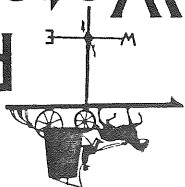


text

199-A-1
947 Westbrook
St.
Detroit Pk.
Garage
Patford Int.
Detroit



Portland Water District

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

(207) 774-5961
FAX (207) 761-8307
www.pwd.org

February 26, 1998

Mr. Mike Deluca
Deluca-Hoffman Assoc. Inc.
778 Main Street
So. Portland, ME. 04106

Re: Jetport Access Road, Portland

Dear Mike:

The Portland Water District has an "water main in Westbrook Street, Portland, near the proposed site. A test on a nearby hydrant produced the following results: static pressure 75 psi; pito pressure 52 psi; flow of 1210 gpm. With these results in mind, the District feels we have a healthful and sufficient capacity available to serve this proposed project and meet all normal fire protection and domestic water service demands.

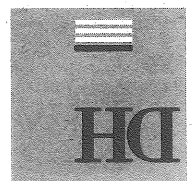
With certification by the developer that all required permits have been received, we look forward to serving this project.

Sincerely,

PORTLAND WATER DISTRICT

David W. Coffin, PLS
Engineering Supervisor

RECEIVED
MAR 2 1998



DELUCA HOFFMAN ASSOCIATES, INC.
 CONSULTING ENGINEERS
 778 MAIN STREET
 SUITE 8
 SOUTH PORTLAND, MAINE 04106
 TEL. 207 775 1121
 FAX 207 879 0896

- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
- CONSTRUCTION ADMINISTRATION

March 4, 1998

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

Subject: Truck Traffic – Embassy Suites

Dear Rick:

As a follow-up to the Planning Board meeting, Tom Gorrill, our traffic engineer, and myself have reviewed the subject of truck traffic on the north leg of the relocated access road. To begin with, based on the survey (copy enclosed) by Owen Haskell, Inc. that shows a future road, we believe that a road was always contemplated for this area. Since the Jetport maintenance building is also on this quadrant of the airport, we infer that trucks were expected to use this road.

The intent of the relocated access road is to remove traffic from in front of the terminal building that is accessing the northeast sector of the airport. This includes the Jetport maintenance building, Federal Express, and other hangars and offices on the east side of the airport. This design was for safety purposes to remove trucks from the road in front of the terminal building where our Traffic Study showed 1400 crossings in a 3-hour period on December 24, 1998.

This safety aspect was the major thrust of the MEDDP and Army Corps of Engineers environmental permitting for wetland impacts. Without it, we believe it would have been difficult for us to justify this leg of the road in the alternatives analysis.

The major truck traffic services Federal Express air cargo. Our discussions with Charles Melton, Operations Manager, indicated that they have approximately 150 total ins and outs by tractor trailers for a typical week. The week after Thanksgiving, their busiest week with Christmas trees and wreaths from L. L. Bean, adds about 30 more total trips for the week. For the next 3 weeks there are about 5 more total trips to account for the Christmas rush. The majority of trucks arrive and depart from 5:00 PM to 10:00 PM. Morning trips can be from 5:00 to 9:00 AM. Mr. Melton is very concerned with the safety aspect of his trailers passing in front of the terminal building and is anxious for the relocated access road to open.

In addition to Federal Express, airport maintenance has trucks to deliver glycol, sand and fuel to their area. Also, during construction projects, since trucks are not now allowed on a portion of Westbrook Street and this road will be dead ended, dump trucks will have to pass in front of the

Mr. Rick Knowland
March 4, 1998
Page 2

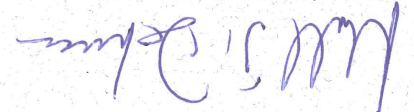
terminal building during hauling operations. These are large trucks that are not easily maneuvered. These operations are during daylight hours from 7:00 AM to 7:00 PM.

The suggestion of making the north side of the loop road two way so that traffic would not pass in front of the terminal building is impractical and does not fit into the short-term plans for the parking garage expansion which will cut off this road. Additionally, traffic patterns at almost all airports are routed for one-way patterns in order to avoid confusion and have an orderly traffic flow.

In summary, our office believes that truck traffic was always contemplated for this section of the relocated access road and it will be the safest traffic pattern for the airport.

Very truly yours,

DeLUCA-HOFFMAN ASSOCIATES, INC.



Michael J. DeLuca, P.E.
Senior Vice President

MJD/sq/JN1608/Know3-3

Enclosure

1. Sheet 5, Connector Road Plan and Profile, Station 0+0 to 5+0
 I have performed my initial review of the Jetport Access Road and have provided the following comments:
 A section of storm drain from Storm Drain Manhole 1 heading easterly 365 feet to a point where it enters a riprapped apron and then crosses the existing loop road with an 18" culvert should be redesigned such that the water does not travel in a 90° turn. The 18" culvert crossing the existing loop road should be angled to allow for an easier transition from the pipe system to the road culvert. This would require that the 365 feet of storm drain could be shortened to somewhere around 340 to 345 feet.
2. The applicant should show on the profile all the stormdrain manholes and catch basins in water quality units. Even though there is a schedule, it is difficult to determine their exact location and possible conflicts without showing them on the profile. Also, within the schedule, all structures should be located left or right of the baseline station for construction purposes.
3. On Sheet 5 and the following pages, several sections of the road embankment have been stabilized with stone riprap. That riprap should be sized and referred to the detail section on the plan.
4. On Sheet 6, a section of storm drain between Storm Manhole 3 and Catch Basins 5 and 6 is sized for 10" pipe. The same is true between Stormdrain Manhole 4 and CB-8 and CB-7. The smallest stormdrain to be constructed or installed should not be less than 12" in diameter.
5. On Sheet 6, at Station 15+0 both sides of the access road should be constructed with handicapped tip-down ramps so they can connect with the existing sidewalks which are already constructed or designed at the intersection of the access roads.

MEMORANDUM

Sebago Technics
 Engineering & Planning for the Future
 12 WESTWOOD COMMONS
 WESTPORT, MA 02891-1310
 TEL (508) 656-0377



To: Rick Knowland, City of Portland

From: Jim Seymour, Acting DRC

Date: February 5, 1998

Subject: Jetport Access Road Review Comments

370

I would also recommend that the benchmark PK nail on the easterly edge of Westbrook Street, Elevation 75.44, also be placed on Sheet 2 so that TBMs can be identified on both ends of the project.

No water quality treatment has been proposed for the eastern side of the access road. I would suggest that the applicant prepare treatment measures to handle the water quality from this eastern leg of the access road. The best location to install a water quality system would be prior to the last catch basin located in the ditch line. If alternative measures can be provided, the applicant needs to provide us with those details.

Also on Sheet 8, the applicant shows the storm drain from the Stormdrain Manhole 12 connecting to Catch Basin 19, and then on to Stormdrain Manhole 13. Because this is a City-accepted road, the City does not accept catch basins connected directly into the main storm line. A manhole will have to be installed and the catch basin will have to be connected to that manhole. I would suggest that a manhole be placed at approximately Station 26+60 such that Catch Basin 19 could drain into that manhole and then another stormdrain manhole could be installed at approximately Station 28+0. Due to the unique storm drain alignment at the intersection of the access road in Westbrook Street and the snow cover, I am not certain or convinced of how the storm drain discharges from this area. There appears to be a ditch line on the north side of the access road which is collected by a catch basin within that ditch line. No information has been given as to the location of where that storm drain discharges. Also, we will need to verify the pipe sizes exiting that last catch basin to make certain that the capacity can be matched with the actual runoff rate.

On Sheet 8, there are some existing catch basins which need to be verified for their connections. These basins are located at the first driveway to Embassy Suites off Westbrook Street. It is necessary to verify pipe connections and where the runoff eventually discharges.

Just a notice to the applicant that the Water District will require that the water main maintain a 3' separation between the catch basin faces and the outer face of the pipe. Prior to actual construction, the applicant should meet with Portland Water District to review all the plans.

On Sheet 6, there appears there may be a slight conflict of utilities at Station 11+85. There is a sewer service stub left for future development. There should be an optimum 12" of clearance between the sanitary sewer and the storm drain. If not possible, the minimum should be 6" of clearance between the two pipes. In addition, insulation may be needed to cover the service stub to provide at least 3' of cover over the sanitary service.

E-2

18. The applicant should show silt fence around the borders of this parking lot where the sheet flow discharges into the abutting undeveloped land.
17. On the same Sheet 13, material type for the sidewalk should be shown on the plan. It is not certain whether that will be bituminous or concrete sidewalk. The applicant should clarify this item.
16. On Sheet 13, the applicant has shown grading for a section of parking lot to discharge by sheet flow to an embankment. This embankment will require full stabilization and may need to be ripped to protect the slope from erosion due to large amounts of runoff generated in the parking lot. Due to the poor quality of the plans, I cannot tell the elevations of the embankment or the pipe invert.
15. The parking lot grading is acceptable; however, the applicant needs to disclose what type of pavement cover and thicknesses will be used for the repaving of this parking lot section.
- ~~14. On Sheet 11, the culvert collecting the ditch water at the inlet end should be ripped with irregular stone riprap and sized appropriately. The southerly side of the proposed or reclaimed parking lot is graded such that the water will be directed to the middle of the parking lot and travel to the easterly end of the parking lot without catch basin collection. The design should provide a catch basin to collect this stormwater and tie into a catch basin and storm drain located on the northerly side of the parking lot. If necessary, a hydrobrake or Vortex valve should be installed in the last catch basin to control the runoff rate into that storm system to make certain that it does not surcharge with runoff from larger storms.~~
13. On Sheet 11, the underdrain system is acceptable with the exception of one area at Station 3+30. Rather than having a 4-way section of underdrain connections, I would suggest that each connection only have a T-connection. The one section of pipe from Elevation 67.39 at .5 percent should flow in an easterly direction to Station 2+90 and connect that section with a T-connection.
12. A note should be added to Sheet 10 to verify all pipe elevations of the existing sewer and proposed storm drain crossings to be sure there is no conflict of elevation. If there is such a conflict, the revised plans must be approved by the City Engineer.
11. On Sheet 10, due to the unique circumstances of the existing catch basin having a shallow invert elevation, I believe a 10" diameter for storm drain would be acceptable for this short section. Because of the shallow cover, I agree with the applicant's design of 2" rigid insulation placed over the top of the storm drain, and I would also suggest that insulation be placed along the side of the pipe because of the relatively short cover and shallow slope.

As you are aware, there are many details and many design sections of this project. All of them may not be covered by my comments. However, I believe any issues that are left outstanding may be minor in detail and can be addressed during construction or prior to construction.

The applicant should also plan a pre-construction meeting with the following utilities: Northern Utilities, Portland Water District, Bell Atlantic, Central Maine Power Company, and the City of Portland Public Works Department. I would also strongly suggest that the applicant submit plans to these utilities for their review prior to construction to be certain that the utility companies approve the locations of the proposed utility.

The contractor's storage area should be shown in detail, how the area is to be surfaced (either with crushed stone or gravel), and how that area is to be protected with erosion control. Also, a note should be added to the plans that the contractor is responsible for cleaning the street following daily activities and should have methods to keep dust down during dry construction periods. Also, any area with stockpiles or materials for this project should be barricaded from public access.

The applicant needs to indicate where or how all the reclaimed pavement will be removed or re-used on site. All stockpiled materials should be located on the plans and those areas shall be protected with silt fence or other means of erosion control to discourage off-site discharge of pollutants from these materials.

22. General comments about the planning and construction schedule for the project overall:

21. On Sheet 20, road details, with regard to the detail of the ditch on the west side of the parking lot, the applicant should use a jute matting or erosion control mesh along the sides and bottoms of the ditch because of the steep slopes of 2:1.

20. On Sheet 19, drainage details, the applicant should include with the water quality units the design flow rates and desired particle size to be removed, and the efficiency removal rate of that particle. This is necessary information for a contractor to choose a water quality unit of equal size from one of the other specified manufacturers listed.

19. On Sheet 18, the stone sediment barrier: although the detail has been shown, it is not indicated where within the design plans this is to be implemented. The designer should place notes referencing on the plans that this is to be used within the parking lots or wherever sedimentation into a catch basin is possible during construction.

E-4

If you have any comments or questions regarding my review, please contact me at Sebago Technics. I believe Tony Lombardo, P.E. from Public Works and Larry Ash, P.E., Transportation Engineer will be reviewing this project for other aspects. I would suggest that the Planner, the Development Review Coordinator, and Public Works officials meet with the applicant to go over these comments so that they can expedite the project in a timely fashion.

JRS:jc

MEMORANDUM
PUBLIC WORKS ENGINEERING

To: Rick Knowland, Senior Planner
From: Anthony Lombardo, P.E., Project Engineer
Date: February 10, 1998

Subject: Jetport Access Road Extension ---Deluca/Hoffman

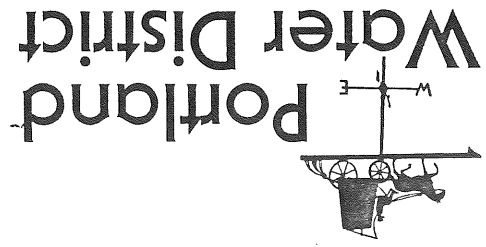
The following comments were generated during Public Works Engineering review of proposed Jetport Access Road Extension plans prepared by Deluca/Hoffman and dated January 1998.

1. On Sheet 5, the proposed location of SDMH-1 makes it extremely difficult for runoff flowing from WQV-1 to enter and exit SDMH-1. This runoff must turn a corner to change direction at an angle exceeding 90 degrees. The applicant should relocate SDMH-1 to improve this design.
2. The "Structure Schedule" should specify the location of structures left or right of the proposed road centerline.
3. On Sheet 6, a utility crossing conflict exists at approximately centerline station 11+85. A 6" dia. sanitary sewer lateral and a 12" dia. storm drain appear to cross at the same elevation.
4. On Sheet 6, the applicant must propose sidewalk ramps at the intersection of this proposed access road and existing access road, to service and connect all existing and proposed sidewalks.
5. On Sheet 7 & 8, the applicant proposes to connect the storm drain main from SDMH-12 into CB-19. Public Works does not accept main line connections into catch basins. The applicant must propose another SDMH and connect CB-19 and SDMH-12 into this structure.
6. On Sheet 7 & 8, the applicant proposes to connect the storm drain main exiting SDMH-13 into an existing catch basin located on the northeasterly side of the existing road at sta. 28+50. Once again, this is not acceptable to Public Works. The applicant should propose another SDMH to service the main.
7. The applicant should propose another water quality structure for this section of the proposed access road.
8. Several existing storm drain structures are specified on Sheet 7 & 8, but the applicant does not provide any information on the existing connecting network of pipes and the respective pipe inverts. The applicant should provide this information on the plans. Much of this information can be obtained in the Public Works Engineering Archives on plans originally submitted for the existing Embassy Suites development.
9. The applicant should verify the capacity of the existing downstream detention pond and indicate the effect of connecting the proposed storm drain into this existing system.

If they 3+p fl xxx +4 at 874-8300, extension 8848. Some of these comments may be duplicated by Jim Seymour at Sebago Technics.

If these revisions are not clear or if the applicant and his engineer have any further questions, please call me at 874-8300, ext. 8848.

cc: William Bray, P.E., Acting Public Works Director
Bruce Bell, Operations Manager
Katherine Staples, P.E., City Engineer



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

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February 26, 1998

Mr. Mike Deluca
Deluca-Hoffman Assoc. Inc.
778 Main Street
So. Portland, ME. 04106

Re: Jetport Access Road, Portland

Dear Mike:

The Portland Water District has an "water main in Westbrook Street, Portland, near the proposed site. A test on a nearby hydrant produced the following results: static pressure 75 psi; pito pressure 52 psi; flow of 1210 gpm. With these results in mind, the District feels we have a healthful and sufficient capacity available to serve this proposed project and meet all normal fire protection and domestic water service demands.

With certification by the developer that all required permits have been received, we look forward to serving this project.

Sincerely,

PORTLAND WATER DISTRICT

David W. Coffin

David W. Coffin, PLS
Engineering Supervisor

RECEIVED
MAR 2 1998

EMBASSY SUITES HOTEL
1050 WESTBROOK STREET
PORTLAND, MAINE 04102
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SUITES®



March 5, 1998

Mr. Joseph E. Gray, Jr.
Director of Planning & Urban Development
City Hall, 4th Floor
389 Congress Street
Portland, Maine 04101

Dear Mr. Gray,

After careful consideration of the proposed connector road at the Jetport, the Embassy Suites and its owners raise the following concern:

Westbrook Street Connector Road

We understand that the original plan for the Westbrook Street Connector Road (circa 1989) did not include the closure of Westbrook Street to through traffic. This is of great concern to us due to the vast safety considerations it raises. Tractor-trailers, autos and pedestrians will potentially use what was our driveway as a primary route between Congress Street, Westbrook Street and Yellowbird Road. More specifically, we may have guests and their children unloading luggage, walking from our parking areas and loading zones while commercial vehicles accelerate to 40 MPH or more. If you visit the site, you will notice that the existing driveway, at 31 feet, is far narrower than Westbrook Street, though it will be required to carry the same traffic volume. Because of the original design, we are concerned that the driveway will present a false sense of security to our guests and ultimately endanger their safety.

The Portland Jetport has proposed speed limiting devices such as rumble strips, road narrowing and speed bumps although they all have the problem of noise. Noise will be generated from both the actual device and the excessive braking of the vehicle in an effort to avoid the device. Additionally, commercial vehicles passing by open guest room windows at all hours of the night are of concern as well. In either case, noise means guests complainants and potential lost revenue by our hotel, particularly given our 100% Satisfaction Guarantee.

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Originally commercial traffic was allowed to use Waldo and Westbrook Streets as access to the Jetport community. When the Stroudwater Neighborhood Association complained about these vehicles, Waldo street was closed to truck traffic, forcing commercial vehicles to pass in front of the Jetport terminal. At this point it appears that the Jetport's concern regarding commercial traffic passing by the terminal may now become the Embassy Suites problem. In recent discussions with both Tom Valleau and Jeff Schuites, the Embassy Suites was promised that a 25 MPH speed limit and a "no truck zone" would be a condition of the development of this road, however, an alternate truck route was never engineered.

On several occasions, we have suggested that we would support the project if the Jetport would alter the already widened road directly behind the parking garage to allow two-way traffic, thus safe access for large commercial vehicles. Although the Jetport has been somewhat receptive to our other concerns, we are unsure of the status of this proposal.

In summary, if the City of Portland closes Westbrook Street and allows truck traffic to use what was once our driveway rather than the Jetport Access Road, we would be just trading one safety issue for another. In the end, this will be a serious liability for all.

We propose that the commercial vehicle route be properly engineered and resolved rather than making it another party's problem.

The ownership of Embassy Suites and myself look forward to attending the planning board workshop of Tuesday next. Thank you for your consideration.

Sincerely,



Steven P. Cowan
General Manager

cc: Mr. George Denney
Mr. Yervant Chekijian

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Steven P. Cowan
General Manager

cc: Mr. George Denney
Mr. Yervant Chekijian

MAN

NOTE

Similarity to the neuron hasn't been done

Issue of delimitation - should be

from the tuby refuted

different interaction -

add a curriculum and steps

not clear for design

ISSUES

SPAD M2

4-16-98

Attachments:

- A. 1996 Planning Board Approval Letter
- B. Site Plan
- C. Pedestrian Circulation Plan
- D. Proposed Revisions to Pedestrian Circulation Plan
- E. Development Review Coordinator Memo

- i. that the site plan be revised reflecting the comments of the Development Review Coordinator,
 - ii. that the pedestrian circulation plan be revised for city staff review and approval,
 - iii. that letters be submitted to the planning staff from utility companies confirming their approval of the roadway utility plan.
2. The Planning Board [finds/or does not find] that extraordinary conditions [do or do not] exist and/or that undue hardship [may or may not] result from strict compliance with the requirements set forth in se. 14-498(b)(8), therefore [approves or does not approve] a waiver for a sidewalk on one side of the street.

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1050 WESTBROOK STREET
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AH.F

March 19, 1998

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Mr. Joseph E. Gray, Jr.
Director of Planning & Urban Development
City Hall, 4th Floor
389 Congress Street
Portland, Maine 04101

Dear Mr. Gray,

The owners of Embassy Suites, Mr. George Denney and Mr. Yervant Chekijian, suggested that I write you regarding our position on the proposed East/West Connector road. On Thursday, March 12, 1998, a meeting was held at the Embassy Suites Hotel to discuss the resolution of issues raised at the March 10, 1998, planning board workshop. The following people were in attendance:

Mr. Tom Vallean - Port Director, City of Portland
Mr. Larry Ash - Traffic Engineer, City of Portland
Mr. Jeffrey Schultes - Airport Manager, Portland International Jetport
Mr. David Ishihara - Deputy Airport Manager, Portland International Jetport
Mr. Paul Bradbury - Facilities Manager, Portland International Jetport
Mr. Michael Deluca - Consulting Engineer, Deluca Hoffman Associates, Inc.
Mr. Tom Gorrill - Consulting Engineer, Deluca Hoffman Associates, Inc.
Mr. George Denney - Owner, Embassy Suites Hotel
Mr. Yervant Chekijian - Owner, Embassy Suites Hotel
Mr. Steven Cowan - General Manager, Embassy Suites Hotel

The Portland International Jetport management and consulting engineers investigated a number of options and recommended the following as the most feasible resolution: The development of a constant speed intersection where the new East/West connector road is to meet Westbrook Street. The new design is expected to resolve most noise, safety and traffic flow issues of concern to Embassy Suites. A 25 mph speed limit on the proposed road in addition to a northbound stop sign on Westbrook Street will allow a constant traffic flow, thus reducing the effects of commercial vehicle noise.

Although we would prefer not to allow commercial traffic to pass in front of our hotel, we also realize the safety implications of these vehicles when routed by the airport terminal. We accept the proposal for the re-designed Westbrook Street intersection in an effort to be a cooperative neighbor in the Jetport Community. As a result, Embassy Suites supports the development of the new East/West Connector Road currently on the planning board agenda for April 14, 1998.

I look forward to attending the planning board public hearing. Thank you for your consideration.

Sincerely,



Steven P. Cowan
General Manager

cc: Mr. Tom Vallean
Mr. Jeff Schuites
Mr. George Denney
Mr. Yervant Chekijian

Att.F

Thomas A. Toye III
PO Box 266
Cape Elizabeth ME 04107
207-767-4915

April 18, 1998

Joseph E. Gray Jr.
Director of Planning & Urban Development
Portland City Hall
Portland ME 04101

Dear Mr. Gray:

I am writing this letter because I will be unable to attend the Public Hearing scheduled for April 28, 1998. I would like to express my opposition to a proposed change to the intersection of the new Jetport Access Road and Westbrook St. My opposition is not to the new Access Road as had been previously presented, but rather to a proposed change of the intersection into a non-stop through road.

I own the land to the north of the Embassy Suites Hotel. It is my understanding that this change to the intersection is being introduced to satisfy concerns of the hotel in regards to potential noise from truck traffic.

Having worked at the Jetport for over 29 years, I believe the following points to be accurate:

- In my experience, the number of trucks operating at the Jetport is relatively insignificant.
- The noise generated from truck traffic is negligible in comparison to the aircraft noise.
- "T" truck use and noise are real issues, then changing this intersection will not solve the noise issue nor will it reduce truck traffic, but rather create a new safety issue in terms of speed. The proposal to allow a non-stop left turn onto Westbrook St. will provide trucks the opportunity to speed down the Access Road and along Westbrook St. to Yellow Bird Rd.

- I believe this proposal will create a high speed corridor and result in a dangerous condition for guests of the hotel as well as other pedestrian traffic.

- This proposal will also impact the future development of my land to the North of the hotel by limiting ingress and egress due to the potentially dangerous traffic conditions.

I, therefore, respectfully request that the intersection remain unchanged.

Sincerely,



Thomas A. Toye III

PC: Alexander Jaegerman, Chief Planner
John Carroll, Chairman, Portland Planning Board
Jeff Schultes, Airport Manager

Thomas A. Toye III
PO Box 266
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- This proposal will also impact the future development of my land to the North of the hotel by limiting ingress and egress due to the potentially dangerous traffic conditions.

I, therefore, respectfully request that the intersection remain unchanged.

Sincerely,



Thomas A. Toye III

PC: Alexander Jaegerman, Chief Planner
John Carroll, Chairman, Portland Planning Board
Jeff Schultes, Airport Manager

**EMBASSY
SUITES®**



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PORTLAND, MAINE 04102
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FAX 207 775-4052
FOR RESERVATIONS CALL
1-800-EMBASSY

March 19, 1998

Mr. Joseph E. Gray, Jr.
Director of Planning & Urban Development
City Hall, 4th Floor
389 Congress Street
Portland, Maine 04101

Dear Mr. Gray,

The owners of Embassy Suites, Mr. George Denney and Mr. Yervant Chekijian, suggested that I write you regarding our position on the proposed East/West Connector road.

On Thursday, March 12, 1998, a meeting was held at the Embassy Suites Hotel to discuss the resolution of issues raised at the March 10, 1998, planning board workshop. The following people were in attendance:

Mr. Tom Vallean - Port Director, City of Portland
Mr. Larry Ash - Traffic Engineer, City of Portland
Mr. Jeffrey Schultes - Airport Manager, Portland International Jetport
Mr. David Ishihara - Deputy Airport Manager, Portland International Jetport
Mr. Paul Bradbury - Facilities Manager, Portland International Jetport
Mr. Michael Deluca - Consulting Engineer, Deluca Hoffman Associates, Inc.
Mr. Tom Gorrill - Consulting Engineer, Deluca Hoffman Associates, Inc.
Mr. George Denney - Owner, Embassy Suites Hotel
Mr. Yervant Chekijian - Owner, Embassy Suites Hotel
Mr. Steven Cowan - General Manager, Embassy Suites Hotel

The Portland International Jetport management and consulting engineers investigated a number of options and recommended the following as the most feasible resolution: The development of a constant speed intersection where the new East/West connector road is to meet Westbroook Street. The new design is expected to resolve most noise, safety and traffic flow issues of concern to Embassy Suites. A 25 mph speed limit on the proposed road in addition to a northbound stop sign on Westbroook Street will allow a constant traffic flow, thus reducing the effects of commercial vehicle noise.



DELUCA HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS
778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207 775 1121
FAX 207 879 0896

- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- TRAFFIC STUDIES AND MANAGEMENT
- PERMITTING
- AIRPORT ENGINEERING
- SITE PLANNING
- CONSTRUCTION ADMINISTRATION

March 4, 1998

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

Subject: Truck Traffic - Embassy Suites

Dear Rick:

As a follow-up to the Planning Board meeting, Tom Gorrill, our traffic engineer, and myself have reviewed the subject of truck traffic on the north leg of the relocated access road. To begin with, based on the survey (copy enclosed) by Owen Haskell, Inc. that shows a future road, we believe that a road was always contemplated for this area. Since the Jetport maintenance building is also on this quadrant of the airport, we infer that trucks were expected to use this road.

The intent of the relocated access road is to remove traffic from in front of the terminal building that is accessing the northeast sector of the airport. This includes the Jetport maintenance building, Federal Express, and other hangars and offices on the east side of the airport. This design was for safety purposes to remove trucks from the road in front of the terminal building where our Traffic Study showed 1400 crossings in a 3-hour period on December 24, 1998.

This safety aspect was the major thrust of the MeDEP and Army Corps of Engineers environmental permitting for wetland impacts. Without it, we believe it would have been difficult for us to justify this leg of the road in the alternatives analysis.

The major truck traffic services Federal Express air cargo. Our discussions with Charles Melton, Operations Manager, indicated that they have approximately 150 total ins and outs by tractor trailers for a typical week. The week after Thanksgiving, their busiest week with Christmas trees and wreaths from L. L. Bean, adds about 30 more total trips for the week. For the next 3 weeks there are about 5 more total trips to account for the Christmas rush. The majority of trucks arrive and depart from 5:00 PM to 10:00 PM. Morning trips can be from 5:00 to 9:00 AM. Mr. Melton is very concerned with the safety aspect of his trailers passing in front of the terminal building and is anxious for the relocated access road to open.

In addition to Federal Express, airport maintenance has trucks to deliver glycol, sand and fuel to their area. Also, during construction projects, since trucks are not now allowed on a portion of Westbrook Street and this road will be dead ended, dump trucks will have to pass in front of the

ATTACHMENT D-1

Mr. Rick Knowland
March 4, 1998
Page 2

terminal building during hauling operations. These are large trucks that are not easily maneuvered. These operations are during daylight hours from 7:00 AM to 7:00 PM.

The suggestion of making the north side of the loop road two way so that traffic would not pass in front of the terminal building is impractical and does not fit into the short-term plans for the parking garage expansion which will cut off this road. Additionally, traffic patterns at almost all airports are routed for one-way patterns in order to avoid confusion and have an orderly traffic flow.

In summary, our office believes that truck traffic was always contemplated for this section of the relocated access road and it will be the safest traffic pattern for the airport.

Very truly yours,

DeLUCA-HOFFMAN ASSOCIATES, INC.



Michael J. Deluca, P.E.
Senior Vice President

MJD/sq/JN1608/Know3-3

Enclosure

February 10, 1998

Portland Planning Board
Portland, Maine

Submitted to:

**PORTLAND INTERNATIONAL JETPORT
ACCESS ROAD
SITE PLAN REVIEW
CITY OF PORTLAND, APPLICANT**

PLANNING BOARD REPORT # 02-98

I. INTRODUCTION

The City of Portland requests site plan review for a roadway at the Portland International Jetport. The proposed roadway connects the existing Jetport Access Road (off Johnson Road) to Westbrock Street (near the Embassy Suites Hotel).

This is the second phase of airport-related roadway plans proposed by the city. In 1996, the Board approved a new roadway from Congress Street to the airport. See Attachment A for the 1996 Planning Board approval letter. Attachment B includes the roadway site plan.

110 notices were sent to area property owners.

II. BACKGROUND

Zoning: A-B Airport Business.

Street Length: 2,600 feet.

Wetlands: The path of both roadways will disturb 2.3 acres of wetland. As part of the permit process, the Army Corp of Engineers is requiring that 18 acres of the wetlands on the Jetport site be deed-restricted as open space. Other mitigation measures are also required. Copies of the Army Corps of Engineers and DEP Wetland Permit Application are on file in the Planning Office.

On October 19, 1996, the Planning Board approved a new roadway from Congress Street to the interior airport loop road. This roadway is under construction and will be completed in 1998. As part of this review, the plan included a second roadway. Since the city did not have property rights over the second roadway, the Board could not formally approve it. Since that time, the city has acquired this land and requests formal approval. The land was acquired from Brooklawn Memorial Cemetery and Thomas Toye.

During the initial review, the airport roadway plan was submitted in the context of a master plan so that site plan issues and technical details could be highlighted.

Initially the roadways were reviewed as a site plan and as a revision to the airport subdivision. We have been informed by Corporation Counsel that recent state legislation exempts airports from the subdivision law. This second roadway therefore will not be processed as a subdivision.

The proposed roadway intersects the new Congress Street roadway about 700 feet north of the existing airport loop roadway. This roadway is expected to take a significant amount of commercial truck activity bound for airport-related business on Westbrock Street, avoiding excessive traffic around the airport loop road.

DEP approval of this project was given under the Site Location of Development Act.

As a significant portion of the roadway is in South Portland (Johnson Road side), development approval was required from that municipality.

The 1996 Planning Board approval included the following:

1. Construction of a 2,400 foot-long street from Congress Street to the airport loop road. This is intended to be the new main entrance to the airport, eliminating airport-related traffic through the residential area of Westbrook Street.
2. Improvements to terminate Westbrook Street with a cul-de-sac near Yellow Bird Road. This precludes public traffic to the airport from Westbrook Street.
3. Minor revisions to several parking lots. This improves circulation by reorganizing several parking lot entrances.

III. STAFF REVIEW

This development has been reviewed for conformance with the standards of the site plan and subdivision ordinances. Staff comments are incorporated in this report.

1/2. Traffic

The development of a new roadway system has been a major focus of the airport master planning efforts. While the 1996 approved roadway proposed a new main access from Congress Street, the second roadway functions as a bypass of the airport terminal the road providing a direct connection to airport-related business on Westbrook Street. Both roadways intersect one another north of the airport parking lots.

The roadway design remains unchanged from the earlier plan. The street will be 32 feet wide with granite curbs installed along the entire length of the roadway. A sidewalk is proposed on one side of the street. This will require a sidewalk waiver since sidewalks are required on both sides of a street. A waiver was granted for the phase one road. A two and one-half-foot esplanade is shown between the curb and the sidewalk.

A traffic report was previously submitted and Tom Errico, then Traffic Review Engineer, reviewed the traffic study and found it acceptable. He did however have several comments regarding improvements for pedestrian safety. A copy of the 1996 planning staff report is attached which includes a summary of traffic issues and a copy of the traffic report.

Mr. Errico indicates "it is unclear what route pedestrians who originate from the terminal building and are destined to the parking lot southwest of the new access road will utilize it. It appears that a crosswalk across the new access road supplemented with signs will be required".

In response to pedestrian safety concerns, the Board required as a condition of approval "that a thorough pedestrian circulation plan be executed" as part of the second roadway plan.

The submitted pedestrian circulation plan is shown as Attachment C. The report includes a pedestrian survey conducted on 12/23/97 and 12/31/97, one of the busiest times of the year. Highlights of the reports are shown below.

- * Thermoplastic striping should be used so that the crosswalks are more visible.
- * Pedestrian crossing signs should be installed at the crosswalks.

The project has been designed to minimize its impact on existing drainage conditions of the site. Development activities are limited to the roadway. No new buildings or parking lots are proposed at this

5. Sewers, Storm Drains, Water and Utilities

No new buildings are proposed.

4. Proposed Buildings Minimizes Diminution in Value or Utility to Neighboring Structures

There are no new buildings proposed. The impact of the roadway should enhance public health and safety since it eliminates airport-related traffic from the residential area of Westbrook Street and transfers it to a new access on outer Congress Street away from Stroudwater Village.

3. Proposed Building and Uses Impact on Health or Safety Problems

A raised crosswalk at the first crosswalk and the third crosswalk by the terminal would more effectively slow down cars and provide a more defined area to cross the street.

* Signage should be made out of reflective material and should be placed at the appropriate location and height.

* Larry Ash, City Traffic Engineer, also made the following comments:

* Sign #5 on the pedestrian plan is not helpful ("begin pedestrian zone - stop for pedestrians in crosswalk"). By state law cars are always supposed to stop for pedestrians. This could cause confusion in areas not so signed. Better use of signs #1 and #2 and several other strategically placed signs ("it's the law - stop for pedestrians") would be more appropriate.

* The large parking lot north of the loop road does not have any internal circulation walkways for pedestrian. This is the largest city parking lot (400+ spaces) at the airport. Staff is suggesting that a series of interior crosswalks be considered for pedestrian circulation. This would result in the loss of about 10 parking spaces. A walkway could be added along the southernly edge of the parking lot to feed into the existing walkway. See Attachment D.

* Several airport roadways were built with a sidewalk on only one side of the street, or no sidewalk at all. For example, there is no sidewalk along the westerly side of Westbrook Street from the loop road past various car rental agencies to the Embassy Suites Hotel (the hotel does have a sidewalk). The loop road has very limited sidewalks.

* While the plan improves signage and crosswalks, it does not fully address sidewalk issues or interior circulation from parking lots.

Staff has reviewed the plan and offers the following comments:

* Install a new crosswalk across the new access road to the northern satellite parking lot. Other crosswalks should be added also.

* The "stop for pedestrians" sign in front of the terminal should be replaced with a new sign reading "begin pedestrian zone - stop for pedestrians crossing", since over half pedestrian crossings occur outside the striped crosswalks.

Lighting is shown along the proposed streets. Power will be underground. Street light poles will be 30 feet high. The cutoff luminaire fixture is shown on Attachment A-22. It is the same fixture used for the phase one road.

9. Exterior Lighting

An erosion and sedimentation control plan describing temporary and permanent measures has been submitted (see Attachment B-17). The plan indicates silt fencing will be placed along the entire perimeter of the roadway. Rip rap will be used along portions of the roadway to stabilize the adjacent slope (see Attachments B-5 to B-7). All culvert openings will have rip rap installed.

For drainage-related issues, see #5 of this section.

8. Soil and Drainage

A landscaping plan has been submitted for the proposed road. It is similar to the plan previously submitted. The landscaping plan divides the roadway into different themes or landscape treatments. For example - "crossroads", "woodlawn plateau", and "hotel portal". This site characterization allows for a landscape plan that recognizes existing landscape conditions while acknowledging the road's role as a gateway to the airport. See Attachment B-L-1. Jeff Tarling, City Arborist, has reviewed and approved the landscape plan.

6/7. Landscaping

The plan has been reviewed by the Development Review Coordinator. His comments are shown as Attachment E. While the list is long, these are primarily minor technical details. Staff has met with the project engineer, Mike Deluca of Deluca-Hoffman, and he has agreed to make the plan revisions.

A new sanitary sewer line will be installed but it stops short of the existing airport access road, since there are limitations due to topography. Any future sewer extension from this point would need to be pumped. Water quality concerns are addressed by the installation of a stormceptor that removes oil and grit during the first flush of storms. The stormceptors will be placed near the Westbrook Street intersection and at the discharge point near the old airport access road.

An 8-inch water line is planned along most of the road. It starts near the Embassy Suites Hotel and runs past the cross roads intersection and stops about 700 feet from the existing airport access road (in South Portland).

Stormwater from the roadway will flow into 18 catchbasins connected into storm drains. These storm drains outlet at various points in the site. On the old jetport access road end, water will flow into an existing 21-inch culvert under the existing roadway. This culvert discharges into an open drainage ditch, which in turn discharges into the runway drain system. On the Embassy Suites Hotel end, stormwater will flow into a storm drain connected into Westbrook Street.

This leaves the remainder of the parcel as open space. There will be no increase in the rate of stormwater runoff from the site.

10. Fire

Lt. McDougall of the Fire Department has reviewed and approved the new road. Three fire hydrants are shown along the road.

11. Infrastructure

The proposal is consistent with off-premises infrastructure, existing or planned by the City. The proposed roadway system was a recommendation of the Jetport Master Plan.

12. Historic Resources

The proposal is not located within 100 feet of an historic district or landmark

13. Natural Resources

The proposed development will have no adverse impact upon the existing natural resources including groundwater, surface water, wetlands, unusual natural areas and wildlife and fisheries habitat. The acreage of land acquired by the City for the roadway totals 45 acres. At this point, the only site disturbance will be for construction of the roadway.

Although the roadway will require filling of wetlands (2.3 acres), the Army Corps of Engineers has required the following compensation package which mitigates the impact of the filling:

- .4 acres - creation of new wetlands
- .6 acres - restoration of disturbed wetland
- 18.0 acres - preservation of existing wetlands through deed restriction

These areas are located between the connector road and Congress Street. The site is not located within an aquifer. There appears to be no threatened, endangered, and special wildlife species and habitats or other special natural features on this site.

Water quality issues for the roadway are addressed in the storm drain system by installation of a stormceptor that removes sediment and grit pollutants during the first flush of storms.

14. Signage

Signage information during the first phase.

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 #02-98, the Board finds:

1. The plan is in conformance with the Site Plan Ordinance of the Land Use Code. Potential conditions of approval:

Attachments:

- A. 1996 Planning Board Approval Letter
- B. Site Plan
- C. Pedestrian Circulation Plan
- D. Proposed Revisions to Pedestrian Circulation Plan
- E. Development Review Coordinator Memo

i. that the site plan be revised reflecting the comments of the Development Review Coordinator,

ii. that the pedestrian circulation plan be revised for city staff review and approval, *① reflective vertical strips to better define walkway* *② crosswalk on westbound dr by embedding dots by stop sig.*

iii. that letters be submitted to the planning staff from utility companies confirming their approval of the roadway utility plan. *received one from P.W.D.*

2. The Planning Board *to public works comm* [finds or does not find] that extraordinary conditions *do* exist and/or that undue hardship *may or may not* result from strict compliance with the requirements set forth in se. 14-498(b)(8), therefore [approves or does not approve] a waiver for a sidewalk on one side of the *new road* street.

5-0

③ sign on page

5-0

CITY OF PORTLAND, MAINE
PLANNING BOARD

Cyrus Hagege, Chair
John H. Carroll, Vice Chair
Joseph R. DeCourcey
Kenneth M. Cole III
Jaimey Caron
Kevin McQuinn
Deborah Krichels

ATTACHMENT A-1

Mr. Jeff Schultes
Portland International Jetport
Westbrook Street
Portland, ME 04101

RE: Jetport Access Road Site Plan

Dear Mr. Schultes:

On October 29, 1996, the Portland Planning Board voted on the following motions regarding the proposed Jetport access road that runs from Congress Street to the Jetport loop road.

1. The Board voted 5-0 (DeCourcey, Krichels absent) that the plan was in conformance with the Subdivision Ordinance of the Land Use Code with the following conditions:

i. That a revised utility plan for the roadways shall be submitted to City staff for review and approval reflecting comments of Public Works, Fire Department, Portland Water District and other utility services.

ii. That a revised subdivision recording plat shall be submitted for Planning Board signature.

iii. That the second roadway shall be submitted for Planning Board review and approval when property ownership issues have been resolved.

iv. That the plan shall be revised to reflect the comments of the Development Review Coordinator contained in a memo dated 10-18-96.

v. That a thorough pedestrian circulation plan be executed as part of the final phase subdivision (second roadway).

2. The Board voted 5-0 (DeCourcey, Krichels absent) that the plan was in conformance with the Site Plan Ordinance.

3. The Board voted 5-0 (DeCourcey, Krichels absent) that extraordinary conditions do exist and/or that undue hardship may result from street compliance with the requirements set forth in sec. 14-498(b)(8), therefore approves a waiver for a sidewalk on one side of the street.

The Planning Board approval covers the new roadway running from Congress Street to the loop road; the Westbrook Street cul-de-sac and certain revisions to the driveways of parking lots. The second roadway is not included in this approval.

The approval is based on the submitted site plan and the findings related to site plan review standards as contained in Planning Report # 57-96, which is attached.

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

1. A performance guarantee covering the site improvements as well as an inspection fee payment of 1.7% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

2. 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.

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

4. Prior to construction, a preconstruction meeting shall be held at the project site with the contractor, development review coordinator, Public Works representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the preconstruction meeting.

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 (874-8300 ext. 8722) must be notified five (5) working days prior to date required for final site inspection. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

PEDESTRIAN CIRCULATION STUDY FOR THE PORTLAND INTERNATIONAL JETPORT

Introduction

The City of Portland Planning Board approval for the new access road from the Jetport loop road to Congress Street opposite the new Unum driveway was conditioned that a pedestrian circulation study be executed as part of the second phase (relocated access road) approval. Deluca-Hoffman Associates, Inc. has been retained by the Jetport to complete the study.

Existing Conditions

Exhibit 1 included in Attachment A of this study shows the conditions at the airport as they will exist in the late spring of 1998 when the new access road and parking lots are completed. The heaviest pedestrian activity occurs in front of the terminal building when people cross the access road in front of the terminal to reach the garage or satellite parking lots. Both the access road in front of the terminal building and loop road around the garage are one-way in a counterclockwise direction. Deluca-Hoffman Associates, Inc. counted the number of pedestrian crossings of the access road in front of the terminal during the holiday season on Tuesday, December 23, 1997 and again on Wednesday, December 31, 1997. This time period represents one of the busiest times of the year. The counts were collected from 1:00 PM through 4:00 PM and the results for this three-hour period are summarized below. Two observers were stationed in front of the building and one on the northerly section of the loop road. Detailed computer printouts for the counts are included in Attachment A of this study.

Table 1
Summary of Pedestrian Count in Front of the Terminal Building

Pedestrian Crossings		Peak Hour Volume	
Location	12/23/97	12/31/97	12/23/97
In front of Terminal Building - West half	455	373	199
In front of Terminal Building - East half	941	636	424
Subtotal	1396	1009	623
Loop Road in Back of Garage	103	137	43
	1499	1146	666
			359

These counts show that a high level of pedestrian activity occurs in front of the terminal building with 623 pedestrian crossings in front of the terminal building in a one-hour period. While Deluca-Hoffman Associates, Inc. was completing the count we made the following observations:

- Over half the pedestrian crossings in front of the terminal occurred outside the striped crosswalks.
- Drivers did yield to pedestrians both in and outside of the crosswalks.
- There are two travel lanes in front of the terminal. Some vehicles in the outside lane (the lane farthest from the terminal) appeared to be traveling too fast.

• Satellite Parking Lot West of Garage – Access from this surface lot to the terminal building is not well defined, particularly for the handicapped. The handicap-accessible parking spaces are located in the southeast corner of the lot adjacent to the gated access driveway. A sidewalk is located along the southerly side of the lot, but cannot provide direct access to the lot due to a grade differential. Deluca-Hoffman Associates, Inc. recommends that a

• Parking Garage – The pedestrian crosswalks in the garage shown on Exhibit 1 should also be remarked with a thermoplastic material in accordance with the detail on the plan. Pedestrian crosswalk signs are posted on the overhead girders. The second and third levels of the garage contain a number of handicap accessible parking spaces in the vicinity of the elevators which serve for both long-term and short-term parking. Alpha One has recommended that the access panel outside the elevator be upgraded to comply with current standards which include raised Braille. The panel on the interior of the elevator has already been upgraded.

• Crosswalks in front of the terminal building – There are three striped crosswalks in front of the terminal building. Deluca-Hoffman Associates, Inc. recommends that the visibility of these crosswalks, as well as the other crosswalks at the Jetport, be remarked with a thermoplastic material in accordance with the detail shown on Exhibit 1 of Attachment A of this report. This will improve the visibility and reflectivity of the crosswalk. It is also recommended that pedestrian crossing signs be posted at the crosswalks on both sides of the access road as shown on the plan, as well as all other crosswalks. An advanced warning sign exists for traffic approaching the terminal building from the west advising vehicles to stop for pedestrians. Deluca-Hoffman Associates, Inc. observed during the pedestrian counts that a large majority of pedestrians did not cross in the crosswalks. Since the entire roadway frontage by the terminal is utilized as a drop-off area, it is not feasible to physically channelize the pedestrians to the crosswalks. As a practical matter, pedestrians will cross anywhere along the terminal frontage. For this reason, we recommend that the wording on the existing "stop for pedestrians" sign be replaced with a new sign reading "Begin Pedestrian Zone – Stop for Pedestrians Crossing." An "End Pedestrian Zone" sign should also be erected at the easterly end of the terminal building.

Deluca-Hoffman Associates, Inc. completed a site walk to assess the existing pedestrian facilities on January 19th. We were accompanied on this review by Dennis Pratt of Alpha One who we retained to assess the access for the people with disabilities. In general, we found the pedestrian facilities to be good, but do make the following recommendations which are illustrated on Exhibit 1 of Attachment A.

Evaluation of Existing Pedestrian Facilities

Pedestrian crossings also occur on the loop road in the rear of the garage as pedestrians cross to access Avis or the satellite parking lots. As shown in Table 1, the level of pedestrian activity in this area is significantly less than in front of the terminal building. Another area where pedestrians cross the access road is at the intersection of the loop road around the garage and the access roadway in front of the terminal building. Traffic from both the loop road around the garage and the access road from Johnson Road are both required to stop. A pedestrian crosswalk is located across the loop road from the sidewalk located on the northerly side of the access road across from the terminal building. The number of pedestrian crossings at this location is currently small but can be expected to increase with the construction of an additional satellite lot on the west side of the loop road.

In general, the pedestrian facilities at the Jetport appear to be adequate. Deluca-Hoffman Associates, Inc. does recommend the improvements identified in this report on Exhibit A be implemented. We estimate the cost of this work to be \$25,000.00.

Conclusions

Deluca-Hoffman Associates, Inc. are not experts on lighting issues. However, we did complete a site walk after dark to identify any obvious areas where lighting is a problem. Lighting levels in front of the terminal building, within the parking garage and at existing and proposed crosswalks did not appear to be a significant issue. However, the Jetport may wish to have a formal study done by a qualified firm to verify this finding.

Lighting

- Access to the new satellite surface parking lot is proposed from the newly constructed sidewalk on the westerly side of the loop road. If this lot is to be handicap accessible, then Alpha One recommends railings be installed along the portion of the sidewalk with a 1:12 slope as shown on Exhibit A.
 - Pedestrian Access to the Northern Satellite Surface Lot – Access to this lot is provided via a crosswalk and sidewalk at the southeast corner of the lot across the loop road from the northwest corner of the parking lot and from a crosswalk on the new access road at the southeast corner of the lot. Alpha One has recommended that the stair-rail for this lot be extended on the lower landing to be in compliance with ADA standards. Deluca-Hoffman Associates, Inc. recommends a crosswalk be installed on the new access road to the parking lot.
 - Installation of a mirror providing sight lines along the sidewalk to drivers exiting the middle driveway similar to the mirror which exists at the north driveway.
 - Installation of signs on the sidewalk warning the pedestrians approaching the driveways from both directions of exiting traffic.
 - Sidewalk Along the Westerly Side of the Parking Garage – The sidewalk runs all the way along the westerly side of the garage to primarily serve the satellite lot on the other side (northerly side) of the loop road. Curb tipdowns are provided at each driveway crossing. The primary concern with this sidewalk is potential conflict with vehicles exiting the garage which occurs at the middle and north driveways on the west side of the garage. The pedestrians are adjacent to the building wall, which limits the visibility of the pedestrian to the driver. Deluca-Hoffman Associates, Inc. reviewed the potential of relocating the sidewalk further away from the building, perhaps on the easterly side of the parking aisles. However, in our opinion it is likely that pedestrians would continue on their current path which represents the most direct path to the satellite lots. The Jetport has taken measures at the northerly driveway including a gate and mirror. Deluca-Hoffman Associates, Inc. recommends the following additional measures:
 - Installation of a mirror providing sight lines along the sidewalk to drivers exiting the middle driveway similar to the mirror which exists at the north driveway.
 - Installation of signs on the sidewalk warning the pedestrians approaching the driveways from both directions of exiting traffic.
- crosswalk be installed from the parking lot to the sidewalk along the westerly side of the parking garage as shown on Exhibit 1. The crosswalk should be located deep enough into the site to minimize potential conflicts with traffic entering the lot and garage.

ATTACHMENT A

Site Code : 00010181
 Start Date: 12/31/97
 File I.D. : BAGGAGE
 Page : 1

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
 South Portland, ME 04106
 (207) 775-1121

Weather : CLOUDY
 Counter : MANUAL
 Counted by : ALYSSA (WED)
 Intersection: BAGGAGE AREA

PEDS

PEDS IN | PEDS OUT | Northbound | Southbound | Thru Other | Total

 Date 12/31/97

Time	PEDS IN	PEDS OUT	Northbound	Southbound	Thru Other	Total
13:00	60	0	39	0	0	99
13:15	47	0	21	0	0	68
13:30	10	0	59	0	0	69
13:45	21	0	73	0	0	94
Hr Total	138	0	192	0	0	330
14:00	9	0	62	0	0	71
14:15	7	0	12	0	0	19
14:30	26	0	12	0	0	38
14:45	9	0	7	0	0	16
Hr Total	51	0	93	0	0	144
15:00	14	0	32	0	0	46
15:15	17	0	10	0	0	27
15:30	19	0	23	0	0	42
15:45	30	0	17	0	0	47
Hr Total	80	0	82	0	0	162

TOTAL	269	0	367	0	0	636

Site Code : 00010181
 Start Date: 12/31/97
 File I.D. : BAGGAGE
 Page : 2

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
 South Portland, ME 04106
 (207) 775-1121

Weather : CLOUDY
 Counter : MANUAL
 Counted by : ALYSSA (WED)
 Intersection: BAGGAGE AREA

PEDS

PEDS IN	PEDS OUT	Southbound	Northbound	Thru Other	Total
---------	----------	------------	------------	------------	-------

Date 12/31/97
 Peak Hour Analysis By Entire Intersection for the Period: 13:00 to 16:00 on 12/31/97

Peak start 13:00	Volume	Percent	PK total	Highest	Volume	H! total	PHF
13:00	138	100%	138	13:45	60	60	.58
	0	0%	0		0	0	

PEDS IN		PEDS OUT	
138	138	138	138
0	0	0	0
192	192	192	192
0	0	0	0
330	330	330	330

Intersection Total
 330

PEDS IN		PEDS OUT	
138	138	138	138
0	0	0	0
192	192	192	192
0	0	0	0
330	330	330	330

Site Code : 00010181
 Start Date: 12/31/97
 File I.D. : TERM
 Page : 1

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
 South Portland, ME 04106
 (207) 775-1121

Leather : CLOUDY
 Counter : MANUAL
 Counted by : FAP (WED)
 Intersection: TERMINAL AREA

PEDS

date 12/31/97	PEDS IN		PEDS OUT		Thru Other	Total
	Southbound	Northbound	Southbound	Northbound		

13:00	34	0	21	0	0	55
13:15	32	0	8	0	0	40
13:30	14	0	18	0	0	32
13:45	12	0	28	0	0	40
Hr Total	92	0	75	0	0	167
14:00	1	0	31	0	0	32
14:15	16	0	19	0	0	35
14:30	10	0	3	0	0	13
14:45	11	0	5	0	0	16
Hr Total	38	0	58	0	0	96
15:00	11	0	6	0	0	17
15:15	21	0	12	0	0	33
15:30	18	0	14	0	0	32
15:45	20	0	8	0	0	28
Hr Total	70	0	40	0	0	110
TOTAL	200	0	173	0	0	373

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
 South Portland, ME 04106
 (207) 775-1121

Weather : CLOUDY
 Counter : MANUAL
 Counted by : FAP (WED)
 Intersection: TERMINAL AREA

PEDS

PEDS IN	PEDS OUT		Total
	Southbound	Northbound	
Thru other			
Thru other			

Date 12/31/97
 Peak Hour Analysis By Entire Intersection for the Period: 13:00 to 16:00 on 12/31/97

Peak start 13:00	13:00	0	75	0
Volume	92	0	75	0
Percent	100%	0%	100%	0%
Pk total	92	75	167	0
Highest	13:00	13:45		
Volume	34	28	28	0
Hl total	34	28	28	0
PHF	.68	.67		

PEDS IN		PEDS OUT		Total
Southbound	Northbound	Southbound	Northbound	
0	0	0	0	0
92	92	92	92	167
0	0	0	0	0
0	0	0	0	0
75	75	75	75	167

PEDS

Intersection Total
 167

PEDS IN		PEDS OUT		Total
Southbound	Northbound	Southbound	Northbound	
0	0	0	0	0
92	92	92	92	167
0	0	0	0	0
75	75	75	75	167

Weather : CLOUDY
 Counter : MANUAL
 Counted by : JD (WED)
 Intersection: LOOP ROAD

Site Code : 00010181
 Start Date: 12/31/97
 File I.D. : LOOPRD
 Page : 1

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
 South Portland, ME 04106
 (207) 775-1121

PEDS

PEDS IN | PEDS OUT |
 Southbound | Northbound |
 Thru Other | Thru Other |
 Total

Date 12/31/97

13:00	8	0	2	0	0	10
13:15	5	0	4	0	0	9
13:30	5	0	10	0	0	15
13:45	4	0	9	0	0	13
Hr Total	22	0	25	0	0	47
14:00	5	0	15	0	0	20
14:15	8	0	6	0	0	14
14:30	4	0	9	0	0	13
14:45	2	0	7	0	0	9
Hr Total	19	0	37	0	0	56
15:00	4	0	1	0	0	5
15:15	4	0	6	0	0	10
15:30	3	0	9	0	0	12
15:45	2	0	5	0	0	7
Hr Total	13	0	21	0	0	34
TOTAL	54	0	83	0	0	137

Site Code : 00010181
 Start Date: 12/31/97
 File I.D. : LOOPRD
 Page : 2

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
 South Portland, ME 04106
 (207) 775-1121

Weather : CLOUDY
 Counter : MANUAL
 Counted by : JD (MED)
 Intersection: LOOP ROAD

PEDS

PEDS IN	PEDS OUT	Southbound	Northbound	Thru other	Thru other	Total
---------	----------	------------	------------	------------	------------	-------

Date 12/31/97 -
 Peak Hour Analysis By Entire Intersection for the Period: 13:00 to 16:00 on 12/31/97

Peak start 13:30	13:30	Volume	Percent	pk total	Highest	Volume	Hi total	PHF
22	0	40	0%	22	14:00	8	8	.67
13:30	13:30	40	100%	40	14:00	15	15	

PEDS IN		PEDS OUT		Intersection Total	
0	0	22	0	62	62
0	0	22	0	40	40
0	0	22	0	40	40
0	0	22	0	0	0
0	0	22	0	0	0

Site Code : 00010181
 Start Date : 12/23/97
 File I.D. : TERM-23
 Page : 1

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
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 (207) 775-1121

leather : STORMY
 counter : MANUAL
 Counted by : FAP
 Intersection: TERMINAL ENTRANCE

PEDS

PEDS IN		PEDS OUT		Thru Other		Total
Southbound	Northbound	Southbound	Northbound	Thru Other	Other	

13:00	32	0	6	0	0	38
13:15	41	0	15	0	0	56
13:30	20	0	32	0	0	52
13:45	19	0	26	0	0	45
Hr Total	112	0	79	0	0	191
14:00	17	0	29	0	0	46
14:15	11	0	11	0	0	22
14:30	14	0	12	0	0	26
14:45	26	0	11	0	0	37
Hr Total	68	0	63	0	0	131
15:00	8	0	11	0	0	19
15:15	39	0	12	0	0	51
15:30	24	0	14	0	0	38
15:45	13	0	12	0	0	25
Hr Total	84	0	49	0	0	133

* BREAK *

TOTAL 264 0 | 191 0 | 455

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
 South Portland, ME 04106
 (207) 775-1121

Weather : STORMY
 Counter : MANUAL
 Counted by : FAP
 Intersection: TERMINAL ENTRANCE

PEDS

Peak Hour Analysis By Entire Intersection for the Period: 13:00 to 16:15 on 12/23/97

Peak start 13:15	13:15	13:15	13:30
Volume	97	0	102
Percent	100%	0%	100%
Pk total	97	102	
Highest	13:15	13:30	
Volume	41	0	32
MI total	41	32	
PHF	.59	.80	

PEDS IN	Thru Other		Total
	Southbound	Northbound	
PEDS OUT			

PEDS IN		PEDS OUT	
0	97	0	97
0	97	0	97
0	102	0	102
0	102	0	102
199	199	199	199

Intersection Total		PEDS	
199	199	199	199
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
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Site Code : 00010181
 Start Date: 12/23/97
 File I.D. : LOOP-23
 Page : 1

Weather : STORMY
 Counter : MANUAL
 Counted by : IAN
 Intersection: LOOP ROAD

PEDS

PEDS IN	PEDS OUT	Southbound		Northbound		Thru Other	Total
		Thru	Other	Thru	Other		

12	3	0	0	9	0	0	12
13:00							
13:15	6	0	0	4	0	0	10
13:30	4	0	0	6	0	0	10
13:45	2	0	0	9	0	0	11
Hr Total	15	0	0	28	0	0	43

14:00	4	0	0	6	0	0	10
14:15	1	0	0	7	0	0	8
14:30	5	0	0	8	0	0	13
14:45	4	0	0	2	0	0	6
Hr Total	14	0	0	23	0	0	37

15:00	4	0	0	6	0	0	10
15:15	0	0	0	0	0	0	0
15:30	6	0	0	2	0	0	8
15:45	1	0	0	4	0	0	5
Hr Total	11	0	0	12	0	0	23

* BREAK *

TOTAL 40 | 0 | 63 0 | 103

Site Code : 00010181
 Start Date: 12/23/97
 File I.D. : LOOP-23
 Page : 2

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
 South Portland, ME 04106
 (207) 775-1121

Intersection: LOOP ROAD
 Counted by : IAN
 Counter : MANUAL
 Weather : STORMY

PEDS

PEDS IN	PEDS OUT	Thru Other	Thru Other	Total
		Northbound		

Peak Hour Analysis By Entire Intersection for the Period: 13:00 to 16:15 on 12/23/97
 date 12/23/97

Peak start 13:00	13:00	0	28	0
Volume	15	0	28	0
Percent	100%	0%	100%	0%
PK total	15	28		
Highest	13:15	13:00		
Volume	6	9	0	0
PK total	6	9	0	0
Ht total	6	9		
PHF	.62	.78		

PEDS IN	PEDS OUT	Thru Other	Thru Other	Total
0	0	15	28	43
0	15	0	0	15
0	0	0	0	0
0	0	0	0	0

Intersection Total
43

PEDS IN	PEDS OUT	Thru Other	Thru Other	Total
0	0	15	28	43
0	15	0	0	15
0	0	0	0	0
0	0	0	0	0

Deluca-Hoffman Associates, Inc.

778 Main Street, Suite 8
 South Portland, ME 04106

(207) 775-1121

PEDS

Intersection: BAGGAGE AREA

Counted by : ALYSSA

Counter : MANUAL

Weather : STORMY

Site Code : 00010181
 Start Date: 12/23/97
 File I.D. : BAG-23
 Page : 1

Date 12/23/97	PEDS IN		PEDS OUT		Thru Other	Thru Other	Total
	Southbound	Northbound	Southbound	Northbound			
13:00	40	0	27	0	67	0	67
13:15	25	0	31	0	56	0	56
13:30	36	0	90	0	126	0	126
13:45	29	0	117	0	146	0	146
Hr Total	130	0	265	0	395	0	395
14:00	22	0	65	0	87	0	87
14:15	19	0	46	0	65	0	65
14:30	23	0	26	0	49	0	49
14:45	29	0	26	0	55	0	55
Hr Total	93	0	163	0	256	0	256
15:00	16	0	35	0	51	0	51
15:15	30	0	89	0	119	0	119
15:30	25	0	25	0	50	0	50
15:45	40	0	30	0	70	0	70
Hr Total	111	0	179	0	290	0	290

* BREAK *

TOTAL 334 0 | 607 0 | 941

Site Code : 00010181
 Start Date : 12/23/97
 File I.D. : BAG-23
 Page : 2

Deluca-Hoffman Associates, Inc.
 778 Main Street, Suite 8
 South Portland, ME 04106
 (207) 775-1121

PEDS

Weather : STORMY
 Counter : MANUAL
 Counted By : ALYSSA
 Intersection: BAGGAGE AREA

PEDS IN	PEDS OUT	Southbound	Northbound	Thru Other	Thru Other	Total
106	106					
0	0					
0	0					
318	318					
0	0					
0	0					
106	106					
0	0					
318	318					
0	0					
0	0					
106	106					
0	0					
318	318					
0	0					
0	0					
424	424					

Peak Hour Analysis By Entire Intersection for the Period: 13:00 to 16:15 on 12/23/97

Peak start 13:30	13:30	0	318	0	318	0	100%	100%	0
Volume	106	0	318	0	318	0	100%	100%	0
Pk total	106		318		318				
Highest	13:30		13:45						
Volume	36	0	117	0	117	0			
% total	36		117		117				
PHF	.74								.68

PEDS IN			PEDS OUT		
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
318	318	318	318	318	318
0	0	0	0	0	0
0	0	0	0	0	0
106	106	106	106	106	106
0	0	0	0	0	0
318	318	318	318	318	318
0	0	0	0	0	0
0	0	0	0	0	0
106	106	106	106	106	106
0	0	0	0	0	0
318	318	318	318	318	318
0	0	0	0	0	0
0	0	0	0	0	0
424	424	424	424	424	424

Intersection Total

PEDS

Figure 1

To: Bill Bray

From: Tom Errico

Date: October 15, 1996

Subject: Portland International Jetport Expansion

Copy: Richard Knowland

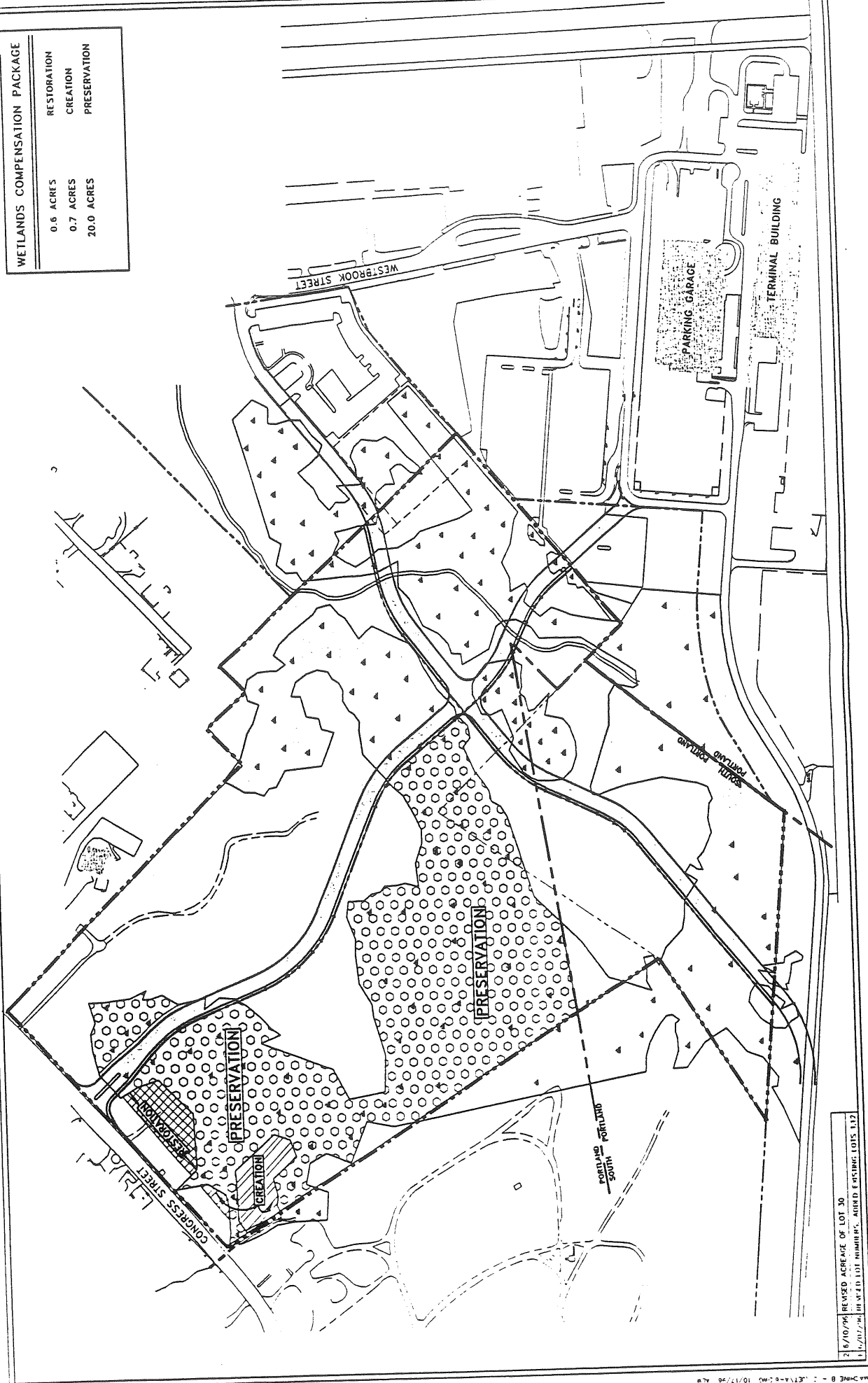
MEMORANDUM

In response to the updated Portland International Jetport Access Roads Design Plans prepared by DeLuca Hoffman Associates submitted on October 8, 1996, I have the following comments.

- Previous information indicated the New Access Road/Relocated Access Road intersection will be four-way stop sign controlled. The current plans depict stop signs and stop lines on only two approaches. In addition, no cross-walks are provided at this intersection.

- Pedestrian activity between the terminal building and parking lots is significant. It is unclear what route pedestrians who originate from the terminal building and are destined to the parking lot southwest of the New Access Road will utilize. It appears crosswalks across the New Access Road supplemented with signs will be required.

WETLANDS COMPENSATION PACKAGE	
0.6 ACRES	RESTORATION
0.7 ACRES	CREATION
20.0 ACRES	PRESERVATION



2/5/10/09 REVISED ACRES OF LOT 30
 1/6/07/06 HATCHED LOT NUMBER, AVOID EXISTING LOT 1, 12

PEDESTRIAN STUDY/SIDEWALK PLAN

As a result of the February 10, 1998 Planning Board meeting and a February 17, 1998 meeting with Alex Jaegerman, Rick Knowland and Larry Ash from the City of Portland, Deluca-Hoffman Associates, Inc. proposes the following Plan:

A. SIDEWALKS

1. Westbrook Street:
Currently a sidewalk exists on the east side of Westbrook Street from the loop road to Hertz Rent-a-Car. At that point, on the opposite side of Westbrook Street the sidewalk to Embassy Suites begins. For the near term we propose to use this sidewalk system for pedestrians on Westbrook Street.

For the intermediate term, within 3 years, we propose a sidewalk on the west side of Westbrook Street to the N.E. Airmotive Sidewalk. A sidewalk on the west side of Westbrook Street cannot be continued to the corner of Westbrook Street and the loop road for there are large concrete vaults and encased utilities in a raised grass area at the corner. To relocate these utilities would be a major expense. Also, as shown on the plan, there is a future parking garage expansion that will cut off the loop road which would also interfere with a sidewalk system.
For the long term, once the parking garage expansion is designed, a sidewalk will connect to the east side Westbrook Street sidewalk.

2. Loop Road:
On the north side of the loop road we proposed to pave a 5' wide area adjacent to the north side of the road that could be used for a walkway. This area will be striped and signed to discourage cars from parking.
3. New Access Road:
At the intersection of the new access road and the loop road, we propose to shift the proposed sidewalk (200 l.f.) from the south side to the north side. The shift will enhance continuity and be more functional. This sidewalk will continue on this side of the road to Congress Street.

4. Relocated Access Road:
For the section northeast of the intersection with the new access road, the sidewalk is on the opposite side as Embassy Suites. It is located here for this side of the road has the future potential development. The City owns most of the land on the opposite side of the road and a future garage expansion and new ring road are planned. Once constructed this would interfere with a sidewalk. To construct a sidewalk on this side of the road at this time would also involve additional wetland impacts which would require a modification of our permits from the Army Corps of Engineers and Maine DEP.

For the section southwest of the intersection with the new access road, the sidewalk is on the southeast side in order to minimize wetland impacts and to keep side-slopes from the road and sidewalk construction on City property.

5. Parking Lots:

For the large long-term parking lot, we propose to stripe an 8' wide pedestrian walk down the center of the lot. This will be connected to a new sidewalk on the south side of the lot which will be connected to the existing sidewalk on the east side of the lot. For the employee lot, we propose to stripe an 8' wide pedestrian walk that will be connected to the existing sidewalk on the east side of the lot.

6. Crosswalks:

Crosswalks will be remarked with thermoplastic markings as shown on the plan. In addition, the first crosswalk at the west end of the terminal will be a raised crosswalk. If necessary, a second raised crosswalk will be constructed as shown on the plan to discourage speeders.

Signage at crosswalks and other appropriate places will be coordinated and approved by the City of Portland.

CITY OF PORTLAND, MAINE
MEMORANDUM

TO: Chair Caron and Members of the Planning Board

FROM: Richard Knowland, Senior Planner

DATE: June 27, 2000

RE: Portland Jetport Parking Garage Master Plan

At Tuesday's workshop, a presentation will be provided on the new Jetport Parking Garage Master Plan. This initial workshop will be followed by at least two other workshops focusing on the more technical aspects of the site plan. A public hearing for the site plan will be scheduled sometime this fall.

The master plan envisions three phases to complete the plan.

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. See Attachment B-3. This garage accommodates 1,600 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.

Phase II: The phase one parking garage will be extended towards the present terminal building and will occupy the site of the existing three story parking garage which will be demolished. See Attachment B-7. 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.

Phase III: This phase provides another 2,200 parking garage spaces or a total of 5,300 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. See Attachment B-9.

Please review Attachment A. It includes a concise review of the master plan. Attachment B includes a concept site plan of the phases. An important element of consideration is the proposed pedestrian circulation plan since roadways and pedestrian walkways will be changing.

Attachments:

- A. Master Plan Site Plan
- B. Master Plan Narrative

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PWM PARKING MASTER PLAN
PHASE I PARKING GARAGE & NEW LOOP ROAD DESIGN
- SUMMARY -
A. Parking Master Plan

Growth at the Portland International Jetport has seen a rise in enplanements and boardings such that the airport's parking capacity needs to be increased in order to accommodate the new load. PWM wants to address this issue at a master plan level in order to assure that possible future growth will also be taken into consideration when further increase in parking needs will arise. Future plans for the airport include a terminal expansion, a baggage claim area expansion and a new intermodal bus transfer facility.

The *parking master plan*, which will be based on the existing airport master plan, incorporates all the parking needs of the airport, in phases, with an eye towards satisfying, in the same time, the pedestrian user needs, as well and the impacts upon the neighboring community.

The intent of the *parking master plan* is not only to assure all the airport parking needs, but also to move cars and people with maximum of efficiency and safety in an esthetically pleasing environment, while ensuring the best ways to increase parking revenues for PWM.

In an effort to get a better understanding of exactly how many parking spaces are presently needed, and how many will be needed in the future, the city had hired Walker Parking Consultants to produce a conceptual needs study for short and long term parking requirements. The study determined an immediate need for a parking garage with approximately 1200 cars. The construction of this structure will represent **Phase I** of the *parking master plan* and this structure is scheduled to be completed in the year 2002.

The *parking master plan* further incorporates two additional phases: **Phase II**, which will extend the Phase I garage onto the site of the parking garage that exists presently in front of the terminal, and **Phase III**, which will satisfy the parking needs for a period of 20 years in the future, estimated at 5,000-5,500 parking spaces.

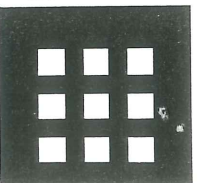
During construction periods, temporary parking must be made available, and the *parking master plan* will include provisions for it.

Fernando J. Domenech, Jr., AIA
D. Michael Hicks, AIA, CDT
Arnold M. Krockmalnic, AIA
Alberto Cardenas, AIA
Stephen DeMarco, CSI, CDT
John Gonzalez

ATTACHMENT A-1

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**DOMENECH
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Alberto Cardenas, AIA
Stephen DeMarco, CSI, CDT
John Gonzalez

The Phase I Parking Garage will be sited to the north of the existing parking garage structure, and immediately adjacent to it. This phase of the design will displace the Avis facility to a different site on the airport grounds. The garage will be a six-story structure, with one story being underground and five stories above grade. This structure will have seven parking levels, as there will be parking on the roof deck. The lower (underground) level of the garage will house all of the "ready and return" cars belonging to the rental car companies. At this location there will be a new Car Rental Facility, where the four car rental companies will relocate from their present location inside the airport terminal. The remaining six parking levels will become the long term parking for the airport, while the existing parking structure will become exclusively short-term parking. Circulation inside the garage will be via a double spiral helix, which will project partially out from the northern garage façade. The underground rental car level will be serviced by two downward ramps: one for the renting public, for car return after looping in front of the terminal and one used exclusively by the rental car servicing personnel, who will take out the returned cars for cleaning and fueling out to remote facilities, and will return the ready cars for rental.

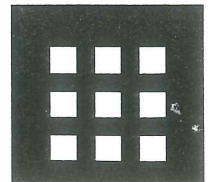
The Phase I Parking Garage will communicate with the existing 3-story parking structure. The surface lot will be redesigned to include new entrances and a new toll plaza. Entrance/exit to/from the Phase I Parking Garage will be through the surface lot. A temporary parking lot, necessary to house the parking spaces relocated because of construction, will also be provided.

C. Phase II Parking Garage

The Phase II Parking Garage will extend the Phase I Parking Garage towards the present terminal building and will occupy the site of the existing 3-story parking garage. The below-grade level will expand the "ready and return" rental car parking and is expected to completely satisfy these needs for a long period into the future. The other stories will extend the floor plates of the Phase I Parking Garage and will use the same double helix ramps mentioned above. The top floor of the Phase II Parking Garage will be recessed on its southern side in order to avoid a "canyon effect" in the area between the existing terminal and the garage.

A-2

A-3



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Entrance/exit to/from the Phase I + II Parking Garage will be through the surface lot.

D. Phase III Parking Garage

The Phase III Parking Garage will complete the final configuration of the garage with a 5-story structure that will have a top floor recessed on its southwestern side, similar the Phase II Parking Garage. Phase III Parking Garage will feature a double helix ramp identical to the one in the Phase I Parking Garage.

E. The New Loop Road

This *parking master plan* includes a new loop road, which will be built in two phases of its own, and which will grow as the construction on the site grows. All of the airport's parking facilities are scheduled to be located inside this loop road. The new portions of the loop road will have a 2-lane, 26 ft.-wide configuration. The western end of the new loop road will offer drivers two options: either to engage themselves onto the two-way airport exit road (with a possibility of diverting to the Embassy Suites Hotel), or to return on the loop circuit (i.e. after exiting garage for pick-up in front of the terminal).

The **first phase of the loop road**, which will preserve a good portion of the existing roadway configuration, will accommodate the Phase I Parking Garage, return of cars leaving the airport back to the entry/exit roadway, and a secondary, baggage claim area of the loop pulls off the main loop in front of the baggage claim area of the terminal. This baggage claim loop will incorporate a few spaces and loading of baggage, a few spaces for taxis, and a parking lot for buses and limousines. The construction of this first phase will be done in stages, to accommodate the parking garage construction. During the construction of the Phase I Parking Garage when the existing loop road will be taken out of commission, airport traffic must loop around Westbrook Street extension and the Embassy Suites hotel, to get back to the Congress Street intersection. At this time the western portion of the loop road can be built. This is a temporary situation: when Phase I Parking Garage is completed the remaining portion of the loop road will be constructed, and the access onto Westbrook Street from the airport loop road will not be allowed.

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Stephen Delmarco, CSI, CDT
John Gonzalez

In recognition of the importance of a smooth and safe pedestrian traffic, sidewalks will be provided along the new loop road with a total width (green strip + sidewalk) of 8 ft., which will move pedestrians peripherally on the site. The pedestrian crossings in front of the existing

H. Pedestrian Traffic

The traffic will move on the loop road in a one-way counter clock pattern from a point immediately south of the International Parkway & Jetport Boulevard intersection. As discussed, access onto Westbrook Street extension will be forbidden from the loop road, however, access onto the loop road from Westbrook Street extension will be permitted, and is expected to be used especially by the car rental personnel bringing cleaned and fueled cars into the car rental facility.

G. Vehicular Traffic

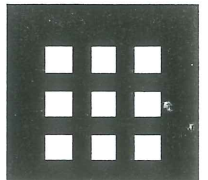
Of particular concern will be avoiding any impact on the 12" oil pipelines that are in the area of the temporary parking lots during construction. The parking master plan, as well as the design of the Phase I Parking Garage will entail relocation of utilities (water, sewer, site drainage, telephone, etc.) that will be negotiated with, and approved by, the respective utility companies.

F. Utilities

The second phase of the loop road is designed to align with the future expansion of the terminal building and will incorporate the new entry road alignment onto the site. As the terminal expansion design will be designed at a later time, the exact angle of the alignment will be determined at that time. This portion of the loop road consists of 6 lanes with an island in the middle, to break down the scale of the road, and make pedestrian crossing possible. Along the future terminal building there will be a 10' drop off lane and two 12' travel lanes. On the other side of the island there will be another 10' drop off lane, a 12' passing lane and a 12' peel off lane into the parking areas. The Phase III Parking Garage then aligns with this new road.

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While the new loop road will have an impact on the existing wetlands, this will be kept at a minimum, with only its western portion infringing on identified wet area.

K. Impact on Wetlands

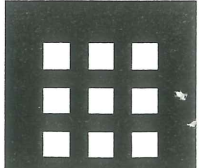
Similarly, the impact on the control tower view lines will be analyzed and mitigated. The parking master plan and, particularly, the Phase I Parking Garage will be designed in compliance with requirements such as 70-64, etc., which regulate height of buildings in the adjacency of the runways.

J. Compliance with Aviation Requirements

Phase I Parking Garage will make use of materials that will complement the adjacency of the residential neighborhood. The garage lighting, especially the roof light fixtures will be studied such as to have a minimal impact on the abutters. A major concern that the *parking master plan* will address is the impact of the new parking facilities on the Stroudwater residential neighborhood. In a planned process, the requirements of the abutters are included in the design to the extent to which they do not contravene the project's basic goals. View lines, site cross sections and photographic documentation are being used to ascertain the visual impact that the garage massing, especially the Phase I Parking Garage will have on the immediate neighborhood.

I. Neighborhood Impact

airport terminal will be maintained in Phase I and Phase II Parking Garages. Additional pedestrian crossings of the new loop road will be included in the (angled) second phase of the loop road. The *parking master plan* will make provisions for aerial pedestrian bridges to be included in the respective Phase II and Phase III Parking Garage design.



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