HALEY & ALDRICH

# WEEKLY FIELD REPORT

| | | | |
|---|---|---|---|
| **Project** | OCEAN GATEWAY PARKING GARAGE | **Report No.** | 8 |
| **Location** | PORTLAND, MAINE | **Period From** | 09 July 2007 |
| | | **To** | 13 July 2007 |
| **Client** | RIVERWALK, LLC. | **Page** | 1 of 6 |
| **Contractor** | LEDGEWOOD CONSTRUCTION (CM)<br>SHAW BROTHERS CONSTRUCTION (EARTHWORK)<br>G. DONALDSON CONSTRUCTION (PILE DRIVING) | **File No.** | 30322-030 |

## I. CONTRACTOR'S ACTIVITIES:

**Monday, July 9, 2007 (65 degrees, cloudy at 0600)**

1. Shaw Bros. conducted excavation for the raker blocks east of column line 1 (see Figure 1 and photographs). The raker blocks are part of the support of excavation system being installed to allow for construction of pile caps/grade beams along column line 1. The excavation measure approximately 7 ft wide and 7 ft deep (down to El. 9, approximate) with a CAT 320C excavator outfitted with a smooth bucket attachment. The exposed subgrade consisted of naturally deposited marine clay. The excavated material consisted of in-situ fill and naturally deposited marine clay. The soil was temporarily stockpiled adjacent to the excavations.
2. G. Donaldson began installing rakers for the support of excavation system adjacent to column line 1 (see Figure 1 and photographs). The rakers were welded to the HP14x102 steel H-pile waler previously installed. The rakers consisted of either HP12x53 or HP14x102 steel H-piles with an end bearing plate. The bearing plate consisted of an approximate 12-in. square Champion pile splice welded to the end of the pile to be embedded in concrete.
3. Shaw Bros. placed one lift of granular fill up to subgrade level (ranges from El. 18.6 to El. 20.6) in the area bound by column lines G, H, 1 and 1.9/2.1 (see Figure 1). The granular fill consisted of material imported to the site from Shaw Bros. Dayton Pit (see attached laboratory test results). The material was spread in one approximate 12-in. thick lift (loose measure) with a CAT D5C bulldozer. The lift was compacted with three passes of an Ingersoll Rand SD-77DX smooth drum vibratory roller.
4. Shaw Bros. placed one lift of aggregate subbase in the area bound by column lines G, H, 1 and 1.9/2.1 (see Figure 1). The granular fill consisted of material imported to the site from Shaw Bros. H-Pit. The material was spread in one approximate 12-in. thick lift (loose measure) with a CAT D5C bulldozer. The lift was compacted with three passes of an Ingersoll Rand SD-77DX smooth drum vibratory roller.
5. Shaw Bros. placed granular backfill against pile caps/grade beams in the area bound by column lines F, G, 1 and 1.9/2.1 (see Figure 1). The granular fill consisted of material imported to the site from Shaw Bros. Dayton Pit. The material was spread in one approximate 12-in. thick lift with a CAT 320C excavator and/or hand tools. Each lift was compacted with 5 to 6 passes of a self propelled vibratory plate compactor.

**Tuesday, July 10, 2007 (65 degrees, cloudy at 0615)**

1. Shaw Bros. exported soil generated from the raker block excavations conducted as described under Item No. 1 on Monday. The material was loaded into dump trucks with a CAT 320C excavator and hauled off site.
2. Shaw Bros. excavated for the pile caps located at column lines F-2.8, F-3 and F-3.1 (see Figure 1). Excavations were conducted using a CAT 320C excavator and/or hand tools and were advanced to approximately 3 to 4-in. below the proposed bottom of pile cap elevations. The excavated material typically consisted of in-situ fill or naturally deposited marine clay. The material was loaded into dump trucks and was hauled off site. An approximate 3 to 4-in. thick lift of 1½-in. crushed stone was placed on the exposed subgrade in order to prevent disturbance during placement of concrete forms and reinforcing steel.
3. Shaw Bros. placed granular fill up to subgrade level (ranges from El. 19.3 to El. 22.5) in the area bound by column lines F, G, 1 and 1.9/2.1 (see Figure 1 and photographs). The granular fill consisted of material imported to the site from Shaw Bros. Dayton Pit (see attached laboratory test results). The material was spread in approximate 12-in. thick lifts (loose measure) with a CAT 320C excavator, CAT D5C bulldozer and/or hand tools. Each lift was compacted with 5 to 6 passes of a self-propelled vibratory plate compactor or three passes of an Ingersoll Rand SD-77DX smooth drum vibratory roller.
4. G. Donaldson completed installing rakers for the support of excavation system adjacent to column line 1 (see Figure 1 and photographs). The rakers were welded to the HP14x102 steel H-pile waler previously installed. The rakers consisted of either HP12x53 or HP14x102 steel H-piles with an end bearing plate. The bearing plate

consisted of an approximate 12-in. square Champion pile splice welded to the end of the pile to be embedded in concrete.

5. G. Donaldson poured concrete for raker blocks east of column line 1 (see Figure 1 and photographs). Refer to Contractors Activities, Item No. 1 on Monday for a description.
6. G. Donaldson cutoff piles at design elevations (surveyed by Ledgewood) at column lines F-2.8, F-3 and F-3.1.

**Wednesday, July 11, 2007 (70 degrees, cloudy at 0630)**

1. Shaw Bros. continued importing granular fill to the site from Dayton Pit (see attached for laboratory test results).
2. Shaw Bros. loaded previously cutoff piles into dump trucks and hauled off site.
3. Shaw Bros. conducted excavation for grade beam between column line F-1.9/2.1 and F-2.8 with a CAT 320C excavator (see Figure 1). The area was excavated approximately 4-in. below the proposed bottom of grade beam level (varies from El. 13.4 at column F-2.8 to El. 16.5 at column F-1.9/2.1). The excavated material consisted of in-situ fill soils containing miscellaneous construction debris (metal, concrete, bricks and timbers). The excavated material was loaded into dump trucks and hauled off site. The exposed in-situ fill subgrade was proofrolled with two passes of a self-propelled vibratory plate compactor. An approximate 4-in. thick lift of granular fill imported to the site from Shaw Bros. Dayton Pit (see attached for laboratory test results) was placed on the exposed fill subgrade in order to minimize disturbance during placement of concrete forms and reinforcing steel. The lift of granular fill was compacted with 2 passes of a self-propelled vibratory plate compactor.
4. Shaw Bros. conducted excavation for grade beams between columns E-3 and F-3 and between columns D-1.9/2.1 and E-1.9/2.1 with a CAT 320C excavator (see Figure 1). The area was excavated approximately 3-in. below the proposed bottom of grade beam level. The excavated material consisted of in-situ fill soils which were loaded into dump trucks and hauled off site. An approximate 3-in. thick lift of 1½-in. crushed stone was placed on the exposed fill subgrade in order to minimize disturbance during placement of concrete forms and reinforcing steel.
5. Shaw Bros. began excavating for the pile cap located at column D-1.9/2.1 with a CAT 320C excavator. The excavated material consisted of in-situ fill and naturally deposited marine clay. The soil was loaded into dump trucks and hauled off site.
6. Shaw Bros. provided a "box-out" for the underslab drain running west of column F-3 (see Figure 1) with invert elevation at El. 12.67.

**Thursday, July 12, 2007 (70 degrees, partly cloudy at 0630)**

1. Shaw Bros. continued importing granular fill to the site from Dayton Pit (see attached for laboratory test results).
2. Shaw Bros. completed excavation for the pile cap located at column D-1.9/2.1 with a CAT 320C excavator (see Figure 1). The excavated material consisted of in-situ fill and naturally deposited marine clay. The soil was loaded into dump trucks and was hauled off site.
3. Shaw Bros. spread granular fill in the area bound by column lines E, F, 1 and 1.9/2.1 with a CAT D5C bulldozer (see Figure 1 and photographs). The granular fill consisted of material imported to the site from Shaw Bros. Dayton Pit (see attached for laboratory test results). The material was spread approximate 12-in. thick lifts (loose measure) and compacted with 4 to 5 passes of an Ingersoll Rand SD-77DX smooth drum vibratory roller. Water was added to the fill to aid in compaction.
4. Shaw Bros. spread granular fill in the area bound by column lines F, G, 1 and 1.9/2.1 with a CAT D5C bulldozer (see Figure 1). The granular fill consisted of material imported to the site from Shaw Bros. Dayton Pit (see attached for laboratory test results). The material was spread approximate 12-in. thick lifts (loose measure) and compacted with 4 to 5 passes of an Ingersoll Rand SD-77DX smooth drum vibratory roller. Water was added to the fill to aid in compaction.

**Friday, July 13, 2007 (70 degrees, clear at 0600)**

1. Delivery of steel reinforcement for pile caps/grade beams.
2. Shaw Bros. continued importing granular fill to the site from Dayton Pit (see attached for laboratory test results).
3. Shaw Bros. completed excavations for pile caps at the following column locations: C-1, D-1, D-2.8, D-3, D-3.1, E-2.8, E-3 and E-3.1 (see Figure 1). Excavations were conducted using a CAT 320C excavator and/or hand tools and were advanced to approximately 3 to 4-in. below the proposed bottom of pile cap elevations. The excavated material typically consisted of in-situ fill or naturally deposited marine clay. The material was loaded into dump trucks and was hauled off site. An approximate 3 to 4-in. thick lift of 1½-in. crushed stone was placed on the exposed subgrade in order to prevent disturbance during placement of concrete forms and reinforcing steel.
4. Ledgewood established survey points along the top of the support of excavation system west of column line 1, adjacent to the Micucci property. One survey point, consisting of a "punch mark", was made at each of the five raker locations shown on Figure 1. The steel sheet-piling was spray painted at each location.
5. Shaw Bros. adjusted the invert elevation of the "box-out" for the underslab drain running beneath the grade beam immediately west of the pile cap located at column F-3. The "box-out" was disturbed during placement of pile cap/grade beam reinforcing steel. Crushed stone was removed using hand tools so that the invert of the drain pipe that would eventually run through the box-out could be installed at El. 12.67.
6. Shaw Bros. spread granular fill in the area bound by column lines E, F, 1 and 1.9/2.1 with a CAT D5C bulldozer (see Figure 1 and photographs). The granular fill consisted of material imported to the site from Shaw Bros. Dayton Pit (see attached for laboratory test results). The material was spread approximate 12-in. thick lifts (loose measure) and compacted with 4 to 5 passes of an Ingersoll Rand SD-77DX smooth drum vibratory roller. Water was added to the fill to aid in compaction.
7. Shaw Bros. spread one lift of aggregate subbase in the area bound by column lines F, G, 1 and 1.9/2.1 with a CAT D5C bulldozer (see Figure 1). The subbase aggregate consisted of material imported to the site from Shaw Bros. H-Pit. The material was spread in one approximate 12-in. thick lift (loose measure) and compacted with 4 to 5 passes of an Ingersoll Rand SD-77DX smooth drum vibratory roller.

## II. FIELD REPRESENTATIVES ACTIVITIES:

**General**

1. Haley & Aldrich Field Representative performed full-time monitoring of construction activities from Monday, July 9 through Friday, July 13 and documented the activities noted above and shown on the attached figure(s).
2. Discussed activities daily with contractors (Ledgewood and Shaw Bros.).
3. Took digital photographs of construction activities. Select photographs are provided in the attachment, additional photographs can be provided under separate transmittal upon request.

**Monday, July 9, 2007**

1. Field Representative collected one sample of granular material imported to the site from Shaw Bros. Dayton Pit for gradation and modified proctor compaction tests. The samples were transported to R.W. Gillespie Associates (RWG) in Saco, Maine for analyses. Shaw Bros. proposed use of the material as granular fill per the project specifications. Results of the tests are provided in the attachment.
2. Field Representative spoke with Steve Pitts (Ledgewood) regarding the support of excavation system being installed west of column line 1. Field Representative asked whether additional design information requested by Haley & Aldrich through the submittal process had been provided by Geoscience Testing and Research (GTR) on behalf of G. Donaldson. Mr. Pitts indicated that he had not received any information yet. Mr. Pitts called and left a message for Leo Hart (GTR) inquiring about the status of the re-submission. Field Representative informed

Mr. Pitts that no additional installation work or excavation should take place in the area until the re-submission is received and reviewed by Haley & Aldrich. Field Representative informed Mr. Pitts that if work does take place, G. Donaldson will be proceeding at their own risk.

4. Field Representative spoke with John Fairweather (Shaw Bros.) regarding submittal for the type of drainage board proposed for the exterior foundation wall along column line 1, from column line A to column line D and the interior foundation wall along column line D from column line 1 to column line 1.9/2.1. Mr. Fairweather indicated that he will check with the Shaw Bros. project manager and get back to me. Mr. Fairweather suggested that it is most likely what was recommended in the project specifications.
5. Field Representative spoke with John Fairweather (Shaw Bros.) regarding the differing pavement section thickness (18-in. vs. 26-in.). Mr. Fairweather indicated that it was his understanding that Shaw Bros. bid the job based on the 18-in. thick pavement section recommended in the geotechnical report. Field Representative explained to Mr. Fairweather that the only pavement section detail provided on the construction drawings shows a 26-in. thick section. Mr. Fairweather asked why there was a difference between the two details. Field Representative explained that other factors are considered in addition to the recommendations made in the geotechnical report prior to finalizing the section shown on the drawings. Field Representative also explained to Mr. Fairweather that the drawings and specifications always supersede the recommendations that are provided in the geotechnical report.
6. Field Representative spoke with Wayne Chadbourne (Haley & Aldrich) regarding the issue of differing pavement section thicknesses explained above. Mr. Chadbourne suggested that Field Representative speak with Dave Senus (Woodard & Curran) to see if there are City of Portland standards that need to be adhered to. Mr. Chadbourne explained that he felt comfortable with proceeding with the thinner pavement section in the interior of the garage, however, the entrance roadways off of Middle and Fore Streets and the alleyway south of column line A should be built using the 26-in. thick pavement section shown on the drawings. Field Representative spoke with Mr. Senus regarding any City of Portland standards. Mr. Senus explained that the 26-in. thick pavement section is a City standard and is required within the City right-of-way. However, Mr. Senus felt that since we were clearly not within City right-of-way the standard could be waived in favor of the thinner section already in place in a portion of the garage. Field Representative spoke with Mr. Chadbourne and informed him of the conversation with Mr. Senus.
7. Mr. Chadbourne spoke with Field Representative and informed him that he had spoken with Drew Swenson (Riverwalk, LLC.), Rich Libardoni (Intercontinental) and Dave Senus (Woodard & Curran) about the differing pavement section thicknesses. Mr. Chadbourne instructed Field Representative that based on his discussion, to inform Bob Parsons (Ledgewood) and Mr. Fairweather (Shaw Bros.) that they could proceed with using the 18-in. thick pavement section inside of the garage and the 26-in. thick pavement section outside (entrance roadway and alleyway) of the garage. Haley & Aldrich and Woodard & Curran will provided a site plan and pavement section details to Shaw Bros. for clarification.
8. Field Representative observed placement of compacted granular fill and aggregate subbase in the northwest corner of the garage as shown on Figure 1. Fill material consisted of imported granular soil from Shaw Bros. Dayton Pit (granular fill) and H-Pit (aggregate subbase). Field Representative used a Humboldt 5001EZ nuclear density gauge to monitor relative compaction during fill placement. The granular fill and aggregate subbase appeared stable under the compactive effort of a self propelled vibratory plate compactor and/or an Ingersoll Rand SD-77DX smooth drum vibratory roller. In-situ density tests indicated the fill material met the minimum compaction specifications (see Table 1, test nos. 7-16 for results and Figure 1 for density test locations).

**Tuesday, July 10, 2007**

1. Field Representative spoke with John Fairweather (Shaw Bros.) and Bob Parsons (Ledgewood) regarding the pavement section thickness. Field Representative informed both that the total pavement section thickness inside of the garage is 18-in. (12-in. subbase, 3-in. base, 3-in. bituminous concrete) and the total pavement section

thickness for the entrance roadways off of Middle Street and Fore Street and the alleyway south of column line A is 26-in. (18-in. subbase, 3-in. base, 5-in. bituminous concrete).

2. Field Representative spoke with John Fairweather (Shaw Bros.) regarding the schedule for completing excavations for pile caps/grade beams along column line 1, from column line A to column line D (in front of the support of excavation system). Mr. Fairweather indicated that he was planning on beginning the excavation on Wednesday, July 11.
3. Field Representative spoke with Bob Parsons and Steve Pitts (Ledgewood) regarding the support of excavation system being installed west of column line 1. Field Representative asked whether additional design information requested by Haley & Aldrich through the submittal process had been provided by Geoscience Testing and Research (GTR) on behalf of G. Donaldson. Mr. Parsons and Mr. Pitts indicated that he had not received any information yet. Field Representative informed Mr. Parsons and Mr. Pitts that G. Donaldson are proceeding at their own risk.
4. Measured and recorded pile cutoff lengths.

**Thursday, July 12, 2007**

1. Field Representative observed placement of compacted granular fill in the area described under Item No. 5 on Monday. Fill material consisted of imported granular soil from Shaw Bros. Dayton Pit. Field Representative used a Humboldt 5001EZ nuclear density gauge to monitor relative compaction during fill placement. The granular fill appeared stable under the compactive effort of a self propelled vibratory plate compactor and/or an Ingersoll Rand SD-77DX smooth drum vibratory roller. In-situ density tests indicated the fill material met the minimum compaction specifications (see Table 1, test nos. 31-34 for results and Figure 1 for density test locations).
2. Field Representative observed placement of compacted granular fill in the area described under Item No. 3 on Thursday. Fill material consisted of imported granular soil from Shaw Bros. Dayton Pit. Field Representative used a Humboldt 5001EZ nuclear density gauge to monitor relative compaction during fill placement. The granular fill appeared stable under the compactive effort of a self propelled vibratory plate compactor and/or an Ingersoll Rand SD-77DX smooth drum vibratory roller. In-situ density tests indicated the fill material met the minimum compaction specifications (see Table 1, test nos. 23-30 for results and Figure 1 for density test locations).
3. Field Representative spoke with Wayne Chadbourne (Haley & Aldrich) regarding the support of excavation system being installed west of column line 1. Mr. Chadbourne indicated that he had spoken with Leo Hart (GTR) regarding the outstanding information requested by Haley & Aldrich through the submittal process. Mr. Chadbourne instructed Field Representative to give verbal authorization to Ledgewood and Shaw Bros. to proceed with excavation. Based on the discussion with Mr. Hart, Mr. Chadbourne also instructed Field Representative to inform Ledgewood that survey points need to be established along the top of the steel sheet piles and periodic survey of the points should be performed as part of the design as required by Mr. Hart. Survey of the points will be used to confirm that any lateral movements are within tolerable limits as outlined in the project specifications. Field Representative spoke with Bob Parsons (Ledgewood) about the survey points. Mr. Parsons said that the survey points will be in place on Friday (7/13) morning.

**Friday, July 13, 2007**

1. Field Representative observed placement of compacted granular fill and aggregate subbase in the northwest corner of the garage as described under Item Nos. 6 and 7 on Friday. Fill material consisted of imported granular soil from Shaw Bros. Dayton Pit (granular fill) and H-Pit (aggregate subbase). Field Representative used a Humboldt 5001EZ nuclear density gauge to monitor relative compaction during fill placement. The granular fill and aggregate subbase appeared stable under the compactive effort of a self propelled vibratory plate compactor

and/or an Ingersoll Rand SD-77DX smooth drum vibratory roller. In-situ density tests indicated the fill material met the minimum compaction specifications (see Table 1, test nos. 35-43 for results and Figure 1 for density test locations).

**ATTACHMENTS:**

1. Foundation Plan (Figure 1)
2. Weekly Summary Field Unit Weight Test (2 pages)
3. Laboratory Test Results (2 pages)
4. Photograph Summary (3 pages)

| **Field Representative(s)** | **Total Weekly Time** |
|---|---|
| B. Steinert | 47.75 |

**Distribution:** Drew Swenson, Riverwalk, LLC. (email)
Rich Libardoni, Intercontinental Real Estate Co. (email and hardcopy)
Stephen Fraser, Scott Simons Architects (email)
Steve Pitts & Bob Parsons, Ledgewood Construction (email)
Alan Simon, Simon Design Engineering, LLC. (email)

Haley & Aldrich, Inc.

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APPROXIMATE LOCATION OF STEEL SHEET-PILING

APPROXIMATE LOCATION OF INTERNAL RAKERS (TYP.)

HP14x102

HP12x53

HP12x53

HP14x102

HP14x102

1'-0" DIA x 4'-6" DEEP SONO TUBE W/ (3) #9 VERT BARS AND #4@12" OC TIES (TYP)

INDICATOR PILE

TOW [19.00']

1'-6" SQ SUMP PIT

PIT FOR LIFT

ELEVATOR PIT

TO BE TIED INTO COMBINED SEWER MANHOLE (SEE CIVIL DWGS)

TO BE TIED INTO COMBINED SEWER MANHOLE (SEE CIVIL DWGS)

APPROXIMATE LOCATION OF "BOX-OUT"

PLAN NORTH

APPROXIMATE EXTENT OF PLACEMENT OF GRANULAR FILL AND/OR AGGREGATE SUBBASE

APPROXIMATE LIMIT OF EXCAVATION AND DATE OF COMPLETION

● 10 DESIGNATION AND APPROXIMATE LOCATION OF IN-SITU DENSITY TEST

FOUNDATION PLAN
3/32"=1'-0"

HALEY & ALDRICH

OCEAN GATEWAY PARKING GARAGE
MIDDLE STREET
PORTLAND, MAINE

FOUNDATION PLAN (SHEET NO. S1.00)
WEEKLY FIELD REPORT NO.: 8

SCALE: AS SHOWN
APRIL 2007

FIGURE 1

S:\30322\2007_0124 - CURRENT RES. FIG 2\2007_0322_BCS_CONMONPLANS.DWG

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# WEEKLY SUMMARY
# FIELD UNIT WEIGHT TEST



| | | | |
|---|---|---|---|
| **PROJECT** | OCEAN GATEWAY PARKING GARAGE | **H&A FILE NO.** | 30322-030 |
| **LOCATION** | PORTLAND, MAINE | **PROJECT MGR.** | W. CHADBOURNE |
| **CLIENT** | RIVERWALK, LLC. | **FIELD REP** | B. STEINERT |
| **GEN. CONTRACTOR** | LEDGEWOOD CONSTRUCTION | **DATE** | 07/14/07 |
| **SUBCONTRACTOR** | SHAW BROTHERS CONSTRUCTION | **WFR NUMBER** | 8 |

**Gage:**
Make: Humboldt Scientific, Inc. Model 5001 EZ122 Serial Number: 3289 Calibration Date: 04/05/06

| Test No. | Location | Elevation (ft) | Depth Of Test (in) | Maximum Dry Unit Weight[(a)] (pcf) | Optimum Moisture Content (%) | In-place Dry Unit Weight (pcf) | In-place Moisture Content (%) | Compaction | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Actual (%) | Required (%) | |
| 7 | see Figure 2 | 18.0 | 12 | 121.6 | 7.9 | 117.7 | 3.2 | 97% | 95% | 7/9/2007 |
| 8 | see Figure 2 | 19.0 | 12 | 121.6 | 7.9 | 118.7 | 3.1 | 98% | 95% | 7/9/2007 |
| 9 | see Figure 2 | 20.5 | 12 | 121.6 | 7.9 | 116.0 | 2.8 | 95% | 95% | 7/9/2007 |
| 10 | see Figure 2 | 21.0 | 12 | 121.6 | 7.9 | 116.1 | 2.7 | 95% | 95% | 7/9/2007 |
| 11 | | | | | | | | | | test not taken |
| 12 | see Figure 2 | 19.0 | 12 | 134.9 | 6.7 | 128.2 | 8.3 | 95% | 95% | 7/9/2007 |
| 13 | see Figure 2 | 19.0 | 12 | 134.9 | 6.7 | 127.5 | 8.0 | 95% | 95% | 7/9/2007 |
| 14 | see Figure 2 | 20.0 | 12 | 134.9 | 6.7 | 132.4 | 5.6 | 98% | 95% | 7/9/2007 |
| 15 | see Figure 2 | 21.0 | 12 | 121.6 | 7.9 | 115.7 | 8.2 | 95% | 95% | 7/9/2007 |
| 16 | see Figure 2 | 19.0 | 12 | 121.6 | 7.9 | 122.9 | 10.3 | 101% | 95% | 7/9/2007 |
| 17 | see Figure 2 | 16.5 | 12 | 121.6 | 7.9 | 115.2 | 6.6 | 95% | 95% | 7/10/2007 |
| 18 | see Figure 2 | 18.0 | 12 | 121.6 | 7.9 | 118.4 | 9.7 | 97% | 95% | 7/10/2007 |
| 19 | see Figure 2 | 18.5 | 12 | 121.6 | 7.9 | 124.6 | 8.9 | 102% | 95% | 7/10/2007 |
| 20 | see Figure 2 | 19.0 | 12 | 121.6 | 7.9 | 115.4 | 7.9 | 95% | 95% | 7/10/2007 |
| 21 | see Figure 2 | 21.0 | 12 | 121.6 | 7.9 | 121.2 | 6.0 | 100% | 95% | 7/10/2007 |
| 22 | see Figure 2 | 21.0 | 12 | 121.6 | 7.9 | 115.3 | 8.6 | 95% | 95% | 7/10/2007 |
| 23 | see Figure 2 | 19.5 | 12 | 121.6 | 7.9 | 120.7 | 11.2 | 99% | 95% | 7/12/2007 |
| 24 | see Figure 2 | 19.0 | 12 | 121.6 | 7.9 | 123.4 | 9.0 | 101% | 95% | 7/12/2007 |
| 25 | see Figure 2 | 23.0 | 12 | 121.6 | 7.9 | 115.4 | 7.0 | 95% | 95% | 7/12/2007 |
| 26 | see Figure 2 | 21.0 | 12 | 121.6 | 7.9 | 119.0 | 6.3 | 98% | 95% | 7/12/2007 |
| 27 | see Figure 2 | 16.0 | 10 | 121.6 | 7.9 | 116.0 | 4.3 | 95% | 95% | 7/12/2007 |
| 28 | see Figure 2 | 16.0 | 10 | 121.6 | 7.9 | 116.1 | 6.7 | 95% | 95% | 7/12/2007 |
| 29 | see Figure 2 | 18.0 | 12 | 121.6 | 7.9 | 119.7 | 4.7 | 98% | 95% | 7/12/2007 |
| 30 | see Figure 2 | 22.5 | 12 | 121.6 | 7.9 | 116.9 | 3.9 | 96% | 95% | 7/12/2007 |
| 31 | see Figure 2 | 19.0 | 12 | 121.6 | 7.9 | 116.8 | 6.9 | 96% | 95% | 7/12/2007 |
| 32 | see Figure 2 | 20.5 | 12 | 121.6 | 7.9 | 119.4 | 9.7 | 98% | 95% | 7/12/2007 |
| 33 | see Figure 2 | 22.0 | 12 | 121.6 | 7.9 | 115.1 | 3.9 | 95% | 95% | 7/12/2007 |
| 34 | see Figure 2 | 20.5 | 12 | 121.6 | 7.9 | 115.8 | 4.6 | 95% | 95% | 7/12/2007 |
| 35 | see Figure 2 | 19.5 | 12 | 121.6 | 7.9 | 116.2 | 7.0 | 96% | 95% | 7/13/2007 |
| 36 | see Figure 2 | 19.5 | 12 | 121.6 | 7.9 | 117.4 | 5.4 | 97% | 95% | 7/13/2007 |
| 37 | see Figure 2 | 19.5 | 12 | 121.6 | 7.9 | 116.6 | 5.5 | 96% | 95% | 7/13/2007 |
| 38 | see Figure 2 | 19.5 | 12 | 121.6 | 7.9 | 115.1 | 5.9 | 95% | 95% | 7/13/2007 |

Additional Remarks:
(a) Maximum dry unit weight represents the laboratory test value corrected for +3/4 material (ASTM ☑ D1557 ☐ D698)

Haley & Aldrich, Inc.

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# WEEKLY SUMMARY
# FIELD UNIT WEIGHT TEST



| | | | |
|---|---|---|---|
| **PROJECT** | OCEAN GATEWAY PARKING GARAGE | **H&A FILE NO.** | 30322-030 |
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| **CLIENT** | RIVERWALK, LLC. | **FIELD REP** | B. STEINERT |
| **GEN. CONTRACTOR** | LEDGEWOOD CONSTRUCTION | **DATE** | 07/14/07 |
| **SUBCONTRACTOR** | SHAW BROTHERS CONSTRUCTION | **WFR NUMBER** | 8 |

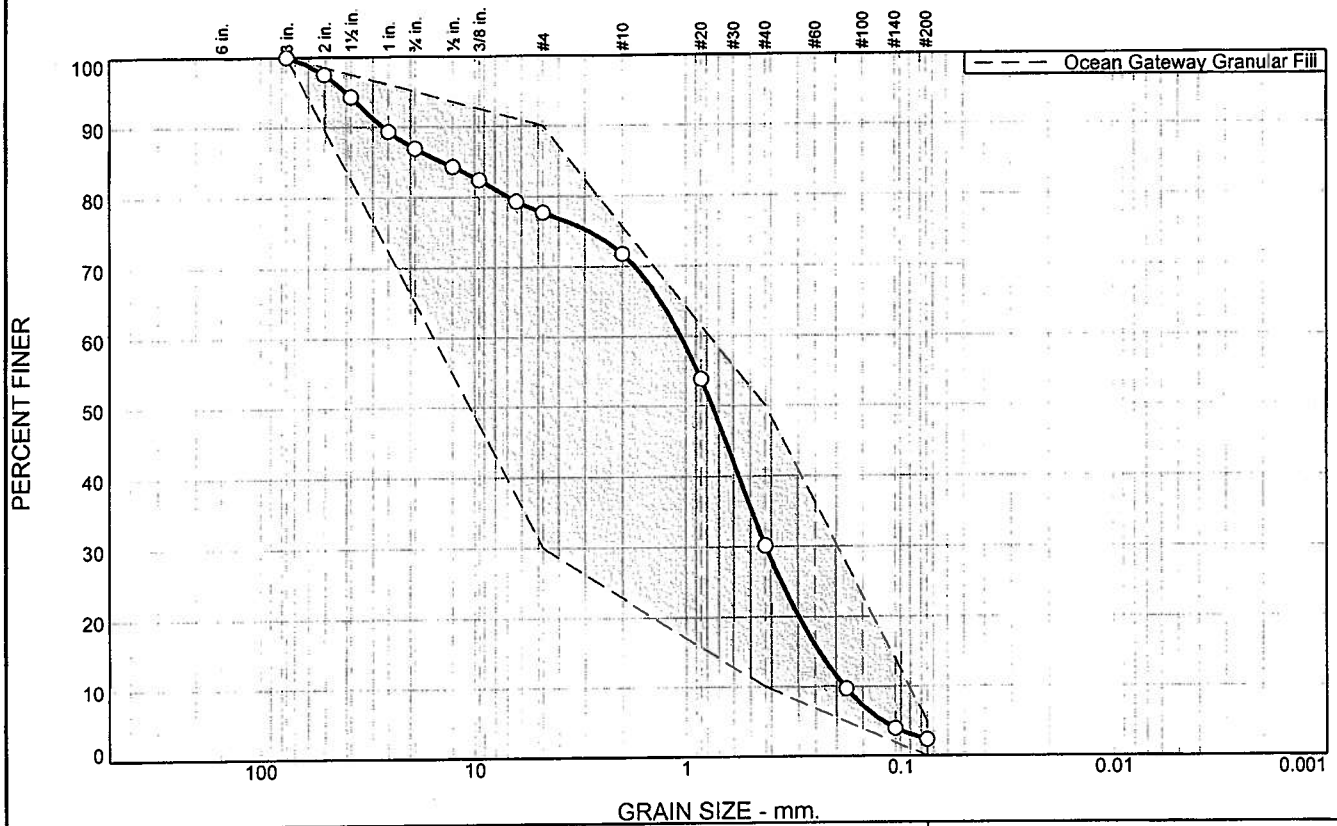
**Gage:**
Make: Humboldt Scientific, Inc. Model 5001 EZ122 Serial Number: 3289 Calibration Date: 04/05/06

| Test No. | Location | Elevation (ft) | Depth Of Test (in) | Maximum Dry Unit Weight[(a)] (pcf) | Optimum Moisture Content (%) | In-place Dry Unit Weight (pcf) | In-place Moisture Content (%) | Compaction | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Actual (%) | Required (%) | |
| 39 | see Figure 2 | 20.5 | 12 | 121.6 | 7.9 | 119.0 | 6.0 | 98% | 95% | 7/13/2007 |
| 40 | see Figure 2 | 20.5 | 12 | 121.6 | 7.9 | 114.8 | 5.2 | 94% | 95% | 7/13/2007 |
| 41 | see Figure 2 | 21.5 | 12 | 121.6 | 7.9 | 116.8 | 4.4 | 96% | 95% | 7/13/2007 |
| 42 | see Figure 2 | 21.5 | 12 | 121.6 | 7.9 | 116.5 | 4.2 | 96% | 95% | 7/13/2007 |
| 43 | see Figure 2 | 22.5 | 12 | 121.6 | 7.9 | 122.7 | 2.8 | 100.9% | 95% | 7/13/2007 |

Additional Remarks:
(a) Maximum dry unit weight represents the laboratory test value corrected for +3/4 material (ASTM ☑ D1557 ☐ D698)

Haley & Aldrich, Inc.

# Particle Size Distribution Report




| % +3" | % Gravel | | % Sand | | | % Fines | |
|---|---|---|---|---|---|---|---|
| | Coarse | Fine | Coarse | Medium | Fine | Silt | Clay |
| 0.0 | 13.1 | 9.2 | 5.9 | 41.7 | 27.8 | 2.3 | |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | PASS? (X=NO) |
|---|---|---|---|
| 3" | 100.0 | 100.0 - 100.0 | |
| 2" | 97.5 | | |
| 1 1/2" | 94.3 | | |
| 1" | 89.3 | | |
| 3/4" | 86.9 | | |
| 1/2" | 84.3 | | |
| 3/8" | 82.4 | | |
| 1/4" | 79.3 | | |
| #4 | 77.7 | 30.0 - 90.0 | |
| #10 | 71.8 | | |
| #20 | 53.8 | | |
| #40 | 30.1 | 10.0 - 50.0 | |
| #80 | 9.7 | | |
| #140 | 3.9 | | |
| #200 | 2.3 | 0.0 - 5.0 | |

* Ocean Gateway Granular Fill

**Soil Description**

Granular Fill -poorly graded sand with gravel

**Atterberg Limits**

PL= LL= PI=

**Coefficients**

$D_{85}$= 14.2720 $D_{60}$= 1.0580 $D_{50}$= 0.7542
$D_{30}$= 0.4235 $D_{15}$= 0.2410 $D_{10}$= 0.1838
$C_u$= 5.76 $C_c$= 0.92

**Classification**

USCS= SP AASHTO=

**Remarks**

Moisture content: 5.5%

**Sample No.:** S-3 **Source of Sample:** Shaw Bros. - Dayton Pit **Date:** 7/10/07
**Location:** Stockpile **Elev./Depth:**

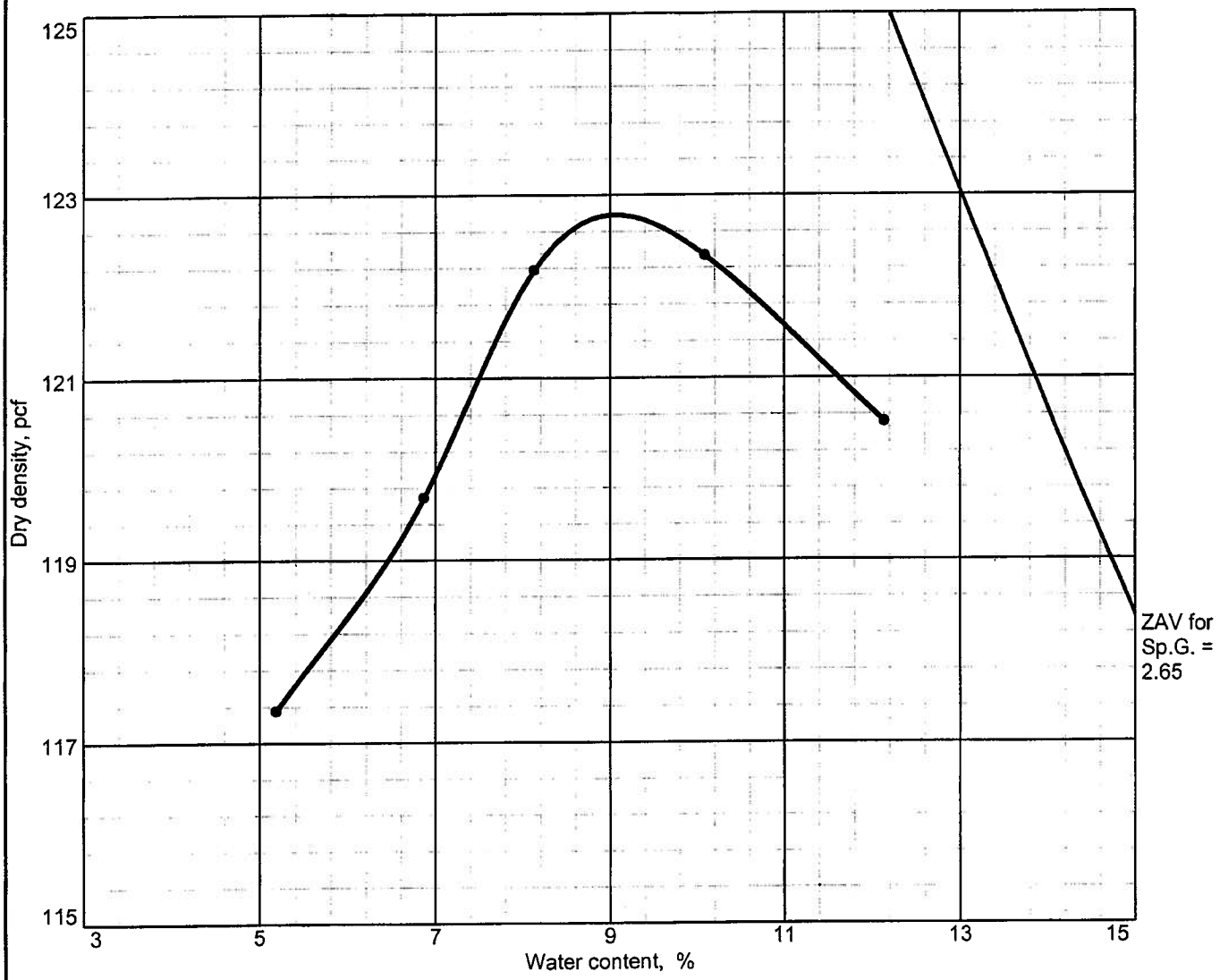
**R.W. Gillespie & Associates, Inc.**
**Saco, Maine**

**Client:** Haley & Aldrich, Inc.
**Project:** Ocean Gateway Parking Garage
**Project No:** 956-06 **Lab #** 9530

DCH

**Tested By:** JTR **Checked By:** DCH

# Moisture-Density Test Report




Test specification: ASTM D 1557-00 Method B Modified
Oversize correction applied to each point

| Elev/ Depth | Classification | | Nat. Moist. | Sp.G. | LL | PI | % > 3/8 in. | % < No.200 |
|---|---|---|---|---|---|---|---|---|
| | USCS | AASHTO | | | | | | |
| | SP | | 5.5% | | | | 17.6 | 2.3 |

| ROCK CORRECTED TEST RESULTS | MATERIAL DESCRIPTION |
|---|---|
| Maximum dry density = 122.8 pcf<br>Optimum moisture = 9.1 % | Granular Fill -poorly graded sand with gravel |

**Project No.** 956-06 **Client:** Haley & Aldrich, Inc.
**Project:** Ocean Gateway Parking Garage

● **Location:** Stockpile — Shevy Bros. Dayton Pit

**R.W. Gillespie & Associates, Inc.**
**Saco, Maine**

**Remarks:**
Tested by: MAO

DCM

**Lab #** 9530

*Photograph 1. Excavation of raker blocks for the support of excavation system along column line 1, looking west (7/9/07).*

*Photograph 2. Installation of rakers for the support of excavation system along column line 1, looking west (7/10/07).*

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*Photograph 3. Pouring concrete for raker blocks east of column line 1 with bearing plate visible on the end of the raker, looking south (7/10/07).*

*Photograph 4. Spreading lifts of granular fill in the northwest building corner, looking east (7/10/07).*

*Photograph 5. Spreading a lift of granular fill in the northwest building corner and adding water for compaction, looking south (7/12/07)..*

*Photograph 6. Spreading a lift of granular fill in the northwest building corner with a CAT D5C bulldozer, looking west (7/13/07).*

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