442-A-1

2006-0125

120 Marginal Way

Bayside Village Student Housing

Southern Maine Student Housing

on Spreadsheet

D-5

Form C 7/97

NOTICE OF INTENT TO FILE

Please take notice that

Southern Maine Student Housing, LLC
247 Commercial Street
Rockport, Maine 04856

is intending to file a Traffic Permit application with the **City of Portland** pursuant to the provisions of 23 M.R.S.A. §704 – A on or about **July 10, 2006**
(anticipated filing date)

This application is for

A proposed 400 bed student housing complex with approximately 3,140 s.f. of retail space. The project is forecast to generate 100 trip ends in the AM peak hour and 131 trip ends in the PM peak hour. The project is expected to be completed by September 2007.

(Summary of project: specifying trip generation at peak hour for the proposed development and the year the project is proposed to be completed and occupied)

at the following location:

At the northeast quadrant of Marginal Way and Preble Street, Tax Map 34A, Block B Lot 1.

(Project Location)

A request for a public hearing must be received by the **Municipality**, in writing no later than 20 days after the application is found by the department to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the **City of Portland Planning Department** office in **Portland** during normal working hours. A copy of the application may also be seen at the **Department of Transportation Regional Office** in **Scarborough**, Maine

Written public comments may be sent to the following address: **Attention City Planner, City of Portland, Planning Department, 389 Congress Street, Portland, ME 04101-3503.**

CERTIFICATION

This person responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the applicant for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: _____ Re/Cert/Lic No.: _____

Name (print): Thomas L. Gorrell Engineer: **Maine PE #** 9614

Date: 7-5-06 Other: _____

If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

_____ 6/27/2006

Signature of applicant Date

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE 12/99
ID#_____

Total Fees:_____
Date Received: _____

****

PERMIT APPLICATION – TRAFFIC
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. §704-A

Please type or print:

This application is for (check all that apply): Traffic 100-200 PCE's ☒
Traffic 200 + PCE's ☐

Name of Applicant: **Southern Maine Student Housing, LLC**

Address: **247 Commercial Street; Rockport, ME 04856** Telephone: **(207) 236-6002**

Name of local contact or agent: **Thomas Gorrill - Gorrill-Palmer Consulting Engineers, Inc.**

Address: **PO Box 1237 Gray, ME 04039** Telephone: **(207) 657-6910**

Name and type of development: **Proposed 400 bed, student housing facility and approximately 3,140 s.f. of retail space use**

Location of development including road, street, or nearest route number: **The site is located at the corner of Preble Street and Marginal Way**
City/~~Town/Plantation~~: **Portland** County: **Cumberland** Tax Map: **34A** Lot: **1, Block A**

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)? No

Was this development started prior to obtaining a traffic permit? **No**

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30-A, chapter 187)?
Yes_____ No **X**

Is this project located within a compact area of an urban compact municipality? Yes **X** No_____

Is this development or any portion of the site currently subject to state or municipal enforcement action?
No

Existing DEP or MDOT permit number (if applicable): _____

Name(s) DOT staff person(s) contacted concerning this application: _____

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applicants: _____

Project: Proposed Student Housing Development TRAFFIC MOVEMENT SCOPING MEETING

TRAFFIC MOVEMENT SCOPING MEETING CHECKLIST

Scoping Meeting ☒ 100-200 Trips ☐ 200 Trips
☒ New ☐ Modification

Date: _____

Attendance: _____

_____

_____

_____

Scoping Meeting Location: _____

Name of Project: Student Housing Development

Address: 120 Marginal Way; Portland, Maine

Applicant: Southern Maine Student Housing, LLC

Address: 247 Merchants Plaza; Rockport, Maine 04856

Applicant's Traffic Engineer: Gorrill-Palmer Consulting Engineers, Inc

Address: 15 Shaker Road Gray, ME 04039

MDOT Traffic Engineer Reviewing: _____

SECTION 1. Site and Traffic Information

1A. Site Plan

Size of development parcel (acres): 1.33 acres

Size of development to be left non vegetated (acres): 1.19 acres

1B. Existing and Proposed Site Uses

Type of Development : Proposed 400 student housing facility and 3,140 s.f. of retail space

Square Footage of building by usage: _____

_____

Special units of usage: N/A

_____

Project: Proposed Student Housing Development TRAFFIC MOVEMENT SCOPING MEETING

1C. Site and Vicinity Boundaries

__X__ Boundary or title survey signed and sealed professional land Surveyor

__X__ Vicinity map scale 1 inch equals no more than 1000 ft (1:10,000 metric)

1D. Proposed uses in vicinity of proposed development.

__X__ Uses that may increase traffic in vicinity: Ocean Gateway, Waterview Apartments, Medical Office Building, Chestnut Street Extension, Somerset Market Place, Pearl Place, Renovation of the former Jordan's Meats

1E. Trip Generation

Summary tables for each land use code.

	Total Daily	AM Peak	PM Peak	Saturday Peak
Student Housing (Avg. of LUC 220 & LUC 550)	1146	98	122	104
Retail (LUC 814)	139	2	9	21
Total	**1285**	**100**	**131**	**125**

Trip rates obtained from other Sources: _____

Number of locations where driveway counts taken: _____

Dates and time periods when driveway counts taken: _____

Location where driveway counts were taken: _____

_____

1F. Trip Distribution:

__X__ Stick diagram for each major intersection on either side of the development driveway(s).

Basis for using above listed percentages:

__X__ ITE trip generation handbook
__X__ Existing traffic patterns of adjacent street
_____ Gravity model
_____ Actual survey done and where: _____
__X__ Other explain: Student enrollment for University of Southern Maine, Southern Maine Community College and Maine College of Art

Comments: _____

_____

_____

Project: Proposed Student Housing Development TRAFFIC MOVEMENT SCOPING MEETING

1G. Trip Assignment

Stick diagram for each major intersection on either side of the development driveway(s).

	AM Peak Hour	PM Peak Hour
Percent primary trips:	100%	100%
Percent passer-by trips:		
Percent Diverted trips:		

Comments: _____

SECTION 2. Traffic Crashes (accidents)

MaineDOT crash records for study area year: 2002-2004

Number of high crash locations: 1

Collision diagrams: _____

Mitigation provided for each high crash location: _____

Other Traffic problems: _____

SECTION 3. Development entrances and exits

3A. Entrance and exit locations

X Distance to nearest intersecting road or town line (to the nearest hundredth of a mile.)

X Number, width and surface of each proposed entrance/exit.

3B. Plan view of each intersection created

Names of intersecting roads: Site Drive at Marginal Way

Posted speed limit: Marginal Way – 35 mph

Submission

This submission includes the following information:

1. Cover letter, dated July 11, 2006
2. Site Plan-Subdivision Application & Checklist
3. Application Fee: $7,225.00
4. Booklet of required exhibits
5. Nine sets of plans (24" x 36")
6. One set of plans (11"x17")

We trust that the Planning Board will consider this a complete application for a workshop meeting. If you desire any additional information, please do not hesitate to contact us. We look forward to our meeting with the Board at its earliest convenience.

Sincerely,
Mitchell & Associates

Robert B. Metcalf

Enclosures

cc: Ed Marsh
Tom Gorrill
Will Haskell
Ben Walter

C-4

City of Portland Site Plan Application

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

Address of Construction: 120 Marginal Way		**Zone:** B-7
Total Square Footage of Proposed Structure: 208,332 SF	**Square Footage of Lot:** 57,887 SF (1.33 Acres)	
Tax Assessor's Chart, Block & Lot Chart# 34A Block# B Lot# 1 Chart# 442 Block# A Lot# 1	**Property owner, mailing address:** City of Portland c/o Jack Lufkin 389 Congress Street Portland, Maine 04101	**Telephone:** 207.874.8945
Consultant/Agent, mailing address, phone & contact person: Robert Metcalf, Agent Mitchell & Associates 70 Center Street Portland, Maine 04101 Tel. 207-774-4427	**Applicant name, mailing address, telephone #/Fax#/Pager#:** Southern Maine Student Housing, LLC 247 Commercial Street Rockport, Maine 04856 Tel. 207.236.4067 Fax 207.236.6307	**Project name:** Bayside Village – A Student Housing Complex

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

Proposed Development (check all that apply)

X New Building ___Building Addition ___Change of Use X Residential ___Office X Retail
___Manufacturing ___Warehouse/Distribution ___Parking lot
X Subdivision ($500.00) + amount of lots **101** $25.00 per lot $ **2,525.00** + major site plan fee if applicable
___Site Location of Development ($3,000.00)
(except for residential projects which shall be $200 per lot_____)
X Traffic Movement ($1,000.00) ___Stormwater Quality ($250.00)
___Section 14-403 Review ($400.00 + 25.00 per lot)
___Other_____

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

__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)
X 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 -

C-5

Who billing will be sent to: (Company, Contact Person, Address, Phone #)
Southern Maine Student Housing, LLC
Attn: Edward Marsh, Jr.
247 Commercial Street
Rockport, Maine 04856
Tel. 207.236.4067
Fax 207.236.6307

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 check list
d. 1 set of 11 x 17 plans

Amendment to Plans: **Amendment applications should include 6 separate packets of the above (a, b, and 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: (Robert B. Metcalf, Agent)	**Date:** July 11, 2006

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

PROJECT DESCRIPTION

The City of Portland is currently the owner of the subject parcel which will be developed by two separate entities. Campobello Island, LLC has a Purchase and Sale Agreement with the City of Portland for 2.70 acres located between Interstate 295 and Marginal Way, adjacent to Preble Street Extension. Campobello Island, LLC is comprised of two development entities, Southern Maine Student Housing, LLC and Capital, LLC. Southern Maine Student Housing, LLC is proposing a mixed retail and student housing development and Capital, LLC is proposing a mixed retail and office building development. The site has been rezoned from B-5 Urban Commercial Mixed Use Zone to B-7 Mixed Development District Zone. This application is for the Southern Maine Student Housing, LLC portion of the project, with the Capital, LLC portion as separate submission.

The total site area under the Purchase and Sale Agreement is 117,464 SF, or 2.70 Acres, with the proposed Southern Maine Student Housing, LLC portion of the being 57,887 SF, or 1.33 Acres. The site is currently a parking lot which also houses a Maine Department of Environmental Protection air quality station and portable recycling containers. The Maine DEP has a one month notice agreement with the City of Portland to remove their structure from the site. The portable recycling containers will be relocated by the City of Portland. A bus shelter exists on adjacent City owned property, opposite Chestnut Street. The shelter should be removed by the City of Portland for future re-use, due to the fact that the Miss Portland Diner and a vehicular access way are proposed on this site. A temporary bus shelter will not be constructed as part of this project.

The proposed Bayside Village – A Student Housing Complex project is a five story building with a 47,501 SF footprint and 208,332 SF gross area. The ground floor is comprised of 3,143 SF of retail space, bicycle storage area and parking facilities and the second through fifth floors consist of 100 apartment units, with four bedrooms each, and common areas for studying. The apartment units have frontage on Marginal Way, Interstate 295 and the eastern side of the site with the center of the building an open courtyard, with rooftop plantings over the parking garage. Tenants would have one year leases and could be students at any of the local colleges or universities. A 24 hour maintenance staff will be present.

The building is built along the Marginal Way property line with several step-backs from the property line to create visual interest and allow for plantings adjacent to the sidewalk. Two vehicular access points are located on Marginal Way, one directly across from Chestnut Street, on City of Portland property, and the other midway between the Wild Oats access ways. Both drives allow for two way vehicular circulation, with the drive across from Chestnut Street for parking garage access for the student housing and the other drive for service access and access to the neighboring proposed office building and parking garage. The parking garage provides 102 spaces, all dedicated to the student housing.

An eight (8) foot sidewalk is proposed along Marginal Way and five (5) foot sidewalks are proposed within the site. A sidewalk is proposed along the access drive between the student housing and the proposed retail and office building which will connects to Preble Street Extension. A stairway from the rooftop garden connects to this walkway. A bus shelter is proposed at the northeastern corner of the site, along Marginal Way. An internal room provides bicycle storage with access from both the street and parking garage.

C-14

CWS
Architects
Benedict B. Walter, Vice President
434 Cumberland Avenue
Portland ME 04101-2325
Phone: 207.774.4441
Fax: 207.774.4016
E-mail: BWalter@CWSarch.com

Bayside Village Apartments
Marginal Way, Portland, Maine

Architectural Narrative

Bayside Village is a five level student housing community consisting of 100 four-bedroom apartment style residential units to be operated as a private dormitory and associated program spaces such as lobbies, offices, lounges, fitness rooms and meeting rooms. In addition to the residential use on the upper four levels, the building will includes a parking use, retail use and building support spaces on the first level. A large, secure indoor bicycle "parking area" capable of accommodating numerous bicycles as been conveniently located directly off the Marginal Way sidewalk. The property is tied to Portland's extensive pedestrian/bicycle trail system.

The building is configured in two wings – one paralleling I-295 and the other paralleling Marginal Way that will reinforce the streetscape with broken 5 story street walls, which is in keeping with the Bayside plan and new urbanism principals. At 1.33 acres, the sites residential density is 75 units per acre and 301 bedrooms per acre. This density is high for Portland but consistent with the objectives of sustainable new urban neighborhoods.

The building is proposed with a contemporary character and detailing that will help define downtown Portland's first and only 21st century neighborhood. The new Bayside, as a large urban redevelopment project, is ripe for development with a contemporary vocabulary that will contrast yet compliment the traditional vocabulary of old Portland. During pre-submission neighborhood meetings, the Bayside Neighborhood Association has indicated a strong desire to explore a more contemporary approach to design in lower Bayside.

Exterior material proposed are all durable, long life and easily maintained and include painted fiber cement panels with battens, fiber cement shingles, Kynar painted Galvalume mini-rib panels and copings, and brick masonry in a varying configuration along the building façade.

Project Description

The gross square footage of the proposed five-story student housing building is 208,332 square feet with a 47,501 square foot building footprint. The ground level will be a 102 space parking garage and will include 3,143 square feet of retail space. The residential portion of the structure will be four stories comprising 100 apartment units with a total of 400 bedrooms. There will be additional space for on-site management, fitness room, study areas and common areas. There will be a second story roof deck that will provide outdoor public space for the residents. The anticipated population will be students from the local colleges, including USM, MECA, Southern Maine Community College and UNE.

Access to the upper floors is provided by an elevator and stair tower located on the northeast corner of the building and two stairwells located on the south side of the building. There will be a sidewalk that will provide pedestrian linkage to Preble Street that will continue behind the proposed office building on the remaining portion of the city property. Parking for the development will be provided by the on-site 102 space parking garage and an agreement with the adjacent office building project for additional spaces during off peak use between 6 PM and 6 AM as needed. In addition, students attending USM, have as part of their tuition cost a parking space in the new garage recently constructed on campus.

Utilities

Water service to the site will be provided from an existing 8-inch main located on the east side of Marginal Way. Sanitary sewer service will be connected to the existing 36-inch sewer main located on the north side of Marginal Way. Underground electric, telephone and cable T.V. will be provided from existing above ground services located along the east side of Marginal Way. Natural gas will be provided from an existing 6-inch natural gas line located in Marginal Way.

Stormwater Management

Stormwater runoff will be collected through a series of catch basins connected to the city storm drain system in Marginal Way. Refer to the attached stormwater management report for a detailed narrative and calculations.

Part of the of planning process for both of the projects being proposed on the city parcel has included lengthy discussions with the city Community Development Committee and City Council where there was significant input to the projects. In addition, both project applicants met with the Bayside Neighborhood Association to discuss the projects and obtain their input, which has been taken into consideration in developing the plan.

ATTACHMENT C-1

MITCHELL & ASSOCIATES
LANDSCAPE ARCHITECTS

July 11, 2006

Mr. Alexander Jaegerman,
Director of the Portland Planning Division
and Planning Board Members
City of Portland
389 Congress Street
Portland, Maine 04101

RE: Bayside Village
A Student Housing Complex

Dear Alex and Board Members:

On behalf of Southern Maine Student Housing, LLC, we are pleased to submit this Site Plan and Subdivision Application for a proposed 100 unit student housing project located on Marginal Way in Portland. This submission has been prepared in compliance with requirements of the City of Portland Zoning, Site Plan and Subdivision Ordinances.

The Site

The subject parcel is a portion of the city owned property located on the northeast corner of Marginal Way and Preble Street. The entire parcel is 117,464 SF or 2.70 acres, formally used as a parking lot for the University of Southern Maine. The city currently uses the property for recycling containers and MDEP has an air quality monitoring station. The parcel for Southern Maine Student Housing, LLC will be 57,887 SF or 1.33 acres. The property is bound by Marginal Way to the south, the remaining portion of the city tract to the west, I-295 to the north and the future site of the Miss Portland Diner to the east. The soils are characterized as cut and fill according to the Cumberland County Soil Conservation Service manual. The property is located within the city's new B-7 Mixed Development District that allows mixed commercial and residential use.

THE STAPLES SCHOOL
70 CENTER STREET
PORTLAND, MAINE 04101

Telephone (207) 774-4427
Fax (207) 874-2460
Website www.mitchellassociates.biz

two buildings. The plaza area including the landscaped area totals 10,972 sq. ft. Exclusive of the landscaped area and the six (6) foot wide walkway (on the easterly side of the plaza) the actual useable area is about 2,700 sq. ft. of surface area.

The landscaping area provides a desirable amenity for the residents and a privacy buffer for individual units but does reduce the amount of open area within the plaza. If the Board has a concern that the surface area of the plaza should be increased given the number of residents in the complex, this could be considered by reducing the size of the landscaped areas in the wider areas of the plaza. Depending on the size of the plaza, this could have building code implications in terms of this being a "public assembly" area which the project consultant can explain.

Active recreation facilities are within a walking distance to Back Cove Park, Baxter Boulevard Trail and Deering Oaks.

Attachments

A. Site Plan
B. Building Elevations
C. Background Information
D. Traffic Scoping Information
E. Parking Demand
F. Public Utilities
G. Stormwater Management
H. Soils
I. Erosion and Sedimentation Control
J. Financial and Technical Information
K. Lighting
L. Purchase and Sales Agreement
M. Memo from Carrie Marsh, Urban Designer

Memorandum
Department of Planning and Development
Planning Division

To:	Chair Beal and Members of the Portland Planning Board
From:	Richard Knowland, Senior Planner
Date:	Prepared on: July 18, 2006 Prepared for: July 25, 2006
Re:	Bayside Village Housing Development, Vicinity of 120 Marginal Way

A workshop has been scheduled to consider an application by Southern Maine Student Housing, LLC (Realty Resources Chartered) for a proposed 100 unit housing development in the vicinity of 120 Marginal Way. The project is called Bayside Village. The apartments are designed and intended for use by college students. The project is subject to site plan, conditional use (parking garage) and subdivision review. A traffic movement permit will be required. Site plans, building elevations and background information are shown on Attachments A, B and C.

The site is located on the city owned parking lot on the northerly side of Marginal Way. Commonly known as the "USM parking lot", the City is in the process of dividing the property into four (4) parcels for redevelopment. At the Board's August 8th workshop, a subdivision plan for the USM parking lot will be presented. The subdivision plan has been scheduled for a September 26th public hearing along with the Bayside Village project. The subdivision plan will include the following lots: an office building (corner of Marginal Way and Preble Street), Bayside Village, a parcel for Miss Portland Diner and a parcel conveyed to Maine DOT on the easterly end of this site.

Findings

Land Area:	1.33 acres
Zoning:	B-7
Dwelling Units:	100
Proposed Uses	Housing and Retail (3,143 sq. ft.)
Parking Spaces:	102
Building Floor Area:	208,332 sq. ft.
Building Footprint:	47,501 sq. ft.
Building Height:	5 stories (59 feet)

The proposed development consists of two five (5) story buildings. The first floor of both buildings consists of a one level parking structure with some retail space along Marginal Way. Both buildings are built within the footprint of the parking structure. Both buildings have four stories of apartments above the first floor. At the second level (the roof of the parking structure) is an open air plaza between the buildings which provides passive open space for residents. One of the buildings is sited along Marginal Way and is about 350 feet long while the second building is located near the rear property line and is the same length.

This development has been designed and intended for college students. Each unit will have four (4) bedrooms. The development is privately owned and is not affiliated with a specific school. Tenants are expected from USM, UNE, MECA and SMCC.

Site Development and Facade Design Considerations

The development parcel is 383 feet long with an average depth of about 150 feet. Both buildings have been sited parallel to Marginal Way given the shallow depth of the lot. The wall of the Marginal Way building covers 90% of the lot street frontage which helps establish an urban edge along the street.

The parcel is located in zone C of the Bayside Height Overlay Map which allows a maximum height of 85 feet. The minimum height in this zone is three (3) floors. In earlier discussions with the Applicant, staff encouraged the Applicant to consider a higher building height which would free up more of the site for open space and provide the opportunity for a more distinctive gateway building. The Applicant indicated that building to a higher height was not feasible because it would require more expensive building code requirements which would effect the economic feasibility of the project.

The submission states "the building is proposed with a contemporary character and detailing that will help define Downtown Portland's first and only 21st century neighborhood". Bayside is indeed an area in which contemporary architecture can and should be encouraged. The vast number of vacant or underutilized properties particularly near Marginal Way provide an opportunity to reinforce the Bayside gateway with high quality contemporary architecture. The recently approved Pearl Place housing development by Avesta is the first contemporary design proposed in Bayside.

The proposed project faces several design challenges and opportunities including a height cap of 5 stories, location in a highly visible gateway, an extended building mass along Marginal Way and I-295 and a limited lot depth. The building will be constructed using a pre-manufactured unit module system.

Given the site location in a highly visible gateway and its extended façade along Marginal Way and I-295, the façade design (whether contemporary or traditional) and the

choice of exterior materials is critical. Comments from Carrie Marsh, Urban Designer, are shown on Attachment M.

Vehicle Circulation

A driveway on the far easterly end of the parking garage will provide vehicle access from Marginal Way. Vehicles circulate in and out of the parking garage from this driveway exclusively. This is a shared driveway with the Miss Portland Diner lot and the future Bayside commuter train stop (if it is built in the future). The footprint of the driveway is owned by the City but the applicant will have an access easement over it. The driveway has an appropriate alignment with Chestnut Street for a traffic light should traffic volumes from Chestnut Street warrant one in the future

The Applicant will also have an easement over the office building driveway for service and maintenance purposes.

Traffic Report

This project qualifies for a traffic movement permit. The applicant is in the process of scheduling a scoping meeting. Once the scoping meeting has been held, a traffic report will be prepared and submitted for review. See Attachment D.

Parking

The proposed parking garage will provide 102 spaces. Other projects in Bayside have been approved with a ratio of one (1) space per dwelling unit but given the type of use (student apartments) and the number of bedrooms (four per unit) the actual parking demand is expected to be higher.

Gorrill Palmer Consultants (G-P) has prepared a parking demand analysis for this project. See Attachment E. Assuming a parking demand of 0.67 spaces per student bed (Institute of Transportation Engineers), Gorrill Palmer calculated a peak demand of 268 spaces. Other sources calculated a range of 0.34 to 0.52 spaces per bed but the consultant used the more conservative ratio.

Assuming additional off-site spaces are needed, G-P reviewed the peak parking demand for student housing during typical weekday business hours since off-site parking may be limited due to the parking demand of area businesses. Peak hour demand for student parking is forecast to be 74% of overall demand or 199 spaces if all 102 student spaces were spaces used, this would yield a potential deficit of 97 spaces. The applicant has indicated they have an agreement with the adjacent office building project for additional spaces during off peak use between 6 p.m. and 6 a.m. as needed. Documentation of this agreement should be provided. Another parking resource is the new USM parking garage. All students have, as part of their tuition, a deduction for use of the parking garage.

Pedestrian Circulation

The site plan indicates a new public sidewalk will be constructed along the entire street frontage of the site. Walkways are provided along the easterly and westerly edges of the property for access into the building. The interior plaza provides pedestrian circulation between the two buildings and from one end of the site to the other.

There has been discussion of providing a walkway along the rear property line of the office building as a short cut to Preble Street for residents walking to Hannaford Supermarket and USM. This is an important circulation route that should be addressed either in this review or in the review of the office building.

It is likely that a number of residents will walk to the USM campus. The most direct pedestrian route to the campus is crossing Preble Street by Hannaford Supermarket but unfortunately there is not a designated pedestrian crossing.

An indoor bicycle storage area is included within the retail space along Marginal Way.

Infrastructure

The site plan incorporates the recommendations of the Marginal Way Street Concept Design. These improvements include a sidewalk, esplanade, street lighting and on-street parking. Due to grading issues, part of the esplanade is on the building side adjacent to the on-street parking.

Stormwater Quality

The submission indicates that no stormwater quality treatment is proposed "as this project will result in the redevelopment of an existing parking lot that will become covered..." The parking garage must provide an appropriate sized water quality treatment unit. The existence of a parking lot undergoing redevelopment does not grandfather it from water quality treatment requirements.

Stormwater Management

Catch basins will be used to control stormwater prior to discharging into the municipal storm drain in Back Cove. No detention is proposed for the site since the stormwater will discharge quickly to the municipal storm drainage system and pass into Back Cove.

Open Spaces

Open space for residents is provided by an open air plaza that is sited between the two buildings on the second level of the complex. The court yard area provides a passive open space amenity for residents. The plaza is framed by landscaping along the edges of the

MITCHELL & ASSOCIATES
LANDSCAPE ARCHITECTS

October 18, 2006

Mr. Richard Knowland, Senior Planner
and Planning Board Members
City of Portland
389 Congress Street
Portland, Maine 04101

RE: Bayside Village – A Student Housing Complex

Dear Rick and Board Members:

The following documentation has been prepared to address the proposed off-site leased parking spaces for the for the Bayside Village Student Housing Development. We have prepared a location plan and a pedestrian circulation plan to show the relationship of the off-site parking to the student housing development on Marginal Way.

The existing parcel is owned by Mr. Ross Furman and is located at 138 Kennebec Street. The parcel is a 15,170 S.F. (0.348 acre) gravel parking lot. Mr. Furman has leased parking spaces on this site and the city tax record has the property listed as a parking lot for tax purpose. Based on the lot configuration and the city dimensional requirements, forty (40) 9'x19' spaces can be located on the site.

The existing lot is located on the corner of Kennebec Street and Preble Street. Pedestrian access would be via Preble Street to Marginal Way. The walking distance from the student housing to the parking lot is approximately 1,200 feet or about a five minute walk. Realty Resources - Southern Maine Student Housing, LLC. has revised the letter of intent to lease 30 spaces with ability to lease up to 40 spaces from Mr. Furman, with reference to the maximum two year lease period with option to renew. We are requesting that the board consider, as a condition of approval that an executed lease be provided before issuance of any building permit. The revised letter of intent will be submitted separately.

Enclosed for your review are the following:

- Copy of Assessor Tax Record
- Tax Map Location Plan
- Aerial Plan locating parking lot and pedestrian route
- Photographs of proposed pedestrian route

THE STAPLES SCHOOL
70 CENTER STREET
PORTLAND, MAINE 04101

Telephone (207) 774-4427
Fax (207) 874-2460
Website www.mitchellassociates.biz

We trust this documentation addresses the board's comments and submission requirements. We look forward to the continued discussion with the board on October 24, 2006. Should you have any questions, please do not hesitate to call me.

Sincerely,
Mitchell & Associates

Robert B. Metcalf

Enclosure

cc: Ed Marsh
Tom Gorrill
Ben Walter

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

Current Owner Information

Card Number	1 of 1
Parcel ID	034 H001001
Location	138 KENNEBEC ST
Land Use	PARKING LOTS
Owner Address	FURMAN ROSS Y P O BOX TWO PORTLAND ME 04112
Book/Page	11555/314
Legal	34-H-1 KENNEBEC ST 138-152
	15170 SF

Current Assessed Valuation

Land	Building	Total
$130,600	$ 0.00	$130,600

Building Information

Bldg #	Year Built	# Units	Bldg Sq. Ft.	Identical Units
		0	0	0

Total Acres	Total Buildings Sq. Ft.	Structure Type	Building Name
0.348	0		

Exterior/Interior Information

Section	Levels	Size	Use

Height	Walls	Heating	A/C
		NONE	NONE
		NONE	NONE
		NONE	NONE
		NONE	NONE
		NONE	NONE
		NONE	NONE
		NONE	NONE
		NONE	NONE

Building Other Features

Line	Structure Type	Identical Units

Yard Improvements

Year Built	Structure Type	Length or Sq. Ft.	# Units

Sales Information

Date	Type	Price	Book/Page
07/29/1994	LAND + BLDING	$56,388	11555-314

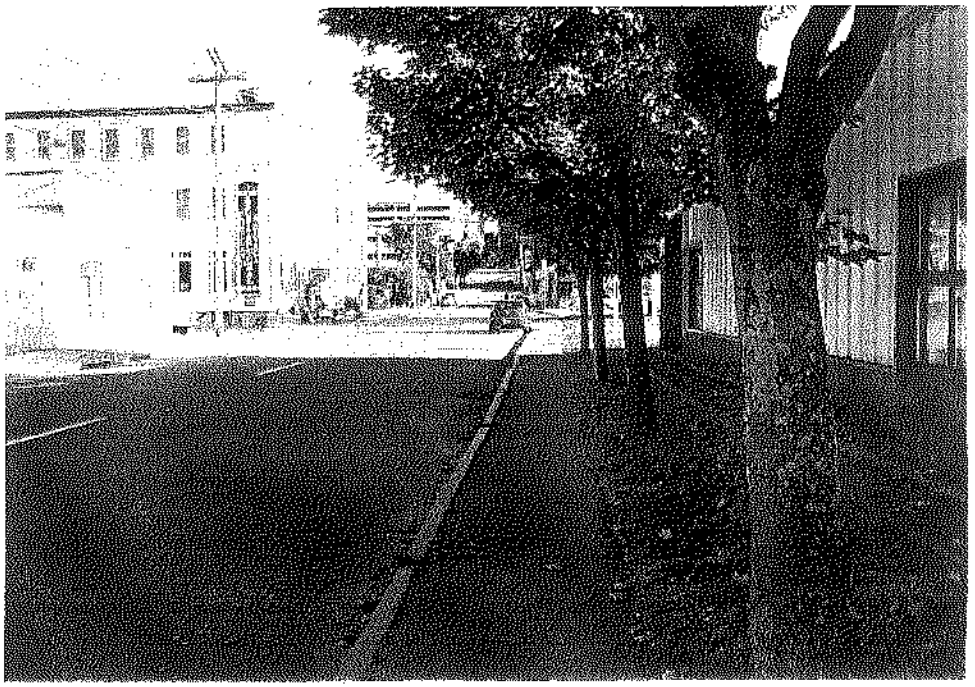
Picture and Sketch

Picture Sketch Tax Map

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

New Search!

MARGINAL WAY LOOKING NORTHEAST FROM BANK

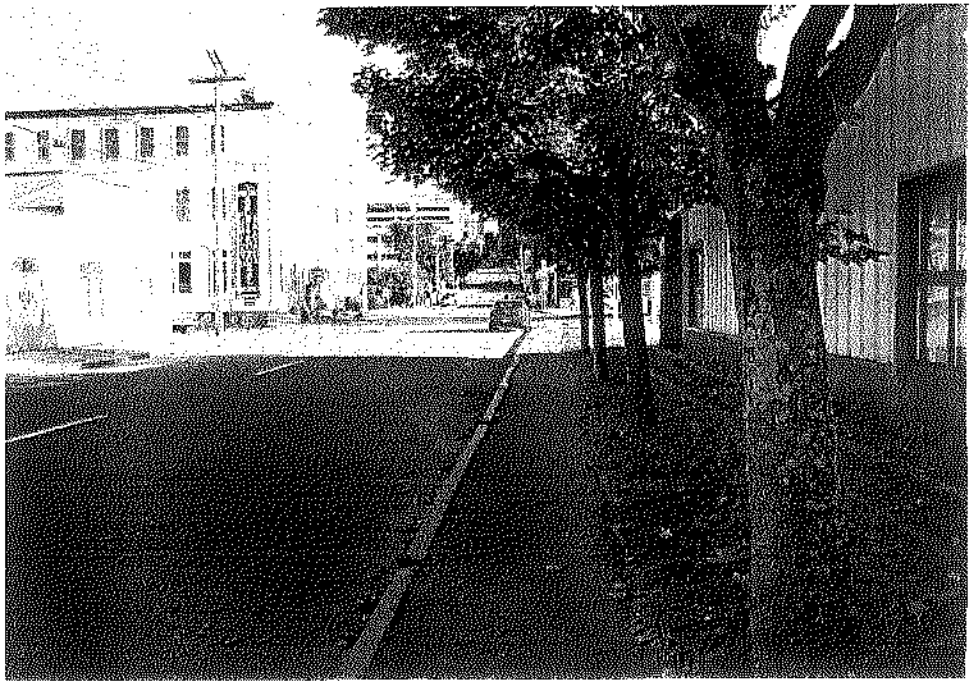


PREBLE ST. LOOKING SOUTHEAST

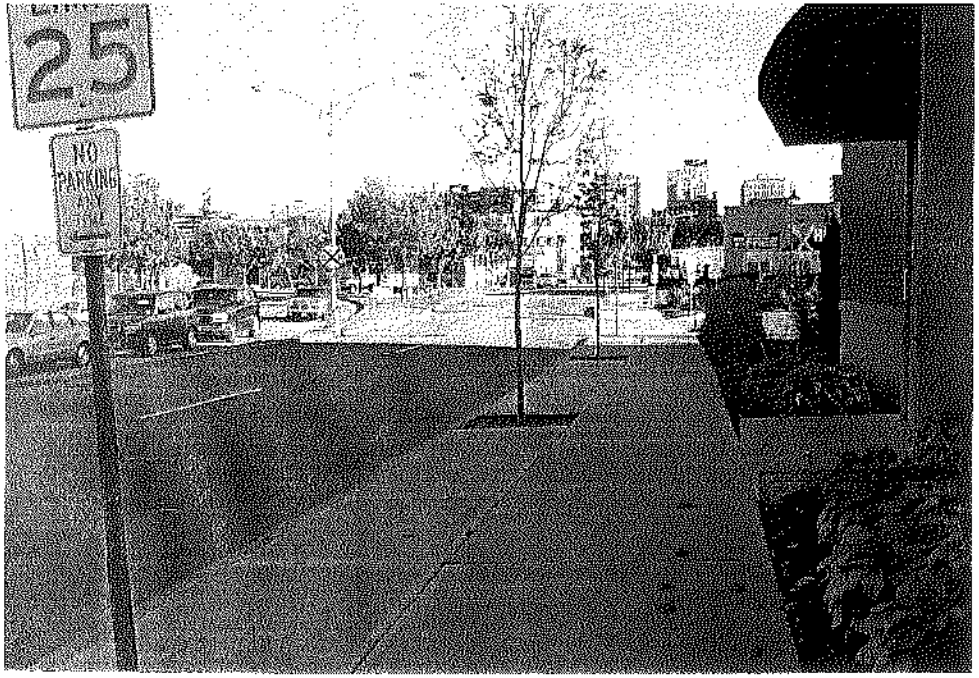
PREBLE ST. LOOKING SOUTHEAST FROM BANK

KENNEBEC ST. AT HANOVER ST. – EXISTING PARKING LOT

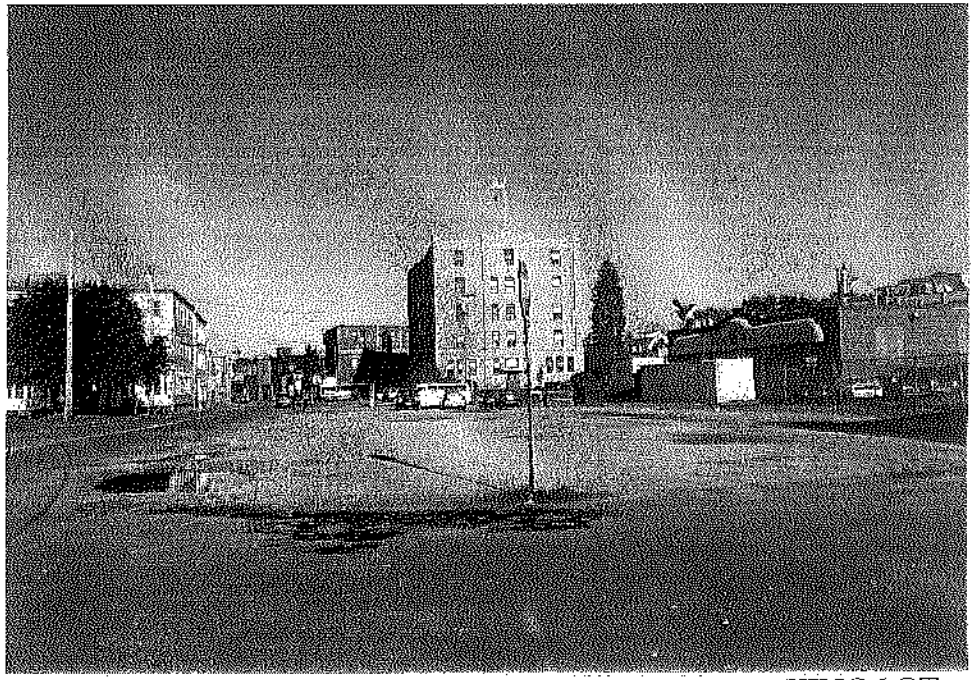
MARGINAL WAY LOOKING NORTHEAST FROM BANK



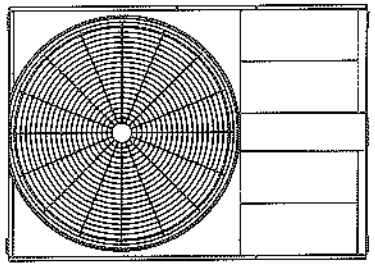
PREBLE ST. LOOKING SOUTHEAST



PREBLE ST. LOOKING SOUTHEAST FROM BANK



KENNEBEC ST. AT HANOVER ST. – EXISTING PARKING LOT

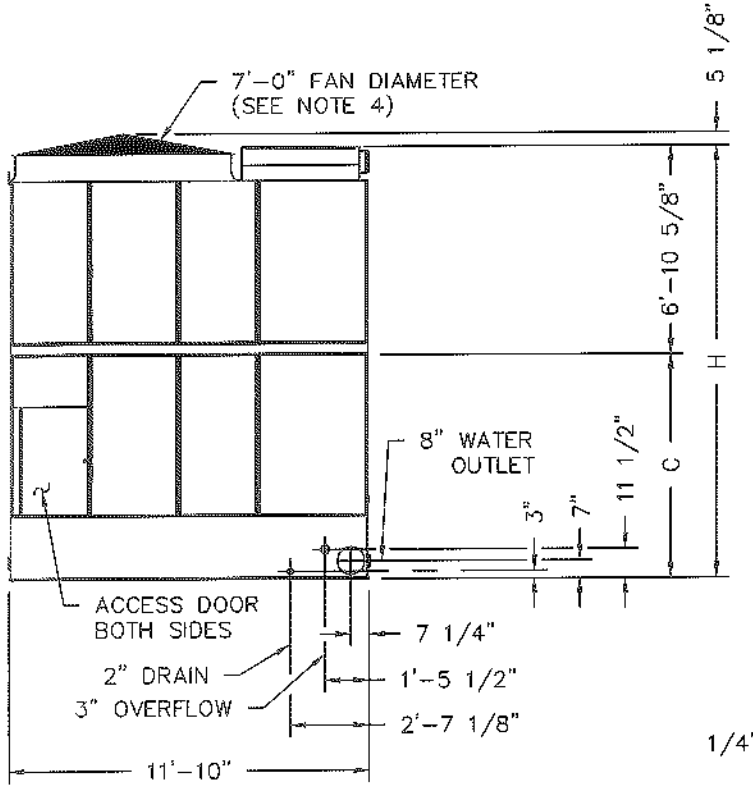


PLAN VIEW

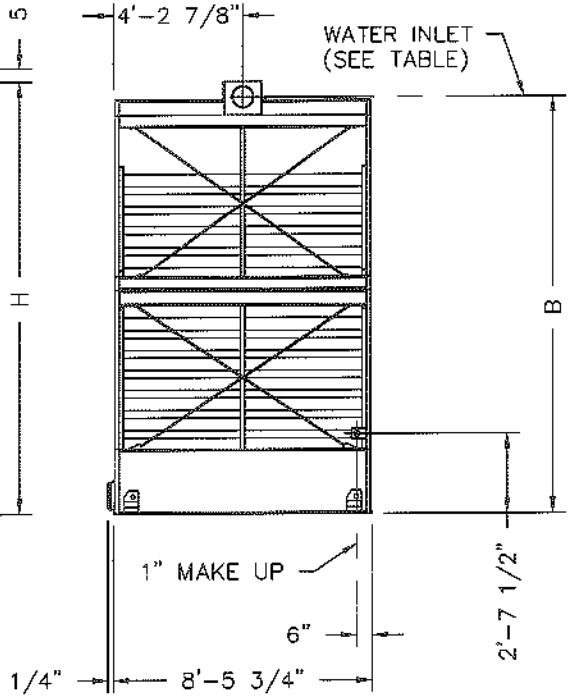
MODEL NUMBER	SHIPPING WEIGHT	FLOW RATE (USGPM)		OPER. WEIGHT @		HEAVIEST SECTION*	B	C	H
		NOMINAL FLOW	MAXIMUM FLOW	NOMINAL	MAXIMUM				
15200	5350	600	958	9840	11430	(U) 2770	13'–9 1/4"	7'–4 3/4"	14'–3 3/8"
15227	5410	681	1083	10100	11490	(U) 2780	13'–9 1/4"	7'–4 3/4"	14'–3 3/8"
15250	5430	750	1190	10280	11510	(U) 2800	13'–9 1/4"	7'–4 3/4"	14'–3 3/8"
15214	5640	642	1032	10440	12450	(L) 2920	15'–1 1/4"	8'–8 3/4"	15'–7 3/8"
15245	5700	735	1177	10730	12510	(L) 2920	15'–1 1/4"	8'–8 3/4"	15'–7 3/8"
15270	5720	810	1293	10940	12530	(L) 2920	15'–1 1/4"	8'–8 3/4"	15'–7 3/8"
15282	5800	846	1349	11120	12610	(L) 2920	15'–1 1/4"	8'–8 3/4"	15'–7 3/8"

*U = UPPER SECTION
L = LOWER SECTION

WATER INLET SIZING		
FLOW RANGE	WATER INLET SIZE	A
350–850	6"	7"
851–1350	8"	7"



END ELEVATION



SIDE ELEVATION

NOTES:
1. CONNECTIONS 3" & SMALLER ARE MPT. CONNECTIONS 4" & LARGER ARE GROOVED TO SUIT A MECHANICAL COUPLING AND BEVELED FOR WELDING.
2. ALL DIMENSIONS ARE IN FEET AND INCHES. WEIGHTS ARE IN POUNDS.
3. FOR WEIGHT LOADING AND SUPPORT REQUIREMENTS REFER TO THE SUGGESTED STEEL SUPPORT DRAWING.
4. THE AREA ABOVE THE DISCHARGE OF THE FAN MUST BE UNOBSTRUCTED.
5. FOR ACTUAL OPERATING WEIGHT INTERPOLATE BETWEEN FLOW RATES GIVEN.

[RH UNIT]

B.A.C. ORDER NO:

DATE: / /

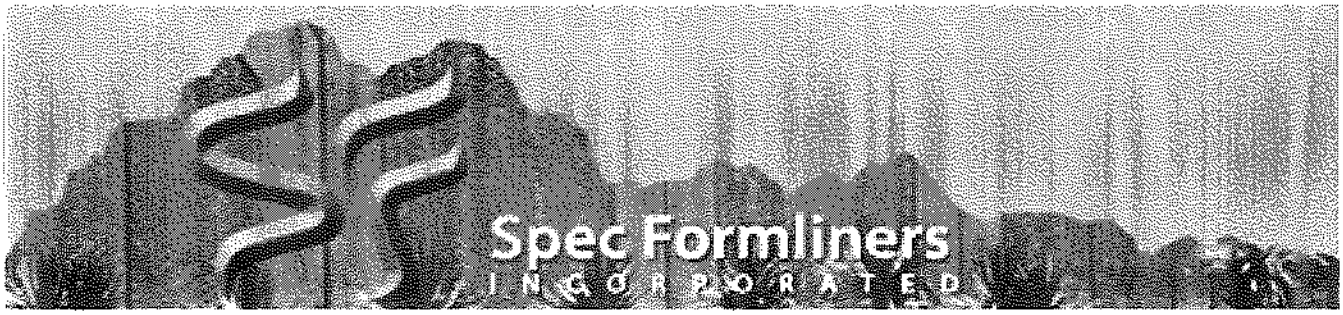
BALTIMORE AIRCOIL COMPANY

SERIES 1500
COOLING TOWER

DRAWING NUMBER:
BAC–16501A

B

Spec Formliners, Inc. - Textured Pattern Section - Page 1 - Tuesday September 12, 2006 at 1:48 PM.



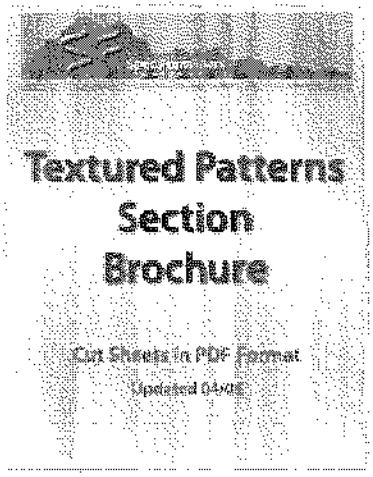
Textured Patterns

You are on Page 1

Important Information

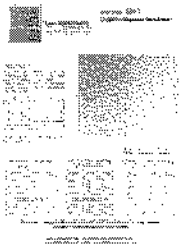
- Textured Pattern Brochure
- Application Guides
- Contact Us

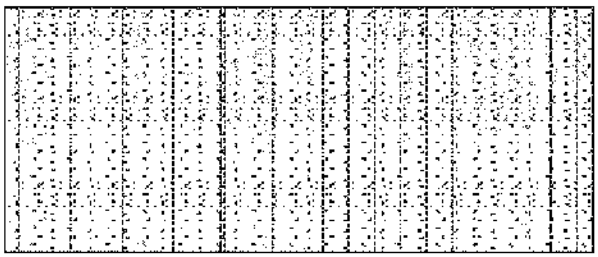
Spec Main Menu

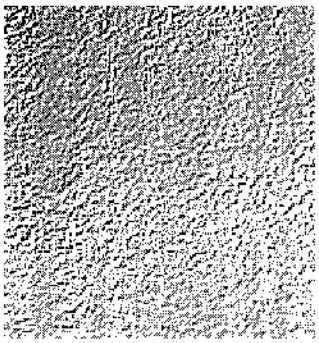


Click on th
individual

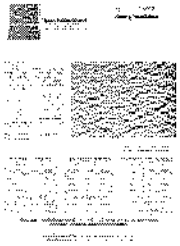
1601
Light To Medium
Sandblast

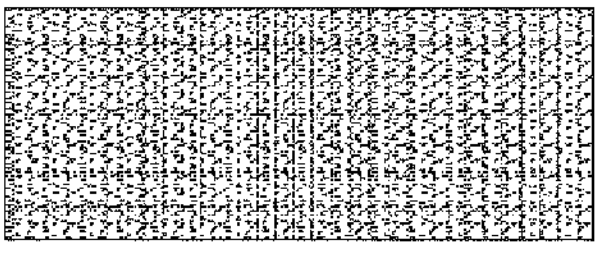


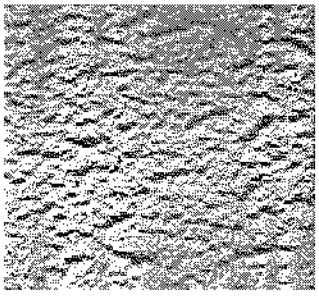




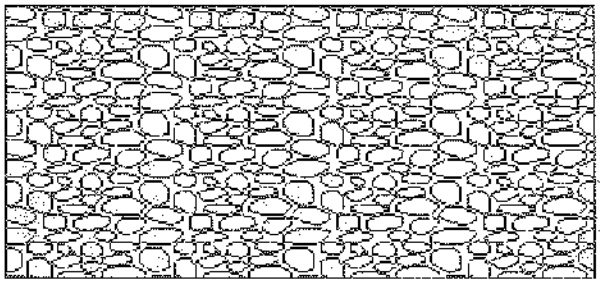
1602
Heavy Sandblast

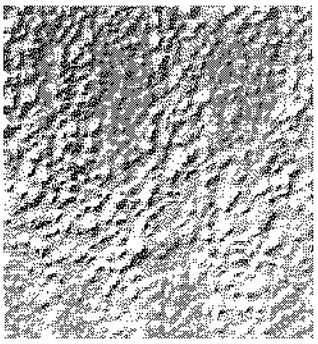




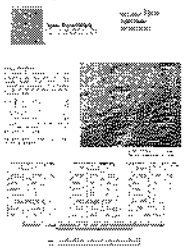


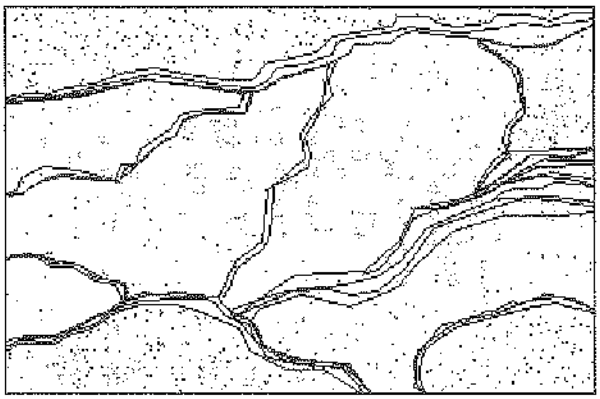
1606
Random Large Aggregate



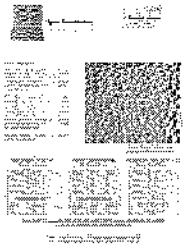


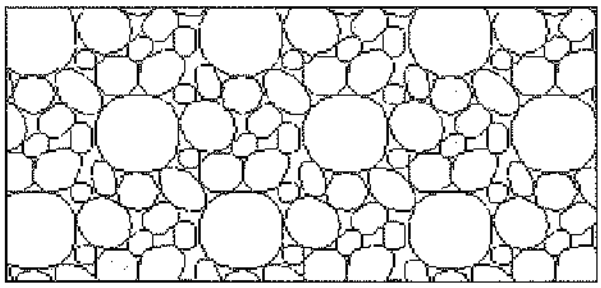
1608
Split Slate

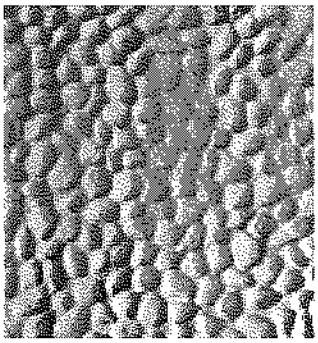




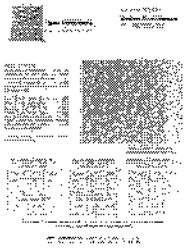
1609
1" Round Stone

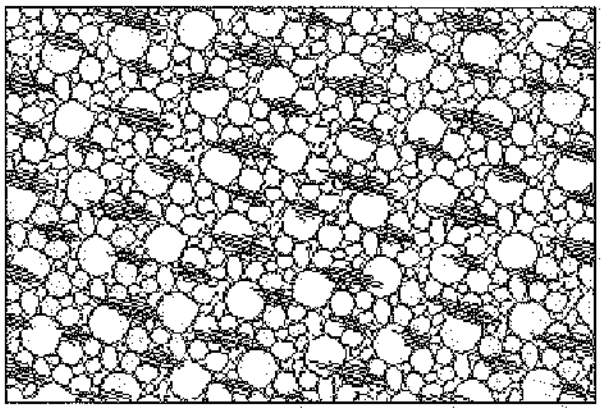


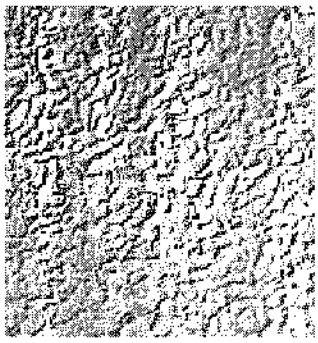




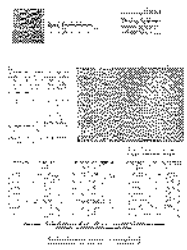
1615
Medium Bushhammer

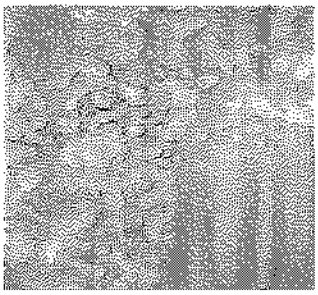




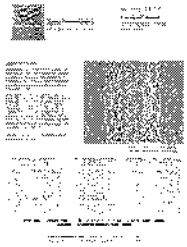


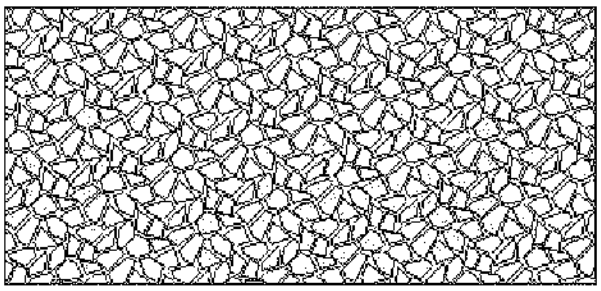
1616
Stucco Texture

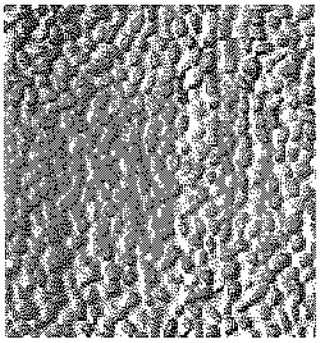




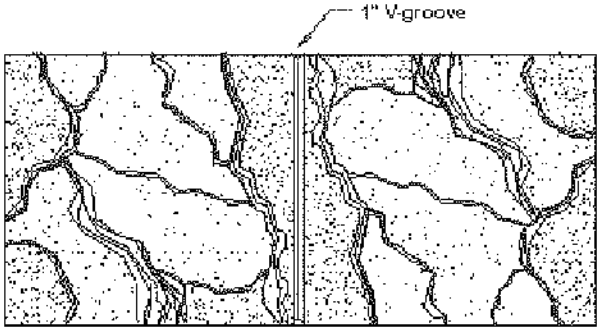
1617
Crushed Stone

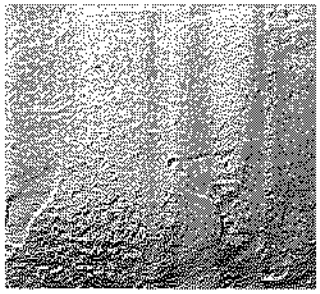




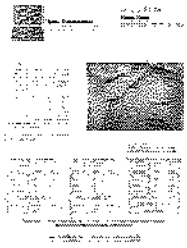


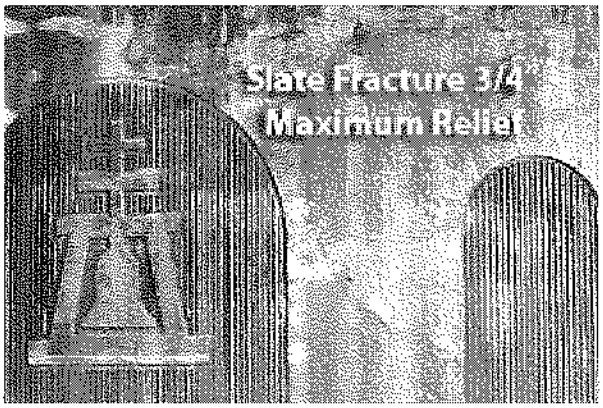
1621
Tasman Slate





1626
Kleen Slate





Spec Formliners
INCORPORATED

Pattern Number: **1608**

Split Slate

1/4" deep split slate

General Information

Attachment To Formwork – Liners are attached to the form using TEK screws through the face of the liner spaced 12" C-C. Optional form mounting T-nuts embedded through the plywood backing is available for Elastospec panels.

Form Release – Apply with low flow, wide angle, flat spray nozzle and wipe with a cloth to insure a complete even coat to the entire form liner surface. Do not over apply form release agent. Protect treated form liners from precipitation, dust, and debris. Do not apply to reinforcing steel. **Dayton Superior Liner Coat? (J-4 LC)** form release is approved for all form liner materials.

Technical Support – Contact Spec Formliners, Inc. 888 429-9550

Note: Plastic Liners may require additional backing

ThermoSpec™ Single Use
High Impact Styrene

Property	ASTM	Rating
Tensile	D638	3,700
Izod Impact	D256	20
Vicat Softening	D1525	212
Material Weights - lbs/ft²		
0.070 MIL	0.090 MIL	0.150 MIL
0.393	0.506	0.843

ThermoSpec™ Multi-Use
ABS Reusable Plastic

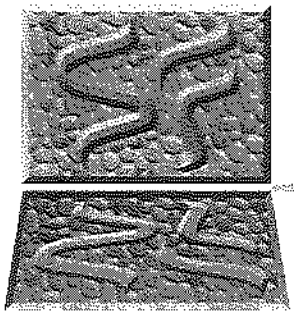
Property	ASTM	Rating
Tensile	D638	5,300
Flexural	D790	9,300
Hardness	D786	105
Material Weights - lbs/ft²		
0.110 MIL	0.150 MIL	0.200 MIL
0.621	0.8.47	1.129

ElastoSpec™ 100% Solid Urethane
Bonded To 3/4" Plywood

Property	ASTM	Rating
Shore A	D2240	50-55
Tensile	D638	800 psi
Elongation	D638	600%
Tear Strength	D624	200 pli
Material Weights - lbs/ft²		
Varies by Pattern		

ThermoSpec™ Standard Panel Sizes: 48" x 96" or 48" x 120" Custom Sizes and Art Panels available
ElastoSpec™ Customized Panel Sizes and Art Panels

Spec Formliners, Inc. 530 East Dyer Road, Santa Ana, CA 92707
www.specformliners.com - Phone: 714 429-9500 - FAX: 714 429-1460

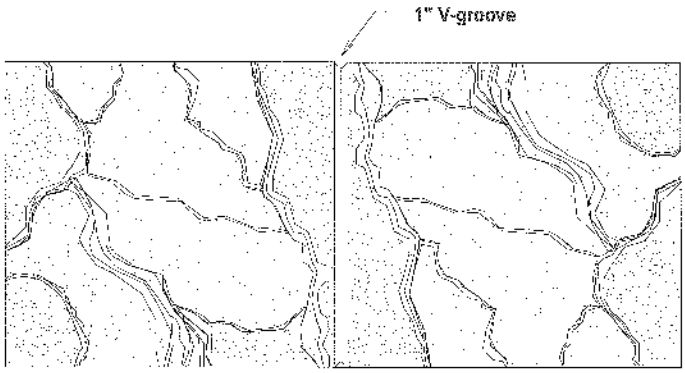


Spec Formliners
INCORPORATED

Pattern Number: **1621**

Tasman Slate

Two 47-1/2" square panels with 1" V-groove reveal



General Information

Attachment To Formwork – Liners are attached to the form using TEK screws through the face of the liner spaced 12" C-C. Optional form mounting T-nuts embedded through the plywood backing is available for Elastospec panels.

Form Release – Apply with low flow, wide angle, flat spray nozzle and wipe with a cloth to insure a complete even coat to the entire form liner surface. Do not over apply form release agent. Protect treated form liners from precipitation, dust, and debris. Do not apply to reinforcing steel. **Dayton Superior Liner Coat? (J-4 LC)** form release, or equal, is approved for all form liner materials.

Technical Support – Contact Spec Formliners, Inc. 888 429-9550

Note: Plastic Liners may require additional backing

ThermoSpec^{tm} Single Use
High Impact Styrene

Property	ASTM	Rating
Tensile	D638	3,700
Izod Impact	D256	20
Vicat Softening	D1525	212
Material Weights - lbs/ft^2		
0.070 MIL	0.090 MIL	0.150 MIL
0.393	0.506	0.843

ThermoSpec^{tm} Multi-Use
ABS Reusable Plastic

Property	ASTM	Rating
Tensile	D638	5,300
Flexural	D790	9,300
Hardness	D786	105
Material Weights - lbs/ft^2		
0.110 MIL	0.150 MIL	0.200 MIL
0.621	0.8.47	1.129

ElastoSpec^{tm} 100% Solid Urethane
Bonded To 3/4" Plywood

Property	ASTM	Rating
Shore A	D2240	50-55
Tensile	D638	800 psi
Elongation	D638	600%
Tear Strength	D624	200 pli
Material Weights - lbs/ft^2		
Varies by Pattern		

ThermoSpec^{tm} Standard Panel Sizes: 48" x 96" or 48" x 120" Custom Sizes and Art Panels available
ElastoSpec^{tm} Customized Panel Sizes and Art Panels

Spec Formliners, Inc. 530 East Dyer Road, Santa Ana, CA 92707
www.specformliners.com - Phone: 714 429-9500 - FAX: 714 429-1460

Spec Formliners
INCORPORATED

Pattern Number: **1615**

Medium Bush Hammer

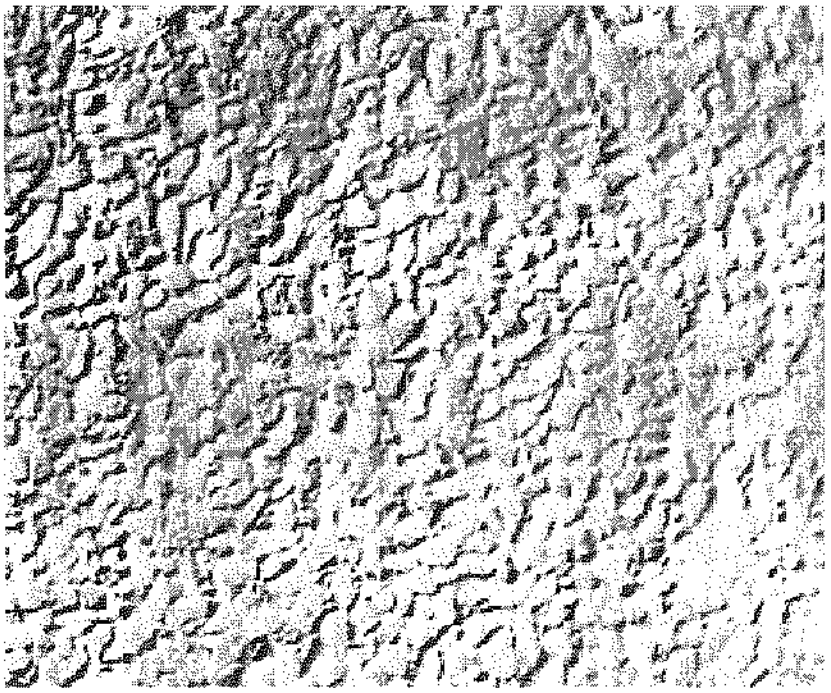
1/2" +/- bush hammer effect

General Information

Attachment To Formwork – Liners are attached to the form using TEK screws through the face of the liner spaced 12" C-C. Optional form mounting T-nuts embedded through the plywood backing is available for Elastospec panels.

Form Release – Apply with low flow, wide angle, flat spray nozzle and wipe with a cloth to insure a complete even coat to the entire form liner surface. Do not over apply form release agent. Protect treated form liners from precipitation, dust, and debris. Do not apply to reinforcing steel. **Dayton Superior Liner Coat? (J-4 LC)** form release is approved for all form liner materials.

Technical Support – Contact Spec Formliners, Inc. 888 429-9550



Note: Plastic Liners may require additional backing

ThermoSpec^{tm} Single Use
High Impact Styrene

Property	ASTM	Rating
Tensile	D638	3,700
Izod Impact	D256	20
Vicat Softening	D1525	212
Material Weights - lbs/ft^2		
0.070 MIL	0.090 MIL	0.150 MIL
0.393	0.506	0.843

ThermoSpec^{tm} Multi-Use
ABS Reusable Plastic

Property	ASTM	Rating
Tensile	D638	5,300
Flexural	D790	9,300
Hardness	D786	105
Material Weights - lbs/ft^2		
0.110 MIL	0.150 MIL	0.200 MIL
0.621	0.8.47	1.129

ElastoSpec^{tm} 100% Solid Urethane
Bonded To 3/4" Plywood

Property	ASTM	Rating
Shore A	D2240	50-55
Tensile	D638	800 psi
Elongation	D638	600%
Tear Strength	D624	200 pli
Material Weights - lbs/ft^2		
Varies by Pattern		

ThermoSpec^{tm} Standard Panel Sizes: 48" x 96" or 48" x 120" Custom Sizes and Art Panels available
ElastoSpec^{tm} Customized Panel Sizes and Art Panels

Spec Formliners, Inc. 530 East Dyer Road, Santa Ana, CA 92707
www.specformliners.com - Phone: 714 429-9500 - FAX: 714 429-1460

Spec Formliners
INCORPORATED

Pattern Number: **1602**

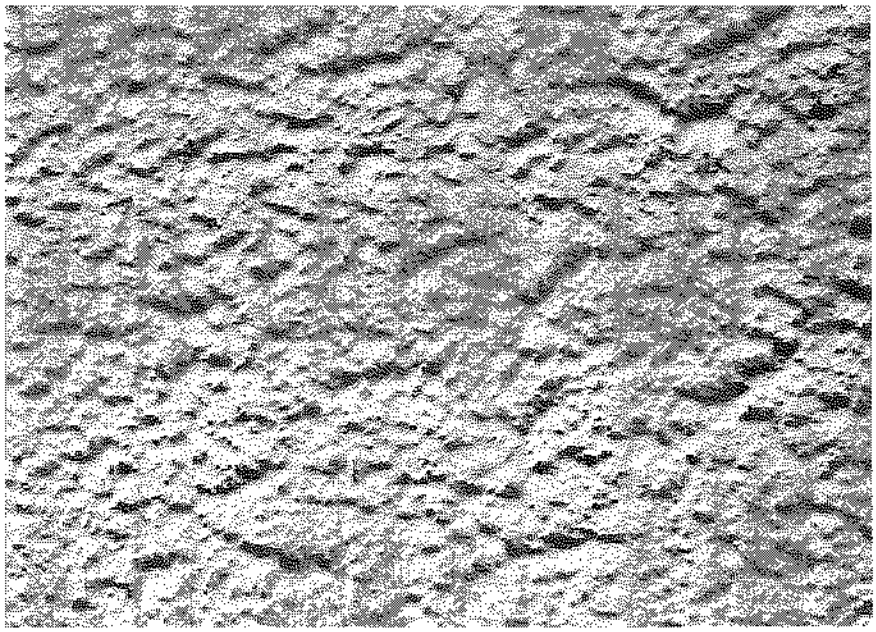
Heavy Sandblast

General Information

Attachment To Formwork – Liners are attached to the form using TEK screws through the face of the liner spaced 12" C-C. Optional form mounting T-nuts embedded through the plywood backing is available for Elastospec panels.

Form Release – Apply with low flow, wide angle, flat spray nozzle and wipe with a cloth to insure a complete even coat to the entire form liner surface. Do not over apply form release agent. Protect treated form liners from precipitation, dust, and debris. Do not apply to reinforcing steel. **Dayton Superior Liner Coat? (J-4 LC)** form release is approved for all form liner materials.

Technical Support – Contact Spec Formliners, Inc. 888 429-9550



Note: Plastic Liners may require additional backing

ThermoSpec™ Single Use
High Impact Styrene

Property	ASTM	Rating
Tensile	D638	3,700
Izod Impact	D256	20
Vicat Softening	D1525	212
Material Weights - lbs/ft²		
0.070 MIL	0.090 MIL	0.150 MIL
0.393	0.506	0.843

ThermoSpec™ Multi-Use
ABS Reusable Plastic

Property	ASTM	Rating
Tensile	D638	5,300
Flexural	D790	9,300
Hardness	D786	105
Material Weights - lbs/ft²		
0.110 MIL	0.150 MIL	0.200 MIL
0.621	0.8.47	1.129

ElastoSpec™ 100% Solid Urethane
Bonded To 3/4" Plywood

Property	ASTM	Rating
Shore A	D2240	50-55
Tensile	D638	800 psi
Elongation	D638	600%
Tear Strength	D624	200 pli
Material Weights - lbs/ft²		
Varies by Pattern		

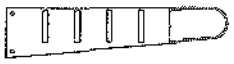
ThermoSpec™ Standard Panel Sizes: 48" x 96" or 48" x 120" Custom Sizes and Art Panels available
ElastoSpec™ Customized Panel Sizes and Art Panels

Spec Formliners, Inc. 530 East Dyer Road, Santa Ana, CA 92707
www.specformliners.com - Phone: 714 429-9500 - FAX: 714 429-1460

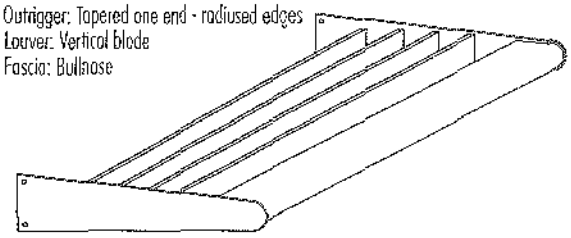
SC1 Exterior Sun Control Devices

SC1-INFO

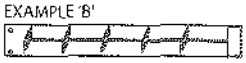
EXAMPLE 'A'



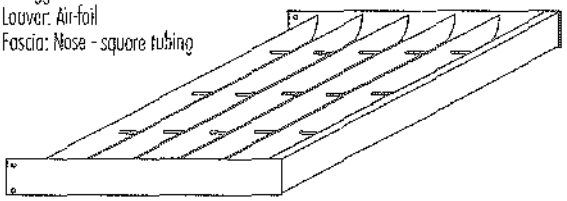
Outrigger: Tapered one end - radiused edges
Louver: Vertical blade
Fascia: Bullnose



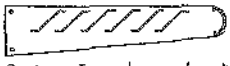
EXAMPLE 'B'



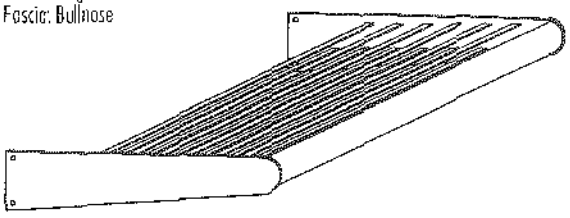
Outrigger: Flatstock
Louver: Air-foil
Fascia: Nose - square tubing



EXAMPLE 'C'

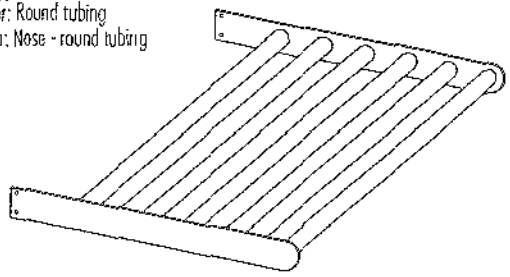


Outrigger: Tapered one end - radiused edges
Louver: Angled blade
Fascia: Bullnose



EXAMPLE 'D'

Outrigger: Flatstock - radiused one end
Louver: Round tubing
Fascia: Nose - round tubing



DESIGN MATERIALS

TUBE FRAME
CIRCULAR TUBE
CLAD FASCIA
BULL NOSE FASCIA
OUTRIGGER ARMS
OUTRIGGER ARMS WITH SUSPENSION RODS

BLADE SPECIFICATIONS

HORIZONTAL OR VERTICAL
EXTRUDED ALUMINUM OR SHEET ALUMINUM
SET AT ANY ANGLE AND SPACED TO SPECIFICATION

FEATURES & BENEFITS

ALUMINUM CONTRUCTION IS DURABLE AND RUST RESISTANT
ANGLED BLADES BLOCK DIRECT SUNLIGHT AND ALLOWS RAIN AND SNOW TO PASS THROUGH EASILY
CUSTOM LOOK ENHANCES BUILDING APPEARANCE
CUSTOM DESIGN ALLOWS FOR EASY ASSEMBLY AND INSTALLATION

FINISH OPTIONS

PAINTING
HYLAR 5000™/KYNAR 500®

ANODIZING
CLEARS, BRONZES, AND VARIOUS OTHER COLORS CAN BE COIL ANODIZED FOR COLOR CONSISTENCY.

MECHANICAL FINISHES
PROVIDES A SURFACE TEXTURE BY MECHANICAL MEANS ALONE. STUCCO EMBOSSING PATTERN IS CURRENLTY AVAILABLE.

CUSTOM COLORS
WE CAN PROVIDE FULL CUSTOM COLOR SERVICES TO MATCH PRACTICALLY ANY MATERIAL, SHADE, OR TINT YOU REQUEST.

NOTES:

1. AN EXTENSIVE SELECTION OF ASSOCIATED PANEL FLASHINGS AND TRIMS ARE AVAILABLE.
2. CONTACT UNACLAD FOR UP-TO-DATE TECHNICAL INFORMATION AND MATERIAL LIMITATIONS.
3. ALL SYSTEMS WITH TESTING MUST BE INSTALLED IN ACCORDANCE WITH THE ASSEMBLY AS TESTED.

1001 Lund Boulevard, Anoka, Minnesota 55303 800 / 426-7737 763 / 576-9595 FAX 763 / 576-9596

DESCRIPTION

LAMPS / BALLASTS

Incandescent: 1 - 60W max (A-19).
Fluorescent: 1 - 26W, 32W or 42W (4-pin triple tube CFL).
H.I.D.: 1 - 50W, 70W or 100W metal halide (ED17/medium base).
Incandescent available 120V only. Electronic ballasts are standard for fluorescent or H.I.D. Quartz Restrike (QR) available for H.I.D.

MATERIALS / FIXTURE LOCATION

C.U.L. listed for wet or damp exterior locations.
Solid Bronze construction for all other finishes.

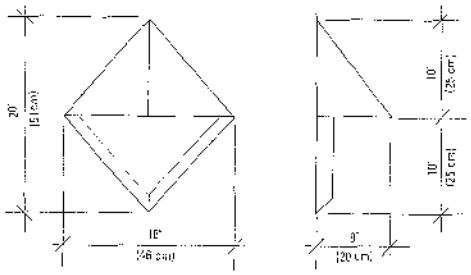
FINISHES

Diffuser: Clear tempered refractive glass for HID lamping. White acrylic for incandescent and fluorescent lamping.
Hood and Back: NBZ, SGB, SGW, CC VG, SZ.

MOUNTING

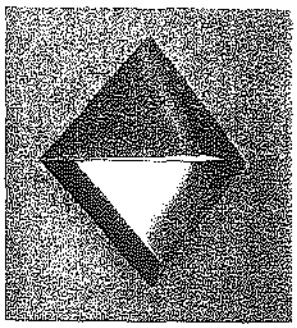
Standard - 4" J-Box or stucco ring.

DIMENSIONS



CAT#	LAMP	VOLTAGE	FINISH	OPTN
❑ 695-WP-DB	❑ INC	❑ 120V	❑ NBZ	❑ QR
	❑ CF/1/26	❑ 277V	❑ SGB	
	❑ CF/1/32	❑ 347V (CFL only)	❑ SGW	
	❑ CF/1/42		❑ CC	
	❑ MH/50		❑ VG	
	❑ MH/70		❑ SZ	
	❑ MH/100			

SAMPLE SPEC: 695-WP-DB-MH/100-277V-CC-QR



695-WP-DB

- Half Pyramid Exterior Wall Luminaire with Back Panel
- Direct illumination
- Wet Location
- Solid bronze construction
- Incandescent, MH and CFL lamp options
- 18" Half Pyramid

DESCRIPTION

LAMPS / BALLASTS

Incandescent: 1 - 100W max (A-19).
Fluorescent: 1 - 42W (4-pin triple tube CFL).
H.I.D.: 1 - 50W, 70W or 100W metal halide (ED17/medium base).
Incandescent available 120V only. Electronic ballasts are standard for fluorescent or H.I.D. Quartz Restrike (QR) available for H.I.D.

MATERIALS / FIXTURE LOCATION

C.U.L. listed for wet locations.
Cast aluminum base metal is used for all finishes.
Photocell (PH).

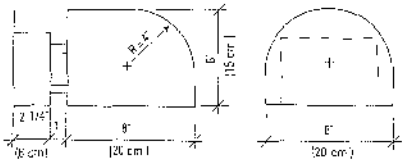
FINISHES

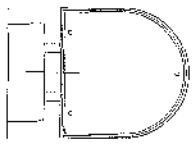
Lens: Clear tempered glass. Clear acrylic for fluorescent lamping.
Body: SGB, SGW, SGS, SGBZ, CC.

MOUNTING

Standard - 4" J-Box or stucco ring.
For rear (through wall) conduit mounting (C).

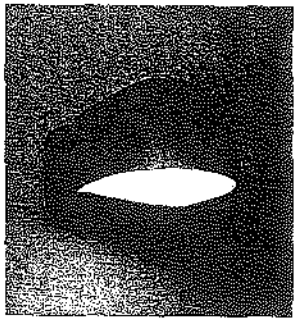
DIMENSIONS





CAT#	LAMP	VOLTAGE	FINISH	OPTN
❑ 697-WP	❑ INC	❑ 120V	❑ SGB	❑ PH
	❑ CF/1/42	❑ 277V	❑ SGW	❑ QR
	❑ MH/50	❑ 347V (CFL only)	❑ SGS	❑ C (Rear feed through wall)
	❑ MH/70		❑ SGBZ	
	❑ MH/100		❑ CC	

SAMPLE SPEC: 692-WP-CF/1/42-277V-SGBZ-PH



697-WP

- Hood Downlight Exterior Wall Luminaire
- Direct illumination
- Wet Location
- Cast aluminum construction
- Incandescent, MH and CFL lamp options
- 8" Hood

LoggedIn :Ok

FITZGERALD FORMLINERS

FORMING THE FUTURE

Catalog

ARCHITECT / ENGINEER SHORT FORM SPECIFICATION

Pattern No. 16989 Split Slate		
Pattern Description	**Process**	**Standard Part Size**
Random pattern 0.25" max. depth	GrayLastic Vac-U-Form	Vac-U-Form: 48"W x 120"H; GrayLastic: 60"W x 72"H, 48"W x 192"H

Concrete Image

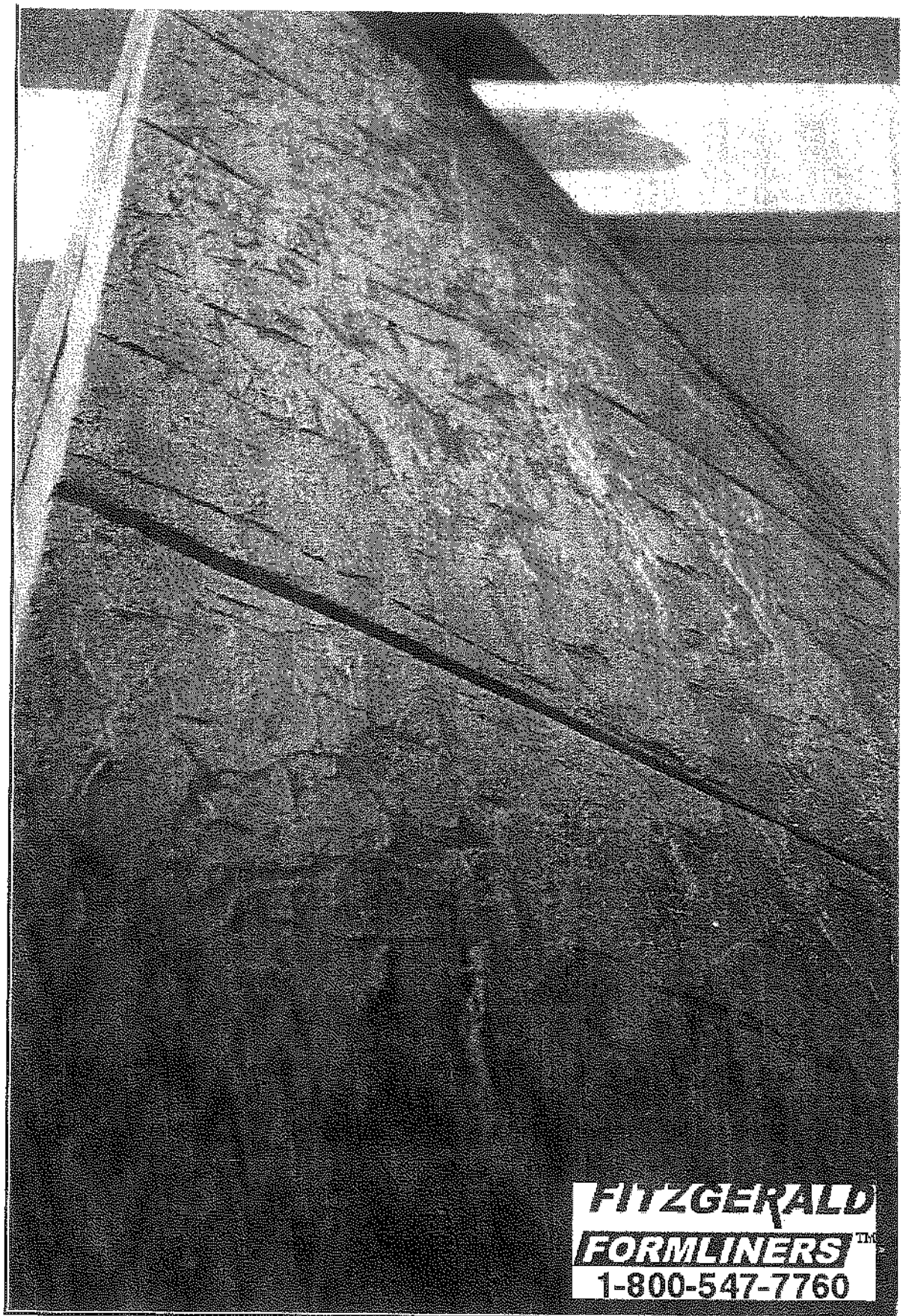
Download Cad File | Photograph

All concrete surfaces designated in the engineering plans or specifications as "textured architectural concrete" shall be formed using Fitzgerald pattern no. manufactured by:

Fitzgerald Formliners™
1341 East Pomona Street
Santa Ana, Ca 92705.

No substitutions will be allowed without prior written approval from the project architect or engineer.

Click Here To Return To Previous Page



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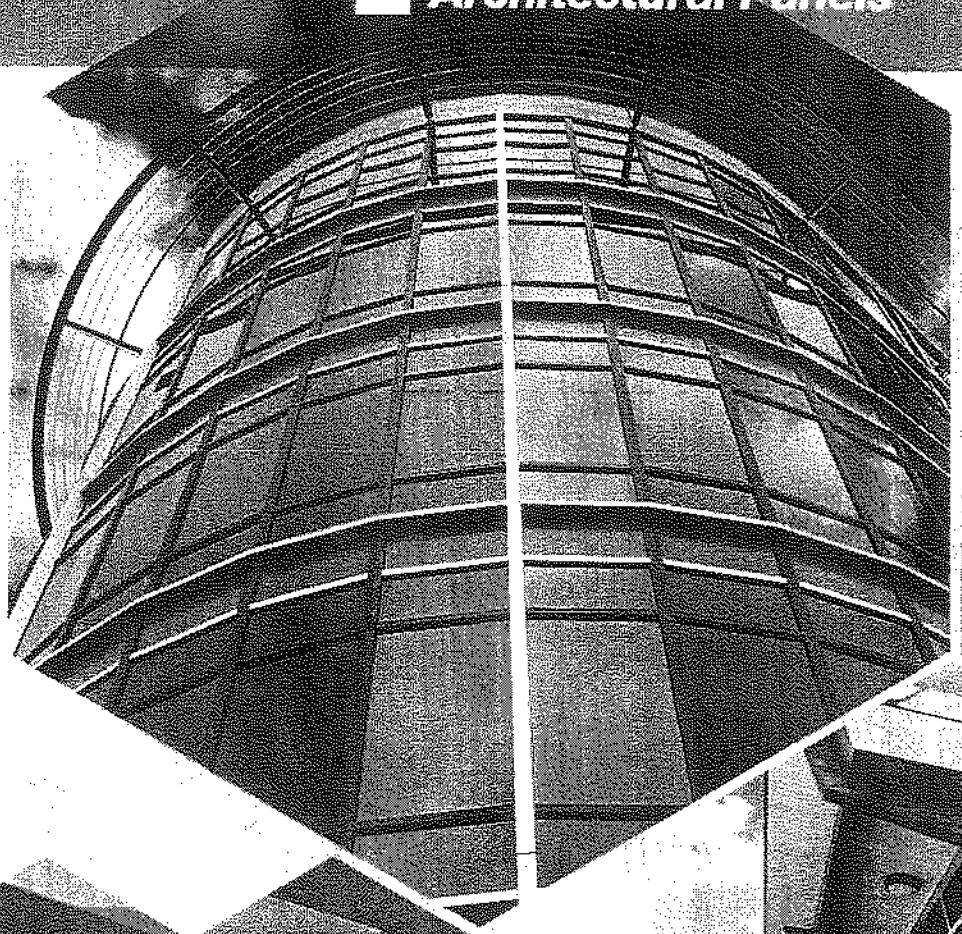
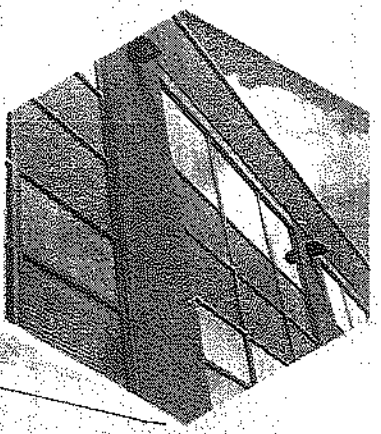
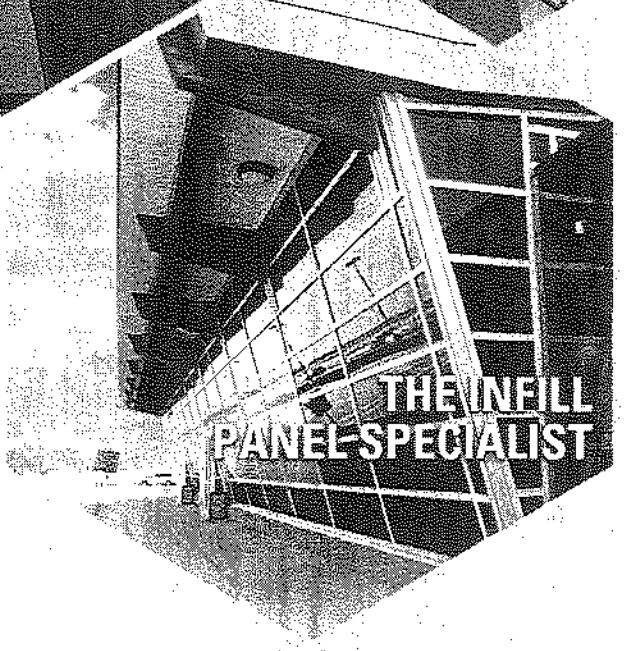
Mapes

Architectural Panels







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WITH R-VALUES UP TO 27.70

CUSTOM PANELS
BUILT TO YOUR SPECIFICATIONS ONLINE SP[illegible]ER

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FIRE, IMPACT, AND SOUND RESISTANT

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www.mapes.com

PORCELAIN – THE LIFETIME FINISH FOR SCHOOLS, HOSPITALS, AND HIGH-TRAFFIC AREAS

GRAFFITI RESISTANCE

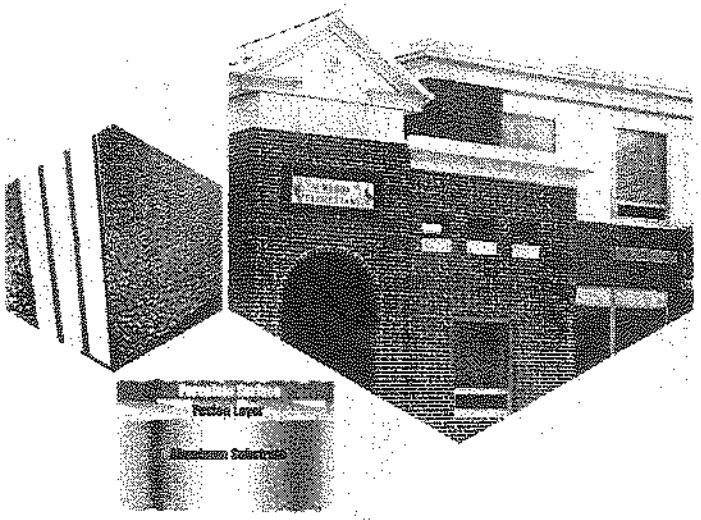
Because porcelain enamel is a vitreous glass finish that is fused to the base metal, it is nearly impervious to any graffiti and abuse. It can be cleaned to its original appearance simply and easily.

COLORFAST

Porcelain is one of the most color-stable products ever developed. The color oxides become part of the finish and are fused to the base metal at temperatures in excess of 1,000 degrees F. That is why porcelain is known as the "permanent" finish.

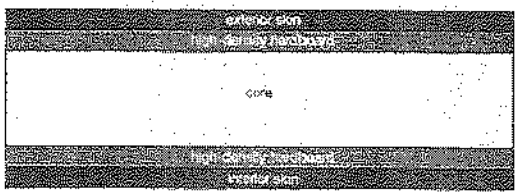
COLOR MATCHING

Porcelain finishes can be formulated to match almost any project design. Mapes has 24 standard colors and an inhouse ability to match custom colors quickly and accurately.



ALUMINUM AND STEEL

Mapes porcelain panels are available in both textured aluminum and smooth steel surfaces. The unique textured porcelain on aluminum eliminates oil canning and will not rust or spall. Porcelain on smooth steel is also available for those applications where a ferrous product is required. Both finishes will not crack or craze when subjected to long-term harsh environments.



SELECTION GUIDE

SKINS	THICKNESS	TEXTURE *EMBOSSED*	*SMOOTH*	STANDARD COLORS	CUSTOM COLORS	AVAILABLE WIDTHS 48"	60"	FINISH WARRANTY
Porcelain on Aluminum	0.016	X		24	X	X	X	25
Porcelain on Steel	0.014		X	8	X	X	X	20
Standard .032 Kynar	0.032	X	X	18		X		20
Custom Kynar	0.036 - 0.125	X	X		X	X	X	10
Spandrel Glass	0.25		X	8	X	X	X	5
Colorlume E	0.012	X		6		X	X	5
Colorlume S	0.022		X	2		X	X	5
.025 Clear Anodized (Coil)	0.025		X	1		X		
.025 Bronze Anodized (Coil)	0.025		X	1		X		
Class 1 Anodized	0.036 - 0.125	X	X		X	X	X	

SUBSTRATES			48"	60"	LAMINATION WARRANTY
1/8" Hardboard	0.125	MOST ECONOMICAL	X	X	25
3/16" Hardboard	0.187	MOST ECONOMICAL	X	X	25
1/2" Gypsum	0.5	FIRE RESISTANT	X		25
Cement Board	4mm	WATER/IMPACT RESISTANT	X		25
Corelite (H.D.P.E.)	4mm	WATER RESISTANT	X	X	5

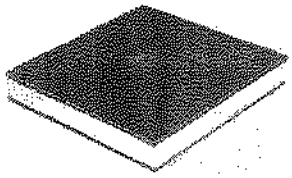
CORES

2# Density Polystyrene	most cost effective per R-Value *(4.84 - 20.31 R-Value)*
Isocyanurate	most insulation per inch *(6.13 - 27.79 R-Value)*
Micore	Class A Fire Rated *(3.05 - 15.50 R-Value)*

CONSULT "SPEC BUILDER" AT MAPES.COM FOR COMPLETE DETAILS.

MAPES PANEL DESIGN ALTERNATIVES

Available in all architectural finishes: Porcelain / Kynar / Anodized / Baked Enamel

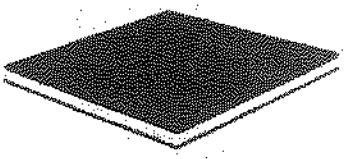


MAPES® INFILL PANELS

Laminated glazing infill that improves energy efficiency, abuse resistance and design flexibility.

- For use in all major window and curtainwall systems

mapes.com/infill

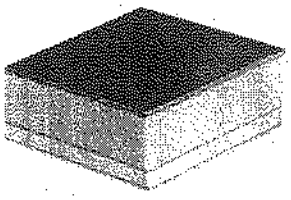


MAPESPAN®

Spandrel glass laminated into a unitized panel with an interior finish.

- Single source factory laminated
- Reduces field labor and fabrication

mapes.com/mapespan

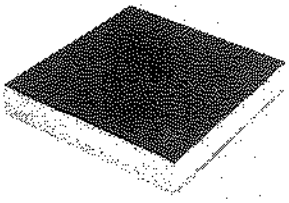


MAPESTOP®

Fire resistant infill panels designed to meet local code requirements.

- Class A rated
- 15-30 minute fire rated

mapes.com/mapestop

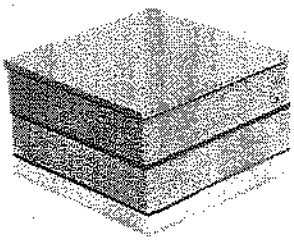


CORELITE®

Laminated infill panels with corrugated high density polyethylene substrates.

- Water resistant substrates
- Light weight

mapes.com/corelite

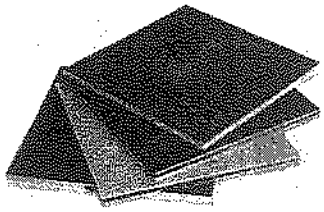


MAPESOUND®

Panels designed to improve the acoustical performance of window and curtainwall systems.

- STC up to 55
- Available in all architectural finishes

mapes.com/mapesound

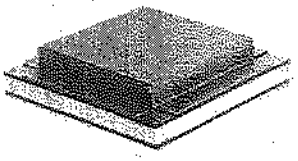


MAPES® VENEER & GLAZING

Panels designed to replace standard glass for all glazing infill.

- Abuse resistant / unbreakable
- Fascia, soffit, wall facing applications

mapes.com/veneer

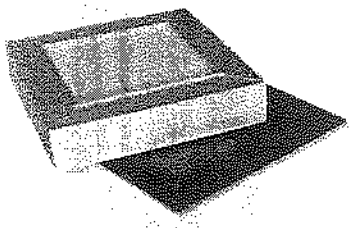


MAPESHAPE®

Formed edge panels improve energy efficiency and design options.

- Flush with frame glazing option
- Butt glazing

mapes.com/mapeshape



MAPES® CUSTOM PANELS

Laminated panels for a custom application.

- Interior wall panels
- Cafeterias / kitchens / clean rooms

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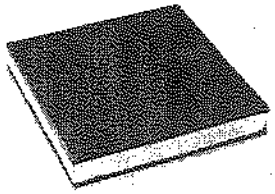
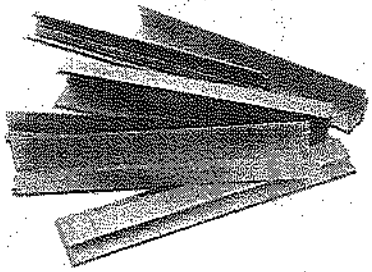


MAPESHIELD®

Impact resistant infill panels designed for coastal or high security areas.

- Large and small missile impact rated
- Explosion and bullet-resistant glazing

mapes.com/mapeshield



MOLDINGS

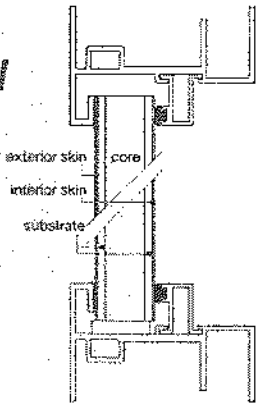
1/4" and 1" moldings.

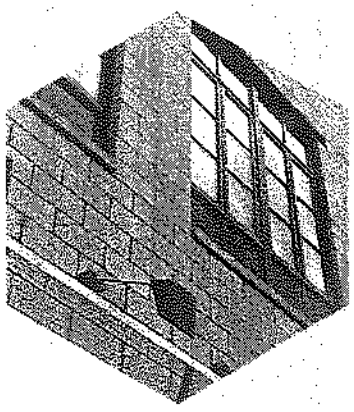
- Veneer applications
- Window replacement infill

mapes.com/moldings

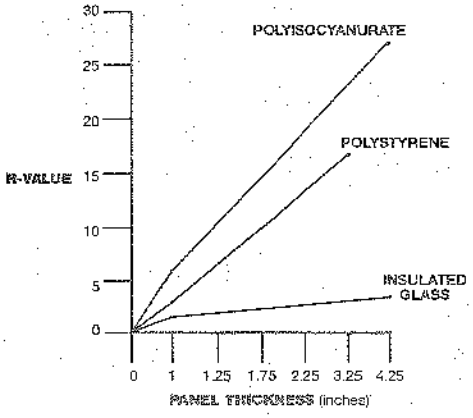
WINDOW DETAIL

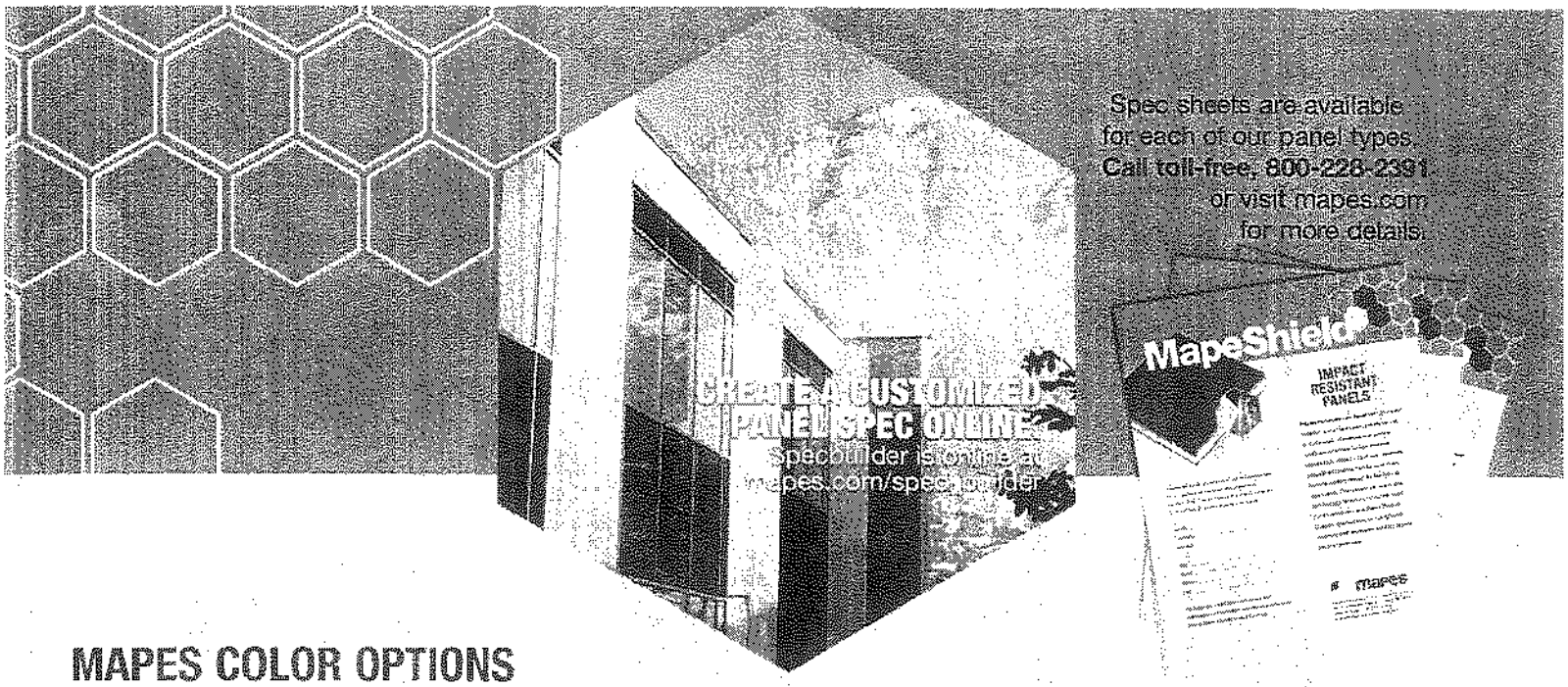
Typical Panel Installation





R-VALUES





MAPES COLOR OPTIONS

STANDARD PORCELAIN - EMBOSSED ALUMINUM
(CUSTOM COLOR MATCHING AVAILABLE)

647 Parchment White
650 Champagne
720 Sandstone
450 Seawolf
590 Autumn Beige
175 Buff
762 Rust
751 Mocha Brown
275 Rosewood
375 Azure Gray
735 Charcoal Gray
588 Marsh Green
350 Colonial Blue
560 Interstate Blue
520 Cherokee Blue
624 Interstate Green
7130 Briar Brown
920 Claret
704 Night Horizon Blue
733 Hartford Green
911 Bronzetone Light
912 Bronzetone Medium
913 Bronzetone Dark
9588 Black

COLORLUME E
POLYESTER BAKED ENAMEL - EMBOSSED ALUMINUM

A25 Aztec Bronze
A21 Warm White
A22 Sunset Beige
A29 Silver
A11 Dover White
A30 Quaker Bronze

COIL COATED KYNAR ON SMOOTH ALUMINUM

Bone White
Colonial Red
Teal
Classic Bronze
Sandstone
Regal Blue
Musket Grey
Mansard Brown
Sierra Tan
Forest Green
Medium Bronze
Black
Hartford Green
Military Blue
Burgundy
Cardinal Red

COLORLUME S
POLYESTER BAKED ENAMEL - SMOOTH ALUMINUM

Alpine White
Regal Bronze

MAPES USES AN ANA-CLAD STANDARD COLORS ON ALUM. PANELS KYNAR

PORCELAIN ON SMOOTH STEEL

SEMI-MATTE

Clay Red (TCM-27)
Dark Bronze (TCM-60)
White (PEI-118)
Sahara Sand (TCM-3)

SEMI-GLOSS

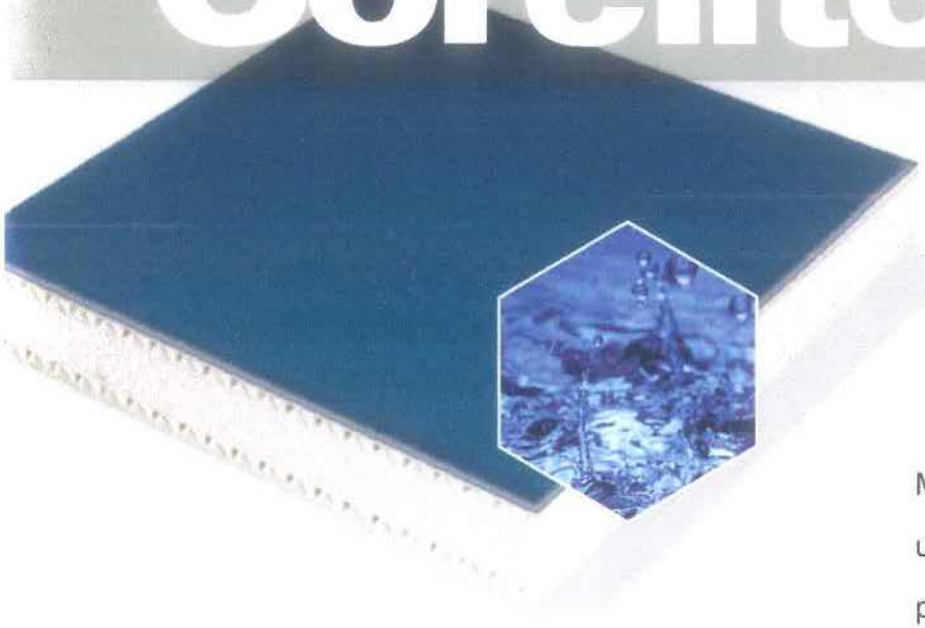
Black
Sky Blue (PEI-29)
Bronze (PEI-N50)
Powder Grey (PEI-22)

(DUE TO PRINTING PROCESS, COLORS ARE A GENERAL GUIDE ONLY.
CONSULT FACTORY FOR ACTUAL COLOR SAMPLES.)

mapes
Mapes Industries, Inc. / P.O. Box 80069 (68501)
2929 Cornhusker Hwy. / Lincoln, NE 68504
Call toll-free: 800-228-2391 / FAX: 800-737-6756
E-mail: service@mapes.com / www.mapes.com

Available through your favorite local glass and glazing dealer.
For a complete list of local manufacturer's reps, visit mapes.com.

Corelite™



MOISTURE RESISTANT PANELS

Mapes Corelite panels are manufactured utilizing a corrugated high-density polyethylene (HDPE) substrate for the most demanding glazing applications. Corelite is available in both 1/4" veneer and insulated compositions. It is an ideal solution for window replacement, curtainwall infill, veneers and fascias. Corelite is available with all Mapes' standard finishes. Corelite panels are moisture resistant and designed for most infill and glazing projects.

FEATURES

- Lightweight
- Field Fabrication
- Moisture Resistant
- High Thermal Value
- Available In All Architectural Finishes

Name: _____

Company: _____

Address: _____

_____

City: _____

State: _____ Zip: _____

Phone: _____

Fax: _____

For design and budget information, please visit www.mapes.com/corelite or fax this completed form back to Mapes Industries at (800) 737-6756.

APPLICATIONS

- Infill
- Transom
- Spandrel
- Window
- Curtainwall
- High Moisture Environment

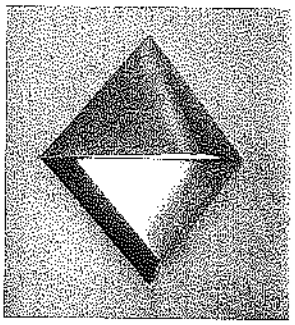
mapes

Mapes Industries, Inc. / P.O. Box 80069 (68501)
2929 Cornhusker Highway / Lincoln, NE 68504
(800) 228-2391 / (800) 737-6756 *fax*
sales@mapes.com / www.mapes.com

Complete specifications are available at www.mapes.com/panels/spec_builder.

SHAPER™

695-WP-DB



- Half Pyramid Exterior Wall Luminaire with Back Panel
- Direct illumination
- Wet Location
- Solid bronze construction
- Incandescent, MH and CFL lamp options
- 18" Half Pyramid

DESCRIPTION

LAMPS / BALLASTS

Incandescent:	1 - 60W max (A-19).
Fluorescent:	1 - 26W, 32W or 42W (4-pin triple tube CFL).
H.I.D.:	1 - 50W, 70W or 100W metal halide (ED17/medium base).

Incandescent available 120V only. Electronic ballasts are standard for fluorescent or H.I.D. Quartz Restrike (QR) available for H.I.D.

MATERIALS / FIXTURE LOCATION

C.U.L. listed for wet or damp exterior locations.
Solid Bronze construction for all other finishes.

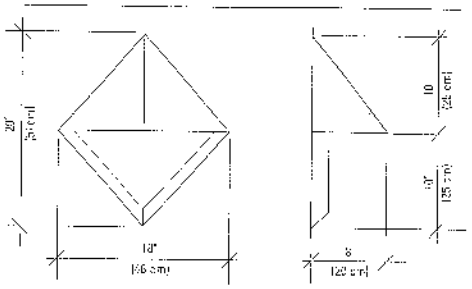
FINISHES

Diffuser: Clear tempered refractive glass for HID lamping.
White acrylic for incandescent and fluorescent lamping.
Hood and Back: NBZ, SGB, SGW, CC VG, SZ.

MOUNTING

Standard - 4" J-Box or stucco ring.

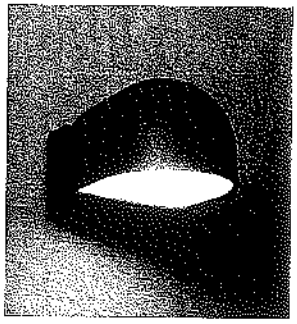
DIMENSIONS



CAT#	LAMP	VOLTAGE	FINISH	OPTN
❑ 695-WP-DB	❑ INC	❑ 120V	❑ NBZ	❑ QR
	❑ CF/1/26	❑ 277V	❑ SGB	
	❑ CF/1/32	❑ 347V(CFL only)	❑ SGW	
	❑ CF/1/42		❑ CC	
	❑ MH/50		❑ VG	
	❑ MH/70		❑ SZ	
	❑ MH/100			

SAMPLE SPEC: 695-WP-DB-MH/100-277V-CC-QR

697-WP



- Hood Downlight Exterior Wall Luminaire
- Direct illumination
- Wet Location
- Cast aluminum construction
- Incandescent, MH and CFL lamp options
- 8" Hood

DESCRIPTION

LAMPS / BALLASTS

Incandescent:	1 - 100W max (A-19).
Fluorescent:	1 - 42W (4-pin triple tube CFL).
H.I.D.:	1 - 50W, 70W or 100W metal halide (ED17/medium base).

Incandescent available 120V only. Electronic ballasts are standard for fluorescent or H.I.D. Quartz Restrike (QR) available for H.I.D.

MATERIALS / FIXTURE LOCATION

C.U.L. listed for wet locations.
Cast aluminum base metal is used for all finishes.
Photocell (PH).

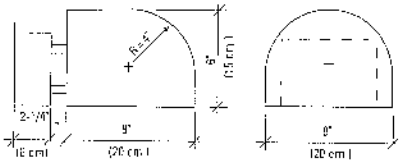
FINISHES

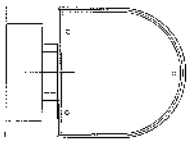
Lens: Clear tempered glass. Clear acrylic for fluorescent lamping.
Body: SGB, SGW, SGS, SGBZ, CC.

MOUNTING

Standard - 4" J-Box or stucco ring.
For rear (through wall) conduit mounting (C).

DIMENSIONS





CAT#	LAMP	VOLTAGE	FINISH	OPTN
❑ 697-WP	❑ INC	❑ 120V	❑ SGB	❑ PH
	❑ CF/1/42	❑ 277V	❑ SGW	❑ QR
	❑ MH/50	❑ 347V(CFL only)	❑ SGS	❑ C (Rear feed through wall)
	❑ MH/70		❑ SGBZ	
	❑ MH/100		❑ CC	

SAMPLE SPEC: 692-WP-CF/1/42-277V-SGBZ-PH

WOODARD & CURRAN
Engineering • Science • Operations

CORPORATE OFFICES: Maine, Massachusetts, New Hampshire, Connecticut, Florida
Operational offices throughout the U.S.

MEMORANDUM

06-0125

TO: Rick Knowland

FROM: Dan Goyette, PE – Development Review Coordinator, Woodard & Curran, Inc.

DATE: July 19, 2006

RE: Bayside Village, 120 Marginal Way.

Woodard & Curran has reviewed the Major Site Plan and Subdivision Review submission for the proposed project at 120 Marginal Way. This project requires developing a lot by two separate entities. The application is just for the Southern Maine Student Housing, LLC. The project involves constructing a 100 unit student housing complex with a parking facility and retail store on the ground floor.

Documents Reviewed

- Cover letter addressed to Alexander Jaegerman, Director of the Portland Planning Division, dated July, 11, 2006, from Robert B. Metcalf, Mitchell & Associates.
- City of Portland Major Site Plan and Subdivision Review Application for Southern Maine Student Housing, LLC, 120 Marginal Way, dated July 11, 2006
- Stormwater Management Report prepared by Gorrill-Palmer Consulting Engineers, Inc., dated July 2006.
- Engineering plan set prepared by Gorrill-Palmer Consulting Engineers, Inc., sheets 1-10, dated 7/11/06, signed and stamped by William C. Haskell, PE.

1. General Comments

A. The applicant should confirm that the survey for the project coincides with approved City standards. The survey does tie to the vertical datum of NGVD 1929. However, it should also tie to the Maine State Plane Coordinate System (2-zone projection) and West Zone using the NAD 1983 (HARN) Datum.

A. General notes on Sheet 6 call for the use of Casco Traps. A detail should be provided.

B. A pavement repair detail should be provided for the areas of Marginal Way where pavement will be temporarily removed.

C. Stormwater and sanitary sewer tie in details should be provided.

D. It is unclear what type of sidewalk will be constructed in front of the housing complex (brick, concrete, concrete pavers). A clarification should be made.

DRG

203848

cc: File

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

2006-0125
Application I. D. Number

07/11/2006
Application Date

Southern Maine Student Housing, LLC.
Applicant

247 Commercial Street, Rockport, ME 04856
Applicant's Mailing Address

Bayside Village - Student Housing Co
Project Name/Description

120 - 120 Marginal Way, Portland, Maine
Address of Proposed Site

Consultant/Agent

Applicant Ph: (207) 236-4067 Applicant Fax: 2072366307
Applicant or Agent Daytime Telephone, Fax

34A b001
Assessor's Reference: Chart-Block-Lot

Approval Conditions of Fire

1 Completed Site plan checklist

2 Plan detailing location of Detection system panel location
Type of system

3 Required Fire flow usuing annex H of NFPA 1 and hydrant requirements usuing annex I

4 NFPA 101 compliance summery

5 Application requires State Fire Marshal approval.

BAYSIDE VILLAGE – ARCHITECTURAL NARRATIVE

A Student Housing Complex

Marginal Way, Portland, Maine

BUILDING PROGRAM

Bayside Village is a five-level student housing community consisting of 100 four-bedroom apartment style residential units. In addition to the apartments, the building includes associated program spaces such as lobbies, offices, lounges, fitness rooms and meeting rooms. The building will also include a parking use, a retail use and building support spaces on the first level. A large, secure indoor bicycle "parking area" capable of accommodating 96 bicycles has been conveniently located directly off the Marginal Way sidewalk. The property's location is conveniently adjacent to Portland's extensive pedestrian/bicycle trail system.

BUILDING CONFIGURATION

This single building is configured in two wings on the upper floors – one paralleling I-295 and the other paralleling Marginal Way. The Marginal Way facade will reinforce the streetscape with 5 story, broken street wall, which is in keeping with the Bayside plan and new urbanism principals.

RESIDENTIAL DENSITY

At 1.328 acres, the sites residential density is 75 units per acre and 301 bedrooms per acre. This density is high for Portland but consistent with the objectives of sustainable new urban neighborhoods.

DESIGN CHARACTER

The building is proposed with a contemporary character and detailing that will help define downtown Portland's first and only 21st century neighborhood. The new Bayside, as a large urban redevelopment project, is ripe for development with a contemporary vocabulary that will contrast yet compliment the traditional vocabulary of old Portland. During pre-submission neighborhood meetings, the Bayside Neighborhood Association has indicated a strong desire to explore a more contemporary approach to design in lower Bayside. The discussion of this approach will continue through the formal neighborhood meeting process.

EXTERIOR BUILDING CLADDING SYSTEM

The building's exterior cladding is proposed primarily of a variety of durable, long life and easily maintained Kynar 500/Hylar 5000 painted metal panels, copings, trim and sun control systems. Windows will be solid vinyl single hung type units. Architectural concrete panels are proposed along with an aluminum storefront system at the first floor retail façade and main entrance along Marginal way. ***See Exterior Material Schedule, attached.***

This current submission differs from the previous sketch plan submissions it two ways:

1) The upper levels of the building is now proposed as "all metal" façade to provide a more unified façade character.
2) The lower level finish material has been changed from face brick to ***a combination of*** architecturally formed cast in place concrete panels ***and an aluminum storefront system*** to provide for a more unified contemporary façade character.

Green Building Design Components

Bayside Village will be designed to incorporate many of the latest green building initiatives so as to result in a building that is energy efficient to operate and promote sustainability. As part of this project, the owner will pursue LEED certification of the project. Several of the unique green components proposed are:

- Tri-generation Mechanical/Electrical Plant – The project will incorporate a gas fired system that will provide heat, hot water, cooling and electricity for the project. Though costly to install, this system is expected significantly reduce energy use for the building.
- Recycle excess heat from the tri-generation system to provide a no-energy cost sidewalk snow melt system at the second level courtyard area, thus providing a safe and usable walking surface in winter and reducing maintenance costs for this difficult to manage area.
- Metal Building Cladding – Metal building cladding is considered highly advantageous as a green building system due to its high reflectivity of solar gain, high recycled material content, 100% recycle ability, light weight, durability, long life minimal maintenance requirements.
- Incorporate low-water plant materials and Xeriscape landscaping concepts at the courtyard patio deck in conjunction with raised planter boxes that will support larger and more varied plant materials.
- The wood frame modular units will incorporate numerous green components.
- The specification will call for Energy Star Rated Appliances and Materials.

CONSTRUCTION SCHEDULE

In order to achieve occupancy on August 1, 2007, planning board approval must be secured by September 26, 2006, construction must begin no later than November 1, 2006.

CWS Architects Architecture & Planning

434 Cumberland Avenue
Portland, ME 04101-2325

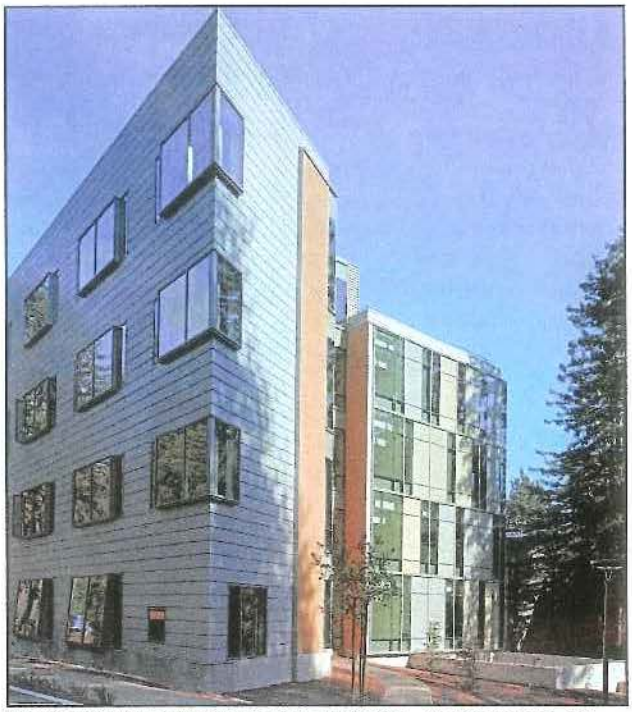
Phone: 207.774.4441
Fax: 207.774.4016
Web: www.CWSarch.com

The Denney Park Apartments, Seattle, Washington
50 Unit, Six Story Apartment Building
Runberg Architecture Group, Seattle, Washington

The Denney Park Apartments, Seattle, Washington
50 Unit, Six Story Apartment Building
Runberg Architecture Group, Seattle, Washington

Benham Building, Lowell, AR
Atkins Benham Architects, Lowell, AK

The Adelaide, Seattle, Washington
Mixed use with ground level commercial spaces and five stories of condominiums above. The building is contemporary in style with a palate of various metal siding and large glass bay windows.
Runberg Architecture Group, Seattle, Washington



UC Santa Cruz Engineering Building, Santa Cruz, CA
4 Story Metal Clad Building
CO Architects, Los Angeles, CA

The Gold Dust Apartments, Missoula, MT
18 Unit, Three Story Affordable Apartment Building
MacArther, Means and Wells Architects, Missoula, MT

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Bayside Village – Case Studies: Contemporary Metal-Clad Residential Buildings

A Student Housing Complex

Marginal Way, Portland, Maine

Recent Shift of Metal Cladding from an Industrial to a Contemporary Material

The use of metal cladding in contemporary architecture has become increasingly popular in recent years. In response to the rising cost or traditional construction materials, the metal industry has shifted its market focus from utilitarian industrial uses to buildings of all uses and types: Commercial Office, Residential; Retail, Recreational; Government, Institutional and more. As a result, the range of metal choices, quality of material coatings and attention to details have evolved to include options that can result it quality, attractive, long life developments.

Metal as a Quality 21st Century Contemporary Material

As a result of the above, the design community has embraced metal building cladding as a material that meets their cost, quality and aesthetic objectives. Hence, the use of metal as a preferred contemporary exterior cladding material has grown exponentially over the past five to 10 years. With better quality and more design option enhancements being introduced every year, metal siding will become more prevalent in coming years.

The Lasting & "Green" Qualities of Metal

Metal Cladding has come a long way in the past few decades. What was traditionally prone to paint system failures, corrosion and rusting has evolved, using 21st century technology, into a high quality, maintenance free architectural cladding material with a longevity rivaling that of brick and stone (with less maintenance). This has been achieved through the incorporation of corrosion resistant alloys and materials to create the panels and the use of high performance, durable coating systems with long color retention. As a result, a quality 21st metal siding system has the ability to perform structurally and aesthetically form many decades without significant maintenance and is considered a "Green" product. Also, when regular maintenance is schedule, it is less costly (and thus apt to be scheduled) than more traditional materials such as brick or wood siding.

Case Studies

The following are case studies of multi-family residential buildings that have recently been developed around the country using metal-cladding systems. While relatively new to northern New England with its many traditional neighborhoods, the redevelopment of former industrial neighborhoods such as Bayside offer the opportunity to introduce a 21st century design vocabulary as a complementary, yet clearly contemporary sector of our cities.

Bear Creak Mountain Resort, Macungie, PA
Ski Resort Hotel/Residence
Peter Fillat Architects, Blatimore, MD

The Cate Apartments, Seattle, Washington
31 Units of Affordable Housing
Runberg Architecture Group, Seattle, Washington

Condominium Building, San Francisco, CA

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LOWER LEVEL

(LOWER FLOOR ENTRY/RETAIL/PARKING/MECHANICAL)

The lower level of the development consists primarily of uses that serve and support the primary residential use of the building. Specifically, this include the building's primary entrance facing Marginal Way and secondary entrances, significant retail frontage facing Marginal Way, 102 spaces of parking accesses from the building's east side, a large indoor bike parking area, a solid waste management room and various mechanical and electrical support spaces. This portion of façade consists of a combination of an aluminum storefront window system with both clear glass and Mapes opaque architectural panels, cast-in-place concrete panels using a textured form liner system and painted ornamental steel ventilation grills. Additionally, this portion of the façade will incorporate a metal accent band with 6' sun control devises to accentuate entrance points, architectural building mounted lighting and building and retail tenant identification. They following are specification of proposed lower level materials:

Storefront System: Kawneer (or equal) aluminum insulated storefront system "clear anodized" finish with clear Low E glazing and Mapes CORELITE laminated insulated spandrel panels with aluminum UNA-CLAD Kynar 500/Hylar 5000 finish, "Charcoal Grey" finish (See attached cut sheets).

Cast In Place Concrete Panels: Cast in place concrete panels utilizing textured Fitzgerald Formliners Pattern No. 16989 Split Slate (See attached cut sheets).

Metal Accent Band: Firestone UNA-CLAD fluorocarbon aluminum panels, custom broken to profile indicated, with KYNAR 500 / HYLAR 5000 exterior finish, "Charcoal Grey".

Ornamental Metal Ventilation Grills (South, East and West Elevations) : Custom fabricated steel grills, epoxy coated, color to match "Charcoal Grey", see drawings.

Garage Screening (Interstate 295): Black vinyl coated galvanized chain link fence, span between garage columns.

Building Mounted Lighting: Shaper 695-WP-DB MH/50 SZ, Satin Zinc finish.

Building and Retail Tenant Signage: Self-illuminated stand-off signage, size and location as indicated.

UPPER LEVELS

(FIRST FLOOR (2ND LEVEL) THROUGH FOURTH FLOOR (5TH LEVEL) RESIDENTIAL AND SUPPORT SPACES)

The upper levels of the development consists primarily of residential uses. This portion of façade consists of a combination of vertically and horizontally oriented aluminum panels of various detail and design, solid vinyl windows, sun control devices and building signage. They following are specification of proposed lower level materials:

Metal Panel Siding Systems: Firestone UNA-CLAD fluorocarbon aluminum panels with KYNAR 500 / HYLAR 5000 exterior finish as scheduled below:

VR-Classic Omega Panel, horizontal orientation w/matching corner trim, "Cityscape"
UC-500 Wall Panel, vertical orientation w/matching corner trim, "Charcoal Grey"
UC-501 Wall Panel, horizontal orientation w/matching corner trim, "Hemlock Green"

Solid Vinyl Windows: Kohler solid vinyl single hung units and pairs with UNA-CLAD trim to coordinate with color field.

Sun Control Devises: UNA-CLAD clear anodized aluminum custom designed as per drawing details.

Building Signage: Self-illuminated stand-off signage, size and location as indicated.

CWS
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Portland, ME 04101-2325
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Project Spotlight

10 Mile House
Constructed as a traveler's inn in 1792, Ten Mile House in Bedford, Nova Scotia, was named for its distance from Halifax. Click the arrow learn more... >

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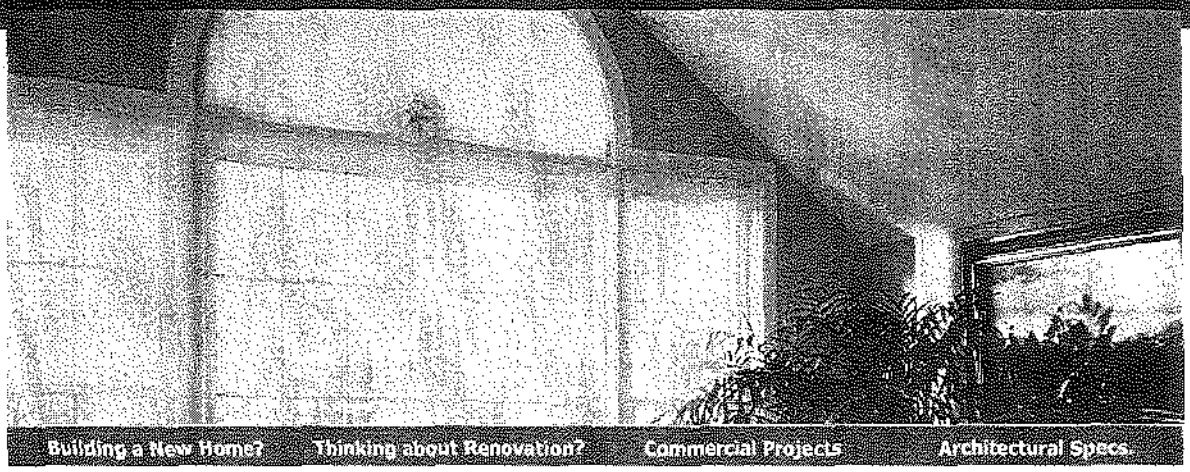

Supreme Window Family
Supreme Casement
Supreme Single Hung
Supreme Double Hung
Supreme Awning
Supreme (Double) Glider

< View other Peter Kohler Windows Families

Window Styles
> Casement
> Single Hung
> Double Hung
> Awning
> Glider

Trends

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Supreme Single Hung

Beautiful and practical, the Supreme Single Hung window is crafted by Peter Kohler Windows to be one of the finest windows in its class.

It's loaded with standard features like perimeter weather-stripping, security night lock, cam operated lock, and a stainless steel coil spring balance system. The Supreme Single Hung is the right choice for performance and quality.

Features:

Hardware • Coil Balance • Spiral Balance • Nightlock	**Exterior Moulding** • Plain Frame (no-j-trim, brick mold or nail flange) • Nail Fin Only • 1 1/2" Brick Mold & J-trim • 1 1/2" Brick Mold & sill	**Grills** • Georgian Simulated Divided Grills (SDL)
Interior Jam Extensions • Vinyl Clad • Primed	**Glass** • LoE, LoE/argon, Energlas® • Gray or Broze Tint Glass (Extended Lead times Required)	**Exterior Trim** • Wide Brick Mold (3 1/2")
Interior Drywall • 1/2" Add on Drywall Return • 3/4" Add on Drywall Return		

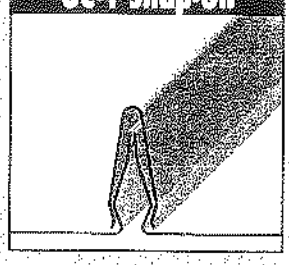
Available Grills:

Firestone
METAL PRODUCTS
UNA-CLAD

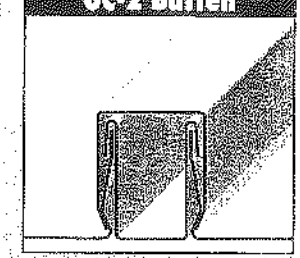
PRODUCT SELECTION

ARCHITECTURAL

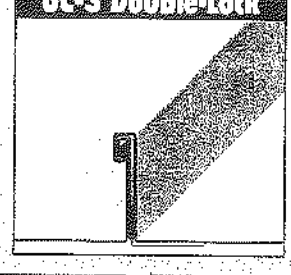
UC-1 Snap-On



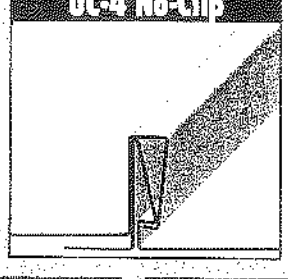
UC-2 Batten



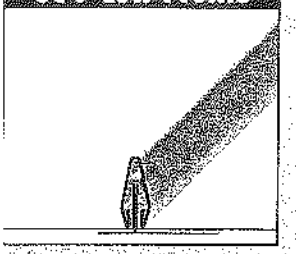
UC-3 Double-Lock



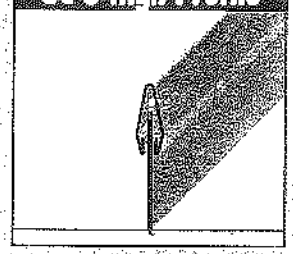
UC-4 No-Clip



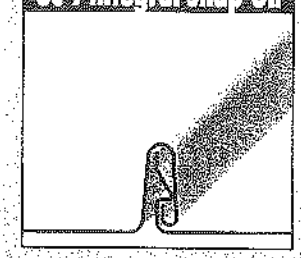
UC-7 Low-Profile



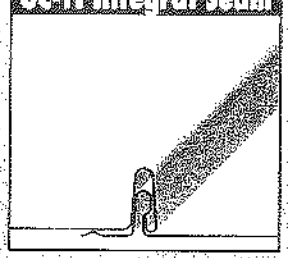
UC-8 High-Profile



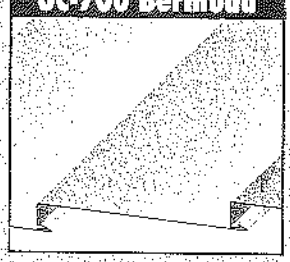
UC-9 Integral Snap-On



UC-11 Integral Seam

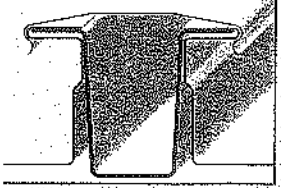


UC-700 Bermuda

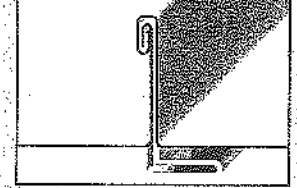


STRUCTURAL

UC-5 Batten-Lock

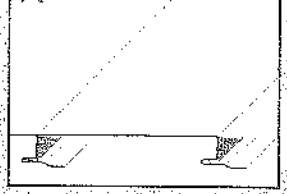


UC-6 Double-Lock

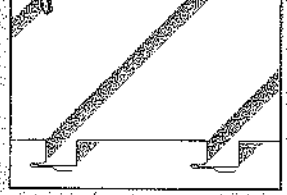


SOFFIT

UC-500 Flush



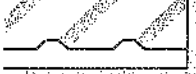
UC-501 Reveal



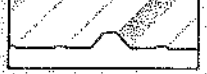
UC-750 V-Groove

COMMERCIAL & INDUSTRIAL

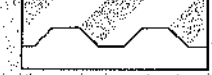
Pro-Omega



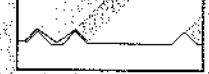
Ultra-Omega



Classic-Omega

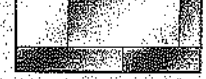


5-V-Crimp



FLAT-LOCK WALL & ROOF PANELS

Square

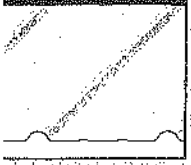


Diamond

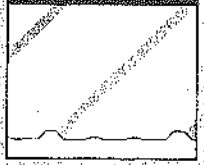
Rectangular

AGRICULTURAL

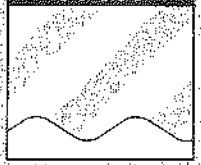
Builtite I



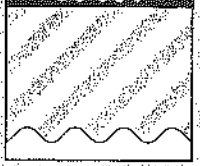
Builtite II



UC-600



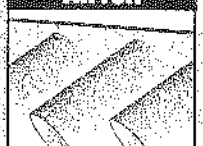
UC-601



SUN-SCREENS

Tube

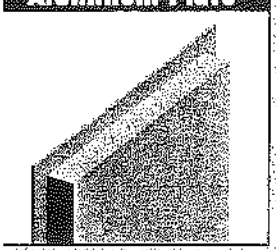
Airfoil



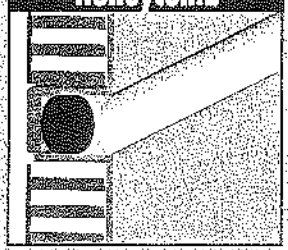
Blade

WALL PANELS

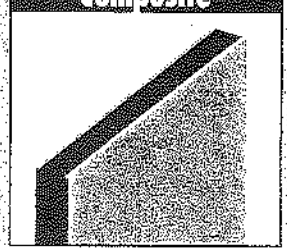
Aluminum Plate



Honeycomb

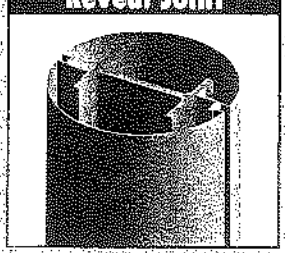


Composite

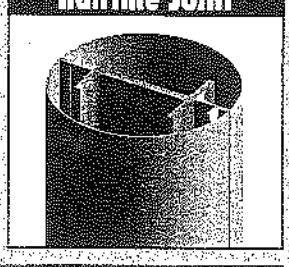


COLUMN COVERS

Reveal Joint



Hairline Joint

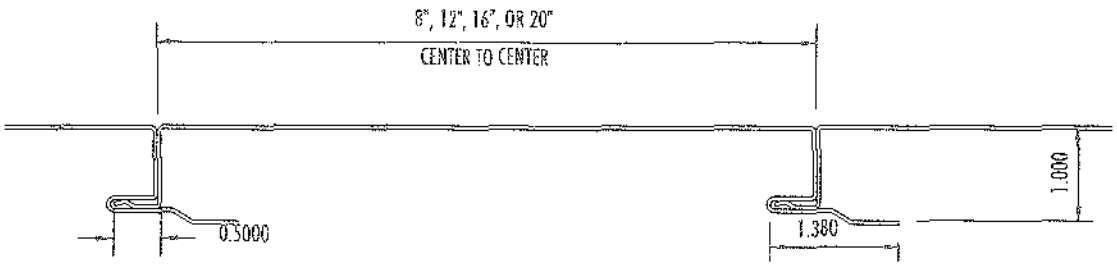


Firestone METAL PRODUCTS
UNA-CLAD

800.426.7737 • WWW.UNACLAD.COM

UC-500 Flush Panel System

UC500-INFO



MATERIAL OPTIONS

RHEINZINK
COIL-COATED STEEL
COIL-COATED ALUMINUM
ARCHITECTURAL GRADE SHEET COPPER
ANODIZED ALUMINUM
MILL FINISH ALUMINUM

FABRICATION OPTIONS

RHEINZINK	.7 & .8 MM.
STEEL	26 - 22 GAUGE
ALUMINUM	.032" - .040"
COPPER	16 & 20 OZ.
MINIMUM LENGTH	24"
MAXIMUM LENGTH	48'
BEST O.C. DIMS.	8", 12", 16", & 20"
VENTING AVAILABLE	
STIFFENING RIBS AVAILABLE	

TECHNICAL DATA

ASTM E330-90 STRUCTURAL PERFORMANCE TESTING
ASTM E283 AIR INFILTRATION TEST
ASTM E331 WATER PENETRATION TEST

FINISH OPTIONS

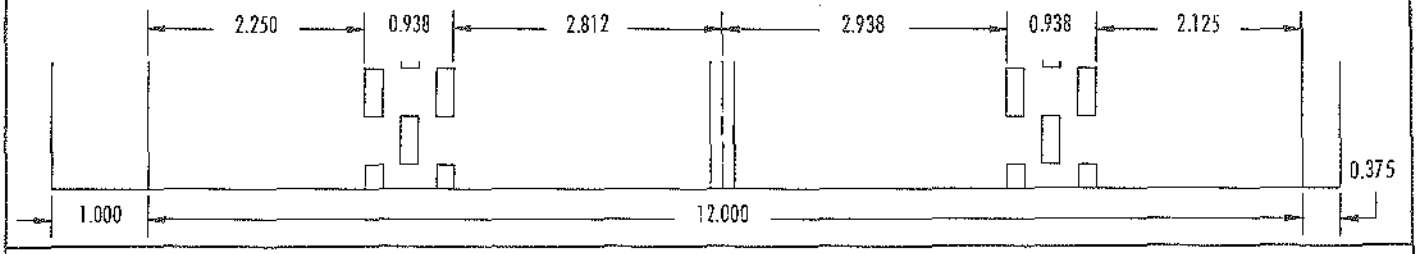
PAINTING
HYLAR 5000/KYNAR 500, MODIFIED POLYESTERS, AND OTHER CUSTOM OR EXOTIC FINISHES CAN BE COIL COATED OR SPRAY APPLIED.

ANODIZING
CLEARS, BRONZES, AND VARIOUS OTHER COLORS CAN BE COIL ANODIZED FOR COLOR CONSISTENCY.

MECHANICAL FINISHES
PROVIDES A SURFACE TEXTURE BY MECHANICAL MEANS ALONE. (3) EMBOSSING PATTERNS ARE CURRENTLY AVAILABLE.

CUSTOM COLORS
WE CAN PROVIDE FULL CUSTOM COLOR SERVICES TO MATCH PRACTICALLY ANY MATERIAL, SHADE, OR TINT YOU REQUEST.

OPTIONAL VENTING PATTERN



NOTES:

1. HEAVIER GAUGES, NARROWER WIDTHS, AND EMBOSSING MINIMIZE "OIL CANNING."
2. OIL CANNING IS NOT A CAUSE FOR REJECTION.
3. AN EXTENSIVE SELECTION OF ASSOCIATED PANEL FLASHINGS AND TRIMS ARE AVAILABLE.
4. CONTACT UNACLAD FOR UP-TO-DATE TECHNICAL INFORMATION AND MATERIAL LIMITATIONS.
5. ALL SYSTEMS WITH TESTING MUST BE INSTALLED IN ACCORDANCE WITH THE ASSEMBLY AS TESTED.

1001 Lund Boulevard, Anoka, Minnesota 55303 800 / 426-7737 763 / 576-9595 FAX 763 / 576-9596

Firestone
METAL PRODUCTS
UNA-CLAD

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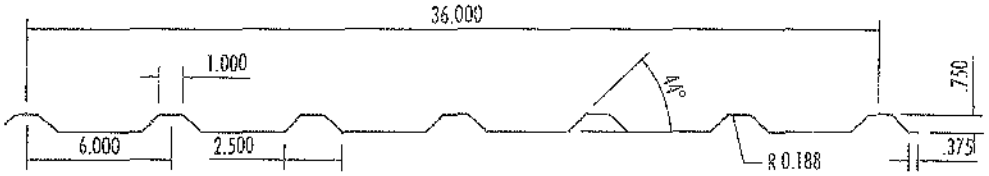
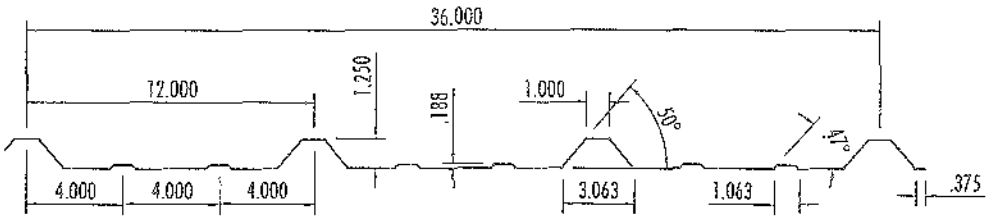
Omega Panel Profiles

UR/HR/VR-INFO



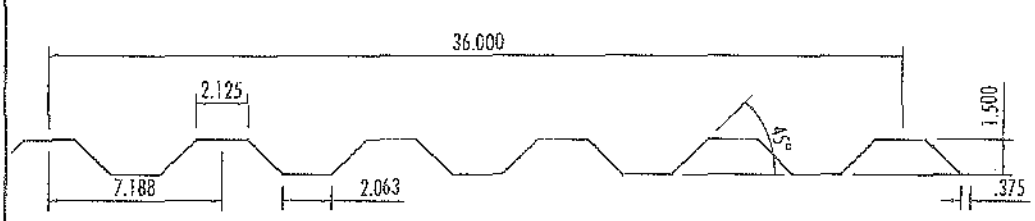
UR-PRO OMEGA PANEL

ITEM NUMBER: CIVR636
NET COVERAGE 36"
MAXIMUM LENGTH 600"



HR-ULTRA OMEGA PANEL

ITEM NUMBER: CIVR436
NET COVERAGE 36"
MAXIMUM LENGTH 600"



VR-CLASSIC OMEGA PANEL

ITEM NUMBER: CIVR536
NET COVERAGE 36"
MAXIMUM LENGTH 600"

MATERIAL OPTIONS

COIL-COATED STEEL
COIL-COATED ALUMINUM
ARCHITECTURAL GRADE SHEET COPPER
ANODIZED ALUMINUM
STAINLESS STEEL
MILL FINISH ALUMINUM
ACRYLUME®
GALVANIZED

FABRICATION OPTIONS

STEEL	26 - 22 GAUGE
ALUMINUM	.032" - .040"
COPPER	16 & 20 OZ.

FINISH OPTIONS

PAINTING
HYLAR 5000/KYNAR 500, MODIFIED POLYESTERS, AND OTHER CUSTOM OR EXOTIC FINISHES CAN BE COIL COATED OR SPRAY APPLIED.

ANODIZING
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5. ALL SYSTEMS WITH TESTING MUST BE INSTALLED IN ACCORDANCE WITH THE ASSEMBLY AS TESTED.

1001 Lund Boulevard, Anoka, Minnesota 55303 800 / 426-7737 763 / 576-9595 FAX 763 / 576-9596

From: "Dan Goyette" <DGoyette@woodardcurran.com>
To: "Rick Knowland " <RWK@portlandmaine.gov>
Date: 07/31/2006 11:41:10 AM
Subject: Bayside Village Student Housing

Rick,
Here is my review memo. I should have sent it earlier.

Daniel Goyette, PE

41 Hutchins Drive
Portland, Maine 04102
Phone: 800-426-4262
Fax: 207-871-0724
Email: dgoyette@woodardcurran.com

Rick Knowland - Bayside Village - A Student Housing Complex

From: Bob Metcalf <bmetcalf@mitchellassociates.biz>
To: "'rwk@portlandmaine.gov'" <rwk@portlandmaine.gov>
Date: 09/08/2006 3:54 PM
Subject: Bayside Village- A Student Housing Complex
CC: "'emarsh@realtyresourcesgroup.com'" <emarsh@realtyresourcesgroup.com>

Good afternoon Rick,

In response to your discussions with Ed Marsh of Southern Maine Housing LLC/Realty Resources concerning the designation of the proposed student housing project we have prepared the following response. To address the requested zoning clarification for the proposed use we are changing the classification to a lodging and boarding use. The appropriate revisions will be made to the application documents to conform with the change in use designation.

Bob Metcalf

Rick Knowland - Bayside Village - A Student Housing Complex

From: Bob Metcalf <bmetcalf@mitchellassociates.biz>
To: "'rwk@portlandmaine.gov'" <rwk@portlandmaine.gov>
Date: 09/08/2006 3:54 PM
Subject: Bayside Village- A Student Housing Complex
CC: "'emarsh@realtyresourcesgroup.com'" <emarsh@realtyresourcesgroup.com>

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Bob Metcalf

Infrastructure Financial Contribution Form

Obtain an Account Number from Paul Colpitts, Chief Acct., (ext. 8665) prior to the distribution of this form.

Amount: $90,000.00

City Account Number: 710-0000-236-70-00

Project Name: Bayside Village Student Housing

Application ID #: #2006-0125
(from Site Plan Application Form)

Project Location: 120 Marginal Way

Project Description: Bayside Village Student Housing

Funds intended for: Transportation Demand Management Fund

Applicant's Name: Bayside Village Student Housing, LLC.

Applicant's Address: 247 Commercial Street, Rockport, ME 04856-5964

Expiration:

☐ If funds are not expended or encumbered for the intended purpose by _____, funds, or any balance of remaining funds, shall be returned to contributor within six months of said date.

☒ Funds shall be permanently retained by the City.

☐ Other (describe in detail) _____

Form of Contribution:

☐ Escrow Account

☒ Cash Contribution

Interest Disbursement: Interest on funds to be paid to contributor only if project is not commenced.

Terms of Draw Down of Funds: The City shall periodically draw down the funds via a payment requisition from Public Works, which form shall specify use of City Account # shown above.

Date of Form: 11-14-07
Planner: Richard Knowland **Person Completing Form:** Richard Knowland

---

- **Attach the approval letter, condition of approval or other documentation of the required contribution.**
- The original form, copy of the check, copy of report of receipts and all attachments shall be given to Debbie Marquis.
- The original check, copy of this form, and all attachments shall be filed by the Planning Division Office Manager.
- A copy of all of the above documents shall be given to the following people:

Peggy Axelson (Finance), Michael Bobinsky (Public Works), Michael Farmer (Public Works), Kathi Earley (Public Works), Alexander Jaegerman (Planning), Barbara Barhydt (Planning), Planner for project and Applicant.

CITY OF PORTLAND, MAINE
PLANNING BOARD

November 20, 2006

Mr. Ed Marsh
Realty Resources (Southern Maine Student Housing, LLC)
247 Commercial Street
Rockport, Maine 04856

RE: Bayside Village Student Housing; Southern Maine Student Housing, LLC, (Applicant); 120 Marginal Way; #2006-0125; CBL- 034A-B-001

Dear Mr. Marsh:

The Planning Board considered the proposal by Southern Maine Student Housing, LLC to create a 400 bed student lodging house in the vicinity of 120 Marginal Way and voted on the motions described in this letter.

On October 10, 2006, the Planning Board voted 5-0 (Hall and Tevanian absent) that the Bayside Village housing development was in conformance with the Conditional Use (parking garage) Standards of the Land Use Code.

On November 14, 2006, the Planning Board voted 5-2 (Silk and Tevanian opposed) that the Bayside Village housing development was in conformance with the Site Plan Ordinance of the Land Use Code, including Traffic Movement Permit. The approval was granted for this project with the following conditions:

i. That the Applicant shall revise the plan and implement the recommendations contained in Tom Errico's (Traffic Review Consultant) memo dated October 20, 2006, except that the Applicant shall not be required to operate a car-share program.

ii. The Applicant shall contribute $90,000 towards a Transportation Demand Management Fund to be established by the City of Portland to implement Transportation Demand Management measures in Bayside. The parking monitoring study of the site, which will be performed by the Applicant as noted in Mr. Errico's memo, will be used to guide the use of those funds. For the purposes of conducting the monitoring study full occupancy shall be considered 90% of the beds.

iii. That the pedestrian easement for the easterly side of the building shall be submitted for City staff review and approval.

iv. That all exterior signs shall be subject to Planning staff review and approval.

v. That the project lighting shall be subject to Planning staff review and approval.

vi. That final details and materials of the building façade shall be subject to Planning staff review and approval.

vii. In the event that the project changes from student housing as presented by the Applicant to another use, the Applicant shall submit such changes to the Planning Board for review and approval.

viii. The project is approved for a maximum of 400 beds with one occupant per bed.

iv. Applicant shall provide a binding lease agreement for off-hours parking at 84 Marginal Way.

The approval is based on the submitted site plan and the findings related to site plan and conditional use review standards as contained in Planning Report 52-06 and Planning staff memo dated for November 14,2006.

Please note the following provisions and requirements for all site plan approvals:

1. Where submission drawings are available in electronic form, the Applicant shall submit any available electronic Autocad files (*.dwg), release 14 or greater, with seven (7) seta of the final plans.

2. A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

3. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.

4. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

5. Prior to construction, a pre-construction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's 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 representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

6. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

The Development Review Coordinator must be notified five (5) working days prior to date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Richard Knowland at 874-8725.

Sincerely,

Kevin Beal, Chair
Portland Planning Board

cc: Lee D. Urban, Planning and Development Department Director
Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Services Manager
Richard Knowland, Senior Planner
Jay Reynolds, Development Review Coordinator
Marge Schmuckal, Zoning Administrator
Jeanne Bourke, Inspections Division
Michael Bobinsky, Public Works Director
Eric Labelle, City Engineer
Bill Clark, Public works

Jim Carmody, Transportation Manager
Jeff Tarling, City Arborist
Penny Littell, Associate Corporation Counsel
Captain Greg Cass, Fire Prevention
Assessor's Office
Approval Letter File
Robert Metcalf, Mitchell Associates, 70 Center Street, Portland, ME 04103

ATTACHMENT E-1

Rick Knowland - Bayside Village

From: "Thomas Errico" <terrico@wilbursmith.com>
To: "'Rick Knowland '" <RWK@portlandmaine.gov>
Date: 10/20/2006 12:53 PM
Subject: Bayside Village
CC: "'James Carmody'" <JPC@portlandmaine.gov>

Rick –

The following summarizes my comments and approval conditions for the above project.

Traffic Movement Permit

The proposed project meets requirements for the Traffic Movement Permit subject to the following conditions:

- The applicant shall be responsible for the implementation of roadway improvements along Marginal Way in the area of their site frontage as illustrated on Conceptual Roadway Improvement Plans B and C prepared by Gorrill-Palmer Consulting Engineers, Inc. included in their October 4, 2006 submission. I would note that the plans are conceptual in nature and some minor modifications (see comments in next bullet) may be necessary during the development of final design plans. I would like to note that the improvement plans include the removal of the flush concrete island in Marginal Way and the installation of a new crosswalk at the Chestnut Street intersection. Additionally, I would note that improvement plans provide acceptable conditions assuming the Bayside Village project proceeds independent of 84 Marginal Way and can be integrated with adjoining improvements on Marginal Way that may occur as part of 84 Marginal Way or other developments that may happen to the east.

- Some comments that will need to be addressed during the development of final design plans for Marginal Way and Preble Street improvements under the full implementation of improvements with both Bayside Village and 84 Marginal Way. These are **NOT** the responsibility of this applicant, but are necessary for improvements in the area that the applicant will be contributing financially:

    1. Lane widths on Preble Street southbound should not exceed 12 feet and the bicycle lane should be 5 feet. The curb on the westside of Preble Street will need to be relocated accordingly.
    2. The plans should note that the improvement plan will include all necessary lane assignment signs and traffic signal modifications.
    3. Pavement markings guiding the double left from Preble Street should be provided. Commentary on whether the turning area for this double left is different from current conditions.
    4. The plans indicate that a minor curb adjustment is required on the south side of Marginal Way near Wild Oats. I would suggest that the curb not be moved at this time (it seems wasteful to move it now and adjust it later as implementation of the master plan improvements take place) and the island width be reduced to allow for appropriate roadway receiving width.
    5. The plan should depict the lanes on all approaches such that we can confirm acceptable lane alignment can be provided through the intersection.

6. Radii at the Marginal Way/Preble Street intersection should be minimized as much as possible.
7. The left-turn entry into 84 Marginal Way off Preble Street may need to be modified to account for City maintenance requirements. Additionally, it is suggested that the 12-foot lane be reduced to 11-feet and a two foot concrete rumble strip be provided to separate left-turn movements into the site from northbound Preble Street traffic.
8. The painted transition area in advance of the left-turn lane into 84 Marginal Way should be a stamped material to be determined during the design process.

- The applicant shall be responsible for the implementation of a new crosswalk with supplemental features on Preble Street as illustrated on Conceptual Roadway Improvement Plan E prepared by Gorrill-Palmer Consulting Engineers, Inc. included in their October 4, 2006 submission. I would note that the plan will need to be modified such that bicycle lanes can be provided in the area of roadway widening for the raised median island. I would note that this plan is for the stand alone implementation of the crosswalk. The design of the crosswalk will be significantly different as compared to plans being review for 84 Marginal Way. Both crosswalk designs are acceptable to the City, although some minor modifications may be necessary as the plans are further developed for construction.

- In an effort to offset traffic, bicycle, and pedestrian impacts to the Marginal Way corridor, the applicant shall contribute $43,500.00 towards the implementation of the Marginal Way Pedestrian and Bicycle Master Plan improvement concepts.

- In an effort to relieve traffic pressure to left-turn movements from Preble Street to eastbound Marginal Way the applicant shall contribute $9,000.00 towards the extension of Somerset Street. The City seeks implementation of Somerset Street as soon as possible to offer travel alternatives to Marginal Way.

Site Plan

The following presents an update to my September 8, 2006 comments.

1. The secondary driveway should be designed to be compatible with anticipated future conditions (right-turn entry/exit only).
   The plans have been revised and I find them acceptable. I would ask that the applicant install appropriate signage that reinforces turn restrictions. This should be coordinated with the City Traffic Engineer.

2. The applicant should provide documentation that METRO has reviewed the proposed plans for a bus stop and bus shelter and approve the location and design elements.
   No further comment.

3. The primary driveway entrance opposite Chestnut Street should be redesigned to allow for optimal approach capacity. Based upon future development opportunities, including the Miss Portland Diner and an AMTRAK Rail Station, it is suggested that two approach lanes be provided. The public right-of-way on this approach is 36 feet and it is my recommendation that this space consist of two 10-foot approach lanes, one 11-foot entry lane, and one 5-foot sidewalk.
   The plans have been revised to reflect this suggestion.

4. I would suggest that Eric Labelle closely review the plans as it relates to geometric modifications

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Revised 7/26/2007

REPORT OF RECEIPTS

To the Director of Finance, City of Portland, Maine

From the Planning & Development *Wednesday, November 14, 2007*

Control # 240000018

For Period: 5 **Fiscal Year:** 2008 **Month:** Nov '07 H.T.E. Description (15 chars):

DETAILS	Amount	Revenue/Expense or Short Code	Project
Anderson Street, ck #1045 (mailed)			
Application #2007-0177			
Notices	$85.50	U5	
Bayside Village Student Housing			
ck #1049, (mailed)			
Application #2006-0125			
Infrastructure Contribution	$43,500.00	710-0000-236-68-00	
Bayside Village Student Housing			
ck #1050 (mailed)			
Application #2006-0125			
Infrastructure Contribution	$9,000.00	710-0000-236-69-00	
Bayside Village Student Housing			
ck #1048 (mailed)			
Application #2006-0125			
Infrastructure Contribution	$90,000.00	710-0000-236-70-00	
NOTE: **TOTAL:**	**$142,585.50**		

RECAP

Reserved for Treasury Stamp

PORTLAND MAINE
Treasury
NOV 15 2007
PAID
☐ Cash ☐ Check ☐ Other

TOTAL RECEIPT COMPRISED OF

ACH:	
Cash:	585.50
Checks:	$142,~~585~~.00
Credit Card:	
Notes:	
Offsite Dep:	
Wires:	585.50
TOTAL:	**$142,~~585.50~~**

The Authorized Agent certifies that this is a true, complete report of all collections made since the date of their last report.

Authorized Agent: Jennifer Dorr Office Manager Phone#: 874-8719

authorized user, User Title

Distribution: Original to Treasury/ Copy / Finance's Accounting/ Copy / Retained for Authorized Agent

1048

BAYSIDE VILLAGE STUDENT HOUSING LLC
247 COMMERCIAL ST.
ROCKPORT, ME 04856-5964

52-60/112
57024

DATE 6-5-07

PAY TO THE ORDER OF City of Portland $ 90,000 00/100

Ninety Thousand 00/100 DOLLARS

KeyBank National Association
Camden, Maine 04843
1-888-KEY4BIZ® Key.com®

FOR Transportation Demand Mgmt Fund

⑈001048⑈ ⑆011200608⑆ 1902440059470⑈

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services

PO Box 1237
15 Shaker Rd.
Gray, ME 04039

207-657-6910
FAX: 207-657-6912
E-Mail:mailbox@gorrillpalmer.com

September 11, 2006

Mr. Rick Knowland
City of Portland
389 Congress Street
Portland, ME 04101

RE: Response to Comments
Traffic Impact Study Review
Bayside Village

Dear Rick:

Gorrill-Palmer Consulting Engineers, Inc. is pleased to respond to the review comments made by Tom Errico dated September 8th following his review of the traffic and parking study for the proposed Bayside Village. For ease of review, each comment has been repeated below followed by our response. It is our understanding that responses to the site plan comments will be provided by Mitchell and Associates.

Comment 1 *– The study indicates that traffic generation from the existing parking lot is greater than future traffic projections for the project. I'm surprised at the level of traffic measured and would ask that additional information be provided about current traffic usage at the parking lot.*

Response – This parking lot currently serves several uses. It is utilized for a park-and-ride, hosts a skate park, and as a recycling operation. In addition, this location is also utilized in the winter for vehicle impoundment during snow emergencies. Based on site observations, on occasion vehicles will use this parking lot as a cut-through to get to and from Preble Street Extension. While any single one of these uses does not generate significant traffic on its own, when combined, the trip generation exceeds that of the proposed use.

Comment 2 *– The traffic analyses at the Marginal Way/Preble Street intersection assumes a change in traffic signal phasing to "protected/permitted" left-turn phasing on Marginal Way. I need to review this change with Jim Carmody and I will provide my opinion in the future.*

Response – MaineDOT currently permits protected/permitted phasing for left turns against a single lane of through traffic. Based on our analyses, providing a protected left turn phase only results in much less efficiency, either requiring more green time for the left turn protected phase or additional delay for the movement. Our office recommends implementation of this phase structure.

Comment 3 – *The applicant should summarize specific queue lengths for all movements at the study intersections following build-out of the project.*

Response – The queue lengths are provided on the following tables for both the existing and proposed post-development conditions. It should be noted that the southbound approach of Preble Street Extension has been revised to provide a three lane approach consisting of an exclusive left turn lane, an exclusive through lane, and a shared through/right turn lane as specified in Comment 4.

Existing Conditions

Queuing for Hanover Street at Marginal Way

Group	AM Postdevelopment Peak Hour					
	Available (ft)		95th Percentile (ft)		Average (ft)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Marginal Way EB – L	50	N/A	25	20	5	5
Marginal Way EB – T	N/A		85	120	40	55
Marginal Way WB – LT	90 (to near edge of Preble St.)		50	60	20	20
Hanover St. NB – LR	N/A		80	120	45	60

Queuing for Hanover Street at Marginal Way

Group	PM Postdevelopment Peak Hour					
	Available (ft)		95th Percentile (ft)		Average (ft)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Marginal Way EB – L	50	N/A	85	75	40	30
Marginal Way EB – T	N/A		95	150	45	85
Marginal Way WB – LT	90 (to near edge of Preble St.)		55	70	20	15
Hanover St. NB – LR	N/A		175	535	130	420

Queuing for Chestnut Street at Marginal Way

Group	AM Postdevelopment Peak Hour					
	Available (ft)		95th Percentile (ft)		Average (ft)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Marginal Way EB – L(T)	N/A		35	30	10	10
Marginal Way WB – L(T)	N/A		35	30	10	5
Chestnut St. NB – L	N/A		40	35	15	10
Chestnut St. NB – TR	N/A		45	40	15	15
Site Dr. SB - LTR	N/A		55	60	35	35

Queuing for Chestnut Street at Marginal Way

Group	PM Postdevelopment Peak Hour					
	Available (ft)		95th Percentile (ft)		Average (ft)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Marginal Way EB – L(T)	N/A		90	60	35	30
Marginal Way WB – L(T)	N/A		35	55	5	20
Chestnut St. NB – L	N/A		30	30	10	10
Chestnut St. NB – TR	N/A		45	50	15	20
Site Dr. SB - LTR	N/A		55	75	30	35

Queuing for Preble Street at Marginal Way

Group	AM Postdevelopment Peak Hour					
	Available (ft)		95th Percentile (ft)		Average (ft)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Marginal Way EB – L	90 (to near edge of Hanover St.)		55	50	25	20
Marginal Way EB – TR	90 (to near edge of Hanover St.)		65	60	50	50
Marginal Way EB – R	90 (to near edge of Hanover St.)		N/A	40	N/A	15
Marginal Way WB – L	150	N/A	160	145	100	85
Marginal Way WB – T	660 (to near edge of site drive)		120	210	70	120
Marginal Way WB – R	200		60	95	40	45
Preble St. NB – L	350		95	80	50	40
Preble St. NB – TR	N/A		105	75	55	35
Preble St. SB – L	225	160	165	215	110	160
Preble St. SB – TR	N/A		175	320	100	160

Queuing for Preble Street at Marginal Way

Group	PM Postdevelopment Peak Hour					
	Available (ft)		95th Percentile (ft)		Average (ft)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Marginal Way EB – L	90 (to near edge of Hanover St.)		60	65	50	50
Marginal Way EB – TR	90 (to near edge of Hanover St.)		65	60	50	55
Marginal Way EB – R	90 (to near edge of Hanover St.)		N/A	35	N/A	10
Marginal Way WB – L	150	N/A	100	185	50	65
Marginal Way WB – T	660 (to near edge of site drive)		145	745	95	375
Marginal Way WB – R	200		155	285	90	180
Preble St. NB – L	350		230	275	140	155
Preble St. NB – TR	N/A		335	440	225	285
Preble St. SB – L	225	160	210	310	150	185
Preble St. SB – TR	N/A		170	505	100	290

Comment 4 *– The analyses at the Marginal Way/Preble Street intersection needs to revised to account for the following:*

- *The current Marginal Way Pedestrian and Bicycle Master Plan recommends that the Preble Street southbound approach consist of one left lane, one through lane, and one shared through/right lane.*
- *An alternative analysis should be conducted such that the Preble Street southbound approach consists of a left turn lane, a shared left/through lane, and a shared through/right lane. Split phasing signal operations will need to be incorporated.*

Response – The requested analyses are enclosed with this letter. As can be seen by the alternative analysis, the split phase approach results in acceptable levels of service. Our office would note that this method results in the need for two receiving lanes headed eastbound on Marginal Way, one of which would need to drop in accordance with the Marginal Way Pedestrian and Bicycle Master Plan. This may result in poor lane utilization on whichever lane is dropped. The level of service results are shown on the following tables:

LOS Results for Marginal Way and Preble Street: Proposed

Approach/Movement	2007 AM Peak Hour				2007 PM Peak Hour			
	Predevelopment		Postdevelopment		Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Preble NB – L	43	D	43	D	46	D	48	D
Preble NB – TR	26	C	26	C	46	D	61	E
Preble SB – L	52	D	51	D	50	D	54	D
Preble SB – TR	17	B	18	B	21	C	22	C
Marginal EB – L	26	C	25	C	42	D	35	D
Marginal EB – T	35	C	33	C	41	D	43	D
Marginal EB – R	28	C	27	C	32	C	31	C
Marginal WB – L	32	C	29	C	31	C	31	C
Marginal WB – T	31	C	32	C	45	D	44	D
Marginal WB – R	27	C	26	C	34	C	34	C
Overall Performance	**31**	**C**	**30**	**C**	**41**	**D**	**46**	**D**

LOS Results for Marginal Way and Preble Street: Alternative

Approach/Movement	2007 AM Peak Hour				2007 PM Peak Hour			
	Predevelopment		Postdevelopment		Predevelopment		Postdevelopment	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Preble NB – L	29	C	30	C	33	C	33	C
Preble NB – TR	30	C	31	C	51	D	52	D
Preble SB – L	38	D	39	D	36	D	37	D
Preble SB – LTR	34	C	35	C	33	C	33	C
Marginal EB – L	29	C	29	C	34	C	35	C
Marginal EB – T	40	D	38	D	38	D	44	D
Marginal EB – R	31	C	31	C	30	C	30	C
Marginal WB – L	42	D	38	D	30	C	31	C
Marginal WB – T	35	C	37	D	44	D	45	D
Marginal WB – R	30	C	30	C	33	C	33	C
Overall Performance	**35**	**D**	**35**	**D**	**40**	**D**	**41**	**D**

Comment 5 *– The City will be accelerating the construction of Somerset Street extension between Preble Street and Elm Street such that motorists originating from Preble Street Extension, with destinations to the Bayside area, have alternatives to using Marginal Way. The applicant will be asked to make a monetary contribution to this improvement.*

Response – No response required.

Comment 6 *– I continue to review the parking information provided. On-site parking will not be sufficient for the anticipated parking demand. The applicant will need to provide documentation on how they will specifically meet parking needs.*

Response – Some of the parking demand can be met at the USM parking garage, as discussed in a letter from USM enclosed with the traffic impact and parking study. It is our understanding that the Applicant is seeking an agreement with 84 Marginal Way (also in the approvals process) to obtain off-peak parking.

Comment 7 *– The conceptual improvement plan needs to incorporate other aspects of the Marginal Way Pedestrian and Bicycle Master Plan in the vicinity of the Marginal Way/Preble Street intersection. 63 Marginal Way is currently implementing improvements along their frontage. The Preble Street southbound approach will consist of a three-lane approach. It is my suggestion that the conceptual improvement plan include Marginal Way between Forest Avenue and Franklin Arterial. Gorrill-Palmer has prepared such a plan (for another project) and I would suggest that it*

be required for this project. The Applicant may be asked to make a monetary contribution to other Marginal Way improvements.

Response – Enclosed with this letter is a copy of the requested improvement plan of Marginal Way from Forest Avenue past the project's site frontage.

Gorrill-Palmer Consulting Engineers, Inc. appreciates the opportunity to respond to these comments and looks forward to your review of our responses. Should you have any questions or require any additional information, please feel free to contact me.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.

Jeremiah J. Bartlett, P.E.
Project Engineer

Copy: Tom Errico, Wilbur Smith Associates
Jim Carmody, City Traffic Engineer
Bob Metcalf, Mitchell and Associates
Ed Marsh, Southern Maine Student Housing, LLC
Randy Dunton, MaineDOT Division 1

Enclosure

JJB/JN1361/KnowlandC&R09-11-06.doc

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:55	6:55	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	1982	2054	2007	2075	1972	2020
Vehs Exited	1970	2058	1981	2072	1963	2009
Starting Vehs	35	48	23	36	31	30
Ending Vehs	47	44	49	39	40	41
Denied Entry Before	0	0	1	1	0	0
Denied Entry After	4	1	0	1	0	1
Travel Distance (mi)	633	669	640	663	632	647
Travel Time (hr)	36.8	39.0	37.5	39.3	37.0	37.9
Total Delay (hr)	15.5	16.6	15.9	16.9	15.7	16.1
Total Stops	1492	1600	1516	1625	1520	1550
Fuel Used (gal)	77.3	92.6	80.7	82.3	79.8	82.5

Interval #0 Information Seeding

Start Time	6:55
End Time	7:00
Total Time (min)	5

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1982	2054	2007	2075	1972	2020
Vehs Exited	1970	2058	1981	2072	1963	2009
Starting Vehs	35	48	23	36	31	30
Ending Vehs	47	44	49	39	40	41
Denied Entry Before	0	0	1	1	0	0
Denied Entry After	4	1	0	1	0	1
Travel Distance (mi)	633	669	640	663	632	647
Travel Time (hr)	36.8	39.0	37.5	39.3	37.0	37.9
Total Delay (hr)	15.5	16.6	15.9	16.9	15.7	16.1
Total Stops	1492	1600	1516	1625	1520	1550
Fuel Used (gal)	77.3	92.6	80.7	82.3	79.8	82.5

Intersection: 1: Marginal Way & Hanover St.

Movement	EB	EB	EB	B7	WB	NB	B5
Directions Served	T	T	TR	T	LT	LR	T
Maximum Queue (ft)	45	97	60	35	55	101	14
Average Queue (ft)	3	36	9	1	16	44	0
95th Queue (ft)	23	82	38	15	50	78	10
Link Distance (ft)	32	32	32	19	41	72	169
Upstream Blk Time (%)	2	20	3	0	1	2	
Queuing Penalty (veh)	0	0	0	0	2	0	
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Marginal Way & Site Drive

Movement	EB	WB	NB	NB	SB
Directions Served	LT	LT	L	TR	LR
Maximum Queue (ft)	58	58	47	48	60
Average Queue (ft)	8	6	11	14	31
95th Queue (ft)	35	34	37	44	52
Link Distance (ft)	335	1060	260	260	172
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 92: Marginal Way & Preble St. Ext.

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	T	TR	L	L
Maximum Queue (ft)	51	52	54	170	132	110	71	111	120	127	188	188
Average Queue (ft)	23	47	41	98	66	50	38	49	55	47	91	108
95th Queue (ft)	53	58	65	160	116	93	60	92	97	101	155	164
Link Distance (ft)	41	41	41		263	263	263		452	452		
Upstream Blk Time (%)	8	36	18									
Queuing Penalty (veh)	6	29	14									
Storage Bay Dist (ft)				150				350			225	225
Storage Blk Time (%)				2	0						0	
Queuing Penalty (veh)				2	0						0	

Intersection: 92: Marginal Way & Preble St. Ext.

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	194	207
Average Queue (ft)	89	99
95th Queue (ft)	157	173
Link Distance (ft)	422	422
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Nework Summary

Network wide Queuing Penalty: 54

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:55	4:55	4:55	4:55	4:55	4:55
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	3216	3144	3246	3168	3197	3193
Vehs Exited	3187	3139	3225	3191	3163	3181
Starting Vehs	50	75	65	84	43	61
Ending Vehs	79	80	86	61	77	77
Denied Entry Before	2	2	3	2	1	1
Denied Entry After	18	3	14	3	59	19
Travel Distance (mi)	1001	1001	1011	998	1011	1005
Travel Time (hr)	81.9	71.4	73.0	67.1	88.5	76.4
Total Delay (hr)	47.7	37.5	38.6	33.3	54.2	42.2
Total Stops	2717	2642	2703	2656	2697	2681
Fuel Used (gal)	126.2	121.2	122.2	114.2	125.8	121.9

Interval #0 Information Seeding

Start Time	4:55
End Time	5:00
Total Time (min)	5

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	3216	3144	3246	3168	3197	3193
Vehs Exited	3187	3139	3225	3191	3163	3181
Starting Vehs	50	75	65	84	43	61
Ending Vehs	79	80	86	61	77	77
Denied Entry Before	2	2	3	2	1	1
Denied Entry After	18	3	14	3	59	19
Travel Distance (mi)	1001	1001	1011	998	1011	1005
Travel Time (hr)	81.9	71.4	73.0	67.1	88.5	76.4
Total Delay (hr)	47.7	37.5	38.6	33.3	54.2	42.2
Total Stops	2717	2642	2703	2656	2697	2681
Fuel Used (gal)	126.2	121.2	122.2	114.2	125.8	121.9

Intersection: 1: Marginal Way & Hanover St.

Movement	EB	EB	EB	B7	B7	WB	NB	B5
Directions Served	T	T	TR	T	T	LT	LR	T
Maximum Queue (ft)	93	95	85	71	39	55	151	199
Average Queue (ft)	37	45	29	9	1	17	129	112
95th Queue (ft)	84	92	73	42	18	52	174	244
Link Distance (ft)	32	32	32	455	455	41	72	169
Upstream Blk Time (%)	24	22	13			1	76	31
Queuing Penalty (veh)	0	0	0			4	0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 3: Marginal Way & Site Drive

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	TR	LT	L	TR	LTR
Maximum Queue (ft)	124	94	79	38	44	62
Average Queue (ft)	35	4	16	7	15	26
95th Queue (ft)	86	35	59	28	41	51
Link Distance (ft)	332	332	1046	179	179	171
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 92: Marginal Way & Preble St. Ext.

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	T	TR	L	L
Maximum Queue (ft)	51	60	59	117	168	169	188	264	350	387	223	230
Average Queue (ft)	47	48	48	50	94	77	89	140	207	221	132	146
95th Queue (ft)	59	61	64	96	143	133	155	226	310	334	199	210
Link Distance (ft)	41	41	41		263	263	263		452	452		
Upstream Blk Time (%)	50	35	37									
Queuing Penalty (veh)	69	48	51									
Storage Bay Dist (ft)				150				350			225	225
Storage Blk Time (%)				0	0				0		0	1
Queuing Penalty (veh)				0	0				0		0	1

Intersection: 92: Marginal Way & Preble St. Ext.

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	174	193
Average Queue (ft)	70	96
95th Queue (ft)	145	166
Link Distance (ft)	421	421
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Nework Summary

Network wide Queuing Penalty: 174

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:55	6:55	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	2051	1990	1957	1981	2014	1999
Vehs Exited	2050	1996	1938	1996	1997	1995
Starting Vehs	42	40	36	46	33	36
Ending Vehs	43	34	55	31	50	41
Denied Entry Before	3	0	1	1	0	1
Denied Entry After	2	2	0	0	3	1
Travel Distance (mi)	678	651	637	641	663	654
Travel Time (hr)	41.0	37.8	37.4	36.4	39.4	38.4
Total Delay (hr)	18.1	15.9	16.0	14.9	17.2	16.4
Total Stops	1681	1581	1555	1537	1657	1602
Fuel Used (gal)	84.9	83.1	76.7	85.8	78.0	81.7

Interval #0 Information Seeding

Start Time	6:55
End Time	7:00
Total Time (min)	5

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	2051	1990	1957	1981	2014	1999
Vehs Exited	2050	1996	1938	1996	1997	1995
Starting Vehs	42	40	36	46	33	36
Ending Vehs	43	34	55	31	50	41
Denied Entry Before	3	0	1	1	0	1
Denied Entry After	2	2	0	0	3	1
Travel Distance (mi)	678	651	637	641	663	654
Travel Time (hr)	41.0	37.8	37.4	36.4	39.4	38.4
Total Delay (hr)	18.1	15.9	16.0	14.9	17.2	16.4
Total Stops	1681	1581	1555	1537	1657	1602
Fuel Used (gal)	84.9	83.1	76.7	85.8	78.0	81.7

Intersection: 1: Marginal Way & Hanover St.

Movement	EB	EB	B7	WB	NB
Directions Served	T	T	T	LT	LR
Maximum Queue (ft)	12	133	41	70	166
Average Queue (ft)	0	54	2	20	59
95th Queue (ft)	6	120	25	62	113
Link Distance (ft)	84	84	313	47	416
Upstream Blk Time (%)		5		2	
Queuing Penalty (veh)		0		7	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Marginal Way & Site Drive

Movement	EB	EB	WB	NB	NB	SB
Directions Served	L	TR	L	L	TR	LR
Maximum Queue (ft)	36	4	49	54	39	78
Average Queue (ft)	7	0	5	9	13	33
95th Queue (ft)	28	3	26	35	38	58
Link Distance (ft)		673		215	215	123
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	290		150			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 92: Marginal Way & Preble St. Ext.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	51	65	43	168	255	132	94	108	105	186	323	253
Average Queue (ft)	20	50	15	82	120	45	38	44	35	157	159	103
95th Queue (ft)	49	60	40	143	209	93	76	82	75	214	319	200
Link Distance (ft)	47	47	47		673			448	448		433	433
Upstream Blk Time (%)	3	42	0									0
Queuing Penalty (veh)	2	33	0									0
Storage Bay Dist (ft)				300		200	350			160		
Storage Blk Time (%)					1	0				16	0	
Queuing Penalty (veh)					3	0				38	0	

Nework Summary

Network wide Queuing Penalty: 84

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:10	4:10	4:10	4:10	4:10	4:10
End Time	5:15	5:15	5:15	5:15	5:15	5:15
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	3137	3123	3055	3159	3229	3140
Vehs Exited	3104	3101	3019	3136	3211	3113
Starting Vehs	77	99	47	88	65	74
Ending Vehs	110	121	83	111	83	101
Denied Entry Before	5	3	2	4	0	1
Denied Entry After	89	87	67	58	50	69
Travel Distance (mi)	1021	1014	972	1023	1025	1011
Travel Time (hr)	135.3	141.6	101.7	127.1	128.0	126.7
Total Delay (hr)	100.7	107.2	68.7	92.6	93.1	92.5
Total Stops	3401	3410	2915	4088	3568	3476
Fuel Used (gal)	149.1	156.5	125.5	146.0	145.1	144.4

Interval #0 Information Seeding

Start Time	4:10
End Time	4:15
Total Time (min)	5

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	4:15
End Time	5:15
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	3137	3123	3055	3159	3229	3140
Vehs Exited	3104	3101	3019	3136	3211	3113
Starting Vehs	77	99	47	88	65	74
Ending Vehs	110	121	83	111	83	101
Denied Entry Before	5	3	2	4	0	1
Denied Entry After	89	87	67	58	50	69
Travel Distance (mi)	1021	1014	972	1023	1025	1011
Travel Time (hr)	135.3	141.6	101.7	127.1	128.0	126.7
Total Delay (hr)	100.7	107.2	68.7	92.6	93.1	92.5
Total Stops	3401	3410	2915	4088	3568	3476
Fuel Used (gal)	149.1	156.5	125.5	146.0	145.1	144.4

Intersection: 1: Marginal Way & Hanover St.

Movement	EB	EB	B7	WB	NB
Directions Served	T	T	T	LT	LR
Maximum Queue (ft)	87	138	123	78	450
Average Queue (ft)	29	83	15	27	416
95th Queue (ft)	75	147	69	71	531
Link Distance (ft)	65	65	331	47	416
Upstream Blk Time (%)	4	20		2	84
Queuing Penalty (veh)	0	0		15	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Marginal Way & Site Drive

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	LTR
Maximum Queue (ft)	61	8	79	397	34	57	92
Average Queue (ft)	28	0	16	76	7	17	33
95th Queue (ft)	56	4	51	341	27	46	71
Link Distance (ft)		673		1146	215	215	123
Upstream Blk Time (%)							1
Queuing Penalty (veh)							0
Storage Bay Dist (ft)	290		150				
Storage Blk Time (%)				6			
Queuing Penalty (veh)				1			

Intersection: 92: Marginal Way & Preble St. Ext.

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	57	65	43	229	702	226	319	422	439	190	423	375
Average Queue (ft)	47	51	10	62	374	180	153	264	283	181	286	127
95th Queue (ft)	63	57	34	184	744	281	275	419	439	206	505	290
Link Distance (ft)	47	47	47		673			448	448		433	433
Upstream Blk Time (%)	49	54	0		9			1	2		4	0
Queuing Penalty (veh)	67	74	0		67			0	0		0	0
Storage Bay Dist (ft)				300		200	350			160		
Storage Blk Time (%)					26	3	0	4		39	0	
Queuing Penalty (veh)					125	10	0	8		48	0	

Nework Summary

Network wide Queuing Penalty: 416

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	11	11	15	12	12	13	11	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1776	1830	1694	1766	1708	1656	3244		1711	3352	
Flt Permitted	0.52	1.00	1.00	0.36	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	959	1776	1830	648	1766	1708	1656	3244		1711	3352	
Volume (vph)	29	191	24	152	182	153	52	156	41	346	473	69
Peak-hour factor, PHF	0.80	0.80	0.80	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	36	239	30	179	214	180	61	184	48	398	544	79
RTOR Reduction (vph)	0	0	23	0	0	136	0	22	0	0	10	0
Lane Group Flow (vph)	36	239	7	179	214	44	61	210	0	398	613	0
Heavy Vehicles (%)	4%	7%	0%	3%	4%	4%	9%	7%	11%	2%	2%	3%
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	22.0	19.1	19.1	26.2	21.2	21.2	6.1	24.2		22.8	40.9	
Effective Green, g (s)	24.0	20.1	20.1	28.2	22.2	22.2	7.1	25.2		23.8	41.9	
Actuated g/C Ratio	0.26	0.22	0.22	0.31	0.24	0.24	0.08	0.28		0.26	0.46	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	286	392	404	269	430	416	129	897		447	1542	
v/s Ratio Prot	0.01	0.13		c0.04	0.12		0.04	0.06		c0.23	c0.18	
v/s Ratio Perm	0.03		0.00	c0.16		0.03						
v/c Ratio	0.13	0.61	0.02	0.67	0.50	0.11	0.47	0.23		0.89	0.40	
Uniform Delay, d1	25.3	32.0	27.8	26.3	29.7	26.7	40.2	25.5		32.4	16.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	2.7	0.0	6.1	0.9	0.1	2.7	0.6		19.4	0.8	
Delay (s)	25.5	34.7	27.8	32.4	30.6	26.9	42.9	26.1		51.8	17.0	
Level of Service	C	C	C	C	C	C	D	C		D	B	
Approach Delay (s)		32.9			30.0			29.6			30.6	
Approach LOS		C			C			C			C	

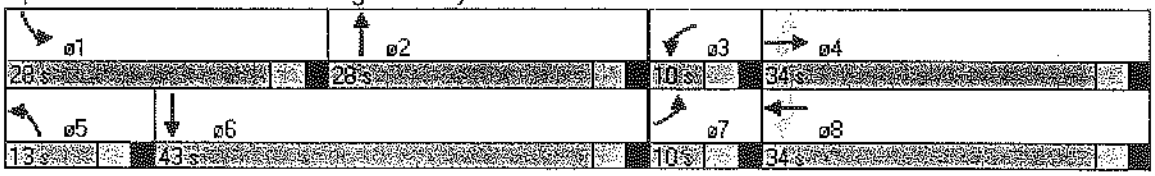
Intersection Summary			
HCM Average Control Delay	30.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	91.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	None	Max		None	Max	
Walk Time (s)		10.0	10.0		10.0	10.0		10.0			10.0	
Flash Dont Walk (s)		15.0	15.0		15.0	15.0		12.0			12.0	
Pedestrian Calls (#/hr)		4	4		2	2		0			1	
Act Effct Green (s)	24.1	17.9	17.9	25.6	22.2	22.2	8.3	24.1		23.8	41.9	
Actuated g/C Ratio	0.26	0.20	0.20	0.29	0.25	0.25	0.09	0.27		0.27	0.48	
v/c Ratio	0.12	0.66	0.08	0.59	0.48	0.32	0.40	0.25		0.86	0.39	
Control Delay	21.6	41.2	10.3	32.6	33.2	6.1	47.1	23.4		51.5	17.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	21.6	41.2	10.3	32.6	33.2	6.1	47.1	23.4		51.5	17.0	
LOS	C	D	B	C	C	A	D	C		D	B	
Approach Delay		35.8			24.5			28.3			30.4	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	14	123	0	75	108	0	32	45		209	115	
Queue Length 95th (ft)	30	171	17	119	165	41	72	78		#393	177	
Internal Link Dist (ft)		34			678			419			406	
Turn Bay Length (ft)				300		200	350			160		
Base Capacity (vph)	297	535	572	304	556	660	165	912		467	1608	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.45	0.05	0.59	0.38	0.27	0.37	0.25		0.85	0.39	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 87.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 29.3 Intersection LOS: C
Intersection Capacity Utilization 56.6% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

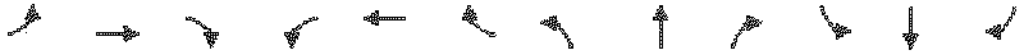
Splits and Phases: 92: Marginal Way & Preble St. Ext.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	11	11	15	12	12	13	11	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1776	1830	1694	1766	1708	1656	3248		1711	3352	
Flt Permitted	0.43	1.00	1.00	0.39	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	787	1776	1830	690	1766	1708	1656	3248		1711	3352	
Volume (vph)	29	186	24	153	231	175	52	156	39	321	473	69
Peak-hour factor, PHF	0.80	0.80	0.80	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	36	232	30	180	272	206	61	184	46	369	544	79
RTOR Reduction (vph)	0	0	23	0	0	153	0	21	0	0	10	0
Lane Group Flow (vph)	36	232	7	180	272	53	61	209	0	369	613	0
Heavy Vehicles (%)	4%	7%	0%	3%	4%	4%	9%	7%	11%	2%	2%	3%
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	22.9	20.1	20.1	27.5	22.4	22.4	6.0	24.5		21.4	39.9	
Effective Green, g (s)	24.9	21.1	21.1	29.5	23.4	23.4	7.0	25.5		22.4	40.9	
Actuated g/C Ratio	0.27	0.23	0.23	0.32	0.26	0.26	0.08	0.28		0.25	0.45	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	255	411	424	291	454	439	127	909		421	1505	
v/s Ratio Prot	0.01	0.13		c0.04	0.15		0.04	0.06		c0.22	c0.18	
v/s Ratio Perm	0.03		0.00	c0.16		0.03						
v/c Ratio	0.14	0.56	0.02	0.62	0.60	0.12	0.48	0.23		0.88	0.41	
Uniform Delay, d1	24.8	30.9	27.0	25.0	29.7	26.0	40.3	25.2		33.0	16.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	1.8	0.0	3.9	2.1	0.1	2.8	0.6		18.1	0.8	
Delay (s)	25.0	32.7	27.0	28.9	31.9	26.1	43.2	25.8		51.1	17.7	
Level of Service	C	C	C	C	C	C	D	C		D	B	
Approach Delay (s)		31.2			29.2			29.5			30.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	29.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	91.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



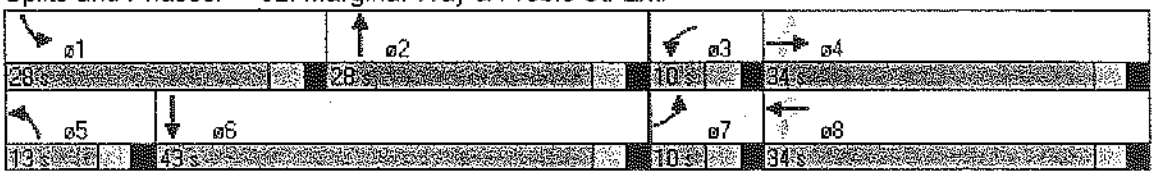
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	11	11	15	12	12	13	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	300		200	350		0	160		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.970			0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1776	1830	1694	1766	1708	1656	3248	0	1711	3352	0
Flt Permitted	0.425			0.484			0.950			0.950		
Satd. Flow (perm)	776	1776	1830	863	1766	1708	1656	3248	0	1711	3352	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			30			206		29			19	
Headway Factor	1.00	1.00	0.85	1.04	1.04	0.88	1.00	1.00	0.96	1.04	1.04	1.00
Link Speed (mph)		35			35			30			35	
Link Distance (ft)		114			758			499			486	
Travel Time (s)		2.2			14.8			11.3			9.5	
Volume (vph)	29	186	24	153	231	175	52	156	39	321	473	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	7%	0%	3%	4%	4%	9%	7%	11%	2%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	36	232	30	180	272	206	61	184	46	369	544	79
Lane Group Flow (vph)	36	232	30	180	272	206	61	230	0	369	623	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phases	7	4	4	3	8	8	5	2		1	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	1.0	1.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	34.0	34.0	9.0	34.0	34.0	9.0	28.0		9.0	35.0	
Total Split (s)	10.0	34.0	34.0	10.0	34.0	34.0	13.0	28.0	0.0	28.0	43.0	0.0
Total Split (%)	10.0%	34.0%	34.0%	10.0%	34.0%	34.0%	13.0%	28.0%	0.0%	28.0%	43.0%	0.0%
Maximum Green (s)	5.0	29.0	29.0	5.0	29.0	29.0	8.0	23.0		23.0	38.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	None	Max		None	Max	
Walk Time (s)		10.0	10.0		10.0	10.0		10.0			10.0	
Flash Dont Walk (s)		15.0	15.0		15.0	15.0		12.0			12.0	
Pedestrian Calls (#/hr)		4	4		2	2		0			1	
Act Effct Green (s)	25.1	18.9	18.9	26.8	23.4	23.4	8.3	24.2		22.4	40.9	
Actuated g/C Ratio	0.27	0.22	0.22	0.31	0.27	0.27	0.09	0.28		0.26	0.47	
v/c Ratio	0.13	0.61	0.07	0.56	0.58	0.34	0.40	0.25		0.84	0.40	
Control Delay	21.2	38.0	9.9	30.7	34.8	5.7	48.2	24.2		51.2	17.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	21.2	38.0	9.9	30.7	34.8	5.7	48.2	24.2		51.2	17.9	
LOS	C	D	A	C	C	A	D	C		D	B	
Approach Delay		33.1			24.6			29.2			30.3	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	14	119	0	76	143	0	33	46		195	121	
Queue Length 95th (ft)	30	164	17	119	209	42	73	81		#369	187	
Internal Link Dist (ft)		34			678			419			406	
Turn Bay Length (ft)				300		200	350			160		
Base Capacity (vph)	275	542	579	320	564	686	165	918		462	1571	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.13	0.43	0.05	0.56	0.48	0.30	0.37	0.25		0.80	0.40	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 87.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 28.9 Intersection LOS: C
Intersection Capacity Utilization 54.9% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

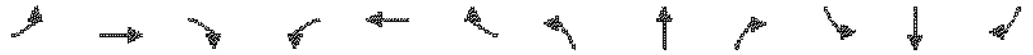
Splits and Phases: 92: Marginal Way & Preble St. Ext.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	11	11	15	12	12	13	11	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1830	1678	1766	1759	1752	3453		1728	3285	
Flt Permitted	0.31	1.00	1.00	0.33	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	573	1863	1830	591	1766	1759	1752	3453		1728	3285	
Volume (vph)	113	231	19	61	264	432	212	628	184	421	250	134
Peak-hour factor, PHF	0.91	0.91	0.91	0.99	0.99	0.99	0.86	0.86	0.86	0.92	0.92	0.92
Adj. Flow (vph)	124	254	21	62	267	436	247	730	214	458	272	146
RTOR Reduction (vph)	0	0	17	0	0	347	0	23	0	0	59	0
Lane Group Flow (vph)	124	254	4	62	267	89	247	921	0	458	359	0
Heavy Vehicles (%)	2%	2%	0%	4%	4%	1%	3%	1%	1%	1%	1%	0%
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	22.3	19.3	19.3	22.3	19.3	19.3	18.1	28.4		28.8	39.1	
Effective Green, g (s)	24.3	20.3	20.3	24.3	20.3	20.3	19.1	29.4		29.8	40.1	
Actuated g/C Ratio	0.24	0.20	0.20	0.24	0.20	0.20	0.19	0.30		0.30	0.40	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	188	380	373	188	360	359	336	1020		518	1324	
v/s Ratio Prot	c0.03	0.14		0.01	c0.15		0.14	c0.27		c0.27	0.11	
v/s Ratio Perm	0.13		0.00	0.07		0.05						
v/c Ratio	0.66	0.67	0.01	0.33	0.74	0.25	0.74	0.90		0.88	0.27	
Uniform Delay, d1	33.7	36.5	31.6	29.9	37.1	33.2	37.8	33.7		33.2	19.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	8.1	4.4	0.0	1.0	8.0	0.4	8.1	12.7		16.3	0.5	
Delay (s)	41.8	40.9	31.6	31.0	45.1	33.6	45.9	46.4		49.5	20.4	
Level of Service	D	D	C	C	D	C	D	D		D	C	
Approach Delay (s)		40.7			37.4			46.3			35.6	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	40.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	99.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	11	11	15	12	12	13	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	300		200	350		0	160		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.966			0.948	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1830	1678	1766	1759	1752	3453	0	1728	3287	0
Flt Permitted	0.352			0.375			0.950			0.950		
Satd. Flow (perm)	656	1863	1830	662	1766	1759	1752	3453	0	1728	3287	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			21			436		33			99	
Headway Factor	1.00	1.00	0.85	1.04	1.04	0.88	1.00	1.00	0.96	1.04	1.04	1.00
Link Speed (mph)		35			35			30			35	
Link Distance (ft)		114			758			499			486	
Travel Time (s)		2.2			14.8			11.3			9.5	
Volume (vph)	113	231	19	61	264	432	212	628	184	421	250	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.99	0.99	0.99	0.86	0.86	0.86	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	0%	4%	4%	1%	3%	1%	1%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	124	254	21	62	267	436	247	730	214	458	272	146
Lane Group Flow (vph)	124	254	21	62	267	436	247	944	0	458	418	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phases	7	4	4	3	8	8	5	2		1	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	30.0	30.0	9.0	30.0	30.0	9.0	30.0		9.0	35.0	
Total Split (s)	9.0	30.0	30.0	9.0	30.0	30.0	29.0	32.0	0.0	39.0	42.0	0.0
Total Split (%)	8.2%	27.3%	27.3%	8.2%	27.3%	27.3%	26.4%	29.1%	0.0%	35.5%	38.2%	0.0%
Maximum Green (s)	4.0	25.0	25.0	4.0	25.0	25.0	24.0	27.0		34.0	37.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	None	Max		None	Max	
Walk Time (s)		10.0	10.0		10.0	10.0		10.0			10.0	
Flash Dont Walk (s)		15.0	15.0		15.0	15.0		15.0			15.0	
Pedestrian Calls (#/hr)		4	4		2	2		0			1	
Act Effct Green (s)	24.1	20.3	20.3	24.1	20.3	20.3	19.1	29.4		29.9	40.2	
Actuated g/C Ratio	0.24	0.21	0.21	0.24	0.21	0.21	0.19	0.30		0.30	0.41	
v/c Ratio	0.58	0.66	0.05	0.30	0.74	0.62	0.73	0.90		0.88	0.30	
Control Delay	41.1	46.1	13.6	30.8	50.5	7.6	51.5	47.3		52.4	17.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	41.1	46.1	13.6	30.8	50.5	7.6	51.5	47.3		52.4	17.9	
LOS	D	D	B	C	D	A	D	D		D	B	
Approach Delay		42.8			24.4			48.2			35.9	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	64	159	0	31	171	0	159	~342		286	76	
Queue Length 95th (ft)	112	245	21	63	261	81	232	#463		#469	127	
Internal Link Dist (ft)		34			678			419			406	
Turn Bay Length (ft)				300		200	350			160		
Base Capacity (vph)	214	470	478	210	445	770	425	1054		589	1396	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.58	0.54	0.04	0.30	0.60	0.57	0.58	0.90		0.78	0.30	

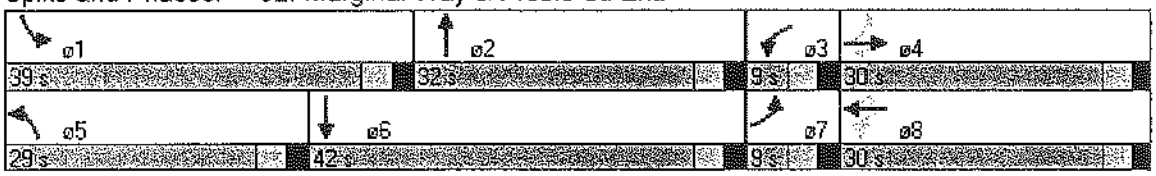
Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 98.7
Natural Cycle: 95
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 38.6 Intersection LOS: D
Intersection Capacity Utilization 80.0% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

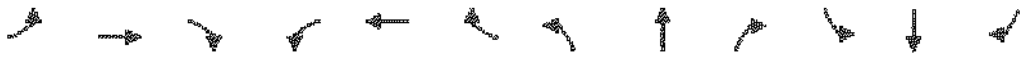
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 92: Marginal Way & Preble St. Ext.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	11	11	15	12	12	13	11	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1830	1678	1766	1759	1752	3452		1728	3285	
Flt Permitted	0.29	1.00	1.00	0.28	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	543	1863	1830	497	1766	1759	1752	3452		1728	3285	
Volume (vph)	113	280	19	60	279	425	212	628	186	438	250	134
Peak-hour factor, PHF	0.91	0.91	0.91	0.99	0.99	0.99	0.86	0.86	0.86	0.92	0.92	0.92
Adj. Flow (vph)	124	308	21	61	282	429	247	730	216	476	272	146
RTOR Reduction (vph)	0	0	16	0	0	335	0	25	0	0	61	0
Lane Group Flow (vph)	124	308	5	61	282	94	247	921	0	476	357	0
Heavy Vehicles (%)	2%	2%	0%	4%	4%	1%	3%	1%	1%	1%	1%	0%
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	26.6	22.6	22.6	24.8	21.7	21.7	18.6	27.3		30.3	39.0	
Effective Green, g (s)	28.6	23.6	23.6	26.8	22.7	22.7	19.6	28.3		31.3	40.0	
Actuated g/C Ratio	0.28	0.23	0.23	0.26	0.22	0.22	0.19	0.27		0.30	0.39	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	210	426	418	176	388	387	332	946		524	1272	
v/s Ratio Prot	c0.03	c0.17		0.01	0.16		0.14	c0.27		c0.28	0.11	
v/s Ratio Perm	0.14		0.00	0.08		0.05						
v/c Ratio	0.59	0.72	0.01	0.35	0.73	0.24	0.74	0.97		0.91	0.28	
Uniform Delay, d1	30.9	36.8	30.8	30.1	37.4	33.2	39.5	37.1		34.6	21.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.4	6.0	0.0	1.2	6.7	0.3	8.7	23.6		19.4	0.6	
Delay (s)	35.3	42.8	30.8	31.3	44.1	33.6	48.2	60.7		54.1	22.3	
Level of Service	D	D	C	C	D	C	D	E		D	C	
Approach Delay (s)		40.2			37.2			58.1			39.2	
Approach LOS		D			D			E			D	

Intersection Summary				
HCM Average Control Delay	45.7	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.83			
Actuated Cycle Length (s)	103.3	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	81.8%	ICU Level of Service	D	
Analysis Period (min)	15			
c Critical Lane Group				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	11	11	15	12	12	13	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	300		200	350		0	160		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.966			0.948	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1830	1678	1766	1759	1752	3453	0	1728	3287	0
Flt Permitted	0.325			0.279			0.950			0.950		
Satd. Flow (perm)	605	1863	1830	493	1766	1759	1752	3453	0	1728	3287	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			21			429		34			99	
Headway Factor	1.00	1.00	0.85	1.04	1.04	0.88	1.00	1.00	0.96	1.04	1.04	1.00
Link Speed (mph)		35			35			30			35	
Link Distance (ft)		114			758			499			486	
Travel Time (s)		2.2			14.8			11.3			9.5	
Volume (vph)	113	280	19	60	279	425	212	628	186	438	250	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.99	0.99	0.99	0.86	0.86	0.86	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	0%	4%	4%	1%	3%	1%	1%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	124	308	21	61	282	429	247	730	216	476	272	146
Lane Group Flow (vph)	124	308	21	61	282	429	247	946	0	476	418	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phases	7	4	4	3	8	8	5	2		1	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	9.0	30.0		9.0	35.0	
Total Split (s)	9.0	30.0	30.0	9.0	30.0	30.0	29.0	32.0	0.0	39.0	42.0	0.0
Total Split (%)	8.2%	27.3%	27.3%	8.2%	27.3%	27.3%	26.4%	29.1%	0.0%	35.5%	38.2%	0.0%
Maximum Green (s)	4.0	25.0	25.0	4.0	25.0	25.0	24.0	27.0		34.0	37.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	None	Max		None	Max	
Walk Time (s)		5.0	5.0		5.0	5.0		10.0			10.0	
Flash Dont Walk (s)		15.0	15.0		15.0	15.0		15.0			15.0	
Pedestrian Calls (#/hr)		4	4		2	2		0			1	
Act Effct Green (s)	27.5	23.6	23.6	26.5	21.4	21.4	19.7	28.3		31.3	40.0	
Actuated g/C Ratio	0.27	0.23	0.23	0.25	0.21	0.21	0.19	0.28		0.31	0.39	
v/c Ratio	0.56	0.72	0.05	0.33	0.76	0.61	0.73	0.97		0.90	0.31	
Control Delay	40.1	48.1	13.5	32.2	52.7	7.4	52.8	58.7		56.0	18.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	40.1	48.1	13.5	32.2	52.7	7.4	52.8	58.7		56.0	18.4	
LOS	D	D	B	C	D	A	D	E		E	B	
Approach Delay		44.3			25.9			57.5			38.4	
Approach LOS		D			C			E			D	
Queue Length 50th (ft)	64	200	0	30	182	0	161	~360		306	77	
Queue Length 95th (ft)	112	299	21	63	277	80	232	#464		#498	127	
Internal Link Dist (ft)		34			678			419			406	
Turn Bay Length (ft)				300		200	350			160		
Base Capacity (vph)	220	466	474	183	432	754	409	980		573	1345	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.56	0.66	0.04	0.33	0.65	0.57	0.60	0.97		0.83	0.31	

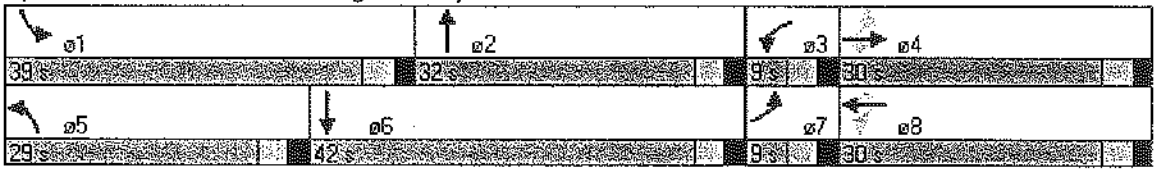
Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 102.3
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 43.2 Intersection LOS: D
Intersection Capacity Utilization 81.8% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 92: Marginal Way & Preble St. Ext.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	11	11	15	12	12	13	11	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		0.91	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1776	1830	1694	1766	1708	1656	3244		1557	3202	
Flt Permitted	0.50	1.00	1.00	0.34	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	911	1776	1830	615	1766	1708	1656	3244		1557	3202	
Volume (vph)	29	191	24	152	182	153	52	156	41	346	473	69
Peak-hour factor, PHF	0.80	0.80	0.80	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	36	239	30	179	214	180	61	184	48	398	544	79
RTOR Reduction (vph)	0	0	24	0	0	138	0	21	0	0	8	0
Lane Group Flow (vph)	36	239	6	179	214	42	61	211	0	331	682	0
Heavy Vehicles (%)	4%	7%	0%	3%	4%	4%	9%	7%	11%	2%	2%	3%
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	23.3	20.4	20.4	27.5	22.5	22.5	25.1	25.1		30.1	30.1	
Effective Green, g (s)	25.3	21.4	21.4	29.5	23.5	23.5	26.1	26.1		31.1	31.1	
Actuated g/C Ratio	0.25	0.21	0.21	0.29	0.23	0.23	0.26	0.26		0.31	0.31	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	261	378	389	245	413	399	430	842		481	990	
v/s Ratio Prot	0.01	0.13		c0.04	0.12		0.04	c0.07		0.21	c0.21	
v/s Ratio Perm	0.03		0.00	c0.17		0.02						
v/c Ratio	0.14	0.63	0.02	0.73	0.52	0.11	0.14	0.25		0.69	0.69	
Uniform Delay, d1	28.9	36.0	31.3	31.3	33.6	30.3	28.6	29.5		30.5	30.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	3.4	0.0	10.7	1.1	0.1	0.7	0.7		7.8	3.9	
Delay (s)	29.1	39.5	31.3	42.0	34.7	30.4	29.3	30.2		38.3	34.4	
Level of Service	C	D	C	D	C	C	C	C		D	C	
Approach Delay (s)		37.4			35.6			30.0			35.7	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	35.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

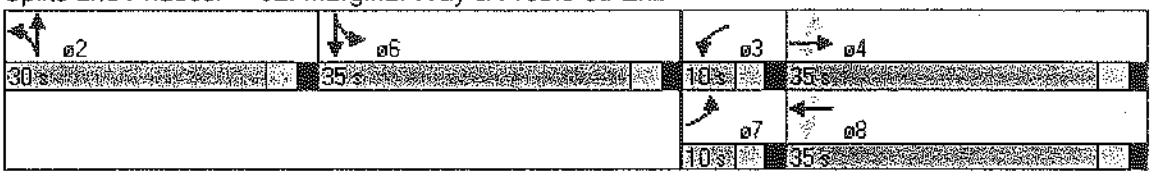
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	11	11	15	12	12	13	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	300		200	350		0	160		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.969			0.983	
Flt Protected	0.950			0.950			0.950			0.950	0.995	
Satd. Flow (prot)	1736	1776	1830	1694	1766	1708	1656	3244	0	1557	3202	0
Flt Permitted	0.490			0.451			0.950			0.950	0.995	
Satd. Flow (perm)	895	1776	1830	804	1766	1708	1656	3244	0	1557	3202	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			30			180		28			12	
Headway Factor	1.00	1.00	0.85	1.04	1.04	0.88	1.00	1.00	0.96	1.04	1.04	1.00
Link Speed (mph)		35			35			30			35	
Link Distance (ft)		114			758			499			486	
Travel Time (s)		2.2			14.8			11.3			9.5	
Volume (vph)	29	191	24	152	182	153	52	156	41	346	473	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	7%	0%	3%	4%	4%	9%	7%	11%	2%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	36	239	30	179	214	180	61	184	48	398	544	79
Lane Group Flow (vph)	36	239	30	179	214	180	61	232	0	331	690	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases	4		4	8		8						
Detector Phases	7	4	4	3	8	8	2	2		6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	34.0	34.0	9.0	34.0	34.0	27.0	27.0		35.0	35.0	
Total Split (s)	10.0	35.0	35.0	10.0	35.0	35.0	30.0	30.0	0.0	35.0	35.0	0.0
Total Split (%)	9.1%	31.8%	31.8%	9.1%	31.8%	31.8%	27.3%	27.3%	0.0%	31.8%	31.8%	0.0%
Maximum Green (s)	5.0	30.0	30.0	5.0	30.0	30.0	25.0	25.0		30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	
Walk Time (s)		10.0	10.0		10.0	10.0	10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		15.0	15.0		15.0	15.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)		4	4		2	2	0	0		1	1	
Act Effct Green (s)	25.4	19.3	19.3	27.0	23.5	23.5	26.1	26.1		31.1	31.1	
Actuated g/C Ratio	0.25	0.20	0.20	0.27	0.24	0.24	0.26	0.26		0.32	0.32	
v/c Ratio	0.13	0.69	0.08	0.65	0.51	0.33	0.14	0.26		0.67	0.68	
Control Delay	25.7	47.3	11.4	40.9	38.3	6.6	30.5	26.9		38.5	33.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	25.7	47.3	11.4	40.9	38.3	6.6	30.5	26.9		38.5	33.6	
LOS	C	D	B	D	D	A	C	C		D	C	
Approach Delay		41.2			29.2			27.7			35.2	
Approach LOS		D			C			C			D	
Queue Length 50th (ft)	16	140	0	88	123	0	29	52		196	201	
Queue Length 95th (ft)	34	191	19	135	184	44	64	87		321	285	
Internal Link Dist (ft)		34			678			419			406	
Turn Bay Length (ft)				300		200	350			160		
Base Capacity (vph)	271	501	537	274	518	628	439	880		491	1019	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.13	0.48	0.06	0.65	0.41	0.29	0.14	0.26		0.67	0.68	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 98.5
Natural Cycle: 105
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 33.4 Intersection LOS: C
Intersection Capacity Utilization 54.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 92: Marginal Way & Preble St. Ext.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	11	11	15	12	12	13	11	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		0.91	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	1776	1830	1694	1766	1708	1656	3248		1557	3204	
Flt Permitted	0.39	1.00	1.00	0.37	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	721	1776	1830	665	1766	1708	1656	3248		1557	3204	
Volume (vph)	29	186	24	153	231	175	52	156	39	321	473	69
Peak-hour factor, PHF	0.80	0.80	0.80	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	36	232	30	180	272	206	61	184	46	369	544	79
RTOR Reduction (vph)	0	0	23	0	0	156	0	19	0	0	8	0
Lane Group Flow (vph)	36	232	7	180	272	50	61	211	0	322	662	0
Heavy Vehicles (%)	4%	7%	0%	3%	4%	4%	9%	7%	11%	2%	2%	3%
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	24.8	21.9	21.9	29.0	24.0	24.0	25.1	25.1		30.1	30.1	
Effective Green, g (s)	26.8	22.9	22.9	31.0	25.0	25.0	26.1	26.1		31.1	31.1	
Actuated g/C Ratio	0.26	0.22	0.22	0.30	0.24	0.24	0.26	0.26		0.30	0.30	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	228	398	410	262	432	418	423	830		474	976	
v/s Ratio Prot	0.01	0.13		c0.04	0.15		0.04	c0.06		c0.21	0.21	
v/s Ratio Perm	0.04		0.00	c0.17		0.03						
v/c Ratio	0.16	0.58	0.02	0.69	0.63	0.12	0.14	0.25		0.68	0.68	
Uniform Delay, d1	28.6	35.3	30.8	30.8	34.4	30.0	29.4	30.2		31.1	31.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	2.2	0.0	7.3	2.9	0.1	0.7	0.7		7.6	3.8	
Delay (s)	29.0	37.5	30.8	38.1	37.3	30.1	30.1	31.0		38.8	34.9	
Level of Service	C	D	C	D	D	C	C	C		D	C	
Approach Delay (s)		35.8			35.3			30.8			36.2	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	35.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	102.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

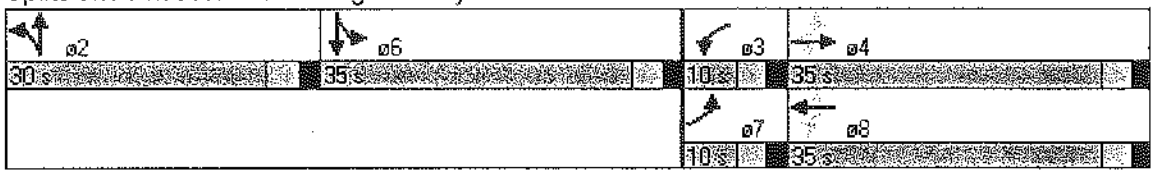
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	11	11	15	12	12	13	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	300		200	350		0	160		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.970			0.982	
Flt Protected	0.950			0.950			0.950			0.950	0.997	
Satd. Flow (prot)	1736	1776	1830	1694	1766	1708	1656	3248	0	1557	3205	0
Flt Permitted	0.400			0.462			0.950			0.950	0.997	
Satd. Flow (perm)	731	1776	1830	824	1766	1708	1656	3248	0	1557	3205	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			30			206		26			12	
Headway Factor	1.00	1.00	0.85	1.04	1.04	0.88	1.00	1.00	0.96	1.04	1.04	1.00
Link Speed (mph)		35			35			30			35	
Link Distance (ft)		114			758			499			486	
Travel Time (s)		2.2			14.8			11.3			9.5	
Volume (vph)	29	186	24	153	231	175	52	156	39	321	473	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.80	0.80	0.80	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	7%	0%	3%	4%	4%	9%	7%	11%	2%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	36	232	30	180	272	206	61	184	46	369	544	79
Lane Group Flow (vph)	36	232	30	180	272	206	61	230	0	322	670	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases	4		4	8		8						
Detector Phases	7	4	4	3	8	8	2	2		6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	35.0	35.0	9.0	35.0	35.0	29.0	29.0		35.0	35.0	
Total Split (s)	10.0	35.0	35.0	10.0	35.0	35.0	30.0	30.0	0.0	35.0	35.0	0.0
Total Split (%)	9.1%	31.8%	31.8%	9.1%	31.8%	31.8%	27.3%	27.3%	0.0%	31.8%	31.8%	0.0%
Maximum Green (s)	5.0	30.0	30.0	5.0	30.0	30.0	25.0	25.0		30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

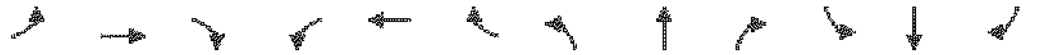
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	
Walk Time (s)		10.0	10.0		10.0	10.0	10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		15.0	15.0		15.0	15.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)		4	4		2	2	0	0		1	1	
Act Effct Green (s)	26.9	20.7	20.7	28.4	25.0	25.0	26.1	26.1		31.1	31.1	
Actuated g/C Ratio	0.26	0.21	0.21	0.28	0.25	0.25	0.26	0.26		0.31	0.31	
v/c Ratio	0.15	0.63	0.07	0.63	0.62	0.35	0.14	0.26		0.66	0.67	
Control Delay	25.3	43.8	10.9	38.7	40.8	6.2	31.9	28.2		39.3	34.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	25.3	43.8	10.9	38.7	40.8	6.2	31.9	28.2		39.3	34.3	
LOS	C	D	B	D	D	A	C	C		D	C	
Approach Delay		38.2			29.4			28.9			35.9	
Approach LOS		D			C			C			D	
Queue Length 50th (ft)	16	135	0	88	163	0	30	54		196	201	
Queue Length 95th (ft)	34	183	19	134	232	45	66	91		327	290	
Internal Link Dist (ft)		34			678			419			406	
Turn Bay Length (ft)				300		200	350			160		
Base Capacity (vph)	247	501	537	286	518	646	432	868		485	1006	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.15	0.46	0.06	0.63	0.53	0.32	0.14	0.26		0.66	0.67	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 100
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 33.4 Intersection LOS: C
Intersection Capacity Utilization 53.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 92: Marginal Way & Preble St. Ext.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	11	11	15	12	12	13	11	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		0.91	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	0.99	
Satd. Flow (prot)	1770	1863	1830	1678	1766	1759	1752	3453		1572	3149	
Flt Permitted	0.30	1.00	1.00	0.37	1.00	1.00	0.95	1.00		0.95	0.99	
Satd. Flow (perm)	565	1863	1830	652	1766	1759	1752	3453		1572	3149	
Volume (vph)	113	231	19	61	264	432	212	628	184	421	250	134
Peak-hour factor, PHF	0.91	0.91	0.91	0.99	0.99	0.99	0.86	0.86	0.86	0.92	0.92	0.92
Adj. Flow (vph)	124	254	21	62	267	436	247	730	214	458	272	146
RTOR Reduction (vph)	0	0	16	0	0	346	0	27	0	0	30	0
Lane Group Flow (vph)	124	254	5	62	267	90	247	917	0	286	560	0
Heavy Vehicles (%)	2%	2%	0%	4%	4%	1%	3%	1%	1%	1%	1%	0%
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	24.2	20.2	20.2	22.6	19.4	19.4	27.0	27.0		28.0	28.0	
Effective Green, g (s)	26.2	21.2	21.2	24.6	20.4	20.4	28.0	28.0		29.0	29.0	
Actuated g/C Ratio	0.27	0.22	0.22	0.25	0.21	0.21	0.28	0.28		0.29	0.29	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	212	401	394	207	366	365	499	983		463	928	
v/s Ratio Prot	c0.03	0.14		0.01	c0.15		0.14	c0.27		c0.18	0.18	
v/s Ratio Perm	0.13		0.00	0.06		0.05						
v/c Ratio	0.58	0.63	0.01	0.30	0.73	0.25	0.49	0.93		0.62	0.60	
Uniform Delay, d1	29.8	35.1	30.4	29.1	36.4	32.6	29.3	34.3		29.9	29.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.1	3.3	0.0	0.8	7.1	0.4	3.5	16.4		6.1	2.9	
Delay (s)	33.9	38.3	30.4	29.9	43.5	32.9	32.8	50.7		36.0	32.7	
Level of Service	C	D	C	C	D	C	C	D		D	C	
Approach Delay (s)		36.5			36.4			47.0			33.8	
Approach LOS		D			D			D			C	

Intersection Summary				
HCM Average Control Delay	39.6	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.75			
Actuated Cycle Length (s)	98.4	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	72.3%	ICU Level of Service	C	
Analysis Period (min)	15			
c Critical Lane Group				

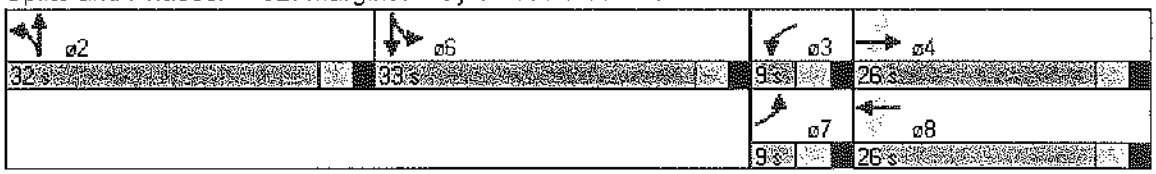
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	11	11	15	12	12	13	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	300		200	350		0	160		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.966			0.963	
Flt Protected	0.950			0.950			0.950			0.950	0.986	
Satd. Flow (prot)	1770	1863	1830	1678	1766	1759	1752	3453	0	1572	3150	0
Flt Permitted	0.336			0.361			0.950			0.950	0.986	
Satd. Flow (perm)	626	1863	1830	638	1766	1759	1752	3453	0	1572	3150	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			21			436		38			42	
Headway Factor	1.00	1.00	0.85	1.04	1.04	0.88	1.00	1.00	0.96	1.04	1.04	1.00
Link Speed (mph)		35			35			30			35	
Link Distance (ft)		114			758			499			486	
Travel Time (s)		2.2			14.8			11.3			9.5	
Volume (vph)	113	231	19	61	264	432	212	628	184	421	250	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.99	0.99	0.99	0.86	0.86	0.86	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	0%	4%	4%	1%	3%	1%	1%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	124	254	21	62	267	436	247	730	214	458	272	146
Lane Group Flow (vph)	124	254	21	62	267	436	247	944	0	286	590	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases	4		4	8		8						
Detector Phases	7	4	4	3	8	8	2	2		6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	30.0	30.0		30.0	30.0	
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	32.0	32.0	0.0	33.0	33.0	0.0
Total Split (%)	9.0%	26.0%	26.0%	9.0%	26.0%	26.0%	32.0%	32.0%	0.0%	33.0%	33.0%	0.0%
Maximum Green (s)	4.0	21.0	21.0	4.0	21.0	21.0	27.0	27.0		28.0	28.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

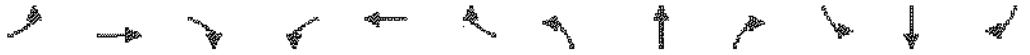
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	
Walk Time (s)		10.0	10.0		10.0	10.0	10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)		4	4		2	2	0	0		1	1	
Act Effct Green (s)	25.2	21.2	21.2	24.4	19.3	19.3	28.0	28.0		29.0	29.0	
Actuated g/C Ratio	0.26	0.22	0.22	0.25	0.20	0.20	0.29	0.29		0.30	0.30	
v/c Ratio	0.56	0.63	0.05	0.30	0.76	0.62	0.49	0.92		0.61	0.61	
Control Delay	38.1	42.8	13.1	29.1	51.7	7.7	33.4	48.6		36.6	30.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	38.1	42.8	13.1	29.1	51.7	7.7	33.4	48.6		36.6	30.8	
LOS	D	D	B	C	D	A	C	D		D	C	
Approach Delay		39.8			24.8			45.4			32.7	
Approach LOS		D			C			D			C	
Queue Length 50th (ft)	58	147	0	28	157	0	132	299		173	165	
Queue Length 95th (ft)	105	231	19	60	246	79	198	#394		273	228	
Internal Link Dist (ft)		34			678			419			406	
Turn Bay Length (ft)				300		200	350			160		
Base Capacity (vph)	221	419	428	209	389	727	504	1021		469	968	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.56	0.61	0.05	0.30	0.69	0.60	0.49	0.92		0.61	0.61	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 97.4
Natural Cycle: 95
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 36.4 Intersection LOS: D
Intersection Capacity Utilization 72.3% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 92: Marginal Way & Preble St. Ext.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	16	11	11	15	12	12	13	11	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		0.91	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	0.98	
Satd. Flow (prot)	1770	1863	1830	1678	1766	1759	1752	3452		1572	3149	
Flt Permitted	0.28	1.00	1.00	0.27	1.00	1.00	0.95	1.00		0.95	0.98	
Satd. Flow (perm)	527	1863	1830	475	1766	1759	1752	3452		1572	3149	
Volume (vph)	113	280	19	60	279	425	212	628	186	438	250	134
Peak-hour factor, PHF	0.91	0.91	0.91	0.99	0.99	0.99	0.86	0.86	0.86	0.92	0.92	0.92
Adj. Flow (vph)	124	308	21	61	282	429	247	730	216	476	272	146
RTOR Reduction (vph)	0	0	16	0	0	338	0	27	0	0	28	0
Lane Group Flow (vph)	124	308	5	61	282	91	247	919	0	292	574	0
Heavy Vehicles (%)	2%	2%	0%	4%	4%	1%	3%	1%	1%	1%	1%	0%
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	24.8	20.8	20.8	23.2	20.0	20.0	27.0	27.0		28.0	28.0	
Effective Green, g (s)	26.8	21.8	21.8	25.2	21.0	21.0	28.0	28.0		29.0	29.0	
Actuated g/C Ratio	0.27	0.22	0.22	0.25	0.21	0.21	0.28	0.28		0.29	0.29	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	205	410	403	172	375	373	496	976		460	922	
v/s Ratio Prot	c0.03	c0.17		0.02	0.16		0.14	c0.27		c0.19	0.18	
v/s Ratio Perm	0.13		0.00	0.08		0.05						
v/c Ratio	0.60	0.75	0.01	0.35	0.75	0.24	0.50	0.94		0.63	0.62	
Uniform Delay, d1	29.8	36.1	30.2	29.2	36.6	32.4	29.6	34.7		30.4	30.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.0	7.6	0.0	1.3	8.3	0.3	3.5	17.7		6.5	3.2	
Delay (s)	34.8	43.6	30.2	30.5	44.8	32.7	33.2	52.4		36.9	33.4	
Level of Service	C	D	C	C	D	C	C	D		D	C	
Approach Delay (s)		40.6			37.0			48.4			34.6	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM Average Control Delay	40.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	99.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

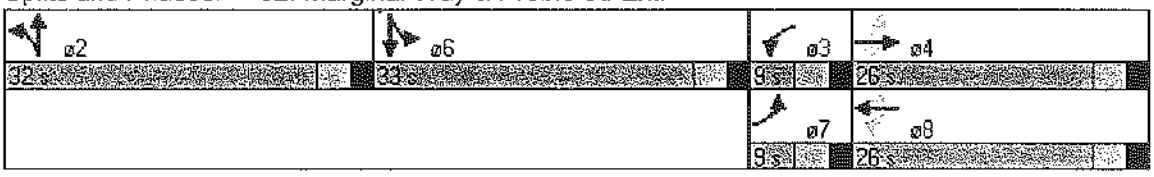
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	11	11	15	12	12	13	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	300		200	350		0	160		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.966			0.964	
Flt Protected	0.950			0.950			0.950			0.950	0.985	
Satd. Flow (prot)	1770	1863	1830	1678	1766	1759	1752	3453	0	1572	3150	0
Flt Permitted	0.307			0.258			0.950			0.950	0.985	
Satd. Flow (perm)	572	1863	1830	456	1766	1759	1752	3453	0	1572	3150	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			21			429		38			40	
Headway Factor	1.00	1.00	0.85	1.04	1.04	0.88	1.00	1.00	0.96	1.04	1.04	1.00
Link Speed (mph)		35			35			30			35	
Link Distance (ft)		114			758			499			486	
Travel Time (s)		2.2			14.8			11.3			9.5	
Volume (vph)	113	280	19	60	279	425	212	628	186	438	250	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.99	0.99	0.99	0.86	0.86	0.86	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	0%	4%	4%	1%	3%	1%	1%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	124	308	21	61	282	429	247	730	216	476	272	146
Lane Group Flow (vph)	124	308	21	61	282	429	247	946	0	292	602	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases	4		4	8		8						
Detector Phases	7	4	4	3	8	8	2	2		6	6	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	30.0	30.0		30.0	30.0	
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	32.0	32.0	0.0	33.0	33.0	0.0
Total Split (%)	9.0%	26.0%	26.0%	9.0%	26.0%	26.0%	32.0%	32.0%	0.0%	33.0%	33.0%	0.0%
Maximum Green (s)	4.0	21.0	21.0	4.0	21.0	21.0	27.0	27.0		28.0	28.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	
Walk Time (s)		5.0	5.0		5.0	5.0	10.0	10.0		10.0	10.0	
Flash Dont Walk (s)		15.0	15.0		15.0	15.0	15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)		4	4		2	2	0	0		1	1	
Act Effct Green (s)	25.8	21.8	21.8	25.0	19.9	19.9	28.0	28.0		29.0	29.0	
Actuated g/C Ratio	0.26	0.22	0.22	0.25	0.20	0.20	0.29	0.29		0.30	0.30	
v/c Ratio	0.59	0.74	0.05	0.35	0.79	0.61	0.49	0.93		0.63	0.63	
Control Delay	39.6	48.4	13.1	30.8	53.3	7.5	33.7	49.9		37.4	31.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	39.6	48.4	13.1	30.8	53.3	7.5	33.7	49.9		37.4	31.5	
LOS	D	D	B	C	D	A	C	D		D	C	
Approach Delay		44.3			26.1			46.5			33.4	
Approach LOS		D			C			D			C	
Queue Length 50th (ft)	58	184	0	28	168	0	132	300		178	171	
Queue Length 95th (ft)	105	#304	19	59	#279	78	198	#396		280	234	
Internal Link Dist (ft)		34			678			419			406	
Turn Bay Length (ft)				300		200	350			160		
Base Capacity (vph)	211	422	430	175	389	722	501	1015		466	961	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.59	0.73	0.05	0.35	0.72	0.59	0.49	0.93		0.63	0.63	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 98
Natural Cycle: 95
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 37.9 Intersection LOS: D
Intersection Capacity Utilization 73.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 92: Marginal Way & Preble St. Ext.



Mitchell & Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
F: 207.874.2460
www.mitchellassociates.biz

October 29, 2007

Mr. Richard Knowland, Senior Planner
City of Portland
Congress Street
Portland, Maine 04101

RE: Bayside Village - A Student Housing Complex
Diminimus Change Request

Dear Rick:

The following documentation and responses have been prepared to address comments concerning the diminimus change request submitted on September 6, 2007.

Garage Lighting: Enclosed is the manufacture cut sheet for the garage light fixture proposed as a replacement for the previous florescent fixture to address concerns with the visibility and glare. The fixture will be suspended from the recessed area of the garage/roof deck. The optical configuration shields the lamp from normal viewing angles by the reflector section of the luminare.

Trash Enclosure: In response to staff concerns with the proposed relocation of solid waste management, we offer the following:

The Owner has met with several trash removal companies to discuss the internal trash room configuration as proposed during the approval process. In each instance the same issues concerning liability and safety were raised regarding use of role out containers. To address these concerns, the use of the proposed "pak-trainer" - which incorporates a compactor and significantly reduced the size of the container - was recommended as the most sensitive option to contain refuse and maintain as low of an impact as is feasible.

Regarding location, the only option to locate an external trash enclosure is on the northeast side of the site within the city R.O.W. as shown on the submitted plan. The

area between the Bayside Village and 84 Marginal (Intermed) properties contain the chiller unit for the student housing project and an emergency generator for 84 Marginal Way leaving no room for an enclosure. We have studied the orientation options for the gate access and circulation requirements. Due to turning and access requirements, the proposed location and orientation is necessary for vehicle access. In addition, site grading and drainage requirements to accommodate run off from I-295 restrict access options.

CWS Architects, in response to your comments concerning integration of the enclosure into the building architecture, have prepared the enclosed annotated elevations for your review. The operational requirements of emptying the container require a vertical overhead lifting process that precludes the opportunity to provide a roof covering for the structure. The revised sketch proposes a more contemporary form with sloped masonry walls that match the building's façade materials and align below the building's accent band. The gates to the enclosure have been squared-off to tie in with the contemporary elements of the design and will be painted dark green to coordinate with the color of other accent materials on the site.

Noise Level, Chiller Unit: We have assembled documentation regarding the proposed unit sound rating and wanted to meet with Marge Schmuckal to review the data. Unfortunately Marge, as you know, has been on vacation. As soon as possible upon Marge's return, we will meet with her to address the issue.

Enclosed for your review are the following:

- Garage light fixture cut sheets
- Trash enclosure elevations

We trust these responses and supporting documents address your concerns. Should you any questions or additional comments, please do not hesitate to call me.

Sincerely,
Mitchell & Associates

BOB METCALF

Robert B. Metcalf

Enclosure

cc: Dan Noblet
Ben Walter

KIM LIGHTING

PGL4
Parking Garage Luminaires
revision 9/28/07 • pgl4.pdf

Type:
Job:
Catalog number:

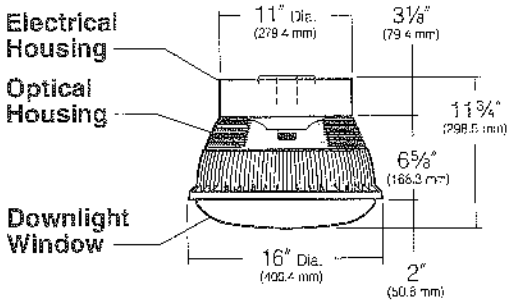
PGL4 | 175 PMH 277 | 1 DL-W / QS / LAMP INCLUDED

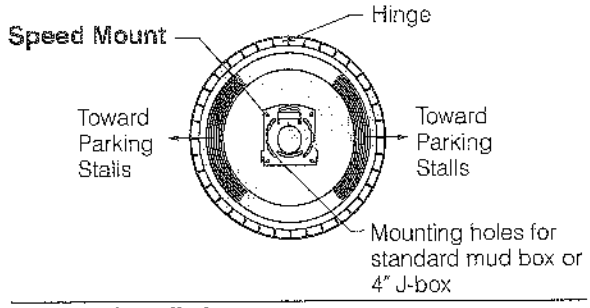
Fixture | Electrical Module See page 2 | Options See pages 3-4

Approvals:

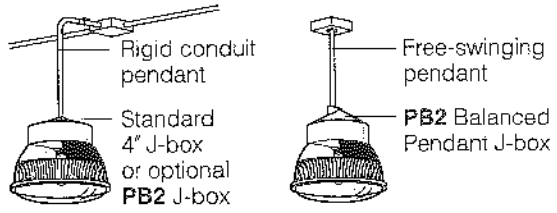
Date:
Page: 1 of 4

Specifications





Pendant Installations



- For Free conduit pedant mount, use a standard 4" junction box with a centered pendant entry.
- For Free-swinging pendant mount, use the optional **PB2** Balanced Pendant Juction Box (page **3**).
- For all pendant installations where bird shroud protection is desired, use the optional **PB2** Balanced Pendant Junction Box (page **3**).

Speed Mount: Formed steel, electro-zinc plated for mounting to standard 4" junction box or mud box. Hooks are designed to hang fixture, freeing both hands for field wire connections. Allows tool-free fixture mounting to junction box, with integral anti-theft locking device.

Ballast Housing: Die-cast, low copper (<0.6% Cu) aluminum alloy for direct mounting to the Kim Speed Mount. Wire entry is sealed with a silicone grommet.

Optical Housing: One-piece injection molded UV stabilized polycarbonate (minimum wall thickness .125") with clear uplight window. Reflector has vertical facets to prevent reflected light from passing through the lamp envelope. Uplight window contains two prismed sections to spread additional light downward in the direction of parking stalls. Optical Housing is secured to Electrical Housing with full silicone gasketing around the perimeter.

Uplight Reflector and Socket: One-piece hydroformed aluminum with Alzak® surface facing prisms and diffuse white surface facing uplight window areas. Socket is 4KV pulse rated medium base. Reflector is removed by loosening three screws allowing access to the electrical components.

Downlight Window: One-piece clear injection molded UV stabilized high temperature acrylic (polycarbonate optional). Attached to optical housing with a "no-tool" quick release spring hinge and three captive phillips-head "shoulder" type screws to prevent overtightening (tamper-resistant hex socket screws optional). Perimeter is fully gasketed with silicone. Convex shape yields maximum light transmission.

HID Electrical Components: High power factor ballasts for -20°F. starting, rigidly mounted inside electrical housing and prewired with leads extended out top of housing.

Induction Fluorescent Lamp Electrical Components: Complete HF generator and induction lamp system is furnished. Induction lamp system is high power factor, rated for -4° starting.

Optical Configuration: In the direction of the driving lanes, luminaire downlight is of the "cutoff" classification with uplight provided for illuminating ceiling and beams. In the direction of parking stalls, luminaire is a "semi-direct" type with partial uplight refracted downward for additional fill-light in the parking stalls. In all directions, lamp is shielded from normal viewing angles by the reflector section of the luminaire.

Finish: PGL4: Platinum Silver color on ballast housing only. Super TGIC thermoset polyester powder coat paint over titanated zirconium conversion coating. Clear optical housing.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

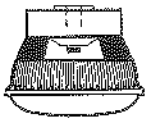
Listings and Ratings	
UL cUL 1598[1]	40C Ambient
IP66 Rated	ISO 9001:2000

[1]Suitable for wet locations

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

Hubbell Lighting, Inc.

 • P.O. BOX 60080, CITY OF INDUSTRY, CA 91716-0080 • TEL: 626/968-5666 • FAX: 626/369-2695



Standard Features

Fixture

Cat. No. PGL4

Contemporary garage luminaire. Die-cast, low copper (<0.6% Cu) aluminum alloy ballast housing with Platinum Silver Super TGIC powder coat paint over titanated zirconium conversion coating, one-piece clear optical housing. Downlight optical reflector visible through optical housing material.

Electrical Module

PMH = Pulse Start Metal Halide
MH = Metal Halide[1]
HPS = High Pressure Sodium
IF = Induction Fluorescent

[1]**NOTE:** Refer to ANSI Type for proper lamp.

Lamp Watts	Lamp Type	Line Volts
175	MH	277

CAUTION: All manufacturers of metal halide lamps recommend turning them off for 15 minutes once per week when under continuous operation. This will reduce the risk of arc tube rupture at end of life. Also, color temperature may differ between manufacturers of metal halide lamps. See lamp manufacturer's specification sheets.

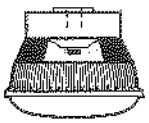
All fixtures are available pre-lamped by Kim. Consult representative for pricing.

Cat. Nos. for Electrical Modules available:

	Pulse Start Metal Halide			
	☐ 100PMH120	☐ 150PMH120	☐ 175PMH120	☐ 200PMH120
	☐ 100PMH208	☐ 150PMH208	☐ 175PMH208	☐ 200PMH208
	☐ 100PMH240	☐ 150PMH240	☐ 175PMH240	☐ 200PMH240
	☐ 100PMH277	☐ 150PMH277	☒ 175PMH277	☐ 200PMH277
	☐ 100PMH347	☐ 150PMH347	☐ 175PMH347	☐ 200PMH347
	☐ 100PMH480[2]	☐ 150PMH480[2]	☐ 175PMH480[2]	☐ 200PMH480[2]
Lamp	ED-17, Clear	ED-17, Clear	ED-17, Clear	ED-17, Clear
Socket	Medium Base	Medium Base	Medium Base	Medium Base
ANSI Ballast Type	M-90	M-102	M-137	M-136

	Metal Halide	High Pressure Sodium		Induction Fluorescent
	☐ 175MH120	☐ 100HPS120	☐ 150HPS120	☐ 85IF120
	☐ 175MH208	☐ 100HPS208	☐ 150HPS208	☐ 85IF208
	☐ 175MH240	☐ 100HPS240	☐ 150HPS240	☐ 85IF240
	☐ 175MH277	☐ 100HPS277	☐ 150HPS277	☐ 85IF277
	☐ 175MH347	☐ 100HPS347	☐ 150HPS347	
	☐ 175MH480[2]	☐ 100HPS480[2]	☐ 150HPS480[2]	
Lamp	ED-17, Clear	ED-17, Clear	ED-17, Clear	85 Watt
Socket	Medium Base	Medium Base	Medium Base	
ANSI Ballast Type	M-57	S-54	S-55	

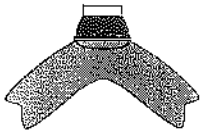
[2]480 volt with medium base sockets may require approval of local building code authority.



Optional Features

Narrow Downlight Optics
Cat. No. ☐ **DL-N**
☐ **No Option**

Two-piece hydroformed aluminum reflector with Alzak finish. Reflector fills optical housing and provides minimal uplight distribution. Symmetric downlight distribution is narrower than standard symmetric pattern, with increased intensity.

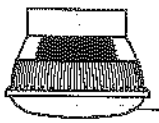


Wide Downlight Optics
Cat. No. ☒ **DL-W**
☐ **No Option**

Two-piece hydroformed aluminum reflector with Alzak finish. Reflector fills optical housing and provides minimal uplight distribution. Symmetric downlight distribution is similar to standard symmetric pattern, with increased intensity.

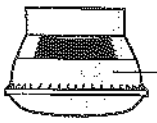
Polycarbonate Downlight Lens
Cat. No. ☐ **LS**
☐ **No Option**

One-piece clear injection molded UV stabilized polycarbonate Downlight Lens replaces the standard acrylic.
CAUTION: Use only when fixture vandalism is anticipated within the parking garage. Service life is reduced by UV discoloration from Metal Halide lamps. High Pressure Sodium lamps are recommended to promote full service life.



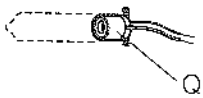
Painted Optical Housing
Cat. No. ☐ **PSH**
☐ **No Option**

Conceals the down-light optical housing reflector. The color is matched to the electrical housing.



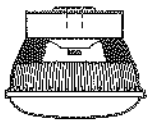
Quartz Standby
Cat. No. ☒ **QS**
☐ **No Option**

Integral current sensing relay energizes a T-4 mini-can socket during lamp warm-up and after power interruption. Socket de-energizes prior to the H.I.D. lamp reaching full brightness. T-4 mini-can halogen lamp by others; 100 watt maximum.
NOTE: Input amps will increase by .80 with this option. Not available on 85IF.



Tamper-Resistant Lens Screws
Cat. No. ☐ **TS**
☐ **No Option**

Captive hex socket (allen) shoulder screws provided for downlight window instead of standard phillips-head screws.



Optional Features

Fusing (internal only):
Cat. No. **(see chart at right)**
☐ **No Option**

High temperature fuse holders factory installed inside the fixture housing. Fuse is included.

Line Volts:	120V	208V	240V	277V	347V	480V
Cat. No.:	☐ **SF**	☐ **DF**	☐ **DF**	☐ **SF**	☐ **SF**	☐ **DF**

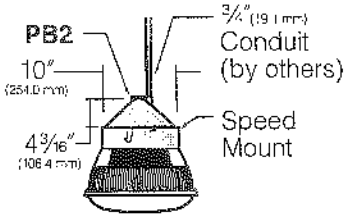
Lamp Included
Cat. No. ☐ **Lamp Included**
☐ **No Option**

To order fixtures with lamp included and installed, add "**lamp included**" suffix to catalog number. Will also include **QS** option lamp (when specified).

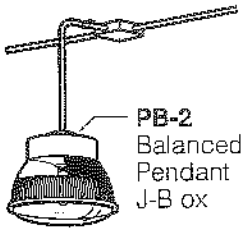
Balanced Pendant Junction Box and Bird Shroud
Cat. No. ☐ **PB2**
☐ **No Option**

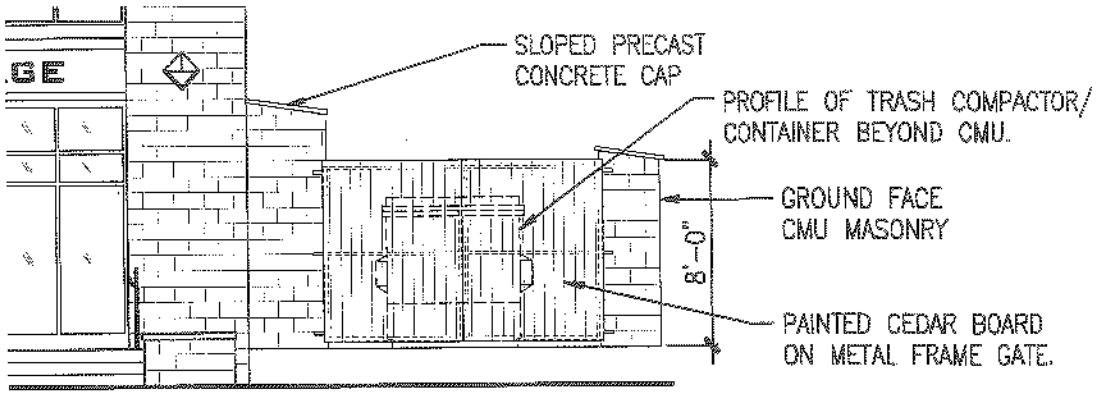
Cast aluminum, finished to match fixture body. Offset ¾" NPT pendant entry to balance fixture in free-swinging installation. For fixture mounting, Kim Speed Mount attaches directly to Balanced Pendant Junction Box (PB2).

Free-swinging pendant installations

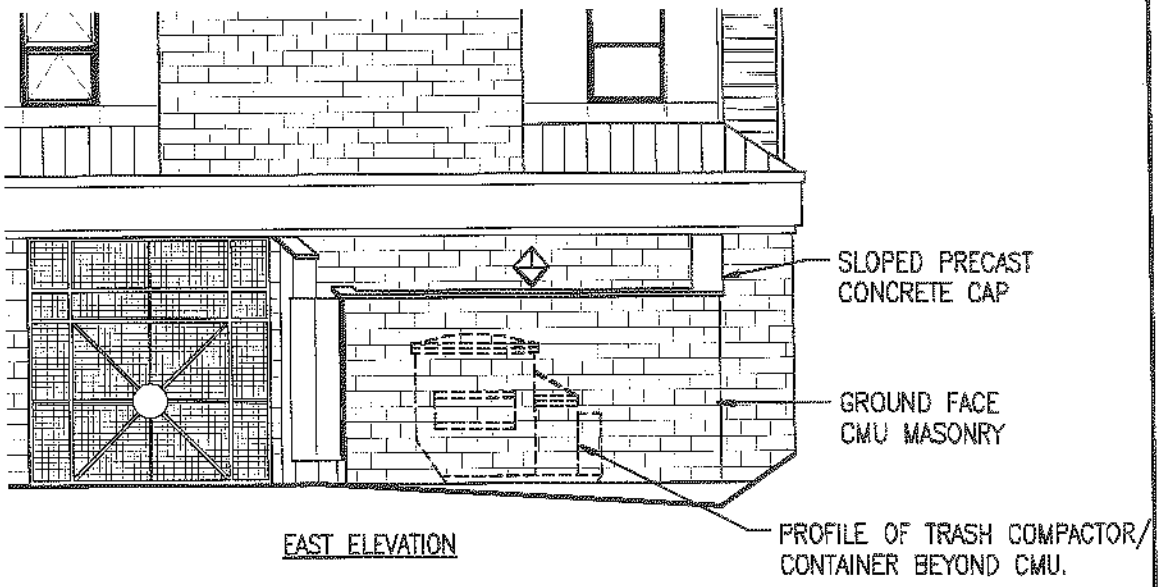


Standard 4" J-Box installations

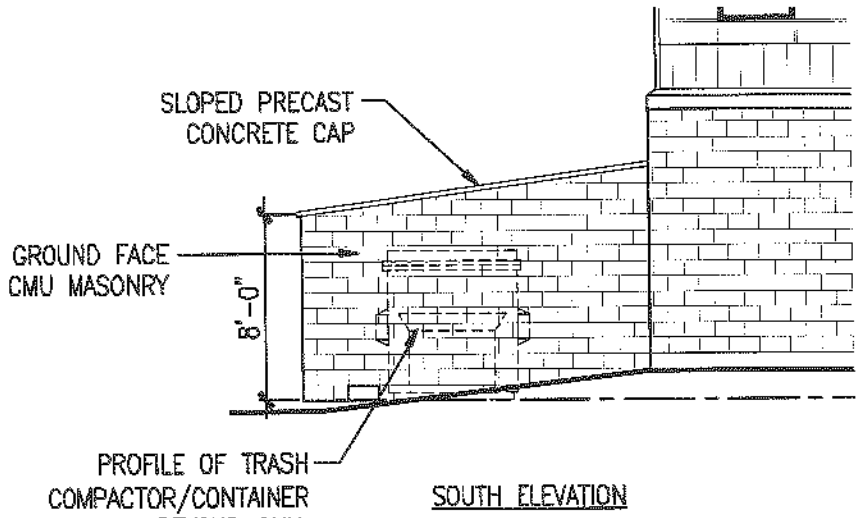




NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION

Castle Walker Stewart Architects
454 Cumberland Avenue
Portland, ME 04101
Phone (207) 774-4441
Fax (207) 774-4016
www.cwsarch.com

Project
BAYSIDE VILLAGE
STUDENT HOUSING
COMPLEX
102 MARGINAL WAY, PORTLAND, MAINE
PROJECT #: 2006-012.00

Drawing Title
PROPOSED CHANGES TO
TRASH ENCLOSURE

Scale 1/8" = 1'-0"
Date 10/26/2007

Drawing Number

becomes important to migate that impact. The plan has been changed so that gate is not visible from Chestnut Street (which is good) but it is
still going to be visible from the public that will be using the public
parking lot (train stop).

The dumpster issue was not discussed at wednesdays staff review meeting. It will be discussed at next wednesdays meeting so if there is
any further info that would be helpful.

>>> "Bob Metcalf" <rmetcalf@mitchellassociates.biz> Wednesday, November
14, 2007 >>>
Hi Rick,

Could you give me a call when you get a chance, I need to review the trash enclosure fro Bayside Village to see where we are in the review.

Bob

From: Rick Knowland
To: rmetcalf@mitchellassociates.biz
Date: Fri, Sep 21, 2007 3:40 PM
Subject: Fwd: marginal way student housing projecy

>>> "Rick Knowland " <RWK@portlandmaine.gov> Friday, September 21, 2007 >>>
Bob, This email is intended to summarize staff comments received to date regarding revisions to the Marginal Way Student Housing Project. The revisions are descibed in submissions with cover letters dated 9-07-07 and 9-18-07.

Noise...Marge Schmuckal indicates that the air cooler chilier does not meet the B-7 noise standards. Further documentation will need to be submitted on how this standard will be addressed.

Signage Plan...The signage plan along Marginal Way is acceptable. Obviously a sign permit will be required. In terms of the BV signs, I'll need to have more internal discussion on this. Why are 3 BV signs needed? If this were a hotel (but it is not)I could understand some of the signs. Has there been consideration to just having one sign facing I-295?

Engineering ...I've talked to Mike Farmer of Public Works and he didn't have any concerns with the revisions.

Shaper Lighting Fixture... This fixture looks familiar. Please confirm that it is nonglaring and deflected downward.

Dumpster...I have received a variety of thoughts regarding the dumpster enclosure. These comments are precipitated by the fact that the dumpster is proposed on city land and is at the terminating view of Chestnut Street. I understand the statements in the earlier submission regarding the dumpster location but I think other options need to be explored further. If after exhausting all other options and this site is the only one available, I would suggest that the architect modify the design of the dumpster so it looks more like an appendage of the building. I offer no solutions but perhaps the walls could be raised higher and follow the design plane of the first floor of the building. The doorway of the proposed dumpster would normally be ok if tucked way at the rear of a property somewhere but in this case its at the terminating view of Chestnut Street. Any other design alternatives? It is my understanding that the location of dumpster was driven by a conversation with a trash hauler operator. Perhaps a conversation with another trash hauler would yield another alternative.

Building Elevations...Unless we have further questions, we are ok with the building elevations. I talked to Ben and he answered several questions.

Landscaping...Jeff looked at the plan and his ok with it.

Bob, These are the comments received to date. Should there be others I will forward them to you accordingly.

From: Rick Knowland
To: rmetcalf@mitchellassociates.biz
Date: 11/2/2007 12:14:14 PM
Subject: student housing

Hi Bob, See attached comments on student housing project. I used the wrong email address initially.
>>> <Mailer-Daemon@smtp.portlandmaine.gov> Wednesday, October 31, 2007 >>>
The message that you sent was undeliverable to the following:

bmetcalf@mitchellassociates.biz (550 5.1.1 User unknown)

Possibly truncated original message follows:

From: "Rick Knowland " <RWK@portlandmaine.gov>
To: <bmetcalf@mitchellassociates.biz>
Date: 10/31/2007 3:31:01 PM
Subject: student housing project

Bob, At Wednesday's staff review meeting we discussed the dumpster/compactor issue. After looking at the plan there isn't any enthusiasm among staff for a dumpster enclosure on city owned land and its location at the terminus of Chestnut Street. I appreciate the fact that this use will generate alot of waste but this solution doesn't have any support.

I don't know what to say other than to seek another alternative. Perhaps may be a smaller trash (low tech) hauler out there that does not have as sophisticated equiptment as larger haulers that could accommodate their needs. I suppose if the applicant doesn't like staff's answer on the revision this could be referred to the planning board. Someone from City whether it be the City Manager's Office or the City Council will presumably need to approve a license for the dumpster on City land.

CC: "Alex Jaegerman " <AQJ@portlandmaine.gov>, "Barbara Barhydt" <BAB@portlandmaine.gov>

pizzagalli
construction company

May 14, 2008

Rick Knowland
Senior Planner
City of Portland
389 Congress Street
Portland, ME 04101

Re: Bayside Village Student Housing Complex, 132 Marginal Way, Portland, ME

Dear Rick:

This letter represents a follow-up to your job site visits were we reviewed the metal panel revisions at the Bayside Village Project. The following items are revisions to the original approval by the Planning Board on November 14, 2006:

1) Glass Fiber Reinforced Concrete (GFRC) Parapets and Accent Band. During the approval process with the City, GFRC was approved for the parapets and accent band around the building. During the design review process of the building it was discovered that GFRC is not a valid product for a wood building application. Prefabricated GFRC should be anchored to structural steel and not wood. Therefore, the design team went back to the original plan of metal panels (as shown on the rendering drawing attached for your use) for the parapets and accent band around the building. The product being used is the same material as the silver metallic Firestone Una-Clad UC-501 vertical oriented metal siding wall panels in the courtyard, except bent at a different profile. Attached for your use is the cut sheet on the UC-501 panel system and two elevations showing the dimensions of the parapet and accent band layout. Please note that the panels will only be approximately 20" wide in order to minimize the chance of any "oil canning." The original rendering showed metal panels approximately 40" wide.

2) Citadel ProCore Prefinished Architectural Panels. The ProCore panel that was approved by the City was a two-piece reveal molding system shown on the attached detail 1B System Isometric, Option 2. The ProCore panel that we are looking to install at the Bayside project is a two-piece extruded molding system shown on the attached detail 1A System Isometric, Option 1. The extruded molding system was ordered and delivered to the jobsite instead of the approved reveal molding. The issue we have is the moldings have a custom coating on them, and it will take seven to eight weeks for the new moldings. With this fast track project this delay would be detrimental to finishing on time. The panels between the moldings are the same. The only difference is the moldings that surround each panel. The reveal molding (option 2) has a ½" gap in the cover plate, while the extruded molding (option 1) has a flat cover plate. The rest of the metal siding systems around the perimeter of the building all have flat moldings which would match option 1. Both moldings cost the same, have the same finish, have the same performance, and have the same warranty. The original reveal molding has the possibility of collecting debris and insects in the ½" gap where the extruded molding system is a flat cover plate.

131 Presumpscot Street, Portland, ME 04103
207-874-2323 www.pizzagalli.com

The project next door (84 Marginal Way) is also using the same extruded moldings on their approved panels as we are proposing for Bayside. This would give both adjacent buildings the same look.

Both of the above items are time sensitive, and we would appreciate anything the City can do to approve the proposed materials by Tuesday May 20, 2008. Thank you for your help in finalizing the metal panel system for the Bayside Village Student Housing Project.

Sincerely,
Pizzagalli Construction Company

Daniel P. Noblet
Project Manager

Attachments


BAYSIDE VILLAGE

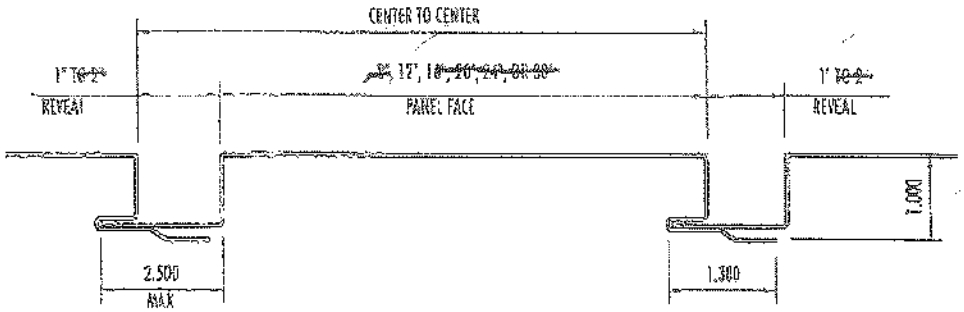
Firestone METAL PRODUCTS
UNA-CLAD

Parapet and Accent Band

800.426.7737 • WWW.UNACLAD.COM

UC-501 Reveal Flush Panel System

UC501-INFO



MATERIAL OPTIONS

~~GALVANIZED STEEL~~
COIL-COATED ALUMINUM
~~ANODIZED ALUMINUM~~
~~MILL FINISH ALUMINUM~~

FINISH OPTIONS

PAINTING
~~HYLAR 5000/KYNAR 500, ANODIZED POLYESTERS, AND OTHER CUSTOM OR EXOTIC FINISHES~~
~~CAN BE COIL COATED OR SPRAY APPLIED.~~

~~ANODIZING~~
~~CLEAR, BRONZE, AND VARIOUS OTHER COLORS~~
~~CAN BE COIL ANODIZED FOR COLOR CONSISTENCY.~~

~~MECHANICAL FINISHES~~
~~PROVIDES A SURFACE TEXTURE BY MECHANICAL MEANS ALONE. (5) EMBOSSING PATTERNS ARE CURRENTLY AVAILABLE.~~

CUSTOM COLORS
~~WE CAN PROVIDE FULL CUSTOM COLOR SERVICES TO MATCH PRACTICALLY ANY PAINTING, SHADE, OR TINT YOU DESIRE.~~

FABRICATION OPTIONS

RIBBING*	~~20, 25, & 24 GA.~~
~~STEEL~~	~~20 & 24 GAUGE~~
ALUMINUM	~~.032~~ - .040"
COPPER	~~16 & 20 OZ.~~
MINIMUM LENGTH	~~24" SQ.~~ 6"
MAXIMUM LENGTH	600"
BEST O.C. DIMS.	12" & 20"
STIFFENING RIBS AVAILABLE	

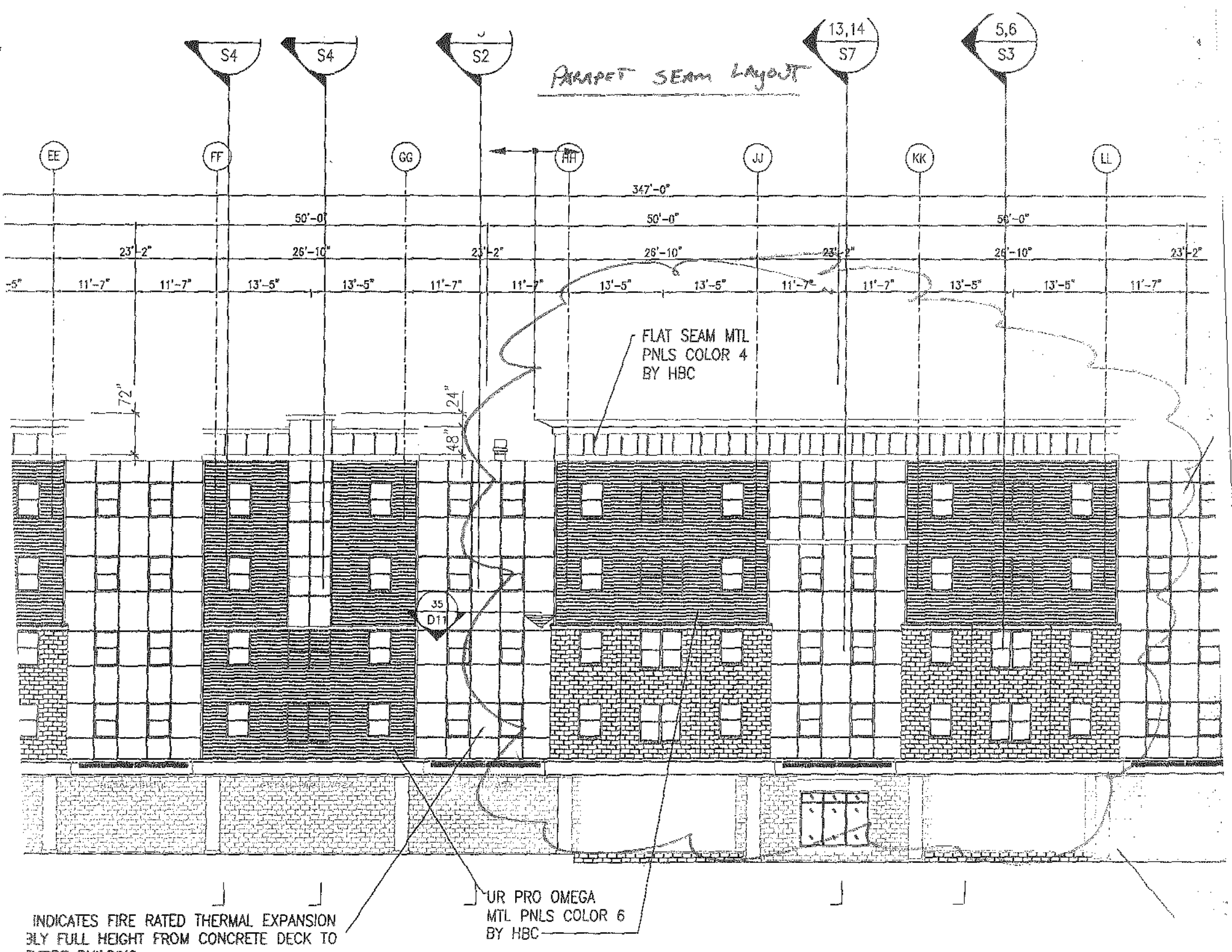
TECHNICAL DATA

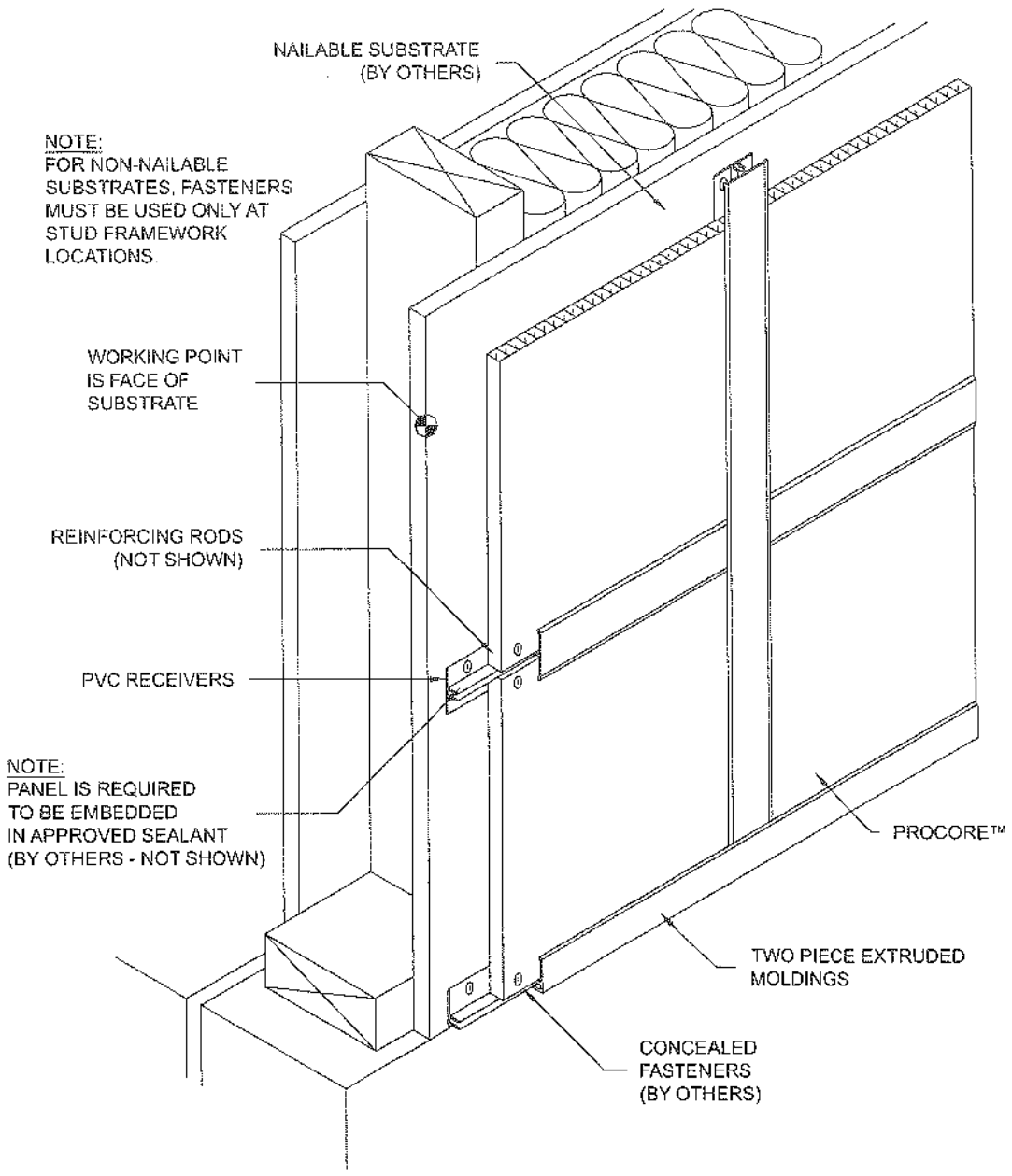
UL-90 RATED (STEEL & ALUMINUM)
ASTM E330-90 STRUCTURAL PERFORMANCE TESTING
ASTM E283 AIR INFILTRATION TEST
ASTM E331 WATER PENETRATION TEST

NOTES:

1. HEAVIER GAUGES, NARROWER WIDTHS, AND EMBOSSING MINIMIZE "OIL CANNING."
2. OIL CANNING IS NOT A CAUSE FOR REJECTION.
3. AN EXTENSIVE SELECTION OF ASSOCIATED PANEL FLASHINGS AND TRIMS ARE AVAILABLE.
4. CONTACT UNACLAD FOR UP-TO-DATE TECHNICAL INFORMATION AND MATERIAL LIMITATIONS.
5. ALL SYSTEMS WITH TESTING MUST BE INSTALLED IN ACCORDANCE WITH THE ASSEMBLY AS TESTED.

1001 Lund Boulevard, Anoka, Minnesota 55303 800/426-7737 763/576-9595 FAX 763/576-9596

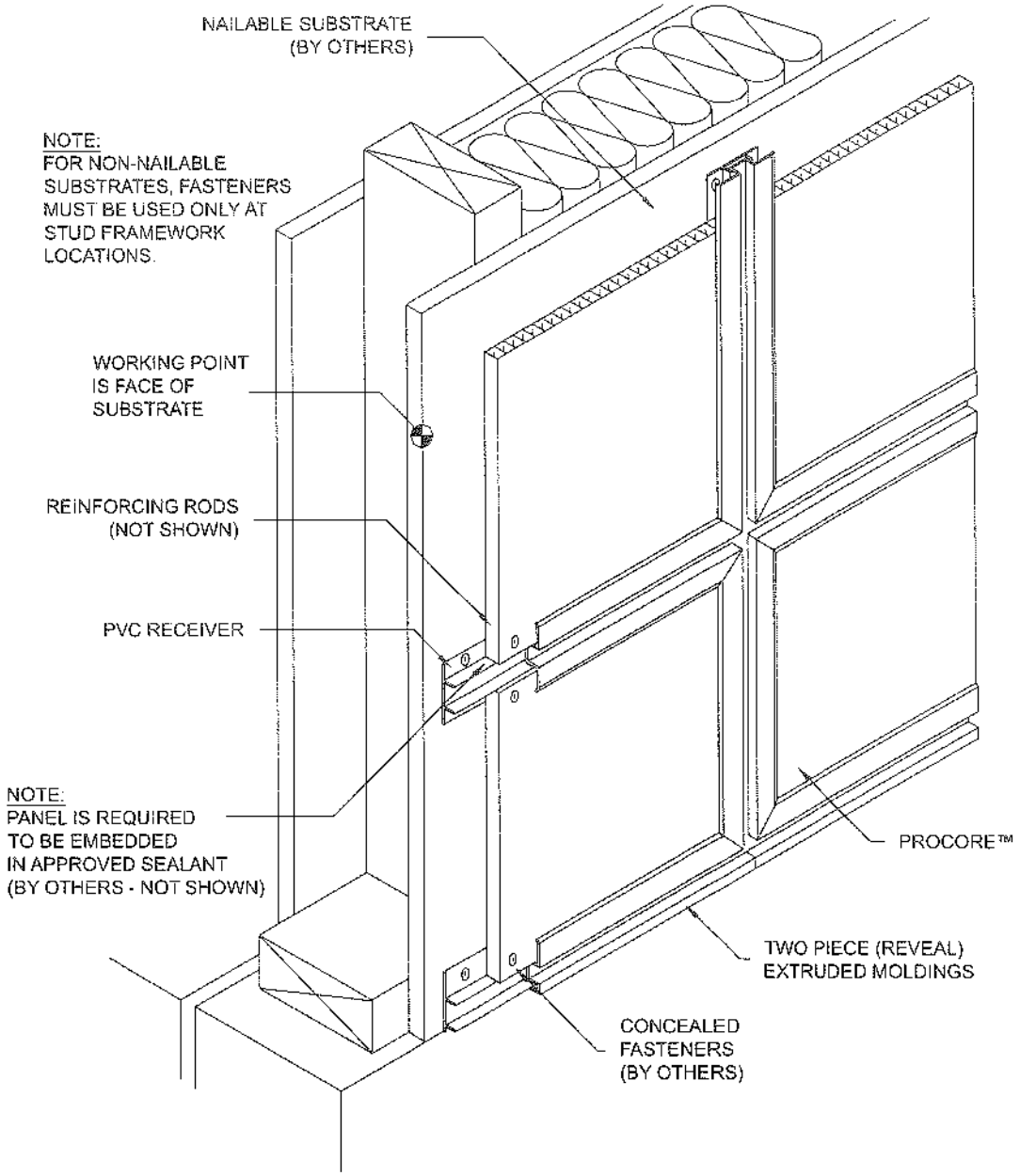

PARAPET SEAM LAYOUT
S4
S4
S2
13,14
S7
5,6
S3
EE
FF
GG
HH
JJ
KK
LL
347'-0"
50'-0"
50'-0"
50'-0"
23'-2"
26'-10"
23'-2"
26'-10"
23'-2"
26'-10"
23'-2"
-5"
11'-7"
11'-7"
13'-5"
13'-5"
11'-7"
11'-7"
13'-5"
13'-5"
11'-7"
11'-7"
13'-5"
13'-5"
11'-7"
72"
24"
48"
FLAT SEAM MTL
PNLS COLOR 4
BY HBC
35
D11
UR PRO OMEGA
MTL PNLS COLOR 6
BY HBC
INDICATES FIRE RATED THERMAL EXPANSION
BLY FULL HEIGHT FROM CONCRETE DECK TO



1A SYSTEM ISOMETRIC, OPTION 1

DRAWING NAME: PRO 2PC 1A System Isometric Option 1.dwg		
SYSTEM: Two Piece Moldings	**REVISED:** 11/06	**SCALE:** n/a

Note: This detail represents the latest recommendations from Citadel Architectural Products, Inc. It is presented in good faith and is subject to change without notice. Citadel Architectural Products, Inc. accepts no responsibility for the end use of this detail. For conditions not shown, consult our Technical Staff at (800) 446-8828 for review of specific details.



1B SYSTEM ISOMETRIC, OPTION 2

Note: This detail represents the latest recommendations from Citadel Architectural Products, Inc. It is presented in good faith and is subject to change without notice. Citadel Architectural Products, Inc. accepts no responsibility for the end use of this detail. For conditions not shown, consult our Technical Staff at (800) 446-8828 for review of specific details.

DRAWING NAME:
PRO 2PC 1B System Isometric Option 2.dwg

SYSTEM:	REVISED:	SCALE:
Two Piece Moldings	11/06	n/a

Mitchell & Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
F: 207.874.2460
www.mitchellassociates.biz

October 29, 2007

Mr. Richard Knowland, Senior Planner
City of Portland
Congress Street
Portland, Maine 04101

RE: Bayside Village - A Student Housing Complex
Diminimus Change Request

Dear Rick:

The following documentation and responses have been prepared to address comments concerning the diminimus change request submitted on September 6, 2007.

Garage Lighting: Enclosed is the manufacture cut sheet for the garage light fixture proposed as a replacement for the previous florescent fixture to address concerns with the visibility and glare. The fixture will be suspended from the recessed area of the garage/roof deck. The optical configuration shields the lamp from normal viewing angles by the reflector section of the luminare.

Trash Enclosure: In response to staff concerns with the proposed relocation of solid waste management, we offer the following:

The Owner has met with several trash removal companies to discuss the internal trash room configuration as proposed during the approval process. In each instance the same issues concerning liability and safety were raised regarding use of role out containers. To address these concerns, the use of the proposed "pak-trainer" - which incorporates a compactor and significantly reduced the size of the container - was recommended as the most sensitive option to contain refuse and maintain as low of an impact as is feasible.

Regarding location, the only option to locate an external trash enclosure is on the northeast side of the site within the city R.O.W. as shown on the submitted plan. The

area between the Bayside Village and 84 Marginal (Intermed) properties contain the chiller unit for the student housing project and an emergency generator for 84 Marginal Way leaving no room for an enclosure. We have studied the orientation options for the gate access and circulation requirements. Due to turning and access requirements, the proposed location and orientation is necessary for vehicle access. In addition, site grading and drainage requirements to accommodate run off from I-295 restrict access options.

CWS Architects, in response to your comments concerning integration of the enclosure into the building architecture, have prepared the enclosed annotated elevations for your review. The operational requirements of emptying the container require a vertical overhead lifting process that precludes the opportunity to provide a roof covering for the structure. The revised sketch proposes a more contemporary form with sloped masonry walls that match the building's façade materials and align below the building's accent band. The gates to the enclosure have been squared-off to tie in with the contemporary elements of the design and will be painted dark green to coordinate with the color of other accent materials on the site.

Noise Level, Chiller Unit: We have assembled documentation regarding the proposed unit sound rating and wanted to meet with Marge Schmuckal to review the data. Unfortunately Marge, as you know, has been on vacation. As soon as possible upon Marge's return, we will meet with her to address the issue.

Enclosed for your review are the following:

- Garage light fixture cut sheets
- Trash enclosure elevations

We trust these responses and supporting documents address your concerns. Should you any questions or additional comments, please do not hesitate to call me.

Sincerely,
Mitchell & Associates

Robert B. Metcalf

Enclosure

cc: Dan Noblet
Ben Walter

KIM LIGHTING

PGL4
Parking Garage Luminaires

revision 9/28/07 • pgl4.pdf

Type:
Job:
Catalog number:

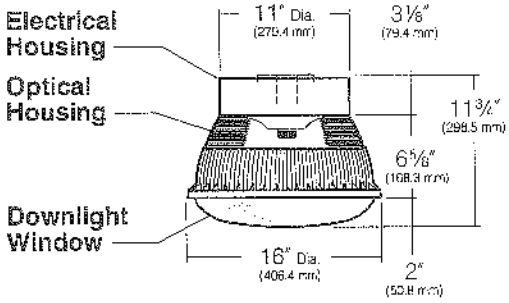
PGL4 — 175PMH277 / DL-W / CS / LAMP INCLUDED

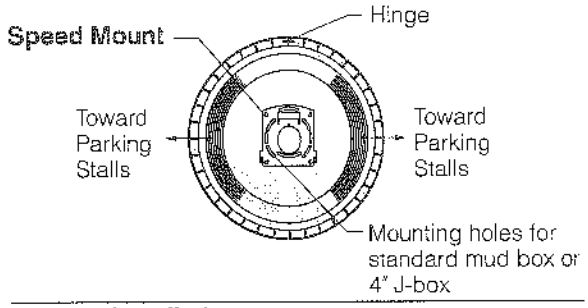
Fixture | Electrical Module (See page 2) | Options (See pages 3-4)

Approvals:

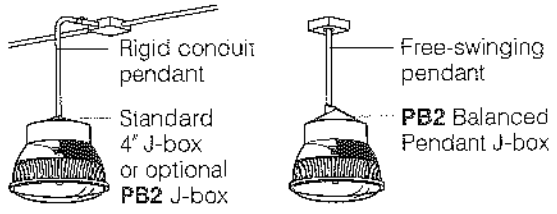
Date:
Page: 1 of 4

Specifications





Pendant Installations



- For Free conduit pedant mount, use a standard 4" junction box with a centered pendant entry.
- For Free-swinging pendant mount, use the optional **PB2** Balanced Pendant Juction Box (page **3**).
- For all pendant installations where bird shroud protection is desired, use the optional **PB2** Balanced Pendant Junction Box (page **3**).

Speed Mount: Formed steel, electro-zinc plated for mounting to standard 4" junction box or mud box. Hooks are designed to hang fixture, freeing both hands for field wire connections. Allows tool-free fixture mounting to junction box, with integral anti-theft locking device.

Ballast Housing: Die-cast, low copper (<0.6% Cu) aluminum alloy for direct mounting to the Kim Speed Mount. Wire entry is sealed with a silicone grommet.

Optical Housing: One-piece injection molded UV stabilized polycarbonate (minimum wall thickness .125") with clear uplight window. Reflector has vertical facets to prevent reflected light from passing through the lamp envelope. Uplight window contains two prismed sections to spread additional light downward in the direction of parking stalls. Optical Housing is secured to Electrical Housing with full silicone gasketing around the perimeter.

Uplight Reflector and Socket: One-piece hydroformed aluminum with Alzak® surface facing prisms and diffuse white surface facing uplight window areas. Socket is 4KV pulse rated medium base. Reflector is removed by loosening three screws allowing access to the electrical components.

Downlight Window: One-piece clear injection molded UV stabilized high temperature acrylic (polycarbonate optional). Attached to optical housing with a "no-tool" quick release spring hinge and three captive phillips-head "shoulder" type screws to prevent overtightening (tamper-resistant hex socket screws optional). Perimeter is fully gasketed with silicone. Convex shape yields maximum light transmission.

HID Electrical Components: High power factor ballasts for -20°F. starting, rigidly mounted inside electrical housing and prewired with leads extended out top of housing.

Induction Fluorescent Lamp Electrical Components: Complete HF generator and induction lamp system is furnished. Induction lamp system is high power factor, rated for -4° starting.

Optical Configuration: In the direction of the driving lanes, luminaire downlight is of the "cutoff" classification with uplight provided for illuminating ceiling and beams. In the direction of parking stalls, luminaire is a "semi-direct" type with partial uplight refracted downward for additional fill-light in the parking stalls. In all directions, lamp is shielded from normal viewing angles by the reflector section of the luminaire.

Finish: PGL4: Platinum Silver color on ballast housing only. Super TGIC thermoset polyester powder coat paint over titanated zirconium conversion coating. Clear optical housing.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

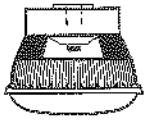
Listings and Ratings	
UL cUL 1598[1]	40C Ambient
IP66 Rated	ISO 9001:2000

[1]Suitable for wet locations

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

HUBBELL®
Hubbell Lighting, Inc.

 • P.O. BOX 60080, CITY OF INDUSTRY, CA 91716-0080 • TEL: 626/968-5666 • FAX: 626/369-2695



Standard Features

Fixture

Cat. No. PGL4

Contemporary garage luminaire. Die-cast, low copper (<0.6% Cu) aluminum alloy ballast housing with Platinum Silver Super TGIC powder coat paint over titanated zirconium conversion coating, one-piece clear optical housing. Downlight optical reflector visible through optical housing material.

Electrical Module

PMH = Pulse Start Metal Halide
MH = Metal Halide[1]
HPS = High Pressure Sodium
IF = Induction Fluorescent

[1]**NOTE:** Refer to ANSI Type for proper lamp.

Lamp Watts	Lamp Type	Line Volts
175	**MH**	**277**

CAUTION: All manufacturers of metal halide lamps recommend turning them off for 15 minutes once per week when under continuous operation. This will reduce the risk of arc tube rupture at end of life. Also, color temperature may differ between manufacturers of metal halide lamps. See lamp manufacturer's specification sheets.

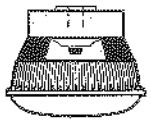
All fixtures are available pre-lamped by Kim. Consult representative for pricing.

Cat. Nos. for Electrical Modules available:

	Pulse Start Metal Halide			
	☐ **100PMH120**	☐ **150PMH120**	☐ **175PMH120**	☐ **200PMH120**
	☐ **100PMH208**	☐ **150PMH208**	☐ **175PMH208**	☐ **200PMH208**
	☐ **100PMH240**	☐ **150PMH240**	☐ **175PMH240**	☐ **200PMH240**
	☐ **100PMH277**	☐ **150PMH277**	☒ **175PMH277**	☐ **200PMH277**
	☐ **100PMH347**	☐ **150PMH347**	☐ **175PMH347**	☐ **200PMH347**
	☐ **100PMH480**[2]	☐ **150PMH480**[2]	☐ **175PMH480**[2]	☐ **200PMH480**[2]
Lamp	ED-17, Clear	ED-17, Clear	ED-17, Clear	ED-17, Clear
Socket	Medium Base	Medium Base	Medium Base	Medium Base
ANSI Ballast Type	M-90	M-102	M-137	M-136

	Metal Halide	High Pressure Sodium		Induction Fluorescent
	☐ **175MH120**	☐ **100HPS120**	☐ **150HPS120**	☐ **85IF120**
	☐ **175MH208**	☐ **100HPS208**	☐ **150HPS208**	☐ **85IF208**
	☐ **175MH240**	☐ **100HPS240**	☐ **150HPS240**	☐ **85IF240**
	☐ **175MH277**	☐ **100HPS277**	☐ **150HPS277**	☐ **85IF277**
	☐ **175MH347**	☐ **100HPS347**	☐ **150HPS347**	
	☐ **175MH480**[2]	☐ **100HPS480**[2]	☐ **150HPS480**[2]	
Lamp	ED-17, Clear	ED-17, Clear	ED-17, Clear	85 Watt
Socket	Medium Base	Medium Base	Medium Base	
ANSI Ballast Type	M-57	S-54	S-55	

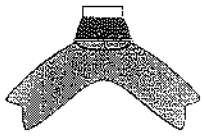
[2]480 volt with medium base sockets may require approval of local building code authority.



Optional Features

Narrow Downlight Optics
Cat. No. ☐ **DL-N**
☐ **No Option**

Two-piece hydroformed aluminum reflector with Alzak finish. Reflector fills optical housing and provides minimal uplight distribution. Symmetric downlight distribution is narrower than standard symmetric pattern, with increased intensity.

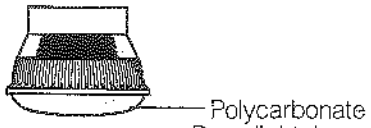


Wide Downlight Optics
Cat. No. ☒ **DL-W**
☐ **No Option**

Two-piece hydroformed aluminum reflector with Alzak finish. Reflector fills optical housing and provides minimal uplight distribution. Symmetric downlight distribution is similar to standard symmetric pattern, with increased intensity.

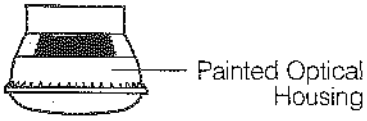
Polycarbonate Downlight Lens
Cat. No. ☐ **LS**
☐ **No Option**

One-piece clear injection molded UV stabilized polycarbonate Downlight Lens replaces the standard acrylic.
CAUTION: Use only when fixture vandalism is anticipated within the parking garage. Service life is reduced by UV discoloration from Metal Halide lamps. High Pressure Sodium lamps are recommended to promote full service life.



Painted Optical Housing
Cat. No. ☐ **PSH**
☐ **No Option**

Conceals the down-light optical housing reflector. The color is matched to the electrical housing.

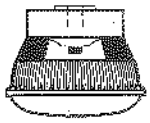


Quartz Standby
Cat. No. ☒ **QS**
☐ **No Option**

Integral current sensing relay energizes a T-4 mini-can socket during lamp warm-up and after power interruption. Socket de-energizes prior to the H.I.D. lamp reaching full brightness. T-4 mini-can halogen lamp by others; 100 watt maximum.
NOTE: Input amps will increase by .80 with this option. Not available on 85IF.

Tamper-Resistant Lens Screws
Cat. No. ☐ **TS**
☐ **No Option**

Captive hex socket (allen) shoulder screws provided for downlight window instead of standard phillips-head screws.



Optional Features

Fusing (internal only):
Cat. No. **(see chart at right)**
☐ **No Option**

High temperature fuse holders factory installed inside the fixture housing. Fuse is included.

Line Volts:	120V	208V	240V	277V	347V	480V
Cat. No.:	☐ **SF**	☐ **DF**	☐ **DF**	☐ **SF**	☐ **SF**	☐ **DF**

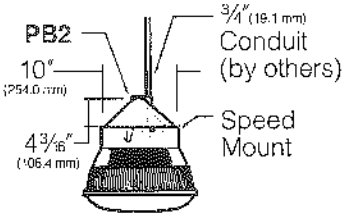
Lamp Included
Cat. No. ☐ **Lamp Included**
☐ **No Option**

To order fixtures with lamp included and installed, add "**lamp included**" suffix to catalog number. Will also include **QS** option lamp (when specified).

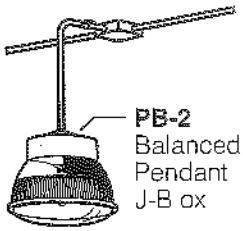
Balanced Pendant Junction Box and Bird Shroud
Cat. No. ☐ **PB2**
☐ **No Option**

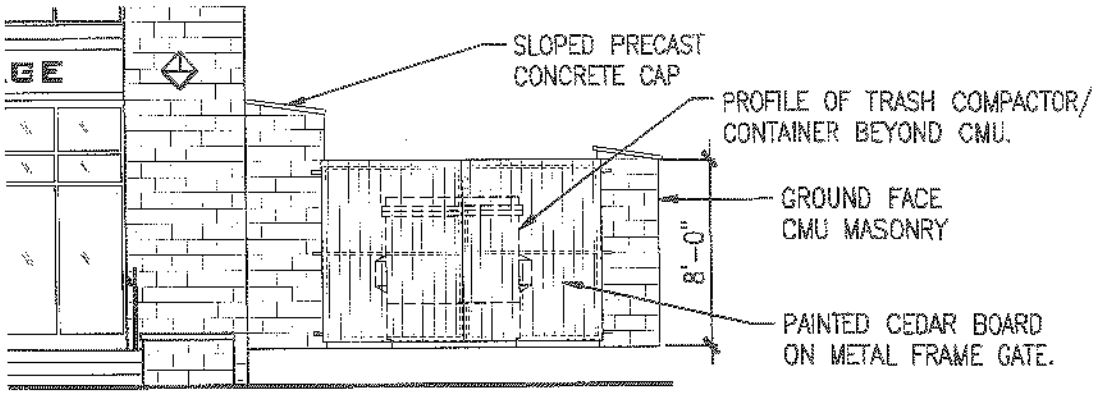
Cast aluminum, finished to match fixture body. Offset ¾" NPT pendant entry to balance fixture in free-swinging installation. For fixture mounting, Kim Speed Mount attaches directly to Balanced Pendant Junction Box (PB2).

Free-swinging pendant installations

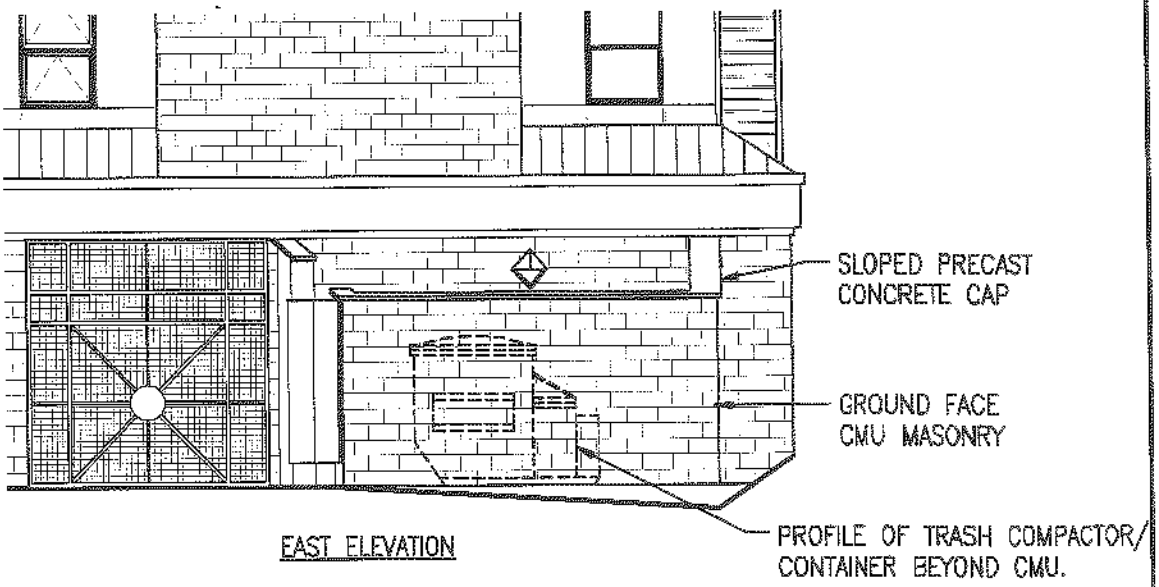


Standard 4" J-Box installations

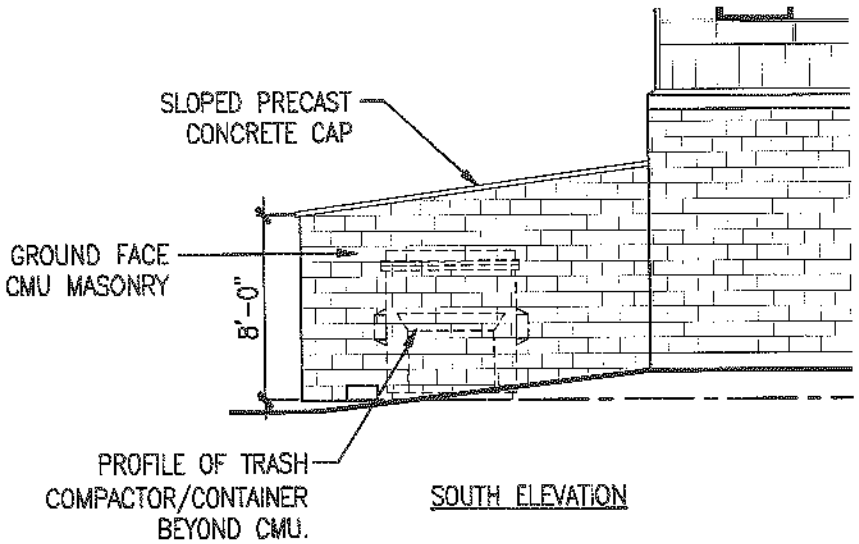




NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION

Custis Walker Sherratt Architects
434 Cumberland Avenue
Portland, ME 04101
Phone (207) 774-4441
Fax (207) 774-4016
WWW.CWSARCH.COM

Project
BAYSIDE VILLAGE STUDENT HOUSING COMPLEX
122 MARGINAL WAY, PORTLAND, MAINE
PROJECT #: 2006-052.P

Drawing Title
PROPOSED CHANGES TO TRASH ENCLOSURE

Scale: 1/8" = 1'-0"
Date: 10/26/2007

Drawing Number:

BAYSIDE VILLAGE

PORTLAND MAINE

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

Planning and Development Department
Lee D. Urban, Director

Planning Division
Alexander Jaegerman, Director

July 19, 2007

Erica Martin
Pizzagalli Construction Co.
131 Presumpscot Street
Portland, Maine 04103

RE: Bayside Village Site Activity

Dear Erica,
This letter is to confirm that the Planning Division is authorizing preliminary site activities on the Bayside Village site. These site activities are limited in scope and shall constitute only the following activities:

1. Remove the pavement on site
2. Remove and store the curbing on site
3. Clear and grub next to Marginal Way
4. Clear and grub the 295 side
5. During the week of July 23, 2007, the building corners and baseline may be laid out, but no foundation work of any kind may be commenced.

This letter is not a building permit and does not authorize any other site activity or work. The performance guarantee and all permits must be secured prior to any other work being performed on site.

Should you have any questions concerning this letter please call either myself or Phil DiPierro, Development Review Coordinator.

Sincerely,

Alexander Jaegerman
Planning Division Director

O:\PLAN\DEVREVW\marginalway120(baysidevillage)\July 19-Letter to Pizzagalli.doc

CC:
Barbara Barhydt, Development Review Services Manager
Philip DiPierro, Development Review Coordinator
Jeanie Bourke- Inspections Division Director
Richard Knowland, Senior Planner
Dan Nobler, Pizzagalli Construction Co., 131 Presumpscot Street, Portland, ME 04103
Ryan Leavitt, Realty Resources, 247 Commercial Street Ste. A, Rockport, ME 04856

KeyBank
1 Canal Plaza
Portland, Maine 04101
207-874-7026

June 18, 2007

City of Portland Planning Department
4th floor, Portland City Hall
389 Congress Street
Portland, ME 04101

Re: Bayside Village Student Housing, LLC

To Whom It May Concern:

KeyBank National Association (hereinafter called the "Bank") has committed to make a loan to Bayside Village Student Housing in the amount of $20,825,000 for the acquisition of land located at 120 Marginal Way in Portland, Maine and construction of 100 fully furnished 4-bedroom suite-style units of student housing, a 102-space parking garage and approximately 3,600 square feet of retail space on terms and conditions set forth in our commitment letter which has been issued and accepted.

We anticipate an initial closing by the end of this month.

We have successfully completed a variety of projects with Joseph Cloutier, the principal, and look forward to participating in this project.

Sincerely,

W. Scott Fox,
Senior Vice President
Community Development Lending

CORPORATE FINANCE ASSOCIATES

Peter G. Moore
75 Market Street, Suite 305
Portland, ME 04101

E/ pmoore@cfaw.com
T/ 207.772.2221
F/ 207.772.2227

June 25, 2007

Richard Knowland
Senior Planner
Planning Department
City of Portland
Congress Street
Portland, ME 04101

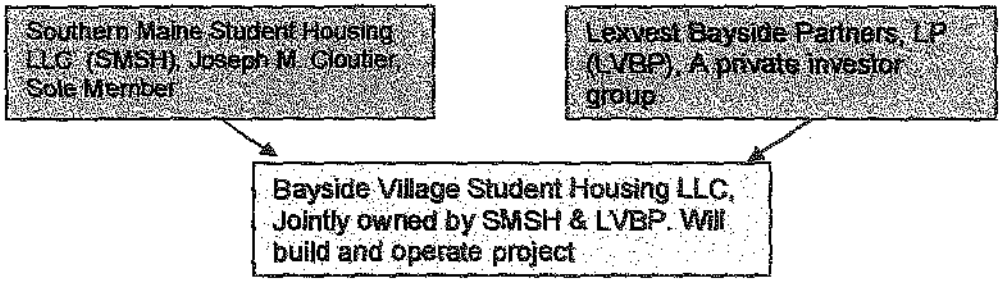
Re: Bayside Village Student Housing Project

Dear Richard,

I am writing in my capacity as financial advisor to Joseph M. Cloutier and Southern Maine Student Housing LLC.

I understand that your office has requested an explanation of the need to amend the various City approvals for Southern Maine Student Housing LLC (SMSH)to a new entity named Bayside Village Student Housing LLC. (BVSH)

Bayside Village Student Housing LLC is the new entity formed by the joint investment into the project by Joseph Cloutier's development entity Southern Maine Student Housing LLC (the current property owner of record) and the outside investor group headed by Lexvest Bayside Partners LP, a Lexington, Massachusetts based private investment group. Together their capital is providing funding for the project and they will own the project under the BVSH entity. See diagram below:



The necessity of this arrangement is to properly and legally facilitate all joint venture arrangements, including but not limited to bank borrowing, construction contracts, management of the property and ongoing operations after construction is completed.

If there are any questions you or your staff have regarding this arrangement and its necessity please contact me immediately.

Thank you for your ongoing support for this important project in Portland.

Sincerely,

Peter G. Moore
Managing Director

CC: Joseph M. Cloutier, Southern Maine Student Housing LLC
John Kaminski, Esq.
Eric D. Shapiro, Lexvest Bayside Partners, LLC

pizzagalli construction company

Bayside Village Student Housing

Transmittal 00987

5/22/2008

Transmittal To	Transmittal From
Rick Knowland City of Portland 389 Congress Street Portland, MAINE 04101 T: 207-874-8725 F: 207-756-8258	David Manz Pizzagalli Construction Company 120 Marginal Way Portland, ME 04101 T: 207 761-1535 F: 207-842-9196

WE ARE SENDING:		SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☐ Letter	☒ Approval	☐ Approved as Submitted
☐ Prints	☐ Change Order	☐ Your Use	☐ Approved as Noted
☐ Plans	☐ Specifications	☐ As Requested	☐ Returned After Loan
☐ Samples		☐ Review and Comment	☐ Resubmit
☒ Other: Renderings			☐ Submit
Reference:		**SENT VIA:**	☐ Returned
Bayside Renderings		☒ Attached	☐ Returned for Corrections
		☐ Separate Cover Via:	☐ Due Date:

ITEM NO.	COPIES	DATE	ITEM	NUMBER	REV. NO.	DESCRIPTION	STATUS
01	1	5/22/2008				Original approved rendering of Bayside Village	NEW
02	1	5/22/2008				Revised parapet proposed rendering	NEW
03	1	5/22/2008				CWS's revised parapet approval e-mail	NEW

Remarks

CC: Dan Noblet

Signed: _____

David Manz

Noblet, Daniel

From: Benedict B. Walter [BWalter@cwsarch.com]
Sent: Wednesday, May 21, 2008 4:17 PM
To: Noblet, Daniel
Cc: ddouglass@cwsarch.com
Subject: FW: BAYSIDE MODIFIED RENDERING - PARAPET
Attachments: Marginal Way Rendering5-21-08 11X17.jpg

Dan: Attached is the updated rendering you asked for showing the 20" panels aligned over the 40" panels below. It is my opinion that this approach would be aesthetically attractive and in keeping with the original design approach. If you need a large printout, please let Dave Douglass (cc) know and he can arrange to have it printed and delivered. Ben

Ben Walter AIA, Vice President
CWS Architects | Portland, Maine
T: 207-774-4441
F: 207-774-4016

From: Dave Douglass [mailto:ddouglass@cwsarch.com]
Sent: Wednesday, May 21, 2008 4:10 PM
To: 'Benedict B. Walter'
Subject: BAYSIDE MODIFIED RENDERING - PARAPET

Dave Douglass, AIA

CWS Architects 434 Cumberland Ave
Portland, Maine t. 207.774-4441 f. 207.774.4016

Mitchell
& Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
F: 207.874.2460
www.mitchellassociates.biz

June 9, 2008

Mr. Richard Knowland, Senior Planner
City of Portland Division of Planning and Development
389 Congress Street
Portland, Maine 04101

RE: Bayside Village A Student Housing Complex
Conditions of Diminimus Change Approval

Dear Rick:

In accordance with the City approval letter, dated March 27, 2008, for the diminimus change request for the proposed air cooled chiller, we have prepared the enclosed Exhibit A, dated June 9, 2008. In accordance with the approval letter, we have provided additional plantings in front of the proposed fence. We have added three (3) Wichita Blue Juniper (upright) and seven (7) Bearberry (ground cover) to supplement the original proposed Red Maple. We trust that these additional plantings will address the condition of approval.

The general contractor needs to provide the landscape contractor with a list of additional material as soon as possible. Once Jeff Tarling has reviewed the proposed planting, please notify us so that we may notify the general contractor.

Should you have any questions, please do not hesitate to call me.

Sincerely,
Mitchell & Associates

Robert B. Metcalf

Enclosure

cc: Ryan Leavitt
Dan Noblet
Erica Martin
Ben Walter

pizzagalli construction company

Bayside Village Student Housing

Transmittal 00633

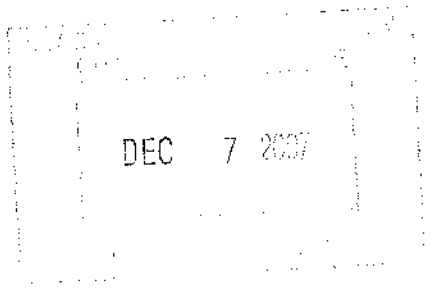
12/7/2007

Transmittal To	Transmittal From
Marge Schmuckal City of Portland 389 Congress Street Portland, MAINE 04101 T: 207-874-8695 F: 207-874-8716	Erica Martin Pizzagalli Construction Company 131 Presumpscot Street Portland, ME 04103 T: 207-874-2323 F: 207-874-2727

WE ARE SENDING:		SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☐ Letter	☐ Approval	☐ Approved as Submitted
☐ Prints	☐ Change Order	☐ Your Use	☐ Approved as Noted
☐ Plans	☐ Specifications	☐ As Requested	☐ Returned After Loan
☐ Samples		☐ Review and Comment	☐ Resubmit
☐ Other:			☐ Submit
Reference:		**SENT VIA:**	☐ Returned
Chiller Acoustical Calculations		☐ Attached	☐ Returned for Corrections
		☐ Separate Cover Via:	☐ Due Date:

ITEM NO.	COPIES	DATE	ITEM NUMBER	REV. NO.	DESCRIPTION	STATUS
001	1	12/6/2007			Bayside Village Chiller Acoustical Calculations	NEW

Remarks



CC: File

Signed: Erica Martin

LANPHER ASSOCIATES, INC.
DESIGN AND CONSULTING ENGINEERS
BOX 472, ONE SUMMIT ROAD
NORTHEAST HARBOR, MAINE 04662
TEL (207)276-5350 FAX 276-4067

December 6, 2007

Pizzagalli Construction
Attn: Erica Martin
131 Presumpscot Street
Portland, ME 04103

Re: Bayside Village Chiller Acoustical Calculations

Dear Ms. Martin:

The following is a report of my acoustical evaluation of the impact of the new chiller for the Bayside Village Project on the neighboring residential zone.

As well as my calculations, I personally visited the site with you from 11:00 AM to 12:00 PM on Wednesday, December 5, 2008 to observe the site conditions and determine if there were any extenuating circumstances that might affect these calculations.

Proposed Equipment:

After reviewing the chiller submittal I noted that a rotary screw compressor was selected for this project. This is much preferable to a reciprocating compressor chiller for noise criteria. Also, it was marked that a low sound package was being utilized.

> The Portland Noise Ordinance states:
>
> "In addition to the sound level standards established above, all uses located within this zone shall employ best practicable sound abatement techniques to prevent tonal sounds and impulse sounds or, if such tonal and impulse sound cannot be prevented, to minimize the impact of such sounds in residential zones."

I believe that these selections meet the requirements of employing the "best practicable sound abatement techniques".

Existing Conditions:

The chiller is to be located outside near the I295 roadway and essentially behind the line of two large buildings but aligned with an open driveway between. Across the adjacent Marginal Way is a parking area with a metal working yard adjacent. At the end of the parking lot is a broken line of evergreen trees. Another block further is a row of two story buildings. On the next block is a row of three story buildings with discontinuous 4th story mechanical penthouses above. Finally, across Lancaster Avenue, 1270 feet away, is the closet residential development.

Sound pressure level (SPL) measurements at the edge of the parking lot nearest the trees was 62 dBA at 11:30 AM. Measurements at the edge of the Residential area were never measured at less than 52 dBA at 11:55 AM. The source of these sounds were primarily traffic noise, much of which will diminish in frequency of occurrence during later hours when traffic volume decreases, but not in overall loudness.

Calculations:

See attached sheet. The first calculation is a worst case, first order approximation based solely on distance. Under these conditions, SPL decreases 6 dB for each doubling of distance. Because the chiller is located on the ground and not suspended in free air, all of the sound radiates into one hemisphere, increasing the SPL in that direction by 6 dB. I am assuming, with substantial areas of pavement, a worst case scenario that the reflection is 100% although in reality some fraction of the sound would be absorbed by the soil covered areas. This would likely reduce the SPL by 1 or 2 dB. With this simple calculation, the predicted SPL is 46.9 dBA easily meeting the <50dBA requirement of the Ordinance.

The second calculation is a more rigorous analysis by octave band including the loss due to direct attenuation by the atmosphere. I am again figuring the worst case scenario of a hot humid day when the air is thinner and has less absorption.

Other factors such as the obstruction by two rows of buildings would further attenuate the sound but because the buildings are much more than a quarter of the distance towards the residential zone the calculations are non trivial and for the purposes of this analysis are not necessary. The resulting predicted SPL can be no more than 43.5 dBA and most likely would be 10 dB lower than that if all other factors were included. The resulting predicted 43.5 dBA is at least 6.5 dB below the allowed maximum hence providing a significant safety factor.

Verification:

The only possible method to measure the actual chiller SPL in the residential zone would be to wait for a dead calm night with absolutely no wind and minimal traffic on I295 and in the city. The chiller would have to be turned on and off to verify the source of the noise with a corresponding increase and decrease of SPL reading on the sound level meter. Because of the multiple sources of noise in the range of 50 dBA or more and an expected real SPL of less than 35 dB for the chiller, any attempted measurement will very likely be overwhelmed by ambient background noise.

Recommendations:

The acoustical fence around the chiller is unnecessary for this project. As demonstrated in the preceding calculations, the project easily meets the requirements of the ordinance without an enclosure. In order for an acoustical fence to be effective, it would need to be 3 to 4 feet higher than the 9' chiller package and spaced relatively close to the chiller. This potentially jeopardizes the chiller operation and definitely increases energy consumption because of possible short circuiting of ventilation exhaust air with the intake to the condensing coils. With the optional low sound package included, the chiller enclosure itself acts as a fence, effectively blocking more sound than a fence.

If you have further questions please feel free to call me at (207) 276-5350.

Sincerely,

Dwight M. Lanpher, P.E.
Electrical Engineer, President
enc.

cc. Mac File: 2007-078 Cover letter
email: emartin@pizzagalli.com

email: dlanpher@lanpherassociates.com
web: http://www.lanpherassociates.com

LANPHER ASSOCIATES, INC.
DESIGN AND CONSULTING ENGINEERS
BOX 472, ONE SUMMIT ROAD
NORTHEAST HARBOR, MAINE 04662
TEL (207)276-5350 FAX 276-4067

December 7, 2007

Architect / Client: **Pizzagalli Construction**
Contact: **Erica Martin, Proj Engineer**
Project Number: **LA 2007-064**
Project Name: **Bayside Village Chiller Acoustical Calcs**

Area Served: 132 Marginal Way

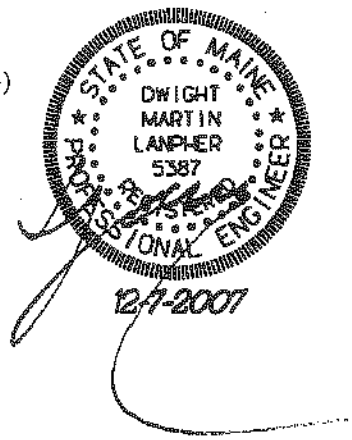
Lanpher Associates, Inc.
Dwight M. Lanpher, P.E.
PO Box 472, One Summit Road
Northeast Harbor, ME 04662

Tel: (207)276-5350 Fax: 276-4067
dlanpher@lanpherassociates.com

SPL = -20 log (distance in feet/reference distance)
= -20 log (1270/50)

Simple Analysis

=	-28.1	dB attenuation at 1270'	
Given SPL for Chiller: +	69	dBA at 50'	
Gain for radiating into 1 π steradians: +	6	dB (doubles into 1/2 sphere)	
Net SPL at 1270'	46.9	dBA	



Octave band, full analysis:

Attenuation due to atmosphere:
Atmospheric Pressure: 14.7 PSI
Conditions: 90 ° F
50 % RH

		31	63	125	250	500	1000	2000	4000	8000	
Frequency in hertz:											
dB Attenuation per kilometer:		-0.02	-0.1	-0.3	-1.2	-3.6	-7.6	-12.6	-24.8	-70.6	dB/KM
Distance in KM: 0.387	X	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	KM
Calculated attenuation:		-0.01	-0.03	-0.13	-0.46	-1.40	-2.94	-4.88	-9.61	-27.3	dB
(Distance in Feet: 1270)											

		31	63	125	250	500	1000	2000	4000	8000	Total dBA
Chiller dBA SPL at 50'		19	36	51	57	62	65	61	57	45	69
Gain for radiating into 1 π steradians:	+	6	6	6	6	6	6	6	6	6	
Distance attenuation:		-28.1	-28	-28	-28	-28	-28	-28	-28	-28	
Loss from simple barrier:		0	0	0	0	0	0	0	0	0	
Loss from Buildings:		0	0	0	0	0	0	0	0	0	
Loss from attenuation of atmosphere		-0.01	-0.03	-0.13	-0.46	-1.40	-2.94	-4.88	-9.61	-27.3	
		-3.1	13.9	28.8	34.4	38.5	40.0	34.0	25.3	-4.4	dB
Adding dB	Add to	|__ __|		|__ __|		|__ __|		|__ __|		0	
When 2 dB's differ by	Higher	0	13.9	1	35.4	2.5	42.5	1	35		
0 to 1	3										
2 or 3	2		35	35.4			42.5	13.9			
4 to 8	1		|__ __|				|__ __|				
9 or more	0		3	38.4			42.5	0			
				|__ ____	____		|__				
					1	43.5					
Net SPL at 1270'		43.5	dBA								

Acoustical Qualifications for Dwight M. Lanpher, P.E.:

B.S. Electrical Engineering University of Maine at Orono 1977

Specific acoustical coursework completed:

EE31	Elements of Communications Instructor: Dr. Waldo M. Libbey
EE190	Senior Project: 1/3 Octave Band Acoustical Analyzer Instructor: Dr. E.M. Fields
EE196	Electro Acoustics Instructor: Dr. Waldo M. Libbey
EE197	Environmental Noise Control Instructor: Dr. Waldo M. Libbey

Instructor for OSHA noise training at Jackson Laboratory 1979-1984
in cooperation with Laboratory Safety Officer Arden Peach

Certified Professional Engineer, State of Maine 1986

Test Equipment:

The following test equipment are owned by Dwight M. Lanpher. All units have been factory calibrated with equipment with calibration traceable to the National Bureau of Standards. All equipment is recalibrated at a certified laboratory within twelve months prior of readings.

Sound Level Meter: Quest Model 215, Serial Number M8100013
Meets ANSI standard S1.4-1983 for type 2 Sound level meters
and IEC-651 type II standards.

Octave Band Analyzer: Quest Model OB45, Serial Number N8090038
Meets ANSI standard S1.11-1971 for type II octave band units.

Peak Hold Meter: Quest Model PH-35, Serial Number P9100003
Meets ANSI standard S1.4-1983 for type II peak hold meters.
IEC impact response position meets IEC 651 specifications.

Calibrator: Quest Model CA-12B, Serial Number U8100069
Meets ANSI S1.40-1984. 110 dB fixed level.

Weather Measurement:

Weather temperature and humidity data is taken with a Bacharach sling psychrometer.
Air Pressure is measured with a Thommen 27,000' Altimeter calibrated daily against a mercury column barometer.

From: Rick Knowland
To: Bob Metcalf
Date: 10/30/2007 8:28:44 AM
Subject: student housing

Bob, Thanks for the updated info on the student housing projecy received yesterday. We"l review this material at tomorrows staff meeting. Could you tell the dimensions and height of the "pak-trainer" verrsus the size of the previous trash compactor? Does this change the dimensions of the enclosure? Thanks.

Mitchell & Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
F: 207.874.2460
www.mitchellassociates.biz

June 9, 2008

Mr. Richard Knowland, Senior Planner
City of Portland Division of Planning and Development
389 Congress Street
Portland, Maine 04101

RE: Bayside Village A Student Housing Complex
Diminimus Change Request

Dear Rick,

The following request is being made to address changes in the roof deck garden design that we discussed on May 2, 2008 and a change in pavement material for the sidewalk between Bayside Village and 84 Marginal Way and between Bayside Village and Miss Portland Diner. As we discussed, there is a significant cost factor associated with the construction of the roof deck as designed and approved. We are proposing the following changes to the roof deck that we believe do not impact the integrity of the design:

- Reduced the number of shrub planter boxes from 8 to 6. A total reduction of 2 shrub planter boxes.
- Reduced the number of tree planter boxes from 10 to 9. A total reduction of 1 tree planter box.
- Reduced the number of shrubs from 74 to 62. A total reduction of 12 shrubs.
- Reduced the number of trees from 14 to 13. A total reduction of 1 tree.
- Reduced the number of herbaceous plant material from 2029 to 2003. A total reduction of 26 herbaceous plants (included change in species).
- Eliminated a small planting bed (56 SF) and replaced with pavers.

We are also requesting a change in sidewalk paving material for the on-site sidewalk between Bayside Village Student Housing and 84 Marginal Way (Intermed) from concrete to bituminous concrete. The sidewalk for 84 Marginal Way from the Preble Street Extension that connects to the Bayside sidewalk was approved as bituminous.

The other pavement change request is for the on-site brick sidewalk, which runs along the Miss Portland Diner side of the site to bituminous concrete. The proposed sidewalk on the Miss Portland side of the access drive is bituminous.

We have provided the enclosed plan defining the areas of change. The proposed changes are being requested to address significant cost factors associated with the project. We do not believe that these changes have a negative impact on the design of the project and are consistent with adjacent development currently under construction.

Should you have any questions, please do not hesitate to call me.

Sincerely,
Mitchell & Associates

Robert B. Metcalf

Enclosure

cc: Ryan Leavitt
Dan Noblet
Erica Martin
Ben Walter

Mitchell
& Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
F: 207.874.2460
www.mitchellassociates.biz

June 9, 2008

Mr. Richard Knowland, Senior Planner
City of Portland Division of Planning and Development
389 Congress Street
Portland, Maine 04101

RE: Bayside Village A Student Housing Complex
Conditions of Diminimus Change Approval

Dear Rick:

In accordance with the City approval letter, dated March 27, 2008, for the diminimus change request for the proposed air cooled chiller, we have prepared the enclosed Exhibit A, dated June 9, 2008. In accordance with the approval letter, we have provided additional plantings in front of the proposed fence. We have added three (3) Wichita Blue Juniper (upright) and seven (7) Bearberry (ground cover) to supplement the original proposed Red Maple. We trust that these additional plantings will address the condition of approval.

The general contractor needs to provide the landscape contractor with a list of additional material as soon as possible. Once Jeff Tarling has reviewed the proposed planting, please notify us so that we may notify the general contractor.

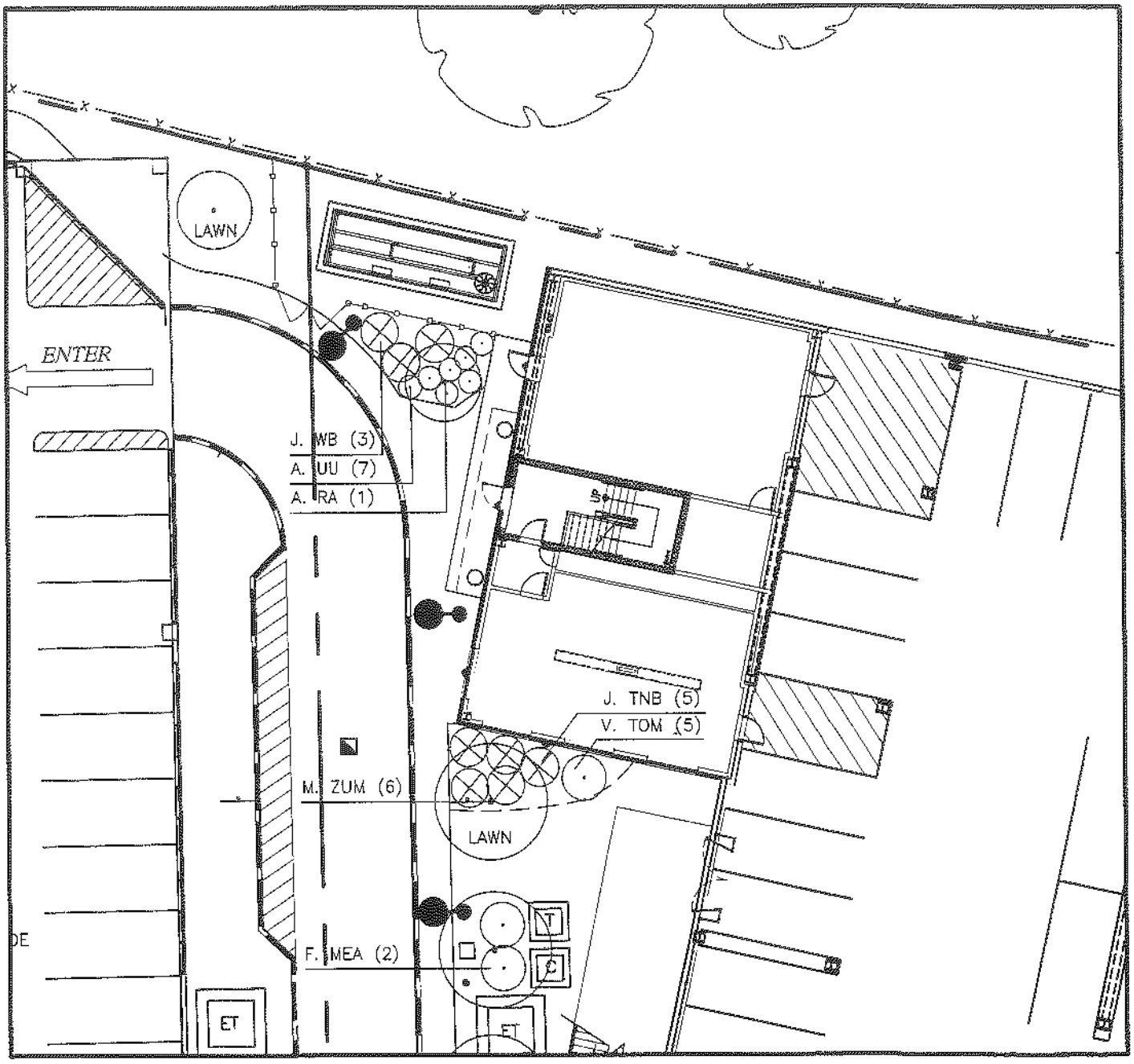
Should you have any questions, please do not hesitate to call me.

Sincerely,
Mitchell & Associates

Robert B. Metcalf

Enclosure

cc: Ryan Leavitt
Dan Noblet
Erica Martin
Ben Walter



PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
		TREE		
A. RA	1	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	2 1/2"-3" CAL
		SHRUBS		
A. UU	7	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY	#1
J. WB	3	JUNIPERUS SCOPULORUM 'WICHITA BLUE'	WICHITA BLUE JUNIPER	#7

Mitchell & Associates
Landscape Architects
70 Center Street
Portland, Maine 04101
(207) 774-4427

Title: DE MINIMIS CHANGE REQUEST
AIR CHILLER LANDSCAPING

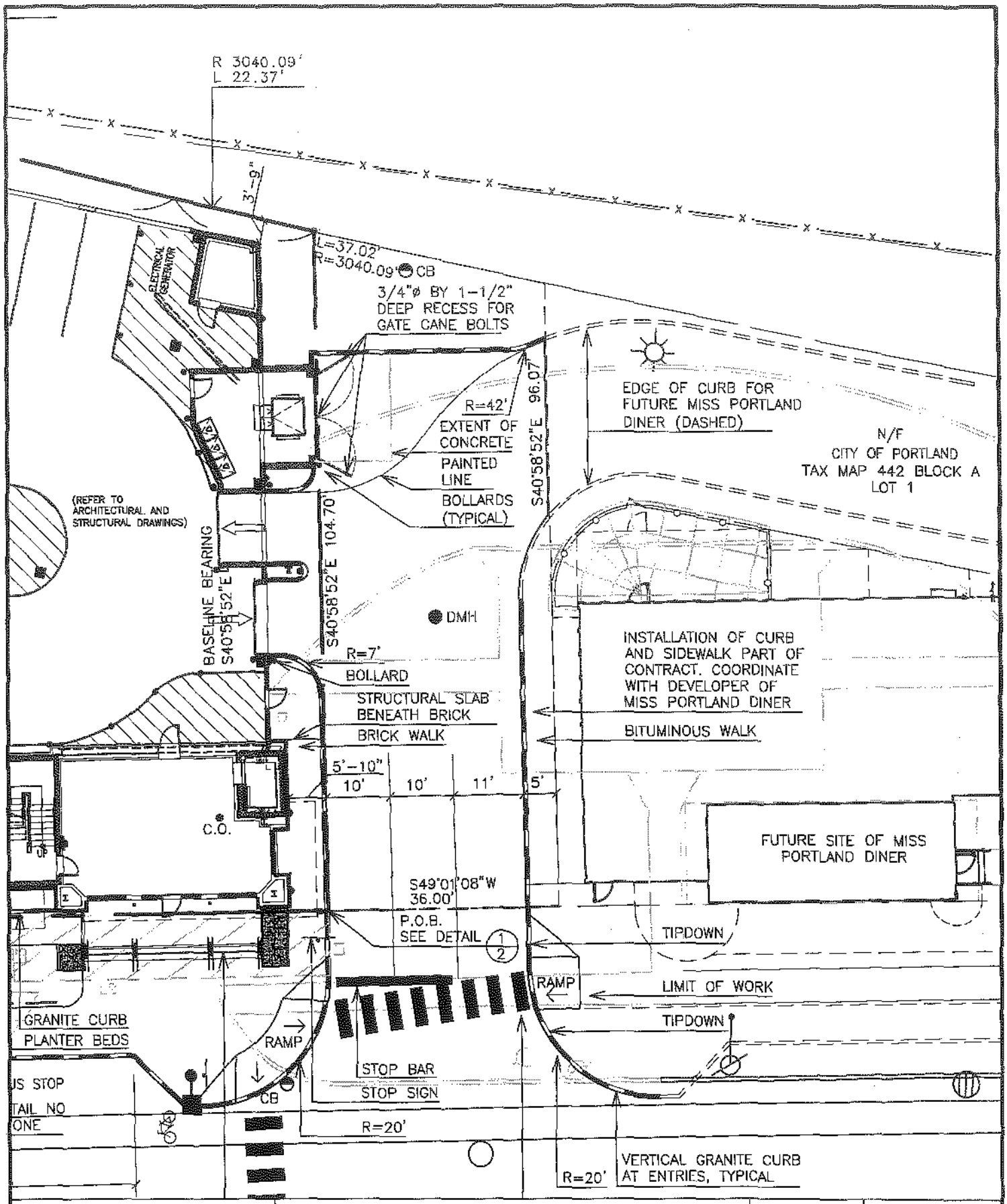
Date: JUNE 9, 2008

Scale: AS NOTED

Project: BAYSIDE VILLAGE

North:

A



Mitchell & Associates Landscape Architects 70 Center Street Portland, Maine 04101 (207) 774-4427	Title: CONCEPT LAYOUT TRASH ENCLOSURE	North:
	Date: DEC. 21, 2007 | Scale: 1'=20'	A
	Project: BAYSIDE VILLAGE	

From: Rick Knowland
To: RNorwood@gorrillpalmer.com
Date: 12/26/2007 9:39:50 AM
Subject: Fwd: Bayside village street improvement plans

Ralph, Attached are comments from Mike Farmer of Public Works regarding the traffic improvements for Bayside Village. Previously you received comments from Tom Errico.

The plans should show a handicap ramp on the easterly (northerly side) of the Bayside Village/Miss Portland Diner common driveway since there will be a crosswalk across Marginal Way as well as the westerly side of the driveway.

I am awaiting further input from Tom and Jim on the striping of the crosswalk across Marginal Way which I wil forward to you when I receive those comments.

Should you have any questions please feel free to contact me.

>>> Michael Farmer Wednesday, December 19, 2007 >>>
I have the following comments based on the plans revised as of Nov. 30, 2007.

The City's minimum requirements for pavement structure in a street of this classification include the following.
2" thickness of surface course asphalt pavement
3" thickness of base course asphalt pavement
3" thickness of aggregate base course crushed gravel (Type A)
18" thickness of aggregate subbasae course gravel (Type D)
The total thickness of new pavement should equal the greater of the existing pavement depth or 5 inches.

Michael Farmer, Project Engineer
Dept. of Public Works
55 Portland Street
Portland, ME 04101
phone: 207-874-8845
fax: 207-874-8852

From: "Rick Knowland " <RWK@portlandmaine.gov>
To: <bmetcalf@mitchellassociates.biz>
Date: 10/31/2007 3:31:01 PM
Subject: student housing project

Bob, At Wednesday's staff review meeting we discussed the dumpster/compactor issue. After looking at the plan there isn't any enthusiasm among staff for a dumpster enclosure on city owned land and its location at the terminus of Chestnut Street. I appreciate the fact that this use will generate alot of waste but this solution doesn't have any support.

I don't know what to say other than to seek another alternative. Perhaps may be a smaller trash (low tech) hauler out there that does not have as sophisticated equiptment as larger haulers that could accommodate their needs. I suppose if the applicant doesn't like staff's answer on the revision this could be referred to the planning board. Someone from City whether it be the City Manager's Office or the City Council will presumably need to approve a license for the dumpster on City land.

CC: "Alex Jaegerman " <AQJ@portlandmaine.gov>, "Barbara Barhydt" <BAB@portlandmaine.gov>

From: "Bob Metcalf" <rmetcalf@mitchellassociates.biz>
To: "Rick Knowland " <RWK@portlandmaine.gov>
Date: 11/16/2007 10:01:43 AM
Subject: RE: Bayside Village

Thanks Rick

-----Original Message-----
From: Rick Knowland [mailto:RWK@portlandmaine.gov]
Sent: Friday, November 16, 2007 8:02 AM
To: Bob Metcalf
Subject: RE: Bayside Village

Bob, I thought we were in good shape. I'll re-look at your list that you prepared. I should be able to get back to you today or Monday at the latest.

>>> "Bob Metcalf" <rmetcalf@mitchellassociates.biz> Thursday, November 15, 2007 >>>
Rick,

Thank you for the response. I will review these comments with the owner
and design team and get back to you as soon as possible so that you may
have something to review at your next staff meeting. In regards to the
other diminimus change request, are there any outstanding issues?

Bob

-----Original Message-----
From: Rick Knowland [mailto:RWK@portlandmaine.gov]
Sent: Thursday, November 15, 2007 8:57 AM
To: Bob Metcalf
Cc: Alex Jaegerman ; Barbara Barhydt
Subject: Re: Bayside Village

Bob, Since our meeting with J.Cloutier last week I have not talked to Alex about the dumpster enclosure. One comment at the meeting was whether the dumpster could be pushed closer to or into the building. The
enclosure intrudes 4 feet into the driveway right of way. Can it be reduced further?

The other issue discussed at the meeting was the material of the dumpster doorway. Wood fence doors typically get smashed by the trash truck. J. Cloutier suggested a metal frame gate with plastic slats. I suspect the same thing will probably happen. Another alternative would be a custom metal gate that has a creative design to it that would be sturdier and improve the aesthetics of the situation.

This all goes back to the fact there is an intrusion of the enclosure onto city land and so the intrusion should either disappear and if not possible mitigate the physical appearance of it. The design of the gate

From: Rick Knowland
To: rmetcalf@mitchellassociates.biz
Date: 11/21/2007 1:25:27 PM
Subject: bayside student housing

Bob, We discussed the dumpster enclosure for the student housing project at todays staff meeting. There is no support for approving a plan that has the dumpster or dumpster enclosure on city property. We will not be able to approve that site revision.

I signed off on the student housing project this morning so that a permit can be issued. Don't know if it can be issued today because of limited staff today. Monday a better bet. There are a bunch of conditions on my sign-off related to the planning board conditions of approval.

On another note I hope you have a Happy Thanksgiving.

From: Rick Knowland
To: rmetcalf@mitchellassociates.biz
Date: 11/21/2007 1:39:24 PM
Subject: Fwd: Re: student housing

Bob, This email lists all the conditions of approval from Planning that were communicated to the Building Inspection Office that will be going on the building permit. Obviously a few details to follow-up on.

1. The dumpster recycling addition has not been approved. Subject to Planning Division review and approval.

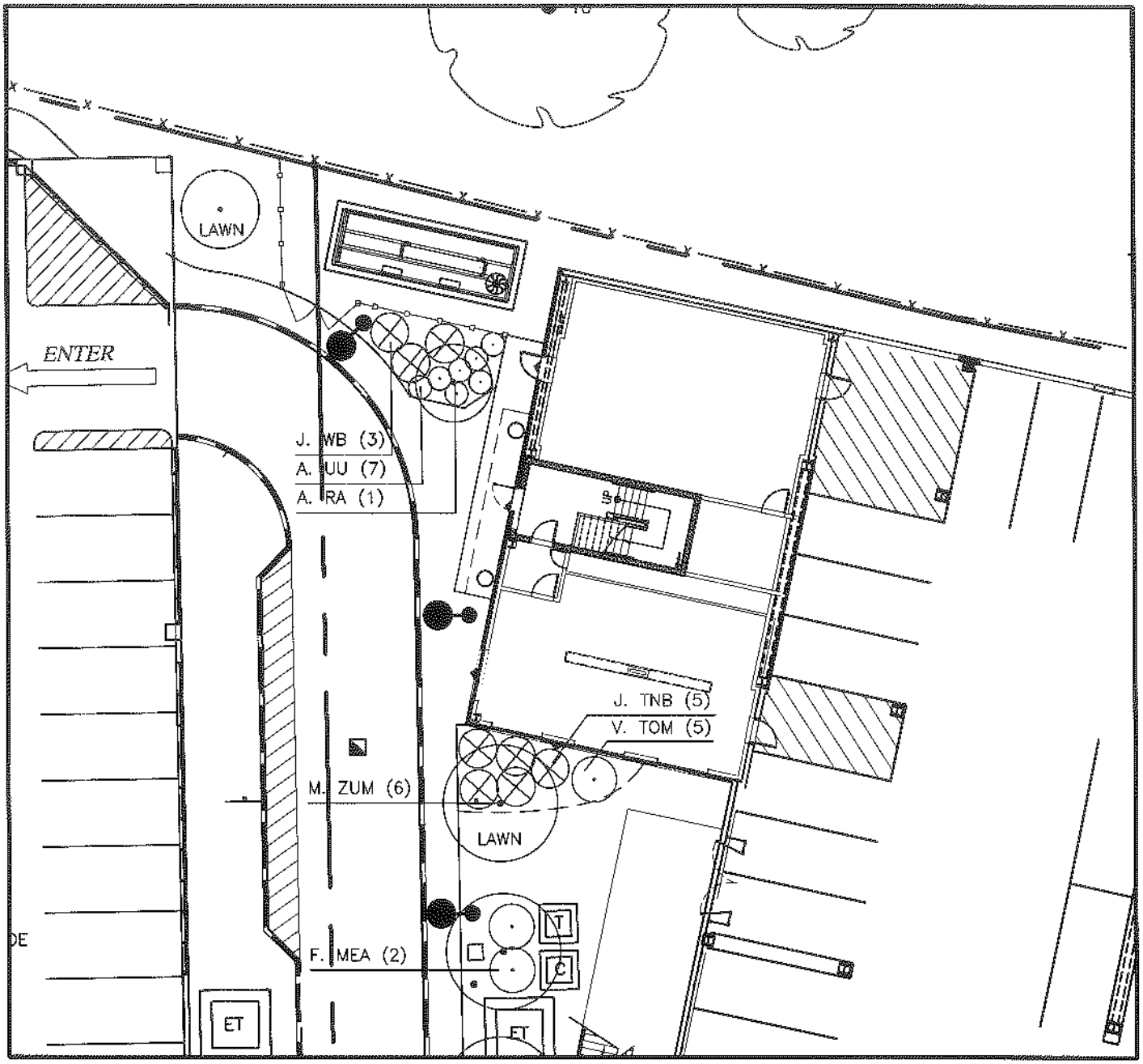
2. Air cooler chiller unit/electric generator etc. subject to review and approval by the Zoning Administrator regarding noise issues. Applicant shall submit appropriate noise information to the Zoning Administrator.

3. Signage plan shall be subject to Planning Division review and approval. The previously submited plan was not acceptable.

4. Applicant is subject to the requirements outlined in Tom Errico's memo dated 10-20-06. Roadway improvement plans shall be submitted to the Planing Division by 11-30-07 for review and approval by Tom Errico. A Travel Demand Management Plan shall be submitted to the Planning Division for review and approval prior to the issuance a Certificate of Occupancy.

5. Project is subject to the Planning Board approval letter for this project dated November 20, 2006 with 9 conditions of approval.

CC: Rick Knowland



PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
		TREE		
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		SHRUBS		
A. UU	7	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY	#1
J. WB	3	JUNIPERUS SCOPULORUM 'WICHITA BLUE'	WICHITA BLUE JUNIPER	#7

Mitchell & Associates
Landscape Architects
70 Center Street
Portland, Maine 04101
(207) 774-4427

Title: DE MINIMIS CHANGE REQUEST
AIR CHILLER LANDSCAPING

Date: JUNE 9, 2008 | Scale: AS NOTED

Project: BAYSIDE VILLAGE

North:

A

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

Planning and Development Department
Lee D. Urban, Director

Planning Division
Alexander Jaegerman, Director

January 29, 2008

Mr. Robert Metcalf
Mitchell Associates
70 Center Street
Portland, ME 04101

RE: Bayside Village; 120 Marginal Way
#2006-0125; CBL: 34A-B-1

Dear Bob,

This letter is to confirm that the Portland Planning Authority has reviewed and approved the relocation of a dumpster enclosure within the property lines of the Bayside Village development. The revision is described in a cover letter dated 12-24-07 and a plan dated 12-21-07. The approval is subject to the following conditions:

1. The dumpster enclosure exterior doors shall be closed at all times except for when the dumpster is removed or replaced.

2. The pavement in front of the dumpster enclosure is concrete. If a license from the City is required, the applicant shall submit a license request to the City.

3. The driveway width in front of the dumpster shall be a minimum of 24 feet wide.

Should you have any questions concerning this letter, please call Rick Knowland at 874-8725.

Sincerely,

Alexander Jaegerman
Planning Division Director

Electronic Distribution
cc: Lee D. Urban, Planning and Development Department Director
Alexander Jaegerman, Planning Division Director
Barbara Barhydt, Development Review Services Manager
Richard Knowland, Senior Planner

389 Congress Street • Portland, Maine 04101-3509 • Ph (207) 874-8721 or 874-8719 • Fx 756-8258 • TTY 874-8936

Mitchell & Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
F: 207.874.2460
www.mitchellassociates.biz

December 24, 2007

Mr. Richard Knowland, Senior Planner
City of Portland Division of Planning and Development
389 Congress Street
Portland, Maine 04101

RE: Bayside Village A Student Housing Complex
Diminimus Change Request

Dear Rick,

We have revisited options to address the design and location of the proposed trash enclosure and have prepared the attached exhibits for your review. The enclosure area has been redesigned to be entirely within the boundary of the student housing parcel. The enclosure extends eight (8) feet from the face of the main structure. The access gate will be parallel with the façade of the building and not visible from Marginal Way. Structural changes were made to permit the trash and recycling area to extend into the garage. The enclosure will be constructed of the same masonry block used in the main building. The gate will be wood clad to conceal the unit from the Miss Portland Dinner site. Recycling units will be contained within an enclosure in the garage with access from the exterior for removal. The contractor needs direction as soon as possible as they are nearing that end of the structure,

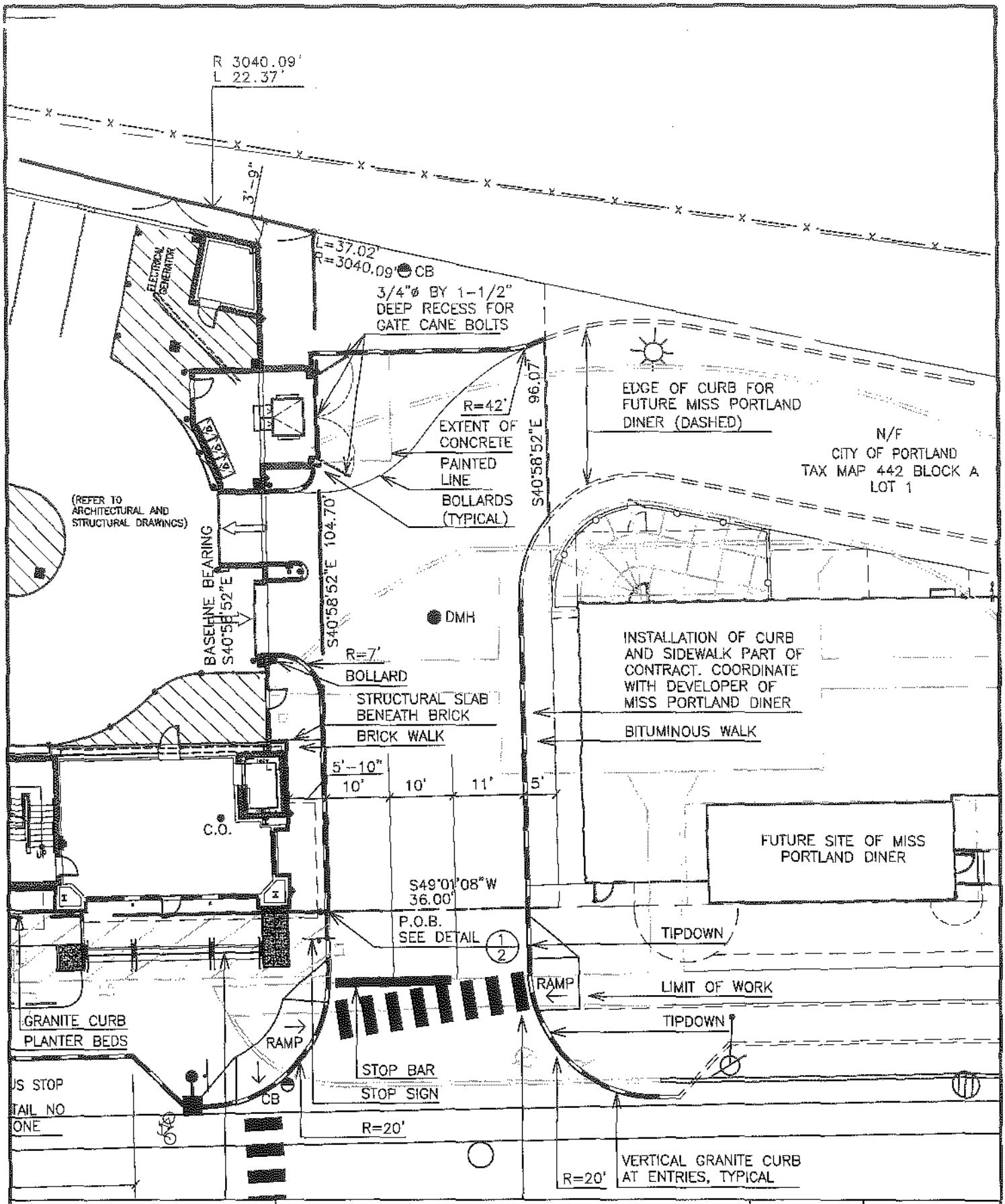
Should you have any questions, please do not hesitate to call me.

Sincerely,
Mitchell & Associates

Robert B. Metcalf

Enclosure

Cc Ryan Leavitt
Dan Noblet
Erica Martin
Ben Walter



Mitchell & Associates Landscape Architects 70 Center Street Portland, Maine 04101 (207) 774-4427	Title: CONCEPT LAYOUT TRASH ENCLOSURE		North:
	Date: DEC. 21, 2007	Scale: 1'=20'	A
	Project: BAYSIDE VILLAGE		

From: Rick Knowland
To: James Carmody; TERRICO@wilbursmith.com
Date: 12/19/2007 2:56:10 PM
Subject: 84 marginal way-bayside village comments

Tom and Jim, I forwarded the Marginal Way improvement plan (84 marginal way and bayside village) to G-P today and said that further comments from engineering and myself would be forwarded shortly. I do have a few questions that I'd be interested in your feedback on which I can pose to G-P depending on your thoughts on the matter.

1. What type of pedestrian crosswalk striping are they proposing at the Marginal Way-Preble Street intersection? In the Marginal Way Master Plan (August 18, 2006) I see a heavy duty very wide crosswalk (not unlike the one on the famous Beatle's album cover) with large painted blocks. My vote would be for a wide one. We are trying to create a safe pedestrian environment but despite our best efforts the crossing distances will still be a challenge for many pedestrians. I would also beef up the pedestrian crossing striping for the crosswalk by Hannaford's and the crosswalks on Marginal Way by Chestnut Street.

2. And the one last question (I've asked Tom this numerous times and I can't let go). The radius on the corner of Marginal Way and Preble Street by 84 Marginal Way seems larger than the radii on the other corners? Can it be reduced?

Thanks for your thoughts on these questions.

CC: Alex Jaegerman

From: Rick Knowland
To: RNorwood@gorrillpalmer.com
Date: 12/21/2007 3:56:49 PM
Subject: Fwd: 84 Marginal Way project - Street improvement plans by Gorrill Palmer

Ralph, I am forwarding comments from Mike Farmer of Public Works regarding 84 Marginal Way. I have posed some questions to Tom Errico and Jim Carmody regarding striping of cross walks and one other issue which I hope to receive input on soon so these are not definitive comments yet.

>>> Michael Farmer Wednesday, December 19, 2007 >>>
I am submitting the following comments regarding the recently submitted street improvement plans.

1. The typical pavement structure cross sections on sheet 2 should be consistent with City standards. The City's minimum requirements for pavement structure in a street of this classification include the following.
2" thickness of surface course asphalt pavement
3" thickness of base course asphalt pavement
3" thickness of aggregate base course crushed gravel (Type A)
18" thickness of aggregate subbasae course gravel (Type D)
The total thickness of new pavement should equal the greater of the existing pavement depth or 5 inches.

2.The City sidewalk materials policy calls for concrete sidewalks on Preble Street extension and Brick on Marginal Way. One of the cross sections in the plans shows an asphalt pavement sidewalk. I question whether or not Asphalt sidewalks have been approved anywhere on this project.

3.The raised concrete island detail calls for a concrete thickness of 4"-8". What thicknesses apply to what areas on the plans? I could not find any notes on the plans stating where the 4" concrete depth would be used, where the 8" depth would be used, and where any depth between 4" and 8" would be used. I think 8" is fine. I question whether 4", or anything less than 8" is acceptable.

4. Should the concrete in the medians be Class LP? Should the reinforcing be epoxy coated?

5. The granite curb layout should show that the granite curbing continues across the bottoms of the sidewalk ramps.

6. Curb section 153-154 should be at least 4 feet long since the City does not generally accept individual granite curb pieces shorter than 4 feet.

7. Note 12, sheet 3 should state that traffic control plans are subject to review and approval by the City Transportation Engineer.

8. Note 15 (sheet 3, I recall) does not allow two way traffic. I question whether this note should be changed. Generally, the City wants two-way traffic. What we do not want are lane closures.

9. Should note 35 be changed to say that truncated dome pavers are required to contrast in color compared to the standard sidewalk brick. In other words, do we want red brick sidewalk next to red truncated dome pavers?

10. On sheet 6, the depth of the concrete island(s) should be stated.

Michael Farmer, Project Engineer
Dept. of Public Works
55 Portland Street
Portland, ME 04101
phone: 207-874-8845
fax: 207-874-8852

From: Rick Knowland
To: Gorrill, Thomas; Metcalf, Bob
Date: 11/20/2007 10:42:10 AM
Subject: RE: Bayside Village

Tom, Thank you for the update. In order to save time could copies of the plan be delivered to Tom Errico and Jim Carmody directly? I'll need 4 additional copies also. Thanks and have a great Thanksgiving.

>>> "Thomas Gorrill" <TGorrill@gorrillpalmer.com> Tuesday, November 20, 2007 >>>
Hi Rick:

Bob Metcalf requested that we provide you an estimated schedule for submitting the review plans for the offsite improvements for 84 Marginal Way as well as Bayside. The review plans for 84 Marginal Way offsites will be submitted to your office sometime on Monday the 26th. The plans for the Bayside offsites will be submitted to your office by next Friday the 30th.

Thomas L. Gorrill,PE,PTOE
Gorrill-Palmer Consulting Engineers, Inc
PO Box 1237
15 Shaker Road
Gray, Maine 04039
Tel 657-6910 Fax 657-6912

From: Bob Metcalf [mailto:rmetcalf@mitchellassociates.biz]
Sent: Tuesday, November 20, 2007 10:09 AM
To: Thomas Gorrill
Subject: Bayside Village

Hi Tom,

I just spoke with Rick Knowland and he requested that an email from you documenting the schedule to submit the plans for the road improvements. He also asked about 84 Marginal and I indicated yopu were looking at either this week or next week to submit their plans as well. Would you provide Rick with an email for his files and so that he can discuss this at staff meeting tomorrow.

From: "Errico, Thomas A" <TERRICO@wilbursmith.com>
To: "Rick Knowland " <RWK@portlandmaine.gov>
Date: 12/14/2007 11:19:58 AM
Subject: Bayside Village - Roadway Improvement Plan

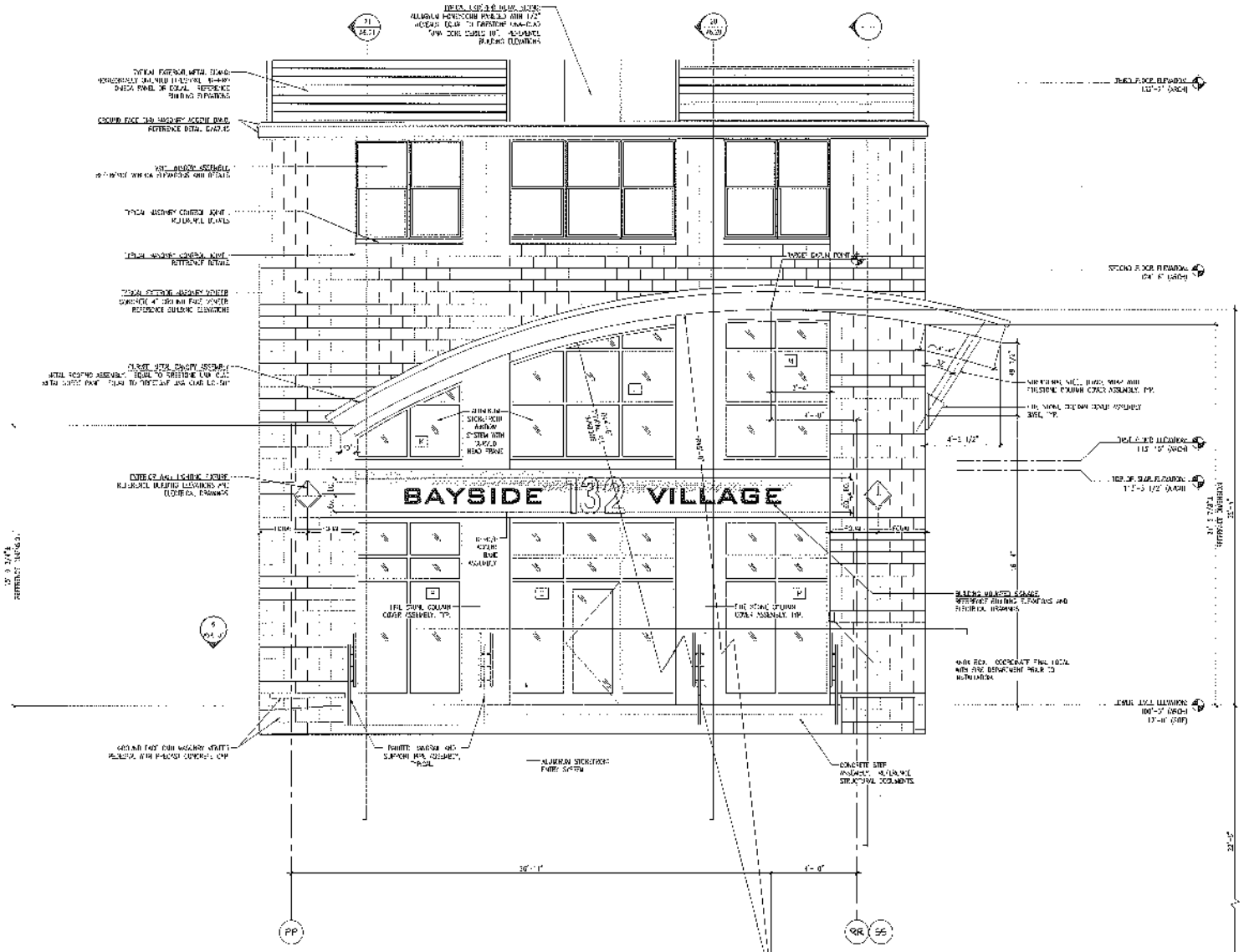
Rick -

The following summarizes my initial comments related to a review of the Gorrill-Palmer Consulting Engineering, Inc. plans transmitted on December 4, 2007. Please note that my review focused on traffic engineering items.

1. Note 15 on Sheet 2 should indicate that construction cannot begin until the traffic control plan has been reviewed and approved by the City of Portland.
2. Note 19 should include accordance with City of Portland standards.
3. The typical sections on Sheet 3 should be revised to note a minimum bicycle lane width of 5 feet.
4. The applicant shall provide backup traffic information that supports the length of the two lanes from Preble Street towards Chestnut Street, before tapering to one lane.
5. The traffic and parking divisions should review and approve the sign types and conformance with City standards, particularly signs 16 and 17.
6. The applicant should provide the width dimension at the beginning of the two-way left turn lane near station 15+50.
7. The crosswalk at Chestnut Street is proposed as two parallel lines. The City should confirm that a higher level of design is not warranted.
8. Sign 14 for westbound motorists should be located a close to the proposed crosswalk as possible.
9. If there is a future possibility of a crosswalk on Marginal Way east of Chestnut Street, I would suggest that the handicapped ramp design be modified for this future condition.
10. In areas where the shoulder width is substantial, the City has provided an additional painted line to distinguish the bicycle lane (an example is Auburn Street). The City should provide guidance use of this layout for this project.
11. On Marginal Way in the westbound direction, two lanes transition to one within the project limits. The plans should include the appropriate pavement marking and signage changes to account for the transition.
12. On Marginal Way in the eastbound direction, the transition to existing roadway lane, shoulder, and bicycle lane has not been accounted for. The plans should be revised to ensure the proposed changes match existing conditions east of the improvement area.

If you have any questions, please contact me.


279 7/8 in
14 in
BAYSIDE 132 VILLAGE
132 = 24 in. high
BAYSIDE 132 VILLAGE



3 ENLARGED ELEVATION @ MAIN ENTRY

REFERENCED FROM:

SCALE: 3/8" = 1'-0"

CWS Architects

Architecture
Space Planning
Value Design

www.CWSarch.com

Owner:
SOUTHERN MAINE STUDENT HOUSING LLC

Contractor:
PIZZAGALLI CONSTRUCTION

BAYSIDE VILLAGE - A STUDENT HOUSING COMPLEX

Project No.

Drawing Title:
ENLARGED ELEVATION @ MAIN ENTRY

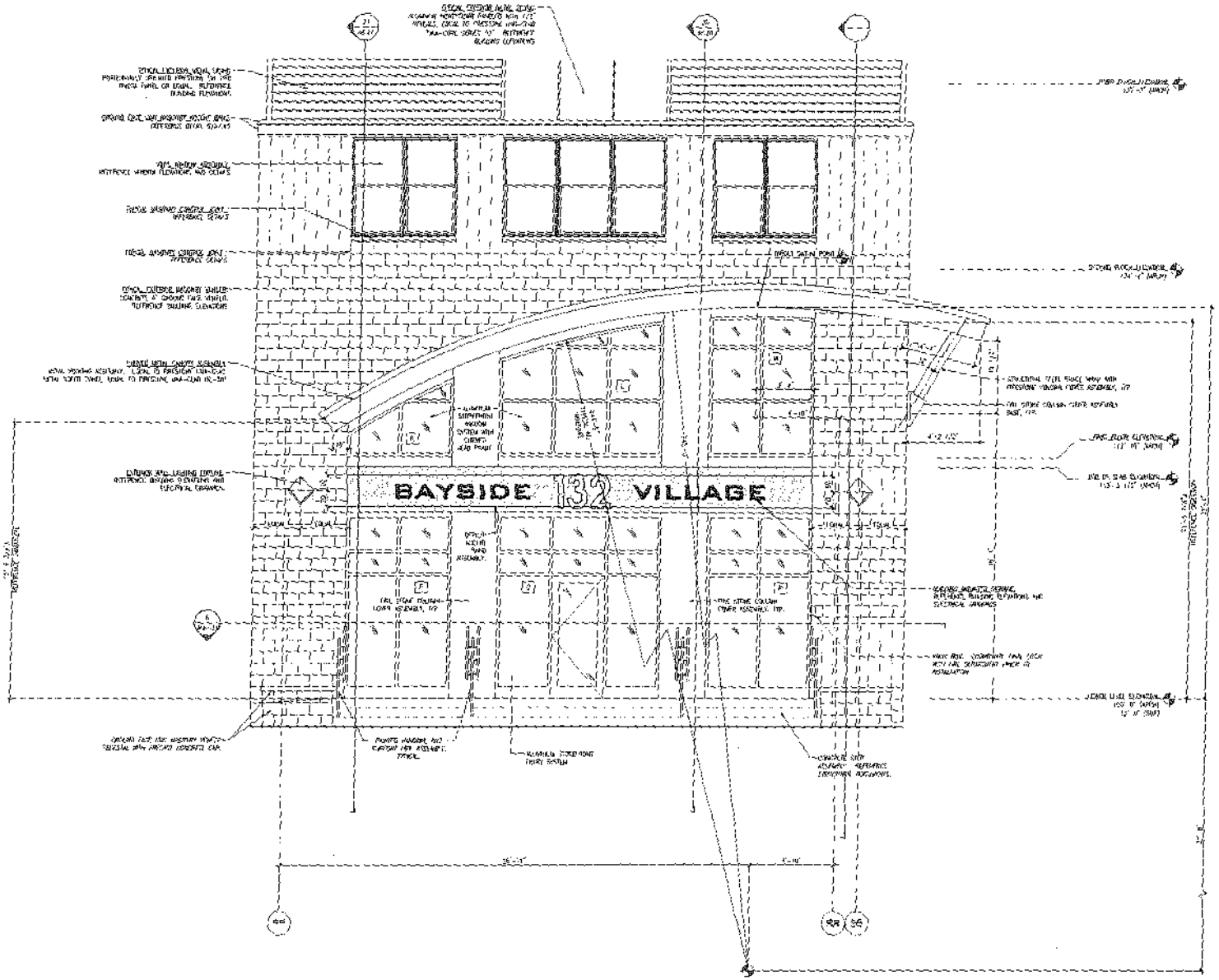
Scale: 3/8" = 1'-0"

Date: SEPTEMBER 11, 2013

Revisions

Drawing Number:
ASK-75

ISSUED FOR CONSTRUCTION



13 ENLARGED ELEVATION @ MAIN ENTRY

SCALE: 3/8" = 1'-0"

ISSUED FOR CONSTRUCTION

CWS Architects

Sustainable Space Planning Value Design

www.CWSarch.com

Owner
SOUTHERN MAINE STUDENT HOUSING LLC

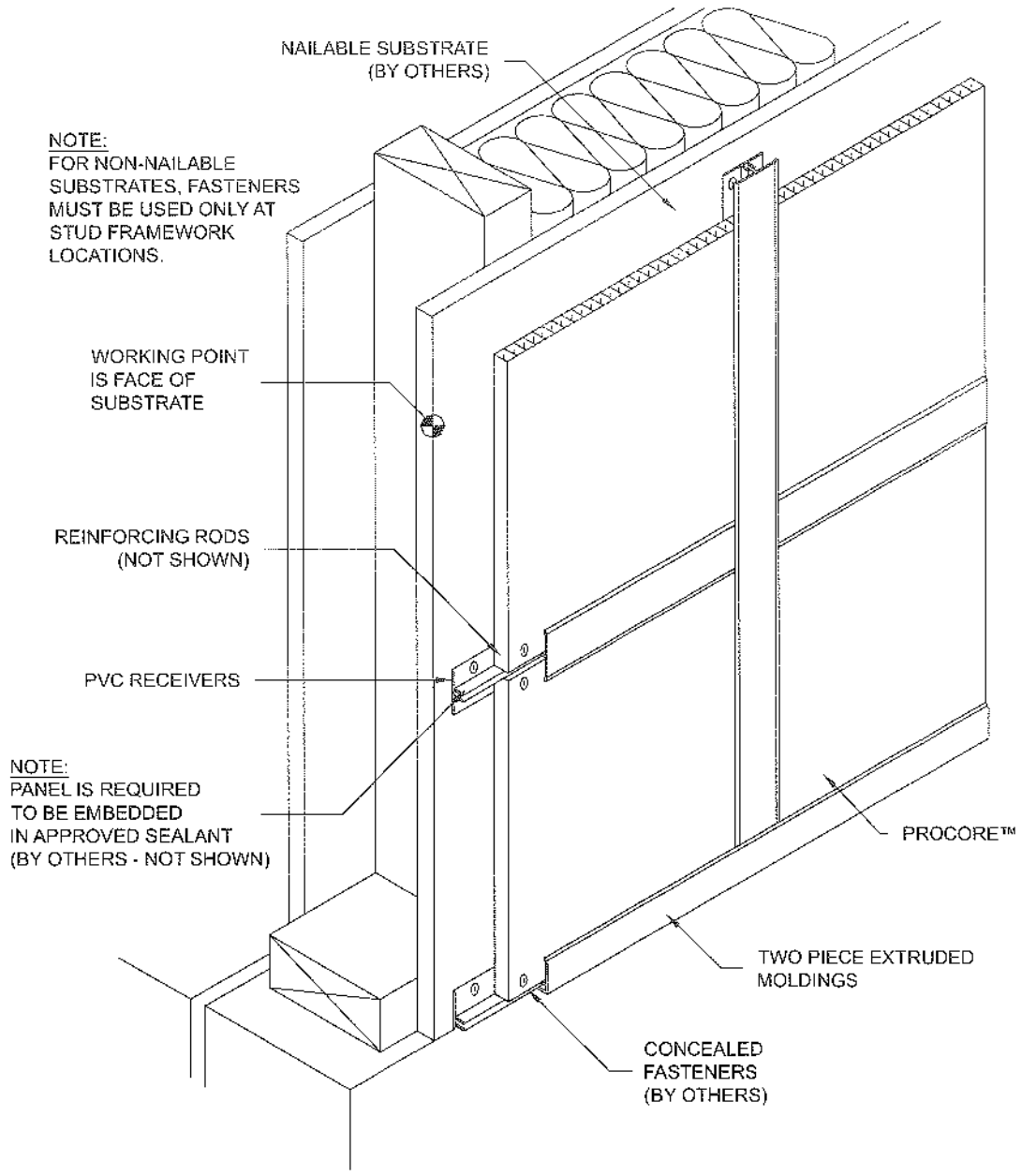
Contractor
PIZZAGALLI CONSTRUCTION

BAYSIDE VILLAGE - A STUDENT HOUSING COMPLEX

Drawing title
ENLARGED ELEVATION @ MAIN ENTRY

Drawing No.
ASK-75

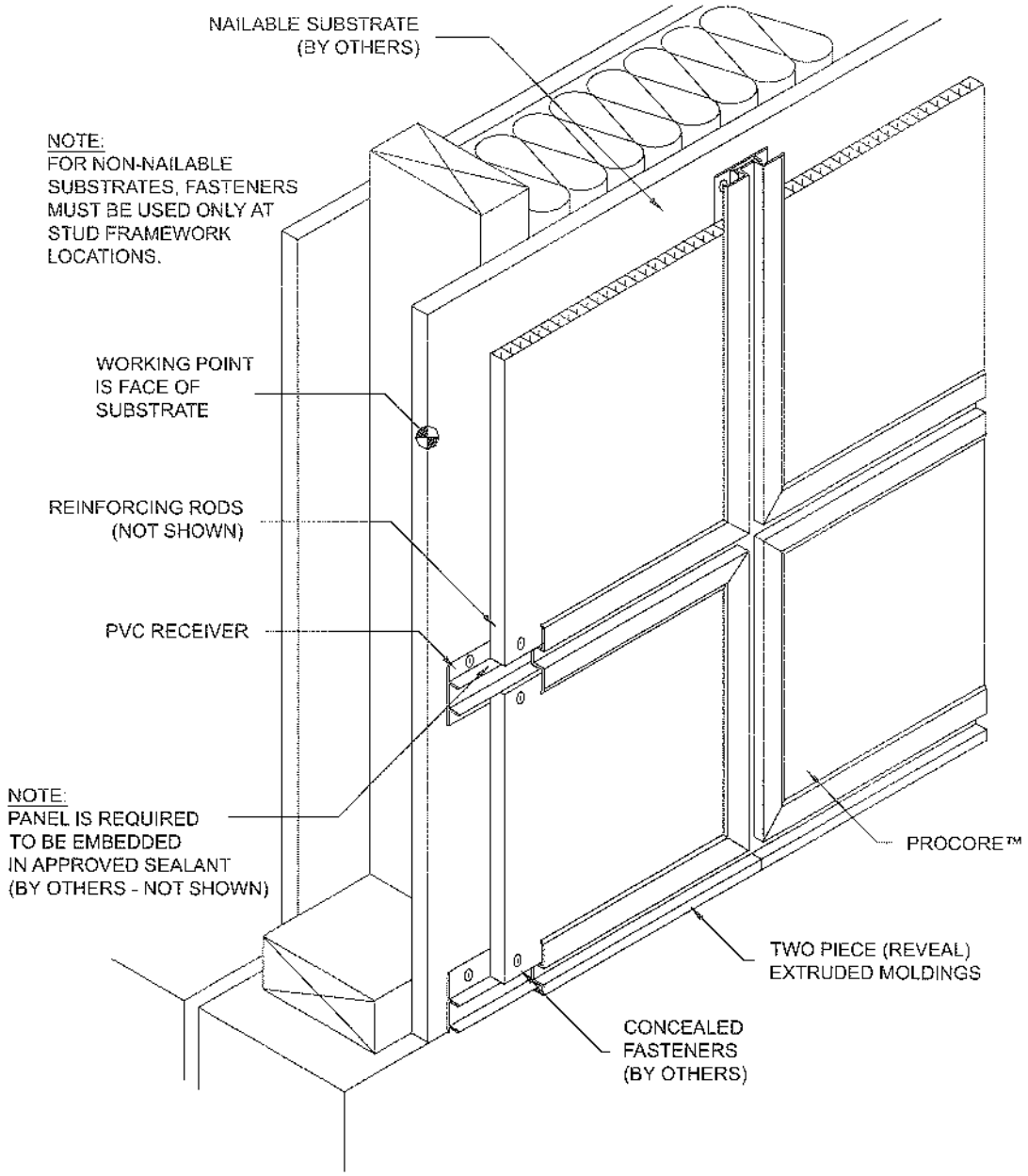

279 7/8 in
14 in
BAYSIDE 132 VILLAGE
132 = 21 in. high
BAYSIDE 132 VILLAGE



1A SYSTEM ISOMETRIC, OPTION 1

DRAWING NAME: PRO 2PC 1A System Isometric Option 1.dwg		
SYSTEM: Two Piece Moldings	**REVISED:** 11/06	**SCALE:** n/a

Note: This detail represents the latest recommendations from Citadel Architectural Products, Inc. It is presented in good faith and is subject to change without notice. Citadel Architectural Products, Inc. accepts no responsibility for the end use of this detail. For conditions not shown, consult our Technical Staff at (800) 446-8828 for review of specific details.



1B SYSTEM ISOMETRIC, OPTION 2

Note: This detail represents the latest recommendations from Citadel Architectural Products, Inc. It is presented in good faith and is subject to change without notice. Citadel Architectural Products, Inc. accepts no responsibility for the end use of this detail. For conditions not shown, consult our Technical Staff at (800) 446-8828 for review of specific details.

DRAWING NAME:
PRO 2PC 1B System Isometric Option 2.dwg

SYSTEM:	**REVISED:**	**SCALE:**
Two Piece Moldings	11/06	n/a

pizzagalli
construction company

May 14, 2008

Rick Knowland
Senior Planner
City of Portland
389 Congress Street
Portland, ME 04101

Re: Bayside Village Student Housing Complex, 132 Marginal Way, Portland, ME

Dear Rick:

This letter represents a follow-up to your job site visits were we reviewed the metal panel revisions at the Bayside Village Project. The following items are revisions to the original approval by the Planning Board on November 14, 2006:

1) Glass Fiber Reinforced Concrete (GFRC) Parapets and Accent Band. During the approval process with the City, GFRC was approved for the parapets and accent band around the building. During the design review process of the building it was discovered that GFRC is not a valid product for a wood building application. Prefabricated GFRC should be anchored to structural steel and not wood. Therefore, the design team went back to the original plan of metal panels (as shown on the rendering drawing attached for your use) for the parapets and accent band around the building. The product being used is the same material as the silver metallic Firestone Una-Clad UC-501 vertical oriented metal siding wall panels in the courtyard, except bent at a different profile. Attached for your use is the cut sheet on the UC-501 panel system and two elevations showing the dimensions of the parapet and accent band layout. Please note that the panels will only be approximately 20" wide in order to minimize the chance of any "oil canning." The original rendering showed metal panels approximately 40" wide.

2) Citadel ProCore Prefinished Architectural Panels. The ProCore panel that was approved by the City was a two-piece reveal molding system shown on the attached detail 1B System Isometric, Option 2. The ProCore panel that we are looking to install at the Bayside project is a two-piece extruded molding system shown on the attached detail 1A System Isometric, Option 1. The extruded molding system was ordered and delivered to the jobsite instead of the approved reveal molding. The issue we have is the moldings have a custom coating on them, and it will take seven to eight weeks for the new moldings. With this fast track project this delay would be detrimental to finishing on time. The panels between the moldings are the same. The only difference is the moldings that surround each panel. The reveal molding (option 2) has a ½" gap in the cover plate, while the extruded molding (option 1) has a flat cover plate. The rest of the metal siding systems around the perimeter of the building all have flat moldings which would match option 1. Both moldings cost the same, have the same finish, have the same performance, and have the same warranty. The original reveal molding has the possibility of collecting debris and insects in the ½" gap where the extruded molding system is a flat cover plate.

131 Presumpscot Street, Portland, ME 04103
207-874-2323 www.pizzagalli.com

The project next door (84 Marginal Way) is also using the same extruded moldings on their approved panels as we are proposing for Bayside. This would give both adjacent buildings the same look.

Both of the above items are time sensitive, and we would appreciate anything the City can do to approve the proposed materials by Tuesday May 20, 2008. Thank you for your help in finalizing the metal panel system for the Bayside Village Student Housing Project.

Sincerely,
Pizzagalli Construction Company

Daniel P. Noblet
Project Manager

Attachments


BAYSIDE VILLAGE

Firestone METAL PRODUCTS

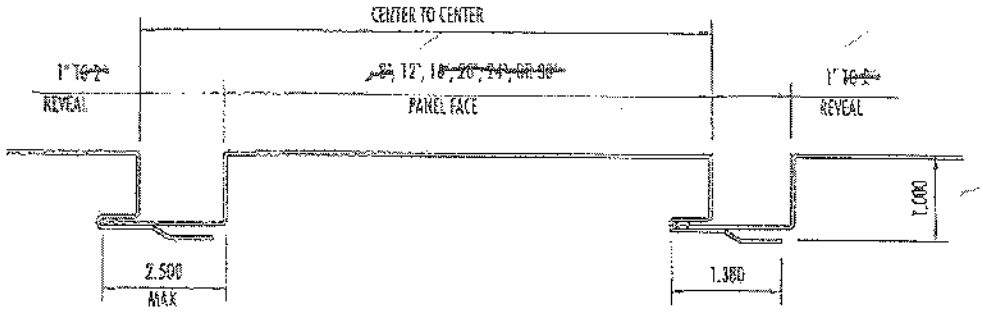
UNA-CLAD

Parapet And Accent Band

800.426.7737 • WWW.UNACLAD.COM

UC-501 Reveal Flush Panel System

UC501-INFO



MATERIAL OPTIONS

~~GALVANIZED STEEL~~
COIL-COATED ALUMINUM
~~KYNAR/HYLAR PVDF, POLYESTER~~
~~ANODIZED ALUMINUM~~
~~MILL-FINISH ALUMINUM~~

FABRICATION OPTIONS

~~FINISHING~~	~~26, 24 & 22 GA.~~
~~STEEL~~	~~26 & 24 GAUGE~~
ALUMINUM	~~.032~~" - .040"
COPPER	~~16 & 20 OZ.~~
MINIMUM LENGTH	~~96"~~ 36"
MAXIMUM LENGTH	600"
BEST O.C. DIMS.	12" & 20"
STIFFENING RIBS AVAILABLE	

TECHNICAL DATA

UL-90 RATED (STEEL & ALUMINUM)
ASTM E330-90 STRUCTURAL PERFORMANCE TESTING
ASTM E283 AIR INFILTRATION TEST
ASTM E331 WATER PENETRATION TEST

FINISH OPTIONS

PAINTING
HYLAR 5000/KYNAR 500, ~~MODIFIED POLYESTERS, AND OTHER CUSTOM OR EXOTIC FINISHES CAN BE COIL COATED OR SPRAY APPLIED.~~

~~ANODIZING~~
~~CLEARS, BRONZES, AND VARIOUS OTHER COLORS CAN BE COIL ANODIZED FOR COLOR CONSISTENCY.~~

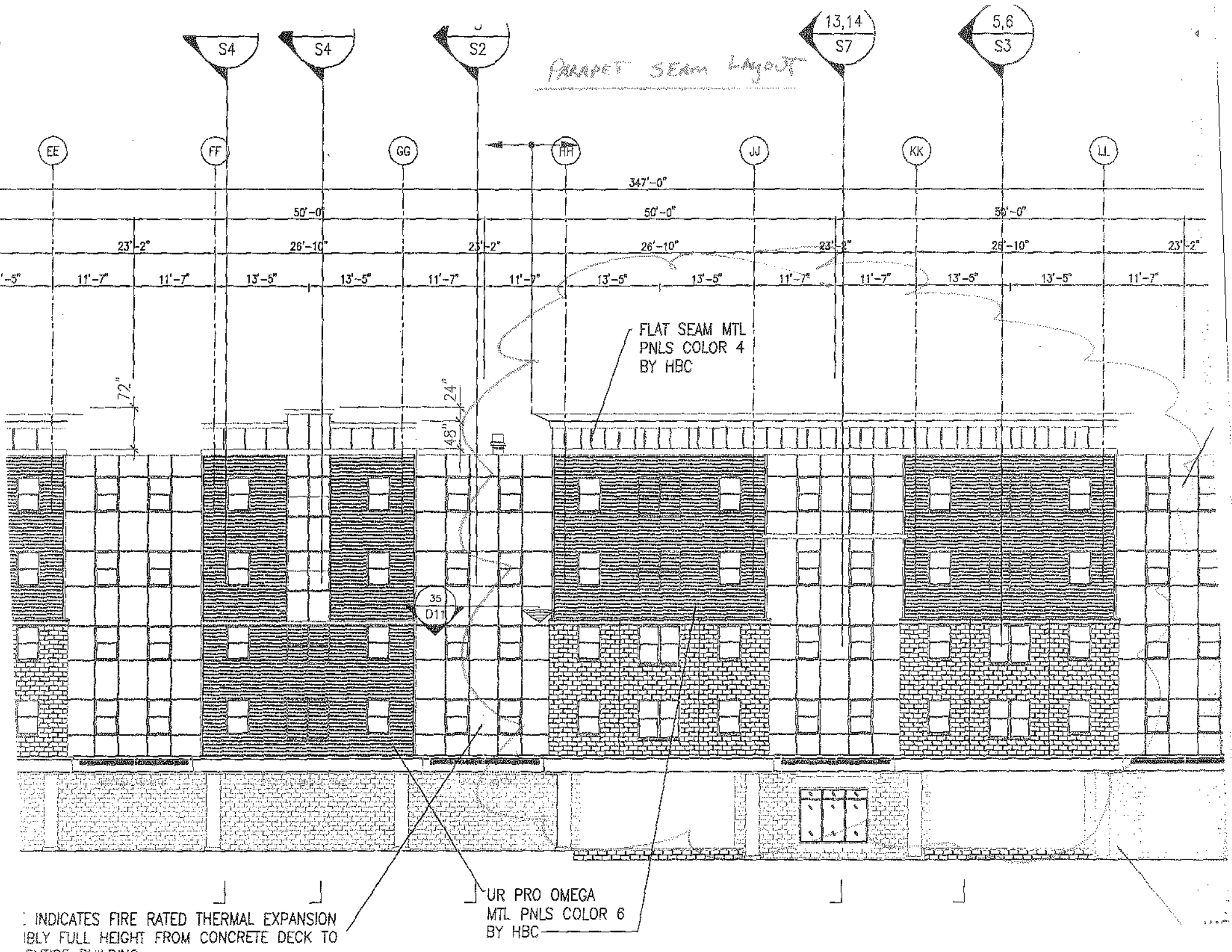
~~MECHANICAL FINISHES~~
~~PROVIDES A SURFACE TEXTURE BY MECHANICAL MEANS ALONE. TEXTURED/EMBOSSED PATTERNS ARE CURRENTLY AVAILABLE.~~

~~CUSTOM COLORS~~
~~WE CAN PROVIDE YOUR CUSTOM COLOR SERVICES TO MATCH PRACTICALLY ANY MATERIAL, SHADE, OR TINT YOU REQUIRE.~~

NOTES:

1. HEAVIER GAUGES, NARROWER WIDTHS, AND EMBOSSING MINIMIZE "OIL CANNING."
2. OIL CANNING IS NOT A CAUSE FOR REJECTION.
3. AN EXTENSIVE SELECTION OF ASSOCIATED PANEL FLASHINGS AND TRIMS ARE AVAILABLE.
4. CONTACT UNACLAD FOR UP-TO-DATE TECHNICAL INFORMATION AND MATERIAL LIMITATIONS.
5. ALL SYSTEMS WITH TESTING MUST BE INSTALLED IN ACCORDANCE WITH THE ASSEMBLY AS TESTED.

1001 Lund Boulevard, Anoka, Minnesota 55303 800/426-7737 763/576-9595 FAX 763/576-9596


S4
S4
S2
13,14
S7
5,6
S3
PARAPET SEAM LAYOUT
EE
FF
GG
HH
JJ
KK
LL
347'-0"
50'-0"
50'-0"
50'-0"
23'-2"
26'-10"
25'-2"
26'-10"
23'-2"
26'-10"
23'-2"
11'-7"
11'-7"
13'-5"
13'-5"
11'-7"
11'-7"
13'-5"
13'-5"
11'-7"
11'-7"
13'-5"
13'-5"
11'-7"
72"
24"
48"
FLAT SEAM MTL
PNLS COLOR 4
BY HBC
35
D11
UR PRO OMEGA
MTL PNLS COLOR 6
BY HBC
INDICATES FIRE RATED THERMAL EXPANSION
IBLY FULL HEIGHT FROM CONCRETE DECK TO

Mitchell
& Associates
LANDSCAPE ARCHITECTS

The Staples School
70 Center Street
Portland, Maine 04101
P: 207.774.4427
F: 207.874.2460
www.mitchellassociates.biz

MEMORANDUM

TO: Rick Knowland

FROM: Bob Metcalf

DATE: October 21, 2008

RE: Bayside Village Student Housing

Rick,

Enclosed are two copies of an executed license agreement for the roadway lighting on Marginal Way in front of Bayside Village Student Housing. The Owner has signed the license agreement. If you have any questions, please do not hesitate to call me.

cc Terry Turner

LICENSE AGREEMENT

FOR VALUABLE CONSIDERATION, the receipt and sufficiency of which is hereby acknowledged, the CITY OF PORTLAND, a Maine body corporate and politic, with a mailing address of City Hall, 389 Congress Street, Portland, Maine 04101 (the "City"), hereby GRANTS to Bayside Village Student Housing LLC, a Maine limited liability company with a place of business in Portland, Maine and mailing address c/o Bayside Village Student Housing LLC, 247 Commercial Street, Suite A, Rockport, Maine 04856 (hereinafter the "Licensee"), a revocable license to occupy portions of land owned by the City on or near Marginal Way in Portland, Cumberland County, Maine, which City land abuts the property of Licensee described in deeds from the City dated January 30, 2007 and recorded in the Cumberland County Registry of Deeds in Book 24806, Page 230 ("Licensee's Property"), the foregoing license being for the purpose of allowing encroachments on or over the City's land by the placement, within the City's right-of-way, of street lights owned and powered by Licensee, more particularly described and depicted on **Exhibit A** attached hereto and made a part hereof. The license granted in this license agreement is subject to the following conditions:

1. Licensee, its successors and assigns shall indemnify the City, its officers, agents, and employees from any and all claims which arise out of its use, or the use of others, of the City's land pursuant to this license agreement.

2. Licensee shall procure and maintain liability insurance in an amount of not less than Four Hundred Thousand Dollars ($400,000) combined single limit, covering claims for bodily injury, death and property damage and shall either name the City as an additional insured with respect to such coverage or shall obtain a contractual liability endorsement covering the obligations of Licensee under the terms of this license agreement.

3. This license agreement is assignable to any subsequent owners of Licensee's Property.

4. This license agreement may be revoked upon six (6) months written notice by the City.

IN WITNESS WHEREOF, the parties have caused this license agreement to be executed this ___ day of October, 2008.

CITY OF PORTLAND

By: _____
Joseph E. Gray, Jr.
City Manager

BAYSIDE VILLAGE STUDENT HOUSING LLC

By: _____
Joseph Cloutier
Its Manager

STATE OF MAINE
CUMBERLAND, ss. _____, 2008

PERSONALLY APPEARED the above named Joseph E. Gray, Jr., City Manager of the City of Portland as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of the City of Portland.

Before me,

_____
Notary Public/Attorney at Law
Print name:
My commission expires:

STATE OF MAINE
CUMBERLAND, ss.

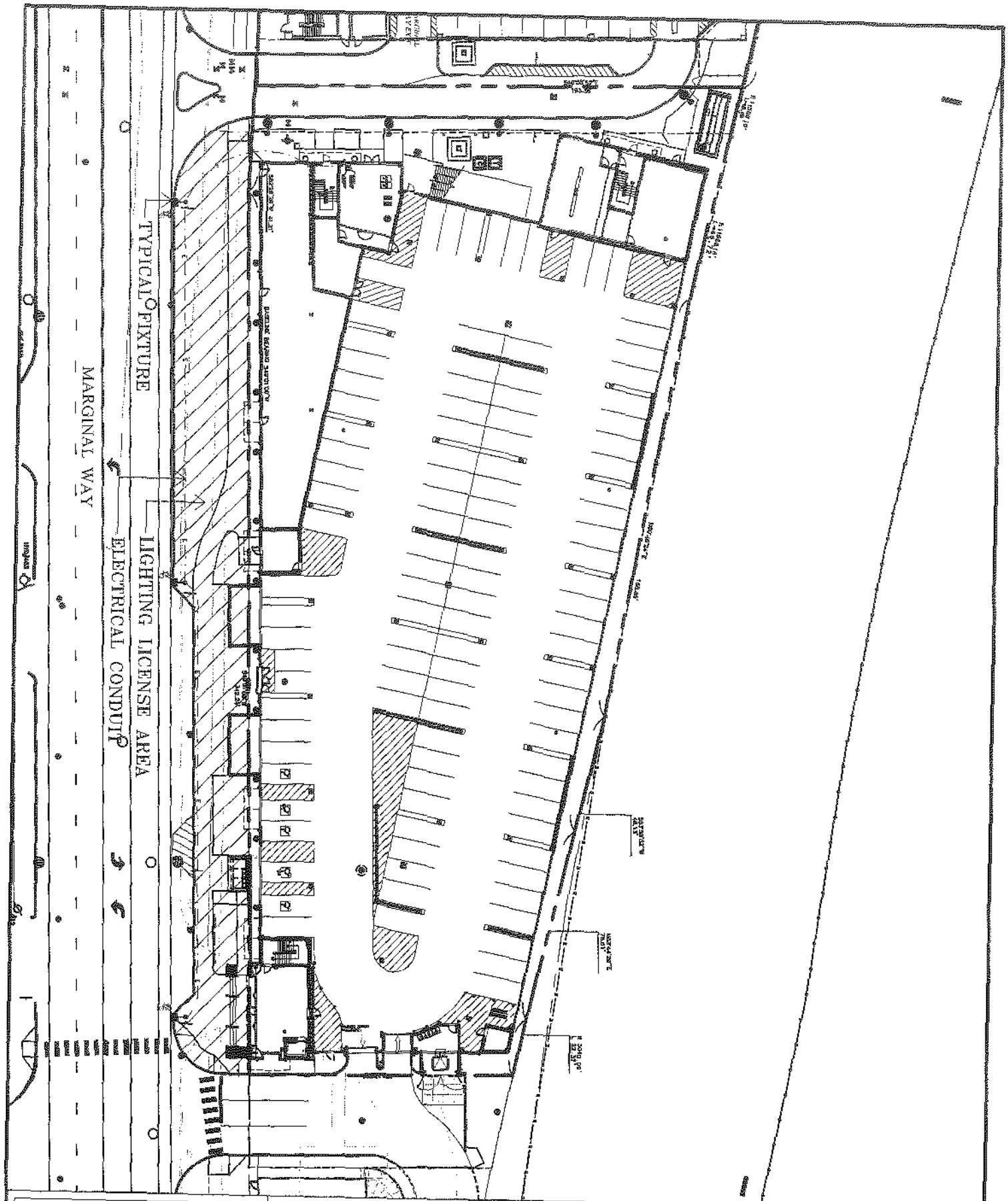
October 7, 2008

PERSONALLY APPEARED the above named Joseph Cloutier-, Manager of Bayside Village Student Housing LLC as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said company.

Before me,

Michelle M Eaton
Notary Public/Attorney at Law
Print name: Michelle M. Eaton
My commission expires:
August 6, 2011

O:\OFFICE\PENNY\license\63 Marginal Way.doc



Mitchell & Associates
Landscape Architects
70 Center Street
Portland, Maine 04101
(207) 774-4427

Title: ROADWAY LIGHTING LICENSE AREA
EXHIBIT A

Date: OCT. 21, 2008

Scale: 1'=50'

Project: BAYSIDE VILLAGE

North:

A

LICENSE AGREEMENT

FOR VALUABLE CONSIDERATION, the receipt and sufficiency of which is hereby acknowledged, the CITY OF PORTLAND, a Maine body corporate and politic, with a mailing address of City Hall, 389 Congress Street, Portland, Maine 04101 (the "City"), hereby GRANTS to Bayside Village Student Housing LLC, a Maine limited liability company with a place of business in Portland, Maine and mailing address c/o Bayside Village Student Housing LLC, 247 Commercial Street, Suite A, Rockport, Maine 04856 (hereinafter the "Licensee"), a revocable license to occupy portions of land owned by the City on or near Marginal Way in Portland, Cumberland County, Maine, which City land abuts the property of Licensee described in deeds from the City dated January 30, 2007 and recorded in the Cumberland County Registry of Deeds in Book 24806, Page 230 ("Licensee's Property"), the foregoing license being for the purpose of allowing encroachments on or over the City's land by the placement, within the City's right-of-way, of street lights owned and powered by Licensee, more particularly described and depicted on **Exhibit A** attached hereto and made a part hereof. The license granted in this license agreement is subject to the following conditions:

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3. This license agreement is assignable to any subsequent owners of Licensee's Property.

4. This license agreement may be revoked upon six (6) months written notice by the City.

IN WITNESS WHEREOF, the parties have caused this license agreement to be executed this ___ day of October, 2008.

CITY OF PORTLAND

By: _____
Joseph E. Gray, Jr.
City Manager

BAYSIDE VILLAGE STUDENT HOUSING LLC

By: _____
Joseph Cloutier
Its Manager

STATE OF MAINE
CUMBERLAND, ss. _____, 2008

PERSONALLY APPEARED the above named Joseph E. Gray, Jr., City Manager of the City of Portland as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of the City of Portland.

Before me,

_____
Notary Public/Attorney at Law
Print name:
My commission expires:

STATE OF MAINE
CUMBERLAND, ss.

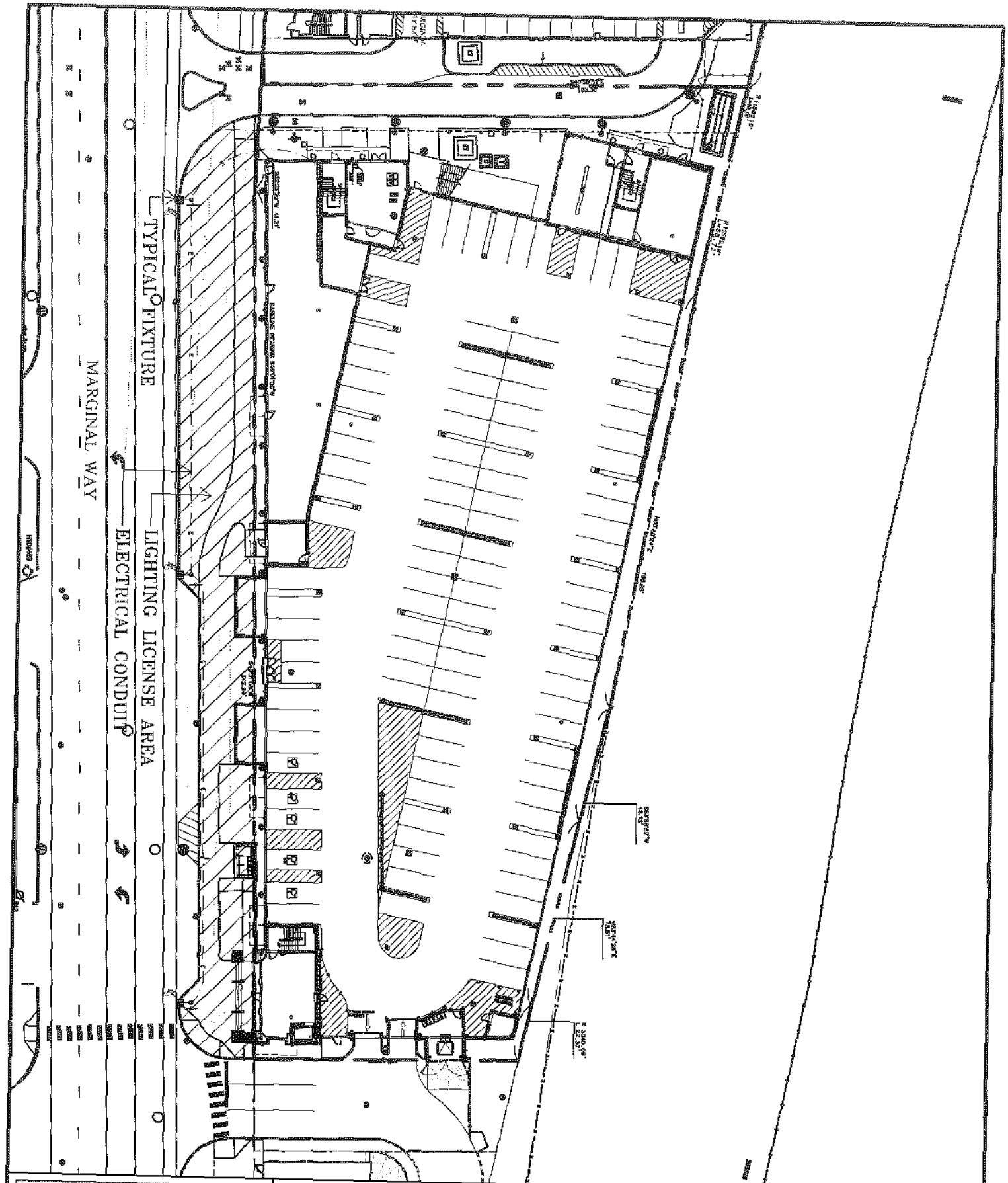
October 7, 2008

PERSONALLY APPEARED the above named Joseph Cloutier-, Manager of Bayside Village Student Housing LLC as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said company.

Before me,

Michelle M Eaton
Notary Public/Attorney at Law
Print name: Michelle M. Eaton
My commission expires:
August 6, 2011

O:\OFFICE\PENNY\license\63 Marginal Way.doc



Mitchell & Associates
Landscape Architects
70 Center Street
Portland, Maine 04101
(207) 774-4427

Title: ROADWAY LIGHTING LICENSE AREA
EXHIBIT A

Date: OCT. 21, 2008

Scale: 1'=50'

Project: BAYSIDE VILLAGE

North:

A

CITY OF PORTLAND, MAINE
PLANNING BOARD

November 20, 2006

Mr. Ed Marsh
Realty Resources (Southern Maine Student Housing, LLC)
247 Commercial Street
Rockport, Maine 04856

RE: Bayside Village Student Housing; Southern Maine Student Housing, LLC, (Applicant); 120 Marginal Way; #2006-0125; CBL- 034A-B-001

Dear Mr. Marsh:

The Planning Board considered the proposal by Southern Maine Student Housing, LLC to create a 400 bed student lodging house in the vicinity of 120 Marginal Way and voted on the motions described in this letter.

On October 10, 2006, the Planning Board voted 5-0 (Hall and Tevanian absent) that the Bayside Village housing development was in conformance with the Conditional Use (parking garage) Standards of the Land Use Code.

On November 14, 2006, the Planning Board voted 5-2 (Silk and Tevanian opposed) that the Bayside Village housing development was in conformance with the Site Plan Ordinance of the Land Use Code, including Traffic Movement Permit. The approval was granted for this project with the following conditions:

i. That the Applicant shall revise the plan and implement the recommendations contained in Tom Errico's (Traffic Review Consultant) memo dated October 20, 2006, except that the Applicant shall not be required to operate a car-share program.

ii. The Applicant shall contribute $90,000 towards a Transportation Demand Management Fund to be established by the City of Portland to implement Transportation Demand Management measures in Bayside. The parking monitoring study of the site, which will be performed by the Applicant as noted in Mr. Errico's memo, will be used to guide the use of those funds. For the purposes of conducting the monitoring study full occupancy shall be considered 90% of the beds.

iii. That the pedestrian easement for the easterly side of the building shall be submitted for City staff review and approval.

iv. That all exterior signs shall be subject to Planning staff review and approval.

v. That the project lighting shall be subject to Planning staff review and approval.

vi. That final details and materials of the building façade shall be subject to Planning staff review and approval.

vii. In the event that the project changes from student housing as presented by the Applicant to another use, the Applicant shall submit such changes to the Planning Board for review and approval.

viii. The project is approved for a maximum of 400 beds with one occupant per bed.

iv. Applicant shall provide a binding lease agreement for off-hours parking at 84 Marginal Way.

The approval is based on the submitted site plan and the findings related to site plan and conditional use review standards as contained in Planning Report 52-06 and Planning staff memo dated for November 14,2006.

Please note the following provisions and requirements for all site plan approvals:

1. Where submission drawings are available in electronic form, the Applicant shall submit any available electronic Autocad files (*.dwg), release 14 or greater, with seven (7) seta of the final plans.

2. A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

3. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.

4. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

5. Prior to construction, a pre-construction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's 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 representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

6. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

The Development Review Coordinator must be notified five (5) working days prior to date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Richard Knowland at 874-8725.

Sincerely,

Kevin Beal, Chair
Portland Planning Board

cc: Lee D. Urban, Planning and Development Department Director
Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Services Manager
Richard Knowland, Senior Planner
Jay Reynolds, Development Review Coordinator
Marge Schmuckal, Zoning Administrator
Jeanne Bourke, Inspections Division
Michael Bobinsky, Public Works Director
Eric Labelle, City Engineer
Bill Clark, Public works

Jim Carmody, Transportation Manager
Jeff Tarling, City Arborist
Penny Littell, Associate Corporation Counsel
Captain Greg Cass, Fire Prevention
Assessor's Office
Approval Letter File
Robert Metcalf, Mitchell Associates, 70 Center Street, Portland, ME 04103

CORPORATE FINANCE ASSOCIATES

Peter G. Moore
75 Market Street, Suite 305
Portland, ME 04101

E/ pmoore@cfaw.com
T/ 207.772.2221
F/ 207.772.2227

June 25, 2007

Richard Knowland
Senior Planner
Planning Department
City of Portland
Congress Street
Portland, ME 04101

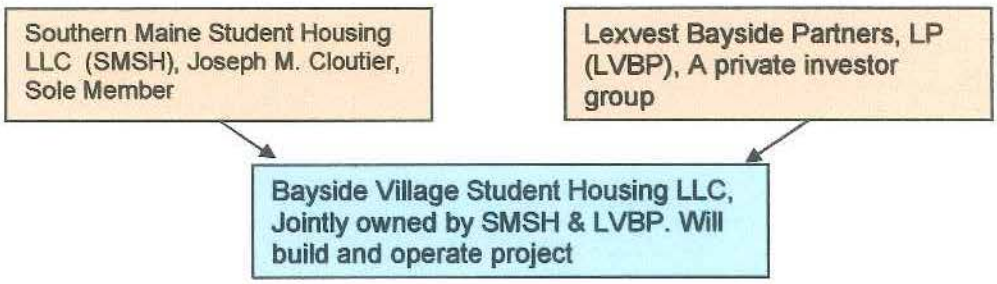
Re: Bayside Village Student Housing Project

Dear Richard,

I am writing in my capacity as financial advisor to Joseph M. Cloutier and Southern Maine Student Housing LLC.

I understand that your office has requested an explanation of the need to amend the various City approvals for Southern Maine Student Housing LLC (SMSH)to a new entity named Bayside Village Student Housing LLC. (BVSH)

Bayside Village Student Housing LLC is the new entity formed by the joint investment into the project by Joseph Cloutier's development entity Southern Maine Student Housing LLC (the current property owner of record) and the outside investor group headed by Lexvest Bayside Partners LP, a Lexington, Massachusetts based private investment group. Together their capital is providing funding for the project and they will own the project under the BVSH entity. See diagram below:



The necessity of this arrangement is to properly and legally facilitate all joint venture arrangements, including but not limited to bank borrowing, construction contracts, management of the property and ongoing operations after construction is completed.

If there are any questions you or your staff have regarding this arrangement and its necessity please contact me immediately.

Thank you for your ongoing support for this important project in Portland.

Sincerely,

Peter G. Moore
Managing Director

CC: Joseph M. Cloutier, Southern Maine Student Housing LLC
John Kaminski, Esq.
Eric D. Shapiro, Lexvest Bayside Partners, LLC

KeyBank
1 Canal Plaza
Portland, Maine 04101
207-874-7026

June 18, 2007

City of Portland Planning Department
4th floor, Portland City Hall
389 Congress Street
Portland, ME 04101

Re: Bayside Village Student Housing, LLC

To Whom It May Concern:

KeyBank National Association (hereinafter called the "Bank") has committed to make a loan to Bayside Village Student Housing in the amount of $20,825,000 for the acquisition of land located at 120 Marginal Way in Portland, Maine and construction of 100 fully furnished 4-bedroom suite-style units of student housing, a 102-space parking garage and approximately 3,600 square feet of retail space on terms and conditions set forth in our commitment letter which has been issued and accepted.

We anticipate an initial closing by the end of this month.

We have successfully completed a variety of projects with Joseph Cloutier, the principal, and look forward to participating in this project.

Sincerely,

W. Scott Fox,
Senior Vice President
Community Development Lending

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

Planning and Development Department
Lee D. Urban, Director

Planning Division
Alexander Jaegerman, Director

June 29, 2007

Tom Ketterrer
Drummond Woodsom and Macmahon
245 Commercial Street
Portland, Maine 04101

Re: Bayside Village Student Housing; 120 Marginal Way; #2006-0125; CBL-034A-B-001

Dear Mr. Ketterer,

This letter is to confirm that the Portland Planning Authority has received a letter from Peter Moore of Corporate Finance Associates (dated June 25, 2007) regarding a change in the developer entity for the Bayside Village Student housing project from Southern Maine Student Housing LLC to Bayside Village Student Housing LLC. A letter has also been received from W. Scott Fox of Key Bank (dated June 18, 2007) regarding the financial capacity of Bayside Village Student Housing LLC.

The above information has been reviewed and found to be acceptable.

Should you have any questions concerning this letter please feel free to call me.

Sincerely,

Alex Jaegerman
Planning Division Director

cc: Lee Urban, Director of Planning and Development
Barbara Barhydt, Development Services Manager
Richard Knowland , Senior Planner
Jeanne Bourke, Inspections Division
Penny Littell, Associate Corporation Counsel

City of Portland
Department of Planning and Development
Planning Division
389 Congress Street, 4th Floor
Portland ME 04101
(207)874-8721 or (207)874-8719
Fax: (207)756-8258

FAX

To: TED KELLEHAN

Company:

Fax #:

Date: JUNE 25, 2007

From: RICK KNOWLAND

You should receive 5 page(s) including this cover sheet.

Comments:

TED - AS REQUESTED ATTACHED IS TOM BARRICO'S MEMO OF 10-20-06.

RICK KNOWLAND

along the Marginal Way curb line.
No further comment.

5. The City does not mark parking stalls. The site plan should be modified accordingly.
No further comment.

6. A flush concrete surface currently exists on Marginal Way in the vicinity of the project. I would suggest that it be removed.
The Gorrill-Palmer plans require removal of the concrete.

7. The dimensions on the site plan for the Marginal Way cross-section and those depicted on a conceptual plan included in the traffic study are different. The plans should be consistent.
The plans are acceptable although as noted above, some adjustment may be necessary as we proceed to final design.

8. It is unclear on what is being proposed by this project for physical improvements to Marginal Way and along Preble Street.
No further comment.

9. A crosswalk should be provided across Marginal Way on the west side of Chestnut Street. This will require an ADA compliant HC ramp.
The applicant has included a crosswalk at this location.

Parking

In an effort to better quantify parking needs, I suggested that the applicant conduct a parking survey at the existing Portland Hall Dormitory located on Congress Street in downtown Portland. Portland Hall was surveyed for each hour on Thursday September 28, 2006 between 6:00am and 7:00pm. According to the survey, the peak parking demand occurred between 7:00am and 8:00am, where 87 vehicles were parked. Based upon a housing demand of 300 students, Portland Hall experiences a parking demand of 0.29 parking spaces per student. Follow-up surveys were conducted in October and indicted 97 cars were parked (0.32 spaces per bed). Some noteworthy information obtained in a telephone conversation with Alisha Menard, the manager of the facility, includes:

- Approximately 130 parking spaces are provided on-site. Approximately 120 spaces are dedicated to students with the remaining assigned to staff and handicapped drivers.
- A waiting list for an on-site parking space is approximately 35.
- The occupants are students from several area schools.
- Parking spaces cost $125.00 per semester.
- For students that do not receive on site parking, they are eligible for City of Portland resident parking permits. Staff provides a letter to the City documenting resident status of students.
- Shuttle bus service is provided between Portland Hall and the Portland campus every ½ hour.
- The issuance of permits is based upon returning students and a lottery system.
- Weekend parking demand is lower than weekday conditions.
- Summer time periods have significantly lower parking demands as compared to typical school periods.
- It was not totally clear why the parking lot was not full during the survey period when considering a waiting list for parking permits. Alisha noted that the characteristics of tenants are such that: some have unusual work schedules; some pay for a parking permit but don't utilize

6. Radii at the Marginal Way/Preble Street intersection should be minimized as much as possible.
7. The left-turn entry into 84 Marginal Way off Preble Street may need to be modified to account for City maintenance requirements. Additionally, it is suggested that the 12-foot lane be reduced to 11-feet and a two foot concrete rumble strip be provided to separate left-turn movements into the site from northbound Preble Street traffic.
8. The painted transition area in advance of the left-turn lane into 84 Marginal Way should be a stamped material to be determined during the design process.

- The applicant shall be responsible for the implementation of a new crosswalk with supplemental features on Preble Street as illustrated on Conceptual Roadway Improvement Plan E prepared by Gorrill-Palmer Consulting Engineers, Inc. included in their October 4, 2006 submission. I would note that the plan will need to be modified such that bicycle lanes can be provided in the area of roadway widening for the raised median island. I would note that this plan is for the stand alone implementation of the crosswalk. The design of the crosswalk will be significantly different as compared to plans being review for 84 Marginal Way. Both crosswalk designs are acceptable to the City, although some minor modifications may be necessary as the plans are further developed for construction.

- In an effort to offset traffic, bicycle, and pedestrian impacts to the Marginal Way corridor, the applicant shall contribute $43,500.00 towards the implementation of the Marginal Way Pedestrian and Bicycle Master Plan improvement concepts.

- In an effort to relieve traffic pressure to left-turn movements from Preble Street to eastbound Marginal Way the applicant shall contribute $9,000.00 towards the extension of Somerset Street. The City seeks implementation of Somerset Street as soon as possible to offer travel alternatives to Marginal Way.

Site Plan

The following presents an update to my September 8, 2006 comments.

1. The secondary driveway should be designed to be compatible with anticipated future conditions (right-turn entry/exit only).
   The plans have been revised and I find them acceptable. I would ask that the applicant install appropriate signage that reinforces turn restrictions. This should be coordinated with the City Traffic Engineer.

2. The applicant should provide documentation that METRO has reviewed the proposed plans for a bus stop and bus shelter and approve the location and design elements.
   No further comment.

3. The primary driveway entrance opposite Chestnut Street should be redesigned to allow for optimal approach capacity. Based upon future development opportunities, including the Miss Portland Diner and an AMTRAK Rail Station, it is suggested that two approach lanes be provided. The public right-of-way on this approach is 36 feet and it is my recommendation that this space consist of two 10-foot approach lanes, one 11-foot entry lane, and one 5-foot sidewalk.
   The plans have been revised to reflect this suggestion.

4. I would suggest that Eric Labelle closely review the plans as it relates to geometric modifications

6. Radii at the Marginal Way/Preble Street intersection should be minimized as much as possible.
7. The left-turn entry into 84 Marginal Way off Preble Street may need to be modified to account for City maintenance requirements. Additionally, it is suggested that the 12-foot lane be reduced to 11-feet and a two foot concrete rumble strip be provided to separate left-turn movements into the site from northbound Preble Street traffic.
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- In an effort to relieve traffic pressure to left-turn movements from Preble Street to eastbound Marginal Way the applicant shall contribute $9,000.00 towards the extension of Somerset Street. The City seeks implementation of Somerset Street as soon as possible to offer travel alternatives to Marginal Way.

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along the Marginal Way curb line.
No further comment.

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No further comment.

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The applicant has included a crosswalk at this location.

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- Approximately 130 parking spaces are provided on-site. Approximately 120 spaces are dedicated to students with the remaining assigned to staff and handicapped drivers.
- A waiting list for an on-site parking space is approximately 35.
- The occupants are students from several area schools.
- Parking spaces cost $125.00 per semester.
- For students that do not receive on site parking, they are eligible for City of Portland resident parking permits. Staff provides a letter to the City documenting resident status of students.
- Shuttle bus service is provided between Portland Hall and the Portland campus every ½ hour.
- The issuance of permits is based upon returning students and a lottery system.
- Weekend parking demand is lower than weekday conditions.
- Summer time periods have significantly lower parking demands as compared to typical school periods.
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the space every week; some may prefer to leave their car on-campus; Thursday's can have lower parking needs, because some students do not have Friday classes and leave early; and some pay for the space for comfort of availability for limited use.

Assuming Bayside Village functions similar to Portland Hall, 132 parking spaces should be provided (129 residential spaces and 3 retail employee spaces). It is recommended that the following be required of the applicant.

- **Provision of 132 parking spaces for tenants of the project (As an alternative, I would consider the creation of a TDM fund for the Bayside area that would require the applicant to make a financial contribution in lieu of providing the 30 off-site parking spaces. The fund would be used to implemented TDM measures and the City would be responsible for addressing parking deficits at the project site following the results of the monitoring study).**
- **During the first year, students housed in the project will not be allowed to obtain a Portland Resident Parking Permit. The applicant will operate a car-share program on-site such that parking demand is minimized. The details of the program (number of vehicles to be provided on-site) shall be coordinated with the City Traffic Engineer. The applicant may request modifications following results of the monitoring study.**
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If you have any questions or comments, please contact me.

Best Regards,

Thomas A. Errico, P.E.
Senior Transportation Engineer
Wilbur Smith Associates
59 Middle Street
Portland, Maine 04101
(207) 871-1785 Phone
(207) 871-5825 Fax

ATTACHMENT E-1

Rick Knowland - Bayside Village

From: "Thomas Errico" <terrico@wilbursmith.com>
To: "'Rick Knowland '" <RWK@portlandmaine.gov>
Date: 10/20/2006 12:53 PM
Subject: Bayside Village
CC: "'James Carmody'" <JPC@portlandmaine.gov>

Rick –

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- Some comments that will need to be addressed during the development of final design plans for Marginal Way and Preble Street improvements under the full implementation of improvements with both Bayside Village and 84 Marginal Way. These are **NOT** the responsibility of this applicant, but are necessary for improvements in the area that the applicant will be contributing financially:

    1. Lane widths on Preble Street southbound should not exceed 12 feet and the bicycle lane should be 5 feet. The curb on the westside of Preble Street will need to be relocated accordingly.
    2. The plans should note that the improvement plan will include all necessary lane assignment signs and traffic signal modifications.
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To: "'Rick Knowland '" <RWK@portlandmaine.gov>
Date: 10/20/2006 12:53 PM
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CC: "'James Carmody'" <JPC@portlandmaine.gov>

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    5. The plan should depict the lanes on all approaches such that we can confirm acceptable lane alignment can be provided through the intersection.

The approval is based on the submitted site plan and the findings related to site plan and conditional use review standards as contained in Planning Report 52-06 and Planning staff memo dated for November 14,2006.

Please note the following provisions and requirements for all site plan approvals:

1. Where submission drawings are available in electronic form, the Applicant shall submit any available electronic Autocad files (*.dwg), release 14 or greater, with seven (7) seta of the final plans.

2. A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

3. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.

4. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

5. Prior to construction, a pre-construction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's 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 representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

6. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

The Development Review Coordinator must be notified five (5) working days prior to date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Richard Knowland at 874-8725.

Sincerely,

Kevin Beal, Chair
Portland Planning Board

cc: Lee D. Urban, Planning and Development Department Director
Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Services Manager
Richard Knowland, Senior Planner
Jay Reynolds, Development Review Coordinator
Marge Schmuckal, Zoning Administrator
Jeanne Bourke, Inspections Division
Michael Bobinsky, Public Works Director
Eric Labelle, City Engineer
Bill Clark, Public works

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Jim Carmody, Transportation Manager
Jeff Tarling, City Arborist
Penny Littell, Associate Corporation Counsel
Captain Greg Cass, Fire Prevention
Assessor's Office
Approval Letter File
Robert Metcalf, Mitchell Associates, 70 Center Street, Portland, ME 04103

6/27/07

TO: RICK KNOWLAND

FROM: RYAN LEAVITT

RE: BAYSIDE VILLAGE STUDENT HOUSING
COST ESTIMATE OF IMPROVEMENTS
TO BE CONTAINED BY PERFORMANCE GUARANTEE

RICK,
ATTACHED IS THE ABOVE LISTED FORM

PLEASE REVIEW. I WILL
CALL ON FRIDAY.

Thanks,

Ryan Leavitt

Planning and Development Department
SUBDIVISION/SITE DEVELOPMENT

COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

Date: **June 19, 2007**

Name of Project: **Bayside Village Student Housing**

Address/Location: **120 Marginal Way, Portland, Maine 04101**

Developer: **Bayside Village Student Housing LLC**

Form of Performance Guarantee: _____

Type of Development: **Site Plan** (Major/Minor) _____

TO BE FILLED OUT BY THE APPLICANT:

	PUBLIC			PRIVATE		
Item	Quantity	Unit Cost	Subtotal	Quantity	Unit Cost	Subtotal
1. STREET/SIDEWALK						
Road/Parking Areas	603 sy	$55.	$33,165.	576 sy	$55.	$31,680.
Curbing	335 sy	$35.67	$11,950.	299 sy	$35.67	$10,665.
Sidewalks				10,644 sy	$6.56	$69,823.
Esplanades						
Monuments						
Street Lighting	3	$9,600	$28,800			
Street Opening Repairs						
Other						
2. EARTH WORK						
Cut						
Fill						
3. SANITARY SEWER						
Manholes	1	$1,800.	$1,800.			
Piping	42 lf	$75.	$3,150.			
Connections						
Main Line Piping						
House Sewer Service Piping						
Pump Stations						
Other						
4. WATER MAINS	49 lf	$75.	$3,675.	36 lf	$75.	$2,700.
5. STORM DRAINAGE						
Manholes	3	$1,800.	$5,400.	2	$1,800.	$3,600
Catchbasins	2	$1,800	$3,600	5	$1,800.	$9,000
Piping	75	$43.80	$3,285	993	$39.20	$38,930
Detention Basin						
Stormwater Quality Units						
Other						

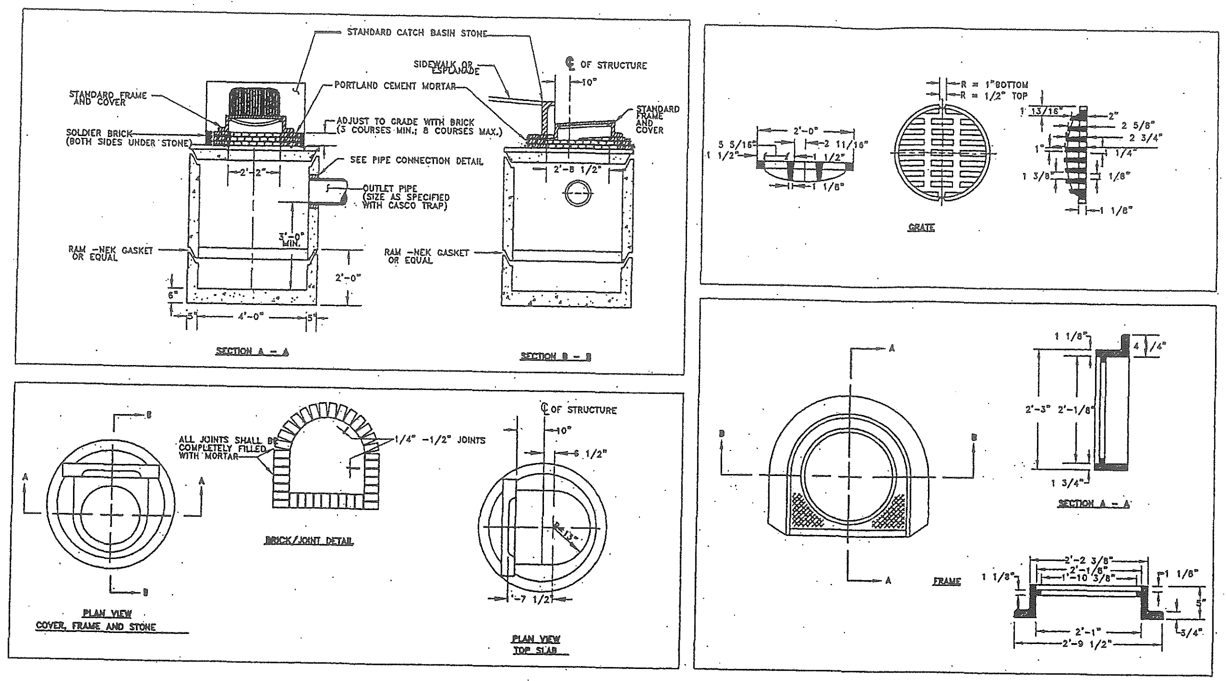
6.	SITE LIGHTING				Lights	4 ea	$9,600	$38,400
					Service	180 lf	$60.	$10,800
7.	EROSION CONTROL							
	Silt Fence							
	Check Dams							
	Pipe Inlet/Outlet Protection							
	Level Lip Spreader							
	Slope Stabilization							
	Geotextile							
	Hay Bale Barriers							
	Catch Basin Inlet Protection							
8.	RECREATION AND OPEN SPACE AMENITIES							
9.	LANDSCAPING (Attach breakdown of plant materials,quantities, and unit costs)					20,080	2.49	$50,000
10.	MISCELLANEOUS*	223 lf	$55.56	$12,390				
	TOTAL:	$107,215.				$327,684.		
	GRAND TOTAL:	$434,899.						

INSPECTION FEE (to be filled out by the City)

		PUBLIC	PRIVATE	TOTAL
A:	2.0% of totals:			
	or			
B:	Alternative Assessment:			
	Assessed by:	(name)	(name)	

* Includes concrete steps and ramps, gas service, telephone & cable and electrical.

A-7

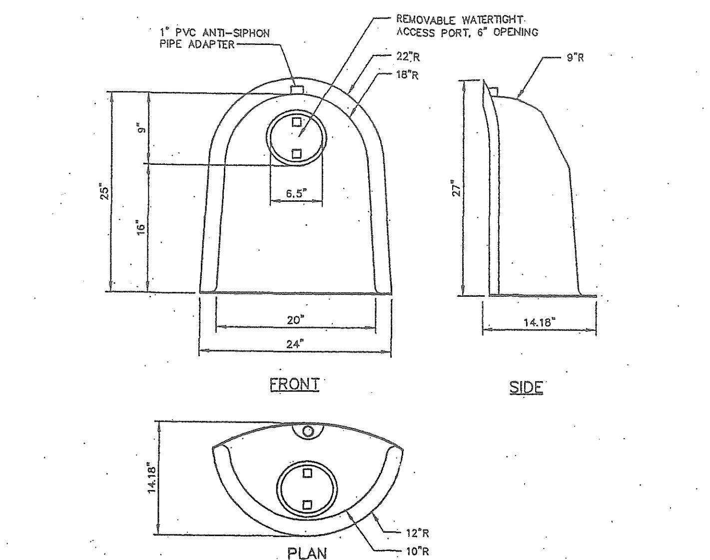


GENERAL NOTES

1. ALL CONCRETE SHALL BE A CLASS "A" AND HAVE A MINIMUM ULTIMATE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. PRECAST REINFORCED CONE BARREL MANUFACTURE PER ASTM SPEC. C-478-67
3. SEWER BRICK TO CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
4. ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTION OF BRICK MASONRY, THE SMOOTH MORTAR SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPEC-IFCATIONS SECTION 604.
5. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
6. MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND OFFSET, PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED HOLE.
9. EXISTING MANHOLE AND CATCH BASIN FRAMES AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
10. INLET HOODS SHALL BE PROVIDED WITHIN ALL CATCH BASIN PIPES 18" OR LESS.

PRECAST CONCRETE CATCH BASIN TYPE "E"

N.T.S.



THE SNOUT – INLET HOOD

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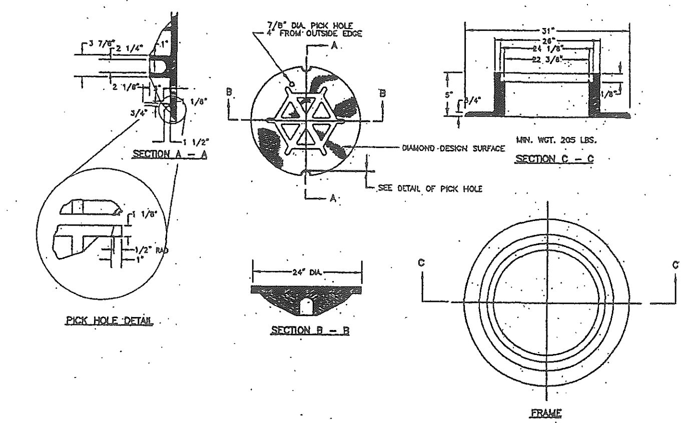
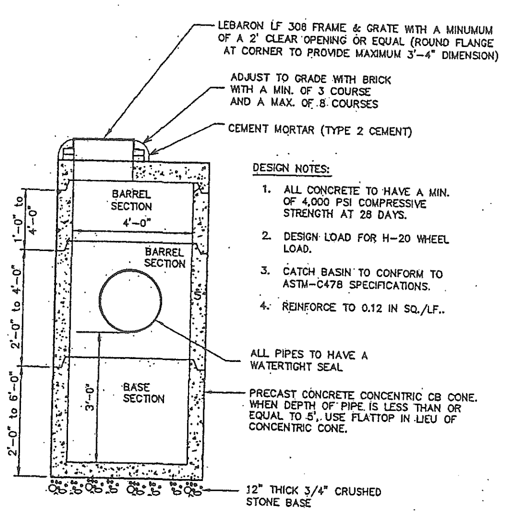


TYPE "A" MANHOLE COVER AND FRAME

N.T.S.



DESIGN NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF..

NOTE:
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4'-0" PRECAST CATCH BASIN

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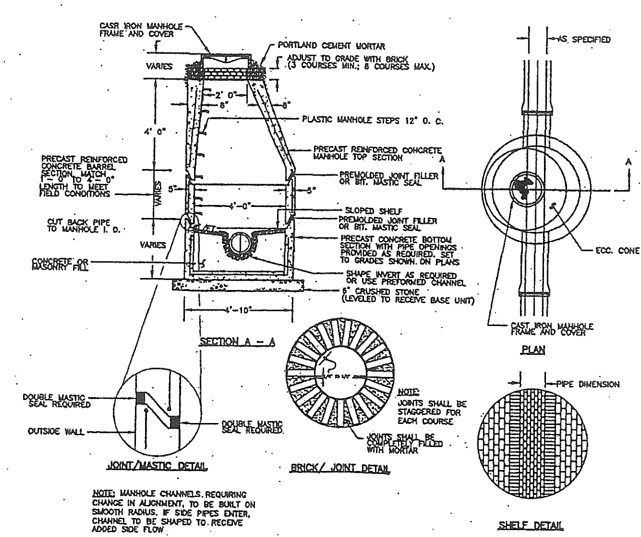
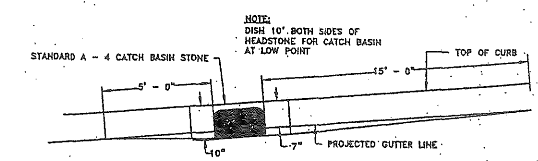
4. APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTION OF BRICK MASONRY, THE SMOOTH MORTAR SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPEC-IFCATIONS SECTION 604.
5. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
6. MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND OFFSET, PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED HOLE.
9. EXISTING MANHOLE AND CATCH BASIN FRAMES AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND REMAIN THE PROPERTY OF THE CITY OF PORTLAND.



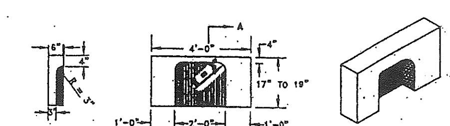
PRECAST CONCRETE MANHOLE TYPE "A"

N.T.S.



TYPICAL PAVEMENT GRADING ON SLOPES FOR CATCH BASIN AND INLET

N.T.S.



TYPICAL A-4 CATCH BASIN STONE

N.T.S.

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: AUGUST 22, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: UTILITY AND DRAINAGE DETAILS

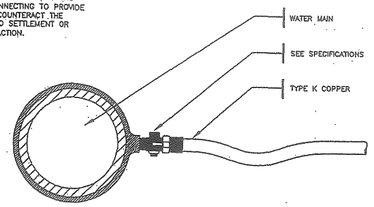
Scale: NONE

STATE OF MAINE
WILLIAM C. HASKELL
NO. 8518
REGISTERED PROFESSIONAL ENGINEER

North:

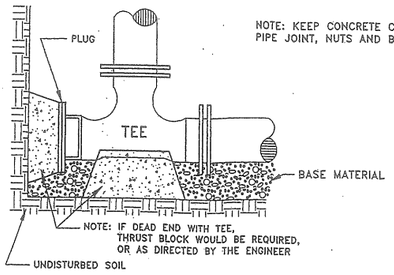
Sheet No.: 8

NOTE: SERVICE CONNECTIONS (DIRECT TAPS AND SERVICE CLAMPS) WILL BE INSTALLED SO THAT THE OUTLET IS AT AN ANGLE OF NOT MORE THAN 45° ABOVE THE HORIZONTAL. ALWAYS PUT A BEND OR "GOOSENECK" IN THE SERVICE LINE PRIOR TO CONNECTING TO PROVIDE FLEXIBILITY AND "GIVE" TO COUNTERACT THE EFFECTS OF A LOAD DUE TO SETTLEMENT OR EXPANSION AND/OR CONTRACTION.



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL ON SHEET 8

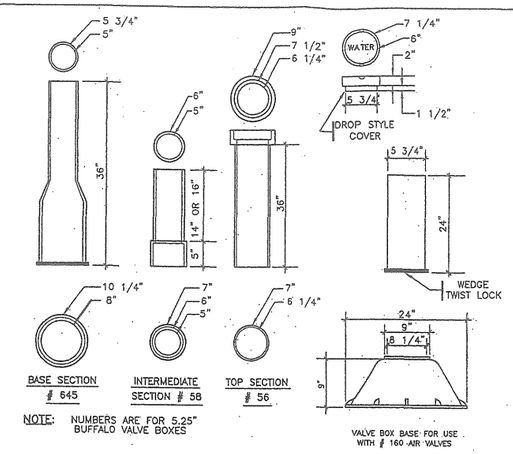
WATER SERVICE
(1 1/2" AND 2 1/2" C.C. OR IRON PIPE THREAD)
N.T.S.



NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

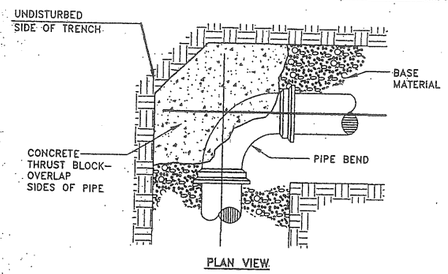
STANDARD TEE BLOCKING
N.T.S.



NOTE: NUMBERS ARE FOR 5.25" BUFFALO VALVE BOXES

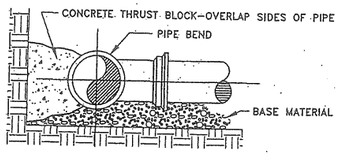
SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

TYPICAL VALVE BOXES
N.T.S.



PLAN VIEW

NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



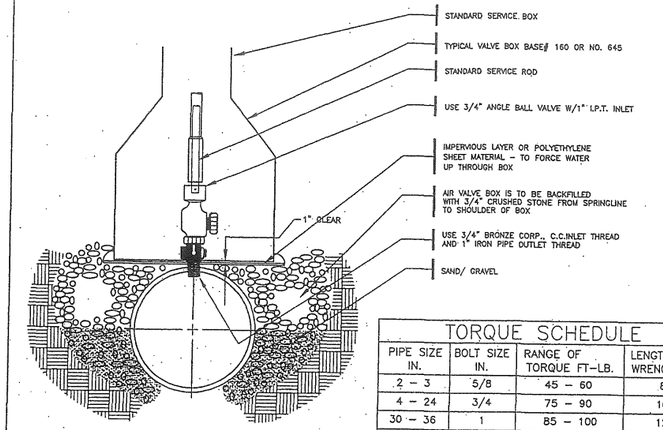
SECTION

THRUST/RETAINER GLAND SCHEDULE		
1/4 BEND	(90°)	USE POURED-IN-PLACE THRUST BLOCK w/RETAINERS
1/8 BEND	(45°)	THRUST BLOCK w/RETAINERS
1/16 BEND	(22 1/2°)	THRUST BLOCK
1/32 BEND	(11 1/4°)	THRUST BLOCK

THE ABOVE SCHEDULE IS SUBJECT TO THE APPROVAL OF THE ON-SITE INSPECTOR DUE TO SOILS AND WORKING PRESSURES IN THE AREA.

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

TYPICAL THRUST BLOCK PLACEMENT ON BENDS
N.T.S.

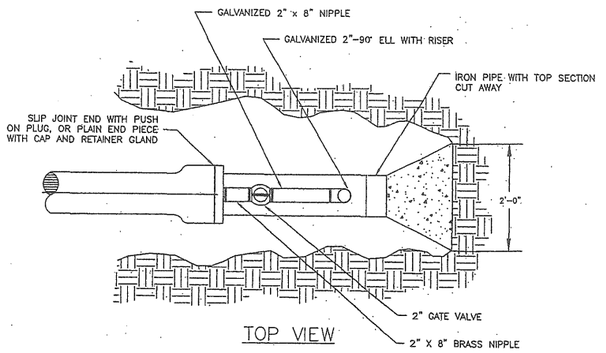


* THE TORQUE LOADS MAY BE APPLIED WITH TORQUE MEASURING OR TORQUE INDICATING WRENCHES, WHICH MAY ALSO BE USED TO CHECK THE APPLICATION OF APPROXIMATE TORQUE LOADS APPLIED BY A PERSON TRAINED TO GIVE AN AVERAGE PULL ON A DEFINITE LENGTH OF REGULAR SOCKET WRENCH.

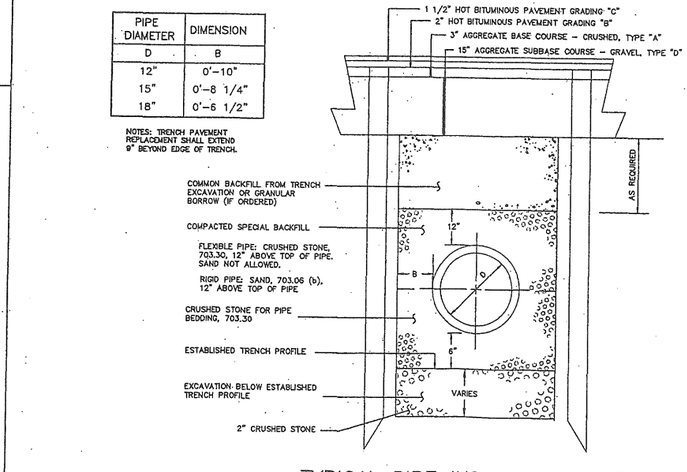
TORQUE SCHEDULE			
PIPE SIZE IN.	BOLT SIZE IN.	RANGE OF TORQUE FT-LB.	LENGTH OF WRENCH IN *
2 – 3	5/8	45 – 60	8
4 – 24	3/4	75 – 90	10
30 – 36	1	85 – 100	12
42 – 48	1 1/4	105 – 120	14

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

TYPICAL AIR VALVE SECTION (1")
N.T.S.



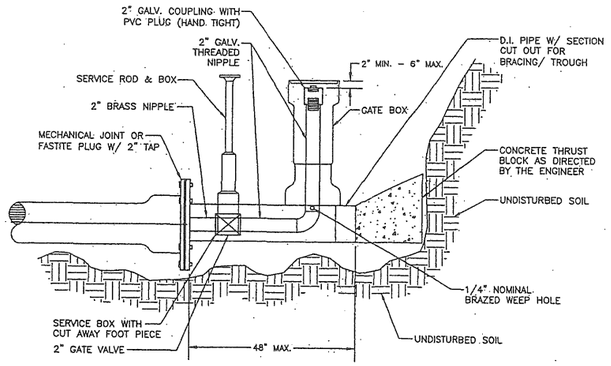
TOP VIEW



PIPE DIAMETER	DIMENSION
D	B
12"	0'-10"
15"	0'-8 1/4"
18"	0'-6 1/2"

NOTES: TRENCH PAVEMENT REPLACEMENT SHALL EXTEND 9" BEYOND EDGE OF TRENCH.

TYPICAL PIPE INSTALLATION DETAIL
N.T.S.



ELEVATION VIEW

STANDARD 2" BLOW OFF
N.T.S.

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way — Portland, Maine

Date: AUGUST 22, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

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Title: UTILITY AND DRAINAGE DETAILS

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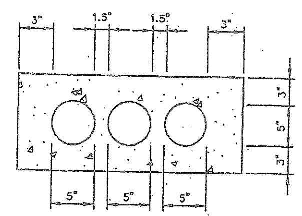
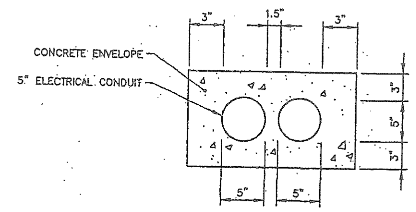
Sheet No.: 9



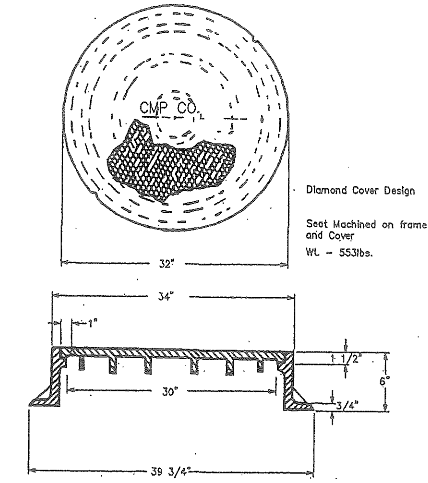
3 CONDUIT LAYOUT



2 CONDUIT LAYOUT

ELECTRICAL CONDUIT PROFILES

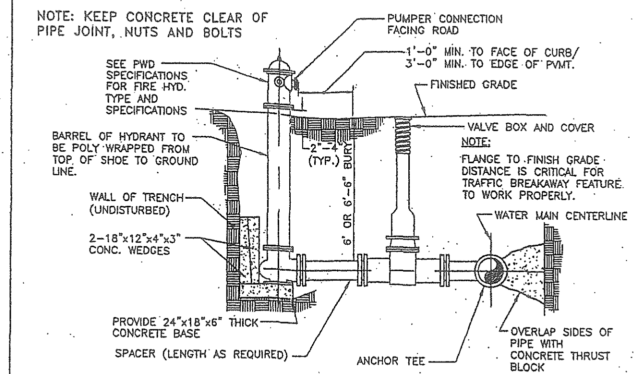
N.T.S.



32" MANHOLE COVER & FRAME

N.T.S.

NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

FIRE HYDRANT INSTALLATION

N.T.S.

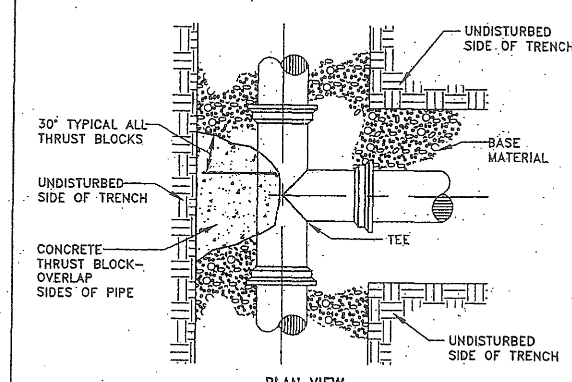
THRUST BLOCK NOTES

1. INSTALL POLY BARRIER BETWEEN PIPE AND ALL THRUST BLOCKS.
2. ANY MODIFICATION TO THRUST BLOCK SIZING OR PIPE RESTRAINT REVISIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD
3. ANY WORK RELATING TO WATER PIPING OR DETAILS SHALL BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS

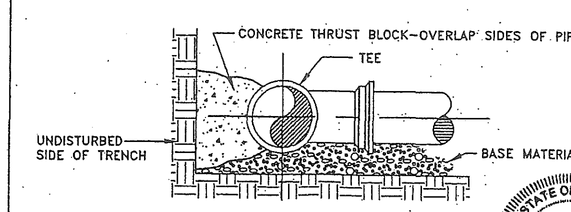
PIPE SIZE	1/32 BEND	1/16 BEND	1/8 BEND	1/4 BEND	TEES/CAPS
4"	1.8	3.6	7.0	12.8	9.1
6"	3.7	7.3	14.3	26.4	8.7
8"	6.4	12.6	24.7	45.5	32.2

BEARING SURFACE REQUIRED IN SQUARE FEET

NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



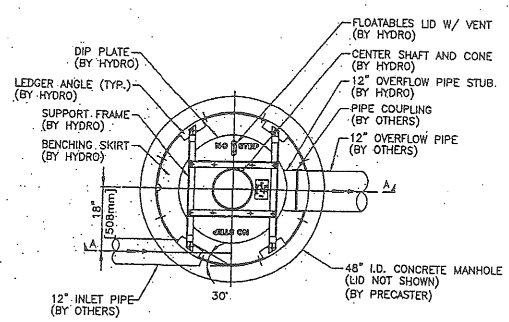
PLAN VIEW



SECTION

TYPICAL THRUST BLOCK PLACEMENT ON TEES

N.T.S.



PLAN VIEW

NOTES:

1. THIS DRAWING IS A LEDGER SIZE ORIGINAL.
2. DIMENSIONS ARE GENERAL AND INTENDED FOR GUIDANCE ONLY.
3. THE ORIENTATION OF INLET PIPE AND OVERFLOW PIPE CAN BE ADJUSTED TO SITE REQUIREMENTS. SEE SITE PLAN FOR ORIENTATION.
4. INLET PIPE MUST BE TANGENT TO PRECAST MANHOLE I.D. AS SHOWN.
5. OVERFLOW PIPE STUB O.D. MATCHES SDR35 O.D.
6. 304 SS EXPANSION ANCHOR BOLTS TO BE SUPPLIED BY PRECASTER.
7. METRIC DIMENSIONS BASED ON 25.4mm/INCH.

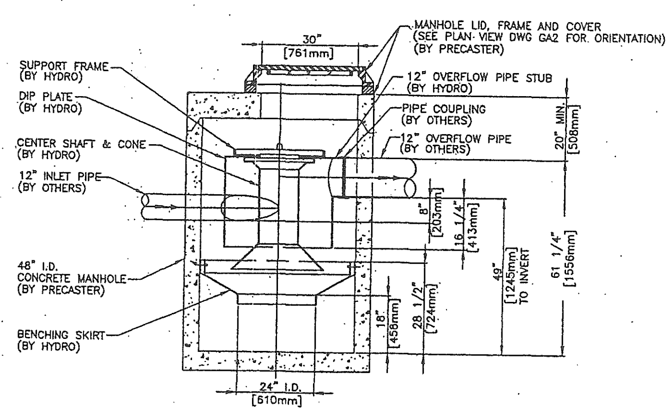
PRELIMINARY DIMENSIONS

DEPTH OF FLOW IN OVERFLOW PIPE AT 0.75cfs	3.5	INCHES
DEPTH OF FLOW IN OVERFLOW PIPE AT 3.0 cfs	8	INCHES
ESTIMATED HEADLOSS* AT 0.75 cfs	3	INCHES
ESTIMATED HEADLOSS* AT 3.0 cfs	23	INCHES

DOWNSTREAM DEFENDER WEIGHT

EMPTY WEIGHT	10,000	Lbs.
OPERATIONAL WEIGHT	13,203	Lbs.

*HEADLOSS IS DEFINED AS THE DIFFERENCE BETWEEN STATIC WATER LEVEL AT THE INLET OF THE DOWNSTREAM DEFENDER TO THE FREE WATER SURFACE IN THE OVERFLOW PIPE, ASSUMING FREE DISCHARGE.



SECTION A-A

SEE DWG GA3

4' DIAMETER DOWNSTREAM DEFENDER OIL/WATER SEPARATOR

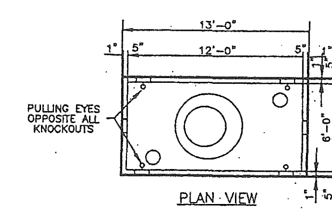
N.T.S.

Hydro International

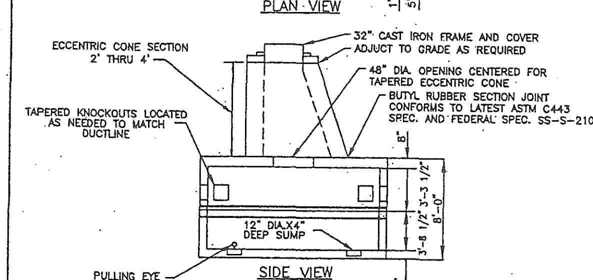
94 Hutchins Drive
Portland, Maine 04102
tel: (207) 756-6200
fax: (207) 756-6212
email: hiltech@hil-tech.com

NOTES:

1. VAULT AND ECCENTRIC CONE SHALL BE DESIGNED TO WITHSTAND H20 WHEEL LOADED WITH 6" OF OVERBURDEN. THE DESIGN SHALL ALSO COMPLY WITH THE STRENGTH REQUIREMENTS OF NATIONAL ELECTRICAL SAFETY CODE SECTION 323A. PROVIDE SHOP DRAWINGS STAMPED BY A STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER UPON REQUEST.
2. JOINTS SEALED WITH BUTYL RUBBER.
3. MOUNTINGS FOR CABLE RACKS ETC. CAST IN WALL BY FURTHER PLANS OR FIELD LOCATED.
4. MANHOLE SHALL BE SET ON A SUITABLE GRAVEL BASE.



PLAN VIEW



SIDE VIEW

PRECAST CONCRETE MANHOLE (FOR CMP)

N.T.S.

A-9

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: AUGUST 22, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: UTILITY AND DRAINAGE DETAILS

STATE OF MAINE
WILLIAM C. HASKELL
NO. 8515
REGISTERED PROFESSIONAL ENGINEER

Scale: NONE

North:

Sheet No.: 10

I. Erosion Control Measures and Site Stabilization

The primary emphasis of the erosion/sedimentation control plan to be implemented for the infrastructure construction is as follows:
- Development of a careful construction sequence.
- Rapid revegetation of denuded areas to minimize the period of soil exposure.
- Rapid stabilization of drainage paths to avoid rill and gully erosion.
- The use of on-site measures to capture sediment (silt fence, check dams, etc.).

The following temporary and permanent erosion and sediment control devices will be implemented as part of the site development. These devices shall be installed as indicated on the plans or as described within this report. For further reference, see the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices.

A. Temporary Erosion Control Measures

The following measures are planned as temporary erosion/sedimentation control measures during construction:

1. Utilize the existing entrance to the site closest to Chestnut Street to access the site during construction until the proposed access driveways have been constructed.

2. Siltation fence or wood waste compost berms shall be installed downstream of any disturbed areas to trap runoff borne sediments until adequate catch (90% or greater) has occurred. The silt fence and/or the wood waste compost berms shall be installed per the details provided in this package and inspected immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence or berm line. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind fence or berm, the barrier shall be replaced with a stone check dam. Wood waste compost berms are not to be used adjacent to wetland areas that are to be left undisturbed.

3. Straw or hay mulch including hydroseeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and September 15th on slopes of less then 15 percent shall be anchored by applying water; mulch placed on slopes of equal to or steeper than 15 percent shall be covered by a fabric netting and anchored with staples in accordance with manufacturer's recommendation. Mulch placed between September 15th and April 15th on slopes equal to or steeper than 8 percent shall be covered with a fabric netting and anchored with staples in accordance with the manufacturer's recommendations. Slopes steeper than 3:1 and the drainage swale located in the I-295 Right-of-Way that are to be revegetated shall receive Curlex blankets by American Excelsior or Engineer approved equivalent. Mulch application rates are provided in Attachment A of this section. Mulch shall not be placed over snow.

4. Temporary stockpiles of stumps, grubbings, or common excavation will be protected as follows:

a) Temporary stockpiles shall not be located within 100 feet of any wetlands that are to be left undisturbed and any slopes exceeding 15%.

b) Stockpiles shall be stabilized within 7 days by either temporarily seeding the stockpile with a hydroseed method containing an emulsified mulch tackifier or by covering the stockpile with mulch.

c) Stockpiles shall be surrounded by silt fence or wood-waste compost berms at the time of formation.

5. All denuded areas within 100 feet of an undisturbed wetland that have been rough graded and are not located within a roadway subbase area shall receive mulch or erosion control mesh fabric within 7 days of initial soil disturbance. All areas within 50 feet of undisturbed wetland area shall be mulched prior to any predicted rain event regardless of the 7-day window. In other areas, the time period may be extended to 14 days. All disturbed areas located within 100 feet of a protected natural resource must be protected with a double row of sediment barriers.

6. For work conducted between September 15th and April 15th of any calendar year, all denuded areas will be covered with hay mulch applied at twice the normal application rate and anchored with fabric netting. The time period for applying mulch as noted in Paragraph I.A.5 shall be limited to 7 days for all areas.

7. Marginal Way shall be swept to control off-tracking of mud, debris, and dust as necessary.

8. During grubbing operations stone check dams will be installed at any evident concentrated flow discharge points.

9. Silt fencing with a maximum stake spacing of 6 feet should be used, unless the fence is supported by wire fence reinforcement of minimum 14 gauge and with a maximum mesh spacing of 6 inches, in which case stakes may be spaced a maximum of 10 feet apart. The bottom of the fence should be anchored.

10. Wood waste compost/bark berms may be used in lieu of siltation fencing. Berms shall be removed and spread into a layer not to exceed 3" thick once upstream areas are completed and a 90% catch of vegetation is attained. Wood waste erosion tubes may also be used for perimeter sediment control or check dams, or to reduce slope lengths. These tubes may be created by filling Filtrexx mesh tubes or approved equivalent with wood waste material and staking the tube to the ground where the control is necessary.

11. Inlet Protection measures shall be implemented for all catch basins located with the disturbed construction area. Measures shall be maintained regularly and shall not cause flooding in public right-of-ways.

12. Water shall be furnished and applied in accordance with MDOT specifications – Section 637 – Dust Control.

13. Loam and seed is intended to serve as the primary permanent revegetative measure for all denuded areas not provided with other erosion control measures such as riprap. Application rates are provided in Attachment A of this section. Seeding shall not occur over snow.

B. Permanent Erosion Control Measures

The following permanent erosion control measures have been designed as part of the Erosion and Sedimentation Control Plan:

1. All areas disturbed during construction but not subject to other restoration (building, paving, riprap, etc.) shall be loamed, limed, fertilized, mulched, and seeded. Fabric netting anchored with staples shall be placed over the mulch in areas as noted in Paragraph I.A.3. All disturbed areas within 100 feet of an undisturbed wetland area shall be mulched prior to any predicted rain event regardless of the 7-day window. Native topsoil shall be stockpiled and reused for final restoration if deemed to be of sufficient quality.

II. Implementation Schedule

The following construction sequence shall be required to insure that the effectiveness of the erosion and sedimentation control measures is optimized:

Note: For all grading activities, the contractor shall exercise extreme caution not to overexpose the site by limiting the disturbed area.

1. Install perimeter siltation fence and/or wood waste berms prior to grubbing respective areas.
2. Clear and grub area as necessary for construction.
3. Remove existing pavement within work limits.
4. During grubbing operations, install stone check dams at any evident concentrated flow discharge points.
5. Commence earthwork operations for proposed driveways and apartment foundations.
6. Continue grading to subgrade as necessary.
7. Commence installation of underground utilities.
8. Complete remaining earthwork operations.
9. Install subbase and base course gravels for driveways.
10. Complete installation of utility appurtenances.
11. Install surface course gravels for the driveways.
12. Loam, lime, fertilize, seed, and mulch remaining disturbed areas.
13. Remove accumulated sediment from ahead of any sediment barriers as necessary.
14. Once the site is stabilized and a 90% catch of vegetation has been obtained, remove all temporary erosion control measures.
15. Touch up loam and seed.

Note: All denuded areas not subject to final paving, riprap, or gravel shall be revegetated.

Prior to construction of the project, the contractor shall submit to the owner a schedule for the completion of the work, which will satisfy the following criteria:

1. The above construction sequence shall generally be completed in the specified order; however, several separate items may be constructed simultaneously. Work must also be scheduled or phased to prevent the extent of the exposed areas as specified below. The intent of the above sequence is to provide for sufficient erosion and sedimentation control and to have structural measures such as silt fence and construction entrance in place before large areas of land are denuded.

2. The work shall be conducted in sections which will:

a) Limit the amount of exposed area to those areas in which work is expected to be undertaken during the proceeding 30 days.

b) Revegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event, or temporarily stabilized within 7 days of initial disturbance of soil for areas within 100 feet of an undisturbed wetland area and within 14 days for all other areas. Areas within 100 feet of an undisturbed wetland shall be mulched prior to any predicted rain event regardless of the 7-day window.

III. Winter Stabilization Plan

If a summer/fall construction schedule is not possible and construction is necessary between September 15th and April 15th of any calendar year, the contractor shall submit a schedule, which will satisfy the following criteria:

1. The extent of exposed area shall be limited to those areas in which work is expected to be undertaken during the proceeding 15 days and can be mulched in the event of a predicted snow event.

2. All disturbed areas shall be covered with mulch within 7 days of final grading. Mulch shall not be placed over snow.

3. Once final grade has been established, the contractor may choose to dormant seed the disturbed areas prior to placement of mulch and placement of staple-anchored fabric netting.

a. If dormant seeding is used for the site, all disturbed areas shall receive 6" of loam and seed at an application rate of 5 lbs. per 1000 s.f. Seeding shall not occur over snow.

All areas seeded during the winter months shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 80% catch) shall be revegetated by replacing loam, seed, and mulch as necessary to achieve 80% catch.

b. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

4. The area of denuded non-stabilized construction area shall be limited to the minimum area practicable. An area shall be considered denuded until the subbase gravel is installed or the areas of future loam and seed have been loamed, seeded, and mulched at a rate twice that specified in the seeding plan (e.g. 115 lbs. per 1,000 s.f. x 2 = 230 lbs. per 1,000 s.f.).

5. The above schedule shall be subject to the approval of the Owner.

The Contractor shall install any added measures that may be necessary to control erosion and sedimentation from the site dependent upon the actual site and weather conditions.

The Contractor shall note that no areas within 100 feet of an undisturbed wetland shall remain denuded for longer than 7 days before being temporarily stabilized. All other areas shall be stabilized within 14 days. For construction between September 15th and April 15th of any calendar year, all areas shall be temporarily stabilized within 7 days.

IV. Inspection and Maintenance

The following inspection and maintenance standards shall be required to insure the effectiveness of the erosion and sedimentation control measures are optimized during construction.

For further reference, see the Maine Department of Environmental Protection Chapter 500 Stormwater Management Rules and the Maine Construction General Permit (MCGP) requirements.

1. Inspect disturbed and impervious areas, erosion control measures, materials storage areas exposed to precipitation and locations where vehicles enter or exit the site. Inspection should occur at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures.

2. Maintain all erosion and stormwater control measures until areas are permanently stabilized. If maintenance, modification, and/or installation of additional best management practices (BMPs) are necessary, implementation must be completed within 7 calendar days and prior to any storm event.

V. Housekeeping

The following standards shall be required. For further reference, see the Maine Department of Environmental Protection Chapter 500 Stormwater Management Rules.

1. Spill prevention controls must be utilized to prevent pollutants from being discharged from materials onsite.

2. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area or adjacent to the stormwater catch basins and drain manholes.

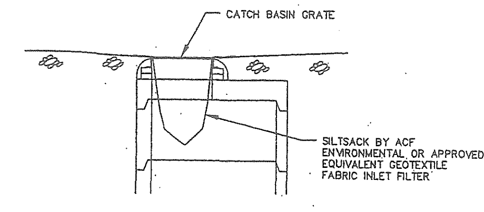
3. Action must be taken to ensure activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction.

4. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

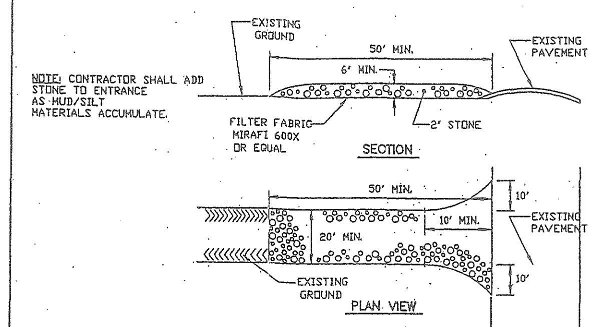
5. Water collected as a result of trench dewatering must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site.

6. Identify and prevent contamination by non-stormwater discharges.

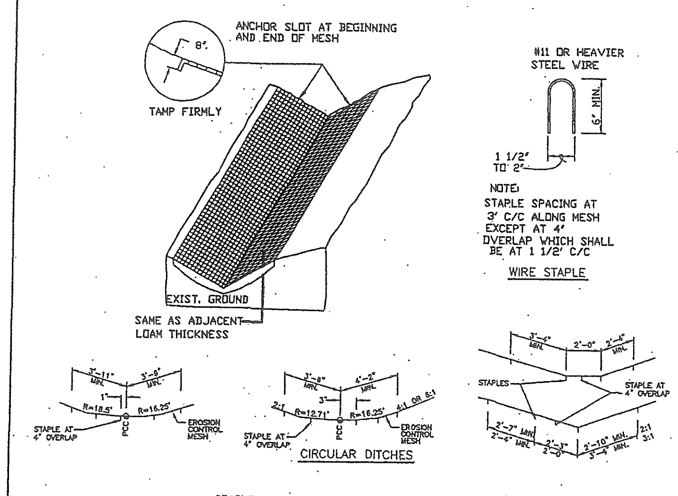
7. Additional requirements may be applied on a site-specific basis.



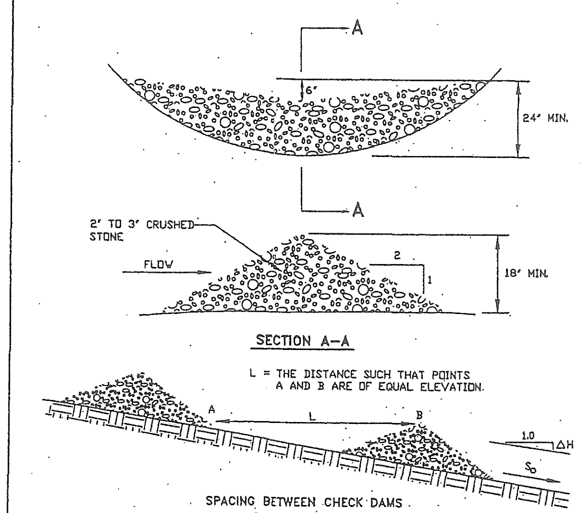
INLET PROTECTION
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



EROSION CONTROL MESH
N.T.S.



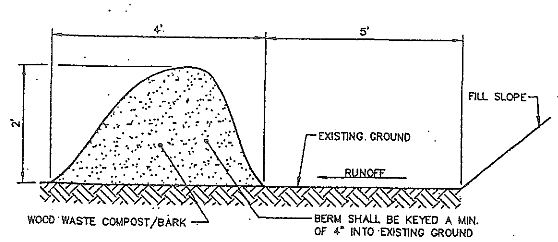
SPACING BETWEEN CHECK DAMS

S_o (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	15'

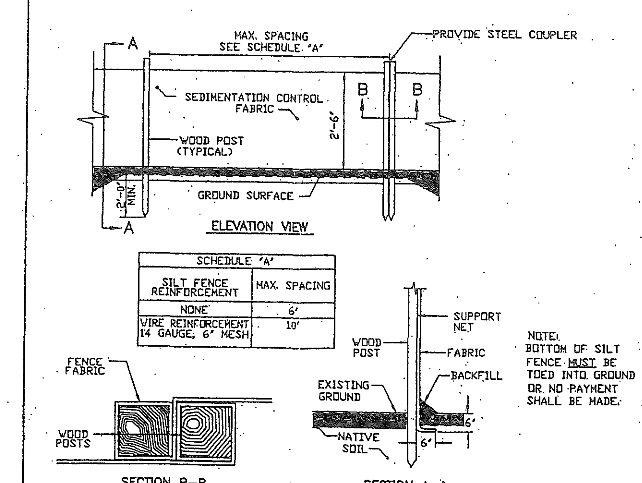
STONE CHECK DAM
N.T.S.

NOTES:

1. THE WOOD WASTE COMPOST/BARK MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:
   - A. MOISTURE CONTENT – 30-60%.
   - B. pH – 5.0 – 8.0.
   - C. SCREEN SIZE – 100% LESS THAN 3", MAX. 70% LESS THAN 1".
   - D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION;
   - E. NO STONES LARGER THAN 2" IN DIAMETER.
   - F. SILTS, CLAYS OR SUGAR SANDS ARE NOT ACCEPTABLE IN THE MIX.
2. THE COMPOST BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.
3. THE WOOD WASTE COMPOST/BARK FILTER BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.
4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS COMPLETED OR 70% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.
5. WOOD WASTE COMPOST/BARK FILTER BERM SHALL NOT BE USED IN WETLAND AREAS.



WOOD WASTE COMPOST/BARK FILTER BERM
N.T.S.



SCHEDULE 'A'

SILT FENCE REINFORCEMENT	MAX. SPACING
NONE	6'
WIRE REINFORCEMENT 14 GAUGE, 6" MESH	10'

SILTATION FENCE
N.T.S.

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: AUGUST 22, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: EROSION AND SEDIMENTATION CONTROL DETAILS AND NOTES

Scale: NONE

North:

Sheet No.: 11

STATE OF MAINE
WILLIAM C. HASKELL
NO. 8518
REGISTERED PROFESSIONAL ENGINEER

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A-3

LEGEND

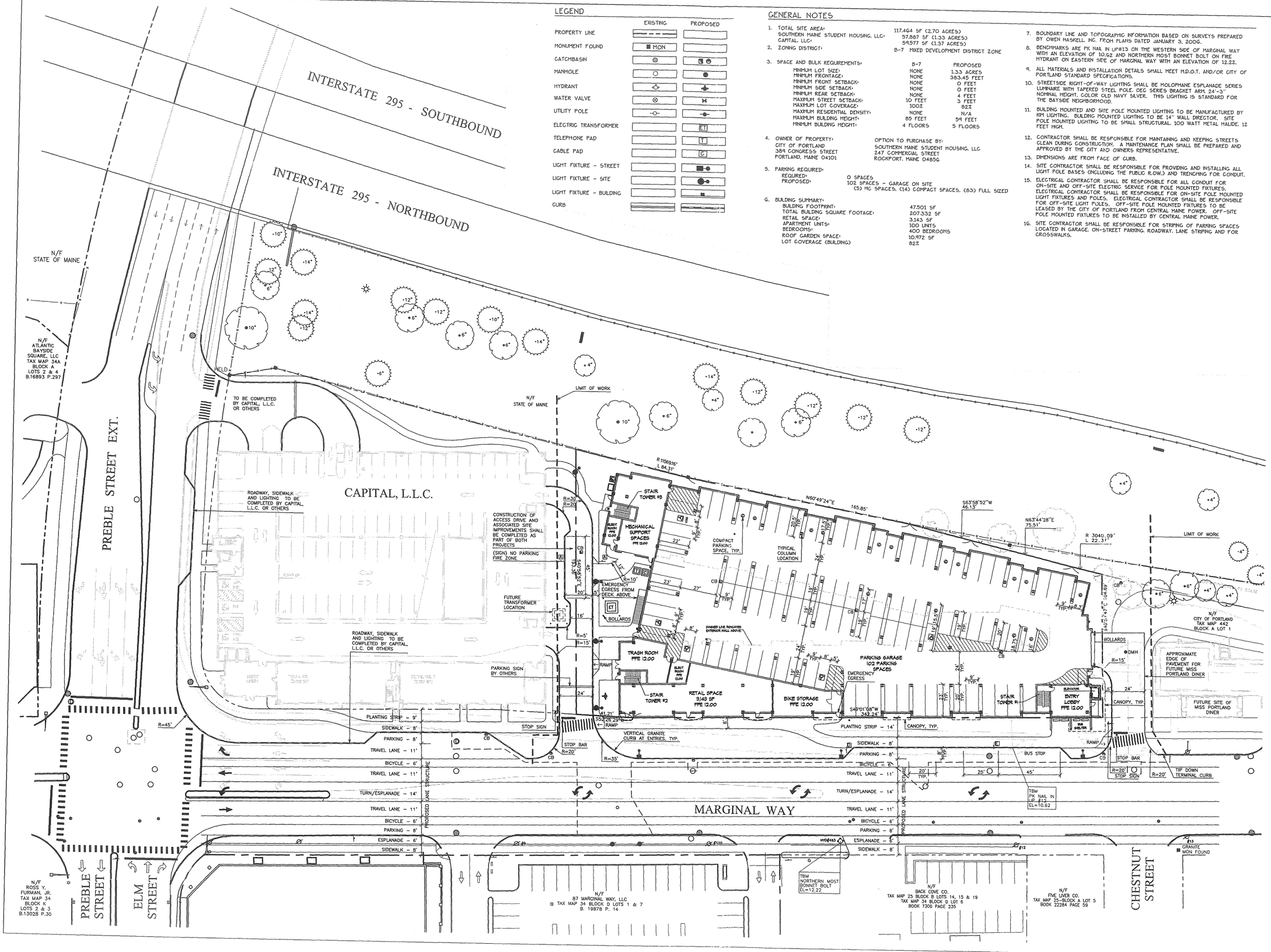
	EXISTING	PROPOSED
PROPERTY LINE		
MONUMENT FOUND	MON	
CATCHBASIN		
MANHOLE		
HYDRANT		
WATER VALVE		
UTILITY POLE		
ELECTRIC TRANSFORMER		ET
TELEPHONE PAD		T
CABLE PAD		C
LIGHT FIXTURE - STREET		
LIGHT FIXTURE - SITE		
LIGHT FIXTURE - BUILDING		
CURB		

GENERAL NOTES

1. TOTAL SITE AREA:
   SOUTHERN MAINE STUDENT HOUSING, LLC: 117,464 SF (2.70 ACRES)
   CAPITAL, LLC: 57,887 SF (1.33 ACRES)
   59,577 SF (1.37 ACRES)
2. ZONING DISTRICT: B-7 MIXED DEVELOPMENT DISTRICT ZONE
3. SPACE AND BULK REQUIREMENTS:

	B-7	PROPOSED
MINIMUM LOT SIZE:	NONE	1.33 ACRES
MINIMUM FRONTAGE:	NONE	383.45 FEET
MINIMUM FRONT SETBACK:	NONE	0 FEET
MINIMUM SIDE SETBACK:	NONE	0 FEET
MINIMUM REAR SETBACK:	NONE	4 FEET
MAXIMUM STREET SETBACK:	10 FEET	3 FEET
MAXIMUM LOT COVERAGE:	100%	82%
MAXIMUM RESIDENTIAL DENSITY:	NONE	N/A
MAXIMUM BUILDING HEIGHT:	85 FEET	59 FEET
MINIMUM BUILDING HEIGHT:	4 FLOORS	5 FLOORS

4. OWNER OF PROPERTY:
   CITY OF PORTLAND
   389 CONGRESS STREET
   PORTLAND, MAINE 04101
   OPTION TO PURCHASE BY:
   SOUTHERN MAINE STUDENT HOUSING, LLC
   247 COMMERCIAL STREET
   ROCKPORT, MAINE 04856
5. PARKING REQUIRED:
   REQUIRED: 0 SPACES
   PROPOSED: 102 SPACES - GARAGE ON SITE
   (5) HC SPACES, (14) COMPACT SPACES, (83) FULL SIZED
6. BUILDING SUMMARY:
   BUILDING FOOTPRINT: 47,501 SF
   TOTAL BUILDING SQUARE FOOTAGE: 207,332 SF
   RETAIL SPACE: 3,143 SF
   APARTMENT UNITS: 100 UNITS
   BEDROOMS: 400 BEDROOMS
   ROOF GARDEN SPACE: 10,972 SF
   LOT COVERAGE (BULDING) 82%
7. BOUNDARY LINE AND TOPOGRAPHIC INFORMATION BASED ON SURVEYS PREPARED BY OWEN HASKELL, INC. FROM PLANS DATED JANUARY 3, 2006.
8. BENCHMARKS ARE PK NAIL IN UP#13 ON THE WESTERN SIDE OF MARGINAL WAY WITH AN ELEVATION OF 10.62 AND NORTHERN MOST BONNET BOLT ON FIRE HYDRANT ON EASTERN SIDE OF MARGINAL WAY WITH AN ELEVATION OF 12.22.
9. ALL MATERIALS AND INSTALLATION DETAILS SHALL MEET M.D.O.T. AND/OR CITY OF PORTLAND STANDARD SPECIFICATIONS.
10. STREETSIDE RIGHT-OF-WAY LIGHTING SHALL BE HOLOPHANE ESPLANADE SERIES LUMINAIRE WITH TAPERED STEEL POLE. OEG SERIES BRACKET ARM. 24'-3" NOMINAL HEIGHT, COLOR OLD NAVY SILVER. THIS LIGHTING IS STANDARD FOR THE BAYSIDE NEIGHBORHOOD.
11. BUILDING MOUNTED AND SITE POLE MOUNTED LIGHTING TO BE MANUFACTURED BY KIM LIGHTING. BUILDING MOUNTED LIGHTING TO BE 14" WALL DIRECTOR. SITE POLE MOUNTED LIGHTING TO BE SMALL STRUCTURAL. 100 WATT METAL HALIDE. 12 FEET HIGH.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND KEEPING STREETS CLEAN DURING CONSTRUCTION. A MAINTENANCE PLAN SHALL BE PREPARED AND APPROVED BY THE CITY AND OWNERS REPRESENTATIVE.
13. DIMENSIONS ARE FROM FACE OF CURB.
14. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL LIGHT POLE BASES (INCLUDING THE PUBLIC R.O.W.) AND TRENCHING FOR CONDUIT.
15. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONDUIT FOR ON-SITE AND OFF-SITE ELECTRIC SERVICE FOR POLE MOUNTED FIXTURES. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ON-SITE POLE MOUNTED LIGHT FIXTURES AND POLES. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE LIGHT POLES. OFF-SITE POLE MOUNTED FIXTURES TO BE LEASED BY THE CITY OF PORTLAND FROM CENTRAL MAINE POWER. OFF-SITE POLE MOUNTED FIXTURES TO BE INSTALLED BY CENTRAL MAINE POWER.
16. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR STRIPING OF PARKING SPACES LOCATED IN GARAGE, ON-STREET PARKING, ROADWAY, LANE STRIPING AND FOR CROSSWALKS.



Prepared For:
Applicant:

SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:

MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way — Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: LAYOUT AND LIGHTING PLAN

Scale: 1"=30'
0 10 20 30 60 ft.

North:

Sheet No.: 2

A-4

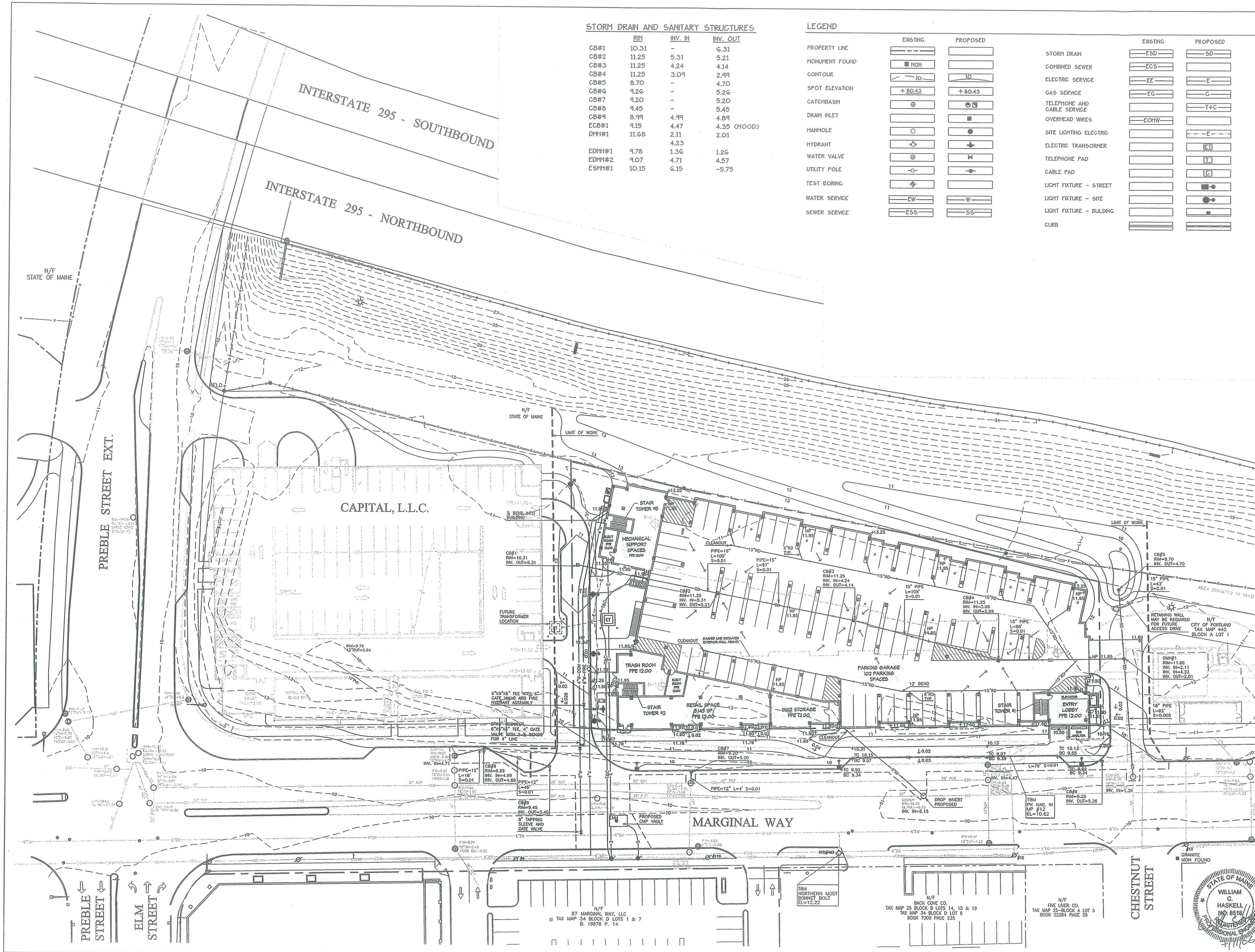
STORM DRAIN AND SANITARY STRUCTURES

	RIM	INV. IN	INV. OUT
CB#1	10.31	-	6.31
CB#2	11.25	5.31	5.21
CB#3	11.25	4.24	4.14
CB#4	11.25	3.09	2.99
CB#5	8.70	-	4.70
CB#6	9.26	-	5.26
CB#7	9.20	-	5.20
CB#8	9.45	-	5.45
CB#9	8.99	4.99	4.89
ECB#1	9.15	4.47	4.35 (HOOD)
DMH#1	11.68	2.11	2.01
		4.23	
EDMH#1	9.78	1.36	1.26
EDMH#2	9.07	4.71	4.57
ESMH#1	10.15	6.15	-5.75

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
MONUMENT FOUND	MON	
CONTOUR	10	10
SPOT ELEVATION	+80.43	+80.43
CATCHBASIN		
DRAIN INLET		
MANHOLE		
HYDRANT		
WATER VALVE		
UTILITY POLE		
TEST BORING		
WATER SERVICE	EW	W
SEWER SERVICE	ESS	SS

	EXISTING	PROPOSED
STORM DRAIN	ESD	SD
COMBINED SEWER	ECS	
ELECTRIC SERVICE	EE	E
GAS SERVICE	EG	G
TELEPHONE AND CABLE SERVICE		T+C
OVERHEAD WIRES	EOHW	
SITE LIGHTING ELECTRIC		E
ELECTRIC TRANSORMER		ET
TELEPHONE PAD		T
CABLE PAD		C
LIGHT FIXTURE - STREET		
LIGHT FIXTURE - SITE		
LIGHT FIXTURE - BUILDING		
CURB		



Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Merchants Plaza
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way — Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: GRADING, DRAINAGE AND UTILITIES PLAN

Scale: 1"=30'

0 10 20 30 60 ft.

North:

Sheet No.: 3

LEGEND

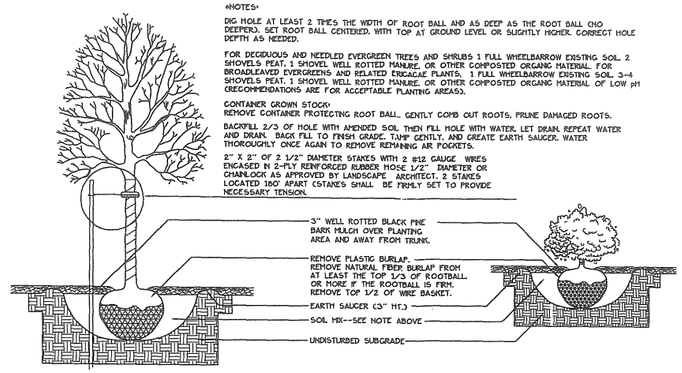
	EXISTING	PROPOSED		EXISTING	PROPOSED
PROPERTY LINE			ELECTRIC TRANSFORMER		ET
MONUMENT FOUND		MON	TELEPHONE PAD		T
CATCHBASIN			CABLE PAD		C
MANHOLE			LIGHT FIXTURE - STREET		
HYDRANT			LIGHT FIXTURE - SITE		
WATER VALVE			LIGHT FIXTURE - BUILDING		
UTILITY POLE			CURB		

PLANT LIST - GROUND LEVEL

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
		TREES		
A. RUB	1	ACER RUBRUM	RED MAPLE	2 1/2"-3" CAL
M. PRO	1	MALUS 'PROFUSION'	PROFUSION FLOWERING CRAB	1 1/2"-2" CAL
M. ZUM	4	MALUS x ZUMI 'CALOCARPA'	ZUMI CALOCARPA FLOWERING CRAB	2 1/2"-3" CAL
P. CLE	3	PYRUS 'CLEVELAND'	CLEVELAND ORNAMENTAL PEAR	2 1/2"-3" CAL
Q. PAL	2	QUERCUS PALUSTRIS	PIN OAK	2 1/2"-3" CAL
		SHRUBS		
F. MEA	6	FORSYTHIA 'MEADOWLARK'	MEADOWLARK FORSYTHIA	#3
J. CGL	6	JUNIPERUS CHINENSIS 'GOLD LACE'	JUNIPER GOLD LACE	#3
J. TNB	10	JUNIPERUS SABINA 'TAM NEW BLUE'	TAM NEW BLUE JUNIPER	#5
J. WB	7	JUNIPERUS SCOPULORUM 'WICHITA BLUE'	WICHITA BLUE JUNIPER	#7
P. BB	1	PIERIS x 'BROWER'S BEAUTY'	ANDROMEDA	#5
R. AGL	6	RHODODENDRON 'AGLO'	AGLO RHODODENDRON	#5
V. TOM	13	VIBURNUM PLICATUM VAR. TOMENTOSUM	TOMENTOSUM VIBURNUM	4'-5' HT
		PERENNIALS		
H. STE	115	HEMEROCALLIS 'STELLA D'ORO'	STELLA D'ORO DAYLILY	6" POT
V. MIN	100	VINCA MINOR	PERIWINKLE	FLAT

PLANT LIST - ROOF DECK

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
		TREES		
A. GIN	1	ACER GINNALA	AMUR MAPLE	6' CLUMP
M. PRO	3	MALUS 'PROFUSION'	PROFUSION FLOWERING CRAB	1 1/2" CAL
		SHRUBS		
A. BN	15	ABIES BALSAMEA 'NANA'	DWARF BALSAM FIR	#3
C. SF	7	CORNUS SERICEA 'FARROW'	FARROW RED TWIG DOGWOOD	#3
E. ALA	6	EUONYMUS ALATUS 'COMPACTUS'	DWARF BURNING BUSH	#3
F. COU	6	FORSYTHIA 'COURTASOL'	COURTASOL FORSYTHIA	#3
F. WE	6	FORSYTHIA 'WEEKEND'	WEEKEND FORSYTHIA	#3
I. GLA	11	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	#3
J. HLG	13	JUNIPERUS HORIZONTALIS 'LIME GLOW'	LIME GLOW JUNIPER	#3
P. MUG	5	PINUS MUGHO 'SLOWMOUND'	SLOWMOUND MUGHO PINE	#3
R. WIN	13	RHODODENDRON 'WINDBEAM'	WINDBEAM RHODODENDRON	#2
V. TOM	8	VIBURNUM PLICATUM VAR. TOMENTOSUM	SUMMER SNOWFLAKE	#3
		PERENNIALS		
H. STE	35	HEMEROCALLIS 'STELLA D'ORO'	STELLA D'ORO DAYLILY	6" POT
V. MIN	390	VINCA MINOR	PERIWINKLE	FLAT



1/4 TREE AND SHRUB INSTALLATION
NOT TO SCALE

NOTES

DIG HOLE AT LEAST 2 TIMES THE WIDTH OF ROOT BALL AND AS DEEP AS THE ROOT BALL CNO DEEPER). SET ROOT BALL CENTERED, WITH TOP AT GROUND LEVEL OR SLIGHTLY HIGHER. CORRECT HOLE DEPTH AS NEEDED.

FOR DECIDUOUS AND NEEDLED EVERGREEN TREES AND SHRUBS 1 FULL WHEELBARROW EXISTING SOIL, 2 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL FOR BROADLEAVED EVERGREENS AND RELATED ERICACAE PLANTS, 1 FULL WHEELBARROW EXISTING SOIL, 3-4 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL OF LOW pH (RECOMMENDATIONS ARE FOR ACCEPTABLE PLANTING AREAS).

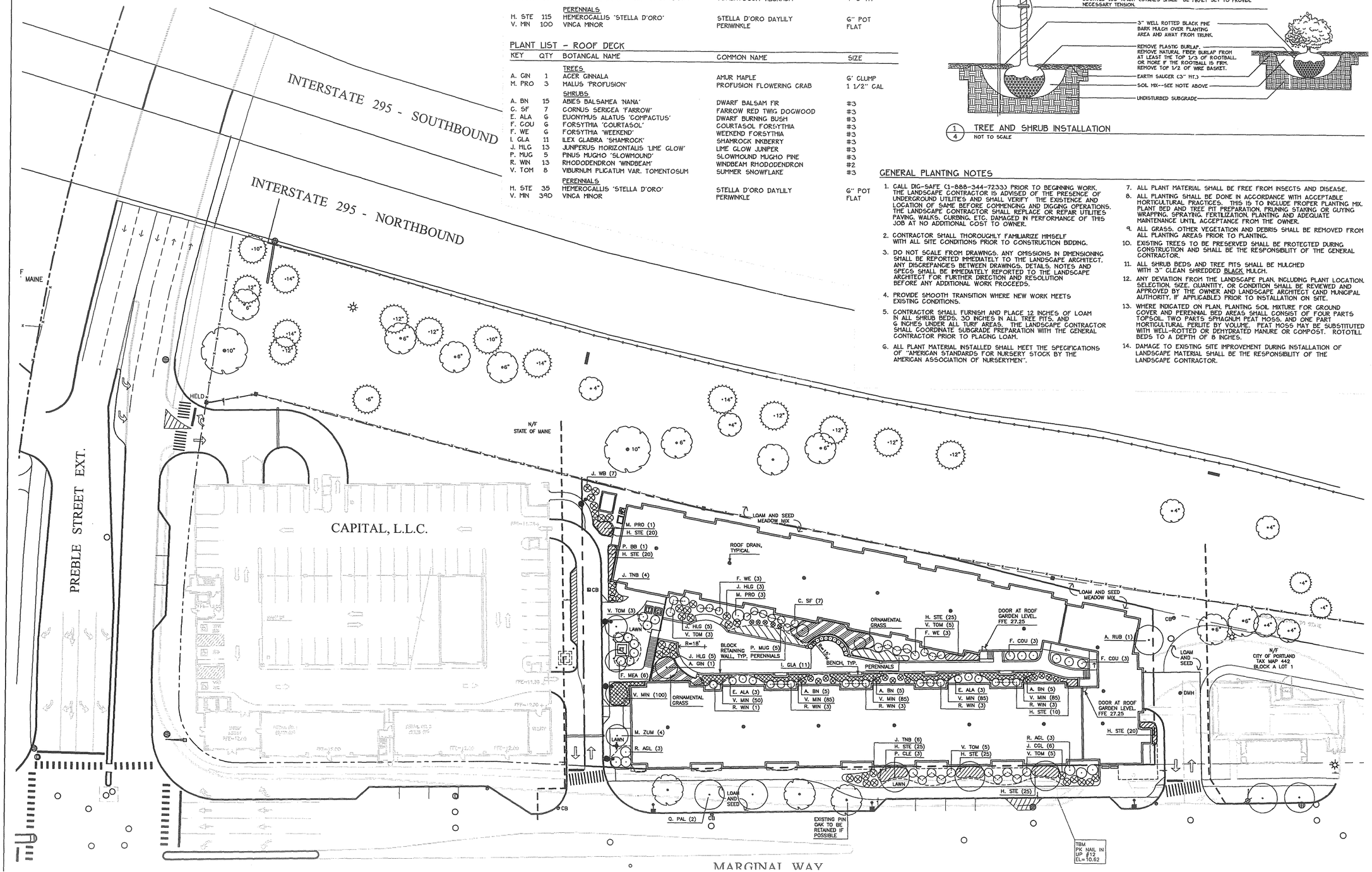
CONTAINER GROWN STOCK:
REMOVE CONTAINER PROTECTING ROOT BALL, GENTLY COMB OUT ROOTS, PRUNE DAMAGED ROOTS.

BACKFILL 2/3 OF HOLE WITH AMENDED SOIL THEN FILL HOLE WITH WATER, LET DRAIN, REPEAT WATER AND DRAIN. BACK FILL TO FINISH GRADE, TAMP GENTLY, AND CREATE EARTH SAUCER. WATER THOROUGHLY ONCE AGAIN TO REMOVE REMAINING AIR POCKETS.

2" X 2" OR 2 1/2" DIAMETER STAKES WITH 2 #12 GAUGE WIRES ENGAGED IN 2-PLY REINFORCED RUBBER HOSE 1/2" DIAMETER OR CHAINLOCK AS APPROVED BY LANDSCAPE ARCHITECT. 2 STAKES LOCATED 180° APART (STAKES SHALL BE FIRMLY SET TO PROVIDE NECESSARY TENSION.

GENERAL PLANTING NOTES

1. CALL DIG-SAFE (1-888-344-7233) PRIOR TO BEGINNING WORK. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES PAVING, WALKS, CURBING, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO OWNER.
2. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
3. DO NOT SCALE FROM DRAWINGS. ANY OMISSIONS IN DIMENSIONING SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ANY ADDITIONAL WORK PROCEEDS.
4. PROVIDE SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.
5. CONTRACTOR SHALL FURNISH AND PLACE 12 INCHES OF LOAM IN ALL SHRUB BEDS, 30 INCHES IN ALL TREE PITS, AND 6 INCHES UNDER ALL TURF AREAS. THE LANDSCAPE CONTRACTOR SHALL COORDINATE SUBGRADE PREPARATION WITH THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
6. ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARDS FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN".
7. ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
8. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING STAKING OR GUYING WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM THE OWNER.
9. ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
10. EXISTING TREES TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
11. ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH.
12. ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY, OR CONDITION SHALL BE REVIEWED AND APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT (AND MUNICIPAL AUTHORITY, IF APPLICABLE) PRIOR TO INSTALLATION ON SITE.
13. WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.
14. DAMAGE TO EXISTING SITE IMPROVEMENT DURING INSTALLATION OF LANDSCAPE MATERIAL SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.



Prepared For:
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247 Commercial Street
Rockport, Maine 04856
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MITCHELL & ASSOCIATES
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The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way — Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: PLANTING PLAN AND ROOF PLAN

Scale: 1"=30'
0 10 20 30 60 ft.

North:

Sheet No.: 4

A-5

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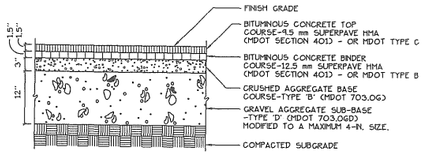
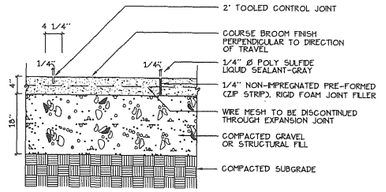
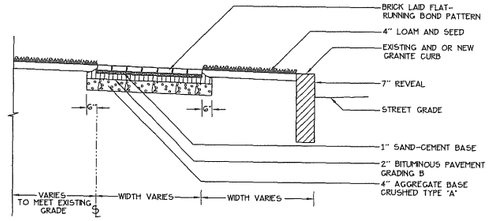


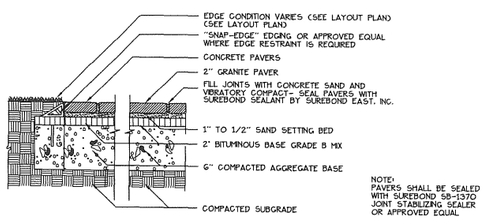
1/5 BITUMINOUS PAVEMENT- DRIVEWAY + PARKING GARAGE
NOT TO SCALE



2/5 CONCRETE WALK
NOTE: DO NOT PROVIDE TOOLED EDGE ALONG GRANITE CURB
NOT TO SCALE

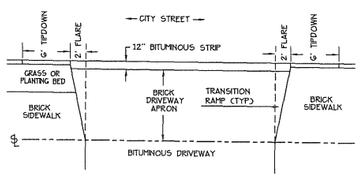


3/5 BRICK SIDEWALK WITH GRANITE CURB
NOT TO SCALE

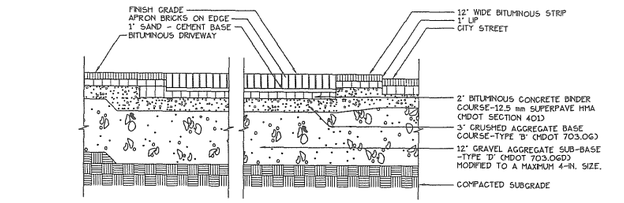


NOTE: PAVERS SHALL BE SEALED WITH SUREBOND SB-1370 JOINT STABILIZING SEALER OR APPROVED EQUAL

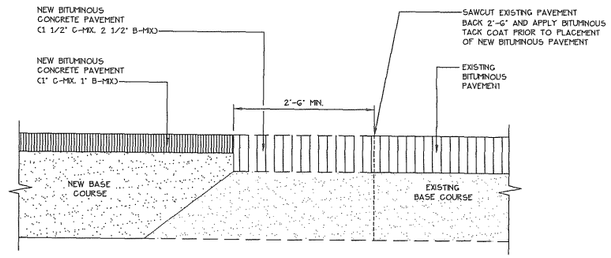
4/5 CONCRETE PAVERS
NOT TO SCALE



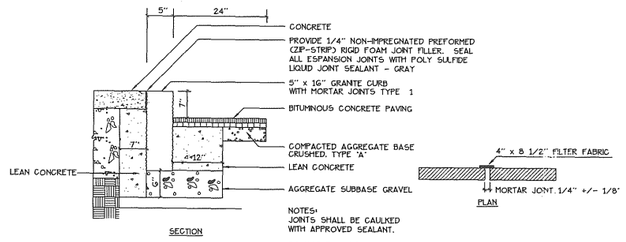
5/5 BRICK SIDEWALK + DRIVEWAY CONSTRUCTION
NOT TO SCALE



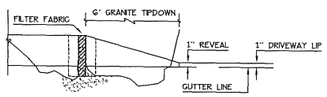
6/5 BRICK DRIVEWAY APRON
NOT TO SCALE



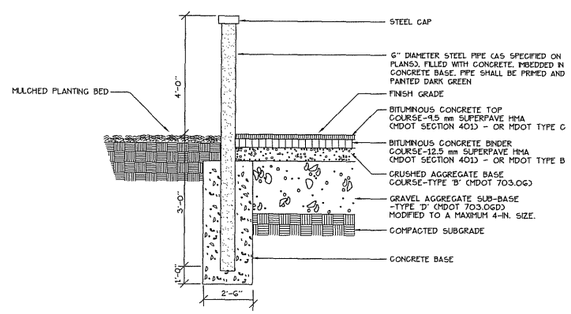
7/5 PAVEMENT SAWCUT DETAIL
NOT TO SCALE



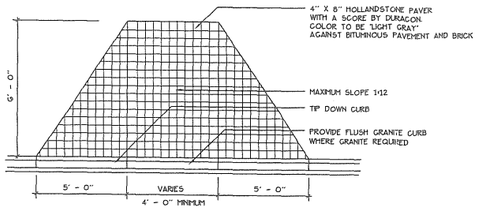
8/5 VERTICAL GRANITE CURB
NOT TO SCALE



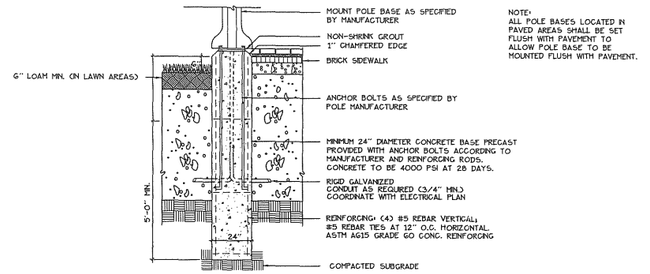
9/5 TIPDOWN CURB
NOT TO SCALE



10/5 BOLLARD DETAIL
NOT TO SCALE

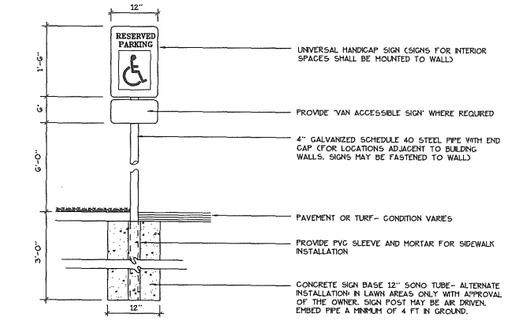


11/5 HANDICAP RAMP
NOT TO SCALE



NOTE: ALL POLE BASES LOCATED IN PAVED AREAS SHALL BE SET FLUSH WITH PAVEMENT TO ALLOW POLE BASE TO BE MOUNTED FLUSH WITH PAVEMENT.

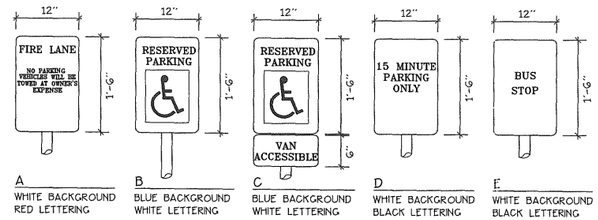
12/5 LIGHT POLE BASE
NOT TO SCALE



NOTE: ALL REGULATORY SIGNS SHALL CONFORM TO MDOT OR NATIONAL HIGHWAY STANDARDS- SIGN HEIGHT TO BE 6 FT HIGH TO BOTTOM OF SIGN.

13/5 SIGNAGE
NOT TO SCALE

SIGNAGE LEGEND



Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

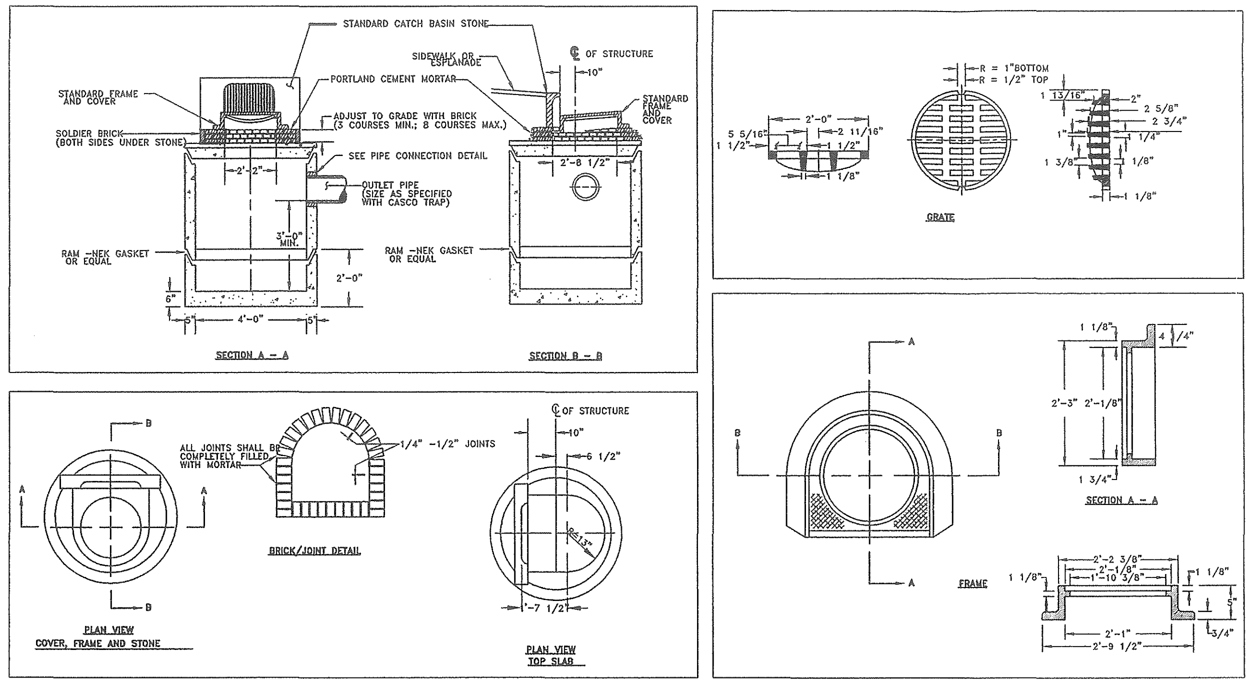
Title: SITE DETAILS

Scale:

North:

Sheet No.: 5

A-7

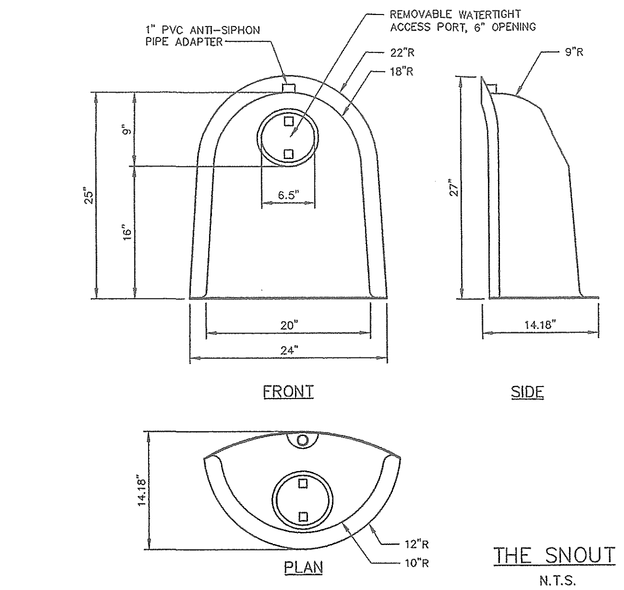


GENERAL NOTES

1. ALL CONCRETE SHALL BE A CLASS "A" AND HAVE A MINIMUM ULTIMATE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. PRECAST REINFORCED CONE BARREL MANUFACTURE PER ASTM SPEC. C-478-67
3. SEWER BRICK TO CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
4. ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTION OF BRICK MASONRY, THE SMOOTH MORTAR SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFCATIONS SECTION 604.
5. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
6. MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND OFFSET, PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED HOLE.
9. EXISTING MANHOLE AND CATCH BASIN FRAMES AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
10. CASCO TRAPS SHALL BE PROVIDED WITHIN ALL CATCH BASINS WITH 12" OUTLETS.

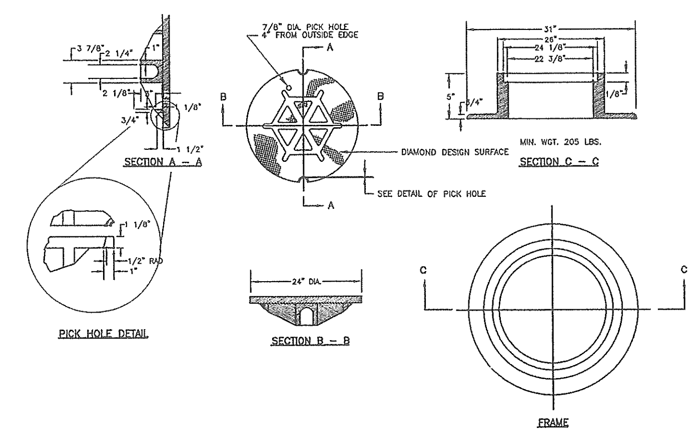
PRECAST CONCRETE CATCH BASIN TYPE "E"

N.T.S.



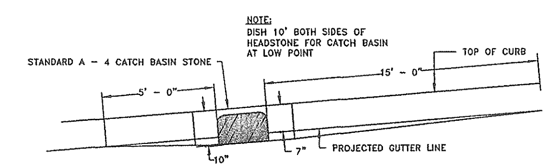
THE SNOUT

N.T.S.



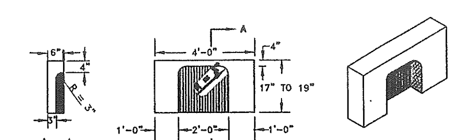
TYPE "A" MANHOLE COVER AND FRAME

N.T.S.



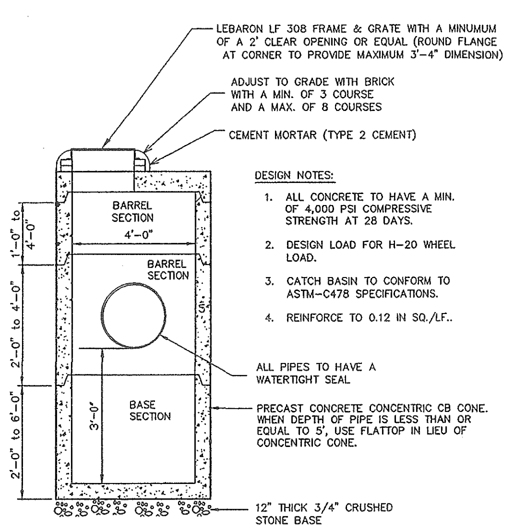
TYPICAL PAVEMENT GRADING ON SLOPES FOR CATCH BASIN AND INLET

N.T.S.



TYPICAL A-4 CATCH BASIN STONE

N.T.S.



DESIGN NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF..

NOTE:
1. INLET HOODS SHALL BE PROVIDED ON CATCH BASIN PIPES 18" OR LESS

4'-0" PRECAST CATCH BASIN

N.T.S.

GENERAL NOTES

1. ULTIMATE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. ASTM SPEC. C-478-67
3. C-32-63, GRADE MA AND SA.
4. APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTION OF BRICK MASONRY, THE SMOOTH MORTAR SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFCATIONS SECTION 604.
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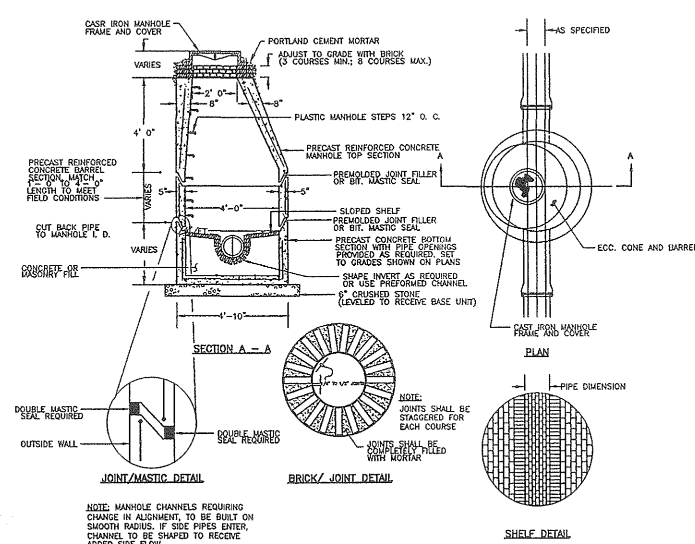
6. MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND OFFSET, PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED HOLE.
9. EXISTING MANHOLE AND CATCH BASIN FRAMES AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND REMAIN THE PROPERTY OF THE CITY OF PORTLAND.



PRECAST CONCRETE MANHOLE TYPE "A"

N.T.S.

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Merchants Plaza
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way — Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: UTILITY AND DRAINAGE DETAILS

Scale: NONE

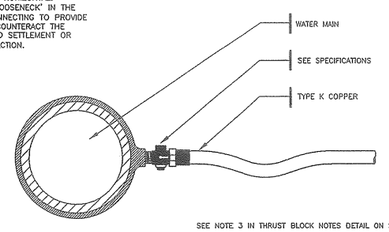
North:

Sheet No.: 6

STATE OF MAINE — WILLIAM C. HASKELL — NO. 8518 — REGISTERED PROFESSIONAL ENGINEER — 7/11/06

GP Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

NOTE: SERVICE CONNECTIONS (DIRECT TAPS AND SERVICE CLAMPS) WILL BE INSTALLED SO THAT THE OUTLET IS AT AN ANGLE OF NOT MORE THAN 45° ABOVE THE HORIZONTAL. ALWAYS PUT A BEND OR "GOOSENECK" IN THE SERVICE LINE PRIOR TO CONNECTING TO PROVIDE FLEXIBILITY AND "GIVE" TO COUNTERACT THE EFFECTS OF A LOAD DUE TO SETTLEMENT OR EXPANSION AND/OR CONTRACTION.

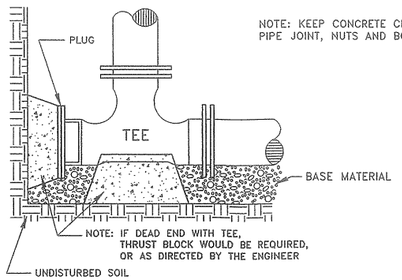


SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL ON SHEET 8

WATER SERVICE

(1 1/2" AND 2 1/2" C.C. OR IRON PIPE THREAD)

N.T.S.

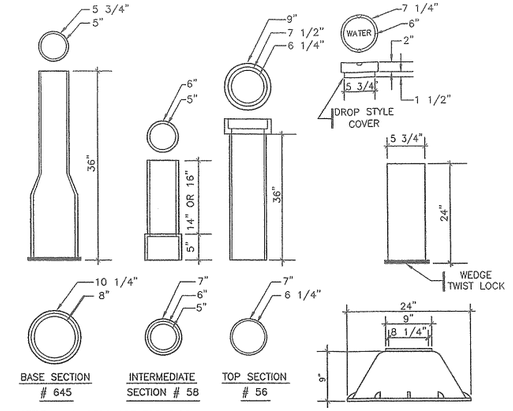


NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

STANDARD TEE BLOCKING

N.T.S.

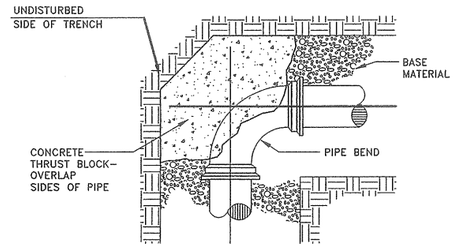


NOTE: NUMBERS ARE FOR 5.25" BUFFALO VALVE BOXES

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

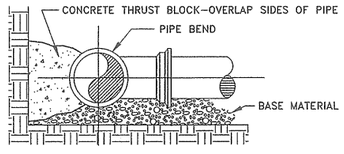
TYPICAL VALVE BOXES

N.T.S.



PLAN VIEW

NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



SECTION

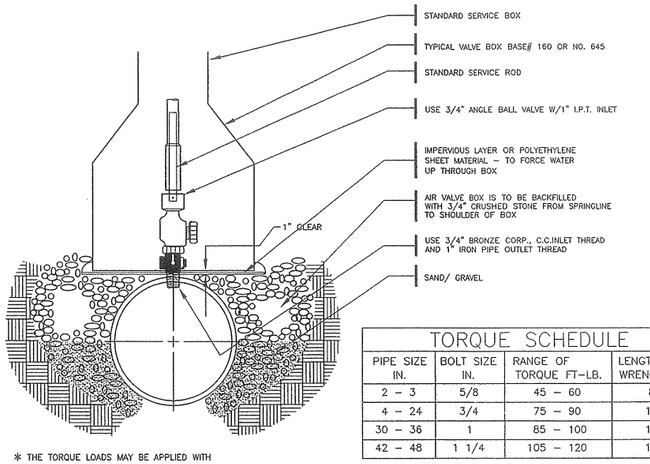
THRUST/RETAINER GLAND SCHEDULE		
1/4 BEND	(90°)	USE POURED–IN–PLACE THRUST BLOCK w/RETAINERS
1/8 BEND	(45°)	THRUST BLOCK w/RETAINERS
1/16 BEND	(22 1/2°)	THRUST BLOCK
1/32 BEND	(11 1/4°)	THRUST BLOCK

THE ABOVE SCHEDULE IS SUBJECT TO THE APPROVAL OF THE ON–SITE INSPECTOR DUE TO SOILS AND WORKING PRESSURES IN THE AREA.

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

TYPICAL THRUST BLOCK PLACEMENT ON BENDS

N.T.S.



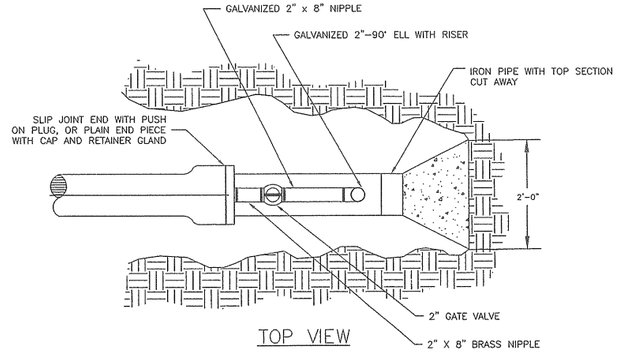
TORQUE SCHEDULE			
PIPE SIZE IN.	BOLT SIZE IN.	RANGE OF TORQUE FT–LB.	LENGTH OF WRENCH IN *
2 – 3	5/8	45 – 60	8
4 – 24	3/4	75 – 90	10
30 – 36	1	85 – 100	12
42 – 48	1 1/4	105 – 120	14

* THE TORQUE LOADS MAY BE APPLIED WITH TORQUE MEASURING OR TORQUE INDICATING WRENCHES, WHICH MAY ALSO BE USED TO CHECK THE APPLICATION OF APPROXIMATE TORQUE LOADS APPLIED BY A PERSON TRAINED TO GIVE AN AVERAGE PULL ON A DEFINITE LENGTH OF REGULAR SOCKET WRENCH.

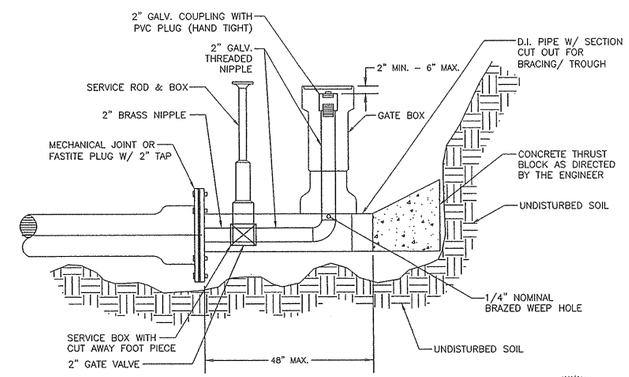
SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

TYPICAL AIR VALVE SECTION (1")

N.T.S.



TOP VIEW



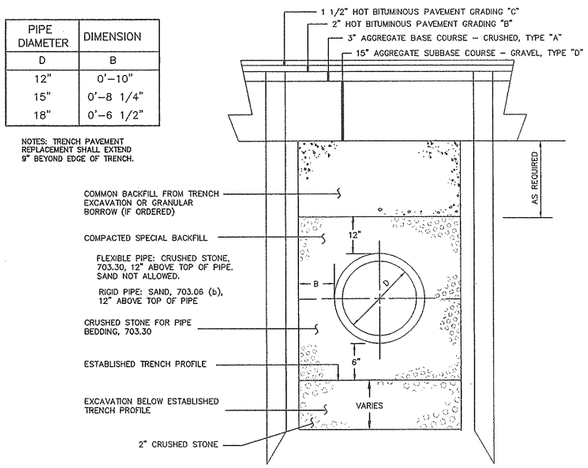
ELEVATION VIEW

STANDARD 2" BLOW OFF

N.T.S.

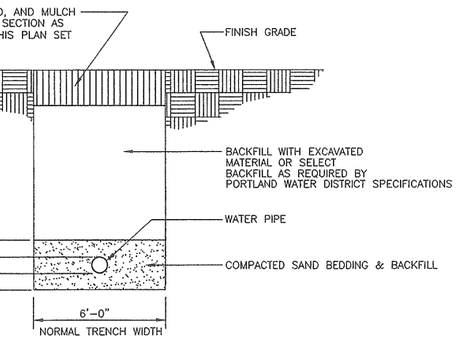
PIPE DIAMETER	DIMENSION
D	B
12"	0'–10"
15"	0'–8 1/4"
18"	0'–6 1/2"

NOTES: TRENCH PAVEMENT REPLACEMENT SHALL EXTEND 9" BEYOND EDGE OF TRENCH.



TYPICAL PIPE INSTALLATION DETAIL

N.T.S.



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

WATER SERVICE TRENCH SECTION

N.T.S.

Prepared For:
Applicant:

SOUTHERN MAINE STUDENT HOUSING, LLC
247 Merchants Plaza
Rockport, Maine 04856
Tel: (207) 236–4067

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STATE OF MAINE — WILLIAM C. HASKELL — NO. 8518 — REGISTERED PROFESSIONAL ENGINEER

Scale: NONE

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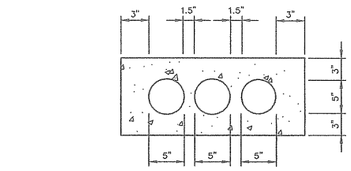
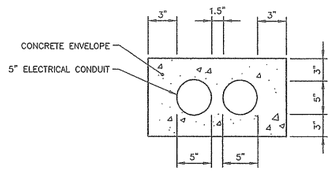
Sheet No.: 7

Gorrill–Palmer Consulting Engineers, Inc.
PO Box 1237
15 Shaker Road
Gray, ME 04039
Traffic and Civil Engineering Services
207–657–6910
FAX: 207–657–6912
E–Mail: mailbox@gorrillpalmer.com



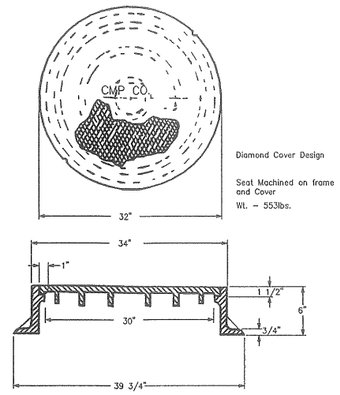
3 CONDUIT LAYOUT



2 CONDUIT LAYOUT

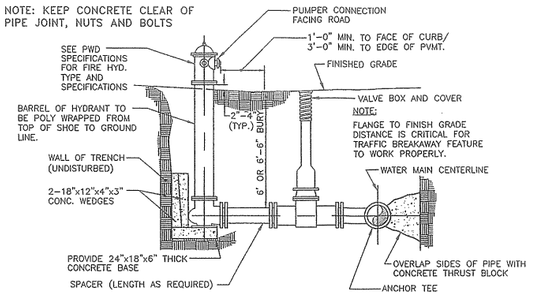
ELECTRICAL CONDUIT PROFILES

N.T.S.



32" MANHOLE COVER & FRAME

N.T.S.



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

FIRE HYDRANT INSTALLATION

N.T.S.

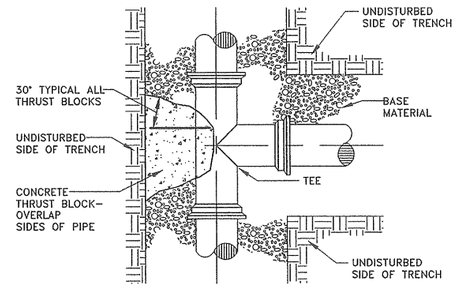
THRUST BLOCK NOTES

1. INSTALL POLY BARRIER BETWEEN PIPE AND ALL THRUST BLOCKS.
2. ANY MODIFICATION TO THRUST BLOCK SIZING OR PIPE RESTRAINT REVISIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD
3. ANY WORK RELATING TO WATER PIPING OR DETAILS SHALL BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS

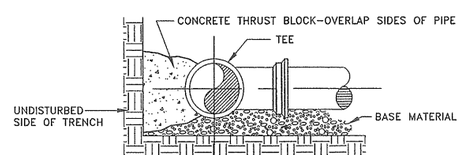
PIPE SIZE	1/32 BEND	1/16 BEND	1/8 BEND	1/4 BEND	TEES/CAPS
4"	1.8	3.6	7.0	12.8	9.1
6"	3.7	7.3	14.3	26.4	8.7
8"	6.4	12.6	24.7	45.5	32.2

BEARING SURFACE REQUIRED IN SQUARE FEET

NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



PLAN VIEW



SECTION

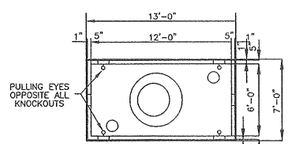
TYPICAL THRUST BLOCK PLACEMENT ON TEE

N.T.S.

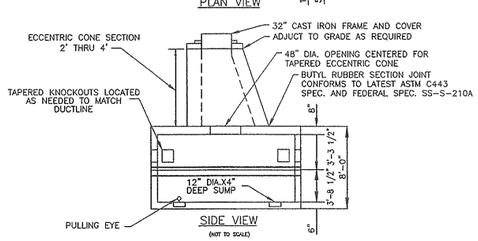
NOTES

NOTES:

1. VAULT AND ECCENTRIC CONE SHALL BE DESIGNED TO WITHSTAND H20 WHEEL LOADED WITH 6" OF OVERBURDEN. THE DESIGN SHALL ALSO COMPLY WITH THE STRENGTH REQUIREMENTS OF NATIONAL ELECTRICAL SAFETY CODE SECTION 323A. PROVIDE SHOP DRAWINGS STAMPED BY A STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER UPON REQUEST.
2. JOINTS SEALED WITH BUTYL RUBBER.
3. MOUNTINGS FOR CABLE RACKS ETC. CAST IN WALL BY FURTHER PLANS OR FIELD LOCATED.
4. MANHOLE SHALL BE SET ON A SUITABLE GRAVEL BASE.



PLAN VIEW



SIDE VIEW
(NOT TO SCALE)

PRECAST CONCRETE MANHOLE (FOR CMP)

N.T.S.

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Merchants Plaza
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way **Portland, Maine**

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: UTILITY AND DRAINAGE DETAILS

Scale: NONE

North:

Sheet No.: 8

STATE OF MAINE WILLIAM C. HASKELL No. 8518 REGISTERED PROFESSIONAL ENGINEER 7/11/06

Gorrill-Palmer Consulting Engineers, Inc.
PO Box 1237
15 Shaker Road
Gray, ME 04039
Traffic and Civil Engineering Services
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

I. Erosion Control Measures and Site Stabilization

The primary emphasis of the erosion/sedimentation control plan to be implemented for the infrastructure construction is as follows:
- Development of a careful construction sequence.
- Rapid revegetation of denuded areas to minimize the period of soil exposure.
- Rapid stabilization of drainage paths to avoid rill and gully erosion.
- The use of on-site measures to capture sediment (silt fence, check dams, etc.).

The following temporary and permanent erosion and sediment control devices will be implemented as part of the site development. These devices shall be installed as indicated on the plans or as described within this report. For further reference, see the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices.

A. Temporary Erosion Control Measures

The following measures are planned as temporary erosion/sedimentation control measures during construction:

1. Utilize the existing entrance to the site closest to Chestnut Street to access the site during construction until the proposed access driveways have been constructed.

2. Siltation fence or wood waste compost berms shall be installed downstream of any disturbed areas to trap runoff borne sediments until adequate catch (90% or greater) has occurred. The silt fence and/or the wood waste compost berms shall be installed per the details provided in this package and inspected immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence or berm line. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind fence or berm, the barrier shall be replaced with a stone check dam. Wood waste compost berms are not to be used adjacent to wetland areas that are to be left undisturbed.

3. Straw or hay mulch including hydroseeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and September 15th on slopes of less then 15 percent shall be anchored by applying water; mulch placed on slopes of equal to or steeper than 15 percent shall be covered by a fabric netting and anchored with staples in accordance with manufacturer's recommendation. Mulch placed between September 15th and April 15th on slopes equal to or steeper than 8 percent shall be covered with a fabric netting and anchored with staples in accordance with the manufacturer's recommendations. Slopes steeper than 3:1 and the drainage swale located in the I-295 Right-of-Way that are to be revegetated shall receive Curlex blankets by American Excelsior or Engineer approved equivalent. Mulch application rates are provided in Attachment A of this section. Mulch shall not be placed over snow.

4. Temporary stockpiles of stumps, grubbings, or common excavation will be protected as follows:

a) Temporary stockpiles shall not be located within 100 feet of any wetlands that are to be left undisturbed and any slopes exceeding 15%.

b) Stockpiles shall be stabilized within 7 days by either temporarily seeding the stockpile with a hydroseed method containing an emulsified mulch tackifier or by covering the stockpile with mulch.

c) Stockpiles shall be surrounded by silt fence or wood-waste compost berms at the time of formation.

5. All denuded areas within 100 feet of an undisturbed wetland that have been rough graded and are not located within a roadway subbase area shall receive mulch or erosion control mesh fabric within 7 days of initial soil disturbance. All areas within 50 feet of undisturbed wetland area shall be mulched prior to any predicted rain event regardless of the 7-day window. In other areas, the time period may be extended to 14 days. All disturbed areas located within 100 feet of a protected natural resource must be protected with a double row of sediment barriers.

6. For work conducted between September 15th and April 15th of any calendar year, all denuded areas will be covered with hay mulch applied at twice the normal application rate and anchored with fabric netting. The time period for applying mulch as noted in Paragraph I.A.5 shall be limited to 7 days for all areas.

7. Marginal Way shall be swept to control off-tracking of mud, debris, and dust as necessary.

8. During grubbing operations stone check dams will be installed at any evident concentrated flow discharge points.

9. Silt fencing with a maximum stake spacing of 6 feet should be used, unless the fence is supported by wire fence reinforcement of minimum 14 gauge and with a maximum mesh spacing of 6 inches, in which case stakes may be spaced a maximum of 10 feet apart. The bottom of the fence should be anchored.

10. Wood waste compost/bark berms may be used in lieu of siltation fencing. Berms shall be removed and spread into a layer not to exceed 3" thick once upstream areas are completed and a 90% catch of vegetation is attained. Wood waste erosion tubes may also be used for perimeter sediment control or check dams, or to reduce slope lengths. These tubes may be created by filling Filtrexx mesh tubes or approved equivalent with wood waste material and staking the tube to the ground where the control is necessary.

11. Inlet Protection measures shall be implemented for all catch basins located with the disturbed construction area. Measures shall be maintained regularly and shall not cause flooding in public right-of-ways.

12. Water shall be furnished and applied in accordance with MDOT specifications – Section 637 – Dust Control.

13. Loam and seed is intended to serve as the primary permanent revegetative measure for all denuded areas not provided with other erosion control measures such as riprap. Application rates are provided in Attachment A of this section. Seeding shall not occur over snow.

B. Permanent Erosion Control Measures

The following permanent erosion control measures have been designed as part of the Erosion and Sedimentation Control Plan:

1. All areas disturbed during construction but not subject to other restoration (building, paving, riprap, etc.) shall be loamed, limed, fertilized, mulched, and seeded. Fabric netting anchored with staples shall be placed over the mulch in areas as noted in Paragraph I.A.3. All disturbed areas within 100 feet of an undisturbed wetland area shall be mulched prior to any predicted rain event regardless of the 7-day window. Native topsoil shall be stockpiled and reused for final restoration if deemed to be of sufficient quality.

II. Implementation Schedule

The following construction sequence shall be required to insure that the effectiveness of the erosion and sedimentation control measures is optimized:

Note: For all grading activities, the contractor shall exercise extreme caution not to overexpose the site by limiting the disturbed area.

1. Install perimeter siltation fence and/or wood waste berms prior to grubbing respective areas.

2. Clear and grub area as necessary for construction.

3. Remove existing pavement within work limits.

4. During grubbing operations, install stone check dams at any evident concentrated flow discharge points.

5. Commence earthwork operations for proposed driveways and apartment foundations.

6. Continue grading to subgrade as necessary.

7. Commence installation of underground utilities.

8. Complete remaining earthwork operations.

9. Install subbase and base course gravels for driveways.

10. Complete installation of utility appurtenances.

11. Install surface course gravels for the driveways.

12. Loam, lime, fertilize, seed, and mulch remaining disturbed areas.

13. Remove accumulated sediment from ahead of any sediment barriers as necessary.

14. Once the site is stabilized and a 90% catch of vegetation has been obtained, remove all temporary erosion control measures.

15. Touch up loam and seed.

Note: All denuded areas not subject to final paving, riprap, or gravel shall be revegetated.

Prior to construction of the project, the contractor shall submit to the owner a schedule for the completion of
the work, which will satisfy the following criteria:

1. The above construction sequence shall generally be completed in the specified order; however, several separate items may be constructed simultaneously. Work must also be scheduled or phased to prevent the extent of the exposed areas as specified below. The intent of the above sequence is to provide for sufficient erosion and sedimentation control and to have structural measures such as silt fence and construction entrance in place before large areas of land are denuded.

2. The work shall be conducted in sections which will:

a) Limit the amount of exposed area to those areas in which work is expected to be undertaken during the proceeding 30 days.

b) Revegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event, or temporarily stabilized within 7 days of initial disturbance of soil for areas within 100 feet of an undisturbed wetland area and within 14 days for all other areas. Areas within 100 feet of an undisturbed wetland shall be mulched prior to any predicted rain event regardless of the 7-day window.

III. Winter Stabilization Plan

If a summer/fall construction schedule is not possible and construction is necessary between September 15th and April 15th of any calendar year, the contractor shall submit a schedule, which will satisfy the following criteria:

1. The extent of exposed area shall be limited to those areas in which work is expected to be undertaken during the proceeding 15 days and can be mulched in the event of a predicted snow event.

2. All disturbed areas shall be covered with mulch within 7 days of final grading. Mulch shall not be placed over snow.

3. Once final grade has been established, the contractor may choose to dormant seed the disturbed areas prior to placement of mulch and placement of staple-anchored fabric netting.

a. If dormant seeding is used for the site, all disturbed areas shall receive 6" of loam and seed at an application rate of 5 lbs. per 1000 s.f. Seeding shall not occur over snow.

All areas seeded during the winter months shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 80% catch) shall be revegetated by replacing loam, seed, and mulch as necessary to achieve 80% catch.

b. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

4. The area of denuded non-stabilized construction area shall be limited to the minimum area practicable. An area shall be considered denuded until the subbase gravel is installed or the areas of future loam and seed have been loamed, seeded, and mulched at a rate twice that specified in the seeding plan (e.g. 115 lbs. per 1,000 s.f. x 2 = 230 lbs. per 1,000 s.f.).

5. The above schedule shall be subject to the approval of the Owner.

The Contractor shall install any added measures that may be necessary to control erosion and sedimentation from the site dependent upon the actual site and weather conditions.

The Contractor shall note that no areas within 100 feet of an undisturbed wetland shall remain denuded for longer than 7 days before being temporarily stabilized. All other areas shall be stabilized within 14 days. For construction between September 15th and April 15th of any calendar year, all areas shall be temporarily stabilized within 7 days.

IV. Inspection and Maintenance

The following inspection and maintenance standards shall be required to insure the effectiveness of the erosion and sedimentation control measures are optimized during construction.

For further reference, see the Maine Department of Environmental Protection Chapter 500 Stormwater Management Rules and the Maine Construction General Permit (MCGP) requirements.

1. Inspect disturbed and impervious areas, erosion control measures, materials storage areas exposed to precipitation and locations where vehicles enter or exit the site. Inspection should occur at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures.

2. Maintain all erosion and stormwater control measures until areas are permanently stabilized. If maintenance, modification, and/or installation of additional best management practices (BMPs) are necessary, implementation must be completed within 7 calendar days and prior to any storm event.

V. Housekeeping

The following standards shall be required. For further reference, see the Maine Department of Environmental Protection Chapter 500 Stormwater Management Rules.

1. Spill prevention controls must be utilized to prevent pollutants from being discharged from materials onsite.

2. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area or adjacent to the stormwater catch basins and drain manholes.

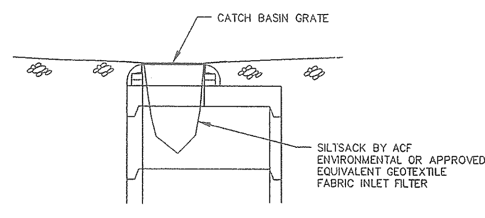
3. Action must be taken to ensure activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction.

4. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

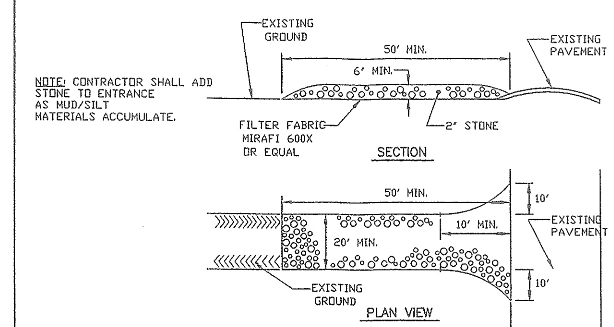
5. Water collected as a result of trench dewatering must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site.

6. Identify and prevent contamination by non-stormwater discharges.

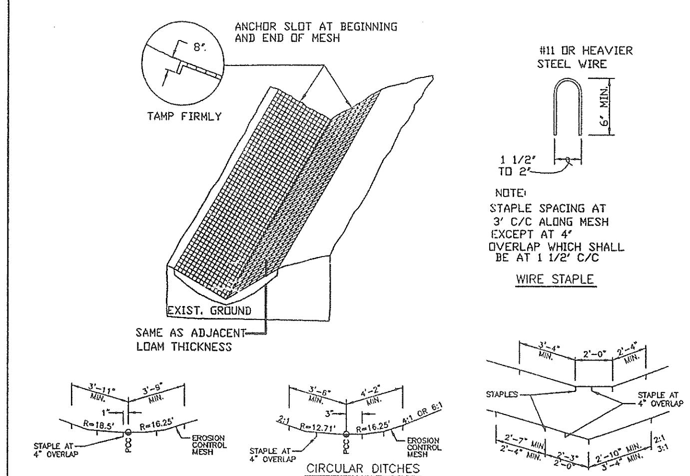
7. Additional requirements may be applied on a site-specific basis.



INLET PROTECTION
N.T.S.

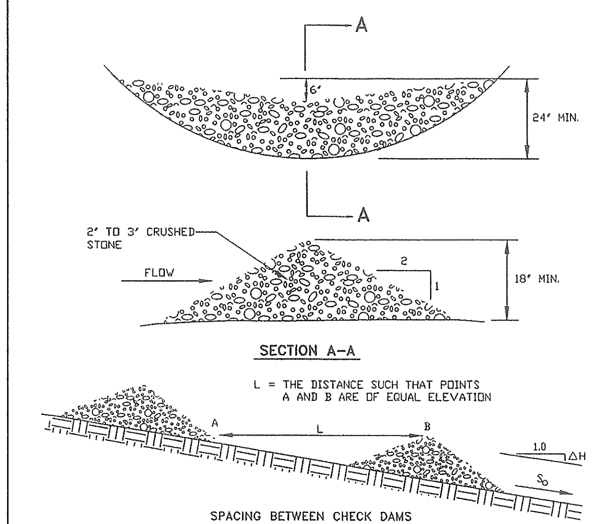


STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



STAPLES AT EDGES, AT QUARTER POINTS, AT 4' OVERLAP

EROSION CONTROL MESH
N.T.S.



SPACING BETWEEN CHECK DAMS

So (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	15'

STONE CHECK DAM
N.T.S.

NOTES:

1. THE WOOD WASTE COMPOST/BARK MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:

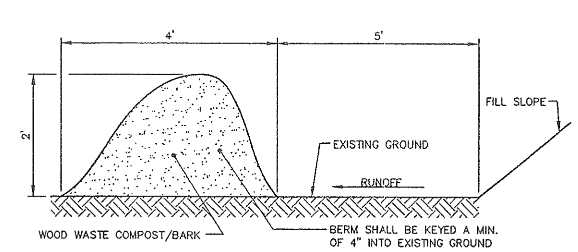
A. MOISTURE CONTENT – 30-60%.
B. pH – 5.0 – 8.0.
C. SCREEN SIZE – 100% LESS THAN 3", MAX. 70% LESS THAN 1".
D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION.
E. NO STONES LARGER THAN 2" IN DIAMETER.
F. SILTS, CLAYS OR SUGAR SANDS ARE NOT ACCEPTABLE IN THE MIX.

2. THE COMPOST BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.

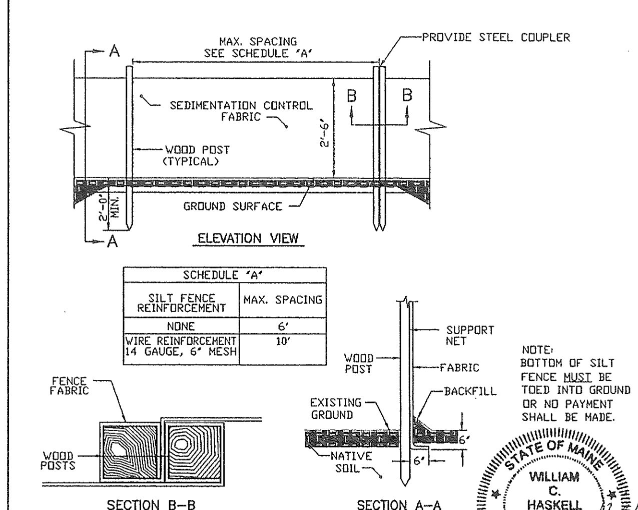
3. THE WOOD WASTE COMPOST/BARK FILTER BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.

4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS COMPLETED OR 70% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.

5. WOOD WASTE COMPOST/BARK FILTER BERM SHALL NOT BE USED IN WETLAND AREAS.



WOOD WASTE COMPOST/BARK FILTER BERM
N.T.S.



SCHEDULE 'A'

SILT FENCE REINFORCEMENT	MAX. SPACING
NONE	6'
WIRE REINFORCEMENT 14 GAUGE, 6" MESH	10'

SILTATION FENCE
N.T.S

STATE OF MAINE
WILLIAM C. HASKELL
NO. 6518
REGISTERED PROFESSIONAL ENGINEER

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Merchants Plaza
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: EROSION AND SEDIMENTATION CONTROL DETAILS AND NOTES

Scale: NONE

North:

Sheet No.: 9

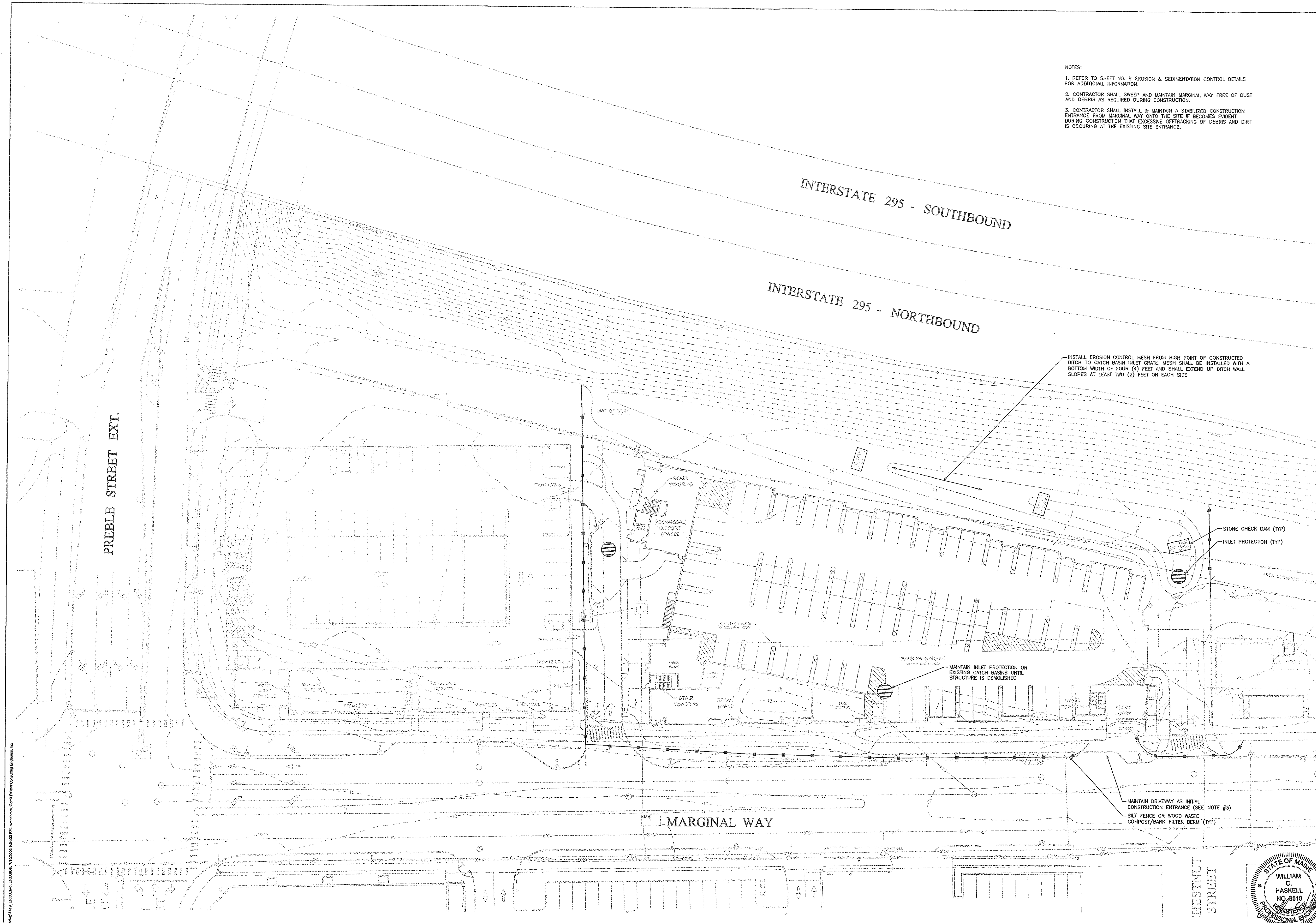
A-10

NOTES:

1. REFER TO SHEET NO. 9 EROSION & SEDIMENTATION CONTROL DETAILS FOR ADDITIONAL INFORMATION.

2. CONTRACTOR SHALL SWEEP AND MAINTAIN MARGINAL WAY FREE OF DUST AND DEBRIS AS REQUIRED DURING CONSTRUCTION.

3. CONTRACTOR SHALL INSTALL & MAINTAIN A STABILIZED CONSTRUCTION ENTRANCE FROM MARGINAL WAY ONTO THE SITE IF BECOMES EVIDENT DURING CONSTRUCTION THAT EXCESSIVE OFFTRACKING OF DEBRIS AND DIRT IS OCCURING AT THE EXISTING SITE ENTRANCE.



A-11

Prepared For:
Applicant:

SOUTHERN MAINE STUDENT HOUSING, LLC
247 Merchants Plaza
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: EROSION AND SEDIMENTATION CONTROL PLAN

STATE OF MAINE — WILLIAM C. HASKELL — NO. 6518 — REGISTERED PROFESSIONAL ENGINEER

Scale: 1"=30'
0 10 20 30 60 ft.

North:

Sheet No.: 10

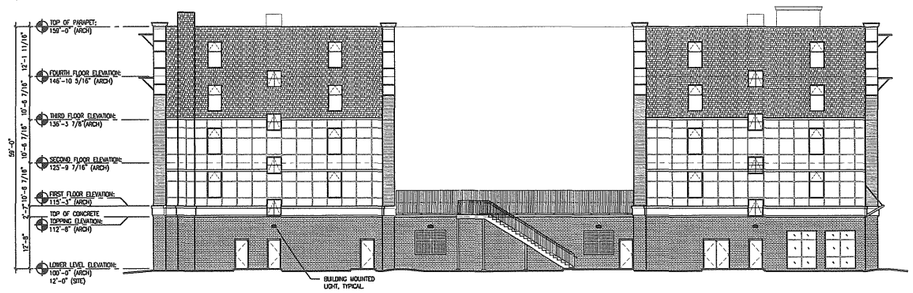
Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

ATTACHMENT B-1

SEE MATERIAL LISTING ON SHEET A3.03

A OVERALL BUILDING ELEVATION - NORTH (FROM MARGINAL WAY)

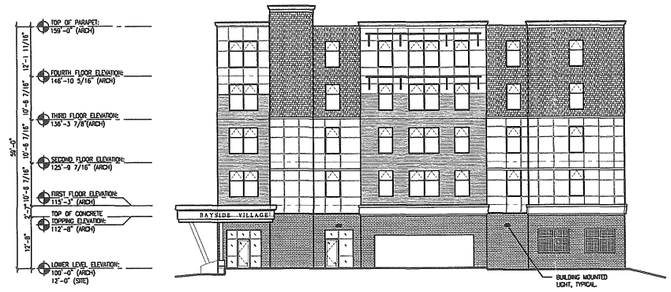
REFERENCED FROM: SCALE: 1/16" = 1'-0"



SEE MATERIAL LISTING ON SHEET A3.03

B OVERALL BUILDING ELEVATION - WEST (FROM INTERMED BUILDING)

REFERENCED FROM: SCALE: 1/16" = 1'-0"



SEE MATERIAL LISTING ON SHEET A3.03

C OVERALL BUILDING ELEVATION - EAST (FROM MISS PORTLAND DINER)

REFERENCED FROM: SCALE: 1/16" = 1'-0"

CWS

CWS Architects

Architecture
Space Planning
Value Design

434 Cumberland Avenue
Portland, ME 04101
Phone: (207)774-4441
Fax: (207)774-4015

www.CWSarch.com

Owner:

SOUTHERN MAINE STUDENT HOUSING LLC
247 COMMERCIAL STREET
ROCKPORT, MAINE 04856
TEL: (207) 236-4067

Contractor:

WARREN CONSTRUCTION GROUP, LLC
PO BOX 362
SOUTH FREEPORT, MAINE 04078
TEL: (207) 865-3522
FAX: (207) 865-3903

BAYSIDE VILLAGE - A STUDENT HOUSING COMPLEX

120 MARGINAL WAY
PORTLAND, MAINE

Project No: 2006-425.BSV

Drawing Title:
OVERALL BUILDING ELEVATIONS

Scale: 1/16" = 1'-0"
Date: Progress 07/11/2006
Revisions:

Drawing Number:
A3.01

ISSUED FOR PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

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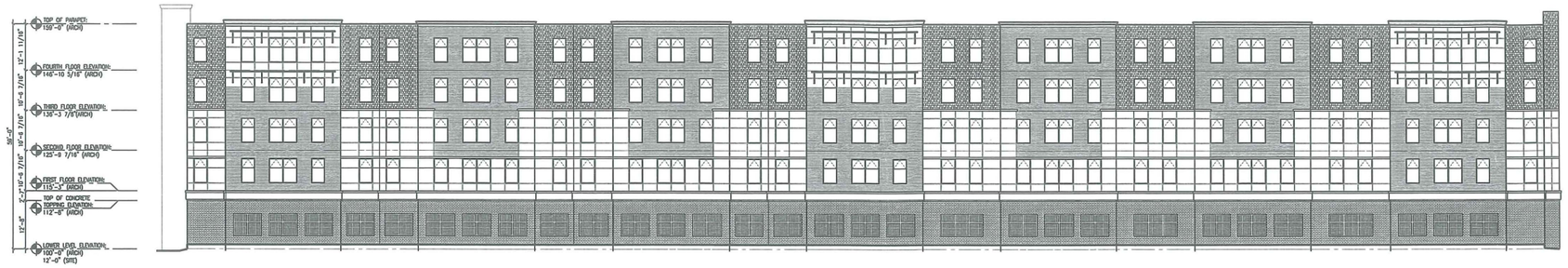
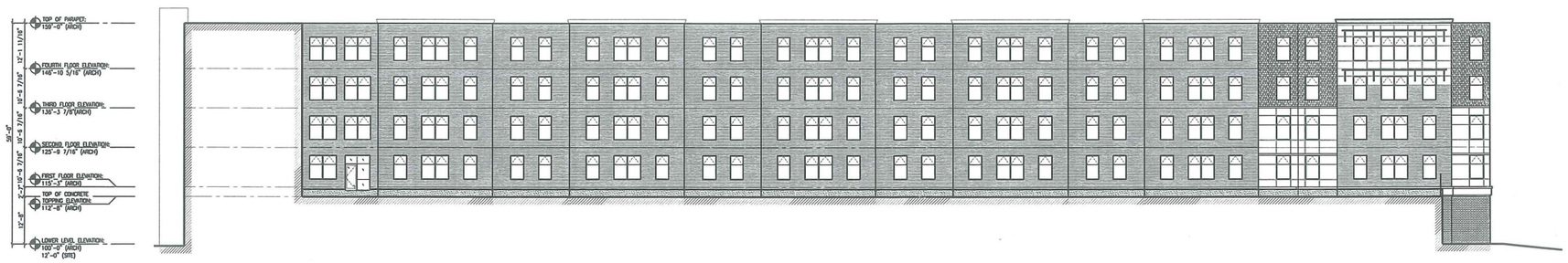
B-2



SEE MATERIAL LISTING ON SHEET A3.03

D OVERALL BUILDING ELEVATION - SOUTH (FROM I-295)

REFERENCED FROM: SCALE: 1/16" = 1'-0"



SEE MATERIAL LISTING ON SHEET A3.03

E OVERALL BUILDING ELEVATION - INSIDE SOUTH

REFERENCED FROM: SCALE: 1/16" = 1'-0"

CWS Architects

Architecture
Space Planning
Value Design

434 Cumberland Avenue
Portland, ME 04101
Phone: (207)774-4441
Fax: (207)774-4016

www.CWSarch.com

Owner:
SOUTHERN MAINE STUDENT HOUSING LLC
247 COMMERCIAL STREET
ROCKPORT, MAINE 04856
TEL: (207) 236-4067

Contractor:
WARREN CONSTRUCTION GROUP, LLC
PO BOX 362
SOUTH FREEPORT, MAINE 04078
TEL: (207) 865-3522
FAX: (207) 865-3903

BAYSIDE VILLAGE - A STUDENT HOUSING COMPLEX

120 MARGINAL WAY
PORTLAND, MAINE

Project No: 2006-425.BSV

Drawing Title:
OVERALL BUILDING ELEVATIONS

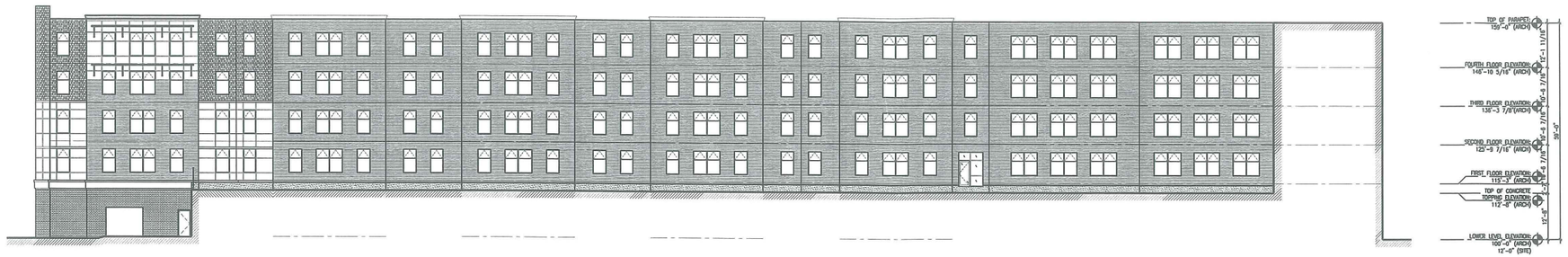
Scale: 1/16" : 1'-0"
Date: Progress 07/11/2006
Revisions:

Drawing Number:
A3.02

ISSUED FOR PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

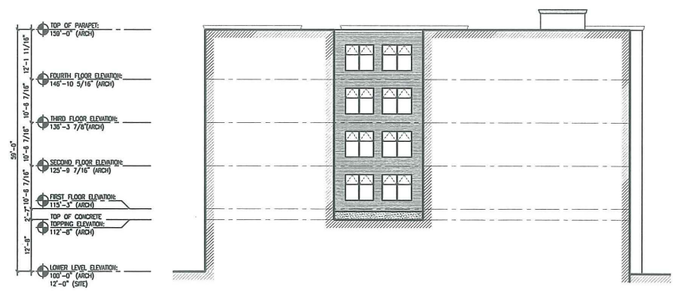
7/11/2006 9:41:12 AM

B-3



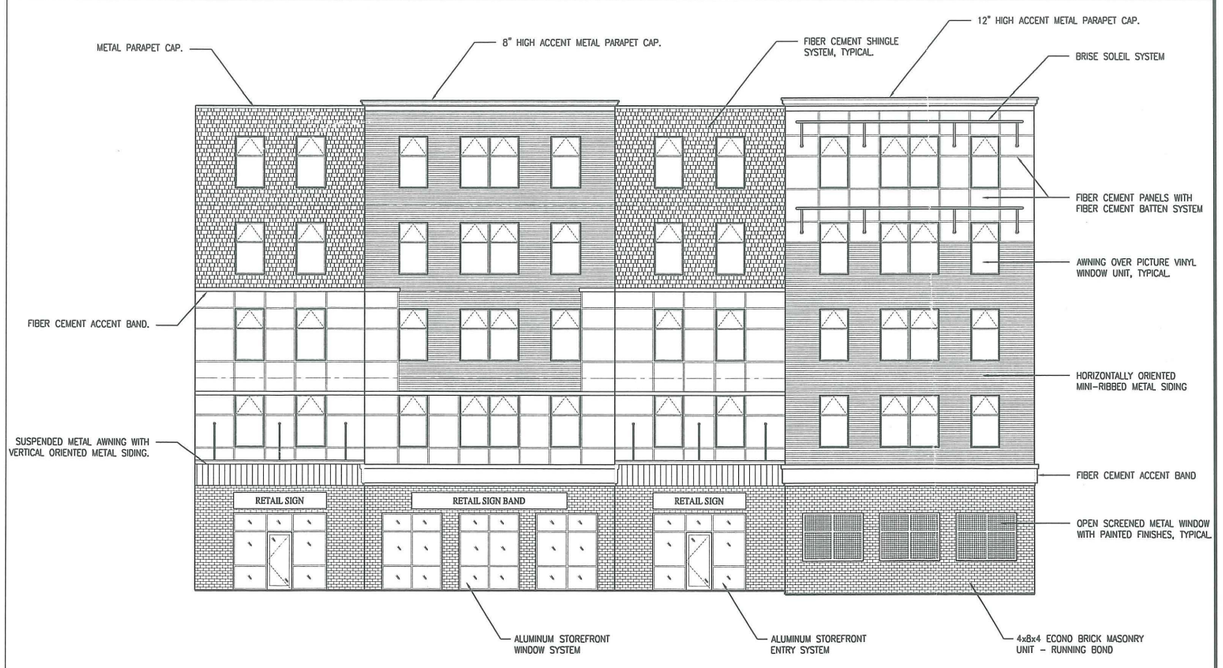
F OVERALL BUILDING ELEVATION - INSIDE NORTH

REFERENCED FROM: SCALE: 1/16" = 1'-0"



G OVERALL BUILDING ELEVATION - INSIDE SOUTH

REFERENCED FROM: SCALE: 1/16" = 1'-0"



H PORTION OF ENLARGED ELEVATION

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

CWS

CWS Architects

Architecture
Space Planning
Value Design

434 Cumberland Avenue
Portland, ME 04101
Phone: (207)774-4441
Fax: (207)774-4016

www.CWSarch.com

Owner:

SOUTHERN MAINE STUDENT HOUSING LLC
247 COMMERCIAL STREET
ROCKPORT, MAINE 04856
TEL: (207) 236-4067

Contractor:

WARREN CONSTRUCTION GROUP, LLC
PO BOX 362
SOUTH FREEPORT, MAINE 04078
TEL: (207) 865-3522
FAX: (207) 865-3903

BAYSIDE VILLAGE - A STUDENT HOUSING COMPLEX

120 MARGINAL WAY
PORTLAND, MAINE

Project No: 2006-425.BSV

Drawing Title:
OVERALL BUILDING ELEVATIONS

Scale: AS NOTED
Date: Progress 07/11/2006
Revisions:

Drawing Number:
A3.03

ISSUED FOR PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

7/11/2006 9:39:10 AM

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	MAINEDOT PIN 9815.99	8	32

PORTLAND, MARGINAL WAY

TEMPORARY CROSSWALK LOCATION
CONSTRUCTION BARRELS (TYP)
TEMPORARY ALTERNATIVE SIDEWALK LOCATION
TEMPORARY CROSSWALK MAINTAINED FOR BACK COVE TRAIL ACCESS
W11-2 WITH W16-7
7' TIPDOWN
CONSTRUCT ADA RAMP (TYP.)
4' TIPDOWN (TYP.)
SIDEWALK CLOSED DETOUR
W11-2 WITH W16-7
(2) W11-2 WITH W16-7
CROSSWALK CLOSED DETOUR
PREBLE STREET EXTENSION
SIDEWALK CLOSED
MARGINAL WAY
CROSSWALK CLOSED DETOUR
W11-2
12" WHITE PAVEMENT MARKING TAPE
CROSSWALK CLOSED DETOUR
PEDESTRIAN PATH (TYP)
W11-2 W16-7
MARGINAL WAY
31+00
32+00
33+00
34+00
35+00
36+00
37+00
38+00
39+00
40+00
8+00
9+00
10+00
11+00
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
24+00
24+25

CONSTRUCTION AREA (TYP.)
5' TEMP. SIDEWALK
11' THRU LANE
EXISTING ROADWAY CENTERLINE
CONSTRUCTION BARRELS (TYP.)
1 inch = 10 ft.

1 inch = 25 ft.

CURBING LEGEND

- VERTICAL GRANITE CURB
- SLOPED GRANITE CURB
- BITUMINOUS CURB

STRIPING LEGEND

SIGNAGE, STRIPING AND PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2003 EDITION, REGARDING SIZE, INSTALLATION, LOCATION & REFLECTIVITY.

24"SL – 24" WIDTH STOP LINE
4"SWLL – 4" WIDTH SOLID WHITE LANE LINE
4"DYCL – 4" WIDTH DOUBLE YELLOW CENTERLINE
4"DWLL – 4" WIDTH DASHED WHITE LANE LINE

NOTES:
1. ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE PROPOSED SHALL BE REMOVED IN ACCORDANCE WITH THE MAINEDOT SPECIFICATIONS.

2. ALL SIGNS GREATER THAN 36" IN WIDTH SHALL HAVE TWO POSTS

S:\Land Projects\1361-02-30\dwg\1361-02_TMP CW PkMg.dwg 2008 - 5:24pm

Rev.	Date	Revision
–	–	–

Issued For	Date	By
CONSTRUCTION	07/15/08	RCN
FINAL PLANS	06/26/08	RCN
FINAL REVIEW	05/05/08	RCN
REVIEW	11/26/07	RCN

Design: DAB | Draft: DB | Date: JULY 2007
Checked: RCN | Scale: 1"=25' | Job No.: 1361.04
File Name: 1361-02_TMP CW PLAN.dwg

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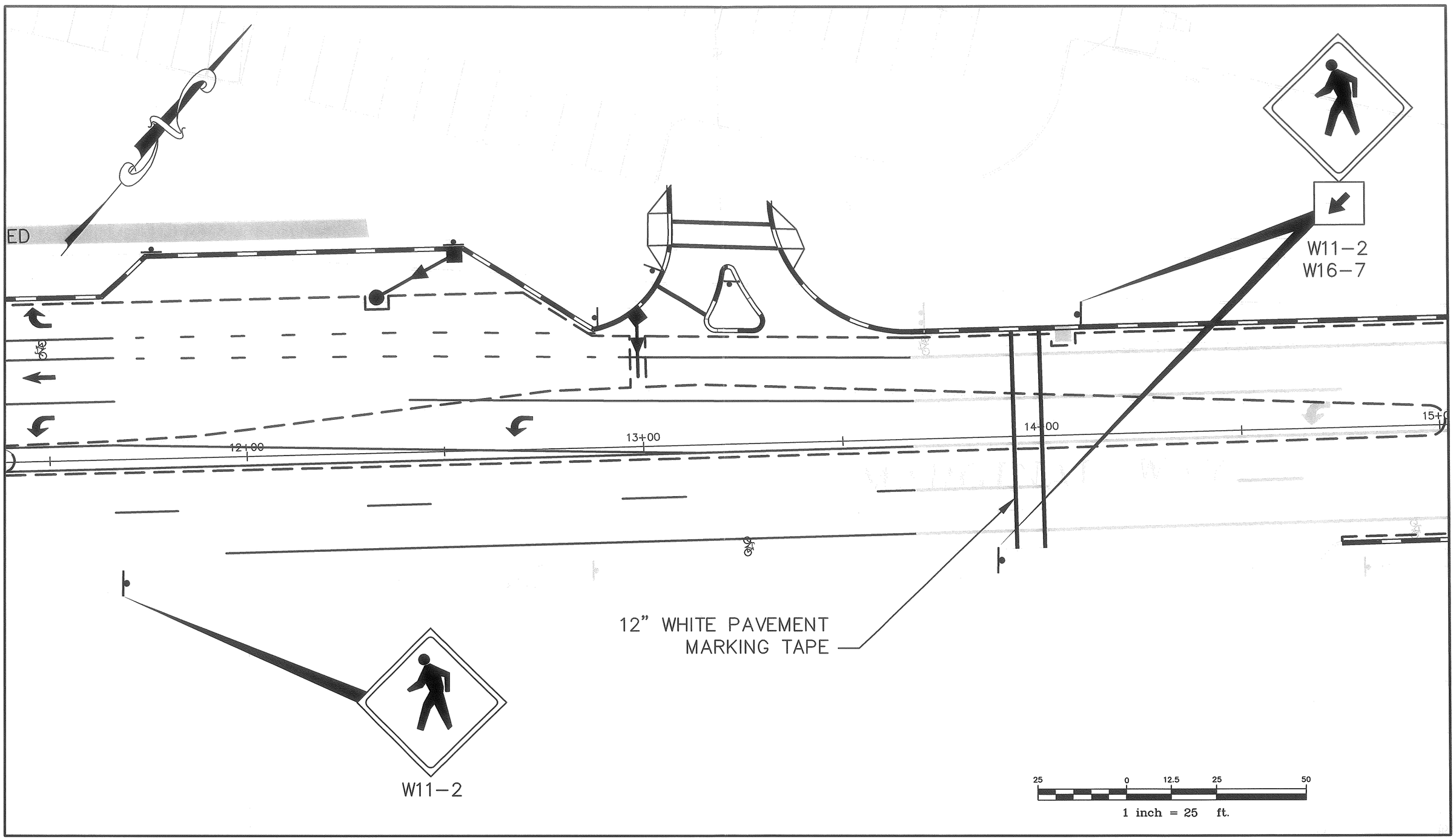
PO Box 1237
15 Shaker Road
Gray, ME 04039
Traffic and Civil Engineering Services
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Temporary Sidewalk Locations**
Project: **84 MARGINAL WAY, PORTLAND, MAINE**
Client: Atlantic Bayside Trust, LLC
50 Portland Pier, Suite 400, Portland, ME 04101

Drawing No. 8



Rev.	Date	Revision
-	-	-

Design: RJB	Date: JUN 2007		
Draft: DB	Job No.: 1361.02		
Checked: RCN	Scale: 1"=40'		
File Name: 1361–02_TMP CW PLAN.dwg			

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Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207–657–6910
FAX: 207–657–6912
E–Mail: mailbox@gorrillpalmer.com

Drawing Name: **Temporary Crosswalk Layout Plan**

Project: **OFFSITE ROADWAY IMPROVEMENTS FOR 84 MARGINAL WAY, PORTLAND, MAINE**

Figure No. 2

SANITARY STRUCTURES

STRUCTURE	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)
SMH #3	4'	11.90	1.75/8"(BLDG) 1.75/8"(BLDG)	1.50/8"(EX. 36" SAN.)

Key

- Jersey Barrier
- Six Ft. Fence
- Privacy Fence
- 1½" crushed stone
- Two 24' Gate (Man Gate)

Movable, Barrels will be Istalled Approx. 100' East of the East Entrance To Divert Traffic

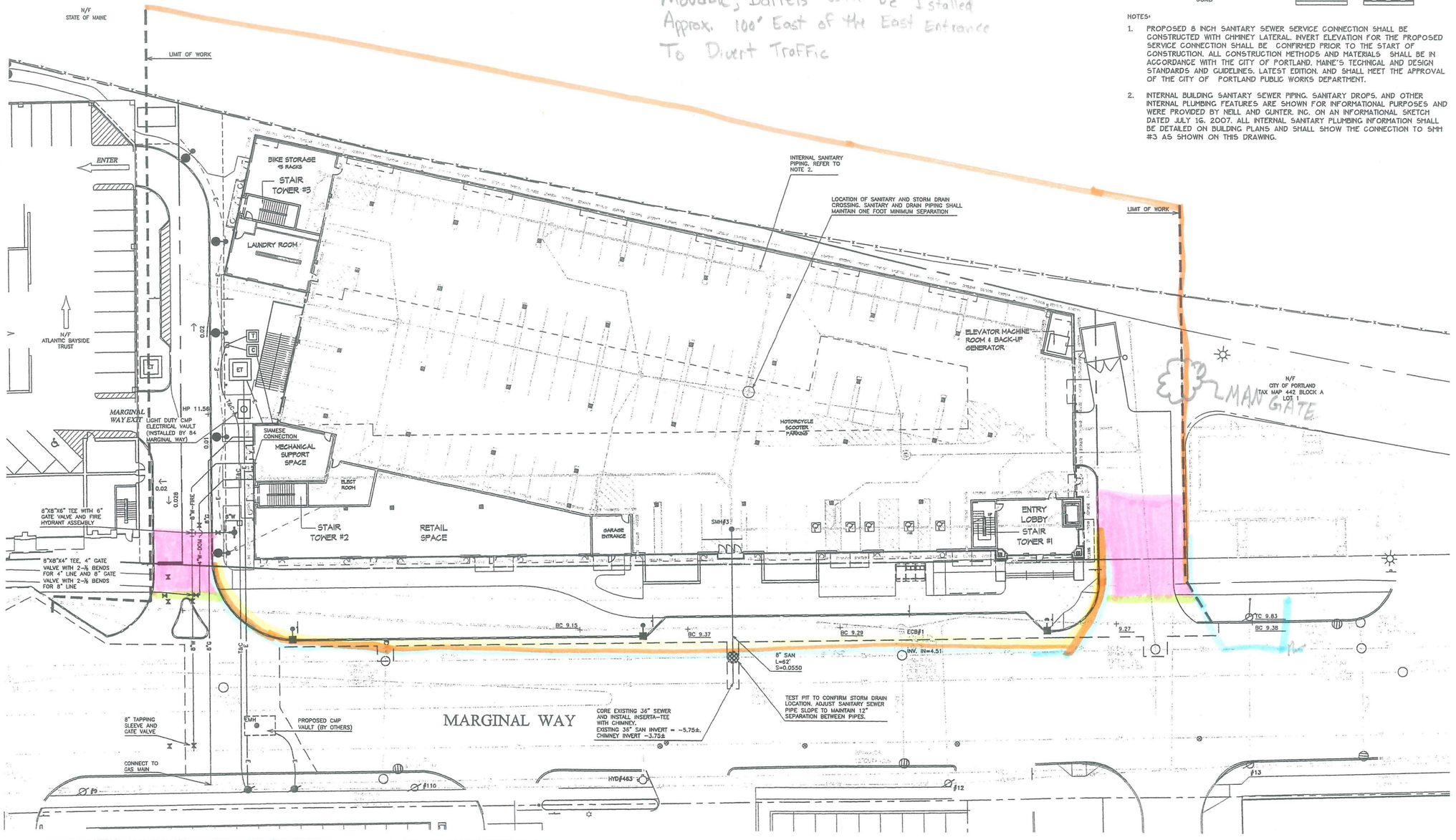
LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
MONUMENT FOUND	MON	
CONTOUR	10	10
SPOT ELEVATION	+80.43	+80.43
CATCHBASIN		
DRAIN INLET		
MANHOLE		
HYDRANT		
WATER VALVE		
UTILITY POLE		
TEST BORING		
WATER SERVICE	W	W
SEWER SERVICE	SS	SS

	EXISTING	PROPOSED
STORM DRAIN	SD	SD
COMBINED SEWER	CS	
ELECTRIC SERVICE	E	E
GAS SERVICE	G	G
TELEPHONE AND CABLE SERVICE		T+C
OVERHEAD WIRES	OHW	
SITE LIGHTING ELECTRIC		E
ELECTRIC TRANSORMER		ET
TELEPHONE PAD		T
CABLE PAD		C
LIGHT FIXTURE - STREET		
LIGHT FIXTURE - SITE		
LIGHT FIXTURE - BUILDING		
CURB		

NOTES:

1. PROPOSED 8 INCH SANITARY SEWER SERVICE CONNECTION SHALL BE CONSTRUCTED WITH CHIMNEY LATERAL. INVERT ELEVATION FOR THE PROPOSED SERVICE CONNECTION SHALL BE CONFIRMED PRIOR TO THE START OF CONSTRUCTION. ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND, MAINE'S TECHNICAL AND DESIGN STANDARDS AND GUIDELINES, LATEST EDITION, AND SHALL MEET THE APPROVAL OF THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT.
2. INTERNAL BUILDING SANITARY SEWER PIPING, SANITARY DROPS, AND OTHER INTERNAL PLUMBING FEATURES ARE SHOWN FOR INFORMATIONAL PURPOSES AND WERE PROVIDED BY NEILL AND GUNTER, INC. ON AN INFORMATIONAL SKETCH DATED JULY 16, 2007. ALL INTERNAL SANITARY PLUMBING INFORMATION SHALL BE DETAILED ON BUILDING PLANS AND SHALL SHOW THE CONNECTION TO SMH #3 AS SHOWN ON THIS DRAWING.



Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road, Gray, ME 04039
207-657-6910 FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way — Portland, Maine

Date: JUNE 15, 2007

Issued For: CONSTRUCTION

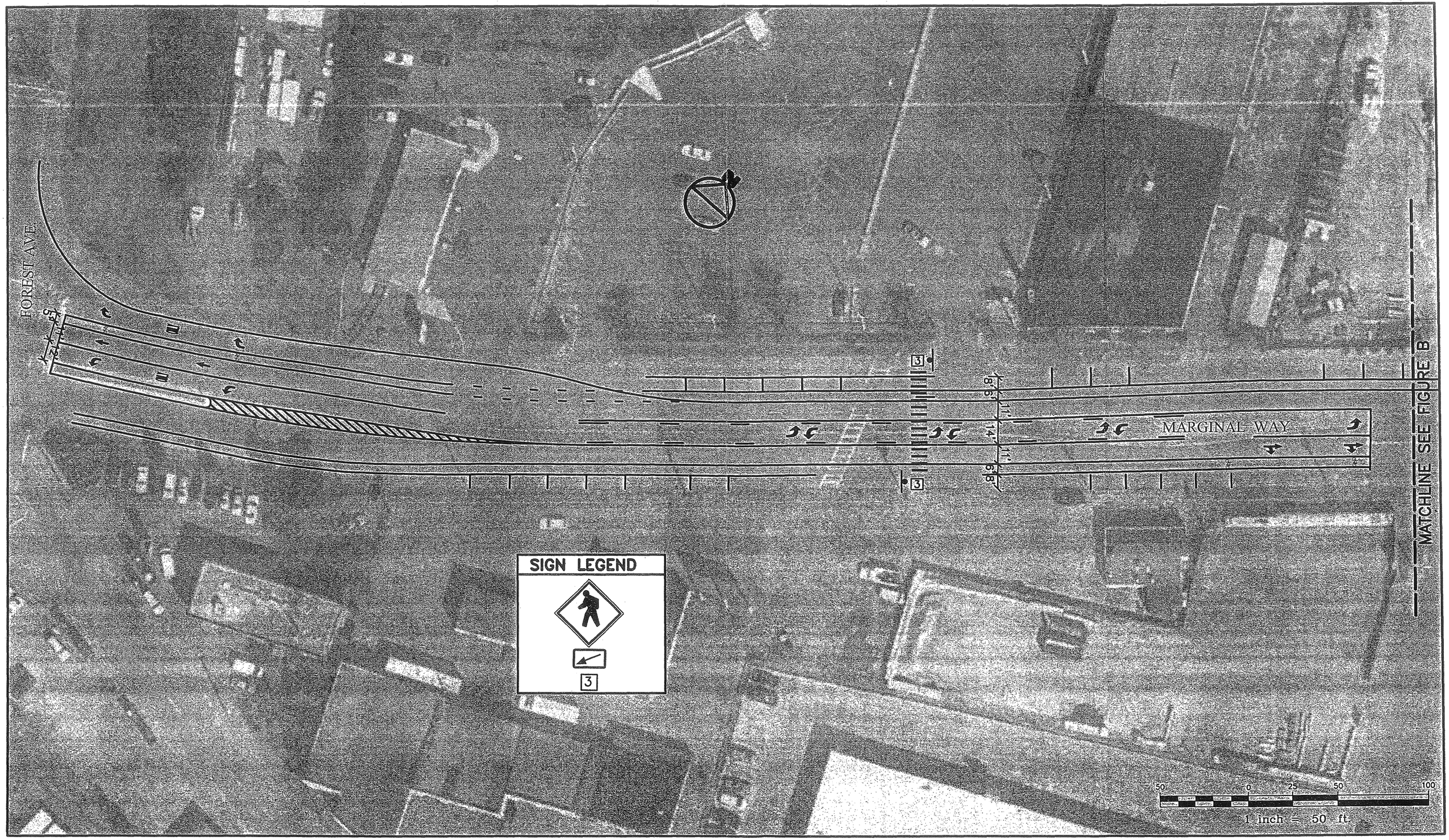
Revisions:
JUNE 26, 2007 - REVISED UTILITY AND ROOF DRAINAGE
JULY 17, 2007 - CONSTRUCTION DRAWINGS

Title: UTILITIES PLAN

Scale: 1"=20'
0 10 20 40 ft.

North:

Sheet No.: 4



Rev.	Date	Revision
-	-	-

Design: JJB	Date: AUG 2006
Draft: DB	Job No.: 1361
Checked: PAH	Scale: 1"=50'
File Name: 1361-pbase.dwg	

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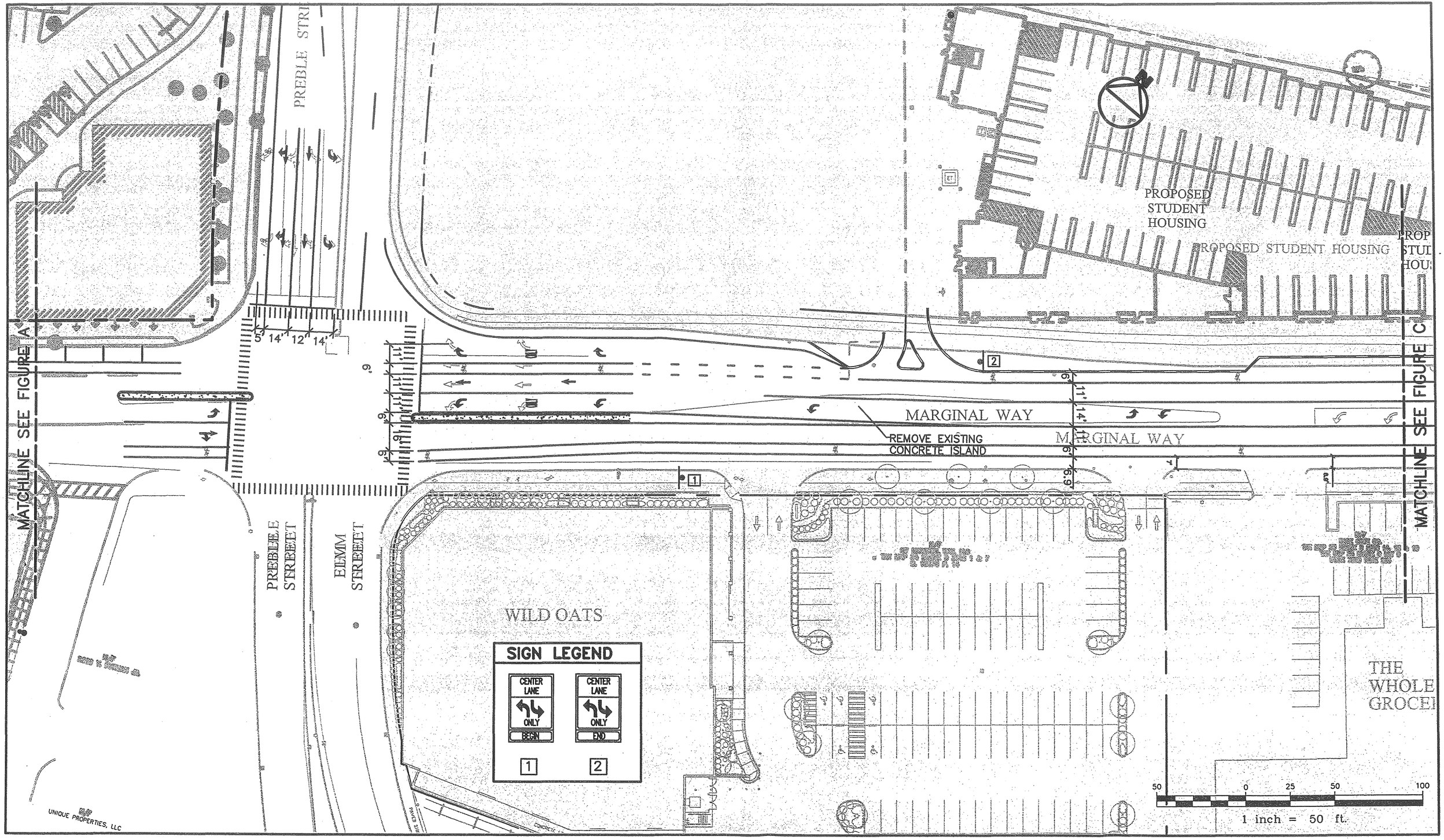
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912

Drawing Name: Conceptual Roadway Improvements Plan

Project: BAYSIDE VILLAGE-A STUDENT HOUSING COMPLEX
PORTLAND, MAINE

Figure No. A



Rev.	Date	Revision
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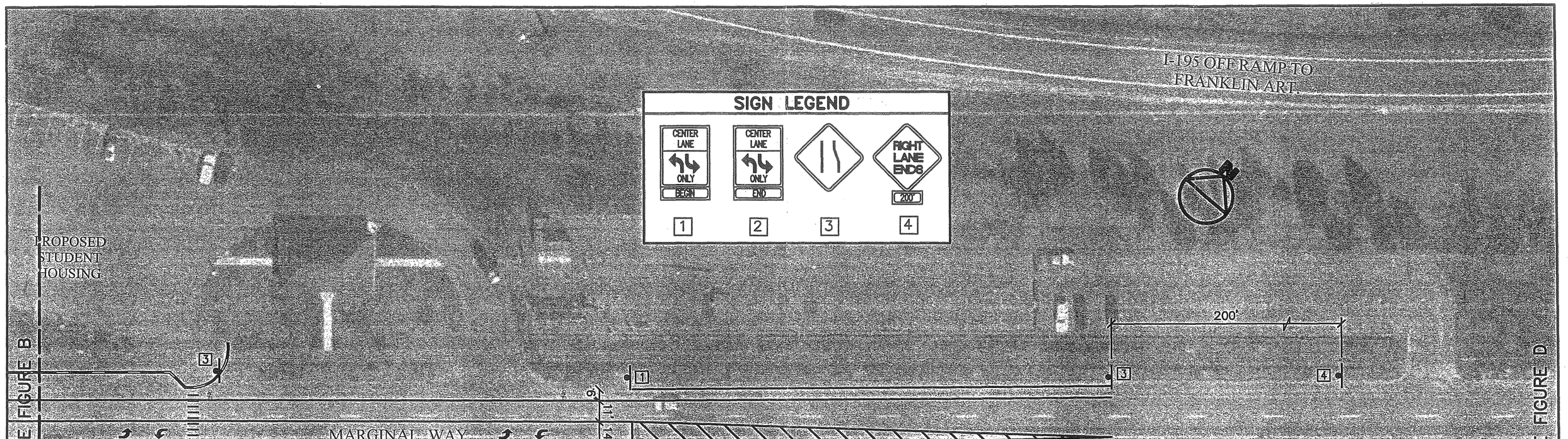
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE-A STUDENT HOUSING COMPLEX**
PORTLAND, MAINE

Figure No. **B**



Rev.	Date	Revision
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File Name: 1361-pbase.dwg	

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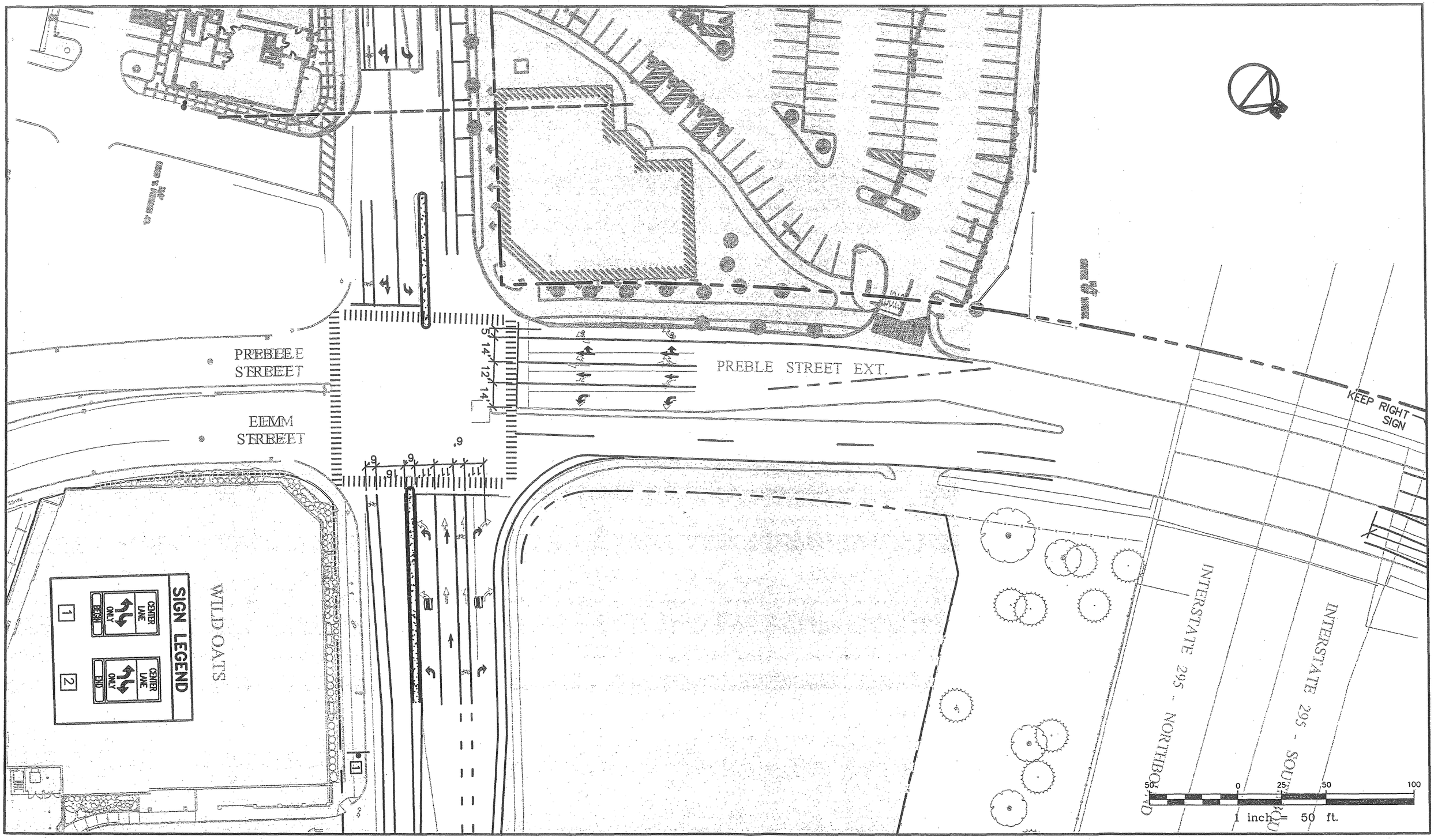
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE-A STUDENT HOUSING COMPLEX**
PORTLAND, MAINE

Figure No. **C**



Rev.	Date	Revision
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Design: JJB	Date: AUG 2006		
Draft: DB	Job No.: 1361		
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File Name: 1361-pbase.dwg			

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Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
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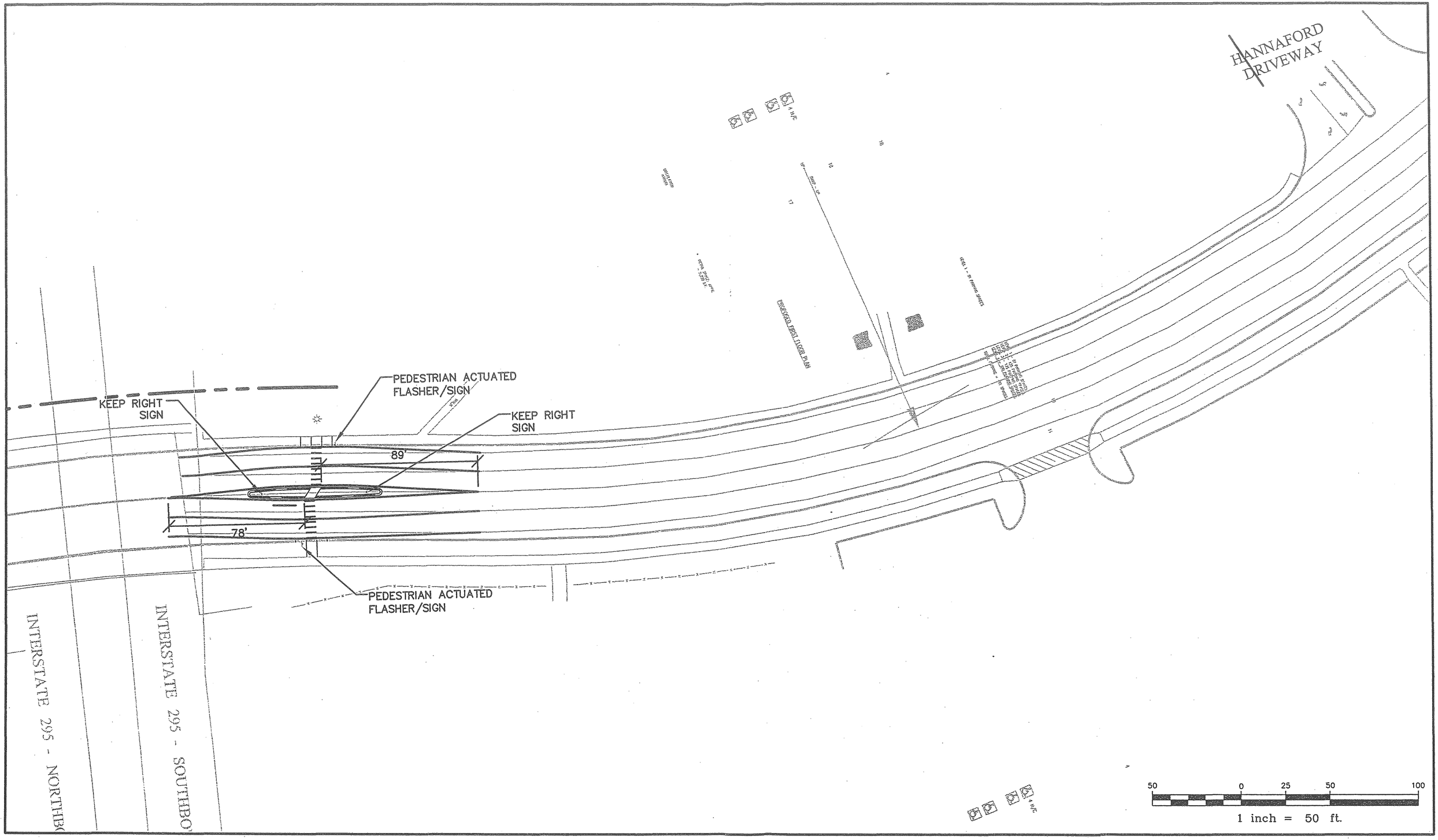
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE–A STUDENT HOUSING COMPLEX**
PORTLAND, MAINE

Figure No. **D**



Rev.	Date	Revision
-	-	-

Design: JJB	Date: AUG 2006
Draft: DB	Job No.: 1361
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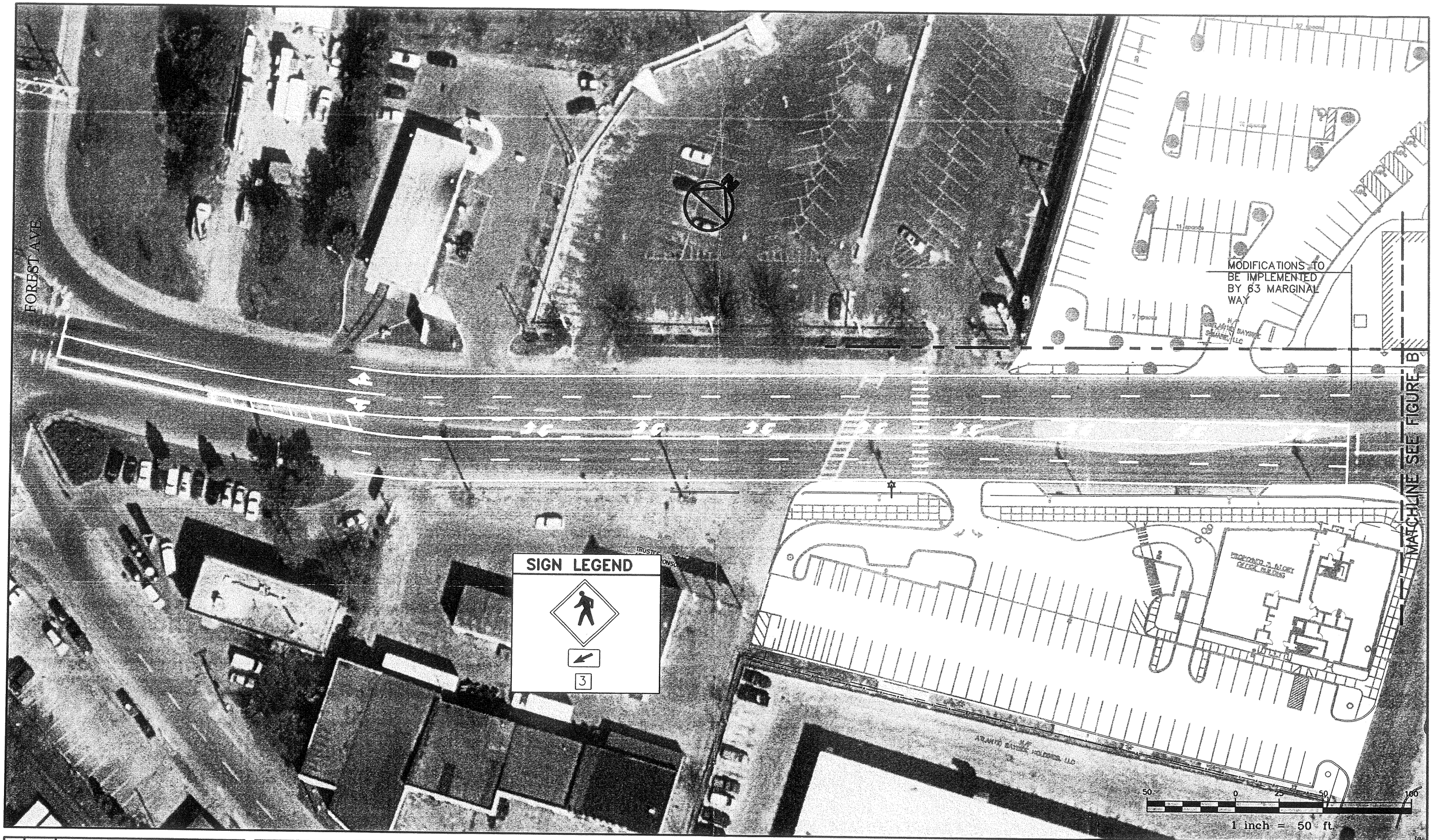
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE-A STUDENT HOUSING COMPLEX**
PORTLAND, MAINE

Figure No. *E*



Rev	Date	Revision
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Design: JJB	Date: AUG 2006
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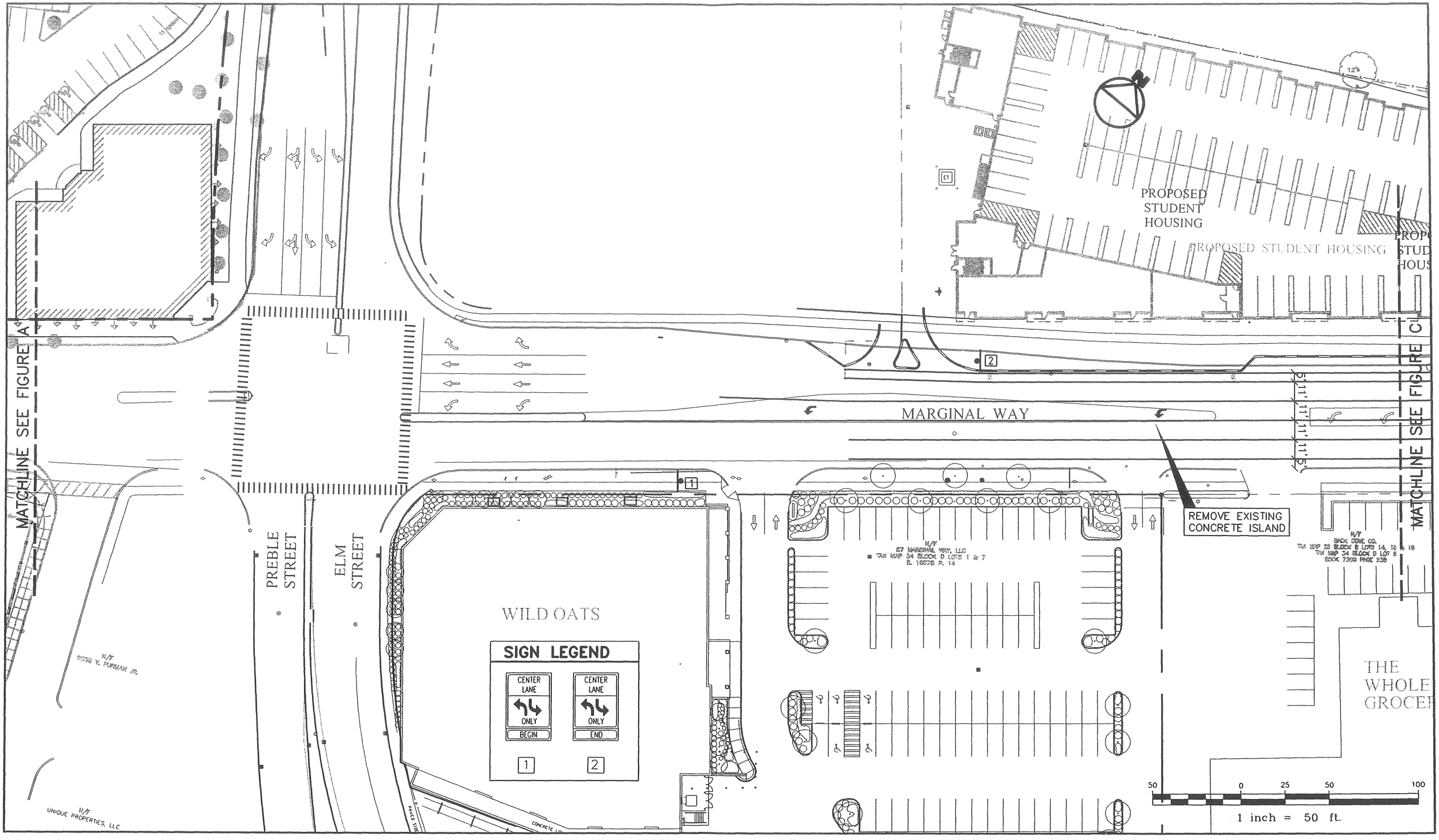
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: Conceptual Roadway Improvements Plan

Project: BAYSIDE VILLAGE–A STUDENT HOUSING COMPLEX
PORTLAND, MAINE

Figure No. *A*



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PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
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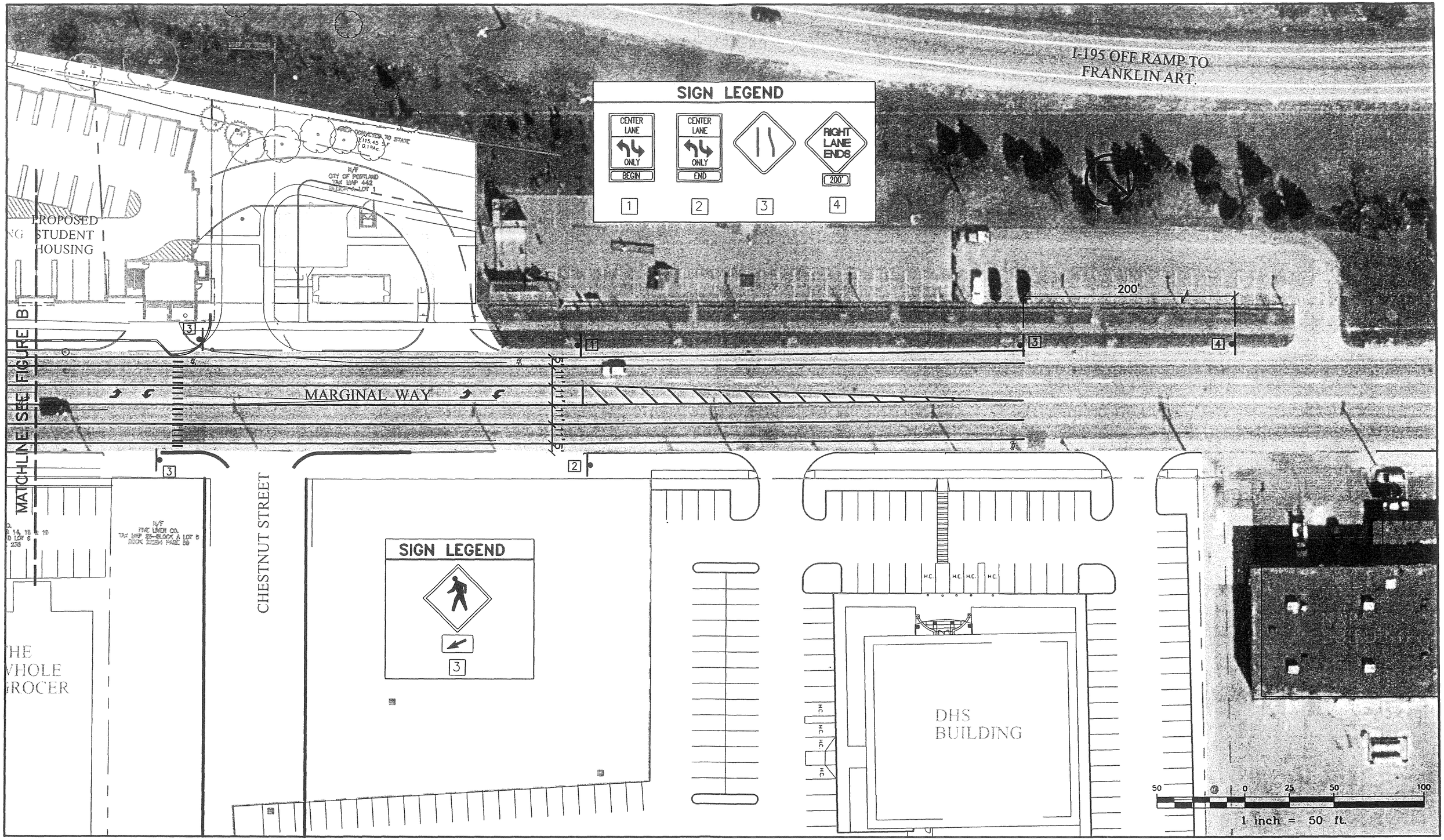
Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE–A STUDENT HOUSING COMPLEX**
PORTLAND, MAINE

Figure No. *B*



Rev	Date	Revision
-	-	-

Design: JJB	Date: AUG 2006
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GP Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE–A STUDENT HOUSING COMPLEX PORTLAND, MAINE**

Figure No. *C*

Rev.	Date	Revision
-	-	-

Design: JJB	Date: AUG 2006		
Draft: DB	Job No.: 1361		
Checked: PAH	Scale: 1"=50'		
File Name: 1361-pbase.dwg			

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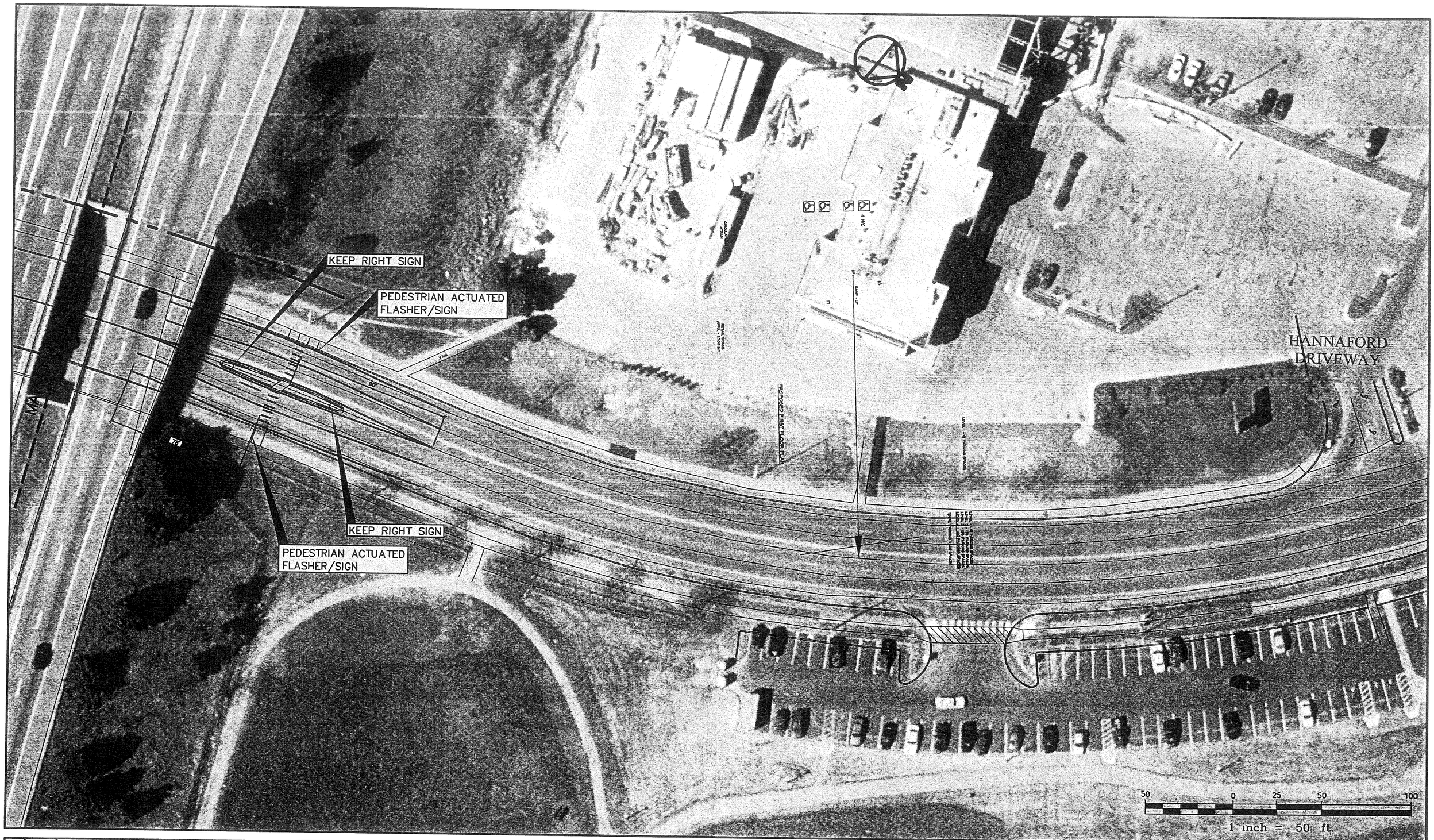
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE–A STUDENT HOUSING COMPLEX**
PORTLAND, MAINE

Figure No. *D*



Rev.	Date	Revision
-	-	-

Design: JJB	Date: AUG 2006
Draft: DB	Job No.: 1361
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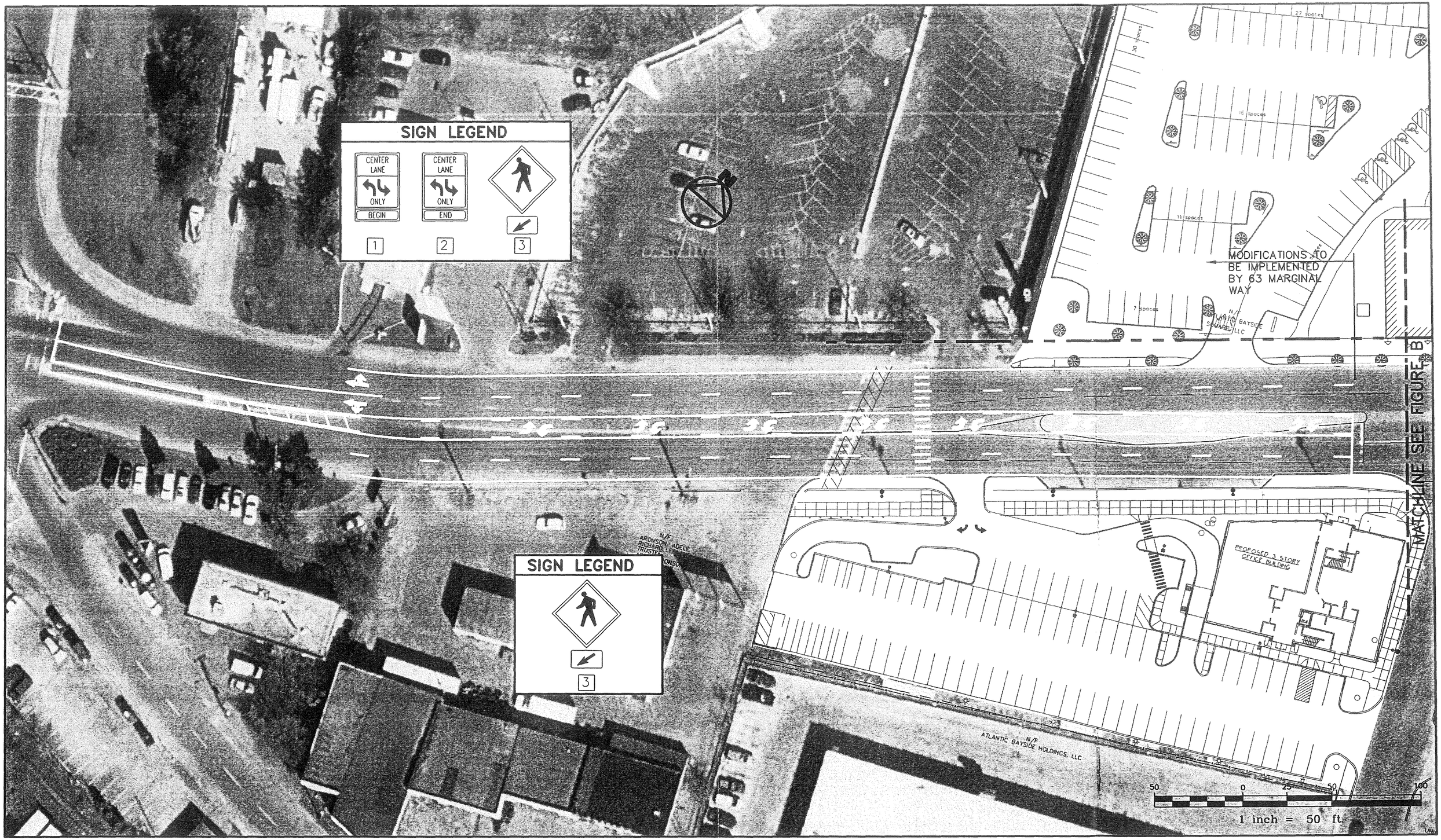
Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: Conceptual Roadway Improvements Plan

Project: BAYSIDE VILLAGE–A STUDENT HOUSING COMPLEX
PORTLAND, MAINE

Figure No. *E*



Rev	Date	Revision
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Design: JJB	Date: AUG 2006
Draft: ZRJ	Job No.: 1361.01
Checked: PAH	Scale: 1"=50'
File Name: 1361-01_pbase_ALT2.dwg	

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Traffic and Civil Engineering Services
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Drawing Name: Conceptual Roadway Improvements Plan

Project: BAYSIDE VILLAGE AND 84 MARGINAL WAY
PORTLAND, MAINE

Figure No. A

PROPOSED OFFICE BUILDING AND PARKING GARAGE

CAPITAL, L.L.C.

PROPOSED STUDENT HOUSING

PROPOSED STUDENT HOUSING

PREBLE STREET EXT.

7' 14' 12' 14'

6' 11' 11' 6' 11'

MARGINAL WAY

MATCHLINE SEE FIGURE A

MATCHLINE SEE FIGURE C

PREBLE STREET

ELM STREET

WILD OATS

N/F
ROSS Y. FURMAN JR

N/F
UNIQUE PROPERTIES, LLC

N/F
87 MARGINAL WAY, LLC
TAX MAP 34 BLOCK D LOTS 1 & 7
B. 19878 P. 14

N/F
BACK COVE CO.
TAX MAP 25 BLOCK B LOTS 14, 15 & 19
TAX MAP 34 BLOCK D LOT 6
BOOK 7300 PAGE 235

REMOVE EXISTING CONCRETE ISLAND

THE WHOLE GROCE

SIGN LEGEND

CENTER LANE ONLY BEGIN	CENTER LANE ONLY END
1	2

50 0 25 50 100

1 inch = 50 ft.

Rev.	Date	Revision
-	-	-

Design: JJB	Date: AUG 2006
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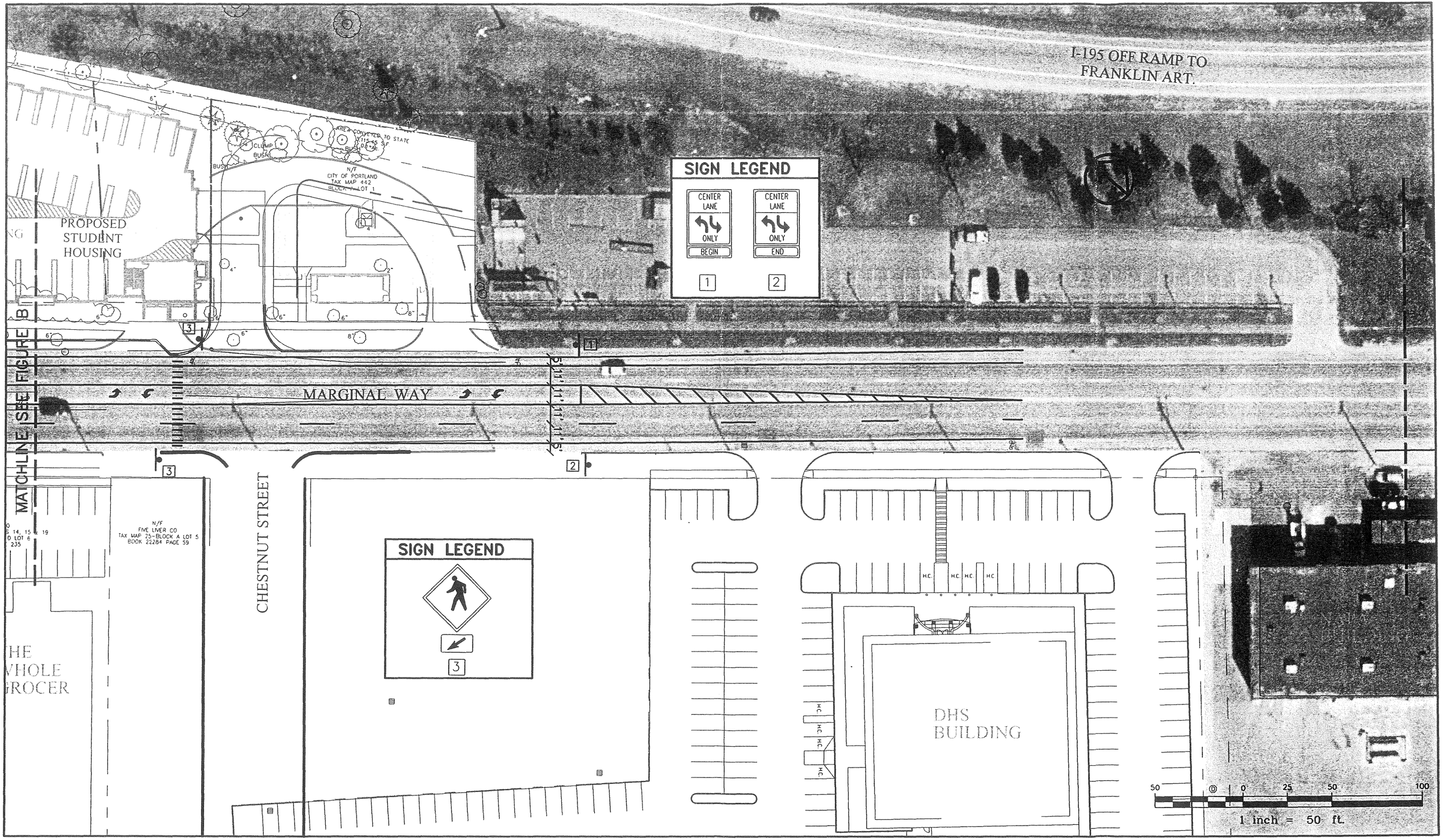
Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE AND 84 MARGINAL WAY PORTLAND, MAINE**

Figure No. *B*



Rev.	Date	Revision
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Design: JJB	Date: AUG 2006		
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Gray, ME 04039
207-657-6910
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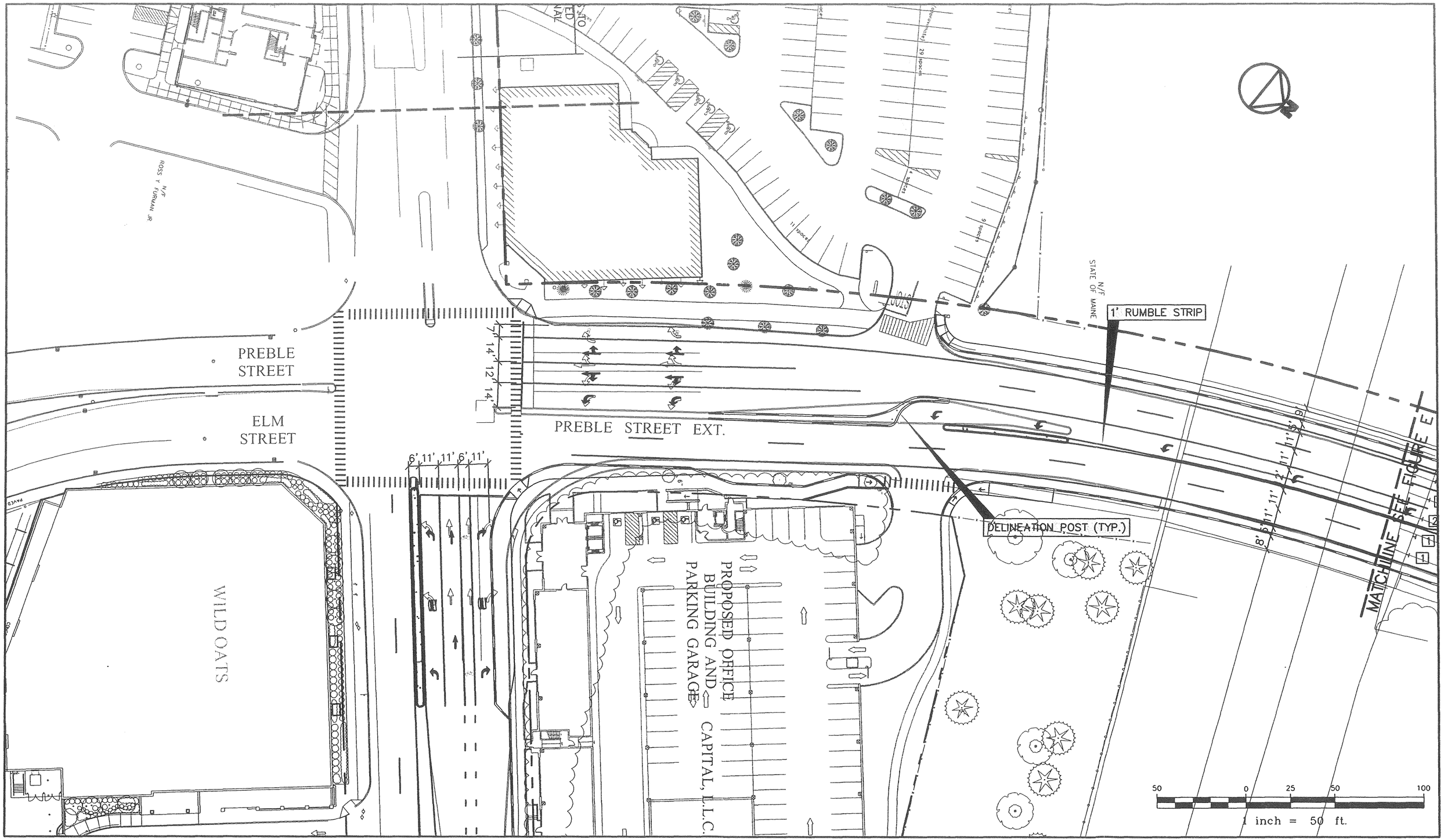
Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE AND 84 MARGINAL WAY PORTLAND, MAINE**

Figure No. **C**



-	-	-
Rev	Date	Revision

Design: JJB		Date: AUG 2006	
Draft: ZRJ		Job No.: 1361.01	
Checked: PAH		Scale: 1"=50'	
File Name: 1361-01_pbase_ALT2.dwg			

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PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
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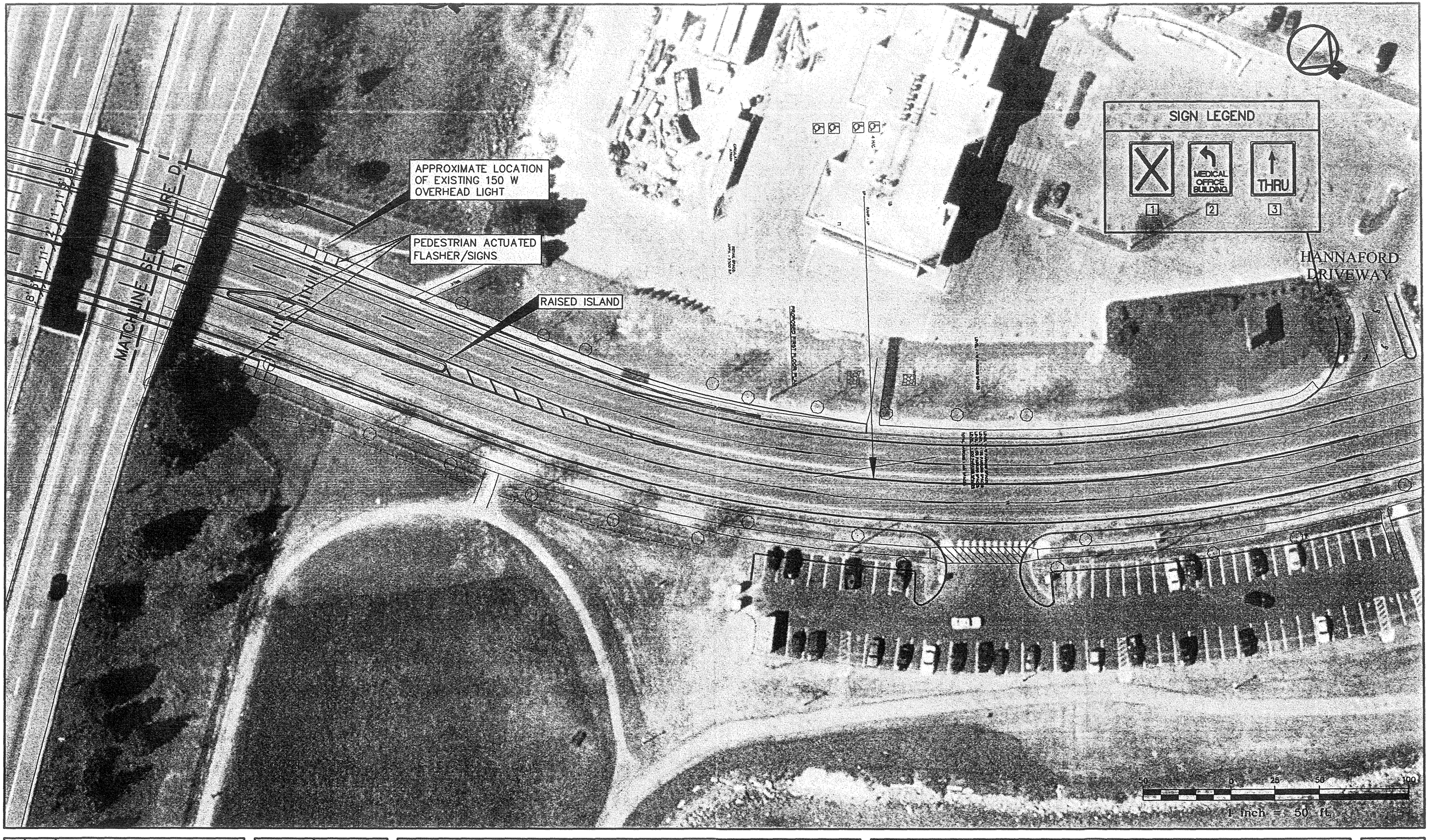
Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE AND 84 MARGINAL WAY PORTLAND, MAINE**

Figure No. *D*



Rev.	Date	Revision
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Design: JJB	Date: AUG 2006
Draft: ZRJ	Job No.: 1361.01
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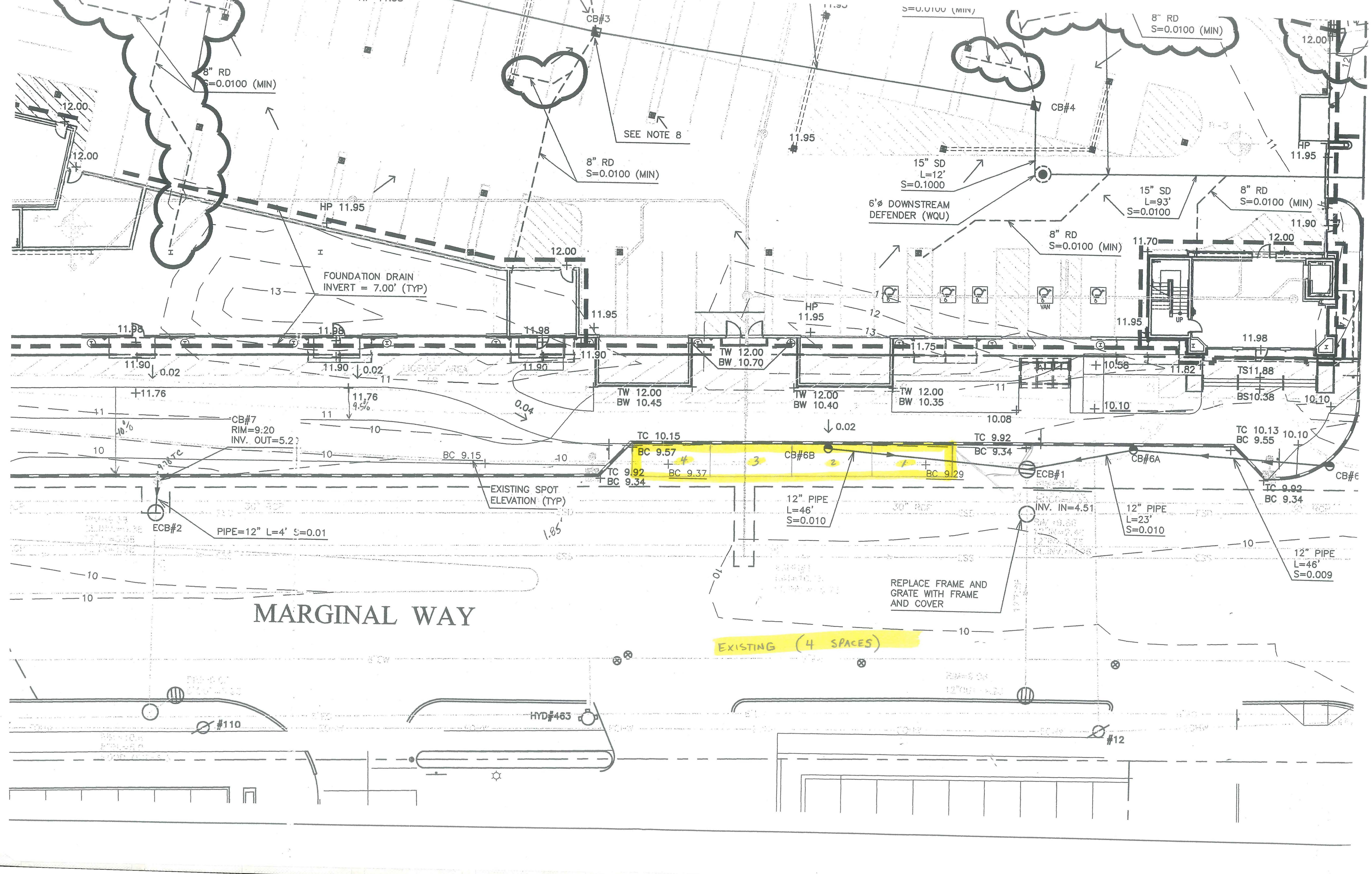
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

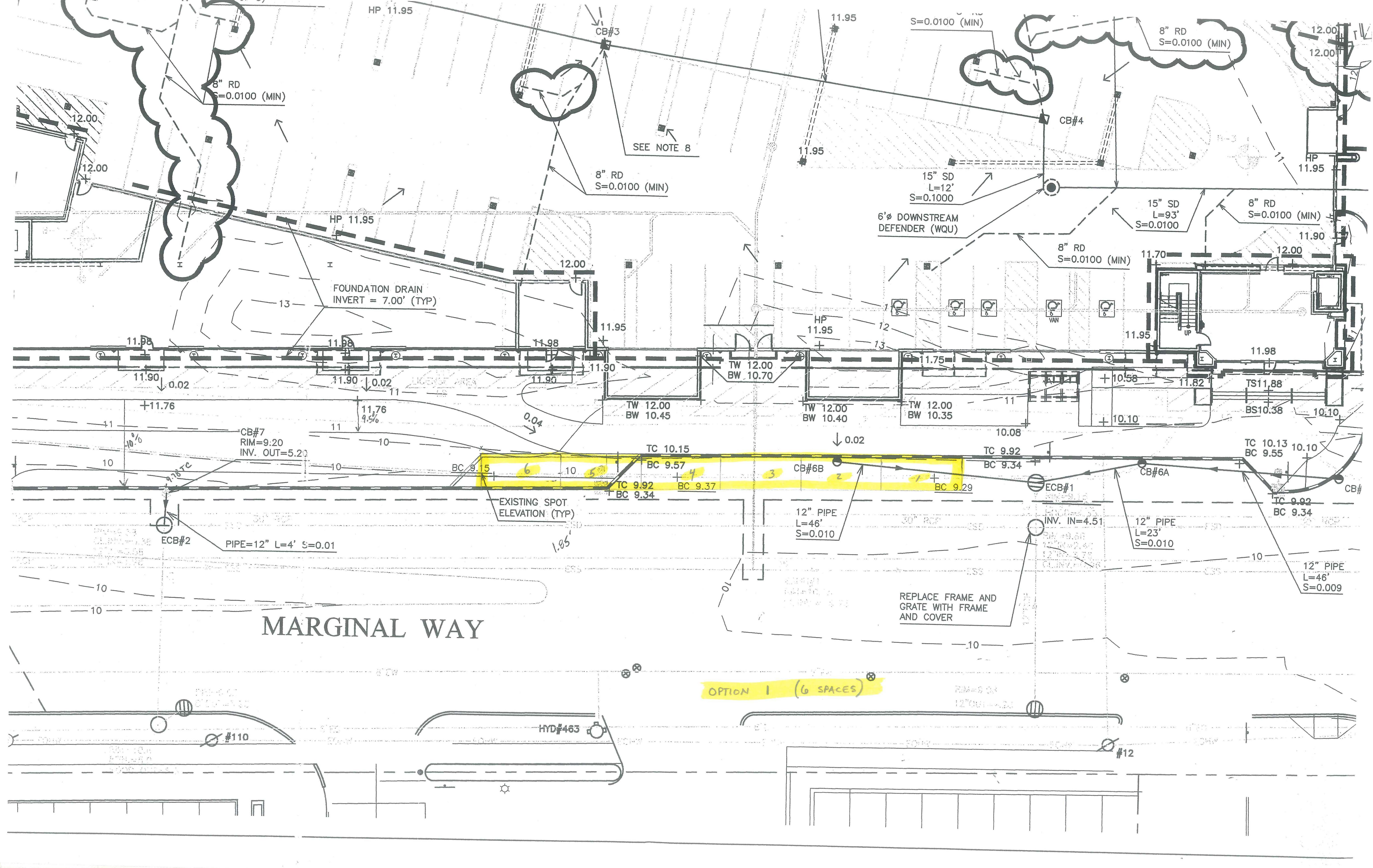
Drawing Name: **Conceptual Roadway Improvements Plan**

Project: **BAYSIDE VILLAGE AND 84 MARGINAL WAY PORTLAND, MAINE**

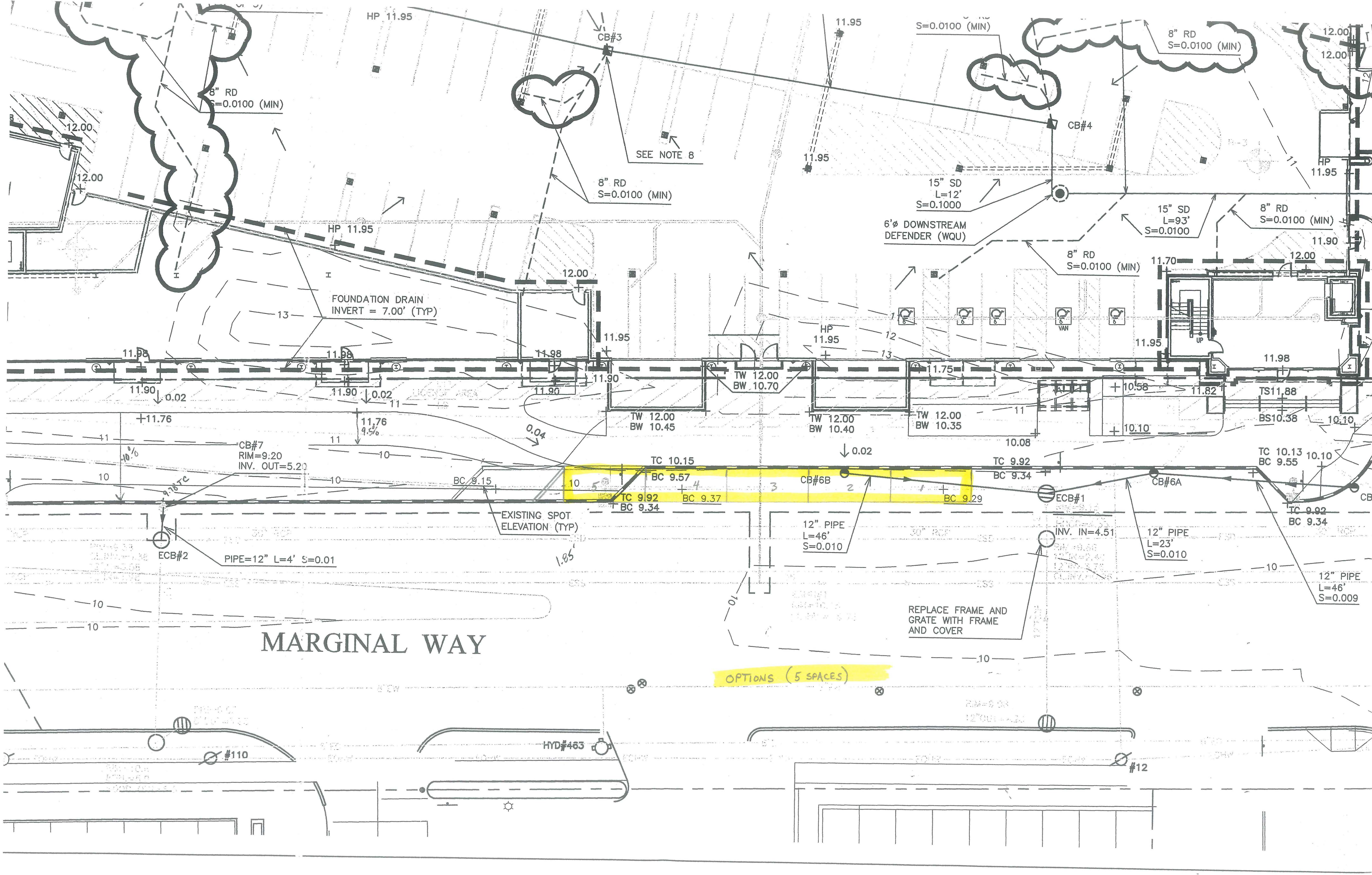
Figure No. **E**

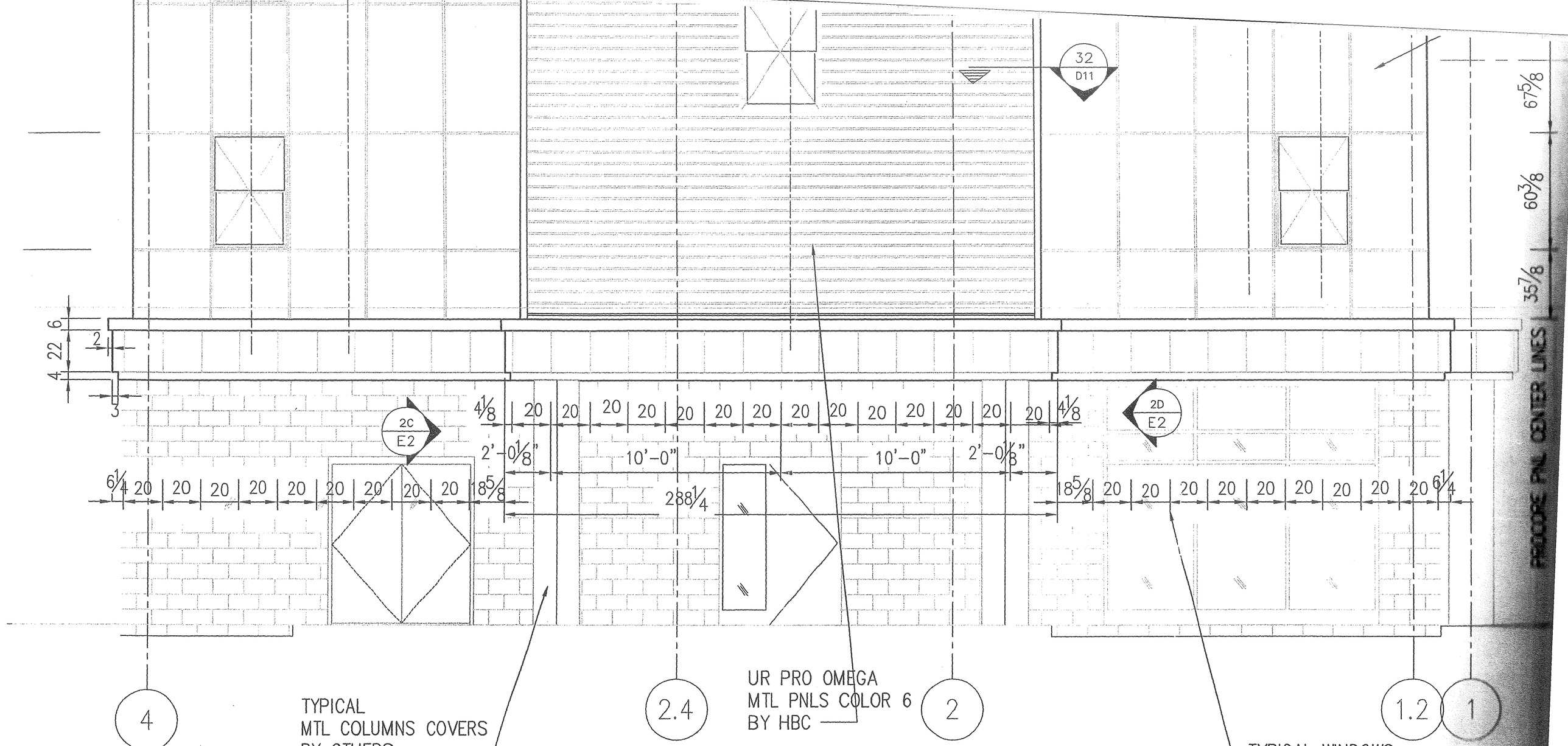


CB#3
8" RD S=0.0100 (MIN)
SEE NOTE 8
8" RD S=0.0100 (MIN)
11.95
CB#4
8" RD S=0.0100 (MIN)
15" SD L=12' S=0.1000
6'ø DOWNSTREAM DEFENDER (WQU)
15" SD L=93' S=0.0100
8" RD S=0.0100 (MIN)
HP 11.95
12.00
HP 11.95
8" RD S=0.0100 (MIN)
FOUNDATION DRAIN INVERT = 7.00' (TYP)
HP 11.95
TW 12.00 BW 10.70
TW 12.00 BW 10.45
TW 12.00 BW 10.40
TW 12.00 BW 10.35
CB#7 RIM=9.20 INV. OUT=5.2
TC 10.15 BC 9.57
CB#6B
TC 9.92 BC 9.34
BC 9.37
BC 9.29
ECB#1
CB#6A
TC 10.13 BC 9.55
TC 9.92 BC 9.34
EXISTING SPOT ELEVATION (TYP)
ECB#2
PIPE=12" L=4' S=0.01
12" PIPE L=46' S=0.010
12" PIPE L=23' S=0.010
12" PIPE L=46' S=0.009
INV. IN=4.51
REPLACE FRAME AND GRATE WITH FRAME AND COVER
MARGINAL WAY
EXISTING (4 SPACES)
HYD#463
#110
#12



HP 11.95
CB#3
11.95
S=0.0100 (MIN)
8" RD
S=0.0100 (MIN)
12.00
8" RD
S=0.0100 (MIN)
12.00
CB#4
SEE NOTE 8
11.95
12.00
8" RD
S=0.0100 (MIN)
15" SD
L=12'
S=0.1000
HP
11.95
HP 11.95
6'ø DOWNSTREAM
DEFENDER (WQU)
15" SD
L=93'
S=0.0100
8" RD
S=0.0100 (MIN)
11.90
8" RD
S=0.0100 (MIN)
11.70
12.00
12.00
FOUNDATION DRAIN
INVERT = 7.00' (TYP)
HP
11.95
VAN
UP
11.95
11.95
11.98
11.98
11.98
11.75
11.98
11.90
11.90
0.02
11.90
0.02
11.90
TW 12.00
BW 10.70
10.58
11.82
TS11.88
11.76
11.76
TW 12.00
BW 10.45
TW 12.00
BW 10.40
TW 12.00
BW 10.35
BS10.38
10.10
10.10
10.08
0.04
CB#7
RIM=9.20
INV. OUT=5.20
0.02
TC 10.15
BC 9.57
TC 9.92
BC 9.34
TC 10.13
BC 9.55
10.10
BC 9.15
6
5
4
3
CB#6B
2
1
TC 9.92
BC 9.34
BC 9.37
BC 9.29
ECB#1
CB#6A
TC 9.92
BC 9.34
CB#
EXISTING SPOT
ELEVATION (TYP)
12" PIPE
L=46'
S=0.010
INV. IN=4.51
12" PIPE
L=23'
S=0.010
12" PIPE
L=46'
S=0.009
ECB#2
PIPE=12" L=4' S=0.01
REPLACE FRAME AND
GRATE WITH FRAME
AND COVER
MARGINAL WAY
OPTION 1 (6 SPACES)
#110
HYD#463
#12


HP 11.95
CB#3
11.95
S=0.0100 (MIN)
8" RD
S=0.0100 (MIN)
12.00
8" RD
S=0.0100 (MIN)
12.00
12.00
CB#4
SEE NOTE 8
11.95
HP
11.95
8" RD
S=0.0100 (MIN)
15" SD
L=12'
S=0.1000
6'ø DOWNSTREAM
DEFENDER (WQU)
15" SD
L=93'
S=0.0100
8" RD
S=0.0100 (MIN)
11.90
HP 11.95
8" RD
S=0.0100 (MIN)
11.70
12.00
12.00
FOUNDATION DRAIN
INVERT = 7.00' (TYP)
13
11.95
HP
11.95
VAN
11.95
UP
11.98
11.98
11.98
11.98
11.90
11.75
TW 12.00
BW 10.70
10.58
11.82
TS11.88
11.90
11.90
11.90
0.02
0.02
11
11.76
11.76
TW 12.00
BW 10.45
TW 12.00
BW 10.40
TW 12.00
BW 10.35
BS10.38
10.10
10.10
11
0.04
10.08
CB#7
RIM=9.20
INV. OUT=5.20
11
10
0.02
TC 10.15
TC 9.92
BC 9.34
TC 10.13
BC 9.55
10.10
10
10
BC 9.15
10
BC 9.57
CB#6B
CB#6A
TC 9.92
BC 9.34
BC 9.37
BC 9.29
ECB#1
TC 9.92
BC 9.34
CB#
EXISTING SPOT
ELEVATION (TYP)
INV. IN=4.51
ECB#2
PIPE=12" L=4' S=0.01
12" PIPE
L=46'
S=0.010
12" PIPE
L=23'
S=0.010
10
12" PIPE
L=46'
S=0.009
10
10
REPLACE FRAME AND
GRATE WITH FRAME
AND COVER
MARGINAL WAY
10
OPTIONS (5 SPACES)
HYD#463
#110
#12



2 WEST ELEV @ LINE AA

SCALE: 1/4" = 1'-0"

B/A3.01

SEE DWG E29 FOR

ROOF & WALL CENTER LINES

ACCENT BAND SEAM LAYOUT

ATTACHMENT A-1

BAYSIDE VILLAGE

A STUDENT HOUSING COMPLEX

Portland, Maine
Cumberland County

APPLICANT AND DEVELOPER

SOUTHERN MAINE STUDENT HOUSING, LLC
247 COMMERCIAL STREET
ROCKPORT, MAINE 04856

PREPARED BY:

LANDSCAPE ARCHITECT:
MITCHELL & ASSOCIATES
70 CENTER STREET
PORTLAND, MAINE 04101
PHONE: 207.774.4427
FAX: 207.874.2460
CONTACT: BOB METCALF
E-MAIL: RMETCALF@MITCHELLASSOCIATES.BIZ

CIVIL AND TRAFFIC ENGINEERS:
GORRILL-PALMER CONSULTING ENGINEERS, INC.
P.O. BOX 1237
15 SHAKER ROAD
GRAY, MAINE 04039
PHONE: 207.657.6910
FAX: 207.657.6912
CONTACT: WILL HASKELL (CIVIL ENGINEER)
E-MAIL: WHASKELL@GORRILLPALMER.COM
CONTACT: TOM GORRILL (TRAFFIC ENGINEER)
E-MAIL: TGORRILL@GORRILLPALMER.COM

ARCHITECT:
CWS ARCHITECTS
434 CUMBERLAND AVENUE
PORTLAND, MAINE 04101
TEL: 207.774.4441
FAX: 207.774.4016
CONTACT: BEN WALTER
E-MAIL: BWALTER@CWSARCH.COM

SURVEYOR
OWEN HASKELL, INC.
16 CASCO STREET
PORTLAND, MAINE 04101
PHONE: 207.774.0424
FAX: 207.774.0511
CONTACT: JOHN SWAN

GEOTECHNICAL:
S.W. COLE ENGINEERING, INC.
286 PORTLAND ROAD
GRAY, MAINE 04039
TEL: 207.657.2866
FAX: 207.657.2840
CONTACT: ANDREW R. SIMMONS, P.E.

UTILITIES:

ELECTRIC:
CENTRAL MAINE POWER
ELECTRICAL DISTRIBUTION ENGINEERING
162 CANCO ROAD
PORTLAND, MAINE 04103
PHONE: 207.842.2367
CONTACT: JAMIE COUGH
E-MAIL: JAMES.COUGH@CMPCO.COM

TELEPHONE:
VERIZON
ENGINEERING, FLOOR 2
5 DAVIS FARM ROAD
PORTLAND, MAINE 04103
PHONE: 207.797.1842
FAX: 207.797.1098
CONTACT: SUE SARRETTE
E-MAIL: SUSANM.SARRETTE@VERIZON.COM

WATER:
PORTLAND WATER DISTRICT
225 DOUGLASS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104-3553
PHONE: 207.761.8310
FAX: 207.879.5837
CONTACT: JIM PANDISCIO
E-MAIL: JPANDISCIO@PWD.ORG

SEWER:
CITY OF PORTLAND PUBLIC WORKS DEPARTMENT
55 PORTLAND STREET
PORTLAND, MAINE 04101
PHONE: 207.874.8832
FAX: 207.874.8816
CONTACT: FRANK BRANCELY

CABLE:
TIME WARNER CABLE OF MAINE
P.O. BOX 8180
PORTLAND, MAINE 04102
TEL: 207.253.2325
CONTACT: COLIN CHASE
E-MAIL: COLIN.CHASE@TWCABLE.COM

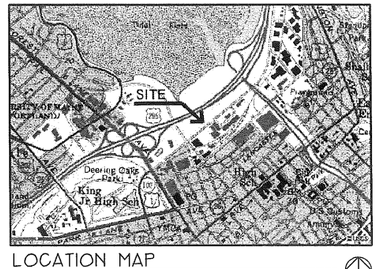
NATURAL GAS:
NORTHERN UTILITIES
325 WEST ROAD
P.O. BOX 508
PORTSMOUTH, NEW HAMPSHIRE 03802-0508
TEL: 800.552.3047 x5377
CONTACT: PAT DYER
E-MAIL: PDYER@NISOURCE.COM

PERMITS:

TYPE OF PERMIT:	GOVERNING BODY:	STATUS:
SUBDIVISION APPLICATION	CITY OF PORTLAND 389 CONGRESS STREET PORTLAND, MAINE 04101 TEL: 207.874.8725 CONTACT: RICK KNOWLAND, SENIOR PLANNER E-MAIL: RWK@PORTLANDMAINE.GOV	SUBMITTED: JULY 11, 2006 PLANNING BOARD WORKSHOP: JULY 25, 2006 PLANNING BOARD WORKSHOP: SEPT. 12, 2006
SITE PLAN APPLICATION	CITY OF PORTLAND 389 CONGRESS STREET PORTLAND, MAINE 04101 TEL: 207.874.8725 CONTACT: RICK KNOWLAND, SENIOR PLANNER E-MAIL: RWK@PORTLANDMAINE.GOV	SUBMITTED: JULY 11, 2006 PLANNING BOARD WORKSHOP: JULY 25, 2006 PLANNING BOARD WORKSHOP: SEPT. 12, 2006
TRAFFIC MOVEMENT PERMIT	CITY OF PORTLAND 389 CONGRESS STREET PORTLAND, MAINE 04101 TEL: 207.871.1785 CONTACT: TOM ERRICO, REVIEW ENGINEER E-MAIL: TERRICO@WILBERSMITH.COM	SUBMITTED: JULY 11, 2006 SCOPING MEETING: AUG. 17, 2006

SHEET INDEX:

SHEET	CP	COVER SHEET
SHEET	1	EXISTING CONDITIONS AND DEMOLITION PLAN
SHEET	2	LAYOUT AND LIGHTING PLAN
SHEET	3	GRADING, DRAINAGE AND UTILITIES PLAN
SHEET	4	PLANTING PLAN
SHEET	5	EROSION AND SEDIMENTATION CONTROL PLAN
SHEET	6	SITE DETAILS
SHEET	7	RESERVED
SHEET	8	UTILITY AND DRAINAGE DETAILS
SHEET	9	UTILITY AND DRAINAGE DETAILS
SHEET	10	UTILITY AND DRAINAGE DETAILS
SHEET	11	EROSION AND SEDIMENTATION CONTROL DETAILS AND NOTES
SHEET	A1.01	OVERALL FLOOR PLAN - LOWER LEVEL
SHEET	A1.02	OVERALL FLOOR PLAN - FIRST FLOOR
SHEET	A1.03	OVERALL FLOOR PLAN - SECOND FLOOR (TYPICAL OF FLOORS 2 THRU 4)
SHEET	A3.01	OVERALL BUILDING ELEVATIONS
SHEET	A3.02	OVERALL BUILDING ELEVATIONS
SHEET	A3.03	OVERALL BUILDING ELEVATIONS



LOCATION MAP
NOT TO SCALE

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road
Gray, ME 04039
FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date:
JULY 11, 2006

Issued For:
PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

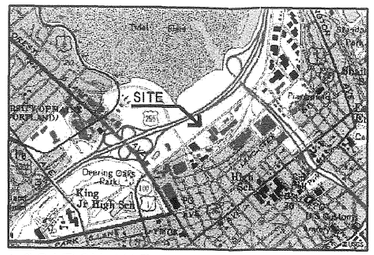
Revisions:
August 22, 2006 - Per Planning Board Comments

Title:
COVER PAGE

Scale:

North:

Sheet No.:
CP



A-2

LOCATION MAP

NOT TO SCALE

LEGEND

	EXISTING
PROPERTY LINE	— — —
MONUMENT FOUND	■ MON
CONTOUR	70
CATCHBASIN	⊖
MANHOLE	○
HYDRANT	-○-
WATER VALVE	⊗
UTILITY POLE	-○-
LIGHT POLE	☼
WATER SERVICE	—W—
SEWER SERVICE	—ESS—
STORM DRAIN	—ESD—
GAS SERVICE	—G—
OVERHEAD WIRES	—OHW—
GUARD RAIL	o—o—o
SIGN	⊥
SHRUBLINE	⌒⌒⌒
TEST BORING	⊕

NOTES:

1. OWNER OF RECORD: CITY OF PORTLAND.
CCRD 1797/446
2. PARCEL IS SHOWN AS LOT 1 BLOCK B ON CITY OF PORTLAND ASSESSORS TAX MAP 34 A.
3. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION.
4. ELEVATIONS BASED ON NGVD 1929.
5. OWEN HASKELL, INC. SURVEY DOES NOT INCLUDE DATA BEHIND CURBLINE TO THE SOUTH OF MARGINAL WAY AND TO THE WEST OF PREBLE STREET EXTENSION. THIS DATA IS APPROXIMATE AND HAS BEEN ADDED TO THESE SITE PLANS FOR CONTEXT INFORMATION.

PLAN REFERENCES:

1. "BOUNDARY SURVEY OF PROPERTY ALONG MARGINAL WAY AND PREBLE STREET" PREPARED BY PORTLAND DPW ENGINEERING SECTION, DATED DECEMBER 10, 2003.
2. "BOUNDARY + TOPOGRAPHIC SURVEY" ON MARGINAL WAY, PORTLAND MAINE MADE FOR MITCHELL + ASSOCIATES, DATED MARCH 11, 2005.

CERTIFICATION:

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

DATE ____________

____
JOHN W. SWAN, PLS NO. 1038

Prepared For:
Applicant:

SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:

MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer
Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date:
JULY 11, 2006

Issued For:
PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title:
EXISTING CONDITIONS AND DEMOLITION PLAN

Scale: 1"=30'
0 10 20 30 60 ft.

North:

Sheet No.:
1

EASEMENTS

No.	Delta	Radius	Arc Length	Chord Length	Chord Bearing
C1	00°40'42"	3040.0900	35.9920	35.9920	N62°30'12"E
C2	00°05'31"	11569.1600	18.5804	18.5804	N63°22'39"E

No.	Bearing	Distance
L1	S49°01'08"W	35.0000'
L2	N49°01'08"E	20.0000'
L3	N40°58'52"W	17.0000'
L4	S52°26'29"W	38.0679'

BUILDING ACCESS LEGEND

- PUBLIC ACCESS (A)
- RESTRICTED ACCESS - RESIDENTS ONLY (B)
- RESTRICTED ACCESS - BUILDING OWNER ONLY (C)
- EMERGENCY EGRESS ONLY (D)

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
MONUMENT FOUND	MON	
CATCHBASIN		
MANHOLE		
HYDRANT		
WATER VALVE		
UTILITY POLE		
ELECTRIC TRANSFORMER		ET
TELEPHONE PAD		T
CABLE PAD		C
LIGHT FIXTURE - STREET		
LIGHT FIXTURE - SITE		
LIGHT FIXTURE - BUILDING		
CURB		

CITY OF PORTLAND NOTES

1. LANDSCAPING SHALL MEET THE "ARBORICULTURAL 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. APPROVAL OR THE PLANNING AUTHORITY OF 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 POWERLINE UTILITIES SERVING THE BUILDING 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 CONTRUCTION: BEST MANAGEMENT PRACTICES PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003, OR LATEST EDITION. (NOTE: THE SITE PLAN SHOULD 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 WORK'S 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 PRECONSTUCTION 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. REGRADING 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.

GENERAL NOTES

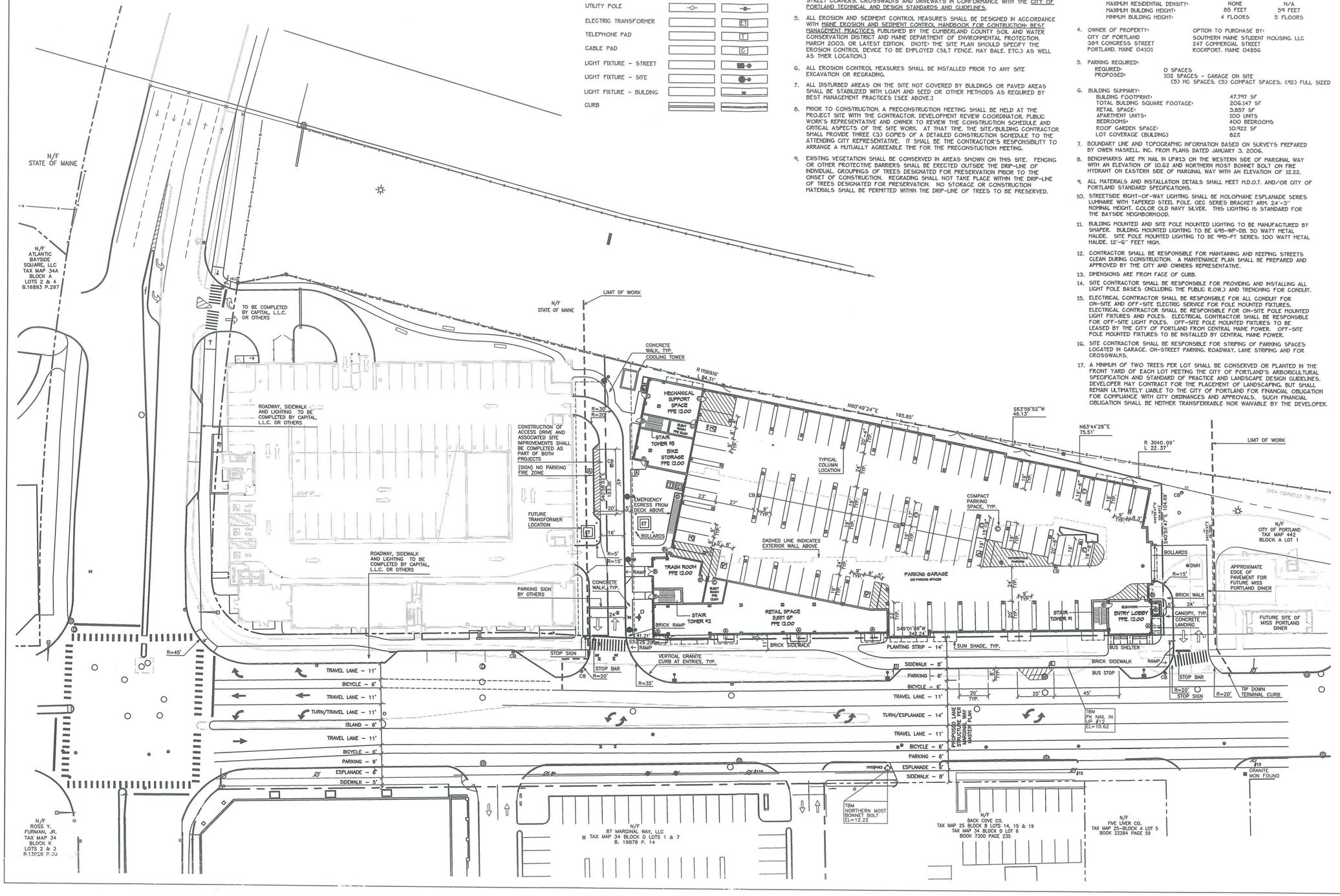
1. TOTAL SITE AREA:
   SOUTHERN MAINE STUDENT HOUSING, LLC: 57,887 SF (1.33 ACRES)
   CAPITAL, LLC: 59,577 SF (1.37 ACRES)
   117,464 SF (2.70 ACRES)
2. ZONING DISTRICT: B-7 MIXED DEVELOPMENT DISTRICT ZONE
3. SPACE AND BULK REQUIREMENTS:

	B-7	PROPOSED
MINIMUM LOT SIZE:	NONE	1.33 ACRES
MINIMUM FRONTAGE:	NONE	383.45 FEET
MINIMUM FRONT SETBACK:	NONE	0 FEET
MINIMUM SIDE SETBACK:	NONE	0 FEET
MINIMUM REAR SETBACK:	NONE	4 FEET
MAXIMUM STREET SETBACK:	10 FEET	3 FEET
MAXIMUM LOT COVERAGE:	100%	82%
MAXIMUM RESIDENTIAL DENSITY:	NONE	N/A
MAXIMUM BUILDING HEIGHT:	85 FEET	54 FEET
MINIMUM BUILDING HEIGHT:	4 FLOORS	5 FLOORS

4. OWNER OF PROPERTY: CITY OF PORTLAND, 389 CONGRESS STREET, PORTLAND, MAINE 04101
   OPTION TO PURCHASE BY: SOUTHERN MAINE STUDENT HOUSING, LLC, 247 COMMERCIAL STREET, ROCKPORT, MAINE 04856
5. PARKING REQUIRED: REQUIRED: 0 SPACES; PROPOSED: 102 SPACES - GARAGE ON SITE (5) HC SPACES, (5) COMPACT SPACES, (92) FULL SIZED
6. BUILDING SUMMARY:

BUILDING FOOTPRINT:	47,797 SF
TOTAL BUILDING SQUARE FOOTAGE:	206,147 SF
RETAIL SPACE:	3,857 SF
APARTMENT UNITS:	100 UNITS
BEDROOMS:	400 BEDROOMS
ROOF GARDEN SPACE:	10,922 SF
LOT COVERAGE (BUILDING)	82%

7. BOUNDARY LINE AND TOPOGRAPHIC INFORMATION BASED ON SURVEYS PREPARED BY OWEN HASKELL, INC. FROM PLANS DATED JANUARY 3, 2006.
8. BENCHMARKS ARE PK NAIL IN UP#13 ON THE WESTERN SIDE OF MARGINAL WAY WITH AN ELEVATION OF 10.62 AND NORTHERN MOST BONNET BOLT ON FIRE HYDRANT ON EASTERN SIDE OF MARGINAL WAY WITH AN ELEVATION OF 12.22.
9. ALL MATERIALS AND INSTALLATION DETAILS SHALL MEET M.D.O.T. AND/OR CITY OF PORTLAND STANDARD SPECIFICATIONS.
10. STREETSIDE RIGHT-OF-WAY LIGHTING SHALL BE HOLOPHANE ESPLANADE SERIES LUMINAIRE WITH TAPERED STEEL POLE. OEG SERIES BRACKET ARM, 24'-3" NOMINAL HEIGHT. COLOR OLD NAVY SILVER. THIS LIGHTING IS STANDARD FOR THE BAYSIDE NEIGHBORHOOD.
11. BUILDING MOUNTED AND SITE POLE MOUNTED LIGHTING TO BE MANUFACTURED BY SHAPER. BUILDING MOUNTED LIGHTING TO BE G45-WP-DB, 50 WATT METAL HALIDE. SITE POLE MOUNTED LIGHTING TO BE 445-PT SERIES, 100 WATT METAL HALIDE, 12'-6" FEET HIGH.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND KEEPING STREETS CLEAN DURING CONSTRUCTION. A MAINTENANCE PLAN SHALL BE PREPARED AND APPROVED BY THE CITY AND OWNERS REPRESENTATIVE.
13. DIMENSIONS ARE FROM FACE OF CURB.
14. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL LIGHT POLE BASES (INCLUDING THE PUBLIC FLOW) AND TRENCHING FOR CONDUIT.
15. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONDUIT FOR ON-SITE AND OFF-SITE ELECTRIC SERVICE FOR POLE MOUNTED FIXTURES. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ON-SITE POLE MOUNTED LIGHT FIXTURES AND POLES. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE LIGHT POLES. OFF-SITE POLE MOUNTED FIXTURES TO BE LEASED BY THE CITY OF PORTLAND FROM CENTRAL MAINE POWER. OFF-SITE POLE MOUNTED FIXTURES TO BE INSTALLED BY CENTRAL MAINE POWER.
16. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR STRIPING OF PARKING SPACES LOCATED IN GARAGE, ON-STREET PARKING, ROADWAY, LANE STRIPING AND FOR CROSSWALKS.
17. A MINIMUM OF TWO TREES PER LOT SHALL BE CONSERVED OR PLANTED IN THE FRONT YARD OF EACH LOT MEETING THE CITY OF PORTLAND'S ARBORICULTURAL SPECIFICATION AND STANDARD OF PRACTICE AND LANDSCAPE DESIGN GUIDELINES. DEVELOPER MAY CONTRACT FOR THE PLACEMENT OF LANDSCAPING, BUT SHALL REMAIN ULTIMATELY LIABLE TO THE CITY OF PORTLAND FOR FINANCIAL OBLIGATION FOR COMPLIANCE WITH CITY ORDINANCES AND APPROVALS. SUCH FINANCIAL OBLIGATION SHALL BE NEITHER TRANSFERRABLE NOR WAIVABLE BY THE DEVELOPER.



Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
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Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road, Gray, ME 04039
207-657-6910 FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions: August 22, 2006 - Per Planning Board Comments

Title: LAYOUT AND LIGHTING PLAN

Scale: 1"=30'
0 10 20 30 60 ft.

North:

Sheet No.: 2

A-4

STORM DRAIN AND SANITARY STRUCTURES

	RIM	INV. IN	INV. OUT
CB#1	10.31	-	6.81
CB#2	11.25	6.31	6.21
CB#3	11.25	5.73	5.63
CB#4	11.25	4.58	4.48
CB#5	8.70	-	4.70
CB#6	9.26	-	5.26
CB#7	9.20	-	5.20
CB#8	9.45	-	5.45
CB#9	8.99	4.99	4.89
ECB#1	9.15	4.47	4.35 (HOOD)
DMH#1	11.68	2.11	2.01
		4.23	
DMH#2	11.89	2.51	2.41
		2.51	
		2.51	
EDMH#1	9.78	1.36	1.26
EDMH#2	9.07	4.71	4.57
ESMH#1	10.15	6.15	-5.75
OIL/WATER SEPARATOR	11.43	3.95	4.95

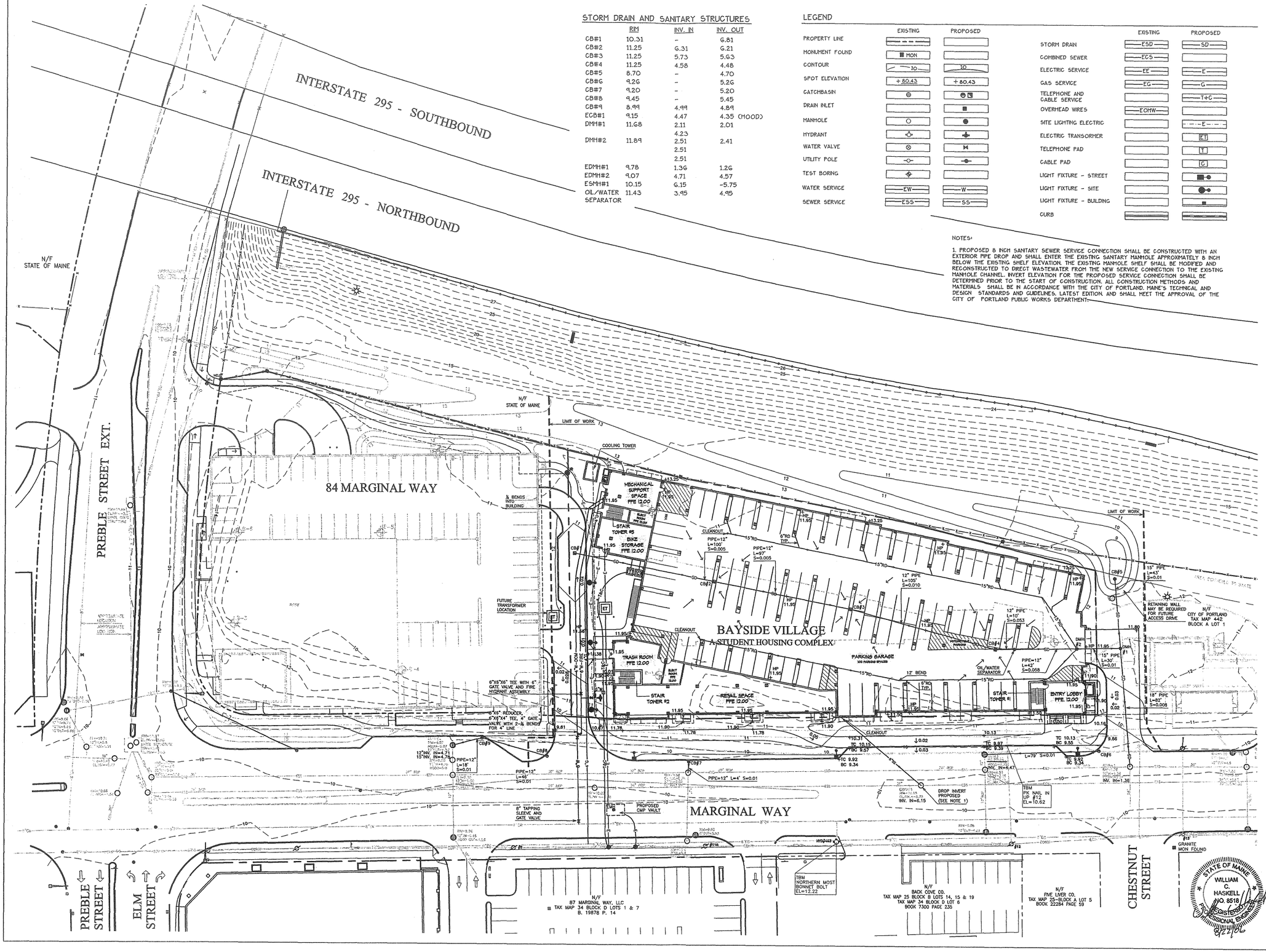
LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
MONUMENT FOUND	MON	
CONTOUR	10	10
SPOT ELEVATION	+80.43	+80.43
CATCHBASIN		
DRAIN INLET		
MANHOLE		
HYDRANT		
WATER VALVE		
UTILITY POLE		
TEST BORING		
WATER SERVICE	W	W
SEWER SERVICE	SS	SS

	EXISTING	PROPOSED
STORM DRAIN	SD	SD
COMBINED SEWER	CS	
ELECTRIC SERVICE	E	E
GAS SERVICE	G	G
TELEPHONE AND CABLE SERVICE		T+C
OVERHEAD WIRES	OHW	
SITE LIGHTING ELECTRIC		E
ELECTRIC TRANSORMER		ET
TELEPHONE PAD		T
CABLE PAD		C
LIGHT FIXTURE - STREET		
LIGHT FIXTURE - SITE		
LIGHT FIXTURE - BUILDING		
CURB		

NOTES:

1. PROPOSED 8 INCH SANITARY SEWER SERVICE CONNECTION SHALL BE CONSTRUCTED WITH AN EXTERIOR PIPE DROP AND SHALL ENTER THE EXISTING SANITARY MANHOLE APPROXIMATELY 8 INCH BELOW THE EXISTING SHELF ELEVATION. THE EXISTING MANHOLE SHELF SHALL BE MODIFIED AND RECONSTRUCTED TO DIRECT WASTEWATER FROM THE NEW SERVICE CONNECTION TO THE EXISTING MANHOLE CHANNEL. INVERT ELEVATION FOR THE PROPOSED SERVICE CONNECTION SHALL BE DETERMINED PRIOR TO THE START OF CONSTRUCTION. ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND, MAINE'S TECHNICAL AND DESIGN STANDARDS AND GUIDELINES, LATEST EDITION, AND SHALL MEET THE APPROVAL OF THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT.



S:\Land Projects\1419\dwg\1419_GP-GRADING.dwg, GRADING-S.N., 8/22/2006 12:05:27 PM, 1:1, G4L

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road, Gray, ME 04039
207-657-6910 FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way Portland, Maine

Date: JULY 22, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:
August 22, 2006 - Per Planning Board Comments

Title: GRADING, DRAINAGE AND UTILITIES PLAN

Scale: 1"=30'
0 10 20 30 60 ft.

North:

Sheet No.: 3

A-5

LEGEND

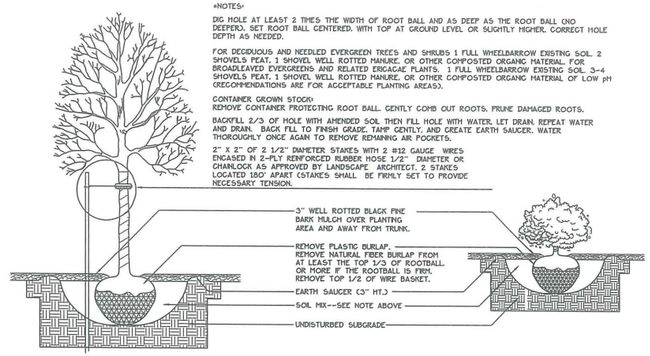
	EXISTING	PROPOSED		EXISTING	PROPOSED
PROPERTY LINE			ELECTRIC TRANSFORMER		ET
MONUMENT FOUND	MON		TELEPHONE PAD		T
CATCHBASIN		CB	CABLE PAD		C
MANHOLE			LIGHT FIXTURE - STREET		
HYDRANT			LIGHT FIXTURE - SITE		
WATER VALVE			LIGHT FIXTURE - BUILDING		
UTILITY POLE			CURB		

PLANT LIST - GROUND LEVEL

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
		TREES		
A. RUB	1	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	2 1/2"-3" CAL
M. ZUM	5	MALUS x ZUMI 'CALOCARPA'	ZUMI CALOCARPA FLOWERING CRAB	
P. CLE	3	PYRUS 'CLEVELAND'	CLEVELAND ORNAMENTAL PEAR	2 1/2"-3" CAL
Q. PAL	2	QUERCUS PALUSTRIS	PIN OAK	2 1/2"-3" CAL
		SHRUBS		2 1/2"-3" CAL
F. MEA	6	FORSYTHIA 'MEADOWLARK'	MEADOWLARK FORSYTHIA	#3
J. CGL	6	JUNIPERUS CHINENSIS 'GOLD LACE'	JUNIPER GOLD LACE	#3
J. TNB	9	JUNIPERUS SABINA 'TAM NEW BLUE'	TAM NEW BLUE JUNIPER	#5
J. WB	7	JUNIPERUS SCOPULORUM 'WICHITA BLUE'	WICHITA BLUE JUNIPER	#7
P. BB	1	PIERIS x 'BROWER'S BEAUTY'	ANDROMEDA	#5
R. AGL	6	RHODODENDRON 'AGLO'	AGLO RHODODENDRON	#5
V. TOM	14	VIBURNUM PLICATUM VAR. TOMENTOSUM	TOMENTOSUM VIBURNUM	4'-5' HT
		PERENNIALS		
H. STE	115	HEMEROCALLIS 'STELLA D'ORO'	STELLA D'ORO DAYLILY	G" POT

PLANT LIST - ROOF DECK

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
		TREES		
A. GIN	1	ACER GINNALA	AMUR MAPLE	G' CLUMP
M. CAM	1	MALUS 'CAMZAM'	CAMELOT FLOWERING CRAB	1 1/2" CAL
M. PRO	5	MALUS 'PROFUSION'	PROFUSION FLOWERING CRAB	1 1/2" CAL
		SHRUBS		
C. SF	3	CORNUS SERICEA 'FARROW'	FARROW RED TWIG DOGWOOD	#3
E. ALA	6	EUONYMUS ALATUS 'COMPACTUS'	DWARF BURNING BUSH	#3
F. WE	6	FORSYTHIA 'WEEKEND'	WEEKEND FORSYTHIA	#3
I. GLA	11	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	#3
J. HBR	21	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	#3
P. MUG	20	PINUS MUGHO 'SLOWMOUND'	SLOWMOUND MUGHO PINE	#3
P. ABB	3	POTENTILLA 'ABBOTTSWOOD'	ABBOTTSWOOD POTENTILLA	#3
R. WIN	13	RHODODENDRON 'WINDBEAM'	WINDBEAM RHODODENDRON	#2
		GROUNDCOVER		
H. HB	-	HEDERA HELIX	BALTIC IVY	FLAT



1/4 TREE AND SHRUB INSTALLATION
NOT TO SCALE

NOTES

DIG HOLE AT LEAST 2 TIMES THE WIDTH OF ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH TOP AT GROUND LEVEL OR SLIGHTLY HIGHER. CORRECT HOLE DEPTH AS NEEDED.

FOR DECIDUOUS AND NEEDLED EVERGREEN TREES AND SHRUBS 1 FULL WHEELBARROW EXISTING SOIL, 2 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL FOR BROADLEAVED EVERGREENS AND RELATED ERICACAE PLANTS. 1 FULL WHEELBARROW EXISTING SOIL, 3-4 SHOVELS PEAT, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL OF LOW pH (RECOMMENDATIONS ARE FOR ACCEPTABLE PLANTING AREAS).

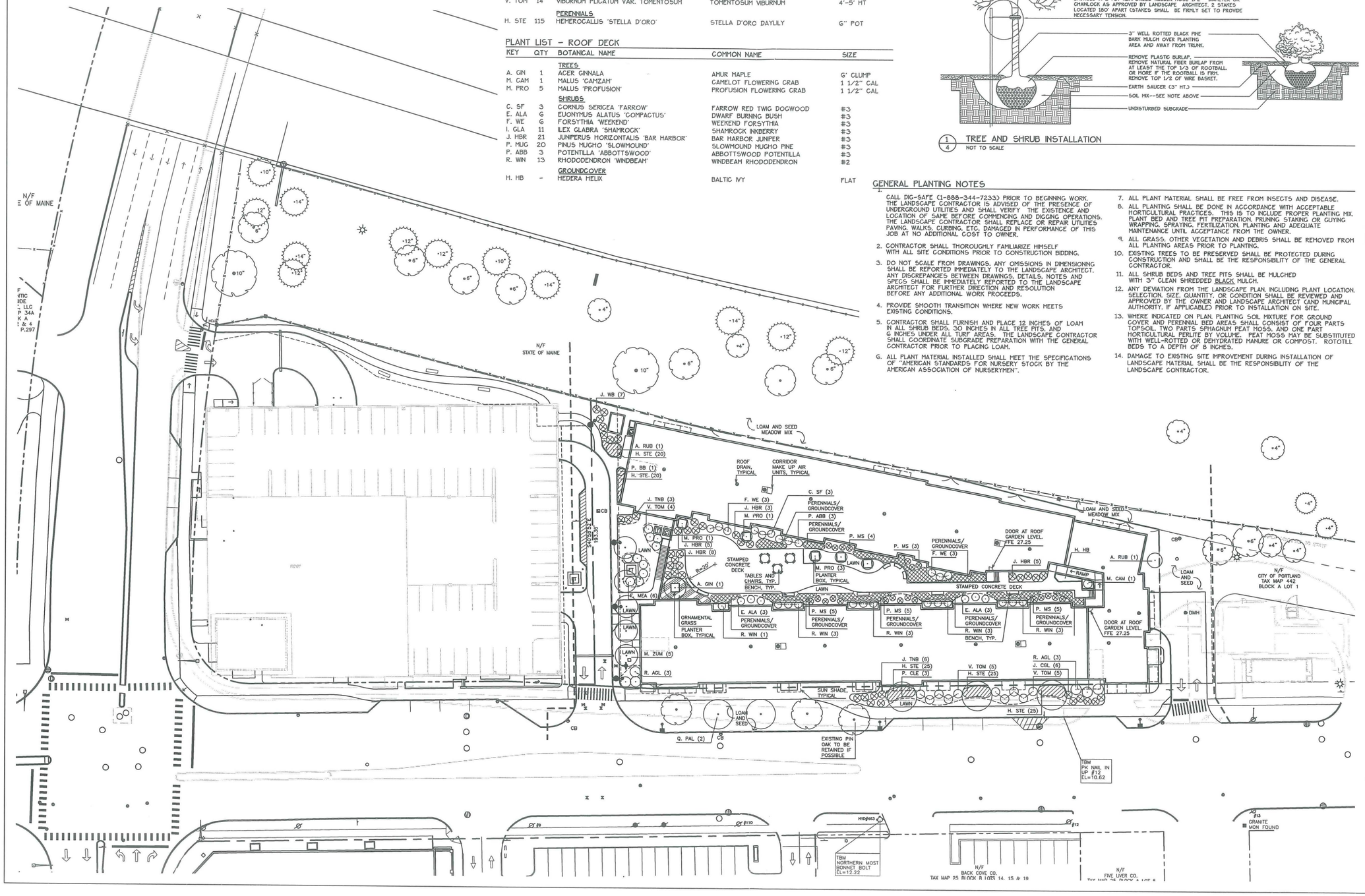
CONTAINER GROWN STOCK: REMOVE CONTAINER PROTECTING ROOT BALL. GENTLY COMB OUT ROOTS. PRUNE DAMAGED ROOTS.

BACKFILL 2/3 OF HOLE WITH AMENDED SOIL THEN FILL HOLE WITH WATER. LET DRAIN. REPEAT WATER AND DRAIN. BACK FILL TO FINISH GRADE. TAMP GENTLY, AND CREATE EARTH SAUCER. WATER THOROUGHLY ONCE AGAIN TO REMOVE REMAINING AIR POCKETS.

2" X 2" OF 2 1/2" DIAMETER STAKES WITH 2 #12 GAUGE WIRES ENCASED IN 2-PLY REINFORCED RUBBER HOSE 1/2" DIAMETER OR CHAINLOCK AS APPROVED BY LANDSCAPE ARCHITECT. 2 STAKES LOCATED 180° APART (STAKES SHALL BE FIRMLY SET TO PROVIDE NECESSARY TENSION.

GENERAL PLANTING NOTES

1. CALL DIG-SAFE (1-888-344-7233) PRIOR TO BEGINNING WORK. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES PAVING, WALKS, CURBING, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO OWNER.
2. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
3. DO NOT SCALE FROM DRAWINGS. ANY OMISSIONS IN DIMENSIONING SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ANY ADDITIONAL WORK PROCEEDS.
4. PROVIDE SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.
5. CONTRACTOR SHALL FURNISH AND PLACE 12 INCHES OF LOAM IN ALL SHRUB BEDS, 30 INCHES IN ALL TREE PITS, AND 6 INCHES UNDER ALL TURF AREAS. THE LANDSCAPE CONTRACTOR SHALL COORDINATE SUBGRADE PREPARATION WITH THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
6. ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARDS FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN".
7. ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
8. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING, STAKING OR GUYING WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM THE OWNER.
9. ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
10. EXISTING TREES TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
11. ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH.
12. ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY, OR CONDITION SHALL BE REVIEWED AND APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT (AND MUNICIPAL AUTHORITY, IF APPLICABLE) PRIOR TO INSTALLATION ON SITE.
13. WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.
14. DAMAGE TO EXISTING SITE IMPROVEMENT DURING INSTALLATION OF LANDSCAPE MATERIAL SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.



Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road, Gray, ME 04039
207-657-6910 FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions: August 22, 2006 - Per Planning Board Comments

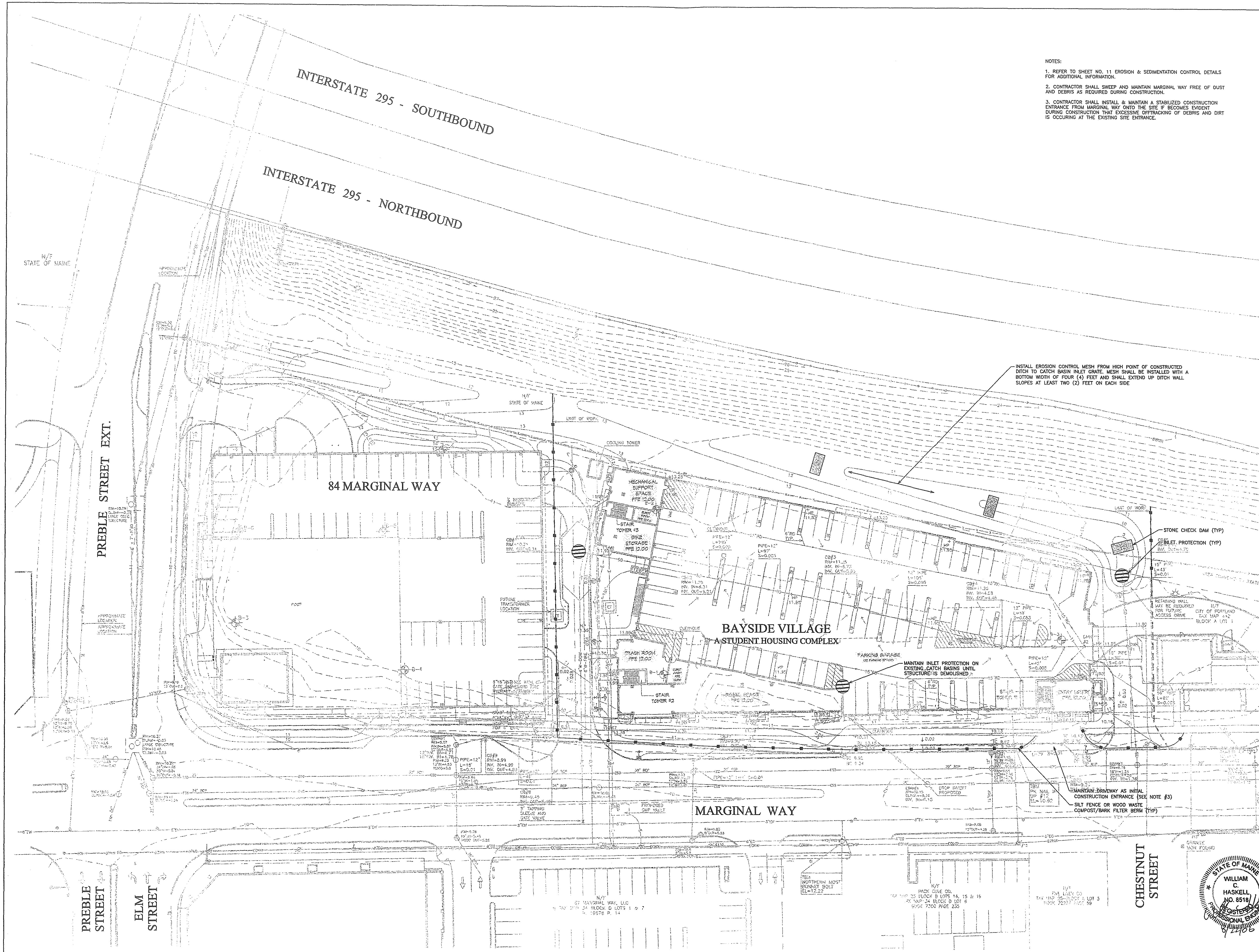
Title: PLANTING PLAN AND ROOF PLAN

Scale: 1"=30'
0 10 20 30 60 ft.

North:

Sheet No.: 4

A-6



NOTES:

1. REFER TO SHEET NO. 11 EROSION & SEDIMENTATION CONTROL DETAILS FOR ADDITIONAL INFORMATION.

2. CONTRACTOR SHALL SWEEP AND MAINTAIN MARGINAL WAY FREE OF DUST AND DEBRIS AS REQUIRED DURING CONSTRUCTION.

3. CONTRACTOR SHALL INSTALL & MAINTAIN A STABILIZED CONSTRUCTION ENTRANCE FROM MARGINAL WAY ONTO THE SITE IF BECOMES EVIDENT DURING CONSTRUCTION THAT EXCESSIVE OFFTRACKING OF DEBRIS AND DIRT IS OCCURING AT THE EXISTING SITE ENTRANCE.

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: AUGUST 22, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: EROSION AND SEDIMENTATION CONTROL PLAN

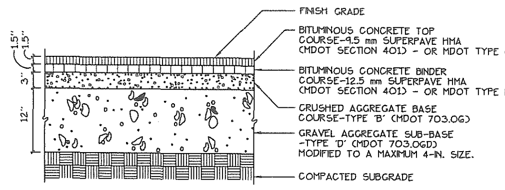
Scale: 1"=30'
0 10 20 30 60 ft.

North:

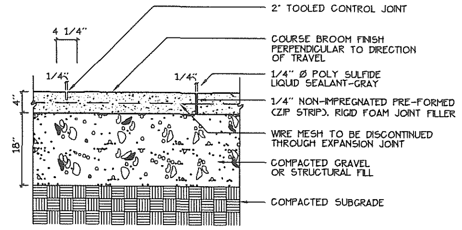
Sheet No.: 5

STATE OF MAINE
WILLIAM C. HASKELL
NO. 8518
REGISTERED PROFESSIONAL ENGINEER

A-7

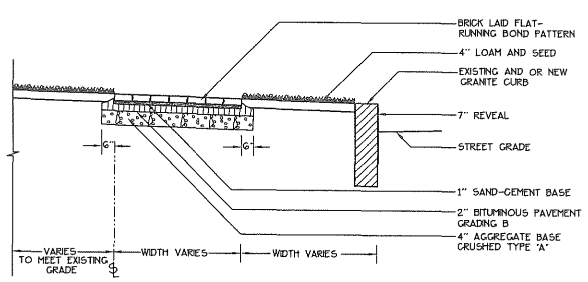


1/5 BITUMINOUS PAVEMENT- DRIVEWAY + PARKING GARAGE
NOT TO SCALE

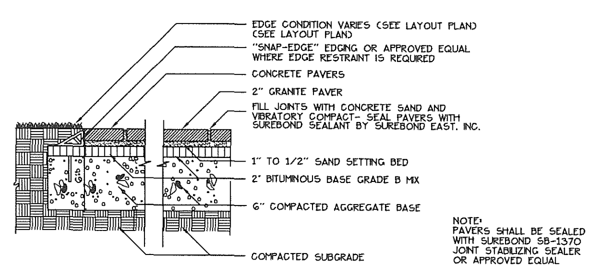


NOTE:
DO NOT PROVIDE TOOLED EDGE ALONG GRANITE CURB

2/5 CONCRETE WALK
NOT TO SCALE

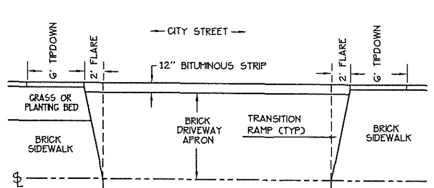


3/5 BRICK SIDEWALK WITH GRANITE CURB
NOT TO SCALE

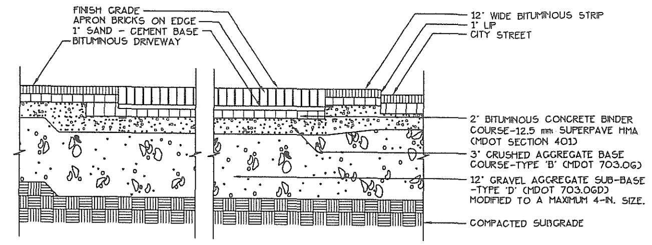


NOTE:
PAVERS SHALL BE SEALED WITH SUREBOND SB-1370 JOINT STABILIZING SEALER OR APPROVED EQUAL

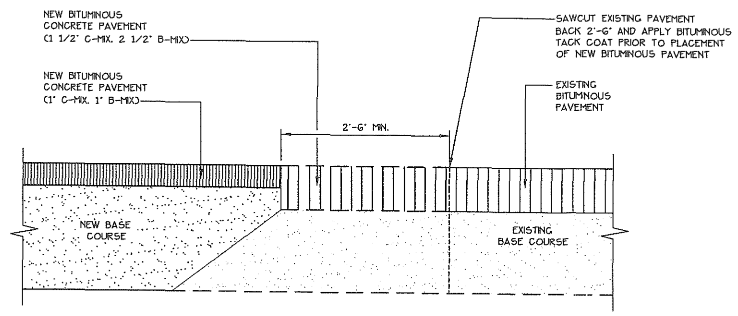
4/5 CONCRETE PAVERS
NOT TO SCALE



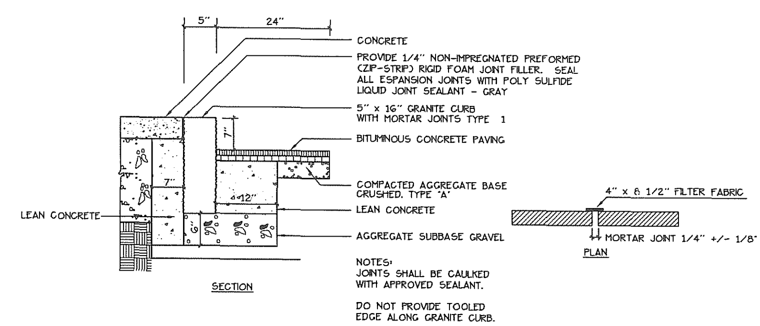
5/5 BRICK SIDEWALK + DRIVEWAY CONSTRUCTION
NOT TO SCALE



6/5 BRICK DRIVEWAY APRON
NOT TO SCALE

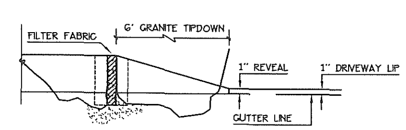


7/5 PAVEMENT SAWCUT DETAIL
NOT TO SCALE

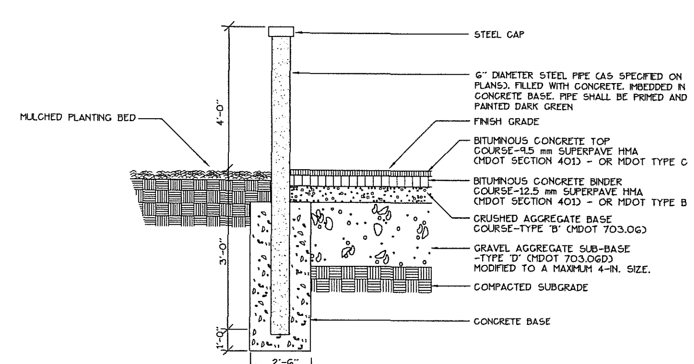


NOTES:
JOINTS SHALL BE CAULKED WITH APPROVED SEALANT.
DO NOT PROVIDE TOOLED EDGE ALONG GRANITE CURB.

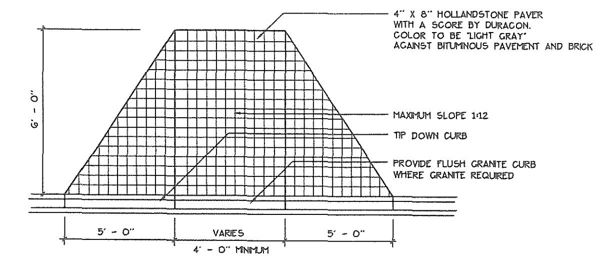
8/5 VERTICAL GRANITE CURB
NOT TO SCALE



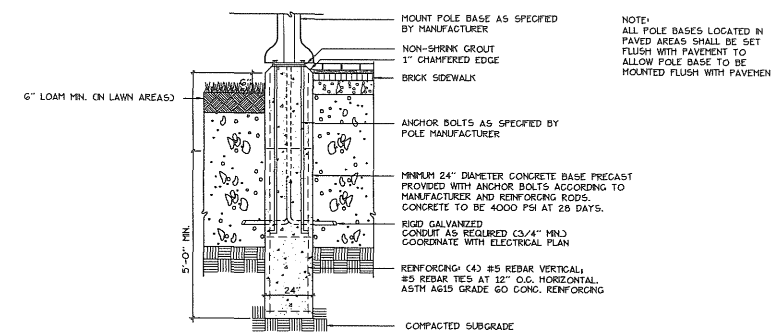
9/5 TIPDOWN CURB
NOT TO SCALE



10/5 BOLLARD DETAIL
NOT TO SCALE

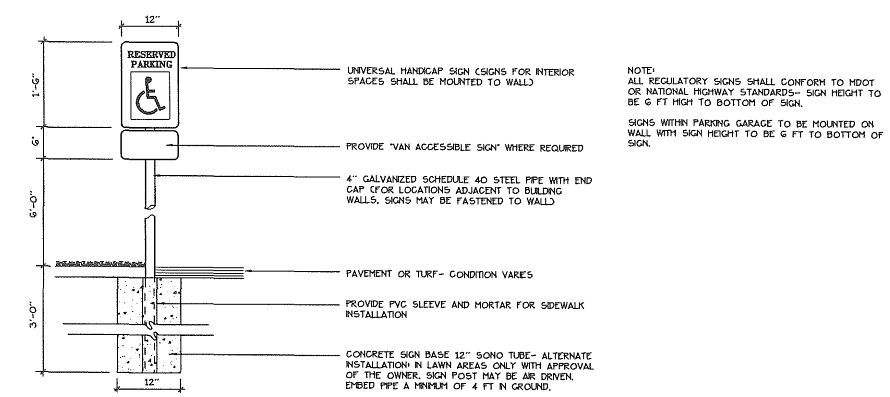


11/5 HANDICAP RAMP
NOT TO SCALE



NOTE:
ALL POLE BASES LOCATED IN PAVED AREAS SHALL BE SET FLUSH WITH PAVEMENT TO ALLOW POLE BASE TO BE MOUNTED FLUSH WITH PAVEMENT.

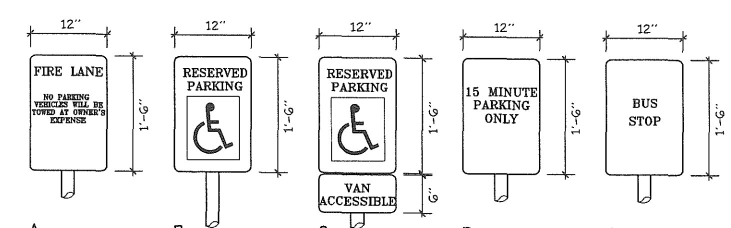
12/5 LIGHT POLE BASE
NOT TO SCALE



NOTE:
ALL REGULATORY SIGNS SHALL CONFORM TO MDOT OR NATIONAL HIGHWAY STANDARDS- SIGN HEIGHT TO BE 6 FT HIGH TO BOTTOM OF SIGN.
SIGNS WITHIN PARKING GARAGE TO BE MOUNTED ON WALL WITH SIGN HEIGHT TO BE 6 FT TO BOTTOM OF SIGN.

13/5 SIGNAGE
NOT TO SCALE

SIGNAGE LEGEND



A WHITE BACKGROUND RED LETTERING
B BLUE BACKGROUND WHITE LETTERING
C BLUE BACKGROUND WHITE LETTERING
D WHITE BACKGROUND BLACK LETTERING
E WHITE BACKGROUND BLACK LETTERING

Prepared For:
Applicant:

SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:

MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

GP Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

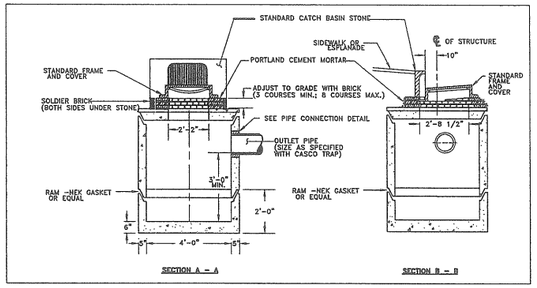
Title: SITE DETAILS

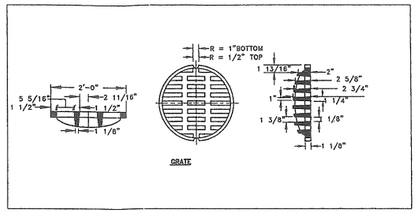
Scale:

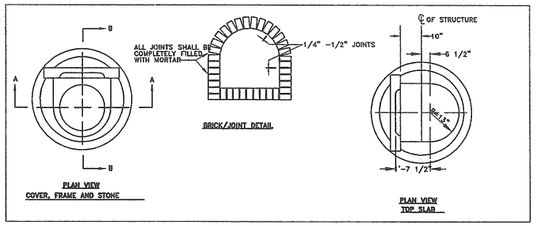
North:

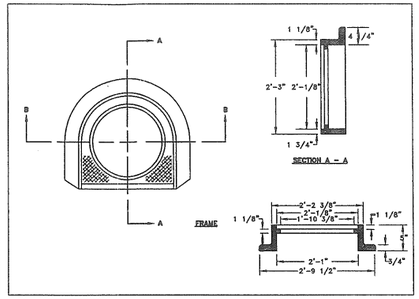
Sheet No.: 6

A-8







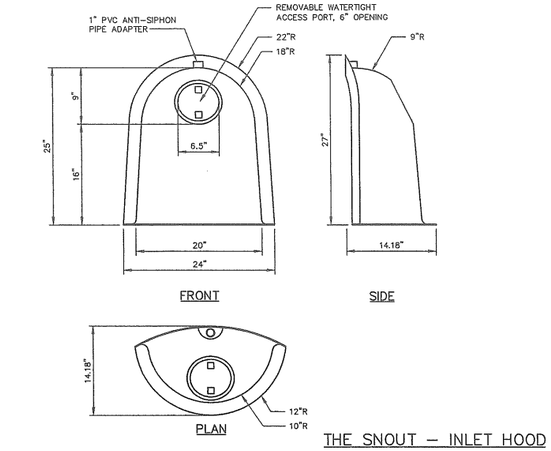


GENERAL NOTES

1. ALL CONCRETE SHALL BE A CLASS "A" AND HAVE A MINIMUM ULTIMATE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. PRECAST REINFORCED CONE BARREL MANUFACTURE PER ASTM SPEC. C-478-67
3. SEWER BRICK TO CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
4. ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTION OF BRICK MASONRY, THE SMOOTH MORTAR SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
5. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
6. MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND OFFSET, PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED HOLE.
9. EXISTING MANHOLE AND CATCH BASIN FRAMES AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
10. INLET HOODS SHALL BE PROVIDED WITHIN ALL CATCH BASIN PIPES 18" OR LESS.

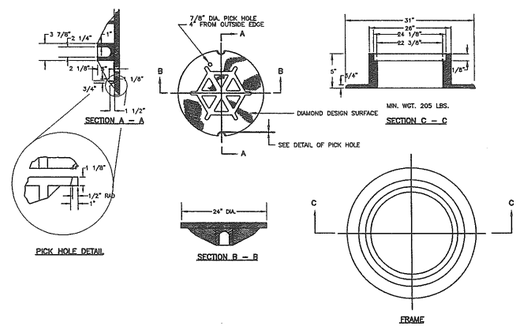
PRECAST CONCRETE CATCH BASIN TYPE "E"

N.T.S.



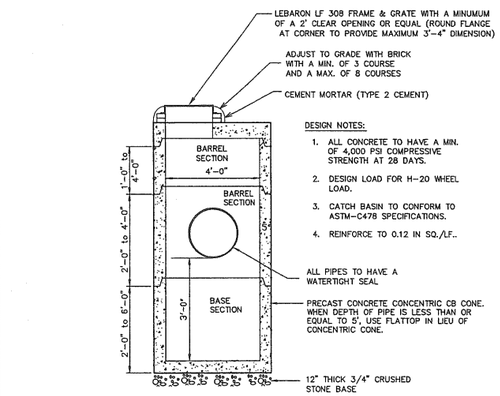
THE SNOUT - INLET HOOD

N.T.S.



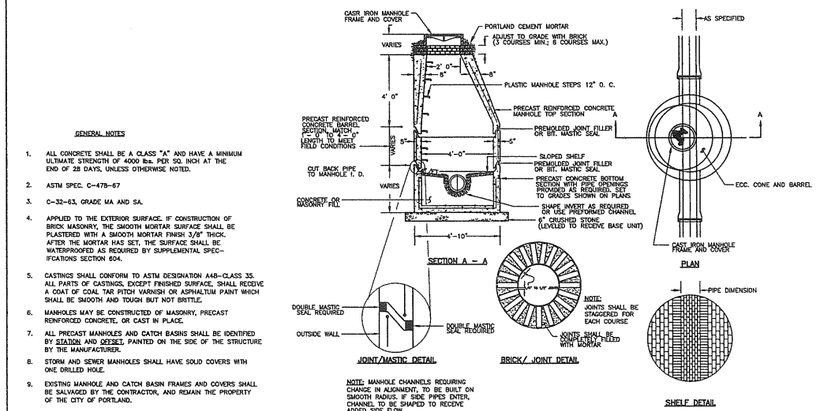
TYPE "A" MANHOLE COVER AND FRAME

N.T.S.



4'-0" PRECAST CATCH BASIN

N.T.S.



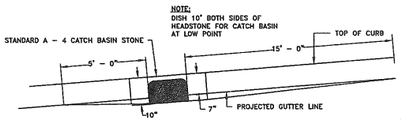
GENERAL NOTES

1. ALL CONCRETE SHALL BE A CLASS "A" AND HAVE A MINIMUM ULTIMATE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. ASTM SPEC. C-478-67
3. C-32-63, GRADE MA AND SA.
4. APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTION OF BRICK MASONRY, THE SMOOTH MORTAR SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
5. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
6. MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND OFFSET, PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED HOLE.
9. EXISTING MANHOLE AND CATCH BASIN FRAMES AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND REMAIN THE PROPERTY OF THE CITY OF PORTLAND.

NOTE: MANHOLE CHANNELS REQUIRING CHANGE IN ALIGNMENT, TO BE BUILT ON SMOOTH RADIUS. IF SIDE PIPES ENTER, CHANNEL TO BE SHAPED TO RECEIVE ADDED SIDE FLOW

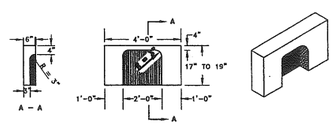
PRECAST CONCRETE MANHOLE TYPE "A"

N.T.S.



TYPICAL PAVEMENT GRADING ON SLOPES FOR CATCH BASIN AND INLET

N.T.S.



TYPICAL A-4 CATCH BASIN STONE

N.T.S.

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road, Gray, ME 04039
207-657-6910
FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: AUGUST 22, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: UTILITY AND DRAINAGE DETAILS

Scale: NONE

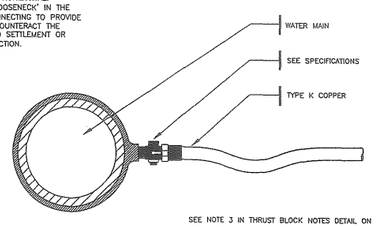
North:

Sheet No.: 8

STATE OF MAINE
WILLIAM C. HASKELL
NO. 8518
REGISTERED PROFESSIONAL ENGINEER

S:\Land Projects\1419\dwg\1419_DET-UTIL-DRAIN-B.dwg, UTIL-DRAIN DET, 8/22/2006 11:30:11 AM, 1:1, GJL

NOTE: SERVICE CONNECTIONS (DIRECT TAPS AND SERVICE CLAMPS) WILL BE INSTALLED SO THAT THE OUTLET IS AT AN ANGLE OF NOT MORE THAN 45° ABOVE THE HORIZONTAL. ALWAYS PUT A BEND OR 'GOOSENECK' IN THE SERVICE LINE PRIOR TO CONNECTING TO PROVIDE FLEXIBILITY AND 'GIVE' TO COUNTERACT THE EFFECTS OF A LOAD DUE TO SETTLEMENT OR EXPANSION AND/OR CONTRACTION.

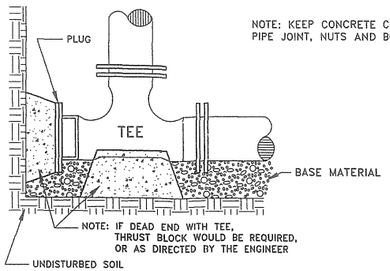


SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL ON SHEET 8

WATER SERVICE

(1 1/2" AND 2 1/2" C.C. OR IRON PIPE THREAD)

N.T.S.

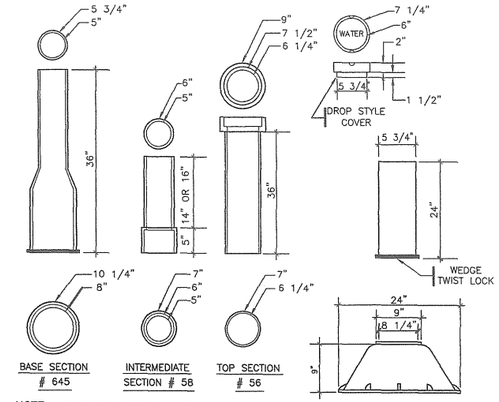


NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

STANDARD TEE BLOCKING

N.T.S.

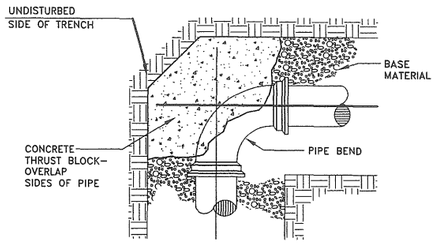


NOTE: NUMBERS ARE FOR 5.25" BUFFALO VALVE BOXES

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

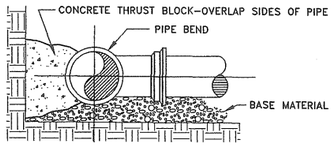
TYPICAL VALVE BOXES

N.T.S.



PLAN VIEW

NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



SECTION

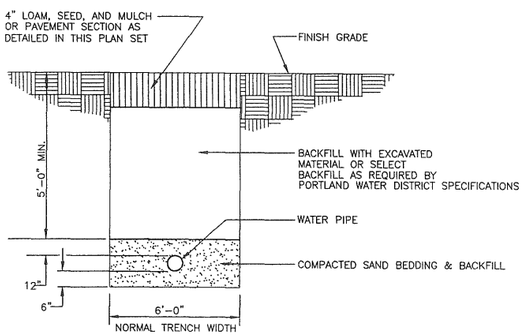
THRUST/RETAINER GLAND SCHEDULE		
1/4 BEND	(90°)	USE POURED–IN–PLACE THRUST BLOCK w/RETAINERS
1/8 BEND	(45°)	THRUST BLOCK w/RETAINERS
1/16 BEND	(22 1/2°)	THRUST BLOCK
1/32 BEND	(11 1/4°)	THRUST BLOCK

THE ABOVE SCHEDULE IS SUBJECT TO THE APPROVAL OF THE ON–SITE INSPECTOR DUE TO SOILS AND WORKING PRESSURES IN THE AREA.

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

TYPICAL THRUST BLOCK PLACEMENT ON BENDS

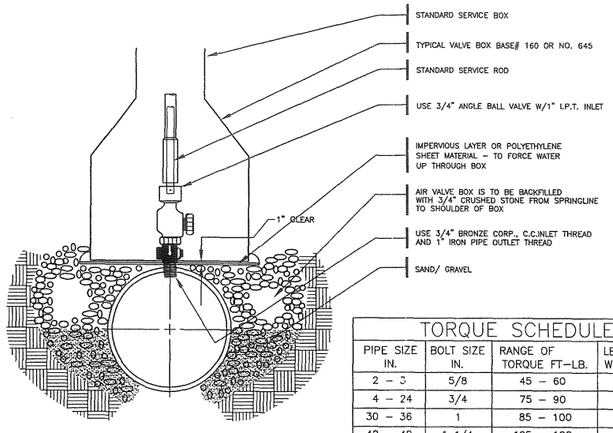
N.T.S.



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

WATER SERVICE TRENCH SECTION

N.T.S.



* THE TORQUE LOADS MAY BE APPLIED WITH TORQUE MEASURING OR TORQUE INDICATING WRENCHES, WHICH MAY ALSO BE USED TO CHECK THE APPLICATION OF APPROXIMATE TORQUE LOADS APPLIED BY A PERSON TRAINED TO GIVE AN AVERAGE PULL ON A DEFINITE LENGTH OF REGULAR SOCKET WRENCH.

TORQUE SCHEDULE			
PIPE SIZE IN.	BOLT SIZE IN.	RANGE OF TORQUE FT–LB.	LENGTH OF WRENCH IN *
2 – 3	5/8	45 – 60	8
4 – 24	3/4	75 – 90	10
30 – 36	1	85 – 100	12
42 – 48	1 1/4	105 – 120	14

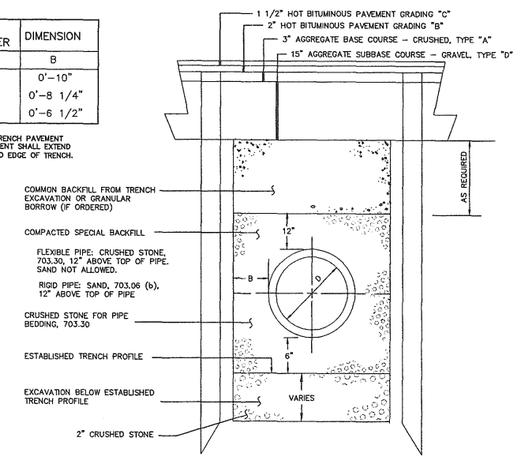
SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

TYPICAL AIR VALVE SECTION (1")

N.T.S.

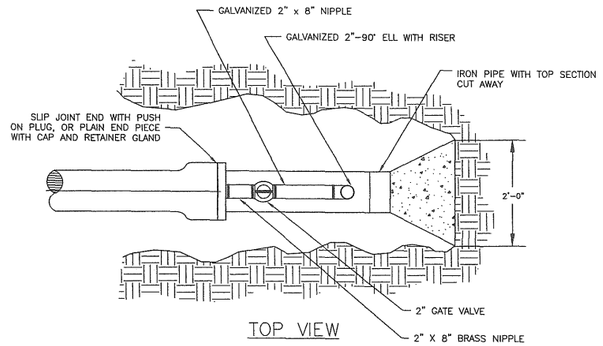
PIPE DIAMETER	DIMENSION
D	B
12"	0'–10"
15"	0'–8 1/4"
18"	0'–6 1/2"

NOTES: TRENCH PAVEMENT REPLACEMENT SHALL EXTEND 9" BEYOND EDGE OF TRENCH.

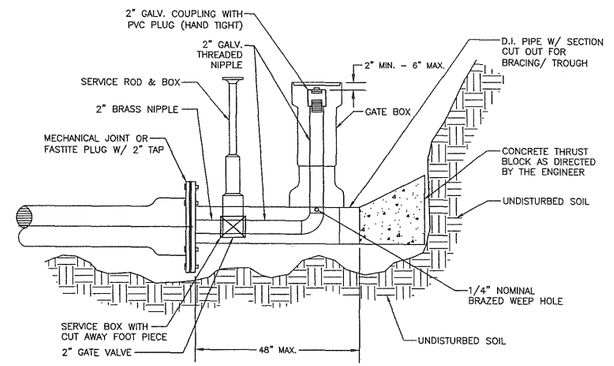


TYPICAL PIPE INSTALLATION DETAIL

N.T.S.



TOP VIEW



ELEVATION VIEW

STANDARD 2" BLOW OFF

N.T.S.

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236–4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774–4427

Gorrill–Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road, Gray, ME 04039
207–657–6910
FAX: 207–657–6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way — Portland, Maine

Date: AUGUST 22, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

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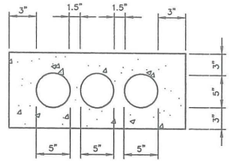
Title: UTILITY AND DRAINAGE DETAILS

Scale: NONE

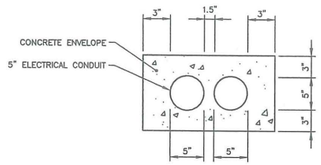
North:

Sheet No.: 9

STATE OF MAINE — WILLIAM C. HASKELL — NO. 8518 — REGISTERED PROFESSIONAL ENGINEER



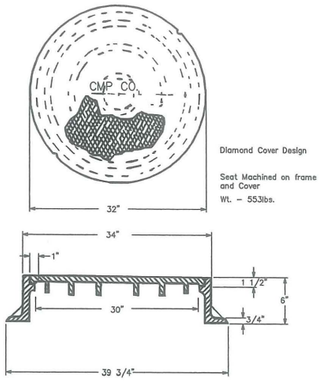
3 CONDUIT LAYOUT



2 CONDUIT LAYOUT

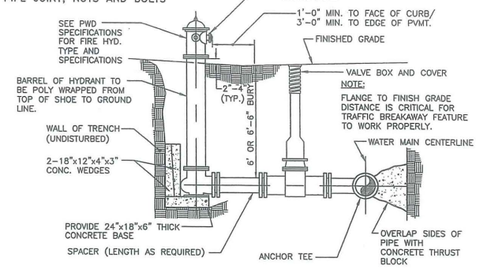
ELECTRICAL CONDUIT PROFILES

N.T.S.



32" MANHOLE COVER & FRAME

N.T.S.



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL

FIRE HYDRANT INSTALLATION

N.T.S.

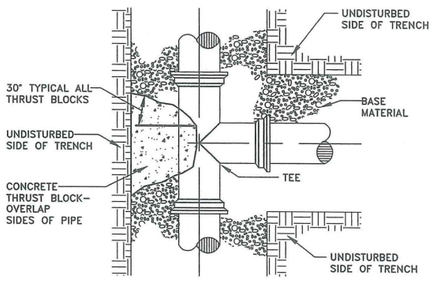
THRUST BLOCK NOTES

1. INSTALL POLY BARRIER BETWEEN PIPE AND ALL THRUST BLOCKS.
2. ANY MODIFICATION TO THRUST BLOCK SIZING OR PIPE RESTRAINT REVISIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD
3. ANY WORK RELATING TO WATER PIPING OR DETAILS SHALL BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS

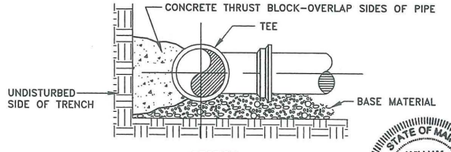
PIPE SIZE	1/32 BEND	1/16 BEND	1/8 BEND	1/4 BEND	TEES/CAPS
4"	1.8	3.6	7.0	12.8	9.1
6"	3.7	7.3	14.3	26.4	8.7
8"	6.4	12.6	24.7	45.5	32.2

BEARING SURFACE REQUIRED IN SQUARE FEET

NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



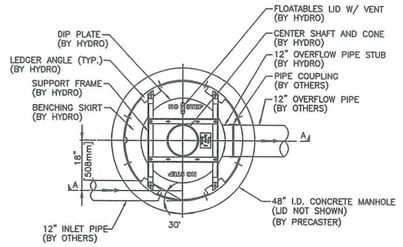
PLAN VIEW



SECTION

TYPICAL THRUST BLOCK PLACEMENT ON TEES

N.T.S.



PLAN VIEW

NOTES:

1. THIS DRAWING IS A LEDGER SIZE ORIGINAL.
2. DIMENSIONS ARE GENERAL AND INTENDED FOR GUIDANCE ONLY.
3. THE ORIENTATION OF INLET PIPE AND OVERFLOW PIPE CAN BE ADJUSTED TO SITE REQUIREMENTS. SEE SITE PLAN FOR ORIENTATION.
4. INLET PIPE MUST BE TANGENT TO PRECAST MANHOLE I.D. AS SHOWN.
5. OVERFLOW PIPE STUB O.D. MATCHES SDR35 O.D.
6. 304 SS EXPANSION ANCHOR BOLTS TO BE SUPPLIED BY PRECASTER.
7. METRIC DIMENSIONS BASED ON 25.4mm/INCH.

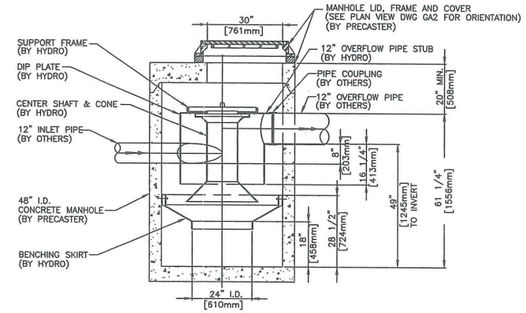
PRELIMINARY DIMENSIONS

DEPTH OF FLOW IN OVERFLOW PIPE AT 0.75cfs	3.5	INCHES
DEPTH OF FLOW IN OVERFLOW PIPE AT 3.0 cfs	8	INCHES
ESTIMATED HEADLOSS* AT 0.75 cfs	3	INCHES
ESTIMATED HEADLOSS* AT 3.0 cfs	23	INCHES

DOWNSTREAM DEFENDER WEIGHT

EMPTY WEIGHT	10,000	Lbs.
OPERATIONAL WEIGHT	13,203	Lbs.

*HEADLOSS IS DEFINED AS THE DIFFERENCE BETWEEN STATIC WATER LEVEL AT THE INLET OF THE DOWNSTREAM DEFENDER TO THE FREE WATER SURFACE IN THE OVERFLOW PIPE, ASSUMING FREE DISCHARGE.



SECTION A–A

4' DIAMETER DOWNSTREAM DEFENDER OIL/WATER SEPARATOR

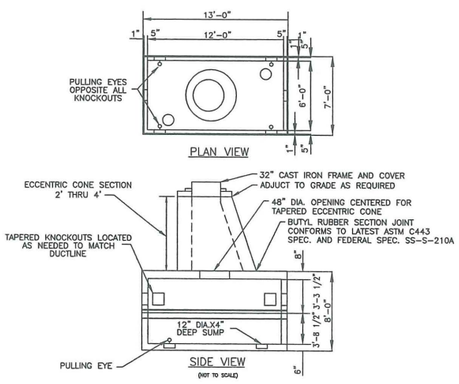
N.T.S.

Hydro International

94 Hutchins Drive
Portland, Maine 04102
tel: (207) 756-6200
fax: (207) 756-6212
email: hiltech@hil-tech.com

NOTES:

1. VAULT AND ECCENTRIC CONE SHALL BE DESIGNED TO WITHSTAND H20 WHEEL LOADED WITH 6" OF OVERBURDEN. THE DESIGN SHALL ALSO COMPLY WITH THE STRENGTH REQUIREMENTS OF NATIONAL ELECTRICAL SAFETY CODE SECTION 323A. PROVIDE SHOP DRAWINGS STAMPED BY A STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER UPON REQUEST.
2. JOINTS SEALED WITH BUTYL RUBBER.
3. MOUNTINGS FOR CABLE RACKS ETC. CAST IN WALL BY FURTHER PLANS OR FIELD LOCATED.
4. MANHOLE SHALL BE SET ON A SUITABLE GRAVEL BASE.



PRECAST CONCRETE MANHOLE (FOR CMP)

N.T.S.

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

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BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: AUGUST 22, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: UTILITY AND DRAINAGE DETAILS

Scale: NONE

North:

Sheet No.: 10

STATE OF MAINE
WILLIAM C. HASKELL
NO. 8518
REGISTERED PROFESSIONAL ENGINEER
8/22/06

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I. Erosion Control Measures and Site Stabilization

The primary emphasis of the erosion/sedimentation control plan to be implemented for the infrastructure construction is as follows:
- Development of a careful construction sequence.
- Rapid revegetation of denuded areas to minimize the period of soil exposure.
- Rapid stabilization of drainage paths to avoid rill and gully erosion.
- The use of on-site measures to capture sediment (silt fence, check dams, etc.).

The following temporary and permanent erosion and sediment control devices will be implemented as part of the site development. These devices shall be installed as indicated on the plans or as described within this report. For further reference, see the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices.

A. Temporary Erosion Control Measures

The following measures are planned as temporary erosion/sedimentation control measures during construction:

1. Utilize the existing entrance to the site closest to Chestnut Street to access the site during construction until the proposed access driveways have been constructed.

2. Siltation fence or wood waste compost berms shall be installed downstream of any disturbed areas to trap runoff borne sediments until adequate catch (90% or greater) has occurred. The silt fence and/or the wood waste compost berms shall be installed per the details provided in this package and inspected immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence or berm line. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind fence or berm, the barrier shall be replaced with a stone check dam. Wood waste compost berms are not to be used adjacent to wetland areas that are to be left undisturbed.

3. Straw or hay mulch including hydroseeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and September 15th on slopes of less then 15 percent shall be anchored by applying water; mulch placed on slopes of equal to or steeper than 15 percent shall be covered by a fabric netting and anchored with staples in accordance with manufacturer's recommendation. Mulch placed between September 15th and April 15th on slopes equal to or steeper than 8 percent shall be covered with a fabric netting and anchored with staples in accordance with the manufacturer's recommendations. Slopes steeper than 2:1 and the drainage swale located in the I-295 Right-of-Way that are to be revegetated shall receive Curlex blankets by American Excelsior or Engineer approved equivalent. Mulch application rates are provided in Attachment A of this section. Mulch shall not be placed over snow.

4. Temporary stockpiles of stumps, grubbings, or common excavation will be protected as follows:

a) Temporary stockpiles shall not be located within 100 feet of any wetlands that are to be left undisturbed and any slopes exceeding 15%.

b) Stockpiles shall be stabilized within 7 days by either temporarily seeding the stockpile with a hydroseed method containing an emulsified mulch tackifier or by covering the stockpile with mulch.

c) Stockpiles shall be surrounded by silt fence or wood-waste compost berms at the time of formation.

5. All denuded areas within 100 feet of an undisturbed wetland that have been rough graded and are not located within a roadway subbase area shall receive mulch or erosion control mesh fabric within 7 days of initial soil disturbance. All areas within 50 feet of undisturbed wetland area shall be mulched prior to any predicted rain event regardless of the 7-day window. In other areas, the time period may be extended to 14 days. All disturbed areas located within 100 feet of a protected natural resource must be protected with a double row of sediment barriers.

6. For work conducted between September 15th and April 15th of any calendar year, all denuded areas will be covered with hay mulch applied at twice the normal application rate and anchored with fabric netting. The time period for applying mulch as noted in Paragraph I.A.5 shall be limited to 7 days for all areas.

7. Marginal Way shall be swept to control off-tracking of mud, debris, and dust as necessary.

8. During grubbing operations stone check dams will be installed at any evident concentrated flow discharge points.

9. Silt fencing with a maximum stake spacing of 6 feet should be used, unless the fence is supported by wire fence reinforcement of minimum 14 gauge and with a maximum mesh spacing of 6 inches, in which case stakes may be spaced a maximum of 10 feet apart. The bottom of the fence should be anchored.

10. Wood waste compost/bark berms may be used in lieu of siltation fencing. Berms shall be removed and spread into a layer not to exceed 3" thick once upstream areas are completed and a 90% catch of vegetation is attained. Wood waste erosion tubes may also be used for perimeter sediment control or check dams, or to reduce slope lengths. These tubes may be created by filling Filtrexx mesh tubes or approved equivalent with wood waste material and staking the tube to the ground where the control is necessary.

11. Inlet Protection measures shall be implemented for all catch basins located with the disturbed construction area. Measures shall be maintained regularly and shall not cause flooding in public right-of-ways.

12. Water shall be furnished and applied in accordance with MDOT specifications – Section 637 – Dust Control.

13. Loam and seed is intended to serve as the primary permanent revegetative measure for all denuded areas not provided with other erosion control measures such as riprap. Application rates are provided in Attachment A of this section. Seeding shall not occur over snow.

B. Permanent Erosion Control Measures

The following permanent erosion control measures have been designed as part of the Erosion and Sedimentation Control Plan:

1. All areas disturbed during construction but not subject to other restoration (building, paving, riprap, etc.) shall be loamed, limed, fertilized, mulched, and seeded. Fabric netting anchored with staples shall be placed over the mulch in areas as noted in Paragraph I.A.3. All disturbed areas within 100 feet of an undisturbed wetland area shall be mulched prior to any predicted rain event regardless of the 7-day window. Native topsoil shall be stockpiled and reused for final restoration if deemed to be of sufficient quality.

II. Implementation Schedule

The following construction sequence shall be required to insure that the effectiveness of the erosion and sedimentation control measures is optimized:

Note: For all grading activities, the contractor shall exercise extreme caution not to overexpose the site by limiting the disturbed area.

1. Install perimeter siltation fence and/or wood waste berms prior to grubbing respective areas.
2. Clear and grub area as necessary for construction.
3. Remove existing pavement within work limits.
4. During grubbing operations, install stone check dams at any evident concentrated flow discharge points.
5. Commence earthwork operations for proposed driveways and apartment foundations.
6. Continue grading to subgrade as necessary.
7. Commence installation of underground utilities.
8. Complete remaining earthwork operations.
9. Install subbase and base course gravels for driveways.
10. Complete installation of utility appurtenances.
11. Install surface course gravels for the driveways.
12. Loam, lime, fertilize, seed, and mulch remaining disturbed areas.
13. Remove accumulated sediment from ahead of any sediment barriers as necessary.
14. Once the site is stabilized and a 90% catch of vegetation has been obtained, remove all temporary erosion control measures.
15. Touch up loam and seed.

Note: All denuded areas not subject to final paving, riprap, or gravel shall be revegetated.

Prior to construction of the project, the contractor shall submit to the owner a schedule for the completion of the work, which will satisfy the following criteria:

1. The above construction sequence shall generally be completed in the specified order; however, several separate items may be constructed simultaneously. Work must also be scheduled or phased to prevent the extent of the exposed areas as specified below. The intent of the above sequence is to provide for sufficient erosion and sedimentation control and to have structural measures such as silt fence and construction entrance in place before large areas of land are denuded.

2. The work shall be conducted in sections which will:

a) Limit the amount of exposed area to those areas in which work is expected to be undertaken during the proceeding 30 days.

b) Revegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event, or temporarily stabilized within 7 days of initial disturbance of soil for areas within 100 feet of an undisturbed wetland area and within 14 days for all other areas. Areas within 100 feet of an undisturbed wetland shall be mulched prior to any predicted rain event regardless of the 7-day window.

III. Winter Stabilization Plan

If a summer/fall construction schedule is not possible and construction is necessary between September 15th and April 15th of any calendar year, the contractor shall submit a schedule, which will satisfy the following criteria:

1. The extent of exposed area shall be limited to those areas in which work is expected to be undertaken during the proceeding 15 days and can be mulched in the event of a predicted snow event.

2. All disturbed areas shall be covered with mulch within 7 days of final grading. Mulch shall not be placed over snow.

3. Once final grade has been established, the contractor may choose to dormant seed the disturbed areas prior to placement of mulch and placement of staple-anchored fabric netting.

a. If dormant seeding is used for the site, all disturbed areas shall receive 6" of loam and seed at an application rate of 5 lbs. per 1000 s.f. Seeding shall not occur over snow.

All areas seeded during the winter months shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 80% catch) shall be revegetated by replacing loam, seed, and mulch as necessary to achieve 80% catch.

b. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

4. The area of denuded non-stabilized construction area shall be limited to the minimum area practicable. An area shall be considered denuded until the subbase gravel is installed or the areas of future loam and seed have been loamed, seeded, and mulched at a rate twice that specified in the seeding plan (e.g. 115 lbs. per 1,000 s.f. x 2 = 230 lbs. per 1,000 s.f.).

5. The above schedule shall be subject to the approval of the Owner.

The Contractor shall install any added measures that may be necessary to control erosion and sedimentation from the site dependent upon the actual site and weather conditions.

The Contractor shall note that no areas within 100 feet of an undisturbed wetland shall remain denuded for longer than 7 days before being temporarily stabilized. All other areas shall be stabilized within 14 days. For construction between September 15th and April 15th of any calendar year, all areas shall be temporarily stabilized within 7 days.

IV. Inspection and Maintenance

The following inspection and maintenance standards shall be required to insure the effectiveness of the erosion and sedimentation control measures are optimized during construction.

For further reference, see the Maine Department of Environmental Protection Chapter 500 Stormwater Management Rules and the Maine Construction General Permit (MCGP) requirements.

1. Inspect disturbed and impervious areas, erosion control measures, materials storage areas exposed to precipitation and locations where vehicles enter or exit the site. Inspection should occur at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures.

2. Maintain all erosion and stormwater control measures until areas are permanently stabilized. If maintenance, modification, and/or installation of additional best management practices (BMPs) are necessary, implementation must be completed within 7 calendar days and prior to any storm event.

V. Housekeeping

The following standards shall be required. For further reference, see the Maine Department of Environmental Protection Chapter 500 Stormwater Management Rules.

1. Spill prevention controls must be utilized to prevent pollutants from being discharged from materials onsite.

2. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area or adjacent to the stormwater catch basins and drain manholes.

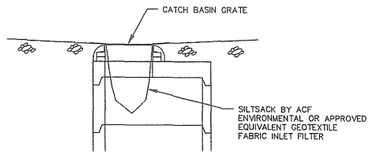
3. Action must be taken to ensure activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction.

4. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

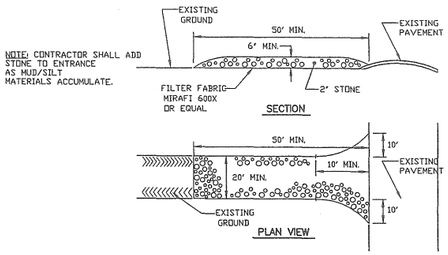
5. Water collected as a result of trench dewatering must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site.

6. Identify and prevent contamination by non-stormwater discharges.

7. Additional requirements may be applied on a site-specific basis.



INLET PROTECTION
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE
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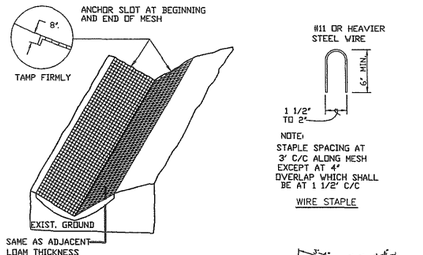
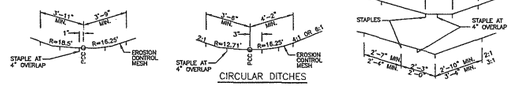
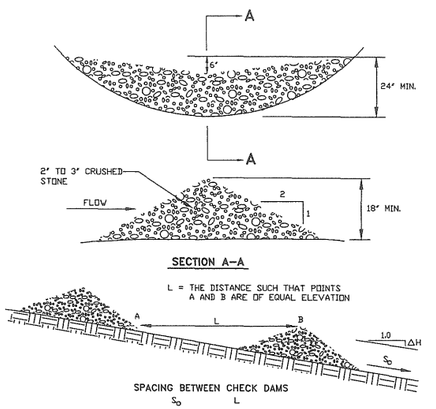




STAPLES AT EDGES, AT QUARTER POINTS, AT 4' OVERLAP

EROSION CONTROL MESH
N.T.S.



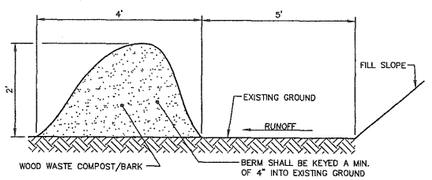
SPACING BETWEEN CHECK DAMS

S_O (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	15'

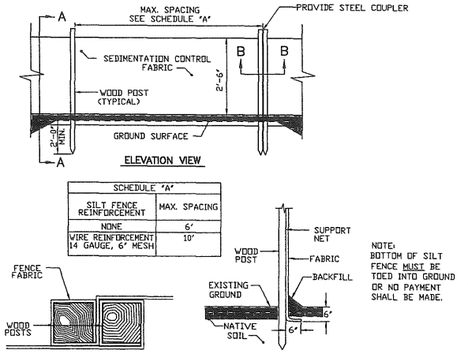
STONE CHECK DAM
N.T.S.

NOTES:

1. THE WOOD WASTE COMPOST/BARK MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:
   A. MOISTURE CONTENT – 30-60%
   B. pH – 5.0 – 8.0.
   C. SCREEN SIZE – 100% LESS THAN 3", MAX. 70% LESS THAN 1".
   D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION.
   E. NO STONES LARGER THAN 2" IN DIAMETER.
   F. SILTS, CLAYS OR SUGAR SANDS ARE NOT ACCEPTABLE IN THE MIX.
2. THE COMPOST BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.
3. THE WOOD WASTE COMPOST/BARK FILTER BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.
4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS COMPLETED OR 70% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.
5. WOOD WASTE COMPOST/BARK FILTER BERM SHALL NOT BE USED IN WETLAND AREAS.



WOOD WASTE COMPOST/BARK FILTER BERM
N.T.S.



SILTATION FENCE
N.T.S

STATE OF MAINE
WILLIAM C. HASKELL
NO. 8518
REGISTERED PROFESSIONAL ENGINEER

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services
15 Shaker Road, Gray, ME 04039
207-657-6910
FAX: 207-657-6912

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way — Portland, Maine

Date: AUGUST 22, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

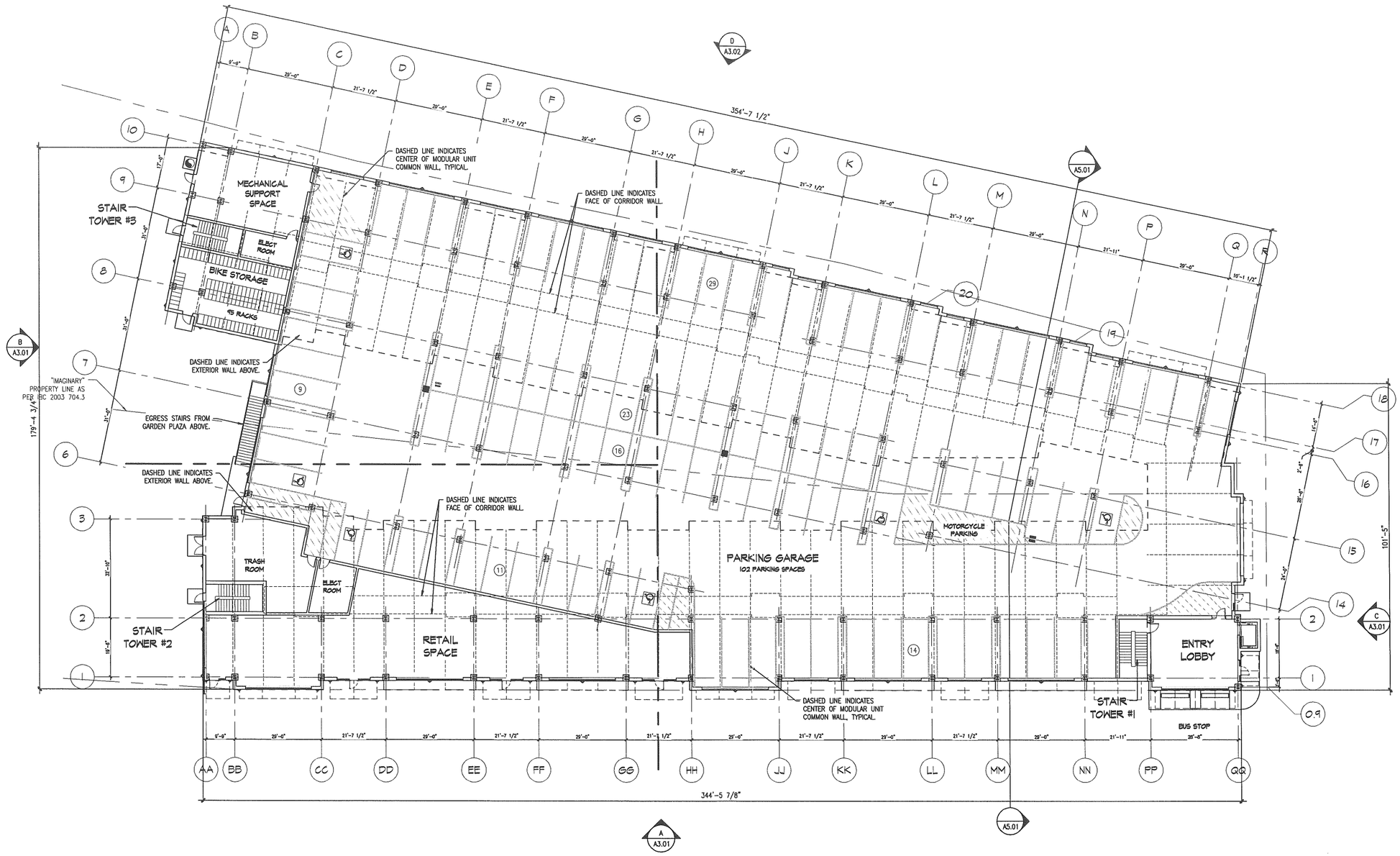
Title: EROSION AND SEDIMENTATION CONTROL DETAILS AND NOTES

Scale: NONE

North:

Sheet No.: 11

ATTACHMENT B-1



Plan North / Actual North

A OVERALL FLOOR PLAN - LOWER LEVEL

REFERENCED FROM: SCALE: 1/16" = 1'-0"

ISSUED FOR SITE PLAN REVIEW

5/22/2006 3:23:48 PM

CWS Architects

Architecture
Space Planning
Value Design

434 Cumberland Avenue
Portland, ME 04101
Phone: (207)774-4441
fax: (207)774-4016

www.CWSarch.com

Owner:
SOUTHERN MAINE STUDENT HOUSING LLC
247 COMMERCIAL STREET
ROCKPORT, MAINE 04856
TEL: (207) 236-4067

Contractor:
PIZZAGALLI CONSTRUCION
100 FODEN RD WEST, SUITE 300
SOUTH PORTLAND, ME 04106
TEL: (207) 847-2323
FAX: (207) 874-2727

BAYSIDE VILLAGE - A STUDENT HOUSING COMPLEX

120 MARGINAL WAY
PORTLAND, MAINE

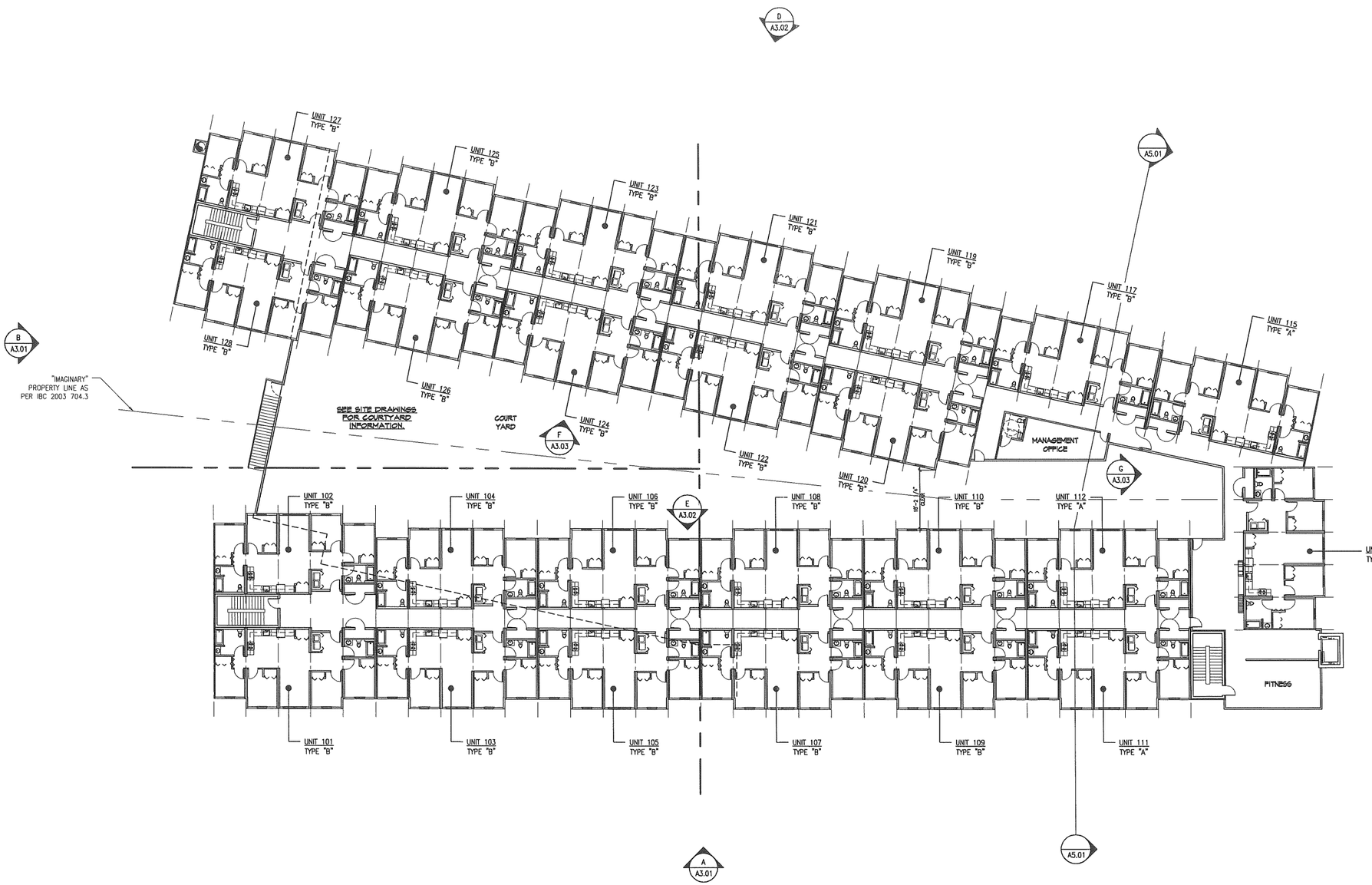
Project No: 2006-425.BSV

Drawing Title:
OVERALL FLOOR PLAN - LOWER LEVEL

Scale: 1/16" : 1'-0"
Date: Progress 08/22/2006
Revisions:

Drawing Number:
A1.01

B-2



A OVERALL FLOOR PLAN - FIRST FLOOR

REFERENCED FROM: SCALE: 1/16" = 1'-0"

CWS Architects

Architecture
Space Planning
Value Design

434 Cumberland Avenue
Portland, ME 04101
Phone: (207)774-4441
Fax: (207)774-4016

www.CWSarch.com

Owner:
SOUTHERN MAINE STUDENT HOUSING LLC
247 COMMERCIAL STREET
ROCKPORT, MAINE 04856
TEL: (207) 236-4067

Contractor:
PIZZAGALLI CONSTRUCION
100 FODEN RD WEST, SUITE 300
SOUTH PORTLAND, ME 04106
TEL: (207) 847-2323
FAX: (207) 874-2727

BAYSIDE VILLAGE - A STUDENT HOUSING COMPLEX
120 MARGINAL WAY
PORTLAND, MAINE

Project No: 2006-425.BSV

Drawing Title:
OVERALL FLOOR PLAN - FIRST FLOOR

Scale: 1/16" = 1'-0"
Date: Progress 08/22/2006
Revisions:

Drawing Number:
A1.02

ISSUED FOR SITE PLAN REVIEW

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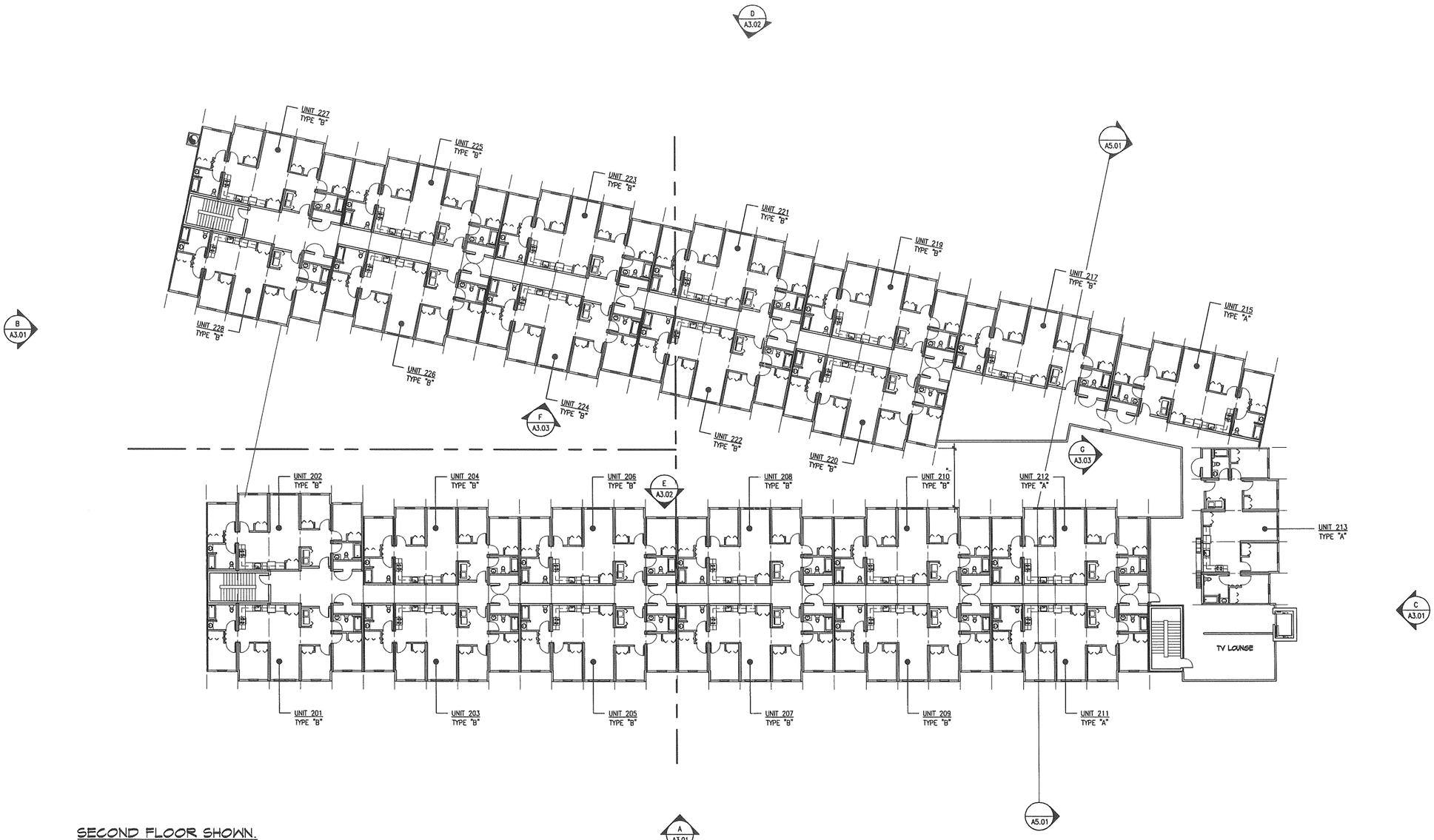
B-3



SECOND FLOOR SHOWN.
3RD & 4TH FLOORS SIMILAR.

A | OVERALL FLOOR PLAN - SECOND FLOOR

REFERENCED FROM: SCALE: 1/16" = 1'-0"

ISSUED FOR SITE PLAN REVIEW

CWS Architects

Architecture
Space Planning
Value Design

434 Cumberland Avenue
Portland, ME 04101
Phone: (207)774-4441
Fax: (207)774-4016

www.CWSarch.com

Owner:
SOUTHERN MAINE STUDENT HOUSING LLC
247 COMMERCIAL STREET
ROCKPORT, MAINE 04856
TEL: (207) 236-4067

Contractor:
PIZZAGALLI CONSTRUCION
100 FODEN RD WEST, SUITE 300
SOUTH PORTLAND, ME 04106
TEL: (207) 847-2323
FAX: (207) 874-2727

BAYSIDE VILLAGE - A STUDENT HOUSING COMPLEX

120 MARGINAL WAY
PORTLAND, MAINE

Project No: 2006-425.BSV

Drawing Title:
OVERALL FLOOR PLAN - SECOND FLOOR

Scale: 1/16" : 1'-0"
Date: Progress 08/22/2006
Revisions:

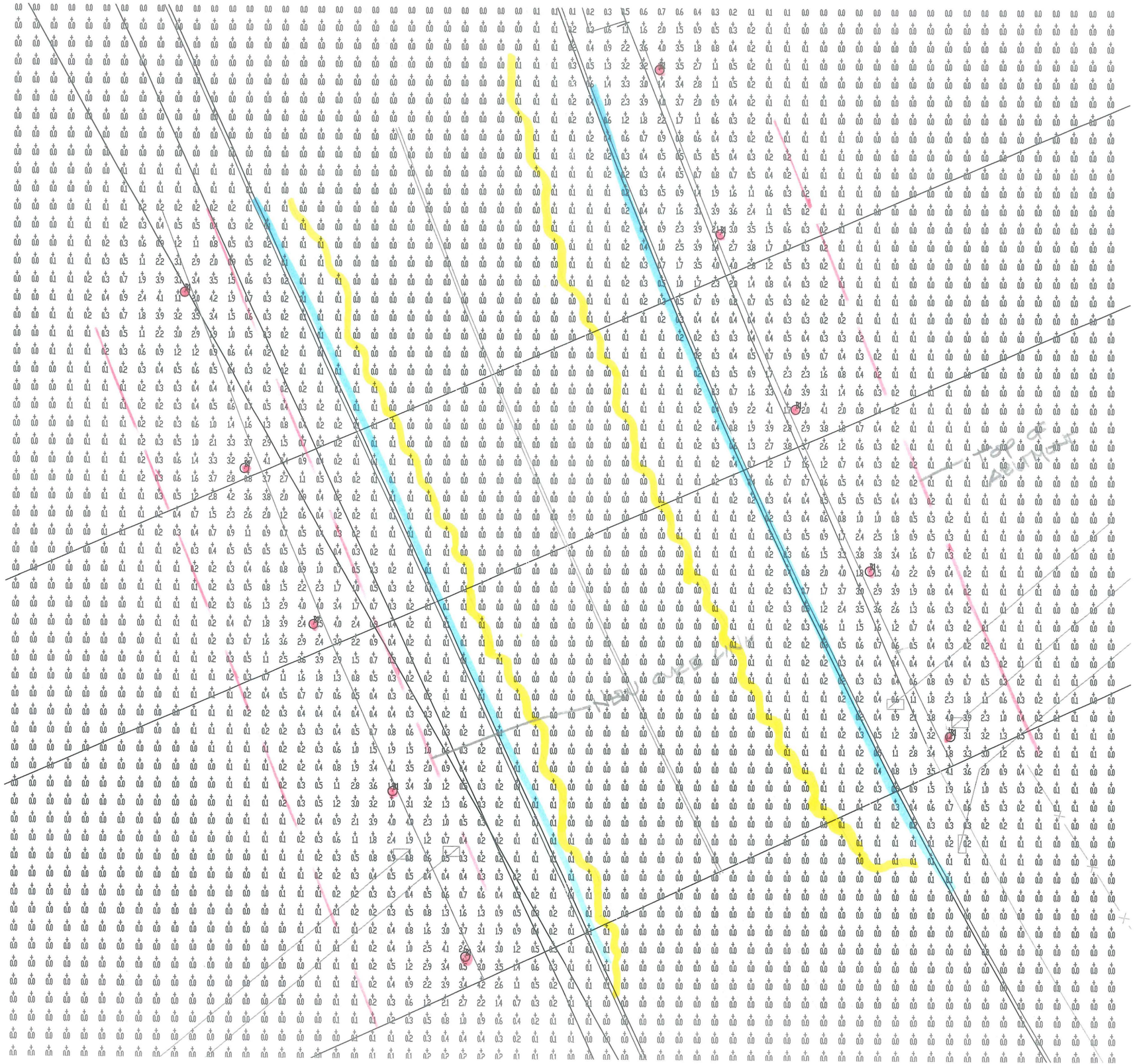
Drawing Number:
A1.03

14 BOLLARDS

1"=20'

12 BOLLARDS

1" = 20'


10 BOUNDS
1" = 20'

ATTACHMENT A-1

BAYSIDE VILLAGE

A STUDENT HOUSING COMPLEX

Portland, Maine
Cumberland County

APPLICANT AND DEVELOPER

SOUTHERN MAINE STUDENT HOUSING, LLC
247 COMMERCIAL STREET
ROCKPORT, MAINE 04856

PREPARED BY:

LANDSCAPE ARCHITECT:
MITCHELL & ASSOCIATES
70 CENTER STREET
PORTLAND, MAINE 04101
PHONE: 207.774.4427
FAX: 207.874.2460
CONTACT: BOB METCALF
E-MAIL: RMETCALF@MITCHELLASSOCIATES.BIZ

CIVIL AND TRAFFIC ENGINEERS:
GORRILL-PALMER CONSULTING ENGINEERS, INC.
P.O. BOX 1237
15 SHAKER ROAD
GRAY, MAINE 04039
PHONE: 207.657.6910
FAX: 207.657.6912
CONTACT: WILL HASKELL (CIVIL ENGINEER)
E-MAIL: WHASKELL@GORRILLPALMER.COM
CONTACT: TOM GORRILL (TRAFFIC ENGINEER)
E-MAIL: TGORRILL@GORRILLPALMER.COM

ARCHITECT:
CWS ARCHITECTS
434 CUMBERLAND AVENUE
PORTLAND, MAINE 04101
TEL: 207.774.4441
FAX: 207.774.4016
CONTACT: BEN WALTER
E-MAIL: BWALTER@CWSARCH.COM

SURVEYOR
OWEN HASKELL, INC.
16 CASCO STREET
PORTLAND, MAINE 04101
PHONE: 207.774.0424
FAX: 207.774.0511
CONTACT: JOHN SWAN

GEOTECHNICAL:
S.W. COLE ENGINEERING, INC.
286 PORTLAND ROAD
GRAY, MAINE 04039
TEL: 207.657.2866
FAX: 207.657.2840
CONTACT: ANDREW R. SIMMONS, P.E.

UTILITIES:

ELECTRIC:
CENTRAL MAINE POWER
ELECTRICAL DISTRIBUTION ENGINEERING
162 CANCO ROAD
PORTLAND, MAINE 04103
PHONE: 207.842.2387
CONTACT: JAMIE COUGH
E-MAIL: JAMES.COUGH@CMPCO.COM

TELEPHONE:
VERIZON
ENGINEERING, FLOOR 2
5 DAVIS FARM ROAD
PORTLAND, MAINE 04103
PHONE: 207.797.1842
FAX: 207.797.1098
CONTACT: SUE SARRETTE
E-MAIL: SUSAN.M.SARRETTE@VERIZON.COM

WATER:
PORTLAND WATER DISTRICT
225 DOUGLASS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104-3553
PHONE: 207.7618310
FAX: 207.879.5837
CONTACT: JIM PANDISCIO
E-MAIL: JPANDISCIO@PWD.ORG

SEWER:
CITY OF PORTLAND PUBLIC WORKS DEPARTMENT
55 PORTLAND STREET
PORTLAND, MAINE 04101
PHONE: 207.874.8832
FAX: 207.874.8816
CONTACT: FRANK BRANCELY

CABLE:
TIME WARNER CABLE OF MAINE
P.O. BOX 8190
PORTLAND, MAINE 04102
TEL: 207.253.2325
CONTACT: COLIN CHASE
E-MAIL: COLIN.CHASE@TWCABLE.COM

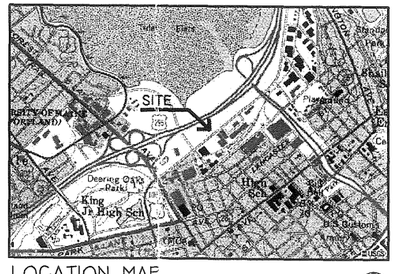
NATURAL GAS:
NORTHERN UTILITIES
325 WEST ROAD
P.O. BOX 508
PORTSMOUTH, NEW HAMPSHIRE 03802-0508
TEL: 800.552.3047 x5377
CONTACT: PAT DYER
E-MAIL: PDYER@NISOURCE.COM

PERMITS:

TYPE OF PERMIT:	GOVERNING BODY:	STATUS:
SUBDIVISION APPLICATION	CITY OF PORTLAND 389 CONGRESS STREET PORTLAND, MAINE 04101 TEL: 207.874.8725 CONTACT: RICK KNOWLAND, SENIOR PLANNER E-MAIL: RWK@PORTLANDMAINE.GOV	SUBMITTED: JULY 11, 2006 PLANNING BOARD WORKSHOP: JULY 25, 2006
SITE PLAN APPLICATION	CITY OF PORTLAND 389 CONGRESS STREET PORTLAND, MAINE 04101 TEL: 207.874.8725 CONTACT: RICK KNOWLAND, SENIOR PLANNER E-MAIL: RWK@PORTLANDMAINE.GOV	SUBMITTED: JULY 11, 2006 PLANNING BOARD WORKSHOP: JULY 25, 2006
TRAFFIC MOVEMENT PERMIT	CITY OF PORTLAND 389 CONGRESS STREET PORTLAND, MAINE 04101 TEL: 207.871.1785 CONTACT: TOM ERRICO, REVIEW ENGINEER E-MAIL: TERRICO@WILBERSMITH.COM	SUBMITTED: JULY 11, 2006 SCOPING MEETING:

SHEET INDEX:

SHEET	CP	COVER SHEET
SHEET	1	EXISTING CONDITIONS AND DEMOLITION PLAN
SHEET	2	LAYOUT AND LIGHTING PLAN
SHEET	3	GRADING, DRAINAGE AND UTILITIES PLAN
SHEET	4	PLANTING PLAN
SHEET	5	SITE DETAILS
SHEET	6	UTILITY AND DRAINAGE DETAILS
SHEET	7	UTILITY AND DRAINAGE DETAILS
SHEET	8	UTILITY AND DRAINAGE DETAILS
SHEET	9	EROSION AND SEDIMENTATION CONTROL DETAILS AND NOTES
SHEET	10	EROSION AND SEDIMENTATION CONTROL PLAN
SHEET	A3.01	OVERALL BUILDING ELEVATIONS
SHEET	A3.02	OVERALL BUILDING ELEVATIONS
SHEET	A3.03	OVERALL BUILDING ELEVATIONS



LOCATION MAP
NOT TO SCALE

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

BAYSIDE VILLAGE
STUDENT HOUSING COMPLEX
120 Marginal Way — Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

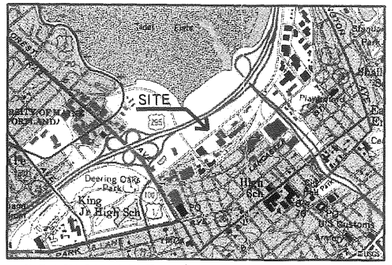
Title: COVER PAGE

Scale:

North:

Sheet No.: CP

A-2



LOCATION MAP

NOT TO SCALE

LEGEND

	EXISTING
PROPERTY LINE	
MONUMENT FOUND	MON
CONTOUR	70
CATCHBASIN	
MANHOLE	
HYDRANT	
WATER VALVE	
UTILITY POLE	
LIGHT POLE	
WATER SERVICE	W
SEWER SERVICE	ESS
STORM DRAIN	ESD
GAS SERVICE	G
OVERHEAD WIRES	OHW
GUARD RAIL	
SIGN	
SHRUBLINE	
TEST BORING	

NOTES:

1. OWNER OF RECORD: CITY OF PORTLAND. CCRD 1791/446
2. PARCEL IS SHOWN AS LOT 1 BLOCK B ON CITY OF PORTLAND ASSESSORS TAX MAP 34 A.
3. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION.
4. ELEVATIONS BASED ON NGVD 1929.
5. OWEN HASKELL, INC. SURVEY DOES NOT INCLUDE DATA BEHIND CURBLINE TO THE SOUTH OF MARGINAL WAY AND TO THE WEST OF PREBLE STREET EXTENSION. THIS DATA IS APPROXIMATE AND HAS BEEN ADDED TO THESE SITE PLANS FOR CONTEXT INFORMATION.

PLAN REFERENCES:

1. "BOUNDARY SURVEY OF PROPERTY ALONG MARGINAL WAY AND PREBLE STREET" PREPARED BY PORTLAND DPW ENGINEERING SECTION, DATED DECEMBER 10, 2003.
2. "BOUNDARY + TOPOGRAPHIC SURVEY" ON MARGINAL WAY, PORTLAND MAINE MADE FOR MITCHELL + ASSOCIATES, DATED MARCH 11, 2005.

CERTIFICATION:

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

DATE

JOHN W. SWAN, PLS NO. 1038

Prepared For:
Applicant:
SOUTHERN MAINE STUDENT HOUSING, LLC
247 Commercial Street
Rockport, Maine 04856
Tel: (207) 236-4067

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School
70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX
120 Marginal Way
Portland, Maine

Date: JULY 11, 2006

Issued For: PRELIMINARY SITE PLAN AND SUBDIVISION REVIEW

Revisions:

Title: EXISTING CONDITIONS AND DEMOLITION PLAN

Scale: 1"=30'

0 10 20 30 60 ft.

North:

Sheet No.: 1

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