

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)	COMPRESSION (KIPS)
A3.1	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	180	60	100	600
A3.1B	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	200	60	200	200
A4.5	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	200	60	---	1000
A7.0	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	200	60	---	1000
A9.1	VERTICAL	24	0.500	CONICAL	200	60	---	600
A12.3	VERTICAL	24	0.500	CONICAL	200	60	---	600
C3.1	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	180	60	100	1200
C3.1B	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	200	60	200	200
C4.5	VERTICAL	24	0.500	CONICAL	200	60	---	1400
C7.0	VERTICAL	24	0.500	CONICAL	200	60	---	1200
C9.1	VERTICAL	24	0.500	CONICAL	200	60	---	1200
C12.3	VERTICAL	24	0.500	CONICAL	200	60	---	600
D3.1	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	180	60	100	1600
D3.1B	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	180	60	200	200
D4.5	VERTICAL	24	0.500	CONICAL	180	60	---	1600
D7.0	VERTICAL	24	0.500	CONICAL	180	60	---	1000
D9.1	VERTICAL	24	0.500	CONICAL	180	60	---	1600
D12.3	VERTICAL	24	0.500	CONICAL	180	60	---	600
E3.1	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	160	60	100	1000
E3.1B	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	180	60	200	200
E4.5	VERTICAL	24	0.500	CONICAL	180	60	---	1400
E7.0	VERTICAL	24	0.500	CONICAL	180	60	---	1000
E9.1	VERTICAL	24	0.500	CONICAL	180	60	---	1400
E12.3	VERTICAL	24	0.500	CONICAL	180	60	---	600
F3.1	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	160	60	100	1000
F3.1B	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	160	60	200	200
F4.5	VERTICAL	24	0.500	CONICAL	180	60	---	1200
F7.0	VERTICAL	24	0.500	CONICAL	180	60	---	1200
F9.1	VERTICAL	24	0.500	CONICAL	180	60	---	1600
F12.3	VERTICAL	24	0.500	CONICAL	180	60	---	1000
G3.1	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	140	40	50	1000
G3.1B	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	160	40	200	200
G4.5	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	140	40	50	1000
G4.5B	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	160	40	200	200
G7.0	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	140	40	50	1000
G7.0B	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	160	40	200	200
G9.1	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	140	40	50	1600
G9.1B	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	160	40	200	200
G12.3	VERTICAL	24	0.500	SPIN FIN W/ OPEN SHOE	140	40	50	1000
G12.3B	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	160	40	200	200

IN ADDITION TO THE PILE LENGTHS STATED ABOVE THE FOLLOWING 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)	COMPRESSION (KIPS)
F1	VERTICAL	30	0.375	CONICAL	100	20	---	100
F2	VERTICAL	30	0.375	CONICAL	100	20	---	100
F3	VERTICAL	30	0.375	CONICAL	100	20	---	100
F4	VERTICAL	30	0.375	CONICAL	100	20	---	100
F5	VERTICAL	30	0.375	CONICAL	100	20	---	100
F6	VERTICAL	30	0.375	CONICAL	100	20	---	100
F7	VERTICAL	30	0.375	CONICAL	100	20	---	100
F8	VERTICAL	30	0.375	CONICAL	100	20	---	100
F9	VERTICAL	30	0.375	CONICAL	100	20	---	100
F10	VERTICAL	30	0.375	CONICAL	100	20	---	100
F11	VERTICAL	30	0.375	CONICAL	100	20	---	100
F12	VERTICAL	30	0.375	CONICAL	100	20	---	100
F1a	VERTICAL	30	0.375	CONICAL	100	20	---	100
F2a	VERTICAL	30	0.375	CONICAL	100	20	---	100
F3a	VERTICAL	30	0.375	CONICAL	100	20	---	100
F4a	VERTICAL	30	0.375	CONICAL	100	20	---	100
F5a	VERTICAL	30	0.375	CONICAL	100	20	---	100
F6a	VERTICAL	30	0.375	CONICAL	100	20	---	100
F7a	VERTICAL	30	0.375	CONICAL	100	20	---	100
F8a	VERTICAL	30	0.375	CONICAL	100	20	---	100
F9a	VERTICAL	30	0.375	CONICAL	100	20	---	100
F10a	VERTICAL	30	0.375	CONICAL	100	20	---	100
F11a	VERTICAL	30	0.375	CONICAL	100	20	---	100

PIER 2 BERTH 2 - ALTERNATE No. 4

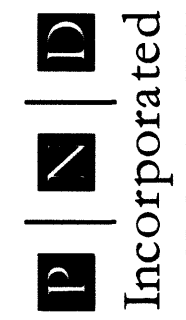
LOCATION	BATTER	PILE DIAMETER (IN)	WALL THICKNESS (IN)	PILE TIP	PILE LENGTH (FT)	UNCOATED LENGTH (FT)	ULTIMATE PILE CAPACITY		
							TENSION (KIPS)	COMPRESSION (KIPS)	
BREASTING DOLPHIN No.1	VERTICAL	30	0.500	SPIN FIN W/ OPEN SHOE	200	60	1300	2000	
	BATTER (E)	2 TO 1	30	0.500	SPIN FIN W/ OPEN SHOE	220	60	1500	1500
	BATTER (W)	2 TO 1	30	0.500	SPIN FIN W/ OPEN SHOE	220	60	1500	1500
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER MOORING	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER MOORING	VERTICAL	18	0.500	CONICAL	100	20	---	50
BREASTING DOLPHIN No.2	VERTICAL	30	0.500	SPIN FIN W/ OPEN SHOE	180	60	1300	2000	
	BATTER (E)	2 TO 1	30	0.500	SPIN FIN W/ OPEN SHOE	200	60	1500	1500
	BATTER (W)	2 TO 1	30	0.500	SPIN FIN W/ OPEN SHOE	200	60	1500	1500
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER MOORING	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER MOORING	VERTICAL	18	0.500	CONICAL	100	20	---	50
BREASTING DOLPHIN No.3	VERTICAL	30	0.500	SPIN FIN W/ OPEN SHOE	160	60	1300	2000	
	BATTER (E)	2 TO 1	30	0.500	SPIN FIN W/ OPEN SHOE	180	60	1500	1500
	BATTER (W)	2 TO 1	30	0.500	SPIN FIN W/ OPEN SHOE	180	60	1500	1500
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER MOORING	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER MOORING	VERTICAL	18	0.500	CONICAL	100	20	---	50
FENDER NO. 1	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER MOORING	VERTICAL	18	0.500	CONICAL	100	20	---	50
FENDER NO. 2	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER	VERTICAL	18	0.500	CONICAL	100	20	---	50
	FENDER MOORING	VERTICAL	18	0.500	CONICAL	100	20	---	50
MOORING DOLPHIN No.1	VERTICAL	24	0.750	SPIN FIN W/ OPEN SHOE	160	60	1600	2400	
	BATTER (N)	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	180	60	1300	1300
	BATTER (E)	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	180	60	1300	1300
	VERTICAL	24	0.500	CONICAL	200	60	---	550	
MOORING DOLPHIN No.2	VERTICAL	24	0.750	SPIN FIN W/ OPEN SHOE	160	60	1600	2400	
	BATTER (N)	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	180	60	1300	1300
	BATTER (W)	2 TO 1	24	0.500	SPIN FIN W/ OPEN SHOE	180	60	1300	1300
	VERTICAL	24	0.500	CONICAL	200	60	---	550	
PIER B	BATTER (N)	2 TO 1	24	0.500	CONICAL	220	60	150	150
	BATTER (W)	2 TO 1	24	0.500	CONICAL	220	60	150	150
PIER C	VERTICAL	24	0.500	CONICAL	200	60	---	550	
	BATTER (N)	2 TO 1	24	0.500	CONICAL	220	60	150	150
PIER C	BATTER (W)	2 TO 1	24	0.500	CONICAL	220	60	150	150
	NE	VERTICAL	30	0.500	CONICAL	160	60	---	200
FLOAT PILES	NW	VERTICAL	30	0.500	CONICAL	180	60	---	200
	SE	VERTICAL	30	0.500	CONICAL	160	60	---	200
	SW	VERTICAL	30	0.500	CONICAL	180	60	---	200
	VERTICAL	30	0.500	CONICAL	180	60	---	200	

IN ADDITION TO THE PILE LENGTHS STATED ABOVE THE FOLLOWING NUMBER OF PILES SHALL BE SUPPLIED THAT ARE COATED AND MATCH THE PILE SPECIFICATIONS:
 (4) 20 FOOT LENGTHS OF 24"Ø x 0.500"t PIPE
 (4) 20 FOOT LENGTHS OF 30"Ø x 0.500"t PIPE

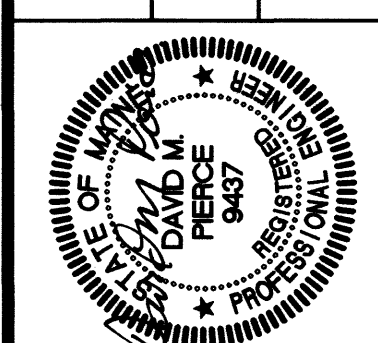
RO-RO RAMP

LOCATION	BATTER	PILE DIAMETER (IN)	WALL THICKNESS (IN)	PILE TIP	PILE LENGTH (FT)	UNCOATED LENGTH (FT)	ULTIMATE PILE CAPACITY		
							TENSION (KIPS)	COMPRESSION (KIPS)	
FLOAT PILES	RF1	VERTICAL	24	0.500	CONICAL	160	40	---	200
	RF2	VERTICAL	24	0.500	CONICAL	160	40	---	200
	RF3	VERTICAL	24	0.500	CONICAL	160	40	---	200
	RF4	VERTICAL	24	0.500	CONICAL	160	40	---	200
APPROACH DOCK PILES	R1	VERTICAL	24	0.500	CONICAL	140	40	---	200
	R2	VERTICAL	24	0.500	CONICAL	140	40	---	500
	R3	VERTICAL	24	0.500	CONICAL	140	40	---	200
	R4	VERTICAL	24	0.500	CONICAL	140	40	---	250
	R5	VERTICAL	24	0.500	CONICAL	140	40	---	250
	R6	VERTICAL	24	0.500	CONICAL	140	40	---	250
	R7	VERTICAL	24	0.500	CONICAL	140	40	---	250

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



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 PROJECT NUMBER 009215.00
 PIN 009215.00



PROJ. MANAGER	PAUL POTTLE	DATE	09/01/04
DESIGN-DETAILED	RJ	BY	DH
CHECKED-REVIEWED	OT	DATE	09/01/04
DESIGN-DETAILED		SIGNATURE	
REVISIONS 1		P.E. NUMBER	10/25/04
REVISIONS 2		DATE	
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

CITY OF PORTLAND
 OCEAN GATEWAY PHASE 1
 MARINE/WATER COMPONENTS
 PILE SCHEDULE