The ***fill*** at the site consisted of both imported sandy soil and reworked native soil. In general, the fill at the site consisted of orange brown, brown, and/or dark brown sand with some to trace silt and gravel and is visually classified as SP, SM, and SP-SM soil in accordance with the Unified Soil Classification System (USCS). The fill ranged from 6 inches to 6 feet in thickness and was generally damp. SPT N-values for the fill ranged from 8 to 28 blows per foot (bpf) and averaged 16 psf indicating compact soil conditions. At borings B-2 and probe P-12, occasional brick and concrete debris was encountered. Gradation results from a sample collected from boring B-3 at a depth of 0 to 2 feet contained approximately 7.9 percent fine material (percent weight finer then #200, 0.075 mm particle size).

Glacial marine deposits encountered at boring B-6, underlying pavement to a depth of 5.5 feet, consisted of olive and mottled silty clay and is visually classified as CL soil in accordance with the USCS. An SPT-N value for the glacial marine deposits was 12 bpf indicating stiff soil conditions. The glacial marine deposits were generally damp.

Bedrock was encountered at all boring and probe locations. Bedrock was observed at depths ranging from 0.5 to 7.2 feet, elevations 87.5 to 78.3 feet, respectively. Weathered bedrock was encountered at boring B-1, and probes P-1, P-4, P-5, and P-9 with a thickness range of 4 to 18 inches. The Bedrock Geologic Map by the Maine Geologic Survey of Portland indicates that the bedrock within the site location is part of the Vassalboro Formation (OSv) consisting of calcareous sandstone, interbedded sandstone and impure limestone. Samples of the bedrock were not obtained for verification.

Groundwater seepage was not observed in any of the boring or probe locations. Weathered bedrock was encountered at B-1, P-1, P-4, P-5, and P-9 indicating seasonal run-off along the bedrock surface during wet periods likely occurs.

4.0 Foundation Recommendations

A. General

In general, the soils at the site are suitable to support the proposed building addition using conventional spread footings. Based on the anticipated finish floor elevation, the footings will be constructed on imported fill, existing fill, glacial till, and/or bedrock. In general, bedrock removal is not anticipated, except at the northeastern corner of the site where a ledge knoll is present. General blasting recommendations are attached at the end of this report.

B. Allowable Bearing Pressure

The interior isolated and exterior continuous footings for the building addition can be proportioned using the following allowable bearing pressures for the various soil conditions:

Soil Type	Allowable Bearing Pressure	Estimated Settlement
Imported Granular Fill	4,000 PSF	Less than 1 inch
Glacial Marine/Existing Fill	4,000 PSF	Less than 1 inch
Intact Bedrock or Crushed Stone Cushion over Intact Bedrock	20,000 PSF	Negligible

The bearing pressures and associated settlements are based on the following conditions:

- The existing pavement is removed, where applicable, and the ground surface is proof rolled prior to placing fill or excavation for footings for sandy subgrade soil conditions. Proof rolling should consist of a minimum of three passes in a north-south direction and then three passes in an east-west direction using a large (5 ton at drum static weight) vibratory roller.

- The base of excavations in glacial marine silty clay soils (encountered at boring B-6) is protected from disturbance, especially when wet. We recommend that any surface water during wet periods be diverted away from the footing excavations. Should the glacial marine silty clay subgrade soil become soft from water and disturbance, we recommend over-excavation to remove soft soils and replacement with filter fabric and/or crushed stone for stabilization.

- Fill required beneath the building consists of a minimum of 12 inches of Structural Backfill over Granular Borrow (where required), both compacted to a minimum of 95 percent of its maximum dry density, determined in accordance with ASTM D1557, or crushed stone.

- Intact bedrock assumes all weathered or loose material is removed

The depth of the footing subgrade may vary depending on the locations of the bedrock. Low spots can be leveled with crushed stone, sand, or flowable fill. We recommend that a transition zone be designed where the footing subgrade changes from bedrock to soil. The transition zone should consist of a minimum of 12 inches of structural fill beneath the footing at the bedrock/soil interface extending to 0 inches 10 feet from the interface. The footing can be constructed directly on the bedrock at 10 from the interface. We also recommend that a construction or control joint be installed at or near the bedrock/soil interface.

C. Frost Protection

Based on the required frost protection depth, the frost walls for the apartment building should be constructed at a minimum depth of 4 feet. This frost penetration depth is based on a design air-freezing index of 1,250 degree days for the Portland area. No minimum frost depth is required for footings constructed on hard bedrock, as long as surface water is drained from the footing base or diverted to prevent ponding adjacent to the footing. We recommend that the exterior of the foundation walls be backfilled with soil meeting the following gradation specification:

FOUNDATION BACKFILL	
Sieve Size	**Percent finer**
3 inch	100
No. 40	0 to 70
No. 200	0 to 5

The maximum particle size should be limited to 6 inches. The Foundation Backfill should be compacted to a minimum of 95 percent of its maximum dry density, determined in accordance with ASTM D1557.

D. Building Slab

We recommend the addition slab be constructed on a minimum 12-inch thick layer of Structural Backfill soil. If portions of the slab are on bedrock, the Structural Fill thickness can be reduced to 6 inches. The maximum particle size should be limited to 6 inches and meet the following gradation specifications passing the 3-inch sieve:

STRUCTURAL BACKFILL	
Sieve Size	**Percent finer**
3 inch	100
1/4 inch	0 to 70
No. 200	0 to 10

Reference: MDOT Specification 703.20, Gravel Borrow

The Structural Backfill should be placed in 8 to 12-inch lifts and should be compacted to 95 percent of its maximum dry density determined in accordance with ASTM D1557.

Backfill required beneath the Structural Fill should consist of Granular Borrow (MDOT 703.19). The portion of Granular Borrow soil passing the 3-inch sieve should meet the following:

GRANULAR BORROW	
Sieve Size	**Percent finer**
3"	100
No. 40	0 to 70
No. 200	0 to 20

Reference: MDOT Specification 703.19, Granular Borrow

The maximum particle size should be limited to 6 inches. Granular Borrow should be placed in a maximum of 12-inch lifts, and should be compacted to 95 percent, in accordance with ASTM D1557. Sandy soil should be proof rolled prior to placing Granular Borrow

For the conditions described above, the slabs can be designed using a subgrade modulus of 250 pci. Where slabs are constructed on 6 inches of soil over bedrock, the slab subgrade can be considered rigid for design purposes.

E. Groundwater Control

Groundwater is anticipated to below exterior footing elevations. Based on this, perimeter underdrains are not strictly necessary. However, groundwater could be present within seams in any bedrock cut areas. Should groundwater become present within these cut areas, we recommend that perimeter underdrains be installed. It is also generally good practice to install underdrains to account for unobserved conditions or future changes in local hydrogeology.

Underdrains, if used, should consist of 4 inch rigid perforated PVC surrounded by 6 inches of ¾ inch crushed stone wrapped in geotextile filter fabric. We recommend that the ground surface slope away from the building and the subsurface be sealed with pavement or a low permeability soil (existing silty clay) to reduce infiltration of roof and building wall water runoff into the Foundation Backfill.

F. Seismic Design

The soils at the site are categorized as site classification C for foundations constructed on soil and as site classification B for foundations constructed on bedrock in accordance with the 2003 International Building Code.

5.0 Pavement Section Recommendations

The subgrade soils beneath pavement areas will consist of the existing sandy fill and reworked native soils. The mean annual freezing index for the Portland area is estimated to be 850-degree days with an annual frost penetration depth estimated to be 36 inches. The site will primarily receive passenger cars and trucks with some light delivery trucks. Based on this, we recommend a minimum total pavement section thickness of 50% of the mean annual frost depth (18 inches).

We further recommend that the pavement sections consist of the following materials:

MATERIAL	THICKNESS (in)	SPECIFICATION
Asphalt Surface Coarse	1	MDOT 703.09 Grading D, (or Superpave 9.5mm)
Asphalt Binder Coarse	2	MDOT 703.09 Grading B, (or Superpave 12mm)
Base Soil	3	MDOT 703.06 Type A
Subbase Soil	12	MDOT 703.06 Type D

The material specifications are referenced to the 1995 Maine Department of Transportation Standard Specifications for Highways and Bridges and Maine Department of Transportation Standard Specifications, Revision of 2002.

All base and subbase soil should be placed in 6 to 12 inch lifts and be compacted to a minimum of 95 percent of its maximum dry density, determined in accordance with ASTM D1557, Modified Proctor Density. Backfill beneath the Type D subbase soil, if required, should consist of Granular Borrow, compacted to a minimum of 95 of its maximum dry density.

We recommend that all existing sandy and silty glacial marine soil be proof-rolled prior to placing granular borrow or subbase soil. Proof rolling should consist of a minimum of three passes in a north-south direction and three passes in an east-west direction using a large (10 ton operating weight) vibratory roller.

Depending on final pavement area finish grades, bedrock removal may be required at various new parking lot areas. If required, we recommend that the following blasted bedrock subgrade preparation be performed.

- Proofroll the blasted bedrock subgrade with a large vibratory roller to densify inter-particle voids and provide a smooth surface.
- Install a layer of woven geotextile fabric (minimum weight 6 oz./square yard) directly over the fractured bedrock.
- Place and compact the Subbase and Base soil as described above.

Where the subgrade consists of soil, the geotextile fabric is not necessary. In general, groundwater is expected to be below pavement section elevations. Based on this, pavement section underdrains are not necessary. If groundwater becomes present within blasted bedrock areas, we recommend cut-off drainage at the toe of pavement areas be provide or pavement underdrains be installed.

BORING/PROBE LOGS

EXPLORATION REPORT COVER SHEET

The exploration report has been prepared by the geotechnical engineer from both field and laboratory data. Differences between field logs and exploration reports may exist.

It is common practice in the soil and foundation engineering profession that field logs and laboratory data sheets not be included in engineering reports, because they do no represent the engineer's final opinion as to appropriate descriptions for conditions encountered in the exploration and testing work. The field logs will be retained in our office for review. Results of laboratory tests are generally shown on the borings logs or are described in the text of the report as appropriate.

Drilling and Sampling Symbols:

SS = Split Spoon
ST = Shelby Tube – 2" OD, disturbed
UT = Shelby Tube – 3" OD, undisturbed
HSA = Hollow Stem Auger
CS = Casing – size as noted
Sv = Vane Shear
PP = Pocket Penetrometer
RX = Rock Core – size as noted
Hyd = Hydraulic advance of probes
WOH = Weight of Hammer
WOR = Weight of Rod
GS = Grain Size Data
PI = Plasticity Index
LL = Liquid Limit
w = Natural Water Content
USCS = unified Soil Classification System

Water Level Measurements:

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In pervious soils, the indicated elevations are considered reliable groundwater levels. In impervious soils, the accurate determination of groundwater elevations may not be possible, even after several days of observations; additional evidence of groundwater elevations via observation or monitoring wells must be sought.

Gradation Description and Terminology:

Boulders:	Over 8 inches	Trace:	Less than 5%
Cobbles:	8 inches to 3 inches	Little:	5% to 15%
Gravel:	3 inches to No.4 sieve	Some:	15% to 25%
Sand:	No.4 to No. 200 sieve	Silty, Sandy, etc.:	Greater than 25%
Silt:	No. 200 sieve to 0.005 mm		
Clay:	less than 0.005 mm		

Density of Granular Soils and Consistency of Cohesive Soils:

CONSISTENCY OF COHESIVE SOILS		DENSITY OF GRANULAR SOILS	
SPT N-value blows/ft	**Consistency**	**SPT N-value blows/ft**	**Relative Density**
0 to 2	Very Soft	0 to 3	Very Loose
3 to 4	Soft	4 to 9	Loose
5 to 8	Firm	10 to 29	Compact
9 to 16	Stiff	30 to 49	Dense
17 to 32	Very Stiff	50 to 80	Very Dense
>32	Hard		

SUBSURFACE CONDITIONS SUMMARY

Project Name: Caravan Beads Building Addition
Location: Forest Avenue, Portland, Maine

Project Number: 17087
Exploration Date: 7/20/2006

Boring/Probe No.	Ground Surface Elev (ft.)	SOIL			Bedrock	
		Pavement	Fill/Reworked	Weathered Bedrock	Depth	Elev (ft.)
B-1	89.0	0" - 2"	2" - 11"	11" - 2.4'	2.4	86.6
B-2	88.5	0" - 2.5"	2.5" - 2.7'	NE	2.7	85.8
B-3	86.0	0" - 2.5"	2.5" - 12"	NE	3.5	82.5
B-4	84.5	0" - 2.5"	2.5" - 6.5'	NE	6.5	78.0
B-5	85.5	0" - 2.5"	2.5" - 7.2'	NE	7.2	78.3
B-6	84.0	0" - 2"	2" - 5.5'	NE	5.5	78.5
P-1	89.0	0" - 2.25"	2.25" - 12"	12" - 1.4'	1.4	87.6
P-2	90.0	0" - 2.5"	2.5" - 4.7'	NE	4.7	85.3
P-3	91.0	0" - 2.25"	2.25" - 2.5'	NE	2.5	88.5
P-4	86.5	0" - 2"	2" - 3'	3' - 3.3'	3.3	83.2
P-5	87.5	0" - 2.25"	2.25" - 2.5'	2.5' - 2.8'	2.8	84.7
P-6	85.5	0" - 2.25"	2.25" - 4'	NE	4.0	81.5
P-7	85.0	0" - 2.5"	2.5" - 6.2'	NE	6.2	78.8
P-8	85.5	0" - 2"	2" - 5.4'	NE	5.4	80.1
P-9	86.0	0" - 2"	2" - 5.1'	5.1' - 5.4'	5.4	80.6
P-10	87.0	NE	0" - 2.3'	NE	2.3	84.7
P-11	88.0	NE	0" - 6"	NE	0.5	87.5
P-12	89.5	0" - 1.75"	1.75" - 1.4'	NE	1.4	88.1

NOTES:
1.) Fill at the site generally consisted of orange/brown/dark brown sand with silt and gravel.
2.) P-10 had 1 inch of topsoil as ground cover.
3.) Groundwater seepage was not encountered at any boring or probe locations.
4.) NE = Not Encountered

SUMMIT GEOENGINEERING SERVICES 640 Main Street Lewiston, Maine 04240	SOIL BORING LOG Project: Proposed Building Addition Caravan Beads Portland, Maine	Boring #: B-1 Project #: 17087 Sheet: 1 of 1 Prep by: ARH
Drilling Co: Northern Test Boring	Ground Elevation: Approximately 89 ft.	
Foreman: Mike Nadeau	Reference: Interpolated from site plan provided by Sebago Technics	
Summit: Craig Coolidge, E.I.T.	Date started: 7/20/2006 Date Comp: 7/20/2006	

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH

Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
	S-1	11/7	0 - 0.9	4	Compact, dark brown/black SAND, some Silt,	Pavement = 2"
1				50/5"	trace Gravel, damp, SM	FILL
					Weathered bedrock from 11' to 2.4'	11"
2						WEATHERED BEDROCK
3					End boring at 2.4', auger Refusal	2.4'
						BEDROCK
4						
5						
6						
7						
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SUMMIT GEOENGINEERING SERVICES 640 Main Street Lewiston, Maine 04240	SOIL BORING LOG	Boring #: B-2
	Project: Proposed Building Addition Caravan Beads Portland, Maine	Project #: 17087 Sheet: 1 of 1 Prep by: ARH
Drilling Co: Northern Test Boring	Ground Elevation: Approximately 88.5 ft.	
Foreman: Mike Nadeau	Reference: Interpolated from site plan provided by Sebago Technics	
Summit: Craig Coolidge, E.I.T.	Date started: 7/20/2006 Date Comp: 7/20/2006	

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH			
Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
	S-1	24/9	0 - 2	4	Compact, brown SAND, little Gravel and Silt,	Pavement = 2.5"
1				5	damp, SP	FILL
				5	Brick debris at 6"	
2				12		
					End boring at 2.7', auger refusal	2.7'
3						BEDROCK
4						
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SUMMIT GEOENGINEERING SERVICES 640 Main Street Lewiston, Maine 04240	SOIL BORING LOG Project: Proposed Building Addition Caravan Beads Portland, Maine	Boring #: B-3 Project #: 17087 Sheet: 1 of 1 Prep by: ARH
Drilling Co: Northern Test Boring	Ground Elevation: Approximately 86 ft.	
Foreman: Mike Nadeau	Reference: Interpolated from site plan provided by Sebago Technics	
Summit: Craig Coolidge, E.I.T.	Date started: 7/20/2006 Date Comp: 7/20/2006	

DRILLING METHOD	SAMPLER
Vehicle: Trailer Model: Deidrich D50 Method: 2-1/2" HSA	Type: 24" SS Hammer: 140 lb Fall: 30"

GROUND WATER DEPTH			
Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA				ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
	No.	Pen/Rec (in.)	Depth (ft)	Blows		
	S-1	24/18	0 - 2	4	Loose, brown SAND, trace Silt and Gravel, damp, SM	Pavement = 2.5"
1				4		FILL
				4	Compact, dark brown Silty fine SAND, damp, trace organics, SM	12"
2				7		
					Compact, orange brown fine SAND, little Silt, damp, SM	18"
3						
4					End boring at 3.5', auger refusal	3.5'
						BEDROCK
5						
6						
7						
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SUMMIT
GEOENGINEERING SERVICES
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Boring #: **B-4**

Project: Proposed Building Addition
Caravan Beads
Portland, Maine

Project #: 17087
Sheet: 1 of 1
Prep by: ARH

Drilling Co: Northern Test Boring
Foreman: Mike Nadeau
Summit: Craig Coolidge, E.I.T.

Ground Elevation: Approximately 84.5 ft.
Reference: Interpolated from site plan provided by Sebago Technics
Date started: 7/20/2006 Date Comp: 7/20/2006

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH

Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
	S-1	24/16	0 - 2	6	Compact, brown SAND, little Gravel and Silt,	Pavement = 2.5"
1				14	damp, SP-SM	FILL
				12		
2				9	Compact, dark brown SAND, some Silt, little to	1.5'
					trace Gravel, damp, SM	
3						
4						
5						
	S-2	24/12	5 - 6.2	10	Same as above	
6				16	Dense, olive brown SAND, some Silt, little Gravel,	5.5'
				50/2"	trace Clay, damp to moist, SM	
7					End Boring at 6.5', refusal	6.5'
						BEDROCK
8						
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SUMMIT
GEOENGINEERING SERVICES
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Boring #: **B-5**

Project: Proposed Building Addition
Caravan Beads
Portland, Maine

Project #: 17087
Sheet: 1 of 1
Prep by: ARH

Drilling Co: Northern Test Boring
Foreman: Mike Nadeau
Summit: Craig Coolidge, E.I.T.

Ground Elevation: Approximately 85.5 ft.
Reference: Interpolated from site plan provided by Sebago Technics
Date started: 7/20/2006 Date Comp: 7/20/2006

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH

Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
	S-1	24/10	0 - 2	5	Compact, brown/dark brown SAND, little Silt,	Pavement = 2.5"
1				5	little to trace Gravel, damp, SM-SP to SM	FILL
				5		
2				3		
3						
4						
5						
	S-2	24/20	5 - 7	11	Compact, dark brown Silty SAND	
6				14	Compact, olive SILT, some fine SAND, trace	5.5'
				14	Clay, damp, ML-SM	
7				36	Dense, brown SAND, little Silt, moist to wet, SP	6.5'
8					End Boring at 7.2', refusal	7.2' BEDROCK
9						
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SUMMIT GEOENGINEERING SERVICES 640 Main Street Lewiston, Maine 04240	SOIL BORING LOG	Boring #: B-6
	Project: Proposed Building Addition Caravan Beads Portland, Maine	Project #: 17087 Sheet: 1 of 1 Prep by: ARH
Drilling Co: Northern Test Boring	Ground Elevation: Approximately 84 ft.	
Foreman: Mike Nadeau	Reference: Interpolated from site plan provided by Sebago Technics	
Summit: Craig Coolidge, E.I.T.	Date started: 7/20/2006 Date Comp: 7/20/2006	

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH			
Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA				ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
	No.	Pen/Rec (in.)	Depth (ft)	Blows		
	S-1	24/23	0 - 2	5	Stiff, olive and mottled Silty CLAY, damp, CL	Pavement = 2"
1				6		Sandy = 3"
				6		GLACIAL MARINE
2				8		
3						
4						
5						
	S-2	7-Jul	5 - 5.5	15	Dense, olive and gray(layers) fine SAND, some	
6				50/1"	Silt, little Clay, damp to moist, SM	
					End Boring at 5.5', refusal	5.5'
7						BEDROCK
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SUMMIT
GEOENGINEERING SERVICES
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Boring #: **P-1**

Project: Proposed Building Addition
Caravan Beads
Portland, Maine

Project #: 17087
Sheet: 1 of 1
Prep by: ARH

Drilling Co: Northern Test Boring
Foreman: Mike Nadeau
Summit: Craig Coolidge, E.I.T.

Ground Elevation: Approximately 89 ft.
Reference: Interpolated from site plan provided by Sebago Technics
Date started: 7/20/2006 Date Comp: 7/20/2006

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH

Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
						Pavement = 2.25"
1					Brown SAND, little Gravel and Silt, damp, SP	FILL
2					Weathered Rock	12" Weathered Rock
3					End Probe at 1.4', refusal	1.4'
4						BEDROCK
5						
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SUMMIT GEOENGINEERING SERVICES 640 Main Street Lewiston, Maine 04240	SOIL BORING LOG	Boring #: P-2
	Project: Proposed Building Addition Caravan Beads Portland, Maine	Project #: 17087 Sheet: 1 of 1 Prep by: ARH
Drilling Co: Northern Test Boring	Ground Elevation: Approximately 90 ft.	
Foreman: Mike Nadeau	Reference: Interpolated from site plan provided by Sebago Technics	
Summit: Craig Coolidge, E.I.T.	Date started: 7/20/2006 Date Comp: 7/20/2006	

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH			
Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
						Pavement = 2.5"
1					Brown SAND, little Gravel, little to trace Silt, damp, SP	FILL
2						
3						
4						
5					End Probe at 4.7', refusal	4.7'
6						BEDROCK
7						
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SUMMIT
GEOENGINEERING SERVICES
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Boring #: **P-3**

Project: Proposed Building Addition
Caravan Beads
Portland, Maine

Project #: 17087
Sheet: 1 of 1
Prep by: ARH

Drilling Co: Northern Test Boring
Foreman: Mike Nadeau
Summit: Craig Coolidge, E.I.T.

Ground Elevation: Approximately 91 ft.
Reference: Interpolated from site plan provided by Sebago Technics
Date started: 7/20/2006 Date Comp: 7/20/2006

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH

Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
						Pavement = 2.25"
1					Dark brown SAND, some Silt, trace Gravel, damp, SM	FILL
2						
3					End Probe at 2.5', refusal	2.5' BEDROCK
4						
5						
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SUMMIT GEOENGINEERING SERVICES 640 Main Street Lewiston, Maine 04240	SOIL BORING LOG	Boring #: P-6
	Project: Proposed Building Addition Caravan Beads Portland, Maine	Project #: 17087 Sheet: 1 of 1 Prep by: ARH
Drilling Co: Northern Test Boring	Ground Elevation: Approximately 85.5 ft.	
Foreman: Mike Nadeau	Reference: Interpolated from site plan provided by Sebago Technics	
Summit: Craig Coolidge, E.I.T.	Date started: 7/20/2006 Date Comp: 7/20/2006	

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH			
Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA				ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
	No.	Pen/Rec (in.)	Depth (ft)	Blows		
						Pavement = 2.25"
1					Orange brown - dark brown SAND, little Silt, little to trace Gravel, damp, SM-SP	FILL
2						
3						
4						
5					End Probe at 4', refusal	4.0' BEDROCK
6						
7						
8						
9						
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SUMMIT GEOENGINEERING SERVICES 640 Main Street Lewiston, Maine 04240	SOIL BORING LOG	Boring #: P-7
	Project: Proposed Building Addition Caravan Beads Portland, Maine	Project #: 17087 Sheet: 1 of 1 Prep by: ARH
Drilling Co: Northern Test Boring	Ground Elevation: Approximately 85 ft.	
Foreman: Mike Nadeau	Reference: Interpolated from site plan provided by Sebago Technics	
Summit: Craig Coolidge, E.I.T.	Date started: 7/20/2006 Date Comp: 7/20/2006	

DRILLING METHOD	SAMPLER
Vehicle: Trailer Model: Deidrich D50 Method: 2-1/2" HSA	Type: 24" SS Hammer: 140 lb Fall: 30"

GROUND WATER DEPTH			
Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
						Pavement = 2.5"
1					Orange brown - dark brown SAND, little Silt, trace Gravel, damp, SM-SP	FILL
2						
3						
4						
5						
6						
7					End Probe at 6.2', refusal	6.2' BEDROCK
8						
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SUMMIT
GEOENGINEERING SERVICES
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Boring #: **P-8**

Project: Proposed Building Addition
Caravan Beads
Portland, Maine

Project #: 17087
Sheet: 1 of 1
Prep by: ARH

Drilling Co: Northern Test Boring
Foreman: Mike Nadeau
Summit: Craig Coolidge, E.I.T.

Ground Elevation: Approximately 85.5 ft.
Reference: Interpolated from site plan provided by Sebago Technics
Date started: 7/20/2006 Date Comp: 7/20/2006

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH

Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
						Pavement = 2"
1					Dark brown SAND, little Silt, trace Gravel, damp	FILL
2					SM	
3						
4						
5						
6					End Probe at 5.4', refusal	5.4'
7						BEDROCK
8						
9						
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SUMMIT
GEOENGINEERING SERVICES
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Boring #: **P-9**

Project: Proposed Building Addition
Caravan Beads
Portland, Maine

Project #: 17087
Sheet: 1 of 1
Prep by: ARH

Drilling Co: Northern Test Boring
Foreman: Mike Nadeau
Summit: Craig Coolidge, E.I.T.

Ground Elevation: Approximately 86 ft.
Reference: Interpolated from site plan provided by Sebago Technics
Date started: 7/20/2006 Date Comp: 7/20/2006

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH

Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
						Pavement = 2"
1					Orange- dark brown SAND, little Silt, trace Gravel, damp, SP-SM to SM	FILL
2						
3						
4						
5						
6						5.1' Weathered Rock
7					End Probe at 5.6', refusal	5.6' BEDROCK
8						
9						
10						
11						
12						
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21						
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SUMMIT
GEOENGINEERING SERVICES
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Boring #: **P-10**

Project: Proposed Building Addition
Caravan Beads
Portland, Maine

Project #: 17087
Sheet: 1 of 1
Prep by: ARH

Drilling Co: Northern Test Boring
Foreman: Mike Nadeau
Summit: Craig Coolidge, E.I.T.

Ground Elevation: Approximately 87 ft.
Reference: Interpolated from site plan provided by Sebago Technics
Date started: 7/20/2006 Date Comp: 7/20/2006

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH

Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
						Topsoil = 1"
1					Orange- dark brown SAND, little Silt, trace Gravel, damp, SP-SM to SM	FILL
2						
3					End Probe at 2.3', refusal	2.3' BEDROCK
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
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20						
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22						

SUMMIT
GEOENGINEERING SERVICES
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Project: Proposed Building Addition
Caravan Beads
Portland, Maine

Boring #: P-11
Project #: 17087
Sheet: 1 of 1
Prep by: ARH

Drilling Co: Northern Test Boring
Foreman: Mike Nadeau
Summit: Craig Coolidge, E.I.T.

Ground Elevation: Approximately 88 ft.
Reference: Interpolated from site plan provided by Sebago Technics
Date started: 7/20/2006 Date Comp: 7/20/2006

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH

Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
					Brown SAND, little Gravel and Silt, damp, SP	FILL
1					End Probe at 6", refusal	6"
2						BEDROCK
3						
4						
5						
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SUMMIT
GEOENGINEERING SERVICES
640 Main Street
Lewiston, Maine 04240

SOIL BORING LOG

Boring #: **P-12**

Project: Proposed Building Addition
Caravan Beads
Portland, Maine

Project #: 17087
Sheet: 1 of 1
Prep by: ARH

Drilling Co: Northern Test Boring
Foreman: Mike Nadeau
Summit: Craig Coolidge, E.I.T.

Ground Elevation: Approximately 89.5 ft.
Reference: Interpolated from site plan provided by Sebago Technics
Date started: 7/20/2006 Date Comp: 7/20/2006

DRILLING METHOD	SAMPLER
Vehicle: Trailer	Type: 24" SS
Model: Deidrich D50	Hammer: 140 lb
Method: 2-1/2" HSA	Fall: 30"

GROUND WATER DEPTH

Date	Depth	Elevation	Comments
7/20/2006	None Observed		

Depth (ft.)	SAMPLE DATA No.	Pen/Rec (in.)	Depth (ft)	Blows	ENGINEERING DESCRIPTION	GEOLOGIC DESCRIPTION
1						Pavement = 1.75"
2					Brown SAND, little Silt, damp, SM-SP Concrete debris at 8"	FILL
3					End Probe at 1.4', refusal	1.4'
4						BEDROCK
5						
6						
7						
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20						
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22						

LABORATORY RESULTS

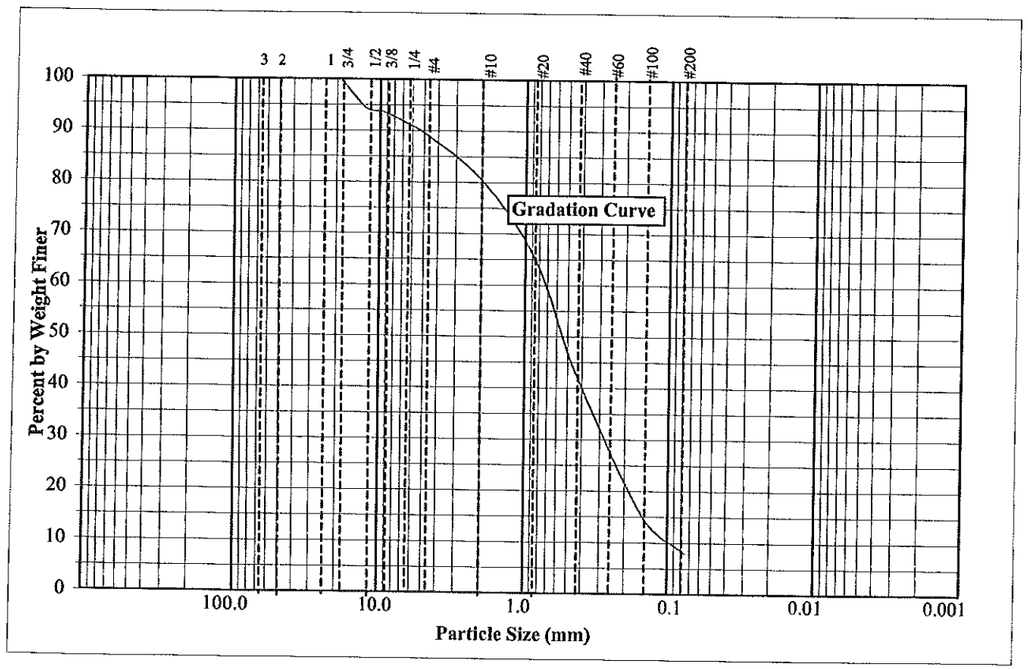
SUMMIT GEOENGINEERING SERVICES
P.O. Box 4698 Augusta, Maine 04330-4698
Phone:(207) 621-8334 Fax:(207) 626-9094

GRAIN SIZE ANALYSIS - ASTM D422

PROJECT NAME:	Building Addition	PROJ #:	17087
CLIENT:	Caravan Beads	SAMPLE:	17087-1
SOIL DESCRIP:	Granular Fill	DATE:	8/11/2006
INTENDED USE:	Existing Subgrade Fill	SOURCE:	Boring B-3, S-1, 0' to 2'
		TECH:	Austin Harrell

DATA

PARTICLE SIZE mm		% BY WT FINER
76.20	(3 in)	100.0
50.80	(2 in)	100.0
38.10	(1-1/2 in)	100.0
25.40	(1 in)	100.0
19.05	(3/4 in)	100.0
12.70	(1/2 in)	94.5
9.53	(3/8 in)	93.7
6.35	(1/4 in)	91.3
4.75	(No. 4)	89.2
2.00	(No. 10)	80.4
0.85	(No. 20)	64.9
0.43	(No. 40)	41.8
0.15	(No. 100)	15.1
0.08	(No. 200)	7.9



REMARKS:

Reviewed: Craig Coolidge, E.I.T.

GENERAL BLASTING RECOMMENDATIONS

GENERAL BLASTING RECOMMENDATIONS

Introduction

Blasting operations will be performed in general accordance with the applicable U.S. Department of the Interior Rules, the recommendations provided below, and a normal standard of care.

Blast Design

The blasting contractor shall submit a blasting plan to the Owner for approval prior to blasting operations. The blasting plan shall include a schedule, sketches of the drill patterns (hole spacing and depth), type and amount of explosives, number and sequence of delays, methods for minimizing flyrock, and any other information pertinent to demonstrating compliance with the applicable U.S. Department of the Interior Rules and the recommendations provided below.

Notification

Oral notification to the abutters within one-half mile of the blast area shall be provided prior to blasting. Warning and all clear signals of different character or pattern that are audible within one-half mile from the point of the blast shall be given. The meaning of the signals shall be conveyed to the abutters at the time they are notified.

Pre-blast Surveys

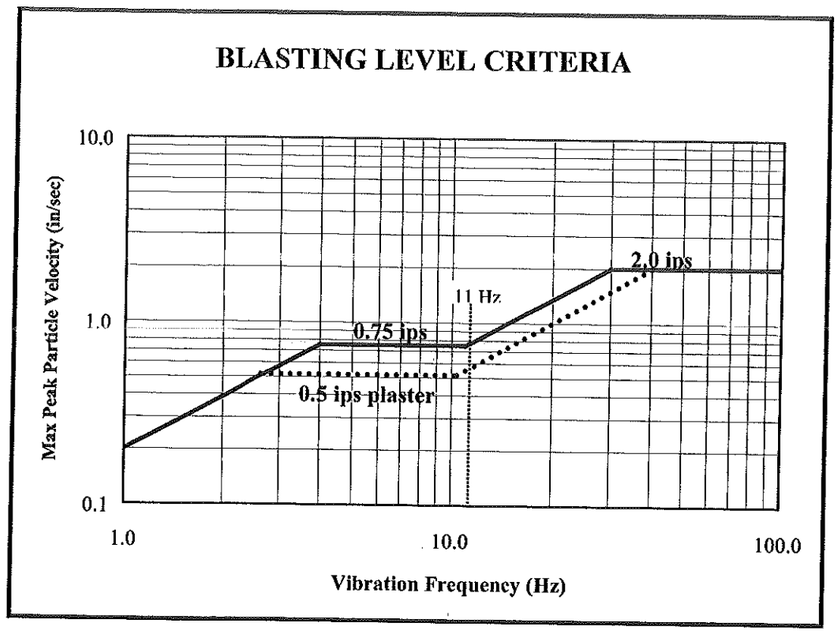
All blasting operations are the direct responsibility of the Blasting Contractor. Reports of damage to structures caused by blasting operations are the sole responsibility of the Blasting Contractor. Therefore, it is incumbent upon the Blasting Contractor to perform pre-blast surveys as they deem necessary.

Airblast Limits

Airblast overpressure shall not exceed 136 dB (0.018 psi) at the nearest structure.

Ground Vibration Limits

The maximum ground vibration at any structure shall not exceed the limits presented in the following chart:



REFERENCE: OSM alternative blasting criteria (Modified from figure B-1, Bureau of Mines, RI 8507)

The Blasting Contractor shall provide a seismographic record to the Owner for each blast event at the nearest off-site structure. The record shall include the date and time of the blast, peak and resultant particle velocities and associated frequencies, and the airblast overpressure.

Flyrock

Blasting mats shall be used to cover the area which will be blasted, such that flyrock traveling along the ground or in the air shall not be cast more than one-half the distance to the nearest structure or beyond the property line, whichever is less.

Attachment 10
Parking

Caravan Beads, Inc.
915 Forest Ave
Portland ME 04103
207-761-2503
barryk@caravanbeads.net

Nicole Briand
Land Use Consultants
966 Riverside St
Portland ME 04103

8/22/06

Dear Nicole,

We have reviewed parking needs for our business. On weekdays we currently have ten employees (out of eighteen) who bring cars to work. The other employees either car pool, walk, or use public transportation. We have no plans to increase current staffing. On Saturdays the wholesale part of the business is closed, so there are usually only one or two employee cars here.

We typically have four to eight customer cars in the parking lot at any given time. During our busiest timesâ€"July, August, and November and Decemberâ€"that number occasionally increases to ten to twelve cars. Caravan Beads has been at this location for several years and this pattern has been consistent throughout that period.

In view of the above, we estimate that providing twenty-six parking spaces would be more than adequate for present and future needs.

Please let me know if you need any other information.

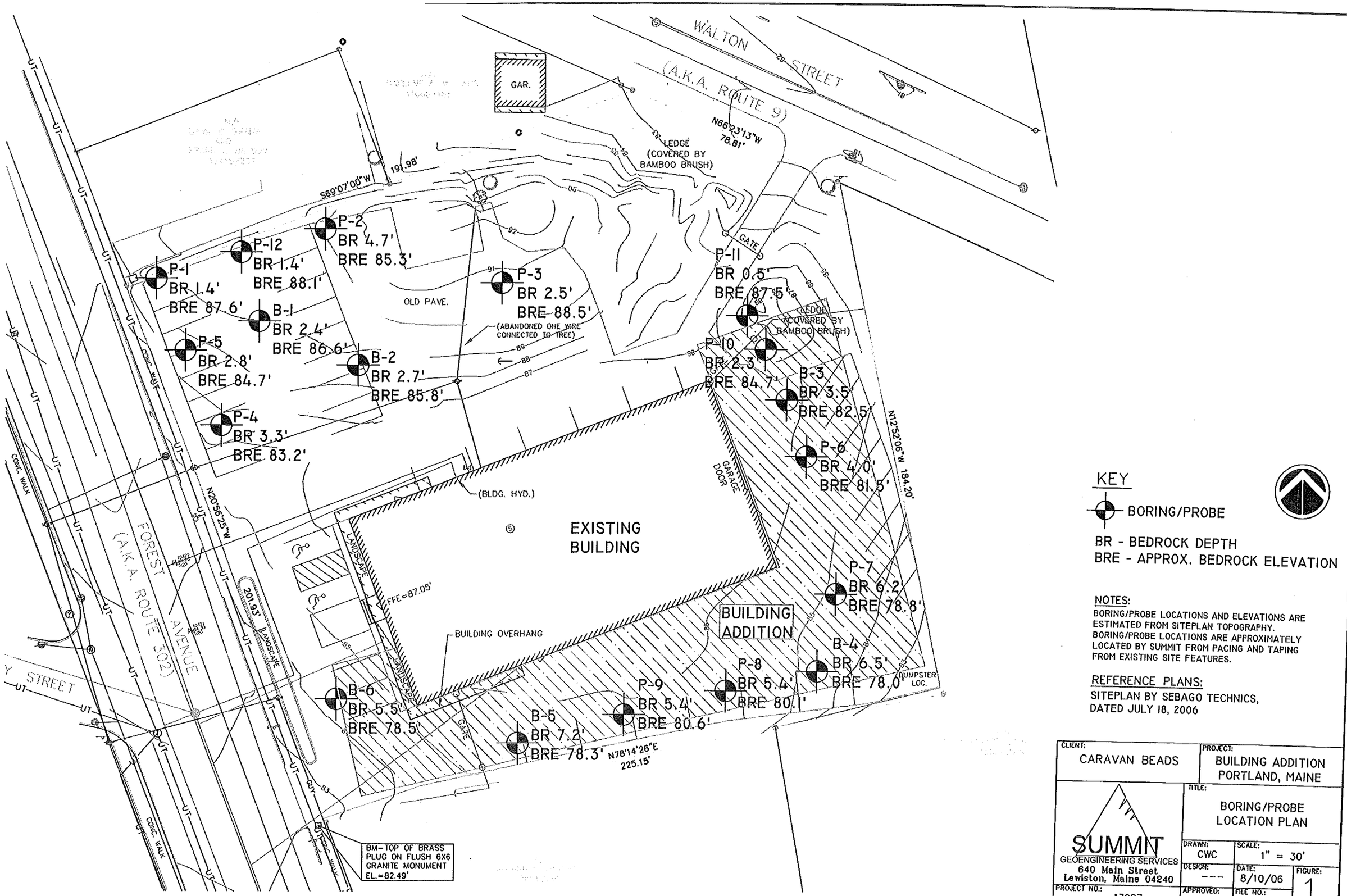
Sincerely,

Barry Kahn,
President

PS Seven of the ten employee cars are compacts.

Attachment 11

Reduced (11x17) Plan Set



KEY

BORING/PROBE

BR - BEDROCK DEPTH
BRE - APPROX. BEDROCK ELEVATION

NOTES:
BORING/PROBE LOCATIONS AND ELEVATIONS ARE ESTIMATED FROM SITEPLAN TOPOGRAPHY. BORING/PROBE LOCATIONS ARE APPROXIMATELY LOCATED BY SUMMIT FROM PACING AND TAPING FROM EXISTING SITE FEATURES.

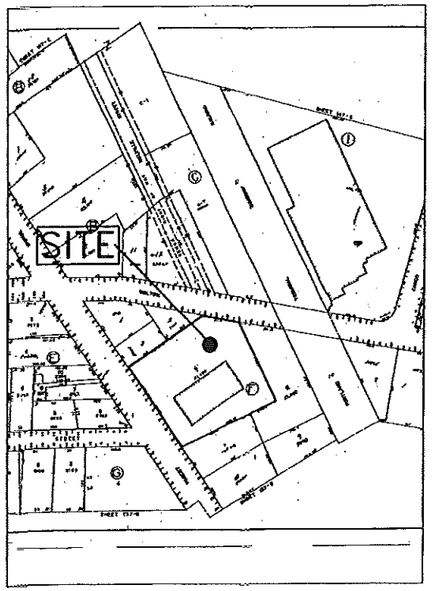
REFERENCE PLANS:
SITEPLAN BY SEBAGO TECHNICS, DATED JULY 18, 2006

CLIENT: CARAVAN BEADS	PROJECT: BUILDING ADDITION PORTLAND, MAINE
	TITLE: BORING/PROBE LOCATION PLAN
SUMMIT GEOENGINEERING SERVICES 640 Main Street Lewiston, Maine 04240	DRAWN: CWC; SCALE: 1" = 30'
	DESIGN: ---; DATE: 8/10/06; FIGURE: 1
PROJECT NO.: 17087	APPROVED: WMP; FILE NO.:

Site Plan Review

CITY OF PORTLAND
SITE PLAN & SUBDIVISION NOTES:

1. LANDSCAPING SHALL MEET THE "AGRICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE GUIDELINES" OF THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
2. THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DEPICTED ON THE SITE PLAN APPROVED BY THE PLANNING AUTHORITY OR PLANNING BOARD SHALL BE REQUIRED FOR ANY ALTERATION TO OR DEVIATION FROM THE APPROVED SITE PLAN, INCLUDING, WITHOUT LIMITATION, TOPOGRAPHY; DRAINAGE; LANDSCAPING; RETENTION OF WOODED OR LAWN AREAS; ACCESS, SIZE, LOCATION, AND SURFACING OF PARKING AREAS; AND LOCATION AND SIZE OF BUILDINGS.
3. ALL POWER LINE UTILITIES SHALL BE UNDERGROUND.
4. SIDEWALKS AND CURBING SHALL BE DESIGNED AND BUILT WITH TIP DOWN RAMPS AT ALL STREET CORNERS, CROSSWALKS AND DRIVEWAYS IN CONFORMANCE WITH THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DESIGNED IN ACCORDANCE WITH MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991 OR LATEST EDITION. [NOTE: THE SITE PLAN SHALL SPECIFY THE EROSION CONTROL DEVICE TO BE EMPLOYED (SILT FENCE, HAY BALE, ETC.) AS WELL AS THEIR LOCATION]
6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR REGRADING.
7. ALL DISTURBED AREAS ON THE SITE NOT COVERED BY BUILDINGS OR PAVED AREAS SHALL BE STABILIZED WITH LOAM AND SEED OR OTHER METHODS AS REQUIRED BY BEST MANAGEMENT PRACTICES [SEE ABOVE]
8. PRIOR TO CONSTRUCTION, A PRECONSTRUCTION MEETING SHALL BE HELD AT THE PROJECT SITE WITH THE CONTRACTOR, DEVELOPMENT REVIEW COORDINATOR, PUBLIC WORKS REPRESENTATIVE AND OWNER TO REVIEW THE CONSTRUCTION SCHEDULE AND CRITICAL ASPECTS OF THE SITE WORK. AT THAT TIME, THE SITE/BUILDING CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF A DETAILED CONSTRUCTION SCHEDULE TO THE ATTENDING CITY REPRESENTATIVE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE A MUTUALLY AGREEABLE TIME FOR THE PRECONSTRUCTION MEETING.
9. EXISTING VEGETATION SHALL BE CONSERVED IN AREAS SHOWN ON THIS SITE. FENCING OR OTHER PROTECTIVE BARRIERS SHALL BE ERECTED OUTSIDE THE DRIP-LINE OF INDIVIDUAL, GROUPINGS OF TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION. NO GRADING SHALL NOT TAKE PLACE WITHIN THE DRIP-LINE OF TREES DESIGNATED FOR PRESERVATION. NO STORAGE OR CONSTRUCTION MATERIALS SHALL BE PERMITTED WITHIN THE DRIP-LINE OF TREES TO BE PRESERVED.



Locus

Legend

EXISTING		PROPOSED
	CONTOUR	
	SPOT GRADE	
	PROPERTY LINE	
	ROADWAY CENTERLINE	
	BUILDING SETBACK	
	EDGE OF PAVEMENT	
	BIT CURB	
	BUILDING	
SS	SANITARY SEWER	SS
SD	STORM DRAIN	SD
	GAS	G
W	WATER MAIN	W
OHW	OVERHEAD WIRE	
	UNDERGRND ELEC, TELEPHONE & CATV	UGT
	UTILITY POLE	
	CATCH BASIN	
	MANHOLE	
	HYDRANT	
	GATE VALVE	

Index Of Sheets

Approvals:

* CITY OF PORTLAND

Utilities:

* WATER: PORTLAND WATER DISTRICT
* SEWER: CITY OF PORTLAND DPW
* ELECTRIC: CMP - TERRY S. BRADISH
* TELEPHONE: VERIZON - GEORGE HILLMAN 207-797-1798
* GAS - NORTHERN UTILITIES

Caravan Beads Expansion

915 Forest Avenue
Portland, Maine 04103

Prepared For:
BJFC, LLC
915 Forest Avenue, Portland, Maine 04103

APPROVED BY CITY OF PORTLAND PLANNING BOARD: _____(DATE)

Project Team

Engineering, Permitting & Landscape Architecture:

LAND USE CONSULTANTS, INC.
966 Riverside Street
Portland, ME 04103
(207) 878-3313

Survey:

Sebago Technics
One Chabot Street
Westbrook, ME 04098

Architect

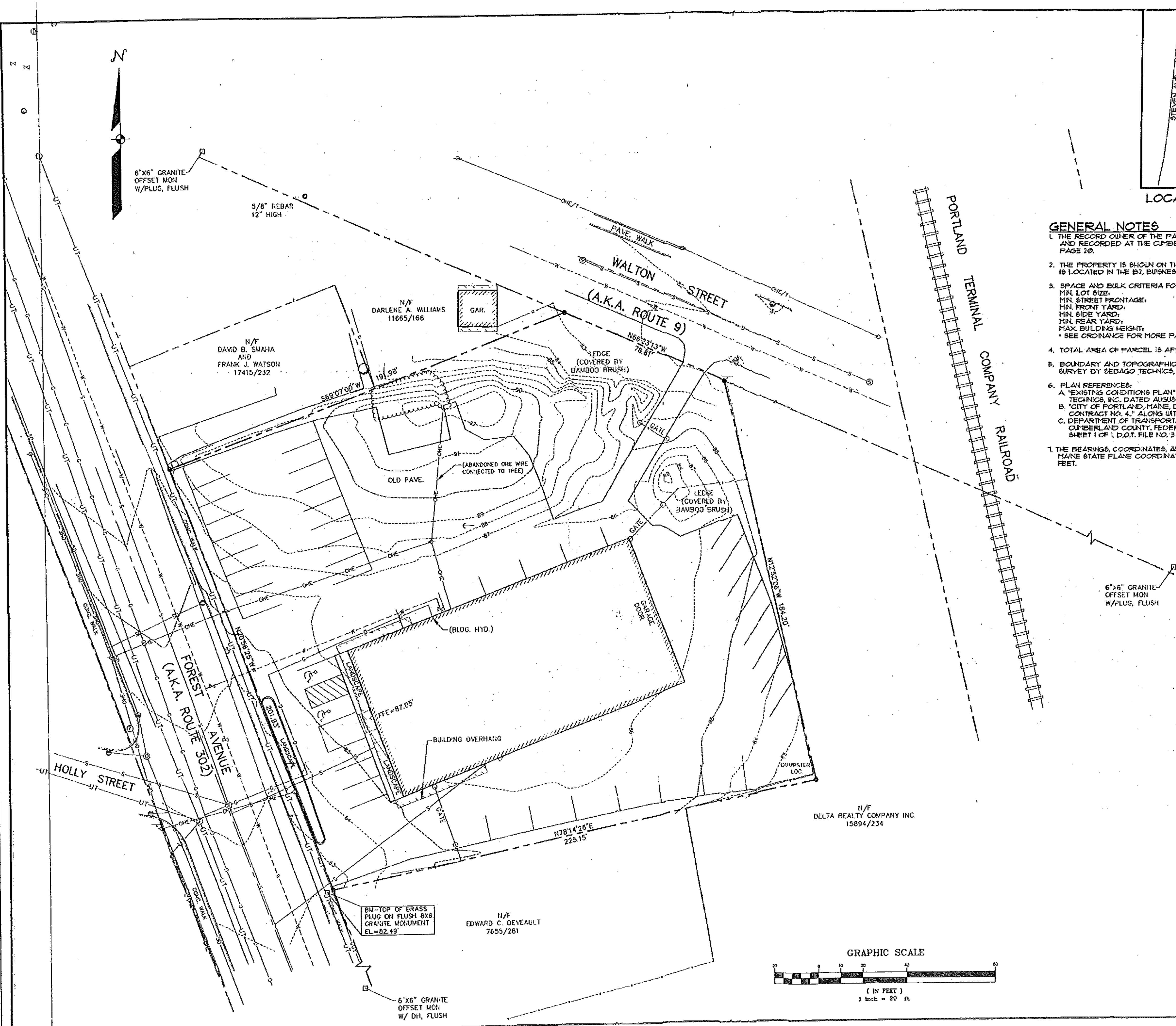
Michael R. Charek Architect
25 Hartley Street
Portland, ME 04103

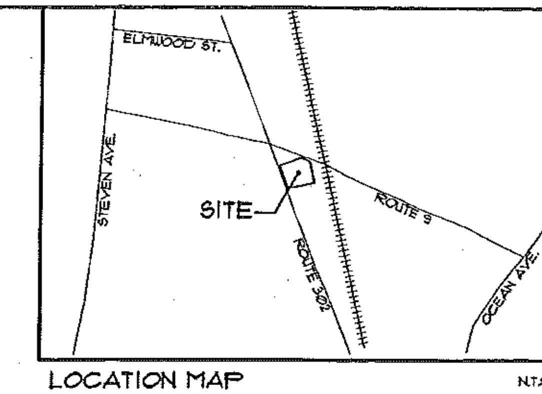
LUC
engineers
planners
landscape
architects
966 RIVERSIDE STREET
PORTLAND, MAINE 04103
Voice (207) 878 - 3313
Fax (207) 878 - 0701
landuse@landuseconsultants.com
Land Use Consultants, Inc.

Issue: 08-25-06 Site Plan Review - City of Portland

Drawing 0
LUC PROJ #4516

7/21/06, 02:6





LOCATION MAP

N.T.S.

GENERAL NOTES

1. THE RECORD OWNER OF THE PARCEL IS BJFC LLC BY DEED DATED OCTOBER 25, 2002 AND RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 18310 PAGE 20.
2. THE PROPERTY IS SHOWN ON THE CITY OF PORTLAND TAX MAP 142, BLOCK F AS LOT 4 AND IS LOCATED IN THE B2, BUISNESS ZONE.
3. SPACE AND BULK CRITERIA FOR THE B2 ZONE ARE AS FOLLOWS:

MIN. LOT SIZE:	10,000 SQ. FT.
MIN. STREET FRONTAGE:	50 FEET
MIN. FRONT YARD:	SEE ORDINANACE
MIN. SIDE YARD:	10 FEET
MIN. REAR YARD:	NONE
MAX. BUILDING HEIGHT:	45 FEET

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION

4. TOTAL AREA OF PARCEL IS APPROXIMATELY 51,087 SQ. FT. OR 1.17 ACRES.
5. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON A FIELD SURVEY BY SEBAGO TECHNICS, INC. PERFORMED IN JULY 2006.
6. PLAN REFERENCES:
   A. "EXISTING CONDITIONS PLAN" OF 915 FOREST AVE. SITE FOR ZAJAC INC. BY SEBAGO TECHNICS, INC. DATED AUGUST 8, 1991.
   B. "CITY OF PORTLAND, MAINE, DEPARTMENT OF PUBLIC WORKS, FOREST AVE. RECONST. CONTRACT NO. 4." ALONG WITH CITY OF PORTLAND - UTILITY PLANS.
   C. DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP-STATE HIGHWAY 14, PORTLAND, CUMBERLAND COUNTY. FEDERAL AID PROJECT NO. F-NH-014P(17), DATED JULY 1984, SHEET 1 OF 1, D.O.T. FILE NO. 3-411.
7. THE BEARINGS, COORDINATES, AND ELEVATIONS SHOWN HEREON ARE BASED UPON THE MAINE STATE PLANE COORDINATE GRID, WEST ZONE 1802 ON NAD83 AND NAVD88 IN US FEET.

LEGEND

EXISTING	DESCRIPTION
— — —	BOUNDARY LINE/R.O.W.
— — —	ABUTTER LINE/R.O.W.
— - —	EASEMENT
— - —	CENTERLINE
—⊡—	MONUMENT
—◎—	IRON PIPE/ROD
—⊕—	DRILLHOLE
●	REBAR TO BE SET
——	EDGE PAVEMENT
——	TRAVEL WAY LINE
——	CURBLINE
/////	BUILDING
- - - -	BUILDING OVERHANG
▭	BENCHMARK
⌒⌒⌒	TREELINE
--122-- --120--	CONTOURS
—o—	CHAIN LINK FENCE
—o—	STOCKADE FENCE
┼┼┼┼	RAILROAD
—G—	GAS
—W—	WATER
⋈	GATE VALVE
✧	HYDRANT
—S—	SEWER
Ⓢ	SEWER MH
—SD—	STORM DRAIN
—UD—	UNDERDRAIN
⊞ ⊞	CATCH BASIN
Ⓓ	DRAINAGE MH
—OHE—	OVERHEAD ELEC. & TEL.
—UGE—	UNDERGROUND ELEC. & TEL.
Ⓣ	TELEPHONE MANHOLE
-o-	UTILITY POLE
—	SIGN
✡	WATER SHUT OFF

REV:	BY:	DATE:	STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

PROJECT NO.	FIELD BOOK	DESIGN	CHKD	DRAWN
06242EC	824	-	MWE	DPH

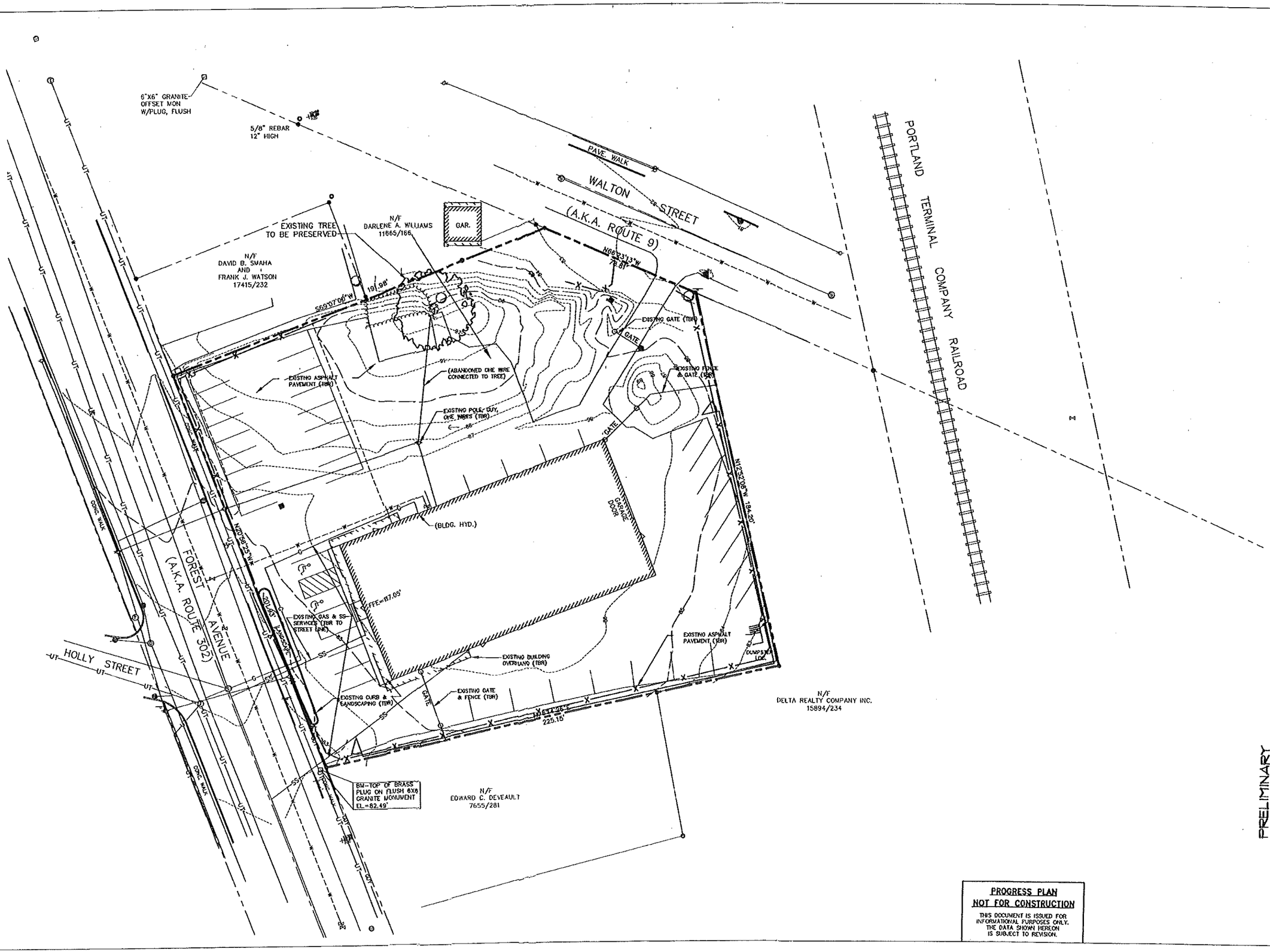
EXISTING CONDITIONS PLAN

OF:
CARAVAN OF BEADS
FOREST AVE AND WALTON STREET
PORTLAND, MAINE
FOR:
MICHAEL CHAREK ARCHITECTS
25 HARTLEY STREET
PORTLAND, MAINE 04103

DATE	SCALE
7/18/06	1"=20'

SHEET 1 OF 1

06242EC



PROGRESS PLAN
NOT FOR CONSTRUCTION

THIS DOCUMENT IS ISSUED FOR INFORMATIONAL PURPOSES ONLY. THE DATA SHOWN HEREON IS SUBJECT TO REVISION.

PRELIMINARY

SITE DESIGN ENGINEERING LANDSCAPE ARCHITECTURE
LAND USE CONSULTANTS, INC.
295 RIVERSIDE STREET PORTLAND, MAINE 04103
Voice (207) 878 - 3313 Fax (207) 878 - 0333
Land Use Consultants, Inc.

STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER DAVID A. KLAMUT 3197

CARAYAN BEADS
FOREST AVENUE, PORTLAND, MAINE
PREPARED FOR:
MICHAEL CHAREK ARCHITECTS
25 HARTLEY STREET
PORTLAND, MAINE 04103

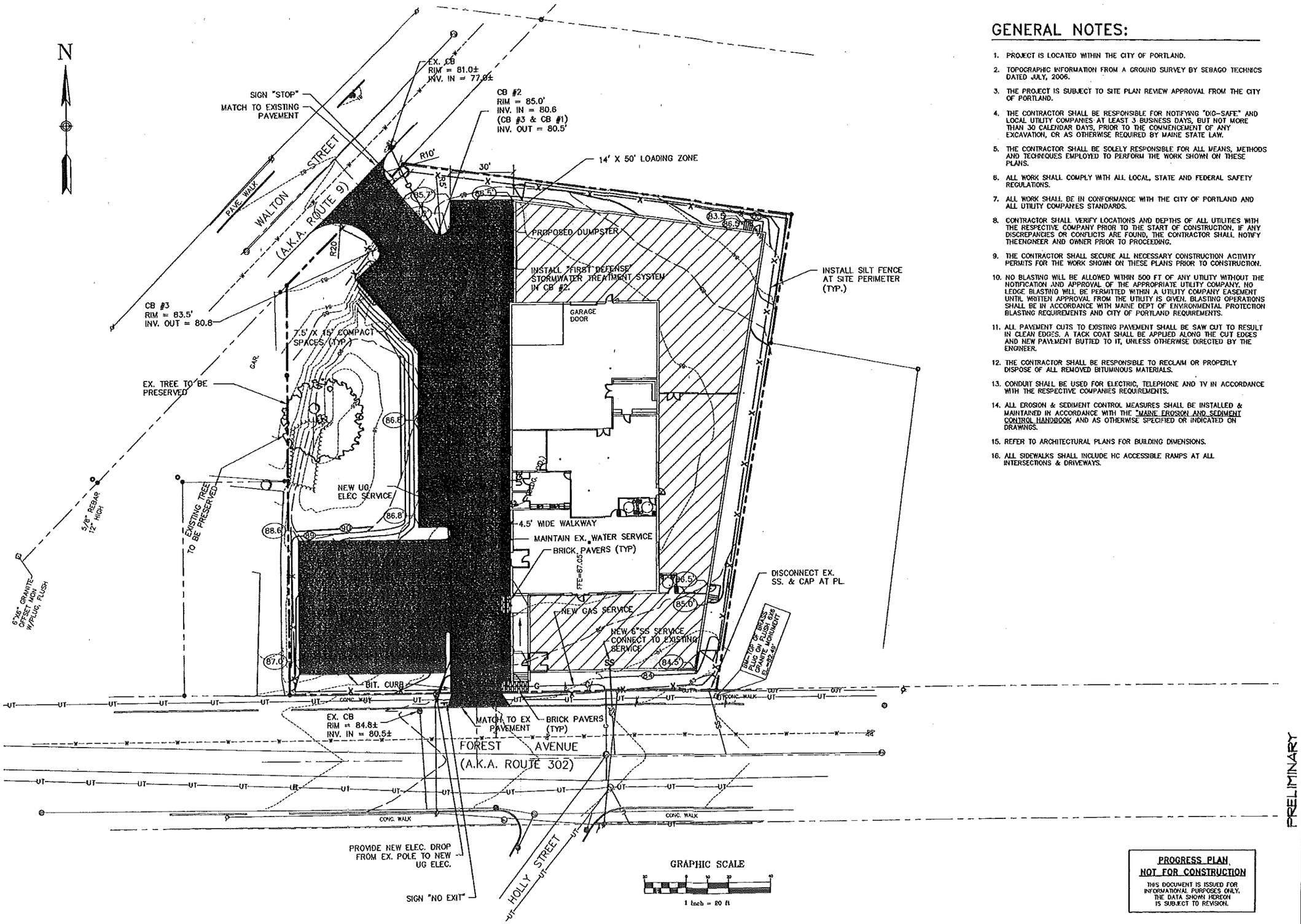
Date	Revision

Designed PLC
Drawn PLC
Checked PLC
Scale 1" = 20'
Date 8/25/06

EXISTING CONDITIONS & REMOVALS

Job No. 4516

Drawing C-1



GENERAL NOTES:

1. PROJECT IS LOCATED WITHIN THE CITY OF PORTLAND.
2. TOPOGRAPHIC INFORMATION FROM A GROUND SURVEY BY SEBAGO TECHNICS DATED JULY, 2006.
3. THE PROJECT IS SUBJECT TO SITE PLAN REVIEW APPROVAL FROM THE CITY OF PORTLAND.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "DIG-SAFE" AND LOCAL UTILITY COMPANIES AT LEAST 3 BUSINESS DAYS, BUT NOT MORE THAN 30 CALENDAR DAYS, PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, OR AS OTHERWISE REQUIRED BY MAINE STATE LAW.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL MEANS, METHODS AND TECHNIQUES EMPLOYED TO PERFORM THE WORK SHOWN ON THESE PLANS.
6. ALL WORK SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.
7. ALL WORK SHALL BE IN CONFORMANCE WITH THE CITY OF PORTLAND AND ALL UTILITY COMPANIES STANDARDS.
8. CONTRACTOR SHALL VERIFY LOCATIONS AND DEPTHS OF ALL UTILITIES WITH THE RESPECTIVE COMPANY PRIOR TO THE START OF CONSTRUCTION. IF ANY DISCREPANCIES OR CONFLICTS ARE FOUND, THE CONTRACTOR SHALL NOTIFY THEENGINEER AND OWNER PRIOR TO PROCEEDING.
9. THE CONTRACTOR SHALL SECURE ALL NECESSARY CONSTRUCTION ACTIVITY PERMITS FOR THE WORK SHOWN ON THESE PLANS PRIOR TO CONSTRUCTION.
10. NO BLASTING WILL BE ALLOWED WITHIN 500 FT OF ANY UTILITY WITHOUT THE NOTIFICATION AND APPROVAL OF THE APPROPRIATE UTILITY COMPANY. NO LEDGE BLASTING WILL BE PERMITTED WITHIN A UTILITY COMPANY EASEMENT UNTIL WRITTEN APPROVAL FROM THE UTILITY IS GIVEN. BLASTING OPERATIONS SHALL BE IN ACCORDANCE WITH MAINE DEPT OF ENVIRONMENTAL PROTECTION BLASTING REQUIREMENTS AND CITY OF PORTLAND REQUIREMENTS.
11. ALL PAVEMENT CUTS TO EXISTING PAVEMENT SHALL BE SAW CUT TO RESULT IN CLEAN EDGES. A TACK COAT SHALL BE APPLIED ALONG THE CUT EDGES AND NEW PAVEMENT BUTTED TO IT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
12. THE CONTRACTOR SHALL BE RESPONSIBLE TO RECLAIM OR PROPERLY DISPOSE OF ALL REMOVED BITUMINOUS MATERIALS.
13. CONDUIT SHALL BE USED FOR ELECTRIC, TELEPHONE AND TV IN ACCORDANCE WITH THE RESPECTIVE COMPANIES REQUIREMENTS.
14. ALL EROSION & SEDIMENT CONTROL MEASURES SHALL BE INSTALLED & MAINTAINED IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK AND AS OTHERWISE SPECIFIED OR INDICATED ON DRAWINGS.
15. REFER TO ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS.
16. ALL SIDEWALKS SHALL INCLUDE HC ACCESSIBLE RAMPS AT ALL INTERSECTIONS & DRIVEWAYS.

PROGRESS PLAN
NOT FOR CONSTRUCTION
THIS DOCUMENT IS ISSUED FOR INFORMATIONAL PURPOSES ONLY. THE DATA SHOWN HEREON IS SUBJECT TO REVISION.

PRELIMINARY

Land Use Consultants, Inc.
295 RIVERSIDE STREET
PORTLAND, MAINE 04103
Voice (207) 878-2363
Fax (207) 878-3323
email@luc.com

STATE OF MAINE · REGISTERED PROFESSIONAL ENGINEER · DAVID M. KANELL 3197

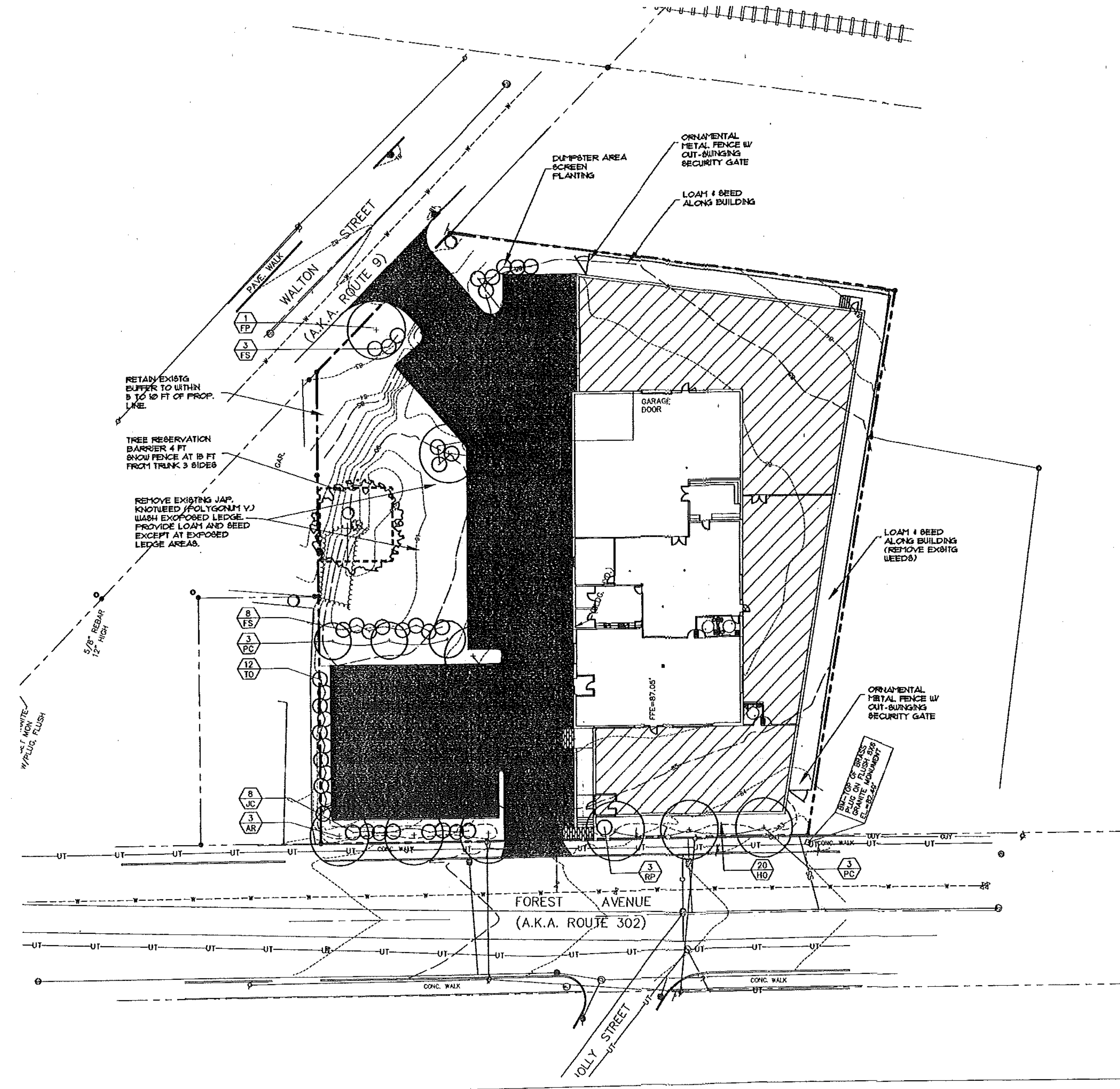
CARAYAN BEADS
FOREST AVENUE, PORTLAND, MAINE
PREPARED FOR:
MICHAEL CHAREK ARCHITECTS
25 HARTLEY STREET
PORTLAND, MAINE 04103

Date	Revision

Designed PLC
Drawn PLC
Checked PLC
Scale 1" = 20'
Date 8/29/06

SITE LAYOUT & GRADING

Job No. 1516
Drawing C-2



PLANT LIST

KEY	# [1] BOTANICAL NAME	COMMON NAME	SIZE	METHOD
CANOPY TREES				
AR	ACER RUBRUM "OCTOBER GLORY"	RED MAPLE	2.5–3"CAL	B&B
FP	FRAXINUS PENNSYLVATICUS	MARSHALL'S SEEDLESS ASH	2.5–3"	B&B
UNDERSTORY TREES				
BN	BETULA NIGRA	RIVER BIRCH (CLUMP)	10–12 FT HT	B&B
PC	PYRUS C. BRADFORDI	BRADFORD CALLERY PEAR	1.5–2"CAL	B&B
EVERGREEN TREES				
TC	TSUGA CANADENSIS	CANADIAN HEMLOCK	5–7'HT	B&B
EVERGREEN SHRUBS				
JC	JUNIPERUS CHINENSIS SEA GREEN	SEA GREEN JUNIPER	2–2.5'SPR	CONT.
JH	JUNIPERUS HOR. VAR	BLUE RUG JUNIPER	2–2.5'SPR	CONT.
TO	THUJA OCCIDENTALIS TECHNY	MISSION ARBORVITAE	5–7' HT	CONT.
SHRUBS				
FS	FORSYTHIA INT. SPECT.	FORSYTHIA	2–3' HT	B&B
RP	RHODODENDRON "PJM"	PJM RHODODENDRON	2–3' HT	CONT.
PERENNIALS				
HO	HEMEROCALLIS	DAYLILY (MIXED COLORS)	1 GAL	POTS

NOTES:

1. VERIFY SCHEDULE w/PLANTING PLAN. IF CONFLICTS, PROVIDE HIGHER NUMBER OF PLANTS. (PLANT KEY: 10 — NUMBER OF PLANTS; JH — KEY TO PLANT NAME)
2. LANDSCAPE CONTRACTOR TO CONSTRUCT PLANT BED AROUND AND UNDER ALL SHRUB PLANTINGS. PROVIDE 4 INCH DEEP BARK MULCH BED WITH CURVILINEAR SHAPE TO OUTSIDE LIMIT OF BRANCHING.
3. REFER TO DETAIL SHEETS FOR FOR PLANT MATERIAL INSTALLATION.
4. TREE CALIPERS ARE MEASURED AS FOLLOWS:
   4" OR LESS = MEASURE AT 6" ABOVE GROUND
   GREATER THAN 4" = MEASURE 12" ABOVE GROUND
5. ALL PLANTING TO BE IN CONFORMANCE W/ FALMOUTH SEC. 5.37 ZONING ORD. FOR INSTALLATION AND MAINTENANCE.

PROGRESS PLAN
NOT FOR CONSTRUCTION

THIS DOCUMENT IS ISSUED FOR INFORMATIONAL PURPOSES ONLY. THE DATA SHOWN HEREON IS SUBJECT TO REVISION.

GRAPHIC SCALE

1 inch = 20 ft.

LUC
engineers planners landscape architects
966 RIVERSIDE STREET PORTLAND, MAINE 04103
Land Use Consultants, Inc.

REGISTERED LANDSCAPE ARCHITECT
THOMAS N. DERY
No. 183
STATE OF MAINE

CARAVAN BEADS

FOREST AVENUE, PORTLAND, MAINE

PREPARED FOR:
MICHAEL CHAREK ARCHITECTS
25 HARTLEY STREET
PORTLAND, MAINE 04103

Revision	Date

Designed	PLC/NE
Drawn	PLC/NE
Checked	TNE
Scale	1" = 20'
Date	8/25/06

PRELIMINARY

LANDSCAPE PLAN

Job No. 4516

Drawing

C-3

PROGRESS PLAN
NOT FOR CONSTRUCTION

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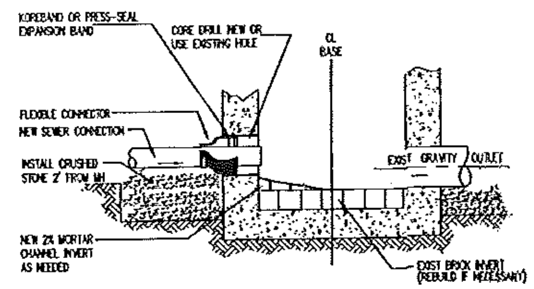
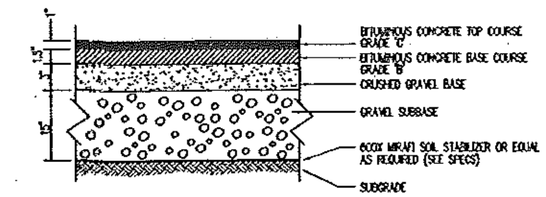


KOREBAND OR PRESS-SEAL EXPANSION BAND
CORE DRILL NEW OR USE EXISTING HOLE
CL BASE
FLEXIBLE CONNECTOR
NEW SEWER CONNECTION
INSTALL CRUSHED STONE 2' FROM MH
EXIST GRAVITY OUTLET
NEW 2% MORTAR CHANNEL INVERT AS NEEDED
EXIST BRICK INVERT (REBUILD IF NECESSARY)

7 FLEXIBLE CONNECTION TO EXISTING MANHOLE

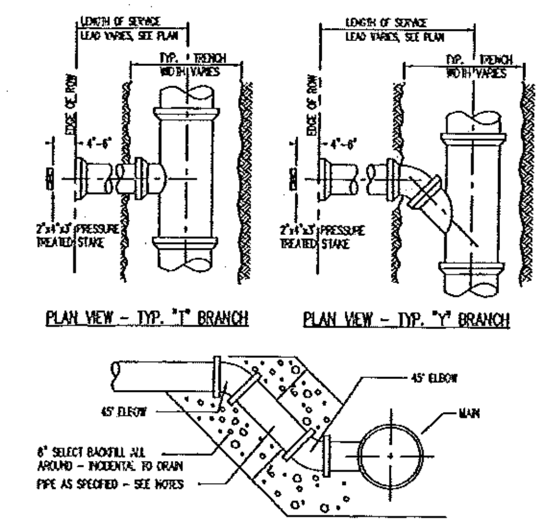
NOT TO SCALE



4 BITUMINOUS CONCRETE DRIVE & PARKING

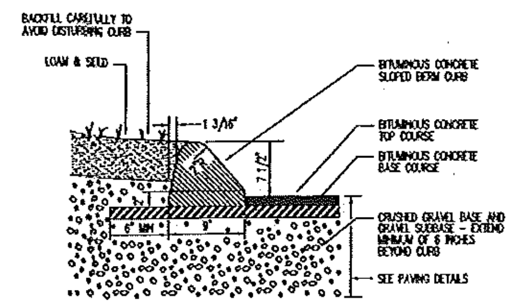
NOT TO SCALE

ALL UTILITY SERVICE LEADS SHALL BE INSTALLED TO THE RIGHT-OF-WAY LINE. SANITARY SEWER SERVICE LEADS SHALL BE 6-INCH DIAMETER; STORM DRAIN SERVICE LEADS SHALL BE 4-INCH DIAMETER; WATER SERVICE LEADS SHALL BE 3/4-INCH DIAMETER. A PRESSURE-TREATED WOODEN STAKE 2"x4"x3' SHALL BE INSTALLED TO MARK THE END OF EACH SERVICE LEAD.



1 TYPICAL SEWER SERVICE LEAD CONNECTION

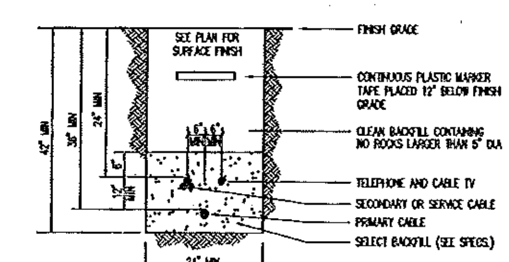
NOT TO SCALE



BACKFILL CAREFULLY TO AVOID DISTURBING CURB
LOAM & SEED
BITUMINOUS CONCRETE SLOPED BERM CURB
BITUMINOUS CONCRETE TOP COURSE
BITUMINOUS CONCRETE BASE COURSE
CRUSHED GRAVEL BASE AND GRAVEL SUBBASE - EXTEND MINIMUM OF 6 INCHES BEYOND CURB
SEE PAVING DETAILS
1 3/16"
7 1/2"
6" MIN
9"

5 BITUMINOUS CONCRETE CURB

NOT TO SCALE



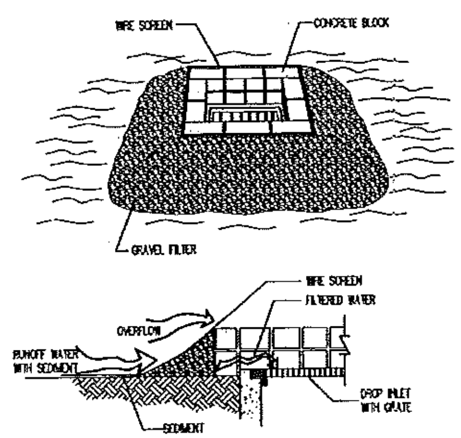
SEE PLAN FOR SURFACE FINISH
FINISH GRADE
CONTINUOUS PLASTIC MARKER TAPE PLACED 12" BELOW FINISH GRADE
CLEAN BACKFILL CONTAINING NO ROCKS LARGER THAN 6" DIA
TELEPHONE AND CABLE TV
SECONDARY OR SERVICE CABLE
PRIMARY CABLE
SELECT BACKFILL (SEE SPECS)
42" MIN
30" MIN
24" MIN
21" MIN

NOTES:

1. INSTALLATION SHOULD NOT ALLOW THE INTER-TWINING OF CABLES.
2. BEDDING AND BACKFILL SHALL BE FREE OF ROOTS, STUMPS AND OTHER DEBRIS.
3. INSTALL SCHEDULE 40 CONDUIT UNDER ALL PAVED AREAS PER APPROPRIATE UTILITY COMPANY SPECIFICATIONS.

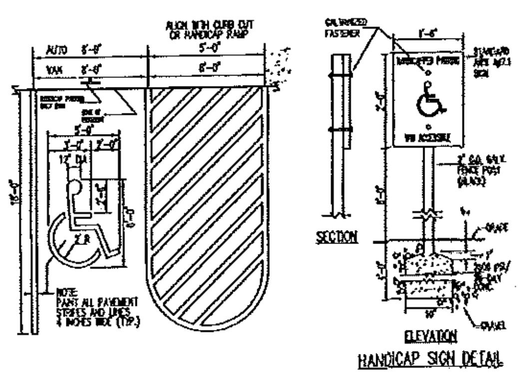
2 TYPICAL UNDERGROUND CABLE TRENCH

NOT TO SCALE



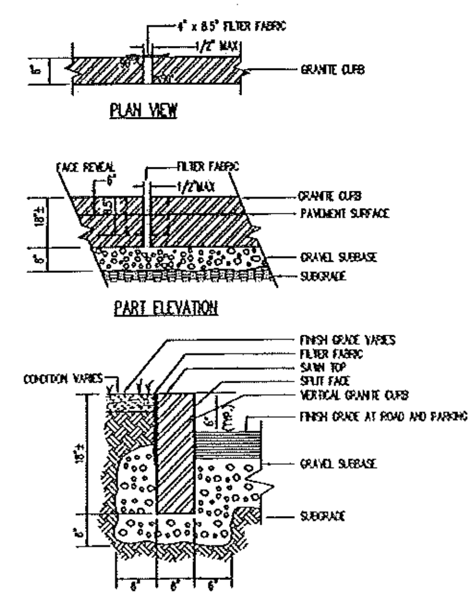
10 BLOCK & GRAVEL DROP INLET SEDIMENT FILTER

NOT TO SCALE



8 ACCESSIBLE PARKING STALL

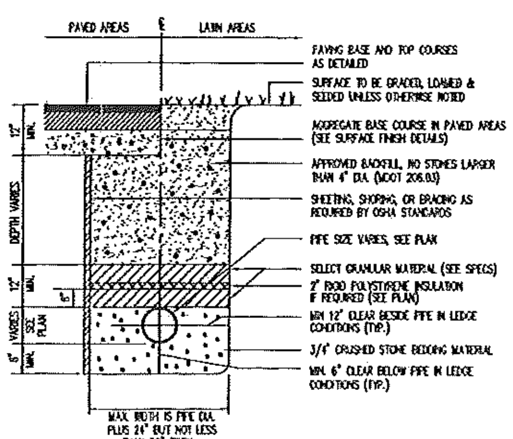
NOT TO SCALE



4" x 8.5" FILTER FABRIC
1/2" MAX
GRANITE CURB
PLAN VIEW
FACE REVEAL
FILTER FABRIC
GRANITE CURB
PAVEMENT SURFACE
GRAVEL SUBBASE
SUBGRADE
PART ELEVATION
FINISH GRADE VARIES
FILTER FABRIC
SAWN TOP
SPLIT FACE
VERTICAL GRANITE CURB
FINISH GRADE AT ROAD AND PARKING
CONDITION VARIES
GRAVEL SUBBASE
SUBGRADE
SECTION

6 VERTICAL GRANITE CURB (MDOT TYPE "1")

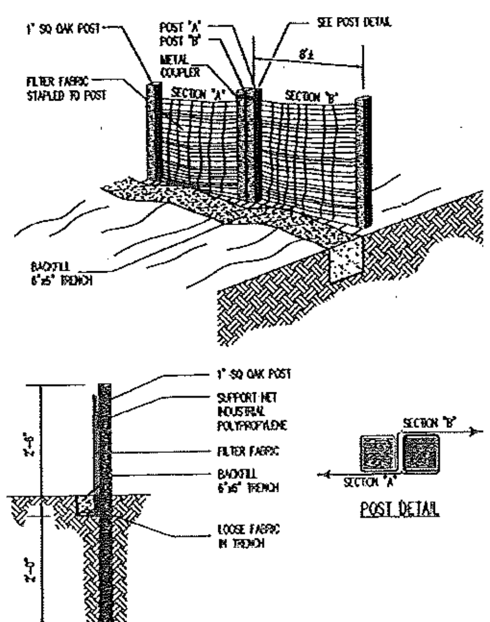
NOT TO SCALE



PAVED AREAS
LAWN AREAS
PAVING BASE AND TOP COURSES AS DETAILED
SURFACE TO BE GRADED, LOAMED & SEEDED UNLESS OTHERWISE NOTED
AGGREGATE BASE COURSE IN PAVED AREAS (SEE SURFACE FINISH DETAILS)
APPROVED BACKFILL, NO STONES LARGER THAN 6" DIA (MDOT 206.03)
SHEETING, SHORING, OR BRACING AS REQUIRED BY OSHA STANDARDS
PIPE SIZE VARIES, SEE PLAN
SELECT GRANULAR MATERIAL (SEE SPECS)
2" FOOD POLYSTYRENE INSULATION IF REQUIRED (SEE PLAN)
MIN 12" CLEAR BESIDE PIPE IN LEDGE CONDITIONS (TYP.)
3/4" CRUSHED STONE BEDDING MATERIAL
MIN. 6" CLEAR BELOW PIPE IN LEDGE CONDITIONS (TYP.)
MAX WIDTH IS PIPE DIA PLUS 24" BUT NOT LESS THAN 36" TOTAL
DEPTH VARIES

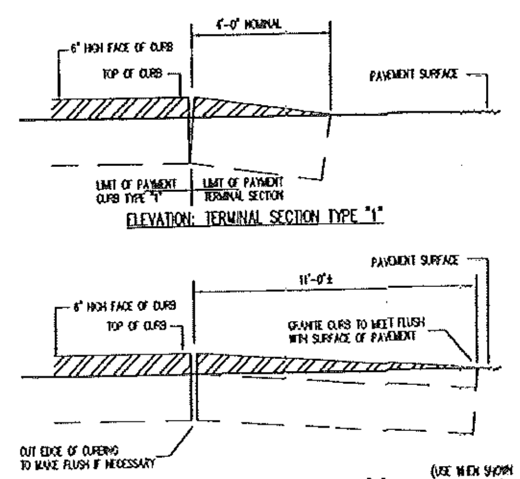
3 TYPICAL PIPE BEDDING DETAIL

NOT TO SCALE



11 PREFABRICATED SILT FENCE

NOT TO SCALE



6" HIGH FACE OF CURB
TOP OF CURB
4'-0" NOMINAL
PAVEMENT SURFACE
LIMIT OF PAYMENT CURB TYPE "1"
LIMIT OF PAYMENT TERMINAL SECTION
ELEVATION: TERMINAL SECTION TYPE "1"
11'-0"±
GRANITE CURB TO MEET FLUSH WITH SURFACE OF PAVEMENT
CUT EDGE OF CURBING TO MAKE FLUSH IF NECESSARY
ELEVATION: TERMINAL SECTION TYPE "5"
(USE WHEN SHOWN ON PLANS ONLY)

9 TERMINAL CURB SECTION

NOT TO SCALE

PRELIMINARY

CARAVAN BEADS
FOREST AVENUE, PORTLAND, MAINE

PREPARED FOR:
MICHAEL CHAREK ARCHITECTS
25 HARTLEY STREET
PORTLAND, MAINE 04103

Designed	PLC
Drawn	PLC
Checked	PLC
Scale	NO SCALE
Date	8/25/06

Revision | Date

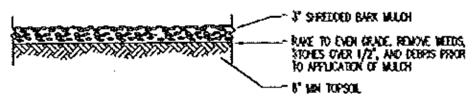
DETAILS

Job No. 4516

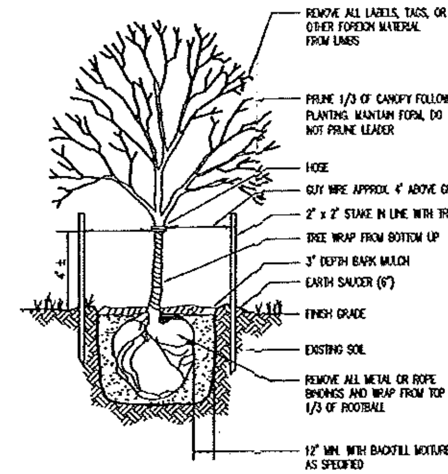
Sheet C-4

STATE OF MAINE · DAVID A. KAMILA 3137 · REGISTERED PROFESSIONAL ENGINEER

LUC Land Use Consultants, Inc. — engineers, planners, architects — 586 RIVERSIDE STREET, PORTLAND, MAINE 04103

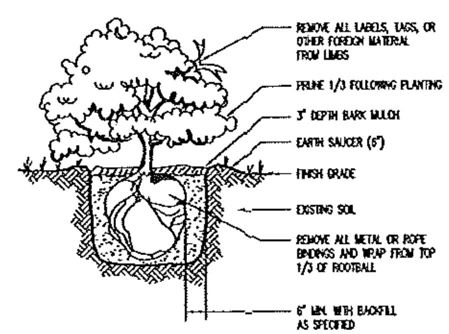


(10) BARK MULCH
NOT TO SCALE



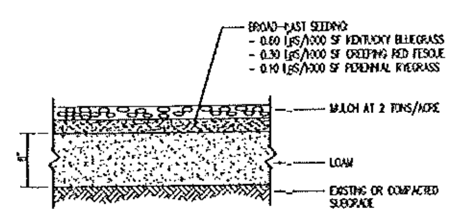
REMOVE ALL LABELS, TAGS, OR OTHER FOREIGN MATERIAL FROM LIMBS
PRUNE 1/3 OF CANOPY FOLLOWING PLANTING. MAINTAIN FORM, DO NOT PRUNE LEADER
HOSE
GUY WIRE APPROX. 4' ABOVE GROUND
2" x 2" STAKE IN LINE WITH TRUNK
TREE WRAP FROM BOTTOM UP
3" DEPTH BARK MULCH
EARTH SAUCER (6")
FINISH GRADE
EXISTING SOIL
REMOVE ALL METAL OR ROPE BINDINGS AND WRAP FROM TOP 1/3 OF ROOTBALL
12" MIN. WITH BACKFILL MIXTURE AS SPECIFIED

(7) DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

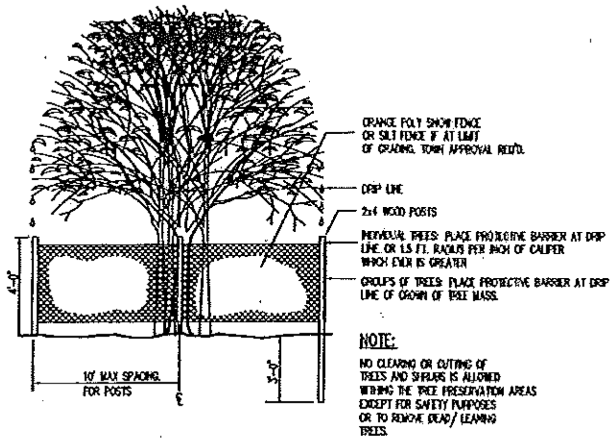


REMOVE ALL LABELS, TAGS, OR OTHER FOREIGN MATERIAL FROM LIMBS
PRUNE 1/3 FOLLOWING PLANTING
3" DEPTH BARK MULCH
EARTH SAUCER (5")
FINISH GRADE
EXISTING SOIL
REMOVE ALL METAL OR ROPE BINDINGS AND WRAP FROM TOP 1/3 OF ROOTBALL
6" MIN. WITH BACKFILL AS SPECIFIED

(8) SHRUB PLANTING DETAIL
NOT TO SCALE

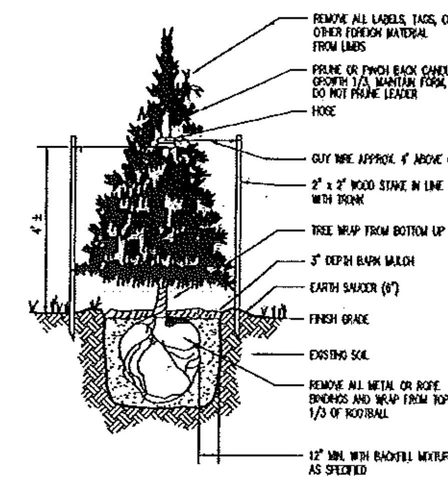


(9) LOAM & SEED
NOT TO SCALE



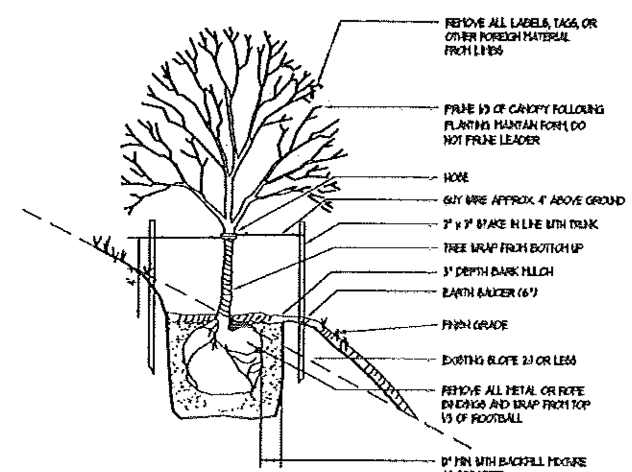
ORANGE POLY SNOW FENCE OR SILT FENCE 3' AT LIMIT OF GRADING. TOWN APPROVAL REQ'D.
DRIP LINE
2x4 WOOD POSTS
INDIVIDUAL TREES: PLACE PROTECTIVE BARRIER AT DRIP LINE OR 1.5 FT. RADIUS PER INCH OF CALIPER WHICH EVER IS GREATER
GROUPS OF TREES: PLACE PROTECTIVE BARRIER AT DRIP LINE OF CROWN OF TREE MASS.
10' MAX SPACING FOR POSTS
NOTE:
NO CLEARING OR CUTTING OF TREES AND SHRUBS IS ALLOWED WITHIN THE TREE PRESERVATION AREAS EXCEPT FOR SAFETY PURPOSES OR TO REMOVE DEAD/ LEANING TREES.

(4) TREE PRESERVATION PROTECTION BARRIER DTL
NOT TO SCALE



REMOVE ALL LABELS, TAGS, OR OTHER FOREIGN MATERIAL FROM LIMBS
PRUNE OR PINCH BACK CANDLE GROWTH 1/3, MAINTAIN FORM, DO NOT PRUNE LEADER
HOSE
GUY WIRE APPROX. 4' ABOVE GROUND
2" x 2" WOOD STAKE IN LINE WITH TRUNK
TREE WRAP FROM BOTTOM UP
3" DEPTH BARK MULCH
EARTH SAUCER (6")
FINISH GRADE
EXISTING SOIL
REMOVE ALL METAL OR ROPE BINDINGS AND WRAP FROM TOP 1/3 OF ROOTBALL
12" MIN. WITH BACKFILL MIXTURE AS SPECIFIED

(5) EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



REMOVE ALL LABELS, TAGS, OR OTHER FOREIGN MATERIAL FROM LIMBS
PRUNE 1/3 OF CANOPY FOLLOWING PLANTING. MAINTAIN FORM, DO NOT PRUNE LEADER
HOSE
GUY WIRE APPROX. 4' ABOVE GROUND
2" x 2" STAKE IN LINE WITH TRUNK
TREE WRAP FROM BOTTOM UP
3" DEPTH BARK MULCH
EARTH SAUCER (6")
FINISH GRADE
EXISTING SLOPE 2:1 OR LESS
REMOVE ALL METAL OR ROPE BINDINGS AND WRAP FROM TOP 1/3 OF ROOTBALL
6" MIN. WITH BACKFILL MIXTURE AS SPECIFIED

(6) DECIDUOUS TREE SLOPE PLANTING DETAIL
NOT TO SCALE

PROGRESS PLAN
NOT FOR CONSTRUCTION
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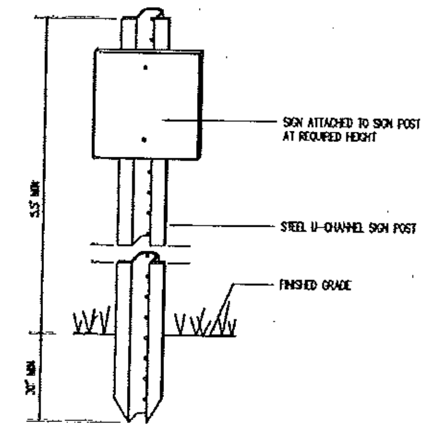
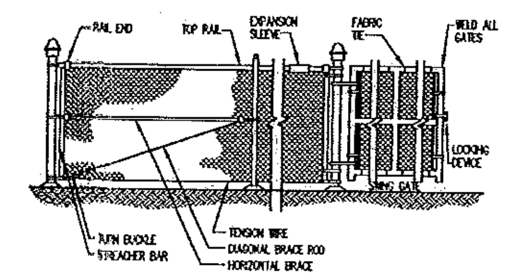
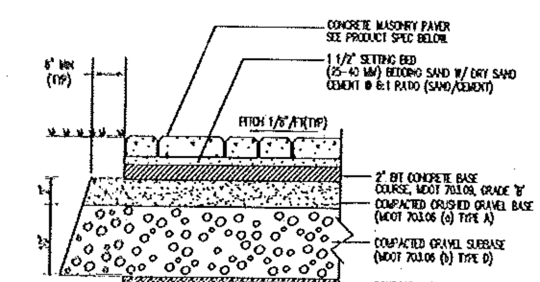


(1) SIGN & POST
NOT TO SCALE



(2) CHAINLINK FENCE W/GATE
NOT TO SCALE



CONCRETE MASONRY PAVER SEE PRODUCT SPEC BELOW
1 1/2" SETTING BED (25-40 MM) BEDDING SAND W/ DRY SAND CEMENT @ 6:1 RATIO (SAND/CEMENT)
PITCH 1/8"/FT(TYP)
2" BIT CONCRETE BASE COURSE, MDOT 703.09, GRADE 'B'
COMPACTED CRUSHED GRAVEL BASE (MDOT 703.06 (a) TYPE A)
COMPACTED GRAVEL SUBBASE (MDOT 703.06 (b) TYPE D)
COMPACTED SUBGRADE

PRODUCT SPECIFICATION:

"MILLS COLONIAL COBBLE" BY TRANSPAVE, SIENNA, GREY AND TAN (#3006A)

DISTRIBUTED FROM:

MAINSCAPE HARDSCAPE PRODUCTS
222 RIVERSIDE STREET
PORTLAND, ME 04103
207-874-1955

(3) CONCRETE MASONRY PAVERS
NOT TO SCALE

PRELIMINARY

LUC — engineers, planners, landscape architects
966 RIVERSIDE STREET, PORTLAND, MAINE 04103
Land Use Consultants, Inc.

STATE OF MAINE — DAVID A. KAMILA 3197 — REGISTERED PROFESSIONAL ENGINEER

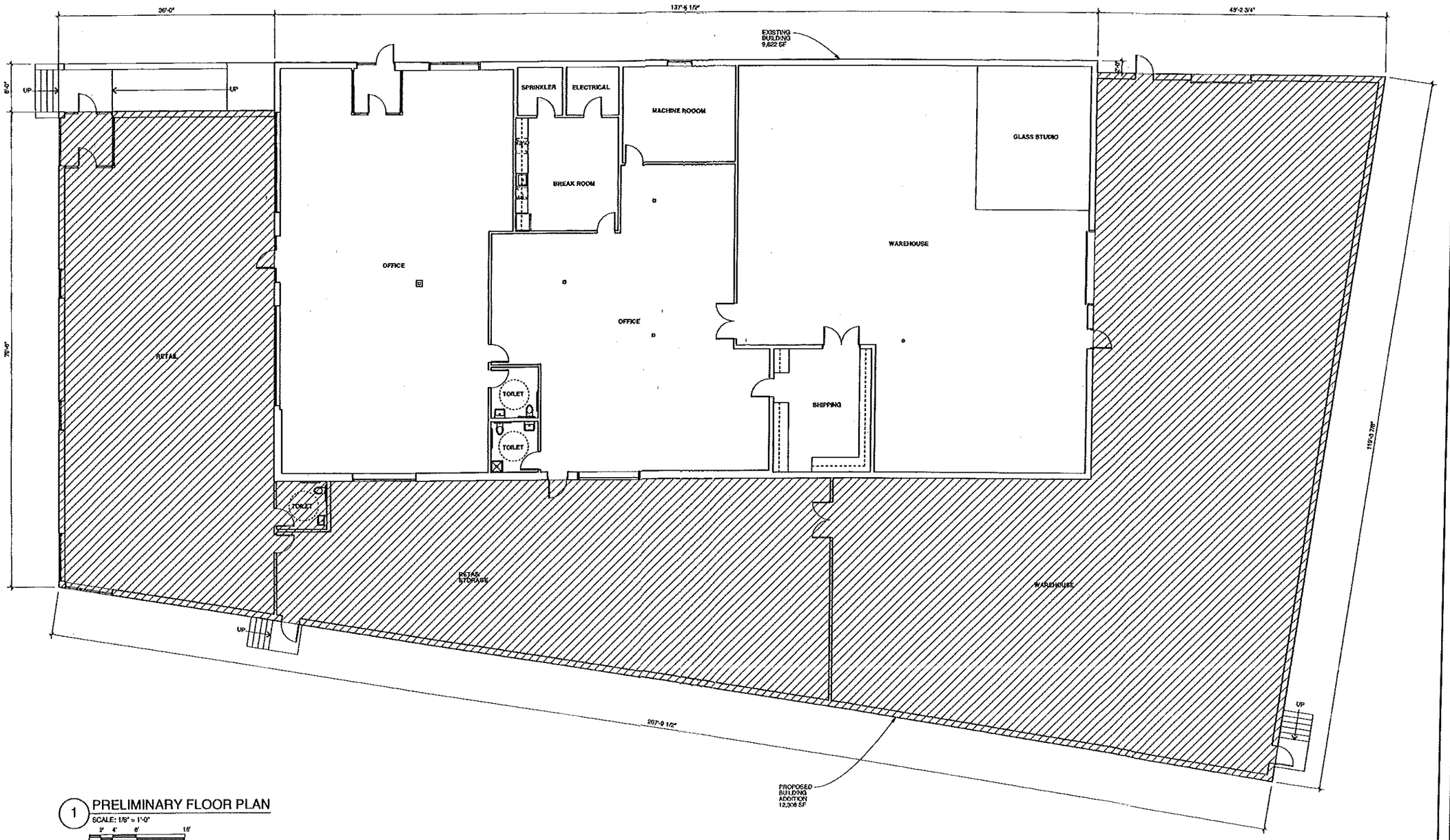
CARAVAN BEADS
FOREST AVENUE, PORTLAND, MAINE
PREPARED FOR:
MICHAEL CHAREK ARCHITECTS
25 HARTLEY STREET
PORTLAND, MAINE 04103

Revision	Date

Designed	PLC
Drawn	PLC
Checked	PLC
Scale	NO SCALE
Date	8/25/06

DETAILS

Job No. 4516
Sheet C-5



1 PRELIMINARY FLOOR PLAN

SCALE: 1/8" = 1'-0"

2' 4' 8' 16'

PLAN NORTH

PROJECT NORTH

Michael R. Charek Architect

25 Hartley Street
Portland, Maine 04103
(207) 761-0555

Caravan Beads
Building Expansion

915 Forest Avenue
Portland, ME 04103

Title

PRELIMINARY FLOOR PLAN

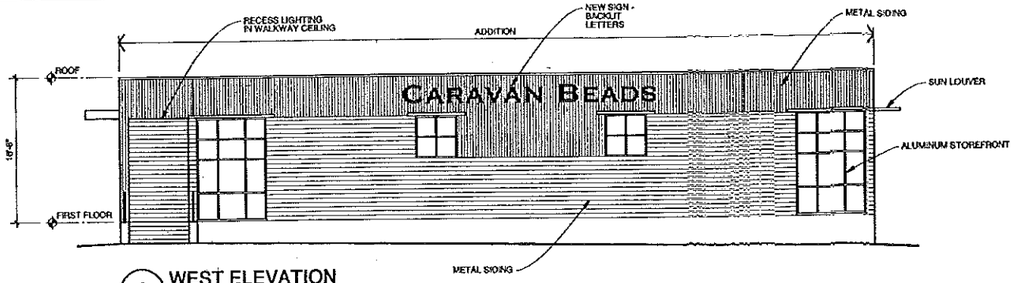
Scale: 1/8" = 1'-0"

Date: 8/25/06

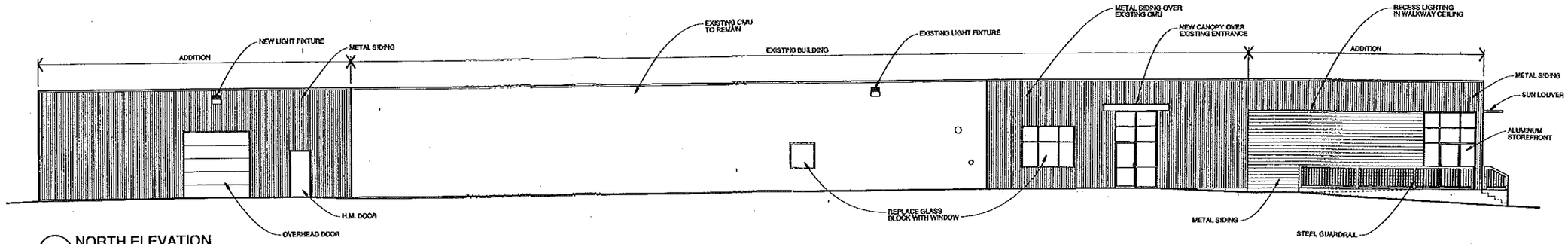
Revisions

Sheet

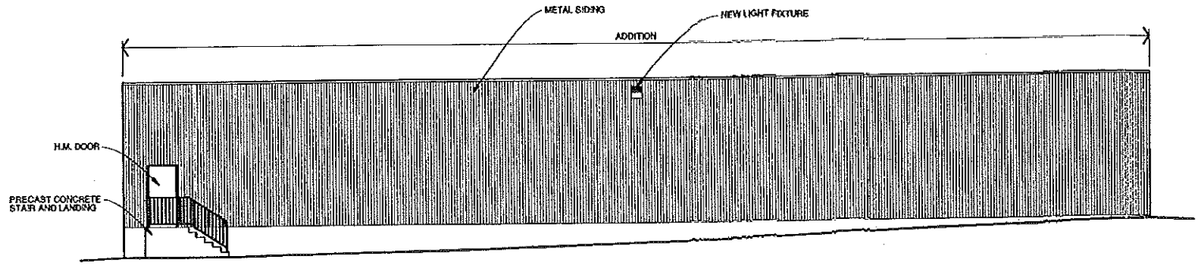
A1



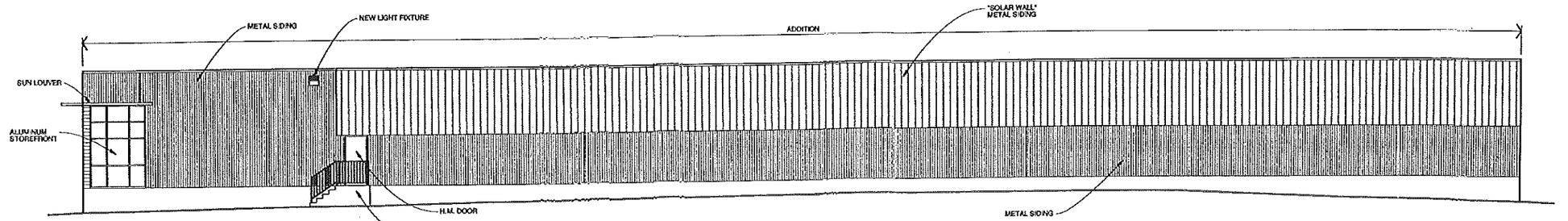
1 WEST ELEVATION
SCALE: 1/8" = 1'-0"
2' 4' 8' 16'



2 NORTH ELEVATION
SCALE: 1/8" = 1'-0"
2' 4' 8' 16'



3 EAST ELEVATION
SCALE: 1/8" = 1'-0"
2' 4' 8' 16'



4 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"
2' 4' 8' 16'

Michael R. Charek
Architect
25 Hartley Street
Portland, Maine 04103
(207) 761-0556

Caravan Beads
Building Expansion
915 Forest Avenue
Portland, ME 04103

Title
PRELIMINARY ELEVATIONS

Scale: 1/8" = 1'-0"

Date: 8/25/06

Revisions

Sheet
A2