2001-0302

77-A-1

100-100 Seavall st, Portland ME
Amtrak layover facility
No-New England passenger Rail Authority

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

2001-0302
Application I. D. Number

11/02/2001
Application Date

No. New England Passenger Rail Authority
Applicant

58 Fore Street, Bldg. 30, Portland, ME 04101
Applicant's Mailing Address

Amtrak Layover Facility, Thompson's P
Project Name/Description

Murray, Micheal J.
Consultant/Agent

100 - 100 Sewall St, Portland, Maine
Address of Proposed Site

Applicant Ph: (207) 780-1000 Applicant Fax: (207) 780-1001
Applicant or Agent Daytime Telephone, Fax

077 A001001
Assessor's Reference: Chart-Block-Lot

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

720 sq. ft.	1 Acre	B5
Proposed Building square Feet or # of Units	Acreage of Site	Zoning

Check Review Required:

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

Fees Paid: Site Plan $400.00 Subdivision Engineer Review Date 11/02/2001

DRC Approval Status:

Reviewer Deluca Hoffman

☑ **Approved**
☐ **Approved w/Conditions** See Attached
☐ **Denied**

Approval Date 11/20/2001 Approval Expiration 11/20/2002 Extension to ☐ Additional Sheets Attached

☑ Condition Compliance — Steve Bushey (signature) — 11/20/2001 (date)

Performance Guarantee ☐ **Required*** ☑ **Not Required**

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

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

National Railroad Passenger Corporation, Two South Station, Boston, MA 02110-2215

Amtrak

June 5, 2000

Ms. Tracey E. McGrail, President
Exeter Area Chamber of Commerce
120 Water Street
Exeter, NH 03833

Re: Station Platform Compliance with the Americans With Disabilities Act ("ADA")

Dear Ms. McGrail:

Thank you for your May 18, 2000 letter regarding the station platform issue that I mentioned at the recent NNEPRA Station Committee meeting.

In the case of the platform at Worcester, MA, which was referenced both at the meeting and in your letter, the Massachusetts Architectural Access Board (the "MAAB"), interpreting a provision of Massachusetts law that would not apply in New Hampshire or Maine, initially refused to allow the rebuilt Worcester station to open with only a mini-high platform. The dispute, however, was resolved last month when the MAAB granted a variance that includes a requirement that the Worcester Redevelopment Authority construct a 355-foot high-level platform. Please let me know if you would like a copy of the MAAB's eight-page decision.

With respect to the ADA, the U.S. Secretary of Transportation has promulgated ADA Accessibility Guidelines for Buildings and Facilities at 49 CFR Part 37, App. A. (Identical Guidelines are promulgated by the Architectural and Transportation Barriers Compliance Board at 36 CFR Part 1191, App. A.). Section 10 of these Guidelines covers "Transportation Facilities", and Subsection 10.3 specifically covers "Fixed Facilities and Stations." While these do not directly address the length of a platform, they do set standards for both platform height and the gap between the platform and the rail car. They also provide that "where it is not operationally or structurally feasible to meet the horizontal gap or vertical difference requirements, mini-high platforms, car-borne or platform-mounted lifts, ramps or bridge plates ... shall suffice." Amtrak assumes that if a town has decided to construct a mini-high platform, and/or to rely on lifts/ramps/bridge plates, such decision was based on i) a determination, made in consultation with a professional consultant versed in the ADA Accessibility Guidelines, as to operational or structural feasibility, and ii) appropriate documentation.

Amtrak's role with respect to the stations in Maine and New Hampshire is limited under the December 1, 1996 Amtrak/NNEPRA Operating Agreement (the "Operating Agreement"). We have been providing, and will continue to provide, advice and assistance on station designs, as documentation is received by us. Unfortunately, however, we cannot give any formal

certification that the stations are in compliance with applicable laws, regulations and guidelines, nor are we obligated to do so. In our experience, contracts for architectural/engineering services typically provide that such compliance, and presumably any necessary certification, is the responsibility of the architect or engineer of record.

Appendix I to the Operating Agreement requires that NNEPRA provide station facilities that meet all applicable legal standards, and that NNEPRA "assure that some entity is responsible for cleaning, maintaining and repairing such stations and station facilities." While Amtrak will look to NNEPRA to comply with these obligations, we understand that most, if not all, of these responsibilities have been assumed by the individual towns. Presumably, therefore, each town, in connection with the rehabilitation or construction of its station, has required its architect, engineer and/or contractor to assure that, when opened for service, the station and station facilities will be in full compliance with all applicable legal standards (e.g., ADA Accessibility Guidelines). If not, we urge that such assurances by promptly obtained.

Sincerely,

Victor W. Salemme
Project Director

cc: All Members of NNEPRA'S Station Committee (see attached list)
Nancy Mayville (NHDOT)
Michael J. Murray (NNEPRA)
Jonathan Carter (Town of Wells)
Nate Moulton (MDOT)

Central Maine Power Company
83 Edison Drive, Augusta, Maine 04336 (207) 623-3521
Real Estate Services

June 27, 2000

Harry Blunt
Langdon Street Real Estate Inc.
7 Langdon Street
Concord, NH 03301

Re: Concord Trailways

Dear Mr. Blunt:

This letter of agreement, once signed by both parties, will serve as written permission for Concord Trailways to use a portion of Central Maine Power Company's (CMP) property known as the Sewall Street Substation Lot. The permission herein granted is for use of that portion of the above property formerly the vacated paper street known as Sewall Street (see Attachment A). Said property is currently used by Concord Trailways as an overflow parking area.

The permission herein granted is subject to the following terms and conditions:

1. Permittee may pave the parking area at its sole cost and expense.

2. Permittee shall keep the property neat, clean, orderly and safe and shall not permit any waste or nuisance on the property.

3. Said property is CMP's access to its Substation Lot and Permittee's use shall in no way obstruct CMP's said access.

4. Access to and from the parking area shall be gated and Permittee and CMP shall maintain its own locks to said gates.

5. This agreement shall in no way encumber CMP's ownership of the property or interfere with its right to maintain its underground transmission line designated Section 275, as currently located under said property.

6. If Permittee's use of the property interferes with CMP's access to its Substation Lot or the maintenance of its underground Transmission Line designated Section 275, the permission granted herein may be cancelled by CMP.

By acceptance of this permission, you hereby waive any claim that you now have or may have in the future against Central Maine Power Company, its servants, contractors, directors, agents, successors and assigns, and further agree to indemnify, protect and save harmless, Central Maine Power Company, its servants, contractors, directors, agents, successors and assigns from and against any and all claims, demands and actions, all of which may arise pursuant to the exercise of the permission hereby granted or otherwise.

If this Agreement is acceptable under the conditions stated above, would you kindly sign and return it to me. The Agreement will be executed by Kenneth Freye and a copy returned for your records.

Sincerely,

Alice D. Richards
Real Estate Services

CENTRAL MAINE POWER COMPANY

By:_____
Kenneth H. Freye, Manager
Property Management

CONCORD TRAILWAYS

By:_____
Harry Blunt

Its:_____

cc: Steve Sawyer, Sebago Technics
City of Portland, Planning Board

CENTRAL MAINE POWER
FACSIMILE TRANSMITTAL SHEET

83 Edison Drive
Augusta, ME 04336
(207) 623-3521 FAX (207) 626-9503

Date: 6-27-00

Transmission consists of cover sheet plus 4 **page(s)**

To:
Steve Sawyer

Phone:

Fax: 626-2910

From:
Alice Richards

Phone:

Fax:

Comments:

From: "Steve Bushey" <srbushey@maine.rr.com>
To: "Sarah Hopkins" <SH@ci.portland.me.us>
Date: Thu, Jun 22, 2000 4:02 PM
Subject: Train Station

Sarah,
I have reviewed the response letter from Sebago Technics for the proposed train station development and find that they have adequately addressed my earlier comments. Based on the submission materials presented to date I find that the project's stormwater and erosion control measures meet the requirements of the MEDEP stormwater and Site Location of development guidelines. Therefore I can recommend the project be considered for final Approval by the Planning Board.

Steve B Acting Development review coordinator

TO RESIDENTS AND PROPERTY OWNERS IN THE VICINITY OF
SEWALL STREET AND THOMPSON'S POINT

On Tuesday, June 27, 2000, the Portland Planning Board will hold a public hearing on a plan by Langdon Street Real Estate and the City of Portland for 3,200 sq. ft./unit addition to the Concord Trailways bus station located in the vicinity of Sewall Street for use as an interim train station. The porposal also includes a train platform and associated parking. The site is 13 acres/sq. ft. and zoned R-5, R-P and B-5. The plan will be evaluated for its conformance with the site Plan Ordinance of the Land Use Code as well as Site Location of Development.

The public hearing is scheduled to begin at 7:00 p.m. in Room 209, City Hall, 389 Congress Street, Portland, Maine. Should you wish to review the plans in advance, they are available in the Portland Planning Department. If you are unable to attend the public meeting of the Board, please submit your written comments to Joseph E. Gray, Jr., Director of Planning and Urban Development, City Hall, 389 Congress Street, Portland, Maine 04101.

Alexander Jaegerman
Chief Planner

TO RESIDENTS AND PROPERTY OWNERS IN THE VICINITY OF
SEWALL STREET AND THOMPSON'S POINT

On Tuesday, June 27, 2000, the Portland Planning Board will hold a public hearing on a plan by Langdon Street Real Estate and the City of Portland for a 3,200 sq. ft./unit addition to the Concord Trailways bus station located in the vicinity of Sewall Street for use as an interim train station. The proposal also includes a train platform and associated parking. The site is 13 acres/sq. ft. and zoned R-5, R-P and B-5. The plan will be evaluated for its conformance with the Site Plan Ordinance of the Land Use Code as well as Site Location of Development.

The public hearing is scheduled to begin at 7:00 p.m. in Room 209, City Hall, 389 Congress Street, Portland, Maine. Should you wish to review the plans in advance, they are available in the Portland Planning Department, City Hall. If you are unable to attend the public meeting of the Board, please submit your written comments to Joseph E. Gray, Jr., Director of Planning and Urban Development, City Hall, 389 Congress Street, Portland, Maine 04101.

Alexander Jaegerman
Chief Planner

O:\PLAN\DEVREVW\AMTRAK\6-27NOT.WPD

Sebago Technics

Engineering & Planning for the Future

May 30, 2000
99607

Sarah Hopkins, Senior Planner
Portland Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Major Site Plan Application
Portland Intermodal Transportation Center, Thompson's Point Connector

Dear Sarah:

On behalf of Langdon Street Real Estate, Inc. (LSRE) and the City of Portland, I am pleased to submit seven (7) copies of the preliminary plan documents for the new Intermodal Transportation Center at the Concord Trailways site on Sewall Street. As discussed previously, this project is being developed jointly by LSRE, the City of Portland, and the Maine Department of Transportation. However, the applicant is a shared effort by LSRE and the City of Portland.

Our submission to you on April 25th was conceptual in nature for a tentative workshop meeting with the Planning Board. This new supplemental submittal package addresses more of the technical information required by the City for site location review and includes the following documents:

1. Plan set of 23 drawings which consist of the following:

   - Existing Conditions Plan
   - Layout Plan
   - Grading Plan
   - Landscape Plan
   - Lighting Plan
   - Plan and Profile of Thompson's Point Connector
   - Cross-sections of Thompson's Point Connector Road
   - Site and Subsurface Exploration Plan
   - Construction Details
   - Building Elevations

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

These drawings have been separated into the project areas which will be developed by both applicants. LSRE will develop the train station facility and Parking Lots A, B and E. The City and State will develop Lots C and D and the Thompson's Point Connector Road.

2. A Stormwater Management Plan narrative.

3. Cut sheets on light fixtures.

4. Letter from Maine Historical Preservation Commission.

5. Letter from State of Maine Department of Conservation.

6. Inland Fisheries & Wildlife

7. Traffic Study from Wilbur Smith Associates.

8. High level and low level platform design for train.

I understand we have been placed on the June 27th workshop with the Planning Board. We hope these more technical documents provide you with the information you need for a more thorough review. As you review these documents, please feel free to call Steve Sawyer or me with questions, comments or request for additional information.

Sincerely,

SEBAGO TECHNICS, INC.

Stephen G. Doe, R.L.A.
Landscape Architect

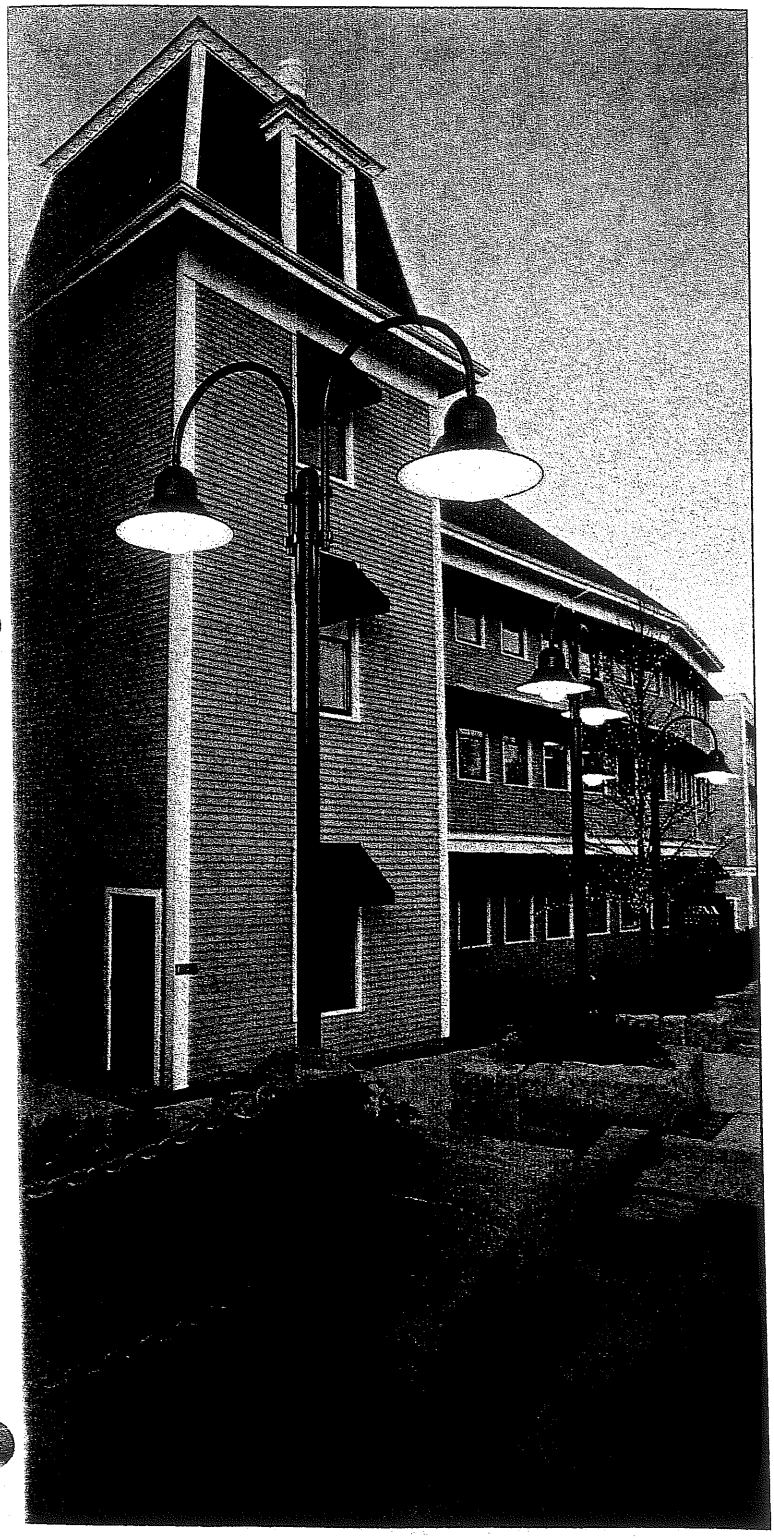
SGD:jc
Enc.

cc: Don McGilvery, Ledgewood, Inc.

ARCHITECTURAL
AREA
LIGHTING

SL FH

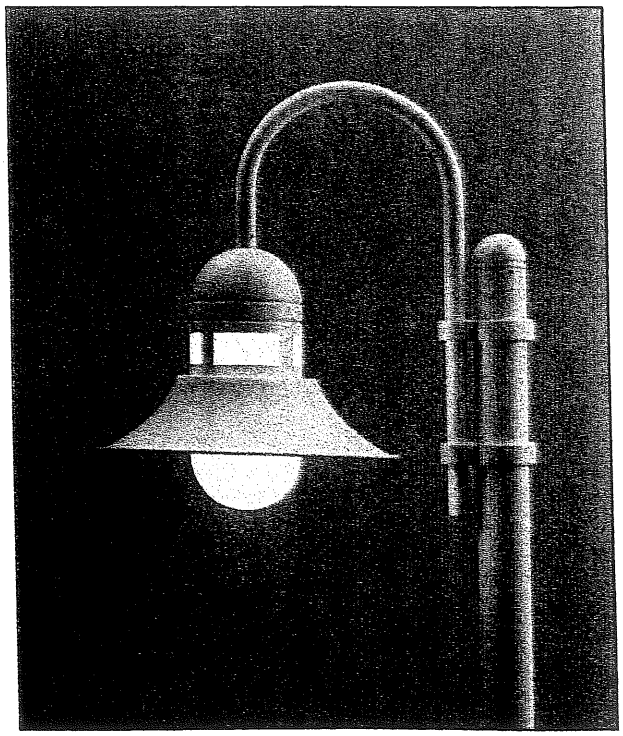
Flared Hood



2-SL FH22 SLA4-2 PR4-4R10

The SL FH series is scaled in three sizes of fifteen, twenty and thirty inch diameters to coordinate with any site design. Fixtures can be post top mounted or specified with a variety of decorative arms and bases. Quality design details include all aluminum construction and a cast aluminum threaded fitter for attaching the opal lens. The fifteen inch wall luminaire is scaled to compliment the larger fixtures. The SL FH 15 wall bracket simplifies installation with a flush mounted enclosure that houses the ballast components. Sixteen powder coat finishes are standard, and custom color matches are available.

All fixtures carry a two year limited warranty.



SL FHW22T SLA4

22" DIAMETER

SL FH22-T

DIMENSIONS: 22" diameter x 16" high
WEIGHT: 18 pounds
EPA: 1.14

SL FH22-S

DIMENSIONS: 22" dia. x 16" wide x 31"proj.
WEIGHT: 20 pounds
EPA: 1.30

SL FH22-PM

DIMENSIONS: 22" diameter x 29" high
WEIGHT: 21 pounds
EPA: 1.50

SL FHW22-T

DIMENSIONS: 22" diameter x 19" high
WEIGHT: 20 pounds
EPA: 1.25

SL FHW22-PM

DIMENSIONS: 22" diameter x 31" high
WEIGHT: 25 pounds
EPA: 1.95

30" DIAMETER

SL FH30-T

DIMENSIONS: 30" diameter x21" high
WEIGHT: 26 pounds
EPA: 1.90

SL FH30-S

DIMENSIONS: 30" dia. x 21" wide x 37"proj.
WEIGHT: 29 pounds
EPA: 2.45

SL FH30-PM

DIMENSIONS: 30" diameter x 34" high
WEIGHT: 30 pounds
EPA: 2.32

SMALL WALL BRACKET

SL FH15-SS

DIMENSIONS: 15" high x 12" wide x 21"proj.
WEIGHT: 15 pounds
EPA: .83

SL FH15-CA

DIMENSIONS: 15" dia. x 18" wide x 21"proj.
WEIGHT: 15 pounds
EPA: .90

OPTIONS

FS1	Single weather proof fuse holder and fuse
LXN	Polycarbonate lens in lieu of acrylic
PMS	Pendant mounting kit with 24" stem and swivel canopy
RBC	Cast aluminum receptacle base welded to the pole with a weatherproof cover
GFI	GFCI duplex receptacle with cast base welded to pole and gasketed, self closing cover
•	Flag, banner or sign holder consult factory

ORDERING INFORMATION

CATALOG NUMBERS

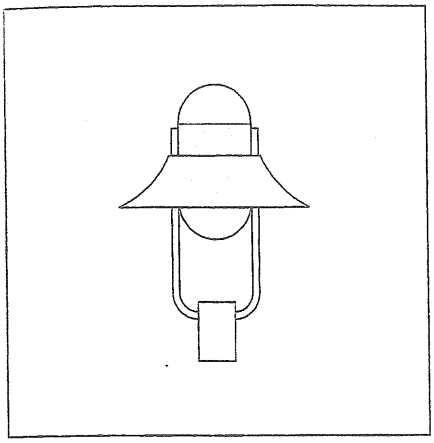
22" DIAMETER		METAL HALIDE 70	METAL HALIDE 100	HPS 70	HPS 100
SL FH22-T	top mounted arm or pendant	•	•	•	•
SL FH22-S	with side mounted arm	•	•	•	•
SL FH22-PM	post mount with yoke	•	•	•	•
SL FHW22-T	four luminous windows, top mounted arm	•	•	•	•
SL FHW22-PM	four luminous windows, post mount with yoke	•	•	•	•

30" DIAMETER		METAL HALIDE 70	100	175	250	HPS 70	100	150	250
SL FH30-T	top mounted arm or pendant	•	•	•	•	•	•	•	•
SL FH30-S	with side mounted arm	•	•	•	•	•	•	•	•
SL FH30-PM	post mount with yoke	•	•	•	•	•	•	•	•

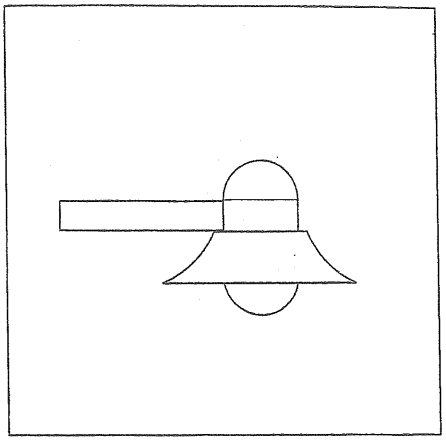
15" DIAMETER		METAL HALIDE 50	METAL HALIDE 70	HPS 35	HPS 50	HPS 70
SL FH15-SS	straight side arm mount	•	•	•	•	•
SL FH15-CA	curved arm mount	•	•	•	•	•

EXAMPLES

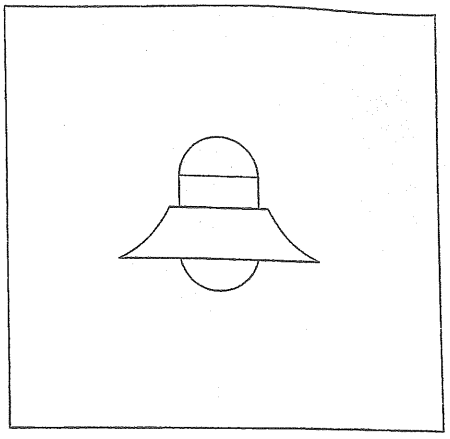
FIXTURE	LAMP	VOLTAGE	ARM	BASE-POLE	COLOR	OPTIONS
SL SF20-T	100MH	277	SLA20B-2	PR4-4R10-125	BGM	BANNER ARM
SL SF30-PM	250HPS	120	•	DB6-4R14-125	TEL	•



SL FH-PM



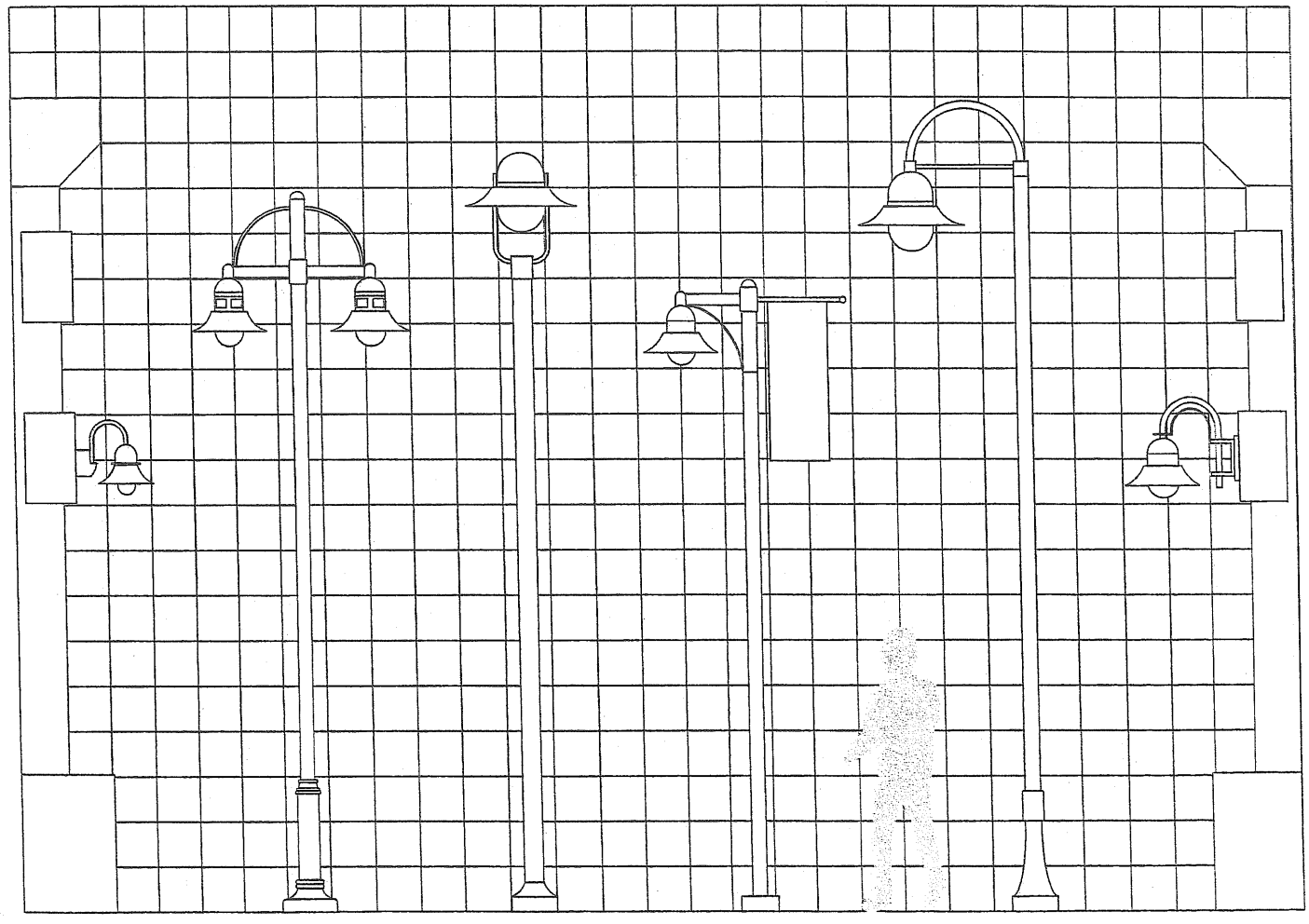
SL FH-S



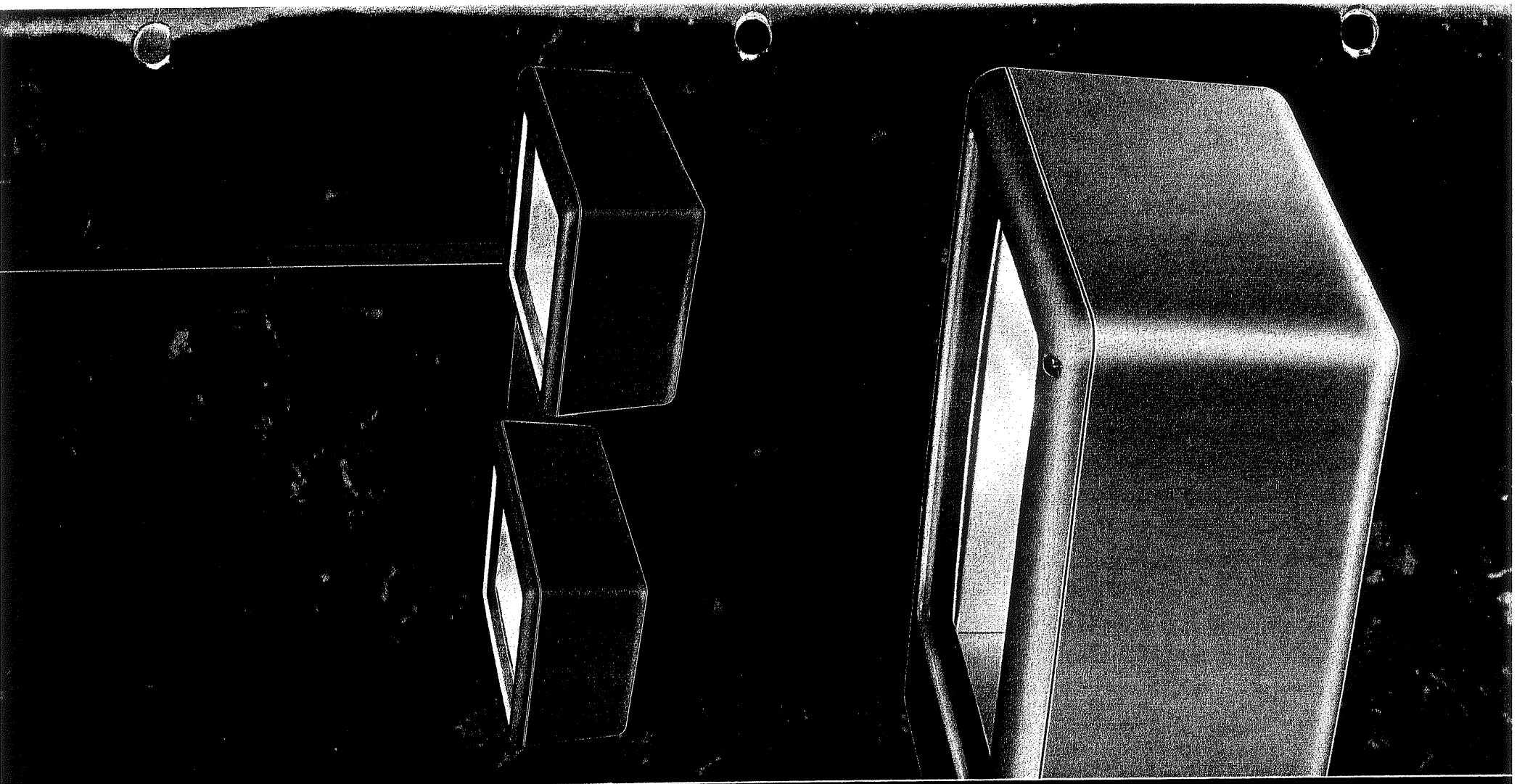
SL FH-T

SCALE: 1/4" = 1'

Typical Configurations



HEAD	SL FH15-CA	2-SL FHW22-T	SL FH30-PM	SL FH22-T	SL FH30-T	SL FH22-T
ARM	•	SLA20A-2	PR5-5R14	SLA20D	SLA18	WMA8
POLE	•	DB6-4R14	BC1-5	PR4-4R12	PR4-4R16	•
OPTIONS	•	•	•	BANNER ARM	BC4-4	•



SPAULDING LIGHTING, INC.

CAMBRIDGE

LUMINAIRE ORDERING GUIDE

UL & CSA Listed.

Model

CEI - small size

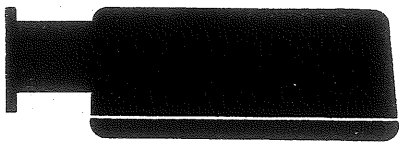
CEII - large size

Mounting Mode

PM

Pole Mount

WB



Wall Bracket

Lamp Type/ Watts

small size
S100 S150 S250 S400 M175 M250 M400

large size
S400 S1000 M400 M1000

Reflector

I-asymmetric **III**-asymmetric **IV**-forward throw **VS**-symmetric square

Voltage

120 208 240 277 347 480 MT-multi-tap

Options

PC - photoelectric cell 120-277v, up to 400w.
PR - photo receptacle (less cell)
VG - polycarbonate vandal guard
SF - single fuse
DF - double fuse
CS - house side cutoff shield

Colors for Luminaire and Pole

DBZ	SSB	RRN	SGB	WHT	FGP	TBP	RBP	CMB	SOS
dark bronze	beige	rocket red	black	white	forest green	teal blue	royal blue	burgundy	silver

Luminaire Ordering Example:

MODEL	MOUNTING MODE	LAMP TYPE WATTS	REFLECTOR	VOLTAGE	OPTIONS	COLOR
CEII	– PM	– S400	– IV	– MT	– PC	– SOS

CEI
CEII

PM; pole mount:
std-6" arm for CEI
std-10" arm for CEII
WB; wall bracket

small: S100, S150, S250, S400, M175, M250, M400
large: S400, S1000, M400, M1000

I; symmetric
III; asymmetric
IV; forward throw
VS; V-square

120
208
240
277
347
480
MT; multi-tap

PC; photoelectric cell 120-277v, up to 400w
PR; photo receptacle (less cell)
SF; single fuse
DF; double fuse
VG; polycarbonate vandal guard
CS; house side cutoff shield

DBZ; dark bronze
SSB; beige
RNN; rocket red
SGB; black
WHT; white
FGP; forest green
TBP; teal blue
RBP; royal blue
CMB; burgundy
SOS; silver

POLE ORDERING

Refer to Poles/Brackets Section for ordering information.

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

ANGUS S. KING, JR.
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

May 19, 2000

Stephen S. Sawyer
Sebago Technics
One Cabot Street
PO Box 1339
Westbrook, Maine 04098-1339

Project: MHPC #667 - Portland Intermodal Transportation Center, Sewall Street
Location: Portland, Maine

Dear Mr. Sawyer:

In response to your recent request, I have reviewed the information received May 8, 2000 to initiate consultation on the above referenced project.

Based upon the proposed scope of work for this project and the project location, no additional identification efforts are warranted at this time as there is adequate documentation for a finding on historic properties. Therefore, I find no historic properties [historic, architectural or archaeological] affected by this project.

Please contact Dana R. Vaillancourt of my staff if you require further assistance in this matter.

Sincerely,

Earle G. Shettleworth, Jr.
State Historic Preservation Officer

EGS/drv

STATE OF MAINE
DEPARTMENT OF CONSERVATION
159 HOSPITAL STREET
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0093

ANGUS S. KING, JR.
GOVERNOR

RONALD B. LOVAGLIO
COMMISSIONER

May 9, 2000

Stephen S. Sawyer
Sebago Technics
One Chabot Street
PO Box 1339
Westbrook, ME 04098-1339

Re: Rare and exemplary botanical features, Intermodal Transportation Center, Portland

Dear Mr. Sawyer:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request of May 5, 2000 for information on the presence of rare or unique botanical features documented from the vicinity of the project site in the town of Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they

may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $75.00 for our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Emily C. Pinkham

Emily C. Pinkham
Information Specialist

Enclosures

Rare or Exemplary Botanical Features in the Project Vicinity

Documented within a four mile radius of the proposed intermodal transportation center, Portland.

Scientific Name Common Name	Last Seen	State Rarity	Global Rarity	State Legal Status	Federal Legal Status	Habitat Description
ADLUMIA FUNGOSA ALLEGHENY VINE	1860	S1	G4	T		Wet or recently burned woods, rocky wooded slopes.
CAREX POLYMORPHA VARIABLE SEDGE	1911	S1	G3	E		In Maine, habitat is between downslope seeps (with horsetails and wetland sedges) and upslope mixed oak/huckleberry forest. Preferred soil type is Deerfield Loamy Sand. All Maine occurrences are from coastal towns where climate is moderated by the ocean.
POTAMOGETON VASEYI VASEY'S PONDWEED	1901	S1	G4	T		Quiet muddy or calcareous waters.
SELAGINELLA APODA CREEPING SPIKE-MOSS	1924	S1	G5	E		Meadows, lawns, and streambanks.
SUAEDA CALCEOLIFORMIS AMERICAN SEA-BLITE	1932	S1	G5	T		Rocky or gravelly saltmarshes and sea-strands.
WOLFFIA COLUMBIANA COLUMBIA WATER-MEAL	1979	S2	G5	T		Ponds, and still waters.

STATE RARITY RANKS

S1 Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.

S2 Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

S3 Rare in Maine (on the order of 20-100 occurrences).

S4 Apparently secure in Maine.

S5 Demonstrably secure in Maine.

SH Occurred historically in Maine, and could be rediscovered; not known to have been extirpated.

SU Possibly in peril in Maine, but status uncertain; need more information.

SX Apparently extirpated in Maine (historically occurring species for which habitat no longer exists in Maine).

Note: **State Ranks** determined by the Maine Natural Areas Program.

GLOBAL RARITY RANKS

G1 Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.

G2 Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

G3 Globally rare (on the order of 20-100 occurrences).

G4 Apparently secure globally.

G5 Demonstrably secure globally.

Note: **Global Ranks** are determined by The Nature Conservancy.
T indicates subspecies rank, **Q** indicates questionable rank, **HYB** indicates hybrid species.

STATE LEGAL STATUS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's endangered and threatened plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

E ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future, or federally listed as Endangered.

T THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

SC SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.

PE POSSIBLY EXTIRPATED; Not known to currently exist in Maine; not field-verified (or documented) in Maine over the past 20 years.

FEDERAL STATUS

LE Listed as Endangered at the national level.

LT Listed as Threatened at the national level.

Please note that species names follow Flora of Maine: A Manual for Identification of Native and Naturalized Vascular Plants of Maine, Arthur Haines and Thomas F. Vining, 1998, V.F. Thomas Co., P.O. Box 281, Bar Harbor, Maine 04069-0281.

Where entries appear as binomials, all representatives (subspecies and varieties) of the species are rare in Maine; where names appear as trinomials, only that particular variety or subspecies is rare in Maine, not the species as a whole.

Visit our web site for more information on rare, threatened and endangered species!
http://www.state.me.us/doc/nrimc/mnap/factsheets/mnapfact.htm

IF&W Report- Portland Intermodal Transportation Center

Request for Information - Stephen Sawyer

05/10/2000

Department of Inland Fisheries and Wildlife

(207) 547-5318

1 0 1 2 Miles

Biologist Notes

No identified wildlife habitats associated with this site.

WILBUR
SMITH
ASSOCIATES

ENGINEERS • ECONOMISTS • PLANNERS

107 INDIA STREET • PORTLAND, ME • 04101 • (207) 871-1785 • FAX (207) 871-5825

May 12, 2000

Mr. Stephen S. Sawyer, Jr., P.E.
Sebago Technics
One Chabot Street
Westbrook, Maine 04098-1339

Subject: Portland Amtrak Train Station – Traffic Assessment

Dear Steve:

The purpose of this letter is to provide a summary of the anticipated traffic impacts associated with the proposed Portland Amtrak Train Station located on Sewall Street in Portland, Maine. The summary of impacts discussed below is based upon information from two Maine Department of Transportation (MDOT) studies, 1) the Restoration of Passenger Rail Service prepared by Vanasse Hangen Brustlin, Inc. (VHB), and 2) the proposed Congress Street Interchange prepared by Fay, Spofford & Thorndike, Inc. (FST).

Specifically, our analysis included:

1. Presenting traffic generation expected from the proposed Train Station;
2. Presenting traffic volumes in the immediate study area (Congress Street Connector Road @ Thompson's Point Connector Road); and
3. Presenting Level of Service information in the immediate study area.

Traffic Generation

Traffic volumes generated by the proposed Portland Amtrak Train Station were based upon data contained in the report Restoration of Passenger Rail Service – Transportation Impact Methods and Results Report, June 1993. According to this study, 70 peak hour trips (13 entering and 57 exiting) are projected at the opening of the station and 104 peak hour trips (19 entering and 85 exiting) in the year 2010. The following table summarizes the Trip Generation estimate.

	STATION OPENING	YEAR 2010
Average Daily Ridership	207	311
Peak Hour Ridership	73	110
Daily Ridership	Commuter – 14% Business – 21% Other – 65%	Commuter – 14% Business – 21% Other – 65%
Mode Split	Auto – 60% Transit – 30% Drop-Off – 7% Walk – 3%	Auto – 60% Transit – 30% Drop-Off – 7% Walk – 3%
Auto Trips	5 in/49 out	10 in/76 out
Transit Trips	0 in/22 out	0 in/33 out
Walk Trips	0 in/2 out	0 in/3 out
Vehicle Trips	13 in/57 out (1)	19 in/85 out

(1) The vehicle trips assume eight transit vehicles enter and exit the station during the peak hour. Total vehicle trips are greater than total peak hour ridership due to drop-off/pick-up trips.

The following should be noted as it relates to the above trip generation estimate.

- The peak hour statistics presented above represent conditions during the evening peak hour.
- As currently proposed the arrival/departure train schedule to and from Portland will consist of the following.

  Leave Portland – 6:00AM, 8:40AM, 1:00PM, 3:50PM

  Arrive Portland – 12:00 Noon, 2:50PM, 8:05PM, 1:20AM

The train with the highest anticipated ridership is expected to arrive in Portland at 8:05PM, outside the normal evening peak period on the adjacent road system.

- During the normal morning peak period, some traffic impact is anticipated. However, arrival patterns of vehicles entering the station are spread over a greater time period, thereby lessening the impact. Conversely, greater impact is experienced when trains arrive at a station, because riders generally exit the station at the same time, creating a surge of vehicles departing the station.

Traffic Volumes

Traffic volumes were developed by FST in conjunction with the I-295 Connector Road and Congress Street Interchange project for the year 2025 during both the AM and PM peak hours. Volumes were developed for two conditions. The first condition, or No-Build condition, consists of completion of the new I-295 Interchange and Congress Street Connector Roadway, dead-ending Sewall Street, and constructing a new connector road to Thompson Point and the Train Station. The second condition, or the Build condition, includes extending the Congress Street Connector Road to link with Veteran's Circle. The following table presents traffic volumes at some relevant locations during the 2025 AM and PM peak hours. Two graphics provided by FST are attached illustrating the estimated traffic volumes.

LOCATION	2025 NO-BUILD		2025 BUILD	
	AM	PM	AM	PM
Leaving Thompson Point	124	519	124	519
Entering Thompson Point	581	172	581	172
Congress Street Connector Road Leaving Congress Street	685	548	1228	905
Congress Street Connector Road Approaching Congress Street	754	727	1165	1091

The above traffic volumes illustrate the directional traffic volume distribution on Thompson Point Connector Road. During the morning peak hour the majority of traffic is entering Thompson Point destined to the train and bus stations and other land uses. In the afternoon, the reverse occurs, with the majority of the traffic leaving Thompson Point.

Conclusions

1. The proposed Portland Amtrak Station is expected to generate approximately 70 trips during the peak hour when the train station opens and 104 trips in the year 2010.

2. Capacity analyses were conducted in the vicinity of the proposed project and results indicate study area intersections will operate at level of service 'C' or better in the year 2025. This analysis assumes completion of the reconfigured I-295/Congress Street Interchange by MDOT.

3. The proposed train schedule indicates the arrival and departure of trains will have little or no impact on the typical AM and PM peak hours of the adjacent street system. During the period when the greatest amount of traffic is expected (evening arrival at 8:40PM), the train will be arriving well after the PM peak hour, typically 4:30 to 5:30PM. Some impact is expected from the train departing at 8:40AM, but vehicles destined to the station will arrive at varying times (some arrive early for choice seating, food, etc.) softening the impact of the project.

4. Based upon the information reviewed, it is my professional opinion that new traffic from the proposed Portland Amtrak Train Station will not adversely impact the public street system in the vicinity of the project.

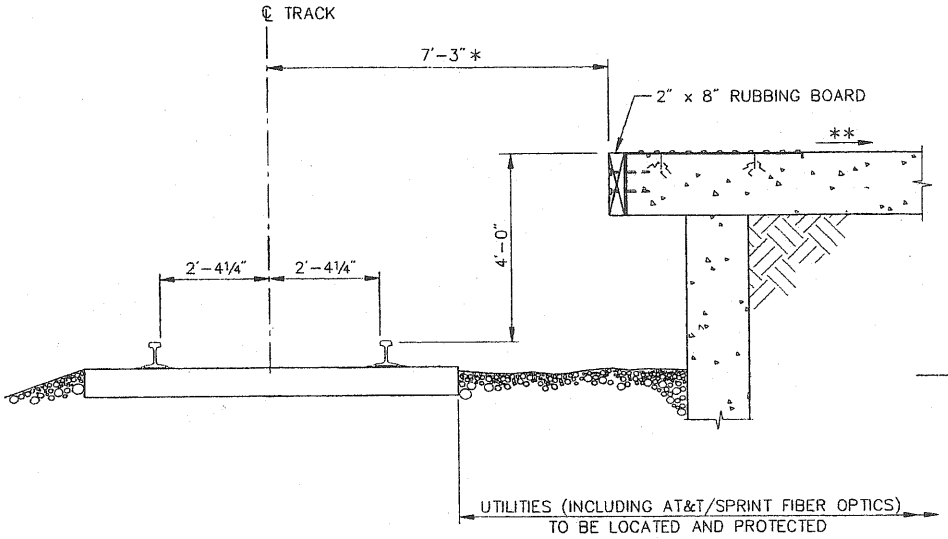
I hope the contents of this letter are satisfactory. Please do not hesitate to call should you have any questions.

Sincerely,

WILBUR SMITH ASSOCIATES

Thomas A. Errico, P.E.
Senior Transportation Engineer

NNEPRA
Northern New England Passenger Rail Authority
5 Industry Road, South Portland, Maine 04106-6154
Tel (207)780-1000 • Fax (207)780-1001

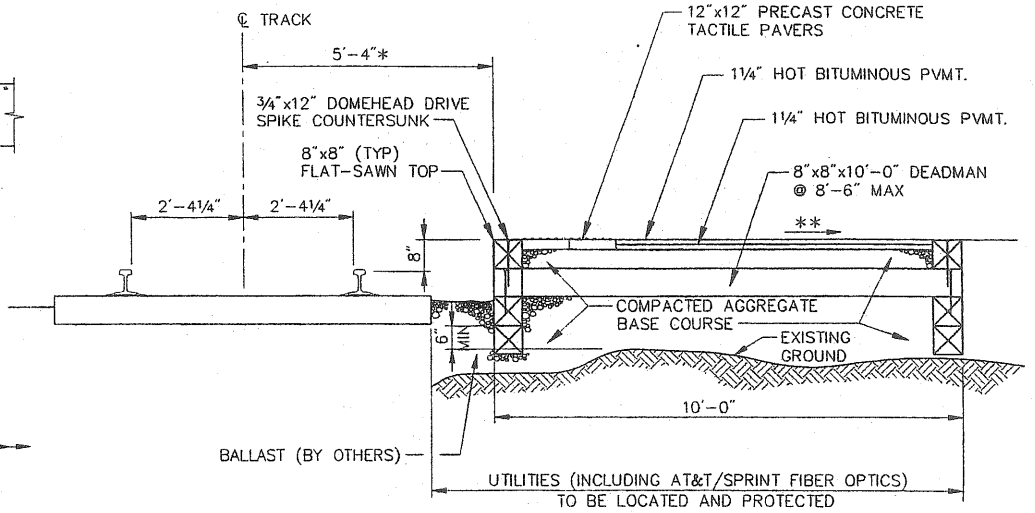


* CLEARANCE IS FOR TANGENT TRACKS. PLATFORMS ADJACENT TO CURVED TRACK MUST INCREASE SIDE CLEARANCE 1" FOR EACH DEGREE OF CURVE.

** ALL SURFACE WATER MUST BE DIRECTED AWAY FROM THE TRACK STRUCTURE.

TYPICAL HIGH PLATFORM SECTION

SCALE: 3/8" = 1'-0"



* CLEARANCE IS FOR TANGENT TRACKS. PLATFORMS ADJACENT TO CURVED TRACK MUST INCREASE SIDE CLEARANCE 1" FOR EACH DEGREE OF CURVE.

** ALL SURFACE WATER MUST BE DIRECTED AWAY FROM THE TRACK STRUCTURE.

TYPICAL LOW PLATFORM SECTION

SCALE: 3/8" = 1'-0"

VHB
Vanasse Hangen Brustlin, Inc.
Transportation
Land Development
Environmental Services
Six Bedford Farms, Suite 607
Bedford, New Hampshire 03110-6532
603 644 0888 FAX 603 644 2385

Rec. 4/5/00

DRAFT

PLATFORM PLOT DATE: 9-22-99

99607

Stormwater Management Narrative

Portland Intermodal Transportation Center
Portland, Maine

Introduction

This Stormwater Management Narrative has been prepared in order to analyze the stormwater runoff associated with the proposed Intermodal Transportation Center at the site of the existing Concord Trailways facility off Sewall Street in Portland, Maine.

The first aspect of this development will create an expansion to the existing Concord Trailways terminal building with a connection to the new train platform and an expanded parking lot. The second aspect of the development will entail the construction of the new Thompson's Point Connector Road and two new parking lots on the northerly side of the new road.

Site Characteristics

The parcel is located on the southeastern side of Sewall Street and is bounded by Sewall Street, railroad tracks, the new I-295 interchange, and an existing commercial development. The portion of the site that is southerly of the new road is currently developed as the Concord Trailways bus terminal facility. The remainder of the site is currently vacant and included brush and wooded areas, the abandoned Hooper Street, and other gravel areas. Wetlands are mainly located at the southern corner of the property, with one small pond on the north side of Hooper Street. The hydrologic soil group (HSG) for the fill areas has been assumed to be "C". The HSG for the remaining undeveloped areas has been assumed to be "B". Elevations on the site range from Elevation 35 at Sewall Street to Elevation 8 in the wetlands at the rear corner of the site.

Methodology

The stormwater runoff analysis was developed in accordance with the methodology outlined in the USDA Soil Conservation Service "Urban Hydrology for Small Watersheds, Technical Release # 55" and HydroCAD Stormwater Management Systems. The 2-year, 10-year and 25-year, 24-hour, Type III storm events were used for this analysis. Due to the site's proximity to the Fore River and the size of the overall upstream areas contributing to the river and Portland Harbor, it is apparent by observation that on-site detention will not provide a measurable benefit. The existing wetlands on the site help to provide a stable receiving body to allow discharge to the downstream areas. Due to the site's location at the downstream end of the watershed, attenuation of peak flow rates is not as beneficial or imperative as enhancing the quality of the stormwater leaving the site.

Water Quality

The portion of the site that encompasses the existing Concord Trailways facility includes approximately 0.96 acre of new impervious area. As such, based on the sliding scale, this portion of the project is required to obtain 40% Total Suspended Solids (TSS) removal. The original site design utilized a Vortechnics Model #7000 and a pond to provide stormwater treatment. This existing Vortechnics unit will be utilized as an off-line structure, which will provide 70% TSS removal. The "first-flush" of runoff from Parking Lots A and B and the loop road will be directed through this Vortechnics unit. Additionally, a portion of the flows from the Vortechnics unit will be diverted into the treatment pond. These flows will then receive additional treatment. Overall, runoff from 78% of the total impervious area for Parking Lots A, B, and E, and the loop road will be treated. This translates into a weighted average of 55% TSS removal for the portion of development on the southerly side of Thompson's Point Connector Road.

The portion of development that includes Thompson's Point Connector Road and Parking Lots C and D involves the creation of approximately 3.14 acres of new impervious area. As such, based on the sliding scale, this portion of the project is required to obtain 68% TSS removal. The stormwater management system for this portion of the development will also include an off-line Vortechnics structure, which will provide 70% TSS removal. Parking Lots C and D and Thompson's Point Connector Road have been graded so that runoff from all new impervious areas will be collected through a series of catch basins and subsurface storm drains. This drainage system will flow through a diversion structure at which point the "first-flush" will be directed into a new Vortechnics Model #7000. The additional runoff will bypass this treatment structure. All runoff from this portion will again be combined into one structure, which will outlet into an area just above the large wetland on site.

Erosion and Sediment Control Plan

In order to further reduce the potential for impacts associated with the project's construction, an Erosion and Sediment Control Plan has been prepared which outlines the measures to be incorporated before and during the construction of the project. Permanent erosion control measures have also been included to reduce the potential for long-term effects. A narrative and details of this plan are included in the drawing set.

Summary

The preceding stormwater evaluation has been prepared to address the post-development runoff conditions for the proposed Portland Intermodal Transportation Center and Thompson's Point Connector Road. Principal stormwater management features include combinations of catch basins, storm drains, and Vortechnics structures. It is anticipated that this system will improve the quality of runoff leaving the site by collecting and treating the first flush of runoff. An erosion control plan has been made an integral part of the overall project and specific instructions and details have been placed directly on the plans.

Based on the enclosed stormwater runoff calculations and the site's downstream location, it is not anticipated that the increases in the peak runoff rates leaving the site will have a significant adverse impact on the downstream receiving water bodies.

Prepared by:

SEBAGO TECHNICS, INC.

Jennifer L. Williams
Project Engineer

JLW:jlw/jc
May 30, 2000

City of Portland
Planning Department

389 Congress Street, 4th Floor
Portland, ME 04101
207-874-8721 or 207-874-8719
Fax: 207-756-8258

FAX TRANSMISSION COVER SHEET

Date:

To: Steve Sawyer / Jeff Monro

Company: Scbago Technics / Waterfront

Fax #: 856 2206 / 773-0285

From: Sarah Hopkins

RE: Train Station

YOU SHOULD RECEIVE _____ PAGE(S),
INLUDING THIS COVER SHEET.
IF YOU DO NOT RECEIVE ALL THE PAGES,
PLEASE CALL 207-874-8721 OR 207-874-8719.

CITY OF PORTLAND MAINE
MEMORANDUM

TO: Chair Caron and Members of the Planning Board

FROM: Sarah Hopkins, Senior Planner

DATE: June 13, 2000

SUBJECT: Portland Intermodal Transportation Center

Introduction

Langdon Street Real Estate and the City of Portland have requested a workshop with the Planning Board to present the proposal for the Portland Intermodal Transportation Center at the Concord Trailways site above Thompson's Pont. The site is 13.3 acres and zoned B-5 Business, R-P Residential-Professional, and R-5 Residential.

The applicants propose to construct a 3,200 sq ft addition to the existing Concord Trailways Bus Station building. A 220ft long covered walkway connector will then lead to the railroad tracks where a combination high/low level train platform will be constructed.

The Sewall Street location will serve as an interim rail facility until an intermodal station can be constructed with associated railroad infrastructure in Bayside.

Access

Access to the Intermodal Center will be provided via the new Thompson's Point Connector. This connector road is the first phase of the I-295 connector /Congress Street interchange which is proposed to provide direct access between West Commercial Street and I-295. The redesigned Congress Street interchange and Thompson's Point Connector is currently out to bid and will provide direct access to the facility (See Attachment 2).

According to the proposal, Sewall Street will be ended in a cul-de-sac, just above the Intermodal Center. Sewall Street will then only provide access to the homes and medical offices located to the north of the facility. The new connector road will then be the single vehicle access point to the facility and Thompson's Point complex.

Pedestrian access will be provided to the facility from both the connector road and Sewall Street.

Parking

There are a series of parking lots proposed for this development. Lots A and B are located adjacent to the intermodal facility and provide 266 spaces. Lots C and D will be constructed by Maine Department of Transportation and will contain 374 parking spaces. Lot E will be located across Sewall Street and will contain 45 spaces.

Painted crosswalks and sidewalks will be provided throughout the site connecting the parking lots to the facility.

Grading/Drainage

The applicant will regrade and fill a small area in the eastern portion of the site to connect to the grades of the Congress Street connector.

The stormwater management for the facility will be tied into the plan for the connector road project. The expansion of the Concord Trailways site will be reviewed under Site Location of Development Standards with over 3 acres of impervious surface proposed.

The Stormwater Management Narrative indicates that while holding back peak flow rates will not provide a measurable benefit due to the proximity to the end of the watershed, the quality of stormwater leaving the site is important. The plan proposes sending the additional runoff created by the new construction through an existing Vortechnics treatment unit located on-site. A portion of stormwater from the Vortechnics unit will also be sent through a treatment pond. In all, 78% of the total impervious area of lots A, B, E and the loop road will be treated, with a TSS removal of 55%.

Building/Walkway/Platform

The expansion of the Concord Trailways facility will allow for a larger, redesigned waiting room offering access to both the bus queuing and train queuing areas. All ticketing services will be handled at a central counter.

Passengers waiting for a train will remain in the station waiting area until the train is announced and proceed down the walkway to the platform.

The building elevations indicate an addition which is compatible with the existing bus station. The addition will be clad in brick with granite window lintels. Concrete masonry unit material will be used along the base of the building facade.

Entrances to the building will be updated and have been designed to provide higher visibility along the interstate elevations.

Landscaping

The landscaping plan for the project indicates the installation of various maples along the connector road and internal access drive within the site. Parking lot islands will be landscaped with Austrian Pines Redspire Pears, Rosa Rugosa and Crabapples. Compact Junipers will be used within the islands and along the parking lot borders.

Lighting

A lighting plan has been submitted by the applicant which appears to be in conformance with the City's Technical Standards. 20 ft high pole mounted lights will be installed throughout the parking lot with 150 watt lamps. Lower decorative lamps will be placed around the building.

The majority of the building parcel is located in the B-5 zone. However, a portion of the parking areas

are located in the R-5 and R-P zones. Parking in residence zones requires conditional use approval which may be granted by the Planning Board. We will confirm this process with the Zoning Administrator and Corporation Counsel prior to the Public Hearing.

Issues

The main issue regarding this project may be related more to the Congress Street Interchange/Thompson's Point Connector Plans (a proposal which the Planning Board will not review).

The closing off of Sewall Street raises concern regarding transportation planning and access. The main reason for closing Sewall Street is to reduce the commuter traffic from cutting through residential streets north of Congress Street in order to access I-295 and connector road.

By ending Sewall Street, Thompson's Point is being disconnected from the traditional existing street network and provided access from the new Thompson's Point Connector.

While the Portland Transportation Plan stresses the need to protect neighborhoods from cut-through traffic, the Plan also stresses the need to preserve and create connections throughout the City.

The City may wish to consider this as a temporary measure which can be readdressed when the new infrastructure is constructed.

Should this become a permanent decision, a street discontinuance would be the appropriate action to be taken by the City.

Attachments

1. Vicinity/Zoning Map
2. Connector Road/Interchange Layout
3. Project Narrative W/Attachments
    a. Stormwater Management Narrative
    b. Lighting Fixtures
    c. Letter from Maine Historical Preservation Commission
    d. Letter from the Maine Department of Conservation
    e. Letter from Inland Fisheries and Wildlife
    f. Traffic Study
    g. High-level and Low-level Platform
4. Plans
    a. Building Elevations
    b. Floor Plans
    c. Existing Conditions Plan
    d. Layout Plan
    e. Grading Plan
    f. Landscape Plan
    g. Lighting Plan

From: "Steve Bushey" <srbushey@maine.rr.com>
To: "Sarah Hopkins" <SH@ci.portland.me.us>
Date: Mon, Jun 12, 2000 9:18 AM
Subject: Fw: train station

-----Original Message-----
From: stephen bushey <bbushey@maine.rr.com>
To: srbushey@maine.rr.com <srbushey@maine.rr.com>
Date: Monday, June 12, 2000 7:05 AM
Subject: train station

Sarah,

I have reviewed the plan submission by Sebago Technics dated May 30, 2000 for the proposed train station and provide the following comments:

1. The site layout plans should ultimately include a baseline and/or coordinate layout data for ease of construction.

2. The layout plans should be improved by additional signage including but not limited to; Stop Signs, Do Not Enter, No Parking, Pedestrian Crossing etc.

3. I do not recommend the use of Bit. curb on the smaller end cap islands in the parking areas as these will likely be destroyed during snowplowing. In particular, the 3.7' wide islands at the entrance to Lot B seem likely to be the first to go.
I realize this is a temporary facility, however, it should be constructed to last.

4. Snow storage area for Lots A, B and E should be provided. The storage area should drain to a storm drain system so that sand laden runoff from the snow piles can be treated by a treatment device if possible.

5. The applicant should determine if a MEDEP permit for work within 75' of the adjacent wetland is necessary.

6. The applicant should review the need for a catch basin along the southwest drive aisle between elevation 26 and 28.

7. The applicant should review that all existing structures to be modified are adequate or do they need to be replaced. The existing CB that SD32 and SD28 connect to may be too small for five pipe openings.

8. The plans should identify stabilized construction entrances. How will construction traffic be allowed to enter the site? Will traffic along Sewell Street be allowed during construction? If so, the contractor(s) must be responsible for street sweeping and dust control.

9. The existing utility companies should sign off on the new Parking lot E which will be placed over numerous existing utility lines.

10. The plantings on the proposed 3.7' wide islands at the entrance to Lot B are not likely to survive. Perhaps an island with a solid surface such as pavers might be better.

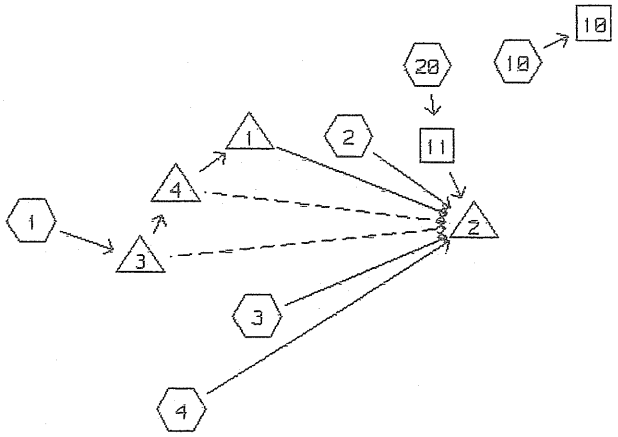
11. The Applicant has prepared a brief stormwater study which states that stormwater quantity control is not necessary due to the site's proximity to the Fore River. I agree with this conclusion. The study also

outlines the need for stormwater quality treatment. The storm drain systems will include the installation of A new vortechnic stormwater treatment device and the continued use of an existing Vortechnics unit and small treatment pond. These measures appear adequate to meet the stormwater treatment needs of the development.

If you have any questions regarding these comments please call.

Steve Bushey Acting Development Review Coordinator.

WATERSHED ROUTING



SUBCATCHMENT 1	= WS-1	-> POND 3
SUBCATCHMENT 2	= WS-2	-> POND 2
SUBCATCHMENT 3	= WS-3	-> POND 2
SUBCATCHMENT 4	= WS-4	-> POND 2
SUBCATCHMENT 10	= Northeastern Portion of Site	-> REACH 10
SUBCATCHMENT 20	= Northwestern Portion of Site	-> REACH 11
REACH 10	= Wetland Adjacent to Site	->
REACH 11	= Swale	-> POND 2
POND 1	= Water Quality Pond	-> POND 2
POND 2	= Wetland Adjacent to RR Tracks	->
POND 3	= CB-6 (Flow Splitter)	-> POND 4
POND 3 secondary	= CB-6 (Flow Splitter)	-> POND 2
POND 4	= Existing Vortechnics Model #7000	-> POND 1
POND 4 secondary	= Existing Vortechnics Model #7000	-> POND 2

SUBCATCHMENT 1 WS-1

PEAK= 7.98 CFS @ 12.00 HRS, VOLUME= .52 AF

ACRES	CN	
2.60	98	Parking/Roofs
.20	79	Grass Islands (Assume C soils)
2.80	97	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	2.2
Smooth surfaces n=.011 L=200'	P2=3 in s=.02 '/'	
CIRCULAR CHANNEL	2	1.5
15" Diameter a=1.23 sq-ft Pw=3.9' r=.313'		
s=.006 '/' n=.012 V=4.42 fps	L=410' Capacity=5.4 cfs	
	Total Length= 610 ft Total Tc=	3.7

SUBCATCHMENT 2 WS-2

PEAK= 1.09 CFS @ 12.26 HRS, VOLUME= .11 AF

ACRES	CN	
1.24	79	Open Space, Fair - C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	19.8
Grass: Short n=.15 L=200'	P2=3 in s=.015 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	2	.7
Grassed Waterway Kv=15 L=150'	s=.06 '/' V=3.67 fps	
CHANNEL FLOW	3	.4
a=5 sq-ft Pw=10' r=.5'		
s=.047 '/' n=.027 V=7.52 fps	L=170' Capacity=37.6 cfs	
	Total Length= 520 ft Total Tc=	20.9

SUBCATCHMENT 3 WS-3

PEAK= 1.25 CFS @ 12.02 HRS, VOLUME= .09 AF

ACRES	CN	
.94	79	Open Space, Fair - C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	3.5
Grass: Dense n=.24 L=55' P2=3 in s=.22 '/'		
CHANNEL FLOW	2	.7
a=5 sq-ft Pw=10' r=.5'		
s=.03 '/' n=.027 V=6.01 fps L=270' Capacity=30 cfs		
	Total Length= 325 ft Total Tc=	4.2

SUBCATCHMENT 4 WS-4

PEAK= .82 CFS @ 12.00 HRS, VOLUME= .05 AF

ACRES	CN	
.21	98	Parking/Roofs
.14	79	Grass Islands (Assume C soils)
.35	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	1.2
Smooth surfaces n=.011 L=130' P2=3 in s=.038 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.4
Grassed Waterway Kv=15 L=40' s=.01 '/' V=1.5 fps		
CHANNEL FLOW	3	1.3
a=5 sq-ft Pw=10' r=.5'		
s=.027 '/' n=.027 V=5.7 fps L=440' Capacity=28.5 cfs		
	Total Length= 610 ft Total Tc=	2.9

SUBCATCHMENT 10 Northeastern Portion of Site

PEAK= .27 CFS @ 12.33 HRS, VOLUME= .04 AF

ACRES	CN	
0.00	0	
.16	85	Gravel Road - B
.98	55	Woods - B
.79	58	Meadow - B
1.93	59	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	7.7
Range n=.13 L=80' P2=3 in s=.0188 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.6
Unpaved Kv=16.1345 L=85' s=.0235 '/' V=2.47 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	3	4.2
Forest w/Heavy Litter Kv=2.5 L=200' s=.1 '/' V=.79 fps		
	Total Length= 365 ft Total Tc=	12.5

SUBCATCHMENT 20 Northwestern Portion of Site

PEAK= .71 CFS @ 12.36 HRS, VOLUME= .10 AF

ACRES	CN	
.50	85	Gravel - B
1.89	55	Woods - B
.54	58	Meadow - B
.20	98	Impervious
3.13	63	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.00 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	12.2
Woods: Light underbrush n=.4 L=55' P2=3 in s=.027 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	3.9
Woodland Kv=5 L=140' s=.014 '/' V=.59 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	3	1.3
Woodland Kv=5 L=100' s=.07 '/' V=1.32 fps		
CIRCULAR CHANNEL	Culvert under Hooper Street	.3
15" Diameter a=1.23 sq-ft Pw=3.9' r=.313'		
s=.01 '/' n=.024 V=2.85 fps L=55' Capacity=3.5 cfs		
RECT/VEE/TRAP CHANNEL	Swale along Hooper Street	1.7
W=5' D=1.5' SS= .25 '/' a=16.5 sq-ft Pw=17.4' r=.95'		
s=.01 '/' n=.08 V=1.79 fps L=180' Capacity=29.6 cfs		
CIRCULAR CHANNEL	Culvert along Hooper Street	.9
24" Diameter a=3.14 sq-ft Pw=6.3' r=.5'		
s=.0268 '/' n=.024 V=6.39 fps L=340' Capacity=20.1 cfs		
	Total Length= 870 ft Total Tc=	20.3

REACH 10

Not described

Qin = .27 CFS @ 12.33 HRS, VOLUME= .04 AF
Qout= .27 CFS @ 12.33 HRS, VOLUME= .04 AF, ATTEN= 0%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)

- METHOD
PEAK DEPTH= 0.00 FT
PEAK VELOCITY= 0.0 FPS
TRAVEL TIME = 0.0 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 11 Swale

Qin = .71 CFS @ 12.36 HRS, VOLUME= .10 AF
Qout= .69 CFS @ 12.46 HRS, VOLUME= .10 AF, ATTEN= 3%, LAG= 6.1 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	2.1	2.45
.4	4.5	7.96
.6	7.1	16.01
.9	10.8	30.12
1.2	16.4	54.82
1.6	23.8	93.26
2.0	32.1	142.42

10' x 2' CHANNEL
SIDE SLOPE= .33 '/'
n= .08
LENGTH= 175 FT
SLOPE= .036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .06 FT
PEAK VELOCITY= 1.2 FPS
TRAVEL TIME = 2.5 MIN
SPAN= 10-20 HRS, dt=.1 HRS

POND 1 Water Quality Pond

Qin = 6.09 CFS @ 12.01 HRS, VOLUME= .50 AF
Qout= 2.46 CFS @ 12.33 HRS, VOLUME= .27 AF, ATTEN= 60%, LAG= 19.2 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	3025	0	0
15.0	3700	3363	3363
16.0	4370	4035	7398
17.0	5145	4758	12155
18.0	6125	5635	17790

STOR-IND METHOD
PEAK STORAGE = 11290 CF
PEAK ELEVATION= 16.8 FT
FLOOD ELEVATION= 18.0 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 151.6 MIN (.27 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	14.0'	1" ORIFICE/GRATE Q=.6 PI r^2 SQR(2g) SQR(H-r)
2	P	16.5'	4' SHARP-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.27+.4 H/1.5 L=Length-2(.1 H)

POND 2

Not described

Qin = 4.83 CFS @ 12.31 HRS, VOLUME= .64 AF
Qout= 4.83 CFS @ 12.31 HRS, VOLUME= .64 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC.STOR (AF)	CUM.STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES

POND 3 CB-6 (Flow Splitter)

Qin = 7.98 CFS @ 12.00 HRS, VOLUME= .52 AF
Qout= 7.93 CFS @ 12.01 HRS, VOLUME= .52 AF, ATTEN= 1%, LAG= .1 MIN
Qpri= 7.90 CFS @ 12.01 HRS, VOLUME= .52 AF
Qsec= .03 CFS @ 12.00 HRS, VOLUME= 0.00 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
15.8	13	0	0
17.8	13	26	26
24.5	13	87	113
26.5	3	16	129

STOR-IND METHOD
PEAK STORAGE = 28 CF
PEAK ELEVATION= 18.0 FT
FLOOD ELEVATION= 26.5 FT
START ELEVATION= 15.8 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES
1	P	15.8'	**18" CULVERT** n=.012 L=11' S=.01'/' Ke=.9 Cc=.9 Cd=.47
2	S	17.9'	**15" CULVERT** n=.012 L=80' S=.06'/' Ke=.9 Cc=.9 Cd=.47

Primary Discharge
└─1=Culvert

Secondary Discharge
└─2=Culvert

POND 4 Existing Vortechnics Model #7000

Qin = 7.90 CFS @ 12.01 HRS, VOLUME= .52 AF
Qout= 7.83 CFS @ 12.01 HRS, VOLUME= .52 AF, ATTEN= 1%, LAG= .1 MIN
Qpri= 6.09 CFS @ 12.01 HRS, VOLUME= .50 AF
Qsec= 1.73 CFS @ 12.00 HRS, VOLUME= .02 AF

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.9	50	0	0
20.8	50	295	295

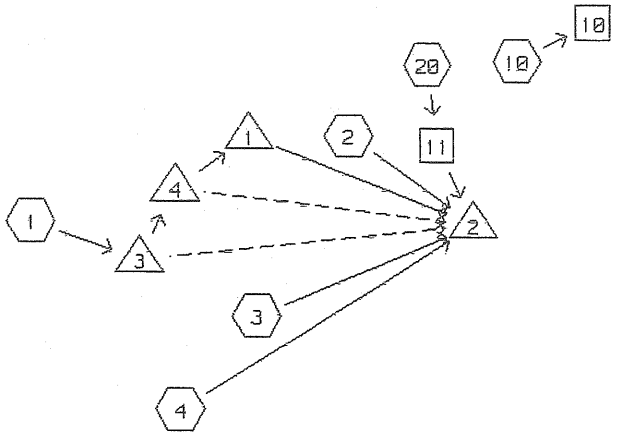
STOR-IND METHOD
PEAK STORAGE = 79 CF
PEAK ELEVATION= 16.5 FT
FLOOD ELEVATION= 20.8 FT
START ELEVATION= 14.9 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= .4 MIN (.52 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	14.9'	**18" CULVERT** n=.012 L=70' S=.0286'/' Ke=.9 Cc=.9 Cd=.47
2	S	15.8'	**18" CULVERT** n=.012 L=60' S=.122'/' Ke=.9 Cc=.9 Cd=.47

Primary Discharge
└─1=Culvert

Secondary Discharge
└─2=Culvert

WATERSHED ROUTING



SUBCATCHMENT 1	= WS-1	-> POND 3
SUBCATCHMENT 2	= WS-2	-> POND 2
SUBCATCHMENT 3	= WS-3	-> POND 2
SUBCATCHMENT 4	= WS-4	-> POND 2
SUBCATCHMENT 10	= Northeastern Portion of Site	-> REACH 10
SUBCATCHMENT 20	= Northwestern Portion of Site	-> REACH 11
REACH 10	= Wetland Adjacent to Site	->
REACH 11	= Swale	-> POND 2
POND 1	= Water Quality Pond	-> POND 2
POND 2	= Wetland Adjacent to RR Tracks	->
POND 3	= CB-6 (Flow Splitter)	-> POND 4
POND 3 secondary	= CB-6 (Flow Splitter)	-> POND 2
POND 4	= Existing Vortechnics Model #7000	-> POND 1
POND 4 secondary	= Existing Vortechnics Model #7000	-> POND 2

SUBCATCHMENT 1 WS-1

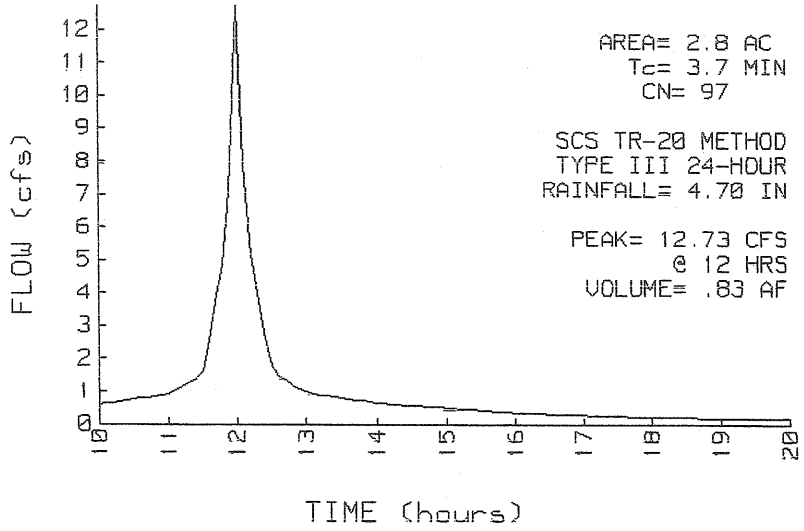
PEAK= 12.73 CFS @ 12.00 HRS, VOLUME= .83 AF

ACRES	CN	
2.60	98	Parking/Roofs
.20	79	Grass Islands (Assume C soils)
2.80	97	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	2.2
Smooth surfaces n=.011 L=200' P2=3 in s=.02 '/'		
CIRCULAR CHANNEL	2	1.5
15" Diameter a=1.23 sq-ft Pw=3.9' r=.313'		
s=.006 '/' n=.012 V=4.42 fps L=410' Capacity=5.4 cfs		
	Total Length= 610 ft Total Tc=	3.7

SUBCATCHMENT 1 RUNOFF
WS-1



SUBCATCHMENT 2 WS-2

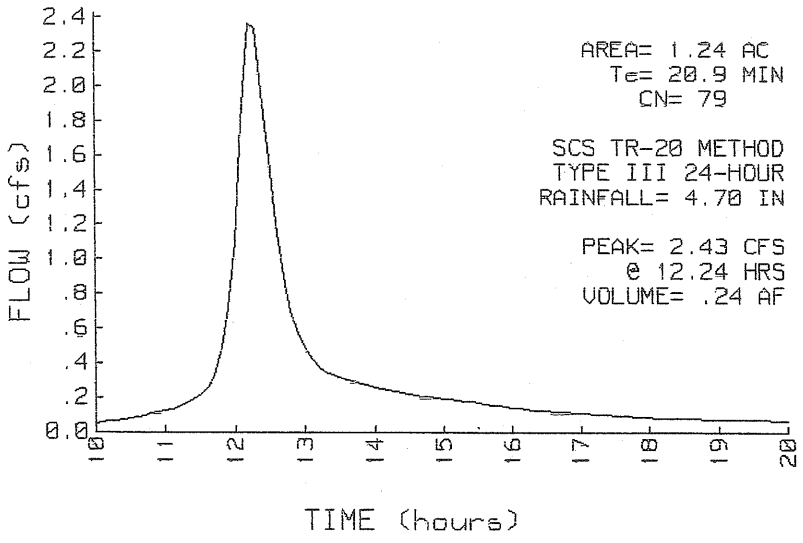
PEAK= 2.43 CFS @ 12.24 HRS, VOLUME= .24 AF

ACRES	CN	
1.24	79	Open Space, Fair - C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	19.8
Grass: Short n=.15 L=200' P2=3 in s=.015 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.7
Grassed Waterway Kv=15 L=150' s=.06 '/' V=3.67 fps		
CHANNEL FLOW	3	.4
a=5 sq-ft Pw=10' r=.5'		
s=.047 '/' n=.027 V=7.52 fps L=170' Capacity=37.6 cfs		
	Total Length= 520 ft	Total Tc= 20.9

SUBCATCHMENT 2 RUNOFF
WS-2



SUBCATCHMENT 3 WS-3

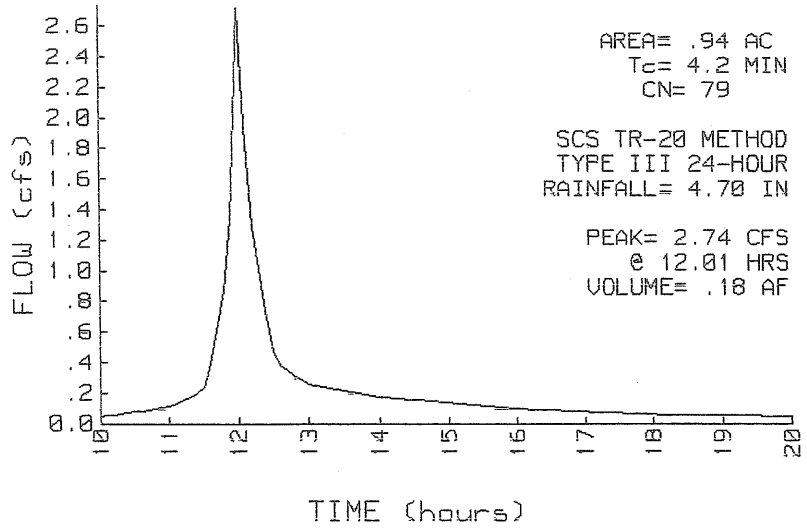
PEAK= 2.74 CFS @ 12.01 HRS, VOLUME= .18 AF

ACRES	CN	
.94	79	Open Space, Fair - C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	3.5
Grass: Dense n=.24 L=55' P2=3 in s=.22 '/'		
CHANNEL FLOW	2	.7
a=5 sq-ft Pw=10' r=.5'		
s=.03 '/' n=.027 V=6.01 fps L=270' Capacity=30 cfs		
	Total Length= 325 ft Total Tc=	4.2

SUBCATCHMENT 3 RUNOFF
WS-3



SUBCATCHMENT 4 WS-4

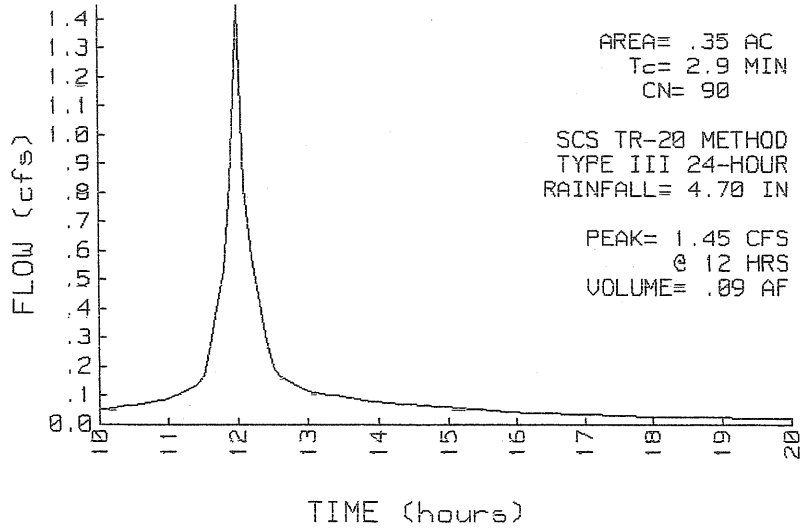
PEAK= 1.45 CFS @ 12.00 HRS, VOLUME= .09 AF

ACRES	CN	
.21	98	Parking/Roofs
.14	79	Grass Islands (Assume C soils)
.35	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	1.2
Smooth surfaces n=.011 L=130'	P2=3 in s=.038 '/'	
SHALLOW CONCENTRATED/UPLAND FLOW	2	.4
Grassed Waterway Kv=15 L=40'	s=.01 '/' V=1.5 fps	
CHANNEL FLOW	3	1.3
a=5 sq-ft Pw=10' r=.5'		
s=.027 '/' n=.027 V=5.7 fps	L=440' Capacity=28.5 cfs	
	Total Length= 610 ft	Total Tc= 2.9

SUBCATCHMENT 4 RUNOFF
WS-4



SUBCATCHMENT 10 Northeastern Portion of Site

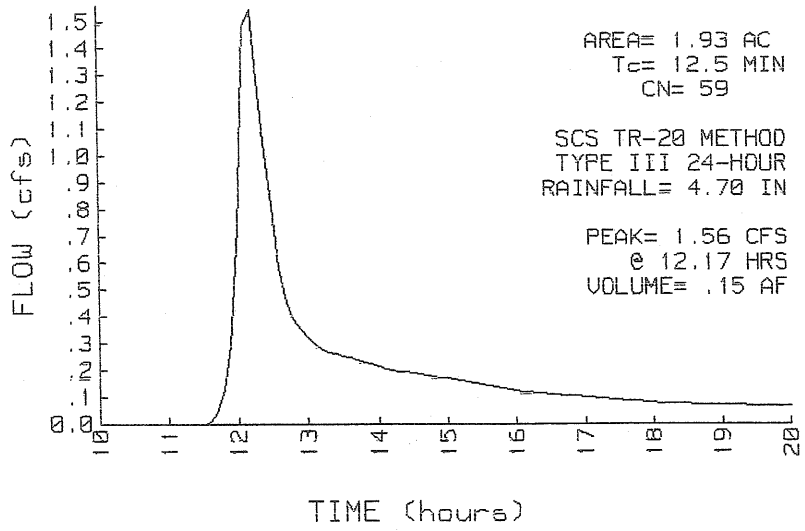
PEAK= 1.56 CFS @ 12.17 HRS, VOLUME= .15 AF

ACRES	CN	
0.00	0	
.16	85	Gravel Road - B
.98	55	Woods - B
.79	58	Meadow - B
1.93	59	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	7.7
Range n=.13 L=80' P2=3 in s=.0188 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.6
Unpaved Kv=16.1345 L=85' s=.0235 '/' V=2.47 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	3	4.2
Forest w/Heavy Litter Kv=2.5 L=200' s=.1 '/' V=.79 fps		
	Total Length= 365 ft	Total Tc= 12.5

SUBCATCHMENT 10 RUNOFF
Northeastern Portion of Site



SUBCATCHMENT 20 Northwestern Portion of Site

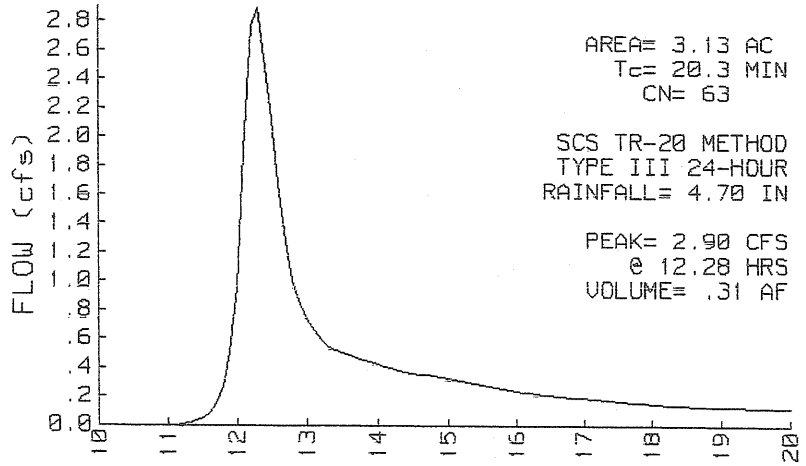
PEAK= 2.90 CFS @ 12.28 HRS, VOLUME= .31 AF

ACRES	CN	
.50	85	Gravel - B
1.89	55	Woods - B
.54	58	Meadow - B
.20	98	Impervious
3.13	63	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 4.70 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	12.2
Woods: Light underbrush n=.4 L=55' P2=3 in s=.027 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	3.9
Woodland Kv=5 L=140' s=.014 '/' V=.59 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	3	1.3
Woodland Kv=5 L=100' s=.07 '/' V=1.32 fps		
CIRCULAR CHANNEL	Culvert under Hooper Street	.3
15" Diameter a=1.23 sq-ft Pw=3.9' r=.313'		
s=.01 '/' n=.024 V=2.85 fps L=55' Capacity=3.5 cfs		
RECT/VEE/TRAP CHANNEL	Swale along Hooper Street	1.7
W=5' D=1.5' SS= .25 '/' a=16.5 sq-ft Pw=17.4' r=.95'		
s=.01 '/' n=.08 V=1.79 fps L=180' Capacity=29.6 cfs		
CIRCULAR CHANNEL	Culvert along Hooper Street	.9
24" Diameter a=3.14 sq-ft Pw=6.3' r=.5'		
s=.0268 '/' n=.024 V=6.39 fps L=340' Capacity=20.1 cfs		
	Total Length= 870 ft Total Tc=	20.3

SUBCATCHMENT 20 RUNOFF
Northwestern Portion of Site



REACH 10

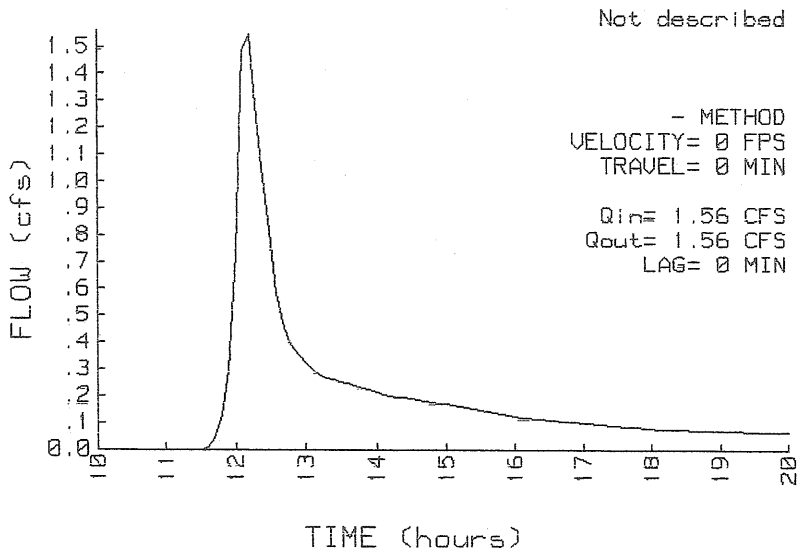
Not described

Qin = 1.56 CFS @ 12.17 HRS, VOLUME= .15 AF
Qout= 1.56 CFS @ 12.17 HRS, VOLUME= .15 AF, ATTEN= 0%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)

- METHOD
PEAK DEPTH= 0.00 FT
PEAK VELOCITY= 0.0 FPS
TRAVEL TIME = 0.0 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 10 INFLOW & OUTFLOW



REACH 11 Swale

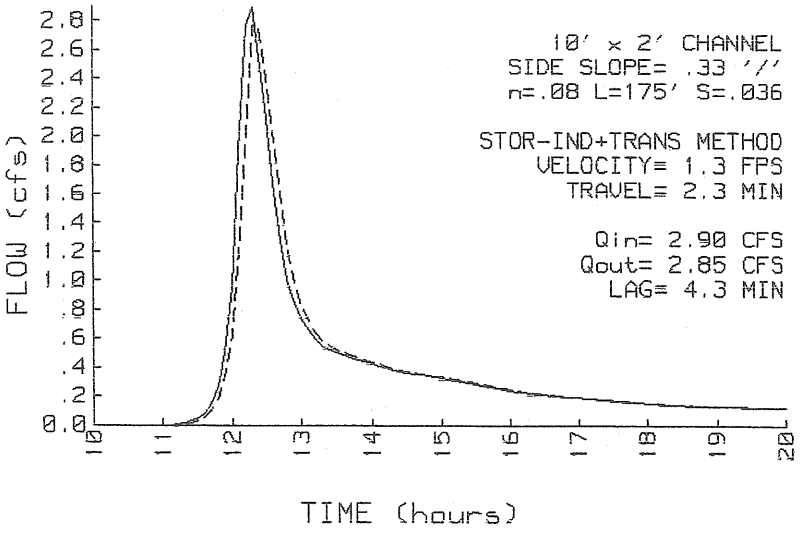
Qin = 2.90 CFS @ 12.28 HRS, VOLUME= .31 AF
Qout= 2.85 CFS @ 12.35 HRS, VOLUME= .31 AF, ATTEN= 2%, LAG= 4.3 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	2.1	2.45
.4	4.5	7.96
.6	7.1	16.01
.9	10.8	30.12
1.2	16.4	54.82
1.6	23.8	93.26
2.0	32.1	142.42

10' x 2' CHANNEL
SIDE SLOPE= .33 '/'
n= .08
LENGTH= 175 FT
SLOPE= .036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .22 FT
PEAK VELOCITY= 1.3 FPS
TRAVEL TIME = 2.3 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 11 INFLOW & OUTFLOW
Swale



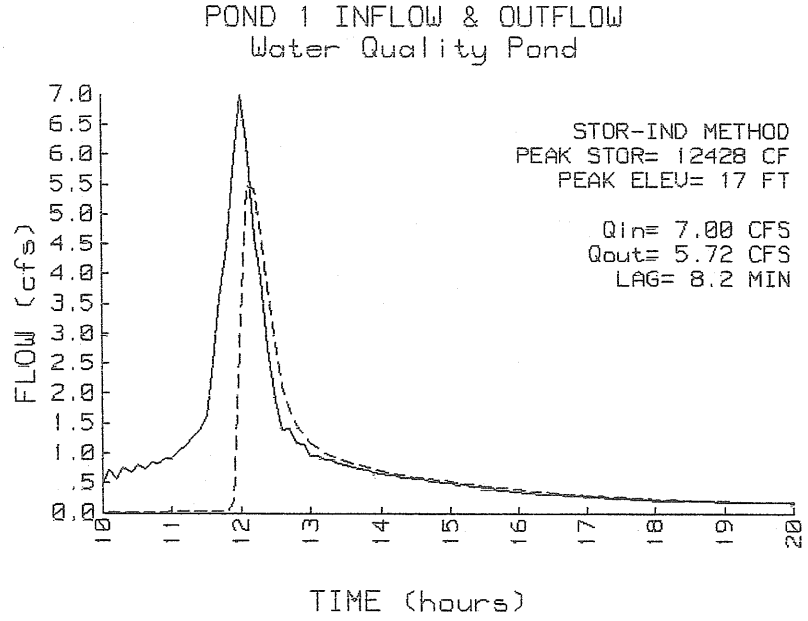
POND 1 Water Quality Pond

Qin = 7.00 CFS @ 12.01 HRS, VOLUME= .75 AF
Qout= 5.72 CFS @ 12.15 HRS, VOLUME= .52 AF, ATTEN= 18%, LAG= 8.2 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	3025	0	0
15.0	3700	3363	3363
16.0	4370	4035	7398
17.0	5145	4758	12155
18.0	6125	5635	17790

STOR-IND METHOD
PEAK STORAGE = 12428 CF
PEAK ELEVATION= 17.0 FT
FLOOD ELEVATION= 18.0 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 118.3 MIN (.52 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	14.0'	**1" ORIFICE/GRATE** Q=.6 PI r^2 SQR(2g) SQR(H-r)
2	P	16.5'	**4' SHARP-CRESTED RECTANGULAR WEIR** Q=C L H^1.5 C=3.27+.4 H/1.5 L=Length-2(.1 H)



POND 2

Not described

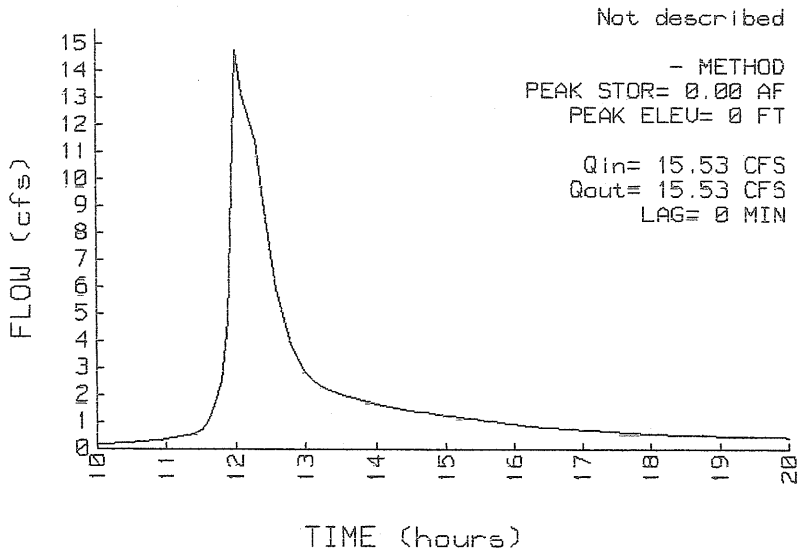
Qin = 15.53 CFS @ 12.04 HRS, VOLUME= 1.43 AF
Qout= 15.53 CFS @ 12.04 HRS, VOLUME= 1.43 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC.STOR (AF)	CUM.STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES

POND 2 INFLOW & OUTFLOW



POND 3 CB-6 (Flow Splitter)

Qin = 12.73 CFS @ 12.00 HRS, VOLUME= .83 AF
Qout= 12.67 CFS @ 12.00 HRS, VOLUME= .83 AF, ATTEN= 1%, LAG= 0.0 MIN
Qpri= 10.11 CFS @ 12.01 HRS, VOLUME= .81 AF
Qsec= 2.57 CFS @ 12.00 HRS, VOLUME= .02 AF

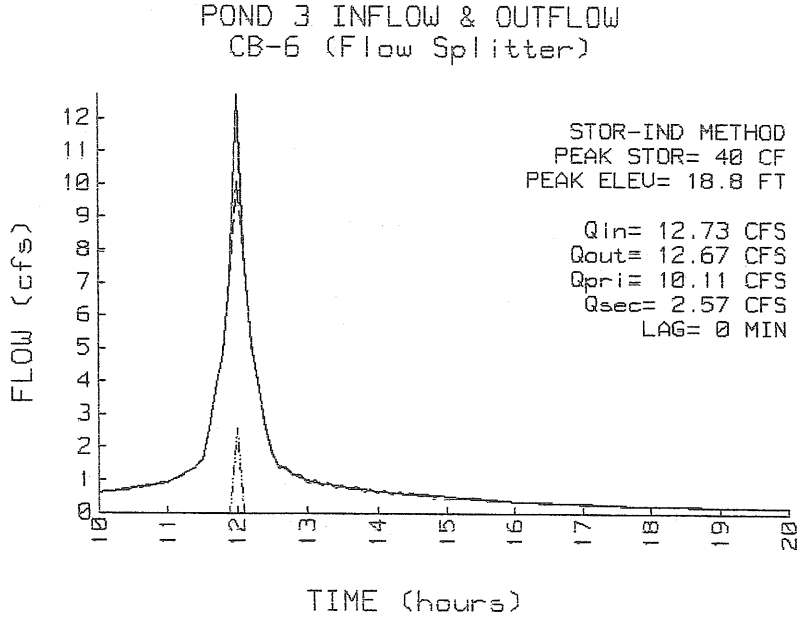
ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
15.8	13	0	0
17.8	13	26	26
24.5	13	87	113
26.5	3	16	129

STOR-IND METHOD
PEAK STORAGE = 40 CF
PEAK ELEVATION= 18.8 FT
FLOOD ELEVATION= 26.5 FT
START ELEVATION= 15.8 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES
1	P	15.8'	18" CULVERT n=.012 L=11' S=.01'/' Ke=.9 Cc=.9 Cd=.47
2	S	17.9'	15" CULVERT n=.012 L=80' S=.06'/' Ke=.9 Cc=.9 Cd=.47

Primary Discharge
└─1=Culvert

Secondary Discharge
└─2=Culvert



POND 4 Existing Vortechnics Model #7000

Qin = 10.11 CFS @ 12.01 HRS, VOLUME= .81 AF
Qout= 10.07 CFS @ 12.01 HRS, VOLUME= .81 AF, ATTEN= 0%, LAG= .1 MIN
Qpri= 7.00 CFS @ 12.01 HRS, VOLUME= .75 AF
Qsec= 3.08 CFS @ 12.01 HRS, VOLUME= .06 AF

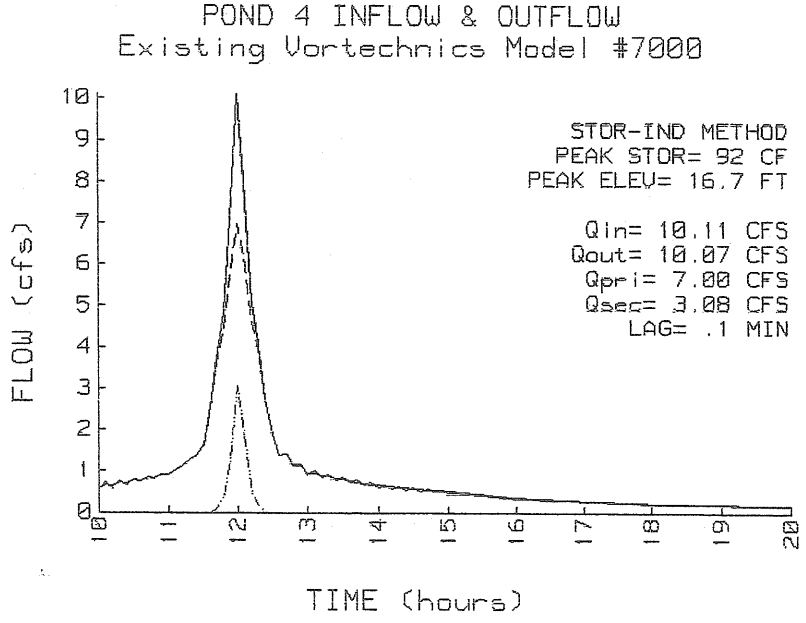
ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.9	50	0	0
20.8	50	295	295

STOR-IND METHOD
PEAK STORAGE = 92 CF
PEAK ELEVATION= 16.7 FT
FLOOD ELEVATION= 20.8 FT
START ELEVATION= 14.9 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= .4 MIN (.8 AF)

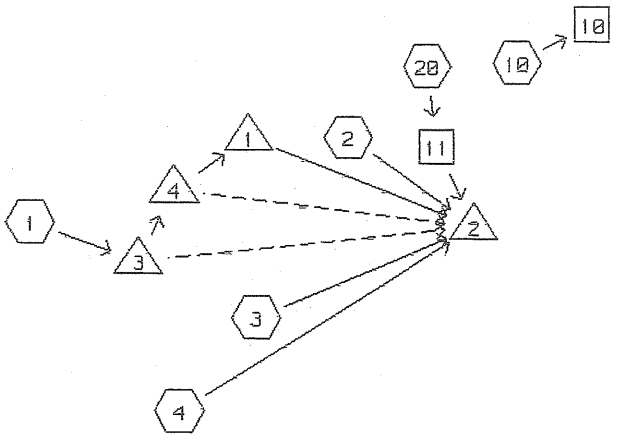
#	ROUTE	INVERT	OUTLET DEVICES
1	P	14.9'	18" CULVERT n=.012 L=70' S=.0286'/' Ke=.9 Cc=.9 Cd=.47
2	S	15.8'	18" CULVERT n=.012 L=60' S=.122'/' Ke=.9 Cc=.9 Cd=.47

Primary Discharge
└─1=Culvert

Secondary Discharge
└─2=Culvert



WATERSHED ROUTING



SUBCATCHMENT 1	= WS-1	-> POND 3
SUBCATCHMENT 2	= WS-2	-> POND 2
SUBCATCHMENT 3	= WS-3	-> POND 2
SUBCATCHMENT 4	= WS-4	-> POND 2
SUBCATCHMENT 10	= Northeastern Portion of Site	-> REACH 10
SUBCATCHMENT 20	= Northwestern Portion of Site	-> REACH 11
REACH 10	= Wetland Adjacent to Site	->
REACH 11	= Swale	-> POND 2
POND 1	= Water Quality Pond	-> POND 2
POND 2	= Wetland Adjacent to RR Tracks	->
POND 3	= CB-6 (Flow Splitter)	-> POND 4
POND 3 secondary	= CB-6 (Flow Splitter)	-> POND 2
POND 4	= Existing Vortechnics Model #7000	-> POND 1
POND 4 secondary	= Existing Vortechnics Model #7000	-> POND 2

SUBCATCHMENT 1 WS-1

PEAK= 14.96 CFS @ 12.00 HRS, VOLUME= .98 AF

ACRES	CN	
2.60	98	Parking/Roofs
.20	79	Grass Islands (Assume C soils)
2.80	97	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW Smooth surfaces n=.011 L=200'	1 P2=3 in s=.02 '/'	2.2
CIRCULAR CHANNEL 15" Diameter a=1.23 sq-ft Pw=3.9' r=.313' s=.006 '/' n=.012 V=4.42 fps L=410' Capacity=5.4 cfs	2	1.5
	Total Length= 610 ft Total Tc=	3.7

SUBCATCHMENT 2 WS-2

PEAK= 3.09 CFS @ 12.24 HRS, VOLUME= .31 AF

ACRES	CN	
1.24	79	Open Space, Fair - C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW Grass: Short n=.15 L=200' P2=3 in s=.015 '/'	1	19.8
SHALLOW CONCENTRATED/UPLAND FLOW Grassed Waterway Kv=15 L=150'	2 s=.06 '/' V=3.67 fps	.7
CHANNEL FLOW a=5 sq-ft Pw=10' r=.5' s=.047 '/' n=.027 V=7.52 fps L=170' Capacity=37.6 cfs	3	.4
	Total Length= 520 ft Total Tc=	20.9

SUBCATCHMENT 3 WS-3

PEAK= 3.48 CFS @ 12.01 HRS, VOLUME= .23 AF

ACRES	CN	
.94	79	Open Space, Fair - C

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	3.5
Grass: Dense n=.24 L=55' P2=3 in s=.22 '/'		
CHANNEL FLOW	2	.7
a=5 sq-ft Pw=10' r=.5'		
s=.03 '/' n=.027 V=6.01 fps L=270' Capacity=30 cfs		
	Total Length= 325 ft Total Tc=	4.2

SUBCATCHMENT 4 WS-4

PEAK= 1.74 CFS @ 12.00 HRS, VOLUME= .11 AF

ACRES	CN	
.21	98	Parking/Roofs
.14	79	Grass Islands (Assume C soils)
.35	90	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	1.2
Smooth surfaces n=.011 L=130' P2=3 in s=.038 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.4
Grassed Waterway Kv=15 L=40' s=.01 '/' V=1.5 fps		
CHANNEL FLOW	3	1.3
a=5 sq-ft Pw=10' r=.5'		
s=.027 '/' n=.027 V=5.7 fps L=440' Capacity=28.5 cfs		
	Total Length= 610 ft Total Tc=	2.9

SUBCATCHMENT 10 Northeastern Portion of Site

PEAK= 2.46 CFS @ 12.15 HRS, VOLUME= .22 AF

ACRES	CN	
0.00	0	
.16	85	Gravel Road - B
.98	55	Woods - B
.79	58	Meadow - B
1.93	59	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	7.7
Range n=.13 L=80' P2=3 in s=.0188 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	.6
Unpaved Kv=16.1345 L=85' s=.0235 '/' V=2.47 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	3	4.2
Forest w/Heavy Litter Kv=2.5 L=200' s=.1 '/' V=.79 fps		
	Total Length= 365 ft	Total Tc= 12.5

SUBCATCHMENT 20 Northwestern Portion of Site

PEAK= 4.18 CFS @ 12.26 HRS, VOLUME= .44 AF

ACRES	CN	
.50	85	Gravel - B
1.89	55	Woods - B
.54	58	Meadow - B
.20	98	Impervious
3.13	63	

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 5.50 IN
SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
TR-55 SHEET FLOW	1	12.2
Woods: Light underbrush n=.4 L=55' P2=3 in s=.027 '/'		
SHALLOW CONCENTRATED/UPLAND FLOW	2	3.9
Woodland Kv=5 L=140' s=.014 '/' V=.59 fps		
SHALLOW CONCENTRATED/UPLAND FLOW	3	1.3
Woodland Kv=5 L=100' s=.07 '/' V=1.32 fps		
CIRCULAR CHANNEL	Culvert under Hooper Street	.3
15" Diameter a=1.23 sq-ft Pw=3.9' r=.313'		
s=.01 '/' n=.024 V=2.85 fps L=55' Capacity=3.5 cfs		
RECT/VEE/TRAP CHANNEL	Swale along Hooper Street	1.7
W=5' D=1.5' SS= .25 '/' a=16.5 sq-ft Pw=17.4' r=.95'		
s=.01 '/' n=.08 V=1.79 fps L=180' Capacity=29.6 cfs		
CIRCULAR CHANNEL	Culvert along Hooper Street	.9
24" Diameter a=3.14 sq-ft Pw=6.3' r=.5'		
s=.0268 '/' n=.024 V=6.39 fps L=340' Capacity=20.1 cfs		
	Total Length= 870 ft	Total Tc= 20.3

REACH 10

Not described

Qin = 2.46 CFS @ 12.15 HRS, VOLUME= .22 AF
Qout= 2.46 CFS @ 12.15 HRS, VOLUME= .22 AF, ATTEN= 0%, LAG= 0.0 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)

- METHOD
PEAK DEPTH= 0.00 FT
PEAK VELOCITY= 0.0 FPS
TRAVEL TIME = 0.0 MIN
SPAN= 10-20 HRS, dt=.1 HRS

REACH 11 Swale

Qin = 4.18 CFS @ 12.26 HRS, VOLUME= .44 AF
Qout= 4.12 CFS @ 12.33 HRS, VOLUME= .43 AF, ATTEN= 1%, LAG= 3.9 MIN

DEPTH (FT)	END AREA (SQ-FT)	DISCH (CFS)
0.0	0.0	0.00
.2	2.1	2.45
.4	4.5	7.96
.6	7.1	16.01
.9	10.8	30.12
1.2	16.4	54.82
1.6	23.8	93.26
2.0	32.1	142.42

10' x 2' CHANNEL
SIDE SLOPE= .33 '/'
n= .08
LENGTH= 175 FT
SLOPE= .036 FT/FT

STOR-IND+TRANS METHOD
PEAK DEPTH= .26 FT
PEAK VELOCITY= 1.5 FPS
TRAVEL TIME = 2.0 MIN
SPAN= 10-20 HRS, dt=.1 HRS

POND 1 Water Quality Pond

Qin = 7.31 CFS @ 12.01 HRS, VOLUME= .85 AF
Qout= 6.36 CFS @ 12.13 HRS, VOLUME= .63 AF, ATTEN= 13%, LAG= 7.3 MIN

ELEVATION (FT)	AREA (SF)	INC.STOR (CF)	CUM.STOR (CF)
14.0	3025	0	0
15.0	3700	3363	3363
16.0	4370	4035	7398
17.0	5145	4758	12155
18.0	6125	5635	17790

STOR-IND METHOD
PEAK STORAGE = 12742 CF
PEAK ELEVATION= 17.1 FT
FLOOD ELEVATION= 18.0 FT
START ELEVATION= 14.0 FT
SPAN= 10-20 HRS, dt=.1 HRS
Tdet= 110 MIN (.63 AF)

#	ROUTE	INVERT	OUTLET DEVICES
1	P	14.0'	1" ORIFICE/GRATE Q=.6 PI r^2 SQR(2g) SQR(H-r)
2	P	16.5'	4' SHARP-CRESTED RECTANGULAR WEIR Q=C L H^1.5 C=3.27+.4 H/1.5 L=Length-2(.1 H)

POND 2

Not described

Qin = 21.02 CFS @ 12.03 HRS, VOLUME= 1.83 AF
Qout= 21.02 CFS @ 12.03 HRS, VOLUME= 1.83 AF, ATTEN= 0%, LAG= 0.0 MIN

ELEVATION (FT)	AREA (AC)	INC.STOR (AF)	CUM.STOR (AF)

- METHOD
PEAK STORAGE = 0.00 AF
PEAK ELEVATION= 0.0 FT
FLOOD ELEVATION= 0.0 FT
START ELEVATION= 0.0 FT
SPAN= 10-20 HRS, dt=.1 HRS

#	ROUTE	INVERT	OUTLET DEVICES

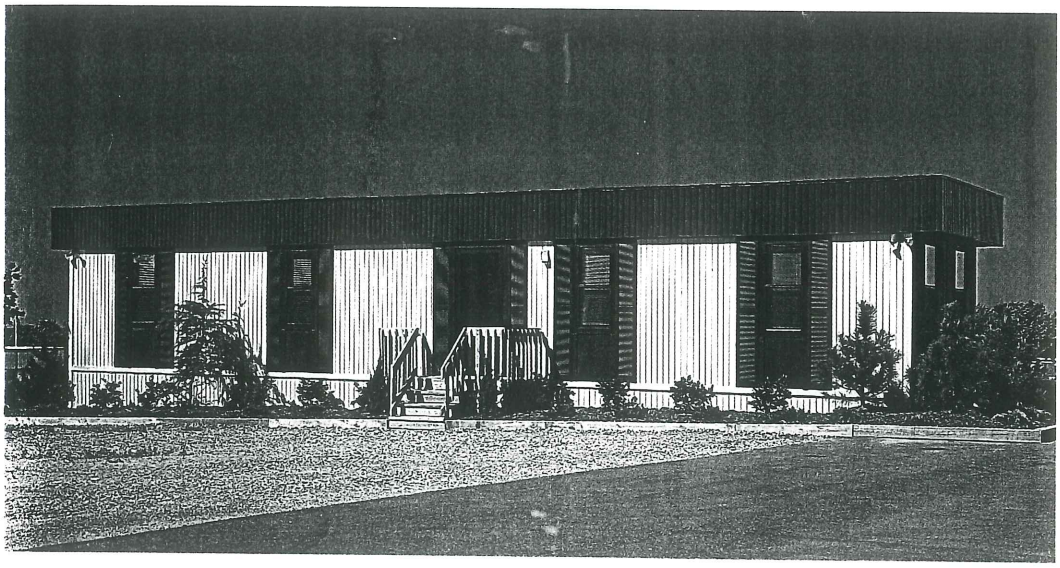
Sara Hopkins

Plans & Check as Requested

B. Murray

Portland Antique
Lacquer
Crew Facility
11/20/01

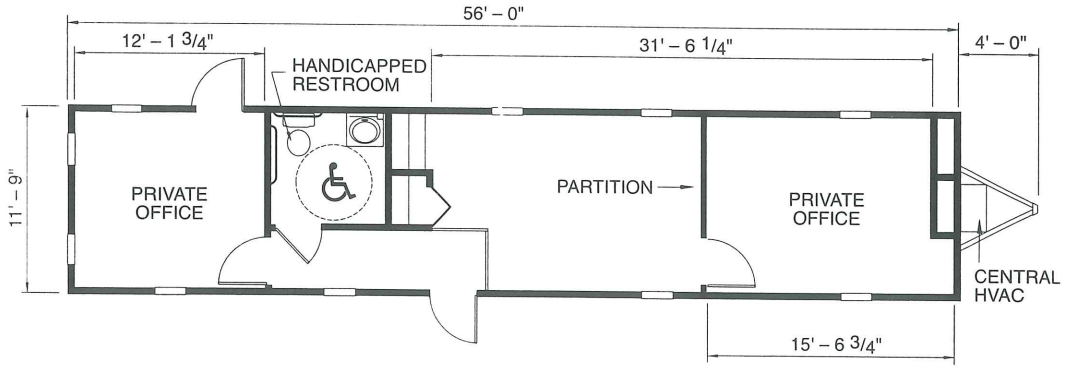
Models EL4810 and EL6012



Size
- 48' or 60' Long (including hitch)
- 44' or 56' Box size
- 10' or 12' Wide
- 8' Ceiling height

Features
- Large display/reception area
- Private office(s)
- Coffee bar
- Handicapped accessible restroom
- Carpeting throughout
- Wide open shells available

Interior Finish
- Vinyl covered gypsum walls
- Commercial carpeting
- Gypsum ceiling



Model EL6012 shown.

Electric
- Fluorescent ceiling lights
- 110/240 volt single-phase electric
- 100 AMP breaker box

Windows/Doors
- Commercial glass door
- Vision panel back door with standard lock

Heating and Cooling
- Central HVAC and ducted heating

Exterior Finish/Frame
- I-Beam frame
- T1-11 siding
- Standard drip rail gutters
- Mansard roof

WILLIAMS SCOTSMAN
Mobile Offices • Storage Products And More
800-782-1500

Additional floor plans available. Floor plans and specifications may vary from those shown, and are subject to in-stock availability.

PLANNING BOARD REPORT #26-00

PORTLAND INTERMODAL FACILITY
VICINITY OF SEWALL STREET
SITE PLAN, CONDITIONAL USE, SITE LOCATION OF DEVELOPMENT REVIEW
LANGDON STREET REAL ESTATE AND CITY OF PORTLAND, APPLICANT

Submitted to:

Portland Planning Board
Portland, Maine

June 27, 2000

I. INTRODUCTION

Langdon Street Real Estate and the City of Portland have requested site plan review for the Portland Intermodal Transportation Center at the Concord Trailways site above Thompson's Pont. The site is 13.3 acres and zoned B-5 Business, R-P Residence-Professional, and R-5 Residential.

The applicants propose to construct a 3,200 sq ft addition to the existing Concord Trailways Bus Station building. A 220ft long covered walkway connector will then lead to the railroad tracks where a combination high/low level train platform will be constructed.

As proposed, trains will depart from Portland at 6:00am, 8:40am, 1:00pm and 3:50pm. Trains will arrive back in Portland at 12:00noon, 2:50pm, 8:05pm and 1:20am.

The Sewall Street location will serve as an interim rail facility until an intermodal station can be constructed with associated railroad infrastructure in Bayside.

II. FINDINGS

Zoning:	B-5, R-P, R-5
Land Area:	13.3 acres
Number of Parking Spaces:	
Existing:	240
Proposed:	685

III. STAFF REVIEW

The proposal has been reviewed for compliance with the Site Plan Ordinance of the Land Use Code and Site Location of Development. The plan has been reviewed by the Inspections, Traffic, Fire, Public Works, and Planning Departments.

IV. SITE PLAN REVIEW

1. Traffic/Circulation/Parking

Access to the Intermodal Center will be provided via the new Thompson's Point Connector. This connector road is the first phase of the I-295 connector /Congress Street interchange which is proposed to provide direct access between West Commercial Street and I-295. The redesigned Congress Street interchange and Thompson's Point Connector is currently out to bid and will provide direct access to the facility (See Attachment 2).

According to the proposal, Sewall Street will be ended in a cul-de-sac, just above the Intermodal Center. Sewall Street will then only provide access to the homes and medical offices located to the north of the station. The new connector road will be the single vehicle access point to the facility and Thompson's Point complex.

Pedestrian access will be provided to the facility from both the connector road and Sewall Street.

The applicant has submitted a traffic assessment which summarizes the anticipated traffic impacts associated with the proposed intermodal facility. With an anticipated daily ridership of 207 passengers, 70 peak hour trips are expected at the opening of this facility. By 2010, this number is expected to rise to 311 passengers and 104 trips.

There are a series of parking lots proposed for this development. Lots A and B are located adjacent to the intermodal facility and provide 266 spaces. Lots C and D will be constructed by Maine Department of Transportation and will contain 374 parking spaces. Lot E will be located across Sewall Street and will contain 45 spaces.

Painted crosswalks and sidewalks will be provided throughout the site connecting the parking lots to the facility.

Larry Ash, Traffic Engineer, has reviewed the plan and traffic study and is in agreement with the applicant's findings and conclusions. Mr. Ash's comments will be available at the Public Hearing.

2. Bulk, Location, Height of Building and Uses Thereof

The expansion of the Concord Trailways facility will allow for a larger, redesigned waiting room offering access to both the bus queuing and train queuing areas. All ticketing services will be handled at a central counter.

Passengers waiting for a train will remain in the station waiting area until the train is announced and proceed down the walkway to the platform.

The building elevations indicate an addition which is compatible with the existing bus station. The addition will be clad in brick with granite window lintels. Concrete masonry unit material will be used along the base of the building facade.

Entrances to the building will be updated and have been designed to provide higher visibility along the interstate elevations.

3. Utilities

The applicant intends to extend existing utilities to the proposed addition.

4. Landscaping

The landscaping plan for the project indicates the installation of Maple trees along the connector road and internal access drive within the site. Parking lot islands will be landscaped with Austrian Pines Redspire Pears, Rosa Rugosa and Crabapples. Compact Junipers will be used within the islands and along the parking lot borders.

During the last workshop on the station proposal, the Board asked the applicant to provide an adequate buffer along the northern boundary of the proposed parking lot. The applicant has revised the plan to include a 6ft high stockade fence along the length of the property and to landscape the fence with a combination of Austrian Pines, Crabapples, and Arborvitae. The depth of the buffer area (including fence and plants) ranges from 6 to 20 feet.

5. Drainage

The expansion of the Concord Trailways site will be reviewed under Site Location of Development Standards with over 3 acres of impervious surface proposed.

The area proposed for parking lot expansion is currently undeveloped and has been used by the City as a snow dump for the past several years. This area includes wooded and brush areas, as well as a gravel portion of the old Hooper Street. There are two wetlands located on the site.

For the most part, the area is flat and slopes down approximately 27 feet in the east toward the Fore River.

The applicant will regrade and fill a small area in the eastern portion of the site to connect to the grades of the Congress Street connector.

The Stormwater Management Narrative indicates that while holding back peak flow rates will not provide a measurable benefit due to the proximity to the end of the watershed, the quality of stormwater leaving the site is important. The plan proposes sending the additional runoff created by the new construction through an existing Vortechnics treatment unit located on-site. A portion of stormwater from the Vortechnics unit will also be sent through a treatment pond. In all, 78% of the total impervious area of lots A, B, E and the loop road will be treated, with a TSS removal of 55%.

Copies of applications filed for the filling of wetlands heave been submitted by the applicant and are included as Attachment 3.

The Development Review Coordinator has reviewed the plans according to Site Location of Development standards and recommends approval. His comments are included as Attachment 5b.

6. Lighting

A lighting plan has been submitted by the applicant which appears to be in conformance with the City's Technical Standards. 20 ft high pole mounted lights will be installed throughout the parking lot with 150 watt lamps. Lower decorative lamps will be placed around the building.

The majority of the building parcel is located in the B-5 zone. However, a portion of the parking areas are located in the R-5 and R-P zones. Parking in residence zones requires conditional use approval which may be granted by the Planning Board.

7. Fire Safety

The site plan has been reviewed and approved by the Fire Department. Concern was originally raised by the Lt. McDougal regarding access issues related to the cul-de-sac. The hydrant which would serve this development is on the north side of the cul-de-sac and inaccessible from the train station. The Fire Department has recommended the following condition of approval:

- That prior to issuance of a building permit, the applicant shall provide for Fire Department review and approval a detail for mountable curb in the Sewall Street cul-de-sac.

Comments from Lt. McDougal are included as Attachment 5a.

8. Solid Waste

Solid waste is handled privately by a solid waste hauler. The applicant will maintain the current arrangement with the proposed expansion.

9. Financial Capacity/Right, Title or Interest

This proposal is the result of an extensive negotiation between Langdon Street Real Estate, the City of Portland, the Northern New England Passenger Rail Authority, and the Maine Department of Transportation. The City of Portland is providing (through a previous Capital Improvement Program allocation) a contribution of $200,000 which will be paid in the form of a lease on the property. Langdon Street Real Estate is financing the remainder of the costs.

Copies of the agreements, outlining responsibilities and transfers, is included as Attachment 6.

A potential condition of approval may be:

- that Langdon Street Real Estate and the Maine Department of Transportation shall be obligated to file with the Cumberland County Registry of Deeds the documentation of all real estate transfers and right-of-way plans associated with this development.

The applicant is also proposing to place parking within a vacated portion of Sewall Street (Lot E). Since Central Maine Power is an abutter of the Old Sewall Street right-of-way, they will have to grant permission for the use of their portion of the street (from the centerline, west).

As of this writing, the letter has not yet been submitted. The applicant intends to have this letter to the Board prior to Public Hearing. If the letter is not submitted, staff would recommend omission of this lot from Site Plan approval. (Subsequent approval may be granted administratively for less than 50 cars.)

V. CONDITIONAL USE REVIEW

A portion of the northern parking lot is located in the Residence-Professional and R-5 zone. Parking is permitted as a conditional use in these zones, with the Planning Board granted authority to approve such uses.

The proposal appears to meet the required conditions:

a. the lot on which the use is proposed is located wholly within 300ft of the principal building of the use; and

b. the lot where the parking is proposed shall be under the control of the owner of the use to which the parking use would be accessory.

VI. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the applicant and on the basis of information provided in Planning Board Report #26-00 relevant to standards for site plan review, the Board finds:

A. That the plan is/is not in conformance with the Site Plan Standards of the Land Use Code.

Potential Conditions of Approval:

- That prior to issuance of a building permit, the applicant shall provide for Fire Department review and approval a detail for mountable curb in the Sewall Street cul-de-sac.

- that Langdon Street Real Estate and the Maine Department of Transportation shall be obligated to file with the Cumberland County Registry of Deeds the documentation of all real estate transfers and right-of-way plans associated with this development.

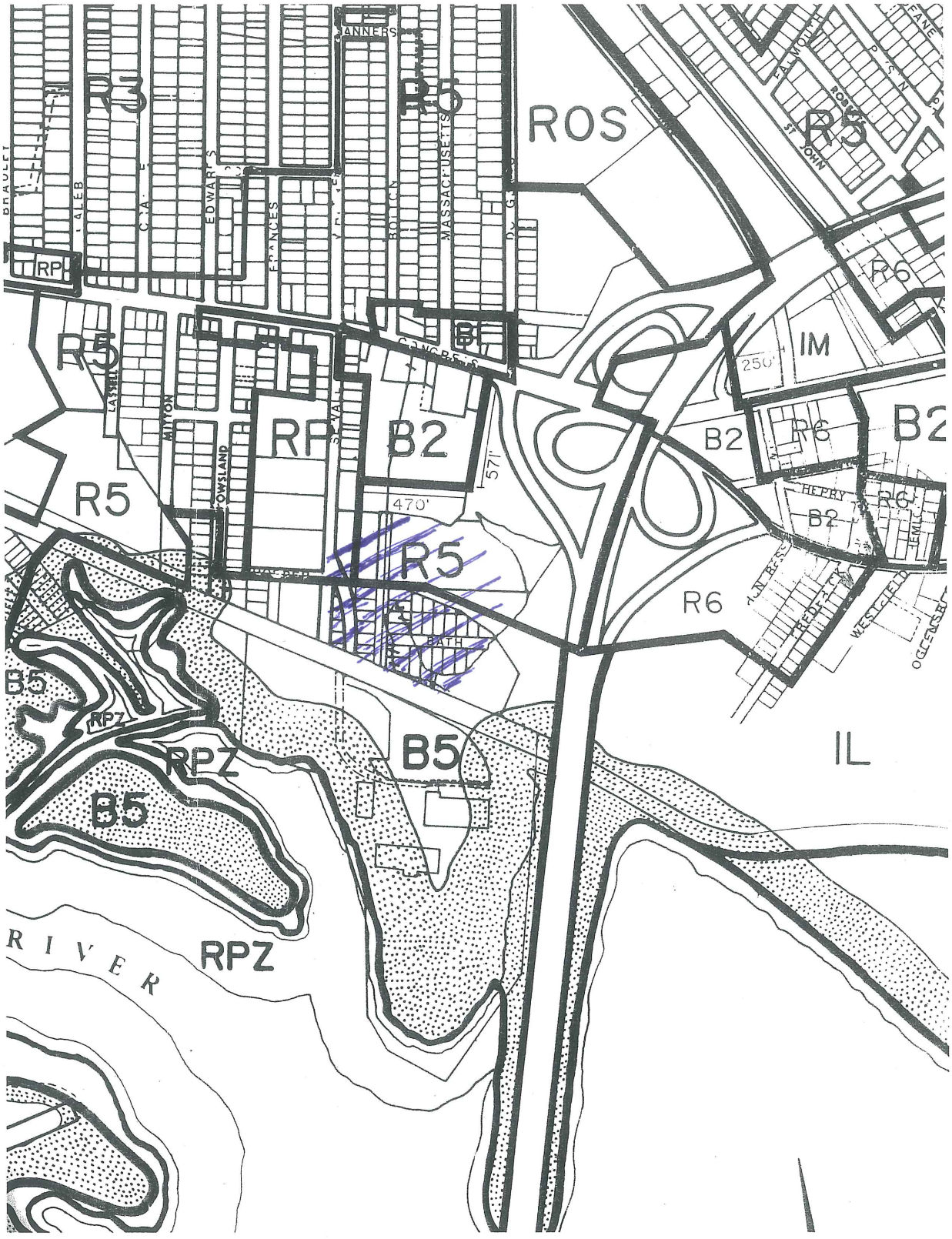
B. That the Plan is in Conformance with the standards for Site Location of Development

C. Further, the Planning Board [grants/does not grant] Conditional Use approval for the location of parking in the Residence-Professional and R-5 Residence zone.

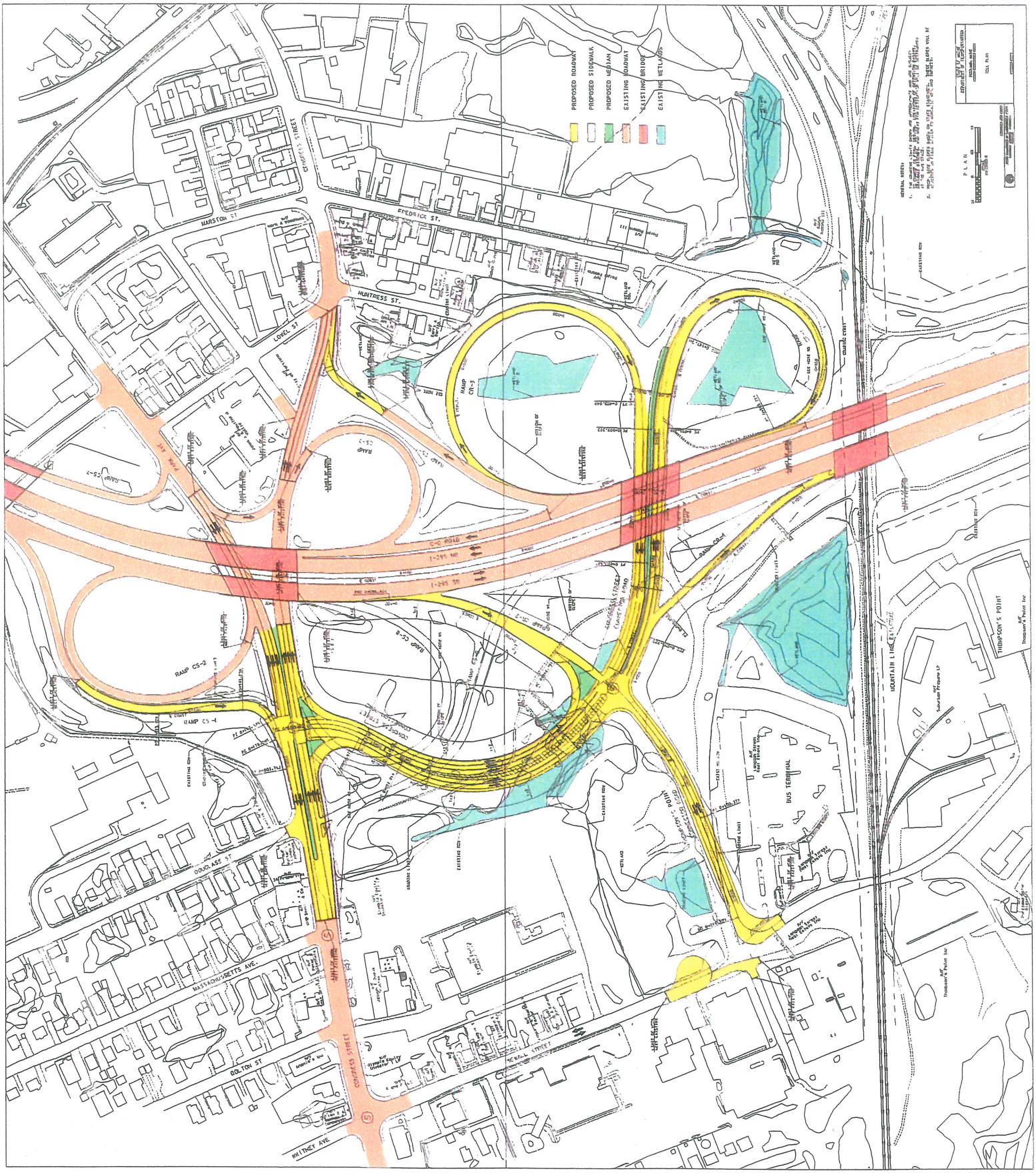
Attachments:

1. Vicinity/Zoning Map
2. Interchange/Connector Road Layout (Western Portion)
3. Letters from the Applicant with Attachments
    a. Stormwater Management Narrative
    b. Lighting Fixtures
    c. Letter from Maine Historical Preservation Commission
    d. Letter from the Maine Department of Conservation
    e. Letter from Inland Fisheries and Wildlife
    f. Traffic Study
    g. High-level and Low-level Platform
4. Wetlands Filling Applications
5. Staff Memos
    a. Lt. McDougal
    b. DRC
6. Letters of Agreement
7. Plans/Building Elevations

Attachment 1



Attachment 2



Attachment 3

Sebago Technics

Engineering & Planning for the Future

June 20, 2000
99607

Sarah Hopkins, Senior Planner
Portland Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Major Site Plan Application - Portland Intermodal Transportation Center, Sewall Street

Dear Sarah:

This letter is intended to provide additional information on the project to the Board in response to comments we received at the workshop last week, a copy of an email you gave us from Steve Bushey, and a conversation you had with Steve Doe at the end of the week. I will address each response separately.

Workshop Comments

There were two concerns expressed at the workshop that require a response. First was the issue of buffering for the park-and-ride lot. We agree that this was an oversight on our part. Since the workshop, we have studied this situation and decided that the best way to preserve the number of proposed parking spaces (which is critical to the success of the project) and accomplish the buffering required by the Ordinance would be to provide a wooden fence with evergreen landscaping. A revised plan has been prepared to specifically indicate what we have in mind for this area. Seven (7) full size copies of this plan are attached, as well as fifteen (15) half size versions.

The second concern raised at the workshop was the matter of a recordable instrument showing the land exchanges that are proposed for the project. We agree that this is important and, in fact, it is this land swapping that makes the City/State/Concord Trailways agreement work. To address this matter, a specific right-of-way plan is being produced by MDOT which will properly reflect the three-party deal as currently constructed. Unfortunately, it will be some time before the plan will be finalized, land appraisals conducted, and deeds actually transferred. We trust that, in the interim, the City/State/Concord Trailways agreement could serve as legal authorization to proceed with the construction.

Steve Bushey Email

1. *The site layout plans should ultimately include a baseline and/or coordinate layout data for ease of construction.*

   We agree, and this is being done as part of the final plans.

2. *The layout plans should be improved by additional signage including but not limited to Stop Signs, Do Not Enter, No Parking, Pedestrian Crossing, etc.*

   We agree, and this is being done as part of the final plans for construction.

3. *I do not recommend the use of Bit. Curb on the smaller end cap islands in the parking areas as these will likely be destroyed during snowplowing. In particular, the 3.7' wide islands at the entrance to Lot B seem likely to be the first to go.*

   We do not agree with Mr. Bushey on this issue based on our experience and prefer to continue to specify the bituminous curbing (cape cod style) as shown on the plans.

4. *Snow storage are for Lots A, B, and E should be provided. The storage area should drain to a storm drain system so that sand laden runoff from snow piles can be treated by a treatment device if possible.*

   Lots A and B are very constrained. As such, we expect that the snow will have to be trucked away rather than plowed to the side. Lot E has room on the south end to plow the snow which will then drain to a swale next to the railroad tracks.

5. *The applicant should determine if a MEDEP permit for work with 75' of the adjacent wetland is necessary.*

   This has been done and a Permit-by-Rule application was filed on June 14, 2000.

6. *The applicant should review the need for a catch basin along the southwest drive aisle between elevation 26 and 28.*

   This issue has been re-examined and an additional catch basin called for on the final plans, as suggested.

7. *The applicant should review that all existing structures to be modified are adequate or do they need to be replaced. The existing CB that SD32 and SD28 connect to may be too small for five pipes.*

   We have done as Mr. Bushey has suggested and believe that the scope of the work on the plans accurately reflects the needs of the existing system. We also checked the CB that SD32 and SD28 connect to and confirmed that, given the specified inverts, a 4' diameter basin is sufficient.

8. *The plans should identify stabilized construction entrances. How will construction traffic be allowed to enter the site? Will traffic along Sewall Street be allowed during construction? If so, the contractor(s) must be responsible for street sweeping and dust control.*

   We agree with this comment and are developing a construction staging/sequencing plan as part of the final bidding documents. Mr. Bushey's comments will be addressed by this plan.

9. *The existing utility companies should sign off on the new Parking Lot E which will be placed over numerous existing utility lines.*

   We agree and are in the process of contacting them.

10. *The plantings on the proposed 3.7' wide islands at the entrance to Lot B are not likely to survive. Perhaps an island with a solid surface such as pavers might be better.*

    We do not agree with Mr. Bushey on this point. The plant materials we have selected for these areas are very hearty and durable and we think they will add to the aesthetics of the site over solid pavers.

11. *The applicant has prepared a brief stormwater study which states that stormwater quantity control is not necessary due to the site's proximity to the Fore River. I agree with this conclusion. The study also outlines the need for stormwater quality treatment. The storm drain systems will include the installation of a new Vortechnics stormwater treatment device and the continued use of an existing Vortechnics unit and small treatment pond. These measures appear adequate to meet the stormwater treatment needs of the development.*

    No response is required.

Your Conversation with Steve Doe

In accordance with Section 14-525(c) written statements for site plan submissions, I offer the following information:

1. Project Description

   The project consists of the expansion of the Concord Trailways Bus Terminal Facility into an intermodal transportation facility. This facility will provide for a connection to Amtrak train service scheduled to arrive in Portland in the Spring of 2001. Improvements consist of a 3,200 square foot expansion to the terminal building to accommodate Amtrak ticketing services, as well as other common facilities. A new drop-off area will be created as well as a covered trainway to a new train platform located adjacent to the railway. A new spur track is proposed off the main line to allow for Amtrak train loading and unloading. The final details on the spur track and platform are being finalized by the Northern New England Passenger Rail Authority (NNEPRA) and Amtrak at this time.

Other site improvements consist of reconfiguring the traffic flow patterns of the Concord Trailways terminal facility to allow for a greater drop-off area and one-way traffic flow from the new Thompson's Point Connector road. The existing parking lots (A and B) will be expanded to accommodate 266 cars. A new 374 car parking lot (Lots C and D) is also being proposed on the State of Maine land which is located between the new connector road and the Doubletree Hotel. A smaller 45 car parking lot (Lot E) is proposed adjacent to the Central Maine Power Company substation. The bus terminal area is to be expanded to accommodate two additional stalls for tour buses that may use the intermodal facility. All parking facilities will be landscaped and lighted. Access to Lots A, B, C and D will be controlled by a gate and ticket system.

2. Site and Building Summary

The acreage for the entire project is approximately 13.3 acres. There are several land swaps proposed between Langdon Street Real Estate, Inc. (Concord Trailways), the State of Maine, and the City of Portland. While the specifics of the plan have not been finalized, the intent has been outlined in a City/State/Concord Trailways agreement, which has been approved by the City Council.

The existing Concord Trailways building is 3,200 square feet. The expansion will increase the building size by 3,200 square feet, with an additional 2,000 square feet for the trainway and vestibule. The total building size will be approximately 8,400 square feet.

3. Easements

As discussed in item 2, the details of the land ownership package have not been finalized. This package will develop not only ownership rights, but will address easements and rights-of-way for all parties. Currently, the parcels are subject to utility easements by public utility companies.

4. Solid Waste

The existing bus terminal facility currently generates 4 cubic yards of domestic solid waste per week. It is anticipated that the expanded facility will increase this volume by 50% to 6 cubic yards per week.

5. Off-Site Capacity

The existing Concord Trailways facility is adequately serviced by both public water and sewer. We are not proposing any upgrades of the services to the building. The street connections are being upgraded as part of the relocation of Sewall Street and the new I-295 connector.

6. Stormwater Management

A Stormwater Management Plan has been prepared and submitted which discusses the measures of controlling and treating stormwater runoff.

7. Construction Plan

As indicated previously, we are in the process of developing a full construction staging/sequencing plan that will coordinate the activities of the train station construction with those of the adjacent I-295 interchange project. Our Erosion and Sedimentation Control Plan contained on Sheet 3 of 23 of our previously submitted plan set presents our anticipated construction schedule and strategy for managing the erosion and sedimentation resulting from the construction process.

8. Permits

Two permits were filed with the Maine DEP on June 14, 2000. One was a Tier 1 Wetland Fill permit that requested permission to fill the 11,000 square foot pond on the State land in the area of the park-and-ride lot. The other was a Permit by Rule permit for performing land disturbance within 25-100 feet of a significant wetland.

As soon as the final plans are complete, we also intend to file an NPDES permit with EPA because the construction site exceeds 5 acres.

9. Financial/Technical Capability

The applicants have retained the services of Sebago Technics, Inc. and Gawron Architects to provide the technical ability to design and permit the development. Langdon Street Real Estate has retained the services of Ledgewood, Inc. to be the construction manager of their facility. The City is required to put the park-and-ride and Thompson's Point Connector Road out for public bid.

The financial arrangement for the project is spelled out in the City/State/Concord Trailways agreement.

10. Right, Title and Interest

The specifics of the deal between the City, Maine DOT and Concord Trailways (Langdon Street Real Estate, Inc.) is contained in the City/State/LSRE agreement.

11. Unusual Natural Areas, Wildlife and Fisheries Habitat, and Historic Sites

We have submitted letters from Inland Fisheries and Wildlife, the Maine Department of Conservation, and Maine Historic Preservation which indicate no significant natural areas, animal habitats, or historic sites in the project area.

12. CADD Files

Final plan documents will be made available in a CADD.dxf file.

13. Recyclable Material

Currently, the bus terminal separates and recycles glass and plastic bottles, which are picked up by Coca-Cola and Seltzer and Rydholm on a weekly basis. This procedure would continue with the expanded intermodal facility.

I trust this information is sufficient for the Board's needs. If not, please let me know.

Sincerely,

SEBAGO TECHNICS, INC.

Steve

Stephen S. Sawyer, Jr., P.E.
Vice President, Transportation Services

SSS:sss/jc
Enc.

cc: Don McGilvery, Ledgewood, Inc.
Harry Blunt, Concord Trailways
Paul Bradbury, City of Portland

Attachment 3 (cont'd)

Sebago Technics

Engineering & Planning for the Future

May 30, 2000
99607

Sarah Hopkins, Senior Planner
Portland Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Major Site Plan Application
Portland Intermodal Transportation Center, Thompson's Point Connector

Dear Sarah:

On behalf of Langdon Street Real Estate, Inc. (LSRE) and the City of Portland, I am pleased to submit seven (7) copies of the preliminary plan documents for the new Intermodal Transportation Center at the Concord Trailways site on Sewall Street. As discussed previously, this project is being developed jointly by LSRE, the City of Portland, and the Maine Department of Transportation. However, the applicant is a shared effort by LSRE and the City of Portland.

Our submission to you on April 25th was conceptual in nature for a tentative workshop meeting with the Planning Board. This new supplemental submittal package addresses more of the technical information required by the City for site location review and includes the following documents:

1. Plan set of 23 drawings which consist of the following:

- Existing Conditions Plan
- Layout Plan
- Grading Plan
- Landscape Plan
- Lighting Plan
- Plan and Profile of Thompson's Point Connector
- Cross-sections of Thompson's Point Connector Road
- Site and Subsurface Exploration Plan
- Construction Details
- Building Elevations

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

These drawings have been separated into the project areas which will be developed by both applicants. LSRE will develop the train station facility and Parking Lots A, B and E. The City and State will develop Lots C and D and the Thompson's Point Connector Road.

2. A Stormwater Management Plan narrative.

3. Cut sheets on light fixtures.

4. Letter from Maine Historical Preservation Commission.

5. Letter from State of Maine Department of Conservation.

6. Inland Fisheries & Wildlife

7. Traffic Study from Wilbur Smith Associates.

8. High level and low level platform design for train.

I understand we have been placed on the June 27th workshop with the Planning Board. We hope these more technical documents provide you with the information you need for a more thorough review. As you review these documents, please feel free to call Steve Sawyer or me with questions, comments or request for additional information.

Sincerely,

SEBAGO TECHNICS, INC.

Stephen G. Doe, R.L.A.
Landscape Architect

SGD:jc
Enc.

cc: Don McGilvery, Ledgewood, Inc.

99607

Stormwater Management Narrative

Portland Intermodal Transportation Center
Portland, Maine

Introduction

This Stormwater Management Narrative has been prepared in order to analyze the stormwater runoff associated with the proposed Intermodal Transportation Center at the site of the existing Concord Trailways facility off Sewall Street in Portland, Maine.

The first aspect of this development will create an expansion to the existing Concord Trailways terminal building with a connection to the new train platform and an expanded parking lot. The second aspect of the development will entail the construction of the new Thompson's Point Connector Road and two new parking lots on the northerly side of the new road.

Site Characteristics

The parcel is located on the southeastern side of Sewall Street and is bounded by Sewall Street, railroad tracks, the new I-295 interchange, and an existing commercial development. The portion of the site that is southerly of the new road is currently developed as the Concord Trailways bus terminal facility. The remainder of the site is currently vacant and included brush and wooded areas, the abandoned Hooper Street, and other gravel areas. Wetlands are mainly located at the southern corner of the property, with one small pond on the north side of Hooper Street. The hydrologic soil group (HSG) for the fill areas has been assumed to be "C". The HSG for the remaining undeveloped areas has been assumed to be "B". Elevations on the site range from Elevation 35 at Sewall Street to Elevation 8 in the wetlands at the rear corner of the site.

Methodology

The stormwater runoff analysis was developed in accordance with the methodology outlined in the USDA Soil Conservation Service "Urban Hydrology for Small Watersheds, Technical Release # 55" and HydroCAD Stormwater Management Systems. The 2-year, 10-year and 25-year, 24-hour, Type III storm events were used for this analysis. Due to the site's proximity to the Fore River and the size of the overall upstream areas contributing to the river and Portland Harbor, it is apparent by observation that on-site detention will not provide a measurable benefit. The existing wetlands on the site help to provide a stable receiving body to allow discharge to the downstream areas. Due to the site's location at the downstream end of the watershed, attenuation of peak flow rates is not as beneficial or imperative as enhancing the quality of the stormwater leaving the site.

Water Quality

The portion of the site that encompasses the existing Concord Trailways facility includes approximately 0.96 acre of new impervious area. As such, based on the sliding scale, this portion of the project is required to obtain 40% Total Suspended Solids (TSS) removal. The original site design utilized a Vortechnics Model #7000 and a pond to provide stormwater treatment. This existing Vortechnics unit will be utilized as an off-line structure, which will provide 70% TSS removal. The "first-flush" of runoff from Parking Lots A and B and the loop road will be directed through this Vortechnics unit. Additionally, a portion of the flows from the Vortechnics unit will be diverted into the treatment pond. These flows will then receive additional treatment. Overall, runoff from 78% of the total impervious area for Parking Lots A, B, and E, and the loop road will be treated. This translates into a weighted average of 55% TSS removal for the portion of development on the southerly side of Thompson's Point Connector Road.

The portion of development that includes Thompson's Point Connector Road and Parking Lots C and D involves the creation of approximately 3.14 acres of new impervious area. As such, based on the sliding scale, this portion of the project is required to obtain 68% TSS removal. The stormwater management system for this portion of the development will also include an off-line Vortechnics structure, which will provide 70% TSS removal. Parking Lots C and D and Thompson's Point Connector Road have been graded so that runoff from all new impervious areas will be collected through a series of catch basins and subsurface storm drains. This drainage system will flow through a diversion structure at which point the "first-flush" will be directed into a new Vortechnics Model #7000. The additional runoff will bypass this treatment structure. All runoff from this portion will again be combined into one structure, which will outlet into an area just above the large wetland on site.

Erosion and Sediment Control Plan

In order to further reduce the potential for impacts associated with the project's construction, an Erosion and Sediment Control Plan has been prepared which outlines the measures to be incorporated before and during the construction of the project. Permanent erosion control measures have also been included to reduce the potential for long-term effects. A narrative and details of this plan are included in the drawing set.

Summary

The preceding stormwater evaluation has been prepared to address the post-development runoff conditions for the proposed Portland Intermodal Transportation Center and Thompson's Point Connector Road. Principal stormwater management features include combinations of catch basins, storm drains, and Vortechnics structures. It is anticipated that this system will improve the quality of runoff leaving the site by collecting and treating the first flush of runoff. An erosion control plan has been made an integral part of the overall project and specific instructions and details have been placed directly on the plans.

Based on the enclosed stormwater runoff calculations and the site's downstream location, it is not anticipated that the increases in the peak runoff rates leaving the site will have a significant adverse impact on the downstream receiving water bodies.

Prepared by:

SEBAGO TECHNICS, INC.

Jennifer L. Williams
Project Engineer

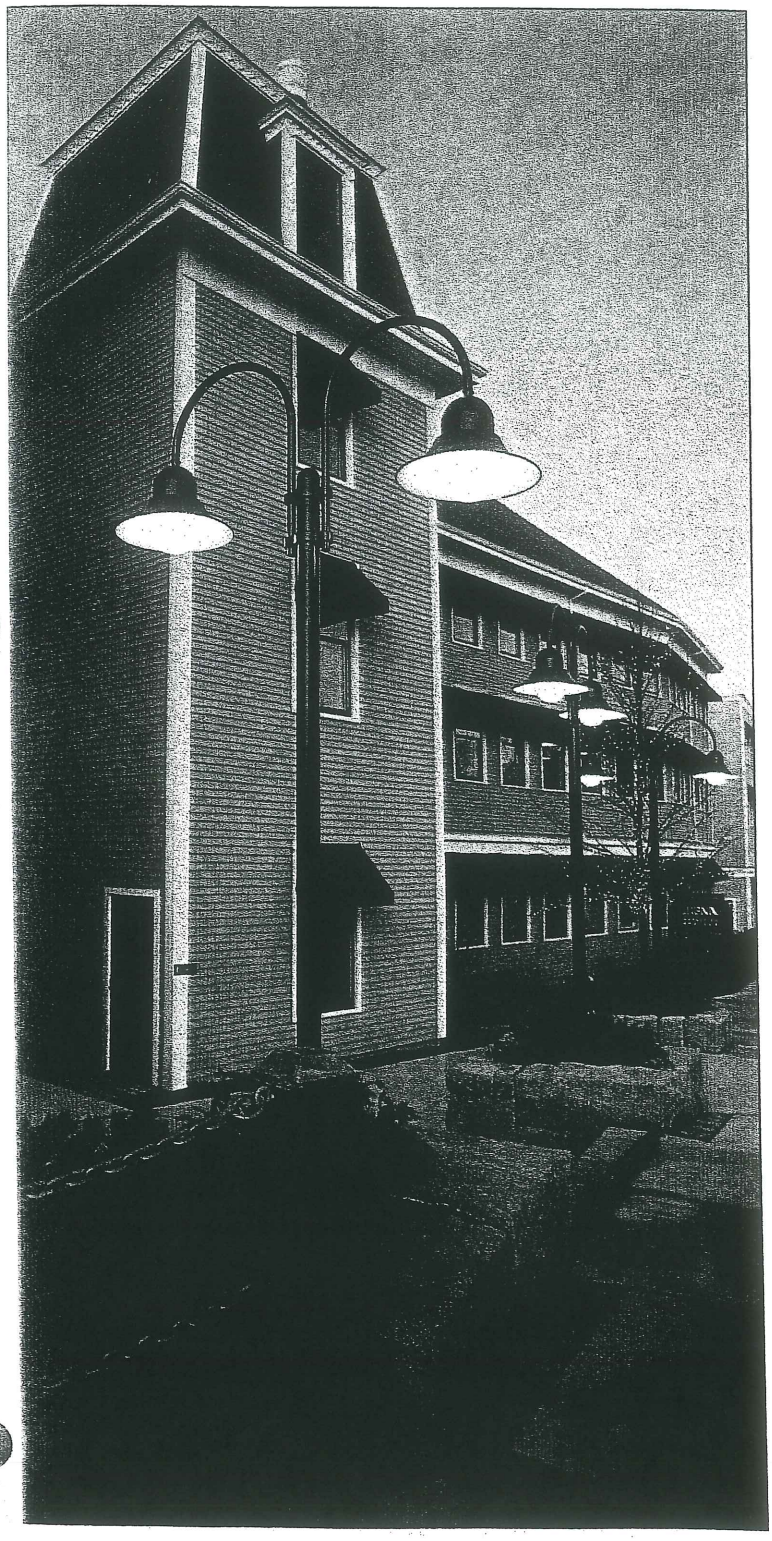
JLW:jlw/jc
May 30, 2000

ARCHITECTURAL
AREA
LIGHTING

SL FH

3b

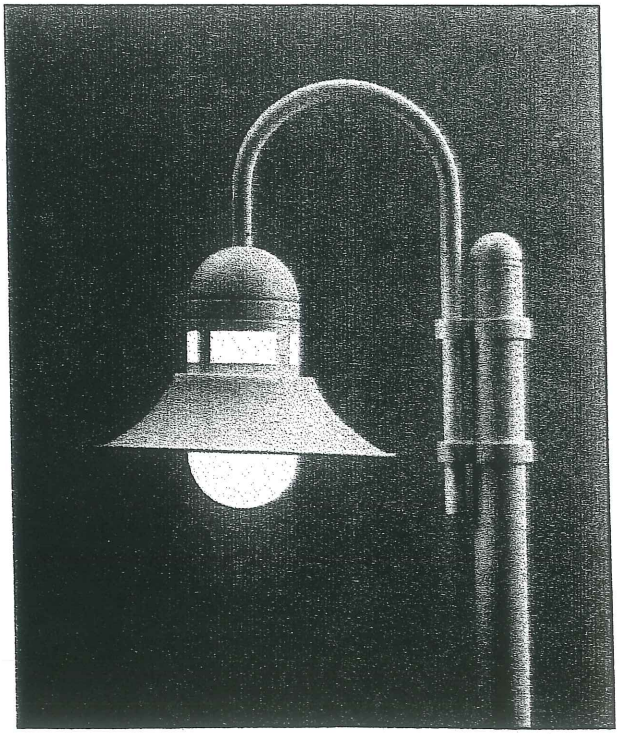
FLARED HOOD



2-SL FH22 SLA4-2 PR4-4R10

The SL FH series is scaled in three sizes of fifteen, twenty and thirty inch diameters to coordinate with any site design. Fixtures can be post top mounted or specified with a variety of decorative arms and bases. Quality design details include all aluminum construction and a cast aluminum threaded fitter for attaching the opal lens. The fifteen inch wall luminaire is scaled to compliment the larger fixtures. The SL FH 15 wall bracket simplifies installation with a flush mounted enclosure that houses the ballast components. Sixteen powder coat finishes are standard, and custom color matches are available.

All fixtures carry a two year limited warranty.



SL FHW22T SLA4

22" DIAMETER

SL FH22-T

DIMENSIONS: 22" diameter x 16" high
WEIGHT: 18 pounds
EPA: 1.14

SL FH22-S

DIMENSIONS: 22" dia. x 16" wide x 31"proj.
WEIGHT: 20 pounds
EPA: 1.30

SL FH22-PM

DIMENSIONS: 22" diameter x 29" high
WEIGHT: 21 pounds
EPA: 1.50

SL FHW22-T

DIMENSIONS: 22" diameter x 19" high
WEIGHT: 20 pounds
EPA: 1.25

SL FHW22-PM

DIMENSIONS: 22" diameter x 31" high
WEIGHT: 25 pounds
EPA: 1.95

30" DIAMETER

SL FH30-T

DIMENSIONS: 30" diameter x21" high
WEIGHT: 26 pounds
EPA: 1.90

SL FH30-S

DIMENSIONS: 30" dia. x 21" wide x 37"proj.
WEIGHT: 29 pounds
EPA: 2.45

SL FH30-PM

DIMENSIONS: 30" diameter x 34" high
WEIGHT: 30 pounds
EPA: 2.32

SMALL WALL BRACKET

SL FH15-SS

DIMENSIONS: 15" high x 12" wide x 21"proj.
WEIGHT: 15 pounds
EPA: .83

SL FH15-CA

DIMENSIONS: 15" dia. x 18" wide x 21"proj.
WEIGHT: 15 pounds
EPA: .90

OPTIONS

FS1	Single weather proof fuse holder and fuse
LXN	Polycarbonate lens in lieu of acrylic
PMS	Pendant mounting kit with 24" stem and swivel canopy
RBC	Cast aluminum receptacle base welded to the pole with a weatherproof cover
GFI	GFCI duplex receptacle with cast base welded to pole and gasketed, self closing cover
•	Flag, banner or sign holder consult factory

ORDERING INFORMATION

CATALOG NUMBERS

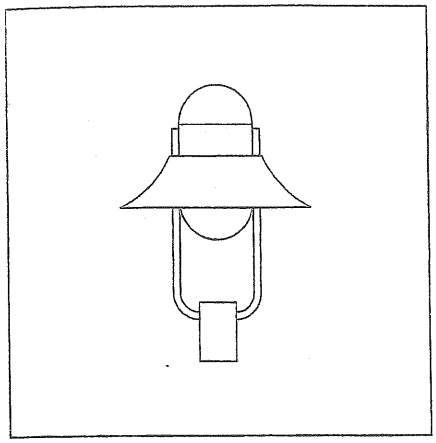
22" DIAMETER		METAL HALIDE 70	METAL HALIDE 100	HPS 70	HPS 100
SL FH22-T	top mounted arm or pendant	•	•	•	•
SL FH22-S	with side mounted arm	•	•	•	•
SL FH22-PM	post mount with yoke	•	•	•	•
SL FHW22-T	four luminous windows, top mounted arm	•	•	•	•
SL FHW22-PM	four luminous windows, post mount with yoke	•	•	•	•

30" DIAMETER		METAL HALIDE 70	METAL HALIDE 100	METAL HALIDE 175	METAL HALIDE 250	HPS 70	HPS 100	HPS 150	HPS 250
SL FH30-T	top mounted arm or pendant	•	•	•	•	•	•	•	•
SL FH30-S	with side mounted arm	•	•	•	•	•	•	•	•
SL FH30-PM	post mount with yoke	•	•	•	•	•	•	•	•

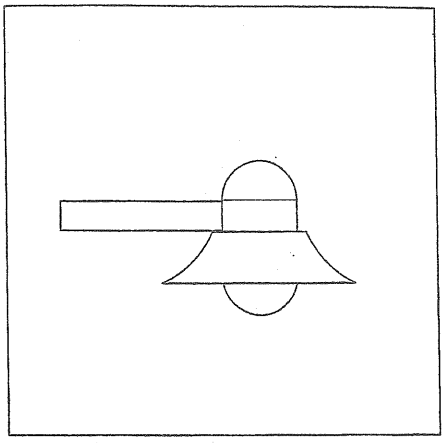
15" DIAMETER		METAL HALIDE 50	METAL HALIDE 70	HPS 35	HPS 50	HPS 70
SL FH15-SS	straight side arm mount	•	•	•	•	•
SL FH15-CA	curved arm mount	•	•	•	•	•

EXAMPLES

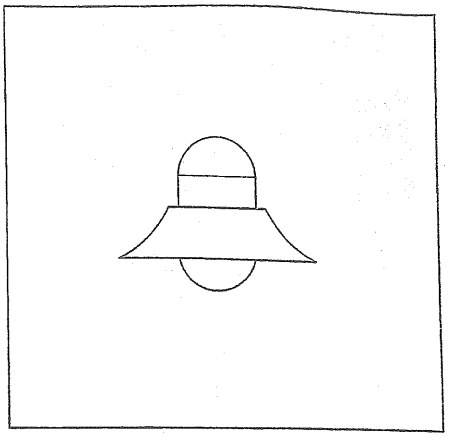
FIXTURE	LAMP	VOLTAGE	ARM	BASE-POLE	COLOR	OPTIONS
SL SF20-T	100MH	277	SLA20B-2	PR4-4R10-125	BGM	BANNER ARM
SL SF30-PM	250HPS	120	•	DB6-4R14-125	TEL	•



SL FH-PM



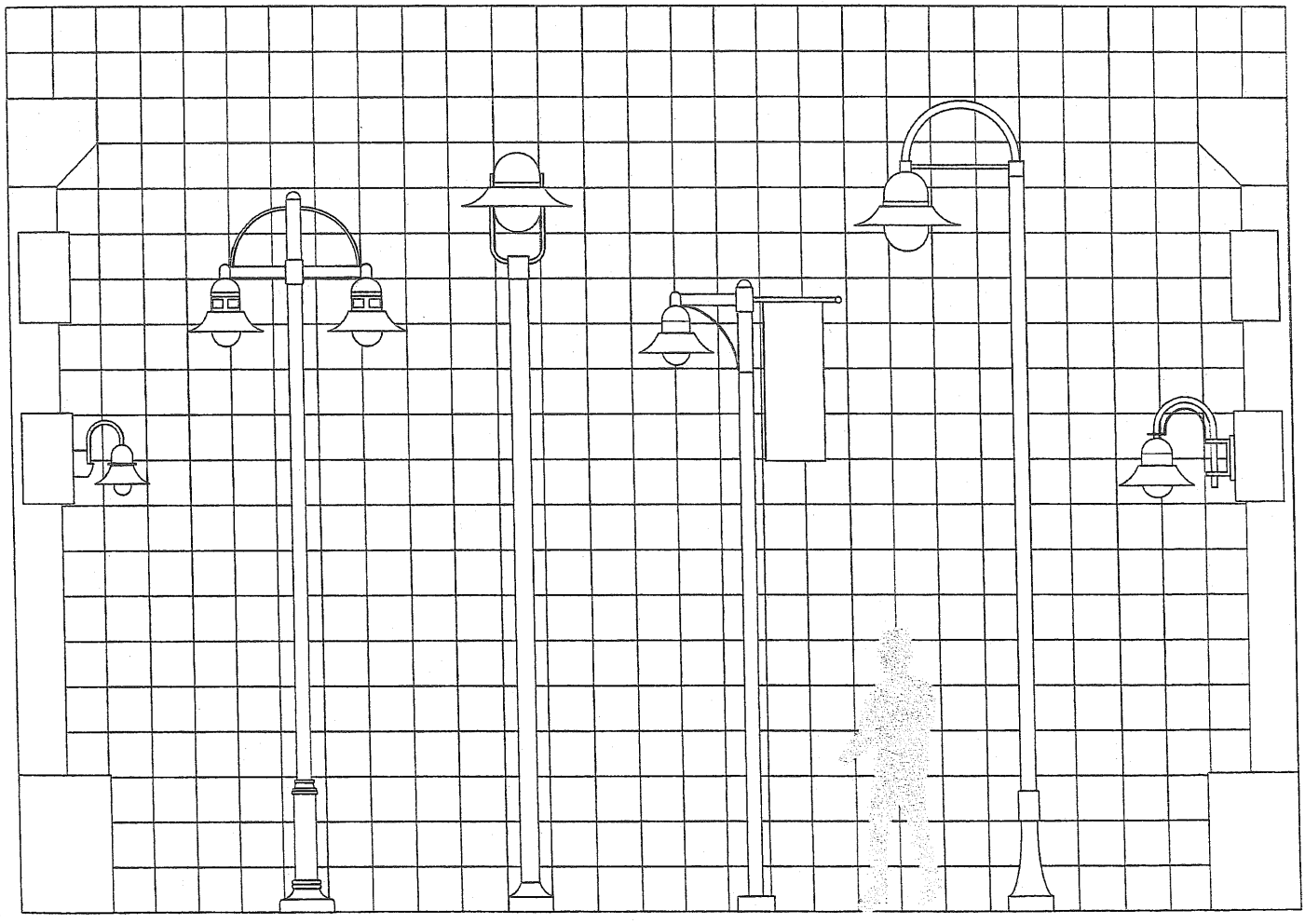
SL FH-S



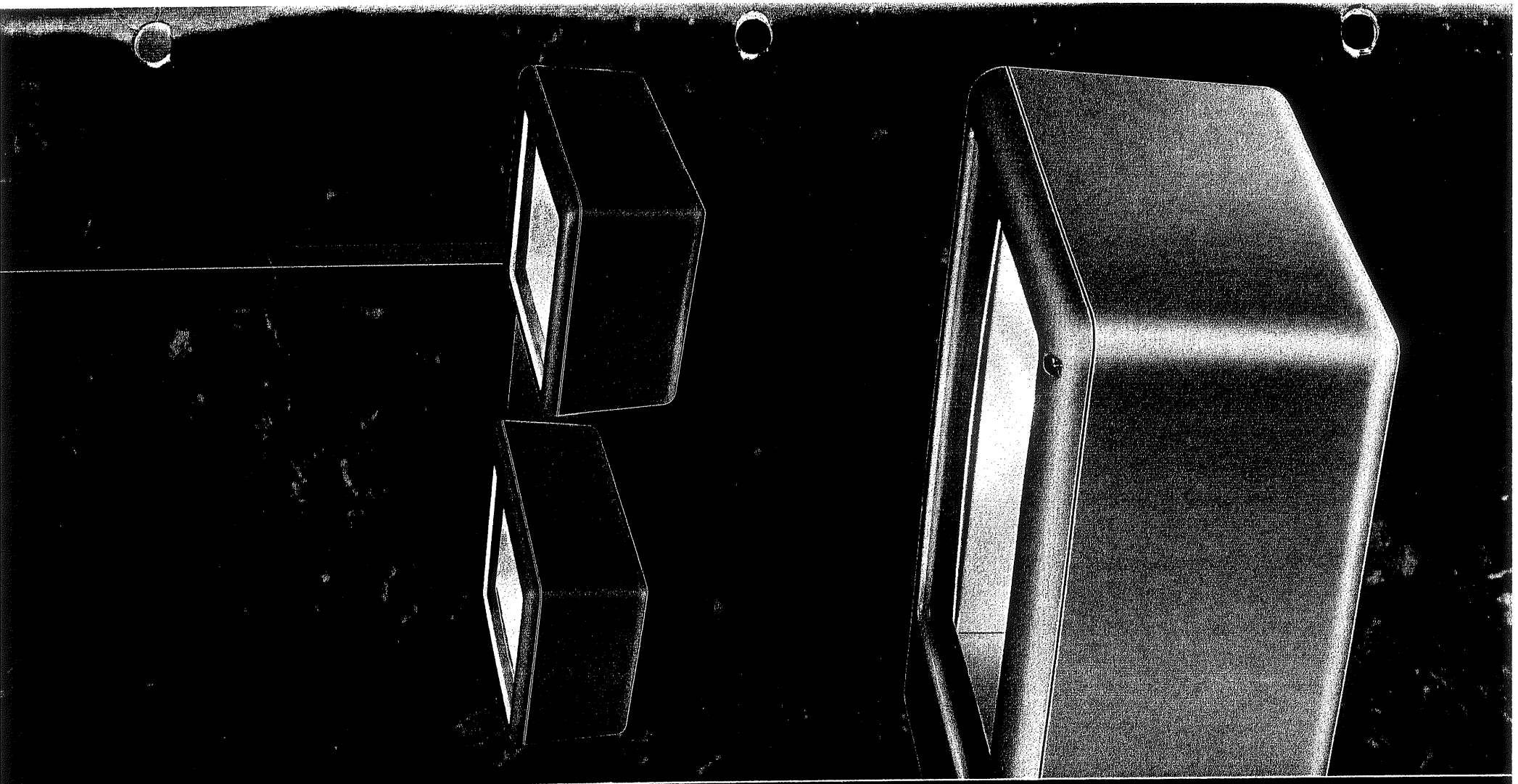
SL FH-T

SCALE: 1/4" = 1'

Typical Configurations



HEAD	SL FH15-CA	2-SL FHW22-T	SL FH30-PM	SL FH22-T	SL FH30-T	SL FH22-T
ARM	•	SLA20A-2	PR5-5R14	SLA20D	SLA18	WMA8
POLE	•	DB6-4R14	BC1-5	PR4-4R12	PR4-4R16	•
OPTIONS	•	•	•	BANNER ARM	BC4-4	•



SPAULDING LIGHTING, INC.

CAMBRIDGE

LUMINAIRE ORDERING GUIDE

UL & CSA Listed.

Model

CEI - small size

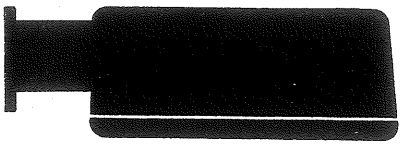
CEII - large size

Mounting Mode

PM

Pole Mount

WB



Wall Bracket

Lamp Type/ Watts

small size
S100 S150 S250 S400 M175 M250 M400

large size
S400 S1000 M400 M1000

Reflector

I-asymmetric **III**-asymmetric **IV**-forward throw **VS**-symmetric square

Voltage

120 208 240 277 347 480 MT-multi-tap

Options

PC - photoelectric cell 120-277v, up to 400w. **SF** - single fuse
PR - photo receptacle (less cell) **DF** - double fuse
VG - polycarbonate vandal guard **CS** - house side cutoff shield

Colors for Luminaire and Pole

DBZ	SSB	RRN	SGB	WHT	FGP	TBP	RBP	CMB	SOS
dark bronze	beige	rocket red	black	white	forest green	teal blue	royal blue	burgundy	silver

Luminaire Ordering Example:

MODEL	MOUNTING MODE	LAMP TYPE WATTS	REFLECTOR	VOLTAGE	OPTIONS	COLOR
CEII	PM	S400	IV	MT	PC	SOS

MODEL	MOUNTING MODE	LAMP TYPE WATTS	REFLECTOR	VOLTAGE	OPTIONS	COLOR
CEI CEII	PM; pole mount: std-6" arm for CEI std-10" arm for CEII WB; wall bracket	small S100 S150 S250 S400 M175 M250 M400 large S400 S1000 M400 M1000	I; symmetric III; asymmetric IV; forward throw VS; V-square	120 208 240 277 347 480 MT; multi-tap	PC; photoelectric cell 120-277v, up to 400w PR; photo receptacle (less cell) SF; single fuse DF; double fuse VG; polycarbonate vandal guard CS; house side cutoff shield	DBZ; dark bronze SSB; beige RNN; rocket red SGB; black WHT; white FGP; forest green TBP; teal blue RBP; royal blue CMB; burgundy SOS; silver

POLE ORDERING

Refer to Poles/Brackets Section for ordering information.

SPAULDING LIGHTING, INC.

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

3c

ANGUS S. KING, JR.
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

May 19, 2000

Stephen S. Sawyer
Sebago Technics
One Cabot Street
PO Box 1339
Westbrook, Maine 04098-1339

Project: MHPC #667 - Portland Intermodal Transportation Center, Sewall Street
Location: Portland, Maine

Dear Mr. Sawyer:

In response to your recent request, I have reviewed the information received May 8, 2000 to initiate consultation on the above referenced project.

Based upon the proposed scope of work for this project and the project location, no additional identification efforts are warranted at this time as there is adequate documentation for a finding on historic properties. Therefore, I find no historic properties [historic, architectural or archaeological] affected by this project.

Please contact Dana R. Vaillancourt of my staff if you require further assistance in this matter.

Sincerely,

Earle G. Shettleworth, Jr.
State Historic Preservation Officer

EGS/drv

STATE OF MAINE
DEPARTMENT OF CONSERVATION
159 HOSPITAL STREET
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0093

3a

ANGUS S. KING, JR.
GOVERNOR

RONALD B. LOVAGLIO
COMMISSIONER

May 9, 2000

Stephen S. Sawyer
Sebago Technics
One Chabot Street
PO Box 1339
Westbrook, ME 04098-1339

Re: Rare and exemplary botanical features, Intermodal Transportation Center, Portland

Dear Mr. Sawyer:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request of May 5, 2000 for information on the presence of rare or unique botanical features documented from the vicinity of the project site in the town of Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they

may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $75.00 for our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Emily C. Pinkham

Emily C. Pinkham
Information Specialist

Enclosures

Rare or Exemplary Botanical Features in the Project Vicinity

Documented within a four mile radius of the proposed intermodal transportation center, Portland.

Scientific Name Common Name	Last Seen	State Rarity	Global Rarity	State Legal Status	Federal Legal Status	Habitat Description
ADLUMIA FUNGOSA ALLEGHENY VINE	1860	S1	G4	T		Wet or recently burned woods, rocky wooded slopes.
CAREX POLYMORPHA VARIABLE SEDGE	1911	S1	G3	E		In Maine, habitat is between downslope seeps (with horsetails and wetland sedges) and upslope mixed oak/huckleberry forest. Preferred soil type is Deerfield Loamy Sand. All Maine occurrences are from coastal towns where climate is moderated by the ocean.
POTAMOGETON VASEYI VASEY'S PONDWEED	1901	S1	G4	T		Quiet muddy or calcareous waters.
SELAGINELLA APODA CREEPING SPIKE-MOSS	1924	S1	G5	E		Meadows, lawns, and streambanks.
SUAEDA CALCEOLIFORMIS AMERICAN SEA-BLITE	1932	S1	G5	T		Rocky or gravelly saltmarshes and sea-strands.
WOLFFIA COLUMBIANA COLUMBIA WATER-MEAL	1979	S2	G5	T		Ponds, and still waters.

STATE RARITY RANKS

S1 Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.

S2 Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

S3 Rare in Maine (on the order of 20-100 occurrences).

S4 Apparently secure in Maine.

S5 Demonstrably secure in Maine.

SH Occurred historically in Maine, and could be rediscovered; not known to have been extirpated.

SU Possibly in peril in Maine, but status uncertain; need more information.

SX Apparently extirpated in Maine (historically occurring species for which habitat no longer exists in Maine).

Note: **State Ranks** determined by the Maine Natural Areas Program.

GLOBAL RARITY RANKS

G1 Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.

G2 Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

G3 Globally rare (on the order of 20-100 occurrences).

G4 Apparently secure globally.

G5 Demonstrably secure globally.

Note: **Global Ranks** are determined by The Nature Conservancy.
T indicates subspecies rank, **Q** indicates questionable rank, **HYB** indicates hybrid species.

STATE LEGAL STATUS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's endangered and threatened plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

E ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future, or federally listed as Endangered.

T THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

SC SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.

PE POSSIBLY EXTIRPATED; Not known to currently exist in Maine; not field-verified (or documented) in Maine over the past 20 years.

FEDERAL STATUS

LE Listed as Endangered at the national level.

LT Listed as Threatened at the national level.

Please note that species names follow Flora of Maine: A Manual for Identification of Native and Naturalized Vascular Plants of Maine, Arthur Haines and Thomas F. Vining, 1998, V.F. Thomas Co., P.O. Box 281, Bar Harbor, Maine 04069-0281.

Where entries appear as binomials, all representatives (subspecies and varieties) of the species are rare in Maine; where names appear as trinomials, only that particular variety or subspecies is rare in Maine, not the species as a whole.

IF&W Report- Portland Intermodal Transportation Center

Request for Information - Stephen Sawyer

05/10/2000

Department of Inland Fisheries and Wildlife

(207) 547-5318

1 0 1 2 Miles

Biologist Notes

No identified wildlife habitats associated with this site.

WILBUR
SMITH
ASSOCIATES

ENGINEERS • ECONOMISTS • PLANNERS

107 INDIA STREET • PORTLAND, ME • 04101 • (207) 871-1785 • FAX (207) 871-5825

May 12, 2000

Mr. Stephen S. Sawyer, Jr., P.E.
Sebago Technics
One Chabot Street
Westbrook, Maine 04098-1339

Subject: Portland Amtrak Train Station – Traffic Assessment

Dear Steve:

The purpose of this letter is to provide a summary of the anticipated traffic impacts associated with the proposed Portland Amtrak Train Station located on Sewall Street in Portland, Maine. The summary of impacts discussed below is based upon information from two Maine Department of Transportation (MDOT) studies, 1) the Restoration of Passenger Rail Service prepared by Vanasse Hangen Brustlin, Inc. (VHB), and 2) the proposed Congress Street Interchange prepared by Fay, Spofford & Thorndike, Inc. (FST).

Specifically, our analysis included:

1. Presenting traffic generation expected from the proposed Train Station;
2. Presenting traffic volumes in the immediate study area (Congress Street Connector Road @ Thompson's Point Connector Road); and
3. Presenting Level of Service information in the immediate study area.

Traffic Generation

Traffic volumes generated by the proposed Portland Amtrak Train Station were based upon data contained in the report Restoration of Passenger Rail Service – Transportation Impact Methods and Results Report, June 1993. According to this study, 70 peak hour trips (13 entering and 57 exiting) are projected at the opening of the station and 104 peak hour trips (19 entering and 85 exiting) in the year 2010. The following table summarizes the Trip Generation estimate.

	STATION OPENING	YEAR 2010
Average Daily Ridership	207	311
Peak Hour Ridership	73	110
Daily Ridership	Commuter – 14% Business – 21% Other – 65%	Commuter – 14% Business – 21% Other – 65%
Mode Split	Auto – 60% Transit – 30% Drop-Off – 7% Walk – 3%	Auto – 60% Transit – 30% Drop-Off – 7% Walk – 3%
Auto Trips	5 in/49 out	10 in/76 out
Transit Trips	0 in/22 out	0 in/33 out
Walk Trips	0 in/2 out	0 in/3 out
Vehicle Trips	13 in/57 out (1)	19 in/85 out

(1) The vehicle trips assume eight transit vehicles enter and exit the station during the peak hour. Total vehicle trips are greater than total peak hour ridership due to drop-off/pick-up trips.

The following should be noted as it relates to the above trip generation estimate.

- The peak hour statistics presented above represent conditions during the evening peak hour.
- As currently proposed the arrival/departure train schedule to and from Portland will consist of the following.

  Leave Portland – 6:00AM, 8:40AM, 1:00PM, 3:50PM

  Arrive Portland – 12:00 Noon, 2:50PM, 8:05PM, 1:20AM

The train with the highest anticipated ridership is expected to arrive in Portland at 8:05PM, outside the normal evening peak period on the adjacent road system.

- During the normal morning peak period, some traffic impact is anticipated. However, arrival patterns of vehicles entering the station are spread over a greater time period, thereby lessening the impact. Conversely, greater impact is experienced when trains arrive at a station, because riders generally exit the station at the same time, creating a surge of vehicles departing the station.

Traffic Volumes

Traffic volumes were developed by FST in conjunction with the I-295 Connector Road and Congress Street Interchange project for the year 2025 during both the AM and PM peak hours. Volumes were developed for two conditions. The first condition, or No-Build condition, consists of completion of the new I-295 Interchange and Congress Street Connector Roadway, dead-ending Sewall Street, and constructing a new connector road to Thompson Point and the Train Station. The second condition, or the Build condition, includes extending the Congress Street Connector Road to link with Veteran's Circle. The following table presents traffic volumes at some relevant locations during the 2025 AM and PM peak hours. Two graphics provided by FST are attached illustrating the estimated traffic volumes.

LOCATION	2025 NO-BUILD		2025 BUILD	
	AM	PM	AM	PM
Leaving Thompson Point	124	519	124	519
Entering Thompson Point	581	172	581	172
Congress Street Connector Road Leaving Congress Street	685	548	1228	905
Congress Street Connector Road Approaching Congress Street	754	727	1165	1091

The above traffic volumes illustrate the directional traffic volume distribution on Thompson Point Connector Road. During the morning peak hour the majority of traffic is entering Thompson Point destined to the train and bus stations and other land uses. In the afternoon, the reverse occurs, with the majority of the traffic leaving Thompson Point.

Conclusions

1. The proposed Portland Amtrak Station is expected to generate approximately 70 trips during the peak hour when the train station opens and 104 trips in the year 2010.

2. Capacity analyses were conducted in the vicinity of the proposed project and results indicate study area intersections will operate at level of service 'C' or better in the year 2025. This analysis assumes completion of the reconfigured I-295/Congress Street Interchange by MDOT.

3. The proposed train schedule indicates the arrival and departure of trains will have little or no impact on the typical AM and PM peak hours of the adjacent street system. During the period when the greatest amount of traffic is expected (evening arrival at 8:40PM), the train will be arriving well after the PM peak hour, typically 4:30 to 5:30PM. Some impact is expected from the train departing at 8:40AM, but vehicles destined to the station will arrive at varying times (some arrive early for choice seating, food, etc.) softening the impact of the project.

4. Based upon the information reviewed, it is my professional opinion that new traffic from the proposed Portland Amtrak Train Station will not adversely impact the public street system in the vicinity of the project.

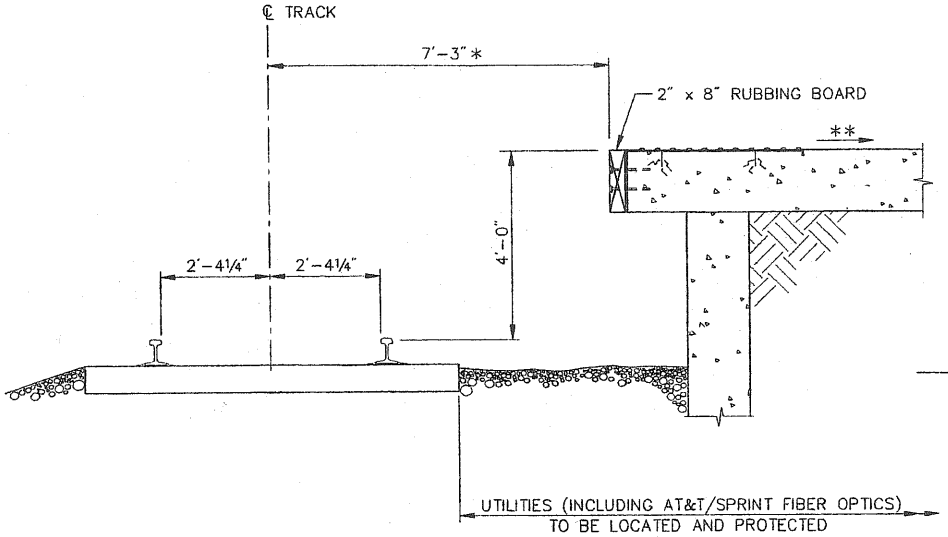
I hope the contents of this letter are satisfactory. Please do not hesitate to call should you have any questions.

Sincerely,

WILBUR SMITH ASSOCIATES

Thomas A. Errico, P.E.
Senior Transportation Engineer

NNEPRA
Northern New England Passenger Rail Authority
5 Industry Road, South Portland, Maine 04106-6154
Tel (207)780-1000 • Fax (207)780-1001

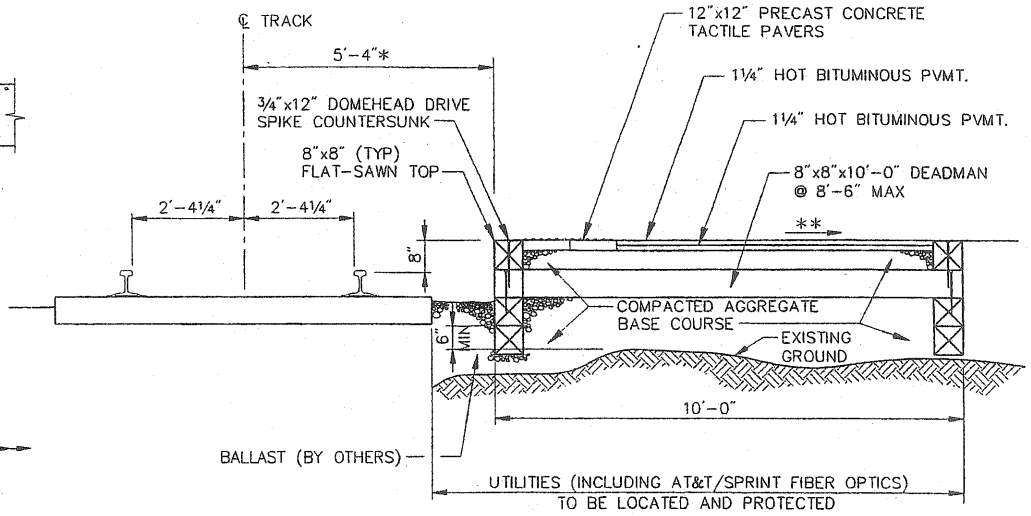


* CLEARANCE IS FOR TANGENT TRACKS. PLATFORMS ADJACENT TO CURVED TRACK MUST INCREASE SIDE CLEARANCE 1" FOR EACH DEGREE OF CURVE.

** ALL SURFACE WATER MUST BE DIRECTED AWAY FROM THE TRACK STRUCTURE.

TYPICAL HIGH PLATFORM SECTION

SCALE: 3/8" = 1'-0"



* CLEARANCE IS FOR TANGENT TRACKS. PLATFORMS ADJACENT TO CURVED TRACK MUST INCREASE SIDE CLEARANCE 1" FOR EACH DEGREE OF CURVE.

** ALL SURFACE WATER MUST BE DIRECTED AWAY FROM THE TRACK STRUCTURE.

TYPICAL LOW PLATFORM SECTION

SCALE: 3/8" = 1'-0"

VHB
Vanasse Hangen Brustlin, Inc.
Transportation
Land Development
Environmental Services
Six Bedford Farms, Suite 607
Bedford, New Hampshire 03110-6532
603 644 0888 FAX 603 644 2385

Rec. 4/5/00

DRAFT

PLATFORM PLOT DATE: 9-22-99

6/99

991607
Attachment 4

DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)
PERMIT BY RULE NOTIFICATION FORM
(For use with DEP Regulation, Chapter 305)

PLEASE TYPE OR PRINT IN *BLACK INK ONLY* (3 COPIES, PLEASE BEAR DOWN)

Name of Applicant:	Langdon Street Real Estate Inc	**Name of Owner:**	Langdon Street Real Estate Inc
Mailing Address:	7 Langdon Street	**Town/City:**	Concord
State: NH	**Zip Code:** 03301	**Daytime Telephone No: (include area code)**	(800)639-3317
Name of Wetland, Water Body or Stream:	follow Rte 32 (outer Congress Street) to Sewall Str		
Detailed Directions to Site:	turn onto Sewall Str. turn into entrance to old snow dump (just beford Concord Trailways)		
Site is on the right(Concord Trailways)			
Town/City: Portland	**Map #:** 109&190	**Lot #:**	**County:** Cumberland
Description of Project:	expansion of parking lots & Building for interim intermodal		
transportation center including modifications/improvements to existing			
drainage system & outfalls	**Part of a larger project?**	X **Yes**	**No**

(CHECK ONE) This project: does ☐ does not ☒ involve work below mean low water.

I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Regulation, Chapter 305. I have a copy of PBR Sections checked below. I have read and will comply with all of the standards.

- ☒ Sec. (2) Soil Disturbance
- ☐ Sec. (3) Intake Pipes
- ☐ Sec. (4) Replacement of Structures
- ☐ Sec. (5) REPEALED
- ☐ Sec. (6) Movement of Rocks or Vegetation
- ☒ Sec. (7) Outfall Pipes
- ☐ Sec. (8) Shoreline stabilization
- ☐ Sec. (9) Utility Crossing
- ☐ Sec. (10) Stream Crossing
- ☐ Sec. (11) State Transportation Facilities
- ☐ Sec. (12) Restoration of Natural Areas
- ☐ Sec. (13) F&W Creation/Enhance/Water Quality Improvement
- ☐ Sec. (14) Piers, Wharves & Pilings
- ☐ Sec. (15) Public Boat Ramps
- ☐ Sec. (16) Coastal Sand Dune Projects
- ☐ Sec. (17) Transfers/Permit Extension
- ☐ Sec. (18) Maintenance Dredging

I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules. I also understand that ***this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.***

I have attached all of the following required submittals. **NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS:**

- ☒ ***Attach*** **a check for $50 (non-refundable) made payable to: "Treasurer, State of Maine".**
- ☒ ***Attach*** **a U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked.**
- ☒ ***Attach*** **photographs showing existing site conditions (unless not required under standards).**

Signature of Applicant:		**Date:**	

Keep the bottom copy as a record of permit. Send the form with attachments via certified mail to the Maine Dept. of Environmental Protection at the appropriate regional office listed below. The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. **Work carried out in violation of any standard is subject to enforcement action.**

AUGUSTA DEP
STATE HOUSE STATION 17
AUGUSTA, ME 04333-0017
(207)287-2111

PORTLAND DEP
312 CANCO ROAD
PORTLAND, ME 04103
(207)822-6300

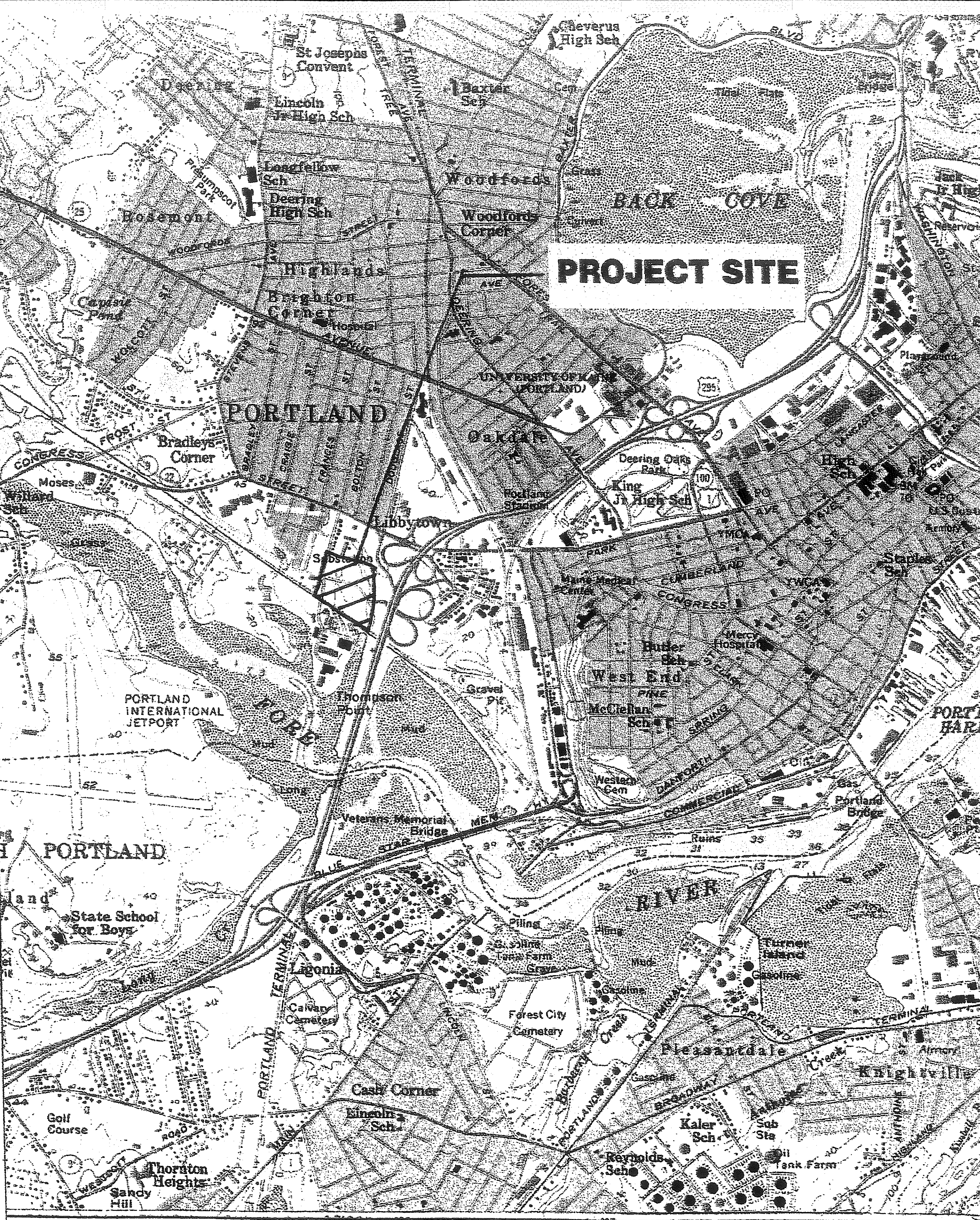
BANGOR DEP
106 HOGAN ROAD
BANGOR, ME 04401
(207)941-4570

PRESQUE ISLE DEP
1235 CENTRAL DRIVE
PRESQUE ISLE, ME 04769
(207)764-0477

OFFICE USE ONLY	Ck.#		Staff	Staff	
PBR #	FP	Date	Acc. Date	Def. Date	After Photos

99607 Permit-By-Rule Application

Applicant: Langdon Street Real Estate, Inc.
Location: off Sewall Street, Portland, Maine
Date: June 14, 2000



Name: PORTLAND WEST
Date: 6/14/100
Scale: 1 inch equals 2000 feet

Location: 043° 39' 10.1" N 070° 16' 55.2" W
Caption: 99607 - Portland Intermodal Transportation Center Site Location Map

99007

DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

APPLICATION FORM for FRESHWATER WETLAND ALTERATION

(For Tier 1 and Tier 2 Review under 38 M.R.S.A. Sec. 480-X)

- PLEASE TYPE OR PRINT IN *BLACK INK ONLY* (3 COPIES, PLEASE BEAR DOWN)
- SEE ATTACHED INSTRUCTIONS

1. Name of Applicant:	City of Portland	4. Name of Agent: (if applicable)	Steve Sawyer
2. Applicant's Mailing Address:	389 Congress Street Portland ME 04101-3593	5. Agent's Mailing Address:	Sebago Technics, Inc. P O Box 1339 Westbrook ME 04098-1339
3. Applicant's Daytime Phone No. (with area code)	(207)874-8689	6. Agent's Daytime Phone No. (with area code)	(207)856-0277
7. Statement of Authorization:	I hereby authorize the above named person to act in my behalf as my agent in the processing of this application. *Signature of Applicant:*		

8. Name of Wetland (if known):	N/A	9. Amount of Impact (sq. ft.):	10,385	10. Previous Wetland Alteration?	☐ Yes ☐ No

11. Type of Wetland (check all that apply)	☐ Forested ☐ Scrub Shrub ☐ Emergent ☐ Wet Meadow ☐ Peatland	☒ Open Water VEGETATIVE TYPE: ☐ Deciduous ☐ Coniferous/Fir ☐ Other	12. Fee Schedule:	TIER 1 ☐ 0 - 4,999 sq ft = $35 ☐ 5,000 - 9,999 sq ft = $75 ☐ 10,000 - 14,999 sq ft = $150	TIER 2 ☐ 15,000 - 19,999 sq ft = $200 ☐ 20,000 - 43,560 sq ft (1 acre) = .0204¢/sq ft

13. Location of Project (Town/City, County):	Portland, Cumberland County	14. Tax Map #	189 & 190
		15. Tax Lot #	
16. Detailed Directions to the Project:	Follow Rte 22 (outer Congress St) to Sewall Street. Turn on Sewall St. Turn into entrance to old snow dump. Site is on R		
17. Project Purpose and Description, including alternatives analysis: (check sheets if necessary)	See Attached		

- I have read the criteria for eligibility (on the reverse side) and affirm that my project meets all the requirements including eligibility, avoidance, minimization, erosion control, water quality and classification standards, and buffer strips.
- I have submitted a copy of this application, including attachments, to the municipality in which the project is located.
- I authorize staff of State and Federal agencies, having jurisdiction over this activity, to access the project site for the purpose of determining compliance with the rules.
- I have attached 2 copies of all of the required submissions listed below. (see instruction sheet)

18.	TIER 1	TIER 2	
☒ Fee	☐ Fee	☐ Alternatives Analysis/Avoidance, Minimization of Impacts	
☒ Topographic Map	☐ Topographic Map	☐ Compensation Plan (if required)	
☒ Plan or Drawing (8 1/2" x 11")	☐ Plan or Drawing (8 1/2" x 11")	☐ Description of Previously Mined Peatland (if required)	
☒ Photos of Area	☐ Professional Certification	☐ Statement/Copy of cover letter to Maine Historic Preservation Commission	
☒ Avoidance/Minimization of Impacts	☐ Copy of Public Notice	☐ Photos of Area	
	☐ Erosion Control Plan		

19. Is this an After-the-Fact?	Yes	X	No	DEP/ACOE Contact	

NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS

20. Signature of Applicant:		Date:	6/16/02

Keep the bottom copy as your record of application. Send the form with attachments via Certified Mail or hand deliver to the Maine Dept. of Environmental Protection at the appropriate regional office listed below. Permits are valid for two years.

AUGUSTA DEP
17 STATE HOUSE STATION
AUGUSTA, ME 04333-0017
(207) 287-2111

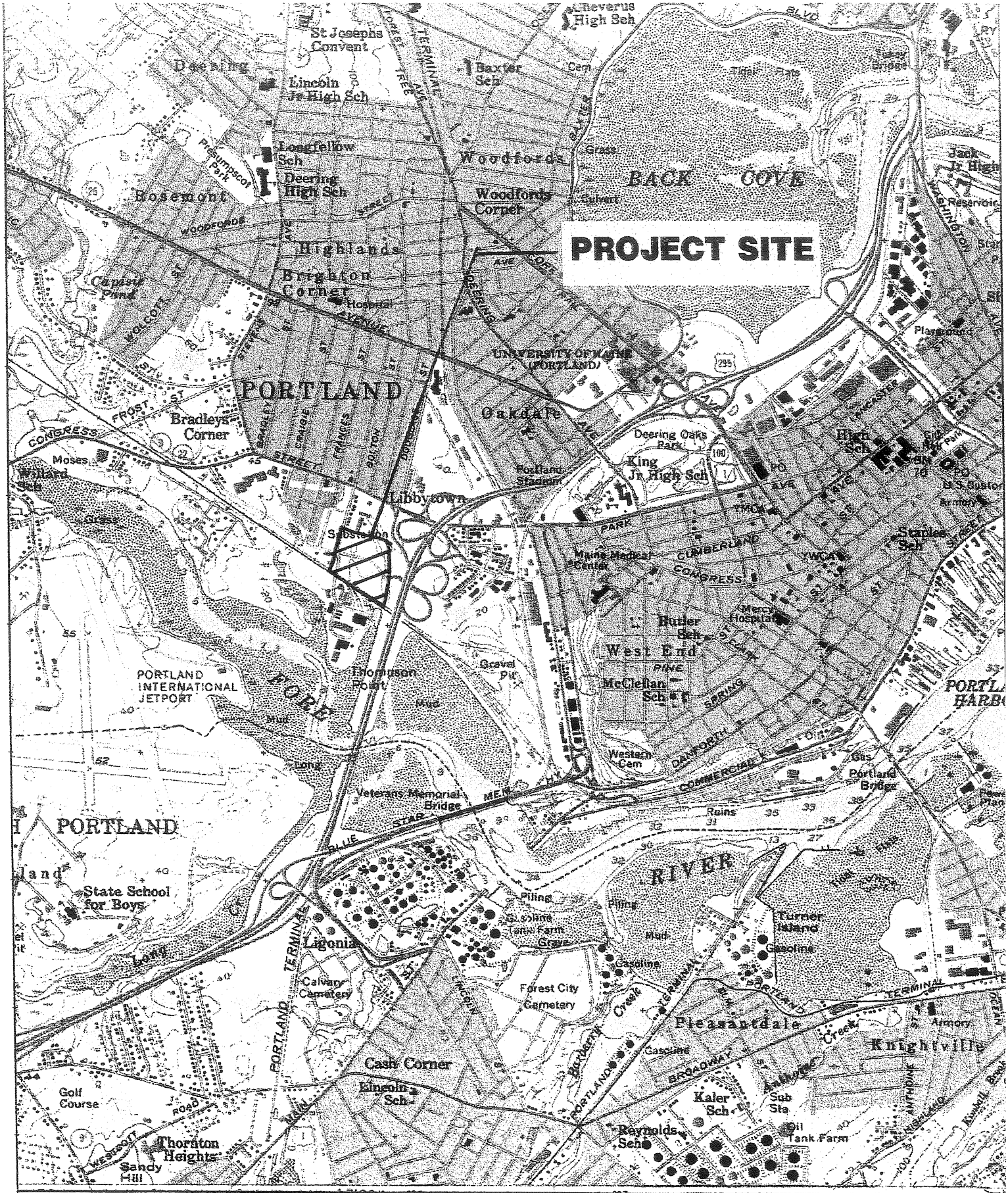
PORTLAND DEP
312 CANCO ROAD
PORTLAND, ME 04103
(207) 822-6300

BANGOR DEP
106 HOGAN ROAD
BANGOR, ME 04401
(207) 941-4570

PRESQUE ISLE DEP
1235 CENTRAL DRIVE
PRESQUE ISLE, ME 04769
(207) 764-0477

FOR OFFICE USE ONLY

APP #:	FP:	Assigned to:	Decision Date:	DTR: N		Site Visit:
CK #:	Rec'd:	Returned:	Decision: A D W R M	F		Compliance:



Name: PORTLAND WEST
Date: 6/14/100
Scale: 1 inch equals 2000 feet

Location: 043° 39' 10.1" N 070° 16' 55.2" W
Caption: 99607 - Portland Intermodal Transportation Center
Site Location Map

Application for Freshwater Wetland Alteration
Tier 1 Review

Project Purpose and Description
(Including Alternatives Analysis)

Purpose

The plan for the return of passenger rail service to Maine has prompted the need for a new rail terminal facility and associated parking. A key component of this program is the creation of a true intermodal facility, with easy access for trains, buses, and passenger vehicles. After lengthy review and consideration by the Maine Department of Transportation (MDOT), the community, and other various organizations, it was determined that an interim facility was necessary to accommodate the more immediate needs to bring passenger rail service to the Greater Portland area. After consideration of several alternate sites, the site adjacent to the existing Concord Trailways Bus Terminal was selected as the most suitable location for this interim Intermodal Transportation Center. The site is readily accessible from the Portland Terminal Company railroad tracks located just to its south, as well as from the new I-295/Congress Street Connector which is being developed by MDOT.

Need

The key points in the development of this facility include the need for available parking in close proximity to the train/bus station, access to both the rail and road systems, and pedestrian/user safety. A major requirement for the parking areas is the safety of people leaving or approaching their vehicles. This translates into the need for the long-term parking areas to be located in close proximity to public areas, to be well lit, and to be easily accessible.

Site Description

The overall project site is bounded on the south by the Portland Terminal Company railroad tracks, on the east by the new I-295/Congress Street Connector Road, on the north by existing development, and on the west by Sewall Street.

An abandoned City street (Hooper Street) bisects the site and provides the general location of the new Thompson's Point Connector Road. The portion of the site that is southerly of this road is currently owned and occupied by the Concord Trailways bus terminal. The remainder of the site, to the north of Hooper Street, is currently vacant and has historically been used by the City of Portland as a snow dump. The City of Portland and MDOT have agreed to pursue use of this area as parking for the interim intermodal facility.

Environmental Setting

The site is located at the downstream end of a contributing watershed that is a tributary to the Fore River. The site discharges to a drainage course, which becomes tidal approximately 400 feet downstream of the discharge from the Concord Trailways parcel. Wetland areas on and adjacent to the site were identified by Duke Engineering and Services. A copy of their January 5, 2000, report is included in this application submittal. Two wetland areas were identified as part of their evaluation, the largest of which is located southeasterly of the current Concord Trailways facility. The wetland (Wetland A) is characterized by emergent (cattail) vegetation. Due to the size of this area (in excess of 20,000 square feet), it is classified as a "freshwater wetland of special significance". No fills are proposed in this wetland area. Earthwork is proposed within 100 feet of the wetland limit and will require a separate permit-by-rule for soil disturbance.

A second, small isolated wetland/open water area is located north of the former Hooper Street. The area is surrounded by brush and lightly wooded areas, as well as the City snow dump. The wetland is expected to have its primary hydrology supplied by the melting snow from the City snow dump. This area encompasses 10,385 square feet and will require filling to accommodate the project.

Alternatives

Off-Site

As was previously mentioned, the MDOT, along with other organizations, spent a substantial amount of time searching for a suitable site within the Greater Portland area for an intermodal facility. The Bayside area and Rigby Yard were among some of the other sites evaluated. It was then determined that, while the Bayside area seemed to be the best location for a permanent facility, an interim facility was necessary to accommodate the more immediate needs to bring passenger rail service to the Greater Portland area.

On-Site

The physical constraints of the site limited the number of options for new parking lots. Creating new parking lots on the southerly side of the tracks would require pedestrians to be crossing the tracks, which is not conducive to passenger/pedestrian safety. The construction of the new I-295/Congress Street Connector limits the available land to the east. Based on these constraints, two possible areas for parking lots were determined to be available: 1) to the east of the current Concord Trailways parking lot, northerly of Wetland A; or 2) on the northerly side of the former Hooper Street.

In order to construct a new parking lot to the east of the current Concord Trailways parking lot, the area immediately surrounding the emergent wetland would be disturbed. This area is stable and has not been disturbed since the construction of the existing Concord Trailways facility in 1996. Additionally, the uplands in this area are not large enough to locate a parking lot that meets the size requirements for this development. Therefore, some parking would need to impact this wetland of special significance. In addition, this would result in a less efficient layout and awkward traffic circulation throughout the site.

The area surrounding the isolated wetland/pond on the north side of the former Hooper Street appears to have seen substantial disturbance over past years. This area, as described in the Duke Engineering report, appears to be a "constructed pond" with its primary hydrology source being the melting snow from the old City snow dump. As such, this isolated wetland/open water area does not seem to be as high a value wetland area as Wetland A. By filling in this isolated wetland/pond, a parking lot system with efficient traffic circulation can be constructed.

Summary

The key components in the creation of a true intermodal facility include easy access to both the rail and road systems, the need for ample available parking in close proximity to the train/bus station, and pedestrian/user safety. The areas surrounding the existing Concord Trailways facility can meet these requirements. The Portland Terminal Company railroad tracks and the new I-295/Congress Street Connector Road abut the site. Due to the physical constraints of this site, including the locations of the two on-site wetland areas, sufficient parking cannot be constructed entirely in the upland areas without any impact to these wetlands. Considering the types and values of the two wetlands, the filling of the small isolated wetland/open water area is expected to have less of an overall environmental impact than disturbance to the freshwater wetland of special significance.

JLW:jlw/jc
June 14, 2000

Duke Engineering & Services SM
A Duke Energy Company

500 Washington Avenue
Portland, Maine 04103

207 775-4495
Fax 207 775-1031

96607

833.00.0026
2.0

January 5, 2000

Mr. Michael DeLuca
DeLuca Hoffman Associates, Inc.
778 Main Street, Suite 8
South Portland, ME 04106

Subject: **Wetlands - Proposed Train Station Site, Portland**

Dear Mike:

Wetlands at the proposed train station site on the east side of Sewall Street in Portland have been flagged in the field and located by Global Position System (GPS) survey. The boundaries of these wetlands have been transferred onto project plans. Wetlands at the site are described below and were delineated to identify areas regulated by the Maine Department of Environmental Protection (MDEP) and the U.S. Army Corps of Engineers (Corps). This report has been prepared as part of Exhibit 12 of a permit application under the Natural Resources Protection Act (NRPA).

1.0 Wetland Characteristics

Three parameters (vegetation, soils, and hydrology) are made use of by the 1987 *Corps of Engineers Wetland Delineation Manual* to identify wetlands. With the exception of disturbed sites or atypical situations, the Manual requires that evidence indicative of wetland be exhibited by all three parameters for an area to be designated as wetland. Site-specific information for each of the parameters that was used to delineate wetland boundaries at the site is discussed below. The boundary was marked with numbered flagging in the field and then located by survey. The wetland boundary appears on project plans and has been considered during the design of the proposed project.

A palustrine, persistent emergent wetland (PEM1) dominated by cattail occurs at the southeast corner of the site. A narrow fringe of palustrine, deciduous scrub shrub wetland (PSS1) also occurs around an area of ponded water on the north side of the road that leads to the City of Portland snow dump. This area drains to the south through a 15-inch PVC culvert placed under the road. Characteristic, dominant vegetation found in the narrow fringing wetland includes: speckled alder (*Alnus incana*) and meadowsweet (*Spirea tomentosa*) shrubs; narrow-leaved cattail (*Typha angustifolia*), sensitive fern (*Onoclea sensibilis*), and various sedges (*Carex* spp.). The Maine sub-listing of the *National List of Plant Species that Occur in Wetlands* (Reed 1988) classifies all these species as Obligate (OIL), Facultative Wetland (FACW), or Facultative (FAC) indicators of wetland so that all these species are considered to be hydrophytes.

Dominant upland vegetation on the undeveloped part of the site consists of: northern red oak (*Quercus rubra*), quaking aspen (*Populus tremuloides*), white birch (*Betula papyrifera*), tartarian honeysuckle (*Lonicera tatarica*), staghorn sumac (*Rhus typhina*), hawthorn (*Crataegus* spp.), black locust (*Robinia pseudoacacia*), lowbush blueberry (*Vaccinium angustifolium*), red raspberry (*Rubus idaeus*), bittersweet (*Celastrus scandens*), Queen Anne's lace (Daucus carota), and giant ragweed (*Solidago gigantea*). All these species are classified as Facultative- (FAC-), Facultative Upland (FACU), or are not indicative of wetland; and when occurring in predominance are indicative of upland.

Soils at the site have been mapped by the U.S. Department of Agriculture Soil Conservation Service in the 1982 *Soil Survey of Cumberland County, Maine* (Figure 1). The 1964 photographs for this medium intensity soil survey predate construction of Interstate 295, and indicate that water (*w*) from an embayment of the Fore River occurs at the southeast corner of the site. This area is now occupied by the cattail marsh. Ponded water and wetland on the north side of the road to snow dump do not appear on the photographs. Beneath this area and the remainder of the site, the soil survey indicates moderately well drained, very fine sandy loams of the Belgrade series (BgC2, BgB - now Nicholville series) are present. This series is not identified as being indicative of wetland in the 1987 publication, *Hydric Soils of New England* (Tiner and Venneman 1987).

In areas where wetlands were delineated, soils were examined along the wetland boundary with a tube soil probe. Saturated organic soils occur beneath the cattail marsh. Adjacent upland slopes have been disturbed by fill placed for the adjacent development including railroad and Interstate embankments, and a detention pond for the bus station. Soils around the area of ponded water have also been disturbed as is indicated by mounds of fill, cut slopes, and the pioneer-disturbance plant community noted above.

Hydrologic evidence used to establish boundaries of wetland at the site includes water stained leaves, standing water, saturated soils within 12 inches of the surface, and drainage patterns characteristic of wetlands.

Non-hydric soils identified throughout all but the southeast corner of the site, along with extensive changes in land-use since the time of the 1964 soil survey photograph, indicate drainage patterns have been changed or obstructed which has resulted in the development of the delineated wetlands. As discussed below, other aerial photographs have been reviewed to determine when and why these features originated.

2.0 Aerial Photograph Analysis

Aerial photographs of the site from the Greater Portland Council of Government archives were reviewed to determine when changes in land use took place. The photographs were taken in 1976, 1986, and 1995, and appear as Figures 2, 3, and 4, respectively.

Figure 2 shows that Interstate 295 and the road leading to the area now used by the City as a snow dump had been constructed before May 1976. The current (1978), 7.5 minute USGS map (Portland,

West) for this area incorporates information from 1975 aerial photography and shows Interstate 295 and the road to the snow dump. Therefore, both were constructed prior to this date but after 1964. No area of water is identified on the north side of the road to the snow dump.

No ponded water appears on photographs taken 11 years later (Figure 3) in 1986. However, water is evident at this location by 1995 (Figure 4) so that ponding occurred sometime during the previous nine years. In the event the adjacent clearing to the east had been used at that time as a snow dump, melting snow undoubtedly contributed to the ponded water. Water level in the pond is controlled by the road culvert.

3.0 Regulatory Assessment

Wetlands at the site are regulated by MDEP under the provisions of the NRPA (38 M.R.S.A. §480 A-Y) and the associated Wetland Protection Rules (Chapter 310). Various characteristics of wetlands, as well as the areal extent of any impacts, are taken into account in determining the level or Tier of permitting required under the NRPA. Projects that impact less than 4,300 square feet of wetland and which do not occur within a municipal shoreland zone or other protected natural resource are exempt from the NRPA. Alteration to wetlands with characteristics exemplifying "*freshwater wetlands of special significance*" (Chapter 310, § 4 (A)) are usually not eligible for the exemption or Tier 1 or Tier 2 permitting and require an individual (Tier 3) permit (Chapter 310, §4(B)). Below is a summary of wetland characteristics at the site with respect to identifying those wetlands that are "freshwater wetlands of special significance".

The palustrine persistent emergent wetland (PEM1) at the southeast corner of the site is not one of the critically imperiled (S1) or imperiled (S2) wetland communities as defined by the Natural Areas Program (Chapter 310 §3 (F, L)). This wetland is not identified as containing "significant wildlife habitat" (38 M.R.S.A. §480-B10) by the Maine Department of Inland Fish and Wildlife (MDIFW) and as determined from the most recent MDIFW atlas, essential wildlife habitat for Maine's endangered and threatened species does not occur at the site. Site wetlands are not peatlands (Chapter 310 §3 (P)). Characteristics definitive of "river, streams, or brooks" 38 M.R.S.A. §480 B9) do not occur on or adjacent to the site. Therefore, no wetland at the site occurs within 25 feet of a stream channel (Chapter 310 §4(A)(8)). The Federal Emergency Management Agency has not identified an 100-year floodplain on the Flood Insurance Rate Map (Community Panel Number 230051-0013B, dated July 17, 1986) for this part of Portland so that the wetland is not a floodplain wetland (38 M.R.S.A. §480-B2-D).

However, the cattail marsh does contain more than 20,000 square feet of emergent marsh vegetation (Chapter 310 §3(G)) and is within 250 feet of a coastal wetland (38 M.R.S.A. §480-B2), the Fore River. As a result this area is a "freshwater wetlands of special significance" and would require a Tier 3 permit.

The area of ponded water fringed by a narrow band of palustrine, deciduous scrub shrub wetland (PSS1) can be considered as a "constructed pond" that formed during the last 5 to 13 years behind the road to the snow dump. Water is retained in the pond due to the invert elevation of the culvert under

the road. The primary source of water for the pond is snow dump meltwater and other surface runoff. Activities in "constructed ponds" are identified as an not requiring a permit under the NRPA (38 M.R.S.A. § 480 Q.20). In the event the pond is considered to be a resource area regulated by the NRPA, no characteristics indicative of a "freshwater wetland of special significance" are associated with the pond so that activities in the pond are eligible for a Tier 1 permit. The pond appears to be smaller than 15,000 square feet in area so that the threshold for a Tier 2 permit would not be reached by any activity in the pond.

An alternative analysis discussing efforts to avoid wetland impacts is required for any Tier of NRPA permit. Specific activities in wetlands at the site may also be eligible for the NRPA Permit By Rule Standards (Chapter 305) if the associated standards are fulfilled.

Wetlands at the site are also regulated by the Corps under the provisions of Section 404 of the Clean Water Act. Impacts to wetland resulting from placement of fill are addressed by the Corps with a Programmatic General Permit for the State of Maine. Fill impacts to inland wetlands are broken down into three permit categories based on the following area thresholds: Category I - less than 15,000 square feet; Category II - 15,000 square feet to 3 acres; and Category III - more than 3 acres.

Fill impacts to wetlands at the site totaling less than one acre in extent by a proposed project would be eligible for a joint application to the MDEP and Corps. Impacts exceeding this threshold would require separate permit applications.

In the event you have questions or comments regarding the information presented above, do not hesitate to call me at your earliest convenience.

Sincerely,

DUKE ENGINEERING & SERVICES, INC.

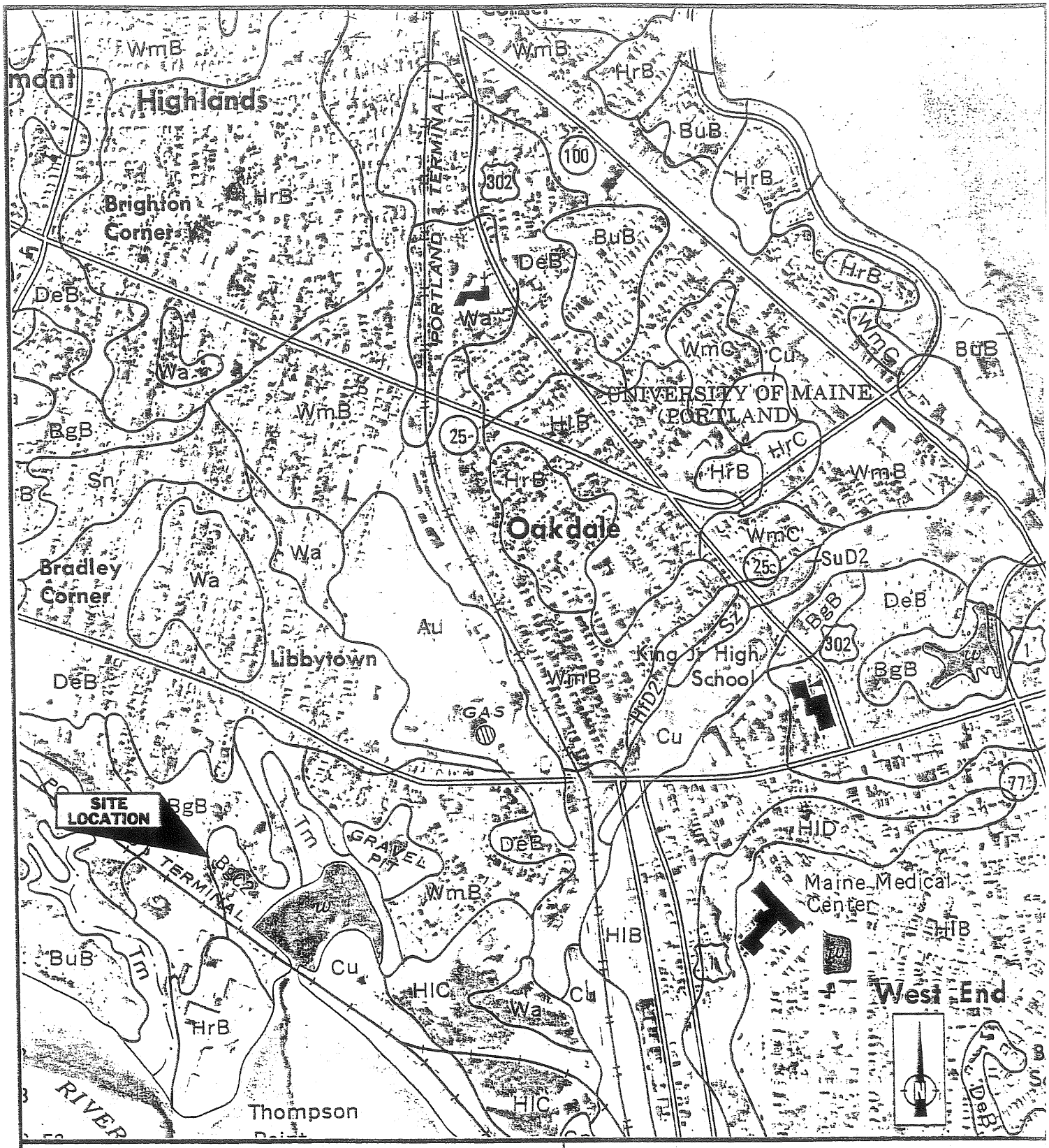
Colen R Peters

Colen R. Peters
Professional Wetland Scientist No. 706

CRP/kh
Attachments

cc: File

J:\Projects\Delucahoff\DeLuca-000105.wpd



Source: Sheet 82 1 inch = 1,000 ft
BgC2 = moderately well drained Belgrade very fine sandy loam, 8 -15 % slopes, eroded
Soil Survey: Cumberland County, Maine

FIGURE 1
1964 AERIAL PHOTOGRAPH
PORTLAND TRAIN STATION SITE
THOMPSON POINT, PORTLAND

PROJECT NO.: 00833.00.0026.00.00000

FIGURE BY: CRP

DATE: January 2000

Duke Engineering & Services
A Duke Energy Company

Source: Photo 564 12 401
1 inch = 1,000 feet
Greater Portland Council of Governments

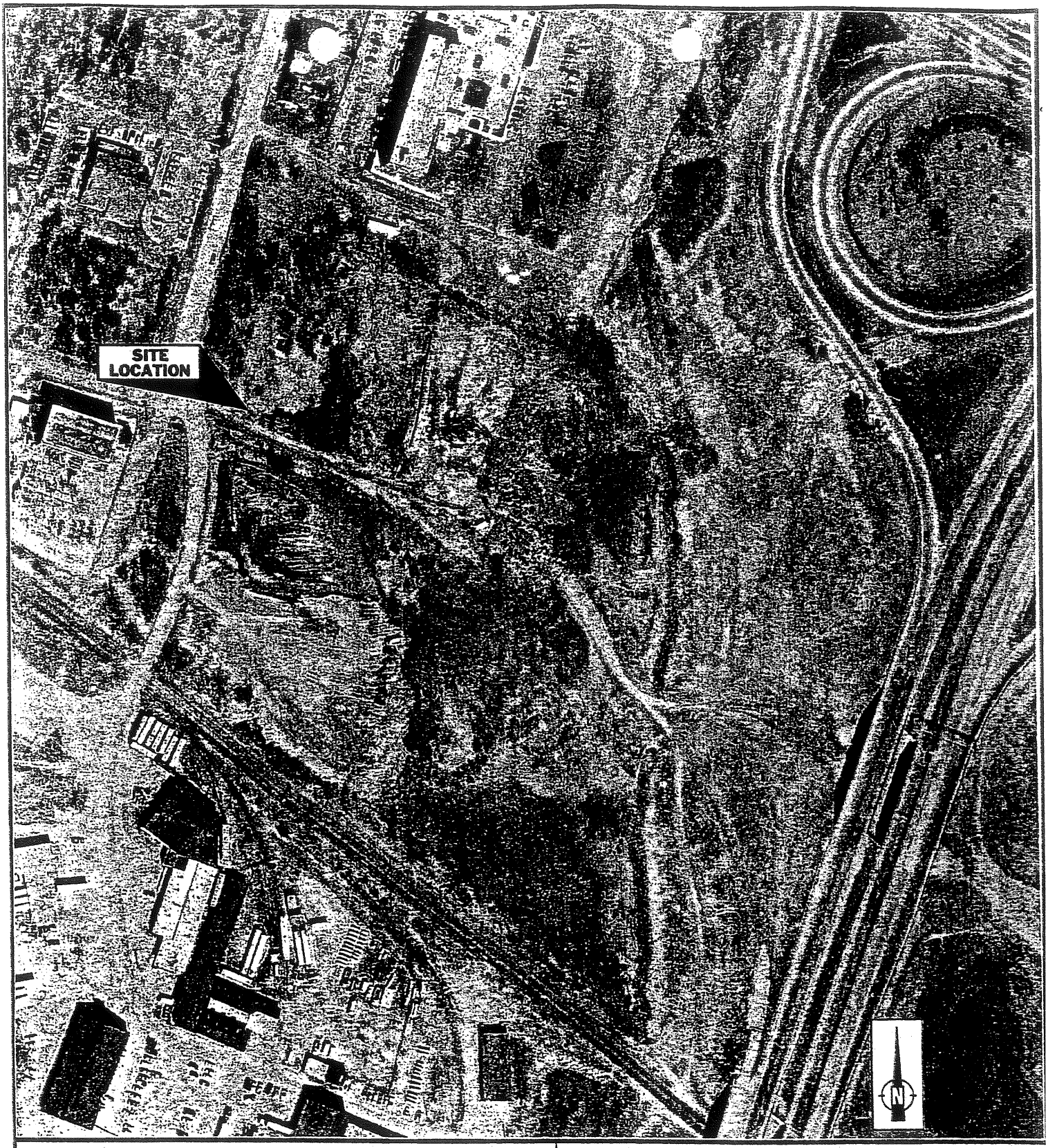
FIGURE
May 1976 AERIAL PHOTOGRAPH
PORTLAND TRAIN STATION SITE
THOMPSON POINT, PORTLAND

PROJECT NO.: 00833.00.0026.00.00000

FIGURE BY: CRP

DATE: January 2000

Duke Engineering & Services
A Duke Energy Company



Source: Photo 5433-19S-14
1 inch = 200 feet
Greater Portland Council of Governments

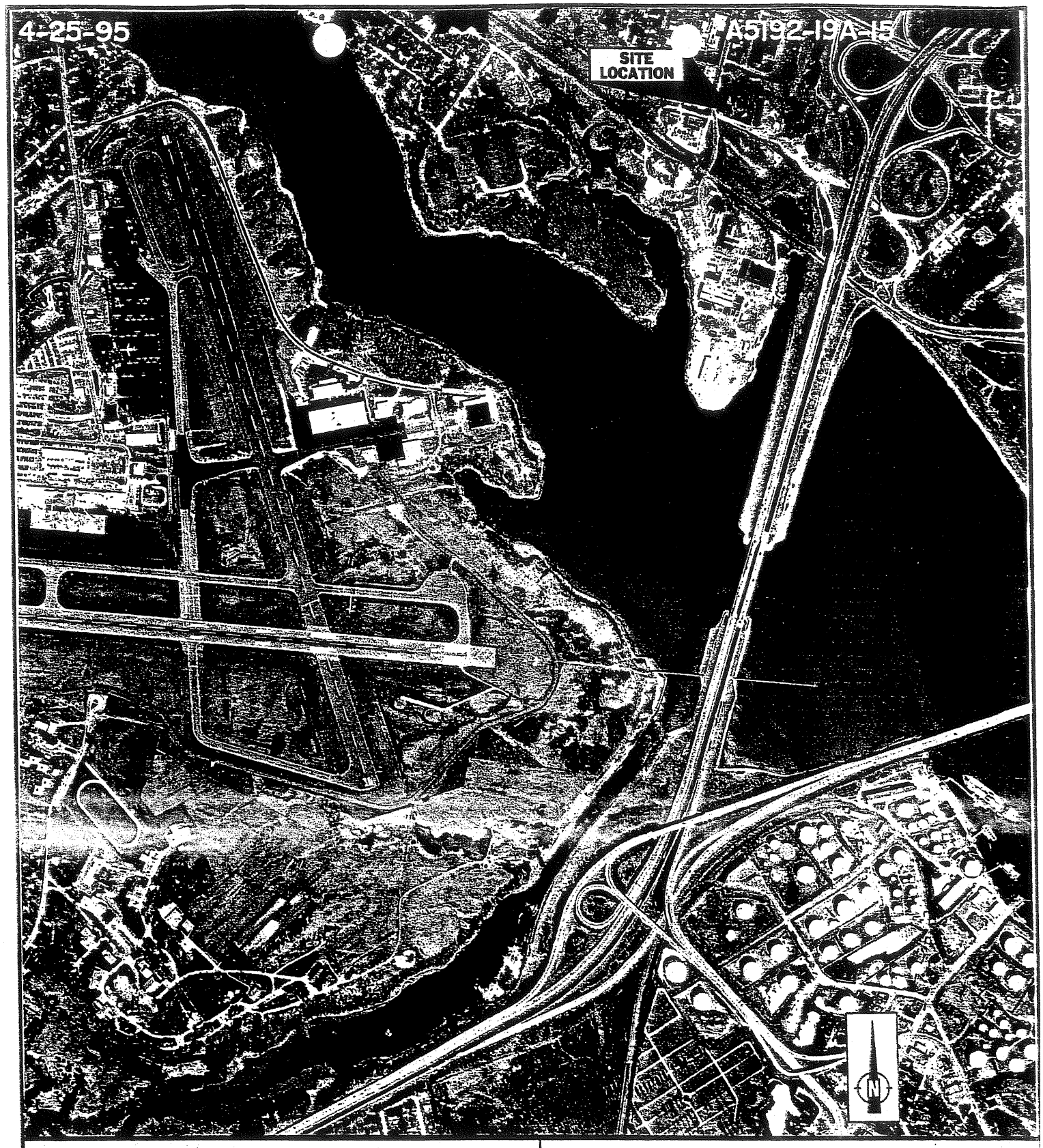
FIGURE 3
April 1986 AERIAL PHOTOGRAPH
PORTLAND TRAIN STATION SITE
THOMPSON POINT, PORTLAND

PROJECT NO.: 00833.00.0026.00.00000

FIGURE BY: CRP

DATE: January 2000

Duke Engineering & Services
A Duke Energy Company



Source: Photo A5192-19A-15
1 inch = 1,000 feet
Greater Portland Council of Governments

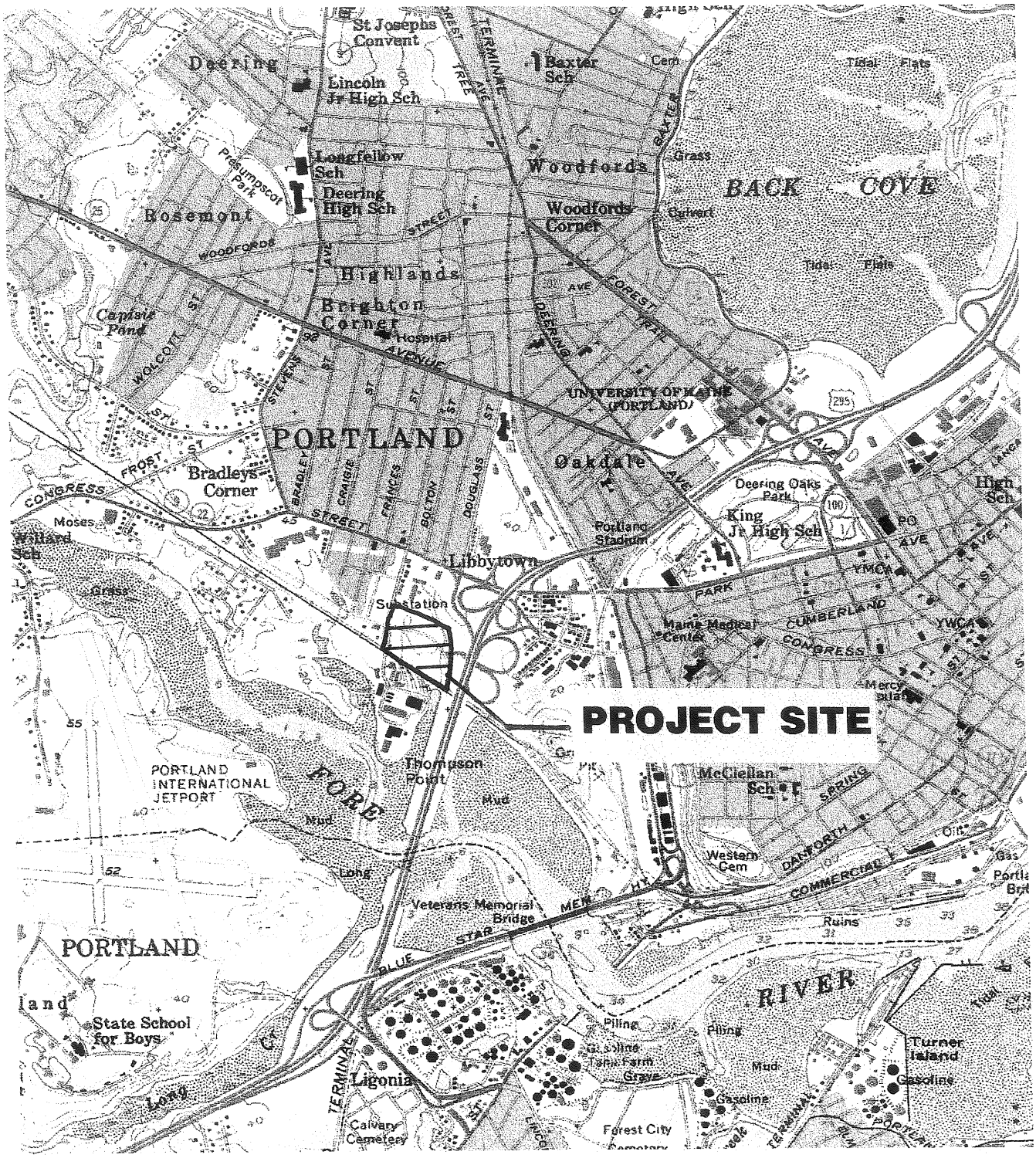
FIGURE 4
April 1995 AERIAL PHOTOGRAPH
PORTLAND TRAIN STATION SITE
THOMPSON POINT, PORTLAND

PROJECT NO.: 00833.00.0026.00.00000

FIGURE BY: CRP

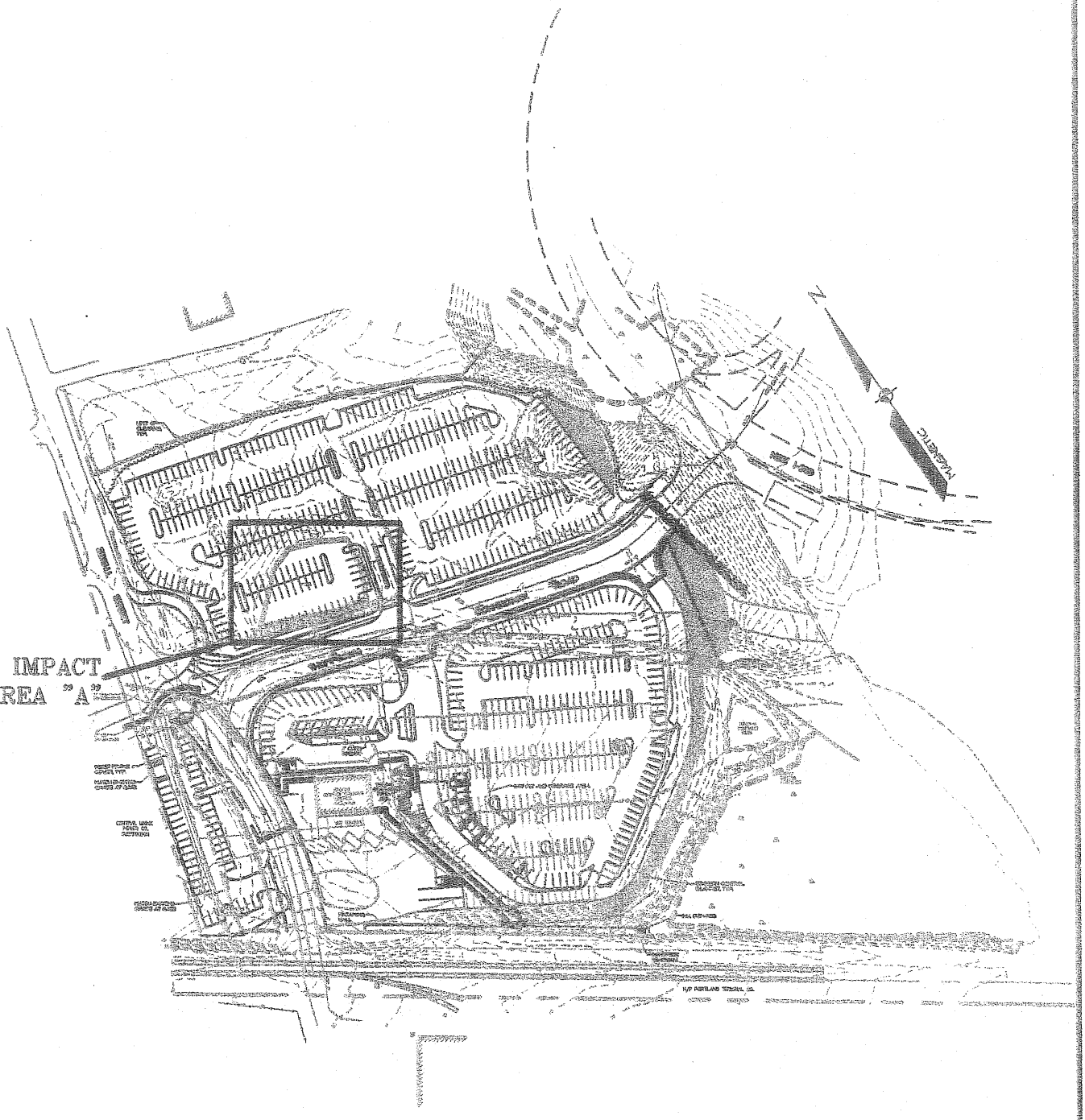
DATE: January 2000

Duke Engineering & Services
A Duke Energy Company

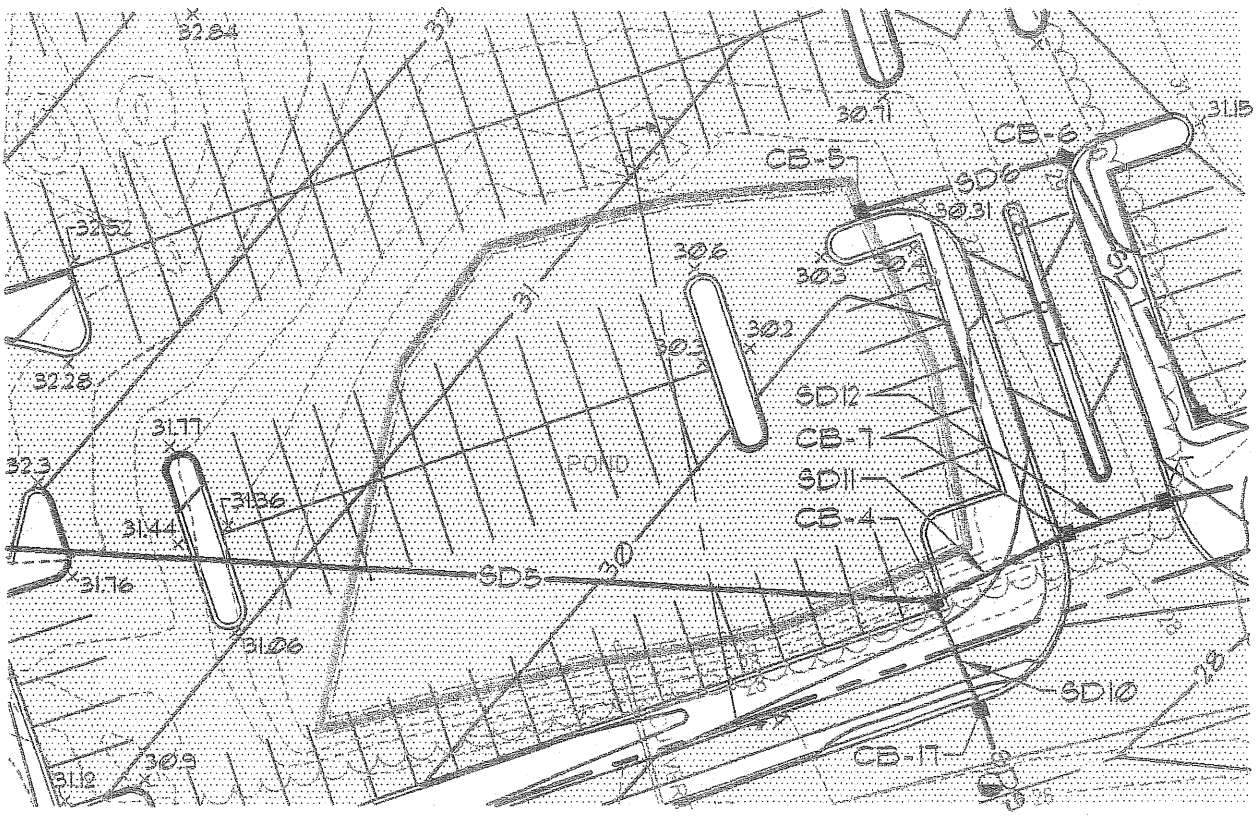


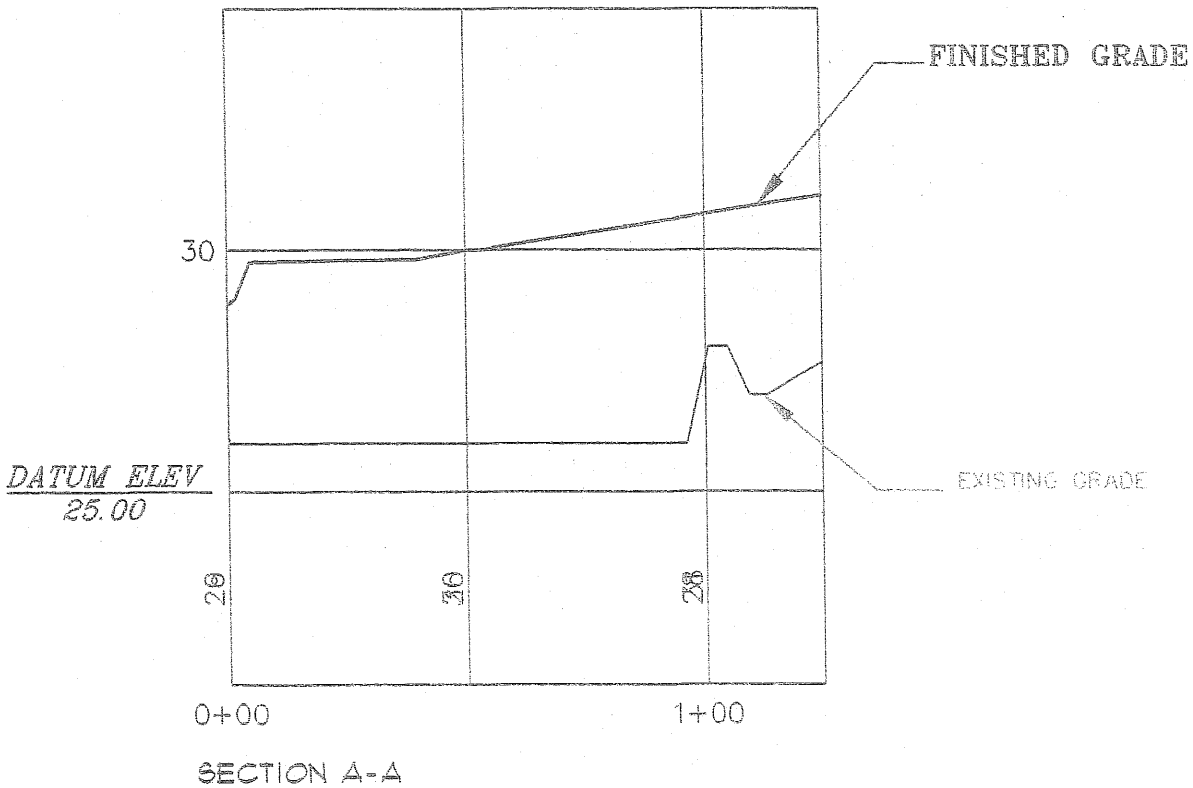
Sebago Technics *Engineering & Planning for the Future* ONE CHABOT STREET WESTBROOK, ME 04092-1339 TEL (207) 856-0277	PORTLAND INTERMODAL TRANSPORTATION CENTER LOCATION MAP		SCALE: 1"=2000' DATE: 6-13-00
	LOCATION: PORTLAND, MAINE CUMBERLAND COUNTY	APPLICATION BY: CITY OF PORTLAND	SHEET: 1 OF 3

99607W1.DWG



Sebago Technics *Engineering & Planning for the Future* ONE CHABOT STREET WESTBROOK, ME 04092-1339 TEL (207) 856-0277	PORTLAND INTERMODAL TRANSPORTATION CENTER		SCALE: 1"=200'
	OVERALL SITE		DATE: 6-13-00
	LOCATION: PORTLAND, MAINE CUMBERLAND COUNTY	APPLICATION BY: CITY OF PORTLAND	SHEET: 2 OF 3



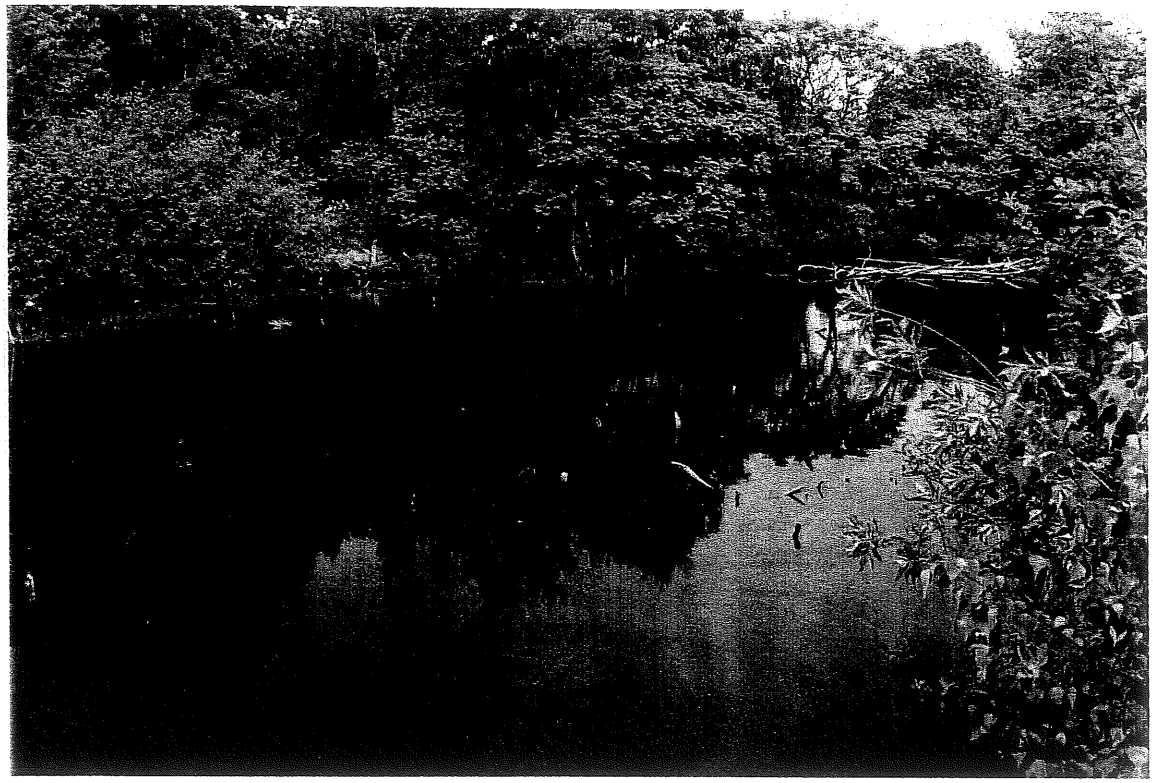


SECTION A-A

Sebago Technics Engineering & Planning for the Future ONE CHABOT STREET WESTBROOK, ME 04098-1339 TEL (207) 856-0277	PORTLAND INTERMODAL TRANSPORTATION CENTER WETLAND IMPACT AREA "A"		SCALE: 1"=40' DATE: 6-13-00
	LOCATION: PORTLAND, MAINE CUMBERLAND COUNTY	APPLICATION BY: CITY OF PORTLAND	SHEET: 3 OF 3

99607 Tier 1 Wetland Impact Application

Applicant: City of Portland
Location: off Sewall Street, Portland, Maine
Date: June 14, 2000



Attachment 5a

From: Gaylen McDougall
To: Sarah Hopkins
Date: Thu, Jun 22, 2000 11:24 AM
Subject: Amtrak

I spoke with Steve Sawyer. He will be working on a design for the end of Sewall Street that will allow for emergency access. I told him to take a look at the end of Westbrook Street and the access to the Eastern Prom walking trail for a design. Either of these designs will be acceptable.

Mac

Attachment 56

From: "Steve Bushey" <srbushey@maine.rr.com>
To: "Sarah Hopkins" <SH@ci.portland.me.us>
Date: Thu, Jun 22, 2000 4:02 PM
Subject: Train Station

Sarah,
I have reviewed the response letter from Sebago Technics for the proposed train station development and find that they have adequately addressed my earlier comments. Based on the submission materials presented to date I find that the project's stormwater and erosion control measures meet the requirements of the MEDEP stormwater and Site Location of development guidelines. Therefore I can recommend the project be considered for final Approval by the Planning Board.

Steve B Acting Development review coordinator

Attachment 6

Port of Portland
Portland International Jetport
Portland Fish Pier Authority
Portland Intermodal Passenger Facility

Capt. Jeffrey W. Monroe
Director

Jeff Schultes, AAE
Jetport Manager

Benjamin Snow, MML
Maritime Manager

CITY OF PORTLAND
Department of Transportation

June 1, 2000
rev.

JUN 12 2000

Mike Murray
NNEPRA
5 Industry Rd
S. Portland, ME 04106

Dear Mike:

Per out discussions, please review this letter of intent for the construction of an Interim Intermodal Passenger Transportation Facility at Sewall Street. After you have reviewed it, please sign and return to me by June 5th. We understand that the LOI is subject to your board's final approval.

Agreements shall stipulate the following:

1. City and NNEPRA shall pay for all structures as listed on the LSRE May 16th cost estimate on LSRE property up to a total of $1,000,000 including contingency funding. City and NNEPRA will work with LSRE to produce a final design space within budget, excluding the City and LSRE's agreed upon building extension design. Our contribution of $200,000 or 20% of the $1,000,000 budget including $800,000 from NNEPRA, also includes all expenses incurred by the City to date.

2. LSRE shall pay for all site improvements on it's property as listed in their May 16th cost estimate.

3. City and State shall build and pay for all parking improvements on State owned land (approximately 374 spaces) north of the proposed connector road, and the connector road.

4. Under Federal DOT regulations, and pending their final approval, Concord shall manage and collect parking fees for it's property and State property, the revenues from which shall cover the following:

   A. All maintenance and operating expenses, cleaning, trash disposal, security and utilities for the entire transportation complex, excluding train set utilities.

   B. Capital site improvements on LSRE property as listed in the LSRE May 16 cost estimate, amortized over 10 years.

   C. Insurances

   D. Reasonable and agreed upon management fee.

5. Term shall be for an Initial 10 year term, with two 5 year extensions at City/NNEPRA option.

Two Portland Fish Pier, Suite 307 • Portland, Maine 04101 • (207) 773-1613 • FAX 773-0285
E-mail: jwm@ci.portland.me.us

6. After 5 years of the Initial Term, NNEPRA through the City shall have has the right to terminate the lease and LSRE shall repay 1/10 per year up to 50% of the total investment in the building extension based on the initial construction cost of approximately $600,000. After the Initial Term, NNEPRA through the City shall pay full market rent for all structures constructed under this agreement. Proceeds from any repayment shall be split between the City and NNEPRA 20/80 percent respectively.

7. NNEPRA and the City's capital investment in the new structures shall be considered as prepaid ground and interior rent for the entire initial term for all structures constructed under this agreement.

8. LSRE shall, upon lease termination, be responsible to pay for any site restoration they desire to do.

9. The State of Maine has agreed to commence immediate negotiations with LSRE regarding land swaps and other LSRE/State issues.

10. NNEPRA reserves the right to locate an Amtrak Crew Support facility on Lot E of LSRE property. LSRE shall grade and pave the location at its own expense. NNEPRA shall pay for installation of utilities for the facility. Electric, water and sewer costs for the facility shall be paid through revenues from the parking fees. LSRE will be responsible for snow removal and maintenance of Lot E. The facility shall be comprised of removable modular units. Market ground rent for Lot E will be included in the parking fees. Utility costs for train sets are excluded and are the responsibility of NNEPRA.

11. Concord Trailways shall be under no obligation to service train passengers or do ticketing unless, at a later time, NNEPRA enters into a passenger service agreement with Concord.

12. The City shall begin the construction of the parking area (approximately 374 slots) on State property as soon as reasonably possible to provide parking to accommodate bus passengers during the building construction period.

13. NNEPRA shall provide interior furniture for the building extension at it's cost, such furniture to be consistent with the existing furniture. Such furniture shall remain the property of NNEPRA.

14. City reserves the right to review and/or audit all parking revenues and costs comprising the parking fees. Rates shall be set by mutual agreement of Concord and NNEPRA.

15. All agreements are subject to the approval of FTA, the NNEPRA Board of Directors and the Portland City Council.

16. The City shall, per Planning Board with LSRE approval, shall adjust property lines in accordance with the final accepted site plan.

17. The above items shall be integrated into the LSRE ground lease and the management agreement with Concord Trailways, as applicable.

18. Concord shall retain the right to solicit and manage vending services for passenger convenience, excluding train ticketing. Concord shall retain all revenues.

19. Nothing in these agreements shall exclude the City and LSRE in continuing to operate the facility as an intermodal passenger transportation facility beyond train service at the site, pending Federal, State and City review and approval.

Don't hesitate to contact me if you have any questions. Thank you for your continued consideration and effort.

Sincerely,

Department of Transportation

Jeffrey W. Monroe
Director

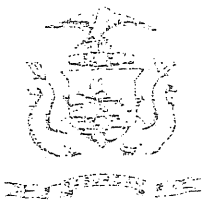
Accepted, Mike Murray
Executive Director, NNEPRA

6/9/00
Date

/jib

cc: Robert Ganley, City of Portland
Mike Kaplan, NNEPRA
Nate Moulton, MDOT
Ron Roy, MDOT
John Melrose, MDOT
Elizabeth Boynton, City of Portland
FTA

Port of Portland
Portland International Jetport
Portland Fish Pier Authority
Portland Intermodal Passenger Facility



Capt. Jeffrey W. Monroe
Director

Jeff Schultes, AAE
Jetport Manager

Benjamin Snow, MML
Maritime Manager

CITY OF PORTLAND
Department of Transportation

June 1, 2000

Harry W. Blunt, President
Concord Trailways
7 Langdon Street
Concord, New Hampshire 03301

Dear Harry:

Herein find the modified Letter of Intent based on my May 24th correspondence and per today's discussion. Please regard this as our final and best offer regarding our arrangements for the construction of an Interim Intermodal Passenger Transportation Facility at Sewall Street.

Agreement shall stipulate the following:

1. City and NNEPRA shall pay for all structures as listed on your May 16th cost estimate on LSRE property up to a total of $1,000,000 including contingency funding. City and NNEPRA will work with LSRE to produce a final design within budget, excluding our agreed upon building extension design.

2. LSRE shall pay for all site improvements on it's property as listed in your May 16th cost estimate.

3. City and State shall build and pay for all parking improvements on State owned land (approximately 374 spaces) north of the proposed connector road, and the connector road.

4. Under Federal DOT regulations, and pending their final approval, Concord shall manage and collect parking fees for it's property and State property, the revenues from which shall cover the following:

   A. All maintenance and operating expenses, cleaning, trash disposal for the facility, security (at present level), and utilities for the entire transportation complex, excluding train set utilities.

   B. Capital site improvements on LSRE property as listed in your May 16 cost estimate, amortized over 10 years.

   C. Insurance. (City acknowledges Concord Trailways and LSRE will require named additional insurance certificates and proof of insurance from all service providers at the facilities and tenants.)

   D. Reasonable and agreed upon management fee.

5. Term shall be for an Initial 10 year term, with two 5 year extensions at City/NNEPRA option.

Two Portland Fish Pier, Suite 307 • Portland, Maine 04101 • (207) 773-1613 • FAX 773-0285
E-mail: jwm@ci.portland.me.us

6. After 5 years of the Initial Term, the City has the right to terminate the lease and LSRE shall repay 1/10 per year up to 50% of the total investment in the building extension based on the initial construction cost of approximately $600,000. After the Initial Term, the City shall pay full market rent for all structures constructed under this agreement, a formula for which shall be established in the final lease.

7. The City's capital investment in the building extension (approximately $600,000) shall be considered as prepaid ground and interior rent for the entire initial term for all structures constructed under this agreement.

8. LSRE shall, upon lease termination, be responsible to pay for any site restoration they desire to do.

9. The State of Maine has agreed to commence immediate negotiations with LSRE regarding land swaps and other LSRE/State issues. Said negotiations to be completed prior to commencing construction.

10. NNEPRA reserves the right to locate an Amtrak Crew Support facility on Lot E of LSRE property. LSRE shall grade and pave the location at its own expense. NNEPRA shall pay for installation of utilities for the facility. Electric, water and sewer costs for the facility shall be paid through revenues from the parking fees. LSRE will be responsible for snow removal and maintenance of Lot E. The facility shall be comprised of removable modular units. Market ground rent for Lot E will be included in the parking fees.

11. Concord Trailways shall be under no obligation to service train passengers or do ticketing unless, at a later time, NNEPRA enters into a passenger service agreement with Concord.

12. The City shall begin the construction of the parking area (approximately 374 slots) on State property as soon as reasonably possible to provide parking to accommodate bus passengers during the building construction period.

13. NNEPRA shall provide interior furniture for the building extension at it's cost, such furniture to be consistent with the existing furniture. Such furniture shall remain the property of NNEPRA.

14. City reserves the right to review and/or audit all parking revenues and costs comprising the parking fees. Such information shall be maintained in a manner designed to protect the proprietary interests of Concord Trailways. Rates shall be set by mutual agreement of Concord Trailways, the City and NNEPRA.

15. All agreements are subject to the approval of FTA, the NNEPRA Board of Directors and the Portland City Council.

16. The City shall, per Planning Board with LSRE approval, adjust property lines in accordance with the final accepted site plan.

17. The above items shall be integrated into the LSRE ground lease and the management agreement with Concord Trailways, as applicable.

18. Concord Trailways shall retain the right to solicit and manage vending services for passenger convenience, excluding train ticketing. Concord Trailways shall retain all revenues.

19. The City, as long as train service remains in place, shall retain the right to lease the remainder of the facility including parking should bus operations at the facility cease.

We request that you please respond formally by June 1st. Don't hesitate to contact me if you have any questions. Thank you for your continued consideration and effort.

Sincerely,

Department of Transportation

Jeffrey W. Monroe
Director

Harry W. Blunt

Accepted, Harry Blunt
President - Concord Trailways

6/11/00

Date

/jib

cc: Robert Ganley, City of Portland
Mike Murray, NNEPRA
Mike Kaplan, NNEPRA
John Melrose, MDOT
Ron Roy, MDOT
Nate Moulton, MDOT
Elizabeth Boynton, City of Portland
Paul Bradbury, City of Portland

CITY OF PORTLAND, MAINE
PLANNING BOARD

June 28, 2000

Capt. Jeffrey Monroe
City of Portland Transportation and Waterfront Department
2 Portland Fish Pier
Portland, ME 04101

re: Sewall Street - Portland Intermodal Facility

Dear Captain Monroe:

On June 27, 2000, the Portland Planning Board voted (4-1; Caron, Hagge absent; Malone against) on the following motion:

- That the Planning Board granted conditional use approval for vehicle parking in the Residence-Professional and R-5 Residence zone.

The Portland Planning Board also voted (5-0; Caron, Hagge absent) on the following motion:

- That the plan was in conformance with the Site Plan Ordinance of the City Land Use Code with the following conditions:

  i. That prior to issuance of a building permit, the applicant shall provide for Fire Department review and approval a detail for mountable curb in the Sewall Street cul-de-sac; and

  ii. that Langdon Street Real Estate and the Maine Department of Transportation shall be obligated to file with the Cumberland County Registry of Deeds the documentation of all real estate transfers and right-of-way plans associated with this development; and

  iii. that within one year of Planning Board approval (June 27, 2001), the City Traffic Engineer shall re-examine the proposed closing of Sewall Street.

Finally, the Planning Board voted (5-0; Caron, Hagge absent) on the following motion:

- That the Plan is in conformance with the standards for Site Location of Development.

The approval is based on the submitted plan and the findings related to conditional use, site plan and Site Location of Development review standards as contained in Planning Board # 26-00, which is attached.

Please note the following provisions and requirements for all subdivision approvals

1. A performance guarantee covering the site improvements as well as an inspection fee payment of 1.7% of the guarantee amount must be submitted to and approved by the Planning Division and Public works prior to the recording of the subdivision plat. The subdivision approval is valid for three (3) years.

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

3. 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 representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the preconstruction meeting.

4. If work will occurr 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.)

5. The Development Review Coordinator (who is located at DeLuca Hoffman at 775-1121) must be notified five (5) working days prior to date required for final site inspection. 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 regarding the Board's actions, please contact the planning staff.

Sincerely,

Jaimey Caron, Chair
Portland Planning Board

O:\PLAN\DEVREVW\AMTRAK\APPLTR.SH

cc: Joseph E. Gray, Jr., Director of Planning and Urban Development
Alexander Jaegerman, Chief Planner
Sarah Hopkins, Senior Planner
P. Samuel Hoffses, Building Inspector
Marge Schmuckal, Zoning Administrator
Tony Lombardo, Project Engineer
Development Review Coordinator
William Bray, Director of Public Works
Nancy Knauber, Associate Engineer
Jeff Tarling, City Arborist
Penny Littell, Associate Corporation Counsel
Lt. Gaylen McDougall, Fire Prevention
Inspection Department
Lee Urban, Director of Economic Development
Don Hall, Appraiser, Assessor's Office
Susan Doughty, Assessor's Office
Approval Letter File

Sebago Technics
Engineering & Planning for the Future

June 23, 2000
99607

Sarah Hopkins, Senior Planner
Portland Planning Department
City of Portland
389 Congress Street
Portland, ME 04101

Major Site Plan Application - Portland Intermodal Transportation Center, Sewall Street

Dear Sarah:

Enclosed please find fifteen (15) half size sets of our final Planning Board Submission Plans. These plans have been stamped by a professional engineer, but are not the final plans we will issue for construction.

The two changes we made since our earlier set involve Sheets 12, which now shows the buffer and landscaping along the Doubletree Hotel property, and Sheet 9, which now shows an additional catch basin per Steve Bushey's comments.

I spoke with Lt. McDougall about his fire concerns and we agreed to design the curbing around the Sewall Street cul-de-sac to accommodate his fire trucks in the case of an emergency. He seemed fine with this approach.

I also spoke with Steve Bushey and he indicated he was fine with our responses to his email.

Finally, I have also included a copy of the two permits we submitted to DEP for the project as you requested.

I trust this information is sufficient for the Board's needs on Tuesday. If not, please let me know.

Sincerely,

SEBAGO TECHNICS, INC.

Steve

Stephen S. Sawyer, Jr., P.E.
Vice President, Transportation Services

SSS:sss/jc

cc: Don McGilvery, Ledgewood, Inc.
Harry Blunt, Concord Trailways
Paul Bradbury, City of Portland