

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND BUILDING PERMIT



2

This is to certify that PORTLAND SPORTS REALTY LLC

Located At 512 WARREN AVE

Job ID: 2012-06-4345-ALTCOMM

CBL: 271- A-002-001

has permission to <u>Construct a 120'X150' Foundation Only addition to exisiting sports/recreational center & restaurant</u> provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED. A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2012-06-4345-ALTCOMM	Date Applied: 6/27/2012		CBL: 271- A-002-001		
Location of Construction: 512 WARREN AVE	Owner Name: PORTLAND SPORTS R LLC	EALTY	Owner Address: 510 WARREN AVI PORTLAND, ME (E 14103	Phone: 205-0705
Business Name: Portland Sports Center Training Facility	Contractor Name: JAMES GRATELL	.0	Contractor Addr 550 WARREN AV	ess: ENUE, PORTLAND, ME	04103 Phone: (207) 205-0705
Lessee/Buyer's Name:	Phone:		Permit Type: BLDG ADD		Zone: B-4
Past Use:Proposed Use:Restaurant with entertainment and recreational servicesSame: restaurant wi entertainment and recreational servicesFOUNDATION ON 120' x 150' addition sports centerProposed Project Description: foundation only for the Athletic Training sports		th LY for to the	Cost of Work: 559,000.00 Fire Dept: 7/5/12 Signature: 360 Pedestrian Activ	Approved W/C Denied N/A Walk (Se ities District (P.A.D.)	CEO District: Inspection: Use Group: A-2 Type: Fo under DBC-2009 Signature: MB 19/12
Permit Taken By: Gayle			1	Zoning Approva	1
 This permit application d Applicant(s) from meetin Federal Rules. Building Permits do not i septic or electrial work. Building permits are void within six (6) months of a False informatin may inv permit and stop all work. 	loes not preclude the ng applicable State and include plumbing, d if work is not started the date of issuance. validate a building	Special Z Shorelar Wetland Flood Z Subdivis Site Plan Official Date:	one or Reviews and as one sion n -Min - MM w Mconduta -Min - MM	Zoning Appeal Variance Miscellaneous Conditional Use Interpretation Approved Denied Date:	Historic Preservation Not in Dist or Landmark Does not Require Review Requires Review Approved Approved Denied Date:

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

7-13-12 Don Bill 252-1653 Footing Line A OK. SI to follow



317 ·

- 48 AF

BUILDING PERMIT INSPECTION PROCEDURES Please call 874-8703 or 874-8693 (ONLY) or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.
- Permits expire in 6 months. If the project is not started or ceases for 6 months.
- If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.

Footings/Setbacks prior to pouring concrete

Rebar Inspection prior to pour

In-slab Plumbing

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



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

Acting Director of Planning and Urban Development Gregory Mitchell

Job ID: 2012-06-4345-ALTCOMM

Located At: 512 WARREN AVE

CBL: 271- A-002-001

Conditions of Approval:

Zoning

- 1. Separate permits shall be required for any new signage.
- 2. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
- 3. This B-4 zone has maximum noise allowances. The City of Portland strictly enforces the level of sound generated on the property. Any verified noise violations shall require the owner to take mitigating measures to bring the property and the noise it generates into compliance.
- 4. Separate permits are required for the rest of the construction work PRIOR to that work being commenced.

Fire

- 1. This permit is for foundation only.
- 2. All construction shall comply with City Code Chapter 10.
- 3. Fire department connection type and location shall be approved in writing by fire prevention bureau. The Fire Department will require Knox locking caps on all Fire Department Connections on the exterior of the building.
- 4. Private fire mains and fire hydrants shall be installed in accordance with Fire Department Regulations, NFPA 1:18 and NFPA 1:1. Plans must be submitted for approval by the Fire Prevention Bureau.

Building

- 1. Application approval based upon information provided by the applicant or design professional. Any deviation from approved plans requires separate review and approval prior to work.
- 2. This permit approves work on the foundation only, separate application for permit and approval is required prior to construction of the building.
- Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.

Ever protects



General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any roperty within the City, payment arrangements must be made before permits of any kind are accepted.

Total Square Footage of Proposed Structure/Area 18,000 S.F.Square Footage of Lot 311,963 S.F.					
Tax Assessor's Chart, Block & Lot Applicant *must be owner, Lessee or Buyer* Telephone: Chart# 271 Block# A Lot# 2 Name Portland Sports Realty LLC Address 550 Warren Avenue City, State & Zip Portland, ME 04103 Colored Colored	57				
Lessee/DBA (If Applicable) Owner (if different from Applicant) Cost Of Name Work: \$59,000 (Four	dation)				
Address C of O Fee: \$_0 City, State & Zip Total Fee: \$_610.00					
Current legal use (i.e. single family) Athletic training field If vacant, what was the previous use?					
Contractor's name: James Gratello					
Address: 550 Warren Avenue					
City, State & ZipPortland, ME 04103 Telephone: (207) 205-	0705				
Who should we contact when the permit is ready: James Gratello (owner) Telephone: Mailing address:					

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at <u>www.portlandmaine.gov</u>, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

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

Date: 6/25/12 Signatu not a permit; you may not commence ANY work until the permit is issue This



4/25/12

City of Portland Development Review Application Planning Division Transmittal form

Application Number	: 2012-488	Application Date:	4/23/2012 12:00:00
CBL:	271-A-2		AM
Project Name:	Portland Sports Cent	ter Training Facility	
Address:	550 Warren Avenue		
Project Description: Zoning:	18,000 sq. ft. indoor B4	sports facility building	addition
Other Reviews Required: Review Type:	Level III Site Plan		

Distribution List:

Planner	Nell Donaldson	Parking	John Peverada
Zoning	Marge Schmuckal	Design Review	Alex Jaegerman
Traffic Engineer	Tom Errico	Corporation Counsel	Danielle West-Chuhta
Civil Engineer	David Senus	Sanitary Sewer	John Emerson
Fire Department	Chris Pirone	Inspections	Tammy Munson
City Arborist	Jeff Tarling	Historic Preservation	Deb Andrews
Engineering	David Margolis-Pineo	DRC Coordinator	Phil DiPierro
		Outside Agency	

Comments needed by (7 days later):

Marge Schmuckal - 550 Warren Avenue - Protland Sports Center Training Facility

From:	Marge Schmuckal
To:	Barbara Barhydt
Date:	4/26/2012 12:51 PM
Subject:	550 Warren Avenue - Protland Sports Center Training Facility

Hi Barbara,

I can't get information into One Solution, so here are my e-mail comments:

550 Warren Avenue - 271-A-002 2012-488 B-4 Zone 4/26/2012

The proposal is to erect a one story addition to the existing 50,844 sq. ft. Portland Sports Center dome that was erected in 2003. the addition is to be 120' x 150' in an area of existing parking. The given site plan shows that the entire property is located in a B-4 business zone. However, I am curious about whether the applicant owns additional land as part of this property. In 2007, the City was approached by the current owners to rezone a parcel of land in the R-3 zone immediately abutting this property. So I am wondering what happened to that parcel? Is it no longer a part of this property. I would like just a little bit of explanation concerning that parcel.

All the setback requirements of the B-4 zone are being met along with the maximum impervious surface requirement of 80% (showing 75.48%). I understand the building to be one story. However, I do not recall seeing an elevation of the building in the submission. I would like to confirm the building height. I do not expect this to be an issue.

When the original building was built in 2003, because of its size, the Planning Board made the decision concerning the parking requirements. It is only appropriate at this time that the Planning staff follow up with required parking requirements. A lot of data was submitted showing how parking is being handled.

I have to bring up the maximum noise allowances for the B-4 zone. The applicant must assure that there will be no violations to those requirements.

Separate building permits are required for the building and any HVAC units.

Marge Schmuckal Zoning Administrator

Marge Schmuckal - Re: 550 Warren Avenue - Protland Sports Center Training Facility

From:	Helen Donaldson
To:	Barbara Barhydt; Marge Schmuckal
Date:	5/14/2012 9:48 AM
Subject:	Re: 550 Warren Avenue - Protland Sports Center Training Facility

Marge,

The building height on this project is 34 feet. I think 65 is the limit in the B-4 zone, so the owner should be set, but I wanted to offer you the chance to comment.

Nell

>>> Barbara Barhydt 5/1/2012 3:31 PM >>>

>>> Marge Schmuckal Thursday, April 26, 2012 12:51 PM >>>
 Hi Barbara,
 I can't get information into One Solution, so here are my e-mail comments:

550 Warren Avenue - 271-A-002 2012-488 B-4 Zone 4/26/2012

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Separate building permits are required for the building and any HVAC units.

Marge Schmuckal Zoning Administrator

Applicant: Portland Sports Conter Date: 4/24/12 Address: 512 Warrin AVE C-B-L: 271-A-Z CHECK-LIST AGAINST ZONING ORDINANCE 7550 Date -ENtrutommanta recreational Cat Zone Location - B-4 Proposed UserWork- 120 Y 150 prenginered New Bldg Attached Servage Disposal - City 0 BO'm Loi Street Frontage -Front Yard - 20 mm 7346' Scaled Rear Yard - 20 mm x126' Scaled Side Yard-1-2 stones 10 mm -248' Scalad Projections -Width of Lot - 60 min - Height - 65 mix - one Story Lot Area - 10,000 # min - 311,889# Ghown (7,16) Acres) Aufler Coverage Empervious Surface - 80% max showing 75, 48% 311 Area per Family - NA -Off-street Parking - PB to Detam (1.996 221 Spcs were reg) Loading Bays -Site Plan - 2012 - ABB level IIL Shoreland Zoning/Stream Protection - NA Flood Plains - Revel 6 - Zone



271-B-4 271-B-1 271-B-2 271-B-2

Distance.	BOTANICAL MANE	COMMENT NAME	1 9TY	127
ABK.	ACR RATE & KAPPER	XANNEX RED MAPLE	23	A-6 DB
PA	PRIMIT ACCOUNT	ACTURADE CHENRY	4	4" DEH
BT	S.T. AUTROPUBLIESA COMPONENT	CHARGE PYINY BARRIERY	38	18" HT.

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EXISTING THEE	(\cdot)	
PROPOSED RELOCATED TREE	\bigcirc	
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L ANY RELOCATO VERTINOS MECH DOLTA MOT BUTHING DIE ORDENIO SALADINIMIST EX ADVALCOS ME BULAR SPECIES REPLACIENT TREE MUST DE L'UTIO DI RE CITY DE PORTLACE APPROVED IN THE LET AND MUST MEET ALL STANDARDE EXT FORTH IN THE CITY OF PORTLAND TO DEVACLE MENULAR EXT

10 EXEMPTING FREES IN THE MINARTURE OUT COURSE ANEA, MEETING THIS REGUMENENT. THE PLANTING OF ADDITIONAL THEES AND SHRINGS, IF NECESSARY, TO BE DETERMENTED BY THE CITY AND/C

1. Description of Project

patijvagdetuniedby PB 2003 The purpose of this project is to obtain approval and permitting for a proposed 18,000 S.F. indoor sports facility addition to the existing 50,844 S.F. Portland Sports Center dome. The site is identified as Tax Assessor's Map Map 271, Block A, Lot 2, and is located at 550 Warren Avenue. The proposed addition will be a 120' x 150' preengineered building that will be constructed at the eastern end of the existing dome. Entrance to the addition will be through the existing dome; doors on the proposed building will be used as emergency exits only.

The proposed building will be located in the area of the existing parking lot. The building addition will result in a net loss of 50 parking spaces. The site contains a Joker's Family Fun and Games amusement center, and the existing Portland Sports Center Dome and an associated storage building. Parking calculations are included on the Site Plan. The existing parking requirement is calculated to be 194 spaces, with 272 existing spaces on site. The total proposed parking is calculated to be 212 spaces, with a total of 222 parking spaces proposed. In discussions with the city, Jim Grattelo of Portland Sports Realty, LLC has shown that the existing parking exceeds the needs of the facilities on the site. The loss of the 50 parking spaces will not adversely affect the parking situation on the site. Additionally, a parking agreement for overflow parking for special events is in place between Joker's and Everett J. Prescott, inc. located at 530 Warren Avenue. The parking agreement is attached. Parking for special events is managed by the

 43560×7.16 The location of the propose building will also result in the loss of approximately 750 S.F. of existing landscaped areas. This area will be replaced by 995 S.F. of proposed landscaped area around the building as shown on the plan. This increase of approximately 240 S.F. of the plan. This

As part of this project, the existing parking lot will be restriped to match the required parking space dimensions listed in the City of Portland Technical Manual Section 1.14. Parking spaces will be 9'x18' with 36-8'x15' spaces for compact cars. Fourteen "Dero Bike Hitch" bicycle racks with twenty-eight bicycle parking places will be provided, as shown on the Site Plan, in accordance with Section 1.15 in the City of Portland Technical Manual.

Site lighting will consist of cut-off wall-pack fixtures to be placed at each door of the proposed building. The light fixtures will be the same as those on the existing building. One parking lot light will be relocated as shown on the Site Plan. No additional parking lot fixtures are proposed. Lighting cut sheets are attached.

The proposed limit of disturbance is shown on the Grading and Drainage Plan. The area of development is approximately 25,150 S.F.

235,420-311,889= 75.486 mp

	- ILIL SILDOG / FI
PROJECT D	ATA tom 1,001,6
The following information is required where applic	able, in order complete the application)
one Site Area	7.16 acres
Toposed figure disturbance is granted from one acre, then the application of the proposed disturbance is granted than one acre.	25,150 SQ. TL
WCGP) with DEP and a Stormwater Management Permit, Chapter 500), with the City of Portland)
MPERVIOUS SURFACE AREA	
Proposed Total Paved Area	128,453 SQ. ft.
Existing Total Impervious Area	235,663 SQ. ft
Proposed Total Impervious Area	(235,420 SQ. П.
Proposed Impervious Net Change	-243 SQ. Π.
JUILDING AREA	
Proposed Building Footprint	18,000 sq. ft .
Proposed Building Footprint Net change	+ 18,000 sq. ft .
Existing Total Building Floor Area	88,967 SQ. ft .
Proposed Total Building Floor Area	+ 106,967 sq. ft.
Proposed Building Floor Area Net Change	+ 18,000 sq. ft .
New Building	YES (yes or no)
ONING	
Existing	B4 Commercial Corridor Zone
Proposed, if applicable	N/A
AND USE	
Existing	Jokers Entertainment Ctr., Portland Sports
Proposed	Jokers Entertainment Ctr., Portland Sports
RESIDENTIAL, IF APPLICABLE	
 Proposed Number of Affordable Housing Units 	N/A
 Proposed Number of Residential Units to be Demolished 	N/A
Existing Number of Residential Units	N/A
Proposed Number of Residential Units	N/A
Subdivision, Proposed Number of Lots	N/A
ARKING SPACES	
Existing Number of Parking Spaces	272
Proposed Number of Parking Spaces	222
Number of Handicapped Parking Spaces	10
Proposed Total Parking Spaces	222
ICYCLE PARKING SPACES	
Existing Number of Bicycle Parking Spaces	0
Proposed Number of Bicycle Parking Spaces	28
Total Bicycle Parking Spaces	28
	\$ 507,000.00

Dept. of Planning and Urban Development ~ Portland City Hall ~ 389 Congress St. ~ Portland, ME 04101 ~ ph (207)874-8721 or 874-8719 -6-



Ms. Barbara Barhydt Development Review Services Manager Planning Division 389 Congress Street 4th Floor Portland, ME 04101 (207) 874-8699 Fax: (207) 756-8256 bab@portlandmaine.gov April 19, 2012 Project No.: C089-12

Re: Portland Sports Center Addition 512 Warren Avenue Portland, Maine

Dear Ms. Barhydt:

On behalf of Portland Sports Realty, LLC I have attached a Level III Final Site Plan application for your review and consideration for the referenced project. The project involves a adding a new, 18,000 S.F. indoor sports facility to the existing 50,844 S.F. Portland Sports Center dome. The project site (Tax Assessor's Map 271, Block A, Lot 2) is located in the B-4: Commercial Corridor Zone and is approximately 7.16 acres in area.

Please contact me for any additional information or clarifications required.

Sincerely,

Bala Eduard

Edward Brake, EIT.

cc: Portland Sports Realty, LLC

1284 State Road, Eliot, ME 03903 * tel (207) 439-6023 * fax (207) 439-2128



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

Lee Urban- Director of Planning and Development Marge Schmuckal, Zoning Administrator

Meeting Information

DATE: 2/15/07 Arren AVE LOCATION: 510-512 W Atvis - BADARA--3 TWANTS to rezone to Abusiness Zone for PAYE - Currently Shuttling R ZONE: WA-t3toenlage Thin venues - has to increase NEXT STEPS: batmooms-electrical à parting à traffie - has wetland issues 2,000 - seats for tay 700 - Standy to Add X 385 PAKE SPACES - NOISE ISSUES - massachusettes Sound - TRAFFIC ISSUES 800-> 8800 - works with Like Nations Tradeshous - "marensing program Activity" - New traffic Analysis - traffic movement - Discussion of Diopping Concerts on Nousey venues é enco - timing & Zone change - Then staplan After ~ ~ ~ Zountsshown Please note: this meeting is not an pre-approval of any ordinances. No project can be approved without going thru the appropriate reviews. This meeting is only to outline the City processes to go through based on the information given at this meeting. Any changes to that information may change the process requirements. Please check ordinances that are on-line for further information at www.portlandmaine.gov. - MAKE Smsl from The Comprehensing PLAN Strondpoint -Room 315 - 389 Congress Street - Portland, Maine 04101 (207) 874-8695 - FAX: (207) 874-8716 - TTY: (207) 874-3936

HISTORY OF USE AT THE JOKER'S PROPERTY

1997	Joker's opens a 28,000 sq foot family entertainment center	
1999	Joker's sells 1.4 acres to EJ Prescott with no reduction of parking	
2003	Portland Sports complex opens a 55,000 sq foot sports dome (Adding a net gain of 58 additional parking spots)	
2004	Turf's Sports Grill opens a 3500 sq ft sports bar (Parking was included in Sports dome site plan and study)	
2005	Turf's Adds on the "Gold Room" for comedy on Friday nights (This space reduces Joker's to 23,000 sq ft) (There is no impact on parking since it's mostly night activity)	
2005	Children's Academy Day Care opens in 3000 sq feet (This space reduces Joker's to 20,000 sq ft) (No impact on parking- kids are dropped off and picked up)	
2006	Academy of mixed martial arts opens in 3000 sq ft (This space reduces Joker's to 17,000 sq ft) (Joker's Sales are down so much parking never an issue)	
2007	- extra port	
2010	Day Care closes due to the economy	
2011	Martial arts moves to a new (bigger) location	
2012	Zumba Dance studio takes over Day care space (No impact on parking-75% of classes are during school time)	
2013	Sports Dome applies for expansion	

Long term we see Joker's eventually closing and replaced with continued Sports training space. This will further reduce the parking requirements on the property. We currently have 273 parking spots with a use of about 50% at any given time.

EATON TRAFFIC ENGINEERING 67 Winter Street Suite1*Topsham=Maine*04086 Tel/Fax 207.725.9805 Cell 207.841.4200

Portland Sports Center – Warren Avenue, Portland, Maine Traffic Assessment

Introduction/History

Portland Sports Realty, LLC proposes to expand an existing facility located at 550 Warren Avenue by adding a new 18,000 square foot sports center. The existing facilities on the site consist of a 28,553 square foot building housing Joker's Family Fun Center, a 50,844 square foot building housing a sports center and 9,799 square feet for Frozen Ropes Batting cages, as well as outdoor soccer fields and miniature golf. In 1996 the original Joker's Family Fun Center (and related miniature golf) was permitted with an estimated 130 peak hour trips, which was expected to occur on a Saturday or Sunday typically during school vacations (generally around mid-day). The previous land use on the site was Grossman's (Building and Hardware Supply) which was estimated to generate 140 peak hour trips on a Saturday. Accordingly there was essentially no net increase in traffic generation. Traffic generation during the normal weekday AM and PM peak periods was anticipated to be minimal.

In 2003 the facility expanded to add the sports center and Frozen Ropes batting cages. Trip generation data was developed from surveys done at the York Sports Center in York, Maine (similar in size) and the Frozen Ropes facility then located in South Portland, Maine. The surveys were done on Thursday, April 17, 2003 and Sunday, April 20, 2003. A summary of the weekend mid-day and weekday early evening (6:00 - 7:00 PM) is as follows (based upon records available):

	Weekend Peak	Weekday Peak
Joker's	62 Trips	11 Trips
Sports Center	24 Trips	24 Trips
Frozen Ropes	6 Trips	6 Trips
Total	92 Trips	41 Trips

For the weekend trips, where there is some variability for trips to Joker's Family Fun Facility, the ratio of receipts for April 20, 2003 to the highest receipts of the year was calculated to be 2.11, thus the peak trips for Joker's totaled 131 trips (raising the total for peak weekend trips to 161).

Projected Trip Generation – Proposed Expansion

Based upon the trip projections for 2003, the trip rate for the sports center (existing) is 0.47 trips per 1,000 square feet. Applying this to the proposed 18,000 square foot addition to the sports center would increase peak hour trip generation on a weekend or a weeknight by 8 to 9 trips. This would increase post-1997 peak hour trip generation (current MDOT traffic impact regulations took effect July 1, 1997) from 30 trips to 38 to 39 trips, which would not require a MDOT Traffic Movement Permit. As noted earlier, traffic generation during the normal weekday AM and PM peak hours would be expected to be minimal.



William C. Eaton, PE April 23, 2012

PARKING REQUIREMENTS/ TRAFFIC JOKER'S & PORTLAND SPORTS CENTER

IN 1997, JOKER'S, AFTER HAVING GONE THROUGH A FULL SITE PLAN APPROVAL PROCESS, ADDED 10,000SF TO AN ALREADY EXISTING 16,000SF "GROSSMAN'S" BUILDING ON WARREN AVE.

THE EXTENSIVE SITE PLAN REVIEW INCLUDED SEVERAL TRAFFIC STUDIES, (SEE ATTACHMENT #1A&1B.), ZONING DETERMINATIONS, PARKING REQUIREMENTS, ENVIORNMENTAL SURVEYS AND STORMWATER AND EROISION CONTROL ANALYSES.

AS PART OF THIS REVIEW THESE FINAL DETERMINATIONS WERE MADE:

1. BECAUSE REGULAR ZONING REGULATIONS FOR PARKING DIDN'T FIT THE UNUSUAL NATURE OF JOKER'S OPERATIONS, THE ZONING WAS DETERMINED TO BE PART GENERAL ASSMBLY, PART RESTAURANT, AND PART RETAIL.

2.AFTER HAVING CONDUCTED SEVERAL PARKING STUDIES AT A JOKER'S LOCATION IN PORTSMOUTH, NH, TWO BONKER'S LOCATION IN MASSACHUSETTS AND AT THE SITE IN PORTLAND, IT WAS DETERMINE THAT 215 PARKING SPACES WOULD BE REQUIRED JOKER'S DECIDED TO ADD 35 MORE SPACES FOR A SAFETY FACTOR BRING THE TOTAL TO 250.

JOKERS WAS OPEN FOR ITS' FIRST FULL YEAR OF OPERATIONS IN 1998 AND GENERATED JUST OVER \$1,600,000 IN VOLUME. DURING IT'S BUSIEST WEEK (FEBRUARY SCHOOL VACATION 1998) THERE WERE ALWAYS OVER 40 PARKING SPACES STILL AVIALABLE.

IN 1999, JOKER'S SOLD APPROXIMATELY 1.4 ACRES OF LAND INCLUDING A BUILDING TO EJ PRESCOTT. THIS DID NOT INCLUDE ANY OF THE JOKER'S PARKING BUT DID INCLUDE A SIDE AGREEMENT WITH EJ PRESCOTT TO ALLOW JOKER'S TO PARK ON THEIR PROPERTY ON WEEKENDS. (SEE ATTACHMENT #2.)

IN 2003, JOKER'S GAVE LAND TO PORTLAND SPORTS COMPLEX, INC TO BUILD A 55,000SF INDOOR ATHLETIC FACILITY. A FULL SITE PLAN REVIEW MADE THE FOLLOWING DETERMINATION:

1. IN 2003 AN ADDIONAL TRAFFIC AND PARKING STUDY WAS DONE (SEE ATTACHMENT #3.) AND CONFIRMED THAT PEAK. PARKING SPACE REQUIRED FOR JOKER'S WAS 150 PARKING SPACES AND THEREFORE JOKER'S WAS ALLOWED TO REDUCE IT'S SPACES TO 172. THE ADDITIONAL PARKING REQUIRED FOR THE PORTLAND SPORTS COMPLEX WOULD BE 101 SPACES BRINGING THE TOTAL AVAILABLE TO 273.

CURRENT UPDATE:

THE PARKING REQUIREMENTS FOR BOTH FACILITIES HAVE DIMINISHED DRASTICALLY. JOKER'S VOLUME FROM 1998 TO 2011 HAS DROPPED OVER 50% TO \$860,000. SPENDING PER CAPITA IS THE SAME, THERE ARE JUST FEWER PEOPLE COMING THROUGH THE FRONT DOOR. DURING SCHOOL VACATION 2012, AT PEAK TIME SATURDAY, THERE WERE OVER 45 PARKING SPACES STILL AVAILABLE ON THE JOKER'S SIDE. PORTLAND SPORTS CENTER, IN IT'S CAPACITY AS AN ATHLETIC FAILITY, ONLY USES HALF IT'S PARKING SPACES PROVIDING AN ADDITIONAL 50 EMPTY SPACES ON OUR BUSIEST DAY. THE ONLY TIME THE PARKING LOT IS CLOSE TO BEING FULL IS FOR ONE TRADE SHOW (MAINE PRODUCTS SHOW). THEY ARRANGE FOR OFFSITE PARKING FOR ALL VENDORS AT APPLICATORS SALES SO THAT THERE IS NEVER A PARKING ISSUE. FOR ALL OTHER TRADE SHOWS PARKING IS ADEQUATE ALTHOUGH WE DO UTILIZE THE EJ PRESCOTT PARKING FOR EMPLOYEES. AT NO TIME IS THERE EVER PARKING ON WARREN AVE AND FOR ALL MAJOR EVENTS, WE HIRE THE PORTLAND POLICE FOR TRAFFIC CONTROL.

SUMMARY:

WE CURRENTLY HAVE 100 EXTRA PARKING SPACES ON OUR BUSSIEST DAY OF THE YEAR AND 150 OR MORE ON A REGULAR BASIS. EVEN WITH THE EXPANSION OF THE DOME AND THE LOSS OF 50 SPACES WE WILL STILL HAVE 50 EXTRA SPACES ON OUR BUSIEST DAY AND 100 ON A REGULAR BASIS. THE EXPANSION WILL REQUIRE ABOUT 15 SPACES BUT 80% OF THE TIME THIS WILL BE 7PM TO MIDNIGHT WHEN JOKER'S IS CLOSING

SINCE WE OWN THE WHOLE PROPERTY AND MANAGE ALL THE BUSSINESS WE CAN MAKE SURE WE NEVER HAVE COMPETING EVENTS, AT THE SAME TIME, THAT REQUIRE TOO MUCH PARKING. PORTLAND SPORTS CENTER

CONSTRUCTION SEQUENCE





Marge Schmuckal - Fwd: RE: FW: questions regarding noise and the Portland Sports Complex expansion

From:	Helen Donaldson		
To:	Marge Schmuckal		
Date:	5/9/2012 12:12 PM		
Subject:	Fwd: RE: FW: questions regarding noise and the Portland Sports Complex expansion		
Attachments:	RE: FW: questions regarding noise and the Portland Sports Complex expansion		

Marge,

FYI - I just talked to the neighbor who said that these concerts occur pretty frequently, and that the most recent was within the year. I told her to refer any future noise complaints to police, who would then share that info with code enforcement/zoning....

Nell

Marge Schmuckal - RE: FW: questions regarding noise and the Portland Sports Complex expansion

From:	"Ed Brake" <ed@attarengineering.com></ed@attarengineering.com>
To:	<hcd@portlandmaine.gov></hcd@portlandmaine.gov>
Date:	5/7/2012 2:45 PM
Subject:	RE: FW: questions regarding noise and the Portland Sports Complex expansion

Nell,

I got in touch with the owner of the Portland Sports Complex and he says they have only had two concerts, and the most recent was 5 years ago. They only have one or two music events a year (a Halloween dance to benefit the Barbara Bush Children's Hospital) and a spring dance for the Cancer Society. The Dome has been insulated since they had the concerts, reducing any noise level. There are no plans for any events with music associated with the new addition.

Please let me know if you need any additional information. I look forward to working with you. Thanks for your help!

Ed Brake, E.I.T. Attar Engineering, Inc 1284 State Road Eliot, ME 03903 Phone (207) 439-6023 Fax (207) 439-2128

From: Helen Donaldson [mailto:<u>HCD@portlandmaine.gov]</u> Sent: Monday, May 07, 2012 1:07 PM To: Edward Brake Subject: questions regarding noise and the Portland Sports Complex expansion

Hi Ed,

I'm working with Barbara Barhydt on the development review process for the Portland Sports Complex expansion project. We received a call from a neighbor this morning who was voicing concerns regarding noise from the existing dome. This neighbor stated that concerts are being held in the dome and that they can sometimes present a challenge for neighbors.

How often and what kind of concerts are currently hosted in the dome? Are you proposing any such use (in addition to the primary use as a sports field) for the expansion?

Thanks for your clarification, Ed. I appreciate it.

Nell

Nell Donaldson Planner, City of Portland 874-8723 hcd@portlandmaine.gov

Marge Schmuckal - Fwd: RE: portland sports complex expansion

From:Marge SchmuckalTo:Barbara Barhydt; Helen DonaldsonDate:5/9/2012 2:29 PMSubject:Fwd: RE: portland sports complex expansion

Great. Now we can move forward.. Thank you Barbara, Marge

>>> Barbara Barhydt 5/9/2012 2:24 PM >>> Hi Marge and Nell:

They have provided a survey of the additional property that is within the R-3 zone and I believe they are listed as the property owner (Nell, please confirm the name on the survey). All of the proposed changes to the site are within the front lot area between Warren Avenue and the rail right-of-way. The application does not include any changes or parking in the rear. David Senus has raised is the need to stabilize some slopes where the construction staging disturbed slopes on the site, but that is it.

Hope this helps. Thank you for insights, as I did not know they had requested a zone change for the property.

Barbara

>>> Marge Schmuckal Wednesday, May 09, 2012 1:02 PM >>>

The owners came in several years ago to expand their parking lot back into the R-3 zone. So I was wondering if that R-3 lot was just under a purchase and sales and they never bought it - or some other scenario. I was just curious and wanted to be sure of the scope of their lot at this time. Marge

>>> Helen Donaldson 5/9/2012 12:21 PM >>> Marge,

Regarding the lot in the R-3 zone that you referred to in your comments, I believe this is the survey? Do you need additional info on it?

Nell

Marge Schmuckal - Fwd: RE: portland sports complex expansion

From:	Marge Schmuckal
To:	Helen Donaldson
Date:	5/9/2012 1:02 PM
Subject:	Fwd: RE: portland sports complex expansion

The owners came in several years ago to expand their parking lot back into the R-3 zone. So I was wondering if that R-3 lot was just under a purchase and sales and they never bought it - or some other scenario. I was just curious and wanted to be sure of the scope of their lot at this time. Marge

>>> Helen Donaldson 5/9/2012 12:21 PM >>> Marge,

Regarding the lot in the R-3 zone that you referred to in your comments, I believe this is the survey? Do you need additional info on it?

Nell

CITY OF PORTLAND, MAINE

PLANNING BOARD

Carol Morrissette, Chair Stuart O'Brien, Vice Chair Timothy Dean Bill Hall Joe Lewis David Silk Patrick Venne

.

May 23, 2012

Jim Gratello Portland Sports Realty, LLC 550 Warren Avenue Portland, ME 04103

Project Name: Portland Sports Center Addition

Nell Donaldson

550 Warren Avenue, Portland

Portland Sports Realty, LLC

Edward Brake, EIT Attar Engineering, Inc. 1284 State Road Eliot, ME 03903

Project ID:	2012-488
CBL:	271-A-002

Dear Mr. Gratello:

On May 22, 2012, the Planning Board considered the 18,000 SF addition you recently proposed for the Portland Sports Center. The Planning Board reviewed the proposal for conformance with the standards of the Site Plan Ordinance. The Planning Board voted (6-0, O'Brien absent) to approve the application with the waivers and conditions as presented below:

WAIVERS

Address: Applicant:

Planner:

The Planning Board granted a waiver from Section 14-526(a)4.b regarding bicycle parking. Per the standard, 31 bicycle parking spaces should be provided on site. However, the applicant demonstrated at the hearing that very few bicycle trips occur to and from the facility at this time. As such, the Board waived the requirement and reduced the bicycle parking requirement to 8 parking spaces.

SITE PLAN REVIEW

The Planning Board voted that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following conditions of approval that must be met prior to the release of a building permit, unless otherwise determined by the Planning Authority:

 The site plan shall be revised to include notes showing landscaped areas to be freshened up (consistent with the applicant's approved site plan for the dome addition, dated 2003), the location of barberry plants to be removed (and other species to be planted), and the location of silt fencing to be used during construction for the City Arborist's review and approval;

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- 2. A photometric lighting plan meeting relevant technical standards shall be submitted for Planning Authority review and approval;
- 3. The site plan shall be revised to show the relocation of the dumpsters away from the restaurant entrance and provide sufficient screening and buffering for Planning Authority review and approval;
- 4. The site plan shall be revised to provide parking for 8 bicycles for review and approval of the Planning Authority;
- 5. The applicant shall provide an updated event parking management plan, addressing the loss of 50 on-site spaces, for review and approval of the consulting traffic engineer and Planning Authority;
- All concerts shall be held inside the facility and the applicant shall submit written assurances that the facility will be manage to comply with applicable noise standards of the B-4 zone for the Zoning Administrator's review and approval;
- 7. In addition to the applicant providing a silt fence around the limit of disturbance, the applicant shall include inlet protection at the existing catch basin located north of the proposed disturbance utilizing one of the options identified in the Maine Erosion and Sediment Control BMP manual, B-3 Storm drain Inlet Protection, which shall be noted on the site plan for review and approval of the Planning Authority;
- The applicant shall revise the note titled, Restore Disturbed Areas in Existing Swale to state the method of restoration and any temporary erosion control measures required to ensure that vegetation is established in this area for review and approval of the Planning Authority;
- The applicant shall demonstrate that the proposed addition meets the requirements of Chapter 10 of the City Code of Ordinances for review and approval by the city's Fire Prevention Bureau; and

The approval is based on the submitted plans and the findings related to site plan review standards as contained in the Planning Report for application 2012-488 which is attached.

STANDARD CONDITIONS OF APPROVAL

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Please note the following standard conditions of approval and requirements for all approved site plans:

- 1. **Develop Site According to Plan** The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.
- Separate Building Permits Are Required This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Inspection Division. Separate building permits are required for signage and HVAC units.
- Site Plan Expiration The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.
- 4. <u>Performance Guarantee and Inspection Fees</u> A performance guarantee covering the site improvements, inspection fee payment of 2.0% of the guarantee amount and seven (7) final sets of plans must be submitted to and approved by the Planning Division and Public Services Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans. If you need to make any modifications to the approved plans, you must submit a revised site plan application for staff review and approval.
- 5. <u>Defect Guarantee</u> A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
- 6. **Preconstruction Meeting** Prior to the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Service's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
- 7. **Department of Public Services Permits** If work will occur within the public right-ofway 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.)

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* . . .

8. <u>As-Built Final Plans</u> Final sets of as-built plans shall be submitted digitally to the Planning Division, on a CD or DVD, in AutoCAD format (*,dwg), release AutoCAD 2005 or greater.

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. <u>Please</u> schedule any property closing with these requirements in mind. If there are any questions, please contact Nell Donaldson at (207) 874-8723.

Sincerely,

Collan

Carol Morissette, Chair Portland Planning Board

Attachments:

- 1. Review by Marge Schmuckal, Zoning Administrator, dated April 26, 2012
- 2. Review by Thomas Errico, consulting Traffic Engineer, dated May 17, 2012
- 3. Review by David Senus, consulting Civil Engineer, dated May 16, 2012
- 4. Review by Jeff Tarling, City Arborist, dated May 4, 2012
- 5. Review by Chris Pirone, Fire Prevention Bureau, dated May 18, 2012
- 6. Planning Board Report & Revised Motions
- 7. Portland City Code: Chapter 32
- 8. Performance Guarantee Packet

Electronic Distribution:

CC:	Greg Mitchell, Interim Director of Planning and Urban Development
	Alexander Jaegerman, Planning Division Director
	Barbara Barhydt, Development Review Services Manager
	Philip DiPierro, Development Review Coordinator, Planning
	Marge Schmuckal, Zoning Administrator, Inspections Division
	Tammy Munson, Inspection Division Director
	Lannie Dobson, Administration, Inspections Division
	Gayle Guertin, Administration, Inspections Division
	Michael Bobinsky, Public Services Director
	Katherine Earley, Engineering Services Manager, Public Services
	Bill Clark, Project Engineer, Public Services
	David Margolis-Pineo, Deputy City Engineer, Public Services
	Doug Roncarati, Stormwater Coordinator, Public Services
	Greg Vining, Associate Engineer, Public Services
	Michelle Sweeney, Associate Engineer
	John Low, Associate Engineer, Public Services
	Matt Doughty, Field Inspection Coordinator, Public Services
	Mike Farmer, Project Engineer, Public Services
	Jane Ward, Administration, Public Services
	Jeff Tarling, City Arborist, Public Services
	Captain Chris Pirone, Fire Department
	Thomas Erriso, P.E., TY Lin Associates
	David Senus, P.E., Woodard and Curran
	Rick Blackburn, Assessor's Department
	Approval Letter File

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Ms. Tammy Munson Division Director Ms. Jeanie Bourke, Code Enforcement Officer Inspection Services Division 389 Congress Street 4th Floor Portland, ME 04101

Re: Portland Sports Center Addition Building Permit Application (Foundation) 550 Warren Avenue

Dear Ms. Munson:

Please find enclosed the Building Permit Application for the foundation construction for the Portland Sports Center Training Facility located at 550 Warren Avenue. Included with the Building Permit Application is the Geotechnical Report, the final approved Site Plan Set, the Foundation Plans, the Building Plans, and a digital copy of the Level III Site Plan Application Materials. The Level III Site Plan application for this project was approved at the May 22, 2012 Planning Board meeting. The Final Plan Set addresses the waivers and conditions of approval from that meeting as described in the May 23, 2012 letter from Carol Morrisette.

Portland Sports Realty, LLC has proposed adding a new, 18,000 S.F. indoor sports facility to the existing 50,844 S.F. Portland Sports Center dome. The project site (Tax Assessor's Map 271, Block A, Lot 2) is located in the B-4: Commercial Corridor Zone and is approximately 7.16 acres in area.

Please contact me for any additional information or clarifications required.

Sincerely,

Edward Brake, EIT.

cc: Portland Sports Realty, LLC

1284 State Road, Eliot, ME 03903 tel (207) 439-6023 fax (207) 439-2128

June 26, 2012 Project No.: C089-12



Certificate of Design Application

From Designer:	Corle Building Systems	
Date:	6/21/12	
Job Name:	Portland Sports Center	
Address of Construction:	512 Warren Avenue	

2003 International Building Code

Construction project was designed to the building code criteria listed below:

Building Code & YearIBC 2009Use Group Classi Type of ConstructionMetal Building Will the Structure have a Fire suppression system in Accordance Is the Structure mixed use? If yes, separated or a Supervisory alarm System? No Geotechnical/Soils	fication (s) III A-3 e with Section 903.3.1 of the 2003 IRC Yes non separated or non separated (section 302.3)
Structural Design Calculations	Live load reduction 20 PSF Roof <i>live</i> loads (1603.1.2, 1607.11) 46.2 Roof snow loads (1603.7.3, 1608) 60 PSF Ground snow load, Pg (1608.2) 46.2 PSF If $Pg > 10$ psf, flat-roof snow load Pf
"see attached" Wind loads (1603.1.4, 1609) Design option utilized (1609.1.1, 1609.6)	1.00
100 MPH Basic wind speed (1809.3) III, 1.15 Building category and wind importance Factor, for table 1604.5, 1609.5) B Wind exposure category (1609.4) +/- 0.18 Internal pressure coefficient (ASCE 7) + 19.57 Component and cladding pressures (1609.1.1, 1609.6.2.2) 19.57 Main force wind pressures (7603.1.1, 1609.6.2.1)	<u>3.00</u> Response modification coefficient, _{RJ} and deflection amplification factor _G (1617.6.2) equivalent <u>lateral forc</u> Analysis procedure (1616.6, 1617.5) L=78.49 kips/ T=67.63 kips Design base shear (1617.4, 16175.5.1) Flood loads (1803.1.6, 1612)
Earth design data (1603.1.5, 1614-1623) Design option utilized (1614.1) Seismic use group ("Category") 0.4855/0.1867 Spectral response coefficients, SDs & SDI (1615.1) Site class (1615.1.5)	N/a Flood Hazard area (1612.3) Elevation of structure Other loads Concentrated loads (1607.4) Partition loads (1607.5) Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404



New Commercial Permit Application Checklist

All of the following information is required and must be submitted. Checking off each item as you prepare your application package will ensure your package is complete and will help to expedite the permitting process.

One (1) complete Set of construction drawings must include:

Note: Construction documents for costs in excess of \$50,000.00 must be prepared by a Design Professional and bear their seal.

- Cross sections w/framing details
- Detail of any new walls or permanent partitions
- Ploor plans and elevations
- □ Window and door schedules
- 🖄 Foundation plans with rebar specifications and required drainage and damp proofing (if applicable)
- Detail egress requirements and fire separations
- □ Insulation R-factors of walls, ceilings, floors and U-factors of windows as per the IEEC 2003
- Complete the Accessibility Certificate and The Certificate of Design
- $n/a \square$ A statement of special inspections as required per the IBC 2003
- □ Complete electrical and plumbing layout.
- n/a D Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment, HVAC equipment (air handling) or other types of work that may require special review.
- n/a \square Reduced plans or electronic files in PDF format are required if originals are larger than 11" x 17".
- n/a \square Per State Fire Marshall, all new bathrooms must be ADA compliant.

Separate permits are required for internal & external plumbing, HVAC and electrical installations.

Nine (9) copies of the minor (< 10,000 sf) or major (> 10,000 sf) site plan application is required that includes:

- A stamped boundary survey to scale showing north arrow, zoning district and setbacks to a scale of ≥ 1 " = 20' on paper ≥ 11 " x 17"
- The shape and dimension of the lot, footprint of the proposed structure and the distance from the actual property lines. Photocopies of the plat or hand draw footprints not to scale will not be accepted.
- E Location and dimensions of parking areas and driveways, street spaces and building frontage
- Finish floor or sill elevation (based on mean sea level datum)
- E Location and size of both existing utilities in the street and the proposed utilities serving the building
- Existing and proposed grade contours
- Silt fence (erosion control) locations

Fire Department requirements.

1

The following shall be submitted on a separate sheet:

- Name, address and phone number of applicant and the project architect.
- Proposed use of structure (NFPA and IBC classification)
- Square footage of proposed structure (total and per story)
- Existing and proposed fire protection of structure.
- □ Separate plans shall be submitted for
 - a) Suppression system
 - b) Detection System (separate permit is required)
- □ A separate Life Safety Plan must include:
 - a) Fire resistance ratings of all means of egress
 - b) Travel distance from most remote point to exit discharge
 - c) Location of any required fire extinguishers
 - d) Location of emergency lighting
 - e) Location of exit signs
 - f) NFPA 101 code summary
- $n/a \square$ Elevators shall be sized to fit an 80" x 24" stretcher.

For questions on Fire Department requirements call the Fire Prevention Officer at (207) 874-8405.

Please submit all of the information outlined in this application checklist. If the application is incomplete, the application may be refused.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at <u>www.portlandmaine.gov</u>, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

Permit Fee: \$30.00 for the first \$1000.00 construction cost, \$10.00 per additional \$1000.00 cost

This is not a Permit; you may not commence any work until the Permit is issued.

Building Inspections Division • 389 Congress Street • Portland, Maine 04101 • (207) 874-8703 • FACSIMILE (207) 874-8716 • TTY (207) 874-8936



3

Accessibility Building Code Certificate

Designer:	"See Attached" ATTAC ENGINOBRING, IN C.
Address of Project:	550 WARREN AXE.
Nature of Project:	18,000 S.F. ADDITION FOR TRAINING
	PATCILIAN FOR POTETLAND SPLIETS
	LONTER

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act. Residential Buildings with 4 units or more must conform to the Federal Fair Housing Accessibility Standards. Please provide proof of compliance if applicable.

KENNETHA *	Signature	Ab alun
	Title:	PRE3 10 GNT
	Firm:	ATTAC BAGINGBRING, INIC
	Address:	1284 STATE 20
		ELLOT ME 05963
	Phone:	(201)439-6023

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

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Certificate of Design

"See Attached"

Date:

From:

These plans and / or specifications covering construction work on:

Have been designed and drawn up by the undersigned, a Maine registered Architect / Engineer according to the *2003 International Building Code* and local amendments.

	Signature:	
	Title:	
(SEAL)	Firm:	
	Address:	
	Phone:	

For more information or to download this form and other permit applications visit the Inspections Division on our website at www.portlandmaine.gov

Building Inspections Division • 389 Congress Street • Portland, Maine 04101 • (207) 874-8703 • FACSIMILE (207) 874-8716 • TTY (207) 874-8936


114 Rosemont Lane Imler, PA 16655

Certificate of Design

17096 Certificate of Design.ME.doc

Revised 8/17/2009

This Certificate is to confirm that all components of the Steel Building System described below, to be supplied by Corle Building Systems, produced at its Facility at Imler, PA, have been or will be designed in accordance with the following standards, loads, and design criteria as specified in the order documents.

Project/Building Description

CBS Factory Order Number:	FO-17096	Building Geometry:
Purchaser/Customer Information:	Seacoast Crane & Building Co., Inc. P.O. Box 540 Kittery, ME 03904	Width: 120'-0" Length: 150'-0" Eave Height: 34'-0"
Project Name and Location:	Portland Sports Realty, LLC 512 Warren Avenue Portland, ME 04101	<i>Roof Slope:</i> 1.00/12

Design Standards

AISC: Specification for Structural Steel for Buildings, Allowable Stress Design/9th Ed. AISI: North American Specification for the Design of Cold-Formed Steel Structural Members, 2001 Ed. AWS D1.1/D1.1M: Structural Welding Code – Steel, 2006 Ed. MBMA: Metal Building Systems Manual, 2006 Edition

Design Load Criteria

Building Code:	International Build	ing Code, 2009				
Dead Load:	4.06 psf plus prima	ry framing actual v	veight			
Collateral Load:	5 psf					
Roof Live Load:	20 psf					
Frame Live Load:	20 psf					
Snow Load	Ground Snow Load	d, p_{g}	60 psf	Thermal Factor	; C ₁ :	1.00
Criteria:	Snow Exposure Fa	ctor, Ce:	1.00	Flat Roof Snow	Load, pf:	46.2 psf
	Snow Importance 1	Factor, Is:	1.10			
Wind Load	Basic Wind Speed:		100 mph	Occupancy Cat	egory:	ш
Criteria:	Terrain Exposure:		В	Internal Pressu	re Coefficients:	+0.18/-0.18
	Wind Importance 1	Factor, I _w :	1.15	Components an	d Cladding not	+19.57 psf
				by CBS:		-26.04 psf
Seismic Criteria:	Design Category:		С		S_s :	0.320
	Site Class:		E		S_I :	0.080
	Seismic Importanc	e Factor, Ie:	1.25		Sds:	0.486
	Occupancy Catego	nry:	ш		S _{d1} :	0.187
	Analysis Procedur	e:	Equivalent Lat	eral Force Proced	lure	
	Basic Seismic Ford Systems:	ce Resisting	Steel Systems	Not Specifically I	Detailed For Seis	smic Resistance
	Response Modifica	tion Factors, R:	Frame = 3.00	FSW = 3.00	BSW = 3.00	
	Seismic Response	Coefficients, C _s :	Frame = 0.165	FSW = 0.202	BSW = 0.202	
	Seismic Base Shea	r, V:	Longitudinal =	78.49 kips	Transverse $= 6$	57.63 kips
Mezzanine	Dead Load:	N/A	Additional	N/A		OF
Loads:	Collateral Load:	N/A	Loads:		A	TEM
	Live Load:	N/A			CR	G: TT

Certification by Engineer

I, T. James Eisenman, Jr., P.E., a licensed engineer in the State of Maine, certify that I have reviewed the design criteria for the steel building system described above and to the best of my knowledge all components have been designed to meet the applicable criteria

as specified in the Order Documents Signature

Date

JAMES EISENMAN J SEAL



GEOTECHNICAL SUMMARY REPORT FOR: PROPOSED EXPANSION PORTLAND SPORTS COMPLEX WARREN AVENUE PORTLAND, MAINE TO: MR. BILL BELANGER SEACOAST CRANE PO BOX 540 98 ROUTE 236 KITTERY, ME 03904

JTC PROJECT NO: 12-15-0023

NH MA ME VT

JOHN TURNER CONSULTING

CONSULTJTC.COM

19 Dover Street Dover, NH 03820 T 603.749.1841 F 603.516.6851 66 Southgate Street Worcester ma 01603 T 508.505.0126 6 CLINTON AVENUE WESTFIELD MA 01085 T 413.642.0138 73 RAINMAKER DRIVE Portland ME 04103-1291 T 207.883.7878

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Geotechnical Summary Report

Boring Location Plan & Boring Logs

Soil Laboratory Reports

Analyses

Site Photos

Geotechnical Summary Report

JOHN TURNER CONSULTING, INC

19 DOVER STREET DOVER, NEW HAMPSHIRE 603-749-1841 (p)/ 603-516-6851 (f) NH-MA-ME-VT consultJTC.com

MEMORANDUM

TO: Bill Belanger Seacoast Crane P.O. Box 540 98 Route 236 Kittery, ME 03904

> Kevin Martin, P.E. Geotechnical Engineer



FROM: Carl Thunberg, P.E. Project Engineer

DATE: June 13, 2012

RE: GEOTECHNICAL SUMMARY REPORT PORTLAND SPORTS COMPLEX PROPOSED BUILDING EXPANSION WARREN STREET PORTLAND, MAINE

Project No. 12-15-023

This memorandum serves as a geotechnical study for the referenced project. The contents of this report are subject to the attached *Limitations*.

SITE & PROJECT DESCRIPTION

The project site is located at the existing Portland Sports Center. Present development includes the original building with a later attached indoor sports center. The specific project site is located in the existing paved parking lot. The *Site Plan* shows grades in the project area to vary from about elevation $\approx 68-69$ ft. The adjacent building (Sports Center) is shown to possess a first floor elevation (FFE) at 70.0 ft. The Sports Center is understood to be supported on driven steel piles. The floor is supported on-grade and the connector building is understood to be supported on shallow footers.

The project includes a new building expansion to the Sports Center. The expansion is understood to be a single-story, open-framed, pre-engineered metal building (Corel Building System) about 18,000 ft² in footprint area. Foundation column loads for the rigid frame structure (as provided by Corel) are to approach \approx 70 kips in both vertical compression and lateral shear. The FFE is to be consistent with the existing building (70.0 ft). As such, some shallow fill about \approx 1-2 ft will be necessary to achieve grade. Poor to marginal subgrade conditions are known to underlie the site. The purpose of this study is to provide a geotechnical evaluation as it pertains to foundation design and construction.

We were provided the *Geotechnical Investigation Report* for the adjacent Sports Center. This report was completed by R.W. Gillespie & Associates (RWG) dated July 2003. This report was referenced, in part, as it pertains to this study.

SUBSURFACE EXPLORATIONS & LABORATORY TESTING

Test Borings

The subgrade conditions were reviewed with the completion of four (4) test borings completed within the proposed building pad. The borings (B1 to B4) were advanced to refusal depths of about \approx 56-102 ft utilizing NW casing and open hole techniques. Soil samples were typically retrieved or tested in the upper \approx 20-25 ft. Due to the soft and cohesive nature of the site soils, some "undisturbed" Shelby Tube samples were obtained during the exploration program per ASTM D1587 (Standard Practice for Thin-Walled Tube Sampling of Soils for Geotechnical Purposes). Deeper exploration involved advancement of the drill rods until refusal was met. Standard Penetration Tests (SPTs) were performed in general accordance with ASTM-D1586 (Standard Method for Penetration Test and Split-Barrel Sampling of Soils). Vane Shear Tests (ASTM D2573) were also performed in the clay deposit to evaluate shear strength. Field descriptions and penetration resistance of the soils encountered, observed depth to groundwater, depth to apparent bedrock refusal and other pertinent data are contained on the attached Test Boring Logs.

We also reviewed the Test Bore Logs completed by RWG for the adjacent Sports Center.

Shear Strength Testing

The shear strength of the clay was evaluated in both the field and laboratory as follows:

ASTM D2573 (Vane Shear Tests in Cohesive Soils)

Vane shear tests were completed for this study using an Acker Vane with a torque wrench. These tests were randomly completed in the test holes. The test results are included on the *Test Bore Logs*. Several vane shear tests were also completed by RWG. The test results are relatively consistent.

Laboratory Vane Shear Tests

RWG completed manual, hand-held vane shear tests using a Geonor miniature vane. All the shear strength testing was collectively reviewed for the project.

Laboratory Testing Program

Some additional laboratory testing included the following:

Atterbergs Limits Tests (ASTM-D4318)

The Atterberg Limits were completed to determine the moisture index properties of the clay and correlate the results with empirical engineering relationships. The Atterberg Limits indicate the clay to be a low plastic silty Clay (CL).

One-Dimensional Consolidation Test (ASTM D2435)

JTC completed two (2) consolidation tests to determine the compressibility characteristics of the clay and assess its stress history. We also reviewed three (3) similar tests completed by RWG. The consolidation test indicates the clay to be slightly over-consolidated.

Gradation Analyses (ASTM D2217)

Particle Size Analyses were completed on the shallow sandy soils. The testing was used to review gradation distribution.

SUBGRADE CONDITIONS

The subgrade conditions below (1) a shallow Gravel Fill include (2) a silty Fine Sand underlain by (3) very soft silty Clay, (4) a thin Glacial Hardpan then (5) apparent Bedrock refusal. A *Subsurface Profile* showing the shallower soil and groundwater conditions to ≈ 30 ft is attached for review.

Sandy Fill (≈1-2 ft)

A gravelly Sand, little silt extends about \approx 1-2 ft below grade. This shallow Fill is a gravel base for the bituminous pavement.

Silty Fine Sand (≈9-13 ft)

There is a Fine Sand with little to some silt which extends about $\approx 9-13$ ft below grade. RWG identified this layer to be about $\approx 5-8$ ft below grade. The relative density of this silty Sand is loose to medium dense. This soil is expected to be encountered throughout most of the foundation construction. The attached *Sketch* shows the depth of the Fine Sand throughout the project area.

Silty Clay (≈55-100 ft)

The predominate overburden consists of a silty Clay which extends about $\approx 50-100$ ft below grade. This marine deposit is locally known as Presumpscot Clay. This deposit typically consists of a grey, silty Clay. Atterbergs Limits tests indicate a low plastic silty Clay (CL) which is typical of the area geology. This layer is very soft the entire depth. RWG did identify a stiff crust which does not intersect the new building footprint. The approximate limits of the stiff crust are shown on the *Sketch*.

Shear strength (cohesive strength) of the Clay ranges from about $\approx 300-450$ psf. For design purposes, a shear strength value of ≈ 350 psf was used for this study. The low shear strength of the Clay renders it weak and sensitive. A collective summary of the shear strength testing is attached for review.

The consolidation behavior (settlement) of the clay was also reviewed for this study. The consolidation tests indicate the silty Clay to be slightly over-consolidated to normally consolidated. An over-consolidated is more favorable for the project. An over-consolidated clay will settle about 10 times less than a normally-consolidated clay. An over-consolidated clay has been exposed to past stresses greater than the existing overburden. A normally-consolidated clay has not been exposed to greater past stress than the existing overburden and additional stress will result in large settlements. In general, the Clay is slightly over-consolidated at shallower depths becoming progressively normally consolidated with depth. This is generally typical of the Presumpscot Clay.

The strength and consolidation of the Clay will given the foundation design.

Glacial Till (≈60-105 ft)

A thin or discontinuous layer of Glacial Till, Sand and/or Hardpan is present atop the Bedrock. Given the depth of the Till, there were no samples retrieved by either RWG or JTC. The Hardpan was qualitatively assessed based on penetration resistance of the drill rods.

Refusal (≈60-105 ft)

Test bore refusal, presumably bedrock, was met at depths of $\approx 56-102$ ft below grade for this study. The highly variable depth to refusal suggests a steep bedrock contour. RWG encountered refusal about $\approx 50-90$ ft below grade. The ledge is deeper to the south. The attached *Sketch* shows the depth to refusal at the respective test locations.

Groundwater (≈3 ft)

Groundwater was encountered in the test borings at depths of ≈ 3 ft below grade. RWG indicated groundwater about $\approx 1-5$ ft below grade with estimated seasonal high groundwater near grade (elevation ≈ 68 ft). RWG also recommended a perimeter foundation drain which will locally depress the groundwater. It should be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, and other factors differing from the time of the measurements.

FOUNDATION SUBGRADE RECOMMENDATIONS

It is intended to support the building on a shallow foundation (and not on deep driven piles). Both the strength and compressibility of the Soft Clay will govern the foundation design. The Clay is weak with an allowable bearing strength of \approx 500-700 psf (FS=3). The Clay is also highly compressible and small pressures of \approx 100-200 psf may induce intolerable settlement (greater than 1½ inches). A temporary surcharge program (press-stress of the clay) was considered but will not be feasible given schedule. As such, it appears the only feasible means to consider a shallow foundation while controlling strength and consolidation is a lightweight fill.

The depth of Silty Sand atop the Soft Clay varies from $\approx 9-12$ ft in the pad area. The Sand can help dissipate foundation loads on the Clay. A pressure dispersion of 1H:2V below and laterally beyond the footing can reduce footing stress on the Clay. Based on this theory, the footings may be designed using an allowable bearing capacity of 1,000 psf (FS=3). This should reduce footing stress in the Clay to tolerable level. A base of crushed stone (protected with a geotextile filter fabric) will be necessary below the footings. The purpose of the stone base is to protect the sensitive soils from disturbance, facilitate construction dewatering and to provide a dry/stable base upon which to progress foundation construction. Further recommendations for foundation subgrade preparation and protection are outlined herein.

Stress of the Clay will also be transmitted from any increase in site grade. A \approx 1-2 ft increase in site grade will result in a stress of \approx 120-250 psf which will have negligible dissipation with depth. In order to control settlement (consolidation), stress in the Clay should be reduced to \approx 250 psf for footing loads with no stress increase for site grading. The only means to achieve adequate stress reduction is to utilize a compensating lightweight fill. Lightweight fills considered for geotechnical applications include expanded polystyrene (EPS) geofoam (\approx 1-2 pcf), foamed concrete (\approx 20-50 pcf) and/or expanded shale aggregate (\approx 55-60 pcf). The attached *Profile* shows conceptually how the lightweight fill may be implemented on the project. Given the small stress that may impact the Clay, careful and specific review of foundation loads and site grading will be necessary for final design. JTC should have the opportunity to review the *Final Design Plans* and/or provide technical assistance during this design.

The lightweight fills are also buoyant and this should be considered for final design. The Geofoam may be structurally strapped to the foundation. Foundation drains may also be used around the foundation in this regard. The drains should be located about ≈ 3 ft below final grade (invert elevation ≈ 67 ft) and be located both outside and inside the building. The drains should consist of minimum 4-inch diameter perforated PVC SDR-35 pipe encased in 12 inches of ³/₄-inch stone and wrapped with a geotextile filter fabric such as Mirafi 140N or equal. The drains should not encroach within the Footing Zone of Influence defined as that area extending laterally one foot from the edge of footing then outward and downward at a 1H:1V splay. The drains should discharge into the storm drain system by gravity (not subject to surcharge) or daylight if grading permits. The Site Engineer should consider the outlet of the foundation drains. It is recommended that a backflow preventer be installed at the outlet of the under-drain to reduce the impact of surcharges in the event of high water. The drains should be provided with permanent clean-outs at convenient locations to access all sections of the system. Clean-outs should be located at bends and no greater than 175 ft on-center. The ground surface immediately adjacent to the foundation should be sloped away from the building to allow for positive drainage. It is also recommended that the surficial materials adjacent to the buildings be relatively impermeable to reduce the volume of precipitation infiltrating into the subsurface. Such impermeable materials include Portland cement concrete, bituminous concrete, or a vegetated silty topsoil. Roof gutters should discharge away from the basements or to controlled site structures.

Footings shall be provided with at least 48 inches of frost protection. Proper frost protection should be necessary during winter construction.

The subsurface conditions were reviewed with respect to seismic criteria set forth in the *International Building Code (2009)*. Based on the relative density of the site soils, the site does not appear susceptible to liquefaction (complete loss of shear resistance) in the event of an earthquake. Based on interpretation of the *Building Code* together with the project and site conditions, the *Site Classification* (Table 1613.5.2) is "E" (Soft Soil Profile).

The interior floor slab should rest on a minimum 10-inch base of *Clean Granular Fill* as outlined on Table 1 (or as specified by the floor manufacturer). The gravel base should be increased to no less than 15 inches for exterior slabs exposed to frost. We understand that a flexible floor system will be used inside the building. The floor slab should also be considered for post-construction settlement. Our model indicates about ≈ 3 inches of settlement for every ≈ 100 psf in increased dead load. Our experience suggests that the magnitude of predicted settlement is greater than actual settlement but any increase of load above 125 psf (≈ 1 ft of Fill) is expected to settle more than $\approx 1-2$ inches. The settlement will take years to dissipate. We recommend a settlement of $\approx 1-2$ inches of consolidation for every 125 psf increase in dead load (ie: Fill). To reduce settlement, a compensating lightweight fill may be used below the slab. A small temporary surcharge may also be considered during construction to remove some of the long-term consolidation.

The settlement should also consider underground utilities that enter or are located below the building. Flexible connections and over-sized sleeves allowing upwards of ≈ 2 inches of vertical settlement shall be used to mitigate the impact of long-term differential movement.

Structural fill necessary within and below the foundation should conform to the attached *Specifications* (Table 1). The site soils are **not** suitable for re-use as structural fill.

CONSTRUCTION CONCERNS

The contractor should be required to maintain a stable-dewatered subgrade for the building foundation and other concerned areas during construction. Subgrade disturbance may be influenced by excavation methods, moisture, precipitation, groundwater control and construction activities. The silty Fine Sand soils are considered vulnerable to disturbance when exposed to wet conditions and construction activities. The moisture sensitivity of these soils is associated with the high percentage of fine-grained material which acts to retain moisture. The presence of a shallow groundwater will further impact the subgrade stability. The contractor should be aware of the moisture concerns and take precautions to reduce subgrade disturbance. Such precautions may include diverting storm runoff away from construction areas, reducing traffic in sensitive areas, minimizing the extent of exposed subgrade if inclement weather is forecast, backfilling footings as soon as practicable, and maintaining an effective dewatering program. Soils exhibiting weaving or instability should be overexcavated to a competent bearing soil and replaced with a crushed stone or gravel. The moisture concerns are typically more problematic if construction takes place during the winter to spring season or other periods of inclement weather. The wet subgrade shall be protected with a minimum ≈ 8 inch base of ³/₄ inch minus crushed stone encased in a geotextile fabric (Mirafi 600X or equal). A lightweight expanded shale aggregate may be used in lieu of the crushed stone for further load reduction. The expanded shale is buoyant and will require groundwater control. The stone shall be tamped with a plate compactor and exhibit stable conditions. The purpose of the stone base is to protect the sensitive soils from disturbance when exposed to construction activities and wet conditions. The subgrade shall also be excavated with a smooth blade and be protected immediately upon exposure. Bearing subgrades that become weakened or disturbed due to wet conditions will be rendered unsuitable for structural support.

Adequate dewatering and storm water management are also necessary for maintaining the competency of the site soils. Groundwater or ponded storm water should be continuously maintained at least one foot below construction grade. The groundwater is expected to be controlled with conventional filtered sumps and pumps together with a base of crushed stone. The footing trenches should have a positive slope towards the sumps. The sumps shall extend at least ≈ 2 ft below construction grade and be protected with filter stone. Soils which become softened/disturbed during construction will be rendered unsuitable for structural bearing support. The foundation subgrades should ultimately be stable, dewatered, protected from frost and compact throughout construction. An Engineer from JTC should be scheduled to review the subgrade conditions and preparation.

CLOSING

The strength and compressibility of the Soft Clay will impact the final foundation design. Conceptual means to control settlement were outlined in the report. JTC should have the opportunity to review Final Plans to observe compliance with our engineering recommendations. We can also assist with the *Final Plans, Technical Specifications* and/or review of *Technical Submittals*.

CONSTRUCTION MONITORING

It is recommended that a qualified engineer or representative be retained to review earthwork activities such as the preparation of the foundation bearing subgrade and the placement/compaction of Structural Fill. It is recommended that JTC be retained to provide construction monitoring services. This is to observe compliance with the design concepts presented herein.

We trust the contents of this memorandum report are responsive to your needs at this time. Should you have any questions or require additional assistance, please do not hesitate to contact our office.

kmm50/jtc12/PortlandSportsCenter.wpd

LIMITATIONS

Explorations

- 1. The analyses, recommendations and designs submitted in this report are based in part upon the data obtained from preliminary subsurface explorations. The nature and extent of variations between these explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.
- 2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretation of widely spaced explorations and samples; actual soil transitions are probably more gradual. For specific information, refer to the individual test pit and/or boring logs.
- 3. Water level readings have been made in the test pits and/or test borings under conditions stated on the logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, and other factors differing from the time the measurements were made.

Review

- 4. It is recommended that this firm be given the opportunity to review final design drawings and specifications to evaluate the appropriate implementation of the recommendations provided herein.
- 5. In the event that any changes in the nature, design, or location of the proposed areas are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of the report modified or verified in writing by John Turner Consulting, Inc.

Construction

6. It is recommended that this firm be retained to provide geotechnical engineering services during the earthwork phases of the work. This is to observe compliance with the design concepts, specifications, and recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

Use of Report

- 7. This report has been prepared for the exclusive use of Seacoast Crane in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made.
- 8. This report has been prepared for this project by John Turner Consulting, Inc. This report was completed for preliminary design purposes and may be limited in its scope to complete an accurate bid. Contractors wishing a copy of the report may secure it with the understanding that its scope is limited to geotechnical design considerations.

TABLE 1

Portland Sports Complex Building Expansion Portland, Maine

Recommended Soil Gradation & Compaction Specifications

Clean Gr (Select	Clean Granular Fill (Select Gravel Fill)							
SIEVE SIZE	PERCENT PASSING BY WEIGHT							
3 inch	100							
3/4 inch	60-90							
No. 4	20-70							
No. 200	2-8							

NOTE:

For minimum 8-inch base below Floor Slab-on-Grade For minimum 15-inch base for exterior concrete slabs exposed to frost

SIEVE SIZE	PERCENT PASSING BY WEIGHT
5 inch	100
3/4 inch	60-100
No. 4	20-85
No. 200	0-10

Structural Fill

NOTE: For use as structural load support below the foundations For use as backfill behind unbalanced foundation/retaining walls A ³/₄-inch crushed stone may be used in wet conditions

Structural Fill placed beneath the foundation should include the *Footing Zone of Influence* which is defined as that area extending laterally one foot from the edge of the footing then outward and downward at a 1H:1V splay. Structural Fill should be placed in loose lifts not exceeding 12 inches for heavy vibratory rollers and 8 inches for vibratory plate compactors. Structural Fill should be compacted to at least 95 percent of maximum dry density as determined by the Modified Proctor Test (ASTM-D1557). Structural Fill should be compacted within $\pm 3\%$ of optimum moisture content. The adequacy of the compaction efforts should be verified by field density testing which is also a requirement of the *State Building Code*.

Boring Location Plan & Boring Logs

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						TEST B	ORING LOG		
AL AL		- AND	\mathbf{T}		CLIENT: PROJECT: LOCATION:	Seacoast Crane Portland Sports C Warren Street, Port	omplex land, ME		
		GEOTECI	INICAL •	CONSTRUCTION	PROJECT No:	12-15-023			
	JOHN	TURNER O	ONSUL	TING, INC.	BORING No:	B-1			
		19 DOVI	ER STRE	ET	DATE:	5/11/2012			
		DOVER,	NH 038	20	LOCATION:	See Plan			
	(60	3) 749-1841	www.cons	sultjtc.com	SURFACE EL:	68.2			
YPE O	F BORI	NG:	Drive &	Wash		GROUNDWATER O	BSERVATIONS		
RILLI	NG Co:		Great Wo	orks Test Boring	DATE:	DEPTH:		TIME:	
IG:			CME 85		5/11/2012	3.5		While Drilling	
RILLE	R:		Pete Mic	haud					
TC RE	P.:		Carl Thu	nberg	L				_
ET	NO	CAMPLE	DEC	SOIL & DOC	CLASSIFICATIO	NDESCRIPTION	CTD A TUNA	BLOWE	CDT
r i	NO.	DEPTH	(IN)	SOIL & ROU	RMFISTED SVSTER	M (SOIL)	CHANCE	DEUWS	(N)
		(FT.)	(114.)	U.S. CORP	S OF ENGINEERS S	YSTEM (ROCK)	(FT.)	6 INCHES	
0-1	S-1	0.5-2.5	12	3 in hituminous conor	ete asphalt		(1.1.)	11-13-12-13	26
1-2	5-1	0.5=2.5	12	S-1: Light brown moi	st fine to medium SA	ND. little Silt		11-13-13-13	20
2-3				some Gravel (probable	bank-run gravel naver	ment support)			
3-4				1		/			
4-5				1					
5-6	S-2	5-7	18	Gray, wet, fine SAND	, some Silt			4-6-6-4	12
6-7									
7-8	S-3	7-9	18	Similar to S-2.				2-2-2-2	4
8-9									-
9-10							10		
10-11	S-4	10-12	12	Gray, wet, very soft Cl	LAY			WOH/24	0
11-12									
12-13	8-5	12-14	24	Gray wet, very soft CL	AY			WOH/24	0
13-14	5.6	14.16	24	Grow wat wary oof CI	AV			WOU/24	
15-16	3-0	14-10	24	Totay, wet, very son Ci	241			WOR/24	0
16-17	S-7	16-18	24	Grav. wet. very soft Cl	AY			WOH/24	0
17-18				1					
18-19				Continue boring as roc	probe to determine cl	ay thickness			
19-20]					
20-21									
21-22									
22-23				-					
23-24				-					
24-25				-					-
23-20				-					
20-27				-					
28-29				1					
29-30				1					
30-31				1					
31-32	-			1					
EMAR	KS:								
tandard	d Penetra	ation Tests (S	SPT) = 14	10# hammer falling 3	0" (ASTM D1586)				
lows a	re per 6	inches with a	a 24" long	g by 2" O.D. by 1 3/8	" I.D. split spoon sar	npler unless otherwise r	noted		
= split	-spoon s	ample; C = 1	rock core	sample; U = undistur	bed				
EMAR	KS: The	stratification	lines repre	esent the approximate be	oundary between soil ty	pes and the transition may	be gradual. Water		
	level	readings have	e been maa	de in the test borings at	times and under condit	ions stated in the test borin	ng logs. Fluctuations	5	
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	ING .			CLIENT:	Seacoast Crane			
	E.			PROJECT:	Portland Sports C	omplex		
2	AL V		inc.	LOCATION:	Warren Street, Portl	and, ME		
	GEOTECI	INICAL •	CONSTRUCTION	PROJECT No:	12-15-023			
JOHN	N TURNER O	ONSULT	TING, INC.	BORING No:	B-1			
	19 DOVE	ER STRE	ET	DATE:	5/11/2012			
	DOVER,	NH 038	20	LOCATION:	See Plan			
(60	03) 749-1841	www.cons	sultjtc.com	SURFACE EL:	68.2			
YPE OF BORI	NG:	Drive &	Wash		GROUNDWATER O	BSERVATIONS		
RILLING Co:		Great Wo	orks Test Boring	DATE:	DEPTH:		TIME:	
IG:		CME 85		5/11/2012	3.5		While Drilling	
RILLER:		Pete Mic	haud	-				
TC REP.:		Carl Thu	nberg					
ET NO	CAMPLE	DEC	501 8 BOC	V CLASSIELCATIO	NBESCHIPTION	COD A TRUNK	DI OUVO	ang
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32-33	(1.)		C.S. CORT	OT LIGHTEERS ST	Note (ROCK)	(***.)	VINCILES	
33-34			1					
34-35			1				-	
35-36			1					
36-37]					
37-38]					
38-39								
39-40			Gray very soft CLAY					
41-42			4					
42-43		_						
43-44			Continue boring as roo	d probe through very so	off Clay			
44-45			to determine clay thick	ness.			10 10 - y - y	-
46-47			1					
47-48			1					
48-49			1					
49-50]					
50-51		_]					
51-52								
52-53			4					
53-54		-	4					
55.56			-					
56-57			1					
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70-37]					
59-60								
59-60 60-61								
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59-60 60-61 61-62 62-63								
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					TEST B	ORING LOG		
· CONSU	LIING			CLIENT:	Seacoast Crane			78
	NOT			PROJECT:	Portland Sports C	omplex		
			inc.	LOCATION:	Warren Street, Port	and ME		
c .	GEOTECI	INICAL •	CONSTRUCTION	PROJECT No:	12-15-023			
JOH	N TURNER	CONSUL	TING, INC.	BORING No:	B-1			
	19 DOV	ER STRE	ET	DATE:	5/11/2012			
	DOVER	NH 038	20	LOCATION:	See Plan			
((503) 749-1841	www.con	sultite.com	SURFACE EL:	68.2			
YPE OF BOR	ING:	Drive &	Wash		GROUNDWATER C	BSERVATIONS		
RILLING Co		Great Wo	orks Test Boring	DATE:	DEPTH:		TIME:	
IG:		CME 85		5/11/2012	3.5		While Drilling	
RILLER:		Pete Mic	haud					
TC REP.:		Carl Thu	inberg	1. Standard			The State of State	
FT NO.	SAMPLE	REC.	SOIL & RO	CK CLASSIFICATIO	N-DESCRIPTION	STRATUM	BLOWS	SPT
	DEPTH	(IN.)	BU	RMEISTER SYSTEM	4 (SOIL)	CHANGE	PER	(N)
	(FT.)		U.S. CORP	S OF ENGINEERS S	YSTEM (ROCK)	(FT.)	6 INCHES	
65-66								
66-67								
67-68								
68-69								
69-70								
71-72								
72-73		-						
73-74			Gray very soft CLAY					
74-75			4					-
75-76			-					-
76-77	-		Continue boring as ro	od probe through very so	oft Clay			
77-78			to determine clay thic	kness.				
78-79			4					
79-80		_	4					
80-81			-					
81-82	-		-					
82-83	-		4					-
83-84	-		-					-
85-86			-					
86-87			1					
87-88			1					
88-89			1					
89-90			Rod probe abrupt refu	sal at 89 feet. 50 blows	s/1 in. penetration			
90-91]					
91-92]					
92-93								
93-94								
94-95			1					
95-96			1					
96-97	-		4			-		
97-98								
REMARKS:								
tandard Pene	tration Tests (SPT) = 1	40# hammer falling 3	0" (ASTM D1586)				
Blows are per	6 inches with	a 24" lon	g by 2" O.D. by 1 3/8	" I.D. split spoon sar	npler unless otherwise r	noted		
= split-spoor	sample; C =	rock core	sample; U = undistu	rbed				
EMARKS: T	e stratification	lines repr	esent the approximate b	oundary between soil ty	pes and the transition may	v be gradual. Water		
la			1	time on and the day and did	iour stated in the test hori	no loos Fluctuations		
101	el readings hav	e been ma	de in the test borings at	limes and under condit	ions sidied in the test born	-8 1080. 1 Includito /13		

						TEST B	ORING LOG	1	
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J	OHN 1	TURNER O	ONSULT	TING, INC.	BORING No:	B-2		1	
		19 DOVE	ER STREE	ET	DATE:	5/11/2012			
		DOVER,	NH 038	20	LOCATION:	See Plan			
	(603)	749-1841	www.cons	sultjtc.com	SURFACE EL:	69			
YPE OF E	BORING	; :	Drive &	Wash		GROUNDWATER (DBSERVATIONS		
RILLING	Co:		Great Wo	orks Test Boring	DATE:	DEPTH:		TIME:	
IG:			CME 85		5/11/2012	3.5		While Drilling	
RILLER:			Pete Mich	haud					
TC REP.:			Carl Thu	nberg					
							Lawrence L		1
FT	NO.	SAMPLE	REC.	SOIL & ROC	K CLASSIFICATIO	N-DESCRIPTION	STRATUM	BLOWS	SPT
		(FT)	(IN.)	LIS COPPS	OF ENCINEERS	VSTEM (ROCK)	(FT)	6 INCHES	(14)
0.1	S 1 1	0525	12	3 in hituminous control	te cenhalt	ISTEM (NOCK)	(11.)	5.6.6.6	12
1-2	3-1	0.3-2.3	12	Sal: Light brown mois	t fine to medium SAN	ND little Silt		0-0-0-0	12
2-3	S-2	2545	4	some Gravel (probable	bank-nin gravel naven	nent material			-
3-4	5-2	2.5-1.5	4	S-2: Reddish brown w	et fine SAND. little Si	ilt		7-10-11-13	21
4-5									
5-6	S-3	5-7	10	Similar to S-2.				1-2-3-4	5
6-7									
7-8	S-4	7-9	20	Gray, wet fine SAND, I	ittle to some Silt			1-3-3-2	6
8-9									
9-10									
10-11	S-5	10-12	24	12 in. Similar to S-4.			11	4-2-1-1	3
11-12				12 in. Gray, wet, CLAY					
12-13	S-6	12-14	24	Gray wet, very soft CL	Α Υ			WOH/24	0
13-14								11/01/04	
14-15	S-7	14-16	24	Gray, wet, very soft CL	AY			WOH/24	0
15-10	92	16.19	24	Grou wet verv soft CL	AV			WOH/24	0
17-18	3-0	10-18	24	Gray, wei, very son CL				WOID24	
18-19	5-9	18-20	24	Grav. wet. very soft CL	AY			WOH/24	0
19-20		10 20							1
20-21	S-10	20-22	24	Gray, wet, very soft CL	AY			WOH/24	0
21-22									
22-23				Continue boring as rod	probe to determine cla	ay thickness			
23-24				-					
24-25			-	4					
25-26			-	-					
26-27				-					-
27-28			-	-					
28-29				1					1
30-31				1					-
31-32	-			1					1
EMARKS	5:					-			
tandard P	enetrati	on Tests (SPT) = 14	40# hammer falling 30)" (ASTM D1586)				
lows are	per 6 in	ches with	a 24" long	g by 2" O.D. by 1 3/8"	I.D. split spoon san	npler unless otherwise	noted		
= split-sp	oon sa	mple; C =	rock core	sample; U = undisturb	bed				
CHANNE	The et	ratification	lines repre	sent the approximate ho	undary between soil ty	pes and the transition ma	y be gradual. Water		
EMARAS:	ine su	anyreamon		sem me approximate oo	, ,	,			
EMARKS:	level re	eadings have	e been maa	de in the test borings at t	imes and under condit	ions stated in the test bori	ng logs. Fluctuations	F	

 CONSULT 					TEST B	ORING LOG		
	ING			CLIENT:	Seacoast Crane			
	J.			PROJECT:	Portland Sports C	Complex		
3	N. V		Inc.	LOCATION:	Warren Street, Port	land, ME		
	GEOTECH	INICAL •	CONSTRUCTION	PROJECT No:	12-15-023			
JOHN	TURNER (ONSULT	TING, INC.	BORING No:	B-2			
	19 DOVI	R STREE	ET	DATE:	5/11/2012			
	DOVER,	NH 038	20	LOCATION:	See Plan			
(60	3) 749-1841	www.cons	sultite.com	SURFACE EL:	69			
YPE OF BORIN	NG:	Drive &	Wash		GROUNDWATER (DBSERVATIONS		
RILLING Co:		Great Wo	orks Test Boring	DATE:	DEPTH:		TIME:	
IG:		CME 85		5/11/2012	3.5		While Drilling	
RILLER:		Pete Mic	haud					
TC REP.:		Carl Thu	nberg					
PT 10		DEC			N DECOMPOSION		DI OING	0.000
FI NO.	DEDTU	KEC.	SOIL & RO	UN CLASSIFICATIO	N-DESCRIPTION	CHANCE	BLOWS	SPT
	(FT)	(114.)		S OF ENGINEEDS	STEM (ROCK)	(FT)	6 INCHES	(14)
32.33	(11.)			5 OF ENGINEERS 5	is i bin (noch)	(*1.)	V INCILLO	
33-34			1					
34-35			1					
35-36		1	1					1
36-37			1					
37-38]					
38-39	-]					
39-40		-	Gray very soft CLAY					
41-42			-					
42-43								
43-44			Continue boring as ro	nd probe through very so	oft Clay			
44-45			to determine clay thic	kness.				-
45-40			-					-
40-47			1					1
48-49			-					
49-50			1					
50-51]					
51-52		-]					
52-53			-					-
53-54			-					-
54-55			-					
			-					-
55-56			-				- 1918 at	1
55-56 56-57 57-58	-							
55-56 56-57 57-58 58-59								
55-56 56-57 57-58 58-59 59-60			-					
55-56 56-57 57-58 58-59 59-60 60-61								
55-56 56-57 57-58 58-59 59-60 60-61 61-62								
55-56 56-57 57-58 58-59 59-60 60-61 61-62 62-63								
55-56 56-57 57-58 58-59 59-60 60-61 61-62 62-63 63-64								

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						TEST B	ORING LOG		
	ONSULT	ING .			CLIENT:	Seacoast Crane			
1	\searrow	ANT .			PROJECT:	Portland Sports C	omplex		
				line.	LOCATION:	Warren Street, Portl	and, ME		
	. V.S.	GEOTECI	INICAL •	CONSTRUCTION	PROJECT No:	12-15-023			
	JOHN	TURNER (ONSULT	TING, INC.	BORING No:	B-2			
		19 DOVE	R STRE	PT	DATE:	5/11/2012			
		DOVED	NH 038	20	LOCATION	See Plan			
	(603	740-1941	Navay cons	ultite com	SUDFACE FL:	69			
TYPE O	E PODIA	C.	Drive &	Wash	SORFACE EL.	CROUNDWATER	DEEDVATIONS		
DILL	F BORIN	0.	Graat W	wash	DATE.	DEPTH.	ISERVATIONS	TIME.	
DIC	NG CO:		CME 95	JIKS I ESt Boring	5/11/2012	25	-	While Drilling	
	D.	_	Data Mia	houd	5/11/2012	5.5		white Drining	
TODE	R:		Corl Thu	nauu					
IC REF	<u>.</u> :		Cari Thu	nberg					
FT	NO	CAMPLE.	DEC	SOU & DOG	V CLASSIFICATIO	NDESCRIPTION	STRATUM	PLOWS	SP
r I	INO.	DEDTU	(IN)	SUIL & RUC	MEISTED EVETER	(SOIL)	CHANCE	PED PED	(N)
		(FT)	(114.)		SOF ENGINEERS	STEM (ROCK)	(FT)	6 INCHES	
(5/1		(11.)	-	Crowner C-A CLAY	OF ENGINEERS 3	is ton (ROCK)		VITCHES	+
03-00				Gray very soft CLAY			67		
67 (9				In arranged and requirements	a at 67 feat in manual-	materiale	0/		-
69.60				increased rod resistance	e at 07 reet in granular	materials			-
60.70	-						70		-
71 72				Pod refusal at 70 fact	50 blows/0 perstantion		10		+
72 72				ivou rerusal at /0 reet.	so brows/o penetration				+
72 74				-					-
73-74	-			-					1
75.76				-					+
75-70				1					1
77 79				1					-
78-70				-					+
79-80				1					
80-81				1					1
81-82				-				11 MIN -	
82-83				1					
83-84				1					
84-85	1			1					
85-86				1					
86-87	-			1					
87-88]					
88-89]					
89-90									
90-91									
91-92									
92-93									
93-94				-					
94-95				4					-
95-96				4			-		
96-97	_			4					
97-98									
REMAR	KS:		_						
Standard Blows an S = split	l Penetra re per 6 i -spoon s	ation Tests (inches with ample; $C =$	SPT) = 1 a 24" lon rock core	40# hammer falling 30 g by 2" O.D. by 1 3/8 sample; U = undistur	0" (ASTM D1586) " I.D. split spoon sar bed	npler unless otherwise r	noted		
Blows an S = split REMAR	re per 6 i -spoon s KS: The level in the Prop	inches with ample; C = stratification readings have e level of the partians used:	a 24" lon rock core lines repro be been ma groundwal trace (0-	g by 2" O.D. by 1 3/8' sample; $U =$ undistur esent the approximate bo de in the test borings at it ter may occur due to othe 10%. iinte (10-20%), s	" I.D. split spoon sar bed bundary between soil ty times and under condit er factors than those pr opme (20-35%), and (3	npler unless otherwise r ppes and the transition may ions stated in the test borin resent at the time measurer (5-50%)	oted be gradual. Water ng logs. Fluctuations nents were made.		

						TEST B	ORING LOC)			
A STATE	INSUT	ING CLUE GEOTECE		CONSTRUCTION	CLIENT: PROJECT: LOCATION: PROJECT No:	CLIENT: Seacoast Crane PROJECT: Portland Sports Complex LOCATION: Warren Street, Portland, ME PROJECT No: 12-15-023					
	JOHN	TURNER	CONSUL	TING INC.	BORING No:	B-3					
		19 DOV	ER STRE	ET	DATE:	5/11/2012					
		DOVER.	NH 038	20	LOCATION:	See Plan					
	(60	3) 749-1841	www.con	sultite.com	SURFACE EL:	69					
TYPE O	F BORIN	NG:	Drive &	Wash		GROUNDWATER (DBSERVATIONS				
RILLI	NG Co:		Great W	orks Test Boring	DATE:	DEPTH:		TIME:			
RIG:			CME 85		5/11/2012	3.5		While Drilling			
DRILLE	R:		Pete Mic	haud							
TC RE	P.:		Carl Thu	nberg	i						
FT	NO.	SAMPLE	REC.	SOIL & RO	CK CLASSIFICATIO	N-DESCRIPTION	STRATUM	BLOWS	SPT		
		DEPTH	(IN.)	В	URMEISTER SYSTEM	I (SOIL)	CHANGE	PER	(N)		
		(FT.)		U.S. COR	PS OF ENGINEERS SY	STEM (ROCK)	(FT.)	6 INCHES			
0-1	S-1	0.5-2.5	12	3 in. bituminous con-	crete asphalt			16-16-6-6	22		
1-2	_			S-1: Gray, moist, fin	e to coarse SAND, little	Silt,					
2-3	S-2	2.5-4.5	4	some Gravel (probab	le bank-run gravel paven		8-12-12-6	24			
3-4				S-2: Reddish brown,	wet fine SAND, little Si	It					
4-5	5.2	57	10	Grow wet fine CAN	D little Silt			1 2 2 2	6		
6.7	5-5	J=1	10	Gray, wet, tine SAN	, intre olit			1-2-3-3	1 3		
7-8	S-4	7-9	24	Grav wet fine SAN	D little to some Silt			3_3_3_3	6		
8-9					s, have to some one			5-5-5-5			
9-10											
10-11	S-5	10-12	24	Similar to S-4.				2-2-4-4	6		
11-12]							
12-13	S-6	12-14	24	18 in. Similar to S-5.			13.5	2-2-1-1	0		
13-14	1			Gray, wet, very soft (CLAY						
14-15				-							
15-16				Field Vane Shear Te	st (FVST)-1: 15 to 15.8 ft						
16-17	U-1	16-18	24	Undisturbed = 413 ps	sf Remolded = 22 psf Γ	10.0					
1/-18				EVST-2: 18 to 18 9	ube sample U-1 from 16	0-18 II.					
19-20				Undisturbed = 272 m	sf Remolded = 0 psf						
20-21				FVST-3: 18.6 to 19	4 ft						
21-22				Undisturbed = 152 ps	sf Remolded = 0 psf						
22-23	U-2	22-24	24	Undisturbed Shelby	Fube sample U-2 from 22	2-24 ft.					
23-24											
24-25											
25-26				Continue boring as re	od probe to determine cla	y thickness					
26-27				4							
				4							
27-28				-							
27-28 28-29											
27-28 28-29 29-30				1							
27-28 28-29 29-30 30-31 31-32									1		

v

				_		TEST E	BORING LOG		
	ONSULI	ING C			CLIENT:	Seacoast Crane			
1	\searrow	AN I			PROJECT:	Portland Sports	Complex		
				inc.	LOCATION:	Warren Street, Por	rtland, ME		
	- 45	GEOTECI	INICAL •	CONSTRUCTION	PROJECT No:	12-15-023			
	JOHN	TURNER	CONSUL	TING, INC.	BORING No:	B-3			
		19 DOV	ER STRE	ET	DATE:	5/11/2012			
		DOVER,	NH 038	20	LOCATION:	See Plan			
	(60)	3) 749-1841	www.cons	sultite.com	SURFACE EL:	69			
TYPE OI	F BORIN	IG:	Drive &	Wash		GROUNDWATER	OBSERVATIONS		
DRILLIN	IG Co:		Great Wo	orks Test Boring	DATE:	DEPTH:	1	TIME:	
RIG:			CME 85		5/11/2012	3.5		While Drilling	
DRILLE	R:		Pete Mic	haud					
TC REP			Carl Thu	nherg	1				
TO REE			- Curr Fild	indexB					
FT	NO.	SAMPLE	REC.	SOIL & ROO	CK CLASSIFICATIO	N-DESCRIPTION	STRATUM	BLOWS	SPT
		DEPTH	(IN.)	BU	RMEISTER SYSTEM	(SOIL)	CHANGE	PER	(N)
		(FT.)		U.S. CORP	S OF ENGINEERS S	YSTEM (ROCK)	(FT.)	6 INCHES	
32-33				1					1
33-34				1					
34-35				1					
35-36				1					1
36-37				1					
37-38				1					
38-39				1					
39-40				Gray very soft CLAY					
41-42]					
42-43							-		
43-44				Continue boring as ro	d probe through very se	oft Clay			
44-45		-		to determine clay thick	kness.				
45-46									
46-47									
47-48				4					
48-49				4					-
49-50				-					
50-51				-					-
51-52				-					
52-53	_			-					
53-54				-					-
54-55				4					
56 57	-			-					+
57 50				1					-
58-50				1					1
50_60				1					
60-61				1					1
61-62				1					
62-63				1					
63-64	-			1					
64-65	-			1					1
REMAR	KS:			1					
ALSIVE/ARS	14.J.								
Standard	Penetra	tion Tests (SPT) = 14	40# hammer falling 3	0" (ASTM D1586)				
slows ar	e per 6 i	inches with	a 24" Ion	g by 2" U.D. by I 3/8	LD. split spoon sar	inpier unless otherwise	noted		
s = colit.	-spoon s	ample; C =	rock core	sample; $U = undistui$	rbed				
5 spin									

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A 10 10 10 10 10 10				TEST BORING LOG				
CONSUL	A			CLIENT:	Seacoast Crane			
	1º			PROJECT:	Portland Sports C	omplex		
1	an U		inc.	LOCATION:	Warren Street, Portl	and, ME		
	GEOTECI	INICAL •	CONSTRUCTION	PROJECT No:	12-15-023			
JOHN	N TURNER	CONSULT	TING, INC.	BORING No:	B-3			
	19 DOV	ER STREE	ET	DATE:	5/11/2012			
	DOVER,	NH 038	20	LOCATION:	See Plan			
(60	03) 749-1841	www.cons	ultjtc.com	SURFACE EL:	69			
YPE OF BORI	NG:	Drive &	Wash		GROUNDWATER O	BSERVATIONS		
RILLING Co:		Great Wo	orks Test Boring	DATE:	DEPTH:		TIME:	
IG:		CME 85		5/11/2012	3.5		While Drilling	
RILLER:		Pete Mich	haud					
IC REP.:		Carl Thu	nberg					
ET NO	CAMPLE	DEC	SOU & DOC	V CLASSIEICATIO	NDESCRIPTION	CTDATUM	DI OWS	CDT
FI NO.	DEPTU	(IN)	SUIL & ROC	R CLASSIFICATIO	A (SOIL)	CHANCE	DEUWS	(N)
	(FT.)	(1.4.)	U.S. CORPS	OF ENGINEERS S	YSTEM (ROCK)	(FT.)	6 INCHES	(11)
5-66	(1 1.)							1
56-67			1					
57-68			1					
58-69			1					
59-70]					
71-72		-						
12-73								
73-74			Gray very soft CLAY					
74-75			-					
75-76				1 1 1	0.01			+
70-77	-		Continue boring as roo	1 probe through very so	ort Clay			
78-79			to determine clay tinck	11055.				1
79-80			1					
80-81		-	1					
81-82]					
82-83		-						
83-84	_		-					
84-85		_	-					
85-86			-					-
87-88		-	-					
88-89			1					1
89-90			1					1
90-91			1					
91-92		-]					
00.00								
92-93			-					
92-93 93-94								-
92-93 93-94 94-95			1					1
92-93 93-94 94-95 95-96			Ded and a share of a	rel at 103 5 5				
92-93 93-94 94-95 95-96 96-97			Rod probe abrupt refus	sal at 102.5 feet				

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						TEST B	ORING LOG		
• •	ONSUL	ING .			CLIENT:	Seacoast Crane			
1	\searrow	NOT	S. 10.		PROJECT:	Portland Sports C	omplex		
		AN U		inc.	LOCATION:	Warren Street, Portl	and, ME		
		GEOTECI	INICAL •	CONSTRUCTION	PROJECT No:	12-15-023			
	JOHN	TURNER O	ONSULT	TING, INC.	BORING No:	B-4			
		19 DOVE	ER STRE	ET	DATE:	5/11/2012			
		DOVER,	NH 038	20	LOCATION:	See Plan			
	(60	3) 749-1841	www.cons	sultite.com	SURFACE EL:	69.4			
YPE O	F BORI	NG:	Drive &	Wash		GROUNDWATER C	BSERVATIONS		
RILLI	NG Co:		Great Wo	orks Test Boring	DATE:	DEPTH:		TIME:	
RIG:			CME 85		5/11/2012	3.5		While Drilling	
ORILLE	R:		Pete Mic	haud					
TC REF	2.:		Carl Thu	nberg				-	
FT	NO.	SAMPLE	REC.	SOIL & RO	CK CLASSIFICATION	-DESCRIPTION	STRATUM	BLOWS	SPT
		DEPTH	(IN.)	BU	JRMEISTER SYSTEM	(SOIL)	CHANGE	PER	(N)
0.1		(FT.)	10		S OF ENGINEERS SY	SIEM (ROCK)	(F1.)	o INCHES	10
1.2	S-1	0.5-2.5	12	4 in. bituminous conc	to coarse SAND 1241- S	5il+		/-10-8-8	18
7_3	5_2	25.45	20	some Gravel (probabl	e hank-run gravel navem	ent material		7-8-7-7	15
3-4	0-2	<u> </u>	20	S-2: Grav. wet fine S	some Grave (probable bank-run gravel pavement material S-2. Grav. wet fine SAND little Silt			,-0-,-1	15
4-5	S-3	4.5-6.5	20	S-3: Similar to S-2.	S-3: Similar to S-2.			1-2-1-2	3
5-6									
6-7	S-4	6.5-8.5	18	S-4: Gray, wet, fine S	S-4: Gray, wet, fine SAND, little to some Silt				0
7-8									
8-9	S-5	8.5-10.5	24	6 in. Similar to S-4.			9	WOH/24	0
9-10				18 in. Gray, wet, very	soft CLAY				
10-11				-					
11-12			_		(TYCT) 1. 10 (10 0.0				-
12-13				Field Vane Shear Tes	t (FVSI)-1: 12 το 12.8 π. f. Remalded = 22 pcf				
14-15	II-1	14-16	24	EVST-2. 12.8 to 13.6	VST-2: 12.8 to 13.6 ft.				
15-16	0.		21	Undisturbed = 390 ps	Indisturbed = 390 psf Remolded = 22 psf				
16-17				Undisturbed Shelby T	Indisturbed Shelby Tube sample U-1 from 14-16 ft.				
17-18				FVST-3: 16 to 16.8 ft	FVST-3: 16 to 16.8 ft.				
18-19				Undisturbed = 304 ps	f Remolded = 11 psf				
19-20				FVST-4: 16.8 to 17.6	ft				
20-21			-	Undisturbed = 304 ps	f Remolded = 11 psf				
21-22				4					-
22-23				-					
24-25				1					
25-26				Continue boring as ro	d probe to determine clav	y thickness			
26-27]					
27-28]					
28-29									
29-30				-					
30-31				4					
31-32	1/6.	1							1
CEMAR	N3:								
Standard	Penetr	ation Tests (SPT = 14	40# hammer falling	30" (ASTM D1586)				
Blows an	re per 6	inches with	a 24" lons	g by 2" O.D. by 1 3/8	8" I.D. split spoon sam	pler unless otherwise r	oted		
S = split	-spoon s	sample; C =	rock core	sample; U = undistu	irbed				
FMAD	C. The	stratification	lings range	sent the approximate l	oundary between soil by	as and the transition may	he gradual Water		

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						TEST B	ORING LOG	i	
1.1	-ONSUL	NG IN	Т	\mathbf{C}	CLIENT: PROJECT:	Seacoast Crane Portland Sports C	omplex		
	6	GEOTECI	INICAL •	CONSTRUCTION .	PROJECT No:	12-15-023	land, ME		
	JOHN	TURNER	CONSUL	TTNG INC	BORING No:	B-4			
		19 DOV	FR STRE	FT	DATE.	5/11/2012			
		DOVER	NH 038	20	LOCATION:	See Plan			
	(60	3) 749-1841	waray con	sultite com	SURFACE EL	69.4			
TVPF O	FBORI	NC.	Drive &	Wash	SUNFACE EL.	CROUNDWATER (BSERVATIONS		_
DRILLI	NG Co:	110.	Great W	orks Test Boring	DATE	DEPTH	DSERVATIONS	TIME	
RIG			CME 85	ond rear boring	5/11/2012	35	-	While Drilling	
DRILLE	R:		Pete Mic	haud	C.T.I.Z.C.Z	010		traite Draing	
JTC RE	P.:		Carl Thu	inberg	1				
				intering		and a second			
FT	NO.	SAMPLE	REC.	SOIL & ROO	KCLASSIFICATIO	N-DESCRIPTION	STRATUM	BLOWS	SPT
		DEPTH	(IN.)	BU	RMEISTER SYSTEM	(SOIL)	CHANGE	PER	(N)
-		(FT.)	,	U.S. CORP	S OF ENGINEERS S	STEM (ROCK)	(FT.)	6 INCHES	
32-33				T					T
33-34				1					
34-35]					
35-36									
36-37	_								
37-38									
38-39			-						-
39-40				Gray very soft CLAY				-	
41-42			_	-					
42-43		-							-
43-44			-	Continue boring as ro	d probe through very so				
44-45				to determine clay thick	cness.			-	
45-40				-					+
40-47				1					
48-49				1					
49-50				1					
50-51				1			50		
51-52				Change in rod probe re	esistance at 50 feet in g	ranular materials		17	
52-53								22	
53-54			-	_				25	
54-55				-				45	
55-56				-				40	
56-57							56.5	50/4	-
57-58				Kod probe refusal at 5	6.5 ft. 50 blows/4 in. p	enetration			-
50.60		-		-					
60-61				-					
61-62				1					
62-63			-	1					
63-64				1					
64-65									
REMAR	KS:								
Standard	d Penetr	ation Tests (SPT) = 14	40# hammer falling 3	0" (ASTM D1586)	idaa ahaa ahaa ahaa ahaa ahaa ahaa ahaa			
Blows a	re per 6	inches with	a 24" long	g by 2" O.D. by 1 3/8	" I.D. split spoon san	npler unless otherwise r	oted		
S = split	-spoon	sample; C =	rock core	sample; U = undistur	bed				
REMAR	KS: The	stratification	lines repre	esent the approximate be	oundary between soil ty	pes and the transition may	be gradual. Water		
	leve	l readings hav	e been maa	de in the test borings at	times and under conditi	ions stated in the test borin	ng logs. Fluctuations		
REMAR	KS: The level in th Prop	stratification l readings hav e level of the g portions used:	lines repre e been maa groundwat trace (0-1	esent the approximate be de in the test borings at er may occur due to oth 10%), little (10-20%), s	oundary between soil ty times and under conditu er factors than those pr come (20-35%), and (3)	pes and the transition may ions stated in the test bori esent at the time measurer 5-50%)	be gradual. Water ng logs. Fluctuations nents were made.		

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SOIL LABORATORY REPORTS









REPORT OF ATTERBERG LIMITS TEST RESULTS

CLIENT: Seacoast Crane

PROJECT: Portland Sports Complex

DATE: 6-14-12

Sampled Source: B-1, S-5 12-14

Soil ID#: 12-021

Date Received: 6-5-12

Method Used: ASTM D 4318

REPORT #: 12-15-023-004

Soil Type: TBD

Intended Use: GEO

Sampled By: Carl T.

Tested By: Scott TeBordo

ATTERBERG LIMITS TEST RESULTS

Plastic Limit: 19

Liquid Limit: 36

Plasticity Index: 17

Remarks:

NH ME MA

CONSULTJTC.COM

JOHN TURNER CONSULTING, INC.

19 DOVER STREET DOVER NH 03820 T 603.749.1841 F 603.516.6851 6 CLINTON AVENUE WESTFIELD MA 01085 T 413.642.0138 F 413.642.0164 585 RIVERSIDE STREET, #73 PORTLAND ME 04103 T 207.883.7878



REPORT OF ATTERBERG LIMITS TEST RESULTS

CLIENT: Seacoast Crane

PROJECT: Portland Sports Complex

DATE: 6-14-12

Sampled Source: B-2, S-7, 14-16

Soil ID#: 12-022

Date Received: 6-5-12

Method Used: ASTM D 4318

REPORT #: 12-15-023-005

Soil Type: TBD

Intended Use: GEO

Sampled By: Carl T.

Tested By: Scott TeBordo

ATTERBERG LIMITS TEST RESULTS

Plastic Limit: 24

Liquid Limit: 37

Plasticity Index: 13

Remarks:

NH ME MA

CONSULTJTC.COM

JOHN TURNER CONSULTING, INC.

19 DOVER STREET DOVER NH 03820 T 603.749.1841 F 603.516.6851 6 CLINTON AVENUE WESTFIELD MA 01085 T 413.642.0138 F 413.642.0164 585 RIVERSIDE STREET, #73 PORTLAND ME 04103 T 207.883.7878



REPORT OF ATTERBERG LIMITS TEST RESULTS

CLIENT: Seacoast Crane

PROJECT: Portland Sports Complex

DATE: 6-14-12

Sampled Source: B-4, S-5, 8.5-10.5

Soil ID#: 12-022

Date Received: 6-5-12

Method Used: ASTM D 4318

REPORT #: 12-15-023-006

Soil Type: TBD

Intended Use: GEO

Sampled By: Carl T.

Tested By: Scott TeBordo

ATTERBERG LIMITS TEST RESULTS

Plastic Limit: 22

Liquid Limit: 40

Plasticity Index: 18

Remarks:

NH ME MA

CONSULTJTC.COM

JOHN TURNER CONSULTING, INC.

19 DOVER STREET DOVER NH 03820 T 603.749.1841 F 603.516.6851

6 CLINTON AVENUE WESTFIELD MA 01085 T 413.642.0138 F 413.642.0164 585 RIVERSIDE STREET, #73 PORTLAND ME 04103 T 207.883.7878



	Project: Portland Sports Complex	Location: Portland, ME	Project No.: GTX-11834			
	Boring No.: B-4	Tested By: md	Checked By: jdt			
	Sample No.: U-1	Test Date: 5/22/12	Test No.: IP-2			
GeoTesting	Depth: 14-16 ft	Sample Type: intact	Elevation:			
EXPRESS	Description: Wet, gray silty clay					
	Remarks: System Y					
	Displacement at End of Incremen	t				



One-Dimensional Consolidation by ASTM D 2435 - Method B SUMMARY REPORT

					Before Test	After Test
Overburden	Pressure:			Water Content, %	52.49	31.53
Preconsolio	lation Pressure:			Dry Unit Weight, pcf	70.787	93.141
Compressio	on Index:			Saturation, %	99.61	100.00
Diameter: 2.5 in Height: 1 in			Void Ratio	1.48	0.89	
LL:	PL:	PI:	GS: 2.82			

	Project: Portland Sports Complex	Location: Portland, ME	Project No.: GTX-11834			
	Boring No.: B-4	Tested By: md	Checked By: jdt			
	Sample No.: U-1	Test Date: 5/22/12	Test No.: IP-2			
GeoTesting	Depth: 14-16 ft	Sample Type: intact	Elevation:			
EXPRESS	Description: Wet, gray silty clay					
	Remarks: System Y					
	Displacement at End of Incremen	t				
One-Dimensional Consolidation by ASTM D 2435 - Method B

Project: Portland Sports Complex Boring No.: B-4 Sample No.: U-1 Test No.: IP-2	Location: Port Tested By: md Test Date: 5/22 Sample Type: ir	and, ME 2/12 stact	Project No.: GTX-11834 Checked By: jdt Depth: 14-16 ft Elevation:		
Soil Description: Wet, gray silty cla Remarks: System Y	У				
Estimated Specific Gravity: 2.82 Initial Void Ratio: 1.48 Final Void Ratio: 0.888	Liquid Limit: - Plastic Limit: Plasticity Inde	 ex:	Specimen Diameter: Initial Height: 1. Final Height: 0.76	2.50 in 00 in 5 in	
	Before Co	nsolidation	After Consol	idation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings	
Container ID	9940	RING		8392	
Wt. Container + Wet Soil, gm	438.82	248.24	229.12	126.20	
Wt. Container + Dry Soil, gm	291.67	200.36	200.36	97.920	
Wt. Container, gm	7.5200	109.15	109.15	8.2300	
Wt. Dry Soil, gm	284.15	91.211	91.211	89.690	
Water Content, %	51.79	52.49	31.53	31.53	
Void Ratio		1.48	0.888		
Degree of Saturation, %		99.61	100.00		
Dry Unit Weight, pcf		70.787	93.141		

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Note: Specific Gravity and Void Ratios are calculated assuming the degree of saturation equals 100% at the end of the test. Therefore, values may not represent actual values for the specimen.

One-Dimensional Consolidation by ASTM D 2435 - Method B

Soil Description: Wet, gray silty clay Remarks: System Y Displacement at End of Increment

>

	k ft/day	Mv 1/tsf	Cv ft^2/sec	Sq.Rt T90 min	Strain at End %	Void Ratio	Final Displacement in	Applied Stress tsf	
	4.33e-004 1.45e-004 1.52e-004 4.09e-005 2.18e-005 2.08e-005 2.41e-005 2.27e-005 2.03e-005 1.63e-005 2.10e-005	5.65e-002 5.52e-002 1.11e-001 7.80e-002 2.48e-003 3.78e-003 1.02e-002 6.27e-003 5.11e-003 5.48e-003 8.61e-003	2.84e-006 9.74e-007 5.10e-007 6.13e-007 6.87e-006 2.04e-006 8.81e-007 1.34e-006 1.47e-006 1.10e-006 9.03e-007	8.513 24.138 42.899 34.140 26.517 2.231 7.566 17.736 11.662 10.507 13.805 15.866	1.41 2.79 8.33 16.1 21.1 20.8 20.5 20.0 20.3 20.3 20.8 21.9 25.3	1.45 1.42 1.28 1.08 0.961 0.967 0.976 0.989 0.981 0.968 0.941 0.855	0.01413 0.02793 0.08328 0.1613 0.2108 0.2085 0.2047 0.1996 0.2027 0.2078 0.2188 0.2188	0.250 0.500 4.00 2.00 1.00 0.500 1.00 2.00 4.00	1 2 3 4 5 6 7 8 9 10 11
Ca %	k ft/day	Mv 1/tsf	Cv ft^2/sec	Log T50 min	Strain at End %	Void Ratio	Final Displacement in	Applied Stress tsf	
0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000	0.00e+000 0.00e+000 1.53e-004 4.62e-005 0.00e+000 0.00e+000 2.71e-005 1.39e-005 1.46e-005 1.91e-005 2.08e-005	5.65e-002 5.52e-002 1.11e-001 7.80e-002 2.48e-002 1.18e-003 3.78e-003 5.78e-003 5.11e-003 5.11e-003 5.48e-003 8.61e-003	0.00e+000 0.00e+000 5.12e-007 4.77e-007 6.91e-007 0.00e+000 0.00e+000 9.90e-007 8.21e-007 1.06e-006 1.29e-006 8.98e-007	0.000 9.939 9.204 5.464 0.000 3.665 4.433 3.398 2.724 3.706	1.41 2.79 8.33 16.1 21.1 20.8 20.5 20.0 20.3 20.8 21.9 25.3	1.45 1.42 1.28 1.08 0.961 0.976 0.976 0.989 0.981 0.961 0.961 0.941	0.01413 0.02793 0.08328 0.1613 0.2108 0.2085 0.2047 0.2096 0.2027 0.2078 0.2188 0.2188	0.250 0.500 1.00 2.00 1.00 0.500 1.00 2.00 4.00	1 2 3 4 5 6 7 8 9 10 11



	Project: Portland Sports Complex	Location: Portland, ME	Project No.: GTX-11834			
	Boring No.: B-3	Tested By: md	Checked By: jdt			
	Sample No.: U-2	Test Date: 5/22/12	Test No.: IP-1			
GeoTesting	Depth: 22-24 ft	Sample Type: intact	Elevation:			
EXPRESS	Description: Wet, gray silty clay					
	Remarks: System W					
	Displacement at End of Increment					



One-Dimensional Consolidation by ASTM D 2435 - Method B SUMMARY REPORT

					Before Test	After Test
Overburden Pressure:		Water Content, %	40.86	26.55		
Preconsolidation Pressure:		Dry Unit Weight, pcf	80.529	100.66		
Compression Index:		Saturation, %	97.16	100.00		
Diameter: 2.5	in	Height: 1 in		Void Ratio	1.19	0.75
LL:	PL:	PI:	GS: 2.82			

	Project: Portland Sports Complex	Location: Portland, ME	Project No.: GTX-11834			
	Boring No.: B-3	Boring No.: B-3 Tested By: md				
	Sample No.: U-2	Test Date: 5/22/12	Test No.: IP-1			
GeoTesting	Depth: 22-24 ft	Sample Type: intact	Elevation:			
EXPRESS	Description: Wet, gray silty clay					
	Remarks: System W					
	Displacement at End of Increment					

One-Dimensional Consolidation by ASTM D 2435 - Method B

Project: Portland Sports Complex Boring No.: B-3 Sample No.: U-2 Test No.: IP-1	Location: Port Tested By: md Test Date: 5/22 Sample Type: in	land, ME 2/12 1tact	Project No.: GTX-11834 Checked By: jdt Depth: 22-24 ft Elevation:			
Soil Description: Wet, gray silty cla Remarks: System W	У					
Estimated Specific Gravity: 2.82 Initial Void Ratio: 1.19 Final Void Ratio: 0.748	Liquid Limit: Plastic Limit: Plasticity Inde	 ex:	Specimen Diameter: Initial Height: 1 Final Height: 0.80	Specimen Diameter: 2.50 in Initial Height: 1.00 in Final Height: 0.80 in		
	Before Co	onsolidation	After Consolidation			
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings		
Container ID	9941	RING		8758		
Wt. Container + Wet Soil, gm	370.35	255.68	240.83	134.41		
Wt. Container + Dry Soil, gm	261.57	213.28	213.28	107.95		
Wt. Container, gm	7.5100	109.52	109.52	8.2800		
Wt. Dry Soil, gm	254.06	103.76	103.76	99.670		
Water Content, %	42.82	40.86	26.55	26.55		
Void Ratio		1.19	0.748			
Degree of Saturation, %		97.16	100.00			
Dry Unit Weight, pcf		80.529	100.66			

Note: Specific Gravity and Void Ratios are calculated assuming the degree of saturation equals 100% at the end of the test. Therefore, values may not represent actual values for the specimen.

One-Dimensional Consolidation by ASTM D 2435 - Method B

Project: Portland Sports Complex Boring No.: B-3 Sample No.: U-2	Location: Portland, ME Tested By: md Test Date: 5/22/12	Project No.: GTX-11834 Checked By: jdt Depth: 22-24 ft
Test No.: IP-1	Sample Type: intact	Elevation:

Soil Description: Wet, gray silty clay Remarks: System W Displacement at End of Increment

.

	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	Sg.Rt T90 min	Cv ft^2/sec	Mv 1/tsf	k ft/day	
1 2 3 4 5 6	0.250 0.500 1.00 2.00 4.00 2.00	0.02711 0.04565 0.09462 0.1657 0.2040 0.2005	1.13 1.09 0.979 0.824 0.740 0.747	2.71 4.57 9.46 16.6 20.4 20.1	9.541 39.738 33.359 13.676 13.359 2.662	2.50e-006 5.73e-007 6.36e-007 1.36e-006 1.22e-006 5.87e-006	1.08e-001 7.42e-002 9.79e-002 7.10e-002 1.92e-002 1.73e-003	7.32e-004 1.15e-004 1.68e-004 2.60e-004 6.31e-005 2.74e-005	
8 9 10 11 12	1.00 0.500 1.00 2.00 4.00 8.00	0.1982 0.1935 0.1989 0.2023 0.2110 0.2383	0.752 0.763 0.751 0.743 0.724 0.665	19.8 19.4 19.9 20.2 21.1 23.8	4.755 11.851 3.927 4.239 12.179 7.519	3.31e-006 1.34e-006 4.04e-006 3.70e-006 1.27e-006 1.96e-006	2.34e-003 9.36e-003 1.08e-002 3.42e-003 4.33e-003 6.82e-003	2.09e-005 3.38e-005 1.17e-004 3.41e-005 1.48e-005 3.61e-005	
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	Log T50 min	Cv ft^2/sec	Mv 1/tsf	k ft/day	Ca %
1 2 3 4 5 6 7 8 9 10 11	0.250 0.500 1.00 2.00 1.00 0.500 1.00 2.00 4.00	0.02711 0.04565 0.09462 0.1657 0.2040 0.2005 0.1982 0.1982 0.1989 0.2023 0.2110	1.13 1.09 0.979 0.824 0.740 0.747 0.752 0.763 0.751 0.743 0.724	2.71 4.57 9.46 16.6 20.4 20.1 19.8 19.4 19.9 20.2 21.1	0.000 3.779 8.979 2.628 3.157 0.000 0.000 0.000 0.000 1.769 1.433	0.00e+000 1.40e-006 5.49e-007 1.64e-006 0.00e+000 0.00e+000 0.00e+000 0.00e+000 2.50e-006	1.08e-001 7.42e-002 9.79e-002 1.92e-002 1.73e-003 9.36e-003 1.08e-002 3.42e-003 4.33e-003	0.00e+000 2.80e-004 1.45e-004 6.20e-005 0.00e+000 0.00e+000 0.00e+000 0.00e+000 1.90e-005 2.92e-005	0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000 0.00e+000
12	8.00	0.2383	0.665	23.8	2.141	1.60e-006	6.82e-003	2.95e-005	0.00e+000

Analyses





SHEAR STRENGTH (PSF)









Site Photos

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SITE PHOTOGRAPHS PROPOSED ADDITION PORTLAND SPORTS COMPLEX PORTLAND, MAINE



Overall View of Addition Area Facing Existing Dome



Overall View of Addition Area Facing Existing Dome



Boring B-3 Location



DigSafe Clearance Marks



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

Receipts Details:

Tender Information: Check , BusinessName: The Dome Group, Check Number: 8216 **Tender Amount:** 610.00

Receipt Header:

Cashier Id: gguertin Receipt Date: 6/27/2012 Receipt Number: 45428

Receipt Details:

Referance ID:	7067	Fee Type:	BP-Constr		
Receipt Number:	0	Payment			
		Date:			
Transaction	610.00	Charge	610.00		
Amount:		Amount:			
Job ID: Job ID: 2012-06-4345-ALTCOMM - foundation only for the Athletic Training sports					
Additional Comm	ents: James Gratello				

Thank You for your Payment!



COMcheck Software Version 3.9.0 Envelope Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: New Construction Project Title : Portland Sports Complex

Construction Site: 512 Warren Ave Portland, ME 04103 Owner/Agent: Jim Grattelo Portland Sports Complex 512 Warren Ave Portland, ME 04103

RECEIVED Dept. of Building Inspections City of Portland Maine

Designer/Contractor: William Belanger Seacoast Crane & Building Co., Inc 98 Route 236 P.O. Box 540 Kittery, ME 03904 207-439-5899

Section 2: General Information

Building Location (for weather data):	Portland, Maine
Climate Zone:	6a
Building Type for Envelope Requirements:	Non-Residential
Activity Type(s)	Floor Area

Activity Type(s) Sports Arena

18000

Section 3: Requirements Checklist

Envelope PASSES: Design 8% better than code.

Climate-Specific Requirements:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Roof 1: Metal Building, Standing Seam	18350	25.0	13.0	0.032	0.049
Exterior Wall 1: Metal Building Wall	13970	19.0	0.0	0.070	0.069
Entry Doors: Insulated Metal, Swinging	126			0.140	0.700
Overhead Doors: Insulated Metal, Swinging	196			0.070	0.700
Floor 1: Slab-On-Grade:Unheated, Vertical 1 ft.	420		5.0		

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

Air Leakage, Component Certification, and Vapor Retarder Requirements:

- 1. All joints and penetrations are caulked, gasketed or covered with a moisture vapor-permeable wrapping material installed in accordance with the manufacturer's installation instructions.
- 2. Windows, doors, and skylights certified as meeting leakage requirements.
- 3. Component R-values & U-factors labeled as certified.
- 4. No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- 5. 'Other' components have supporting documentation for proposed U-Factors.
- 6. Insulation installed according to manufacturer's instructions, in substantial contact with the surface being insulated, and in a manner that achieves the rated R-value without compressing the insulation.
- 7. Stair, elevator shaft vents, and other outdoor air intake and exhaust openings in the building envelope are equipped with motorized dampers.
- 8. Cargo doors and loading dock doors are weather sealed.
- 9. Recessed lighting fixtures installed in the building envelope are Type IC rated as meeting ASTM E283, are sealed with gasket or caulk.

10.Building entrance doors have a vestibule equipped with self-closing devices. Exceptions:

Building entrances with revolving doors.

- Doors not intended to be used as a building entrance.
- Doors that open directly from a space less than 3000 sq. ft. in area.
- Doors used primarily to facilitate vehicular movement or materials handling and adjacent personnel doors.
- Doors opening directly from a sleeping/dwelling unit.

Section 4: Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed envelope system has been designed to meet the 2009 IECC requirements in COM*check* Version 3.9.0 and to comply with the mandatory requirements in the Requirements Checklist.

William J. Belanger III - Project Manager	With Biles	July 3rd, 2012
Name - Title	Signature	Date





July 3, 2012

Mr. Bill Belanger III Seacoast Crane and Building Co. PO Box 540 Kittery, ME 03904

RE: Project Name - Portland Sports, 512 Warren Avenue, Portland, ME 04103

Thank you for incorporating Thermal Design's liner system in your metal building roof envelope design. Thermal Design has completed numerous hot box tests and uses recognized modeling methods on our insulation liner systems for metal building roof assemblies in order to document installed performance. Although we have not tested the specific combination of a pre-installed R38 liner system, we believe the following should be more than acceptable and should be used to determine compliance.

Performance Reference:	ANSI/ASHRAE/IESNA Standard 90.1-2010, Energy Standard for Building Except Low-Rise Residential Buildings				
Table:	A2.3 Assembly U-factors for Metal Building Roofs				
Assembly:	The R25+R11 (36) Liner System shows an estimated performance of an installed R-32.3 (U-factor: U-0.031) in a standing seam roof with thermal spacer blocks.				

Increasing the insulation to a pre-installed R-38 is conservatively expected to yield an installed R-value of R-33.3 (U-0.030). It is important to following manufacturers installation instructions to represent typical installation and expected performance.

If there are any questions or clarifications required, please don't hesitate to contact Thermal Design and thank you for implementing Thermal Design's liner systems in your design.

100 Business Park Circle, Suite 201, PO Box 324, Stoughton, WI 53589 601 North Main Street, PO Box 468, Madison, NE 68748 www.thermaldesign.com

Project: Building Addition – Portland Sports Complex Date Prepared: May 5th, 2012

Structur	al Statement of Special Inspections	JUI
Project:	Building Addition – Portland Sports Complex	Dept of Building 9 2012
Location:	512 Warren Avenue, Portland, Maine	Pontand Maction
Owner:	Portland Sports Complex – Jim Gratello	riel/ne ris
This Statem	ent of Special Inspections encompass the following discipline	: Structural – Foundations

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Structural Special Inspection Coordinator (SSIC) and the identity of other approved agencies to be retained for conducting these inspections and tests.

The Structural Special Inspection Coordinator shall keep records of all Structural inspections and shall furnish inspection reports to the Building Code Official (BCO) and the Structural Registered Design Professional in Responsible Charge (SRDP). Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the brought to the attention of the Building Official and the Structural Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Structural Registered Design Professional in

Responsible Charge at an interval determined by the SSIC and the BCO.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted to the BCO prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim R	Report Fred	quency:
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Upon request of Building Official _____

or per attached schedule.

Prepared by:

Ted Greenlaw, P.E.

(Structural Registered Design Professional in Responsible Charge)

Signature

Date



Design Professional Seal

Owner's Authorization:

Building Code Official's Acceptance:

Signature

Date

Signature

Date

Structural Statement of Special Inspections (Continued)

List of Agents

Project: Building Addition – Portland Sports Complex

Location: 512 Warren Avenue, Portland, Maine

Owner: Portland Sports Complex – Jim Gratello

This Statement of Special Inspections encompass the following discipline: Structural - Foundations

(Note: Statement of Special Inspections for other disciplines may be included under a separate cover)

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

Soils and Foundations
 Cast-in-Place Concrete
 Precast Concrete System
 Masonry Systems
 Structural Steel
 Wood Construction

Special Cases

Greenlaw, P.E.	183 Columbia Road Hanover, MA 02339 (781)- 826-8369
n Turner Consulting, Inc.	73 Rainmaker Drive Portland, ME (207) 883-7878
n Turner Consulting, Inc.	73 Rainmaker Drive Portland, ME (207) 883-7878
	Greenlaw, P.E. n Turner Consulting, Inc. n Turner Consulting, Inc.

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and <u>not</u> by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Structural Statement of Special Inspections (Continued)

Final Report of Special Inspections (SSIC/SI 1)

[To be completed by the Structural Special Inspections Coordinator (SSIC/SI 1). Note that all Agent's Final Reports must be received prior to issuance.]

Project: Building Addition – Portland Sports Complex Location: 512 Warren Avenue, Portland, Maine Owner: Portland Sports Complex – Jim Gratello_

Owner's Address: 512 Warren Avenue, Portland, Maine

Architect of Record: N/A

Structural Registered Design Professional in Responsible Charge: Ted Greenlaw, P.E.

To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved.

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted, Structural Special Inspection Coordinator

(Type or print name)

(Firm Name)

Signature

Date



Licensed Professional Seal

Project: Building Addition – Portland Sports Complex Date Prepared: May 5th, 2012 Project: New Building for Phoenix Property Management Date Prepared: December 8, 2011

Structural Statement of Special Inspections (Continued)

Special Inspector's/Agent's Final Report

Project: Building Addition – Portland Sports Complex

Special Inspector or Agent:

Designation:

To the best of my information, knowledge and belief, the Special Inspections or testing required for this project, and designated for this Inspector/Agent in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved.

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted, Special Inspector or Agent:

(Type or print name)

Signature

Date



Licensed Professional Seal or Certification Number Project: Building Addition – Portland Sports Complex Date Prepared: May 5th, 2012

Project: New Building for Phoenix Property Management Date Prepared: December 8, 2011

Structural Schedule of Special Inspections

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided to the Special Inspector for their records.NOTE VERIFICATION THAT QUALIFIED INDIVIDUALS ARE AVAILABLE TO PERFORM STIPULATED TESTING AND/OR INSPECTION SHOULD BE PROVIDED PRIOR TO SUBMITTING STATEMENT. AGENT QUALIFICATIONS IN SCHEDULE ARE SUGGESTIONS ONLY; FINAL QUALIFICATIONS ARE SUBJECT TO THE DISCRETION OF THE REGISTERED DESIGN PROFESSIONAL PREPARING THE SCHEDULE.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge or Special Inspector of Record deems it appropriate that the individual performing a stipulated test or inspection have a specific certification, license or experience as indicated below, such requirement shall be listed below and shall be clearly identified within the schedule under the Agent Qualification Designation.

 PE/SE
 Structural Engineer – a licensed SE or PE specializing in the design of building structures

 PE/GE
 Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations

 EIT
 Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

Experienced Testing Technician

ETT Experienced Testing Technician – An Experienced Testing Technician with a minimum 5 years experience with the stipulated test or inspection

American Concrete Institute (ACI) Certification

Concrete Field Testing Technician – Grade 1
Concrete Construction Inspector
Laboratory Testing Technician – Grade 1&2
Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWICertified Welding InspectorAWS/AISC-SSICertified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT Non-Destructive Testing Technician – Level II or III.

International Code Council (ICC) Certification

ICC-SMSI	Struc	tural	Masonry	Special	Inspector	

- ICC-SWSI Structural Steel and Welding Special Inspector
- ICC-SFSI Spray-Applied Fireproofing Special Inspector
- ICC-PCSI Prestressed Concrete Special Inspector
- ICC-RCSI Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CTConcrete Technician – Levels I, II, III & IVNICET-STSoils Technician - Levels I, II, III & IVNICET-GETGeotechnical Engineering Technician - Levels I, II, III & IV

Other

Structural Schedule of Special Inspections SOILS & FOUNDATION CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.7, 1704.8, 1704.9		ION AND INSPECTION Y/N EXTENT: COMMEI CONTINUOUS, PERIODIC, BC Section 1704.7, 1704.8, 1704.9 SUBMITTAL, OR NONE			
Verify existing soil conditions, fill placement and load bearing requirements	je se	141			
 Verify materials below shallow foundations are adequate to achieve design bearing capacity 	Y	Р	IBC 1704.7	S12	PE/GE, EIT or ETT
Verify excavations are extended to proper depth and have reached proper material	Y	Р	IBC 1704.7	S12	PE/GE, EIT or ETT
 Perform classification and testing of compacted fill materials 	Y	Р	IBC 1704.7	S12	PE/GE, EIT or ETT
 Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill 	Y	С	IBC 1704.7	S12	PE/GE, EIT or ETT
 Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly 	Y	Р	IBC 1704.7	SI2	PE/GE, EIT or ETT

Structural Schedule of Special Inspections CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.4	Y/N	EXTENT <u> </u> <u> </u> CONTINUOU S, PERIODIC, SUBMITTAL,	COMMENTS	AGENT	AGENT QUALIFICATION
1. Inspection of reinforcing steel, including prestressing tendons, and placement	Y	Р	ACI 318: 3.5, 7.1-7.7	SII	PE/SE, EIT or ICC- RCS1
2. Inspection of reinforcing steel welding (Refer to Item6B in Steel Construction Table below)	NA	Р	AWS D1.4 ACI 318: 3.5.2		AWS-CW1
 Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased or where strength design is used 	Y	С	IBC 1911.5, 1912.1 ACI 318: 8.1.3, 21.2.8	SII	PE/SE, EIT or ICC- RCSI
4. Inspection of anchors installed in hardened concrete	Y	Р	IBC 1912.1 ACI 318: 3.8.6, 8.1.3, 21.2.8	S11	PE/SE, EIT or ICC- RCS1
5. Verifying use of required design mix	Y	Р	ACI 318: Ch 4, 5.2-5.4	SII, SI2 or TA1	PE/SE, EIT or ICC- RCS1
6. At time fresh concrete is sampled to fabricate specimens for strength test, perform slump and air content test and temperature In the absence of project specific specifications, the frequency of testing shall be per the schedule following this table	Y	С	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8 IBC 1913.10	TA1	ACI-CFTT or ACI-STT
7. Inspection of concrete and shotcrete placement for proper application techniques	Y	С	ACI 318: 5.9, 5.10	SI1, SI2 or TA1	PE/SE, EIT or ICC- RCS1
8. Inspection for maintenance of specified curing temperature and techniques	Y	Р	ACI 318: 5.11- 5.13	SII, SI2 or TA1	PE/SE, EIT or ICC- RCSI

Concrete Testing Frequency:

Concrete cylinders shall be taken, and fresh concrete tested at least once per placement or at the following intervals:

Retaining walls and footings:
 Isolated Footings:

3. Slabs:

50 cubic yards 25 cubic yards 50 cubic yards

Jeanie Bourke - Re: Fwd: foundation permit - Portland Sports 550 Warren Ave CBL 271 A002

From:	Philip DiPierro
То:	Barhydt, Barbara; Bourke, Jeanie; Munson, Tammy
Date:	7/2/2012 12:48 PM
Subject:	Re: Fwd: foundation permit - Portland Sports 550 Warren Ave CBL 271 A002
CC:	Donaldson, Helen; Jaegerman, Alex; Machado, Ann; Pirone, Chris; Schm

Hi all, this project meets minimum DRC site plan requirements for the issuance of the building permit. The performance guarantee has been posted, the site inspection fee has been paid, and the preconstruction meeting has been held. All conditions of approval prior to building permit issuance have been met.

Please contact me with any questions. thanks.

Phil

>>> Jeanie Bourke 6/28/2012 3:42 PM >>>

They just applied yesterday, I am somewhat aware of the time line, however it will be pushing it to be reviewed by the end of next week. We will certainly do our best and it appears it will mean moving this forward in the bydate pending order.

Tammy....is this one to be prioritized??????

FYI to those reviewers that have not seen this yet....including me! Jeanie

>>> Barbara Barhydt 6/28/2012 3:26 PM >>> Hi:

Helen and I received this e-mail today. The plans for the Portland Sports Center received Planning Board approval and they are anxious to get started. Phil is scheduling a pre-construction meeting with them on Friday or Monday and they will begin their site work.

Is there a way for you to look at the foundation plans to meet their schedule?

Thanks.

Barbara

>>> Jim Grattelo <jgrattelo@gmail.com> Thursday, June 28, 2012 11:18 AM >>> Hello,

Once again THANK YOU SO MUCH for your help on this project. If possible I need one more favor. I just found out inspections is two weeks behind on permits. This is okay for our "FULL" building permit but a killer for just our foundation permit. As you know we are already behind on the site work because we had to re-do the foundation plan based on the soils testing. You should have everything by noon today so the plans can be stamped by your office Friday. I have a pre-construction meeting set for Monday morning with Phil @ 9:30. If you can stop by Jeanie Bourke's office and put in a good word so we can @ least get our foundation permit sometime next week that would be fantastic! Our goal is to start Monday morning July 9th. We are 3 weeks behind from our original schedule and we no longer have any "fluff" to make the Nov 1st deadline.

Thank you in advance for your consideration,

Jim



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			CATION MAP MATE SCALE: 1"=2000'		
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OR MORE STORIES)					
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STING SPOT GRADES	WERE TAKEN F IER DISTRICT.	ROM REFERENCE 3. WATER AND SEWER IN	IPROVEMENTS SHALL BE INSTA	LLED IN	
al utilities prior t	TO THE START	OF CONSTRUCTION TO	VERIFY THE LOCATION OF EXI	STING SUBSURFACE	
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FACILITY WILL COMP	PLY WITH THE	NOISE STANDARD OF 1	THE B-4 ZONE (SECTION 14-2	29.15.B).	
OM THE AREA OF CO ACCORDANCE WITH	NSTRUCTION S	HALL HAVE INLET PRO	TECTION. INLET PROTECTION CONTROL BMP MANUAL: B-3 S	SHALL BE SILTSACK STORMDRAIN INLET	
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GENERAL NOTES

1. TOP OF FOOTING ELEVATION IS AT 67'-6" UNLESS NOTED ON PLAN.

FOUNDATION PLAN IS BASED ON A METAL BUILDING SYSTEM MANUFACTURED AND DESIGNED BY CORLE BUILDING SYSTEMS (F.O. 17096).

FOUNDATION DESIGN IS BASED ON A SOIL BEARING CAPACITY OF 1,000# PSF. IF ANY UNSUITABLE MATERIALS ARE ENCOUNTERED, NOTIFY STRUCTURAL FOUNDATION DESIGN ENGINEER. NO CONCRETE WILL BE PLACED IN FROZEN

4. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 318-99.

FOOTING & PIER CONCRETE SHALL BE 3,000 PSI, 3/4" DESIGN MIX (MIN) WITH

6. PLACE VERTICAL CONTROL JOINTS AT EDGE OF EACH PILASTER.

7. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, MIN 60 KSI (DEFORMED). THE PLACEMENT AND DETAILING SHALL BE FOUND IN THE

REINFORCING BARS SHALL HAVE MINIMUM COVER AS FOLLOWS: CONCRETE CAST AGAINST EARTH - 3", CONCRETE EXPOSED TO WEATHER OR EARTH - 2",

9. ALL ANCHOR BOLTS TO BE SET PER BUILDING MANUFACTURERS TOLERANCES. ANCHOR BOLTS TO BE DOUBLE NUTTED TO STEEL BASE TEMPLATES FURNISHED BY CORLE BUILDING SYSTEMS, AND SECURELY PLACED AND LEVELED WITHIN THE FORMWORK PRIOR TO PLACEMENT OF CONCRETE.

10. AVOID SPRAYING FORM RELEASE OIL ON ANY REINFORCING STEEL.

11. VAPOR BARRIER AND INSULATION NOT SHOWN IS TO BE DETERMINED BY

12. ALL INSPECTIONS AND TESTING ARE THE RESPONSIBILITY OF THE GENERAL

 FC	OTING SCHI	EDULE
LENGTH	THICKNESS	REINFORCING STEEL
 11'-0"	1'-0"	12 - #6 BARS - WIDTH / 10 # 6 BARS LENGTH
 12'-3"	1'-2"	13 - #6 BARS - WIDTH / 11 # 6 BARS LENGTH
 6'-0"	1'-0"	6 - #5 BARS EACH WAY
 4'-0"	1'-0"	5 - #5 BARS EACH WAY
 4'-0"	1'-0"	5 - #5 BARS EACH WAY
 115'-8"	1'-5"	348 - #6 BARS - WIDTH / 7 # 6 BARS LENGTH

ANCHOR BOLT SCHEDULE					
ECTION	DESCRIPTION				
1/2"	3/4" A36 18" THREADED ROD W/ ONE WELDED NUT				
1/2"	1-1/4" A36 24" THREADED ROD W/ ONE WELDED NUT				
LUDE 2 EXT	RA NUTS AND 1 WASHER PER ANCHOR BOLT				

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PORTLAND SPORTS REALTY, LLC SEACOAST CRANE & BUILDING CO., INC

FO#17096 Building 1 of 1





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3	Rigid Frame Reactions	0
4	EndWall Reactions, Design Criteria	0
5	Anchor Bolt Details	0
6	Roof Framing	0
7	Roof Panel Layout	0
8	Rigld Frame #1	0
9	Rigid Frame #2	0
10	Front Sidewall Framing	0

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ULINEKAL	MATERIALS	ASTM DESIGNATION	MINIMUM YIEL	D MATERIALS	ASTM DESIGNATION	MINIMUM YIELD			
ll materials included in the Metal Building System are in accordance with the manufacturer's standard materials and details nless otherwise specified on the order documents. (MBMA 2002 Metal Building Systems Manual, Part IV, Section 2.1)	Hot-Rolled Mill Sections	A 36, A 572, A 992	Fy = 36 ksi and/or 50 ksi	Roof and Wall Sheeting	A 792, Gr. 50 Class 1 A 792, Gr. 80	Fy = 50 ksi Fy = 80 ksi		6-961	
DESIGN RESPONSIBILITY	Structural Steel Plates	s A 572, A 1011	Fy = 55 ksi	Mild Steel Bolts	A 307	Fy = 36 ksi		814727	0
e manufacturer is responsible only for the structural design of the Metal Building System it sells to the purchaser customer. Neither the manufacturer for the manufacturer's engineer is the design professional or engineer of record	Structural Steel Bars	A 572 or A 529	Fy = 55 ksi	High Strength Bolts	A 325-N A 490-N	Fy = 92 or 81 ksi N/A		655 <	NO CO
it, or their interface and connection with Metal Building System unless such design responsibility is specifically quired by the order documents. (MBMA 2002 Metal Building Systems Manual, Part IV, Section 3.1)	Cold Formed Light Gauge Shapes	A 653 Gr. 50 Modified	Fy = 55 ksi	Anchor Rods (If supplied)	A 36	Fy = 36 ksi		PA 16	
FOUNDATION DESIGN AND ANCHOR BOLTS	- Cable Bracing	A 475, EHS	N/A	Pipe and Hollow Structural Sections	A 500 Gr. B	Fy = 42 ksi, 46 ksi		REA REA	°
e manufacturer is not responsible for the design, materials, and workmanship of the foundation. e anchor bolt plans prepared by the manufacturer are intended to show only the anchor bolt location, uneter (based on ASTM A36 bolts), and quantity required to connect the Metal Building System to the foundation. BMA 2002 Metal Building Systems Manual Bart B. Section 2.2.0	Rod Bracing	A 36	Fy = 36 ksi						0" × 34
is the responsibility of the end customer to ensure that adequate provisions are made for specifying bolt embedment, aring angles, the rods, and / or associated items embedded in the concrete foundation as well as foundation design		CORRECTION OF ERRORS AND REPAIRS					San		131/12
sed on the loads imposed by the Metal Building System, or other imposed loads, and the bearing capacity of the soil d other conditions of the building site. (MBMA 2002 Metal Building Systems Manual, Part IV, Section 3.2.2)	moderate amounts material are a no for Steel Buildings	s of reaming, chipp ormal part of erect and Bridges Marg	ion and are r	ing, and the repla not subject to clai	cement of minor m. (AISC Code of	shortages of Standard Practice			ы С Ц Ц Ц Ц
 Standard Practice for Steel Buildings and Bridges). nada -Anchor bolts shall be accurately set in accordance with CISC Code of Standard Practice, January 2000, Clause 7.7 	January 2000, Clai	use 7.15; MBMA 200	D2 Metal Build	ing Systems Manu	al, Part IV, Section	n 6.10).			120'- DAT
ADJACENT EXISTING BUILDINGS	In case of discrer	ancies between the	DRAWING D	ISCREPANCIES			<u>F.O</u>	. 17096	Ô
ie manufacturer does not investigate the influence of the Metal Building System on adjacent existing ilidings or structures. The end customer assures that such buildings and structures are adequate to sist snow loads or other conditions as a result of the presence of the Metal Building System. IBMA 2002 Metal Building Systems Manual, Part IV, Section 3.2.5)	In case of discrepancies between the manufacturers steel plans and plans for other trades, the manufacturers steel plans govern. (AISC Code of Standard Practice for Steel Buildings and Bridges, March 7, 2000, Section 3.3; CISC Code of Standard Practice, January 2000, Clause 3.4; MBMA 2002 Meta Building Systems Manual, Part IV, Section 3.1).			1	ОАП				
SHOP-PRIMED STEEL	-	· · · · · · · · · · · · · · · · · · ·	<u>DEL</u>	<u>IVERIES</u>					
I structural members of the Metal Building System not fabricated of corrosion resistant material or protected by corrosion sistant coating are painted with one coat of shop primer meeting the performance requirements of FS TTP-636D. All urfaces to receive shop primer are cleaned of loose rust, loose mill scale and other foreign matter by using, as a minimum, intended too protect the steel framing for only a short period of exposure to ordinary atmospheric conditions. Shop-primed intended to protect the steel erection should be placed on blocking to prevent contact with the ground, and so positioned is to minimize water holding pockets, dust, mud an other contamination of the primer film. Repairs of damage to primed anufacturer. (CISC Code of Standard Practice, January 2000, Clause 6.6; (MBMA Metal Building Systems Manual, Part IV, section 4.2.4).	Delivery of any m customers own lea thereafter, such r carrier, it shall b All charges shall ceases upon deliv required date. Th 8am - 12pm (mo responsible for ci manufacturer will at the time of da	naterial by the man ased, chartered, or material shall be a be solely responsible be borne by the b erry of shipment to e manufacturers the rring) and 12pm - rcumstances beyon only honor claims	nufacturers ca authorized c t builders rist e for complian puilder. The m o carrier. The ruck is not co - 5pm (aftern d our control s that were ap	arrier, a common onveyance shall co k. If builder choos nce with all applic anufacturers resp manufacturer will onsidered as being pon). However, the For deliveries viz	carrier, or to pur postitute delivery ses to use its own able government : possibility for dame endeavor to deliver late if deliveries manufacturer cara a the manufacture stomer service de	chasers/ to builder, and a, or private regulations. age or loss ver on the are between nnot be held ers truck, the partment	/, LLC REVISION HISTORY	DEBORFTICH	
ERECTION-GENERAL	- file claims with t	he carrier. The ma	anufacturer ca	nnot assume any	he responsibility o liability for the c	of the customer to claim.	°I⊂		
he erector, by entering into contract to erect the building, holds itself out as skilled in the erection of Metal Building stems and is responsible for complying with all applicable local, federal, and state construction and safety regulations cluding OSHA regulations as well as any applicable requirements of local, national, or international union rules or sactices. (CISC Code of Standard Practice, January 2000, Clause 7.2; (MBMA 2002 Metal Building System Manual, Part IV, section 6.9).	IV. SHDRTAGES SHDRTAGES The purchaser /customer should make an inspection upon arrival of all building components. The purchaser/customer must note on the freight bill any missing item(s) and notify the manufacturers customer service department immediately; otherwise, the manufacturer cannot be held responsible for any shortages. If any item is damaged, note on the bill of lading and file a claim with the freigh								
le erector shall erect the Metal Building System in accordance with the erection descine the matter in the second se	agent. Concealed	shortages must be	reported to t	the manufacturers	assadanes and a second			J.	
anual (January 2010), and / or the Seam-Lok Technical – Erection manual (January 2010) as furnished by the anufacturer. The aforementioned erection information is intended to illustrate the layout of the framing members, is not intended to specify any particular method, of erection to be followed by the erector. The erector remains solely	size, i.e., number	ng time frames (da of truck loads use	ed in delivery.	pt of first deliver	y), based on the p	department project shipment	RTS	IY DEFINITION SENTATION ON TETATION OF SUED COMPLETE	EFINITION TRUCTION
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rm Col AncBolt Base_Plate (in) Grout ine Line Qty Dia Width Length Thick (in)			
G 6 1.250 12.00 14.69 0.750 0.0 A 6 1.250 12.00 14.69 0.750 0.0			
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ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)	ENDWALL COLUMN: ANCHOR BOLTS & BASE PLATES
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 B 4 0.750 6.000 12.25 0.375 0.0 1 B 4 0.750 6.000 12.25 0.375 0.0 1 A 4 0.750 6.000 12.25 0.375 0.0 1 A 4 0.750 6.000 12.25 0.375 0.0 7 A 4 0.750 10.00 16.00 0.375 0.0 7 B 4 0.750 10.00 16.00 0.375 0.0 7 C 4 0.750 10.00 16.00 0.375 0.0 7 D 4 0.750 10.00 16.00 0.375 0.0 7 E 4 0.750 10.00 16.00 0.375 0.0 7 F 4 0.750 10.00 16.00 0.375 0.0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	7 G 4 0.750 10.00 16.00 0.375 0.0 NOTES FOR REACTIONS 1. All loading conditions are examined and only the maximum / minimum H or V and the corresponding H or V are reported.
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	 Positive reactions are shown in the sketch. Foundation loads are in opposite directions. Bracing reactions are in the plane of the brace with the H pointing away from the braced bay. The vertical reaction is downward. Building reactions are based on the following building data:
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Width (ft)= 120SEISMIC CRITERIALength (ft)= 150Saismic Importance= 1.25Eave Height (ft)= 34Occupancy Category= III- HighRoof Slope (rise/12)= 1.0:12Building Code= IBC 09Building Code= IBC 09Mapped Spectral Response AccelerationsDead Load (psf)= 4.060Ss= 0.3200Collateral Load (psf)= 5S1= 0.0800Frame Live Load (psf)= 20Spectral Response Coefficients
Frm Col -LWIND1_R- -LWIND2_L- -LWIND2_R- Line Line Horz Vert Horz Vert 7 A 0.0 0.0 -0.8	Snow: Sas = 0.4633 Ground Snow Load (psf) = 60.0000 Sd1 = 0.1867 Snow Importance = 1.1000 Site Class = E Thermal Coefficient = 1.00 Base Shear = C Snow Load (psf) = N Expanded Formula = 0.667*le*Fa*Ss*W/R Roof Snow Load (psf) = 46.2 Longitudinal Base Shear = 78.49 Wind: Transverse Base Shear = 67.63
ANCHOR BOLT SUMMARY	Basic wind Speed (mpn)= 100 mpnSelant Response CoefficientsOccupancy Category= III- HighFrame= 0.165Importance - Wind= 1.15FSW= 0.202Wind Exposure= BBSW= 0.202Enclosure Classification= CInternal Pressure CoefficientsPressure= 0.18Response Modification FactorsSuction= -0.18Frame
9 44 Frame 1 1/4"	Design Pressure:= 19.567ESW= 3Pressure= -26.040
Reactions in plane of wall 	Equivilant Lateral Brace Force Procedure.
oc Line Horz Vert Horz Vert (ib/ft) S _EW 1 D,C Bracing, see EW reactions (ib/ft) S	Steel systems not specifically detailed for seismic resistance.
See RF reactions table for vertical and norizontal reactions in plane of the rigid frame.	

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