

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING DEPARTMENT

PERMIT

Please Read Application And Notes, If Any, Attached

PERMIT ISSUED

Permit Number: 050236

MAR 14 2005

CITY OF PORTLAND

This is to certify that CITY OF PORTLAND / Clear Corp.
 has permission to Foundation only for 6000 Sq RUBB Building Modular Office
 AT 454 COMMERCIAL ST 043 D005001

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

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

Notification of inspection must given and work in permit in progress before this building or part thereof is occupied or closed-in. **48 HOUR NOTICE IS REQUIRED.**

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

OTHER REQUIRED APPROVALS

Fire Dept. _____
 Health Dept. _____
 Appeal Board _____
 Other _____
Department Name

[Signature] 3/14/05
 Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD



CITY OF PORTLAND, MAINE
Department of Building Inspection

Certificate of Occupancy

LOCATION 454 COMMERCIAL ST

CBL 043 D005001

Issued to CITY OF PORTLAND /Cianbro Corp.

Date of Issue 03/31/2005

This is to certify that the building, premises, or part thereof, at the above location, built — altered — changed as to use under Building Permit No. 05-0236 , has had final inspection, has been found to conform substantially to requirements of Zoning Ordinance and Building Code of the City, and is hereby approved for occupancy or use, limited or otherwise, as indicated below.

PORTION OF BUILDING OR PREMISES

6000 Sq. RUBB Building and Temporary Office Structure

APPROVED OCCUPANCY

S1/Type 2B Construction and B/Type 5B 2003 IBC

Limiting Conditions:

Temporary office structure is approved pursuant to Section 107.2. For 180 days
All required tie downs and Emergency lighting must be operational prior to occupancy

**This certificate supersedes
certificate issued**

Approved:

.....
(Date)

.....
Inspector

.....
Inspector of Buildings

Notice: This certificate identifies lawful use of building or premises, and ought to be transferred from owner to owner when property changes hands. Copy will be furnished to owner or lessee for one dollar.

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 05-0236	Issue Date: MAY 11 2005	GBL: 043 D005001
Owner Address: 389 CONGRESS ST	Phone:	
Contractor Address: 328 W. Commercial Street Portland	Phone: 2077735852	
Permit Type: Foundation Only/Commercial		Zone:
Permit Fee:	Cost of Work: \$0.00	CEO District: 2
FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied N/A	INSPECTION: Use Group: FOUNDATION Type: CMU 3/11/05 Signature: [Signature]	
Signature: [Signature]		
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied		
Signature:		Date:

Location of Construction: 454 COMMERCIAL ST	Owner Name: CITY OF PORTLAND
Business Name:	Contractor Name: Cianbro Corp.
Lessee/Buyer's Name	Phone:
Past Use: International Ferry Terminal	Proposed Use: Same
Proposed Project Description: Foundation only for 6000 Sq. Ft. RUBB Building and Modular Office	

Permit Taken By: mjn	Date Applied For: 03/10/2005	Zoning Approval	
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Special Zone or Reviews	Zoning Appeal	Historic Preservation
<input type="checkbox"/> Shoreland	<input type="checkbox"/> Variance	<input type="checkbox"/> Not in District or Landmark
<input type="checkbox"/> Wetland	<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Does Not Require Review
<input type="checkbox"/> Flood Zone	<input type="checkbox"/> Conditional Use	<input type="checkbox"/> Requires Review
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Interpretation	<input type="checkbox"/> Approved
<input type="checkbox"/> Site Plan	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved w/Conditions
Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/>	<input type="checkbox"/> Denied	<input type="checkbox"/> Denied
late:	late:	Date:

CERTIFICATION

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

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

City of Portland, Maine - Building or Use Permit

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

Permit No: 05-0236	Date Applied For: 03/10/2005	CBL: 043 D005001
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Location of Construction: 454 COMMERCIAL ST	Owner Name: CITY OF PORTLAND	Owner Address: 389 CONGRESS ST	Phone:
Business Name:	Contractor Name: Cianbro Corp.	Contractor Address: 328 W. Commercial Street Portland	Phone (207) 773-5852
Lessee/Buyer's Name	Phone:	Permit Type: Foundation Only/Commercial	

Same	Foundation only for 6000 Sq. Ft. RUBB Building and Modular Office
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Note: **Ok to Issue:**
 1) Previously approved on permit #050203

Dept: Building **Status:** Approved with Conditions **Reviewer:** Mike Nugent **Approval Date:** 03/11/2005
Note: **Ok to Issue:**
 1) Part one of a Special Flood Hazard Permit. The remainder of the structure cannot be permitted until :
 A completed , satisfactory elevation certificate prepared by a registered land surveyor is received.
 A Statment of Special Inspection for the RUBB building, including Seismic assurance plan, Contractor responsibility statement and Seismic Special inspections program outline.
 Stamped plans for the Modular which include stairs lands ramps and guards must be submitted.
 Tie down details for the modular are required.

Dept: Fire **Status:** Approved **Reviewer:** **Approval Date:** **Ok to Issue:**
Note:
 1) Previously approved on permit #050203

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

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

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

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

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

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

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

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

_____ CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED

<u><i>[Signature]</i></u>	<u>3/14/05</u>
Signature of Applicant/Designee	Date
<u><i>[Signature]</i></u>	<u>3/14/05</u>
Signature of Inspections Official	Date

CBL: 0432005 Building Permit #: 050236

Field Report



Project No.: 05027 Date: March 9, 2005
Project Name: Warehouse
Location: International Marine Terminal
Weather Conditions: Cold, 10-15 deg., cloudy
Meeting With: Wayne Blodgett, Cianbro Corp.

STI Present: Ken Recker

CONTRACTOR'S ACTIVITIES:

1. Previously excavated to approximately 3 feet below ground surface for support of new foundation walls along south and east sides of warehouse.
2. Previously placed forms and reinforcing steel for new foundation walls along south and east sides of warehouse.
3. Covered forms with insulating blankets to minimize freezing of bearing soils.

FIELD REPRESENTATIVES ACTIVITIES:

1. Observed bearing surfaces for new foundation walls. Noted the bearing surfaces consisted of brown, well-graded **SAND** with gravel (SW). Probed bearing surfaces at various locations with rod and noted that surfaces were firm and dry.
2. Judged bearing surfaces acceptable for 3,000 pounds per square foot bearing stress.
3. Observed several places where soil has raveled locally into the excavation. Noted locations to Wayne Blodgett who stated they would remove soil prior to placing concrete.

Copies To: Paul Bradbury, City of Portland
Harry Olive, Neill and Gunter, Inc.

Signed: _____



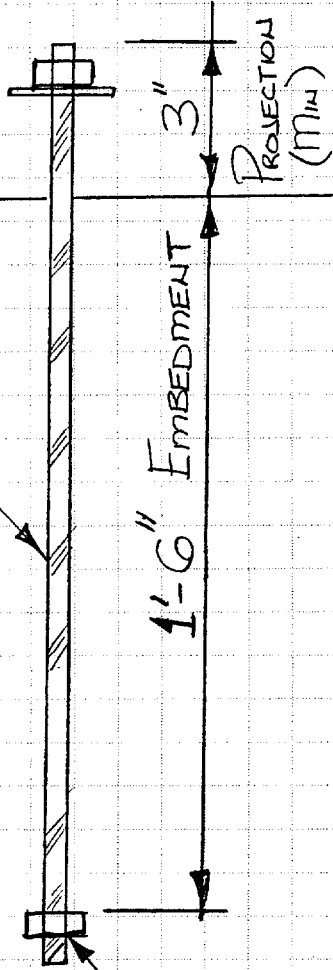
Neill and Gunter
DESIGN AND CONSULTING ENGINEERS

JOB NO. 25760 FILE NO. 25760/2.1
JOB TITLE PORTLAND INT. MAR. TERM - RUBB BLDG
CLIENT CITY OF PORTLAND
PREPARED H. OLIVE DATE MAR 7/05 CHECKED DATE
SCALE SHEET 1 OF 1

RUBB BLDG - ANCHOR BOLTS

TOC
EL 17'-5 3/4"

5/8" ϕ & 3/4" ϕ
SEE RUBB
BUILDING SYSTEMS
DWG. 39796
FOR SIZE &
LOCATIONS.

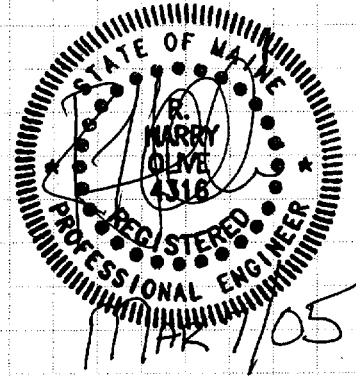


ANCHOR ROD: EQUIVALENT TO
ASTM 1554
GRADE 36 ($F_y = 36 \text{ ksi}$)

NUTS: ASTM A563 HEX
NUT GRADE A

WASHER: ASTM F436
FLAT WASHER.

TACK WELD
N - B ROD



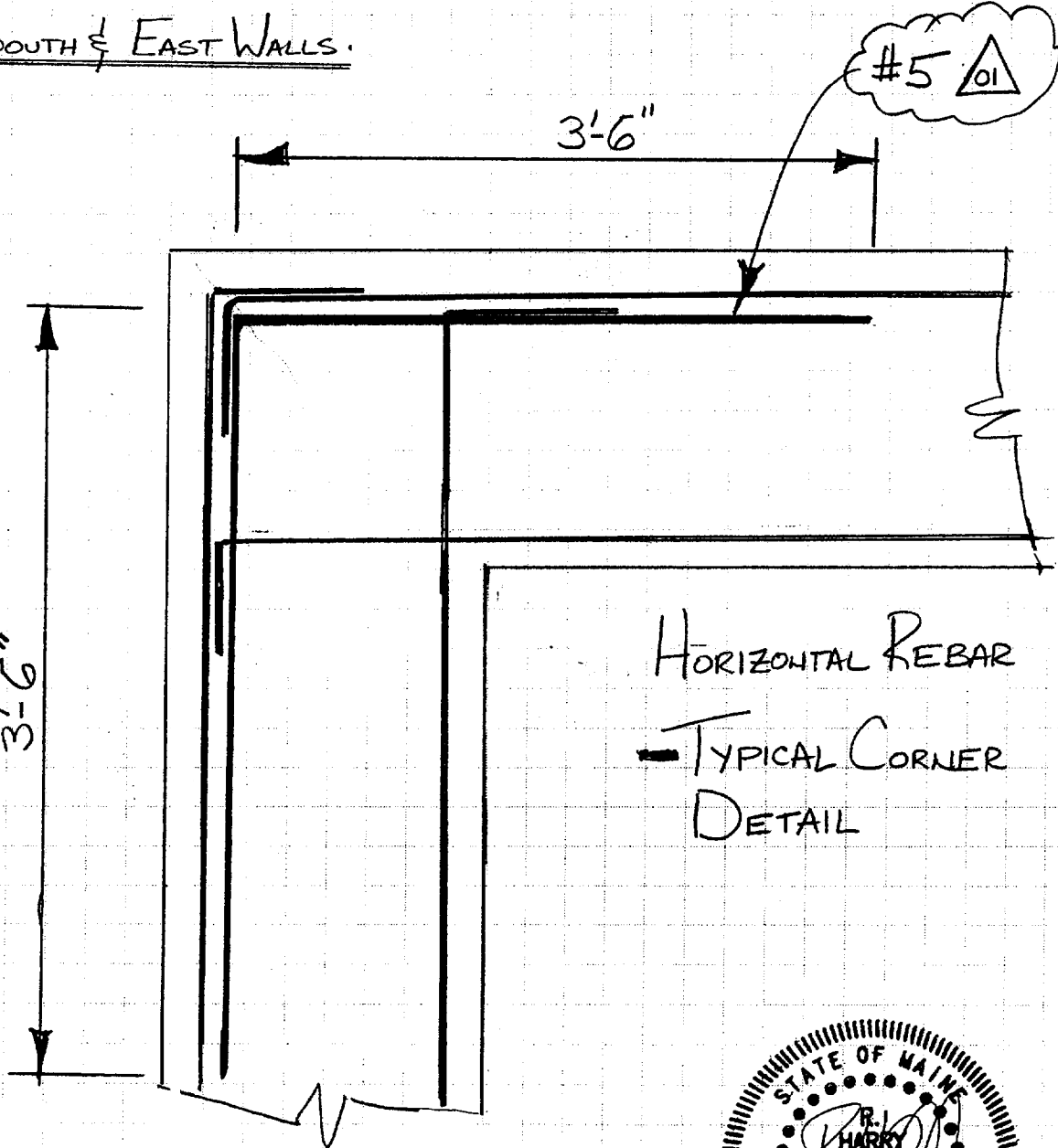


Neill and Gunter

DESIGN AND CONSULTING ENGINEERS

JOB NO. 25760 FILE NO. 2.1
 JOB TITLE PORTLAND WAT. MAR. TERM - RUBB BLDG. FR.
 CLIENT CITY OF PORTLAND
 PREPARED H. OLIVE DATE MAR 3/05 CHECKED _____ DATE _____
 SCALE _____ SHEET _____ OF _____

SOUTH & EAST WALLS.



HORIZONTAL REBAR
- TYPICAL CORNER
DETAIL



&

MARCH 6/05

MARCH 4/05

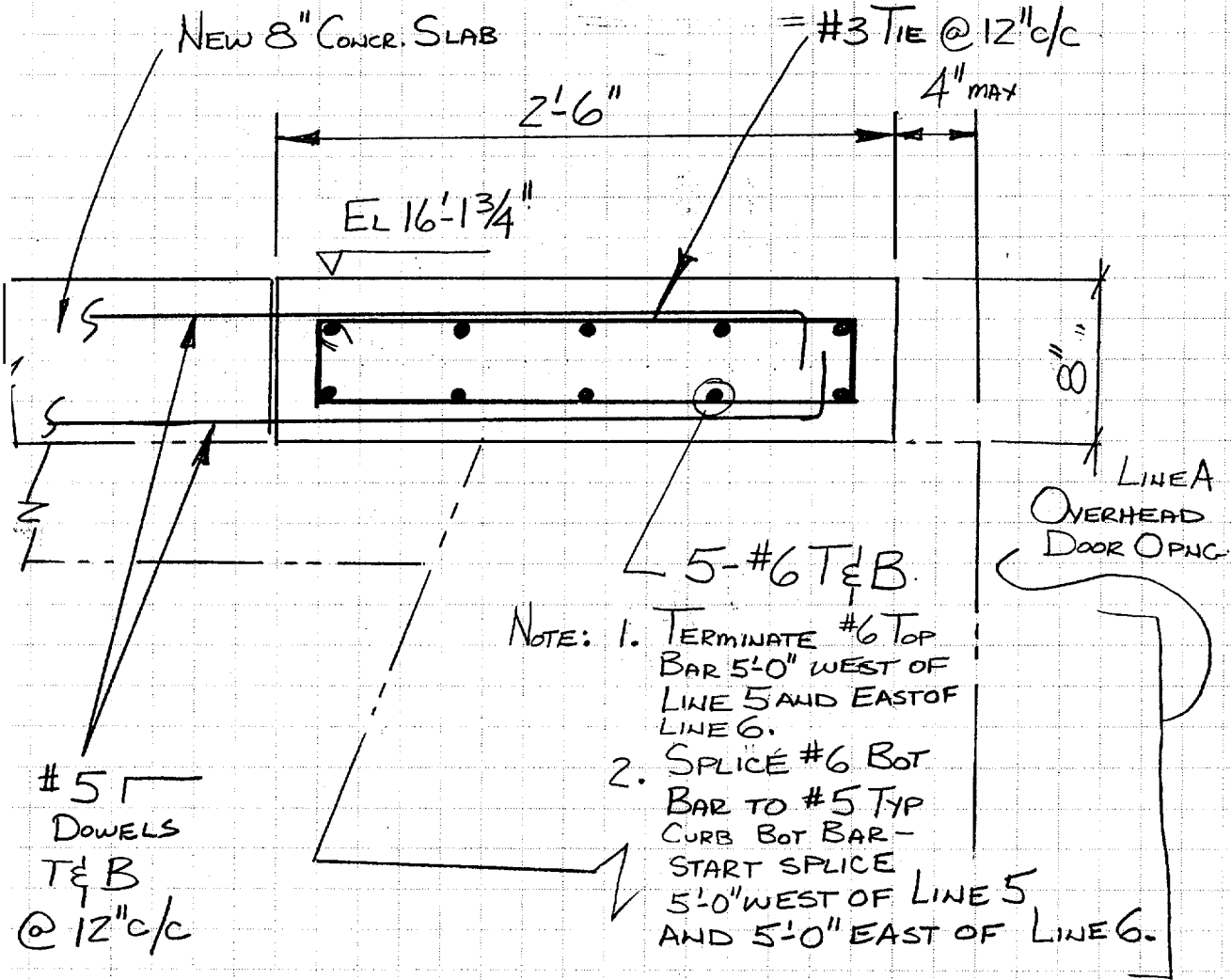


Neill and Gunter

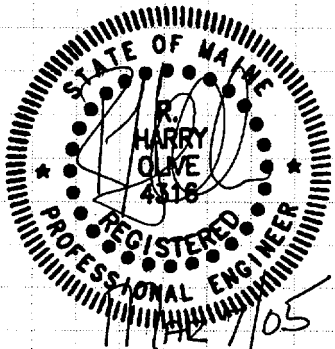
DESIGN AND CONSULTING ENGINEERS

JOB NO. 25760 FILE NO. 25760/2.1
 JOB TITLE PORTLAND INT. MAR. TERM. - RUBB BLDG FEN
 CLIENT CITY OF PORTLAND
 PREPARED H. OLIVE DATE March 68 CHECKED DATE
 SCALE SHEET OF

LINE 5 AE 1 - CURB REINFORCEMENT AT DOOR OPENINGS



- NOTE:
1. TERMINATE #6 TOP BAR 5'-0" WEST OF LINE 5 AND EAST OF LINE 6.
 2. SPLICE #6 BOT BAR TO #5 TOP CURB BOT BAR - START SPLICE 5'-0" WEST OF LINE 5 AND 5'-0" EAST OF LINE 6.
 3. APPLY SAME TO MANDOR ON LINE 1 EXCEPT CARRY BARS 5'-0" PAST DOOR OPENINGS BEFORE TERMINATING TOP BARS & SPLICING BOT BARS.



#5
DOWELS
T&B
@ 12" c/c

5-#6 T&B

= #3 TIE @ 12" c/c

NEW 8" CONCR. SLAB

2'-6"

EL 16'-1 3/4"

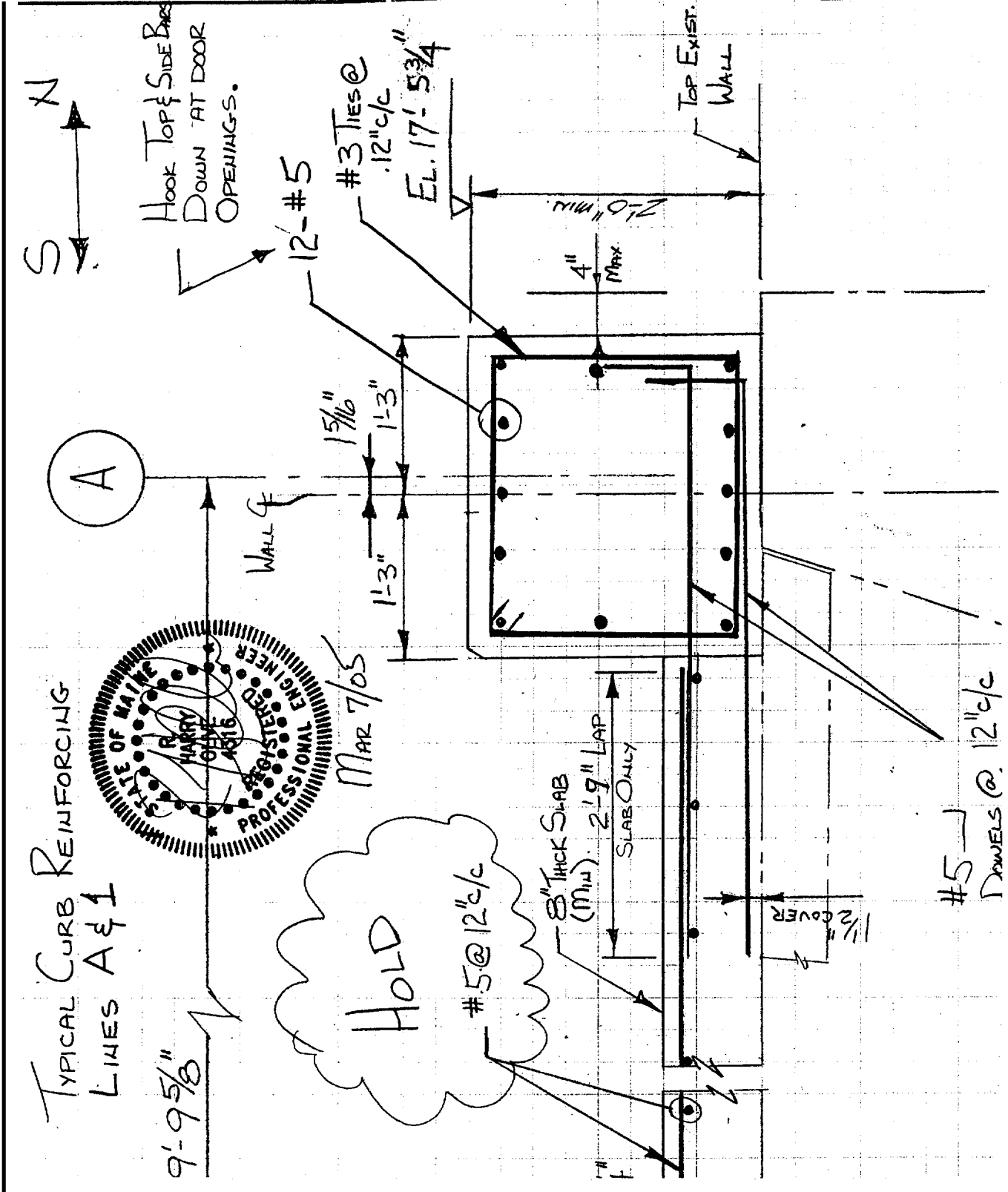
4" MAX

LINE A
OVERHEAD
DOOR OPNG



Neill and Gunter
DESIGN AND CONSULTING ENGINEERS

JOB NO. 25760 FILE NO. 25760/2.1
JOB TITLE PORTLAND INT. MAR. TERM. - RUBB BLDG. PL.
CLIENT CITY OF PORTLAND
PREPARED H. OLIVE DATE March CHECKED DATE
SCALE SHEET OF

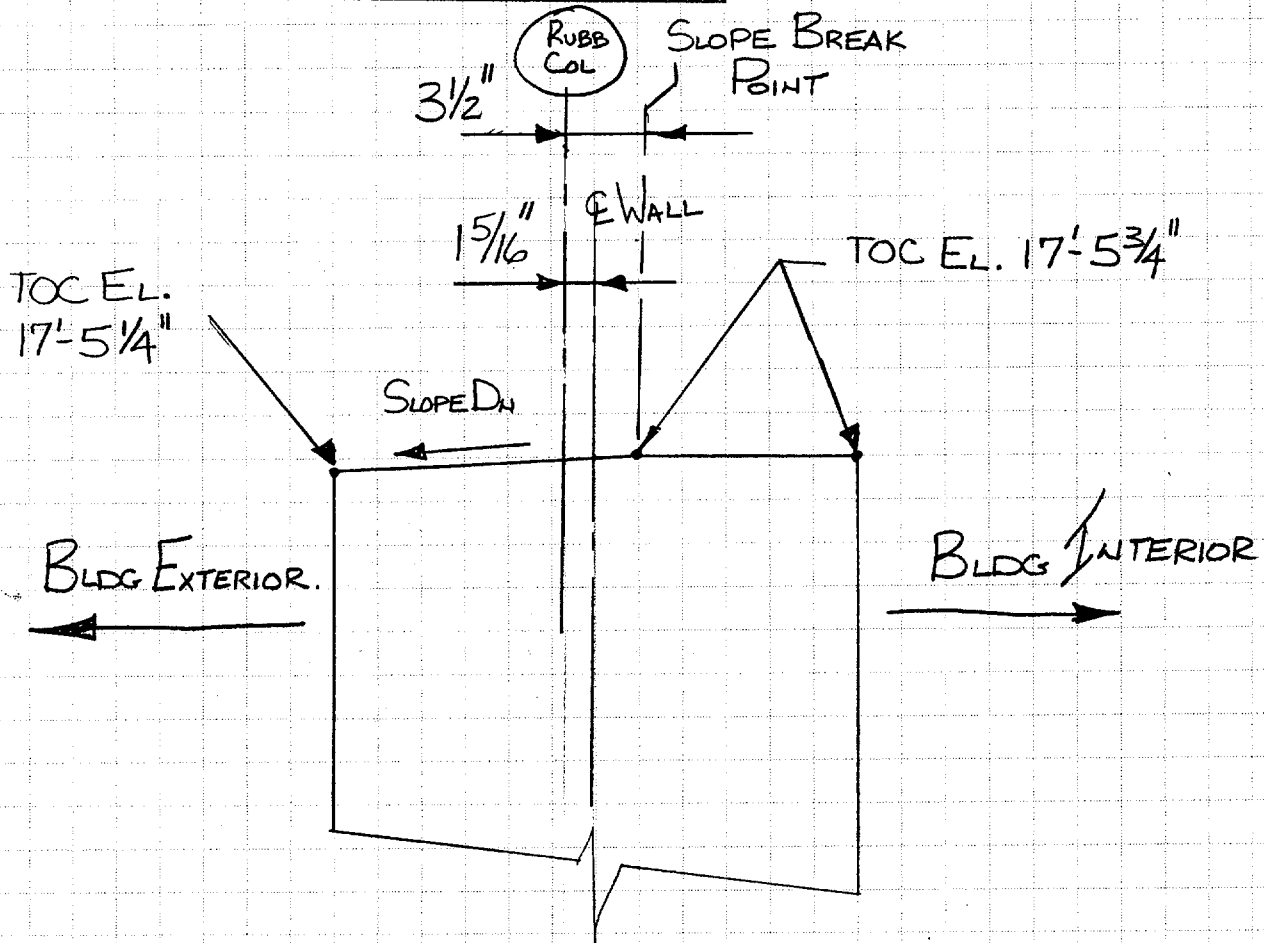




Neill and Gunter
DESIGN AND CONSULTING ENGINEERS

JOB NO. 25760 FILE NO. 25760/2.1
JOB TITLE PORTLAND INT. MARINE TERM - RUBB BLDG.
CLIENT CITY OF PORTLAND
PREPARED H. OLIVE DATE MAR 7/68 CHECKED _____ DATE _____
SCALE _____ SHEET 1 OF 1

RUBB BLDG FOUNDATION



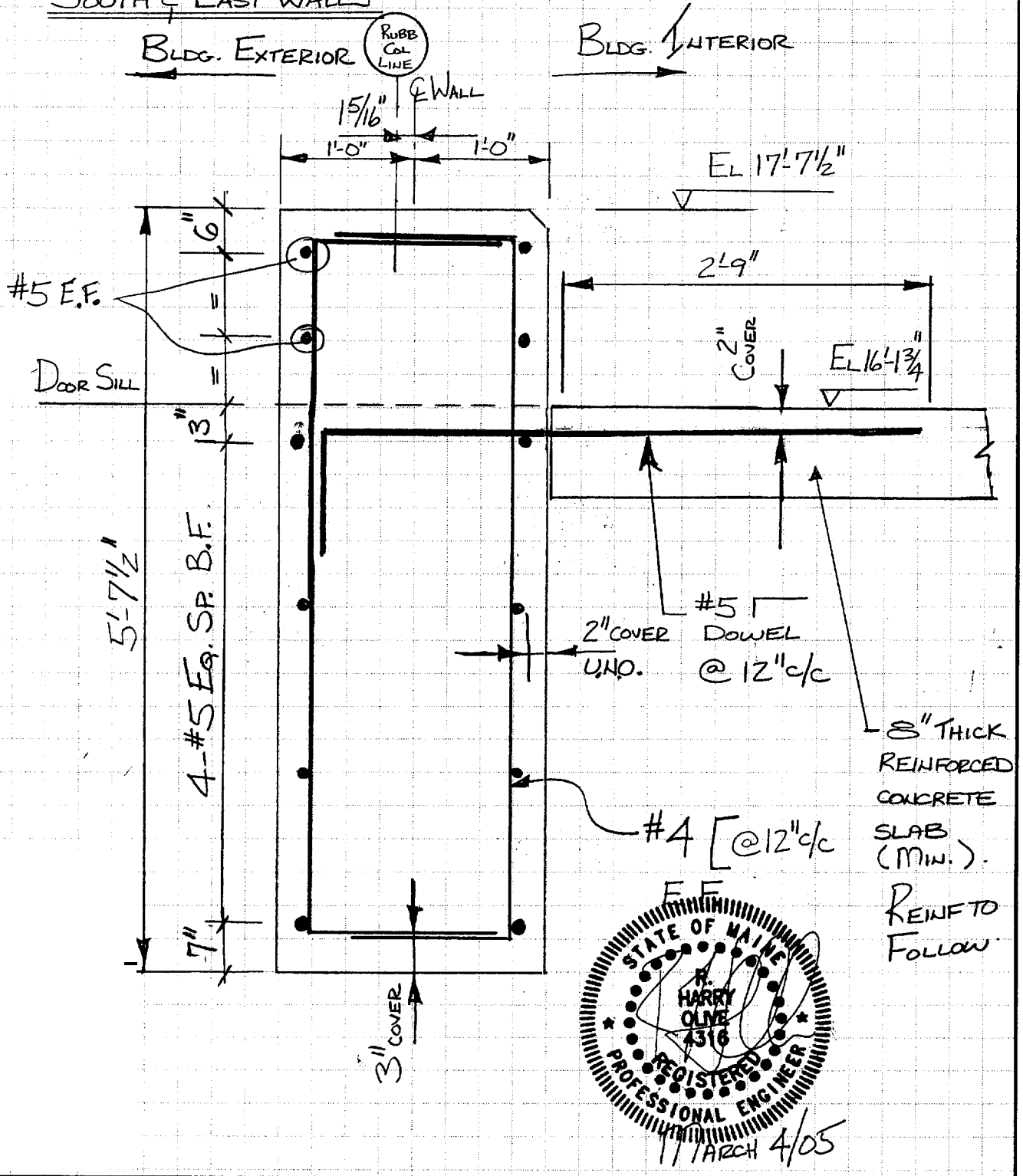
SECTION THROUGH SILL
AT OVERHEAD DOOR.



Neill and Gunter
DESIGN AND CONSULTING ENGINEERS

JOB NO. 25760 FILE NO. 2.1
JOB TITLE PORTLAND INT MARINE TERM. - RUBB BLDG FDN
CLIENT CITY OF PORTLAND
PREPARED H. OLIVE DATE MAR 3/05 CHECKED DATE
SCALE SHEET OF

SOUTH & EAST WALLS



Statement of Special Inspections

43 DS

1/6

Project: RUBB BUILDING FOUNDATIONS
Location: PORTLAND INTERNATIONAL MARINE TERMINAL
Owner: CITY OF PORTLAND

Design Professional in Responsible Charge: R. HARRY OLIVE, P.E. / NEILL AND

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 Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompass the following disciplines:

- Structural Mechanical/Electrical/Plumbing
 Architectural Other: _____

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. 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 attention of the Building Official and the 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 Registered Design Professional in Responsible Charge.

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 prior to issuance of a Certificate of Use and Occupancy.

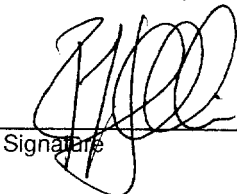
Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: END OF CONSTRUCTION or per attached schedule.

Prepared by:

R. HARRY OLIVE, P.E.

(type or print name)



Signature

MARCH 9, 2005

Date



Owner's Authorization

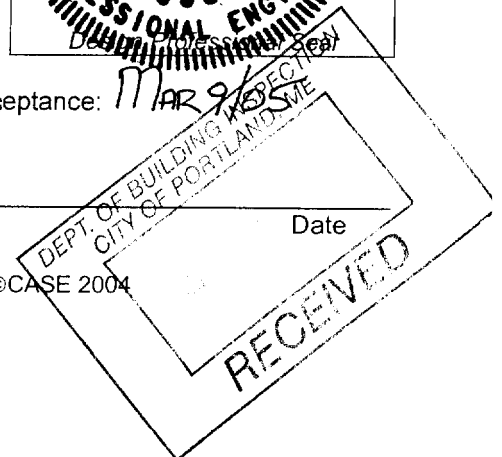
Building Official's Acceptance: MAR 9 2005

Signature

Date

Signature

Date



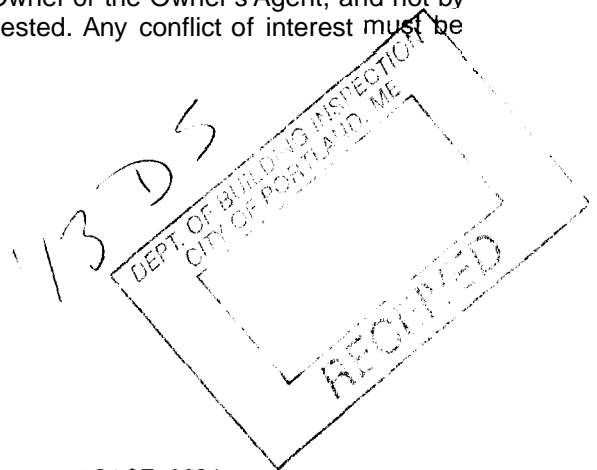
Schedule of Inspection and Testing Agencies

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

- | | |
|--|--|
| <input checked="" type="checkbox"/> Soils and Foundations | <input type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input type="checkbox"/> Masonry | <input type="checkbox"/> Mechanical & Electrical Systems |
| <input type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special inspection Coordinator MARK TRACY, PE	NEILL AND GUNTER INC.	482 PAYNE ROAD SCARBOROUGH, ME 04074 (207) 883-3355 mtracy@nginc.com
2. Inspector KEN RECKER, PE SOILS	SEBAGO TECHNICS	1 CHABOT STREET, PO Box 133 WESTBROOK, ME (207) 856-2206 krecker@sebagotechnics.com
3. Inspector		
4. Testing Agency CONCRETE	TBD	
5. Testing Agency REINFORCING STEEL	TBD.	
3. Other		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not 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.



3/6

Seismic Design Category SITE CLASS D, $S_{DS}=0.35, S_{D1}=0.16$, USE GROUP 1

Quality Assurance Plan Required (Y/N) No ABOVE PROVIDED BY RUBB BUILDING SYSTEMS

Description of seismic force resisting system and designated seismic systems:
LOADS PROVIDED BY RUBB BUILDING SYSTEMS WERE GOVERNED BY WIND LOADS.

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) 100mph

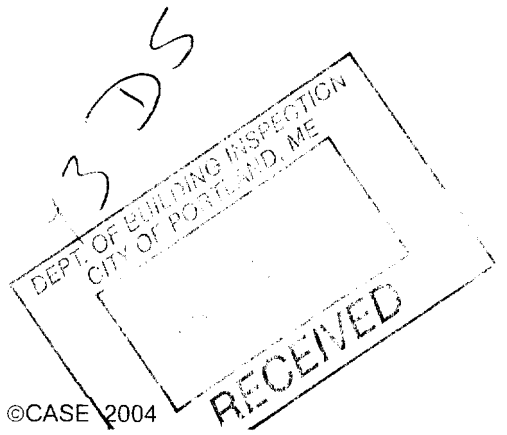
Wind Exposure Category Exp C

Quality Assurance Plan Required (Y/N) No

Description of wind force resisting system and designated wind resisting components:
WINDS LOADS TO BE RESISTED BY THE BUILDING FOUNDATIONS WERE PROVIDED BY RUBB BUILDING SYSTEMS.

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.



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 if requested.

Key for Minimum Qualifications of inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

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

American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.
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International Code Council (ICC) Certification

ICC-SMSI	Structural 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

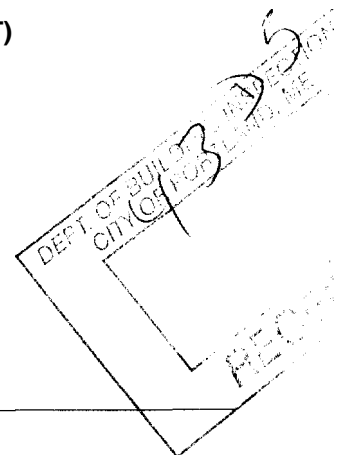
National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

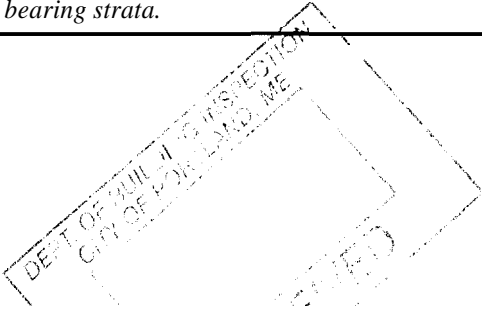
Exterior Design Institute (EDI) Certification

EDI-EIFS	EIFS Third Party Inspector
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Other



Soils and Foundations

Item	Agency # (Qualif.)	Scope
<p>1. Shallow Foundations 1. Shallow Foundations</p> <p>YES</p>	<p>2 PE/GE</p>	<p>Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.</p> <p>Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill</p>
<p>2. Controlled Structural Fill</p> <p>N/A</p>	<p>PE/GE</p>	<p>Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material.</p> <p>Inspect placement, lift thickness and compaction of controlled fill</p> <p>Test density of each lift of fill by nuclear methods (ASTM 02922)</p> <p>Verify extent and slope of fill placement.</p>
<p>3. Deep Foundations</p> <p>N/A</p>	<p>PE/GE</p>	<p>Inspect and log pile driving operations. Record pile driving resistance and verify compliance with driving criteria.</p> <p>Inspect piles for damage from driving and plumbness.</p> <p>Verify pile size, length and accessories.</p> <p>Inspect installation of drilled pier foundations. Verify pier diameter, bell diameter, lengths, embedment into bedrock and suitability of end bearing strata.</p>
<p>4. Load Testing</p> <p>N/A</p>		
<p>4. Other:</p>		<p>43 D</p>

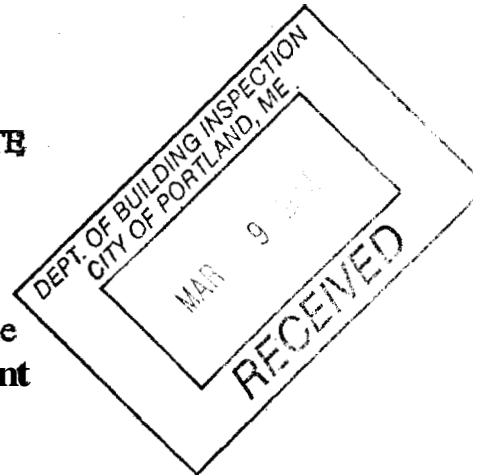
Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design ✓	4 ACI-CCI ICC-RCSI	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
2. Material Certification 2. Material Certification ✓	5	
3. Reinforcement Installation ✓	5 ACI-CCI ICC-RCSI	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters
4. Post-Tensioning Operations 4. Post-Tensioning Operations N/A	ICC-PCSI	Inspect placement, stressing, grouting and protection of post-tensioning tendons. Verify that tendons are correctly positioned, supported, tied and wrapped. Record tendon elongations.
5. Welding of Reinforcing N/A	A WS-CWI	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.
6. Anchor Rods ✓	5	Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
7. Concrete Placement ✓	4 ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated
8. Sampling and Testing of Concrete ✓	4 ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064)
9. Curing and Protection ✓	4 ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures
10. Other:		



43 DS

CITY OF PORTLAND
BUILDING CODE CERTIFICATE
389 Congress St., Room 315
Portland, Maine 04101



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

FROM: NEILL AND GUNTER INCORPORATED

RE: Certificate of Design

DATE: FEBRUARY 24, 2005

These plans and / or specifications covering construction work on:

FOUNDATIONS FOR RUBB BUILDING SYSTEMS PRE-ENGINEERED
BUILDING - PORTLAND INTERNATIONAL MARINE TERMINAL

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: [Handwritten Signature]
Title: STRUCTURAL ENGINEER
Firm: NEILL AND GUNTER INCORPORATED
Address: 482 PAYNE ROAD
SCARBOROUGH, ME 04074

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

43 DS

FROM DESIGNER: R. HARRY OLIVE, P.E.
 DATE: FEBRUARY 24, 2005
 Job Name: FOUNDATIONS FOR RUBB BUILDING SYSTEMS PRE-ENGINEERED BLDG.
 Address of Construction: PORTLAND INTERNATIONAL MARINE TERMINAL
2003 International Building Code

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

Building Code and Year BC 2003 Use Group Classification(s) _____
 Type of Construction FOUNDATIONS - DESIGNED TO RESIST LOADS PROVIDED BY RUBB BUILDING SYSTEMS (SEE ATTACHED SHEET)
 Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC _____
 Is the Structure mixed use? _____ if yes, separated or non separated (see Section 302.3) _____
 Supervisory alarm system? _____ Geotechnical/Soils report required?(See Section 1802.2) _____

STRUCTURAL DESIGN CALCULATIONS

_____ Submitted for all structural members (108.1, 108.1.1)

DESIGN LOADS ON CONSTRUCTION DOCUMENTS (1603)

Uniformly distributed floor live loads (1603.1.1, 1607)

Floor Area Use	Loads Shown

Wind loads (1603.1.4, 1609)

_____ Design option utilized (1609.1.1, 1609.6)
 _____ Basic wind speed (1609.3)
 _____ Building category and wind importance factor, I_w (Table 1604.5, 1609.5)
 _____ Wind exposure category (1609.4)
 _____ Internal pressure coefficient (ASCE 7)
 _____ Component and cladding pressures (1609.1.1, 1609.6.2.2)
 _____ Main force wind pressures (1609.1.1, 1609.6.2.1)

Earthquake design data (1603.1.5, 1614 - 1623)

_____ Design option utilized (1614.1)
 _____ Seismic use group ("Category") (Table 1604.5, 1616.2)
 _____ Spectral response coefficients, S_{DS} & S_{D1} (1615.1)

_____ Live load reduction (1603.1.1, 1607.9, 1607.10)
 _____ Roof live loads (1603.1.2, 1607.11)

_____ Roof snow loads (1603.1.3, 1608)

_____ Ground snow load, P_g (1608.2)
 _____ If $P_g > 10$ psf, flat-roof snow load, P_f (1608.3)
 _____ If $P_g > 10$ psf, snow exposure factor, C_e (Table 1608.3.1)
 _____ If $P_g > 10$ psf, snow load importance factor, I_s (Table 1604.5)

_____ Roof thermal factor, C_t (Table 1608.3.2)

_____ Sloped roof snowload, P_s (1608.4)

_____ Seismic design category (1616.3)

_____ Basic seismic-force-resisting system (Table 1617.6.2)

_____ Response modification coefficient, R , and deflection amplification factor, C_d (Table 1617.6.2)

_____ Analysis procedure (1616.6, 1617.5)

_____ Design base shear (1617.4, 1617.5.1)

Flood loads (1603.1.8, 1612)

_____ Flood hazard area (1612.3)
 _____ Elevation of structure

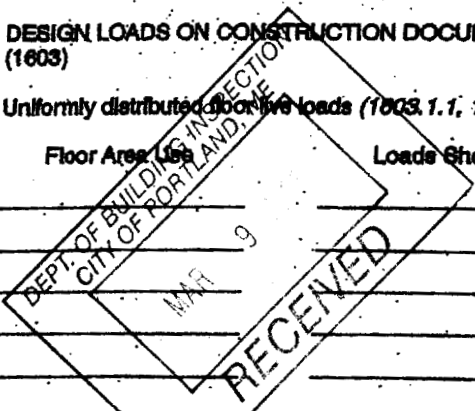
Other loads

_____ Concentrated loads (1607.4)

_____ Partition loads (1607.5)

_____ Impact loads (1607.8)

_____ Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)



43DS



ESTIMATED FOUNDATION FORCES

02/15/05

60' BVE w/ 19.7 Leg with metal clad sidewalk.

The following estimated foundation forces are the maximum values of all applicable load case combinations and are based upon the following assumptions:

- Bay Spacing: 12'-6"
- Wind Bracing: One (1) X-Braced 6ay Each End
- Basic Wind Speed: 100 mph 3 sec gust, Exp. C, IBC 2003
- Live Roof Load: 30 psf
- Ground Snow Load: 50 psf
- Mechanical Load:
- Dead Load: 5 psf

I) Unbraced Sidewall Leg Location



- A. D + Live Load: Fx = 4.7k Lateral
Fy = 15.4k Downward
- B. D + Wind Load: Fx = 3.1k Lateral
Fy = 4.7k Net Uplift

II) Corners and Second Span From Ends



- A. D + Gable Wind: Fx = 1.0k Lateral
Fy = 9.0k Net Uplift
Fz = 6.6k Lateral
- or
- Fx = 4.1k Lateral
Fy = 21.4 Downward
Fz = 0.0k Lateral

III) Gable End Wall Columns: (Assuming 3 Columns per endwall)

