# PILE SCHEDULE

## PIER A

| LOCATION | | BATTER | PILE DIAMETER (IN) | WALL THICKNESS (IN) | PILE TIP | PILE LENGTH (FT) | UNCOATED LENGTH (FT) | ULTIMATE PILE CAPACITY TENSION (KIPS) | ULTIMATE PILE CAPACITY COMPRESSION (KIPS) |
|---|---|---|---|---|---|---|---|---|---|
| DOCK PILES | A3.1 | VERTICAL | 24 | 0.500 | SPIN FIN W/ OPEN SHOE | 180 | 60 | 300 | 800 |
| | A3.1B | 5 TO 12 | 16 | 0.375 | SPIN FIN W/ OPEN SHOE | 200 | 60 | 200 | 200 |
| | A4.5 | VERTICAL | 24 | 0.500 | OPEN SHOE | 200 | 60 | -- | 700 |
| | A7.0 | VERTICAL | 24 | 0.500 | OPEN SHOE | 200 | 60 | -- | 700 |
| | A9.1 | VERTICAL | 24 | 0.500 | OPEN SHOE | 200 | 60 | -- | 600 |
| | A12.3 | VERTICAL | 24 | 0.500 | OPEN SHOE | 200 | 60 | -- | 400 |
| | C3.1 | VERTICAL | 24 | 0.500 | SPIN FIN W/ OPEN SHOE | 180 | 60 | 200 | 1200 |
| | C3.1B | 5 TO 12 | 16 | 0.375 | SPIN FIN W/ OPEN SHOE | 200 | 60 | 200 | 200 |
| | C4.5 | VERTICAL | 24 | 0.500 | OPEN SHOE | 200 | 60 | -- | 1100 |
| | C7.0 | VERTICAL | 24 | 0.500 | OPEN SHOE | 200 | 60 | -- | 1000 |
| | C9.1 | VERTICAL | 24 | 0.500 | OPEN SHOE | 200 | 60 | -- | 1000 |
| | C12.3 | VERTICAL | 24 | 0.500 | OPEN SHOE | 200 | 60 | -- | 600 |
| | D3.1 | VERTICAL | 24 | 0.500 | SPIN FIN W/ OPEN SHOE | 180 | 60 | 100 | 1300 |
| | D3.1B | 5 TO 12 | 16 | 0.375 | SPIN FIN W/ OPEN SHOE | 180 | 60 | 200 | 200 |
| | D4.5 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 1000 |
| | D7.0 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 1000 |
| | D9.1 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 1000 |
| | D12.3 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 600 |
| | E3.1 | VERTICAL | 24 | 0.500 | SPIN FIN W/ OPEN SHOE | 160 | 60 | 100 | 1300 |
| | E3.1B | 5 TO 12 | 16 | 0.375 | SPIN FIN W/ OPEN SHOE | 180 | 60 | 200 | 200 |
| | E4.5 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 1100 |
| | E7.0 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 1000 |
| | E9.1 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 1100 |
| | E12.3 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 700 |
| | F3.1 | VERTICAL | 24 | 0.500 | SPIN FIN W/ OPEN SHOE | 160 | 60 | 100 | 1300 |
| | F3.1B | 5 TO 12 | 16 | 0.375 | SPIN FIN W/ OPEN SHOE | 160 | 60 | 200 | 200 |
| | F4.5 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 1100 |
| | F7.0 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 1100 |
| | F9.1 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 1200 |
| | F12.3 | VERTICAL | 24 | 0.500 | OPEN SHOE | 180 | 60 | -- | 700 |
| | G3.1 | VERTICAL | 24 | 0.500 | SPIN FIN W/ OPEN SHOE | 140 | 40 | 200 | 1000 |
| | G3.1B | 5 TO 12 | 16 | 0.375 | SPIN FIN W/ OPEN SHOE | 160 | 40 | 200 | 200 |
| | G4.5 | VERTICAL | 24 | 0.500 | SPIN FIN W/ OPEN SHOE | 140 | 40 | 200 | 1200 |
| | G4.5B | 5 TO 12 | 16 | 0.375 | SPIN FIN W/ OPEN SHOE | 160 | 40 | 200 | 200 |
| | G7.0 | VERTICAL | 24 | 0.500 | SPIN FIN W/ OPEN SHOE | 140 | 40 | 100 | 1300 |
| | G7.0B | 5 TO 12 | 16 | 0.375 | SPIN FIN W/ OPEN SHOE | 160 | 40 | 200 | 200 |
| | G9.1 | VERTICAL | 24 | 0.500 | SPIN FIN W/ OPEN SHOE | 140 | 40 | 100 | 1200 |
| | G9.1B | 5 TO 12 | 16 | 0.375 | SPIN FIN W/ OPEN SHOE | 160 | 40 | 200 | 200 |
| | G12.3 | VERTICAL | 24 | 0.500 | SPIN FIN W/ OPEN SHOE | 140 | 40 | 300 | 900 |
| | G12.3B | 5 TO 12 | 16 | 0.375 | SPIN FIN W/ OPEN SHOE | 160 | 40 | 200 | 200 |

IN ADDITION TO THE PILE LENGTHS STATED ABOVE THE FOLLOWNG NUMBER OF PILES SHALL BE SUPPLIED THAT ARE COATED AND MATCH THE PILE SPECIFICATIONS:
(10) 20 FOOT LENGTHS OF 24"ø x 0.500"t PIPE

## PIER 2 FENDERS

| LOCATION | | BATTER | PILE DIAMETER (IN) | WALL THICKNESS (IN) | PILE TIP | PILE LENGTH (FT) | UNCOATED LENGTH (FT) | ULTIMATE PILE CAPACITY TENSION (KIPS) | ULTIMATE PILE CAPACITY COMPRESSION (KIPS) |
|---|---|---|---|---|---|---|---|---|---|
| PIER 2 FENDERS | F1 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F2 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F3 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F4 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F5 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F6 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F7 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F8 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F9 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F10 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F11 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F12 | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| PIER 2 FENDERS ALTERNATE No. 10 | F1a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F2a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F3a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F4a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F5a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F6a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F7a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F8a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F9a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F10a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |
| | F11a | VERTICAL | 30 | 0.375 | FLAT PLATE | 100 | 20 | --- | 100 |

## RO-RO RAMP

| LOCATION | | BATTER | PILE DIAMETER (IN) | WALL THICKNESS (IN) | PILE TIP | PILE LENGTH (FT) | UNCOATED LENGTH (FT) | ULTIMATE PILE CAPACITY TENSION (KIPS) | ULTIMATE PILE CAPACITY COMPRESSION (KIPS) |
|---|---|---|---|---|---|---|---|---|---|
| FLOAT PILES | RF1 | VERTICAL | 24 | 0.500 | OPEN SHOE | 160 | 40 | --- | 200 |
| | RF2 | VERTICAL | 24 | 0.500 | OPEN SHOE | 160 | 40 | --- | 200 |
| | RF3 | VERTICAL | 24 | 0.500 | OPEN SHOE | 160 | 40 | --- | 200 |
| | RF4 | VERTICAL | 24 | 0.500 | OPEN SHOE | 160 | 40 | --- | 200 |
| APPROACH DOCK PILES | R1 | VERTICAL | 16 | 0.375 | OPEN SHOE | 140 | 40 | --- | 200 |
| | R2A | 3 TO 12 | 16 | 0.375 | OPEN SHOE | 140 | 40 | 150 | 250 |
| | R2B | 3 TO 12 | 16 | 0.375 | OPEN SHOE | 140 | 40 | 150 | 250 |
| | R3 | VERTICAL | 16 | 0.375 | OPEN SHOE | 140 | 40 | --- | 200 |
| | R4 | VERTICAL | 16 | 0.375 | OPEN SHOE | 140 | 40 | --- | 250 |
| | R5 | VERTICAL | 16 | 0.375 | OPEN SHOE | 140 | 40 | --- | 250 |
| | R6 | VERTICAL | 16 | 0.375 | OPEN SHOE | 140 | 40 | --- | 250 |
| | R7 | VERTICAL | 16 | 0.375 | OPEN SHOE | 140 | 40 | --- | 250 |


811 First Avenue, Suite 570
Seattle, Washington 98104
Phone: (206) 624-1387
Fax: (206) 624-1388
E-Mail: mail@pndsea.com
PND CONSULTING ENGINEERS Incorporated


STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER 009215.00

PIN 009215.00

STATE OF MAINE ★ DAVID M. PIERCE 9437 REGISTERED PROFESSIONAL ENGINEER

| | SIGNATURE | P.E. NUMBER | DATE |
|---|---|---|---|
| | | 9437 | 11/2/05 |

| PROJ. MANAGER | PAUL POTTLE | BY |
|---|---|---|
| DESIGN-DETAILED | RJ | DH |
| CHECKED-REVIEWED | OT | DP |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |

| | DATE | BY |
|---|---|---|
| REVISIONS 1 | 10/02/05 | PER VAAP 9,13,14,& 22 |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

CITY OF PORTLAND
OCEAN GATEWAY PHASE 1

MARINE/WATER COMPONENTS
PILE SCHEDULE

W400



9/30/04
Filename: 20343802-W400-100