CASCO BAY ENGINEERING

CIVIL & STRUCTURAL ENGINEERING
www.cascobayengineering.com

424 Fore St., Portland, ME 04101 Phone 207.842.2800 Fax 207.842.2828

FAX SHEET

To: John Rioux

Cc:

Fax number: 874-8716

From: Dale Akeley

Date: 6-2-10

RE: Bayside Bowl 58 Alder St.

No. of Pages: 3

RECEIVED
JUN - 3 2010
Dept. of Building Inspections
City of Portland Maine

CASCO BAY ENGINEERING

CIVIL & STRUCTURAL ENGINEERING

424 Fore St., Portland, ME 04101 Phone 207.842.2800 Fax 207.842.2828

June 3, 2010

Dale Akeley
Project Resources Inc.
253 Main Street
Yarmouth, ME 04096

Re: Bowl Portland

Project Number: 9065

Dear Dale:

Casco Bay Engineering analyzed the existing roof for the new mechanical unit located approximately at gridlines 1.6 & B over the bowling alley. The unit has a maximum weight of 1500 lbs and required additional roof members as shown on drawing SK8.

The second roof unit is to replace an existing unit over the restaurant area. If the new unit is placed in the same location, and is of equal weight of less, no additional roof members are required as shown and noted on drawing S1.2.

Please contact us if you have any additional questions or concerns.

Sincerely,

Tony Dumais
Casco Bay Engineering

Carolyn C. Bird
Casco Bay Engineering

Tony Dumais

From: Mike Dupuis [MDupuis@WHDemmons.com]
Sent: Thursday, June 03, 2010 12:49 PM
To: tonyd@cascobayengineering.com
Subject: FW: Bayside Bowl equipment weight answer

Here it is .

Mike Dupuis
Vice President
W.H. Demmons, Inc.
Direct 207-321-5885
Fax 207-878-3015

From: Mike Dupuis
Sent: Thursday, June 03, 2010 12:46 PM
To: 'eprojec1@maine.rr.com'
Cc: Doug Martin; Mike Richard
Subject: Bayside Bowl equipment weight answer

Dale,

Based on the manufacturers specifications, the weight of the new 15 ton York roof top unit located over the restaurant portion of the building does not exceed the weight of the previously installed equipment.

Thank you,

Mike Dupuis
Vice President
W.H. Demmons, Inc.
Direct 207-321-5885
Fax 207-878-3015

Final Report of Special Inspections

RECEIVED
JUN - 2 2010
Dept. of Building Inspections
City of Portland Maine

Project: *Bowl Portland*
Location: *58 Alder Street*
Owner: *Bowl Portland, LLC*
Owner's Address: *58 Alder Street*
Portland, ME 04101
Architect of Record: *Day Matero Studio*
Structural Engineer of Record: *Casco Bay Engineering, Inc.*

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 other than the following:

Comments:

None at this time.

(Attach continuation sheets if required to complete the description of corrections.)

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

Carolyn C. Bird, PE
(Type or print name)

Signature

6-2-10
Date

STATE OF MAINE
CAROLYN C. BIRD
No. 9956
LICENSED PROFESSIONAL ENGINEER
Licensed Professional Seal

CASCO BAY

CIVIL & STRUCTURAL ENGINEERING

424 Fore St., Portland, ME 04101 Phone 207.842.2800 Fax 207.842.2828

June 1, 2010

Mike Richard
WH Demmons
93 Warren Avenue
Portland, ME 04103

Re: Bowl Portland

Project Number: 9065

Dear Mike:

Casco Bay Engineering analyzed the existing roof for the new mechanical unit located approximately at gridlines 1.6 & B over the bowling alley. The unit has a maximum weight of 1500 lbs and required additional roof members as shown on drawing S1.2.

The second roof unit is to replace an existing unit over the restaurant area. If the new unit is placed in the same location, and is of equal weight of less, no additional roof members are required because the existing roof is grandfathered for that weight at that location as noted on drawings S1.2.

Please contact us if you have any additional questions or concerns.

Sincerely,

Tony Dumais
Casco Bay Engineering

Final Report of Special Inspections

Agent's Final Report

Project: Bowl Portland, 58 Alder Street, Portland, ME

Agent: S.W. Cole Engineering, Inc.

Special Inspector: Roger E. Domingo

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

(Attach continuation sheets if required to complete the description of corrections.)

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,
Agent of the Special Inspector

Roger E. Domingo
(Type or print name)

Signature

6/ 1/ 2010
Date

Licensed Professional Seal or Certification

S.W.COLE ENGINEERING, INC.

Concrete Construction Observation Report

Project Name/Location:	Bowl Portland	**Project No:**	10-0086
Client/Client's Rep.:	Bowl Portland/Charles Mitchell	**Date:**	2-22-10
Concrete Contractor:	Zachau Construction	**Sheet:**	1 of 1
Placement Location:	Piers: Brace Bay. Pier footings: Kitchen. Footing: Concourse	**SWCE Rep.:**	VLT
Placement Type:	Footing ☒ Wall ☐ Column ☒ Slab ☐ Other ☐	**Arrived at Site:**	7:30am
		Left Site:	9:00am

PRE PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Bar Size (diameter, length, bend and anchorage)	Yes ☐	No ☒	☐	See notes
Location (# of bars, spacing, and cover)	Yes ☐	No ☒	☐	See notes
Splicing (weld joint, overlap)	Yes ☒	No ☐	☐	As required
Stability (wiring, chairs, and spacers)	Yes ☒	No ☐	☐	As required
Reinforcement free from mud, oil, rust, or other nonmetallic coatings	Yes ☒	No ☐	☐	Acceptable
Reinforcement appears in conformance to specifications	Yes ☐	No ☒	☐	See notes
Soil subgrade prepared in accordance with project specifications	Yes ☐	No ☐	☒	By Others

Referenced Drawings	**Date**	**Page**	**Rev.**	**ASTM**	**GRADE**
Casco Bay Engineering	10/30/09	S2.1		A 615 ☒	40 ☐ 50 ☐ 60 ☒
Casco Bay Engineering	10/30/09	S3.1		A 616 ☐	75 ☐
				A 617 ☐	
				A 706 ☐	6"x6" WWF ☐

CONCRETE PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Required mix used	Yes ☒	☐	☐	3000psi, ¾"
Placement and consolidation of concrete observed	Yes ☒	☐	☐	Acceptable
Concrete properly conveyed to all areas of placement	Yes ☒	☐	☐	Direct discharge
Depth of layer maximum limits not exceeded	Yes ☒	☐	☐	One layer
Internal vibration (depth of insertion, spacing, time, vertical insertion, no conveyance of concrete by vibration)	Yes ☒	☐	☐	At piers at footing
Even layering around openings and embedments	Yes ☒	☐	☐	Acceptable
Removal of temporary ties and spacers	Yes ☐	☐	☐	N/A

FIELD TESTING OF CONCRETE PERFORMED Yes ☒ No ☐

***CYLINDER SET NO:** 136-1 ←**refer to associated concrete test report*

POST PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Specified finish	Yes ☒	☐	☐	w/ trowel
Protection of surfaces from cracking due to rapid drying	Yes ☐	☐	☒	
Proper curing procedures implemented	Yes ☐	☐	☒	

NON-CONFORMANCE ITEMS OBSERVED Yes ☒ No ☐

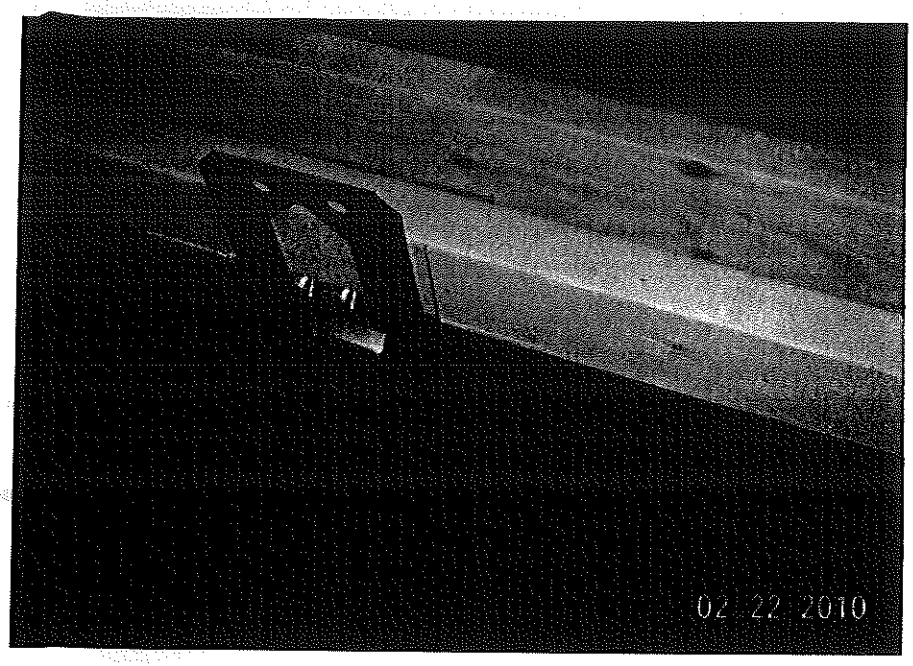
Non-Conformance Item Description:	See notes.
Action Taken by SWCE:	Notified Bob with Zachau Construction. SWCE recommended that Zachau contact the engineer for further direction.
Persons Notified:	Bob with Zachau Construction

Notes:

SWCE observed following non-conformance items: rebar mat at pier footings in kitchen extended beyond wood form and into earth or native subgrade. The tie bars at Brace Bay piers were fabricated onsite by tying 4 pieces of cut rebar together. At more than one location this rebar was embedded into existing walls in-place of horizontal "U" bars. Horizontal "U" hook bars at pier were not embedded 8" into existing foundation wall. These horizontal "U" hook bars were installed vertically at pier (See photos). These items were discussed with Zachau Construction. SWCE recommended Zachau contact Casco Bay Engineering for further direction. Zachau Construction proceeded with construction.

Attachments: Photos

Reviewed By: RED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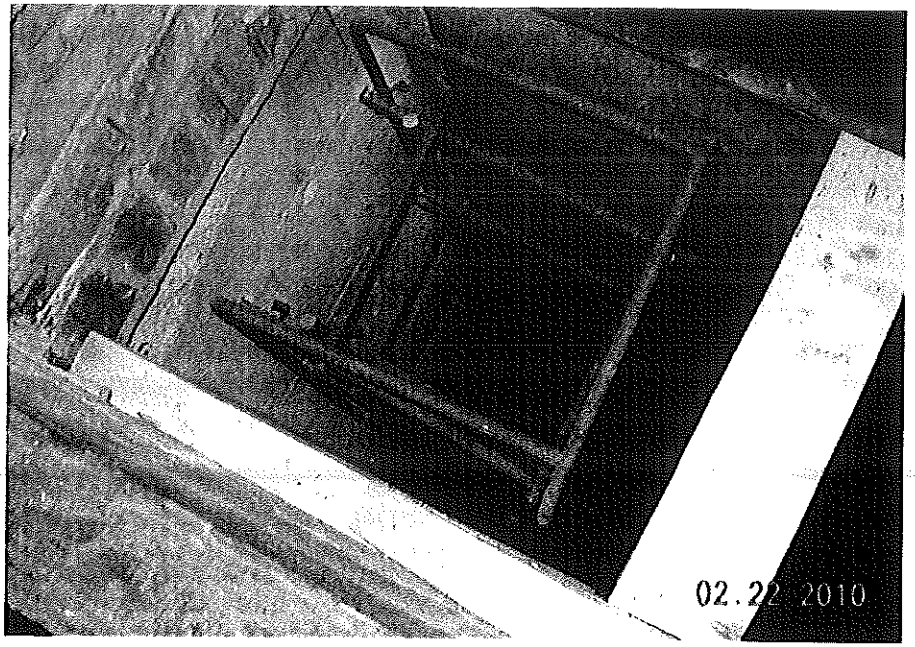
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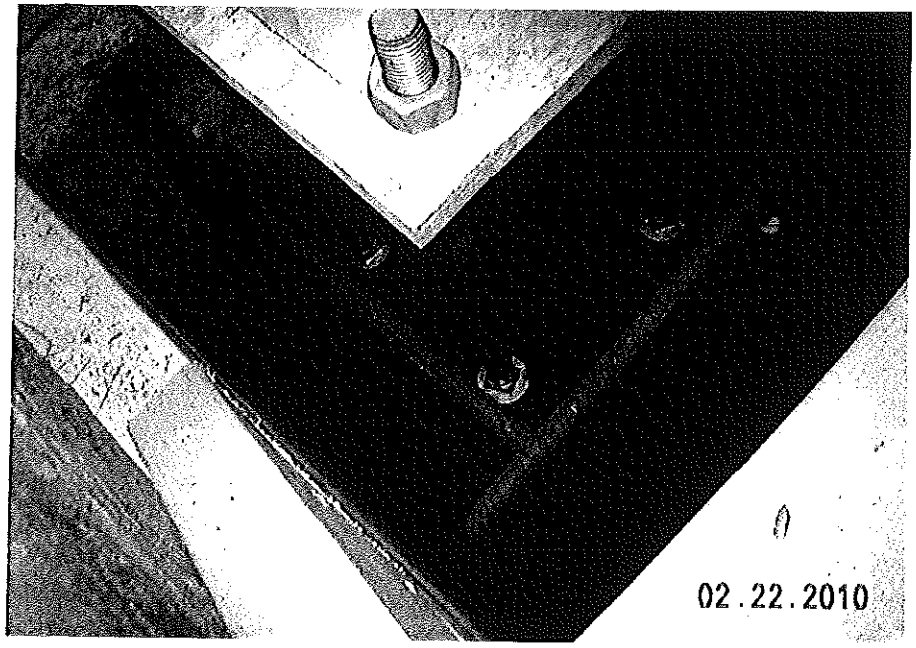
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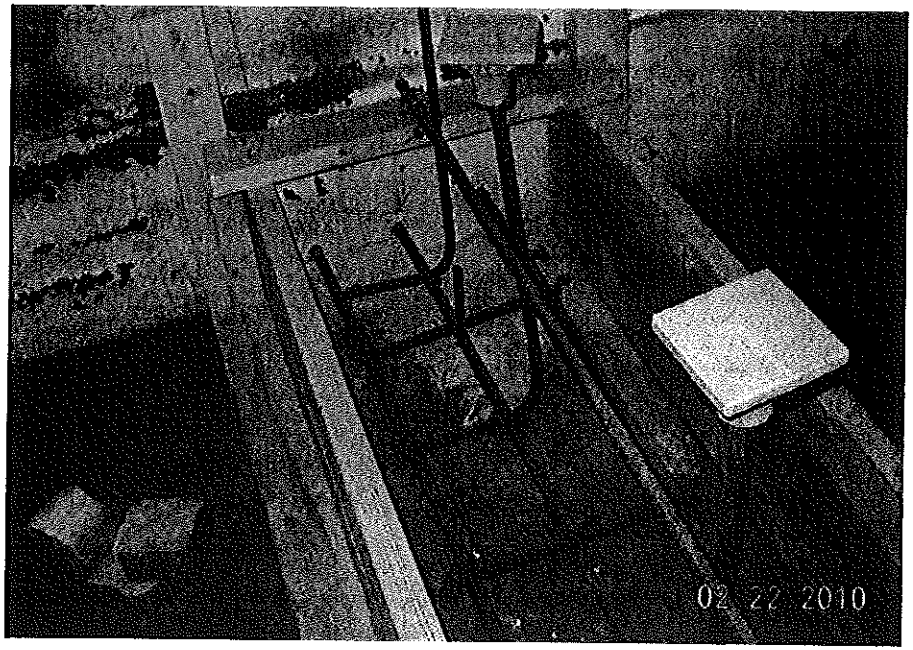

02 22 2010

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - BOWL PORTLAND - MATERIALS TESTING
Project Number: 10-0086

Client: BOWL PORTLAND
Client Contract Number:

General Contractor:
Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 2/22/2010 **Time Cast:** 8:32 **Date Received:** 2/23/2010

Placement Location: BRACE BAY PIERS 6 PIER FOOTINGS: KITCHEN FOOTING - CON COURSE

Placement Method: DIRECT DISCHARGE TO WHEEL BARREL
Placement Vol. (yd³): 6.5

Cylinders Made By: VLT
Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: N/A

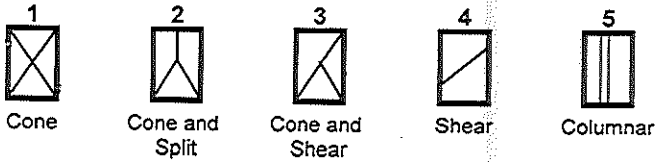
TEST RESULTS

Slump (in) (C-143): **Slump WR:** 2 3/4
Air Content (%) (C-231): **Air WR:** 5.2
Air Temp (°F): 40
Conc. Temp (°F) (C-1064): 64

Load Number: 1
Mixer Number: 192
Ticket Number: 3934352
Cubic Yards: 6.5
Design (psi): 3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
136-1A		4.00	12.57	3/1/2010	Lab	7	4	34.0	2710
136-1B				3/22/2010	Lab	28			
136-1C				3/22/2010	Lab	28			
136-1D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - BOWL PORTLAND - MATERIALS TESTING
Project Number: 10-0086

Client: BOWL PORTLAND
Client Contract Number:

General Contractor:
Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 2/22/2010 **Time Cast:** 8:32 **Date Received:** 2/23/2010

Placement Location: BRACE BAY PIERS 6 PIER FOOTINGS: KITCHEN FOOTING - CON COURSE

Placement Method: DIRECT DISCHARGE TO WHEEL BARREL
Placement Vol. (yd³): 6.5

Cylinders Made By: VLT
Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: N/A

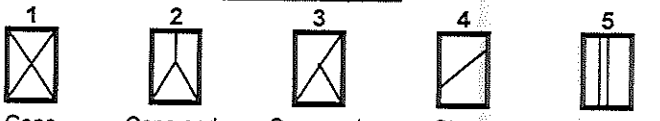
TEST RESULTS

Slump (in) (C-143): **Slump WR:** 2 3/4
Air Content (%) (C-231): **Air WR:** 5.2
Air Temp (°F): 40
Conc. Temp (°F) (C-1064): 64

Load Number: 1
Mixer Number: 192
Ticket Number: 3934352
Cubic Yards: 6.5
Design (psi): 3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
136-1A		4.00	12.57	3/1/2010	Lab	7	4	34.0	2710
136-1B		4.00	12.57	3/22/2010	Lab	28	4	53.0	4220
136-1C		4.00	12.57	3/22/2010	Lab	28	4	57.0	4540
136-1D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Concrete Construction Observation Report

Project Name/Location: Bowl Portland
Client/Client's Rep.: Bowl Portland/Charles Mitchell
Concrete Contractor: Zachau Construction
Placement Location: Slab on grade: Entry & Vestibule. Slab: Concourse
Placement Type: Footing ☐ Wall ☐ Column ☐ Slab ☒ Other ☐

Project No: 10-0086
Date: 3-1-10
Sheet: 1 of 1
SWCE Rep.: VLT
Arrived at Site: 6:45am
Left Site: 8:45am

PRE PLACEMENT OBSERVATIONS	In Compliance		N/O	Comments
Bar Size (diameter, length, bend and anchorage)	Yes ☒	No ☒	☐	As required
Location (# of bars, spacing, and cover)	Yes ☒	No ☒	☐	As required
Splicing (weld joint, overlap)	Yes ☒	No ☐	☐	As required
Stability (wiring, chairs, and spacers)	Yes ☒	No ☐	☐	As required
Reinforcement free from mud, oil, rust, or other nonmetallic coatings	Yes ☒	No ☐	☐	Acceptable
Reinforcement appears in conformance to specifications	Yes ☒	No ☒	☐	As required
Soil subgrade prepared in accordance with project specifications	Yes ☐	No ☐	☒	By Others

Referenced Drawings	Date	Page	Rev.	ASTM	GRADE
Casco Bay Engineering	10/30/09	S2.1		A 615 ☒	40 ☐ 50 ☐ 60 ☒
Casco Bay Engineering	10/30/09	S3.1		A 616 ☐	75 ☐
Casco Bay Engineering	2-25-10	SK4		A 617 ☐	
				A 706 ☐	6"x6" WWF ☐

CONCRETE PLACEMENT OBSERVATIONS	In Compliance		N/O	Comments
Required mix used	Yes ☒	☐	☐	4000psi, ¾"
Placement and consolidation of concrete observed	Yes ☒	☐	☐	Acceptable
Concrete properly conveyed to all areas of placement	Yes ☒	☐	☐	Pumped
Depth of layer maximum limits not exceeded	Yes ☒	☐	☐	One layer
Internal vibration (depth of insertion, spacing, time, vertical insertion, no conveyance of concrete by vibration)	Yes ☒	☐	☐	At haunches
Even layering around openings and embedments	Yes ☒	☐	☐	Acceptable
Removal of temporary ties and spacers	Yes ☐	☐	☐	N/A

FIELD TESTING OF CONCRETE PERFORMED Yes ☒ No ☐

***CYLINDER SET NO:** 136-2 & 3 ←**refer to associated concrete test report*

POST PLACEMENT OBSERVATIONS	In Compliance		N/O	Comments
Specified finish	Yes ☒	☐	☐	w/ screed & float
Protection of surfaces from cracking due to rapid drying	Yes ☐	☐	☒	
Proper curing procedures implemented	Yes ☐	☐	☒	

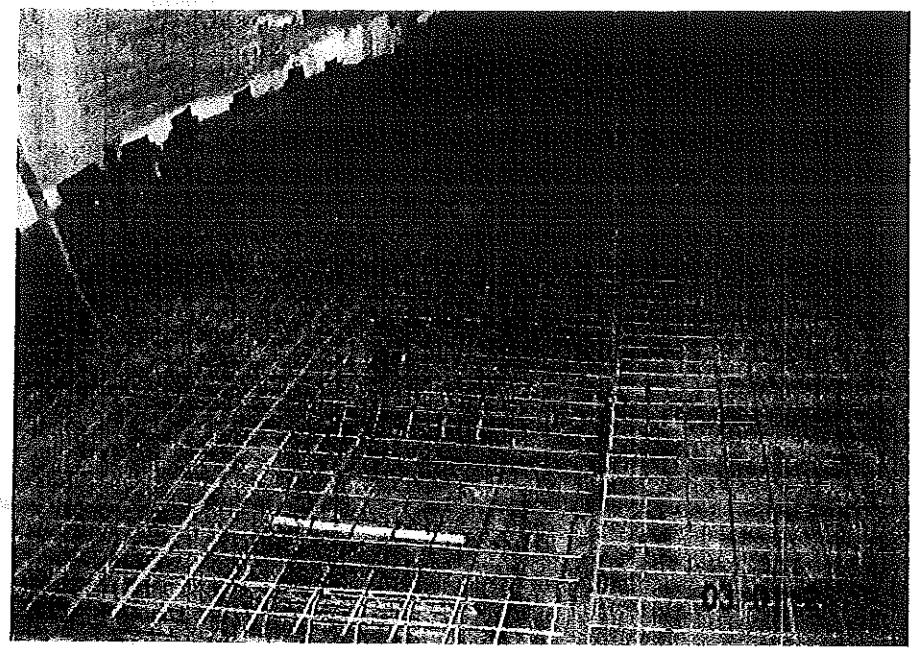
NON-CONFORMANCE ITEMS OBSERVED Yes ☐ No ☒

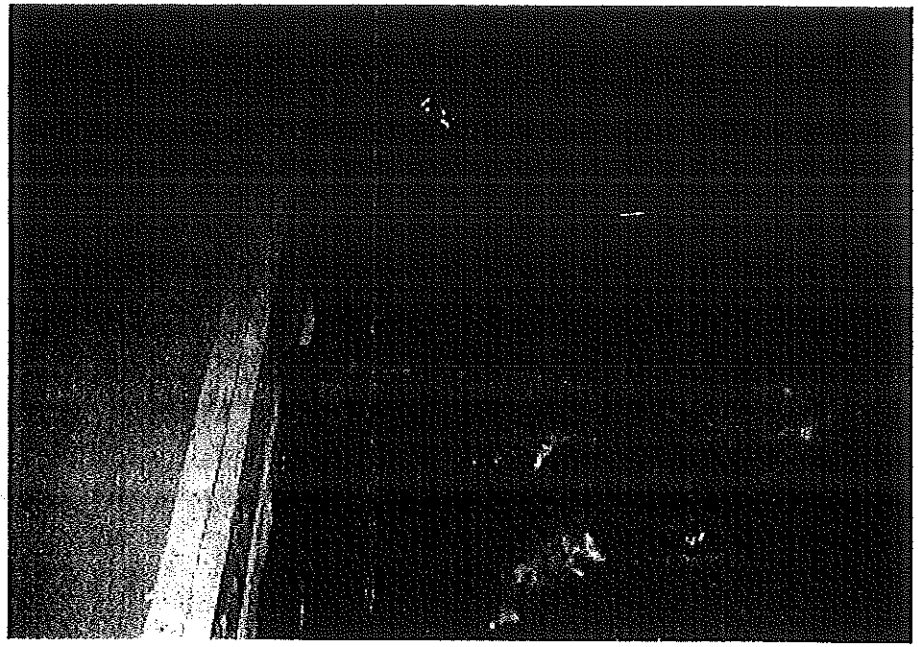
Non-Conformance Item Description:
Action Taken by SWCE:
Persons Notified:

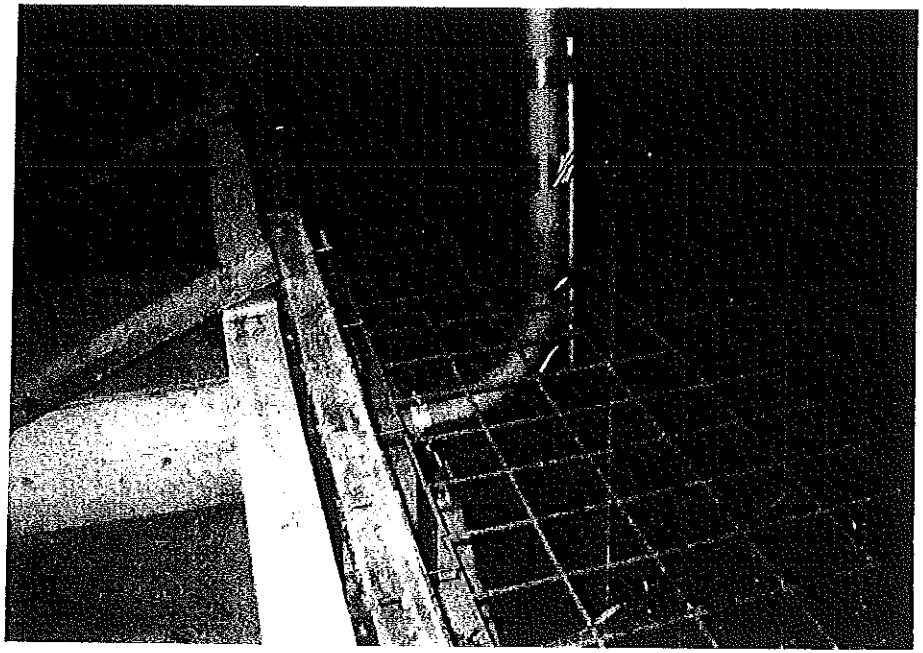
Notes:
SWCE made 2 sets of cylinders. 1 set w/ fibermesh at entry & vestibule slab and 1 set w/o fibermesh at concourse. Compacted stone dust used as structural fill beneath 2" rigid insulation and 15 mil vapor barrier per Zachau Construction. Wire mesh at concourse slab. Fibermesh added on site by Dragon to 3rd load.

Attachments: Photos

Reviewed By: RED







S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - BOWL PORTLAND - MATERIALS TESTING
Project Number: 10-0086

Client: BOWL PORTLAND
Client Contract Number:

General Contractor:
Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 3/1/2010 **Time Cast:** 7:42
Date Received: 3/2/2010

Placement Location: SLAB - ENTRY + VESTIBULE
SLAB - CONCOURSE

Placement Method: PUMP

Cylinders Made By: VLT

Placement Vol. (yd³): 37
Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MRWR
POZZUTEC 20 1%

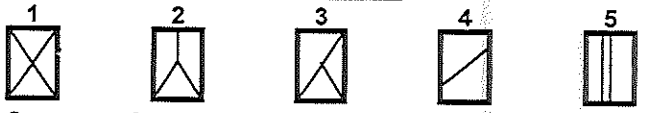
TEST RESULTS

Slump (in) (C-143): **Slump WR:** 4 1/4
Air Content (%) (C-231): **Air WR:** 2.3
Air Temp (°F): 38
Conc. Temp (°F) (C-1064): 64

Load Number: 2
Mixer Number: 192
Ticket Number: 3934377
Cubic Yards: 10
Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
136-2A		4.00	12.57	3/8/2010	Lab	7	4	54.0	4300
136-2B				3/29/2010	Lab	28			
136-2C				3/29/2010	Lab	28			
136-2D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - BOWL PORTLAND - MATERIALS TESTING
Project Number: 10-0086
Client: BOWL PORTLAND
Client Contract Number:
General Contractor:
Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 3/1/2010 **Time Cast:** 8:28
Date Received: 3/2/2010
Placement Location: SLAB - ENTRY + VESTIBULE
SLAB - CONCOURSE
Placement Method: PUMP
Cylinders Made By: VLT
Placement Vol. (yd³): 37
Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures
Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

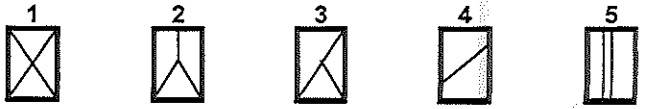
Admixtures: MRWR
POZZUTEC 20 1%

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 4 1/2
Air Content (%) (C-231): **Air WR:** 2.2
Air Temp (°F): 41
Conc. Temp (°F) (C-1064): 66
Load Number: 4
Mixer Number: 190
Ticket Number: 3934379
Cubic Yards: 10
Design (psi): **4000**

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
136-3A		4.00	12.57	3/8/2010	Lab	7	4	55.0	4380
136-3B				3/29/2010	Lab	28			
136-3C				3/29/2010	Lab	28			
136-3D				Hold	Lab				

Fracture Types



1 Cone; 2 Cone and Split; 3 Cone and Shear; 4 Shear; 5 Columnar

Remarks:

286 Portland Road, Gray, ME 04039-9586 • Tel (207) 657-2866 • Fax (207) 657-2840 • www.swcole.com

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - BOWL PORTLAND - MATERIALS TESTING
Project Number: 10-0086

Client: BOWL PORTLAND
Client Contract Number:

General Contractor:
Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 3/1/2010 **Time Cast:** 7:42
Date Received: 3/2/2010

Placement Location: SLAB - ENTRY + VESTIBULE
SLAB - CONCOURSE

Placement Method: PUMP

Cylinders Made By: VLT

Placement Vol. (yd³): 37

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MRWR
POZZUTEC 20 1%

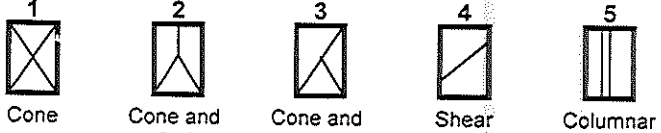
TEST RESULTS

Slump (in) (C-143): **Slump WR:** 4 1/4
Air Content (%) (C-231): **Air WR:** 2.3
Air Temp (°F): 38
Conc. Temp (°F) (C-1064): 64

Load Number: 2
Mixer Number: 192
Ticket Number: 3934377
Cubic Yards: 10
Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
136-2A		4.00	12.57	3/8/2010	Lab	7	4	54.0	4300
136-2B		4.00	12.57	3/29/2010	Lab	28	4	75.6	6020
136-2C		4.00	12.57	3/29/2010	Lab	28	4	78.4	6240
136-2D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - BOWL PORTLAND - MATERIALS TESTING
Project Number: 10-0086
Client: BOWL PORTLAND
Client Contract Number:
General Contractor:
Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 3/1/2010 **Time Cast:** 8:28
Date Received: 3/2/2010
Placement Location: SLAB - ENTRY + VESTIBULE
SLAB - CONCOURSE
Placement Method: PUMP
Cylinders Made By: VLT
Placement Vol. (yd³): 37
Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures
Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

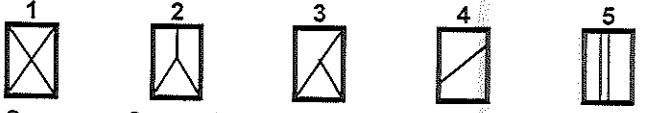
Admixtures: MRWR
POZZUTEC 20 1%

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 4 1/2
Air Content (%) (C-231): **Air WR:** 2.2
Air Temp (°F): 41
Conc. Temp (°F) (C-1064): 66
Load Number: 4
Mixer Number: 190
Ticket Number: 3934379
Cubic Yards: 10
Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
136-3A		4.00	12.57	3/8/2010	Lab	7	4	55.0	4380
136-3B		4.00	12.57	3/29/2010	Lab	28	4	70.8	5640
136-3C		4.00	12.57	3/29/2010	Lab	28	4	73.4	5840
136-3D				Hold	Lab				

Fracture Types



1 Cone; 2 Cone and Split; 3 Cone and Shear; 4 Shear; 5 Columnar

Remarks:

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S.W.COLE ENGINEERING, INC.

Concrete Construction Observation Report

Project Name/Location:	Bowl Portland	**Project No:**	10-0086
Client/Client's Rep.:	Bowl Portland/Charles Mitchell	**Date:**	3-8-10
Concrete Contractor:	Zachau Construction	**Sheet:**	1 of 1
Placement Location:	Slab on grade: line B.25 to E.5, 1 to 4	**SWCE Rep.:**	VLT
Placement Type:	Footing ☐ Wall ☐ Column ☐ Slab ☒ Other ☐	**Arrived at Site:**	7:00am
		Left Site:	10:00am

PRE PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Bar Size (diameter, length, bend and anchorage)	Yes ☒	No ☒	☐	As required
Location (# of bars, spacing, and cover)	Yes ☒	No ☒	☐	As required
Splicing (weld joint, overlap)	Yes ☒	No ☐	☐	As required
Stability (wiring, chairs, and spacers)	Yes ☐	No ☐	☒	N/A
Reinforcement free from mud, oil, rust, or other nonmetallic coatings	Yes ☒	No ☐	☐	Acceptable
Reinforcement appears in conformance to specifications	Yes ☒	No ☒	☐	As required
Soil subgrade prepared in accordance with project specifications	Yes ☐	No ☐	☒	By Others

Referenced Drawings	**Date**	**Page**	**Rev.**	**ASTM**	**GRADE**
Casco Bay Engineering	10/30/09	S2.1		A 615 ☒	40 ☐ 50 ☐ 60 ☒
				A 616 ☐	
				A 617 ☐	75 ☐
				A 706 ☐	6"x6" WWF ☐

CONCRETE PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Required mix used	Yes ☒	☐	☐	4000psi, ¾", Fibermesh, Pozzutec 20 1%
Placement and consolidation of concrete observed	Yes ☒	☐	☐	Acceptable
Concrete properly conveyed to all areas of placement	Yes ☒	☐	☐	Pumped
Depth of layer maximum limits not exceeded	Yes ☒	☐	☐	One layer
Internal vibration (depth of insertion, spacing, time, vertical insertion, no conveyance of concrete by vibration)	Yes ☐	☐	☒	N/A
Even layering around openings and embedments	Yes ☒	☐	☐	Acceptable
Removal of temporary ties and spacers	Yes ☐	☐	☐	N/A

FIELD TESTING OF CONCRETE PERFORMED Yes ☒ No ☐

***CYLINDER SET NO:** 136-4 & 5 ←**refer to associated concrete test report*

POST PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Specified finish	Yes ☒	☐	☐	w/ screed & float
Protection of surfaces from cracking due to rapid drying	Yes ☐	☐	☒	
Proper curing procedures implemented	Yes ☐	☐	☒	

NON-CONFORMANCE ITEMS OBSERVED Yes ☐ No ☒

Non-Conformance Item Description:

Action Taken by SWCE:

Persons Notified:

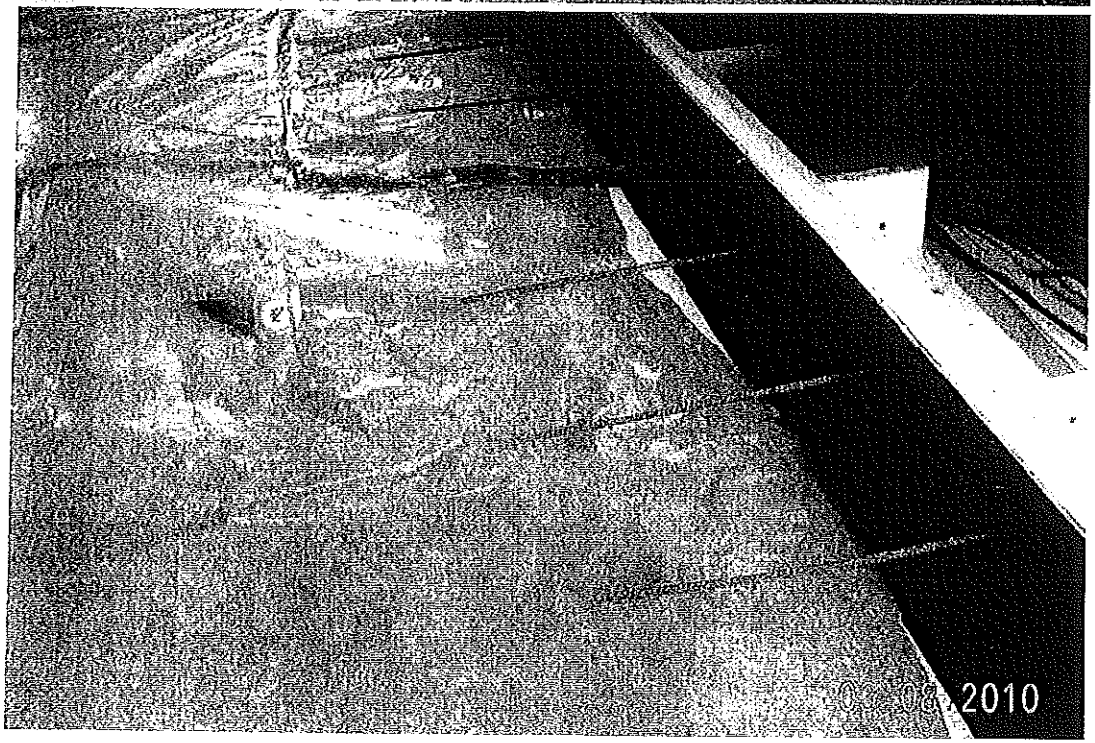
Notes:

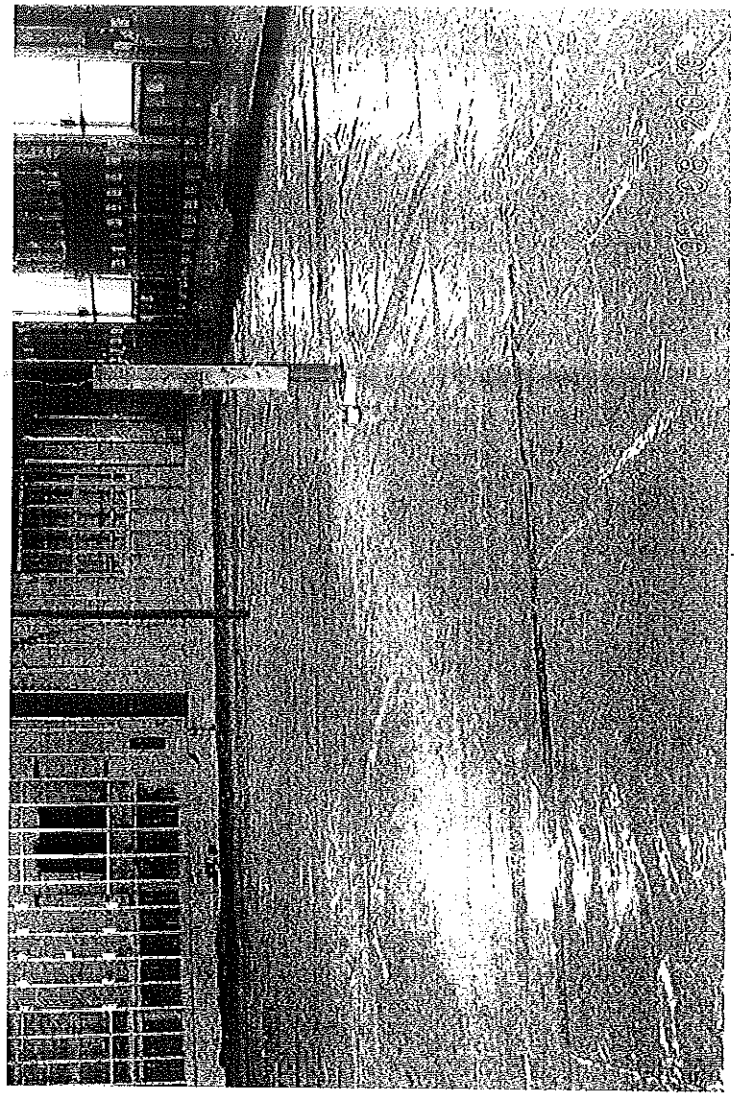
SWCE made 2 sets of cylinders. Compacted stone dust used as structural fill beneath 2" rigid insulation and 15 mil vapor barrier per Zachau Construction. SWCE tested at pump hopper. Slump loss approximately 1" from hopper to point of discharge.

Attachments: Photos

Reviewed By: RED


03.08.2010


2010



S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - BOWL PORTLAND - MATERIALS TESTING
Project Number: 10-0086
Client: BOWL PORTLAND
Client Contract Number:
General Contractor:
Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 3/8/2010 **Time Cast:**
Date Received: 3/9/2010
Placement Location: SLAB: LINE B.25 TO E.5, 1 TO 4
Placement Method: PUMP*
Cylinders Made By: VLT
Placement Vol. (yd³): 90
Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures
Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

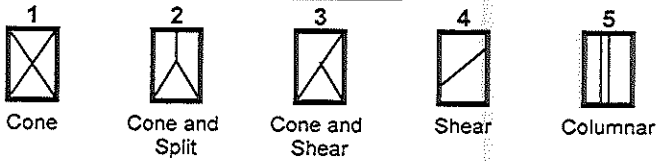
Admixtures: MRWR
POZZ 20 1%
FIBERMESH

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 6.5
Air Content (%) (C-231): **Air WR:** 2.0
Air Temp (°F): 41
Conc. Temp (°F) (C-1064): 69
Load Number: 3
Mixer Number: 177
Ticket Number: 3934434
Cubic Yards: 10
Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
136-4A		4.00	12.57	3/15/2010	Lab	7	4	49.4	3930
136-4B				4/5/2010	Lab	28			
136-4C				4/5/2010	Lab	28			
136-4D				Hold	Lab				

Fracture Types



Remarks: * NORTHEAST CONCRETE PUMPING

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - BOWL PORTLAND - MATERIALS TESTING
Project Number: 10-0086

Client: BOWL PORTLAND
Client Contract Number:

General Contractor:
Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 3/8/2010 **Time Cast:**
Date Received: 3/9/2010

Placement Location: SLAB: LINE B.25 TO E.5, 1 TO 4

Placement Method: PUMP*
Cylinders Made By: VLT

Placement Vol. (yd³): 90
Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MRWR
POZZ 20 1%
FIBERMESH

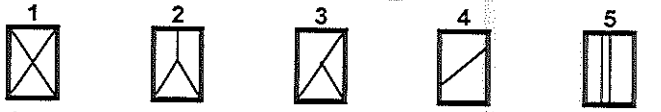
TEST RESULTS

Slump (in) (C-143): **Slump WR:** 6.25
Air Content (%) (C-231): **Air WR:** 2.4
Air Temp (°F): 45
Conc. Temp (°F) (C-1064): 66

Load Number: 6
Mixer Number: 192
Ticket Number: 393437
Cubic Yards: 10
Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
136-5A		4.00	12.57	3/15/2010	Lab	7	4	43.8	3490
136-5B				4/5/2010	Lab	28			
136-5C				4/5/2010	Lab	28			
136-5D				Hold	Lab				

Fracture Types



1 Cone; 2 Cone and Split; 3 Cone and Shear; 4 Shear; 5 Columnar

Remarks: * NORTHEAST CONCRETE PUMPING

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - BOWL PORTLAND - MATERIALS TESTING
Project Number: 10-0086
Client: BOWL PORTLAND
Client Contract Number:
General Contractor:
Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

Date Cast: 3/8/2010 **Time Cast:**
Date Received: 3/9/2010
Placement Location: SLAB: LINE B.25 TO E.5, 1 TO 4
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Cylinders Made By: VLT
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Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures
Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

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POZZ 20 1%
FIBERMESH

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 6.5
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Mixer Number: 177
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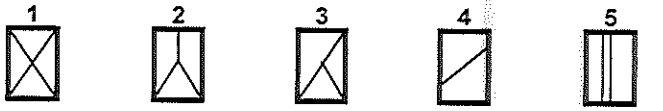
Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
136-4A		4.00	12.57	3/15/2010	Lab	7	4	49.4	3930
136-4B		4.00	12.57	4/5/2010	Lab	28	4	64.4	5130
136-4C		4.00	12.57	4/5/2010	Lab	28	4	61.5	4900
136-4D				Hold	Lab				

Fracture Types



1 Cone; 2 Cone and Split; 3 Cone and Shear; 4 Shear; 5 Columnar

Remarks: * NORTHEAST CONCRETE PUMPING

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND, ME - BOWL PORTLAND - MATERIALS TESTING
Project Number: 10-0086
Client: BOWL PORTLAND
Client Contract Number:
General Contractor:
Concrete Supplier: DRAGON PRODUCTS

PLACEMENT INFORMATION

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Placement Location: SLAB: LINE B.25 TO E.5, 1 TO 4
Placement Method: PUMP*
Cylinders Made By: VLT
Placement Vol. (yd³): 90
Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures
Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MRWR
POZZ 20 1%
FIBERMESH

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 6.25
Air Content (%) (C-231): **Air WR:** 2.4
Air Temp (°F): 45
Conc. Temp (°F) (C-1064): 66
Load Number: 6
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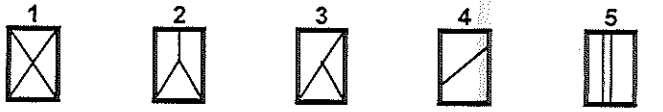
Design (psi): 4000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
136-5A		4.00	12.57	3/15/2010	Lab	7	4	43.8	3490
136-5B		4.00	12.57	4/5/2010	Lab	28	4	60.0	4780
136-5C		4.00	12.57	4/5/2010	Lab	28	4	62.2	4950
136-5D				Hold	Lab				

Fracture Types



1 Cone; 2 Cone and Split; 3 Cone and Shear; 4 Shear; 5 Columnar

Remarks: * NORTHEAST CONCRETE PUMPING

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S.W.COLE ENGINEERING, INC. • Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

CONSTRUCTION OBSERVATION REPORT

Project: Bowl Portland, Portland, ME
Client: Bowl Portland
Client's Rep.: Charles Mitchell

SWCE Project No.: 10-0086
Date: 4-20-10
Weather: Clear, 60's.

Work in Progress: Maietta Construction, Inc.: Excavating and grading subgrade soils in the proposed paved parking area.

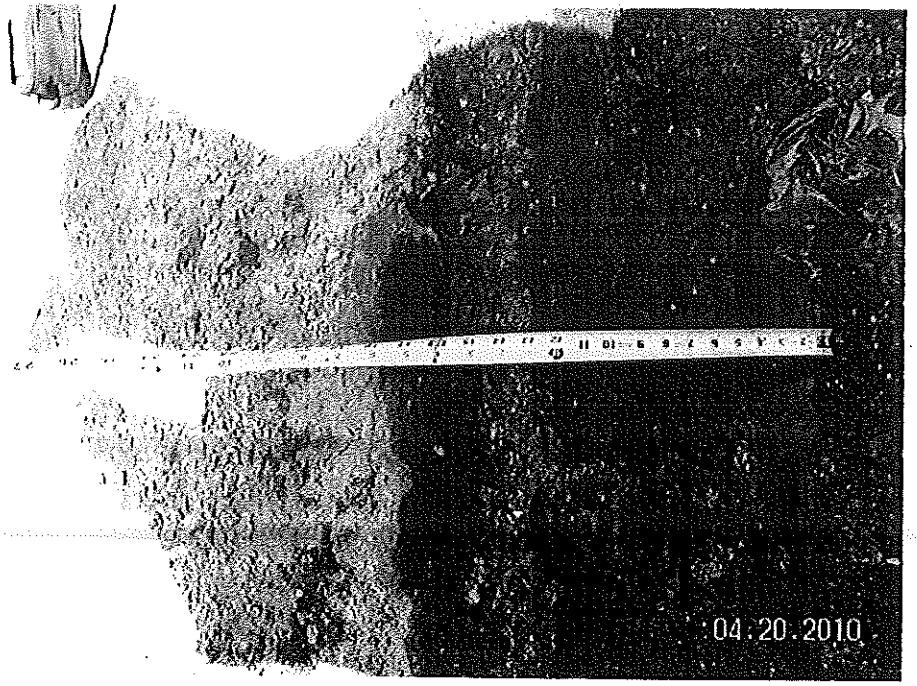
Work Performed by SWC Rep.: Observation and documentation of subgrade conditions in proposed paved parking area.

General Observations, Discussions, Etc: Per telephone request of Bob Pierce (Zachau Construction, project general contractor), we made a site visit to the Bowl Portland site to observe reported fill materials in parking lot pavement subgrade soils. Upon arrival, we met with Bob Pierce, as well as Craig Babbidge and Mike (Maietta Construction, Inc.). They explained that the existing parking lot area gravel material at the proposed subgrade elevation contained relic ash material. We observed four test pits in the area varying from about 18 to 24-inches deep. A relic ash layer was observed in the sidewalls at each of the test pits and varied in thickness from about 12 to 14-inches. The ash and overlying granular fill materials were observed to generally be dry and firm under equipment traffic, however no compaction equipment was observed onsite to perform proof-rolling. Where penetrated at the test pits, the ash layer was observed to be underlain by fill consisting of brown silty sand with brick fragments. We suggested that based on our previous experience in the area, the relic ash material would require analysis before removal from the site. We recommended that Zachau Construction contact Casco Bay Engineering (project structural and civil engineer) to address any design changes that may be needed regarding the new pavement section. We obtained samples of the ash material at each test pit for future laboratory testing, if needed.

On Site: 8:00 – 9:00
Attachments: Photos
Sheet: 1 of 1
P:\2010\10-0086 M - Portland Bowl - Portland, ME - Portland Bowl - RED\COR's\COR 4-20-10 Pavement Subgrade.doc

SWC Rep.: E. Walker
Rev. by: RED

GRAY, ME OFFICE
286 Portland Road, Gray, ME 04039, Tel (207) 657-2866, Fax (207) 657-2840, (E) infogray@swcole.com, (I) www.swcole.com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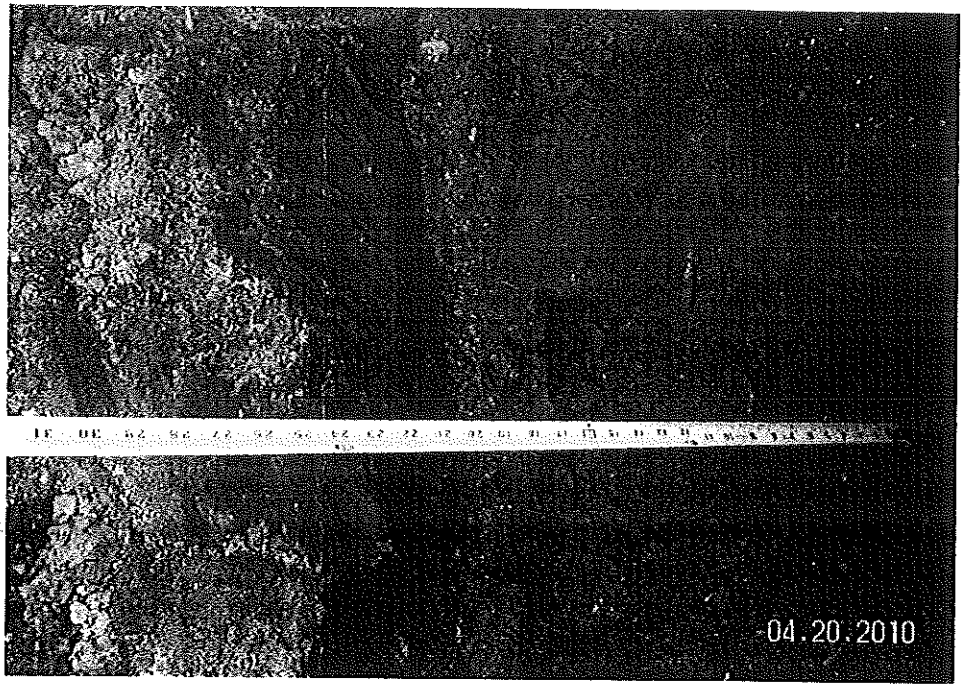
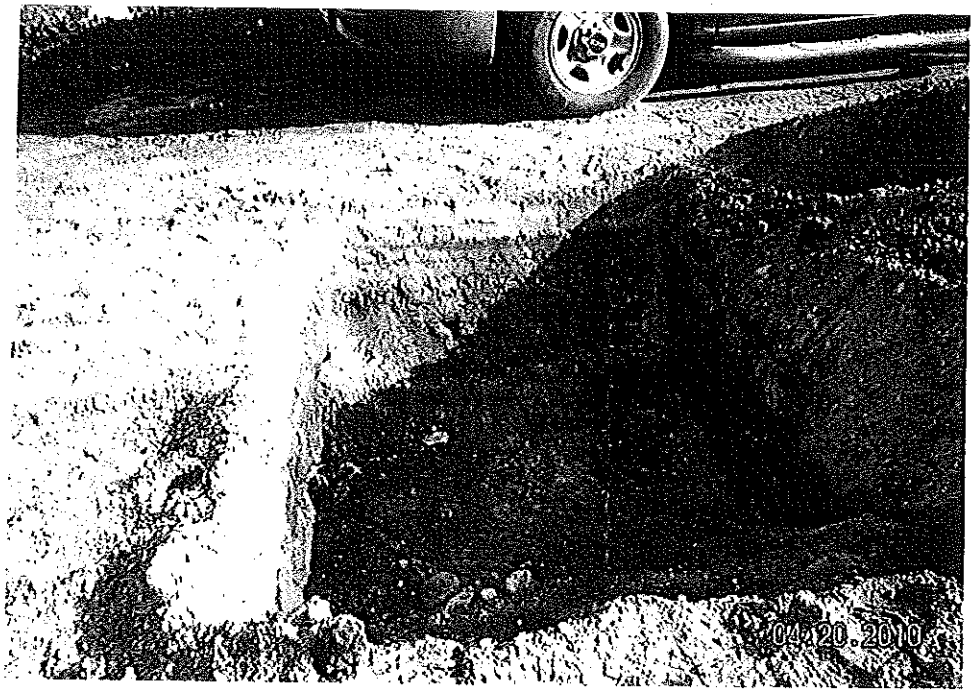

04.20.2010


04.20.2010


04.20.2010

CASCO BAY ENGINEERING

CIVIL & STRUCTURAL ENGINEERING

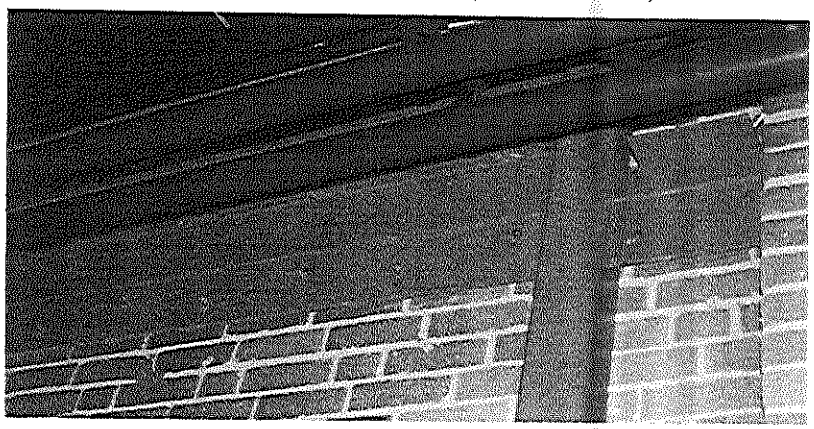
424 Fore St., Portland, ME 04101 Phone 207.842.2800 Fax 207.842.2828

FIELD REPORT

Project Name: **Bowl Portland**
Project #: **9065**
Date at Site: March 24, 2010
Report Date: April 20, 2010
Present: Tony Dumais

Tony Dumais, of Casco Bay Engineering, visited the Bowl Portland Site to observe the wood and steel work completed to date. The following items were observed while on site and reviewing photographs upon my return to the office:

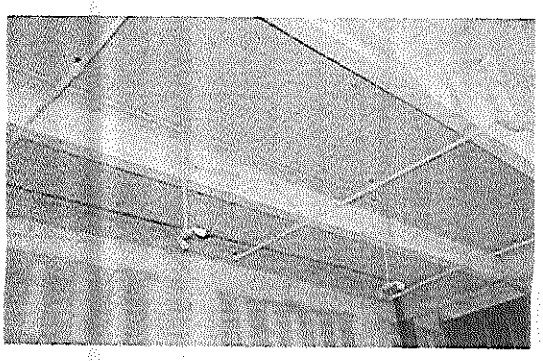
1. The angle located under the W-beam in the braced frame was attached to the brick wall incorrectly. Per Section 7 on drawing S3.1, the fasteners between the angle and the brick wall are to be placed at the mid-depth of the vertical slotted holes to allow the braced frame to deflect vertically without putting additional load on the brick wall. The fasteners were placed at the ends of the slots (See Picture 1).



Picture 1

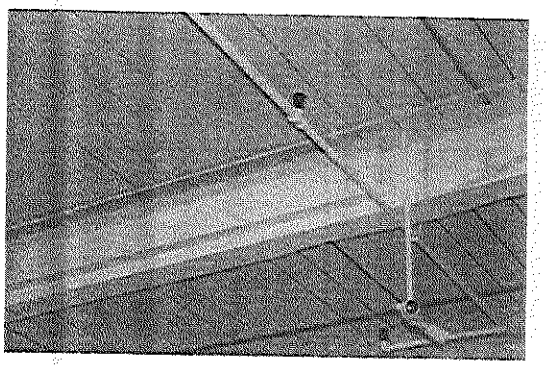
Due to the current placement of the fasteners, the brick wall may eventually see some additional cracking. Contractor shall provide a fix and submit design to Casco Bay Engineering. Please call to discuss options. I also observed that the angle located above the beam per SK6 issued on March 10, 2010 has not been installed yet.

2. The new LVL beam, between gridlines D & E, replacing the existing rotted and split solid sawn beam over the bowling alley appears to be the correct size and installed correctly (See Picture 2). Contractor shall verify that the beam is the correct size shown on SK3 dated February 8, 2010.



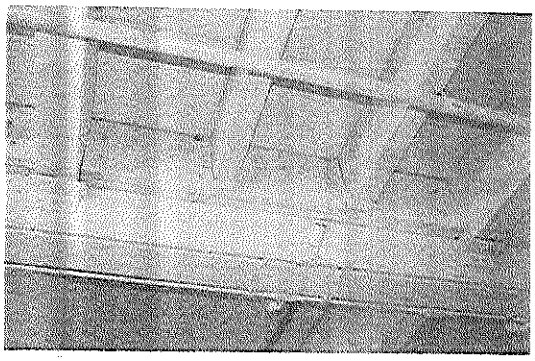
Picture 2

3. The existing solid sawn beam with steel channel reinforcement located over the bowling alley between gridlines C & D appears to have been correctly reinforced (See Picture 3). Casco Bay Engineering will need to verify that the additional bolt sizes, spacings, and orientations match the detail shown on SK3 dated February 8, 2010.



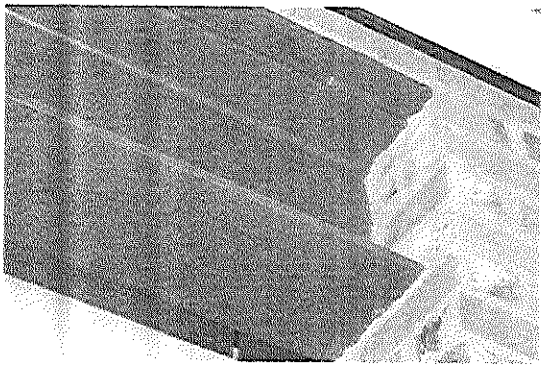
Picture 3

4. The new LVL beams located below the proposed cooler appear to have been installed correctly with proper LVL nailers, through bolts, and simpson hangers (See Picture 3). However, the contractor shall verify that the area that was reinforced extends the full area where the cooler will be located on the second floor.



Picture 4

5. The steel beam lintels over the three openings in the existing brick wall appear to have been installed correctly with full grout at the ends and between the top steel plate and bottom of brick (See Picture 4).



Picture 5

Summary

Please note that Casco Bay Engineering's presence on the jobsite is for observational purposes only. The above is a list of items that were observed while at the site or in photographs at the office. Please verify all noted conditions requested in this report. If you have any questions with this letter report, please do not hesitate to call.

Sincerely,

Tony Dumais
Project Engineer
Casco Bay Engineering

CASCO BAY ENGINEERING

CIVIL & STRUCTURAL ENGINEERING

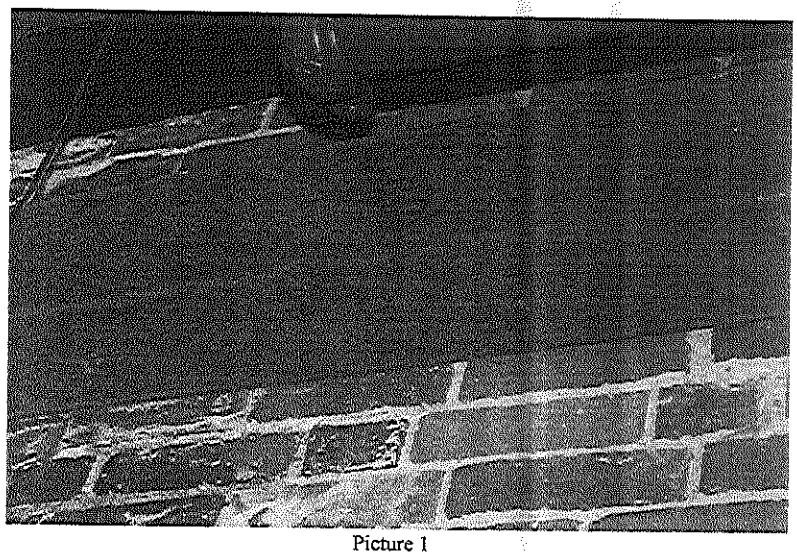
424 Fore St., Portland, ME 04101 Phone 207.842.2800 Fax 207.842.2828

FIELD REPORT

Project Name: **Bowl Portland**
Project #: **9065**
Date at Site: May 14, 2010
Report Date: May 25, 2010
Present: Tony Dumais

Tony Dumais, of Casco Bay Engineering, visited the Bowl Portland Site to observe the wood and steel work completed to date. The following items were observed while on site and reviewing photographs upon my return to the office:

1. The connection of the angle under the steel beam to the brick wall has been fixed such that the bolts are located in the middle of the slotted holes (See Picture 1). This will allow the angle to deflect without damaging the existing brick wall.



Picture 1

All other framing and connections appear to be in conformance to the issued structural drawings dated 2-1-10.

Summary
Please note that Casco Bay Engineering's presence on the jobsite is for observational purposes only. If you have any questions with this letter report, please do not hesitate to call.

Sincerely,

Tony Dumais
Project Engineer
Casco Bay Engineering

Quality Assurance Labs Inc.

NON-DESTRUCTIVE TESTING AND INSPECTION SERVICES

80 PLEASANT AVENUE • SOUTH PORTLAND, MAINE 04106 • TEL: (207) 799-8911 • FAX: (207) 799-7251

INSPECTION REPORT

CUSTOMER: S.W. COLE ENG. PAGE 1 OF 1

ADDRESS: GRAY, Me.

ATTENTION: ROGER DOMINGO

COPIES:

PROJECT: Bowl Portland,

OWNER:

CONTRACTOR:

JOB No.:	REPORT No.:	P. O. NUMBER:	DATES INSPECTED: 6-2-10

REMARKS

DRAWING Detail S3.1 (2)
HSS 4X4 BRACE Field connections 1/4 x 4

DRAWING Detail S3.1 (7) & SK6
Plate stich Welds 3-12 x 1/4

> Brace connections Reveal 5/16" x 4" Field welds @ Top Plate w/ 1 missing Inside Lower weld. *
Bottom Reveals ALL (4) Field welds meet dwg. ReQ.

> plate stitch welds comply with dwg. ReQ.

* Eng. EVAL In-Progress and Determined acceptable @ 09:30 on 6/2/10

MICHAEL W. DREW
CWI 99050211
QC1 EXP. 04/01/11

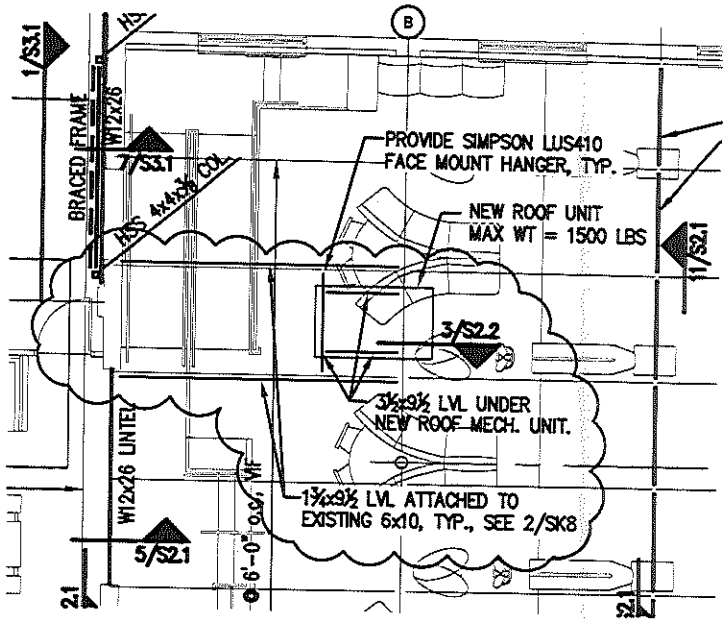
FAA REPAIR STATION NUMBER RX5R187N

METHOD(S),PROCESS(ES),PROCEDURE(S) MERCURY FREE

ADDITIONAL INFORMATION - SEE ATTACHED: ☐ SKETCH(ES) ☐ SUPPLEMENTARY SHEET(S) ☐ NDT REPORTS ☐ VIDEO

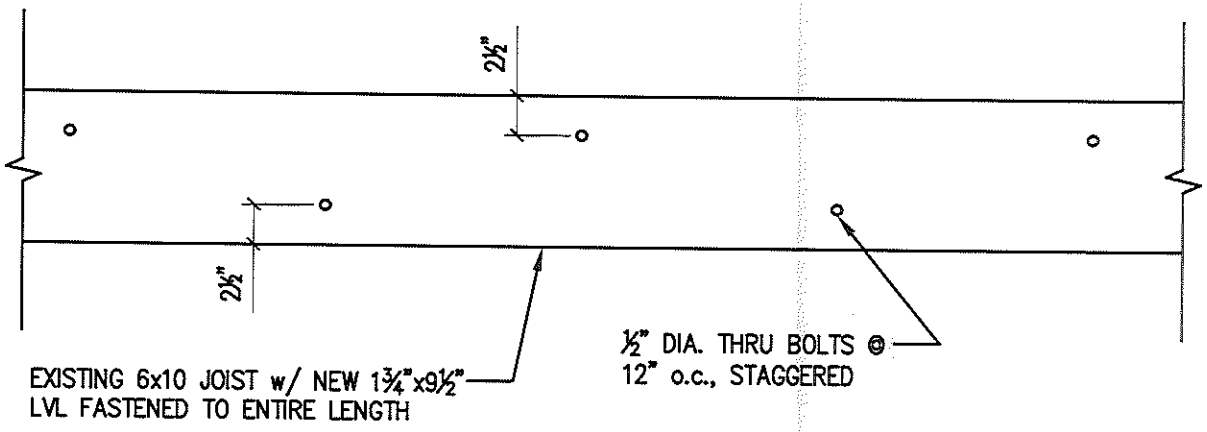
SIGNATURES	CERTIFICATION LEVEL	DATE M D Y
INSPECTOR M. Drew CWI # 99050211		6 2 10
SUPERVISOR		

(FORM Q703 REV 0)



PARTIAL ROOF PLAN AT NEW ROOF UNIT

SCALE: NTS | 1



DETAIL

SCALE: 1"=1'-0" | 2

SHEET TITLE:
BOWL PORTLAND
PORTLAND MAINE

SHEET TITLE:
EXISTING ROOF PARTIAL PLAN & DETAIL

CASCO BAY ENGINEERING
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DESIGNED:	TD
DRAWN:	TD
DATE:	6-8-10
CADD FILE:	9065-S1.DWG
PROJECT NUMBER:	9065

SK8

W.H. DEMMONS, INC.
Maine Air Conditioning
Portland Sheet Metal
Demmons Roofing

Dear Mr. Wallace,

Please accept this e-mail as confirmation that the new kitchen hoods and associated exhaust systems (i.e. ductwork, fans etc.) installed at Bayside Bowl, 58 Alder Street, Portland were designed and installed to meet all applicable relevant codes and standards for commercial kitchen hood installations. For you reference I have summarized some of the key compliance specifics below:

- Two separate hoods were installed, one grease exhaust hood (Type I) and one dishwasher condensate exhaust hood (Type II)
- Both hoods were manufactured and provided by CaptiveAire, Inc.. CaptiveAire hoods are E.T.L listed and are built in compliance with NFPA 96, NFS Standards and UL710 & ULC710 Standards
- Hood exhaust fans and make-up air fans were also provided by CaptiveAire, Inc
- The design and installation of these hoods and associated exhaust systems (i.e. ductwork, fans etc.) is in compliance with the requirements of both NFPA 96 2008 and the 2003 International Mechanical Code
- The grease hood exhaust ductwork was professionally wrapped by Atlantic Insulation Services with two layers of 1.5" 3M fire barrier grease duct wrap designed to bring this ductwork in compliance with 0" clearance to combustibles
- UL rated inspection / access / cleanout doors were installed as required to facilitate duct cleaning and inspections procedures
- The grease hood design also includes a Modulating Energy Management System designed to control one exhaust fan and one supply fan. This system includes VFDs, a duct temperature sensor and an override control w/exhaust on in fire
- The fire suppression system for the grease hood was designed and installed by AAA Fire Extinguisher Co., Inc. out of Auburn, Maine. The system is a UL300 approved wet chemical fire suppression system. Additional details on this suppression system shall be provided to you by AAA Fire Extinguisher Co., Inc. under a separate e-mail

Finally, I was personally on site at various stages of this installation to review progress and verify the equipment was being installed as designed.

Please feel free to contact me directly if you have any questions or need any additional information regarding this kitchen hood installation.

Sincerely,

Mike Richard, P.E.
W.H. Demmons, Inc.
93 Warren Avenue
Portland, Me 04103
207-321-5882

June 3, 2010

John Rioux
Planning and Urban Development Department
City of Portland
389 Congress St
Portland, ME 04101

Mr. Rioux

The owners of Bayside Bowl acknowledge that the plumbing in the bar area will need to be monitored and if the City inspections department recommends changes to the plumbing system we will make said changes.

Sincerely,
Charlie Mitchell
Justin Alfond

Charlie Mitchell, Owner
Justin Alfond, Owner