

199-A-1
947 Westbrook
St.
Jetport Pk.
Garage
Portland Int.
Jetport

text

I. INTRODUCTION

A public hearing has been scheduled to consider a proposal by the City of Portland to construct a parking garage at the Portland International Jetport. The City also proposes a 482 space temporary parking lot on outer Congress Street near the new City snow dump. Revised site plans are shown as Attachment A.

These proposals are subject to site plan review. The Maine DEP is also reviewing this project (including the temporary parking lot) under the site location law as well as for wetland alterations.

143 notices were sent to area property owners.

II. FINDINGS

Zone: A-B Airport Business.

Land Area: 13 acres (phase I parking garage)
1,035 acres (entire airport).

Parking Garage Footprint: 88,492 sq. ft.

Parking Garage Height: 44 ft.

Parking Garage Capacity: 1,480 parking spaces.

Existing Airport Parking: 1,677 spaces.

Total Phase I Airport Parking: 3,180 spaces

Outer Congress Parking Lot (Temporary):

Zoning: I-M

Parking Spaces: 482 spaces

Parking Garage Development Features

- Construction of a new 1,480 space parking garage
- A new loop road that will circle the new garage and create an infield area where future garage expansions will take place.

- Construction of a 7,500 sq. ft. consolidated car rental facility.
- Surface parking lot reorganization . . . all airport surface parking lots near the terminal will either be reconstructed or reconfigured, except for the employee parking lot (west of the loop road).
- Relocation of numerous utilities.
- Construction of a 2,050 sq. ft. parking management office.
- A recessed level of the parking garage set aside for rental car operations.
- An overpass structure that will carry traffic on the loop road over the ramp for drop-off and returns for the rental car operations.
- Several retaining walls will be built.

Marge Schmuckal, Zoning Administrator, has determined that the parking garage for zoning purposes has a height of 44 ft. which is below the A-B height requirements. The applicant has also provided information that total impervious surfaces of jetport property (in the A-B zone) is below (46%) the A-B maximum impervious surface ratio of 70%.

Master Plan

The Jetport Master Plan has been discussed at previous workshops. The Master Plan envisions three phases to complete the plan. A summary of the phases is shown below. The Phase I improvements are currently before the Board, approvals for Phase II and Phase III will be sought in the future.

Phase I: A five-story parking (plus one underground level for rental car agencies) to be built on the north side of the existing parking garage. This garage accommodates 1,480 spaces. It will displace the Avis car rental facility, which will be moved to another location at the airport. The northerly side of the existing loop road will be shifted to accommodate the new parking garage. This phase will result in a net total of 3,180 parking spaces at the jetport. A small section of the Alamo property will be acquired to accommodate the loop road.

Phase II: The phase one parking garage will be extended toward the present terminal building and will occupy the site of the existing three story parking garage which will be demolished. The top floor of the phase two parking garage will be recessed (on the terminal side) to neutralize the five-story height. This phase provides 1,500 parking spaces bringing total number of jetport parking spaces to 3,817. A pedestrian sky bridge from the garage will connect with the second floor of the terminal.

Phase III: This phase provides another 2,200 parking garage spaces or a total of 5,200 spaces. Like phase two, it will be five stories high with a top floor recessed on the terminal side. The southerly side of the loop road will be relocated to accommodate the future terminal expansion.

III. STAFF REVIEW

This development has been reviewed by staff for conformance with the review standards of the site plan ordinance.

1/2. Traffic

Vehicular Circulation

The loop road on the northerly and easterly side of the existing parking garage is being shifted to accommodate the Phase I parking garage as well as future parking garage expansions. A traffic flow diagram shows the circulation pattern of the loop road system and the parking garage. Larry Ash, City Traffic Engineer, has reviewed the plan and finds it acceptable.

The new loop roadway is generally 26 feet wide with granite curb. The loop system is one-way with multiple entrances into the parking garage. The northerly entrance/exit into the garage is underground and is intended to serve rental cars. A vehicle will take a right hand turn and drive under the loop road into the parking garage. The westerly and easterly entrances into the garage are for the general public.

Other changes will also affect circulation. A new baggage claim parking area is shown near the existing fire department building. This parking area (482 spaces) is connected into the loop road and has walkways linked to the terminal building and a sidewalk on Westbrook Street. Eventually the terminal building will be extended into this area to accommodate a new baggage claim center.

On the northwesterly end of the parking lot, a "taxi wait area" is being created. Taxis will be queued here rather than in front of the terminal. When a passenger needs a taxi, the taxi driver will be radioed and will drive to the terminal building and pick-up the passenger.

A letter from the Maine Department of Transportation indicates that a Traffic Movement Permit is not needed (see Attachment D, Section 10). However, “. . . if the Portland Jetport intends to increase its emplacements than a Traffic Movement Permit might possibly be required.”

Pedestrian Circulation

A pedestrian circulation plan has been submitted. See Attachment A. New sidewalks are proposed along the easterly and northerly segments of the loop roads. These new sidewalks when combined with the existing sidewalks provides a continuous walkway system around the entire loop road except for a gap described below.

The large surface parking lot immediately west of the parking garages has an internal walkway system that appears appropriate. It uses landscaped islands to help define and highlight the pedestrian walkway and crossings.

There are two designated pedestrian crossings in front of the terminal buildings. An overhead canopy further defines the crossings. The internal walkways of the surface parking lots and the parking garage are all connected to these crossings.

To summarize, the pedestrian walkway system seems well conceived. Staff however, would have several additional comments.

- A gap exists in the sidewalk along the westerly driveway into the parking garage.
 - The far westerly sidewalk along the loop road serving the westerly employee parking lot does not provide an appropriate connection to the terminal building. There is neither a sidewalk nor a crosswalk shown on the plan directly linking this sidewalk to the terminal.
 - Applicant should clarify whether the parking garage walkway (westerly side) intends to run inside or outside (of the parking garage) or both.
- 3/4. Bulk, location or height of proposed structures will not cause health or safety problems and minimize to the extent feasible diminutions in the value to neighboring properties.

The proposed parking garage has a footprint of 88,492 sq. ft. (dimensions, 360 ft. by 250 ft.) and is adjacent to the existing parking garage. The structure is 44 ft. high (calculated for zoning purposes). Located within the airport complex, the nearest residential use is at least feet away. The parking garage is surrounded by city owned land except for the Alamo property (privately owned). The parking garage is about 100 feet from the closest point of the Alamo building.

5. Sewers, Sanitary and Storm Drains, Water

The site plan indicates 93 catch basins (existing or proposed) within the project area. These catch basins connect into a storm drain system that flows to an existing storm drain pipe by the Fire Department building. The pipe empties into a natural drainage basin east of Taxiway C and north of Taxiway P. The storm water management reports states:

“The drainage piping appears to have sufficient capacity to carry the additional flow. Based on our discussions with DeLuca-Hoffman and airport personnel, it is our understanding that this natural drainage basin did not overtop during the significant storm in October of 1996 which dropped over 12 inches of rain in 24 hours. In addition, it is our understanding that no backups were reported at the Jetport within the existing storm drainage system” . . . “it is not anticipated that the 3.22 cfs during the 10 year storm will not impact the capacity of the natural drainage basin.”

There was discussion at an earlier workshop of pumping storm water from the parking garage basement. The applicant has refined the plan so that all storm water will flow by gravity.

Water quality is addressed by storm water quality unit (vortech model 1600). It will remove total suspended solids, oils, and greases prior to discharging into the natural detention basin.

Existing utility services such as water and sewer lines already available at the airport will be extended to accommodate this project.

6/7. Landscaping

The proposed landscape plan focuses landscaping along the loop roadway and within surface parking areas. Twenty-six deciduous trees will be planted (25 feet on center) along the new loop road (parking lot side). This treatment continues with sixteen more trees (25 feet on center) along the existing loop road (westerly segment).

Three extended islands (minimum 230 feet long) have been created within the westerly surface parking lot for landscaping and walkway purposes. Most corner parking spaces along parking aisles are also designated for plantings. This landscape concept helps define pedestrian walkways and parking aisles while helping to break up the mass of black top.

The baggage parking area near the Fire Department building has a similar landscape treatment. Deciduous trees are planned along the loop road and in several landscaped islands.

Over 150 new deciduous trees are listed on the landscape plan key. After the last workshop, Jeff Tarling (City Arborist) met with the applicant to discuss landscape issues. The plan appears to meet these concerns, but we were unable to get final comments from Mr. Tarling prior to him leaving on vacation.

The plan also includes a number of plantings along the recently constructed access road in an area west of the Embassy Suites Hotel. These plantings are primarily evergreen and are intended to increase the buffer for the parking garage.

The master plan includes a site section showing the relative height of the parking garage from 5 different views. Two of the site sections (views from Cobb Avenue and views from the Fore River neighborhood) show stands of trees in the cross sections. Whether these trees provide a visual buffer in the future is dependent on the city taking the necessary steps to preserve them.

8. Erosion and Sedimentation

A written description of erosion and sedimentation control measures has been submitted. See Attachment D. The submission indicates they have been prepared in accordance with the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices.

9. Lighting

Exterior lighting helps frame the visual appearance of the airport within the complex and surrounding areas. Catalog cuts of the lighting fixtures and a photometric plan have been submitted. All electric lines will be underground.

Given the height of the new parking garage, lighting becomes a particularly critical issue. To address this concern, the applicant is proposing a canopy along the northerly side of the parking garage to screen the lighting fixtures from the Westbrook Street area of the Jetport.

A summary of the exterior lighting includes the following:

- Parking garage rooftop . . . KIM STL fixtures mounted on 14 ft. high on 16 ft. high poles. See Attachment D, Section 11.
- Parking garage interior lights . . . A catalog cut has been submitted but further information is needed to determine if the specified fixture minimizes glare. The fixture is a KIM PGLIHP metal halide with 175 watts. See Attachment B.
- New loop road . . . Will use the fixture presently used along the access road. The Sterner fixture will be mounted on 20 ft. metal poles and spaced about 130 ft. apart.
- Surface parking lot . . . Cordova fixture, mounted on 30 ft. poles.

10. Fire

Lt. Gayland McDougall has reviewed the plan and indicates that fire hydrants need to be installed along the new loop road. Hydrants should be spaced every 500 feet.

11. Municipal Infrastructure

This proposal has been developed in accordance with a master plan for the Jetport. It is consistent with infrastructure existing or planned by the City.

12. Financial and Technical Capacity

Information on financial and technical capacity has been submitted and is shown

13. Natural resources including groundwater, surface water, habitat wetlands, unusual natural areas, and wildlife and fisheries

The applicant has identified 3 wetland areas that will be affected by this project. They are pursuing wetland alteration permits with the Maine DEP and Army Corps of Engineers.

Storm water detention pond – this wetland was formed in a storm water detention basin. It will be filled to accommodate a driveway entrance into the parking garage. The wetland area to be filled is about 7,700 sq. ft. The detention basin will not be needed with the new storm drain system for the parking garage.

Proposed loop road – this wetland is part of a large wetland northwest of the existing parking garage. The proposed loop road will cross this wetland. Approximately 22,800 sq. ft. of this wetland will be impacted by the work associated with the proposed loop road.

Construction staging areas – this wetland is west of the existing parking garage. The construction staging area will temporarily impact this wetland. There will be about 20,400 sq. ft. of temporary wetland impact associated with proposed construction staging area. It is expected that the wetland will be restricted to its previous condition upon completion of the parking garage and loop road

The State of Maine Department of Conservation indicates that “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.” See Attachment D, Section 17.

The Maine Department of Inland Fisheries and Wildlife also indicates “the majority of the area for expansion appears to be a reconfiguration of previously developed land, and there are no known significant fisheries in the immediate vicinity of this project.”

Stormwater from the parking garage will be treated by a stormwater treatment system to minimize contaminants from entering natural drainage areas.

Since the airport is served by public water and sewer there should be no adverse impacts on groundwater resources.

OUTER CONGRESS STREET TEMPORARY PARKING LOT

The applicant is proposing a 482 space parking lot on the site of the new municipal snow dump on outer Congress Street. The parking lot is described as “temporary” and intended to be in use for 18 to 24 months. This satellite parking is needed to help address a loss in parking when the Phase I parking garage project is under construction. Paul Bradbury of the Jetport indicates the parking lot will be folded into the airport site location application with the Maine DEP. The parking lot has a dimension of 568 ft. by 248 ft. or 3.2 acres.

The existing Congress Street driveway will be used for access. It is the same driveway that vehicles use for the snow dump.

The applicant needs to submit stormwater management information including stormwater calculations, water quality measures, erosion and sedimentation control information.

Exterior lighting features an EKC fixture (shoe box) mounted on 30 ft. high wood poles. 12 poles are planned with all but one having two fixtures.

Electric overhead lines are proposed between the light poles. No landscaping is proposed. The applicant is proposing this as a temporary parking lot. Given the level of proposed improvements, it is recommended that the Board consider a condition of approval so that the temporary lot does not become a permanent one. With no landscaping and overhead power lines, this parking lot would be substandard as a permanent facility.

The parking lot will be paved and spaces striped. Two passenger shelters and a ticket booth will be installed.

The parking lot will be served by a shuttle service that will run between the parking lot and the airport.

NOTE: The applicant has been in the process of revising the site plan based on comments from city review staff. An updated set of plans was expected to be dropped off on Friday which is reflected in the Board's packet. Staff will review the updated plans between Friday and Tuesday's meeting so that final comments (except for the City Arborist) should be available for Tuesday's meeting. As a result, the recommended conditions of approval may change.

IV. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the applicant and on the basis of information contained in Planning Report #11-01:

1. The parking garage site plan is in conformance with the site plan ordinance of the land use code.

Potential Conditions of Approval:

- i. That the site plan be revised reflecting the appropriate number and location of fire hydrants as determined by the Fire Department.
- ii. That the site plan be revised for review and approval reflecting the comments of Steve Bushey, Development Review Coordinator (see Attachment F.)
- iii. That the landscape plan is subject to review and approval by the City Arborist.
- iv. That additional information be submitted for the interior lighting of the parking garage for planning staff review and approval.

2. The temporary parking lot on outer Congress Street is in conformance with the site plan ordinance of the land use code.

Potential Conditions of Approval:

- i. That the parking lot is temporary and site plan approval shall expire on April 1, 2003. Applicant shall submit a site plan by April 1, 2003 either restoring the site or a revised site plan for its future use.
- ii. That the site plan be revised for review and approval reflecting the comments of Steve Bushey, Development Review Coordinator (see Attachment F.)

Attachments:

- A. Revised Site Plan and Building Elevations
- B. March 9, 2001 Submission Book
- C. February 2001 Submission Book
- D. January 2001 Submission Book
- E. Memo of Marge Schmuckal, Zoning Administrator
- F. Memos of Steve Bushey, Development Review Coordinator
- G. Letter from Maine Department of Inland Fisheries and Wildlife

REVISED MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the applicant and on the basis of information contained in Planning Report #11-01:

1. The parking garage site plan is in conformance with the site plan ordinance of the land use code.

Potential Conditions of Approval:

- i. That the site plan be revised for review and approval reflecting the ^{leave in} ~~comments~~ of Steve Bushey, Development Review Coordinator ~~(See Attachment E)~~
- ii. That the landscape plan is subject to review and approval by the City Arborist.
- iii. That additional information be submitted for the interior lighting of the parking garage for planning staff review and approval.
- iv. That the walkway plan be revised to reflect an appropriate walkway from the westerly employee parking lot to the terminal.
- v. That an executed agreement between the City and Thomas Toye shall be submitted for staff review and approval. ~~The agreement(s) shall cover the conveyance of land from Thomas Toye to the City for the loop road and a conveyance of land from the City to Thomas Toye if needed for zoning purposes.~~

J-0
Hagge
DeLogue
absent

2. The temporary parking lot on outer Congress Street is in conformance with the site plan ordinance of the land use code.

Potential Conditions of Approval:

- i. That the parking lot is temporary and site plan approval shall expire on April 1, 2003. Applicant shall submit a site plan by April 1, 2003 either restoring the site or a revised site plan for its future use.

for review and approval by the P.O. plan for review

J-0 Hagge, DeLogue

- ii. That the site plan be revised for review and approval reflecting the comments of Steve Bushey, Development Review Coordinator (see Attachment F.)
- iii. That a landscape plan be submitted for review and approval by the City Arborist.



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANGUS S. KING, JR.
GOVERNOR

MARTHA KIRKPATRICK
COMMISSIONER

CONDITION COMPLIANCE

August 7, 2001

City of Portland
% Jeff Schultes
1001 Westbrook Street
Portland, ME 04102

RE: PORTLAND JETPORT EXPANSION, Portland, Cumberland County
Special Condition #9 of Department Order #L-13760-18-R-A
Condition Compliance #L-13760-18-U-C

Dear Mr. Schultes:

The Bureau of Land and Water Quality has reviewed the information you have submitted in accordance with Special Condition #9 of Department Order #L-13760-18-R-A, dated February 16, 2001, and issued pursuant to 38 M.R.S.A. Sections 481 et seq.

Special Condition #9 reads as follows: "Prior to the construction, grading, alteration of cover type, or change to any other facility at the Jetport, including a change in function or use other than the employee parking lot expansion and the proposed changes to Runway 11-29, Taxiways A, B and D and the airport access road, the applicants shall submit plans of a stormwater management system for levels of development up to and including the maximum anticipated development in each watershed to the Bureau of Land and Water Quality for review and approval."

In response to this condition you have submitted a stormwater analysis and site plans for Phase 1 Parking Improvements that include a new parking garage, car rental facility and loop road.

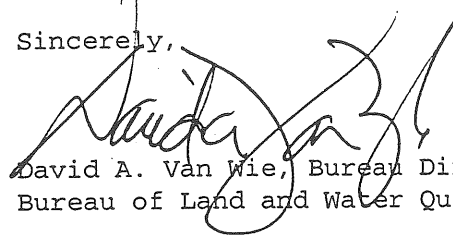
The Department has reviewed the information submitted and based on this review, the Department has found that this stormwater analysis, including additional information submitted during the review process, satisfactorily addresses the requirement of Special Condition #9 as it relates to the Phase 1 Parking Improvements.

Based on the above, the Department concludes that CITY OF PORTLAND has complied with Special Condition #9 of Department #L-13760-18-R-A as it

FYI
(Rica)

relates to the Phase 1 Parking Improvements. If you have further questions regarding this matter please contact Linda Kokemuller, the project manager, at 207-822-6300.

Sincerely,

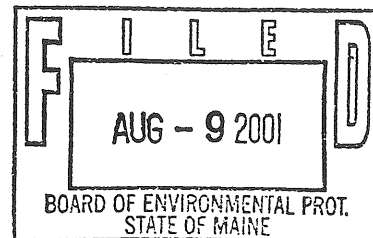


David A. Van Wie, Bureau Director
Bureau of Land and Water Quality

Date of initial receipt of application 3-13-01
Date application accepted for processing 3-27-01

Date filed with Board of Environmental Protection

LK/L13760UC



roads except for one gap

- large surface parking lot west of the existing parking garage has internal walkways and cross walks, it uses landscaped islands to help define and highlight pedestrian walkways and crossings [point out walkway system]
- ok • plan revised to include a continuous walkway ~~to the~~ ^{along the} parking garage driveway
- walkway from westerly employee parking lot
- ask to classify parking garage circulation

drainage large development area counted 93 catch basins in the development area everything flows to the east to a storm drain by the fire dept building, this pipes empties into a natural drainage area ~~but near~~ ^{the taxiways} ~~taxiway area~~ water quality is addressed by vertechnics unit prior to the stormwater emptying into the natural drainage area

landscaping focus along the loop roadway and within surface parking areas. deciduous trees will be planted 25 ft on center, over 150 new deciduous trees to be planted within the project area three extended landscaping strips minimum 230 feet long which provide landscaping and a walkway

City Arborist did meet with the applicant revised plan did meet the objectives but was not able to review the final plan prior to going on vacation

lighting fixtures roadway, parking lots, parking garage rooftop, ~~fixtures~~ and parking garage interior lights info and specifications has been submitted

~~part~~ rooftop parking garage fixtures will have a mounting height ^{of 14 feet} well below the canopy which is intended to ~~block~~ ^{screen} the view light fixtures from views to the west

3 wetland areas will be filled jetport has filed permits with the MDOP and Army Corps of Engineers

description of parking garage didn't make it into the report

OUTER CONGRESS PARKING LOT BY THE ^{MUNICIPAL} SNOW DUMP

18 to 24 months 482 spaces

will use the same Congress St driveway as the snow dump ^{truck} uses

with no landscaping, overhead power lines substandard as a permanent feature. suggesting as a condition of approval

site is remote but is visible from the turnpike and Johnson Rd so clusters of evergreen would be appropriate along the highway side

Paul Bradbury

Feb 20 neighborhood mtg only one person showed
person said they met the issues

precast concrete planks ; steel

grill system will shield the lights

eyebrow can be adjusted to shield even more

aluminum glazing curtain wall system

stair thru metal

ramp covered by a glazed canopy

jetport will use a snow melter for the roof

Jamie nervous about Bushy comments

Erin's concerns

JSTPDR PH

site plan review for (1) parking garage and related improvements (2) temporary parking lot on outer congress st

- parking garage 5 stories high ^{plus} with 1 story underground ^{behind the existing parking garage}
- loop road is being shifted northwesterly + easterly to accommodate this project later phase two + phase three
- garage footprint is about 2 acres in size, the overall development area is about 13 acres
- ^{new} parking garage capacity of 1,480 spaces with a total phase I airport parking of 3,180 spaces this contrasts with the existing airport parking of 1,677 spaces.
- Parking garage height: 44 ft per zoning
- all the surface parking lots near the terminal will either be reconstructed or reconfigured except for the westerly employee parking lot.

master plan phase 1, phase 2, phase 3

CIRCULATION

- traffic flow diagram shows the circulation system and the parking ^{garage}
~~vehicular circulation plan submitted~~
- one way loop system
- new baggage claim area ^{30 spaces not 482 spaces} connected into the loop system
- "taxi wait area"

Larry Ash has reviewed the plan and finds it acceptable

PEDESTRIAN CIRCULATION

- pedestrian circulation plan submitted. it provides a continuous walkway system around the entire loop



One Stop to the World

October 22, 2001

Richard Knowland
Senior Planner
City of Portland Planning
389 Congress St.
Portland, ME 04101

1001 Westbrook Street
Portland, Maine 04102
Phone: 207-756-8035
Fax: 207-791-8955
www.portlandjetport.org

RE: Portland International Jetport Parking Garage (1001 Westbrook Street; 199-A-001, unit 16) and Temporary Parking Lot (Outer Congress Street)

Dear Rick:

I'm writing in response to the conditions noted in Jaimey Caron's March 21, 2001 letter on the above referenced projects and our subsequent October 3, 2001 meeting at your office. At this meeting we discussed the following outstanding items.

Parking Garage Site Plan:

1. Planning board requests additional information on interior lighting of the parking garage be submitted for review.

As discussed at our meeting the exterior façade incorporates adjustable privacy screens on the north and west garage elevations. These privacy screens are shown on parking garage design drawings A3-1, A3-2, A3-2b, and A3-2c. I have enclosed half scale copies of each of these sheets for your review. I have also enclosed catalog sheets for interior and exterior lighting being used on the project.

2. Planning board requests the walkway plan be revised to reflect an appropriate walkway from the westerly employee parking lot to the terminal.

The walkway was constructed earlier this year as part of the Jetport access road reconstruction. The new walkway is now complete and in use by the public. Since this work was performed under a different project, it is not shown on the parking garage site plans.

3. Planning board requires a copy of the executed agreement between the City of Portland and Thomas Toye.

Attached for your review is a copy of the City Council Order approving the Purchase and Sale Agreement for the swap of land at the Portland Int'l Jetport

with Toye Airport Park, LLC and Toye Realty Holdings III, LLC. Also included is an exhibit showing the exchanged parcels and the new roadway alignment.

4. Planning board requires proof of financing for the parking garage site improvements.

Attached for your review is a copy of the City Council appropriation for \$35,000,000 to construct the Portland International Jetport Parking Facilities.

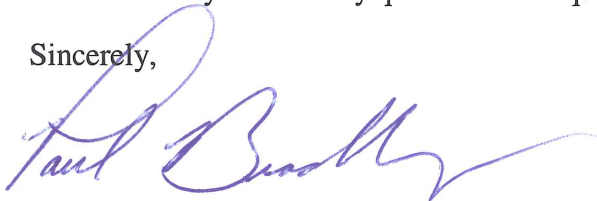
Temporary Parking Lot:

1. Planning board requires approval of landscaping plan by the City Arborist.

As requested by Jeff Tarling, the Jetport will add twenty white pines of 5' or greater height to provide a landscape buffer along the south and east sides of the parking lot. Every third tree will be approximately 1' higher to vary the landscape sight line.

I have also enclosed final site plans for Parking Contracts 2 and 3. Please review the enclosed information and if acceptable issue a final site plan approval. Feel free to contact me if you have any questions or require additional information.

Sincerely,



Paul H. Bradbury, P.E.
Facilities Manager

cc: Jeff Preble, P.E., Dufresne-Henry

IN COUNCIL REGULAR MEETING AUG. 20, 2001 VOL. 118 PAGE 19

Order 31-01/02 Order Appropriating \$12,450,000 For Improvements Renovations, Equipping and Upgrades to Riverton, Longfellow, and Reiche Schools - Sponsored by the Elementary Facilities Task Force II Committee, Councilor James F. Cloutier, Co-Chair. Given first reading on 8/6/01.

Order 32-01/02 Order Placing Bond Order on the November 6, 2001 Municipal Ballot - Sponsored by the Finance Committee, Councilor James F. Cloutier, Chair. Postponed on 8/6/01.

Order 33-01/02 Order Authorizing Borrowing for Airport Expansion in an Amount Not to Exceed \$35,000,000 For Purposes of Constructing Jetport Parking Facilities - Sponsored by the Finance Committee, Councilor James F. Cloutier, Chair. Given first reading on 8/6/01.

Motion was made by Councilor O'Donnell and seconded by Councilor Smith for passage. Passage 7-0 (Dawson out).

Order 34-01/02 Order Appropriating \$35,000,000 for the Portland International Jetport - Sponsored by the Finance Committee, Councilor James F. Cloutier, Chair. Given first reading on 8/6/01.

Motion was made by Councilor Cloutier and seconded by Councilor Mavodones for passage. Passage 7-0 (Dawson out).

Order 35-01/02 Order Approving Management Agreement with APCOA for Managing the Parking at the Portland International Jetport -Sponsored by Joseph E. Gray, City Manager. Given first reading on 8/6/01.

Motion was made by Councilor O'Donnell and seconded by Councilor Mavodones for passage. Passage 8-0.

CITY OF PORTLAND, MAINE

MEMORANDUM

**TO: JOSEPH GRAY, JR.
DUANE KLINE**

DATE: 19 JUNE 2001

FROM: JEFF SCHULTES

VIA: JEFF MONROE

SUBJECT: ITEM FOR CITY COUNCIL MEETING

Please place an item on the City Council Agenda for the last meeting in July, a item which will appropriate necessary funds to construct the new Jetport's parking garage and authorize Duane Kline, as the City's Finance Director to obtain the necessary financing for this project.

SUMMARY OF ISSUE

The Jetport has significant parking problems. With the approval of the City Council, the Jetport will be able to construct a new 1,500 car parking garage along with the necessary roadway work associated with this structure.

SUMMARY OF PROJECT

In 1994 the City Council approved and adopted the Jetport Master Plan, which included an area designated for new parking structures. In 1998 the Jetport hired Walker Associates to complete an initial parking study, based on estimated cost and number of parking spaces, to determine if the Jetport could afford a new garage because parking was becoming a problem.

After the Walker study indicated that a new garage was affordable, the Jetport hired PB Aviation to perform a complete study, which is before the City Council for their consideration.

The Jetport hired the design firm of Domenech, Hicks & Krockmalnic to design the proposed parking garage and to hold pubic meetings. There was an exceptionally positive reaction by the airport's public and tenants. The Stroudwater Neighborhood has accepted the design and the City Planning Board

approved the project. During our discussions with the airport car rental agencies, they recommended we move their rental counters to the new garage's atrium.

The garage design is basically complete and the total cost of the garage and associated improvements are \$29.1 million.

INTENDED RESULT

The City Council's appropriation and approval of this project is required to allow the Jetport to accept bids for the work to be completed.

The Jetport is also asking approval for the City's Finance Director to obtain the necessary financing associated with this project.

FINANCIAL IMPACT

At the present time the Jetport expects to request a Letter of Credit from a financial institution to start this project. After all the bids have been received and construction has started, it is the desire to convert the Letter of Credit to 30-year Revenue Bonds for the garage itself. This bond is anticipated to be in the amount of \$28.8 million, which amounts to \$24.1 million for the garage and the remaining \$4.7 million for bond issuance cost, bond insurance cost, debt service reserve, and capitalized interest.

As part of the construction, a portion of the new roadway and the moving of utilities are estimated at \$5 million. The Jetport is expecting to recover the cost of this through a new PFC (Passenger Facility Charge), which will be brought to the Council within the next year. The Jetport is requesting approval of this roadway and utilities project at this time.

As of May 15, 2001, total outstanding bonded debt of the Jetport is approximately \$1.5 million.

PB Aviation performed a study looking at the impact of debt payments from airports in the region and airports similar to our size. Airports and Bond Underwriters look at debt payments per enplaned passengers. Following is a comparison (based on 2005, after debt is issued):

Airport	Passengers	Debt per passenger
Portland International Jetport	756,100	\$3.11
Manchester Airport	1,994,000	\$7.49
T.F. Green (Providence)	3,387,000	\$4.84

Grand Rapids, MI	1,182,900	\$5.70
Des Moines, Iowa	950,000	\$3.39
Jackson, MS	718,200	\$2.17
Palm Springs, CA	729,691	\$1.16

STAFF ANALYSIS AND RECOMMENDATION

The proposed financing plan is very sound and conservative. The Bonding agencies are looking for a debt coverage of 1.25 times (which is 25% more income than revenue bond payments). The study performed by PB Aviation shows the coverage at a minimum 1.76 times.

This will assure that the airport can meet its customers needs and not place it in an financial difficulties in the future.

Staff recommends approval of this capital expenditure and giving the Finance Director authority to work with developing the financing of this project.


Cc: Elizabeth Boynton, Associate Corporation Counsel



Memorandum

Area Office:
22 Free Street
Portland, ME 04101
(207) 775-3211

Fax: (207) 775-6434 E-Mail: jpreble@dufresne-henry.com

To: Rick Knowland
From: Jeff Preble 
Date: January 23, 2001
Subject: Portland International Jetport Parking Garage

Enclosed is the response from the Department of Inland Fisheries and Wildlife regarding the proposed Parking Garage project. They find there are no identified wildlife habitats associated with the proposed improvements.

c: Mickey Krockmalnic, DHK
Paul Bradbury, PWM Facilities Engineer



Memorandum

22 Free Street
Portland, ME 04101
(207) 775-3211

Fax: (207) 775-6434 E-Mail: vgiguere@dufresne-henry.com

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

cc: Paul Bradbury, P.E., Facilities Engineer
Jeff Preble, P.E., Project Manager

From: Valerie Giguere, P.E., Project Engineer

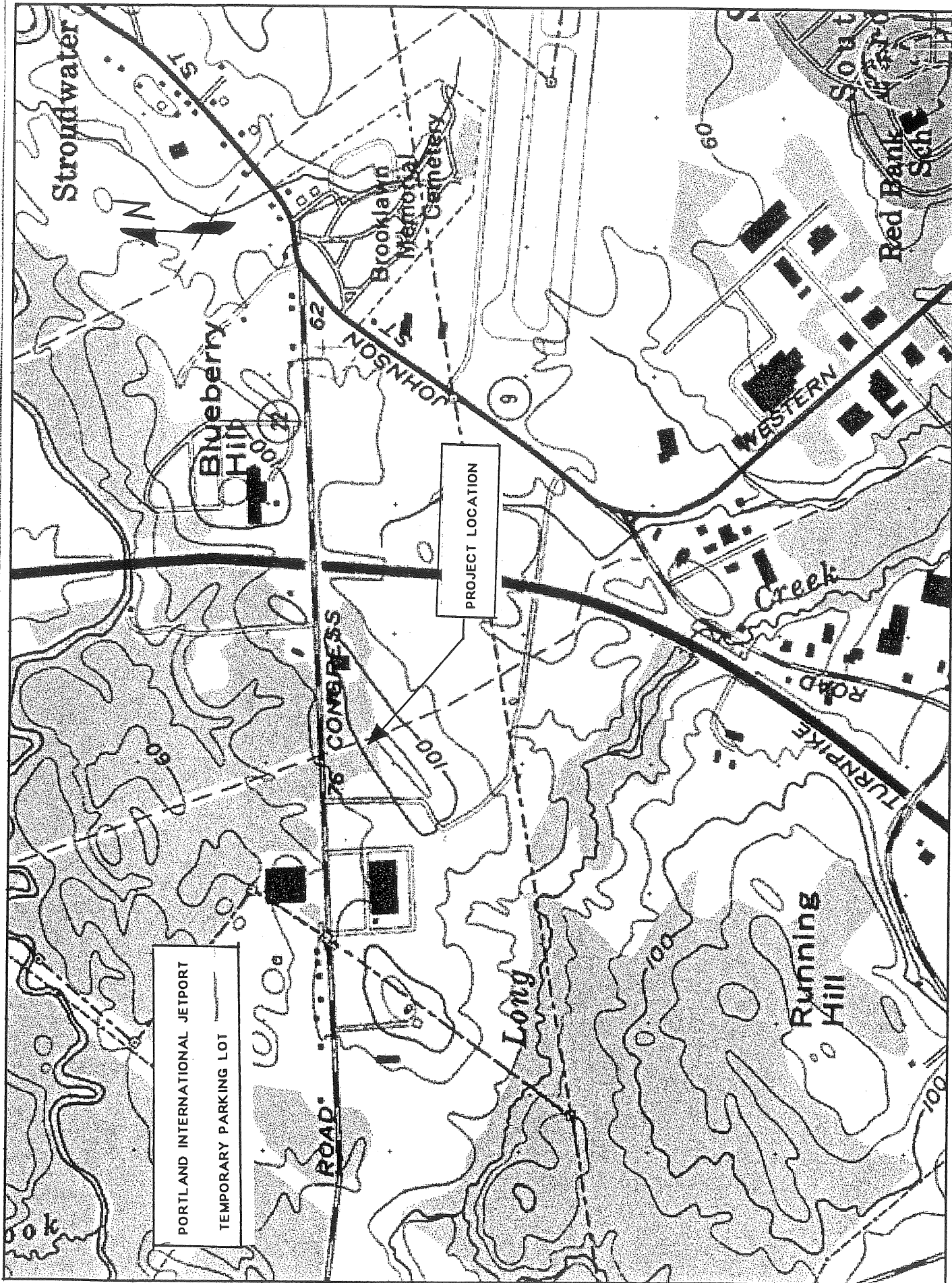
Date: March 7, 2001

Subject: Portland Jetport Temporary Parking Lot

Rick, the following is attached in reference to the Temporary Parking Lot for your information.

- USGS Location Map
- Standard Boundary Survey
- Exhibit showing the temporary parking lot with respect to the existing snow dump

If you have any questions, please contact me.



Location: 043° 38' 50.1" N 070° 20' 02.9" W

Name: PORTLAND WEST
 Date: 2/27/101
 Scale: 1 inch equals 1000 feet



February 27, 2001

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

**RE: Portland International Jetport - Phase I Parking Garage Improvements
Planning Board Submittal - Additional Information**

Dear Rick:

As discussed with our office, we are providing 7 copies of additional information regarding the Portland Jetport Phase I Parking Garage Improvements. The additional information consists of the following:

- ▶ Revised Landscaping Plan
- ▶ Surface Lot Pedestrian Movement Diagram
- ▶ New Parking Garage Pedestrian Movement Diagram
- ▶ Photometric Plan, Lighting Details, and Fixture Information

If you have any questions or comments regarding the above information, please contact us.

Very truly yours,

DUFRESNE-HENRY, INC.

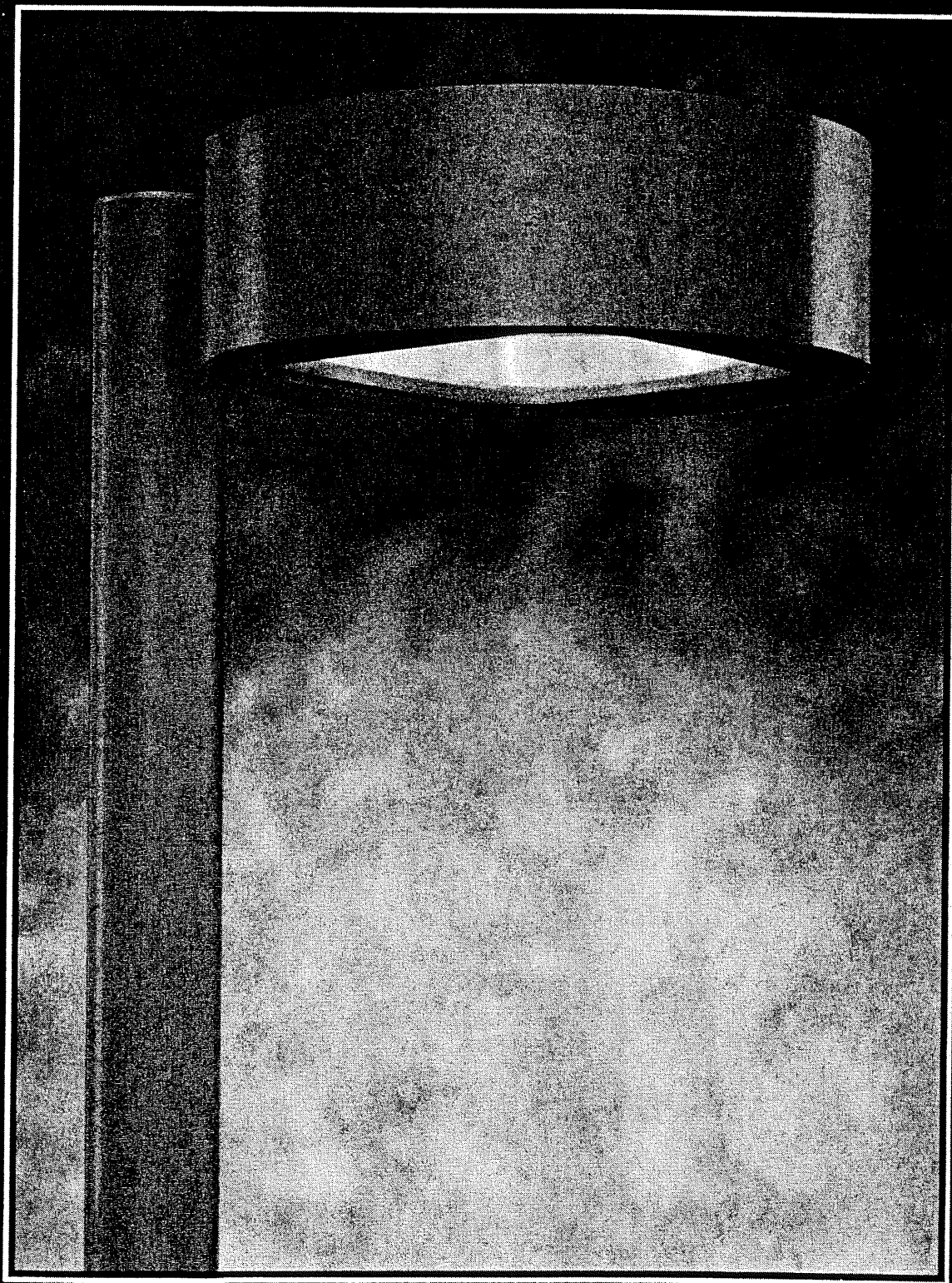
Jeffrey D. Preble, P.E.
Senior Project Manager

cc: Paul Bradbury, P.E. Portland International Jetport
Jeff Shultes, Portland International Jetport
Mickey Krockmalic, Domenech, Hicks & Krockmalnic

\\preble\projects\8190016.01 Jetport Parking Garage\Planning Board Submittal\Response to Comments Planning Board Submittal\Rick Knowland 2-27-01.wpd

PROPOSED FIXTURE - NEW LOOP ROAD

(Sternier)



humboldt



1. Series Code

HM

2. Luminaire Mounting

A — Arm Mount

Yoke Mount Pole Fitters

B — 4.5" O.D. with 0.125" to 0.156" wall

C — 4.5" O.D. with 0.188" to 0.250" wall

D — 5.0" O.D. with 0.125" to 0.188" wall

E — 3.0" O.D. pole top (*external*)

F — Custom Fitter (*consult factory*)

3. Luminaire Size

21

25

4. Diffuser Code

A — Clear Glass

5. Luminaire Arrangement

10 — Single

28 — Two at 180°

29 — Two at 90°

32 — Three at 120°

39 — Three at 90°

49 — Four at 90°

6. Reflector Option Code

1H — Type I Horizontal

2H — Type II Horizontal

3H — Type III Horizontal

5H — Type V Horizontal

FH — Forward Distribution (Horz.)

2D — Type IID Multi-Facet (horz.)

3D — Type IIID Multi-Facet (horz.)

berkeley



1. Series Code

BK

2. Luminaire Mounting

A — Arm Mount

Yoke Mount Pole Fitters

B — 4.5" O.D. with 0.125" to 0.156" wall

C — 4.5" O.D. with 0.188" to 0.250" wall

D — 5.0" O.D. with 0.125" to 0.188" wall

E — 3.0" O.D. pole top (*external*)

F — Custom Fitter (*consult factory*)

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21

25

4. Diffuser Code

A — Clear Glass

5. Luminaire Arrangement

10 — Single

28 — Two at 180°

29 — Two at 90°

32 — Three at 120°

39 — Three at 90°

49 — Four at 90°

6. Reflector Option Code

1H — Type I Horizontal

2H — Type II Horizontal

3H — Type III Horizontal

5H — Type V Horizontal

FH — Forward Distribution (Horz.)

2D — Type IID Multi-Facet (horz.)

3D — Type IIID Multi-Facet (horz.)

franklin III



1. Series Code

FT

2. Luminaire Mounting

A — Arm Mount

Yoke Mount Pole Fitters

B — 4.5" O.D. with 0.125" to 0.156" wall

C — 4.5" O.D. with 0.188" to 0.250" wall

D — 5.0" O.D. with 0.125" to 0.188" wall

E — 3.0" O.D. pole top (*external*)

F — Custom Fitter (*consult factory*)

3. Luminaire Size

21

25

4. Diffuser Code

A — Clear Glass

5. Luminaire Arrangement

10 — Single

28 — Two at 180°

29 — Two at 90°

32 — Three at 120°

39 — Three at 90°

49 — Four at 90°

6. Reflector Option Code

1H — Type I Horizontal

2H — Type II Horizontal

3H — Type III Horizontal

5H — Type V Horizontal

FH — Forward Distribution (Horz.)

2D — Type IID Multi-Facet (horz.)

3D — Type IIID Multi-Facet (horz.)

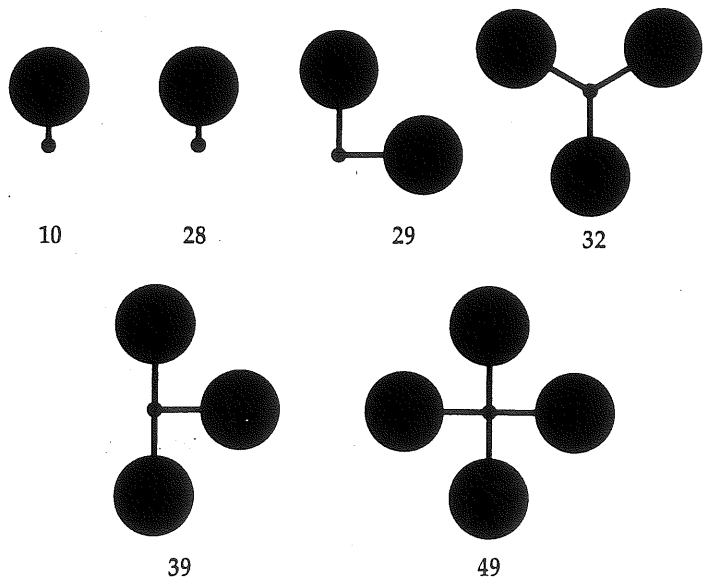
Luminaire Arrangements

11. Luminaire Finish Code

See finish information on page 22.

12. Pole or Bracket Code

Cross reference Luminaire Size (step 2) and arrangement (step 4) with the wind load rating table on the individual luminaires feature page to select the appropriate pole or bracket from page 23.



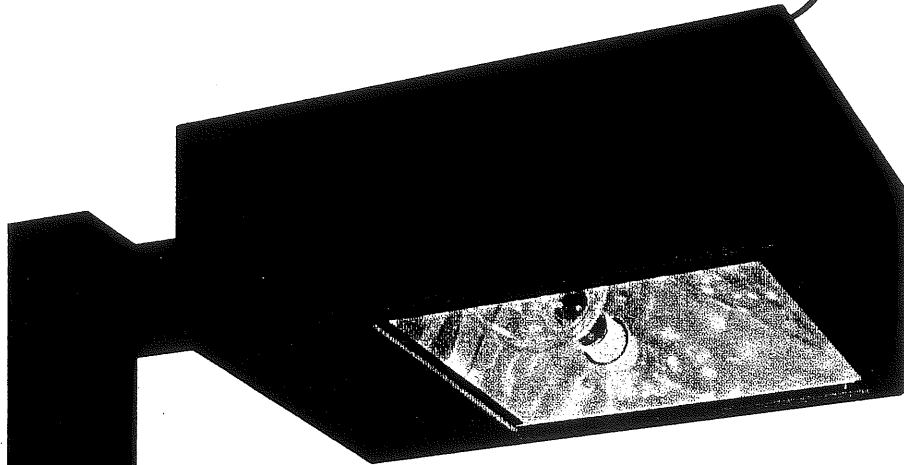
Luminaire Finish	Pole or Bracket Options	Pole Finish	Pole Options
C	RSA15-B	C	N

PROPOSED FIXTURE - SURFACE PARKING LOT

(Spaulding Lighting)

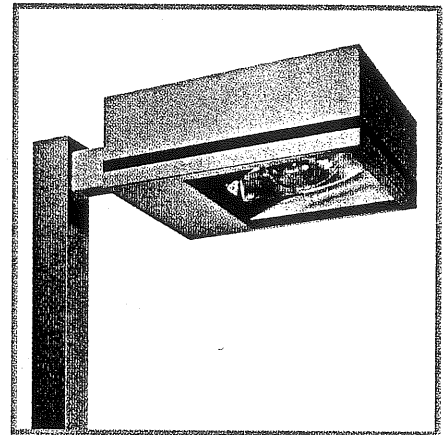
Cordova II, III.

LE
FO
TD
CO



- A**pplications:
- Parking areas
 - Roadways
 - Auto Dealerships
 - Fast Food Lots
 - Entrances
 - School campuses

Construction Features



Housing

- One piece aluminum, die formed and machine welded
- Optional embossed decorative band (EDB) 1" wide, same color as housing. Color striping is available

Mounting

- Extruded 10" aluminum arm with mounting hardware
- Cast wall bracket with fixture mounting hardware

Door Assembly

- Formed aluminum
- Captive screws
- Continuous gasket

Optical Assembly

- Flat clear tempered glass lens
- CVII - hydroformed, anodized aluminum reflector for type III asymmetric distribution

LUMINAIRE ORDERING GUIDE

Example:

CVIII - PM - M1000 - IV - 277 - EDB - LTG - BCS

Model	Mounting	Lamp Type Watts	Reflector	Voltage	Options	Color	Optional Stripe Color (for EDB)
CVII CVIII	PM: arm mount std 10" arm WB: wall bracket	S400 S1000 M400 M1000	III: asymmetric for CVII IV: forward throw for CVIII	120 208 240 277 347 480 MT: multi-tap	PE: 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 EDB: embossed decorative band QZ: quartz standby 4RPA: round pole adaptor for 4" O.D. pole SRPA: round pole adaptor for 5" O.D. pole SIGN: Backlit signature panel (available in CV III only)	DBZ: dark bronze BGE: beige RRN: rocket red SGB: black SWT: white FGP: forest green TBP: teal blue RBP: royal blue CMB: burgundy LTG: lite gray	WCS: white BCS: black OCS: other

Refer to Poles/Brackets Section for ordering information.

Fixture EPA - 2.9

- CVIII - formed, anodized aluminum reflector for type IV forward throw distribution, field rotatable in 90° increments

Lampholder

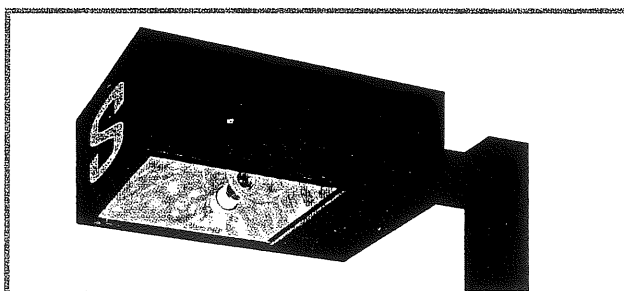
- Enclosed mogul porcelain socket
- HPS sockets are pulse rated

Ballast

- High power factor, starting rated to -20°F
- Metal Halide: constant wattage autotransformer type
- High Pressure Sodium: constant wattage autotransformer type with electronic starter

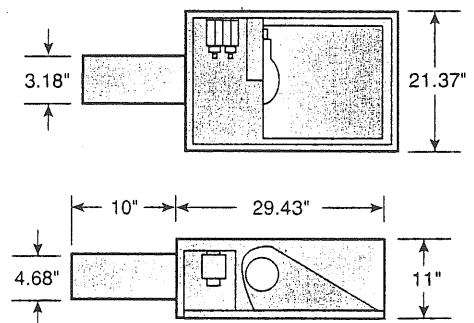
Finish

- Baked on polyester paint available in 10 standard colors
- Consult factory for custom finishes

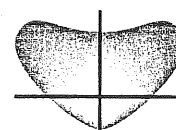


Signature Option CV III

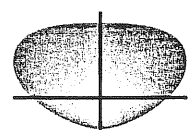
DIMENSIONS



DISTRIBUTION PATTERNS



III
asymmetric



IV
forward throw

PROPOSED FIXTURE - NEW LOOP ROAD

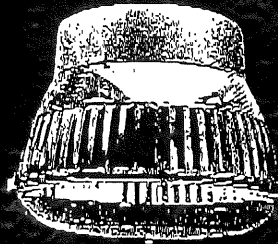
(Sternier)

PARKING STRUCTURE
PGL
SERIES

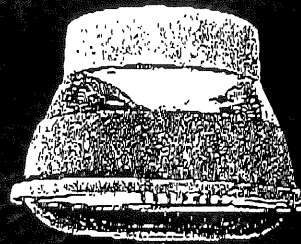
PGL4 / PGL1HP

PARKING GARAGE LUMINAIRES

100 - 200 WATT H.I.D.
85 WATT I.F.



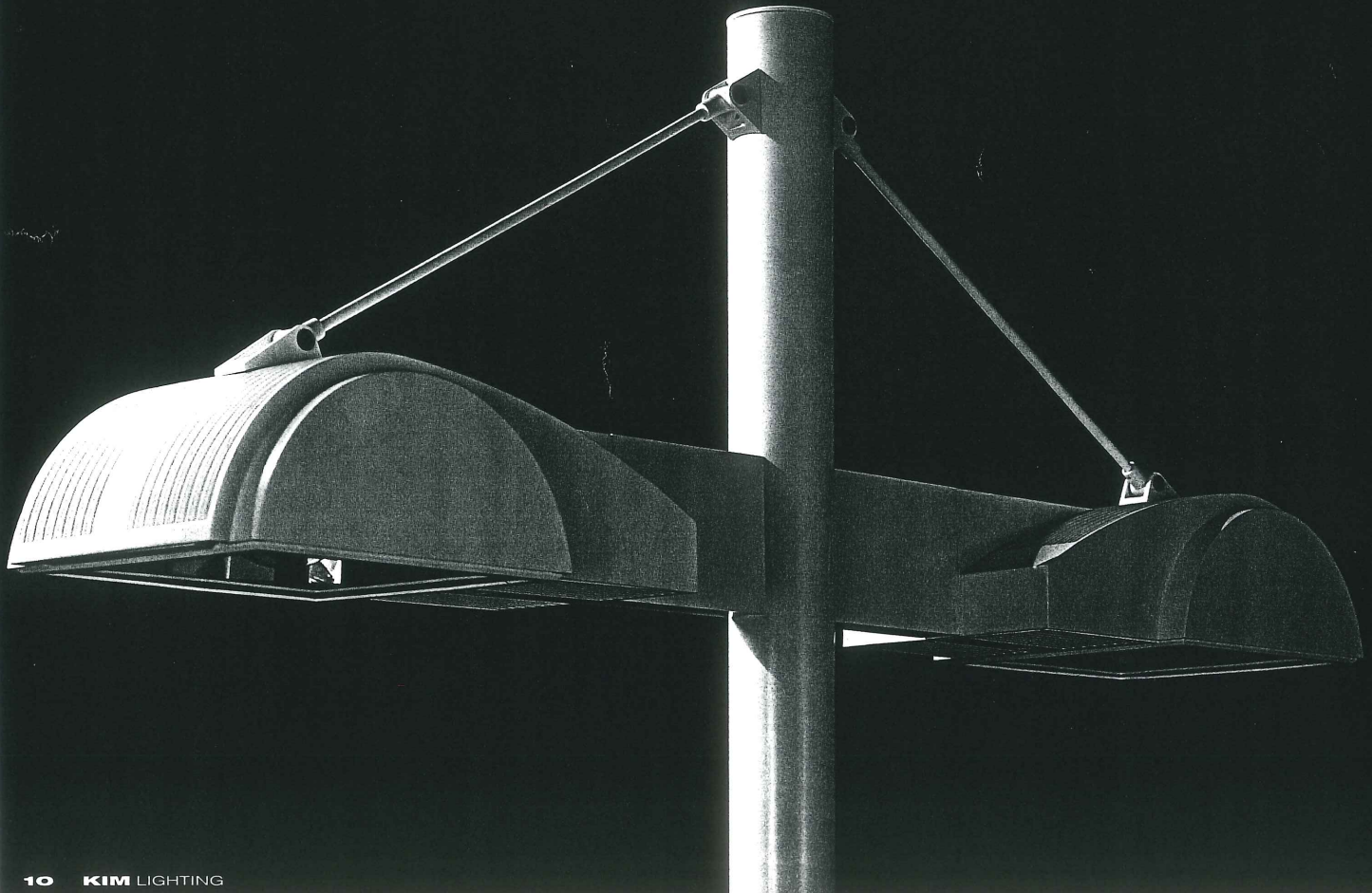
PGL4



PGL1HP



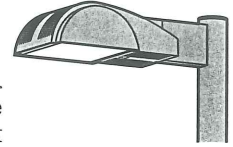
KIM LIGHTING



Ordering Information

Large Structural

STL
Mogul Base
150 to 400 Watt



Ordering Example:

For Fixture,
Structural Option and Pole

Mounting Fixture Electrical Module Finish Options Structural Option Pole

2B / STL3 / 400MH277 / PS-P / A-25 / TSN / PRA25-6188B-TS / PS-P

1 2 3 4 5-11 12 13

See separate Kim Pole Catalog.
Omit for 1W Wall Mount.

1 Mounting:

3Y configuration is available for round poles only.

Plan View:

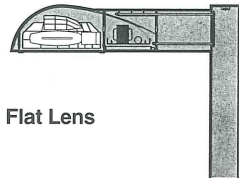
EPA:	2.2	4.4	2.8	5.0	5.0	5.3	n/a
Cat. No.:	1A	2B	2L	3T	3Y	4C	1W

2 Fixture:

Cat. No. designates STL fixture and light distribution.

See the Kim Site/Roadway Optical Systems Catalog for detailed information on reflector design and application.

Horizontal Lamp



Flat Lens

Light Distribution:

Cat. No.:

Type II

Type III

Type IV
Forward Throw
STL4

Type V
Square
STL5

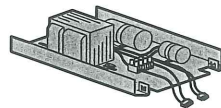
3 Electrical Module:

HPS = High Pressure Sodium

MH = Metal Halide

PMH = Pulse Start
Metal Halide

See lamp and electrical data on pages 24 - 25 for ballast types and characteristics.



Lamp Watts	Lamp Type	Line Volts
400	HPS	277

150HPS120	250HPS120	400HPS120
150HPS208	250HPS208	400HPS208
150HPS240	250HPS240	400HPS240
150HPS277	250HPS277	400HPS277
150HPS347	250HPS347	400HPS347
150HPS480	250HPS480	400HPS480

175MH120	250MH120	400MH120	250PMH120	400PMH120
175MH208	250MH208	400MH208	250PMH208	400PMH208
175MH240	250MH240	400MH240	250PMH240	400PMH240
175MH277	250MH277	400MH277	250PMH277	400PMH277
175MH347	250MH347	400MH347		400PMH347
175MH480	250MH480	400MH480		400PMH480

4 Finish:

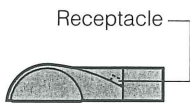
Super TGIC powder coat paint over chromate conversion coating.

Color:	Black	Dark Bronze	Light Gray	Platinum Silver	White	*Custom Colors
Cat. No.:	BL-P	DB-P	LG-P	PS-P	WH-P	CC-P

*Consult representative for custom colors.

5 Optional Photocell Receptacle:

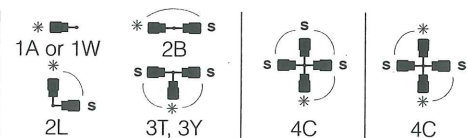
Receptacle provided for NEMA base photocells (by others).



Cat. No.: A-25

Mounting Configuration

* - Fixture with Photocell Receptacle
s - slave unit(s)



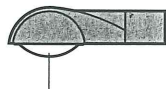
Allowable Wattage per fixture:

150-400W

150-250W

400W

6 Optional Convex Glass Lens:

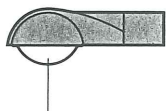


Convex Lens

Cat. No.: CGL

Tempered convex glass lens replaces standard flat lens.

7 Optional Polycarbonate Shield:

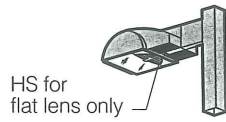


Polycarbonate Shield

Cat. No.: LS

Polycarbonate Shield replaces standard tempered glass lens. 250 Watt Maximum. May be used with 400HPS in outdoor locations where ambient air temperature during fixture operation will not exceed 85°F. See "CAUTION" on page 17.

8 Optional Houseside Shield:



Cat. No.: **HS**

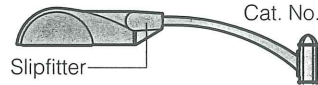
Recommended for use with clear lamps only. Effectiveness is reduced for coated lamps. Not for use with Type V light distribution.



Cat. No.: **HSC**

For fixtures with optional convex glass lens. Not for use with Type V light distribution.

9 Optional Horizontal Slipfitter Mount:



Cat. No.: **HSF**

Replaces standard mounting arm with a slipfitter for mounting to a horizontal pole davit-arm with 2" pipe-size mounting end (2 3/8" O.D.). Provides ±5° vertical fixture adjustment.

10 Special Options for Street Lighting:

Cat. No.: **TB** Terminal Block located inside the fixture electrical compartment.

Cat. No.: **AF** Air Filter to allow ventilation through the optical chamber.

11 Optional Vertical Slipfitter Mounts:

Mounting Configuration

- 1A - Single arm mount
- 2B - 2 at 180°
- 2L - 2 at 90°
- 3T - 3 at 90°
- 3Y - 3 at 120°
- 4C - 4 at 90°

For Standard Fixtures

Cat. No.

VSF-1A

VSF-2B

VSF-2L

VSF-3T

VSF-3Y

VSF-4C



4" Round

Cat. No.

SVSF-1A

SVSF-2B

SVSF-2L

SVSF-3T

SVSF-4C



4" Square

For Fixtures with Structural Options

Cat. No.

STRF-1A

STRF-2B

STRF-2L

STRF-3T

STRF-3Y

STRF-4C



4" Round

Cat. No.

STSF-1A

STSF-2B

STSF-2L

STSF-3T

STSF-4C



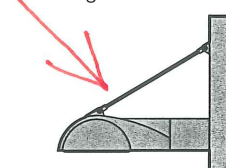
4" Square

Allows fixture, arm, and Structural Option (when applicable) to be mounted to steel poles having a steel 2" pipe-size tenon (2 3/8" O.D. x 4 1/2" min. length). Not available for **GS** Gusset.

12 Structural Options:

Pole Mounted Structural Options

Single Tension

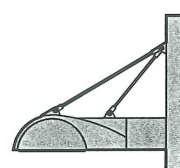


Cat. No.:

TSP - Rod and clevis painted to match fixture

TSN - Stainless steel rod with nickel plated clevis

Double Tension

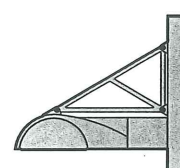


Cat. No.:

TDP - Rod and clevis painted to match fixture

TDN - Stainless steel rod with nickel plated clevis

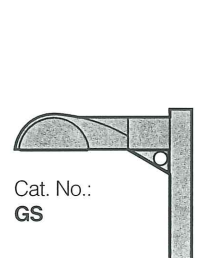
Truss



Cat. No.:

TR

Gusset

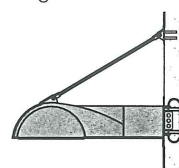


Cat. No.:

GS

Wall Mounted Structural Options

Single Tension

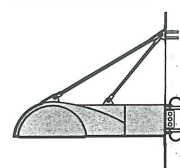


Cat. No.:

TSP-W - Rod and clevis painted to match fixture

TSN-W - Stainless steel rod with nickel plated clevis

Double Tension

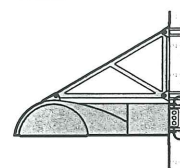


Cat. No.:

TDP-W - Rod and clevis painted to match fixture

TDN-W - Stainless steel rod with nickel plated clevis

Truss



Cat. No.:

TR-W

Gusset



Cat. No.:

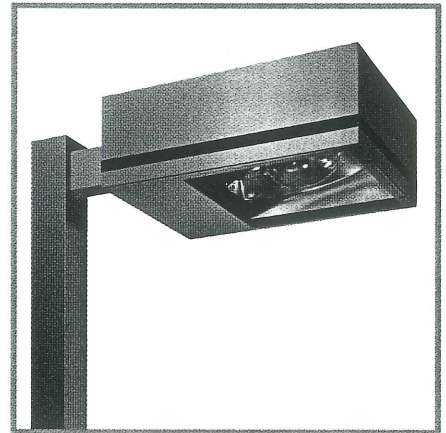
GS-W

13 Poles:

See Kim Pole Catalog for a complete selection of round and square poles in aluminum or steel.

Cordova II, III.

*SPECIFIED PARKING LOT FIXTURE
TO MATCH EXISTING
(2) PER POLE
(30' POLE)*



Applications:

- Parking areas
- Roadways
- Auto Dealerships
- Fast Food Lots
- Entrances
- School campuses

Construction Features

Housing

- One piece aluminum, die formed and machine welded
- Optional embossed decorative band (EDB) 1" wide, same color as housing. Color striping is available

Mounting

- Extruded 10" aluminum arm with mounting hardware
- Cast wall bracket with fixture mounting hardware

Door Assembly

- Formed aluminum
- Captive screws
- Continuous gasket

Optical Assembly

- Flat clear tempered glass lens
- CVII - hydroformed, anodized aluminum reflector for type III asymmetric distribution

FF
FO
TU
CO

LUMINAIRE ORDERING GUIDE

Example:

CVIII - PM - M1000 - IV - 277 - EDB - LTG - BCS

Model	Mounting	Lamp Type Watts	Reflector	Voltage	Options	Color	Optional Stripe Color (for EDB)
CVII CVIII	PM: arm mount std 10" arm WB: wall bracket	S400 S1000 M400 M1000	III: asymmetric for CVII IV: forward throw for CVIII	120 208 240 277 347 480 MT: multi-tap	PE: 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 EDB: embossed decorative band QZ: quartz standby 4RPA: round pole adaptor for 4" O.D. pole 5RPA: round pole adaptor for 5" O.D. pole SIGN: Backlit signature panel (available in CV III only)	DBZ: dark bronze BGE: beige RRN: rocket red SGB: black SWT: white FGP: forest green TBP: teal blue RBP: royal blue CMB: burgundy LTG: lite gray	WCS: white BCS: black OCS: other

Refer to Poles/Brackets Section for ordering information.
Fixture EPA - 2.9

- CVIII - formed, anodized aluminum reflector for type IV forward throw distribution, field rotatable in 90° increments

Lampholder

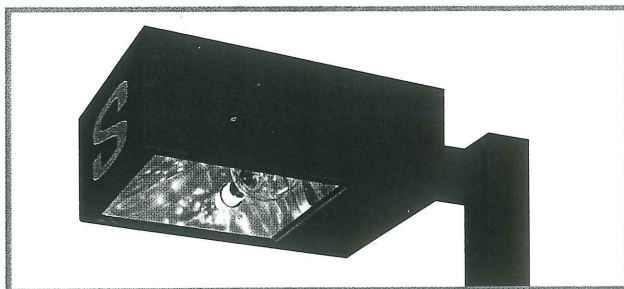
- Enclosed mogul porcelain socket
- HPS sockets are pulse rated

Ballast

- High power factor, starting rated to -20°F
- Metal Halide: constant wattage autotransformer type
- High Pressure Sodium: constant wattage autotransformer type with electronic starter

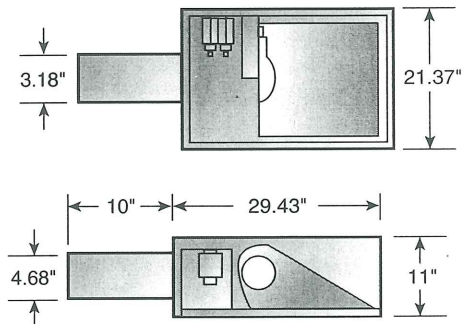
Finish

- Baked on polyester paint available in 10 standard colors
- Consult factory for custom finishes

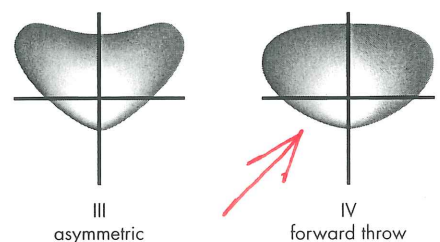


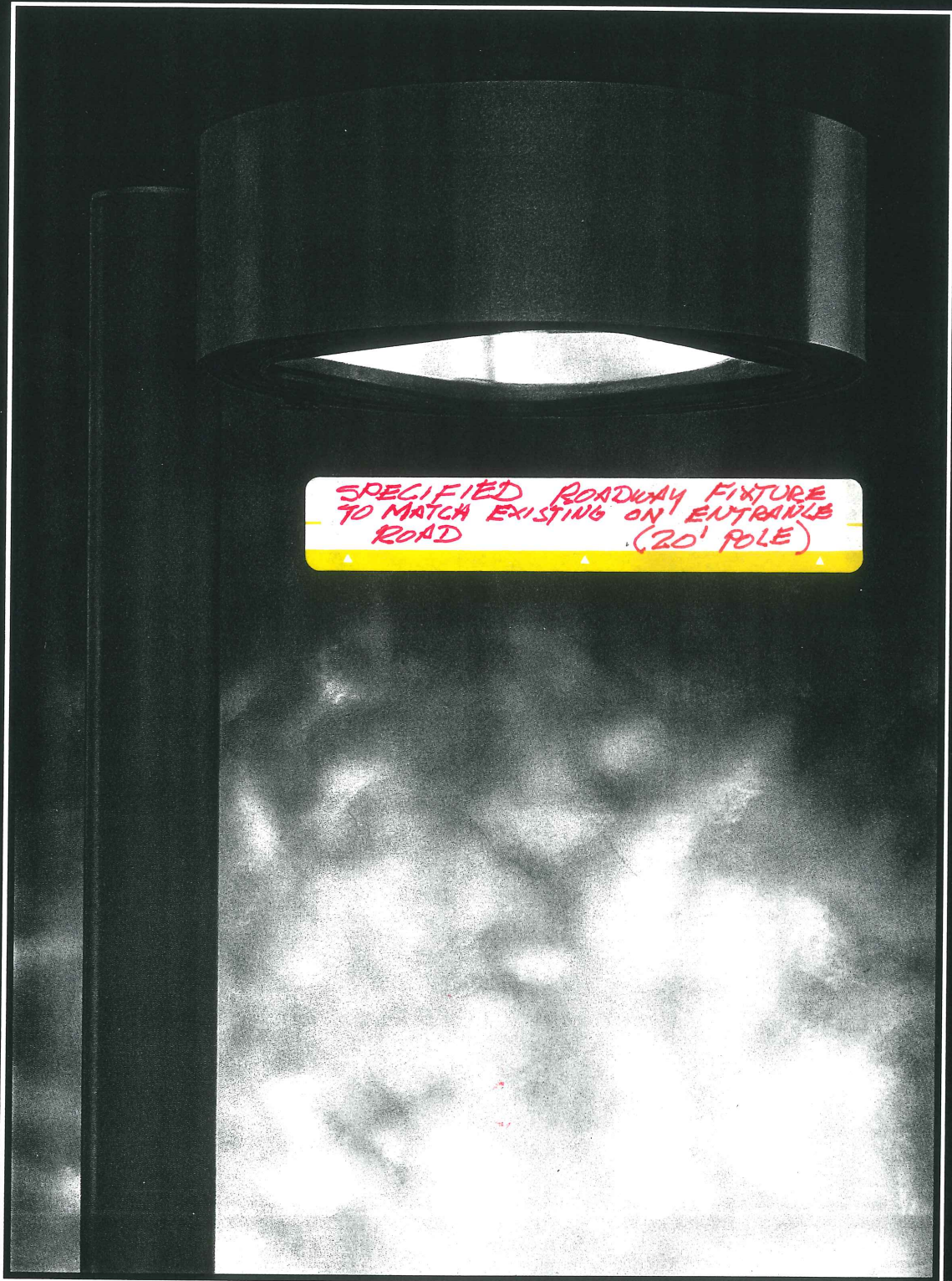
Signature Option CV III

DIMENSIONS



DISTRIBUTION PATTERNS





SPECIFIED ROADWAY FIXTURE
TO MATCH EXISTING ON ENTRANCE
ROAD (20' POLE)

humboldt



1. Series Code

HM

2. Luminaire Mounting

A — Arm Mount

Yoke Mount Pole Fitters

B — 4.5" O.D. with 0.125" to 0.156" wall

C — 4.5" O.D. with 0.188" to 0.250" wall

D — 5.0" O.D. with 0.125" to 0.188" wall

E — 3.0" O.D. pole top (*external*)

F — Custom Fitter (*consult factory*)

3. Luminaire Size

21

25

4. Diffuser Code

A — Clear Glass

5. Luminaire Arrangement

10 — Single

28 — Two at 180°

29 — Two at 90°

32 — Three at 120°

39 — Three at 90°

49 — Four at 90°

6. Reflector Option Code

1H — Type I Horizontal

2H — Type II Horizontal

3H — Type III Horizontal

5H — Type V Horizontal

FH — Forward Distribution (Horz.)

2D — Type IID Multi-Facet (horz.)

3D — Type IIID Multi-Facet (horz.)

berkley



1. Series Code

BK

2. Luminaire Mounting

A — Arm Mount

Yoke Mount Pole Fitters

B — 4.5" O.D. with 0.125" to 0.156" wall

C — 4.5" O.D. with 0.188" to 0.250" wall

D — 5.0" O.D. with 0.125" to 0.188" wall

E — 3.0" O.D. pole top (*external*)

F — Custom Fitter (*consult factory*)

3. Luminaire Size

21

25

4. Diffuser Code

A — Clear Glass

5. Luminaire Arrangement

10 — Single

28 — Two at 180°

29 — Two at 90°

32 — Three at 120°

39 — Three at 90°

49 — Four at 90°

6. Reflector Option Code

1H — Type I Horizontal

2H — Type II Horizontal

3H — Type III Horizontal

5H — Type V Horizontal

FH — Forward Distribution (Horz.)

2D — Type IID Multi-Facet (horz.)

3D — Type IIID Multi-Facet (horz.)

franklin III



1. Series Code

FT

2. Luminaire Mounting

A — Arm Mount

Yoke Mount Pole Fitters

B — 4.5" O.D. with 0.125" to 0.156" wall

C — 4.5" O.D. with 0.188" to 0.250" wall

D — 5.0" O.D. with 0.125" to 0.188" wall

E — 3.0" O.D. pole top (*external*)

F — Custom Fitter (*consult factory*)

3. Luminaire Size

21

25

4. Diffuser Code

A — Clear Glass

5. Luminaire Arrangement

10 — Single

28 — Two at 180°

29 — Two at 90°

32 — Three at 120°

39 — Three at 90°

49 — Four at 90°

6. Reflector Option Code

1H — Type I Horizontal

2H — Type II Horizontal

3H — Type III Horizontal

5H — Type V Horizontal

FH — Forward Distribution (Horz.)

2D — Type IID Multi-Facet (horz.)

3D — Type IIID Multi-Facet (horz.)

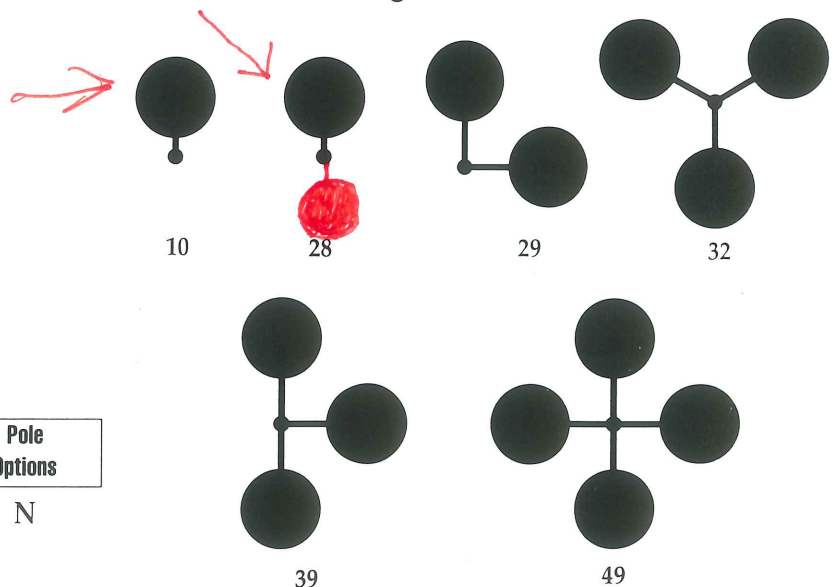
Luminaire Arrangements

11. Luminaire Finish Code

See finish information on page 22.

12. Pole or Bracket Code

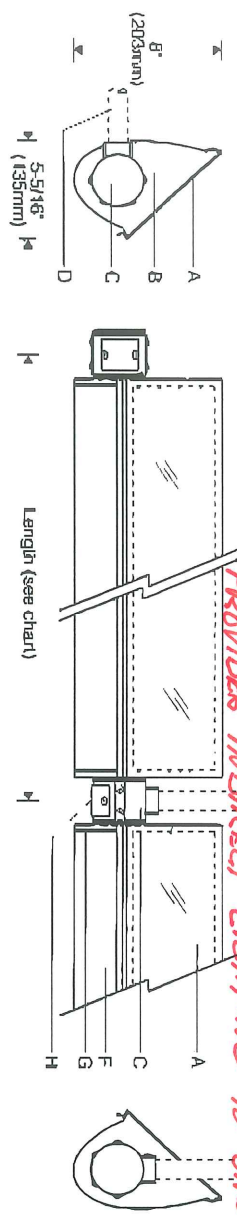
Cross reference Luminaire Size (step 2) and arrangement (step 4) with the wind load rating table on the individual luminaires feature page to select the appropriate pole or bracket from page 23.



Luminaire Finish	Pole or Bracket Options	Pole Finish	Pole Options
C	RSA15-B	C	N

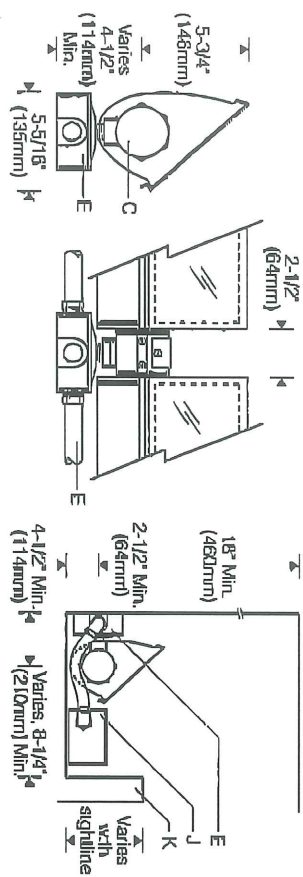
Uplighting Large outdoor, remote

Cantilever / Pendant 1/10 Scale



Surface 1:10 Scale

Cove 1:16 Scale



Lamp Length	HO / VHO	Length (center to center of mounting hubs)
3'	n.a.	40-3/8" (1025mm)
4'	4'	52-3/8" (1330mm)
5'	n.a.	64-3/16" (1630mm)
6'	6'	76-7/8" (1953mm)
8'	8'	100-7/8" (2552mm)

Specifications

- A** UV and impact resistant acrylic snap-on lens with EPDM gasket
- B** Die-cast aluminum end plates
- C** Cast aluminum mounting hubs (black)
- D** 3/4" rigid conduit pendant or cantilever supports (by others)
- E** Outlet boxes, liquidtight conduit and fittings (by others)
- F** Spectular extruded aluminum reflector
- G** Aluminum reveal plates (black)
- H** Gasketed splice access cover plate
- J** Remote ballast in weatherproof aluminum enclosure
- K** Architectural cove (for design guidance, see Applications Section)

Finish:

Exterior surfaces - 6 stage pretreatment and electrostatically applied, thermoset polyester powder coating for a durable abrasion, fade and corrosion resistant finish. Choice of semi-gloss colors. Mounting hubs finished black.

Reflector and internal end plates - extruded high purity aluminum with clear anodized specular finish. All hardware and components - non corrosive stainless steel or aluminum.

Snap-on lens - composite of impact resistant and UV stabilized acrylic. EPDM gasket for watertight operation when facing upward.

Standard:

UL listed or CSA certified for wet locations when mounted horizontally. For positions other than horizontal, consult factory.

Mounting:

Cast aluminum mounting hubs with internal 3/4" NPT threaded entry. 3/4" rigid conduit supports or fittings (by others). Allow 5 lbs/foot of reflector (example: 8' unit x 5 = 40 lbs).

One hub supplied with each reflector. Hub attaches to an adjacent reflector to form a continuous row. End-of-row mounting kit includes one hub and two end caps (ordered separately, one kit required for each individually mounted unit or for each continuous row).

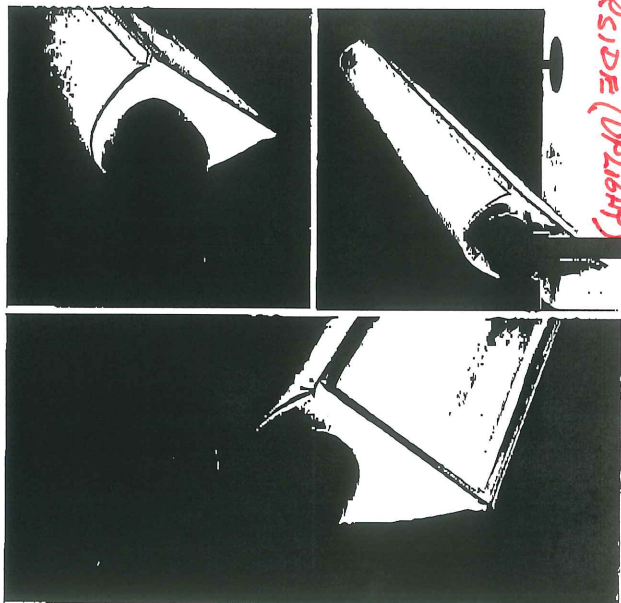
Reflector is adjustable about the hubs. Airing is locked in position with screws in the hubs.

Electrical:

Use 90°C wire for supply connections. Wire leads exit one end of reflector for splicing within mounting hub. Removable end plate on hub allows access to splices.

Remote magnetic HPF thermally protected class P ballast rated for -20°F/-29°C starting. Weatherproof aluminum enclosure includes three 7/8" dia. entries and one 3/8" liquidtight conduit connector. Maximum wire length between ballast and fixture using #14 wire is 21' (6.4m). For complete ballast specifications, see Accessories Section.

Style 152

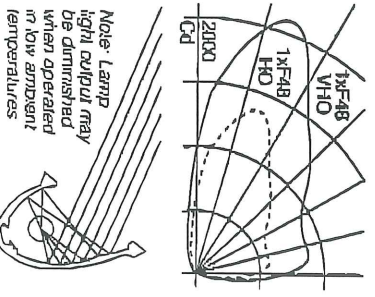


Features

- Powerful HO, VHO fluorescent for uplighting of soffits, vaults or canopies from minimal setbacks
- Snap-on acrylic lens with EPDM gasket - watertight for upward orientations; suitable for cold weather operation
- Durable aluminum construction - die-cast end plates and mounting hubs, extruded reflector; powder coat finish

Performance

Two parabolic reflector sections drive light across the overhead plane from one edge. An elliptical section reflects its light to a parabola and shields the lamp. Asymmetry is maximized resulting in high beam efficiency and superior surface uniformity. The last "runback" minimizes wasted spill light. Wide lateral distribution permits greater spacings.



elliptipar

For complete photometrics, see Outdoor Applications Section.

To Order

To form a Catalog Number

F152-F348-H-08-B-000

1 Source

F = Linear fluorescent

2 Style

152 = Large outdoor, remote ballast

3 Lamp

Lamp Length in inches (see chart below)

Reflector Configuration, specify 1 or 3 (see chart below)

F = T12 HO Fluorescent G = T12 VHO Fluorescent (48" thru 96" lamps only)

Example: F395 = two nominal 8' reflectors, each with one 96" T12 HO fluorescent lamp; 2-lamp remote ballast

Reflector Configuration

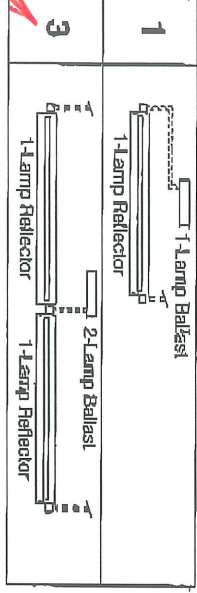


Table with columns: Lamp Length, Wattage, Lamp Number. Rows for HO Fluorescent (800ma) and VHO Fluorescent (1500ma) in various lengths (36", 48", 60", 72", 96").

For complete lamp and ballast information, see Accessories Section. HO and VHO lamps by others

REV. 6/99



Project: Polkland JET BNT

4 Mounting

H = Mounting hub with 3/4" NPT internal thread for 3/4" rigid conduit supports or fittings (by others), one hub supplied per reflector

Note: Order End-of-row mounting kit separately. One kit required for each individually mounted unit or each continuous row

Note: For positions other than horizontal, consult factory

5 Finish

- 02 = Semi-glass white 08 = Semi-glass black
06 = Dark bronze 12 = Green
07 = Silver

Note: Mounting hubs finished black

6 Voltage/Ballast

- Magnetic
A = 120V
B = 277V
H = 347V*

*Not available for configuration F136, one-lamp 36" HO, configuration G148, one-lamp 48" VHO or configuration G172, one-lamp 72" VHO.

7 Option (See Accessories Section for specifications)

- 00 = No options
DD = Remote ballast for dry indoor location
XX = For modification not listed, include detailed description. Consult factory prior to specification.

8 Standard

- 0 = UL, Underwriters Laboratories
J = CSA, Canadian Standards Association

Example

F152 - F348 - H - 08 - B - 000

Large outdoor model. Two nominal 4 foot reflectors, each for use with one 48" HO fluorescent lamp. Mounting hubs for 3/4" rigid conduit supports (by others). Black powder coat finish, black mounting hubs. Remote 2-lamp 277V ballast in weatherproof enclosure. UL.

Type: E

Accessories

Order separately. See Accessories Section for specifications

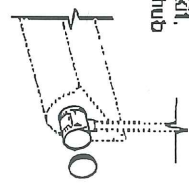
VEOR08

= End-of-row mounting kit, includes one mounting hub and two end caps, semi-gloss black

- 0 = UL
J = CSA

AFK00X

- 0 = UL
J = CSA



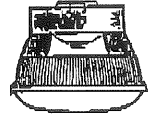
elliptipar
114 Orange Avenue, West Haven, Connecticut 06518, USA
Voice 203 931 4455 - Fax 203 931 4464 - www.elliptipar.com

The external shapes of the asymmetric reflectors are trademarks of elliptipar. Certain accessories illustrated may be covered by applicable patents and patents pending. For a list of patents, see Catalog pages. These specifications supersede all prior publications and are subject to change without notice. © 1999 elliptipar.

TYPE A

Luminaire Ordering Information

PGL4
85 to 200 Watt
PGL1HP
85 to 200 Watt



A1
A2
A1Q

PGL4 / PGL1HP

Ordering Example:

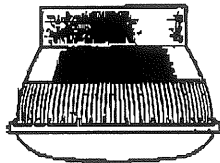
Fixture Electrical Module Options
PGL4 / 175MH277 / DL / L / PB2 / QS
 1 2 3-10

1 Fixture:

1 = PGL4/175MH 277/PB2

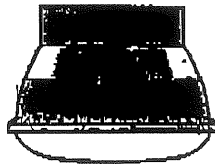
2 PGL4/175MH 277/

10 PGL4/175MH 277/PB2/QS



PGL4

Contemporary Garage Luminaire. Die-cast aluminum ballast housing with Platinum Silver Super TGIC powder coat paint over chromate conversion coating, one piece clear optical housing. Downlight optical reflector visible through optical housing material.



PGL1HP

Classic Garage Luminaire. Die-cast aluminum ballast housing with Light Gray Super TGIC powder coat paint over chromate conversion coating, one piece clear optical housing with Light Gray center band. Downlight optical reflector concealed behind painted band.

2 Electrical Module:

HPS = High Pressure Sodium
 MH = Metal Halide
 IF = Induction Fluorescent

Lamp Watts	Lamp Type	Line Volts
150	HPS	277

Lamp Mode
(Lamps by others)

100 Watt Clear
 High Pressure Sodium
 E-17 Medium Base

ANSI Code S-54

150 Watt Clear
 High Pressure Sodium
 E-17 Medium Base

ANSI Code S-55

100 Watt Clear
 Metal Halide
 ED-17 Medium Base

ANSI Code M-90

150 Watt Clear
 Metal Halide
 ED-17 Medium Base

ANSI Code M-102

175 Watt Clear
 Metal Halide
 ED-17 Medium Base

ANSI Code M-57

200 Watt Clear
 Metal Halide
 ED-17 Medium Base

ANSI Code M-136

85 Watt
 Induction Fluorescent

Post-It® Fax Note 7671

Date	10-22	# of pages	4	
To	JEFF PROBLE		From	Laura B.
Co.	DETROIT VIOLE		Co.	
Phone #			Phone #	
Fax #	PORTLAND		Fax #	

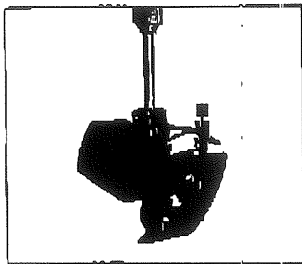
Lamp Mode	120	185	240	277	347	185	215	240	277	347									
100 Watt Clear High Pressure Sodium E-17 Medium Base	150HPS208	150HPS240	150HPS277	150HPS347	120	185	240	277	347	2.80	1.60	1.40	1.25	0.92					
100 Watt Clear Metal Halide ED-17 Medium Base	100MH120	100MH208	100MH240	100MH277	100MH347	120	185	240	277	347	129	129	129	1.15	0.90				
150 Watt Clear Metal Halide ED-17 Medium Base	150MH120	150MH208	150MH240	150MH277	150MH347	120	185	240	277	347	185	185	185	1.58	1.25				
175 Watt Clear Metal Halide ED-17 Medium Base	175MH120	175MH208	175MH240	175MH277	175MH347	120	185	240	277	347	215	215	215	215	0.85				
200 Watt Clear Metal Halide ED-17 Medium Base	200MH120	200MH208	200MH240	200MH277	200MH347	120	185	240	277	347	215	215	215	215	2.00	1.20	1.00	0.90	0.70
85 Watt Induction Fluorescent	85IF120	85IF208	85IF240	85IF277		120	185	240	277		86	86	86	86	0.72	0.42	0.36	0.35	

V1, V2, V3 NO. 939 P. 2/4

Prio

Halogen
(1) PAR-20 50w Max.

Track
Accent Light **PAR-20**

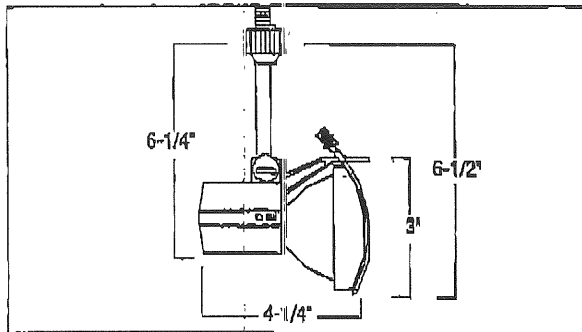


Applications: Prio offers a practical, contemporary design for track applications in commercial offices, retail areas and institutions. Contoured faceplate unscrews for ease of relamping and may hold louvers or lenses for controlled performance.

Type: _____
Project: _____

ORDERING NOTE: Fixture supplied as complete unit. Indicate connector, finish and accessories.

▼ Fixture Series	▼ Connector	▼ Finish	▼ Accessories
<u>932</u>	<u>3</u>	<u>BK</u>	
932 Prio, PAR-20, 50w max.	1 1-Circuit Track (1-C) 3 3-Circuit Track (3-C)	TN Titan (Satin Aluminum) WH Matte White BK Black	700 172 Hexcell Louver 052 641 UV Lens 052 FL2 Frosted Lens 052 852 Color Filters - Yellow 052 853 Color Filters - Red 052 854 Color Filters - Blue PR 20 Filter Support (must be specified with lenses)



V3 = 50W SPOT PAR 20

V5

V35 = SPOT

V5F = FLOOD



IBEW Union Made

1. **Track Connector** - Die-cast adapter with spring-loaded, silver soldered contacts ensures rigid electrical and mechanical connection. Three circuit selector is concealed within the connector's head with labeled snap-lock positions for positive circuit selection (see Track Systems Components spec sheets or the Track Catalog in Volume 2 of Zumtobel Staff binder for additional information).

2. **Rotation Stop** - Track adapter allows for 360° rotation in the horizontal plane.

3. **Fixture Stem** - Allows for 90° tilt and stays securely in place by adjusting slotted fastener on side.

4. **Lamp Faceplate** - Die-cast aluminum, attached to housing with thumb screw. Faceplate may hold honeycomb louvers or lenses. Lenses retained with spring clip.

5. **Fixture Body** - Die-cast aluminum with polyester powder coat paint finish, with vent holes around socket enclosure.

6. **Lamp Socket** - 120 volt PAR-20, 50w max., supplied by others. Medium screw base socket.

7. **Weight** - 0.7 lbs.

Prio track fixtures can also be used with Zumtobel Staff's ZX or RTX linear fluorescent systems. For more information, consult Volume 1 of your Zumtobel Staff Lighting binder, or call 1-800-932-0633 to request a ZX or RTX system catalog.

In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.

OCT. 22. 2001 4:27PM

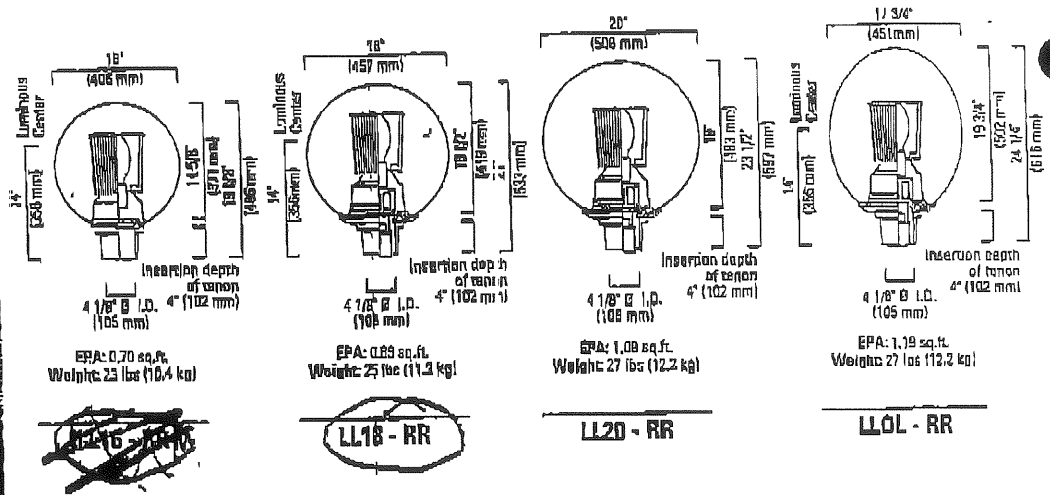
DUFRESNE HENRY NO SPFLD 886-22E0

NO. 939

P. 3/4

TYPE I

LL, LLCR, LLCYL, LLOL



Lamp Guide

Wattage	LL18		LL20/LL18*	
	Up	In	Up	In
70 MH	—	—	—	—
100 MH	—	—	—	—
175 MH	▲	▲	—	—
35 HPS	—	—	—	—
50 HPS	—	—	—	—
70 HPS	—	—	—	—
100 HPS	—	—	—	—
150 HPS	▲	—	—	—

- ▲ Remote ballast in mounting or pole
- ▲ Not available
- ▲ LLL globe cannot be inverted

The LL18™, LL18™ and LL20™ round globe series, LLCR14™ and LLCR18™ Cube series, LLCYL™ and LLCYL10™ Cylinder series, LLOL18™ Olive series and LLL™ series accommodate H.I.D. or incandescent lamps as shown in the above table.

The UL or CSA-recognized CWA-type ballast features a -30F (+34C) lamp-starting capacity, a power factor of 90% or better and a regulation of lamp within ±10% of rated input voltage. HPS ballasts operate within ANSI trapezoidal limits.

In standard, upward installations, the ballast for wattages of up to 100 W is integrated in the base of the luminaire, beneath a cone. For higher wattages, the ballast is semi-integrated in the globe and mounting base or remote positioned in the pole.

Inverted luminaires can only operate with unitized integrated ballasts up to 100 W. For higher wattages, remote ballasts are located in the base of poles, such as the AM6 and SM8

Luminaire

LL18, LL18, LL20, LLCR14, LLCR18, LLCYL, LLCYL18, LLOL end LLL globes are available with the following finishes:

PCC	Clear Polycarbonate
PCCH	Champagne Polycarbonate
PED	Opaline Polyethylene (Consult factory)
PCFC*	Frosted Clear Polycarbonate
PCFH*	Frosted Champagne Polycarbonate

*Globe finish available with LL18, LL18 and LL20 luminaires only. LL18, LL18, LL20, LLCR14, LLCR18, LLCYL, LLCYL18, LLOL, and LLL luminaires are UL and CSA approved.

Optical Systems

- RR optics**
 (Not applicable to LL18)
 Round borosilicate refractor
- | | |
|-------|-----------------------------------|
| RR5: | Symmetrical (V) |
| RR3: | Asymmetrical (III) |
| RR5D: | Asymmetrical (III) with deflector |
- SR optics**
 (applicable to LL18 only)
 Small round borosilicate refractor
- | | |
|-------|---------------------------------|
| SR5: | Symmetrical (V) |
| SR5D: | Asymmetrical (V) with deflector |
- LN**
 Plated louvers
- | | |
|-----|-----------------------|
| LN: | Nickel-plated louvers |
| LB: | Bronze-plated louvers |
- LMP**
 Lamp without optical system
- LMP:** Lamp
 (Lamps not included)
- For further information, refer to the Photometric Guide.

Ordering Sample

Lamp	Luminaire	Optical System	Voltage	Mounting & Configuration	Pole	Finish	Options
70 HPS	LL20-PCC	RR3	240V	CC 1A	APR4F-12	BR-TX	FS

Luminaire reserves the right to substitute materials or change the manufacturing process of its products without prior notification.

70 MH LL18-RR RR3 277

TYPE I

VERSALUX

At Lumec, designers have long since given way to functional reality and the performance of our products is proven and documented.

The following drawings illustrate a few of the many variations offered. All of these luminaires, unless noted, accept sources of up to 175 watts. Should you wish to interchange these components, please contact our representatives regarding feasibility.

VR numbers describe illustrated ballast, housing, bracket, pole, base, cover, and configuration.

When ordering Versalux luminaires, use catalogue number substituting VR number for regular bracket and pole number.

The mounting height of the luminaire is indicated by identifying the height, in feet, of the light source above the ground. For a cluster, refer to the lowest source of the assembly.

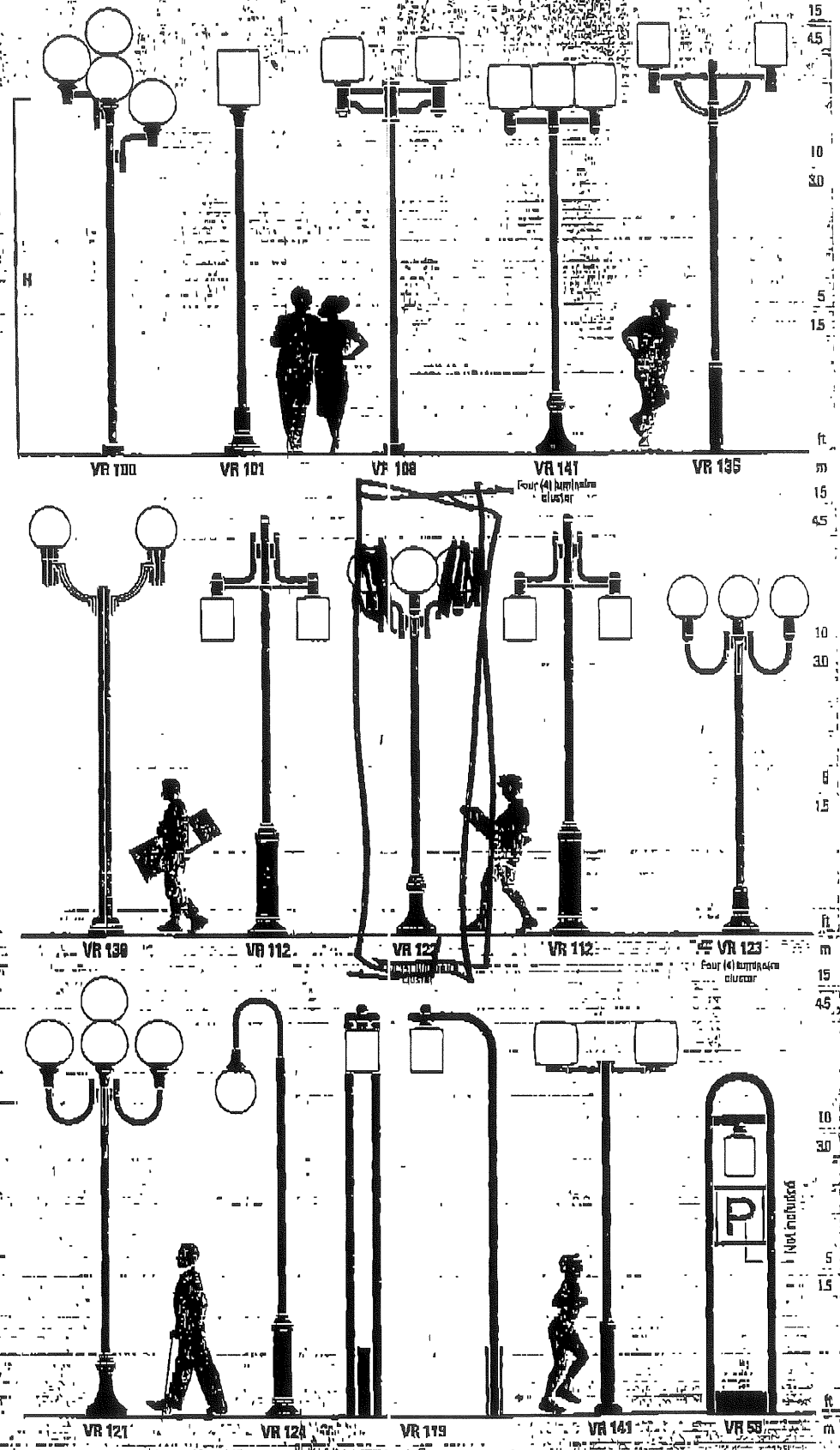
An original concept can also be developed in cooperation with our technical services department.



To achieve a high level of customer satisfaction, Lumec designs and manufactures its products according to the most stringent standards.

ISO Certified
Lumec is proud to adhere to the ISO 9000 international standards for the management of a basic quality assurance system.

640 Cote-Bonin
Bouchard, Quebec
Canada J7G 2A7
Tel: (514) 430-7000
Fax: (514) 430-1033





February 27, 2001

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

**RE: Portland International Jetport - Phase I Parking Garage Improvements
Planning Board Submittal - Additional Information**

Dear Rick:

As discussed with our office, we are providing 7 copies of additional information regarding the Portland Jetport Phase I Parking Garage Improvements. The additional information consists of the following:

- ▶ Revised Landscaping Plan
- ▶ Surface Lot Pedestrian Movement Diagram
- ▶ New Parking Garage Pedestrian Movement Diagram
- ▶ Photometric Plan, Lighting Details, and Fixture Information

If you have any questions or comments regarding the above information, please contact us.

Very truly yours,

DUFRESNE-HENRY, INC.

Jeffrey D. Preble, P.E.
Senior Project Manager

cc: Paul Bradbury, P.E. Portland International Jetport
Jeff Shultes, Portland International Jetport
Mickey Krockmalic, Domenech, Hicks & Krockmalnic

PROPOSED FIXTURE - NEW LOOP ROAD

(Sternier)

PLANNING BOARD

OF PORTLAND, MAINE

Sent 3-29-01

Jaimy Caron, Chair
Deborah Krichels, Vice Chair
Kenneth M. Cole III
Cyrus Y. Haggie
Erin Rodriguez
Mark Malone
Orlando E. Delogu

March 21, 2001

Mr. Jeff Schultes, Jetport Manager
Portland International Jetport
1001 Westbrook Street
Portland, ME 04102

RE: Portland International Jetport Parking Garage (1001 Westbrook Street; 199-A-001, unit 16) and Temporary Parking Lot (Outer Congress Street).

Dear Mr. Schultes:

On March 13, 2001, the Portland Planning Board voted on the following motions regarding expansion of the Portland International Jetport:

1. The Planning Board voted 5-0 (Hagge, Delogu absent) that the parking garage site plan is in conformance with the site plan ordinance of the land use code with the following conditions:

- i. That the site plan be revised for review and approval reflecting the comments of Steve Bushey, Development Review Coordinator.
- ii. That the landscape plan is subject to review and approval by the City Arborist.
- iii. That additional information be submitted for the interior lighting of the parking garage for planning staff review and approval.
- iv. That the walkway plan be revised to reflect an appropriate walkway from the westerly employee parking lot to the terminal.
- v. That an executed agreement between the City and Thomas Toye shall be submitted for staff review and approval.

2. The Planning Board voted 5-0 (Hagge, Delogu absent) that the temporary parking lot on Outer Congress Street is in conformance with the following conditions:

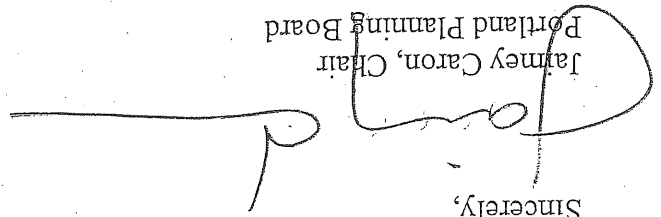
- i. That the parking lot is temporary and site plan approval shall expire on April 1, 2003. The applicant shall submit for review and approval by

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

The Development Review Coordinator must be notified five (5) working days prior to date required for final site inspection. The Development Review Coordinator can be reached at the Planning Department at 874-8721 or 874-87199. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact the Planning Staff.

Sincerely,



Jamey Caron, Chair
Portland Planning Board

CC: Alexander Jaegerman, Chief Planner

- Richard Knowland, Senior Planner
- F. Samuel Hoffses, Building Inspector
- Marge Schmuuckal, Zoning Administrator
- Tony Lombardo, Project Engineer
- Jay Reynolds, Development Review Coordinator
- William Bray, Director of Public Works
- Jeff Tarling, City Arborist
- Penny Littlell, Associate Corporation Counsel
- Lt. Gaylend McDougall, Fire Prevention
- Inspection Department
- Lee Urban, Director of Economic Development
- Don Hall, Appraiser, Assessor's Office
- Susan Doughty, Assessor's Office
- Paul Bradbury, Jepport
- Jeff Preble, Dufresne-Henry, Inc., 22 Free St., Portland, ME. 04101
- Approval Letter File

CITY OF PORTLAND, MAINE

PLANNING BOARD

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Lee Lowry III, Vice Chair
John Anton
Kevin Beal
Michael Patterson
David Silk
Janice E. Tevastian

October 14, 2004

Mr. Paul Bradbury
Portland International Jetport
1001 Westbrook Street
Portland, ME 04103

Re: Jetport Remote Parking Lot, Vicinity of 2254-2324 Congress Street
CBL: 233-A-006-009; #2004-0116

Dear Mr. Bradbury:

On September 28, 2004, the Portland Planning Board voted 5-0 (Beal and Silk absent) that the plan for a permanent parking lot in the vicinity of 2254-2324 Congress Street is in conformance with the site plan ordinance of the land use code, subject to the following conditions:

i. That a maintenance plan shall be developed and implemented to address excessive vegetation blocking the catch basins and vortechics treatment unit and that the site be marked with posts or pavement markers indicating the location of the catch basins and the treatment tank.

The approval is based on the submitted site plan, other submitted material and the findings related to site plan review standards as contained in Planning Report # 44-04, which is attached.

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

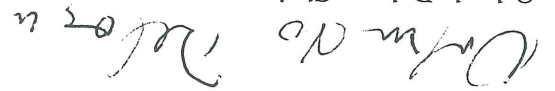
1. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.
2. Prior to construction, a pre-construction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
3. If work will occur within the public right-of-way, such as utilities, curb, sidewalk and driveway construction a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8822. (Only excavators licensed by the City of Portland are eligible)

4.

The Development Review Coordinator must be notified five (5) working days prior to date required for final 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, please contact Richard Knowland, Senior Planner at 874-8725.

Sincerely,



Orlando Delogu, Chair
Portland Planning Board

CC: Lee D. Urban, Planning and Development Department Director

Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Services Manager
Richard Knowland, Senior Planner

Jay Reynolds, Development Review Coordinator

Marge Schmuckal, Zoning Administrator

Inspections Division

Michael Bobinsky, Public Works Director

Traffic Division

Eric Labelle, City Engineer

Jeff Turling, City Arborist

Penny Littell, Associate Corporation Counsel

Lt. Gaylen McDougall, Fire Prevention

Rick Blackburn, Assessors Office

Approval Letter File

**PORTLAND INTERNATIONAL JETPORT
TEMPORARY PARKING LOT
SITE PLAN APPLICATION**

Table of Contents

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- Maine Department of Conservation Letter
- Rare or Exemplary Botanical Features

Proposed loop road – this wetland is part of a large wetland northwest of the existing parking garage. The proposed loop road will cross this wetland. Approximately 22,800 sq. ft. of this wetland will be impacted by the work associated with the proposed loop road.

Construction staging areas – this wetland is west of the existing parking garage. The construction staging area will temporarily impact this wetland. There will be about 20,400 sq. ft. of temporary wetland impact associated with proposed construction staging area. It is expected that the wetland will be restricted to its previous condition upon completion of the parking garage and loop road

The State of Maine Department of Conservation indicates that “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.” See Attachment D, Section 17.

The Maine Department of Inland Fisheries and Wildlife also indicates “the majority of the area for expansion appears to be a reconfiguration of previously developed land, and there are no known significant fisheries in the immediate vicinity of this project.”

Stormwater from the parking garage will be treated by a stormwater treatment system to minimize contaminants from entering natural drainage areas.

Since the airport is served by public water and sewer there should be no adverse impacts on groundwater resources.

OUTER CONGRESS STREET TEMPORARY PARKING LOT

The applicant is proposing a 482 space parking lot on the site of the new municipal snow dump on outer Congress Street. The parking lot is described as “temporary” and intended to be in use for 18 to 24 months. This satellite parking is needed to help address a loss in parking when the Phase I parking garage project is under construction. Paul Bradbury of the Jetport indicates the parking lot will be folded into the airport site location application with the Maine DEP. The parking lot has a dimension of 568 ft. by 248 ft. or 3.2 acres.

The existing Congress Street driveway will be used for access. It is the same driveway that vehicles use for the snow dump.

The applicant needs to submit stormwater management information including stormwater calculations, water quality measures, erosion and sedimentation control information.

Exterior lighting features an EKC fixture (shoe box) mounted on 30 ft. high wood poles. 12 poles are planned with all but one having two fixtures.

Electric overhead lines are proposed between the light poles. No landscaping is proposed. The applicant is proposing this as a temporary parking lot. Given the level of proposed improvements, it is recommended that the Board consider a condition of approval so that the temporary lot does not become a permanent one. With no landscaping and overhead power lines, this parking lot would be substandard as a permanent facility.

The parking lot will be paved and spaces striped. Two passenger shelters and a ticket booth will be installed.

The parking lot will be served by a shuttle service that will run between the parking lot and the airport.

NOTE: The applicant has been in the process of revising the site plan based on comments from city review staff. An updated set of plans was expected to be dropped off on Friday which is reflected in the Board's packet. Staff will review the updated plans between Friday and Tuesday's meeting so that final comments (except for the City Arborist) should be available for Tuesday's meeting. As a result, the recommended conditions of approval may change.

IV. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the applicant and on the basis of information contained in Planning Report #11-01:

1. The parking garage site plan is in conformance with the site plan ordinance of the land use code.

Potential Conditions of Approval:

- i. That the site plan be revised reflecting the appropriate number and location of fire hydrants as determined by the Fire Department.
- ii. That the site plan be revised for review and approval reflecting the comments of Steve Bushey, Development Review Coordinator (see Attachment F.)
- iii. That the landscape plan is subject to review and approval by the City Arborist.
- iv. That additional information be submitted for the interior lighting of the parking garage for planning staff review and approval.



1001 Westbrook Street
Portland, Maine 04102
Phone: 207-756-8035
Fax: 207-791-8955
www.portlandjetport.org

April 30, 2004
Mr. Rick Knowland
City of Portland
Planning Division
389 Congress Street
Portland, Maine 04101

RE: Portland Int'l Jetport Temporary Parking Lot on outer Congress St.

Dear Rick:

Given the input from yourself and other City staff, the Portland Int'l Jetport is proposing some minor changes to our April 30, 2004 submission to the planning board for the above referenced project. These changes include:

1. Revision of the landscaping sheet C1-3 to add the additional items requested by the City arborist. This included the addition of 13 eastern white pine, 3 green ash, and 1 crabapple tree.
2. The existing aerial triplex service drop cable used to power the lighting circuits in the lot will be replaced with underground feeds as noted on sheet E1.

Please find enclosed six (6) full size and two (2) 11x17 copies of revised sheets C1-3 and E1 for planning board review. Feel free to contact me if you have any questions or require any additional information.

Sincerely,

Paul H. Bradbury, P.E.
Facilities & Engineering Manager
Portland International Jetport

Enclosures

Section 2

PROJECT DRAWINGS

Drawing List

A complete listing of As-Built drawings for this project is included for reference. As previously stated, construction of this parking lot was completed in November of 2001. The As-Built construction drawings are for your review relative to this application.

*Portland International Airport
April 30, 2004*

*Sue Plan Application
Page 2-1*

File Name DWG Number

DWG Title

CIVIL ENGINEERING DRAWINGS

1	C1-1	Location Plan and General Notes
2	C1-2	Existing Conditions Plan
3	C1-3	Layout/Landscaping Plan
4	C1-4	Site Grading and Drainage Plan
5	C1-5	Erosion and Sedimentation Control Plan
6	C1-6	Erosion and Sedimentation Control Notes and Details
7	C1-7	Stormwater Details

ELECTRICAL DRAWINGS

1	E1-1	Electrical Plan and Notes
2	E1-2	Electrical Details

Section 3

TITLE RIGHTS AND INTEREST

Introduction

On March 13, 2001 a temporary site plan permit was issued to the Portland Jetport to build a temporary parking lot to provide public parking while the Phase 1 Parking Garage was constructed. The 156,000 +/- square foot temporary parking lot was built on a lot located off outer Congress Street near the City of Portland snow stockpile site in November of 2001. The lot has been out of service since the March 2003 opening of the new parking garage, in advance of the original site plan expiration date of April 1, 2003.

At this time the Portland International Jetport seeks site plan approval to allow the following future uses of this existing remote parking lot:

- Public overflow parking for peak traveling times such as Thanksgiving, Christmas, February school vacation, and April school vacation
- Short-term non-public parking of airport related vehicles such as rental cars
- Public overflow parking for short duration's to allow for maintenance and/or construction of permanent parking facilities.

Property Plan

Attached to this section is the Airport Layout Plan. This drawing shows the Jetports existing property lines and holdings.

Property Impacts

As noted above, the temporary parking lot has already been constructed. Therefore, there are no property impacts anticipated.

Since this lot is already constructed and no additional improvements are being requested, no funding is required. All conditions or improvements requested by the Planning Board will be budgeted and funded out of the Jetport's operating budget.

Financial Ability

FINANCIAL ABILITY

Section 4

Section 5

EXISTING SOIL CONDITIONS

Overview

In April 2001, Haley & Aldrich, Inc performed a subsurface investigation for the then proposed temporary parking lot. As part of the subsurface exploration, test pits were excavated to evaluate subsurface conditions at the proposed site location. Please refer to drawing C1-2 Existing Condition Plan for test pits locations.

Existing Soil Review

The results of the subsurface investigation are included in the attached Test Pit Logs prepared by Haley & Aldrich, Inc. The subsurface investigation listed no contaminated soils on the site.

Attachments

Test Pit Logs on proposed temporary parking lot site by Haley & Aldrich, Inc. for Domesch, Hicks & Krockmalnic Architects, dated April 11, 2001.



TEST PIT LOG

Test Pit No. TPI

Project: Temporary Parking Lot, Portland Jetport

Location: Portland, Maine

Client: Domenech, Hicks & Krockmalnic

Contractor: W. H. Lavigne, Inc.

Equipment Used: Link Belt 2700

H&A Rep: B. Lawrence

Weather: Cloudy, 40's

Date: 11 April 2001

File No.: 26123-000

Groundwater depths/entry rates (in./min.):

Location: See Plan

Ground El.: 116.1 ft

El. Datum:

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Field Test			
					Sand	Gravel	% Coarse	% Fine
0			SM	Dark brown silty SAND, mps 0.4mm, moist, roots			65	35
0.8			SM	Gray silty SAND, 15% oversized, mps 1.0 ft., moist			5	30
2				-FILL-				
2.9			SM	Orange silty SAND with gravel, 10% oversized, mps 3 in., moist, roots			10	20
3.2			SM	Gray silty SAND with gravel, 10% oversized, mps 1.0 ft., wet			10	15
4				-MARINE DEPOSIT-				
5.2				Bottom of Exploration at 5.2 ft. Refusal surface				

Obstructions:

Remarks:

Dilatancy	R - Rapid	S - Slow	N - None
Toughness	L - Low	M - Medium	H - High
Plasticity	N - Nonplastic	L - Low	M - Medium
Dry Strength	N - None	L - Low	M - Medium
	H - High	V - Very High	

Field Tests

Standing Water in Completed Pit	at depth	NE	ft
measured after	hours elapsed		
Diameter (in.)	Number	Approx. Vol. (cu.ft.)	
12" to 24"	6	=	
over 24"		=	
			4
Boulders			
Test Pit Dimensions (ft)	Pit Depth	Pit Length x Width	
	5.2	12x3	

NOTE: Soil identification based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

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TEST PIT LOG

Test Pit No. TP4

Project: Temporary Parking Lot, Portland Jetport

Location: Portland, Maine

Client: Domenech, Hicks & Krockmalnic

Contractor: W. H. Lavigne, Inc.

Equipment Used: Link Belt 2700

Ground El.: 117.4 ft

Location: See Plan

Groundwater depths/entry rates (in./min.):

File No. 26123-000
 Date: 11 April 2001
 Weather: Cloudy, 40's
 H&A Rep: B. Lawrence

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Field Test			
					Sand	Gravel	% Coarse	% Fine
0			ML	Gray-brown sandy SILT, mps 2mm, moist, roots	10	20	70	
0.8			SM	Orange silty SAND with gravel, mps 6 in., moist	10	5	10	20
2.0			SM	Gray silty SAND with gravel, 25% oversized, mps 2.0 ft., wet at 3.0 ft.	10	15	10	10
2.0				-MARINE DEPOSIT-	10	15	10	10
4				-GLACIAL TILL-	20	15	10	10
5.7				Refusal surface Bottom of Exploration at 5.7 ft.				

Obstructions:

Remarks:

Dilatancy: R-Rapid S-Slow N-None
 Toughness: L-Low M-Medium H-High
 Plasticity: N-Nonplastic L-Low M-Medium H-High
 Dry Strength: N-None L-Low M-Medium H-High V-Very High

Boulders
 Diameter (in.) 12" to 24" over 24"
 Number = 8
 Approx. Vol. (cu. ft.) = 8

Standing Water in Completed Pit
 at depth 5.3 ft
 measured after 0.5 hours elapsed

Test Pit Dimensions (ft)
 Pit Length x Width 12x3
 Pit Depth 5.7

NOTE: Soil identification based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.



TEST PIT LOG

Test Pit No. TP8

Project: Temporary Parking Lot, Portland Jetport
 Location: Portland, Maine
 Client: Domenech, Hicks & Krockmalnic
 Contractor: W. H. Lavigne, Inc.
 Equipment Used: Link Belt 2700

File No. 26123-000
 Date: 11 April 2001
 Weather: Cloudy, 40's
 H&A Rep: B. Lawrence

Ground El.: 109.6 ft
 Location: See Plan
 Groundwater depths/entry rates (in./min.):

Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand		Field Test
	% Coarse	% Fine	% Coarse	% Fine	
Dark brown SILT with sand, mps 1/4 in., moist, roots -TOPSOIL-	10	15	75		
Orange SILT with sand, mps 8.0 in., wet -MARINE DEPOSIT-	10	15	75		
Gray silty SAND, mps 3/4 in., wet	10	15	25	35	15
-GLACIAL TILL-					
Refusal surface Bottom of Exploration at 3.2 ft.					

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Symbol	Visual-Manual Identification and Description	Dilatancy	Toughness	Plasticity	Strength
0			ML	Dark brown SILT with sand, mps 1/4 in., moist, roots -TOPSOIL-				
1.0			ML	Orange SILT with sand, mps 8.0 in., wet -MARINE DEPOSIT-				
2.0	S1	2'-3.2'	SM	Gray silty SAND, mps 3/4 in., wet				
3.2				Refusal surface Bottom of Exploration at 3.2 ft.				

Obstructions:

Remarks:

Field Tests

Dilatancy: R - Rapid S - Slow N - None
 Toughness: L - Low M - Medium H - High
 Plasticity: N - Nonplastic L - Low M - Medium H - High
 Dry Strength: N - None L - Low M - Medium H - High V - Very High

Standing Water in Completed Pit
 at depth 3.0 ft
 measured after 0.5 hours elapsed
 Diameter (in.) 12" to 24"
 Number Approx. Vol. (cu.ft) =
 over 24" =

Test Pit Dimensions (ft)
 Pit Depth 3.2
 Pit Length x Width 12x3

NOTE: Soil identification based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

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TEST PIT LOG

Test Pit No. TP10

Project: Temporary Parking Lot, Portland Jetport

Location: Portland, Maine

Client: Domenech, Hicks & Krockmalnic

Contractor: W. H. Lavigne, Inc.

Equipment Used: Link Belt 2700

Ground El.: 110.2 ft

Location: See Plan

Groundwater depths/entry rates (in./min.):

File No. 26123-000
 Date 11 April 2001
 Weather Cloudy, 40's
 H&A Rep. B. Lawrence

El. Datum:

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel					Sand					Field Test					
					% Coarse	% Fine	% Coarse	% Medium	% Fine	% Coarse	% Medium	% Fine	Dilatancy	Toughness	Plasticity	Strength				
0																				
0.8			ML	Dark brown SILT, mps 0.4mm, wet -TOPSOIL-																
0.8			ML	Orange SILT with sand, 70% oversized, mps 0.4mm, wet, mixed with weathered/fractured rock (under water)																
1.6				-GLACIAL TILL- Bottom of Exploration at 1.6 ft Refusal surface																

Obstructions:		Remarks:	

Dilatancy	R - Rapid	S - Slow	N - None
Toughness	L - Low	M - Medium	H - High
Plasticity	N - Nonplastic	L - Low	M - Medium
Dry Strength	N - None	L - Low	M - Medium
	H - High	V - Very High	

Standing Water in Completed Pit		at depth		measured after		hours elapsed	
0.9		ft		0		hours elapsed	
Diameter (in.)		Number		Approx. Vol. (cu. ft)		=	
12" to 24"		2		=		1	
over 24"		=		=		1	

NOTE: Soil identification based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

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TEST PIT LOG

Test Pit No. TP12

Project: Temporary Parking Lot, Portland Jetport
Location: Portland, Maine
Client: Domenech, Hicks & Krockmalnic
Contractor: W. H. Lavigne, Inc.
Equipment Used: Link Belt 2700
Ground El.: 101.3 ft **Location:** See Plan **El. Datum:**
File No.: 26123-000 **Date:** 11 April 2001 **Weather:** Cloudy, 40's
H&A Rep: B. Lawrence

Groundwater depths/entry rates (in./min.):
 Sand Gravel Field Test

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Field Test				
					% Coarse	% Fine	% Coarse	% Medium	% Fine
0			ML	Brown SILT with sand, mps 1/4 in., moist -TOPSOIL-	15	85			
0.8			SM	Orange-brown silty SAND with gravel, 15% oversized, mps 8 in., moist, weathered and fractured rock fragments	20	20	20	15	10
2	S1 1'-2'	2.3		-GLACIAL TILL- Bottom of Exploration at 2.3 ft. Refusal surface					

Obstructions:		Remarks:	
Dilatancy		R - Rapid S - Slow N - None	
Toughness		L - Low M - Medium H - High	
Plasticity		N - Nonplastic L - Low M - Medium H - High	
Dry Strength		N - None L - Low M - Medium H - High V - Very High	

Standing Water in Completed Pit	at depth	measured after	hours elapsed
	ft		
Boulders	Diameter (in.)	Number	Approx. Vol. (cu.ft)
	12" to 24"	=	=
	over 24"	=	=
Test Pit Dimensions (ft)	Pit Depth	Pit Length x Width	
	2.3	10x3	

NOTE: Soil identification based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

Overview

No demolition or excavation is proposed under this application, and as such no solid waste disposal is anticipated.

SOLID WASTE DISPOSAL

Section 6

Overview

No water requirements currently exist or are required at this parking lot.

WATER SUPPLY

Section 7

Section 8

SITE LIGHTING

Site Lighting Information

The site lighting at the temporary parking lot consists of wood utility poles 24' above finished grade. The fixtures are cutoff type with 250-watt high-pressure sodium lamps, manufactured by Ruud Lighting. Please refer to drawings E1-1 Electrical Plan and Notes and E1-2 Electrical Details for lighting layout and specifications.

LANDSCAPING

Overview

Landscaping for the temporary parking lot site provides a Visual Buffer between Congress Street and the parking lot itself.

Visual Barricade

The following describes the current plants for the Portland International Jetport temporary parking lot. This is a planting description outlining the plantings along the North side of the parking lot.

- The goal of the planting was to screen the traffic on Congress Street, from the temporary parking lot.
- The plantings includes the following evergreen screen trees:
 - A. *Thuja Occidentalis* 'Nigra' - Dark American Arborvitae
 - B. *Pinus Strobus* - Eastern White Pine
- All plants along the temporary parking lot are tolerant of the sun, salt, and variable soil conditions.

- Quantities of each plant species are listed on drawing C1-3 Layout/Landscaping Plan. (A change order during construction added 20 Eastern White Pines spaced evenly along the south and east slopes to block visibility from the Turnpike and Western Avenue as recommended by the City Arborist)

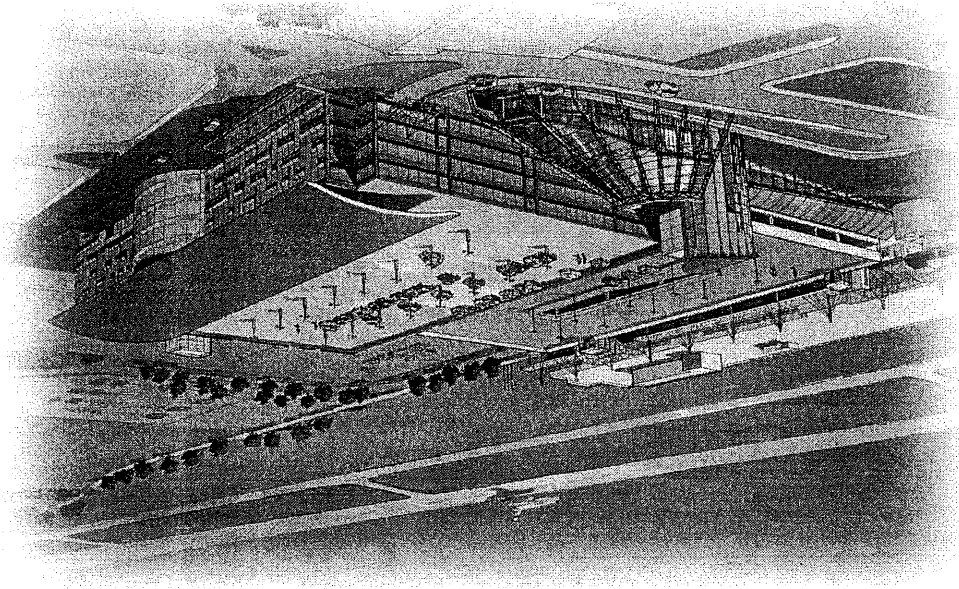
All plantings meet the "Arborticultural specifications and Standards of practice and landscape guidelines" of the City of Portland Technical and Design Standards and Guidelines.

As stated before, the temporary parking lot has already been constructed, with drainage and stormwater units in place. Please refer to drawings C1-5 Erosion and Sedimentation Control Plan and C1-6 Erosion and Sedimentation Control Notes and Details.

Overview

EROSION AND SEDIMENTATION CONTROL

Section 10



Prepared for:
City of Portland
Department of Waterfront and Transportation
Portland International Jetport
Westbrook Street
Portland, ME 04102

Revised: May 1, 2001

**City of Portland
Portland International Jetport
Temporary Parking Lot
Stormwater Analysis**

Portland International Jetport
 Temporary Parking Lot
 Stormwater Management

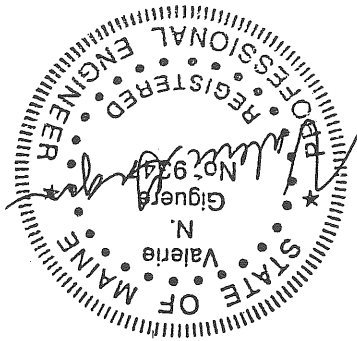
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Attachments

Attachment A	Location Map/Standard Boundary Survey
Attachment B	Present Development Calculations
Attachment C	Future Development Calculations
Attachment D	Sliding Scale Figure
Attachment E	Stormwater Quality Unit Sizing
Attachment F	Miscellaneous Calculations

Plans Attached Separately



Location Map/Standard Boundary Survey

ATTACHMENT A

Present Development Conditions Calculations

ATTACHMENT B

PRESENT DEVELOPMENT = 1 YEAR

Data for 8110016 Jetport Temp Parking Lot
 TYPE III 24-HOUR RAINFALL= 2.50 IN
 Prepared by DUFRESNE-HENRY

HydroCAD 5.11 001123 (c) 1986-1999 Applied Microcomputer Systems

1 May 01

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SUBCATCHMENT 1 Pre Development Drainage Area

PEAK= 9.58 CFS @ 12.06 HRS, VOLUME= .77 AF

ACRES CN

12	.12	93	Impervious, D Soils
91	.22	91	Impervious, gravel, D Soils
77	8.20	77	Brush, with grass mix, D soils
77	5.25	77	Wetland, brush cover, D soils
77	13.79	77	

SCS TR-20 METHOD

TYPE III 24-HOUR

RAINFALL= 2.50 IN = 1 YEAR

SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	Pre Development Drainage Area	6.0
Short Grass Pasture	Kv=7 L=750' s=.088 1/' V=2.08 fps	

SUBCATCHMENT 1 RUNOFF

Pre Development Drainage Area

AREA= 13.79 AC

Tc= 6 MIN

CN= 77

SCS TR-20 METHOD

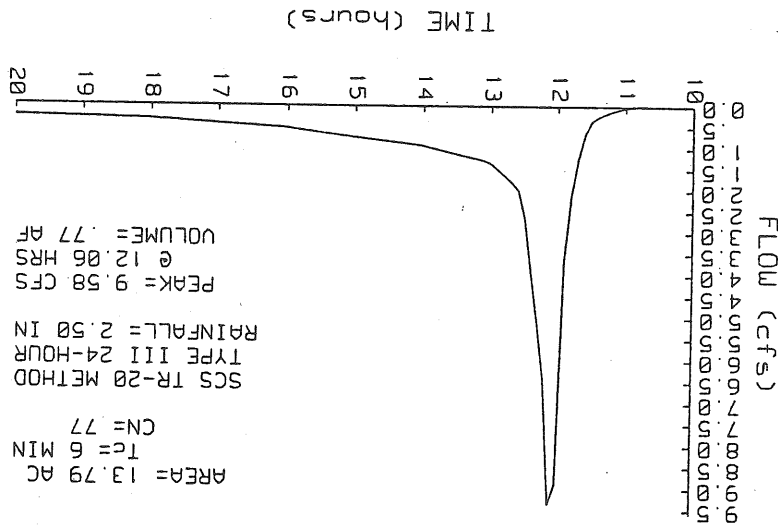
TYPE III 24-HOUR

RAINFALL= 2.50 IN

PEAK= 9.58 CFS

@ 12.06 HRS

VOLUME= .77 AF



PRESENT DEVELOPMENT = 2 YEAR

Data for 8110016 Jetport Temp Parking Lot
 TYPE III 24-HOUR RAINFALL= 3.18 IN

Prepared by DUFFRESNE-HENRY

HydroCAD 5.11 001123 (c) 1986-1999 Applied Microcomputer Systems

1 May 01

Page 10

SUBCATCHMENT 1 Pre Development Drainage Area

PEAK= 16.57 CFS @ 12.05 HRS, VOLUME= 1.27 AF

ACRES	CN	Impervius, D Soils	Impervius, gravel, D Soils	Brush, with grass mix, D soils	Wetland, brush cover, D soils
.12	93				
.22	91				
8.20	77				
5.25	77				
13.79	77				

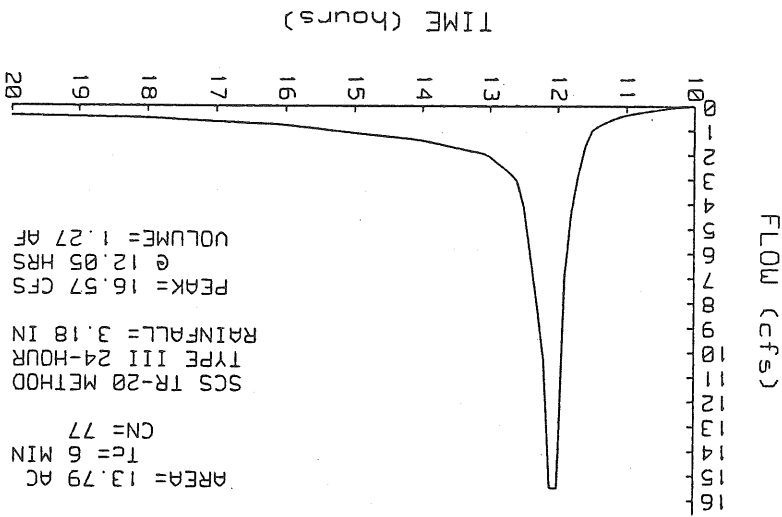
SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 3.18 IN *2 YEAR*
 SPAN= 10-20 HRS, dt=.1 HRS

Method Comment Tc (min)

SHALLOW CONCENTRATED/UPLAND FLOW Pre Development Drainage Area
 Short Grass Pasture Kv=7 L=750' s=.088 1/1 V=2.08 fps

SUBCATCHMENT 1 RUNOFF

Pre Development Drainage Area



PRESENT DEVELOPMENT = 10 YEAR

Data for 8110016 Jetport Temp Parking Lot
TYPE III 24-HOUR RAINFALL= 4.37 IN

Prepared by DUFRESNE-HENRY

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SUBCATCHMENT 1 Pre Development Drainage Area

PEAK= 29.99 CFS @ 12.04 HRS, VOLUME= 2.23 AF

SCS TR-20 METHOD

TYPE III 24-HOUR

RAINFALL= 4.37 IN ~~= 10 YEAR~~

SPAN= 10-20 HRS, dt=.1 HRS

Impervious, D soils
Impervious, gravel, D soils
Brush, with grass mix, D soils
Wetland, brush cover, D soils

ACRES

CN

.12

.22

93

91

8.20

77

5.25

77

13.79

77

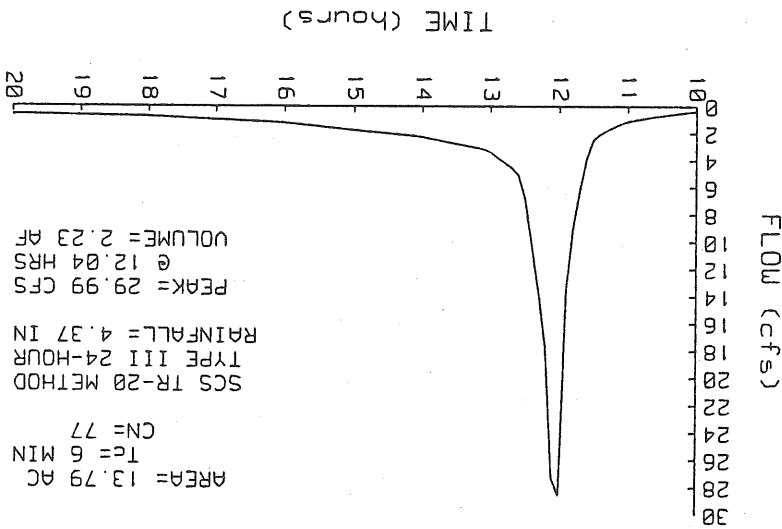
Method Comment Tc (min)

SHALLOW CONCENTRATED/UPLAND FLOW Pre Development Drainage Area

Short Grass Pasture Kv=7 L=750' s=.088 1/' V=2.08 fps

SUBCATCHMENT 1 RUNOFF

Pre Development Drainage Area



PRESENT DEVELOPMENT = 25 YEAR

Data for 8110016 Jetport Temp Parking Lot
TYPE III 24-HOUR RAINFALL= 5.08 IN

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SUBCATCHMENT 1 Pre Development Drainage Area

PEAK= 38.53 CFS @ 12.04 HRS, VOLUME= 2.84 AF

SCS TR-20 METHOD

TYPE III 24-HOUR

RAINFALL= 5.08 IN

SPAN= 10-20 HRS, dt=.1 HRS

ACRES

.12

93

Impervius, D Soils

Impervius, gravel, D Soils

Brush, with grass mix, D soils

5.25

77

13.79

77

SHALLOW CONCENTRATED/UPLAND FLOW Pre Development Drainage Area

Short Grass Pasture Kv=7 L=750' s=.088 1/1 V=2.08 fps

SUBCATCHMENT 1 RUNOFF
Pre Development Drainage Area

AREA= 13.79 AC

Tc= 6 MIN

CN= 77

SCS TR-20 METHOD

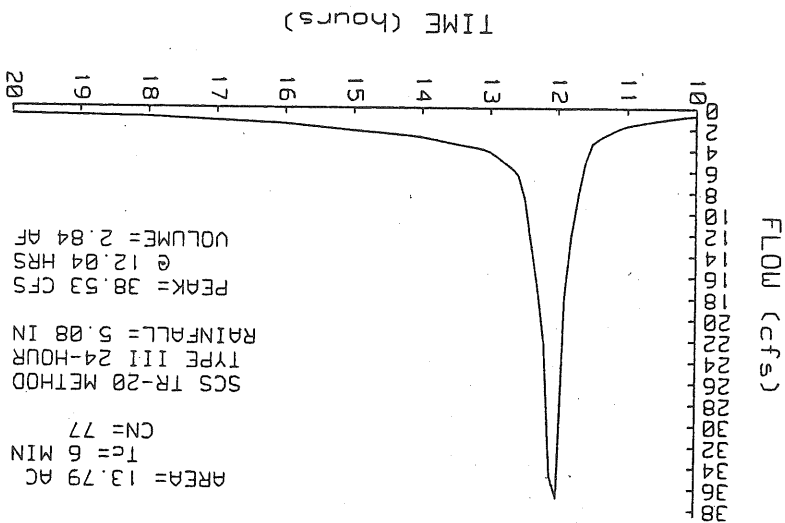
TYPE III 24-HOUR

RAINFALL= 5.08 IN

PEAK= 38.53 CFS

@ 12.04 HRS

VOLUME= 2.84 AF



Tc (min)

6.0

Comment

Future Development Calculations

ATTACHMENT C

Data for 8110016 Jetport Temp Parking Lot

TYPE III 24-HOUR RAINFALL= 2.50 IN

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SUBCATCHMENT 2 Post Development Drainage Area

PEAK= 13.41 CFS @ 12.11 HRS, VOLUME= 1.06 AF

ACRES CN

93	Imperious	1.12
91	Gravel	.22
93	Imperious, parking lot, D soils	3.45
77	Brush, with grass mix, D soils	2.66
77	Wetlands (brush cover), D soils	5.25
78	vegetated swale/slopes, D soils	2.09
82		13.79

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 2.50 IN = 1.75 IN

SPAN= 10-20 HRS, dt=.1 HRS

Method Comment Tc (min)

SHALLOW CONCENTRATED/UPLAND FLOW	Segment 1 - Parking Lot	1.3
CHANNEL FLOW	Segment 2 - Swale adjacent to paved	5.2
SHALLOW CONCENTRATED/UPLAND FLOW	Segment 3 - Remaining Area	3.2

Short Grass Pasture Kv=7 L=375' s=.08 '/' V=1.98 fps

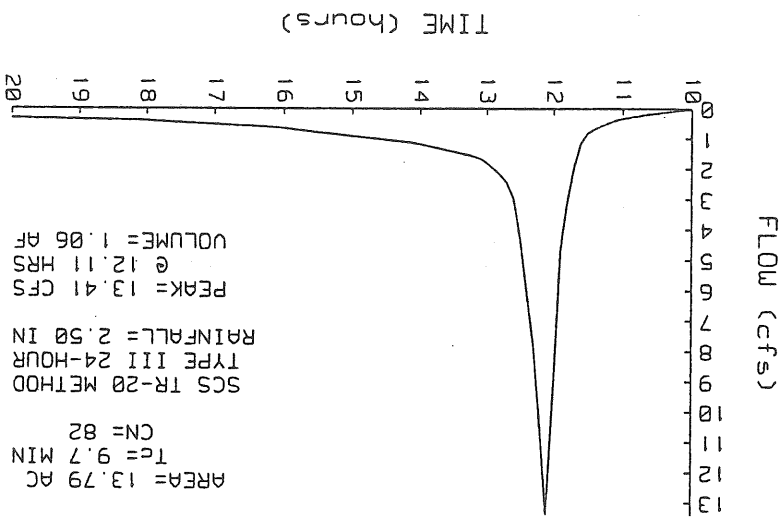
Total Length= 1275 ft Total Tc= 9.7

SUBCATCHMENT 2 RUNOFF

Post Development Drainage Area

AREA= 13.79 AC
Tc= 9.7 MIN
CN= 82

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 2.50 IN
PEAK= 13.41 CFS
@ 12.11 HRS
VOLUME= 1.06 AF



Post Development 2 Year

Data for 8110016 Jetport Temp Parking Lot

TYPE III 24-HOUR RAINFALL= 3.18 IN

Prepared by DUFRESNE-HENRY

HydroCAD 5.11 001123 (c) 1986-1999 Applied Microcomputer Systems

SUBCATCHMENT 2 Post Development Drainage Area

PEAK= 20.75 CFS @ 12.10 HRS, VOLUME= 1.61 AF

SCS TR-20 METHOD CN

ACRES

Method	Comment	Tc (min)
ImperVIOUS		93
Gravel		91
ImperVIOUS, parking lot, D soils		93
Brush, with grass mix, D soils		77
Wetlands (brush cover), D soils		77
vegetated swale/slopes, D soils		78
		13.79
		82

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.18 IN = 2 YEAR
SPAN= 10-20 HRS, dt=.1 HRS

Method Comment Tc (min)

SHALLOW CONCENTRATED/UPLAND FLOW Segment 1 - Parking Lot 1.3

Paved Kv=20.3282 L=300' s=.035 '/' V=3.8 fps

CHANNEL FLOW Segment 2 - Swale adjacent to pa 5.2

a=12 sq-ft Pw=41.2' r=.291'

s=.005 '/' n=.024 V=1.92 fps L=600' Capacity=23.1 cfs

SHALLOW CONCENTRATED/UPLAND FLOW Segment 3 - Remaining Area 3.2

Short Grass Pasture Kv=7 L=375' s=.08 '/' V=1.98 fps

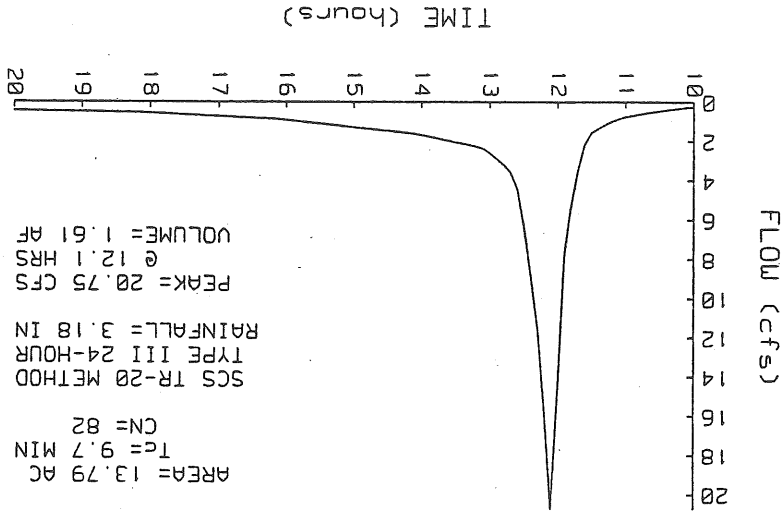
Total Length= 1275 ft Total Tc= 9.7

SUBCATCHMENT 2 RUNOFF

Post Development Drainage Area

AREA= 13.79 AC
Tc= 9.7 MIN
CN= 82

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.18 IN
PEAK= 20.75 CFS
@ 12.1 HRS
VOLUME= 1.61 AF



POST DEVELOPMENT = 10 YEAR

Data for 8110016 Jetport Temp Parking Lot
 TYPE III 24-HOUR RAINFALL = 4.37 IN

Prepared by DUFFRESNE-HENRY
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SUBCATCHMENT 2
 Post Development Drainage Area

PEAK = 34.46 CFS @ 12.10 HRS, VOLUME = 2.65 AF

ACRES	CN
.12	93
.22	91
3.45	93
2.66	77
5.25	77
2.09	78
13.79	82

Impervius
 Gravel
 Impervius, parking lot, D soils
 Brush, with grass mix, D soils
 Wetlands (brush cover), D soils
 vegetated swale/slopes, D soils

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL = 4.37 IN = 10 YEAR
 SPAN = 10-20 HRS, dt = .1 HRS

Method	Comment	Tc (min)
--------	---------	----------

SHALLOW CONCENTRATED/UPLAND FLOW Segment 1 - Parking Lot
 Kv=20.3282 L=300' s=.035 '/' V=3.8 fps
 Tc = 1.3

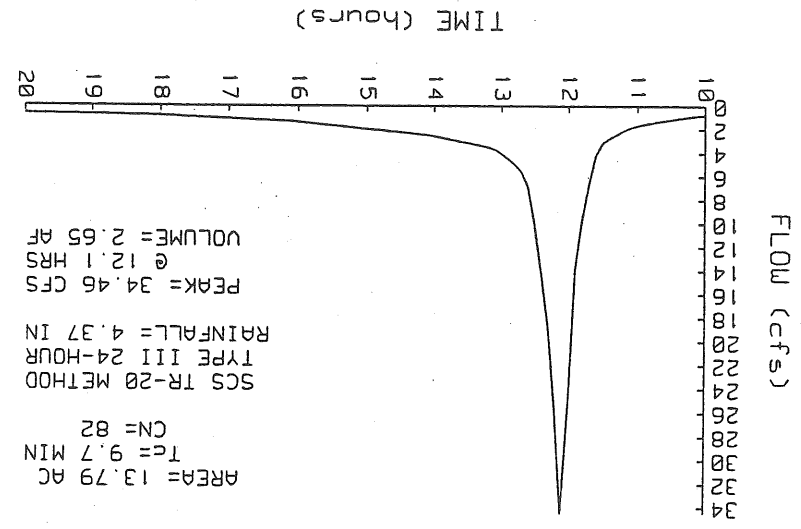
CHANNEL FLOW Segment 2 - Swale adjacent to pa
 a=12 sq-ft Pw=41.2' r=.291'
 Tc = 5.2

SHALLOW CONCENTRATED/UPLAND FLOW Segment 3 - Remaining Area
 s=.005 '/' n=.024 V=1.92 fps L=600' Capacity=23.1 cfs
 Tc = 3.2

Short Grass Pasture Kv=7 L=375' s=.08 '/' V=1.98 fps
 Total Length = 1275 ft Total Tc = 9.7

SUBCATCHMENT 2 RUNOFF
 Post Development Drainage Area

AREA = 13.79 AC
 Tc = 9.7 MIN
 CN = 82
 SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL = 4.37 IN
 PEAK = 34.46 CFS
 @ 12.1 HRS
 VOLUME = 2.65 AF



Post Development = 25 Year

Data for 8110016 Jetport Temp Parking Lot

TYPE III 24-HOUR RAINFALL= 5.08 IN

Prepared by DUFFRSNE-HENRY

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SUBCATCHMENT 2 Post Development Drainage Area

PEAK= 42.90 CFS @ 12.10 HRS, VOLUME= 3.29 AF

SCS TR-20 METHOD

TYPE III 24-HOUR

RAINFALL= 5.08 IN = 25 Year

SPAN= 10-20 HRS, dt=.1 HRS

ACRES

CN

.12

.22

91

93

3.45

93

2.66

77

77

5.25

77

2.09

78

13.79

82

Impervious

Gravel

Impervious, parking lot, D soils

Brush, with grass mix, D soils

Wetlands (brush cover), D soils

vegetated swale/slopes, D soils

Method

Comment

Tc (min)

SHALLOW CONCENTRATED/UPLAND FLOW Segment 1 - Parking Lot

Paved Kv=20.3282 L=300' s=.035' V=3.8 fps

CHANNEL FLOW Segment 2 - Swale adjacent to pa

a=12 sq-ft Pw=41.2' r=.291'

s=.005' n=.024 V=1.92 fps L=600' Capacity=23.1 cfs

SHALLOW CONCENTRATED/UPLAND FLOW Segment 3 - Remaining Area

Short Grass Pasture Kv=7 L=375' s=.08' V=1.98 fps

Total Length= 1275 ft

Total Tc= 9.7

SUBCATCHMENT 2 RUNOFF

Post Development Drainage Area

AREA= 13.79 AC

Tc= 9.7 MIN

CN= 82

SCS TR-20 METHOD

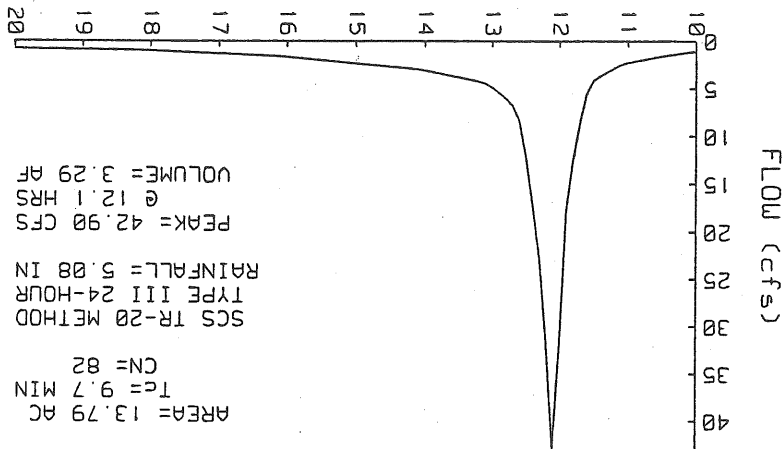
TYPE III 24-HOUR

RAINFALL= 5.08 IN

PEAK= 42.90 CFS

@ 12.1 HRS

VOLUME= 3.29 AF



Sliding Scale Figure

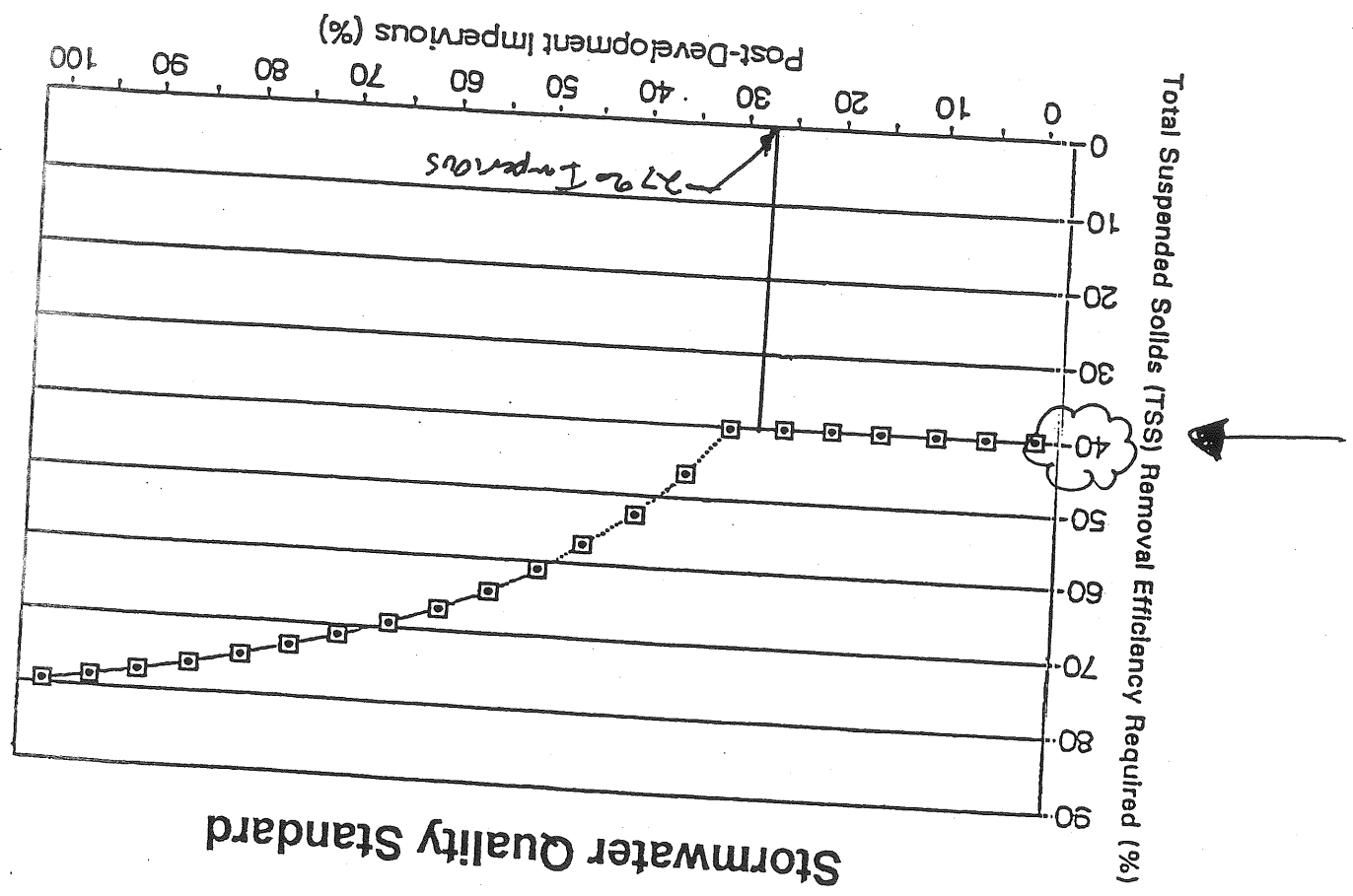
ATTACHMENT D

Alternatively, the criterion of reducing post development TSS loadings to predevelopment levels may be applied. This criterion is not intended to be used as an alternative to achieving adequate control where existing high sediment loadings are the result of poor management of "developed" sites such as farmlands where appropriate erosion control components of a USDA conservation management plan are not being used, or sites where land disturbed by previous development (e.g., gravel pits or log yards) was not permanently stabilized (EPA, 1993.)

For the purposes of this manual, *impervious surface* is fully defined as a hard surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development, and/or a hard surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious areas include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam, or other surfaces which similarly impede the natural infiltration of stormwater.

This BMP manual is not regulatory. However, the practices described in this manual are designed to ensure that stormwater runoff from a development site not adversely affect the physical, biological, and chemical properties of the receiving water or of associated aquatic habitats. As such, use of this manual may assist compliance with applicable statutes, regulations, and ordinances. Other equivalent techniques of stormwater treatment, of course, will also assist with compliance.

Figure 5.1.



Stormwater Quality Unit Sizing

ATTACHMENT E



May 1, 2001

Valerie Giguere
DuFresne-Henry Inc.
22 Free Street
Portland, ME 04101-3900

Re: Jetport Temporary Parking Lot, Portland, Maine

Dear Valerie:

I am writing to confirm that I have reviewed the Vortechics™ Stormwater Treatment System design for the above referenced project and found that it is in accordance with the current MB DEP guidelines for 50% Total Suspended Solids (TSS) credit.

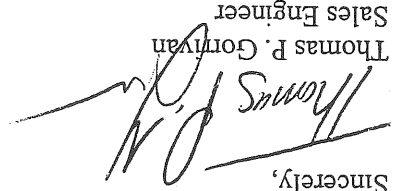
As stated in the attached MB DEP publication entitled "Information on Use of Manufactured Stormwater Treatment Systems for Meeting Stormwater Quality Standards under Maine's Stormwater Management Law and Site Location of Development", a "50% TSS removal rate will apply to systems that are sized, according to manufacturer's test data (approved by the Department), to provide for 80% removal of U.S. Silica grade F-95 foundry sand (as supplied by the Department) at a flow equivalent to the peak flow from a one-year 24-hour storm."

Based on the ongoing MB DEP laboratory testing of the Vortechics System, it has been determined that the Vortechics System provides an 80% removal of U.S. Silica grade F-95 foundry sand at an operating rate of approximately 50 gallons per minute per square foot of grit chamber surface area (gpm/sqft). Therefore, in order to meet the current MB DEP guidelines, the appropriate Vortechics System must not operate at greater than 50 gpm/sqft during the calculated one-year 24-hour storm of 8.18 CFS.

As shown on the attached calculations, the proposed Vortechics Model 11000 will operate at 46.7 gpm/sqft during the one-year 24-hour storm and therefore is sized appropriately for the 50% TSS credit rating from the MB DEP.

Please do not hesitate to contact this office if you have any further questions regarding this matter. We look forward to working with you in the upcoming months to coordinate construction efforts.

Sincerely,


Thomas P. Gottivan
Sales Engineer



Jetport Temporary Parking Lot - Portland, Maine

Vortechs Stormwater Treatment System Design Confirmation and Sizing Calculations

Site and System Specifics

$Q_{1\text{-year}} = 8.18 \text{ cfs}$
 Specified System -
 Vortechs Model 11000
 Treatment Capacity = 17.5 cfs
 Grit Chamber Diameter = 10 ft

Vortechs System Swirl Chamber Surface Area Calculation

$$\text{Surface Area} = (\pi)r^2 = (3.14)(5 \text{ ft})^2 = 78.5 \text{ sqft}$$

$Q_{1\text{-year}}$ Operating Rate Calculation

$$\begin{aligned}
 Q_{1\text{-year}} \text{ Operating Rate} &= Q_{1\text{-year}} / \text{Grit Chamber Surface Area} \\
 &= (8.18 \text{ cfs} * 450 \text{ gpm/cfs}) / 78.5 \text{ sqft} \\
 &= 46.89 \text{ gpm/sqft}
 \end{aligned}$$

50% ME DEP Total Suspended Solids Removal Efficiency Verification

In order to meet the current ME DEP guidelines, the appropriate Vortechs System must operate at approximately 50 gpm/sqft during the calculated one-year 24-hour storm. Since the calculated 1-Year Storm Operating Rate of 46.89 gpm/sqft is in the range of accepted operating rates, the Vortechs Model 11000 is sized appropriately for the 50% TSS Credit rating by the ME DEP.

Maine Department of Environmental Protection

Laboratory Testing Protocol for Manufactured Stormwater Treatment Systems

This document provides protocol for the laboratory testing of manufactured stormwater treatment systems to define an efficiency rating for the purpose of meeting stormwater quality standards under Maine's Stormwater Management Law and Site Location of Development Law. As of October 1, 2000, and until DEP approves field testing of a manufactured system, all flow-through systems that rely on the settling of sediments will be assigned a net removal rate that factors in the expected drop in efficiency for removal of small particle sizes.

Based on data collected in accordance with the following protocol, a 50% TSS removal rate will apply to systems that are sized to provide for 80% removal of U.S. Silica grade F-95 foundry sand at a flow rate equivalent to the peak flow from a one-year 24-hour storm. A 60% TSS removal rate will apply to systems that are sized to provide for 80% removal of U.S. Silica grade OK-110 sand for the same flow rate. The Department will provide these sands upon request. The materials will have been tested for consistency in particle sizing and the results will be provided with the sand.

Combined flow-through manufactured systems utilizing a sediment settling device in series with a filtration device will receive a rating of 65% provided the filter is sized to provide for at least 80% removal of particles that are 75 microns (all particles must pass the U.S. Standard #200 sieve screen).

Laboratory Testing Protocol

To maintain consistency in testing the different proprietary systems, the following protocol will be followed. Several iterations of the test sequence will need to be performed to identify the loading rate that will provide the required removal.

1. The system should be brought to the flow rate being tested. Flow measurement should be verified by an alternative measurement technique (i.e. volumetric stopwatch/volume change). When the flow rate is stabilized, the test sand should be introduced into the inflow at a rate that results in an inflow TSS concentration between 100 and 300 mg/l. TSS concentration in the inflow should be maintained at as constant a level as possible throughout the test).
2. Once the flow rate is stabilized and sand introduction has begun the system should be allowed to come into equilibrium. After a minimum of 5 unit volumes has passed through the system, sampling may commence.
3. A minimum of 5 paired samples (inflow/outflow) should be collected at regular intervals from the inflow and the outflow in a way that insures that all suspended sediment is sampled. The method of collection at the inflow and the outflow must be

identical. Outflow samples should be staggered from inflow samples by the system's residence time at the test flow. Samples should be a minimum of 500 ml and should be consistently similar in volume.

4. Samples should be analyzed for Total Suspended Solids using the method described in the most current edition of Standard Methods for the Examination of Water and Wastewater. For a test to be valid, little variation should be found in the concentration of inflow samples and in the removal efficiency indicated by each pair of samples.
5. The average removal efficiency will be calculated as follows:

$$\frac{\text{mean inflow TSS concentration} - \text{mean outflow TSS concentration}}{\text{mean inflow TSS concentration}}$$

The testing results must be submitted to the Department and a representative for the Maine DEP will oversee the performance of a full test at the loading rate indicated by the submitted test results to assure quality and repeatability. Samples collected at this confirmation test will be analyzed by a laboratory of the Department's choosing.

FORMER WATERSHED QUALITY UNIT = 1 YEAR

Data for 8110016 Jetport Temp Parking Lot
 TYPE III 24-HOUR RAINFALL= 2.50 IN

Prepared by DUFRESNE-HENRY

HydroCAD 5.11 001123 (c) 1986-1999 Applied Microcomputer Systems

SUBCATCHMENT 3 Area contributing to Vortech's unit

PEAK= 8.18 CFS @ 12.02 HRS, VOLUME= .56 AF

ACRES

CN

3.45

93

Parking Lot

2.09

78

vegetated swale, D soils

5.54

87

SCS TR-20 METHOD

TYPE III 24-HOUR

RAINFALL= 2.50 IN = 1 YEAR

SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	Parking Lot	2.4
CHANNEL FLOW	Segment ID:	2.1

Paved K_v=20.3282 L=548' s=.035 '/' V=3.8 fps

a=12 sq-ft Pw=41.2' r=.291'

s=.025 '/' n=.024 V=4.3 fps L=548' Capacity=51.6 cfs

Total Length= 1096 ft Total Tc= 4.5

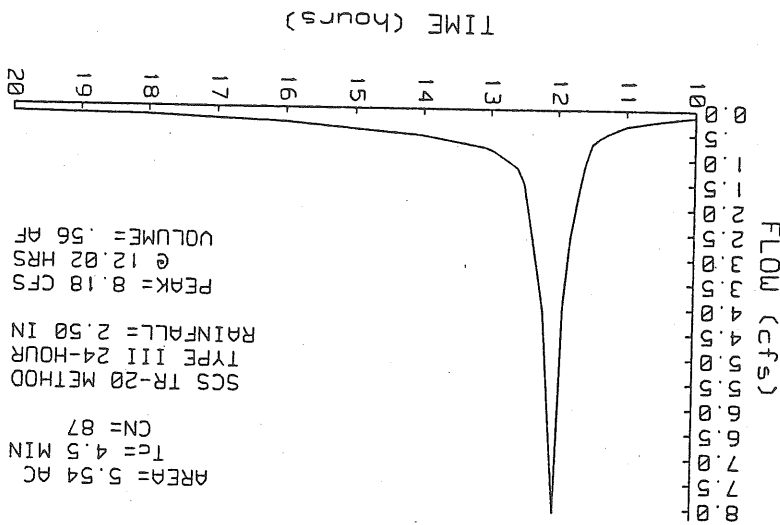
SUBCATCHMENT 3 RUNOFF

Area contributing to Vortech's unit

AREA= 5.54 AC
 Tc= 4.5 MIN
 CN= 87

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 2.50 IN

PEAK= 8.18 CFS
 @ 12.02 HRS
 VOLUME= .56 AF



STORMWATER QUALITY UNIT = 2 year

Data for 8110016 Jetport Temp Parking Lot
TYPE III 24-HOUR RAINFALL= 3.18 IN

Prepared by DUFRESNE-HENRY

HydroCAD 5.11 001123 (c) 1986-1999 Applied Microcomputer Systems

1 May 01

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SUBCATCHMENT 3

Area contributing to Vortech's unit

PEAK= 11.84 CFS @ 12.02 HRS, VOLUME= .80 AF

ACRES

CN

3.45	93
2.09	78
5.54	87

Parking Lot
vegetated swale, D soils

SCS TR-20 METHOD
TYPE III 24-HOUR
RAINFALL= 3.18 IN

SPAN= 10-20 HRS, dt=.1 HRS

Method

Comment

Tc (min)

SHALLOW CONCENTRATED/UPLAND FLOW Parking Lot

Paved Kv=20.3282 L=548' s=.035 1/1 V=3.8 fps

CHANNEL FLOW

a=12 sq-ft pw=41.2' r=.291'

s=.025 1/1 n=.024 V=4.3 fps L=548' Capacity=51.6 cfs

2.1

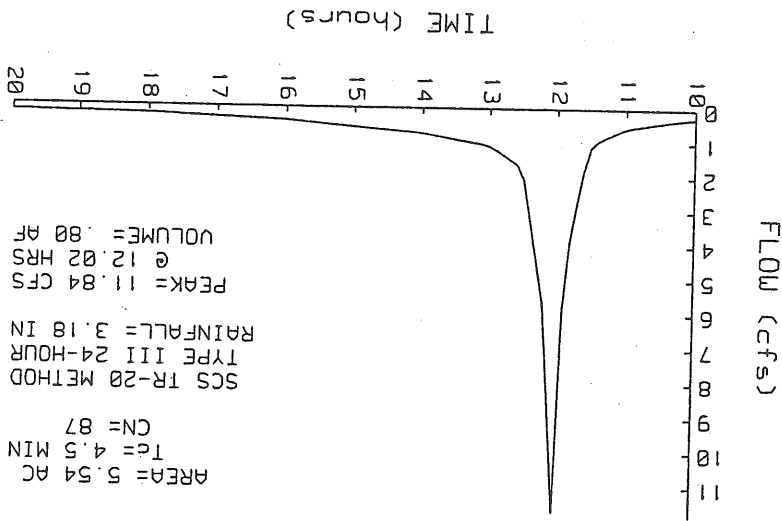
2.4

Segment ID:

Total Length= 1096 ft Total Tc= 4.5

SUBCATCHMENT 3 RUNOFF

Area contributing to Vortech's unit



STORMWATER QUALITY UNIT = 10 YEAR

Data for 8110016 Jetport Temp Parking Lot
 TYPE III 24-HOUR RAINFALL= 4.37 IN

Prepared by DUFRESNE-HENRY

HydroCAD 5.11 001123 (c) 1986-1999 Applied Microcomputer Systems

SUBCATCHMENT 3 Area contributing to Vortech's unit

PEAK= 18.43 CFS @ 12.01 HRS, VOLUME= 1.23 AF

ACRES	CN
3.45	93
2.09	78
5.54	87

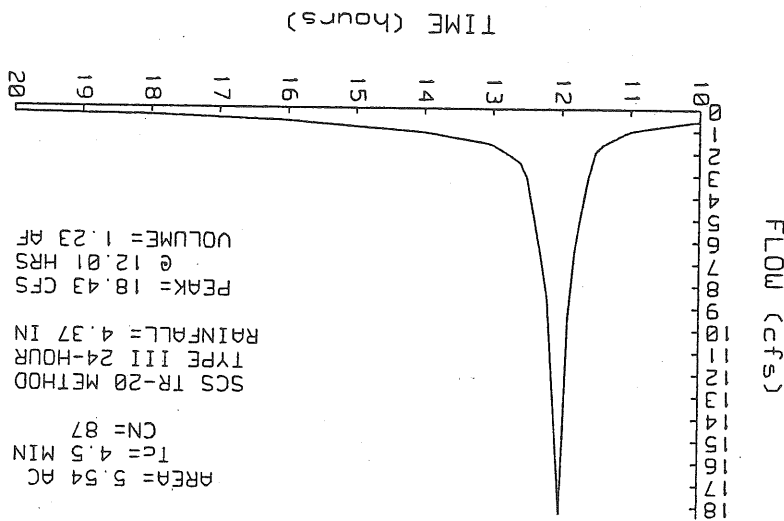
SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 4.37 IN = 10 YEAR
 vegetated swale, D soils
 SPAN= 10-20 HRS, dt=.1 HRS

Method Comment Tc (min)

SHALLOW CONCENTRATED/UPLAND FLOW Parking Lot 2.4
 Paved Kw=20.3282 L=548' s=.035 '/' V=3.8 fps
 CHANNEL FLOW Segment ID: 2.1
 a=12 sq-ft Pw=41.2' r=.291'
 s=.025 '/' n=.024 V=4.3 fps L=548' Capacity=51.6 cfs

Total Length= 1096 ft Total Tc= 4.5

SUBCATCHMENT 3 RUNOFF Area contributing to Vortech's unit



STORMWATER QUALITY = 25 YEAR

Data for 8110016 Jetport Temp Parking Lot
 TYPE III 24-HOUR RAINFALL= 5.08 IN

Prepared by DUFFRESNE-HENRY

HydroCAD 5.11 001123 (c) 1986-1999 Applied Microcomputer Systems

SUBCATCHMENT 3
 Area contributing to Vortech's unit

PEAK= 22.39 CFS @ 12.01 HRS, VOLUME= 1.50 AF

ACRES	CN
3.45	93
2.09	78
5.54	87

SCS TR-20 METHOD
 TYPE III 24-HOUR
 RAINFALL= 5.08 IN = 25 YEAR
 SPAN= 10-20 HRS, dt=.1 HRS

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	Parking Lot	2.4
CHANNEL FLOW	Segment ID:	2.1

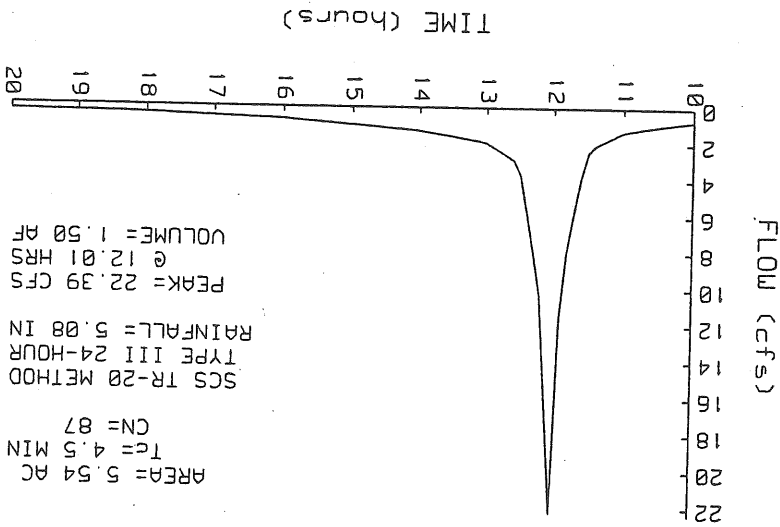
Paved KV=20.3282 L=548' S=.035 '/' V=3.8 fps

a=12 sq-ft Pw=41.2' r=.291'

s=.025 '/' n=.024 V=4.3 fps L=548' Capacity=51.6 cfs

Total Length= 1096 ft Total Tc= 4.5

SUBCATCHMENT 3 RUNOFF
 Area contributing to Vortech's unit



MAINTENANCE

The Vortechs System requires minimal routine maintenance. However, it is important that the system be inspected at regular intervals and cleaned when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit, e.g., heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping will slow accumulation.

Inspection

Inspection is the key to effective maintenance and it is easily performed. In the first year of operation, frequent inspections of the accumulated sediment volume within the aluminum grit chamber are necessary to establish an appropriate maintenance plan. Vortechs recommends seasonal inspections during the first year. Inspections should be performed more often in the winter months in climates where sanding operations may lead to rapid accumulations, or in equipment washdown areas. After the first year, the inspection schedule should be reviewed and modified according to experience. It is very useful to keep a record of each inspection. A simple form for doing so is provided.

The Vortechs System only needs to be cleaned when inspection reveals that it is nearly full; specifically, when sediment depth has accumulated to within six inches of the dry-weather water level. This determination can be made by taking 2 measurements with a stadia rod or similar measuring device: one measurement is the distance from the manhole opening to the top of the sediment pile and the other is the distance from the manhole opening to the water surface. If the difference between the two measurements is less than six inches the system should be cleaned out. Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Finer, silty particles at the top of the pile typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile.

In Vortechs installations where the risk of large petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, an oil or gasoline spill should be cleaned out immediately. Oil or gas that accumulates on a more routine basis should be removed when an appreciable layer has been captured.

Cleaning

Cleanout of the Vortechs System with a vacuum truck is generally the most effective and convenient method. Cleanout should not occur within 6 hours of a rain event to allow the entire collection system to drain down. Properly maintained Vortechs Systems will only require evacuation of the grit chamber portion of the system, in which case only the manhole cover nearest to the system inlet need be opened to remove water and contaminants. However, all chambers should be checked to ensure the integrity of the system. In installations where a "clamshell" is being utilized for solids removal, prior to removing the grit, absorbent pads or

VortechsTM STORMWATER TREATMENT SYSTEM

pillows can be placed in the oil chamber to remove floating contaminants. Once this is done, sediment may then be easily removed with the clamshell.

In some cases, it may be necessary to pump out all chambers. An important maintenance feature built into Vortechs Systems is that floatables remain trapped after a cleaning. A pocket of water between the grit chamber and the outlet panel keeps the bottom of the baffle submerged, so that all floatables remain trapped when the system begins to fill up again. Therefore, in the event of cleaning other chambers it is imperative that the grit chamber be drained first. Manhole covers should be securely seated following cleaning activities, to ensure that surface runoff does not leak into the unit from above.

Inspection & Maintenance Log

Model:		Location:			
Date	Water Depth to Sediment ¹	Floatable Layer Thickness ² (approx)	Maintenance Performed	Maintenance Personnel	Comments

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement is the distance from the manhole opening to the top of the sediment pile and the other is the distance from the manhole opening to the water surface. If the difference between the two measurements is less than six inches the system should be cleaned out.

2. The system should be cleaned out if the floating layer of trapped debris is 3-6" in depth.

Inspection & Maintenance Log

Date		Water Depth to Sediment ¹	Floatable Layer Thickness ² (approx)	Maintenance Performed	Maintenance Personnel	Comments
4/10/96	30"	0"	N/A	B. Johnson	Installed	
8/15/96	26"	sheen	None	S. Riley		
11/15/96	22"	sheen	None	B. Johnson		
1/15/97	16"	sheen	None	B. Johnson		
2/15/97	7"	1"	Clean-out scheduled	S. Riley	3 snowstorm	
2/18/97	30"	0"	System cleaned w/ Vector truck	S. Riley	Cleaned	
3/15/97	28"	Sheen		S. Riley	swept parking lot	
4/15/97	27"	0.5"	Placed oil-absorbent material in system	B. Johnson		
5/16/97	23"	0"	Replaced oil-absorbent material w/new	B. Johnson		

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement is the distance from the manhole opening to the top of the sediment pile and the other is the distance from the manhole opening to the water surface. If the difference between the two measurements is less than six inches the system should be cleaned out.
2. The system should be cleaned out if the floating layer of trapped debris is 3-6" in depth.

Model: 5000
Location: Anywhere

Miscellaneous Calculations

ATTACHMENT F

DUFRESNE-HENRY, INC.

PREPARED BY YN6

CALCULATIONS CHECKED BY _____

ASSUMPTIONS / METHODS CHECKED BY _____

DATE _____

SUBJECT PORTLAND DETROIT TEMPORARY PARKING LOT

DATE 3/6/01

PROJECT NO. 8190016.01

SHEET NO. 1 OF 5

1. SIZE PIPE OUTLET PROTECTION

SIZE PIPE OUTLET PROTECTION FOR 50 YEAR STORM EVENT

QSD = 25.0 cfs (see attached sheet 2 of 5)

RIPRAP REQUIREMENTS (see attached sheet 3, 4, 5 of 5)

SUBCATCHMENT 3 Area contributing to Vortech's unit

PEAK= 25.04 CFS @ 12.01 HRS, VOLUME= 1.67 AF

ACRES	CN
3.40	93
1.92	78
5.32	88

SCS TR-20 METHOD
 TYPE III 24-HOUR RAINFALL= 5.65 IN = 50 YEAR
 SPAN= 10-20 HRS, dt=.1 HRS
 vegetated swale, D soils

Method	Comment	Tc (min)
SHALLOW CONCENTRATED/UPLAND FLOW	Parking Lot	2.4
CHANNEL FLOW	Paved KV=20.3282 L=548' s=.035 '/' V=3.8 fps a=12 sq-ft PW=41.2' r=.291' s=.025 '/' n=.024 V=4.3 fps L=548' Capacity=51.6 cfs	2.1

Total Length= 1096 ft Total Tc= 4.5

SUBCATCHMENT 3 RUNOFF

Area contributing to Vortech's unit

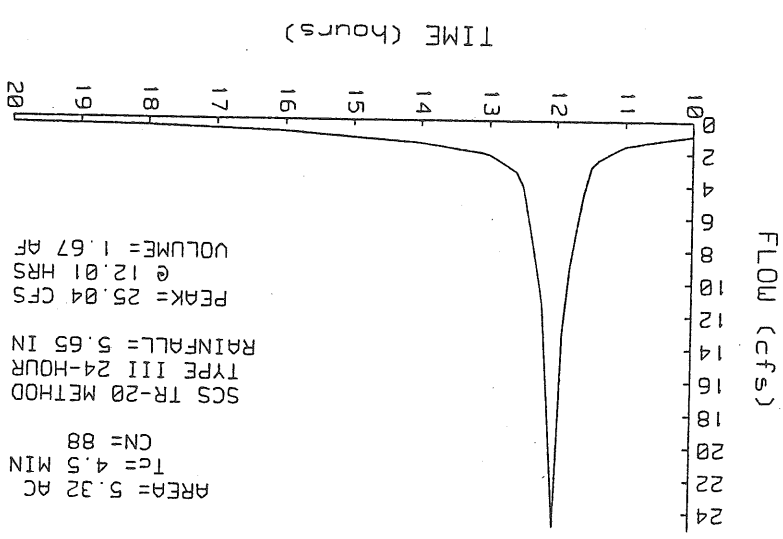
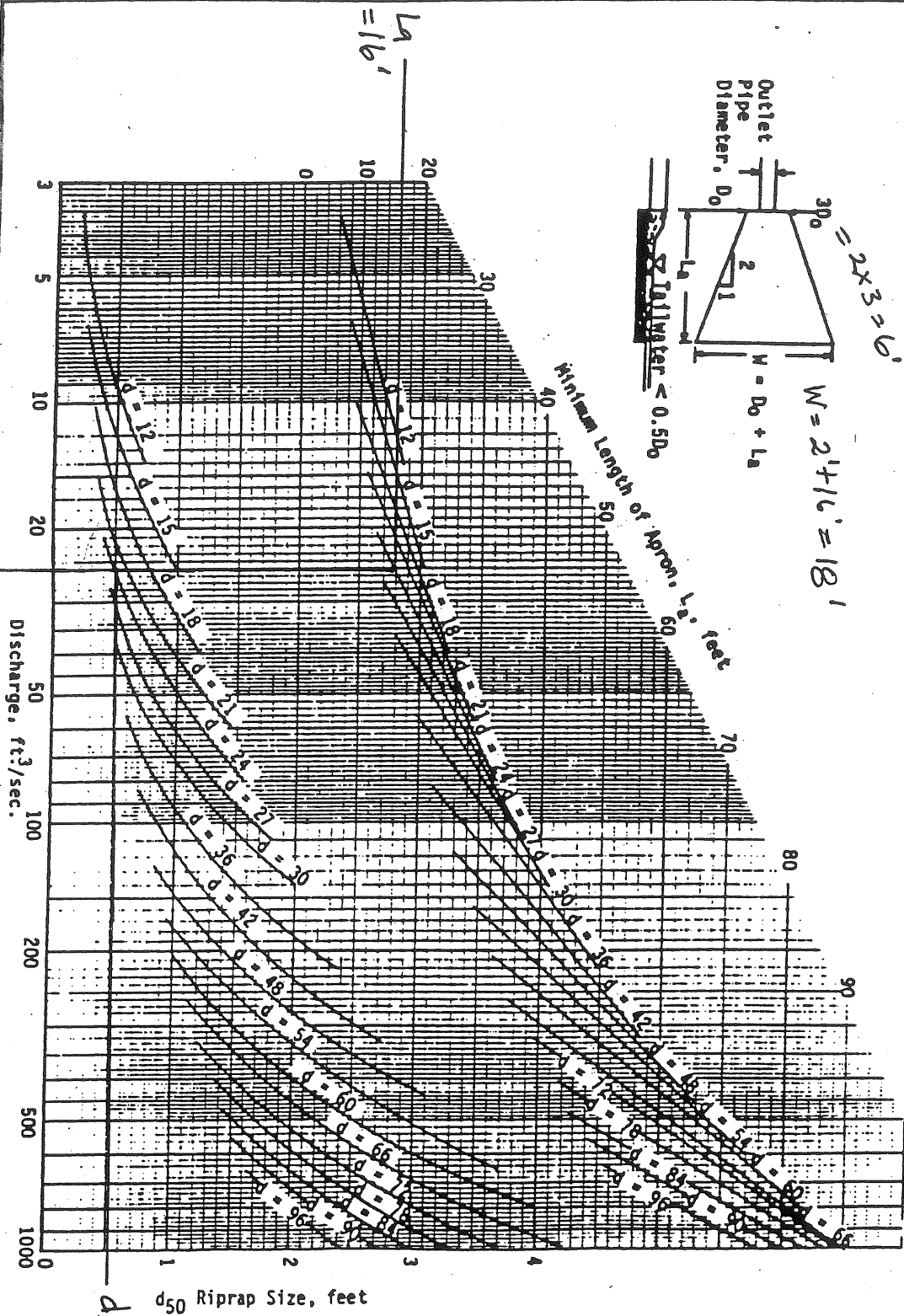
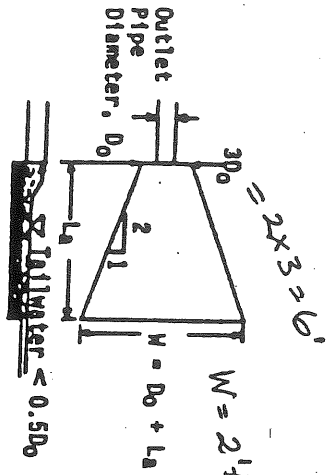


Figure 32.1 MINIMUM TAILWATER CONDITION (USDA Soil Conservation Service)

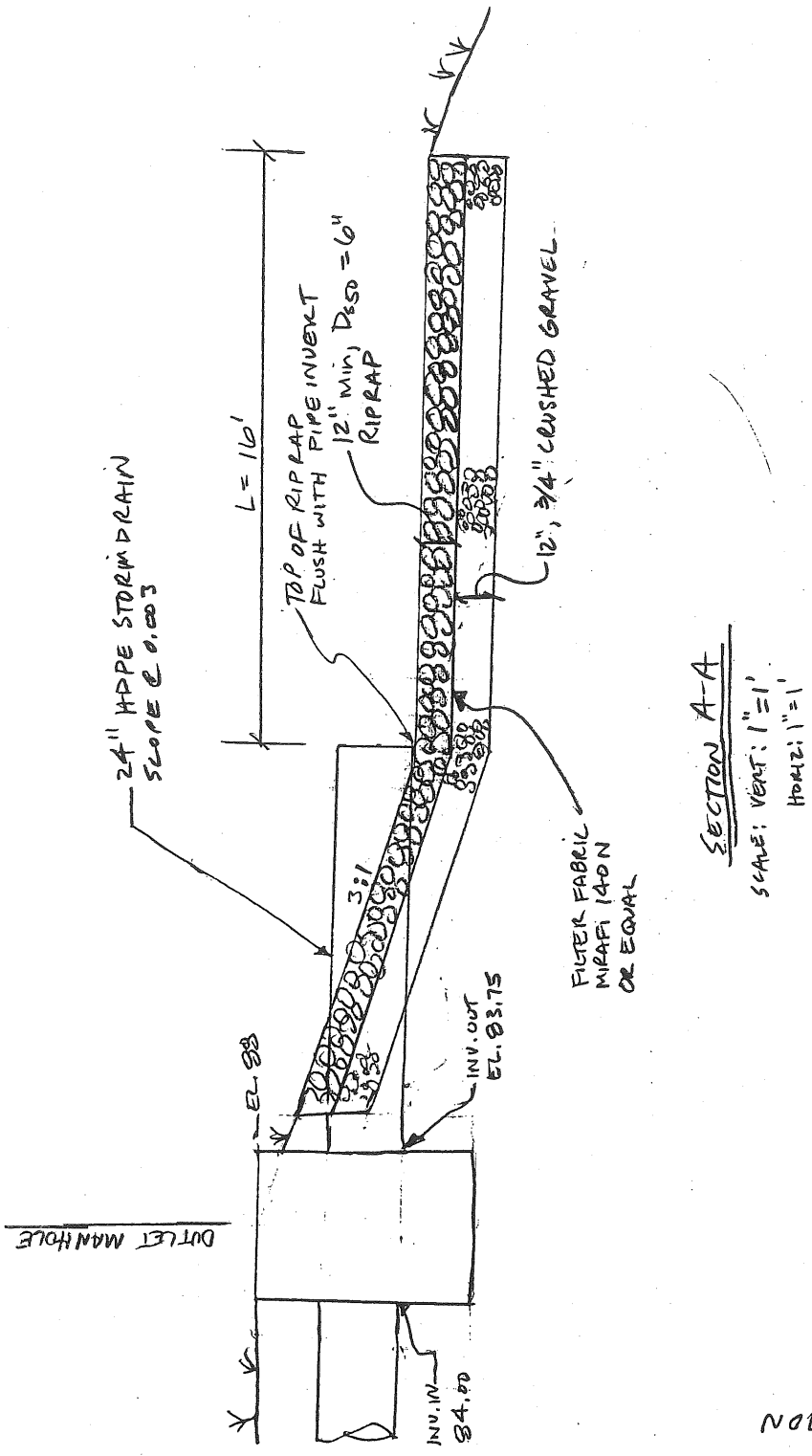
DESIGN OF OUTLET PROTECTION FROM A ROUND PIPE FLOWING FULL
 MINIMUM TAILWATER CONDITION ($T_m < 0.5$ DIAMETER)



25 cfs

DUFRESNE-HENRY, INC.
 PREPARED BY VNG
 DATE 3/6/01
 PROJECT NO. 8190216.05
 CALCULATIONS CHECKED BY _____
 DATE _____
 SHEET NO. 5 OF 5
 ASSUMPTIONS / METHODS CHECKED BY _____
 DATE _____
 SUBJECT PORTLAND STORM TEMPORARY PARKING LOT

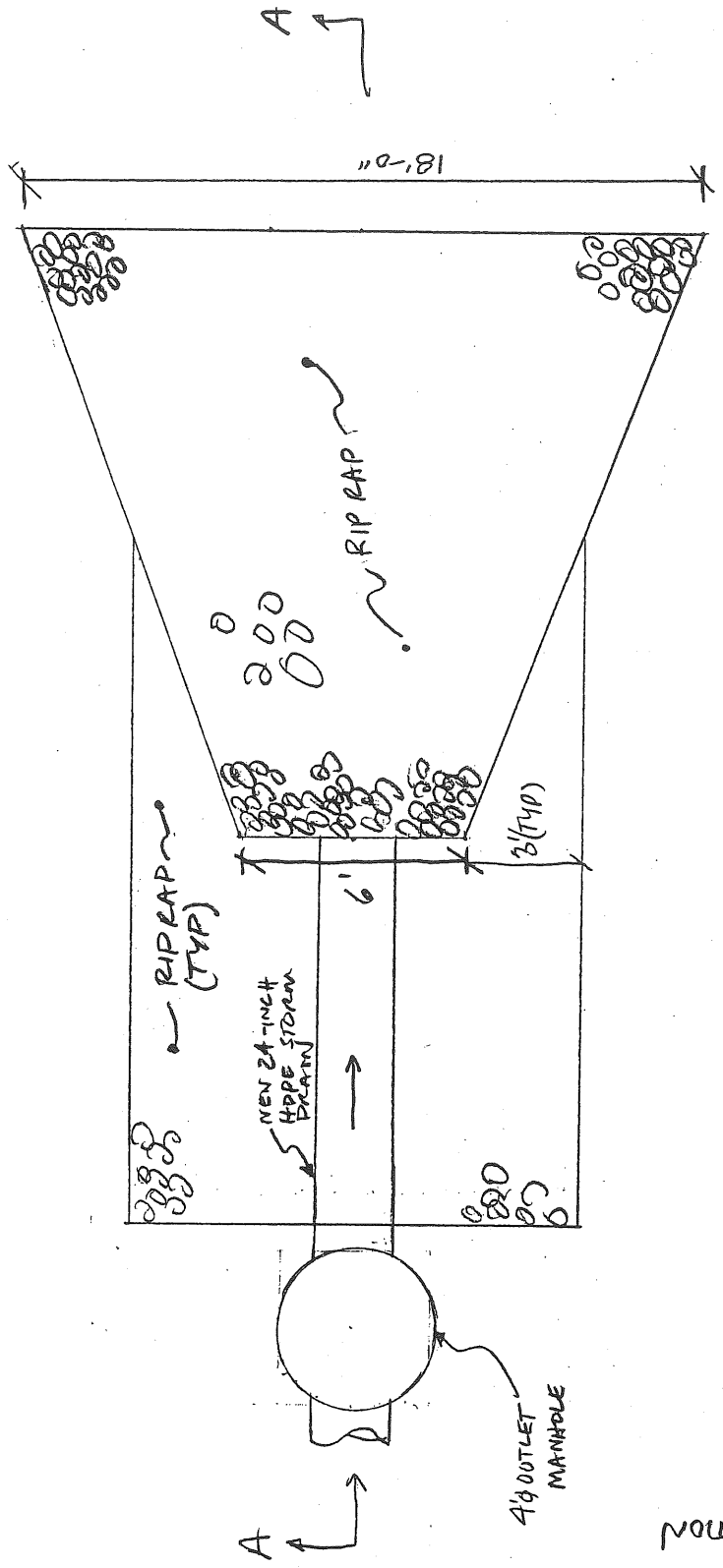
PIPE OUTLET PROTECTION



SECTION A-A
 SCALE: VERT: 1"=1'
 HORIZ: 1"=1'

DUFRESNE-HENRY, INC.
 PREPARED BY VN 6
 DATE 3/6/01
 PROJECT NO. 8190016.01
 CALCULATIONS CHECKED BY _____
 DATE _____
 ASSUMPTIONS / METHODS CHECKED BY _____
 DATE _____
 SHEET NO. 4 OF 5
 SUBJECT Portland Cement Temporary Parking Lot

PIPE OUTLET PROTECTION



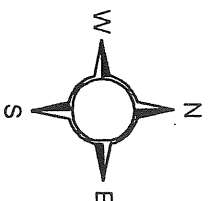
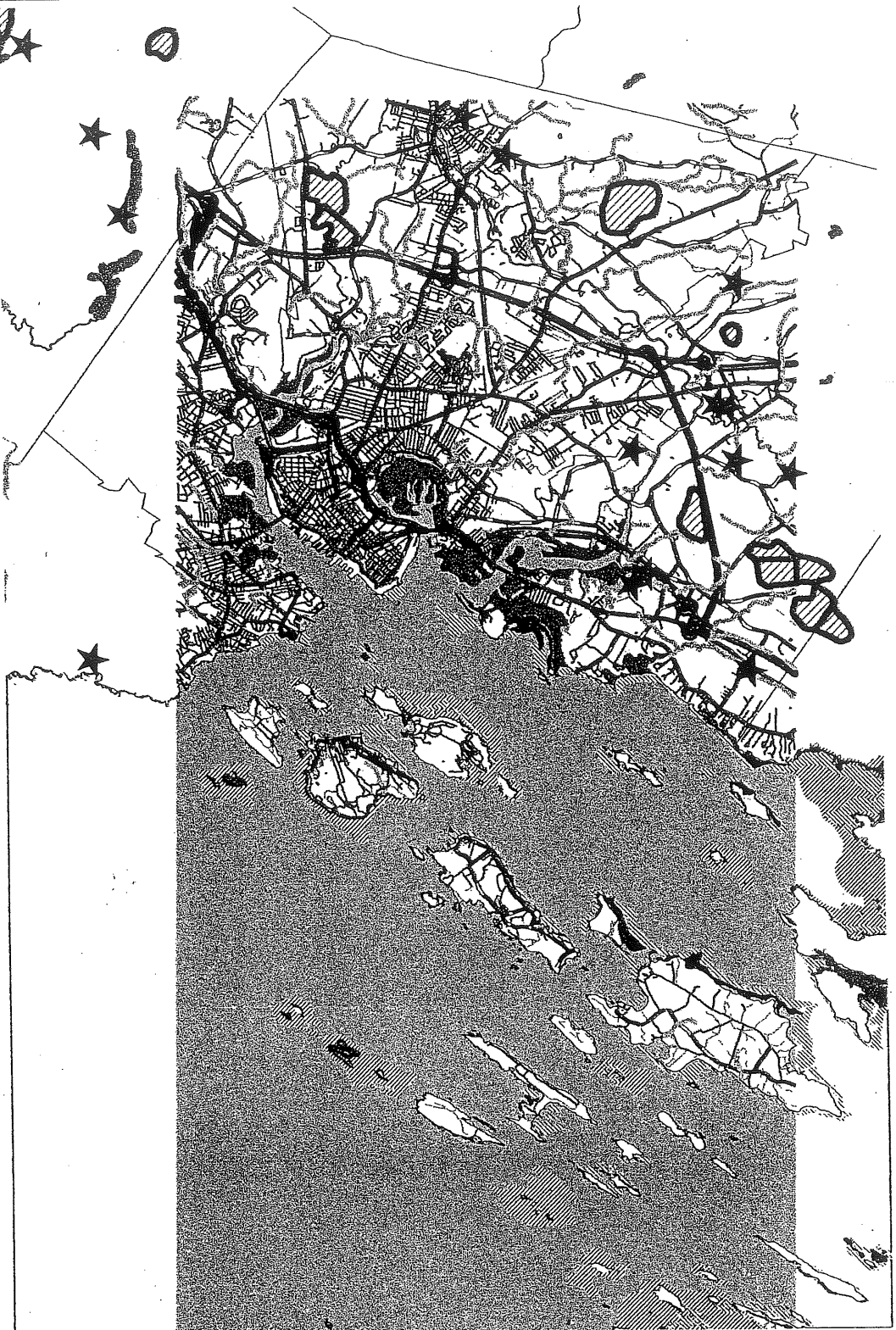
A ↗

A ↗

IF&W Report - Portland International Jetport - Improvements

Request for Information - Debbie L. Violette

01/18/2001



- ★ Animal Species (BCD)
- ▣ Deer Wintering Areas - (NRP)
- ▣ Inland Wading Bird and Waterfowl Habitats
- ▣ Coastal Wading Bird and Waterfowl Habitats
- ▣ Aquatic Bed
- ▣ Eelgrass
- ▣ Elder Habitat
- ▣ Emergent Wetland
- ▣ Mudflats
- ▣ Mussel Bar
- ▣ Reef (mollusc)
- ▣ Seaweed Community
- ▣ Rookery Island
- ▣ Lakes and Ponds
- ▣ Rivers
- ▣ Streams
- ▣ Roads
 - ▣ Dual Highway
 - ▣ Primary Highway
 - ▣ Secondary Highway
 - ▣ Light Duty Road
 - ▣ Unimproved Road
 - ▣ Trail
- ▣ Coast
- ▣ Town

Department of Inland Fisheries and Wildlife
 (207) 547-5318

Biologist Notes
 No identified wildlife habitats associated with these improvements.

Section 13

HISTORIC SITES

Historic Sites Review

As stated in Section 16, Historic Sites, of the Phase I Parking Garage City of Portland Major Site Plan Application (January 2001), the Maine Historic Preservation Commission found "no historic properties (historic, architectural or archaeological) affected by this project."

Attachments

Letter from Maine Historic Preservation Commission to Debbie Violette (Dufresne-Henry) dated January 5, 2001.

Rick Knowland
See Tech Supp re
Site loc.

AGREEMENT

BETWEEN THE
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AND THE
CITY OF PORTLAND

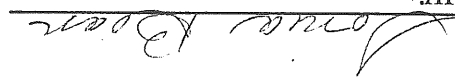
REGARDING
DELEGATED REVIEW AUTHORITY
FOR THE ISSUANCE OF TRAFFIC MOVEMENT PERMITS
IN ACCORDANCE WITH CHAPTER 305 RULES PURSUANT TO
THE PROVISIONS OF TITLE 23 M.R.S.A., SECTION 704-A

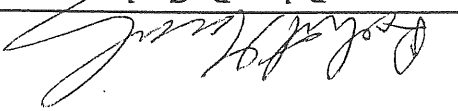
This AGREEMENT is entered into on this 18th day of October, 2000 by and between the STATE OF MAINE DEPARTMENT OF TRANSPORTATION (hereafter DEPARTMENT) and the CITY OF PORTLAND, a body corporate and politic located in the County of Cumberland (hereafter CITY) regarding delegated review authority to issue traffic movement permits for projects wholly located within the CITY's corporate limits generating 100 or 200 passenger car equivalents at peak hours in accordance with the DEPARTMENT's Chapter 305 Rules and Regulations Pertaining To Traffic Movement Permits (hereafter Chapter 305 Rules) pursuant to the provisions of Title 23 M.R.S.A., Section 704-A, subsection 4, as follows:

A. The DEPARTMENT hereby registers and delegates to the CITY the authority to review and issue traffic movement permits in accordance with its Chapter 305 Rules pursuant to the provisions of 23 M.R.S.A. §704-A, subsection 4, for all projects defined therein under subsection 1-C wholly located within the CITY's corporate limits generating 100 or 200 passenger car equivalents at peak hours, to the extent that the CITY complies with all of the conditions set forth therein. The DEPARTMENT agrees to provide technical assistance and reserves the right to review such projects as provided therein.

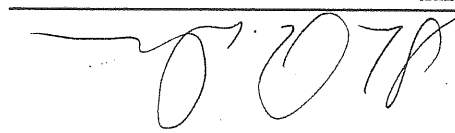
B. The CITY agrees to review projects and issue traffic movement permits as delegated under the terms of this Agreement in accordance with the DEPARTMENT's Chapter 305 Rules pursuant to the provisions of Title 23 M.R.S.A. §704-A as hereinbefore provided, and further agrees to make all necessary notifications to the DEPARTMENT as hereinafter provided:

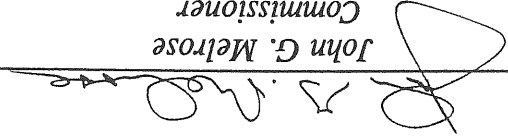
1. The CITY agrees to notify the DEPARTMENT upon receipt of any project application submitted for review which requires the issuance of a traffic movement permit as authorized under the terms of this Agreement. Such notification shall include a complete description of the project.

Witness


By: 
Robert B. Ganley
City Manager

CITY OF PORTLAND

Witness


By: 
John G. Melrose
Commissioner

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate effective on the day and date first above written.

2. The CITY agrees to submit to the DEPARTMENT within fourteen (14) days of final action, a copy of the application, a copy of the record of review and action taken and a copy of any traffic movement permit issued pursuant to such review.
3. The CITY agrees to submit to the DEPARTMENT within fourteen (14) days of adoption, copies of any change or amendment to any ordinance or regulation used for the review of projects subject to the issuance of traffic movement permits as hereinbefore provided. All such ordinances and regulations shall be consistent with the DEPARTMENT's Chapter 305 Rules. If any change or amendment to such ordinances and regulations causes the CITY to be in noncompliance with any of the provisions set forth herein, the DEPARTMENT shall immediately revoke all authorization to issue such permits and promptly resume all responsibility for the administration thereof upon written notice to the CITY.

**AN IMPORTANT NOTICE FROM THE
CITY OF PORTLAND PLANNING DIVISION
NOTICE OF INTENT TO FILE**

Please take notice that Gorham Savings Bank, whose address is 10 Wentworth Drive, Gorham, ME. 04038-1146, and whose phone number is (207) 839-3342, is intending to file a Traffic Movement Permit with the City of Portland, Maine, acting as a registered municipality for the Maine Department of Transportation, pursuant to the provisions of 23 M.R.S.A. Section 704-A on or about October 1, 2003. The City of Portland, under delegated review authority, will review the Traffic Movement Permit application for this project.

A Scoping Meeting for this application has been scheduled on Tuesday, October 14, 2003, at 1:00 p.m., at Portland City Hall, 389 Congress Street, Planning Division Office, 4th floor. The purpose of the scoping meeting is to discuss the scope of potential traffic impacts to be studied and the type of proceeding warranted.

The application is for a proposed bank with a drive-through ATM in the vicinity of 71 Marginal Way in Portland, Maine. The proposed project consists of construction of a 2,782 square foot bank, complete with a drive-through ATM aisle, and associated parking/entrance/egress. The facility is expected to generate 137 vehicles-trips in the week-day peak hour.

A request for a public hearing must be received by the City of Portland, in writing to the Planning Division, Attn: Alexander Jaegerman, no later than 20 days after the application is found by the City of Portland to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the City of Portland, Planning Division, 389 Congress Street, Portland, Maine during normal business hours. A copy of the application may also be seen at the Maine Department of Transportation Division 6 office in Scarborough during normal working hours.

Written public comments may be sent to the City of Portland, Planning Division, Attn: Alexander Jaegerman, 389 Congress Street, Portland, Maine 04101. Further information on the application can be obtained by calling 874-8725.

PLANNING REPORT #37-07

PORTLAND INTERNATIONAL JETPORT
PARKING GARAGE
1001 WESTBROOK STREET
CITY OF PORTLAND, APPLICANT

Submitted to:
Portland Planning Board
Portland, Maine
August 14, 2007

Submitted by:
Richard Knowland, Senior Planner

A public hearing has been scheduled to consider a request by the City of Portland to expand parking garage facilities at the Portland International Jetport.

The proposal involves constructing a five level addition to an existing six level parking garage (one story underground). The addition will be built on the footprint of an existing three level parking garage which will be demolished. See Attachment 15 for site plans and buildings elevation.

The development is subject to site plan and shoreland and regulation review. The parking garage addition is outside the shoreland zone but a proposed stormwater treatment pond is within the shoreland zone.

231 notices were sent to area property owners.

II. Findings

Zoning: A-B Airport Business

Parking Garage Spaces (new addition): 1,040 spaces... a net gain of 422 parking garage spaces since three level parking garage (610 spaces) will be removed.

Existing Parking Garage Spaces: 1,712 spaces

Proposed Parking Garage Spaces (existing and addition): 2,134 spaces

Existing Parking Spaces (garage and surface spaces): 2,214

Proposed Parking Spaces (total garage and surface spaces): 2,636 spaces

Floor Area (new addition): 331,690 sq. ft.

Building Footprint (new addition): 66,427 sq. ft.

Building Height: 45 feet (5 levels)

III. Proposed Development

The proposed parking garage addition is part of a planned expansion of parking garage facilities at the airport. The expansion results in a net increase of about 422 spaces. The 2000 Jetport Parking Master Plan recommended that a future parking structure be built on the site of the existing three level parking garage.

The Phase I of this parking garage expansion (1,480 spaces) was approved by the Planning Board in 2001 and completed in 2003. The second phase is now before the Board for review. The master plan anticipates future expansion of parking garage facilities Taking place on the surface parking lot to the west of this current proposal.

The parking garage addition will be built on the site of the existing three level parking garage which will be removed prior to construction. The three level garage is directly across the street from the terminal. The addition is five levels high and will be directly connected to the six level garage creating one large garage. (One level of the existing six level garage is underground.) Circulation will be seamless between the two structures.

The parking garage addition reflects the same building design and materials that were used in the Phase I project. Architecturally the two building segments will read as one structure. The facade is composed primarily of concrete panels, steel columns, metal grills and shades. Glass panels define the various elevator towers.

The existing three level parking garage is setback about 95 feet from the terminal building. The new parking garage addition will be setback about 120 feet from the terminal building, which addresses more stringent FAA public safety requirements. The increased setback is achieved by eliminating an existing 20 foot setback between the two existing parking garages and reducing the width of the new parking garage addition by five feet. A side benefit of this is a larger lawn area between the garage addition and the terminal driveway.

The proposed garage is located between the terminal and the existing garage so the visual impact to Stroudwater neighborhood is minimal. The 2001 parking garage was carefully designed to integrate architectural features that control unwanted light spill-over from light fixtures and car headlights.

Summary of Parking Garage Site Plan Improvement and Changes

- Demolition of the existing 610 space three level parking garage.
- Construction of a five level, 1040 +/- car extension to the Phase I garage toward the terminal building on the same site currently occupied by the existing three level garage.
- Proposed stormwater filter pond/ basin between Yellow Bird Road and the Fore River to treat stormwater from runway 18-36. Note this will require shoreland regulation review.
- Reconfiguration of the entrance to the surface level of the Phase II garage for improved access.
- Construction of a canopy system extending from the existing terminal canopy to the new Phase II garage structure to protect pedestrians from the elements.
- Relocation of some utilities, including storm drainage, and underground electrical lines.

Summary of other Improvements

- Landscaping of limited areas between the existing terminal and the Phase II parking garage extension.

- Reconstruction of the existing brick traffic table/ cross walks between the parking garage and the terminal building.
- Resurfacing of the existing surface parking lot to the west of the Phase II garage at the completion of construction.
- Resurfacing of the existing bituminous access roadway directly in front of the terminal building.

Temporary Construction Measures:

- Construction of temporary contractor access routes to minimize impact to existing area roads and traffic patterns;
- Establishment of temporary contractor laydown and staging areas on existing paved parking lot surfaces;
- Establishment of temporary pedestrian routes around the construction area to safely separate pedestrians from the construction activities;

IV. Staff Review

The proposed development has been reviewed by City staff for compliance with applicable standards of the Site Plan Ordinance and the Shoreland Regulations of the Land Use Code.

A. Site Plan Review

1/2. Traffic

Vehicle circulation for the enlarged parking garage remains unchanged except that the garage driveways and entrances are now available for both ends of the larger parking garage. Major entrances (as they exist presently) are available on the northerly and southerly sides of the parking garage with the entrance for the car rentals on the easterly side. Driveways from the three level garage that currently enter into the surface parking lot (to the west) will be eliminated under the Phase II plan providing safer passage for pedestrians walking along the westerly side of the parking garage. The existing terminal side driveway will be shifted slightly for easier access into the parking garage.

A letter from the MDOT dated May 4, 2006 indicates that a traffic movement permit is not needed for the parking garage expansion. This letter assumes "the additional spaces...are to address a current on-site parking shortage and are not intended to coincide with any new proposed new uses or increase in intensity of the existing uses at the Jetport such that additional traffic would be expected". This was the position of MDOT with the

Phase I parking garage expansion. While a Traffic Movement Permit may or may not be required the City under the site plan ordinance requires the review of traffic impacts.

The Jetport position is that this project addresses an existing shortage of spaces and improves existing facilities. When and if the terminal expands, a traffic analysis should be required (and not now) since a parking garage by itself doesn't generate parking demand. Traffic could increase before terminal expansion takes place if more passengers use the airport such as the availability of more flights or if another low cost airline starts service at the Jetport. On the other hand roadway improvements on Johnson Road and in the vicinity of the new turnpike exit have improved roadway capacity but presumably traffic volumes have also increased.

Comments from Tom Errico, Traffic Review Consultant, are shown on Attachment 6. Mr. Errico is recommending the Applicant conduct a traffic impact study of the Congress Street/International Drive and Johnson Road/Jetport Drive intersections following the re-opening of the Maine Turnpike. If deficiencies are noted, the Applicant would be responsible for implementing an approved mitigation plan.

Mr Errico is also recommending that the Applicant provide traffic volume information between 1997 and time period of project completion to determine whether a Traffic Movement Permit is required. The Applicant should also submit appropriate information necessary to render a decision on whether a Traffic Movement Permit is required, and if a permit is required, the Applicant should follow the necessary procedures to obtain such a permit.

Parking During Construction

The demolition of the three level parking garage (570 spaces) and the use of a portion of a surface parking lot (153 spaces) as a contractor staging area results in a temporary shortfall of 723 spaces. To mitigate this impact, the Jetport satellite parking lot off outer Congress Street will be utilized. This parking lot has a capacity of 430 spaces and has received approval as a permanent parking lot. The Jetport will operate a shuttle service between the airport and the parking lot to encourage usage. The construction of the parking garage has been scheduled during the months of May 2008 through December 2008, with the new structure open to parking during Thanksgiving. This construction schedule coincides with a lower seasonal demand for parking at the airport. See Attachment 2-8. The application indicates "during this time period, the use of the Jetport switches from local travelers leaving the state (and their parked cars) to tourists from outside the state coming and renting cars. This data confirms that adequate parking will be available during the construction period."

Pedestrian Circulation

Improvement of pedestrian circulation has been an important element of site plan review for various Jetport expansions. Attachment 15, sheet C8-1 is a pedestrian movement plan during construction (blue) and at completion of construction (red). Pedestrians will be re-

Submitted in the Friday - met for Errico's comments reviewed notes

routed around the parking garage construction and the contractor staging area but will be integrated into the normal pedestrian route system. We assume the blue pedestrian route along the southerly side of the surface parking lot (contractor staging area) is within the paved surface of the parking lot but is defined by jersey barriers or fencing to protect pedestrians.

The plan retains the major pedestrian improvements implemented during Phase I construction program. These include the two raised crosswalks in front of the terminal that provide the major access between the terminal and the two parking garages, surface parking and the vehicle rental facility in the bottom level of the six story parking garage. As part of the Phase II garage project, a canopied walkway will be constructed on the western exterior face of the new facility to provide access from the Phase I garage west stair tower to the terminal. Elevated canopies are incorporated at major pedestrian entrances and elevator towers leading from the parking garage to the terminal providing weather protection and a clear pedestrian route.

The plan indicates that "pedestrian movement paths within the garage structure will be accomplished by a combination of wayfinding signs, painted crosswalks and lighting."

3/4. Bulk, location or height of proposed structures will not cause health or safety problems and minimize to the extent feasible diminutions in the value to neighboring properties.

Major Schuchel - approved next time

The proposed parking garage addition will be constructed on the southerly side of the existing parking garage and is adjacent to the jetport terminal. The proposed addition has a building footprint of 66,427 sq. ft. while the phase I garage has a footprint of 88,492 sq. ft. The structure is 44 feet high the same height as the phase I garage. Located within the airport complex, the nearest residential use (Cobb Ave.) is over 1,500 feet away. The parking garage addition is surrounded by airport owned property. The closest privately owned property is Alamo car rental. The phase I parking garage is about 100 feet from the closest point of the Alamo building.

5. Sewers, Sanitary and Storm Drains

Previous construction projects at the airport have resulted in significant stormwater infrastructure that will be utilized for this project. The 2001 planning staff report noted 93 catch basins (existing or proposed within) were within the project area. These catch basins connect into a storm drain system that flows into an existing storm drain pipe by the Fire Department building. The pipe empties into a natural drainage basin east of Taxiway C and north of Taxiway P.

The proposed parking garage addition will occupy the site of the existing three story garage. The new footprint appears to be smaller than the three story parking garage. A larger lawn area on the terminal side of the parking garage further decreases the amount of impervious surface on the site.

Temporary paved entrances to the existing employee parking lot for construction access will increase impervious area but only on a temporary basis and will have an insignificant impact on stormwater run off according to the application.

Water quality treatment includes a previously installed storm water quality unit (vortech model 1600). While the water quality unit was acceptable to the Maine DEP in 2001 treatment standards have changed. Under current requirements this treatment unit would not meet the new standards. According to the Applicant, the DEP is allowing the existing treatment unit to remain but as an offset they are requiring treatment of a portion of runway 18-36. The Applicant is proposing to construct a stormwater filter pond/basin between Yellow Bird Road and the Fore River to address this issue. The stormwater basin is shown on Attachment 15 sheet C6-3.

The stormwater basin is about 10,000 sq. ft. in size. The Applicant indicates the existing site is grass and has no vegetation. A detailed site plan of the stormwater basin is shown on Attachment 15, sheet C6-3. The basin at its closest point is 185 feet from the Fore River. A portion of the basin is located within the 250 feet of the Fore river. This will require shoreland regulations review.

As discussed previously, the project uses existing infrastructure planned and constructed in previous airport expansions. There will be some relocation of existing storm drain lines and underground power. There will be no bathrooms in the parking garage and thus no need for sewer service.

Since the workshop the applicant has addressed engineering related comments. Dan Goyette, Engineering Review Consultant, has reviewed the revised plan and finds it acceptable. See Attachment 8.

6/7. Landscaping

As part of the 2001 phase I parking garage approval, the jetport undertook a comprehensive landscape planting plan in the vicinity of the parking garage. Over 150 new deciduous tree were shown on the plan. That landscape is represented in part on the submitted site plan. See Attachment 15, sheet C7-1 and C7-2.

The specific planting plan for the proposed parking garage addition includes a lawn area along the southernly face of the addition. The lawn area is about 20 feet wide and 295 feet long. Plantings within the lawn area include 12 Dark American Arborvitae (6-7 feet high) and 1 Ivory Silk Japanese Trac Lilac (2 - 2 1/2 inch caliper). Between the lawn area and the driveway there are 6 trees and shrubs to be preserved according to the plan.

The southwest driveway into the garage is being slightly modified so the landscaping treatment adjacent to the driveway will be changed accordingly. Two Pin Oaks within the footprint of the driveway will be transplanted to another location.

The proposed interior lighting scheme for the parking garage addition has changed from the Phase I plan. The Phase I plan used a 175 watt Kim series luminaires (designed for parking garages) that were installed on the ceiling of the parking garage. The new parking addition proposes fluorescent light strips. Generally we discourage fluorescent light strips within the interior of parking garages because they pose obvious aesthetic and light impact issues. Perhaps a case can be made for fluorescent lighting in this case given its unique location (in the middle of the airport), the presence of the existing garage that screens the northerly elevation of the building and use the use of louvers along the exterior of the parking garage. If there are concerns about the fluorescent light fixtures, a good alternative would be the existing fixtures that obviously have worked well to date.

The interior lighting plan references two other ceiling luminaires but their location is not shown on the photometric plan (light fixture type C-4 and C-8). These fixtures are apparently used within designated walkways of the garage. The location of these fixtures should be shown on the plan for further evaluation since their average footcandle values are very high 19.0 fc and 15.7 fc when combined with the other garage light fixtures. It appears that the same roof top light fixtures will be used for the garage addition as the existing garage. The original plan included KIM STL fixtures mounted on 14ft. high on 16 ft high poles. The photometric plan however does not clearly state what fixtures are proposed on the roof top.

Handwritten notes in the left margin:

- 1 No. Light Pole
- 2 Walkway
- 3

X

9. Lighting

The Phase I parking garage was carefully designed to integrate architectural features that control unwanted light-spill from light fixtures and car head lights. These features include a canopy on the northerly side of the Phase I garage that screens the roof top light poles from the Stroudwater neighborhood. The metal screens within the parking garage limit light spill-over from interior fixtures and car head lights. The Planning Office has not received any complaints on light issues regarding the parking garage since it has been built.

8. Erosion and Sedimentation Control

A written description of erosion and sedimentation control measures has been submitted. See Attachment 10. The submission indicates they have been prepared in accordance with the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices. The most significant potential erosion and sedimentation control issue is the proposed stormwater basin near the Fore River. The plan includes appropriate measures to address erosion and sedimentation control concerns. The construction details of the basin are shown on Attachment 15, sheet C6-3.

Jeff Tarling, City Arborist, has reviewed and offered the following comments. The two transplanted Pin Oaks shall be replaced with new material should the transplant fail. The Koster False Cypress should be specified at four to five feet high not the two to three feet high shown on the plan. The plan has been revised to incorporate these comments.

07

Bollard light fixtures are proposed in walkway areas of the garage.

10. Fire

Capt. Greg Cass has reviewed the site plan and finds it acceptable.

11. Infrastructure

The parking garage addition has been planned in the context of the Jetport Parking Garage Master Plan. It is consistent with infrastructure existing or planned by the City.

12. Financial and Technical Capacity

Information on financial and technical capacity has been submitted and is shown on Attachment 13.

13. Natural resources including groundwater, surface water, habitat wetlands, unusual natural areas, and wildlife and fisheries.

The footprint of the parking garage addition is located on a previously developed site in a highly developed area of the air port and is not located within an environmentally sensitive area. Comments from the Dept of Conservation and the Dept. of Inland Fisheries and Wildlife reflect this condition. See Attachment 12. The comments were intended to address the parking garage site but not the stormwater filter pond near the Fore River. The stormwater pond is a relatively new change in the plan so it was not covered in these prior letters. We are recommending as a condition of approval that updated letters be obtained from these agencies commenting on the stormwater pond site. We anticipate the response will likely be the same but documentation should be provided for the entire project scope.

Stormwater from the parking garage will be treated by a stormwater treatment system that was previously installed as part of the previous parking garage expansion. According to the Applicant, the DEP is allowing the existing treatment unit to remain but as an offset they are requiring treatment of a portion of runway 18-36. The Applicant is proposing to construct a stormwater filter pond/basin between Yellow Bird Road and the Fore River to address this issue.

Since the airport is served by public water and sewer there should be no adverse impacts on groundwater resources.

2

consistent w/ Shoreland
 - main - updated letters for
 ME Historic Preservation Commission
 Dept of Conservation
 Dept of Inland Fisheries

B. Shoreland Regulations Review

The proposed stormwater basin is located within the shoreland zone. The parking garage is outside the shoreland zone.

1. Building Setback

There are no buildings proposed within 75 feet from the normal high water line. The stormwater pond at its closest point is 185 feet from the high water line.

Piers, docks and other uses extending over or beyond the normal high water line

No such structures or uses are proposed.

2. Clearing of Vegetation

The plan indicates the proposed stormwater pond will be sited in an open field area with no existing trees which eliminates tree disturbance issues. There will be some regrading associated with the detention basin which could impact vegetation but that takes place outside the shoreland zone.

3. Erosion and Sedimentation Control

An erosion and sedimentation control plan has been submitted.

4. Soils

The proposed development will be constructed and maintained without causing adverse environmental impacts, including severe erosion, mass soil movement, improper drainage and water pollution, either during or after construction.

5. Water Quality

The jetport site is served by public sewer and water. The detention basin is being constructed to improve stormwater treatment from a nearby runway.

6. Archeological Sites

A letter from the Maine Historic Preservation Commission (dated May 10, 2006) indicates there are no historic properties (architectural or archeological) affected by the proposed undertaking. However this letter was issued prior to the site plan being changed to incorporate the stormwater pond. An updated letter should be obtained from the Maine Historic Preservation Commission.

5-0
1. absent
0 - absent items

1. On the basis of the applications, plans, reports and other information submitted by the applicant, findings and recommendations contained in Planning Report #37-07, relevant to Shoreland Regulations and the testimony presented at the Planning Board public hearing, the Planning Board finds the plan (is/is not) in conformance with the Shoreland Regulations of the land use code, subject to the following condition of approval:

i. That updated letters from Maine Dept. of Conservation, Maine Dept. of Inland Fisheries and Wildlife and Maine Historic Preservation Commission shall be submitted referencing the stormwater pond site for Planning Staff review and approval.

III. MOTIONS FOR THE BORD TO CONSIDER

1. Floodplain development...The elevation of the detention basin and riprap spillway are well above the flood hazard elevation of the Fore River (10 feet).
 Archaeological and historic properties...An updated letter from the Maine Historic Preservation Committee will need to be obtained since the original letter covered the parking garage site but not the stormwater site.
 Conserves shore cover and visual, actual points of access to inland and coastal waters...The detention basin does not inhibit such access.
 Adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat...Updated letters from Maine Department of Conservation and the Department of Inland Fisheries and Wildlife will need to be obtained reflecting the stormwater pond site since their original letters focused on the parking garage site.
 Disposal of wastewater...The stormwater basin doesn't generate wastewater.
 Water pollution, erosion or sedimentation...The stormwater basin is designed to protect water quality. An erosion and sedimentation control plan has been submitted.
 Safe and healthful conditions...There are no unsafe or unhealthful conditions associated with the stormwater basin.

8. General Site Plan Features

There are no agricultural activities associated with this project.

7. Agricultural

2. On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in Planning Report #37-07, relevant to the Site Plan Ordinance and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board finds the plan (is/is not) in conformance with the site plan standards of the land use code, subject to the following conditions of approval:

- i. Applicant shall submit the information detailed in Tom Errico's memo dated August 10, 2007 for Mr. Errico's review and approval. Should it be determined that a Traffic Movement Permit is required, the Applicant shall follow the necessary procedures to obtain such a permit. The approval is subject to a traffic monitoring period, six months from the issuance of a certificate of occupancy, to ensure the effective operation of all traffic improvements. If during that time the City determines the improvements are not working as intended, the Applicant shall be required to modify the improvements as directed by the City.
- ii. Applicant shall submit a revised lighting plan for Planning Staff review and approval. The plan shall clearly indicate the location of all light fixtures; the type, manufacturer's name and model number; and height of all pole mounted fixtures.

Attachments:

1. Application
2. Background Info
3. 2001 Planning Board Approval Letter/ Staff Report
4. Traffic Info
5. Summary of 2000 Parking Master Plan
6. Memo from Tom Errico, Transportation Review Consultant
7. Public Utility Service Info
8. Memo from Dan Goyette, Development Review Engineer
9. Stormwater Management Report
10. Erosion and Sedimentation Control
11. Lighting
12. Environmental
13. Financial and Technical Capability
14. Neighborhood Meeting Info
15. Site Plans/Building Elevations

ATTACHMENT 1-1



City of Portland Site Plan Application

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

Address of Proposed Development: 1001 Westbrook St, Portland, ME Zone: Airport Business	
Total Square Footage of Proposed Structure: 331,690 S.F. +/-	Square Footage of Lot:
Tax Assessor's Chart, Block & Lot: Chart# _____ Block# _____ Lot# _____ Property owner's mailing address: City of Portland Portland City Hall 389 Congress Street Portland, ME 04101	Consultant/Agent, mailing address, phone # & contact person: Ahr. David R. Madega, PE Stattec Consulting Services Inc. 22 Free Street, Suite 205 Portland, Maine 04101 807-775-8211
Telephone #: 807-756-8029	Applicant's name, mailing address, telephone #/Fax#/Pager#: Mr. Paul Bradbury Portland International Jetport 1001 Westbrook Street Portland, ME 04102 Tel: 807-756-8029 Fax: 207-7747770
Project name: Parking Garage - Phase II	

Fee For Service Deposit (all applications) (\$200.00)

Proposed Development (check all that apply)

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

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

- Under 50,000 sq. ft. (\$500.00)
- 50,000 - 100,000 sq. ft. (\$1,000.00)
- Parking Lots over 100 spaces (\$1,000.00)
- 100,000 - 200,000 sq. ft. (\$2,000.00)
- 200,000 - 300,000 sq. ft. (\$3,000.00)
- Over 300,000 sq. ft. (\$5,000.00)

Minor Site Plan Review

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

Plan Amendments

- Planning Staff Review (\$250.00)
- Planning Board Review (\$500.00)

~ Please see next page ~

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

Mr. Paul Brabury
Facilities and Engineering Manager
1001 Westbrook Street
Portland, ME 04102
Tel: 807-756-8029

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

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

Amendment to Plans: Amendment applications should include 6 separate packets of the above (a, b, & c)
ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

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

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

Signature of applicant: <i>James C. McGrath</i>	Date: 5/15/06
--	---------------

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

May 15, 2006

Ms. Sarah Hopkins, Planning Division

Page 3 of 3

Reference: Application for Major Site Plan Approval

Phase II Parking Garage

Portland International Jetport - Portland, Maine

Attachment: 9 copies of Major Site Plan application (3 volumes each)

c. Paul Bradbury - Portland International Jetport

George Katsouris - DHK

James McLaughlin - Stantec



Stantec

May 16, 2006

City of Portland
Department of Planning & Development
389 Congress Street, 4th Floor
Portland, Maine 04101

Attention: Ms. Sarah Hopkins, Planning Division

Dear Ms. Hopkins:

Reference: Application for Major Site Plan Approval

Phase II Parking Garage

Portland International Jetport - Portland, Maine

On behalf of the city of Portland, Department of Transportation, please find enclosed one (1) original and eight (8) copies of the City of Portland Site Plan Application for Major Site Plan review for the above referenced project. This project involves the construction of the Phase II Parking Garage and associated improvements adjacent to the Phase I garage structure that was completed in 2003. This project incorporates many of the same design elements used in the Phase I garage and follows the recommendations of the Parking Master Plan completed in September 2000, and presented to the Planning Board on September 26, 2000.

The proposed project includes the following major elements:

- Construction of temporary contractor access routes to minimize impact to existing area roads and traffic patterns;
- Establishment of temporary contractor laydown and staging areas on existing paved parking lot surfaces;
- Establishment of temporary pedestrian routes around the construction area to safely separate pedestrians from the construction activities;
- Demolition of the existing 610 car, 3-level parking garage;
- Construction of a 5-level, 1040 +/- car extension to the Phase I garage toward the terminal building on the same site currently occupied by the existing 3 level garage;

1-5

Stantec

May 15, 2006
Ms. Sarah Hopkins, Planning Division
Page 2 of 3

Reference: Application for Major Site Plan Approval
Phase II Parking Garage
Portland International Jetport - Portland, Maine

- Reconfiguration of the entrance to the surface level of the Phase II garage for improved access;
- Construction of a canopy system extending from the existing terminal canopy to the new Phase II garage structure to protect pedestrians from the elements;
- Relocation of some utilities, including storm drainage, and underground electrical lines;
- Landscaping of limited areas between the existing terminal and the Phase II parking garage extension;
- Reconstruction of the existing brick traffic table/cross walks between the parking garage and the terminal building;
- Resurfacing of the existing surface parking lot to the west of the Phase II garage at the completion of construction; and
- Resurfacing of the existing bituminous access roadway directly in front of the terminal building.

Vehicular movement in front of the terminal will be slightly impacted by the proposed project. During construction, a section of the loop road directly in front of the terminal will be reconstructed along with the existing raised, brick-paver crosswalks. This work will require the temporary closure of one lane of the loop road while the other lane remains open. This work will be phased during off-peak periods at the Jetport to minimize disruption.

Our team of consultants looks forward to reviewing this project with you and the city of Portland Planning Board. Please feel free to contact us with any questions that may arise during the review process.

Sincerely,

STANTEC CONSULTING SERVICES INC.


David P. Nadeau, P.E.
 Transportation Engineer
 Tel: (207) 775-3211
 Fax: (207) 775-6434
 dnadeau@stantec.com

ATTACHMENT 2-A-1

Stantec Consulting Services Inc.
22 Free Street Suite 205
Portland ME 04101-3900
Tel: (207) 775-3211 Fax: (207) 775-6434
stantec.com



Stantec

July 16, 2007
File: 195210126

Mr. Rick Knowland
Department of Planning and Development
Portland City Hall
389 Congress Street
Portland, Maine 04101

Dear Mr. Knowland:

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

Enclosed please find for your review four (4) copies of the signed and sealed Site Plan set for the above referenced project at the Portland International Jetport. Copies have also been individually forwarded to Mr. Mike Farmer and Mr. James Carmody of the City of Portland Department of Public Works, and Mr. Dan Goyette of Woddard & Curran for their review. In addition to the Site Plan set, comments received from the various reviewing parties are addressed below. Comments in **bold italics** and corresponding responses are as follows:

Mr. Dan Goyette (Woddard & Curran)

1. *Details for concrete ramps, walkways, bituminous pavement, utility structures, utility connections, and pipe trenches have not been included.*

Refer to Sheet C7-3 and C7-4 included in the attached Site Plan set.

2. *Based on the City of Portland design standards, concrete sidewalk should be underlain by 8" of type A aggregate base, not 6" as shown, and the reveal for vertical granite curb should be 7".*

Refer to the Sidewalk Concrete Paver Detail, No. 6 on sheet C7-3 for a sidewalk section. The 6" type A gravel is overlain by a 2" layer of HMA type B similar to the existing sidewalk section at the jetport. The reveal for vertical granite curb is 7" as shown on the details on sheet C7-3.

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

3. Unsure of bollard: 6' granite piece, only founded in 30" crushed gravel base and immediately adjacent to granite curb.

The granite bollards proposed on the east side of the new garage entrance queue are primarily an architectural feature as there is no pedestrian walkway adjacent to the bollards. The lighted concrete bollards located on either side of the raised traffic table have a more substantial concrete base to provide additional protection in the event of a vehicle collision.

4. The stormwater filter pond has substantial side slopes. At a minimum jute mat should be placed on the side slope to minimize erosion.

Refer to the revised sheet C6-3 included in the attached Site Plan set. Erosion control mat shall be installed on all disturbed slopes of 3:1 and greater and as directed by the Resident Inspector in the field.

Mr. Greg Cass (Fire Chief)

5. Provide plan showing existing Phase I and Phase II standpipe and hose valve locations as well as show the 150' hose radius from each valve. Indicate pedestrian entry and exist locations.

Refer to the attached shop drawing submittal attached to this cover letter for information on the existing Phase I garage fire protection system. The 150' hose radius has been superimposed on the sheets as requested. Sheets FP-1-1 and FP-1-2 of the attached Site Plan set show the requested information for the proposed Phase II structure.

6. Provide area at each proposed hose valve of sufficient size to allow for fire protection personnel to reach and attach hose.

Two parking spaces adjacent to each interior hose valve shall be blocked out by use of painted islands. The valve will be directed parallel to the length of the parking spaces toward the traffic lane.

7. Provide hydraulic calculations for the sprinkler system.

Existing Phase I hydraulic calculations from Cianbro Corp (approved shop drawing submittal) is included as an attachment to this cover letter and indicates that there is sufficient capacity in existing 8" sprinkler/standpipe main to supply the requirements of the Phase II standpipe system.

8. Verify that the sprinkler system meets NFPA 88A.

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

Phase II Open Parking Structure will require a Class 1 standpipe system as required by NFPA 88A, 6.4.2 and will be designed and installed in accordance with NFPA 14. The standpipe system will be designed by the mechanical subcontractor and shall be submitted for approval by the Engineer prior to construction.

9. Confirm stair tower fire rating.

The proposed stair tower has been designed for a 2-hour fire protection rating in accordance with the Life Safety Code of NFPA 101 and the 2003 edition of the International Building Code.

Jeff Tarling (City Arborist)

10. On sheet C7-2 the Koster False Cypress should have a size of 4 to 5 ft. not 2 to 3 ft. Also on sheet C7-1 Jeff indicates applicant will need to replace the pin oaks if the transplanting them fails.

Refer to the revised Landscaping plan and detail sheets C7-1 and C7-2 included in the attached Site Plan set.

Rick Knowland

11. Provide a stamped / sealed copy of the Site Plan for approval by the Planning Board. Refer to the attached Site Plan set which has been stamped / sealed by the respective design disciplines.

12. Provide dimensions for the proposed stormwater filter pond located adjacent to Yellow Bird Road.

The filter pond is approximately 7,800 square feet in size at its base. It is approximately 130 feet by 80 feet at its widest point. The grading plan sheet C6-3 has been revised to show the high water line of the Fore River as a reference. The distance from the Fore River normal high water line to the closest point of the proposed pond is approximately 185 feet.

13. Provide catalog cuts for interior garage lighting fixtures.

Refer to the fixture cut sheets included as an attachment to this cover letter.

14. Confirm capacity of traffic infrastructure.

The Portland International Jetport is a commercial service airport with a service area that extends far outside of Greater Portland. As shown on the attached Exhibit 2D, the

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

Jetport's service area includes parts of York, Cumberland, Oxford, Androscoggin, eastern New Hampshire. The size of the service area indicates that passengers do not just travel from within the Greater Portland area to utilize the Jetport, but that they travel from other parts of the state as well.

The Jetport is ideally situated to the major east coast Interstate (I-95) providing easy access from Houltton, Maine all the way down to Florida. I-295 provides ready access to the smaller communities surrounding the Jetport such as Falmouth, Yarmouth, Freeport, Brunswick and others. A key interchange (Exit 46) has been constructed just west of the Jetport and connects with Congress Street. This new exit provides quick and reliable access to the turnpike, considerably reducing traffic that would otherwise use Congress Street and other City roads to access the Jetport. The interstate has also undergone a significant capacity increase in recent years widening from two to three lanes in each direction.

The current Phase II garage project will not by itself generate additional traffic, and no traffic capacity deficiencies have been observed in the vicinity of the Jetport. The applicant therefore requests that the Planning Board concur with the Maine Department of Transportation's findings stating no increase in traffic is anticipated and Mr. James Carmody's finding in his June 12, 2007 email that the Parking Master Plan completed and approved in 2001 covered the Phase II garage, and finds that the project will not cause unreasonable highway or public road congestions or unsafe conditions with respect to use of the highway or public roads.

We trust that the enclosed documentation and responses provides you with sufficient information to finish your review of the proposed project's application for Major Site Plan Review. We look forward to presenting the proposed project at the upcoming Planning Board Public Hearing scheduled for July 24, 2007. If you require additional information, please don't hesitate to contact us.

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

Sincerely,

STANTEC CONSULTING SERVICES INC.



David P. Nadeau, P.E.

Transportation Engineer

Tel: (207) 775-3211

Fax: (207) 775-6434

dnadeau@stantec.com

Attachments: 4 copies Site Plan set

c. James Carmody (1) - City of Portland

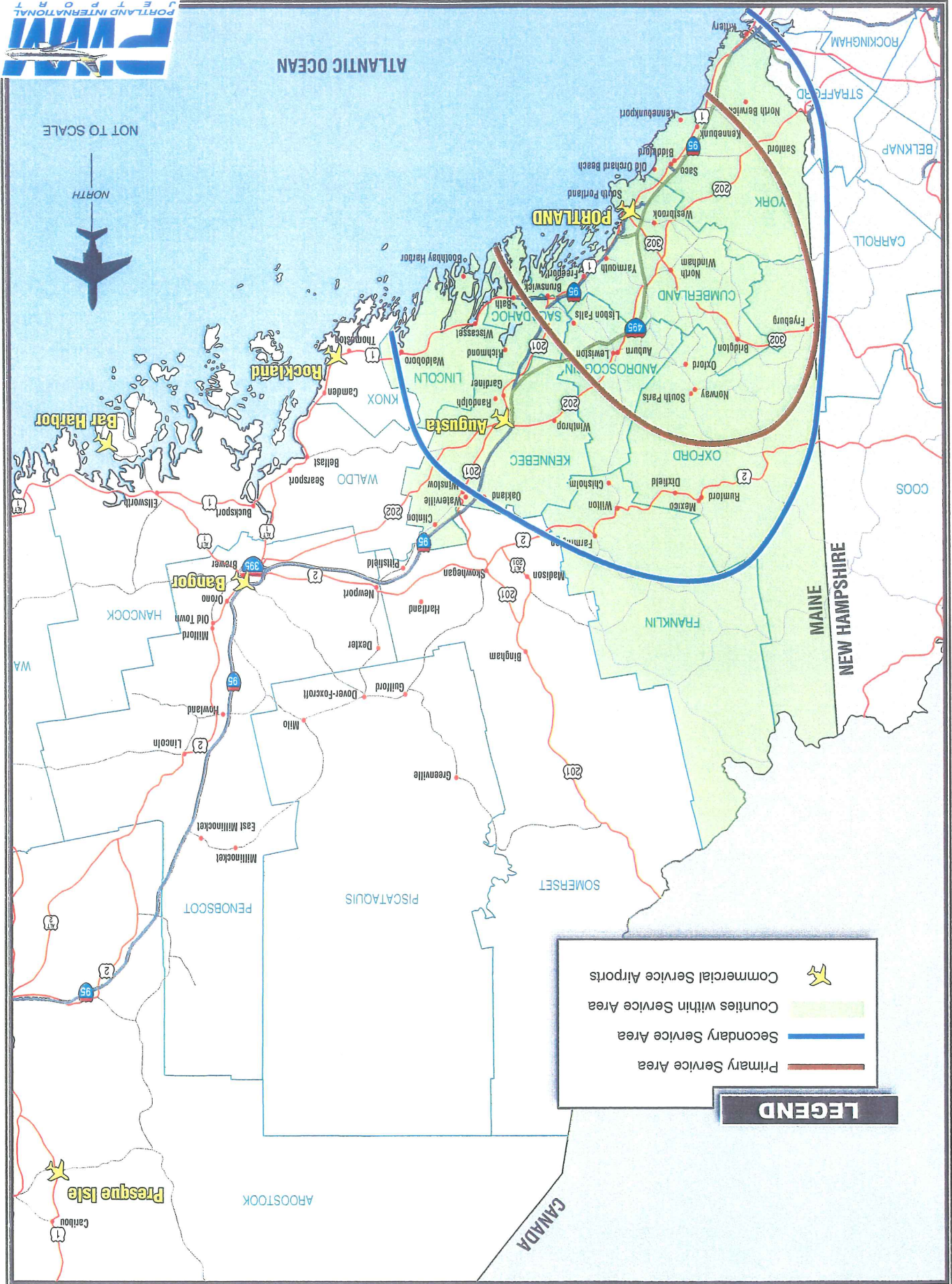
Mike Farmer (1) - City of Portland

Dan Goyette (1) - Woddard & Curran

Paul Bradbury - PWM

George Katsoufis - DHK

Jim McLaughlin - Stantec



2-A-6



Stantec

May 25, 2007
File: 195210126

Mr. Rick Knowland
Department of Planning and Development
Portland City Hall
389 Congress Street
Portland, Maine 04101
Dear Mr. Knowland:

**Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine**

Enclosed please find for your review our response to comments received for the above referenced project at the Portland International Jetport. The comments were outlined during planning department review meetings between planning department staff, Jetport staff and Stantec Consulting Services, Inc. staff on July 10, 2006 and March 9, 2007. A copy of the meeting minutes from the July 10, 2006 meeting is included as Attachment No. 1. Comments in **bold italics** and corresponding responses are as follows:

1. Subdivision Standards: Provide an Addendum to the application with responses to each of the city of Portland's subdivision standards; To be used as a summary document by the Planning Board.

A summary document is included as Attachment No. 2 which addresses each of the thirtyone Site Plan Approval standards as outlined in Chapter 14 § 526 of the city of Portland's Code of Ordinances.

2. MDOT Traffic Permit: Provide another copy of the Maine Department of Transportation's response letter indicating that a Traffic Movement Permit is not required for this project.

A copy of correspondence between the Maine Department of Transportation (MDOT) and Stantec is included as Exhibit No. 1 of Attachment No. 2. The response from the MDOT indicates that an MDOT Traffic Movement Permit is not required for the proposed project.

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

3. **MDEP Review: Confirmed that MDEP is performing the Site Location of Development review.**

No response required.

4. **Existing Conditions Visibility: On all plan sheets, existing phase I garage and terminal labels should be more visible (bold, larger font)**

Plan drawings have been revised to make existing structure labels more visible. Refer to attached plan set.

5. **Garage Height: Provide the height of the proposed structure from the average ground elevation at base (4 corners) to the top of main structure (not including elevator tower, light posts, etc.). This is exterior height, not interior. Show dimension on elevation sheet A3-1.**

The elevation of the proposed structure measured at the top of the railing of level 5 is 113.0 feet. The average ground elevation around the proposed structure is 63.2 feet (63.8' at NW corner, 63.7' at NE corner, 62.6' at SE corner, 62.7' at SW corner). The proposed structure height above grade is therefore 49.8 feet. Refer to the Colored Elevations sheet showing the 49'-10" dimension in the attached plan set.

6. **Site Impervious: Provide the calculation for the total impervious surface of the property as a percentage of the total area of the property. Indicate that percentage will not change as Phase II area is already impervious.**

The project is proposed to replace highly developed impervious surface with similar impervious surface. Exhibit No. 3 included in Attachment No. 2 is the most recent impervious surface area calculation for the Jetport property. The AB zone allows up to 70% impervious area. The calculation shows that the current development results in an impervious area calculation of approximately 55%.

7. **Setbacks: Confirmed that there are no issues with property setbacks.**

No response required.

8. **Photometric Plans: Provide clean color 11"x17" copies of Photometric plans EP-1 and EP-2.**

Color copies of EP-1 and EP-2 are included in the attached plan set.

9. **Lighting Fixtures: Catalog cuts and lighting plan included as part of original submission. Referred to Section 12 of the application.**

No response required.

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

10. Temporary Lot Status: Was the temporary lot ever approved by the Planning Board for permanent status? If yes, were changes made, (i.e. Green space, lighting, signage). If no, review needs to be included in this application, especially signage. Remember discussing this with Paul / Sarah Hopkins as part of baggage claim review. The remote parking lot was approved as a permanent facility by the Portland Planning Board on September 28, 2004. All conditions associated with the approval have been met. A copy of the approval is included as Attachment No. 3.

11. Plan References: General problem with detail references to sheet numbers need to be addressed.

Refer to attached plan set.

12. Pedestrian Movement Plan: Provide single plan showing pedestrian movement paths, temporary barriers, construction access, etc. Provide written narrative to discuss plan.

Refer to sheet C8-1 included in the attached plan set.

13. Bathrooms: Confirmed there were no additional bathroom facilities proposed in the Phase II garage. No impact to existing sanitary sewer system.

No response required.

14. Parking Master Plan: Provide plan showing updated Master Plan.

Refer to Exhibit 6B included in attached plan set.

15. Parking Capacity: Provide response indicating sufficient capacity of facility to handle usage at completion of project.

The project does not propose a structure or development which will create the need for additional parking. Instead, the project itself involves the construction of a parking garage that is intended to provide additional parking capacity to satisfy existing and future needs at the Jetport as identified in the 2000 Parking Master Plan for the Portland Jetport approved by the City. When completed, the Phase II parking garage will result in a net increase of 451 parking spaces over the existing available parking capacity.

16. Parking Capacity – During Construction:

During construction, the necessary demolition of the existing parking garage structure and the use of a portion of the long term surface parking lot as a contractor staging and laydown area, will result in a temporary decrease in available parking of approximately 610 spaces and 153 spaces respectively for a total of 763 spaces. This decrease in

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

available parking will be partially offset by use of the Jetport's remote parking facility on outer Congress Street. Shuttlebus service between the remote lot and the terminal will be implemented during the construction period. Although less spaces will be available during construction, the parking demand during the proposed construction period is typically low. The project is scheduled for construction during the months of May 2008 through December 2008, with the new structure being open to parking by Thanksgiving of 2008. As a result, the impacts to available parking will occur during the low demand period of the summer months for parking at the Jetport, and thus the combination of remaining parking spaces and the remote lot will provide adequate available parking during this period. Exhibit No. 2 is a chart developed by the Jetport which demonstrates the typical historical demand for parking during the proposed construction period. The chart shows midnight parking counts for calendar years 04, 05, 06, and part of 07 and confirms that on or about day 115 (late March) the volume of parkers drops dramatically and stays low throughout the summer tourist season. During this time period, the use of the Jetport switches from local travelers leaving the state (and their parked cars) to tourist from outside the state coming in and renting cars. This data confirms that adequate parking will be available during the construction period.

17. Snow Removal: Indicate who is responsible for snow removal from temporary pedestrian movement areas during construction.

Snow removal from pedestrian areas is presently the responsibility of Jetport staff. The project is intended to be substantially completed prior to the 2008/2009 winter period. However, in the event that snow removal is necessary, the contractor will be required to remove snow and maintain temporary pedestrian movement areas that pass through the construction site. Jetport staff will continue to be responsible for snow removal in pedestrian movement areas outside of the construction site.

18. Temporary Access: Indicate that proposed temporary construction entrances will be returned to existing conditions at the completion of the project.

Four temporary construction entrances are proposed to facilitate the flow of construction equipment and materials onto the site. The main construction entrance off of Jetport Boulevard will be constructed where the Jetport Access Road was previously located. The road pavement has been removed and the area is currently turf. The topsoil will be removed and a gravel base prepared for the life of construction. Three other temporary construction entrances are also proposed connecting the airport loop roads to the contractor's temporary staging and lay down areas. At the completion of the project, all of the temporary construction entrances will be returned to their existing vegetated conditions. Refer to sheet C6-2 included in the attached plan set for location of temporary construction entrances.

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

19. Parking Stall Dimensions: Obtain technical design standards waiver from the City for smaller than standard parking stalls. Provide interior layout drawing with sizes of stalls and aisles included.

The proposed parking stall dimensions in the Phase II Garage are 9-feet wide by 18-feet long. These dimensions correspond with the dimensions of the parking stalls elsewhere at the Jetport including the existing Phase I Garage and the surface parking lots. The dimensions are also in accordance with the Parking Master Plan for the Portland International Jetport approved by the City in 2000. We are therefore requesting at this time that a technical design standards waiver be issued for this project as the proposed 9-foot by 18-foot stall is smaller than the current 9-foot by 19-foot city of Portland standard. Refer to sheet PS2-1 included in the attached plan set for interior layout of the proposed and existing garage structures with stall and lane dimensions.

20. Water Quality Unit: Indicate on plans the location of the existing water quality treatment unit and note that drainage from the proposed project will be draining to this unit and subsequently to the detention basin.

Stormwater runoff from the proposed garage will be collected by a new system of catchbasins and floor drains that drain to a new drain manhole along the eastern edge of the proposed garage (refer to sheet C5-1 included in the attached plan set). The drain manhole empties to an existing 18" HDPE stormdrain that in-turn empties into a deep gravity system of stormdrains that outlets at a water quality treatment unit in the center of the airfield before discharging to a large detention basin. The water quality treatment unit was constructed during the Phase I garage project and was sized to treat runoff from the Phase II structure as well. However, since construction of the Phase I project, the Maine Department of Environmental Protection (MDEP)'s standards for stormwater treatment were revised. The water quality treatment unit installed no longer meets current treatment standards. Therefore, in consultation with the MDEP, the Jetport is proposing to construct a stormwater filtration basin to meet current treatment standards.

The area surrounding the Phase II garage site is primarily built-up impervious development which limits the amount of space available for a treatment facility. As such, a filtration basin is proposed on the east side of Runway 18-36 to treat runoff from a portion of the runway and sections of the Perimeter Service and Yellowbird Roads (refer to sheet C1-2 included in the attached plan set). This approach of treating existing paved areas within the same watershed instead of the proposed development has been discussed and agreed to by the MDEP. An application for modification of the Jetport's Site Location of Development permit is currently being prepared for submission to the MDEP and a copy of the permit approval will be forwarded to the City when received.

The proposed filtration basin will be located between Yellowbird Road and the Fore River. Approximately half of the basin will be located within the City of Portland's designated Shoreland Protection Zone. The intent of the basin is to collect stormwater

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

runoff from approximately 1.5 acres of existing impervious surface and detain a volume equal to one-inch of runoff from all impervious surfaces. The runoff will then slowly drain through the bottom of the basin which is made up of a porous sand/organic material layer to an underdrain system approximately 2-feet below the surface. The underdrain will then discharge to an existing drainage ditch that empties into the Fore River. No impervious surfaces are proposed within the Shoreland Protection Zone. The improvements will require excavation, grading, and stormdrain / underdrain construction. No significant vegetation will be impacted by construction of the basin, and Best Management Practices (BMP's) will be implemented during construction. BMP's include silt fence, hay-bale and stone check dams in ditches, riprap at culvert outlets, and erosion control mesh on steep slopes and in areas with high erosion potential.

21. Basic Stabilization during Construction: Update the reference in Section 15 of the application to reflect the most current online version of the MDEP Erosion and Sediment Control Handbook for Construction.

During construction of the proposed Phase II improvements, the Basic Stabilization Standard as defined by MDEP will be met. Erosion and sediment control will be provided in accordance with standards outlined in the 2003 online version of the MDEP's Maine Erosion and Sediment Control BMPs Manual.

22. Renderings: Provide colored 3D drawings of garage, including Phase I.

Refer to colored rendering included in attached plan set.

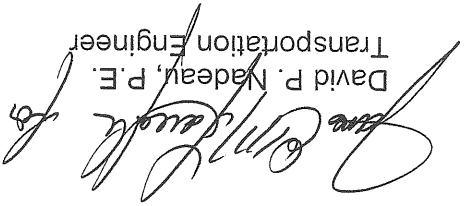
23. Landscaping: On landscaping plans, show all existing plantings.

Refer to sheet C7-1 included in attached plan set.

We trust that the enclosed documentation and responses provides you with sufficient information to finish your review of the proposed project's application for Major Site Plan Review. We look forward to presenting the proposed project at the upcoming Planning Board Workshop scheduled for June 12, 2007. If you require additional information, please don't hesitate to contact us.

Sincerely,

STANTEC CONSULTING SERVICES INC.


David P. Madean, P.E.
Transportation Engineer

Reference: Phase II Parking Garage
Portland International Jetport
Portland, Maine

Tel: (207) 775-3211
Fax: (207) 775-6434
dhadeau@stantec.com

Attachments: 9 copies each: 1) July 10, 2006 Meeting Minutes; 2) Site Plan Approval Standards
Summary; 3) City of Portland Site Plan Approval for Remote Lot; 4) Revised Plan Set
(1"X17")

c. Paul Bradbury - PWM
George Katsouris - DHK
Jim McLaughlin - Stantec