

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 04-1186		Issue Date:	CBL: 190 F008001
Location of Construction: 91 Sewall St	Owner Name: Langdon Street Real Estate Inc	Owner Address: 7 Langdon St	Phone:
Business Name:	Contractor Name: Patco Construction	Contractor Address: 1293 Main St Sanford	Phone: 2073245574
Lessee/Buyer's Name	Phone:	Foundation Only/Commercial	
Past Use: Parking Lot	Proposed Use: Bus Garage (BUS WASH)	Permit Fee:	Cost of Work: \$0.00 CEO District: 3
Proposed Project Description: FOUNDATION ONLY for a 2400 sq.ft. Bus Garage (BUS WASH)		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: U Type: 3B 8/17/04 Signature: [Signature]
		Signature: [Signature] PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Signature: Date:	
Permit Taken By: mjn	Date Applied For: 08/17/2004	Zoning Approval	

Special Zone or Reviews	Zoning Appeal	Historic Preservation
<input type="checkbox"/> Shoreland	<input type="checkbox"/> Variance	<input type="checkbox"/> Not in District or Landmark
<input type="checkbox"/> Wetland	<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Does Not Require Review
<input type="checkbox"/> Flood Zone	<input type="checkbox"/> Conditional Use	<input type="checkbox"/> Requires Review
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Interpretation	<input type="checkbox"/> Approved
<input type="checkbox"/> Site Plan	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved w/Conditions
Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/>	<input type="checkbox"/> Denied	<input type="checkbox"/> Denied
Date:	Date:	Date:

CERTIFICATION

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

SIGNATURE OF APPLICANT _____ ADDRESS _____ DATE _____ PHONE _____

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE _____ DATE _____ PHONE _____

SRG ENGINEERING, INC.
CONSULTING STRUCTURAL ENGINEERS

FACSIMILE TRANSMITTAL SHEET

TO Mi. Mike Nugent	FROM Steven Grant, P.E.
COMPANY City Portland	DATE 8/17/2004
PHONE NUMBER 874-8700	TOTAL NO OF PAGES INCLUDING COVER 5
FAX NUMBER 874-8716	SENDER'S REFERENCE NUMBER 04-068
RE Concord Trailways Garage	YOUR REFERENCE NUMBER

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY FOR YOUR USE

NOTES/COMMENTS:

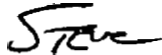
Hello Mike,

Here are the required *City* forms (2) in addition to the "Statement of Special Inspections" (2 sheets). These are being sent at the request of Richard Day at PATCO.

Please call should you have any questions.

Best wishes.

Sincerely,



Steven Grant, President

C:Richard Day @ PATCO: Fax 324-1643

PO BOX 925 52 BLUEBERRY LANE GRAY ME 04039 TEL:(207)-657-7323 FAX (207)-657-7342
THIS FAX IS INTENDED FOR THE RECIPIENT INDICATED. PLEASE CONTACT US SHOULD
THE RECIPIENT NOT RECEIVE THE ENTIRE DOCUMENT(S) TRANSMITTED

SRG JOB #04-068

S E A M

Structural Engineering Association of Maine

STATEMENT OF SPECIAL INSPECTIONS

PROJECT : CONCORD TRAILWAYS BUS GARAGE
 LOCATION: THOMPSONS POINT CONNECTOR ROAD
 PERMIT APPLICANT: PATCO CONSTRUCTION, INC
 APPLICANT'S ADDRESS: 1293 MAIN ST.
SANFORD ME 04073
 STRUCTURAL ENGINEER OF RECORD: STEVEN R. GRANT SRG ENG., INC
Name Firm
 ARCHITECT OF RECORD: JOHN W. EINSIEDLER, R.A. (SAME)
Name Firm

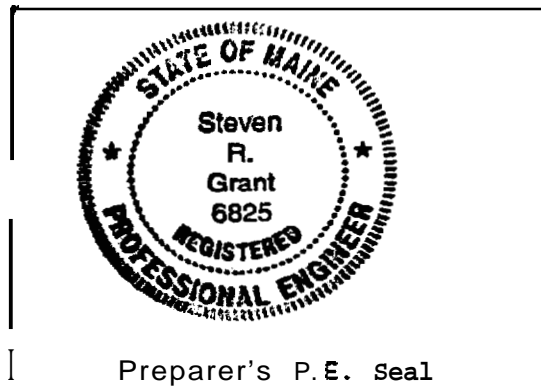
This Statement of Special Inspections is submitted in accordance with Section 1705.0 of the 1999 BOCA National Building Code. It includes a listing of special inspections applicable to this project as well as the name of the Special Inspector, and the names of other agencies intended to be retained for conducting these inspections.

The Special Inspector shall keep records of all inspections listed herein, and shall furnish inspection reports to the Code Official and to the Registered Design Professional of Record. All discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Code Official and to the Registered Design Professional of Record. Interim reports shall be submitted to the Code Official and to the Registered Design Professional of Record monthly, unless more frequent submissions are requested by the Code Official.

Job site safety is solely the responsibility of the Contractor. Materials and activities to be inspected are not to include the Contractor's equipment and methods used to erect or install the materials listed.

Prepared By:

STEVEN R. GRANT, President
NAME
[Signature] 8-12-04
SIGNATURE DATE



Applicant's Authorization:

SIGNATURE DATE
 3/15/94

Building Code Official:

SIGNATURE DATE

SRG Job 04-068

S E A M

Structural Engineering Association of Maine

LIST OF AGENTS

PROJECT: CONCORD TRAILWAYS BUS GARAGE

STRUCTURAL ENGINEER OF RECORD: STEVEN R. GRANT

Name SRG ENGINEERING, INC. Firm

Address P.O. Box 925 GRAY, ME 04039

ARCHITECT OF RECORD: JOHN W. EINSIEDLER, P.A.

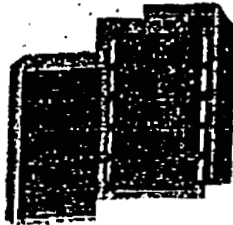
Name 148 SEA ROAD, KENNEBUNK, ME Firm

Address

Following is the List of Agents selected for performance of Special Inspections for this project.

- | | Name | Firm |
|-----------------------|-----------------------------|-----------------------|
| 1. Special Inspector | <u>STEVEN R. GRANT</u> | <u>SRG ENG.</u> |
| 2. Testing Laboratory | <u>S.W.C. ROGER DOMINGO</u> | <u>S.W. COLE ENG.</u> |
| 3. Testing Laboratory | _____ | _____ |
| 4. | _____ | _____ |
| 5. | _____ | _____ |
| 6. | _____ | _____ |
| 7. | _____ | _____ |
| 8. | _____ | _____ |
| 9. | _____ | _____ |
| 10. | _____ | _____ |

SRG JOB # 04-068



CITY OF PORTLAND
BUILDING CODE CERTIFICATE
389 Congress St., Rm 315
Portland, ME 04101

TO: Inspector of Buildings City of Portland, Maine
Department of Planning & Urban Development
Division of Housing & Community Service

FROM: STEVEN R GRANT, PRESIDENT

RE: Certificate of Design

DATE: 7-16-04

FOUNDATION
These plans and/or specifications covering construction work on:
LANGDON STREET REAL ESTATE INC. - OWNER
CONCORD TRAILWAYS BUS GARAGE

Have been designed and drawn up by the undersigned, a Maine registered architect/engineer according to the BOCA National Building Code/1999 Fourteenth Edition, and local amendments.



Signature: [Handwritten Signature]

Title: PRESIDENT

Firm: SRG ENGINEERING, INC.
P.O. Box 925
GRAY, ME 04039

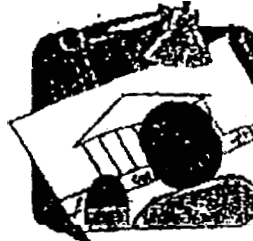
Address: _____

As per Maine State Law:

\$50,000.00 or more in new construction, repair, expansion, addition, or modification for Building or Structures, shall be prepared by a registered design

PSH 6/20/06

SRG JOB # 04-068



CITY OF PORTLAND MAINE

389 Congress St., Rm 315

Portland, ME 04101

Tel. -- 207-874-8704

Fax -- 207-874-8716

TO: Inspector of Buildings City of Portland, Maine
Planning & Urban Development
Division of Housing & Community Services

FROM DESIGNER: STEVEN R. GRANT, PRESIDENT

SRG ENGINEERING, INC.

P.O. Box 925
GRAY, ME 04039

DATE: 7-16-04

Job Name: CONCORD TRAILWAYS BUS GARAGE

Address of Construction: THOMPSON POINT CONNECTOR ROAD

THE BOCA NATIONAL BUILDING CODE/1999 Fourteenth EDITION
Construction project was designed according to the building code criteria listed below:

- * Building Code and Year: Boca 1999 Use Group Classification(s): F-1
- * Type of Construction: STEEL Bldg. Height: 26' Bldg. Sq. Footage: 2400
- * Seismic Zone: A=0.10 Group Class: _____
- * Roof Snow Load Per Sq Ft.: 58.8' * Dead Load Per Sq. Ft.: 5.85 c/case
- * Basic Wind Speed (mph): 90 * Effective Velocity Pressure Per Sq. Ft.: 20.27
- Floor Live Load Per Sq Ft.: 54000 RBW PER CONCORD TRAILWAYS

Structure has full sprinkler system? Yes _____ No _____ Alarm System? Yes _____ No _____
Sprinkler & Alarm systems must be installed according to BOCA and NFPA Standards with approval from the Portland Fire Department.

Is structure being considered unlimited area building? Yes _____ No _____

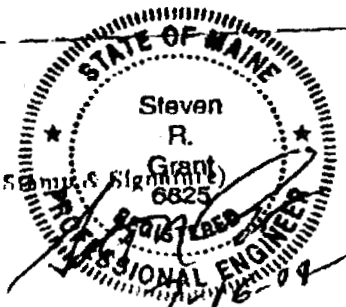
If mixed use, what subsection of 313 is being considered _____

List Occupant loading for each room or space, designed into this Project _____

Per Member
JOHN EINSIEDLER, R.A.

* Per VARIO-PADEN
MEMB BWS

(Designer's Stamp & Signature)



Form # P04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Permit Number: 041186

AUG 17 2004

Please Read Application And Notes, If Any, Attached

This is to certify that Langdon Street Real Estate / Patco Construction
has permission to FOUNDATION ONLY for 100 sq. ft. BW WASH
AT 91 Sewall St 190 F008001

provided that the person or persons who perform or supervise the work accepting this permit shall comply with all of the provisions of the Statutes of the State and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and when permission is procured before this building or part thereof is occupied or otherwise closed-in. 4 HOUR NOTICE REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS
Fire Dept. _____
Health Dept. _____
Appeal Board _____
Other _____
Department Name

[Signature]
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit

Permit No: 04-1186	Date Applied For: 08/17/2004	CBL: 190 F008001
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Location of Construction: 91 Sewall St	Owner Name: Langdon Street Real Estate Inc	Owner Address: 7 Langdon St	Phone:
Business Name:	Contractor Name: Patco Construction	Contractor Address: 1293 Main St Sanford	Phone: (207) 324-5574
Lessee/Buyer's Name	Phone:	Permit Type: Foundation Only/Commercial	

Bus Wash Facility	FOUNDATION ONLY for a 2400 sq.ft. Bus Wash Facility
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Dept: Building	Status: Approved with Conditions	Reviewer: Mike Nugent	Approval Date: 08/17/2004
Note:			Ok to Issue: <input checked="" type="checkbox"/>
1) A Special Inspection by a design professional as recommended in the Sebago Technic's geotechnical report dated 6/15/04 is required.			

Dept: Fire	Status: Approved	Reviewer: Lt. MacDougal	Approval Date: 06/19/2004
Note:			Ok to Issue: <input checked="" type="checkbox"/>

<input checked="" type="checkbox"/>			
1) that the applicant submit a letter from Portland Public Works attesting to adequate sewer capacity to service the development. That the applicant apply for and receive an Industrial Pretreatment or other appropriate waste handling permit prior to issuance of a building permit.			

Comments: 8/17/2004-mjn: Fire and Zoning Sign off's are found on permit #041115



Report on Subsurface and Foundation Investigation

**Proposed Bus Garage
Portland Transportation Center
Portland, Maine**

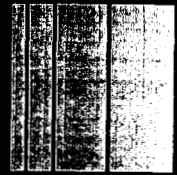
for

Concord Trailways
7 Langdon Street
Concord, NH 03301

by

Sebago Technics, Inc.

June 15.2004



June 15, 2004
99607

Harry Blunt, President
Concord Trailways
7 Langdon Street
Concord, NH 03301

**Report on Subsurface and Foundation Investigation, Proposed Bus Garage
Portland Transportation Center, Portland, Maine**

Dear Mr. Blunt:

This report presents the results of our subsurface and foundation investigation for the proposed Bus Garage at the Portland Transportation Center at the end of Sewall Street in Portland, Maine.

In summary, it is our opinion that the proposed building may be supported on spread footing foundations bearing on undisturbed, naturally deposited soils or on compacted stone pads bearing on the existing fill materials. A slab-on-grade may be used for the lowest (ground) floor. Specific recommendations regarding foundation design and construction considerations are presented below.

Introduction

The garage will be located in a portion of the existing employee parking area in the western portion of the Transportation Center. The proposed building site is partially paved and partially landscaped. Ground surface elevations in the area vary from approximately El. 31 to El. 32.5. The garage will consist of a pre-engineered metal building with ground floor at El. 32.9.

Subsurface Exdorations

On June 4, 2004, W. H. Lavigne (WHL) excavated four test pits, TP1 to TP4, at the site at locations shown on Sheet C-1G, Site and Subsurface Exploration Plan. WHL excavated the test pits to depths below ground surface varying from 6.0 feet to 6.3 feet using a Link Belt **2700** excavator. Sebago Technics monitored the test pits and prepared the logs in Appendix A. WHL backfilled the test pits with the excavated material.

Sebago Technics determined the locations of test pits by pacing from existing site features. Ground surface elevations at test pits was determined by linear interpolation between ground surface contours at the plotted locations.

The test pit logs and related information depict subsurface conditions and water levels at their specific locations at the time of excavation. Soil conditions at other locations may differ from conditions at these locations. Also, the passage of time may result in a change in groundwater conditions at the exploration locations.

Soil Conditions

The test pits encountered two principal soil units at the site: fill and marine deposits. The thickness and descriptions of the soil units are presented below in order of increasing depth below ground surface.

Fill - Fill consists of brown, well-graded SAND with gravel (SW); to brown, silty SAND with gravel (SM); to gray brown, mottled lean CLAY (CL); to gray brown, SILT (ML). Encountered thickness varied from 1.0 foot to greater than 6.0 feet.

Marine Deposits - Marine deposits consist of brown SILT (ML); to gray brown to olive lean CLAY (CL). Test pit TP4 penetrated up to 5.0 feet into the marine deposits.

Water was not observed in the test pits. However, observations of water were made over a relatively short period of time and may not represent the stabilized groundwater level. Water levels at the site will vary with season, precipitation, temperature and construction activity in the area. Therefore, water levels during and following construction will vary from those observed in test pits.

Recommendations for Foundation Design

Recommended Foundation Type and Design Criteria

The existing fill in its present condition is not considered suitable for support of the building or ground floor slab. In our opinion, the building may be supported on spread footings bearing on undisturbed, naturally deposited, inorganic soil or on compacted crushed stone placed after over excavation of the existing fill. We recommend that, where footings will bear in the existing fill, the excavation be extended to at least 1 foot below the bottom of footing, a non-woven geotextile filter fabric placed on the excavated subgrade, and refilled with ¾ inch crushed stone.

Footings may be proportioned for an allowable bearing stress of 2,000 pounds per square foot. All footings should be at least 1.5 feet wide. Exterior footings should be founded at least 4.5 feet below the lowest adjacent ground surface exposed to freezing. Interior footings, if required, may be founded 1.5 feet below the ground floor slab.

Crushed stone supporting footings should extend laterally from the footings to at least the limits defined by 1 horizontal to 1 vertical lines sloped outward and downward from points located at least 2 feet horizontally beyond the bottom edges of footings.

Ground Floor Slab

We recommend that the lowest level floor slab be designed as an earth-supported slab-on-grade bearing on a minimum of 12 inches of compacted structural fill. All pavement and fill containing debris should be removed from within the building limits prior to placing fill. Proofrolling should be performed before any raise-in-grade. All fill placed below the floor slab for raises-in-grade should consist of compacted structural fill. Normal dampproofing and vapor barriers should be provided below the slab.

Seismic Design Considerations

We recommend that, if the building is designed in accordance with the seismic requirements of the latest edition of the BOCA National Building Code, the site coefficient, S , is 1.0; the effective peak velocity-related acceleration coefficient, A_v , is 0.10; the effective peak acceleration coefficient, A_a , is 0.10. If the building is designed in accordance with the seismic requirements of the latest edition of the International Building Code, the site classification is Class D; the site response coefficient F_a is 1.5 for a short period spectral response acceleration S_s of 0.37g; the site response coefficient F_v is **2.4** for the 1-second period spectral response acceleration S_1 of 0.10g. The subgrade soils are not considered liquefaction susceptible.

Lateral Foundation Loads

We recommend that lateral loads be resisted by bottom friction on footings. We recommend that a coefficient of friction equal to 0.35 be used for footings. If this does not provide sufficient resistance, we will study the problem in more detail to take into account other factors.

Backfill Materials

Structural fill used below floor slabs and for backfill adjacent to walls should consist of sandy gravel to gravelly sand. It should be free of organic material, loam, trash, snow, ice, frozen soil and other objectionable material, and should conform to the following gradation:

<u>Sieve Size</u>	<u>Percent Finer by Weight</u>
3 in.	100
No. 4	30 to 90
No. 40	10 to 50
No. 200	0 to 8

Compacted structural fill should be placed in layers not exceeding eight inches in loose measure and compacted by self-propelled vibratory equipment at the approximate optimum moisture content to a dry density of at least 95 percent of the maximum dry density as determined in accordance with ASTM Test Designation D1557. In confined areas, the loose layer thickness should be reduced to **6** inches and compaction performed by hand-guided vibratory equipment.

Construction Considerations

General

The primary purpose of this section of the report is to comment on items related to excavation, earthwork, and related geotechnical aspects of proposed construction. It is written primarily for the engineer having responsibility for preparation of plans and specifications. Since it identifies potential construction problems related to foundations and earthwork, it will also aid personnel who monitor the construction activity. Prospective contractors for this project must evaluate the construction problems on the basis of their own knowledge and experience in the Portland, Maine area, and on the basis of similar projects in other localities, taking into account their proposed construction methods, procedures, equipment and personnel.

Excavation, Lateral Support and Control of Water

We anticipate that foundation excavation can be accomplished with sloped open excavation through the overburden soils provided safe side slopes can be maintained. Some sloughing and raveling should be anticipated in temporary slopes. Temporary excavations should be made in accordance with all OSHA and other applicable regulatory agency requirements.

We anticipate that groundwater may be encountered at proposed subgrade level or bearing level of footings. If encountered, open pumping from sumps can likely control groundwater. In general, the contractor should control groundwater and water from runoff and other sources by methods which prevent disturbance of bearing surfaces or adjacent soils and allow construction in-the-dry.

Preparation of Slab Areas

All fill containing debris or other unsuitable material should be removed from within the slab area. The slab subgrade should be systematically proofrolled with a minimum of two coverages of fully loaded ten wheel dump trucks or other approved equipment. Any soft or unsuitable areas encountered should be excavated and replaced with compacted structural fill prior to raising the grade or slab construction.

Subgrade Preparation

The subgrade soil is susceptible to disturbance from construction traffic. Equipment and personnel should not be permitted to travel across exposed footing bearing surfaces or exposed slab subgrades. Any subgrade areas that are disturbed should be recompacted or excavated and replaced with compacted structural fill prior to placing concrete. Subgrades should be protected against freezing temperatures if exposed during construction. Final excavation to subgrade should be performed using equipment with smooth-edge buckets.

Construction Monitoring

The foundation recommendations contained herein are based on the known and predictable behavior of a properly engineered and constructed foundation. Monitoring of the foundation construction is required to enable the geotechnical engineer to keep in contact with procedures and techniques used in construction. Therefore, we recommend that a person qualified by training and experience be present to provide monitoring at the site during preparation of foundation bearing surfaces, rock blasting, and placement of compacted structural fill.

Limitations of Recommendations

This report has been prepared for specific application to the subject project in accordance with generally accepted geotechnical engineering practices. In the event that any changes in the nature, design or location of the building are planned, the conclusions and recommendations contained in this report should not be considered valid, unless the changes are reviewed and the conclusions of this report modified or verified in writing.


The recommendations presented herein are based in part on the data obtained from the referenced test pits. The nature and extent of variations between the explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.

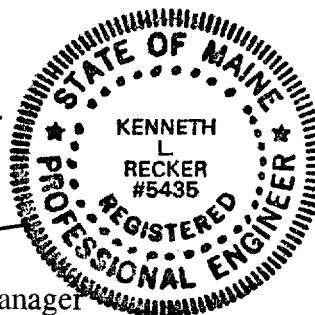
We request that we be provided the opportunity for a general review of final design and specifications in order to determine that our earthwork and foundation recommendations have been interpreted and implemented in the design and specifications as they were intended.

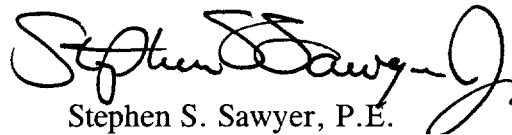
It has been a pleasure to work with you on this project. Please do not hesitate to contact us if you have any questions or need additional information.

Sincerely,

SEBAGO TECHNICS, INC.


Kenneth L. Recker, P.E.
Geotechnical Engineering Manager




Stephen S. Sawyer, P.E.
Vice President

KLR/SSS:klr/jc

Enclosures:

- Sheet C-1G - Site and Subsurface Exploration Plan
- Appendix A - Logs of Test Pits

cc: Rick Day, PATCO Construction



Appendix A

Logs of Test Pits

PROJECT	PROPOSED BUS GARAGE AND PARKING LOT	PROJECT NO.	99607
LOCATION	PORTLAND TRANSPORTATION CENTER, PORTLAND, MAINE	PROJECT MGR.	STEVE SAWYER
CLIENT	PORTLAND TRANSPORTATION CENTER	FIELD REP	K B STEPHENSON
CONTRACTOR	W H LAVIGNE	DATE	6/4/04
EQUIPMENT	LINK BELT 2700	WEATHER	Sunny, 60s

Ground El.	32.0	A	Location	See Plan	Groundwater depths/entry rates (in/r/min):	Not Encountered
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Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Group Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL , % oversized, max particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test										
					% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength						
		0.2		-BITUMINOUS CONCRETE-																
		1.1	SW	Brown, well-graded SAND with gravel (SW), 10 to 15% oversized, mps = 14 in., dry, bricks	15	10	30	30	10	5										
				-FILL-																
		1.1	SW	Light brown, well-graded SAND with gravel (SW), mps = 3.0 in., damp	10	10	30	30	15	5										
				-FILL-																
2		2.0	CL	Gray-brown, mottled lean CLAY (CL), wood at approximately 4.0 ft., trace coarse to fine sand, dry										100	N	M	M			
4				-FILL-																
6																				
8																				

Instructions:	Remarks:

Standing water in completed pit: at depth _____ ft. measured after _____ hrs. elapsed	Boulders: <table style="margin: auto;"> <tr> <td>Diameter (in.)</td> <td>Number</td> <td>=</td> <td>Approx. vol. (cu. ft.)</td> </tr> <tr> <td>12 to 24</td> <td>1</td> <td>=</td> <td>_____</td> </tr> <tr> <td>over 24</td> <td>**</td> <td>=</td> <td>_____</td> </tr> </table>	Diameter (in.)	Number	=	Approx. vol. (cu. ft.)	12 to 24	1	=	_____	over 24	**	=	_____	Test Pit Dimensions: Pit Depth 6.1 A. Pit Length X Width 8.0 ft. x 3.5 ft.
Diameter (in.)	Number	=	Approx. vol. (cu. ft.)											
12 to 24	1	=	_____											
over 24	**	=	_____											

DEBAGO
TECHNICS,
NC.

TEST PIT LOG

Test Pit No.

TP2

Page 1 of 1

PROJECT	PROPOSEDBUS GARAGE AND PARKING LOT	PROJECT NO.	99607
LOCATION	PORTLAND TRANSPORTATION CENTER, PORTLAND, MAINE	PROJECT MGR.	STEVE SAWYER
CLIENT	PORTLAND TRANSPORTATION CENTER	FIELD REP	K.B. STEPHENSON
CONTRACTOR	W. H. LAVIGNE	DATE	6/4/04
EQUIPMENT	LINK BELT 2700	WEATHER	Sunny, 60s

Ground El.	30.2	ft	Location	See Plan	Groundwater depths/entry rates (in/min):
1. Datum					Water seeping at 4.0 ft.

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Group Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, % oversized, max particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel						Sand		Field Test			
					% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Latency	Toughness	Plasticity	Strength		
			SM	Dark brown, silty SAND with gravel (SM), roots, pockets of clay, mps = 3.0 in., damp	5	10	30	20	15	20						
				-FILL-												
2		2.1	ML	Gray and brown SILT (ML), mps = 0.02 in., damp, trace roots, pockets of lean clay					10	90						
		3.3		-FILL-												
			ML	Brown sandy SILT (ML), mps = 0.02 in., damp, roots					15	85						
4		3.8		-ORIGINAL TOPSOIL-												
	4.2		ML	Brown SILT (ML), mps = 0.02 in., wet, trace clay					5	95						
	S1			-MARINE DEPOSITS-												
	4.5	4.7	CL	Light brown to olive-brown, lean CLAY (CL), damp						100	N	M	M			
6				-MARINE DEPOSITS-												
				Bottom of exploration at 6.3ft. below ground surface												
				No refusal												

Instructions:	Remarks:

Standine water in completed pit: at depth _____ Not Encountered _____ ft. measured after _____ 0.25 _____ hrs. elapsed	Boulders:			Test Pit Dimensions: Pit Depth _____ 6.3 A. Pit Length X Width _____ 10.0ft. x 4.0 A.
	Diameter (in.)	Number	Approx. vol. (cu. ft.)	
	12 to 24	--	=	
	over 24	--	=	

SEBAGO TECHNICS, INC. **TEST PIT LOG** Test Pit No. **TP3**
 Page 1 of 1

PROJECT: PROPOSED BUS GARAGE AND PARKING LOT PROJECT NO. 99607
 LOCATION: PORTLAND TRANSPORTATION CENTER, PORTLAND, MAINE PROJECT MGR. STEVE SAWYER
 CLIENT: PORTLAND TRANSPORTATION CENTER FIELD REP. K. B. STEPHENSON
 CONTRACTOR: W. H. LAVIGNE DATE 6/4/04
 EQUIPMENT: LINK BELT 2700 WEATHER Sunny, 60s

Ground El. 32.5 ft Location See Plan Groundwater depths/entry rates (in/min): Not Encountered
 El. Datum

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Group Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, % oversized, max particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test				
					% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
	0.2	0.2		-BITUMINOUS CONCRETE-										
	S1		SW	Brown, well-graded SAND with gravel (SW), 5 % oversized, mps = 4 in., dry, few bricks	15	10	30	30	10	5				
	0.7	1.0		-FILL-										
			SW	Light brown, well-graded SAND with gravel (SW), mps = 3.0 in., damp	10	10	30	30	15	5				
2				-FILL-										
		2.2		-FILL-										
			CL	Gray-brown, mottled lean CLAY (CL), 5 % oversized, mps = 10 in., dry, occasional silt pockets, concrete block at approximately 4.5 ft.						100	N	M	M	
4				-FILL-										
	5.0													
	S2													
6	6.0													
				Bottom of exploration at 6.2 ft. below ground surface No refusal										

Obstructions: Remarks:

Standline water in completed pit: at depth _____ Not Encountered ft. measured after _____ 0.25 hrs. elapsed	Boulders: Diameter (in.) Number = Approx. vol. (cu. ft.) 12 to 24 .. = over 24 .. =	Test Pit Dimensions: Pit Depth 6.2 ft. Pit Length X Width 8.0 fl. x 3.5 ft.
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SEBAGO
TECHNICS,
INC.

TEST PIT LOG

Test Pit No.

TP4

Page **1** of **1**

PROJECT	<u>PROPOSED BUS GARAGE AND PARKING LOT</u>	PROJECT NO	<u>99607</u>
LOCATION	<u>PORTLAND TRANSPORTATION CENTER PORTLAND, MAINE</u>	PROJECT MGR.	<u>STEVE SAWYER</u>
CLIENT	<u>PORTLAND TRANSPORTATION CENTER</u>	FIELD REP	<u>K B STEPHENSON</u>
CONTRACTOR	<u>W H LAVIGNE</u>	DATE	<u>6/4/04</u>
EQUIPMENT	<u>LINK BELT 2700</u>	WEATHER	<u>Sunny, 60s</u>

Ground El.	<u>30.0</u>	ft	Location	<u>See Plan</u>	Groundwater depths/entry rates (in/min):	<u>Not Encountered</u>
El. Datum						

Depth (ft)	Sample ID	Stratum Change Depth (ft)	USCS Group Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, % oversized, max particle size, structure, odor, moisture, optional descnphons, geologic interpretation)	Gravel		Sand			% Fines	Field Test			
					% Coarse	% Fine	% Coarse	% Medium	% Fine		Dilatancy	Toughness	Plasticity	Strength
			SM	Dark brown, silty SAND with gravel (SM), 5 % oversized, mps = 10 in., damp, trace brick, wood, pockets of clay fill	10	10	30	30	5	15				
		1.0		-FILL-										
			ML	Brown SILT (ML), mps = 0.02 in., damp, trace roots					5	95				
- 2		1.9		-MARINE DEPOSITS-										
			ML	Light brown SILT (ML), damp						100	N	L	L	
				-MARINE DEPOSITS-										
		3.0		-MARINE DEPOSITS-										
			CL	Olive, mottled lean CLAY (CL), damp						100	N	M	M	
- 4	SI			-MARINE DEPOSITS-										
- 6				Bottom of exploration at 6.0 ft. below ground surface No refusal										

Instructions:	Remarks:

Standine water in comdeted Dit: at depth <u>Not Encountered</u> ft. measured after <u>0.25</u> hrs. elapsed	Boulders:			Pit Depth <u>6.0ft</u> Pit Length X Width <u>10.0ft x 4.0 ft.</u>
	Diameter (in.)	Number	Appron. vol. (cu. ft.)	
	<u>12 to 24</u>	<u>--</u>	<u>=</u>	
	<u>over 24</u>	<u>--</u>	<u>=</u>	

SRG ENGINEERING, INC.

CONSULTING STRUCTURAL ENGINEERS

TRANSMITTAL SHEET

TO	Richard Day	FROM	Steven Grant, P.E.
COMPANY	PATCO Construction, Inc.	DATE	8/2/2004
MAIL/STREET	1293 Main St.	WE ARE SENDING YOU	1 set PE stamped plans: S1, S2
TOWN, STATE, ZIP	Sanford, ME 04073	SENDER'S REFERENCE NUMBER	04-068
RE	Concord Trailways Garage-FINAL	METHOD OF SHIPMENT	1 st Class Mail

FOR YOUR USE AS REQUESTED FOR REVIEW/COMMENT PLEASE RESUBMIT

NOTES/COMMENTS

Hi Rick,

Here is one set of original stamped P.E. plans that were emailed today as well. My copier ran out of toner, therefore, no copies could be made. Please be sure all previous copies of plans are destroyed, and not allowed to be used for construction.

The 9.5" thick slab is due in part to the relatively poor sub-grade soils **as** described by Ken Recker at Sebago Technics.

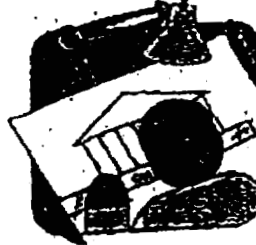
Thank you for using SRG Engineering for your structural engineering needs. Please call should you have any questions.

Sincerely,



Steven R. Grant, President

SRG JOB # 04-068



CITY OF PORTLAND MAINE

389 Congress St., Rm 315
Portland, ME 04101
Tel. - 207-874-8704
Fax - 207-874-8716

TO: Inspector of Buildings City of Portland, Maine
Planning & Urban Development
Division of Housing & Community Services

FROM DESIGNER: STEVEN R. GRANT, PRESIDENT

SRG ENGINEERING, INC.
P.O. Box 925
GRAY, ME 04039

DATE: 7-16-04

Job Name: CONCORD TRAILWAYS BUS GARAGE

Address of Construction: THOMPSON POINT CONNECTION ROAD

THE BOCA NATIONAL BUILDING CODE/1999 Fourteenth EDITION
Construction project was designed according to the building code criteria listed below:

- * Building Code and Year BOCA 1999 Use Group Classification(s) F-1
- * Type of Construction STEEL Bldg. Height 26' Bldg. Sq. Footage 2400
- * Seismic Zone AV=0.10 Group Class. _____
- * Roof Snow Load Per Sq. Ft. 58.80 * Dead Load Per Sq. Ft. 5.85 c/roof
- * Basic Wind Speed (mph) 90 * Effective Velocity Pressure Per Sq. Ft. 20.27
- Floor Live Load Per Sq. Ft. 54000# GNV PER CONCORD TRAILWAYS

Structure has full sprinkler system? Yes _____ No _____ Alarm System? Yes _____ No _____
 Sprinkler & Alarm systems must be installed according to BOCA and NFPA Standards with approval from the
 Portland Fire Department.

Is structure being considered unlimited area building: Yes _____ No _____

If mixed use, what subsection of 313 is being considered _____

List Occupant loading for each room or space, designed into this Project.

per Architect
JOHN EINSIEDLER, R.A.

* per VARIOUS-PROVEN
METAL BUDGS

(Designer's Stamp & Signature)

Steven R. Grant
6825
7-16-04
PROFESSIONAL ENGINEER

SRG JOB # 04-068



CITY OF PORTLAND
BUILDING CODE CERTIFICATE
389 Congress St., Rm 315
Portland, ME 04101

TO: Inspector of Buildings City of Portland, Maine
Department of Planning & Urban Development
Division of Housing & Community Service

FROM: STEVEN R. GRANT, PRESIDENT

RE: Certificate of Design

DATE: 7-16-04

FOUNDATION
These plans and/or specifications covering construction work on:

LANGDON STREET REAL ESTATE INC - OWNER

CONCORD TRAILWAYS BUS GARAGE

Have been designed and drawn up by the undersigned, a Maine registered architect/engineer according to the BOCA National Building Code/1999 Fourteenth Edition, and local amendments.



Signature [Handwritten Signature]

Title PRESIDENT

Firm SRG ENGINEERING, INC.
P.O. Box 925
GRAY, ME 04039

Address _____

As per Maine State Law:

'\$50,000.00 or more' in new construction, repair, expansion, addition, or modification for Building or Structures, shall be prepared by a registered design

~~BUILDING PERMIT INSPECTION PROCEDURES~~

Please call 874-8703 or 874-8693 to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in ~~48-72~~ hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre- construction Meeting will take place upon receipt of your building permit.

- oting/Building Location Inspection; Prior to pouring concrete
- Re-Bar Schedule Inspection: Prior to pouring concrete
- W/A Foundation Inspection: Prior to placing ANY backfill
- W/A Framing/Rough Plumbing/Electrical: Prior to any insulating or drywalling
- W/A Final/Certificate of Occupancy: Prior to any occupancy of the structure or use. NOTE: There is a \$75.00 fee per inspection at this point.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

~~CERTIFICATE OF OCCUPANCIES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED~~

[Signature]
Signature of Applicant/Designee

8/18/04
Date

[Signature]
Signature of Inspections Official

8/18/04
Date

CBL: 907008

Building Permit #: 041186