

The Windsor-Essex Parkway Project




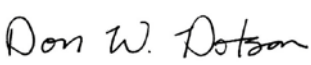
Final Pile Group Analysis Report

Bridge B-11

(Highway 3 Underpass East of Montgomery Drive)



Revision History					
Revision	Date	Status	Prepared By	Checked By	Reviewed By
0	04/05/2012	Issued for Construction – Final	SD/HB	DD	DT

	Name, Title	Signature	Date
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Approved By	Don Dotson, Ph.D., PE, P.Eng. Chief Designer, Geo-Structural Group		04/05/2012

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1 Introduction

1.1 Preface

The Windsor Essex Parkway (the Parkway, or the WEP) was conceived to strengthen transportation and trade links between Canada and the United States, reduce road congestion, and foster economic growth. The Parkway will connect Highway 401 to a new Canadian inspection plaza and a new international crossing over the Detroit River to Interstate 75 in Michigan, USA. It will be a six-lane highway, 11 km long with 15 bridges, 11 tunnels and a four-lane service road that will provide full access to schools, neighbourhoods, natural areas, and shopping. Other components of the project include community and environmental features, such as: 300+ acres of green space, 20 km of recreational trails, extensive landscaping throughout the corridor, as well as noise and environmental mitigation measures.

1.2 Report Introduction

This report presents the pile group analysis for Bridge B-11, located in Lasalle sector of the proposed WEP project. Bridge B-11 carries traffic of Highway 3 over Highway 401. The proposed structure consists of two parallel bridges up to 190 m in length; each bridge will have four spans varying in length from 23 to 67 m. The eastbound bridge will be approximately 12 m wide while the westbound bridge will be approximately 14.5 m wide, as shown on Drawing 285380-03-060-SEG1-S1101 (not included herein).

The proposed design for Bridge B-11 incorporates two parallel bridge structures, comprised of a two cell box girder for the North structure and a single-cell box girder for the South Structure. Each structure will be constructed with a cast-in-place post-tensioned box girder with true abutments and three intermediate piers founded on end bearing H-piles driven to refusal in the bedrock (ref. R-2). Per Reference R-5, section 903.05.02.01, the proposed H-piles are Grade 350 W (Fy of 350 MPa). The pile group analysis has been developed through interactive collaboration of the geotechnical and structural disciplines to determine the pile cap size, pile layout, pile batter, and pile size to resist the loads from the bridge.

The report includes the results of the numerical pile modelling carried out to support the design.

2 Soil Parameters

The soil parameters and soil stratigraphy used in the pile group analysis were determined from the geotechnical report by AMEC (ref. R-2). The following soil strength parameters were used in the analysis.

Table 2-1: Soil Parameters for Group Analysis

Soils Around the Piles	Elevation Range	Design Bulk Unit Weight (kN/m ³)	Undrained Shear Strength, S_u (kPa)	ϵ_{50}
Native Silty Clay Crust	Above 177	22	75	0.005
Native Transition Clay	177 to 175	21.5	Decreases linearly with depth from 75 to 55	0.007
Upper Silty Clay - 1	175 to 166	21	Decreases linearly with depth from 55 to 50	0.010
Upper Silty Clay - 2	166 to 163	20.5	Increase linearly with depth from 50 to 58	0.010
Native Lower Clayey Silt - 1	163 to 161	22	Increases linearly with depth from 58 to 100	0.007
Lower Clayey Silt - 2	161	22	100	0.005

3 Group Pile Foundation Analysis

3.1 Group V8.0 Program

Pile group analysis was performed using the p-y curve approach which accounts for the soil nonlinearity. Reference R-3 lists several commercially available software packages for this type of analysis.

The group of piles and pile cap which support each of the abutments and piers in bridge B-11 were analyzed using the computer program GROUP V8.0.

GROUP is a soil-structure interaction program that was developed by ENSOFT, INC. (ref. R-6). The program provides the user with the capability of analyzing the behaviour of a pile group using either 2-dimensional model or 3-dimensional model. The program analyzes a symmetrical pile layout for the 2-dimensional model. For the 3-dimensional model, the pile group does not need to be symmetrically arranged. The piles may be installed vertically or on a batter with pile heads fixed, pinned or elastically restrained by the pile cap. Pile group can contain different pile sections.

The program computes the distribution of applied loads (vertical, lateral and overturning moments) from the pile cap to individual piles in the group. The program internally generates the nonlinear response of the soil in the form of curves for the axial, lateral, and torsional loadings. The nonlinear response of each pile is determined through an iterative solution that satisfies the equations of equilibrium and achieves compatibility between pile movement and soil response, and between pile cap and pile-head movements.

Input to the program includes pile cross section(s), pile material properties, pile length, pile head coordinates (see Drawings in Appendix B) including pile batter angle, dimensions of pile cap, soil layers with associated soil properties and loads applied to the pile cap.

The program output includes axial and lateral forces and moments at the pile head, pile head displacements and rotations, deflections along pile length, shear and moment along pile length, pile cap stiffness coefficients and pile cap displacements and rotations. GROUP provides a graphical presentation of the results.

3.2 Analysis Procedure

For Bridge B-11, GROUP was used to analyze the pile caps at all abutments and piers. A 3-dimensional model was used to determine the loads distributed to the piles for each pile cap configuration. The pile group analysis was an iterative process. This process included analyzing an initial pile cap configuration with both vertical and battered piles of HP310x110 which was provided to AMEC by the bridge designers from Hatch Mott McDonald (HMM). Using the initial pile cap configuration, the pile cap loads (axial, lateral, and moments, ref. R-4) provided by HMM was applied to the bottom center of the pile cap. The results calculated by GROUP were summarized in tables (see Appendix C). The information included in the summaries was pile loads at each pile and pile cap stiffness coefficients. Formulas, based on the

reference R-4, were used to check combined stress, shear, and bending for the ULS load conditions (see Appendix A). According to Reference R-2, the geotechnical capacity of the piles driven to rock did not govern the design.

The analysis was performed for pinned head conditions which correspond to what is expected to occur in the field as the piles are subjected to the loads from the abutments and piers. For the pinned head condition, the maximum moment in the piles occur below the top of each pile. The calculated maximum lateral loads and moments in each pile are presented in the summaries. In addition, the summary provided calculations to check the stresses in piles caused by the resulting pile loads. HMM reviewed the preliminary pile loads and stresses according to the initial pile configuration and determined whether to remove unnecessary piles or add additional piles. Also, using the pile cap stiffness coefficients, HMM reran their structural analysis to determine new pile cap loads. New pile configurations and new pile cap sizes along with new pile cap loads were then provided to AMEC for the pile group analysis. This process was repeated until a satisfactory pile cap size and configuration was determined and the pile cap loads converged.

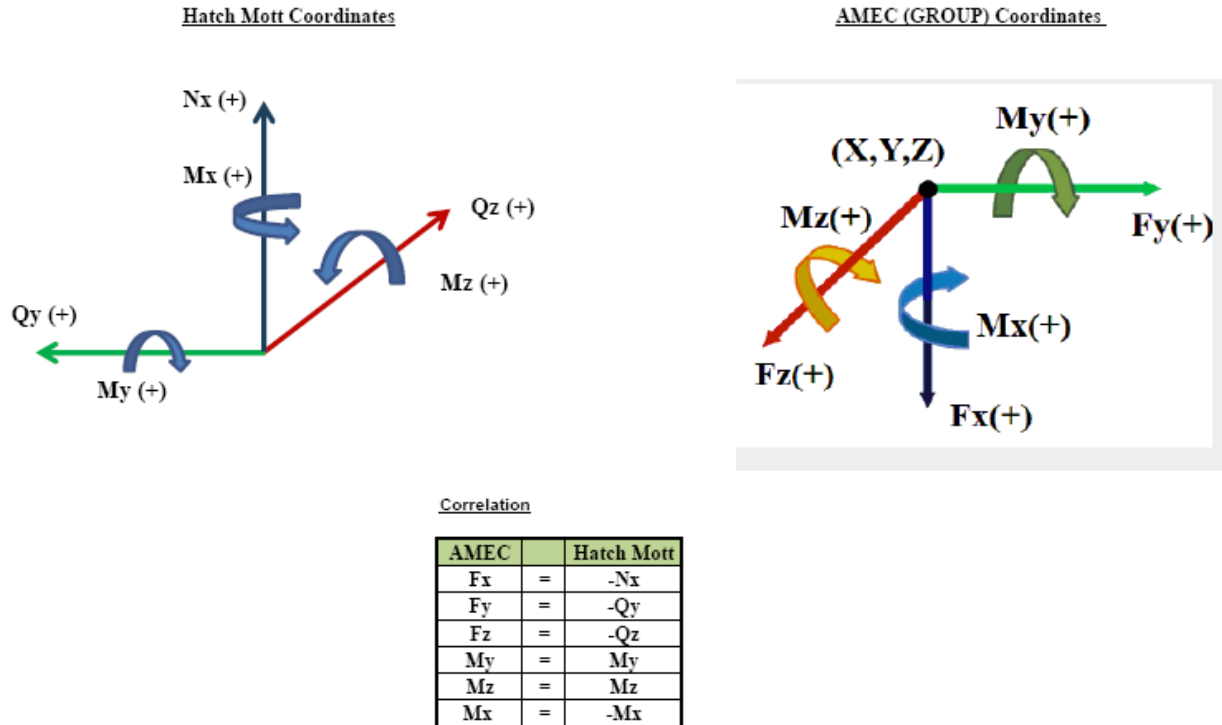
3.3 Negative Skin Friction

Negative Skin Friction (NSF) values used in the analysis were also taken from Reference R-2. NSF occurs in conjunction with soil settlement around the piles. NSF is independent of the bridge loading, and is principally a function of ground movement and the ratio of soil/pile stiffness at each of the structures due to adjacent soil loading. Therefore, our Group Analysis did not directly consider NSF. However, NSF values indicated in Reference R-2 were added to the factored Dead Load Case for the structures and included in the pile capacity checks.

3.4 Coordinate System

Note that the coordinate system used in the GROUP program is different from the coordinate system used by the bridge designers. Figure 3-1 illustrates the correlation between the two coordinate systems. The loads provided were based on HMM coordinate system. The loads were correlated to the GROUP coordinate system and the calculation was completed according to the GROUP coordinate system. The results from the GROUP analyses were transferred to the spreadsheets and correlated back to HMM's coordinate system. Appendix B includes the pile layout drawings showing pile batter directions. The GROUP analyses results are shown in Appendix C and include the calculated pile loads. The load results are shown in HMM's coordinate system.

Figure 3-1: Correlation of Coordinate Systems



4 Limitations of Report

The work performed in this report was carried out in accordance with the Standard Terms and Conditions made part of our contract. The conclusions and recommendations presented herein are based solely upon the scope of services and time and budgetary limitations described in our contract.

The analyses given in this report are based on data and pile recommendations presented in the AMEC geotechnical report for this specific structure (ref. R-2). All limitations of that report are hereby incorporated by reference into this report. The analyses given in this report are applicable only to the project described in the text and then only if constructed substantially in accordance with the details stated in this report.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. AMEC accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

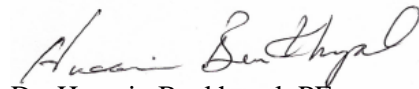
5 Closure

The pile analyses for Bridge B-11 was developed by Dr. Hussein Benkhayal, PE and Mr. Siphay Douangvilay, M.Sc. EI. The project was executed under the technical direction of Dr. Don Dotson, PE, P.Eng. The report was reviewed by Mr. Douglas Tate, PE. Mr. Brian Lapos, P.Eng. is the project manager.

The cooperation received from Ms. Biljana Rajlic, P.Eng. Mr. Radek Falar, and Mr. Vojtech Hruska of Hatch Mott MacDonald during the analyses is gratefully acknowledged.

Yours truly,

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a Division of AMEC Americas Limited



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6 References

- R-1. American Association of State Highway and Transportation Officials (AASHTO). 2007. LRFD Bridge Design Specifications. 4th Ed.
- R-2. AMEC, 2011. Windsor-Essex Parkway, “Geotechnical Investigation and 90% Design Report.”
- R-3. Canadian Geotechnical Society, 2006. Canadian Foundation Engineering Manual (CFEM), 4th Edition.
- R-4. Canadian Standard Association, 2006. Canadian Highway Bridge Design Code (CHBDC), CAN/CSA-S6-06 S6.1.0.
- R-5. Ministry of Transportation, Ontario (MTO). Ontario Provincial Standard Specification (OPSS) 903. Nov. 2009. “Construction Specifications for Deep Foundations.”
- R-6. Reese, L. C., Wang, S. T., Arréllaga, J. A., Hendrix, J., and Vasquez, L. COMPUTER PROGRAM GROUP, Ver. 8.0, Ensoft, Inc. Austin, Texas.

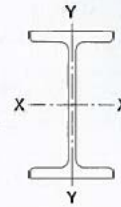
Appendix A HP Properties

Project: Windsor-Essex Parkway
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Date: April/2012
Rev: 0
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Width	$d = 308\text{mm} = 0.31\text{ m}$	Note: Input screen shown above had defined pile width and depth differently than the steel manual
Depth	$b = 310\text{mm} = 0.31\text{ m}$	
Flange Thickness	$t = 15.5\text{mm} = 0.0155\text{ m}$	Geometric Properties:
Web Thickness	$w = 15.4\text{mm} = 0.0154\text{ m}$	
Area	$A = 14100\text{mm}^2 = 0.014\text{ m}^2$	$I_{zz} = 237 \times 10^6\text{mm}^4 = 0.000237\text{ m}^4$
Modulus of Elasticity	$E = 2 \times 10^5\text{MPa}$	$I_{yy} = 77.1 \times 10^6\text{mm}^4 = 0.0000771\text{ m}^4$
Poisson's Ratio	$\nu = 0.30$	$I_p = I_{zz} + I_{yy} = 0.0003141\text{ m}^4$
Shear Modulus	$G = 77000000 \frac{\text{kN}}{\text{m}^2}$	$J = 1240000\text{mm}^4 = 1.24 \times 10^{-6}\text{ m}^4$
Torsional Stiffness	$GJ = GJ = 95.48\text{ kNm}^2$	
Yield Strength	$F_y = 350\text{MPa}$	$F_s = 0.577F_y = 202\text{ MPa}$

HP SHAPES



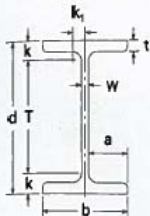
PROPERTIES

Designation†	Dead Load kN/m	Area mm²	Axis X-X				Axis Y-Y				Torsional Constant J	Warping Constant C _w
			I _x	S _x	r _x	Z _x	I _y	S _y	r _y	Z _y		
			10 ⁸ mm⁴	10 ³ mm³	mm	10 ⁶ mm³	10 ⁸ mm⁴	10 ³ mm³	mm	10 ⁶ mm³	10 ³ mm⁴	10 ⁶ mm⁶
HP360												
x174	1.71	22 200	508	2 820	152	3 180	184	973	91.1	1 490	3 310	5 330
x152	1.49	19 400	439	2 470	150	2 770	159	845	90.5	1 290	2 240	4 540
x132	1.30	16 800	375	2 140	149	2 380	135	724	89.6	1 110	1 490	3 800
x108	1.06	13 800	303	1 750	148	1 940	108	585	88.6	891	832	3 000
HP310												
x125	1.22	15 900	270	1 730	130	1 960	88.2	566	74.5	870	1 760	1 910
x110	1.08	14 100	237	1 540	130	1 730	77.1	497	74.0	763	1 240	1 650
x94	0.916	11 900	196	1 300	129	1 450	63.9	415	73.3	635	764	1 340
x79	0.768	9 980	163	1 090	128	1 210	52.6	344	72.6	525	460	1 090

Axis X-X is equivalent to z-axis

$$Z_z = 1730 \times 10^3 \text{ mm}^3$$

$$S_z = 1540 \times 10^3 \text{ mm}^3$$



HP SHAPES

DIMENSIONS AND SURFACE AREAS

Nominal Mass	Theoretical Mass	Depth	Flange Width	Flange Thickness t	Web Thickness w	Distances					Surface Area (m ²) per metre of length		Imperial Designation
						a	T	k	k ₁	d-2t	Total	Minus Top of Top Flange	
kg/m	kg/m	mm	mm	mm	mm	mm	mm	mm	mm	mm			
174	173.9	361	378	20.4	20.4	179	288	37	25	320	2.19	1.82	HP14x117
152	152.2	356	376	17.9	17.9	179	288	34	24	320	2.18	1.80	HP14x102
132	132.1	351	373	15.6	15.6	179	287	32	23	320	2.16	1.79	HP14x89
108	108.1	346	370	12.8	12.8	179	288	29	22	320	2.15	1.78	HP14x73
125	124.7	312	312	17.4	17.4	147	245	34	24	277	1.84	1.53	HP12x84
110	110.5	308	310	15.5	15.4	147	245	32	23	277	1.83	1.52	HP12x74
94	93.4	303	308	13.1	13.1	147	244	29	22	277	1.81	1.50	HP12x63
79	78.3	299	306	11.0	11.0	148	245	27	21	277	1.80	1.49	HP12x53

Axis Y-Y is equivalent to y-axis

$$Z_y = 763 \times 10^3 \text{ mm}^3$$

$$S_y = 497 \times 10^3 \text{ mm}^3$$

$$d = 308 \text{ mm}$$

$$w = 15.4 \text{ mm}$$

Checks are incorporated into the spreadsheets to determine if piles are overstressed and an alternate configuration is required.

Properties for HP310x110 Grade 350 W per MTO OPSS 903

Note that calculations from MTO below are shown for major axis in x-direction. For project calculations, the z-direction is the major axis.

10.10.3.2 Laterally supported members

When continuous lateral support is provided to the compression flange of a member subject to bending about its major axis, the factored moment resistance, M_r , shall be calculated as

$$M_r = \phi_s S_x F_y = \phi_s M_y$$

10.10.3.5 Bending about the minor axis

For a section subjected to bending about its minor axis, whether laterally braced or unbraced, the factored resistance, M_r , shall be calculated as

$$M_r = \phi_s S_y F_y = \phi_s M_{ry}$$

<u>Resistance</u>	<u>Definition</u>
$\phi_s = 0.70$	Resistance Factor: Compression
$C_r = \phi_s A F_y = 3454.5 \text{ kN}$	Factored compressive resistance (laterally supported)
$\phi_s = 0.95$	Resistance Factor: Shear and Flexure
$M_{rz} = \phi_s S_z F_y = 5.121 \times 10^5 \text{ kN} \cdot \text{mm}$	Factored strong axis (z-axis) elastic bending capacity (Laterally supported)
$M_{ry} = \phi_s S_y F_y = 1.653 \times 10^5 \text{ kN} \cdot \text{mm}$	Factored weak axis (y-axis) elastic bending capacity (laterally supported)

10.10.5.1 Factored shear resistance

The factored shear resistance of the web of a flexural member, V_r , shall be taken as

$$V_r = \phi_s A_w F_s$$

where A_w , the shear area, is calculated using d for rolled shapes and h for fabricated or manufactured girders, and F_s , the ultimate shear stress, is equal to $F_{cr} + F_t$, where F_{cr} and F_t shall be taken as follows:

(a) when $\frac{h}{w} \leq 502 \sqrt{\frac{k_v}{F_y}}$:

$$F_{cr} = 0.577 F_y$$

$$F_t = 0$$

$$A_w = dw = 47.432 \text{ cm}^2$$

$$V_{rz} = 1844\text{kN}$$

Factored shear resistance parallel to HMM z-axis

$$V_{ry} = 910\text{kN}$$

Factored shear resistance parallel to HMM y-axis

Values to be calculated by analysis

Value

Definition

C_f

Factored compressive force determined by analysis

M_{fz}

Factored bending moment about z-axis

M_{fy}

Factored bending moment about y-axis

V_{fz}

Factored shear force parallel to HMM z-axis

V_{fy}

Factored shear force parallel to HMM y-axis

Ratio Checks

Reference: Canadian Standard Association, 2006. Canadian Highway Bridge Design Code (CHBDC). CAN/CSA-S6-06 S6.1.0

10.9.4.1 Cross-sectional and member strengths — All classes of sections except Class 1 sections of I-shaped members

Members subject to coincident bending and axial compressive force shall be proportioned so that

$$\frac{C_r}{C_r} + \frac{U_{1x}M_{rx}}{M_{rx}} + \frac{U_{1y}M_{ry}}{M_{ry}} \leq 1.0$$

where

U_{1x} = the value as specified in Clause 10.9.4.2, but not less than 1.0

U_{1y} = the value as specified in Clause 10.9.4.2

The resistance of the member shall be determined by taking the following into consideration:

- Cross-sectional strength, for which $C_r = \phi_s A F_y$; M_{rx} and M_{ry} are defined by M_r in Clause 10.10.2.2 for Class 2 sections and Clause 10.10.3.2 for Class 3 sections, with respect to the x-axis and y-axis, respectively; and U_{1x} and U_{1y} are taken as 1.0.
- Overall member strength, for which C_r is as specified in Clause 10.9.3.1 and is based on the maximum slenderness ratio for biaxial bending. For uniaxial strong axis bending, $C_r = C_{rx}$. M_{rx} and M_{ry} are as specified in Item (a) and U_{1x} and U_{1y} are as specified in Clause 10.9.4.2.

10.10.5.2 Combined shear and moment

When subject to the simultaneous action of shear and moment, transversely stiffened webs that depend on tension field action to carry shear, i.e., with $h/w > 502\sqrt{k_v / F_y}$, shall be proportioned so that

$$(a) \quad \frac{V_f}{V_r} \leq 1.0;$$

$$(b) \quad \frac{M_f}{M_r} \leq 1.0; \text{ and}$$

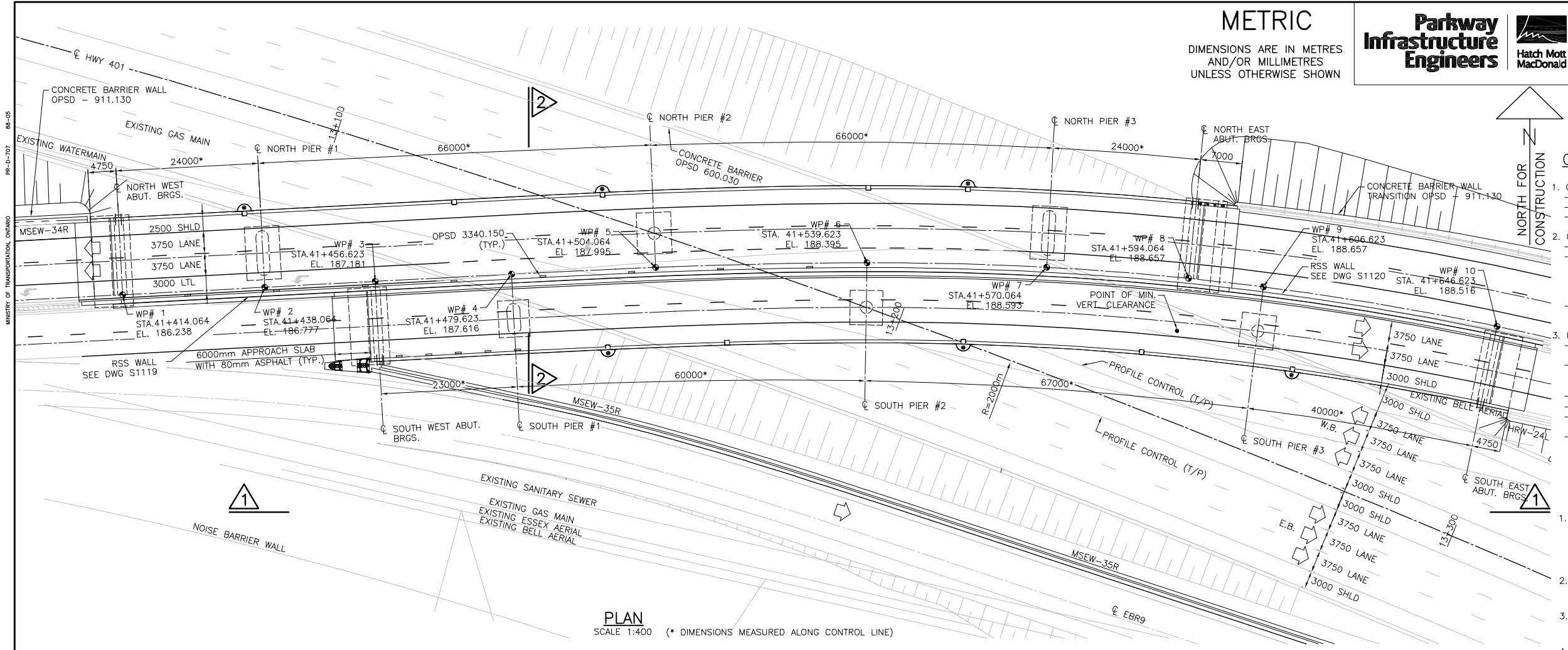
$$(c) \quad 0.727 \frac{M_f}{M_r} + 0.455 \frac{V_f}{V_r} < 1.0$$

where V_r is determined in accordance with Clause 10.10.5.1 and M_r is determined in accordance with Clause 10.10.2, 10.10.3, or 10.10.4, as applicable.

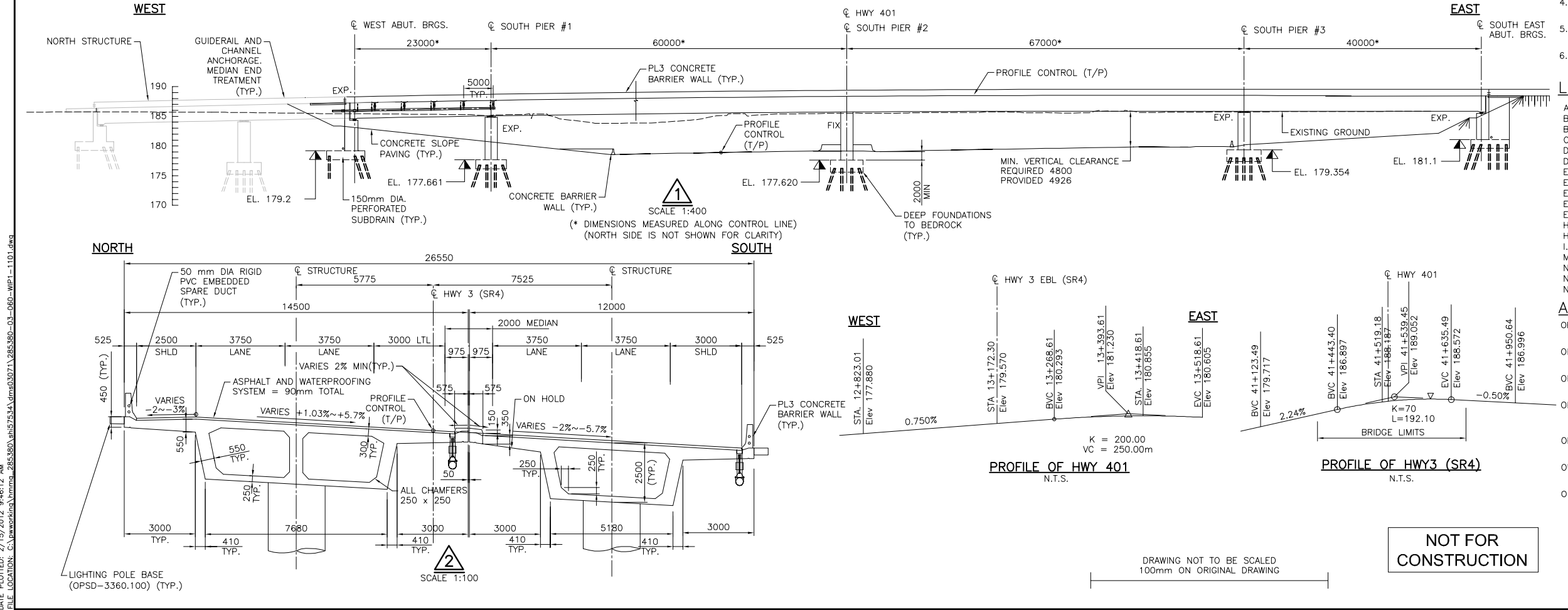
Appendix B Drawings

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Date: April/2012
Rev: 0
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PLAN
SCALE 1:400 (* DIMENSIONS MEASURED ALONG CONTROL LINE)



PROFILE OF HWY 401
N.T.S.

PROFILE OF HWY3 (SR4)
N.T.S.

NOT FOR
CONSTRUCTION

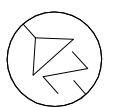
METRIC

DIMENSIONS ARE IN METRES
AND/OR MILLIMETRES
UNLESS OTHERWISE SHOWN



Windsor-Essex
Parkway Project
RFP No. 09-54-1007

NEW CONSTRUCTION
BRIDGE B-11
HWY 3 UNDERPASS NEAR MONTGOMERY
GENERAL ARRANGEMENT



SHEET
S1101

Phase 1
90% Sub

GENERAL NOTES:

- CLASS OF CONCRETE:
 - DECK.....50 MPa
 - MASS CONCRETE.....20 MPa
 - REMAINDER.....30 MPa
- CLEAR COVER TO REINFORCING STEEL:
 - FOOTING.....100 ± 25
 - DECK : TOP SLAB TOP.....70 ± 20
 - TOP SLAB BOT.....50 ± 10
 - BOTTOM SLAB TOP.....40 ± 10
 - BOTTOM SLAB BOT.....60 ± 10
 - WEBS.....60 ± 10
 - REMAINDER.....70 ± 20
 - UNLESS OTHERWISE NOTED.
- REINFORCING STEEL:
 - REINFORCING STEEL SHALL BE GRADE 400W UNLESS OTHERWISE SPECIFIED.
 - STAINLESS REINFORCING STEEL SHALL BE TYPE 316LN OR DUPLEX 2205 OR TYPE XM-28 AND HAVE MINIMUM YIELD STRENGTH OF 500MPa, UNLESS OTHERWISE SPECIFIED.
 - BAR MARKS WITH PREFIX 'C' DENOTE COATED BARS.
 - BAR MARKS WITH PREFIX 'S' DENOTE STAINLESS STEEL BARS.
 - UNLESS SHOWN OTHERWISE TENSION LAP SPLICES SHALL BE CLASS B.
 - BARS HOOKS SHALL HAVE STANDARD HOOK DIMENSION USING MINIMUM BEND DIAMETER, WHILE STIRRUPS AND TIES SHALL HAVE MINIMUM HOOK DIMENSIONS. ALL HOOKS SHALL BE IN ACCORDANCE WITH THE STRUCTURAL STANDARD DRAWINGS SS12-1 AND SS12-2, UNLESS INDICATED OTHERWISE.

CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL ESTABLISH THE BEARING SEAT ELEVATIONS BY DEDUCTING THE ACTUAL BEARING THICKNESSES FROM THE TOP OF BEARING ELEVATIONS. IF THE ACTUAL BEARING THICKNESSES ARE DIFFERENT FROM THOSE GIVEN WITH THE BEARING DESIGN DATA, THE CONTRACTOR SHALL ADJUST THE REINFORCING STEEL TO SUIT.
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION OPERATIONS UNLESS THE EXISTING UTILITIES ARE TO BE RELOCATED.
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR GROUNDWATER CONTROL ON TIMING OF CONSTRUCTION AND PREVAILING WEATHER CONDITIONS.
- FOR ALL HIGHWAY WORKS REFER TO HIGHWAY NEW CONSTRUCTION DRAWINGS.
- FOR ALL ELECTRICAL AND ATMS WORKS REFER TO ELECTRICAL AND ATMS NEW CONSTRUCTION DRAWINGS.
- FOR ALL UTILITY WORKS REFER TO UTILITY NEW CONSTRUCTION DRAWINGS.

LIST OF ABBREVIATIONS

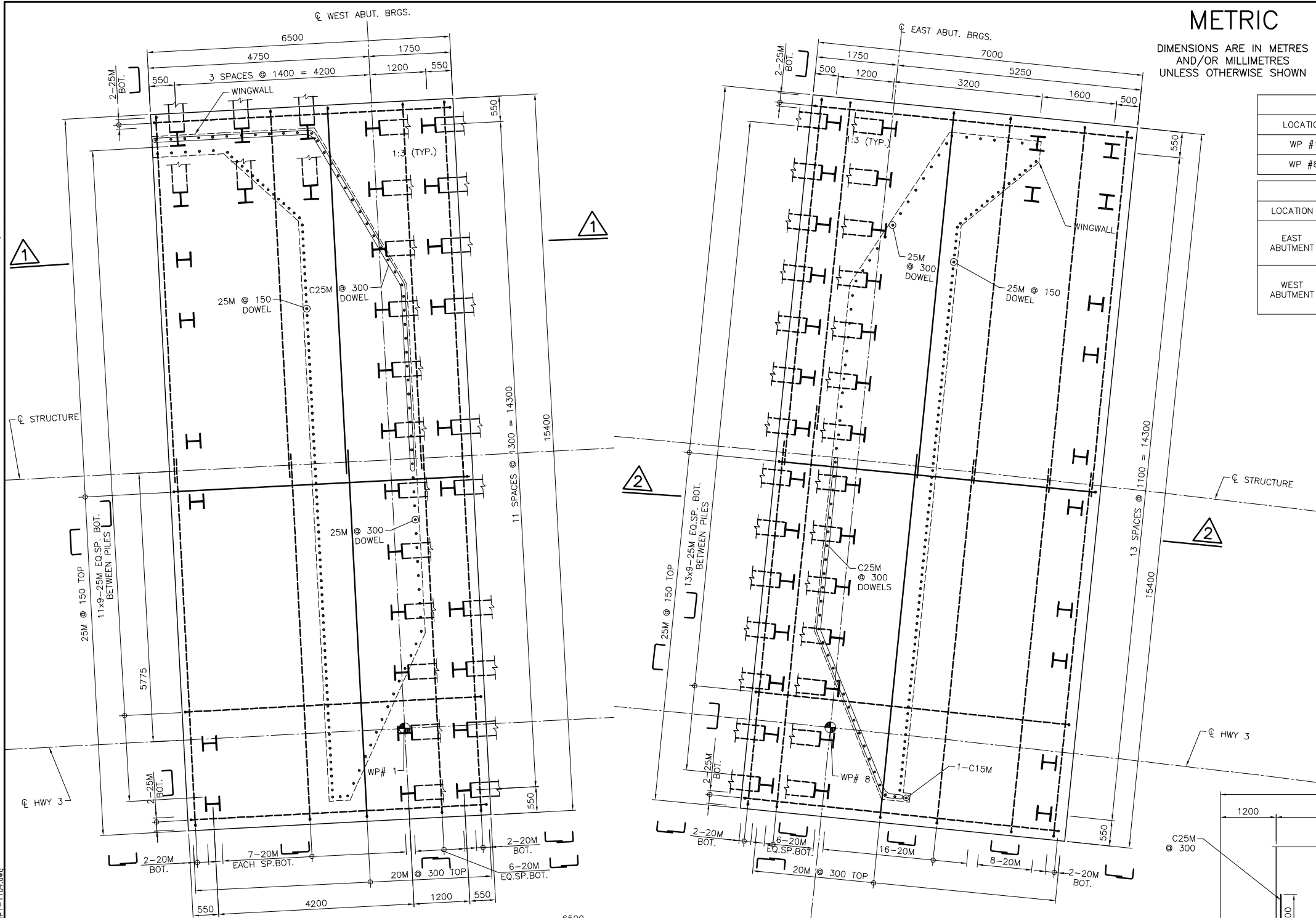
ABUT.	ABUTMENT	OPENG.	OPENING
BOT	BOTTOM	O.F.	OUTSIDE FACE
BRGS.	BEARINGS	OPP.	OPPOSITE
C.J.	CONSTRUCTION JOINT	RD	ROAD
DIA.	DIAMETER	RTL	RIGHT TURN LANE
DWG.	DRAWING	RW	RETAINING WALL
E.B.	EASTBOUND	SCL	SPEED CHANGE LANE
E.F.	EACH FACE	SE	SOUTH EAST
EL.	ELEVATION	SIM.	SIMILAR
EQ.SP.	EQUAL SPACE	STA.	STATION
EXP.	EXPANSION	SHLD	SHOULDER
HORIZ.	HORIZONTAL	SW	SOUTH WEST
HWY	HIGHWAY	T/P	TOP OF PAVEMENT
I.F.	INSIDE FACE	THK.	THICK
MIN.	MINIMUM	TYP.	TYPICAL
NE	NORTH EAST	VERT.	VERTICAL
N.T.S.	NOT TO SCALE	W.B.	WESTBOUND
NW	NORTH WEST	WP	WORKING POINT

APPLICABLE STANDARD DRAWINGS

OPSD 3101.150	ABUTMENTS, BACKFILL, MINIMUM GRANULAR REQUIREMENT
OPSD 3121.150	WALLS, RETAINING, BACKFILL, MINIMUM GRANULAR REQUIREMENT
OPSD 3370.100	DECK, WATERPROOFING, HOT APPLIED ASPHALT MEMBRANE WITH PROTECTION BOARD
OPSD 3370.101	DECK, WATERPROOFING, HOT APPLIED ASPHALT MEMBRANE AT ACTIVE CRACKS GREATER THAN 2mm WIDE AND CONSTRUCTION JOINTS
OPSD 3419.100	BARRIERS AND RAILINGS, STEEL GUIDERAIL AND CHANNEL ANCHORAGE
OPSD 3941.200	FIGURES IN CONCRETE, SITE NUMBER AND DATE, LAYOUT
OPSD 3950.100	JOINTS, CONCRETE EXPANSION AND CONSTRUCTION, ON STRUCTURE

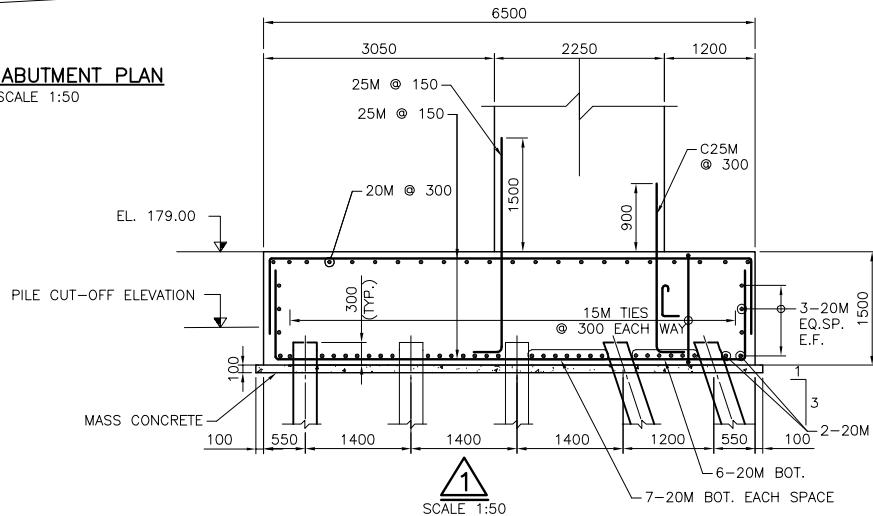
17-JAN-12	B3	PP	90% SUPERSTRUCTURE FINAL IDR SUBMISSION
8-DEC-11	B2	PP	90% SUBSTRUCTURE FINAL IDR SUBMISSION
17-NOV-11	B1	PP	SUBSTRUCTURE ICT SUBMISSION
18-AUG-11	A	PP	60% MTO SUBMISSION
DATE	REV.	BY	DESCRIPTION
DESIGN	RF	CHK	BR
DRAWN	YZ	CHK	PP
CODE CAN/CSA S6-06	LOAD	CL	625-ONT
SITE	6-611	DATE	18-JUL-11

DATE PLOTTED: 2/15/2012 9:46:12 AM
FILE LOCATION: C:\pwworking\hmm\285380-03-060-WP1-1101.dwg
PR-D-707 88-05



WEST ABUTMENT PLAN
SCALE 1:50

EAST ABUTMENT PLAN
SCALE 1:50



SCALE 1:50

METRIC

DIMENSIONS ARE IN METRES
AND/OR MILLIMETRES
UNLESS OTHERWISE SHOWN

**Parkway
Infrastructure
Engineers**



Windsor-Essex
Parkway Project
RFP No. 09-54-1007



NEW CONSTRUCTION
BRIDGE B-11
HWY 3 UNDERPASS NEAR MONTGOMERY
NORTH SIDE - FOUNDATION LAYOUT I

SHEET
S1104

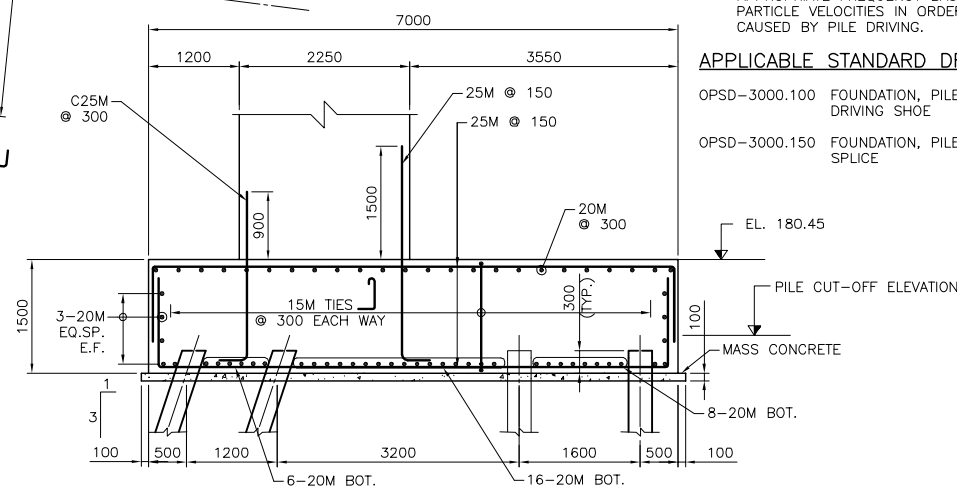
Phase 1
90% Sub

NOTES: (STANDARD)

- FOR GENERAL NOTES SEE DWG S1101.
 - THIS DRAWING TO BE READ IN CONJUNCTION WITH DWG S1109 AND S1110.
- ### PILE NOTES:
- PILE LENGTHS SHOWN ARE ESTIMATED LENGTHS FROM THE CUT-OFF TO THE ESTIMATED BEDROCK / REFUSAL SURFACE.
 - ALL PILES ARE HP 310X110 STEEL H PILES.
 - ALL PILES SHALL BE FITTED WITH TYPE I DRIVING SHOE PER OPSP 3000.100 OR APPROVED EQUIVALENT.
 - PILE SPLICES SHALL BE BUTT WELDED AS PER OPSP 3000.150 AND OPSS 903. SPLICE PLATES ARE NOT PERMITTED.
 - ALL PILES ARE TO BE DRIVEN TO BEDROCK OR TO REFUSAL IN THE VERY DENSE COHESIONLESS DEPOSIT OVERLYING BEDROCK IN ACCORDANCE WITH SS103-11 TO DEVELOP AN ULTIMATE GEOTECHNICAL RESISTANCE OF 4000 KN, GIVING A DESIGN FACTORED ULS RESISTANCE OF 2000 KN.
 - THE PILE ULTIMATE GEOTECHNICAL RESISTANCE AND REFUSAL CRITERIA SHALL BE CONFIRMED ON AT LEAST 3% OF THE PILES BY PDA METHOD SUPPLEMENTED WITH STATIC LOAD TESTS IN THE AREA OF THE STRUCTURE.
 - PILE DRIVING EQUIPMENT SHALL BE APPROPRIATE TO THE DRIVING CONDITIONS TO DEVELOP THE ULTIMATE GEOTECHNICAL RESISTANCE, AND PREVENT DAMAGES TO THE PILES DURING DRIVING. CONSIDERATION SHOULD BE GIVEN TO POTENTIAL DRIVING DIFFICULTIES DUE TO THE PRESENCE OF COBBLES OR BOULDERS.
 - HAMMER DETAILS (HAMMER TYPE AND MODEL, RATED ENERGY, HELMET AND CUSHION DETAILS) SHALL BE SUBMITTED 10 DAYS PRIOR TO THE EQUIPMENT MOBILIZATION TO THE SITE.
 - SURVEY ALL PILE HEAD ELEVATIONS AT END OF DRIVING AND JUST PRIOR TO FORMING OF PILE CAP. RE-TAP PILES WHERE UPLIFT >5 MM OR AS DIRECTED BY THE ENGINEER.
 - THE CONTRACTOR SHALL MONITOR FOR POTENTIAL EMISSIONS OF NATURAL GASES AND GROUNDWATER SEEPAGE DURING PILE DRIVING AND IMPLEMENT MITIGATION MEASURES AS REQUIRED.
 - THE CONTRACTOR SHALL MONITOR VIBRATIONS AT STRATEGIC LOCATIONS (E.G. TEMPORARY SLOPES, UTILITIES AND STRUCTURES) AND ESTABLISH APPROPRIATE FREQUENCY BASED LIMITS ON PEAK PARTICLE VELOCITIES IN ORDER TO PREVENT DAMAGE CAUSED BY PILE DRIVING.

APPLICABLE STANDARD DRAWINGS:

- OPSD-3000.100 FOUNDATION, PILES, STEEL H-PILE DRIVING SHOE
OPSD-3000.150 FOUNDATION, PILES, STEEL H-PILE SPLICE

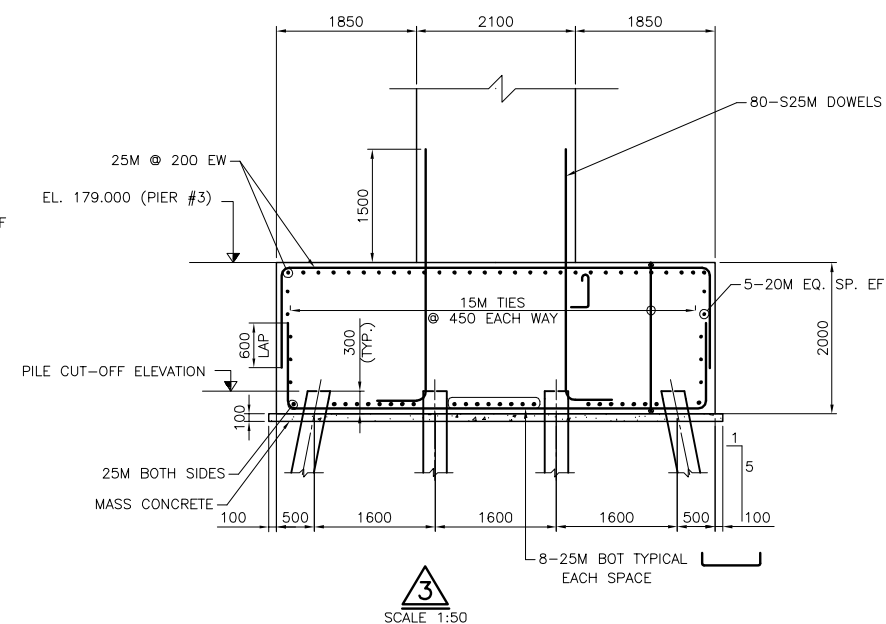
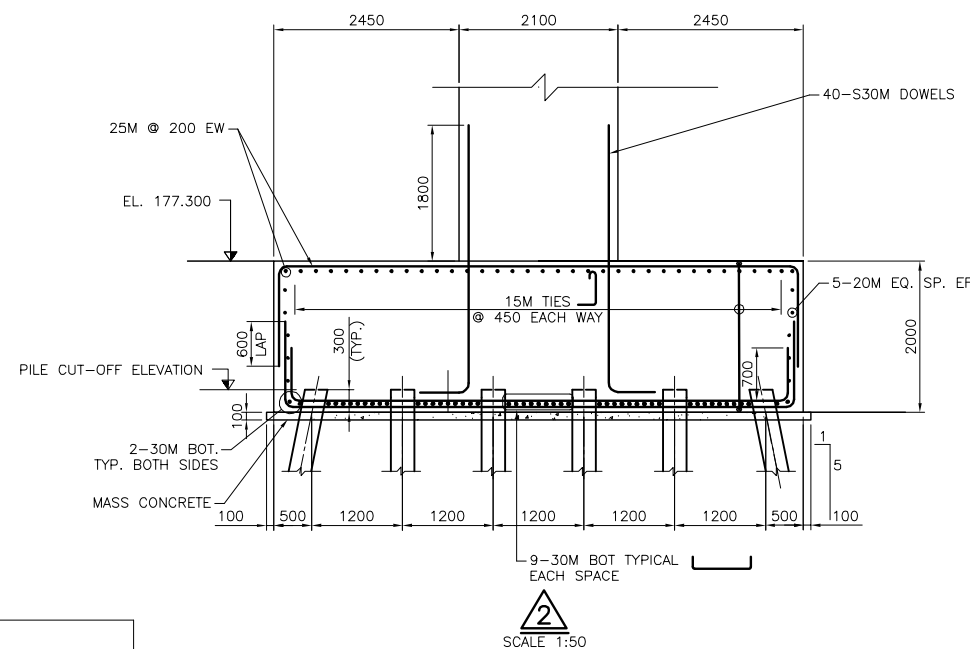
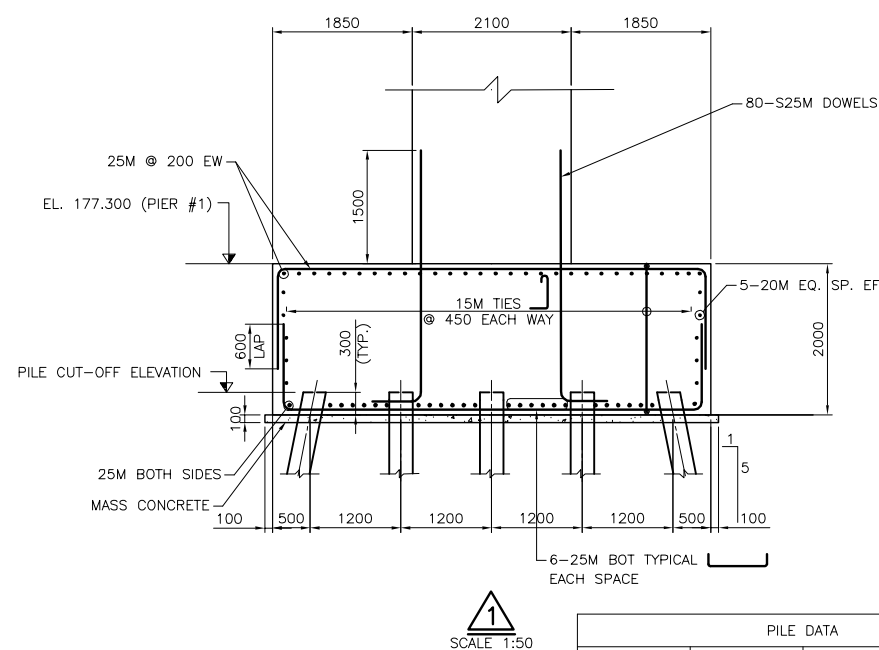
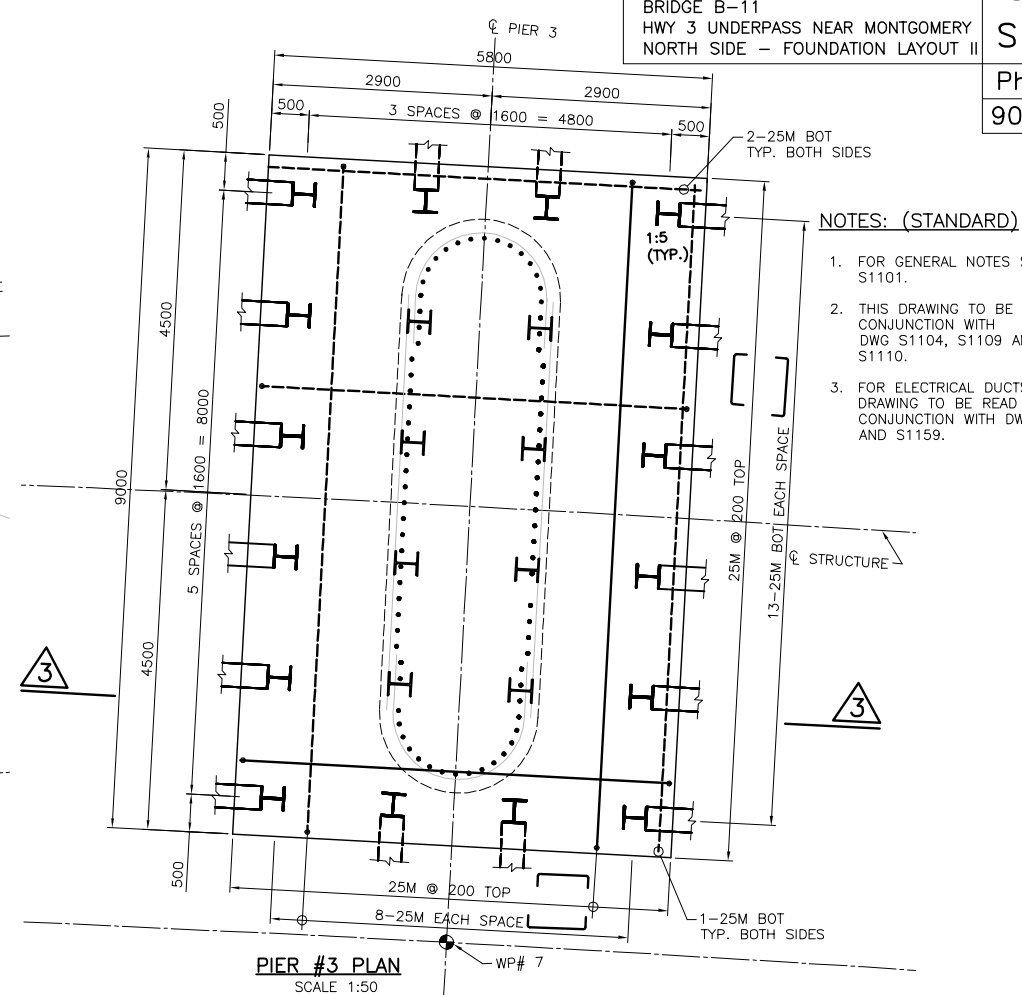
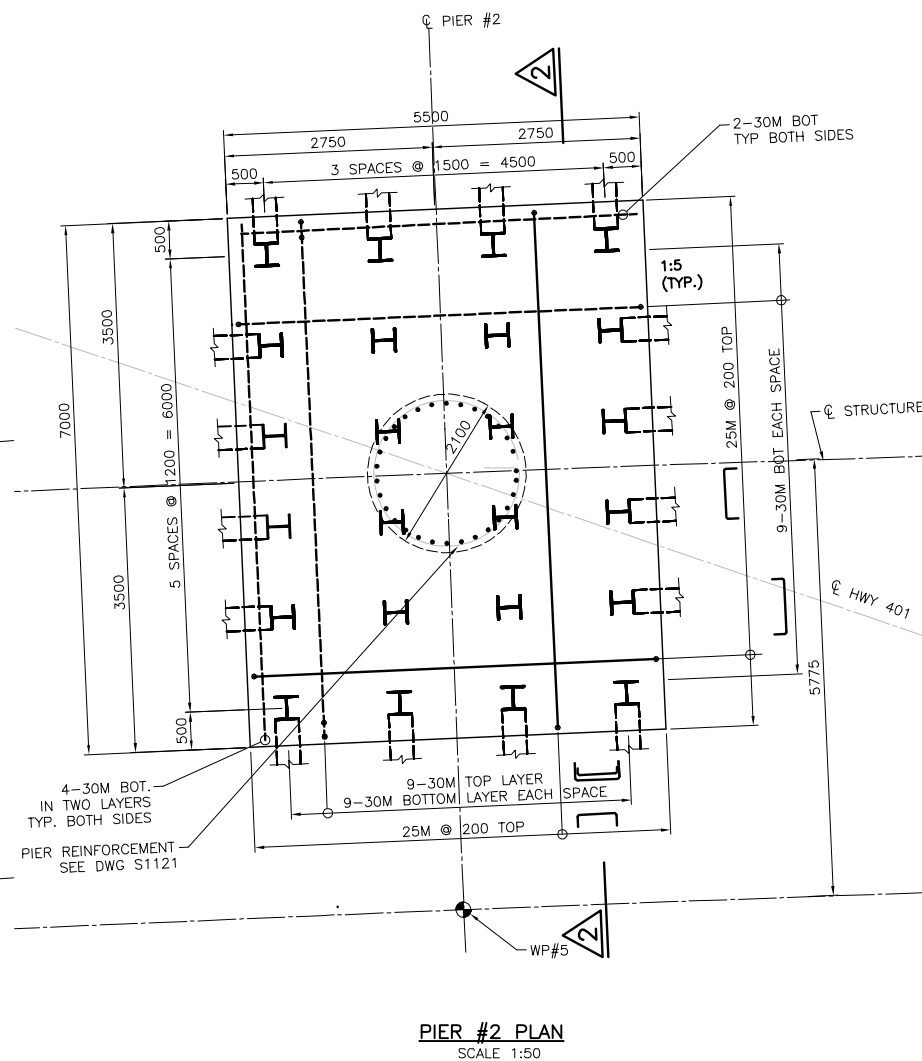
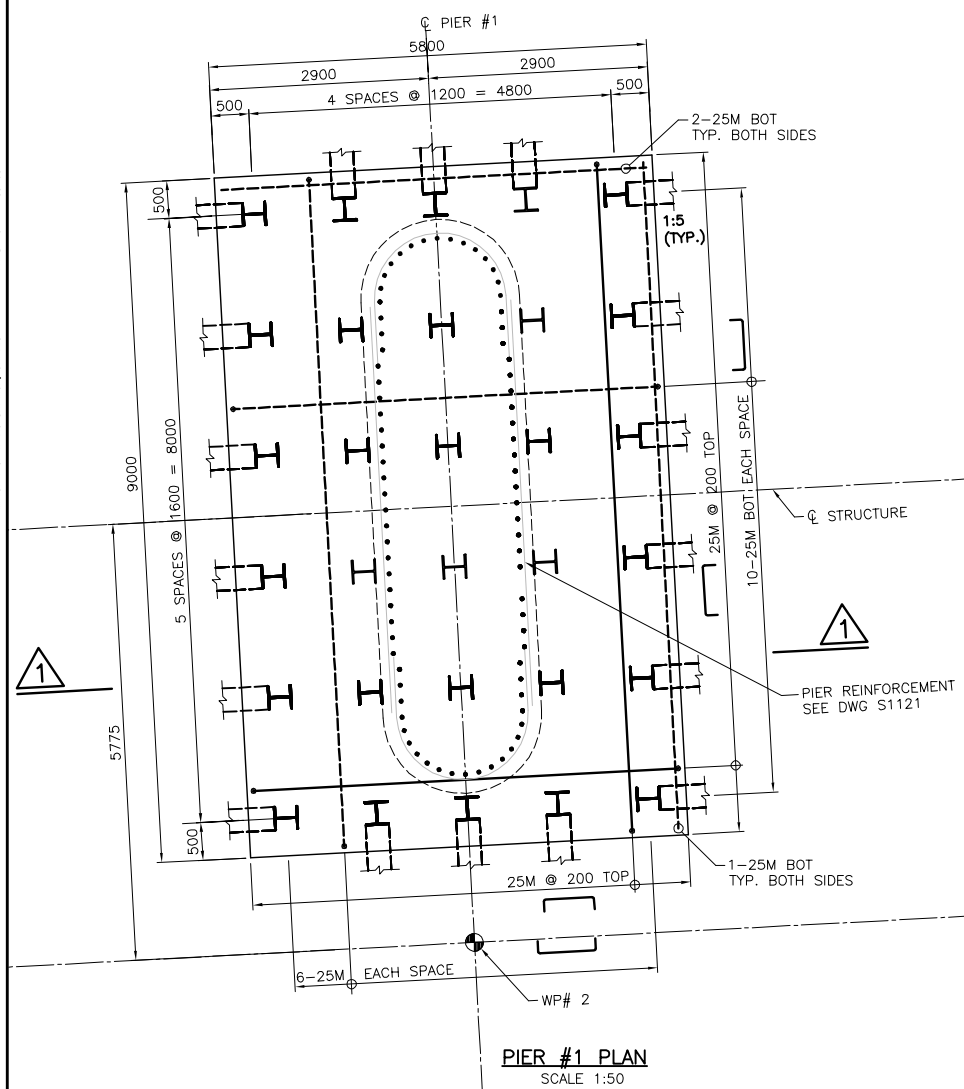


SCALE 1:50

**NOT FOR
CONSTRUCTION**

DRAWING NOT TO BE SCALED
100mm ON ORIGINAL DRAWING

REVISIONS	DATE	REV.	BY	DESCRIPTION
13-FEB-12	B	PP		90% SUBSTRUCTURE MTO SUBMISSION
18-AUG-11	A	PP		60% MTO SUBMISSION
DESIGN	RF	CHK	BR	CODE CAN/CSA S6-06/LOAD CL 625-ONT
DRAWN	NS	CHK	PP	SITE 6-611 DATE 18-JUL-11



WORKING POINT DATA		
LOCATION	NORTHING	EASTING
WP #2	4 678 193.882	334 614.808
WP #5	4 678 179.831	334 679.295
WP #7	4 678 162.568	334 742.971

PILE DATA			
LOCATION	No. REQUIRED	LENGTH (m)	BATTER
PIER #1	18	27.5	1:5
	12	27.0	NO
PIER #2	16	29.0	1:5
	8	28.5	NO
PIER #3	16	30.0	1:5
	8	29.5	NO

DRAWING NOT TO BE SCALED
100mm ON ORIGINAL DRAWING

NOT FOR
CONSTRUCTION

REVISIONS									
	13-FEB-12	B	PP	90% SUBSTRUCTURE MTO SUBMISSION					
	18-AUG-11	A	PP	60% MTO SUBMISSION					
	DATE	REV.	BY	DESCRIPTION					
	DESIGN RF	CHK BR	CODE	CAN/CSA	S6-06	LOAD	CL	625-ONT	
DRAWN NS	CHK PP	SITE	6-11		DATE	18-JUL-11			

METRIC

DIMENSIONS ARE IN METRES
AND/OR MILLIMETRES
UNLESS OTHERWISE SHOWN

**Parkway
Infrastructure
Engineers**



Windsor-Essex
Parkway Project
RFP No. 09-54-1007



NEW CONSTRUCTION
BRIDGE B-11
HWY 3 UNDERPASS NEAR MONTGOMERY
SOUTH SIDE - FOUNDATION LAYOUT I

SHEET
S1106

Phase 1
90% Sub

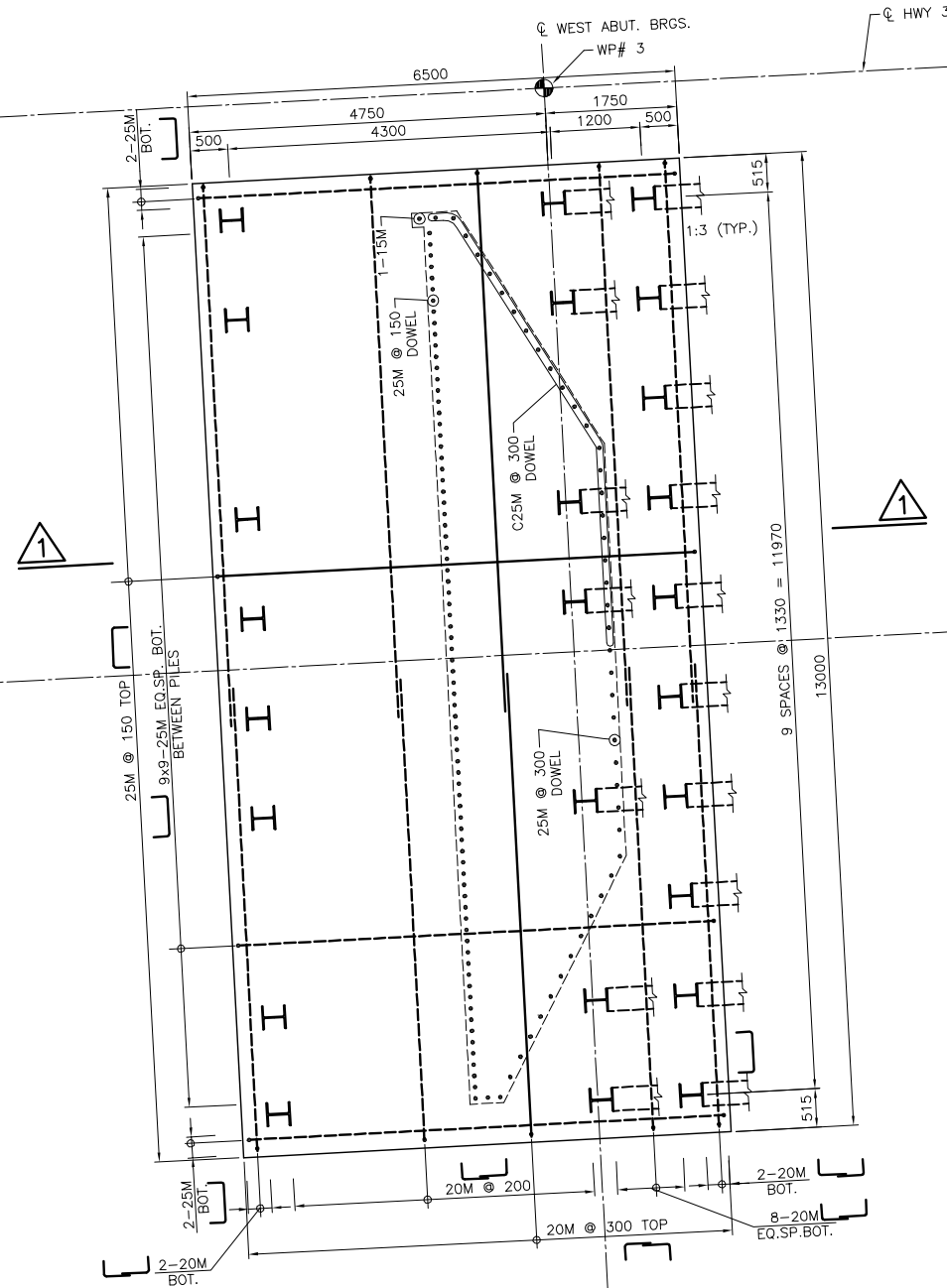
NOTES: (STANDARD)

- FOR GENERAL NOTES SEE DWG S1101.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH
DWG S1104, S1111, S1112 AND S1120.

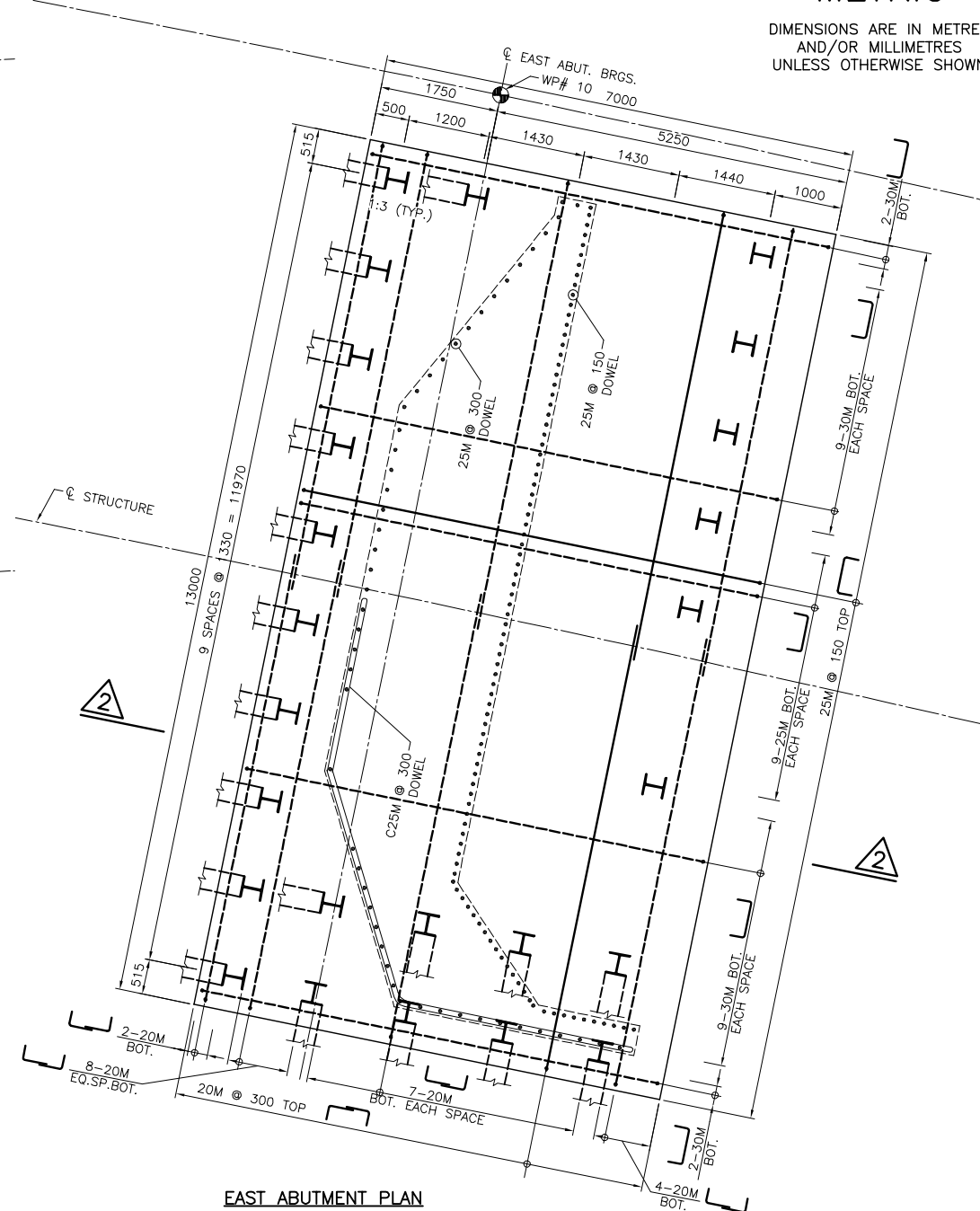
PILE DATA			
LOCATION	No. REQUIRED	LENGTH (m)	BATTER
WEST ABUTMENT	8	30	NO
	17	31.5	1:3
EAST ABUTMENT	6	30	NO
	19	31.5	1:3

NOT FOR
CONSTRUCTION

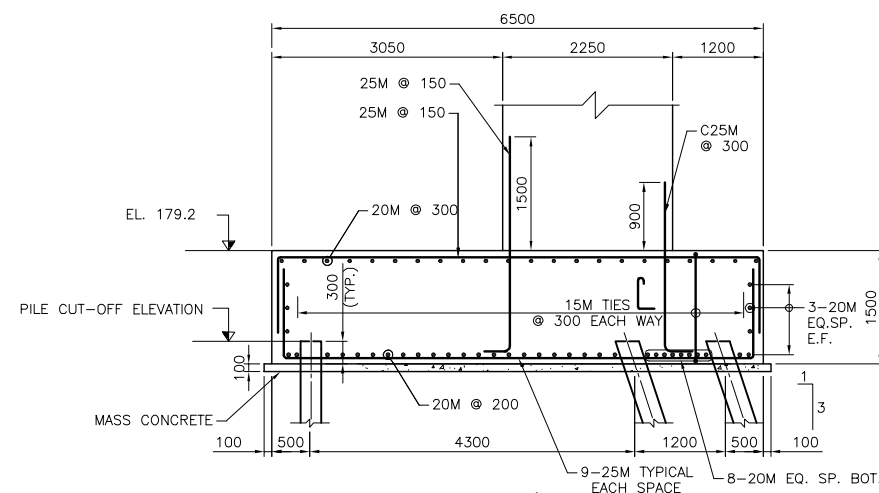
REVISIONS			
13-FEB-12	B	PP	90% SUBSTRUCTURE MTO SUBMISSION
18-AUG-11	A	PP	60% MTO SUBMISSION
DATE	REV.	BY	DESCRIPTION
DESIGN	VH	CHK BR	CODE CAN/CSA S6-06/LOAD CL 625-ONT
DRAWN	NS	CHK PP	SITE 6-611 DATE 18-JUL-11



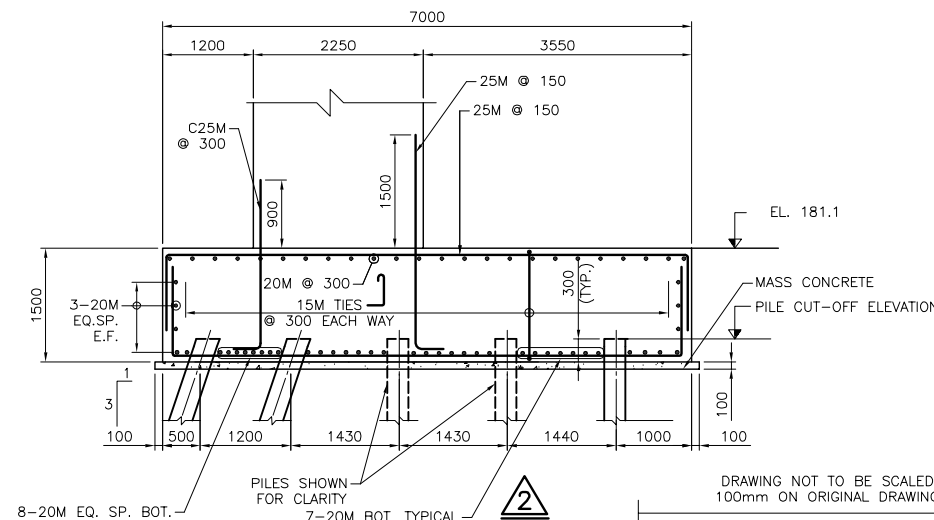
WEST ABUTMENT PLAN
SCALE 1:50



EAST ABUTMENT PLAN
SCALE 1:50



PILE CUT-OFF ELEVATION
SCALE 1:50



PILE CUT-OFF ELEVATION
SCALE 1:50

DRAWING NOT TO BE SCALED
100mm ON ORIGINAL DRAWING

METRIC

DIMENSIONS ARE IN METRES
AND/OR MILLIMETRES
UNLESS OTHERWISE SHOWN

Parkway Infrastructure Engineers

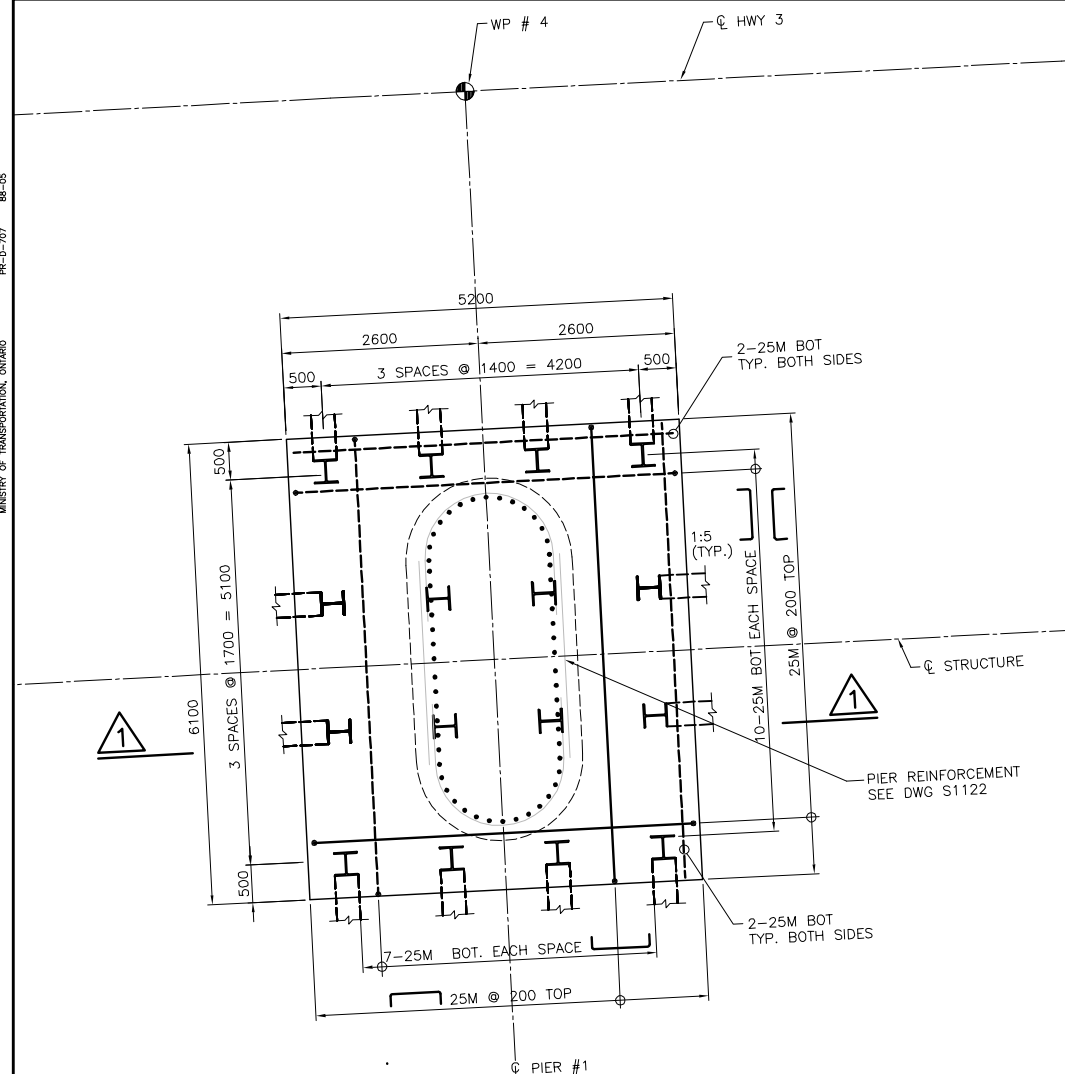


Windsor-Essex
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RFP No. 09-54-1007

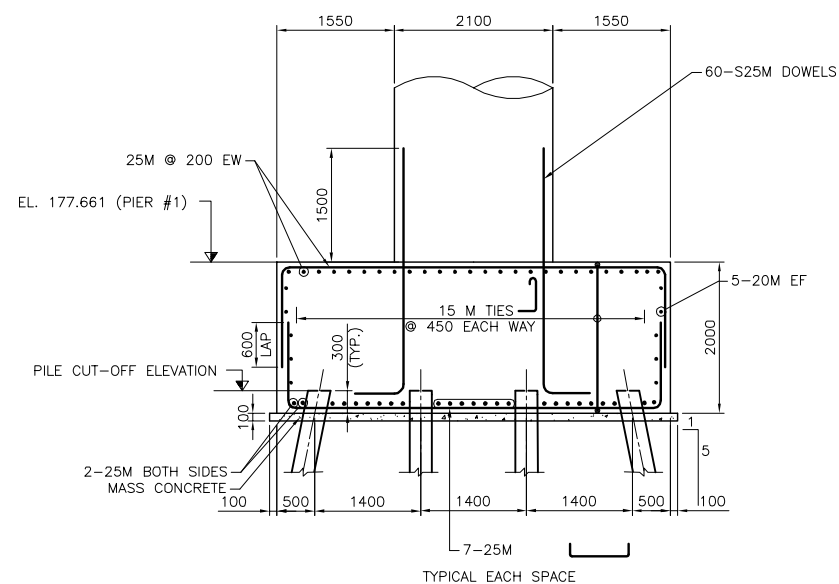
NEW CONSTRUCTION
BRIDGE B-11
HWY 3 UNDERPASS NEAR MONTGOMERY
SOUTH SIDE FOUNDATION LAYOUT

SHEET
S1107

Phase 1
90% Sub



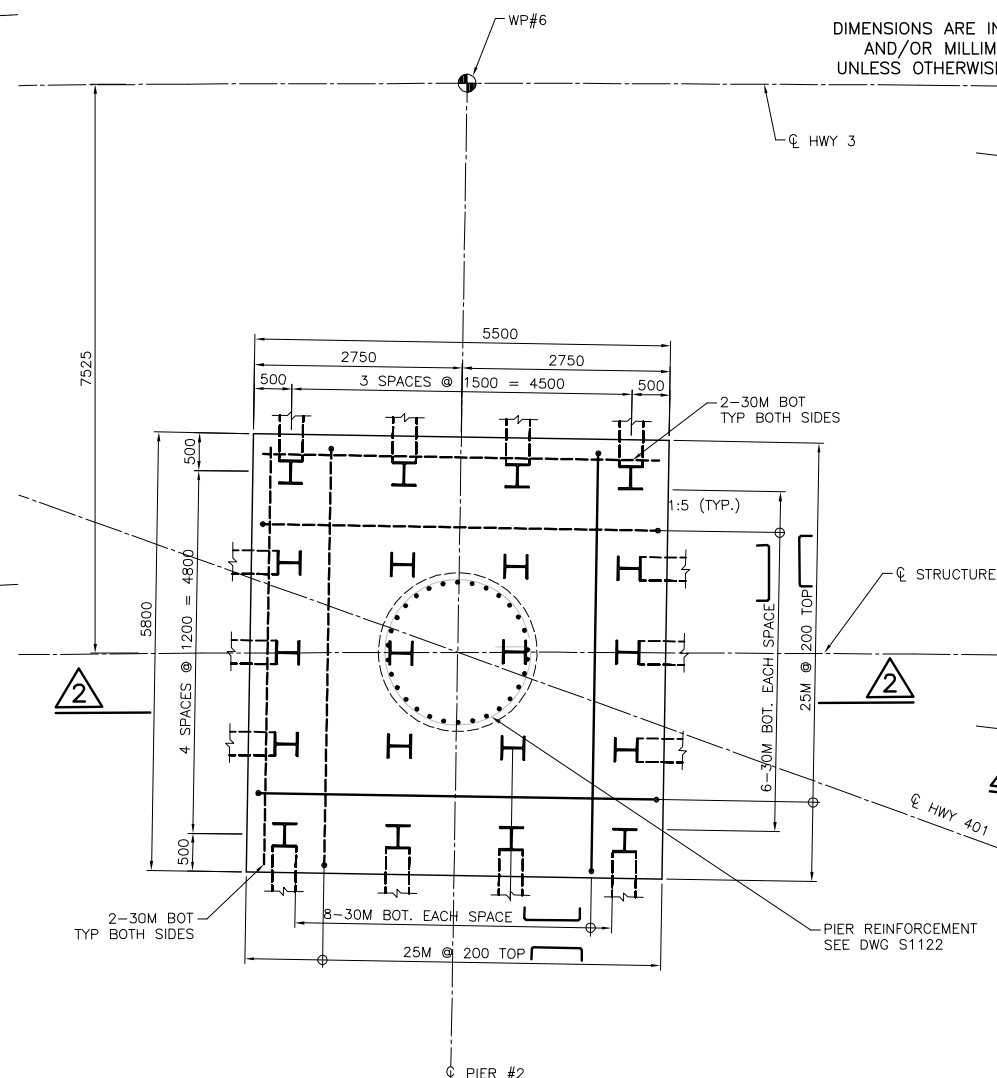
PIER #1 PLAN
SCALE 1:50



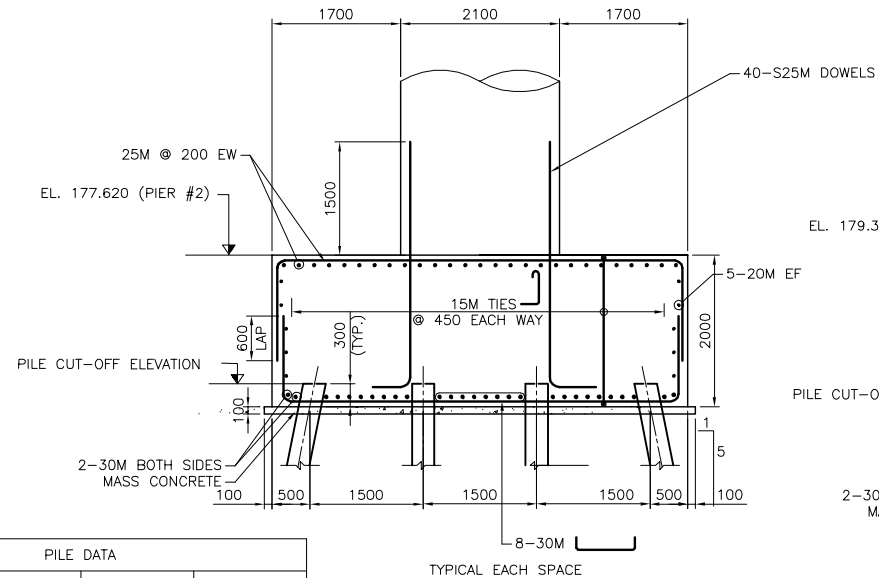
WORKING POINT DATA		
LOCATION	NORTHING	EASTING
WP #4	4 678 185.099	334 655.560
WP #6	4 678 171.247	334 713.932
WP #9	4 678 149.796	334 777.356



SCALE 1:50

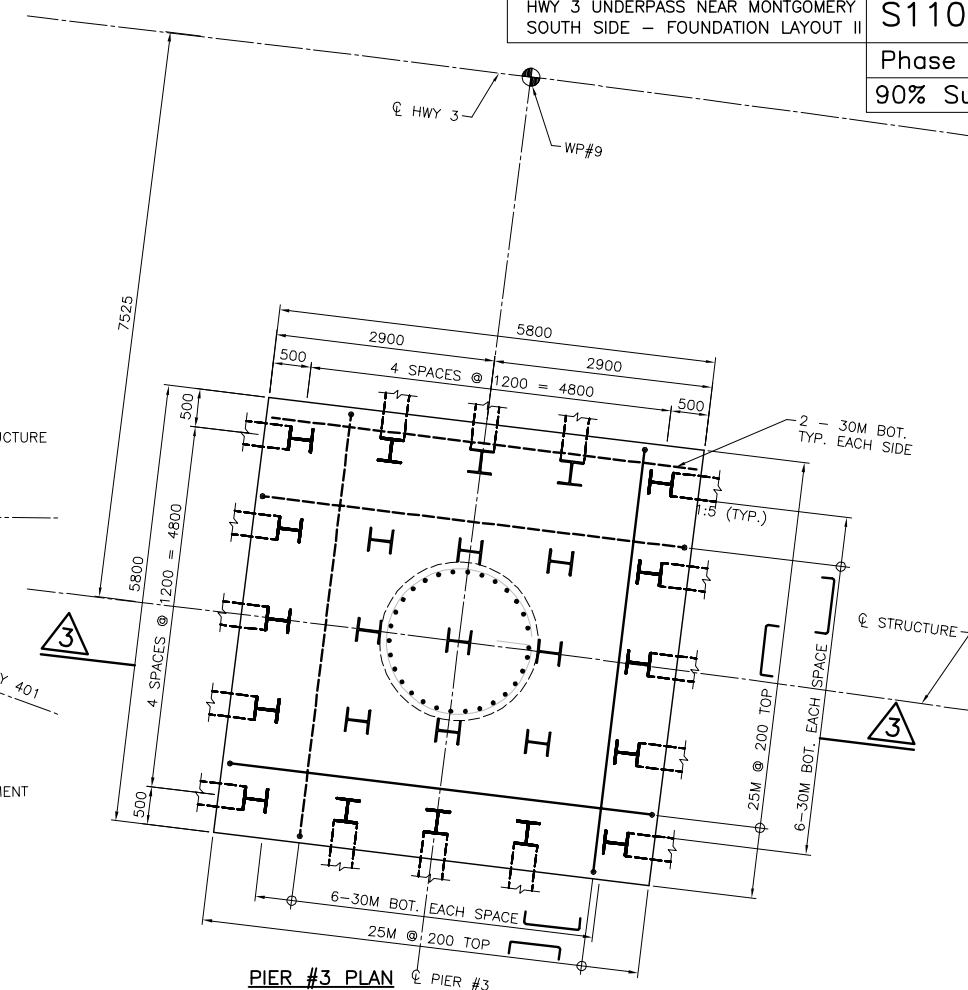


PIER #2 PLAN
SCALE 1:50

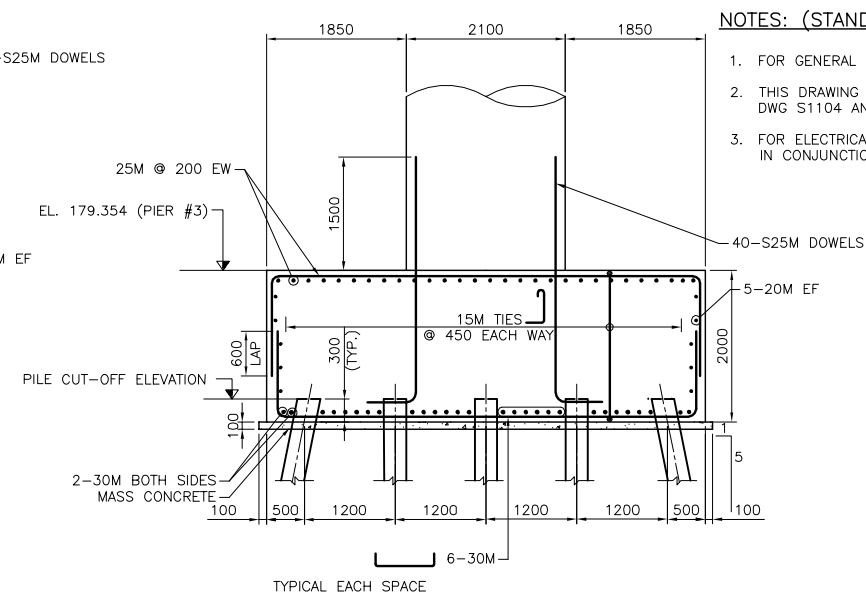


PILE DATA			
LOCATION	No. REQUIRED	LENGTH (m)	BATTER
PIER #1	12	28	1:5
	4	27.5	NO
PIER # 2	14	27	1:5
	6	26.5	NO
PIER #3	16	29.5	1:5
	9	29	NO

SCALE 1:50



PIER #3 PLAN
SCALE 1:50



3
SCALE 1:50

NOT FOR
CONSTRUCTION

DRAWING NOT TO BE SCALED
100mm ON ORIGINAL DRAWING

NOTES: (STANDARD)

1. FOR GENERAL NOTES SEE DWG S1101.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH DWG S1104 AND S1122.
3. FOR ELECTRICAL DUCTS THIS DRAWING TO BE READ IN CONJUNCTION WITH DWG S1158 AND S1159.

REVISIONS					
	13-FEB-12	B	PP	90% SUBSTRUCTURE MTO	SUBMISSION
	18-AUG-11	A	PP	60% MTO SUBMISSION	
	DATE	REV.	BY	DESCRIPTION	
DESIGN	VH	CHK	BR	CITE	CAN/CSA S6-06/LOAD CL 625-ONT
DRAWN	NS	CHK	PP	DATE	18-JUL-11

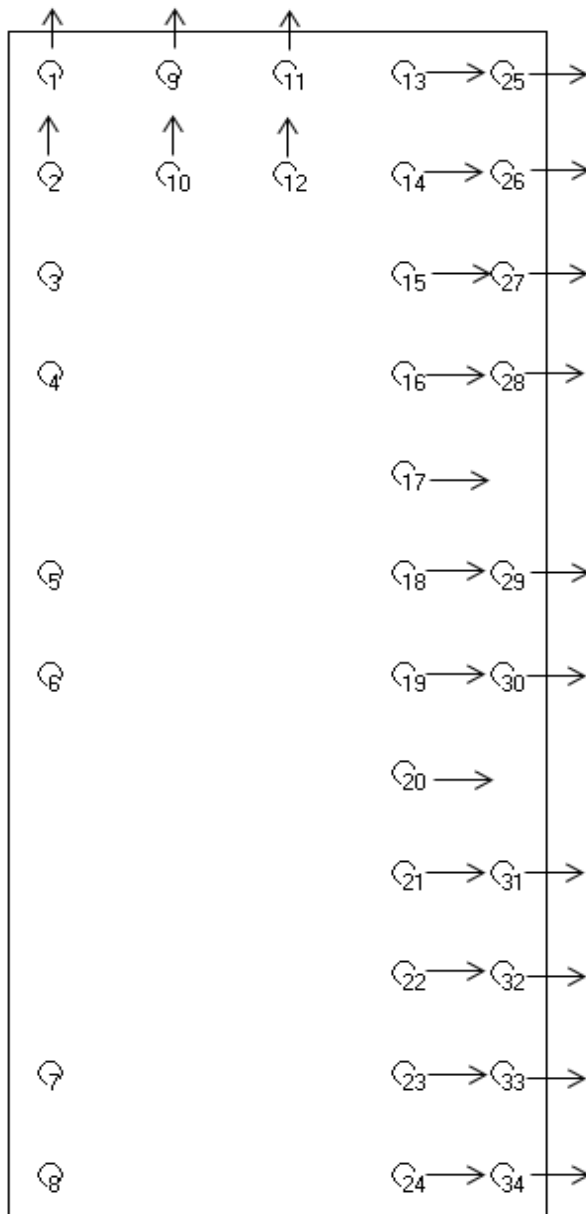
DOC: 285380-03-061-WP1-1107

Appendix C Results of Pile Group Analysis

Project: Windsor-Essex Parkway
Document: Final Pile Group Analysis Report – Bridge B-11
(Highway 3 Underpass East of Montgomery Drive)
Doc No.: 285380-04-119-0048

Date: April/2012
Rev: 0
Page No.: Appendix C

B11 North West Abutment **Pile Layout**



Pile No.	Batter Angle	
	Vertical	Horizontal
1	3	1
2	3	1
3	---	---
4	---	---
5	---	---
6	---	---
7	---	---
8	---	---
9	3	1
10	3	1
11	3	1
12	3	1
13	3	1
14	3	1
15	3	1
16	3	1
17	3	1
18	3	1
19	3	1
20	3	1
21	3	1
22	3	1
23	3	1
24	3	1
25	3	1
26	3	1
27	3	1
28	3	1
29	3	1
30	3	1
31	3	1
32	3	1
33	3	1
34	3	1

Note:

1. Arrows show batter direction.
2. View from top of pile group.
3. See pile layout drawings for dimensions.

B11 North West Abutment
ULS Pile Cap Loads

LC 1		ULS: MinNx					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-24615	-6241	1508	-1921	-5429	-16995

LC 2		ULS: MaxNx					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-11419	-4807	1142	-1514	-2219	-6723

LC 3		ULS: MinMy					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-16849	-8787	2431	-2231	-16707	-25297

LC 5		ULS: MinMz					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-21445	-9107	2136	-2794	-6142	-30508

LC 7		ULS: MinQy					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-14824	-9107	2172	-2739	-5684	-23082

LC 10		ULS: MaxQz					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-16161	-9098	2558	-2220	-10580	-24909

B11 North West Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinNx Bottom	1	-547.51	14.30	32.20	0.00	24.10	13.70	0.33	0.27	0.017	0.02	0.03	0.15	0.027	0.11
	2	-583.33	13.30	29.80	0.00	22.40	12.70	0.33	0.29	0.016	0.01	0.02	0.14	0.025	0.11
	3	-688.76	44.40	16.80	0.00	12.30	41.00	0.35	0.34	0.009	0.05	0.08	0.07	0.062	0.08
	4	-719.97	42.50	17.50	0.00	12.70	38.70	0.36	0.36	0.009	0.05	0.08	0.08	0.059	0.08
	5	-782.41	38.30	19.10	0.00	13.40	33.80	0.37	0.39	0.010	0.04	0.07	0.08	0.053	0.08
	6	-813.62	34.50	19.10	0.00	13.50	30.40	0.38	0.41	0.010	0.04	0.06	0.08	0.048	0.08
	7	-938.49	21.40	22.50	0.00	15.00	17.90	0.40	0.47	0.012	0.02	0.03	0.09	0.031	0.08
	8	-969.71	16.70	22.50	0.00	15.10	14.00	0.40	0.48	0.012	0.02	0.03	0.09	0.025	0.07
	9	-541.61	10.30	32.50	0.00	24.30	9.87	0.32	0.27	0.018	0.01	0.02	0.15	0.022	0.11
	10	-577.43	9.28	30.00	0.00	22.60	8.91	0.32	0.29	0.016	0.01	0.02	0.14	0.020	0.10
	11	-535.71	6.23	32.80	0.00	24.50	5.96	0.32	0.27	0.018	0.01	0.01	0.15	0.017	0.11
	12	-571.53	5.16	30.00	0.00	22.60	4.97	0.31	0.29	0.016	0.01	0.01	0.14	0.014	0.10
	13	-674.57	38.20	9.89	0.00	7.10	34.50	0.31	0.34	0.005	0.04	0.07	0.04	0.051	0.05
	14	-696.20	33.30	9.76	0.00	7.07	30.20	0.30	0.35	0.005	0.04	0.06	0.04	0.045	0.05
	15	-717.82	30.40	10.30	0.00	7.30	27.00	0.30	0.36	0.006	0.03	0.05	0.04	0.041	0.05
	16	-739.45	27.70	11.10	0.00	7.63	23.80	0.31	0.37	0.006	0.03	0.05	0.05	0.037	0.05
	17	-761.08	26.30	13.00	0.00	8.47	21.40	0.31	0.38	0.007	0.03	0.04	0.05	0.034	0.05
	18	-782.70	20.20	12.90	0.00	8.46	16.60	0.31	0.39	0.007	0.02	0.03	0.05	0.027	0.05
	19	-804.33	15.30	13.80	0.00	8.91	12.40	0.31	0.40	0.007	0.02	0.02	0.05	0.021	0.05
	20	-825.95	10.50	16.00	0.00	9.93	8.07	0.32	0.41	0.009	0.01	0.02	0.06	0.015	0.05
	21	-847.58	2.95	15.40	0.00	9.74	2.33	0.31	0.42	0.008	0.00	0.00	0.06	0.007	0.04
	22	-869.20	4.11	15.00	0.00	9.58	3.27	0.32	0.43	0.008	0.00	0.01	0.06	0.008	0.04
	23	-890.83	10.50	14.30	0.00	9.23	8.47	0.33	0.45	0.008	0.01	0.02	0.06	0.016	0.05
	24	-912.45	16.20	13.50	0.00	8.84	13.20	0.34	0.46	0.007	0.02	0.03	0.05	0.022	0.05
	25	-682.74	42.50	8.69	0.00	5.92	36.40	0.30	0.34	0.005	0.05	0.07	0.04	0.054	0.05
	26	-704.20	38.20	8.87	0.00	5.99	32.40	0.30	0.35	0.005	0.04	0.06	0.04	0.048	0.05
	27	-725.99	35.00	9.42	0.00	6.24	29.10	0.30	0.36	0.005	0.04	0.06	0.04	0.044	0.04
	28	-747.62	31.50	10.10	0.00	6.55	25.70	0.31	0.37	0.005	0.03	0.05	0.04	0.039	0.04
	29	-790.87	23.80	12.10	0.00	7.48	18.30	0.31	0.40	0.007	0.03	0.04	0.05	0.029	0.04
	30	-812.49	17.90	12.90	0.00	7.85	13.50	0.31	0.41	0.007	0.02	0.03	0.05	0.022	0.04
	31	-855.75	3.29	15.40	0.00	8.90	2.35	0.31	0.43	0.008	0.00	0.00	0.05	0.007	0.04
	32	-877.37	5.58	14.80	0.00	8.69	4.05	0.31	0.44	0.008	0.01	0.01	0.05	0.009	0.04
	33	-899.00	13.30	13.80	0.00	8.25	9.82	0.33	0.45	0.007	0.01	0.02	0.05	0.017	0.04
	34	-920.62	19.40	12.60	0.00	7.72	14.80	0.34	0.46	0.007	0.02	0.03	0.05	0.024	0.04

B11 North West Abutment

ULS Pile Loads

LOAD CASE	PILE	ABS Maximum Values						Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxNx Bottom	1	-327.86	28.10	47.60	0.00	40.10	30.60	0.40	0.16	0.026	0.03	0.06	0.24	0.055	0.19
	2	-342.55	27.50	46.20	0.00	39.10	30.10	0.39	0.17	0.025	0.03	0.06	0.24	0.054	0.19
	3	-302.14	74.90	19.90	0.00	16.00	78.00	0.34	0.15	0.011	0.08	0.15	0.10	0.116	0.11
	4	-326.60	74.90	20.20	0.00	16.10	77.50	0.34	0.16	0.011	0.08	0.15	0.10	0.115	0.11
	5	-375.52	74.20	20.70	0.00	16.50	76.00	0.36	0.19	0.011	0.08	0.15	0.10	0.113	0.11
	6	-399.98	72.40	20.50	0.00	16.40	74.40	0.36	0.20	0.011	0.08	0.15	0.10	0.111	0.11
	7	-497.82	69.80	21.30	0.00	16.90	70.80	0.38	0.25	0.012	0.08	0.14	0.10	0.106	0.11
	8	-516.10	67.90	21.10	0.00	16.90	69.20	0.39	0.26	0.011	0.07	0.14	0.10	0.103	0.11
	9	-251.63	28.20	47.90	0.00	40.00	30.60	0.38	0.13	0.026	0.03	0.06	0.24	0.055	0.19
	10	-266.32	27.50	46.40	0.00	39.00	30.00	0.37	0.13	0.025	0.03	0.06	0.24	0.054	0.19
	11	-175.45	28.20	48.20	0.00	39.90	30.50	0.35	0.09	0.026	0.03	0.06	0.24	0.055	0.19
	12	-190.15	27.30	46.20	0.00	38.70	29.90	0.35	0.10	0.025	0.03	0.06	0.23	0.054	0.18
	13	-372.00	68.00	15.60	0.00	13.20	73.90	0.33	0.19	0.008	0.07	0.14	0.08	0.109	0.09
	14	-379.79	64.40	15.10	0.00	12.90	71.20	0.33	0.19	0.008	0.07	0.14	0.08	0.105	0.09
	15	-387.58	63.70	15.20	0.00	13.00	70.10	0.33	0.19	0.008	0.07	0.14	0.08	0.103	0.09
	16	-395.36	63.90	15.60	0.00	13.20	69.60	0.33	0.20	0.008	0.07	0.14	0.08	0.103	0.09
	17	-403.15	69.20	17.40	0.00	14.20	71.60	0.34	0.20	0.009	0.08	0.14	0.09	0.106	0.10
	18	-410.94	62.40	15.90	0.00	13.40	67.40	0.33	0.21	0.009	0.07	0.13	0.08	0.100	0.09
	19	-418.72	61.30	16.00	0.00	13.40	66.10	0.33	0.21	0.009	0.07	0.13	0.08	0.098	0.09
	20	-426.51	66.40	17.80	0.00	14.40	68.20	0.34	0.21	0.010	0.07	0.13	0.09	0.101	0.10
	21	-434.30	59.80	16.30	0.00	13.60	63.80	0.33	0.22	0.009	0.07	0.12	0.08	0.095	0.09
	22	-442.08	57.80	16.10	0.00	13.60	62.00	0.33	0.22	0.009	0.06	0.12	0.08	0.092	0.09
	23	-449.87	56.90	16.30	0.00	13.60	60.80	0.33	0.22	0.009	0.06	0.12	0.08	0.090	0.09
	24	-457.66	56.90	16.70	0.00	13.90	60.10	0.33	0.23	0.009	0.06	0.12	0.08	0.089	0.09
	25	-314.59	77.30	16.90	0.00	13.60	79.20	0.33	0.16	0.009	0.08	0.15	0.08	0.117	0.10
	26	-322.32	75.10	16.80	0.00	13.50	77.30	0.33	0.16	0.009	0.08	0.15	0.08	0.114	0.10
	27	-330.16	74.20	16.90	0.00	13.60	76.20	0.33	0.17	0.009	0.08	0.15	0.08	0.112	0.10
	28	-337.95	73.20	17.00	0.00	13.70	75.00	0.33	0.17	0.009	0.08	0.15	0.08	0.111	0.10
	29	-353.52	72.30	17.60	0.00	14.00	73.30	0.33	0.18	0.010	0.08	0.14	0.08	0.108	0.10
	30	-361.31	70.40	17.50	0.00	14.00	71.50	0.33	0.18	0.009	0.08	0.14	0.08	0.106	0.10
	31	-376.88	69.40	18.00	0.00	14.30	69.70	0.33	0.19	0.010	0.08	0.14	0.09	0.103	0.10
	32	-384.67	67.50	17.90	0.00	14.20	68.00	0.33	0.19	0.010	0.07	0.13	0.09	0.101	0.10
	33	-392.46	66.50	18.10	0.00	14.30	66.80	0.33	0.20	0.010	0.07	0.13	0.09	0.099	0.10
	34	-400.24	65.50	18.30	0.00	14.40	65.60	0.33	0.20	0.010	0.07	0.13	0.09	0.098	0.10

B11 North West Abutment

ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinMy Bottom	1	-576.11	65.50	72.80	0.00	76.60	87.20	0.80	0.29	0.039	0.07	0.17	0.46	0.142	0.37
	2	-557.51	63.30	71.30	0.00	76.00	85.70	0.79	0.28	0.039	0.07	0.17	0.46	0.139	0.37
	3	0.00	134.00	43.00	0.00	40.50	167.00	0.57	0.00	0.023	0.15	0.33	0.25	0.248	0.25
	4	0.00	137.00	43.30	0.00	40.60	171.00	0.58	0.00	0.023	0.15	0.33	0.25	0.253	0.25
	5	0.00	143.00	43.60	0.00	40.80	177.00	0.59	0.00	0.024	0.16	0.35	0.25	0.262	0.25
	6	0.00	134.00	40.90	0.00	38.50	168.00	0.56	0.00	0.022	0.15	0.33	0.23	0.249	0.24
	7	0.00	143.00	40.80	0.00	38.30	179.00	0.58	0.00	0.022	0.16	0.35	0.23	0.264	0.24
	8	0.00	141.00	39.60	0.00	37.70	178.00	0.58	0.00	0.021	0.15	0.35	0.23	0.263	0.24
	9	-494.05	68.80	72.80	0.00	75.80	91.30	0.78	0.25	0.039	0.08	0.18	0.46	0.148	0.37
	10	-475.45	66.40	71.20	0.00	75.10	89.60	0.77	0.24	0.039	0.07	0.18	0.46	0.145	0.36
	11	-412.05	72.10	72.90	0.00	75.00	95.30	0.76	0.21	0.040	0.08	0.19	0.45	0.153	0.37
	12	-393.46	68.80	70.50	0.00	73.80	92.90	0.74	0.20	0.038	0.08	0.18	0.45	0.149	0.36
	13	-752.52	108.00	39.10	0.00	42.80	147.00	0.76	0.38	0.021	0.12	0.29	0.26	0.218	0.24
	14	-754.04	103.00	36.50	0.00	41.00	144.00	0.75	0.38	0.020	0.11	0.28	0.25	0.213	0.23
	15	-755.56	104.00	36.20	0.00	40.80	146.00	0.75	0.38	0.020	0.11	0.29	0.25	0.216	0.23
	16	-757.08	107.00	36.60	0.00	41.10	150.00	0.76	0.38	0.020	0.12	0.29	0.25	0.222	0.23
	17	-758.60	120.00	40.30	0.00	43.60	161.00	0.80	0.38	0.022	0.13	0.31	0.26	0.239	0.25
	18	-760.12	110.00	36.30	0.00	40.80	155.00	0.77	0.38	0.020	0.12	0.30	0.25	0.229	0.23
	19	-761.64	111.00	35.80	0.00	40.40	156.00	0.77	0.38	0.019	0.12	0.30	0.24	0.230	0.23
	20	-763.16	123.00	39.40	0.00	42.90	168.00	0.81	0.38	0.021	0.14	0.33	0.26	0.248	0.25
	21	-764.68	114.00	35.50	0.00	40.20	161.00	0.78	0.38	0.019	0.13	0.31	0.24	0.237	0.23
	22	-766.20	112.00	34.40	0.00	39.40	161.00	0.78	0.38	0.019	0.12	0.31	0.24	0.237	0.23
	23	-767.72	113.00	34.10	0.00	39.30	163.00	0.78	0.38	0.018	0.12	0.32	0.24	0.240	0.23
	24	-769.25	116.00	34.50	0.00	39.50	166.00	0.79	0.38	0.019	0.13	0.32	0.24	0.244	0.23
	25	-665.28	127.00	47.20	0.00	48.80	164.00	0.81	0.33	0.026	0.14	0.32	0.30	0.245	0.28
	26	-666.79	126.00	45.70	0.00	47.90	165.00	0.81	0.33	0.025	0.14	0.32	0.29	0.246	0.27
	27	-668.32	128.00	45.40	0.00	47.70	167.00	0.81	0.33	0.025	0.14	0.33	0.29	0.248	0.27
	28	-669.84	129.00	45.10	0.00	47.50	170.00	0.81	0.33	0.024	0.14	0.33	0.29	0.253	0.27
	29	-672.89	135.00	45.40	0.00	47.60	177.00	0.83	0.34	0.025	0.15	0.35	0.29	0.263	0.28
	30	-674.41	127.00	42.40	0.00	45.00	169.00	0.80	0.34	0.023	0.14	0.33	0.27	0.250	0.26
	31	-677.45	133.00	42.80	0.00	45.20	176.00	0.81	0.34	0.023	0.15	0.34	0.27	0.260	0.27
	32	-678.97	131.00	41.50	0.00	44.40	176.00	0.81	0.34	0.023	0.14	0.34	0.27	0.260	0.26
	33	-680.49	132.00	41.20	0.00	44.20	178.00	0.81	0.34	0.022	0.15	0.35	0.27	0.263	0.26
	34	-682.01	133.00	40.90	0.00	44.00	180.00	0.82	0.34	0.022	0.15	0.35	0.27	0.266	0.26

B11 North West Abutment

ULS Pile Loads

LOAD CASE	PILE	ABS Maximum Values						Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinMz Bottom	1	-440.21	64.50	68.90	0.00	68.40	81.50	0.70	0.22	0.037	0.07	0.16	0.41	0.133	0.33
	2	-471.80	62.40	65.10	0.00	65.80	79.80	0.69	0.24	0.035	0.07	0.16	0.40	0.129	0.32
	3	0.00	112.00	41.10	0.00	37.20	133.00	0.49	0.00	0.022	0.12	0.26	0.23	0.199	0.22
	4	-48.46	111.00	41.80	0.00	37.80	131.00	0.50	0.02	0.023	0.12	0.26	0.23	0.196	0.22
	5	-153.62	109.00	43.30	0.00	39.00	127.00	0.53	0.08	0.023	0.12	0.25	0.24	0.191	0.23
	6	-206.20	104.00	42.40	0.00	38.70	122.00	0.53	0.10	0.023	0.11	0.24	0.23	0.184	0.22
	7	-416.51	96.60	44.40	0.00	40.60	113.00	0.59	0.21	0.024	0.11	0.22	0.25	0.171	0.23
	8	-469.09	91.90	43.50	0.00	40.40	108.00	0.59	0.23	0.024	0.10	0.21	0.24	0.164	0.22
	9	-418.59	61.90	69.50	0.00	68.80	78.00	0.69	0.21	0.038	0.07	0.15	0.42	0.128	0.33
	10	-450.18	59.80	65.60	0.00	66.00	76.30	0.68	0.23	0.036	0.07	0.15	0.40	0.125	0.32
	11	-396.98	59.30	70.10	0.00	69.10	74.50	0.68	0.20	0.038	0.07	0.15	0.42	0.123	0.33
	12	-428.57	56.70	65.60	0.00	66.00	72.50	0.67	0.21	0.036	0.06	0.14	0.40	0.119	0.32
	13	-831.51	102.00	30.20	0.00	31.60	132.00	0.69	0.42	0.016	0.11	0.26	0.19	0.195	0.19
	14	-840.74	94.50	28.70	0.00	30.70	125.00	0.67	0.42	0.016	0.10	0.24	0.19	0.185	0.18
	15	-849.97	92.70	29.00	0.00	31.00	122.00	0.67	0.42	0.016	0.10	0.24	0.19	0.180	0.18
	16	-859.20	92.20	29.80	0.00	31.50	120.00	0.67	0.43	0.016	0.10	0.23	0.19	0.178	0.18
	17	-868.43	97.80	33.00	0.00	33.20	122.00	0.69	0.43	0.018	0.11	0.24	0.20	0.181	0.20
	18	-877.66	88.80	30.70	0.00	32.10	114.00	0.67	0.44	0.017	0.10	0.22	0.19	0.169	0.19
	19	-886.88	86.30	30.90	0.00	32.20	111.00	0.67	0.44	0.017	0.09	0.22	0.20	0.165	0.19
	20	-896.11	91.30	34.20	0.00	34.00	113.00	0.69	0.45	0.019	0.10	0.22	0.21	0.169	0.20
	21	-905.34	82.70	31.90	0.00	32.80	105.00	0.67	0.45	0.017	0.09	0.21	0.20	0.157	0.19
	22	-914.57	79.00	31.60	0.00	32.70	101.00	0.66	0.46	0.017	0.09	0.20	0.20	0.151	0.18
	23	-923.80	76.90	32.00	0.00	33.00	97.60	0.66	0.46	0.017	0.08	0.19	0.20	0.146	0.18
	24	-933.03	75.70	32.90	0.00	33.60	95.10	0.66	0.47	0.018	0.08	0.19	0.20	0.143	0.19
	25	-834.06	112.00	32.10	0.00	31.80	139.00	0.71	0.42	0.017	0.12	0.27	0.19	0.205	0.20
	26	-843.21	107.00	31.40	0.00	31.50	133.00	0.69	0.42	0.017	0.12	0.26	0.19	0.197	0.19
	27	-852.51	105.00	31.80	0.00	31.80	130.00	0.69	0.43	0.017	0.12	0.25	0.19	0.192	0.19
	28	-861.74	103.00	32.10	0.00	32.00	127.00	0.69	0.43	0.017	0.11	0.25	0.19	0.188	0.19
	29	-880.20	101.00	33.70	0.00	32.90	122.00	0.69	0.44	0.018	0.11	0.24	0.20	0.182	0.20
	30	-889.43	96.30	33.30	0.00	32.70	118.00	0.69	0.44	0.018	0.11	0.23	0.20	0.176	0.19
	31	-907.89	94.00	35.00	0.00	33.60	112.00	0.69	0.45	0.019	0.10	0.22	0.20	0.168	0.20
	32	-917.11	89.50	34.60	0.00	33.50	108.00	0.68	0.46	0.019	0.10	0.21	0.20	0.162	0.19
	33	-926.34	87.10	35.00	0.00	33.70	104.00	0.68	0.46	0.019	0.10	0.20	0.20	0.156	0.19
	34	-935.57	84.70	35.50	0.00	34.00	101.00	0.67	0.47	0.019	0.09	0.20	0.21	0.152	0.19

B11 North West Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinQy Bottom	1	-521.30	77.60	91.00	0.00	103.00	112.00	0.99	0.26	0.049	0.09	0.22	0.62	0.181	0.49
	2	-550.47	75.20	87.30	0.00	100.00	110.00	0.98	0.28	0.047	0.08	0.21	0.61	0.178	0.48
	3	0.00	155.00	48.40	0.00	48.40	204.00	0.69	0.00	0.026	0.17	0.40	0.29	0.302	0.29
	4	0.00	156.00	49.20	0.00	48.90	204.00	0.69	0.00	0.027	0.17	0.40	0.30	0.302	0.29
	5	0.00	157.00	50.80	0.00	49.80	204.00	0.70	0.00	0.028	0.17	0.40	0.30	0.302	0.30
	6	0.00	153.00	49.90	0.00	49.30	200.00	0.69	0.00	0.027	0.17	0.39	0.30	0.296	0.29
	7	0.00	151.00	52.00	0.00	50.60	195.00	0.69	0.00	0.028	0.17	0.38	0.31	0.290	0.30
	8	-43.92	147.00	50.90	0.00	50.20	191.00	0.69	0.02	0.028	0.16	0.37	0.30	0.284	0.29
	9	-284.69	79.00	93.80	0.00	102.00	112.00	0.92	0.14	0.051	0.09	0.22	0.62	0.182	0.49
	10	-313.86	76.40	89.80	0.00	99.10	109.00	0.90	0.16	0.049	0.08	0.21	0.60	0.177	0.47
	11	-48.24	80.40	96.50	0.00	101.00	112.00	0.84	0.02	0.052	0.09	0.22	0.61	0.183	0.49
	12	-77.42	77.00	91.60	0.00	97.60	109.00	0.83	0.04	0.050	0.08	0.21	0.59	0.177	0.47
	13	-700.38	139.00	36.80	0.00	43.30	203.00	0.86	0.35	0.020	0.15	0.40	0.26	0.297	0.26
	14	-711.67	130.00	34.90	0.00	42.10	195.00	0.84	0.36	0.019	0.14	0.38	0.26	0.285	0.25
	15	-722.97	130.00	35.00	0.00	42.20	193.00	0.84	0.36	0.019	0.14	0.38	0.26	0.283	0.25
	16	-734.27	131.00	35.90	0.00	42.80	194.00	0.85	0.37	0.019	0.14	0.38	0.26	0.284	0.25
	17	-745.56	143.00	40.00	0.00	45.50	204.00	0.89	0.37	0.022	0.16	0.40	0.28	0.300	0.27
	18	-756.86	129.00	36.30	0.00	43.30	191.00	0.85	0.38	0.020	0.14	0.37	0.26	0.280	0.26
	19	-768.15	128.00	36.30	0.00	43.30	188.00	0.85	0.38	0.020	0.14	0.37	0.26	0.276	0.25
	20	-779.45	140.00	40.50	0.00	46.10	199.00	0.89	0.39	0.022	0.15	0.39	0.28	0.293	0.27
	21	-790.74	126.00	36.80	0.00	43.70	186.00	0.86	0.40	0.020	0.14	0.36	0.26	0.273	0.26
	22	-802.04	123.00	36.10	0.00	43.40	181.00	0.85	0.40	0.020	0.14	0.35	0.26	0.266	0.25
	23	-813.33	121.00	36.30	0.00	43.50	180.00	0.85	0.41	0.020	0.13	0.35	0.26	0.265	0.25
	24	-824.63	122.00	37.00	0.00	44.10	180.00	0.86	0.41	0.020	0.13	0.35	0.27	0.265	0.26
	25	-518.88	160.00	41.80	0.00	45.10	220.00	0.85	0.26	0.023	0.18	0.43	0.27	0.323	0.28
	26	-530.09	155.00	40.90	0.00	44.50	215.00	0.84	0.27	0.022	0.17	0.42	0.27	0.315	0.27
	27	-541.48	154.00	41.10	0.00	44.70	213.00	0.84	0.27	0.022	0.17	0.42	0.27	0.313	0.27
	28	-552.77	152.00	41.20	0.00	44.90	211.00	0.84	0.28	0.022	0.17	0.41	0.27	0.310	0.27
	29	-575.36	153.00	42.40	0.00	45.90	210.00	0.85	0.29	0.023	0.17	0.41	0.28	0.309	0.28
	30	-586.66	149.00	41.70	0.00	45.50	206.00	0.85	0.29	0.023	0.16	0.40	0.28	0.303	0.27
	31	-609.25	149.00	43.00	0.00	46.50	204.00	0.86	0.30	0.023	0.16	0.40	0.28	0.300	0.28
	32	-620.54	145.00	42.20	0.00	46.00	200.00	0.85	0.31	0.023	0.16	0.39	0.28	0.294	0.28
	33	-631.84	144.00	42.40	0.00	46.20	198.00	0.85	0.32	0.023	0.16	0.39	0.28	0.292	0.28
	34	-643.13	143.00	42.60	0.00	46.40	196.00	0.85	0.32	0.023	0.16	0.38	0.28	0.289	0.28

B11 North West Abutment

ULS Pile Loads

LOAD CASE	PILE	ABS Maximum Values						Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxQz Bottom	1	-548.92	84.10	83.80	0.00	92.90	119.00	0.95	0.27	0.045	0.09	0.23	0.56	0.190	0.45
	2	-561.72	80.90	80.30	0.00	90.60	116.00	0.94	0.28	0.044	0.09	0.23	0.55	0.185	0.44
	3	0.00	144.00	52.40	0.00	51.90	189.00	0.68	0.00	0.028	0.16	0.37	0.31	0.281	0.30
	4	0.00	146.00	53.10	0.00	52.30	190.00	0.69	0.00	0.029	0.16	0.37	0.32	0.283	0.30
	5	0.00	150.00	54.70	0.00	53.30	193.00	0.70	0.00	0.030	0.16	0.38	0.32	0.288	0.31
	6	0.00	145.00	53.30	0.00	52.40	189.00	0.69	0.00	0.029	0.16	0.37	0.32	0.282	0.30
	7	0.00	149.00	54.90	0.00	53.40	192.00	0.70	0.00	0.030	0.16	0.38	0.32	0.286	0.31
	8	0.00	144.00	53.50	0.00	52.60	188.00	0.69	0.00	0.029	0.16	0.37	0.32	0.280	0.30
	9	-400.19	85.80	85.20	0.00	92.10	120.00	0.91	0.20	0.046	0.09	0.23	0.56	0.191	0.45
	10	-412.99	82.30	81.50	0.00	89.80	117.00	0.89	0.21	0.044	0.09	0.23	0.54	0.186	0.44
	11	-251.57	87.50	86.60	0.00	91.40	121.00	0.86	0.13	0.047	0.10	0.24	0.55	0.193	0.45
	12	-264.36	83.10	82.00	0.00	88.70	117.00	0.84	0.13	0.044	0.09	0.23	0.54	0.186	0.43
	13	-717.03	129.00	43.50	0.00	50.10	186.00	0.87	0.36	0.024	0.14	0.36	0.30	0.275	0.29
	14	-726.69	121.00	40.70	0.00	48.40	178.00	0.85	0.36	0.022	0.13	0.35	0.29	0.263	0.27
	15	-736.36	121.00	40.70	0.00	48.40	178.00	0.85	0.37	0.022	0.13	0.35	0.29	0.263	0.27
	16	-746.02	123.00	41.40	0.00	49.00	180.00	0.86	0.37	0.022	0.14	0.35	0.30	0.266	0.28
	17	-755.68	134.00	45.70	0.00	51.90	190.00	0.90	0.38	0.025	0.15	0.37	0.31	0.281	0.30
	18	-765.34	123.00	41.70	0.00	49.30	180.00	0.87	0.38	0.023	0.14	0.35	0.30	0.266	0.28
	19	-775.00	122.00	41.40	0.00	49.10	179.00	0.87	0.39	0.022	0.13	0.35	0.30	0.264	0.28
	20	-784.66	133.00	45.70	0.00	52.10	189.00	0.91	0.39	0.025	0.15	0.37	0.32	0.280	0.30
	21	-794.32	122.00	41.70	0.00	49.40	179.00	0.88	0.40	0.023	0.13	0.35	0.30	0.264	0.28
	22	-803.98	119.00	40.70	0.00	48.90	176.00	0.87	0.40	0.022	0.13	0.34	0.30	0.260	0.27
	23	-813.64	119.00	40.70	0.00	48.90	176.00	0.88	0.41	0.022	0.13	0.34	0.30	0.260	0.27
	24	-823.30	120.00	41.40	0.00	49.40	177.00	0.88	0.41	0.022	0.13	0.35	0.30	0.262	0.28
	25	-595.47	146.00	49.40	0.00	53.30	200.00	0.89	0.30	0.027	0.16	0.39	0.32	0.296	0.31
	26	-605.06	141.00	47.70	0.00	52.20	196.00	0.87	0.30	0.026	0.15	0.38	0.32	0.290	0.30
	27	-614.79	141.00	47.80	0.00	52.30	195.00	0.88	0.31	0.026	0.15	0.38	0.32	0.289	0.30
	28	-624.45	141.00	47.70	0.00	52.30	195.00	0.88	0.31	0.026	0.15	0.38	0.32	0.289	0.30
	29	-643.77	144.00	49.10	0.00	53.40	197.00	0.89	0.32	0.027	0.16	0.38	0.32	0.292	0.31
	30	-653.43	140.00	47.70	0.00	52.50	194.00	0.89	0.33	0.026	0.15	0.38	0.32	0.287	0.30
	31	-672.75	143.00	49.00	0.00	53.60	196.00	0.90	0.34	0.027	0.16	0.38	0.32	0.290	0.31
	32	-682.41	139.00	47.70	0.00	52.70	192.00	0.89	0.34	0.026	0.15	0.38	0.32	0.284	0.30
	33	-692.07	138.00	47.70	0.00	52.80	192.00	0.90	0.35	0.026	0.15	0.38	0.32	0.284	0.30
	34	-701.74	138.00	47.70	0.00	52.80	192.00	0.90	0.35	0.026	0.15	0.38	0.32	0.284	0.30

B11 North West Abutment
SLS Pile Cap Loads

LC 1		SLS-C1: MinNx					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-19178	-6723	1772	-1912	-5965	-17970

LC 3		SLS-C1: MinMy					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-17365	-6801	1856	-1787	-10450	-15525

LC 5		SLS-C1: MinMz					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-19057	-6880	1681	-2050	-5168	-18336

LC 7		SLS-C1: MinQy					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-16687	-6880	1703	-2016	-5133	-14782

LC 10		SLS-C1: MaxQz					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-16900	-6801	1925	-1683	-7831	-14827

B11 North West Abutment
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MinNx Bottom	1	-430.29	43.50	48.80	0.00	42.30	48.60	kN/m			kN-m/rad		
	2	-456.48	41.90	45.80	0.00	40.30	47.40						
	3	-333.42	74.90	29.50	0.00	24.70	81.10	2.84E+06	1.49E+05	3.18E+05	3.84E+07	1.32E+08	2.49E+07
	4	-377.02	73.90	30.10	0.00	25.10	79.40						
	5	-464.21	72.10	31.50	0.00	25.90	76.10						
	6	-507.80	68.20	30.90	0.00	25.70	72.70						
	7	-599.82	62.00	33.40	0.00	27.20	64.20						
	8	-622.64	58.20	32.80	0.00	27.00	60.90						
	9	-415.34	41.20	49.20	0.00	42.50	45.90						
	10	-441.53	39.50	46.10	0.00	40.40	44.70						
	11	-400.39	38.80	49.70	0.00	42.80	43.10						
	12	-426.58	36.90	46.20	0.00	40.50	41.80						
	13	-624.83	69.70	22.80	0.00	20.00	77.80						
	14	-635.93	63.90	21.60	0.00	19.40	73.00						
	15	-647.02	62.20	21.90	0.00	19.60	70.60						
	16	-658.12	61.30	22.60	0.00	20.00	68.70						
	17	-669.22	64.40	25.00	0.00	21.40	68.90						
	18	-680.31	58.00	23.50	0.00	20.60	63.90						
	19	-691.41	55.70	23.80	0.00	20.70	61.20						
	20	-702.50	58.10	26.30	0.00	22.20	61.10						
	21	-713.60	52.00	24.80	0.00	21.40	56.10						
	22	-724.70	48.90	24.70	0.00	21.40	52.90						
	23	-735.79	46.80	25.20	0.00	21.70	50.20						
	24	-746.89	45.10	26.00	0.00	22.10	47.90						
	25	-626.25	76.80	23.70	0.00	20.10	81.50						
	26	-637.26	72.40	23.20	0.00	19.80	77.70						
	27	-648.44	70.50	23.60	0.00	20.10	75.10						
	28	-659.54	68.50	24.00	0.00	20.30	72.50						
	29	-681.73	66.10	25.50	0.00	21.10	68.50						
	30	-692.83	62.20	25.20	0.00	21.00	64.80						
	31	-715.02	59.40	26.90	0.00	21.90	60.50						
	32	-726.12	55.50	26.60	0.00	21.80	56.80						
	33	-737.21	53.10	27.10	0.00	22.10	54.10						
	34	-748.31	50.60	27.70	0.00	22.40	51.20						

B11 North West Abutment
SLS Pile Loads

			ABS Maximum Values										
LOAD CASE	PILE	Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	PILE CAP STIFFNESS					
SLS-C1: MinMy Bottom	1	-494.67	42.80	53.80	0.00	48.70	49.80	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-503.00	41.60	52.00	0.00	47.80	48.90	kN/m			kN-m/rad		
	3	-351.49	87.10	28.80	0.00	25.10	97.50	2.96E+06	1.47E+05	3.09E+05	4.03E+07	1.24E+08	2.54E+07
	4	-365.35	87.80	29.10	0.00	25.30	97.90						
	5	-393.08	89.20	29.80	0.00	25.60	98.50						
	6	-406.94	87.10	29.10	0.00	25.30	97.10						
	7	-462.39	87.80	29.80	0.00	25.80	97.10						
	8	-476.26	85.80	29.20	0.00	25.50	95.80						
	9	-442.87	43.30	54.00	0.00	48.60	50.20						
	10	-451.20	42.00	52.10	0.00	47.70	49.30						
	11	-391.11	43.90	54.10	0.00	48.50	50.70						
	12	-399.44	42.10	51.80	0.00	47.30	49.60						
	13	-606.65	77.30	25.90	0.00	23.80	90.30						
							PILE CAP DISPLACEMENTS AND ROTATIONS						
	14	-612.92	73.20	24.50	0.00	23.20	87.60	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	15	-619.20	72.90	24.50	0.00	23.20	87.20	m			rad		
	16	-625.47	73.80	25.00	0.00	23.40	87.60	-9.25E-04	-1.05E-02	5.65E-03	-3.02E-05	4.08E-05	2.20E-04
	17	-631.75	80.00	27.40	0.00	24.60	91.20						
	18	-638.02	73.60	25.20	0.00	23.60	87.10						
	19	-644.30	72.90	25.10	0.00	23.50	86.40						
	20	-650.57	79.10	27.60	0.00	24.70	90.00						
	21	-656.85	72.70	25.30	0.00	23.70	85.90						
	22	-663.12	71.10	24.80	0.00	23.40	84.70						
	23	-669.40	70.80	24.90	0.00	23.50	84.30						
	24	-675.67	71.50	25.30	0.00	23.70	84.60						
	25	-565.20	86.20	28.70	0.00	25.00	95.80						
	26	-571.43	83.80	28.00	0.00	24.70	94.20						
	27	-577.75	83.50	28.10	0.00	24.70	93.90						
	28	-584.03	83.20	28.10	0.00	24.70	93.50						
	29	-596.58	84.20	28.80	0.00	25.10	93.60						
	30	-602.85	82.30	28.20	0.00	24.80	92.30						
	31	-615.40	83.30	28.90	0.00	25.30	92.40						
	32	-621.68	81.30	28.40	0.00	25.00	91.10						
	33	-627.95	81.00	28.40	0.00	25.00	90.70						
34	-634.23	80.70	28.40	0.00	25.00	90.30							

B11 North West Abutment
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MinMz Bottom	1	-415.27	42.10	51.40	0.00	45.10	47.80	kN/m			kN-m/rad		
	2	-442.31	40.70	48.50	0.00	43.20	46.70	2.84E+06	1.46E+05	3.28E+05	3.66E+07	1.33E+08	2.48E+07
	3	-317.54	79.30	28.40	0.00	24.00	86.60						
	4	-362.56	78.30	29.00	0.00	24.40	84.80						
	5	-452.60	76.20	30.30	0.00	25.20	81.20						
	6	-497.62	72.40	29.90	0.00	25.10	77.80						
	7	-597.47	65.70	32.20	0.00	26.40	68.70						
	8	-621.04	62.00	31.80	0.00	26.20	65.30						
	9	-392.60	39.70	51.90	0.00	45.30	44.90						
	10	-419.64	38.30	48.90	0.00	43.40	43.90						
	11	-369.94	37.20	52.30	0.00	45.50	42.00						
	12	-396.99	35.60	48.90	0.00	43.40	40.80						
	13	-633.26	73.40	21.10	0.00	18.90	83.30						
	14	-644.04	67.70	20.20	0.00	18.50	78.50						
	15	-654.81	66.00	20.50	0.00	18.60	76.00						
	16	-665.59	65.20	21.20	0.00	19.00	74.00						
	17	-676.37	68.80	23.60	0.00	20.30	74.40						
	18	-687.15	61.70	22.00	0.00	19.50	69.00						
	19	-697.93	59.40	22.30	0.00	19.60	66.10						
	20	-708.71	62.40	24.80	0.00	21.10	66.10						
	21	-719.48	55.70	23.20	0.00	20.20	60.80						
	22	-730.26	52.50	23.20	0.00	20.20	57.50						
	23	-741.04	50.40	23.70	0.00	20.50	54.70						
	24	-751.82	48.80	24.50	0.00	21.00	52.20						
	25	-629.30	81.30	22.00	0.00	18.80	87.70						
	26	-640.00	77.10	21.70	0.00	18.70	83.80						
	27	-650.86	75.20	22.10	0.00	18.90	81.10						
	28	-661.64	73.10	22.40	0.00	19.10	78.40						
	29	-683.19	70.60	23.70	0.00	19.90	73.80						
	30	-693.97	66.80	23.60	0.00	19.80	70.10						
	31	-715.53	63.80	25.10	0.00	20.70	65.60						
	32	-726.31	60.00	25.00	0.00	20.60	61.90						
	33	-737.09	57.60	25.50	0.00	20.90	59.00						
	34	-747.86	55.10	26.00	0.00	21.20	56.10						

B11 North West Abutment
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MinQy Bottom	1	-454.49	44.80	59.70	0.00	55.90	53.70						
	2	-475.57	43.60	57.40	0.00	54.40	52.80						
	3	-286.20	95.70	29.50	0.00	26.10	109.00	kN/m					
	4	-321.27	95.50	30.00	0.00	26.50	108.00	3.01E+06	1.46E+05	3.25E+05	3.70E+07	1.34E+08	2.56E+07
	5	-391.42	94.80	30.80	0.00	27.00	107.00						
	6	-426.50	91.80	30.30	0.00	26.90	104.00						
	7	-539.41	88.50	31.50	0.00	27.70	99.00						
	8	-557.77	85.70	31.10	0.00	27.60	96.50						
	9	-370.02	44.40	60.30	0.00	55.80	53.00						
	10	-391.09	43.10	57.80	0.00	54.20	52.00						
	11	-285.60	44.00	60.80	0.00	55.70	52.20						
	12	-306.67	42.30	57.80	0.00	53.90	51.00						
	13	-580.32	87.30	23.40	0.00	22.30	105.00						
	14	-590.12	82.20	22.40	0.00	21.80	101.00						
	15	-599.92	81.20	22.60	0.00	21.90	99.40						
	16	-609.72	81.30	23.20	0.00	22.20	98.60						
	17	-619.53	87.40	25.70	0.00	23.50	102.00						
	18	-629.33	79.40	23.60	0.00	22.50	95.50						
	19	-639.13	77.90	23.70	0.00	22.60	93.60						
	20	-648.94	83.70	26.30	0.00	23.80	96.30						
	21	-658.74	75.80	24.20	0.00	22.90	90.50						
	22	-668.54	73.30	23.90	0.00	22.70	87.90						
	23	-678.34	72.10	24.10	0.00	22.90	86.20						
	24	-688.15	71.90	24.70	0.00	23.20	85.10						
	25	-520.03	98.10	25.40	0.00	22.80	112.00						
	26	-529.75	94.70	25.00	0.00	22.60	109.00						
	27	-539.63	93.50	25.20	0.00	22.70	107.00						
	28	-549.44	92.30	25.40	0.00	22.80	106.00						
	29	-569.04	91.30	26.30	0.00	23.30	103.00						
	30	-578.84	88.40	26.00	0.00	23.10	100.00						
	31	-598.45	87.30	27.00	0.00	23.60	97.60						
	32	-608.25	84.50	26.70	0.00	23.50	95.00						
	33	-618.05	83.20	26.90	0.00	23.70	93.10						
	34	-627.86	81.80	27.10	0.00	23.80	91.30						

PILE CAP DISPLACEMENTS AND ROTATIONS					
DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
m			rad		
-6.84E-04	-1.15E-02	5.75E-03	-1.66E-04	1.03E-04	3.20E-04

B11 North West Abutment
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MaxQz Bottom	1	-496.97	48.40	56.50	0.00	52.40	57.40	kN/m			kN-m/rad		
	2	-512.12	46.90	54.30	0.00	51.20	56.30	3.00E+06	1.47E+05	3.03E+05	4.21E+07	1.28E+08	2.56E+07
	3	-299.52	91.50	31.90	0.00	28.20	104.00						
	4	-324.74	91.80	32.30	0.00	28.50	104.00						
	5	-375.20	92.60	33.20	0.00	29.00	104.00						
	6	-400.42	89.80	32.40	0.00	28.70	102.00						
	7	-501.33	89.20	33.40	0.00	29.40	100.00						
	8	-518.34	86.60	32.70	0.00	29.10	98.20						
	9	-427.03	48.70	56.90	0.00	52.30	57.50						
	10	-442.18	47.00	54.50	0.00	51.00	56.30						
	11	-357.14	48.90	57.20	0.00	52.20	57.60						
	12	-372.29	46.90	54.30	0.00	50.60	56.10						
	13	-578.65	83.10	27.60	0.00	26.00	99.10						
	14	-588.18	78.10	26.20	0.00	25.20	95.40						
	15	-597.71	77.50	26.30	0.00	25.30	94.50						
	16	-607.24	78.10	26.80	0.00	25.60	94.40						
	17	-616.77	84.10	29.40	0.00	26.90	97.70						
	18	-626.30	77.20	27.20	0.00	25.80	92.90						
	19	-635.83	76.10	27.10	0.00	25.80	91.70						
	20	-645.36	81.90	29.70	0.00	27.20	94.90						
	21	-654.90	75.20	27.50	0.00	26.10	90.20						
	22	-664.43	73.20	27.00	0.00	25.90	88.30						
	23	-673.96	72.50	27.10	0.00	25.90	87.40						
	24	-683.49	72.80	27.60	0.00	26.20	87.10						
	25	-525.31	92.50	30.30	0.00	26.90	105.00						
	26	-534.77	89.40	29.60	0.00	26.60	103.00						
	27	-544.38	88.70	29.70	0.00	26.70	102.00						
	28	-553.91	88.00	29.80	0.00	26.80	101.00						
	29	-572.97	88.40	30.70	0.00	27.20	100.00						
	30	-582.50	85.80	30.10	0.00	27.00	97.90						
	31	-601.56	86.20	31.10	0.00	27.50	97.10						
	32	-611.09	83.60	30.50	0.00	27.20	95.00						
	33	-620.62	82.90	30.60	0.00	27.30	94.10						
	34	-630.15	82.10	30.70	0.00	27.40	93.10						

B11 North West Abutment
DL Pile Cap Loads

LC 1		DL-factored: MinNx					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-20098	-4695	1360	-1186	-5632	-7179

LC 5		DL-factored: MinMz					
	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
401	Bottom	-17102	-7335	2120	-1861	-7491	-20166

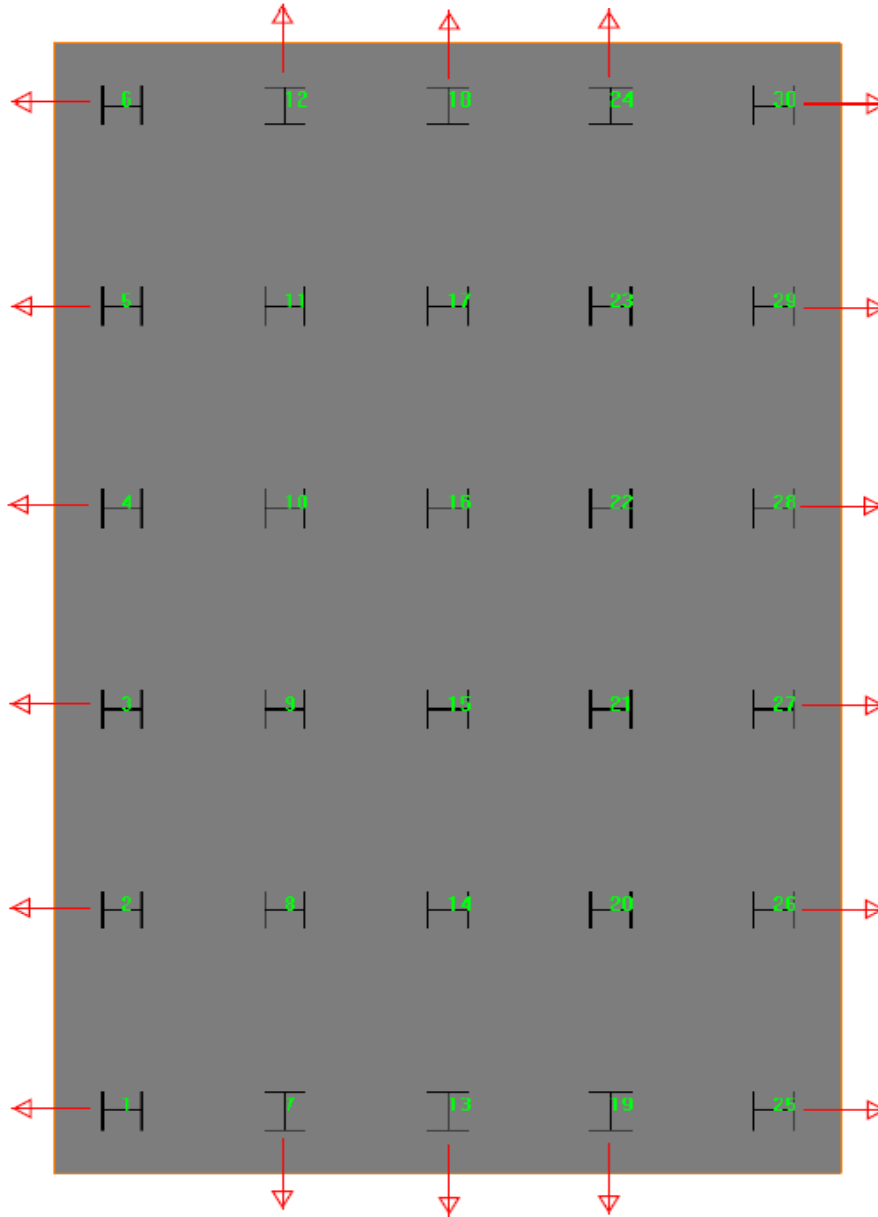
B11 North West Abutment
DL Pile Loads

LOAD CASE	PILE	ABS Maximum Values						Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL-factored: MinNx Bottom	1	-572.13	4.81	26.40	0.00	18.30	4.25	-775.00	1.25	-1540.88	0.57	0.77	0.014	0.01	0.01	0.11	0.013	0.08
	2	-600.25	3.87	24.70	0.00	17.20	3.44	-775.00	1.25	-1569.00	0.57	0.78	0.013	0.00	0.01	0.10	0.011	0.08
	3	-727.58	36.60	13.30	0.00	9.15	31.50	-775.00	1.25	-1696.33	0.61	0.85	0.007	0.04	0.06	0.06	0.048	0.06
	4	-752.08	35.40	13.80	0.00	9.36	30.10	-775.00	1.25	-1720.83	0.61	0.86	0.007	0.04	0.06	0.06	0.046	0.06
	5	-801.08	32.80	14.90	0.00	9.79	27.10	-775.00	1.25	-1769.83	0.62	0.88	0.008	0.04	0.05	0.06	0.042	0.06
	6	-825.58	30.20	14.90	0.00	9.82	24.90	-775.00	1.25	-1794.33	0.63	0.90	0.008	0.03	0.05	0.06	0.039	0.06
	7	-923.59	22.40	17.10	0.00	10.80	17.70	-775.00	1.25	-1892.34	0.65	0.95	0.009	0.02	0.03	0.07	0.029	0.06
	8	-948.09	19.40	17.20	0.00	10.90	15.40	-775.00	1.25	-1916.84	0.65	0.96	0.009	0.02	0.03	0.07	0.026	0.06
	9	-514.52	3.79	26.60	0.00	18.30	3.35	-250.00	1.25	-827.02	0.36	0.41	0.014	0.00	0.01	0.11	0.011	0.08
	10	-542.64	2.85	24.80	0.00	17.20	2.53	-250.00	1.25	-855.14	0.36	0.43	0.013	0.00	0.00	0.10	0.010	0.08
	11	-456.95	2.77	26.70	0.00	18.30	2.44	-250.00	1.25	-769.45	0.34	0.38	0.014	0.00	0.00	0.11	0.010	0.08
	12	-485.07	1.82	24.60	0.00	17.10	1.62	-250.00	1.25	-797.57	0.34	0.40	0.013	0.00	0.00	0.10	0.008	0.08
	13	-493.53	30.00	9.01	0.00	5.90	24.90	-250.00	1.25	-806.03	0.32	0.40	0.005	0.03	0.05	0.04	0.038	0.04
	14	-513.58	26.30	8.88	0.00	5.85	21.90	-250.00	1.25	-826.08	0.32	0.41	0.005	0.03	0.04	0.04	0.033	0.04
	15	-533.62	24.20	9.32	0.00	6.07	19.90	-250.00	1.25	-846.12	0.32	0.42	0.005	0.03	0.04	0.04	0.031	0.04
	16	-553.67	22.20	9.98	0.00	6.38	17.80	-250.00	1.25	-866.17	0.32	0.43	0.005	0.02	0.03	0.04	0.028	0.04
	17	-573.72	21.30	11.50	0.00	7.07	16.30	-250.00	1.25	-886.22	0.33	0.44	0.006	0.02	0.03	0.04	0.026	0.04
	18	-593.77	16.60	11.30	0.00	6.98	12.90	-250.00	1.25	-906.27	0.33	0.45	0.006	0.02	0.03	0.04	0.021	0.04
	19	-613.82	13.10	11.90	0.00	7.27	10.00	-250.00	1.25	-926.32	0.33	0.46	0.006	0.01	0.02	0.04	0.017	0.04
	20	-633.87	9.99	13.70	0.00	8.02	7.29	-250.00	1.25	-946.37	0.34	0.47	0.007	0.01	0.01	0.05	0.014	0.04
	21	-653.91	4.66	13.10	0.00	7.85	3.48	-250.00	1.25	-966.41	0.33	0.48	0.007	0.01	0.01	0.05	0.008	0.04
	22	-673.96	0.30	13.10	0.00	7.85	0.23	-250.00	1.25	-986.46	0.33	0.49	0.007	0.00	0.00	0.05	0.004	0.03
	23	-694.01	5.14	12.80	0.00	7.73	3.88	-250.00	1.25	-1006.51	0.35	0.50	0.007	0.01	0.01	0.05	0.009	0.04
	24	-714.06	9.66	12.40	0.00	7.55	7.33	-250.00	1.25	-1026.56	0.36	0.51	0.007	0.01	0.01	0.05	0.013	0.04
	25	-452.77	34.60	8.32	0.00	5.27	27.70	-250.00	1.25	-765.27	0.31	0.38	0.005	0.04	0.05	0.03	0.041	0.04
	26	-472.66	31.40	8.45	0.00	5.34	25.00	-250.00	1.25	-785.16	0.31	0.39	0.005	0.03	0.05	0.03	0.038	0.04
	27	-492.86	29.10	8.88	0.00	5.53	22.80	-250.00	1.25	-805.36	0.31	0.40	0.005	0.03	0.04	0.03	0.035	0.04
	28	-512.91	26.50	9.38	0.00	5.75	20.40	-250.00	1.25	-825.41	0.31	0.41	0.005	0.03	0.04	0.03	0.031	0.04
	29	-553.01	21.10	10.90	0.00	6.38	15.40	-250.00	1.25	-865.51	0.32	0.43	0.006	0.02	0.03	0.04	0.025	0.04
	30	-573.06	17.00	11.40	0.00	6.60	12.30	-250.00	1.25	-885.56	0.32	0.44	0.006	0.02	0.02	0.04	0.020	0.04
	31	-613.15	8.03	13.30	0.00	7.36	5.51	-250.00	1.25	-925.65	0.32	0.46	0.007	0.01	0.01	0.04	0.011	0.04
	32	-633.20	2.08	13.50	0.00	7.46	1.43	-250.00	1.25	-945.70	0.32	0.47	0.007	0.00	0.00	0.05	0.005	0.03
	33	-653.25	3.95	13.40	0.00	7.42	2.72	-250.00	1.25	-965.75	0.33	0.48	0.007	0.00	0.01	0.04	0.007	0.03
	34	-673.30	9.49	12.70	0.00	7.17	6.62	-250.00	1.25	-985.80	0.34	0.49	0.007	0.01	0.01	0.04	0.013	0.04

B11 North West Abutment
DL Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL-factored: MinMz Bottom	1	-475.52	59.70	59.90	0.00	57.60	73.60	-775.00	1.25	-1444.27	0.91	0.72	0.032	0.07	0.14	0.35	0.119	0.28
	2	-496.09	57.20	56.60	0.00	55.50	71.50	-775.00	1.25	-1464.84	0.90	0.73	0.031	0.06	0.14	0.34	0.115	0.27
	3	-102.20	97.50	38.50	0.00	34.50	114.00	-775.00	1.25	-1070.95	0.74	0.54	0.021	0.11	0.22	0.21	0.171	0.20
	4	-136.44	97.60	39.10	0.00	34.90	113.00	-775.00	1.25	-1105.19	0.75	0.55	0.021	0.11	0.22	0.21	0.170	0.20
	5	-204.92	98.50	40.60	0.00	36.00	113.00	-775.00	1.25	-1173.67	0.78	0.59	0.022	0.11	0.22	0.22	0.170	0.21
	6	-239.16	94.30	39.40	0.00	35.50	110.00	-775.00	1.25	-1207.91	0.78	0.60	0.021	0.10	0.21	0.22	0.166	0.20
	7	-376.12	92.70	41.20	0.00	37.00	107.00	-775.00	1.25	-1344.87	0.82	0.67	0.022	0.10	0.21	0.22	0.162	0.21
	8	-410.36	88.70	40.00	0.00	36.40	103.00	-775.00	1.25	-1379.11	0.82	0.69	0.022	0.10	0.20	0.22	0.156	0.20
	9	-422.17	59.10	60.40	0.00	57.70	72.60	-250.00	1.25	-734.67	0.70	0.37	0.033	0.06	0.14	0.35	0.118	0.28
	10	-442.74	56.40	56.90	0.00	55.40	70.30	-250.00	1.25	-755.24	0.69	0.38	0.031	0.06	0.14	0.34	0.114	0.27
	11	-368.85	58.40	60.90	0.00	57.70	71.50	-250.00	1.25	-681.35	0.69	0.34	0.033	0.06	0.14	0.35	0.117	0.28
	12	-389.42	55.30	56.80	0.00	55.10	68.90	-250.00	1.25	-701.92	0.67	0.35	0.031	0.06	0.13	0.33	0.112	0.27
	13	-627.01	89.50	31.80	0.00	31.20	111.00	-250.00	1.25	-939.51	0.68	0.47	0.017	0.10	0.22	0.19	0.165	0.18
	14	-636.76	82.50	29.70	0.00	30.00	104.00	-250.00	1.25	-949.26	0.66	0.47	0.016	0.09	0.20	0.18	0.155	0.17
	15	-646.50	81.60	29.90	0.00	30.20	103.00	-250.00	1.25	-959.00	0.66	0.48	0.016	0.09	0.20	0.18	0.154	0.17
	16	-656.25	82.10	30.70	0.00	30.70	103.00	-250.00	1.25	-968.75	0.67	0.48	0.017	0.09	0.20	0.19	0.154	0.18
	17	-665.99	88.60	33.90	0.00	32.50	108.00	-250.00	1.25	-978.49	0.69	0.49	0.018	0.10	0.21	0.20	0.162	0.19
	18	-675.74	80.70	31.30	0.00	31.10	101.00	-250.00	1.25	-988.24	0.67	0.49	0.017	0.09	0.20	0.19	0.151	0.18
	19	-685.48	79.10	31.30	0.00	31.10	98.80	-250.00	1.25	-997.98	0.67	0.50	0.017	0.09	0.19	0.19	0.148	0.18
	20	-695.23	85.40	34.60	0.00	33.00	103.00	-250.00	1.25	-1007.73	0.69	0.50	0.019	0.09	0.20	0.20	0.155	0.19
	21	-704.98	77.70	32.00	0.00	31.60	96.40	-250.00	1.25	-1017.48	0.67	0.51	0.017	0.09	0.19	0.19	0.145	0.18
	22	-714.72	75.00	31.40	0.00	31.30	93.60	-250.00	1.25	-1027.22	0.67	0.51	0.017	0.08	0.18	0.19	0.141	0.18
	23	-724.47	74.00	31.70	0.00	31.50	92.20	-250.00	1.25	-1036.97	0.67	0.52	0.017	0.08	0.18	0.19	0.139	0.18
	24	-734.21	74.00	32.40	0.00	32.00	91.60	-250.00	1.25	-1046.71	0.68	0.52	0.018	0.08	0.18	0.19	0.138	0.18
	25	-592.36	99.90	34.70	0.00	32.40	119.00	-250.00	1.25	-904.86	0.69	0.45	0.019	0.11	0.23	0.20	0.178	0.19
	26	-602.03	95.20	33.60	0.00	31.80	114.00	-250.00	1.25	-914.53	0.68	0.46	0.018	0.10	0.22	0.19	0.170	0.19
	27	-611.85	94.20	33.80	0.00	32.00	113.00	-250.00	1.25	-924.35	0.68	0.46	0.018	0.10	0.22	0.19	0.169	0.19
	28	-621.60	93.10	34.00	0.00	32.20	112.00	-250.00	1.25	-934.10	0.68	0.47	0.018	0.10	0.22	0.20	0.167	0.19
	29	-641.09	94.50	35.90	0.00	33.30	111.00	-250.00	1.25	-953.59	0.69	0.48	0.019	0.10	0.22	0.20	0.166	0.19
	30	-650.83	89.80	34.70	0.00	32.60	107.00	-250.00	1.25	-963.33	0.69	0.48	0.019	0.10	0.21	0.20	0.160	0.19
	31	-670.32	90.80	36.60	0.00	33.70	106.00	-250.00	1.25	-982.82	0.70	0.49	0.020	0.10	0.21	0.20	0.160	0.19
	32	-680.07	87.20	35.80	0.00	33.40	103.00	-250.00	1.25	-992.57	0.69	0.50	0.019	0.10	0.20	0.20	0.155	0.19
	33	-689.81	85.90	36.00	0.00	33.50	101.00	-250.00	1.25	-1002.31	0.69	0.50	0.020	0.09	0.20	0.20	0.152	0.19
	34	-699.56	84.70	36.20	0.00	33.70	99.30	-250.00	1.25	-1012.06	0.69	0.51	0.020	0.09	0.19	0.20	0.150	0.19

B11 North Pier 1 **Pile Layout**



Pile No.	Batter Angle	
	Vertical	Horizontal
1	5	1
2	5	1
3	5	1
4	5	1
5	5	1
6	5	1
7	5	1
8	---	---
9	---	---
10	---	---
11	---	---
12	5	1
13	5	1
14	---	---
15	---	---
16	---	---
17	---	---
18	5	1
19	5	1
20	---	---
21	---	---
22	---	---
23	---	---
24	5	1
25	5	1
26	5	1
27	5	1
28	5	1
29	5	1
30	5	1

Note:

1. Arrows show batter direction.
2. View from bottom of pile group.
3. See pile layout drawings for dimensions.

B11 North Pier 1
ULS Pile Cap Loads

LC 1		ULS: MinNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-35516	-655	-5338	134	-5146	0

LC 2		ULS: MaxNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-17405	712	5802	921	-13782	0

LC 3		ULS: MinMy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-25170	712	5802	973	-22576	0

LC 7		ULS: MinQy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-20809	-712	-5802	136	-6034	-5406

LC 10		ULS: MaxQz					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-20112	712	5802	982	-21858	0

B11 North Pier 1
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinNx Bottom	1	-1124.40	31.60	0.87	0.00	0.61	27.20	0.38	0.56	0.000	0.03	0.05	0.00	0.04	0.02
	2	-1087.80	30.90	0.88	0.00	0.61	26.50	0.37	0.54	0.000	0.03	0.05	0.00	0.04	0.02
	3	-1051.10	30.40	0.90	0.00	0.61	25.80	0.36	0.53	0.000	0.03	0.05	0.00	0.04	0.02
	4	-1014.50	29.90	0.91	0.00	0.62	25.20	0.35	0.51	0.000	0.03	0.05	0.00	0.04	0.02
	5	-977.85	29.40	0.93	0.00	0.62	24.50	0.33	0.49	0.001	0.03	0.05	0.00	0.04	0.02
	6	-941.21	28.90	0.95	0.00	0.63	23.90	0.32	0.47	0.001	0.03	0.05	0.00	0.03	0.02
	7	-1212.90	24.50	7.64	0.00	5.09	20.10	0.42	0.61	0.004	0.03	0.04	0.03	0.03	0.03
	8	-1192.00	17.40	1.36	0.00	0.79	12.50	0.37	0.60	0.001	0.02	0.02	0.00	0.02	0.01
	9	-1154.50	17.30	1.36	0.00	0.80	12.40	0.36	0.58	0.001	0.02	0.02	0.00	0.02	0.01
	10	-1117.00	17.20	1.37	0.00	0.80	12.30	0.35	0.56	0.001	0.02	0.02	0.00	0.02	0.01
	11	-1079.40	17.10	1.38	0.00	0.80	12.20	0.34	0.54	0.001	0.02	0.02	0.00	0.02	0.01
	12	-1024.50	23.40	7.60	0.00	4.94	18.80	0.36	0.51	0.004	0.03	0.04	0.03	0.03	0.03
	13	-1281.30	25.70	7.38	0.00	4.99	21.30	0.44	0.64	0.004	0.03	0.04	0.03	0.03	0.03
	14	-1261.90	17.40	1.27	0.00	0.75	12.50	0.39	0.63	0.001	0.02	0.02	0.00	0.02	0.01
	15	-1224.40	17.30	1.28	0.00	0.75	12.40	0.38	0.61	0.001	0.02	0.02	0.00	0.02	0.01
	16	-1186.90	17.20	1.29	0.00	0.75	12.30	0.37	0.59	0.001	0.02	0.02	0.00	0.02	0.01
	17	-1149.30	17.10	1.30	0.00	0.75	12.20	0.36	0.57	0.001	0.02	0.02	0.00	0.02	0.01
	18	-1093.10	24.50	7.35	0.00	4.84	19.90	0.38	0.55	0.004	0.03	0.04	0.03	0.03	0.03
	19	-1349.70	26.70	7.15	0.00	4.89	22.50	0.46	0.67	0.004	0.03	0.04	0.03	0.03	0.03
	20	-1331.90	17.40	1.19	0.00	0.70	12.50	0.41	0.67	0.001	0.02	0.02	0.00	0.02	0.01
	21	-1294.30	17.30	1.20	0.00	0.70	12.40	0.40	0.65	0.001	0.02	0.02	0.00	0.02	0.01
	22	-1256.80	17.20	1.20	0.00	0.70	12.30	0.39	0.63	0.001	0.02	0.02	0.00	0.02	0.01
	23	-1219.20	17.10	1.21	0.00	0.71	12.20	0.38	0.61	0.001	0.02	0.02	0.00	0.02	0.01
	24	-1161.80	25.50	7.12	0.00	4.75	21.00	0.41	0.58	0.004	0.03	0.04	0.03	0.03	0.03
	25	-1434.10	25.40	1.02	0.00	0.62	18.90	0.46	0.72	0.001	0.03	0.04	0.00	0.03	0.02
	26	-1397.10	24.80	1.04	0.00	0.63	18.30	0.44	0.70	0.001	0.03	0.04	0.00	0.03	0.02
	27	-1360.10	24.20	1.06	0.00	0.64	17.60	0.43	0.68	0.001	0.03	0.03	0.00	0.03	0.01
	28	-1323.20	23.50	1.09	0.00	0.65	17.00	0.42	0.66	0.001	0.03	0.03	0.00	0.02	0.01
	29	-1286.20	22.80	1.12	0.00	0.66	16.30	0.41	0.64	0.001	0.03	0.03	0.00	0.02	0.01
	30	-1249.20	22.20	1.15	0.00	0.67	15.70	0.40	0.62	0.001	0.02	0.03	0.00	0.02	0.01

B11 North Pier 1
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxNx Bottom	1	-931.65	2.99	19.70	0.00	12.30	2.33	0.35	0.47	0.011	0.00	0.00	0.07	0.01	0.06
	2	-857.51	2.17	18.70	0.00	11.80	1.72	0.32	0.43	0.010	0.00	0.00	0.07	0.01	0.05
	3	-783.37	1.49	18.80	0.00	11.80	1.18	0.30	0.39	0.010	0.00	0.00	0.07	0.01	0.05
	4	-709.23	0.81	18.90	0.00	11.80	0.64	0.28	0.35	0.010	0.00	0.00	0.07	0.01	0.05
	5	-635.09	0.12	19.00	0.00	11.80	0.09	0.26	0.32	0.010	0.00	0.00	0.07	0.00	0.05
	6	-560.95	0.57	19.00	0.00	11.80	0.45	0.23	0.28	0.010	0.00	0.00	0.07	0.01	0.05
	7	-889.83	13.60	13.60	0.00	8.05	9.98	0.33	0.44	0.007	0.01	0.02	0.05	0.02	0.04
	8	-790.00	15.20	17.40	0.00	11.30	12.30	0.32	0.40	0.009	0.02	0.02	0.07	0.02	0.06
	9	-716.48	13.90	17.70	0.00	11.40	11.20	0.30	0.36	0.010	0.02	0.02	0.07	0.02	0.06
	10	-642.96	12.50	17.90	0.00	11.40	10.10	0.27	0.32	0.010	0.01	0.02	0.07	0.02	0.06
	11	-569.44	11.10	18.20	0.00	11.50	8.88	0.25	0.28	0.010	0.01	0.02	0.07	0.02	0.06
	12	-379.20	31.40	5.26	0.00	3.34	25.30	0.18	0.19	0.003	0.03	0.05	0.02	0.04	0.03
	13	-834.04	16.50	13.10	0.00	7.80	12.30	0.31	0.42	0.007	0.02	0.02	0.05	0.02	0.04
	14	-731.53	15.00	17.90	0.00	11.60	12.20	0.31	0.37	0.010	0.02	0.02	0.07	0.02	0.06
	15	-658.01	13.70	18.20	0.00	11.70	11.10	0.28	0.33	0.010	0.02	0.02	0.07	0.02	0.06
	16	-584.50	12.30	18.40	0.00	11.80	9.97	0.26	0.29	0.010	0.01	0.02	0.07	0.02	0.06
	17	-491.24	10.90	18.70	0.00	11.90	8.79	0.23	0.25	0.010	0.01	0.02	0.07	0.02	0.06
	18	-265.01	31.20	5.32	0.00	3.35	25.00	0.15	0.13	0.003	0.03	0.05	0.02	0.04	0.03
	19	-778.25	19.20	12.50	0.00	7.56	14.40	0.30	0.39	0.007	0.02	0.03	0.05	0.02	0.04
	20	-673.07	14.80	18.40	0.00	11.90	12.10	0.29	0.34	0.010	0.02	0.02	0.07	0.02	0.06
	21	-599.55	13.50	18.70	0.00	12.00	11.00	0.27	0.30	0.010	0.01	0.02	0.07	0.02	0.06
	22	-520.44	12.20	19.00	0.00	12.10	9.88	0.24	0.26	0.010	0.01	0.02	0.07	0.02	0.06
	23	-377.83	10.80	19.30	0.00	12.20	8.70	0.20	0.19	0.010	0.01	0.02	0.07	0.02	0.06
	24	-150.82	31.00	5.39	0.00	3.36	24.70	0.11	0.08	0.003	0.03	0.05	0.02	0.04	0.03
	25	-657.20	26.30	18.00	0.00	11.80	21.70	0.30	0.33	0.010	0.03	0.04	0.07	0.04	0.07
	26	-587.15	22.50	17.60	0.00	11.60	18.70	0.28	0.29	0.010	0.02	0.04	0.07	0.03	0.06
	27	-503.14	19.90	18.20	0.00	11.80	16.40	0.25	0.25	0.010	0.02	0.03	0.07	0.03	0.06
	28	-367.27	17.10	18.90	0.00	12.00	13.90	0.21	0.18	0.010	0.02	0.03	0.07	0.02	0.06
	29	-231.40	14.10	19.50	0.00	12.30	11.40	0.16	0.12	0.011	0.02	0.02	0.07	0.02	0.06
	30	-95.53	10.90	20.00	0.00	12.50	8.69	0.12	0.05	0.011	0.01	0.02	0.08	0.02	0.06

B11 North Pier 1
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinMy Bottom	1	-1374.60	18.00	16.00	0.00	10.30	14.20	0.49	0.69	0.009	0.02	0.03	0.06	0.02	0.05
	2	-1227.20	14.30	15.90	0.00	10.20	11.30	0.44	0.61	0.009	0.02	0.02	0.06	0.02	0.05
	3	-1079.70	11.10	16.50	0.00	10.40	8.73	0.39	0.54	0.009	0.01	0.02	0.06	0.02	0.05
	4	-932.26	7.70	17.00	0.00	10.60	5.97	0.35	0.47	0.009	0.01	0.01	0.06	0.01	0.05
	5	-784.81	4.00	17.40	0.00	10.70	3.08	0.30	0.39	0.009	0.00	0.01	0.06	0.01	0.05
	6	-637.36	0.14	17.60	0.00	10.70	0.11	0.25	0.32	0.010	0.00	0.00	0.06	0.00	0.05
	7	-1320.00	8.49	13.60	0.00	8.10	6.18	0.44	0.66	0.007	0.01	0.01	0.05	0.01	0.04
	8	-1158.70	15.40	15.40	0.00	10.10	12.40	0.42	0.58	0.008	0.02	0.02	0.06	0.02	0.05
	9	-1009.70	14.50	15.70	0.00	10.10	11.60	0.38	0.50	0.009	0.02	0.02	0.06	0.02	0.05
	10	-860.79	13.60	16.00	0.00	10.20	10.80	0.33	0.43	0.009	0.01	0.02	0.06	0.02	0.05
	11	-711.86	12.70	16.20	0.00	10.20	10.00	0.29	0.36	0.009	0.01	0.02	0.06	0.02	0.05
	12	-516.95	30.00	6.22	0.00	3.97	24.20	0.22	0.26	0.003	0.03	0.05	0.02	0.04	0.03
	13	-1255.10	4.90	14.00	0.00	8.26	3.54	0.42	0.63	0.008	0.01	0.01	0.05	0.01	0.04
	14	-1091.40	15.30	15.80	0.00	10.30	12.40	0.40	0.55	0.009	0.02	0.02	0.06	0.02	0.05
	15	-942.51	14.40	16.10	0.00	10.40	11.60	0.36	0.47	0.009	0.02	0.02	0.06	0.02	0.05
	16	-793.58	13.50	16.40	0.00	10.40	10.80	0.31	0.40	0.009	0.01	0.02	0.06	0.02	0.05
	17	-644.65	12.50	16.60	0.00	10.50	9.94	0.27	0.32	0.009	0.01	0.02	0.06	0.02	0.05
	18	-387.05	29.40	6.36	0.00	4.01	23.60	0.18	0.19	0.003	0.03	0.05	0.02	0.04	0.03
	19	-1190.30	1.08	14.30	0.00	8.34	0.77	0.40	0.60	0.008	0.00	0.00	0.05	0.00	0.04
	20	-1024.20	15.20	16.20	0.00	10.60	12.30	0.38	0.51	0.009	0.02	0.02	0.06	0.02	0.05
	21	-875.30	14.30	16.50	0.00	10.60	11.50	0.34	0.44	0.009	0.02	0.02	0.06	0.02	0.05
	22	-726.37	13.40	16.70	0.00	10.60	10.70	0.30	0.36	0.009	0.01	0.02	0.06	0.02	0.05
	23	-577.44	12.40	17.00	0.00	10.70	9.88	0.25	0.29	0.009	0.01	0.02	0.06	0.02	0.05
	24	-257.15	28.90	6.50	0.00	4.04	22.90	0.14	0.13	0.004	0.03	0.04	0.02	0.03	0.03
	25	-1068.00	33.40	13.80	0.00	9.52	28.60	0.42	0.53	0.007	0.04	0.06	0.06	0.04	0.06
	26	-923.36	28.90	13.80	0.00	9.47	24.80	0.37	0.46	0.007	0.03	0.05	0.06	0.04	0.06
	27	-778.73	25.80	14.60	0.00	9.72	21.60	0.33	0.39	0.008	0.03	0.04	0.06	0.03	0.06
	28	-634.10	22.40	15.50	0.00	10.10	18.30	0.28	0.32	0.008	0.02	0.04	0.06	0.03	0.06
	29	-449.51	18.50	16.50	0.00	10.40	14.90	0.22	0.22	0.009	0.02	0.03	0.06	0.03	0.06
	30	-168.95	14.10	17.50	0.00	10.80	11.10	0.14	0.08	0.009	0.02	0.02	0.07	0.02	0.05

B11 North Pier 1
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinQy Bottom	1	-389.06	73.90	21.90	0.00	19.50	84.50	0.40	0.19	0.012	0.08	0.17	0.12	0.13	0.12
	2	-452.62	57.20	24.90	0.00	21.10	62.20	0.38	0.23	0.014	0.06	0.12	0.13	0.09	0.12
	3	-516.19	36.00	29.40	0.00	23.90	37.00	0.37	0.26	0.016	0.04	0.07	0.14	0.06	0.12
	4	-556.61	4.95	33.40	0.00	26.50	5.00	0.33	0.28	0.018	0.01	0.01	0.16	0.02	0.12
	5	-589.37	28.80	30.70	0.00	24.80	29.40	0.38	0.29	0.017	0.03	0.06	0.15	0.05	0.12
	6	-622.14	52.00	25.80	0.00	21.90	56.00	0.42	0.31	0.014	0.06	0.11	0.13	0.09	0.12
	7	-811.38	14.10	47.30	0.00	43.50	16.50	0.53	0.41	0.026	0.02	0.03	0.26	0.04	0.20
	8	-715.90	56.40	13.50	0.00	11.40	59.50	0.39	0.36	0.007	0.06	0.12	0.07	0.09	0.08
	9	-670.63	36.10	17.60	0.00	13.40	34.60	0.34	0.34	0.010	0.04	0.07	0.08	0.05	0.08
	10	-625.37	0.81	23.00	0.00	16.00	0.72	0.28	0.31	0.012	0.00	0.00	0.10	0.01	0.07
	11	-580.10	37.10	17.50	0.00	13.30	35.50	0.32	0.29	0.009	0.04	0.07	0.08	0.05	0.08
	12	-410.71	27.70	37.40	0.00	30.80	29.30	0.36	0.21	0.020	0.03	0.06	0.19	0.05	0.15
	13	-816.41	7.13	47.70	0.00	43.80	8.38	0.52	0.41	0.026	0.01	0.02	0.27	0.02	0.20
	14	-780.04	57.50	0.49	0.00	0.41	59.90	0.35	0.39	0.000	0.06	0.12	0.00	0.09	0.03
	15	-734.78	39.00	0.68	0.00	0.50	35.80	0.29	0.37	0.000	0.04	0.07	0.00	0.05	0.02
	16	-689.51	3.23	3.36	0.00	1.44	1.66	0.21	0.34	0.002	0.00	0.00	0.01	0.00	0.01
	17	-644.25	39.80	0.67	0.00	0.49	36.60	0.26	0.32	0.000	0.04	0.07	0.00	0.05	0.02
	18	-590.23	6.46	39.00	0.00	32.50	6.88	0.38	0.30	0.021	0.01	0.01	0.20	0.02	0.15
	19	-821.45	27.10	45.90	0.00	42.50	31.70	0.56	0.41	0.025	0.03	0.06	0.26	0.06	0.20
	20	-844.19	56.30	12.40	0.00	10.60	59.60	0.42	0.42	0.007	0.06	0.12	0.06	0.09	0.07
	21	-798.92	36.30	16.40	0.00	12.60	34.80	0.38	0.40	0.009	0.04	0.07	0.08	0.05	0.07
	22	-753.66	0.83	22.00	0.00	15.20	0.73	0.31	0.38	0.012	0.00	0.00	0.09	0.01	0.07
	23	-708.40	37.20	16.30	0.00	12.50	35.70	0.35	0.35	0.009	0.04	0.07	0.08	0.05	0.07
	24	-711.00	16.10	38.00	0.00	32.10	17.20	0.43	0.36	0.021	0.02	0.03	0.19	0.03	0.15
	25	-1170.30	71.40	24.30	0.00	21.70	77.80	0.62	0.59	0.013	0.08	0.15	0.13	0.12	0.13
	26	-1048.70	52.60	28.70	0.00	23.90	53.80	0.55	0.52	0.016	0.06	0.11	0.14	0.08	0.13
	27	-927.19	25.80	34.40	0.00	26.80	25.10	0.48	0.46	0.019	0.03	0.05	0.16	0.04	0.13
	28	-805.65	12.10	36.30	0.00	27.70	11.70	0.42	0.40	0.020	0.01	0.02	0.17	0.03	0.13
	29	-684.11	44.10	31.60	0.00	24.80	43.50	0.43	0.34	0.017	0.05	0.08	0.15	0.07	0.13
	30	-562.57	66.20	27.00	0.00	22.10	68.20	0.43	0.28	0.015	0.07	0.13	0.13	0.10	0.13

B11 North Pier 1
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxQz Bottom	1	-1165.60	11.70	16.20	0.00	9.95	8.86	0.41	0.58	0.009	0.01	0.02	0.06	0.02	0.05
	2	-1036.00	8.89	15.80	0.00	9.77	6.81	0.37	0.52	0.009	0.01	0.01	0.06	0.01	0.05
	3	-906.45	6.50	16.20	0.00	9.87	4.95	0.33	0.45	0.009	0.01	0.01	0.06	0.01	0.05
	4	-776.87	3.99	16.40	0.00	9.93	3.02	0.29	0.39	0.009	0.00	0.01	0.06	0.01	0.05
	5	-647.29	1.41	16.60	0.00	9.96	1.06	0.25	0.32	0.009	0.00	0.00	0.06	0.01	0.04
	6	-504.31	1.22	16.70	0.00	9.94	0.92	0.21	0.25	0.009	0.00	0.00	0.06	0.01	0.04
	7	-1114.20	2.90	14.60	0.00	8.57	2.10	0.38	0.56	0.008	0.00	0.00	0.05	0.01	0.04
	8	-970.48	15.90	14.70	0.00	9.39	12.60	0.36	0.49	0.008	0.02	0.02	0.06	0.02	0.05
	9	-840.62	14.50	15.00	0.00	9.50	11.40	0.32	0.42	0.008	0.02	0.02	0.06	0.02	0.05
	10	-710.76	12.90	15.40	0.00	9.60	10.10	0.28	0.36	0.008	0.01	0.02	0.06	0.02	0.05
	11	-580.90	11.30	15.80	0.00	9.70	8.77	0.24	0.29	0.009	0.01	0.02	0.06	0.02	0.05
	12	-309.04	27.50	5.31	0.00	3.27	21.50	0.15	0.15	0.003	0.03	0.04	0.02	0.03	0.03
	13	-1056.70	1.28	14.70	0.00	8.59	0.93	0.36	0.53	0.008	0.00	0.00	0.05	0.00	0.04
	14	-910.15	15.70	15.30	0.00	9.80	12.50	0.35	0.46	0.008	0.02	0.02	0.06	0.02	0.05
	15	-780.29	14.20	15.70	0.00	9.90	11.30	0.31	0.39	0.009	0.02	0.02	0.06	0.02	0.05
	16	-650.43	12.70	16.00	0.00	10.00	10.00	0.27	0.33	0.009	0.01	0.02	0.06	0.02	0.05
	17	-509.86	11.10	16.40	0.00	10.10	8.67	0.23	0.25	0.009	0.01	0.02	0.06	0.02	0.05
	18	-191.03	27.30	5.38	0.00	3.28	21.20	0.12	0.10	0.003	0.03	0.04	0.02	0.03	0.03
	19	-999.26	5.40	14.50	0.00	8.48	3.90	0.35	0.50	0.008	0.01	0.01	0.05	0.01	0.04
	20	-849.82	15.50	15.90	0.00	10.20	12.40	0.33	0.42	0.009	0.02	0.02	0.06	0.02	0.05
	21	-719.97	14.00	16.30	0.00	10.30	11.20	0.29	0.36	0.009	0.02	0.02	0.06	0.02	0.05
	22	-590.11	12.50	16.60	0.00	10.40	9.89	0.25	0.30	0.009	0.01	0.02	0.06	0.02	0.05
	23	-392.83	10.90	17.00	0.00	10.50	8.57	0.19	0.20	0.009	0.01	0.02	0.06	0.02	0.05
	24	-73.02	27.10	5.46	0.00	3.29	20.90	0.08	0.04	0.003	0.03	0.04	0.02	0.03	0.03
	25	-884.04	31.00	14.30	0.00	9.54	25.90	0.36	0.44	0.008	0.03	0.05	0.06	0.04	0.06
	26	-758.94	26.30	14.30	0.00	9.52	22.00	0.32	0.38	0.008	0.03	0.04	0.06	0.03	0.06
	27	-633.84	22.90	15.20	0.00	9.86	18.70	0.28	0.32	0.008	0.03	0.04	0.06	0.03	0.05
	28	-486.91	19.00	16.10	0.00	10.20	15.20	0.23	0.24	0.009	0.02	0.03	0.06	0.03	0.05
	29	-244.25	14.50	17.20	0.00	10.60	11.40	0.16	0.12	0.009	0.02	0.02	0.06	0.02	0.05
	30	-1.58	9.38	18.10	0.00	10.90	7.28	0.08	0.00	0.010	0.01	0.01	0.07	0.01	0.05

B11 North Pier 1
SLS Pile Cap Loads

LC 1		SLS-C1: MinNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-27451	-456	-3713	113	-4780	0

LC 2		SLS-C1: MaxNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-21752	456	3713	246	-6775	0

LC 3		SLS-C1: MinMy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-24652	456	3713	235	-11160	0

B11 North Pier 1
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS-C1: MinNx Bottom	1	-896.48	25.80	0.57	0.00	0.37	20.60	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-862.29	25.10	0.58	0.00	0.37	19.90	kN/m			kN-m/rad		
	3	-828.10	24.60	0.59	0.00	0.37	19.30	5.39E+06	8.77E+05	1.85E+06	1.00E+00	5.57E+07	2.07E+07
	4	-793.91	24.00	0.61	0.00	0.38	18.70						
	5	-759.72	23.40	0.62	0.00	0.38	18.10						
	6	-725.53	22.80	0.64	0.00	0.39	17.40	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-956.37	21.30	5.23	0.00	3.25	16.40	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-934.03	13.00	0.94	0.00	0.49	8.28	m			rad		
	9	-899.04	12.90	0.94	0.00	0.49	8.20	-5.09E-03	-3.85E-04	4.12E-05	-2.96E-06	-1.65E-04	-3.11E-04
	10	-864.05	12.80	0.95	0.00	0.49	8.13						
	11	-829.06	12.70	0.95	0.00	0.49	8.06						
	12	-782.49	19.20	5.35	0.00	3.21	14.30						
	13	-1004.70	22.20	5.06	0.00	3.18	17.30						
	14	-983.44	13.00	0.86	0.00	0.45	8.28						
	15	-948.45	12.90	0.87	0.00	0.45	8.21						
	16	-913.46	12.80	0.87	0.00	0.45	8.13						
	17	-878.47	12.70	0.88	0.00	0.45	8.06						
	18	-831.03	20.10	5.17	0.00	3.14	15.20						
	19	-1053.10	23.10	4.90	0.00	3.12	18.20						
	20	-1032.80	13.00	0.78	0.00	0.41	8.29						
	21	-997.86	12.90	0.79	0.00	0.41	8.21						
	22	-962.87	12.80	0.80	0.00	0.41	8.14						
	23	-927.88	12.70	0.80	0.00	0.42	8.07						
	24	-879.57	21.00	5.00	0.00	3.08	16.00						
	25	-1110.80	23.00	0.56	0.00	0.32	16.30						
	26	-1076.40	22.30	0.57	0.00	0.33	15.70						
	27	-1042.00	21.60	0.59	0.00	0.33	15.00						
	28	-1007.50	20.90	0.60	0.00	0.34	14.40						
	29	-973.11	20.20	0.62	0.00	0.34	13.70						
	30	-938.67	19.50	0.64	0.00	0.35	13.00						

B11 North Pier 1
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS-C1: MaxNx Bottom	1	-952.72	19.40	3.57	0.00	1.96	13.00	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-905.09	18.00	3.66	0.00	1.99	12.00	kN/m			kN-m/rad		
	3	-857.46	17.00	3.83	0.00	2.04	11.10	6.00E+06	8.77E+05	1.03E+06	1.00E+00	5.55E+07	2.07E+07
	4	-809.84	15.90	4.03	0.00	2.10	10.20						
	5	-762.21	14.70	4.25	0.00	2.16	9.22						
	6	-714.58	13.40	4.51	0.00	2.24	8.27	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-899.99	18.80	5.93	0.00	3.49	13.70	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-859.11	12.30	4.22	0.00	2.21	7.88	m			rad		
	9	-810.87	12.00	4.28	0.00	2.23	7.66	-3.63E-03	3.53E-04	2.12E-04	7.88E-06	-2.28E-04	3.09E-04
	10	-762.63	11.80	4.35	0.00	2.24	7.46						
	11	-714.39	11.50	4.41	0.00	2.26	7.25						
	12	-652.96	19.20	4.84	0.00	2.83	14.00						
	13	-852.22	17.50	6.20	0.00	3.58	12.50						
	14	-810.14	12.30	4.41	0.00	2.31	7.86						
	15	-761.90	12.00	4.47	0.00	2.32	7.64						
	16	-713.66	11.70	4.54	0.00	2.34	7.43						
	17	-665.42	11.50	4.60	0.00	2.36	7.23						
	18	-604.70	18.30	5.02	0.00	2.90	13.20						
	19	-804.44	16.20	6.51	0.00	3.69	11.30						
	20	-761.17	12.20	4.59	0.00	2.40	7.84						
	21	-712.93	12.00	4.66	0.00	2.42	7.63						
	22	-664.69	11.70	4.72	0.00	2.44	7.41						
	23	-616.46	11.40	4.79	0.00	2.45	7.20						
	24	-556.44	17.40	5.21	0.00	2.96	12.30						
	25	-740.70	24.00	3.11	0.00	1.90	18.30						
	26	-693.73	22.50	3.15	0.00	1.91	17.00						
	27	-646.75	21.40	3.28	0.00	1.95	16.00						
	28	-599.78	20.40	3.42	0.00	2.01	14.90						
	29	-552.81	19.20	3.58	0.00	2.06	13.90						
	30	-481.26	18.10	3.77	0.00	2.13	12.80						

B11 North Pier 1
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS-C1: MinMy Bottom	1	-1131.70	23.30	0.36	0.00	0.21	16.70	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-1051.40	21.80	0.38	0.00	0.22	15.20	kN/m			kN-m/rad		
	3	-971.05	20.20	0.41	0.00	0.23	13.70	5.64E+06	8.77E+05	1.06E+06	1.00E+00	5.50E+07	2.07E+07
	4	-890.70	18.50	0.45	0.00	0.24	12.10						
	5	-810.36	16.60	0.49	0.00	0.25	10.40						
	6	-730.01	14.50	0.55	0.00	0.27	8.82	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1073.90	23.60	4.93	0.00	3.15	18.70	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1007.60	12.90	0.70	0.00	0.37	8.24	m			rad		
	9	-926.07	12.70	0.72	0.00	0.37	8.02	-4.37E-03	3.67E-04	4.43E-05	9.06E-06	-3.85E-04	3.10E-04
	10	-844.51	12.40	0.73	0.00	0.37	7.81						
	11	-762.96	12.20	0.75	0.00	0.38	7.59						
	12	-672.31	16.80	5.28	0.00	3.03	12.00						
	13	-1025.90	22.60	5.09	0.00	3.22	17.70						
	14	-958.40	12.90	0.93	0.00	0.49	8.23						
	15	-876.84	12.70	0.95	0.00	0.49	8.02						
	16	-795.29	12.40	0.97	0.00	0.49	7.80						
	17	-713.73	12.20	0.99	0.00	0.50	7.58						
	18	-623.76	15.80	5.49	0.00	3.11	11.10						
	19	-977.93	21.60	5.27	0.00	3.29	16.70						
	20	-909.17	12.90	1.16	0.00	0.60	8.22						
	21	-827.62	12.70	1.18	0.00	0.61	8.01						
	22	-746.07	12.40	1.21	0.00	0.61	7.79						
	23	-664.51	12.20	1.23	0.00	0.62	7.57						
	24	-575.21	14.70	5.72	0.00	3.19	10.20						
	25	-917.78	26.30	0.77	0.00	0.50	21.00						
	26	-838.19	24.80	0.81	0.00	0.51	19.50						
	27	-758.59	23.30	0.85	0.00	0.53	18.00						
	28	-679.00	21.80	0.91	0.00	0.55	16.50						
	29	-599.40	20.20	0.97	0.00	0.57	14.80						
	30	-508.36	18.50	1.06	0.00	0.60	13.10						

B11 North Pier 1
DL Pile Cap Loads

LC 1		DL-factored: MinNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-28489	0	0	29	-4581	0

LC 3		DL-factored: MinMy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-25712	0	0	45	-4887	0

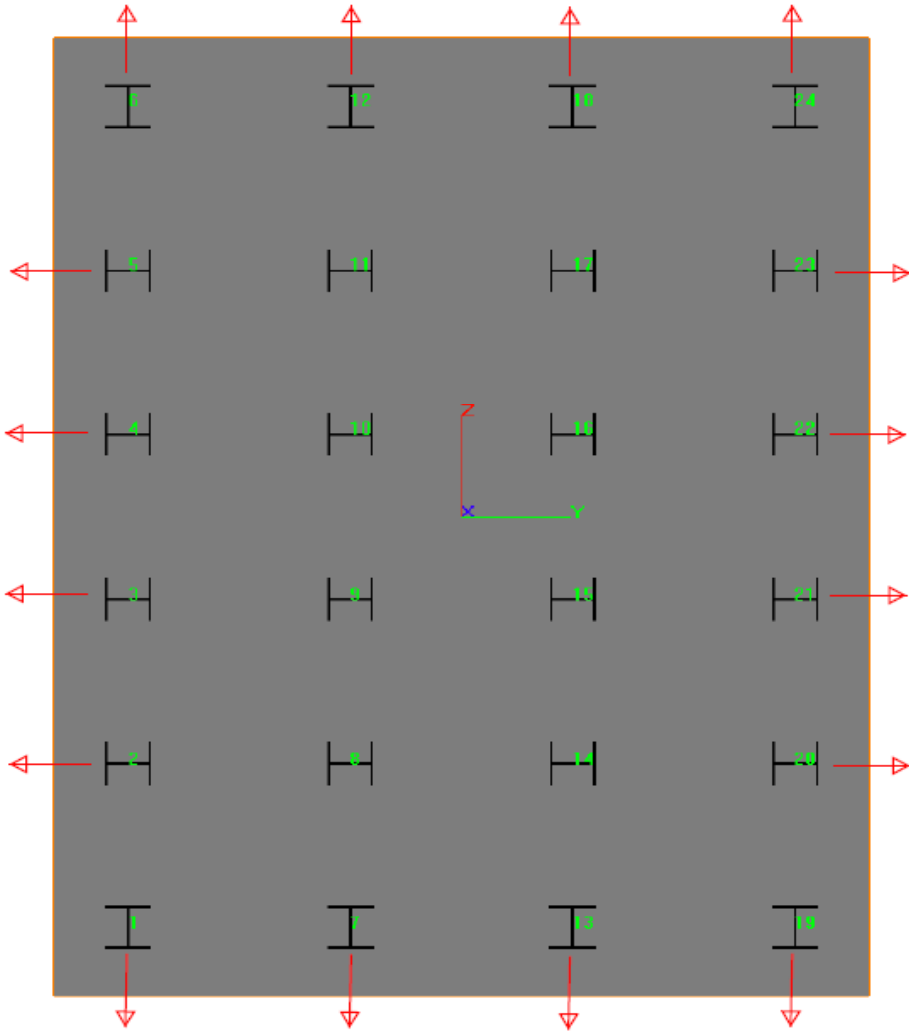
B11 North Pier 1
DL Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Down Drag Effect			Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL-factored: MinNx Bottom	1	-1035.80	25.20	0.92	0.00	0.57	19.30	-700.00	1.25	-1910.80	0.59	0.96	0.000	0.03	0.04	0.00	0.03	0.02
	2	-1002.40	24.60	0.94	0.00	0.58	18.70	-700.00	1.25	-1877.40	0.58	0.94	0.001	0.03	0.04	0.00	0.03	0.01
	3	-969.08	24.00	0.96	0.00	0.59	18.00	-700.00	1.25	-1844.08	0.57	0.92	0.001	0.03	0.04	0.00	0.03	0.01
	4	-935.72	23.40	0.99	0.00	0.59	17.40	-700.00	1.25	-1810.72	0.56	0.91	0.001	0.03	0.03	0.00	0.02	0.01
	5	-902.35	22.80	1.01	0.00	0.60	16.80	-700.00	1.25	-1777.35	0.55	0.89	0.001	0.03	0.03	0.00	0.02	0.01
	6	-868.99	23.60	1.11	0.00	0.64	16.80	-700.00	1.25	-1743.99	0.54	0.87	0.001	0.03	0.03	0.00	0.02	0.01
	7	-1034.00	25.80	0.00	0.00	0.00	20.00	-200.00	1.25	-1284.00	0.41	0.64	0.000	0.03	0.04	0.00	0.03	0.01
	8	-1017.20	0.00	3.47	0.00	1.42	0.00	-760.00	1.25	-1967.20	0.58	0.98	0.002	0.00	0.00	0.01	0.00	0.01
	9	-983.17	0.00	3.47	0.00	1.42	0.00	-760.00	1.25	-1933.17	0.57	0.97	0.002	0.00	0.00	0.01	0.00	0.01
	10	-949.14	0.00	3.47	0.00	1.42	0.00	-760.00	1.25	-1899.14	0.56	0.95	0.002	0.00	0.00	0.01	0.00	0.01
	11	-915.12	0.00	3.48	0.00	1.42	0.00	-760.00	1.25	-1865.12	0.55	0.93	0.002	0.00	0.00	0.01	0.00	0.01
	12	-870.78	22.70	0.00	0.00	0.00	15.90	-700.00	1.25	-1745.78	0.54	0.87	0.000	0.02	0.03	0.00	0.02	0.01
	13	-1034.00	25.80	0.00	0.00	0.00	20.00	-200.00	1.25	-1284.00	0.41	0.64	0.000	0.03	0.04	0.00	0.03	0.01
	14	-1017.20	0.00	3.47	0.00	1.42	0.00	-760.00	1.25	-1967.20	0.58	0.98	0.002	0.00	0.00	0.01	0.00	0.01
	15	-983.17	0.00	3.47	0.00	1.42	0.00	-760.00	1.25	-1933.17	0.57	0.97	0.002	0.00	0.00	0.01	0.00	0.01
	16	-949.14	0.00	3.47	0.00	1.42	0.00	-760.00	1.25	-1899.14	0.56	0.95	0.002	0.00	0.00	0.01	0.00	0.01
	17	-915.12	0.00	3.48	0.00	1.42	0.00	-760.00	1.25	-1865.12	0.55	0.93	0.002	0.00	0.00	0.01	0.00	0.01
	18	-870.78	22.70	0.00	0.00	0.00	15.90	-700.00	1.25	-1745.78	0.54	0.87	0.000	0.02	0.03	0.00	0.02	0.01
	19	-1034.00	25.80	0.00	0.00	0.00	20.00	-200.00	1.25	-1284.00	0.41	0.64	0.000	0.03	0.04	0.00	0.03	0.01
	20	-1017.20	0.00	3.47	0.00	1.42	0.00	-760.00	1.25	-1967.20	0.58	0.98	0.002	0.00	0.00	0.01	0.00	0.01
	21	-983.17	0.00	3.47	0.00	1.42	0.00	-760.00	1.25	-1933.17	0.57	0.97	0.002	0.00	0.00	0.01	0.00	0.01
	22	-949.14	0.00	3.47	0.00	1.42	0.00	-760.00	1.25	-1899.14	0.56	0.95	0.002	0.00	0.00	0.01	0.00	0.01
	23	-915.12	0.00	3.48	0.00	1.42	0.00	-760.00	1.25	-1865.12	0.55	0.93	0.002	0.00	0.00	0.01	0.00	0.01
	24	-870.78	22.70	0.00	0.00	0.00	15.90	-700.00	1.25	-1745.78	0.54	0.87	0.000	0.02	0.03	0.00	0.02	0.01
	25	-1035.80	25.20	0.92	0.00	0.57	19.30	-200.00	1.25	-1285.80	0.41	0.64	0.000	0.03	0.04	0.00	0.03	0.02
	26	-1002.40	24.60	0.94	0.00	0.58	18.70	-200.00	1.25	-1252.40	0.40	0.63	0.001	0.03	0.04	0.00	0.03	0.01
	27	-969.08	24.00	0.96	0.00	0.59	18.00	-200.00	1.25	-1219.08	0.39	0.61	0.001	0.03	0.04	0.00	0.03	0.01
	28	-935.72	23.40	0.99	0.00	0.59	17.40	-200.00	1.25	-1185.72	0.38	0.59	0.001	0.03	0.03	0.00	0.02	0.01
	29	-902.35	22.80	1.01	0.00	0.60	16.80	-200.00	1.25	-1152.35	0.37	0.58	0.001	0.03	0.03	0.00	0.02	0.01
	30	-868.99	23.60	1.11	0.00	0.64	16.80	-700.00	1.25	-1743.99	0.54	0.87	0.001	0.03	0.03	0.00	0.02	0.01

B11 North Pier 1
DL Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Down Drag Effect			Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL-factored: Min/My Bottom	1	-948.41	23.60	0.73	0.00	0.44	17.70	-700.00	1.25	-1823.41	0.56	0.91	0.000	0.03	0.03	0.00	0.03	0.01
	2	-912.92	23.00	0.75	0.00	0.45	17.00	-700.00	1.25	-1787.92	0.55	0.89	0.000	0.03	0.03	0.00	0.02	0.01
	3	-877.44	22.30	0.77	0.00	0.46	16.30	-700.00	1.25	-1752.44	0.54	0.88	0.000	0.02	0.03	0.00	0.02	0.01
	4	-841.95	21.60	0.79	0.00	0.46	15.70	-700.00	1.25	-1716.95	0.53	0.86	0.000	0.02	0.03	0.00	0.02	0.01
	5	-806.47	20.90	0.82	0.00	0.47	15.00	-700.00	1.25	-1681.47	0.52	0.84	0.000	0.02	0.03	0.00	0.02	0.01
	6	-770.98	21.50	0.90	0.00	0.50	14.80	-700.00	1.25	-1645.98	0.51	0.82	0.000	0.02	0.03	0.00	0.02	0.01
	7	-947.08	24.10	0.00	0.00	0.00	18.20	-200.00	1.25	-1197.08	0.38	0.60	0.000	0.03	0.04	0.00	0.03	0.01
	8	-925.90	0.00	2.94	0.00	1.15	0.00	-760.00	1.25	-1875.90	0.55	0.94	0.002	0.00	0.00	0.01	0.00	0.01
	9	-889.71	0.00	2.94	0.00	1.15	0.00	-760.00	1.25	-1839.71	0.54	0.92	0.002	0.00	0.00	0.01	0.00	0.01
	10	-853.52	0.00	2.94	0.00	1.15	0.00	-760.00	1.25	-1803.52	0.53	0.90	0.002	0.00	0.00	0.01	0.00	0.01
	11	-817.33	0.00	2.95	0.00	1.15	0.00	-760.00	1.25	-1767.33	0.52	0.88	0.002	0.00	0.00	0.01	0.00	0.01
	12	-772.31	20.80	0.00	0.00	0.00	14.10	-700.00	1.25	-1647.31	0.50	0.82	0.000	0.02	0.03	0.00	0.02	0.01
	13	-947.08	24.10	0.00	0.00	0.00	18.20	-200.00	1.25	-1197.08	0.38	0.60	0.000	0.03	0.04	0.00	0.03	0.01
	14	-925.90	0.00	2.94	0.00	1.15	0.00	-760.00	1.25	-1875.90	0.55	0.94	0.002	0.00	0.00	0.01	0.00	0.01
	15	-889.71	0.00	2.94	0.00	1.15	0.00	-760.00	1.25	-1839.71	0.54	0.92	0.002	0.00	0.00	0.01	0.00	0.01
	16	-853.52	0.00	2.94	0.00	1.15	0.00	-760.00	1.25	-1803.52	0.53	0.90	0.002	0.00	0.00	0.01	0.00	0.01
	17	-817.33	0.00	2.95	0.00	1.15	0.00	-760.00	1.25	-1767.33	0.52	0.88	0.002	0.00	0.00	0.01	0.00	0.01
	18	-772.31	20.80	0.00	0.00	0.00	14.10	-700.00	1.25	-1647.31	0.50	0.82	0.000	0.02	0.03	0.00	0.02	0.01
	19	-947.08	24.10	0.00	0.00	0.00	18.20	-200.00	1.25	-1197.08	0.38	0.60	0.000	0.03	0.04	0.00	0.03	0.01
	20	-925.90	0.00	2.94	0.00	1.15	0.00	-760.00	1.25	-1875.90	0.55	0.94	0.002	0.00	0.00	0.01	0.00	0.01
	21	-889.71	0.00	2.94	0.00	1.15	0.00	-760.00	1.25	-1839.71	0.54	0.92	0.002	0.00	0.00	0.01	0.00	0.01
	22	-853.52	0.00	2.94	0.00	1.15	0.00	-760.00	1.25	-1803.52	0.53	0.90	0.002	0.00	0.00	0.01	0.00	0.01
	23	-817.33	0.00	2.95	0.00	1.15	0.00	-760.00	1.25	-1767.33	0.52	0.88	0.002	0.00	0.00	0.01	0.00	0.01
	24	-772.31	20.80	0.00	0.00	0.00	14.10	-700.00	1.25	-1647.31	0.50	0.82	0.000	0.02	0.03	0.00	0.02	0.01
	25	-948.41	23.60	0.73	0.00	0.44	17.70	-200.00	1.25	-1198.41	0.38	0.60	0.000	0.03	0.03	0.00	0.03	0.01
	26	-912.92	23.00	0.75	0.00	0.45	17.00	-200.00	1.25	-1162.92	0.37	0.58	0.000	0.03	0.03	0.00	0.02	0.01
	27	-877.44	22.30	0.77	0.00	0.46	16.30	-200.00	1.25	-1127.44	0.36	0.56	0.000	0.02	0.03	0.00	0.02	0.01
	28	-841.95	21.60	0.79	0.00	0.46	15.70	-200.00	1.25	-1091.95	0.35	0.55	0.000	0.02	0.03	0.00	0.02	0.01
	29	-806.47	20.90	0.82	0.00	0.47	15.00	-200.00	1.25	-1056.47	0.34	0.53	0.000	0.02	0.03	0.00	0.02	0.01
	30	-770.98	21.50	0.90	0.00	0.50	14.80	-700.00	1.25	-1645.98	0.51	0.82	0.000	0.02	0.03	0.00	0.02	0.01

B11 North Pier 2
Pile Layout



Pile No.	Batter Angle	
	Vertical	Horizontal
1	5	1
2	5	1
3	5	1
4	5	1
5	5	1
6	5	1
7	5	1
8	---	---
9	---	---
10	---	---
11	---	---
12	5	1
13	5	1
14	---	---
15	---	---
16	---	---
17	---	---
18	5	1
19	5	1
20	5	1
21	5	1
22	5	1
23	5	1
24	5	1

Note:

1. Arrows show batter direction.
2. View from bottom of pile group.
3. See pile layout drawings for dimensions.

B11 North Pier 2
ULS Pile Cap Loads

LC 1		ULS: MinNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-37312	456	2907	-30	-1150	57

LC 2		ULS: MaxNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-18505	87	420	-219	511	-11

LC 3		ULS: MinMy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-22529	29	729	269	-6599	-18

LC 4		ULS: MaxMy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-28672	-22	-982	-637	6389	18

LC 5		ULS: MinMz					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-32450	-753	-9041	-217	420	1

LC 6		ULS: MaxMz					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-26458	1311	12059	-87	-482	81

LC 7		ULS: MinQy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-22476	-1371	-5396	-316	175	769

LC 8		ULS: MaxQy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-28772	1381	5139	81	-1825	782

LC 9		ULS: MinQz					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-31755	-109	-1545	-868	4840	-7

LC 10		ULS: MaxQz					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-19591	117	1293	479	-5195	9

B11 North Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinNx Bottom	1	-1677.30	38.50	9.42	0.00	6.90	34.10	0.59	0.84	0.005	0.04	0.07	0.04	0.05	0.05
	2	-1695.90	26.00	4.79	0.00	3.06	20.00	0.55	0.85	0.003	0.03	0.04	0.02	0.03	0.03
	3	-1679.10	26.20	4.77	0.00	3.04	20.20	0.54	0.84	0.003	0.03	0.04	0.02	0.03	0.03
	4	-1662.30	26.40	4.75	0.00	3.03	20.40	0.54	0.83	0.003	0.03	0.04	0.02	0.03	0.03
	5	-1645.50	26.60	4.72	0.00	3.02	20.60	0.53	0.82	0.003	0.03	0.04	0.02	0.03	0.03
	6	-1616.80	31.10	9.14	0.00	6.20	25.60	0.56	0.81	0.005	0.03	0.05	0.04	0.04	0.04
	7	-1621.90	34.40	8.88	0.00	6.67	31.30	0.57	0.81	0.005	0.04	0.06	0.04	0.05	0.05
	8	-1640.90	21.30	4.12	0.00	2.62	16.40	0.52	0.82	0.002	0.02	0.03	0.02	0.02	0.02
	9	-1624.80	20.80	4.20	0.00	2.65	15.90	0.52	0.81	0.002	0.02	0.03	0.02	0.02	0.02
	10	-1608.70	20.30	4.29	0.00	2.68	15.40	0.51	0.80	0.002	0.02	0.03	0.02	0.02	0.02
	11	-1592.60	19.80	4.38	0.00	2.72	14.90	0.51	0.80	0.002	0.02	0.03	0.02	0.02	0.02
	12	-1558.90	28.40	8.52	0.00	5.90	23.90	0.53	0.78	0.005	0.03	0.05	0.04	0.04	0.04
	13	-1566.60	33.30	9.13	0.00	6.75	29.90	0.55	0.78	0.005	0.04	0.06	0.04	0.04	0.05
	14	-1583.20	21.40	3.48	0.00	2.20	16.40	0.50	0.79	0.002	0.02	0.03	0.01	0.02	0.02
	15	-1567.10	21.00	3.55	0.00	2.23	15.90	0.50	0.78	0.002	0.02	0.03	0.01	0.02	0.02
	16	-1551.00	20.50	3.62	0.00	2.25	15.40	0.49	0.78	0.002	0.02	0.03	0.01	0.02	0.02
	17	-1534.90	19.90	3.70	0.00	2.28	14.90	0.49	0.77	0.002	0.02	0.03	0.01	0.02	0.02
	18	-1500.90	28.10	8.63	0.00	5.93	23.50	0.52	0.75	0.005	0.03	0.05	0.04	0.04	0.04
	19	-1511.30	32.20	9.40	0.00	6.84	28.50	0.53	0.76	0.005	0.04	0.06	0.04	0.04	0.05
	20	-1475.60	38.70	1.71	0.00	1.31	35.90	0.51	0.74	0.001	0.04	0.07	0.01	0.05	0.03
	21	-1460.90	38.30	1.73	0.00	1.31	35.30	0.50	0.73	0.001	0.04	0.07	0.01	0.05	0.02
	22	-1446.10	37.80	1.75	0.00	1.32	34.70	0.49	0.72	0.001	0.04	0.07	0.01	0.05	0.02
	23	-1431.40	37.40	1.78	0.00	1.33	34.10	0.49	0.72	0.001	0.04	0.07	0.01	0.05	0.02
	24	-1443.00	27.70	8.73	0.00	5.96	23.10	0.50	0.72	0.005	0.03	0.05	0.04	0.03	0.04

B11 North Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxNx Bottom	1	-767.44	25.20	1.60	0.00	1.01	19.80	0.27	0.38	0.001	0.03	0.04	0.01	0.03	0.02
	2	-787.00	16.10	7.85	0.00	4.64	11.80	0.28	0.39	0.004	0.02	0.02	0.03	0.02	0.03
	3	-789.67	16.20	7.83	0.00	4.63	11.90	0.28	0.39	0.004	0.02	0.02	0.03	0.02	0.03
	4	-792.35	16.30	7.81	0.00	4.62	12.00	0.28	0.40	0.004	0.02	0.02	0.03	0.02	0.03
	5	-795.02	16.40	7.78	0.00	4.61	12.10	0.28	0.40	0.004	0.02	0.02	0.03	0.02	0.03
	6	-808.02	12.60	3.17	0.00	1.51	7.49	0.26	0.40	0.002	0.01	0.01	0.01	0.01	0.01
	7	-759.22	24.70	1.59	0.00	1.00	19.50	0.26	0.38	0.001	0.03	0.04	0.01	0.03	0.02
	8	-785.60	3.96	9.84	0.00	5.43	2.70	0.27	0.39	0.005	0.00	0.01	0.03	0.01	0.03
	9	-788.38	3.90	9.84	0.00	5.43	2.66	0.27	0.39	0.005	0.00	0.01	0.03	0.01	0.03
	10	-791.16	3.83	9.85	0.00	5.43	2.61	0.27	0.40	0.005	0.00	0.01	0.03	0.01	0.03
	11	-793.94	3.77	9.85	0.00	5.43	2.57	0.27	0.40	0.005	0.00	0.01	0.03	0.01	0.03
	12	-799.66	12.30	3.20	0.00	1.52	7.29	0.25	0.40	0.002	0.01	0.01	0.01	0.01	0.01
	13	-750.99	24.60	1.60	0.00	1.01	19.30	0.26	0.38	0.001	0.03	0.04	0.01	0.03	0.02
	14	-777.14	3.97	9.81	0.00	5.41	2.70	0.26	0.39	0.005	0.00	0.01	0.03	0.01	0.03
	15	-779.92	3.90	9.82	0.00	5.41	2.66	0.26	0.39	0.005	0.00	0.01	0.03	0.01	0.03
	16	-782.70	3.84	9.82	0.00	5.41	2.62	0.26	0.39	0.005	0.00	0.01	0.03	0.01	0.03
	17	-785.49	3.78	9.83	0.00	5.41	2.57	0.27	0.39	0.005	0.00	0.01	0.03	0.01	0.03
	18	-791.30	12.00	3.25	0.00	1.53	7.11	0.25	0.40	0.002	0.01	0.01	0.01	0.01	0.01
	19	-742.77	24.60	1.62	0.00	1.01	19.30	0.26	0.37	0.001	0.03	0.04	0.01	0.03	0.02
	20	-755.40	19.30	7.00	0.00	4.26	14.70	0.27	0.38	0.004	0.02	0.03	0.03	0.02	0.03
	21	-758.19	19.30	7.00	0.00	4.26	14.70	0.27	0.38	0.004	0.02	0.03	0.03	0.02	0.03
	22	-760.97	19.40	6.99	0.00	4.26	14.70	0.27	0.38	0.004	0.02	0.03	0.03	0.02	0.03
	23	-763.75	19.40	6.98	0.00	4.26	14.70	0.28	0.38	0.004	0.02	0.03	0.03	0.02	0.03
	24	-782.94	11.80	3.30	0.00	1.55	6.92	0.25	0.39	0.002	0.01	0.01	0.01	0.01	0.01

B11 North Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinMy Bottom	1	-1166.90	26.10	0.26	0.00	0.17	21.00	0.38	0.58	0.000	0.03	0.04	0.00	0.03	0.01
	2	-1087.30	24.80	0.22	0.00	0.14	19.60	0.35	0.54	0.000	0.03	0.04	0.00	0.03	0.01
	3	-1007.80	23.50	0.23	0.00	0.14	18.20	0.33	0.50	0.000	0.03	0.04	0.00	0.03	0.01
	4	-928.24	22.10	0.24	0.00	0.15	16.80	0.30	0.46	0.000	0.02	0.03	0.00	0.02	0.01
	5	-848.72	20.60	0.26	0.00	0.15	15.30	0.28	0.42	0.000	0.02	0.03	0.00	0.02	0.01
	6	-769.54	20.80	0.08	0.00	0.04	14.30	0.25	0.38	0.000	0.02	0.03	0.00	0.02	0.01
	7	-1150.20	25.80	0.26	0.00	0.17	20.70	0.37	0.58	0.000	0.03	0.04	0.00	0.03	0.01
	8	-1087.30	1.88	1.65	0.00	0.61	0.82	0.32	0.54	0.001	0.00	0.00	0.00	0.00	0.00
	9	-1006.00	1.35	1.73	0.00	0.63	0.59	0.30	0.50	0.001	0.00	0.00	0.00	0.00	0.00
	10	-924.81	0.76	1.79	0.00	0.64	0.33	0.27	0.46	0.001	0.00	0.00	0.00	0.00	0.00
	11	-843.57	0.12	1.82	0.00	0.65	0.05	0.25	0.42	0.001	0.00	0.00	0.00	0.00	0.00
	12	-753.17	20.30	0.08	0.00	0.04	13.90	0.25	0.38	0.000	0.02	0.03	0.00	0.02	0.01
	13	-1133.50	25.60	0.26	0.00	0.17	20.50	0.37	0.57	0.000	0.03	0.04	0.00	0.03	0.01
	14	-1070.40	1.74	1.96	0.00	0.74	0.78	0.32	0.54	0.001	0.00	0.00	0.00	0.00	0.00
	15	-989.18	1.24	2.03	0.00	0.76	0.55	0.29	0.49	0.001	0.00	0.00	0.00	0.00	0.00
	16	-907.94	0.69	2.07	0.00	0.77	0.30	0.27	0.45	0.001	0.00	0.00	0.00	0.00	0.00
	17	-826.70	0.11	2.10	0.00	0.77	0.05	0.24	0.41	0.001	0.00	0.00	0.00	0.00	0.00
	18	-736.79	19.80	0.08	0.00	0.04	13.40	0.24	0.37	0.000	0.02	0.03	0.00	0.02	0.01
	19	-1116.80	26.30	0.27	0.00	0.18	20.80	0.36	0.56	0.000	0.03	0.04	0.00	0.03	0.01
	20	-1038.50	24.40	0.50	0.00	0.31	18.80	0.34	0.52	0.000	0.03	0.04	0.00	0.03	0.01
	21	-958.73	23.10	0.52	0.00	0.32	17.50	0.31	0.48	0.000	0.03	0.03	0.00	0.02	0.01
	22	-878.93	21.70	0.56	0.00	0.33	16.10	0.29	0.44	0.000	0.02	0.03	0.00	0.02	0.01
	23	-799.13	20.30	0.59	0.00	0.34	14.60	0.26	0.40	0.000	0.02	0.03	0.00	0.02	0.01
	24	-720.42	19.80	0.08	0.00	0.04	13.10	0.23	0.36	0.000	0.02	0.03	0.00	0.02	0.01

B11 North Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxMy Bottom	1	-962.26	34.90	0.78	0.00	0.56	31.20	0.34	0.48	0.000	0.04	0.06	0.00	0.04	0.02
	2	-1066.80	19.80	14.20	0.00	9.61	16.70	0.40	0.53	0.008	0.02	0.03	0.06	0.03	0.05
	3	-1134.60	21.20	13.90	0.00	9.47	18.00	0.42	0.57	0.008	0.02	0.04	0.06	0.03	0.05
	4	-1202.30	22.60	13.50	0.00	9.36	19.40	0.44	0.60	0.007	0.02	0.04	0.06	0.03	0.05
	5	-1270.00	23.80	13.20	0.00	9.26	20.70	0.46	0.64	0.007	0.03	0.04	0.06	0.03	0.05
	6	-1371.20	13.20	1.15	0.00	0.56	7.97	0.42	0.69	0.001	0.01	0.02	0.00	0.01	0.01
	7	-985.26	34.90	0.77	0.00	0.55	31.30	0.35	0.49	0.000	0.04	0.06	0.00	0.04	0.02
	8	-1104.00	1.60	16.40	0.00	10.80	1.31	0.39	0.55	0.009	0.00	0.00	0.07	0.01	0.05
	9	-1173.30	1.43	16.40	0.00	10.80	1.17	0.41	0.59	0.009	0.00	0.00	0.07	0.01	0.05
	10	-1242.50	1.26	16.30	0.00	10.80	1.03	0.43	0.62	0.009	0.00	0.00	0.07	0.01	0.05
	11	-1311.80	1.08	16.30	0.00	10.80	0.89	0.45	0.66	0.009	0.00	0.00	0.07	0.01	0.05
	12	-1393.60	14.20	1.09	0.00	0.54	8.71	0.42	0.70	0.001	0.02	0.02	0.00	0.01	0.01
	13	-1008.30	35.00	0.76	0.00	0.55	31.50	0.36	0.50	0.000	0.04	0.06	0.00	0.04	0.02
	14	-1127.20	1.60	16.40	0.00	10.70	1.31	0.39	0.56	0.009	0.00	0.00	0.06	0.01	0.05
	15	-1196.40	1.43	16.30	0.00	10.70	1.17	0.41	0.60	0.009	0.00	0.00	0.06	0.01	0.05
	16	-1265.70	1.26	16.30	0.00	10.70	1.03	0.43	0.63	0.009	0.00	0.00	0.06	0.01	0.05
	17	-1335.00	1.09	16.20	0.00	10.80	0.89	0.45	0.67	0.009	0.00	0.00	0.07	0.01	0.05
	18	-1416.10	15.10	1.03	0.00	0.52	9.42	0.43	0.71	0.001	0.02	0.02	0.00	0.01	0.01
	19	-1031.30	35.40	0.76	0.00	0.55	31.90	0.36	0.52	0.000	0.04	0.06	0.00	0.05	0.02
	20	-1131.00	23.10	13.20	0.00	9.11	19.80	0.42	0.57	0.007	0.03	0.04	0.06	0.03	0.05
	21	-1199.10	24.20	12.90	0.00	9.03	20.90	0.44	0.60	0.007	0.03	0.04	0.05	0.03	0.05
	22	-1267.30	25.20	12.60	0.00	8.94	22.00	0.46	0.63	0.007	0.03	0.04	0.05	0.03	0.05
	23	-1335.40	26.20	12.30	0.00	8.86	23.10	0.49	0.67	0.007	0.03	0.05	0.05	0.04	0.05
	24	-1438.50	16.00	0.98	0.00	0.51	10.10	0.44	0.72	0.001	0.02	0.02	0.00	0.01	0.01

B11 North Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinMz Bottom	1	-1048.10	29.90	9.34	0.00	6.42	25.60	0.39	0.52	0.005	0.03	0.05	0.04	0.04	0.04
	2	-1041.50	32.70	6.18	0.00	4.32	28.40	0.38	0.52	0.003	0.04	0.06	0.03	0.04	0.04
	3	-1042.50	32.50	6.20	0.00	4.33	28.20	0.38	0.52	0.003	0.04	0.06	0.03	0.04	0.04
	4	-1043.40	32.30	6.23	0.00	4.34	28.00	0.38	0.52	0.003	0.04	0.05	0.03	0.04	0.04
	5	-1044.40	32.20	6.26	0.00	4.35	27.80	0.38	0.52	0.003	0.04	0.05	0.03	0.04	0.04
	6	-1083.50	14.20	12.30	0.00	7.48	10.60	0.38	0.54	0.007	0.02	0.02	0.05	0.02	0.04
	7	-1242.60	32.80	8.64	0.00	6.22	29.00	0.45	0.62	0.005	0.04	0.06	0.04	0.04	0.04
	8	-1280.30	19.30	8.81	0.00	5.60	15.10	0.43	0.64	0.005	0.02	0.03	0.03	0.02	0.03
	9	-1280.70	19.00	8.88	0.00	5.63	14.80	0.43	0.64	0.005	0.02	0.03	0.03	0.02	0.03
	10	-1281.10	18.70	8.95	0.00	5.66	14.50	0.43	0.64	0.005	0.02	0.03	0.03	0.02	0.03
	11	-1281.50	18.40	9.02	0.00	5.69	14.20	0.43	0.64	0.005	0.02	0.03	0.03	0.02	0.03
	12	-1279.50	18.90	11.20	0.00	7.07	14.60	0.44	0.64	0.006	0.02	0.03	0.04	0.02	0.04
	13	-1437.20	35.30	8.05	0.00	6.05	32.30	0.52	0.72	0.004	0.04	0.06	0.04	0.05	0.04
	14	-1479.50	19.20	9.03	0.00	5.83	15.10	0.49	0.74	0.005	0.02	0.03	0.04	0.02	0.04
	15	-1479.90	18.80	9.10	0.00	5.86	14.80	0.49	0.74	0.005	0.02	0.03	0.04	0.02	0.04
	16	-1480.30	18.50	9.17	0.00	5.89	14.50	0.49	0.74	0.005	0.02	0.03	0.04	0.02	0.04
	17	-1480.70	18.20	9.24	0.00	5.92	14.20	0.49	0.74	0.005	0.02	0.03	0.04	0.02	0.04
	18	-1475.50	22.80	10.30	0.00	6.70	18.10	0.50	0.74	0.006	0.03	0.04	0.04	0.03	0.04
	19	-1631.70	40.20	8.08	0.00	6.12	36.80	0.58	0.82	0.004	0.04	0.07	0.04	0.05	0.05
	20	-1674.70	24.60	9.04	0.00	5.95	19.60	0.56	0.84	0.005	0.03	0.04	0.04	0.03	0.04
	21	-1674.50	24.80	8.98	0.00	5.93	19.90	0.56	0.84	0.005	0.03	0.04	0.04	0.03	0.04
	22	-1674.40	25.10	8.92	0.00	5.90	20.10	0.56	0.84	0.005	0.03	0.04	0.04	0.03	0.04
	23	-1674.20	25.40	8.86	0.00	5.88	20.40	0.56	0.84	0.005	0.03	0.04	0.04	0.03	0.04
	24	-1671.40	27.50	9.98	0.00	6.64	22.20	0.57	0.84	0.005	0.03	0.04	0.04	0.03	0.04

B11 North Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxMz Bottom	1	-1495.80	33.80	20.20	0.00	15.10	30.80	0.58	0.75	0.011	0.04	0.06	0.09	0.05	0.08
	2	-1556.30	10.60	8.72	0.00	4.68	6.84	0.49	0.78	0.005	0.01	0.01	0.03	0.01	0.03
	3	-1547.20	9.71	8.89	0.00	4.73	6.27	0.49	0.77	0.005	0.01	0.01	0.03	0.01	0.03
	4	-1538.00	8.82	9.05	0.00	4.79	5.67	0.49	0.77	0.005	0.01	0.01	0.03	0.01	0.03
	5	-1528.90	7.89	9.21	0.00	4.84	5.05	0.48	0.76	0.005	0.01	0.01	0.03	0.01	0.03
	6	-1477.10	24.00	20.90	0.00	14.80	20.70	0.56	0.74	0.011	0.03	0.04	0.09	0.03	0.08
	7	-1245.50	26.80	19.80	0.00	14.80	24.70	0.50	0.62	0.011	0.03	0.05	0.09	0.04	0.08
	8	-1266.30	34.10	3.37	0.00	2.40	29.90	0.44	0.63	0.002	0.04	0.06	0.01	0.04	0.03
	9	-1258.20	33.80	3.40	0.00	2.41	29.40	0.44	0.63	0.002	0.04	0.06	0.01	0.04	0.03
	10	-1250.00	33.40	3.44	0.00	2.42	29.00	0.43	0.63	0.002	0.04	0.06	0.01	0.04	0.03
	11	-1241.80	33.10	3.47	0.00	2.43	28.50	0.43	0.62	0.002	0.04	0.06	0.01	0.04	0.03
	12	-1224.00	17.90	20.30	0.00	14.40	15.70	0.47	0.61	0.011	0.02	0.03	0.09	0.03	0.07
	13	-995.11	21.80	21.10	0.00	15.20	19.60	0.42	0.50	0.011	0.02	0.04	0.09	0.03	0.08
	14	-1009.60	34.40	2.91	0.00	2.03	29.80	0.36	0.50	0.002	0.04	0.06	0.01	0.04	0.03
	15	-1001.40	34.10	2.94	0.00	2.04	29.40	0.36	0.50	0.002	0.04	0.06	0.01	0.04	0.03
	16	-993.24	33.70	2.97	0.00	2.05	28.90	0.36	0.50	0.002	0.04	0.06	0.01	0.04	0.03
	17	-985.07	33.30	3.00	0.00	2.06	28.50	0.35	0.49	0.002	0.04	0.06	0.01	0.04	0.03
	18	-970.82	13.10	21.40	0.00	14.70	11.30	0.39	0.49	0.012	0.01	0.02	0.09	0.02	0.07
	19	-744.75	16.00	22.50	0.00	15.60	14.10	0.34	0.37	0.012	0.02	0.03	0.09	0.03	0.08
	20	-685.43	40.40	2.16	0.00	1.55	36.40	0.28	0.34	0.001	0.04	0.07	0.01	0.05	0.03
	21	-678.54	40.00	2.17	0.00	1.55	35.90	0.28	0.34	0.001	0.04	0.07	0.01	0.05	0.03
	22	-671.65	39.50	2.20	0.00	1.56	35.40	0.27	0.34	0.001	0.04	0.07	0.01	0.05	0.03
	23	-664.76	39.10	2.22	0.00	1.57	34.90	0.27	0.33	0.001	0.04	0.07	0.01	0.05	0.03
	24	-717.66	7.78	22.20	0.00	14.90	6.62	0.31	0.36	0.012	0.01	0.01	0.09	0.01	0.07

B11 North Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinQy Bottom	1	-768.09	42.30	18.30	0.00	14.20	41.10	0.39	0.38	0.010	0.05	0.08	0.09	0.06	0.08
	2	-748.19	45.20	18.70	0.00	14.90	44.90	0.39	0.37	0.010	0.05	0.09	0.09	0.07	0.09
	3	-722.79	50.10	17.70	0.00	14.30	50.60	0.39	0.36	0.010	0.06	0.10	0.09	0.08	0.09
	4	-697.39	54.60	16.80	0.00	13.80	56.10	0.40	0.35	0.009	0.06	0.11	0.08	0.08	0.09
	5	-671.99	58.90	16.10	0.00	13.40	61.60	0.40	0.34	0.009	0.06	0.12	0.08	0.09	0.09
	6	-873.37	20.20	39.30	0.00	33.20	21.30	0.50	0.44	0.021	0.02	0.04	0.20	0.04	0.16
	7	-872.53	35.80	19.60	0.00	15.00	34.10	0.41	0.44	0.011	0.04	0.07	0.09	0.05	0.08
	8	-925.75	40.20	14.00	0.00	10.80	38.40	0.41	0.46	0.008	0.04	0.08	0.07	0.06	0.07
	9	-918.57	45.60	13.00	0.00	10.30	44.70	0.42	0.46	0.007	0.05	0.09	0.06	0.07	0.07
	10	-911.40	50.40	12.10	0.00	9.85	50.60	0.42	0.46	0.007	0.06	0.10	0.06	0.07	0.07
	11	-904.22	54.80	11.40	0.00	9.49	56.30	0.43	0.45	0.006	0.06	0.11	0.06	0.08	0.07
	12	-931.92	9.53	40.10	0.00	33.90	10.10	0.49	0.47	0.022	0.01	0.02	0.21	0.02	0.15
	13	-976.98	28.40	21.10	0.00	15.80	26.40	0.43	0.49	0.011	0.03	0.05	0.10	0.04	0.08
	14	-1008.90	41.40	7.46	0.00	5.66	38.90	0.40	0.50	0.004	0.05	0.08	0.03	0.06	0.05
	15	-1001.70	46.40	6.82	0.00	5.37	45.10	0.41	0.50	0.004	0.05	0.09	0.03	0.07	0.05
	16	-994.50	51.00	6.33	0.00	5.13	51.00	0.42	0.50	0.003	0.06	0.10	0.03	0.07	0.05
	17	-987.33	55.30	5.93	0.00	4.93	56.60	0.43	0.49	0.003	0.06	0.11	0.03	0.08	0.05
	18	-990.46	1.73	40.20	0.00	34.10	1.84	0.50	0.50	0.022	0.00	0.00	0.21	0.01	0.15
	19	-1081.40	21.00	24.50	0.00	17.40	18.50	0.45	0.54	0.013	0.02	0.04	0.11	0.03	0.09
	20	-1158.90	34.40	0.60	0.00	0.39	28.00	0.39	0.58	0.000	0.04	0.05	0.00	0.04	0.02
	21	-1170.20	40.80	0.51	0.00	0.36	35.30	0.41	0.59	0.000	0.04	0.07	0.00	0.05	0.02
	22	-1181.50	46.50	0.46	0.00	0.34	42.20	0.43	0.59	0.000	0.05	0.08	0.00	0.06	0.02
	23	-1192.80	51.60	0.42	0.00	0.32	48.70	0.44	0.60	0.000	0.06	0.10	0.00	0.07	0.03
	24	-1049.00	13.70	42.60	0.00	35.40	14.20	0.55	0.52	0.023	0.02	0.03	0.21	0.03	0.16

B11 North Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxQy Bottom	1	-1338.00	33.20	40.10	0.00	34.90	35.20	0.67	0.67	0.022	0.04	0.07	0.21	0.06	0.17
	2	-1493.80	48.70	10.70	0.00	8.38	46.30	0.57	0.75	0.006	0.05	0.09	0.05	0.07	0.06
	3	-1452.90	43.30	11.70	0.00	8.78	39.70	0.55	0.73	0.006	0.05	0.08	0.05	0.06	0.06
	4	-1411.90	37.20	12.90	0.00	9.26	32.60	0.53	0.71	0.007	0.04	0.06	0.06	0.05	0.06
	5	-1371.00	29.90	14.60	0.00	9.95	25.10	0.51	0.69	0.008	0.03	0.05	0.06	0.04	0.06
	6	-1297.90	3.25	26.90	0.00	19.00	2.86	0.50	0.65	0.015	0.00	0.01	0.12	0.01	0.09
	7	-1287.20	21.40	38.20	0.00	34.10	23.20	0.62	0.64	0.021	0.02	0.05	0.21	0.04	0.16
	8	-1297.00	56.10	2.76	0.00	2.37	58.40	0.50	0.65	0.001	0.06	0.11	0.01	0.08	0.04
	9	-1274.40	51.90	2.96	0.00	2.47	52.70	0.49	0.64	0.002	0.06	0.10	0.01	0.08	0.04
	10	-1251.90	47.40	3.20	0.00	2.58	46.70	0.47	0.63	0.002	0.05	0.09	0.02	0.07	0.04
	11	-1229.30	42.60	3.52	0.00	2.72	40.30	0.45	0.61	0.002	0.05	0.08	0.02	0.06	0.03
	12	-1200.00	14.80	23.90	0.00	17.60	13.50	0.48	0.60	0.013	0.02	0.03	0.11	0.03	0.08
	13	-1236.50	11.10	39.40	0.00	34.70	12.10	0.59	0.62	0.021	0.01	0.02	0.21	0.03	0.16
	14	-1221.20	56.30	2.82	0.00	2.40	58.40	0.48	0.61	0.002	0.06	0.11	0.01	0.08	0.04
	15	-1198.70	52.10	3.02	0.00	2.50	52.60	0.46	0.60	0.002	0.06	0.10	0.02	0.08	0.04
	16	-1176.10	47.60	3.27	0.00	2.62	46.60	0.45	0.59	0.002	0.05	0.09	0.02	0.07	0.04
	17	-1153.60	42.70	3.59	0.00	2.76	40.30	0.43	0.58	0.002	0.05	0.08	0.02	0.06	0.03
	18	-1102.20	24.80	22.40	0.00	16.80	23.00	0.47	0.55	0.012	0.03	0.04	0.10	0.04	0.09
	19	-1185.70	0.13	39.90	0.00	34.90	0.14	0.55	0.59	0.022	0.00	0.00	0.21	0.01	0.15
	20	-985.46	63.10	7.75	0.00	6.71	67.50	0.46	0.49	0.004	0.07	0.13	0.04	0.10	0.06
	21	-982.18	59.00	8.18	0.00	6.94	61.50	0.45	0.49	0.004	0.06	0.12	0.04	0.09	0.06
	22	-978.91	54.70	8.69	0.00	7.20	55.80	0.44	0.49	0.005	0.06	0.11	0.04	0.08	0.06
	23	-975.64	50.00	9.31	0.00	7.51	49.80	0.43	0.49	0.005	0.05	0.10	0.05	0.07	0.06
	24	-1004.40	33.10	20.70	0.00	15.90	31.40	0.45	0.50	0.011	0.04	0.06	0.10	0.05	0.09

B11 North Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinQz Bottom	1	-1111.80	43.60	0.75	0.00	0.59	42.40	0.41	0.56	0.000	0.05	0.08	0.00	0.06	0.02
	2	-1212.80	22.10	20.00	0.00	15.10	20.60	0.48	0.61	0.011	0.02	0.04	0.09	0.03	0.08
	3	-1255.90	22.80	19.80	0.00	15.10	21.40	0.50	0.63	0.011	0.03	0.04	0.09	0.04	0.08
	4	-1299.00	23.60	19.60	0.00	15.00	22.20	0.51	0.65	0.011	0.03	0.04	0.09	0.04	0.08
	5	-1342.20	24.30	19.40	0.00	14.90	23.00	0.52	0.67	0.011	0.03	0.04	0.09	0.04	0.08
	6	-1448.90	18.00	2.36	0.00	1.29	11.90	0.45	0.72	0.001	0.02	0.02	0.01	0.02	0.01
	7	-1145.80	43.60	0.74	0.00	0.59	42.70	0.42	0.57	0.000	0.05	0.08	0.00	0.06	0.02
	8	-1269.10	1.70	22.10	0.00	16.30	1.56	0.47	0.63	0.012	0.00	0.00	0.10	0.01	0.07
	9	-1313.10	1.76	22.00	0.00	16.30	1.62	0.48	0.66	0.012	0.00	0.00	0.10	0.01	0.07
	10	-1357.20	1.81	22.00	0.00	16.30	1.67	0.49	0.68	0.012	0.00	0.00	0.10	0.01	0.07
	11	-1401.30	1.87	21.90	0.00	16.30	1.72	0.51	0.70	0.012	0.00	0.00	0.10	0.01	0.07
	12	-1482.70	17.00	2.46	0.00	1.32	11.00	0.46	0.74	0.001	0.02	0.02	0.01	0.02	0.01
	13	-1179.80	43.80	0.73	0.00	0.59	43.10	0.43	0.59	0.000	0.05	0.08	0.00	0.06	0.02
	14	-1303.60	1.70	22.00	0.00	16.20	1.56	0.48	0.65	0.012	0.00	0.00	0.10	0.01	0.07
	15	-1347.60	1.76	22.00	0.00	16.30	1.62	0.49	0.67	0.012	0.00	0.00	0.10	0.01	0.07
	16	-1391.70	1.81	21.90	0.00	16.30	1.67	0.50	0.70	0.012	0.00	0.00	0.10	0.01	0.07
	17	-1435.80	1.87	21.90	0.00	16.30	1.73	0.52	0.72	0.012	0.00	0.00	0.10	0.01	0.07
	18	-1516.40	16.00	2.59	0.00	1.36	10.20	0.47	0.76	0.001	0.02	0.02	0.01	0.02	0.01
	19	-1213.70	44.40	0.73	0.00	0.59	43.70	0.44	0.61	0.000	0.05	0.09	0.00	0.06	0.02
	20	-1319.90	21.40	19.90	0.00	15.10	20.00	0.51	0.66	0.011	0.02	0.04	0.09	0.03	0.08
	21	-1363.20	22.10	19.70	0.00	15.10	20.70	0.53	0.68	0.011	0.02	0.04	0.09	0.03	0.08
	22	-1406.50	22.80	19.50	0.00	15.00	21.40	0.54	0.70	0.011	0.03	0.04	0.09	0.04	0.08
	23	-1449.80	23.40	19.30	0.00	15.00	22.20	0.55	0.72	0.010	0.03	0.04	0.09	0.04	0.08
	24	-1550.10	14.90	2.73	0.00	1.41	9.35	0.48	0.78	0.001	0.02	0.02	0.01	0.01	0.01

B11 North Pier 2
ULS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxQz Bottom	1	-1026.10	14.80	2.50	0.00	1.25	9.13	0.32	0.51	0.001	0.02	0.02	0.01	0.01	0.01
	2	-952.00	19.20	9.52	0.00	6.01	15.00	0.34	0.48	0.005	0.02	0.03	0.04	0.02	0.04
	3	-894.53	17.90	9.84	0.00	6.13	13.90	0.32	0.45	0.005	0.02	0.03	0.04	0.02	0.04
	4	-837.07	16.50	10.20	0.00	6.26	12.70	0.31	0.42	0.006	0.02	0.02	0.04	0.02	0.04
	5	-779.61	15.00	10.50	0.00	6.40	11.40	0.29	0.39	0.006	0.02	0.02	0.04	0.02	0.04
	6	-699.54	26.50	1.43	0.00	0.91	21.10	0.25	0.35	0.001	0.03	0.04	0.01	0.03	0.02
	7	-997.93	13.90	2.61	0.00	1.28	8.50	0.31	0.50	0.001	0.02	0.02	0.01	0.01	0.01
	8	-934.22	2.90	12.10	0.00	7.13	2.13	0.32	0.47	0.007	0.00	0.00	0.04	0.01	0.03
	9	-875.53	2.98	12.10	0.00	7.12	2.19	0.30	0.44	0.007	0.00	0.00	0.04	0.01	0.03
	10	-816.85	3.07	12.10	0.00	7.11	2.24	0.28	0.41	0.007	0.00	0.00	0.04	0.01	0.03
	11	-758.17	3.15	12.10	0.00	7.10	2.30	0.27	0.38	0.007	0.00	0.00	0.04	0.01	0.03
	12	-671.60	25.80	1.44	0.00	0.92	20.50	0.24	0.34	0.001	0.03	0.04	0.01	0.03	0.02
	13	-969.78	13.00	2.74	0.00	1.32	7.85	0.30	0.48	0.001	0.01	0.02	0.01	0.01	0.01
	14	-905.62	2.91	12.00	0.00	7.10	2.13	0.31	0.45	0.007	0.00	0.00	0.04	0.01	0.03
	15	-846.93	2.99	12.10	0.00	7.09	2.19	0.29	0.42	0.007	0.00	0.00	0.04	0.01	0.03
	16	-788.25	3.08	12.10	0.00	7.08	2.25	0.28	0.39	0.007	0.00	0.00	0.04	0.01	0.03
	17	-729.56	3.16	12.10	0.00	7.07	2.31	0.26	0.36	0.007	0.00	0.00	0.04	0.01	0.03
	18	-643.66	25.30	1.47	0.00	0.93	20.00	0.23	0.32	0.001	0.03	0.04	0.01	0.03	0.02
	19	-941.63	12.10	2.89	0.00	1.37	7.16	0.29	0.47	0.002	0.01	0.01	0.01	0.01	0.01
	20	-862.12	20.40	9.12	0.00	5.78	16.10	0.32	0.43	0.005	0.02	0.03	0.04	0.03	0.04
	21	-804.49	19.30	9.40	0.00	5.89	15.10	0.30	0.40	0.005	0.02	0.03	0.04	0.02	0.04
	22	-746.87	18.10	9.70	0.00	6.00	14.00	0.28	0.37	0.005	0.02	0.03	0.04	0.02	0.04
	23	-689.24	16.80	10.00	0.00	6.12	12.90	0.26	0.34	0.005	0.02	0.03	0.04	0.02	0.04
	24	-615.72	25.00	1.50	0.00	0.94	19.60	0.22	0.31	0.001	0.03	0.04	0.01	0.03	0.02

B11 North Pier 2
SLS Pile Cap Loads

LC 1		SLS-C1: MinNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-28663	316	1973	-96	-428	31

LC 2		SLS-C1: MaxNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-24305	-8	-227	-204	42	9

LC 3		SLS-C1: MinMy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-26397	324	2322	-135	-1956	10

LC 6		SLS-C1: MaxMz					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-26926	837	7243	-104	-428	61

B11 North Pier 2
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS-C1: MinNx Bottom	1	-1267.80	33.30	6.32	0.00	4.26	27.70	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-1285.00	22.80	5.61	0.00	3.42	17.00	kN/m			kN-m/rad		
	3	-1276.90	22.90	5.60	0.00	3.41	17.10	3.94E+06	7.81E+05	1.45E+06	2.67E+07	2.56E+07	1.66E+07
	4	-1268.90	23.10	5.58	0.00	3.40	17.20						
	5	-1260.90	23.20	5.56	0.00	3.39	17.30						
	6	-1250.10	25.10	6.87	0.00	4.23	19.00	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1229.20	30.30	6.01	0.00	4.12	25.60	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1250.30	15.30	6.01	0.00	3.48	10.80	m			rad		
	9	-1242.60	14.90	6.08	0.00	3.51	10.50	-7.27E-03	5.39E-04	-3.47E-04	1.69E-05	-4.83E-05	2.02E-04
	10	-1234.90	14.60	6.17	0.00	3.54	10.20						
	11	-1227.20	14.20	6.25	0.00	3.57	9.89						
	12	-1210.20	23.20	6.55	0.00	4.10	17.80						
	13	-1190.60	29.60	6.15	0.00	4.17	24.70						
	14	-1210.20	15.40	5.64	0.00	3.25	10.80						
	15	-1202.60	15.00	5.71	0.00	3.27	10.50						
	16	-1194.90	14.70	5.79	0.00	3.30	10.20						
	17	-1187.20	14.30	5.87	0.00	3.33	9.93						
	18	-1170.30	22.70	6.65	0.00	4.13	17.40						
	19	-1152.00	28.80	6.30	0.00	4.23	23.90						
	20	-1137.70	31.30	3.12	0.00	2.13	26.40						
	21	-1130.70	31.00	3.15	0.00	2.14	26.10						
	22	-1123.70	30.70	3.17	0.00	2.15	25.80						
	23	-1116.70	30.40	3.20	0.00	2.16	25.40						
	24	-1130.40	22.30	6.75	0.00	4.16	16.90						

B11 North Pier 2
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS-C1: MaxNx Bottom	1	-1003.20	29.30	0.17	0.00	0.11	24.50	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-1016.00	22.00	7.55	0.00	4.85	17.50	kN/m			kN-m/rad		
	3	-1012.20	22.00	7.56	0.00	4.85	17.50	4.15E+06	4.59E+06	8.11E+05	2.67E+07	2.57E+07	1.72E+07
	4	-1008.40	22.00	7.57	0.00	4.86	17.50						
	5	-1004.60	22.00	7.57	0.00	4.86	17.50						
	6	-1017.10	17.10	0.06	0.00	0.03	10.90	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1008.50	29.20	0.17	0.00	0.11	24.50	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1036.00	0.36	10.90	0.00	6.30	0.26	m			rad		
	9	-1032.20	0.25	11.00	0.00	6.30	0.18	-5.86E-03	6.87E-06	-6.19E-04	3.18E-06	-2.39E-05	-2.66E-05
	10	-1028.40	0.14	11.00	0.00	6.30	0.10						
	11	-1024.60	0.03	11.00	0.00	6.30	0.02						
	12	-1022.10	17.30	0.06	0.00	0.03	11.10						
	13	-1013.80	29.20	0.17	0.00	0.11	24.50						
	14	-1041.30	0.36	10.90	0.00	6.27	0.26						
	15	-1037.50	0.25	10.90	0.00	6.27	0.18						
	16	-1033.70	0.14	10.90	0.00	6.27	0.10						
	17	-1029.90	0.03	10.90	0.00	6.27	0.02						
	18	-1027.20	17.50	0.06	0.00	0.03	11.30						
	19	-1019.10	29.40	0.17	0.00	0.11	24.60						
	20	-1030.90	22.60	7.27	0.00	4.70	18.10						
	21	-1027.30	22.50	7.30	0.00	4.71	18.00						
	22	-1023.70	22.40	7.32	0.00	4.72	17.90						
	23	-1020.10	22.30	7.35	0.00	4.73	17.80						
	24	-1032.20	17.80	0.05	0.00	0.03	11.50						

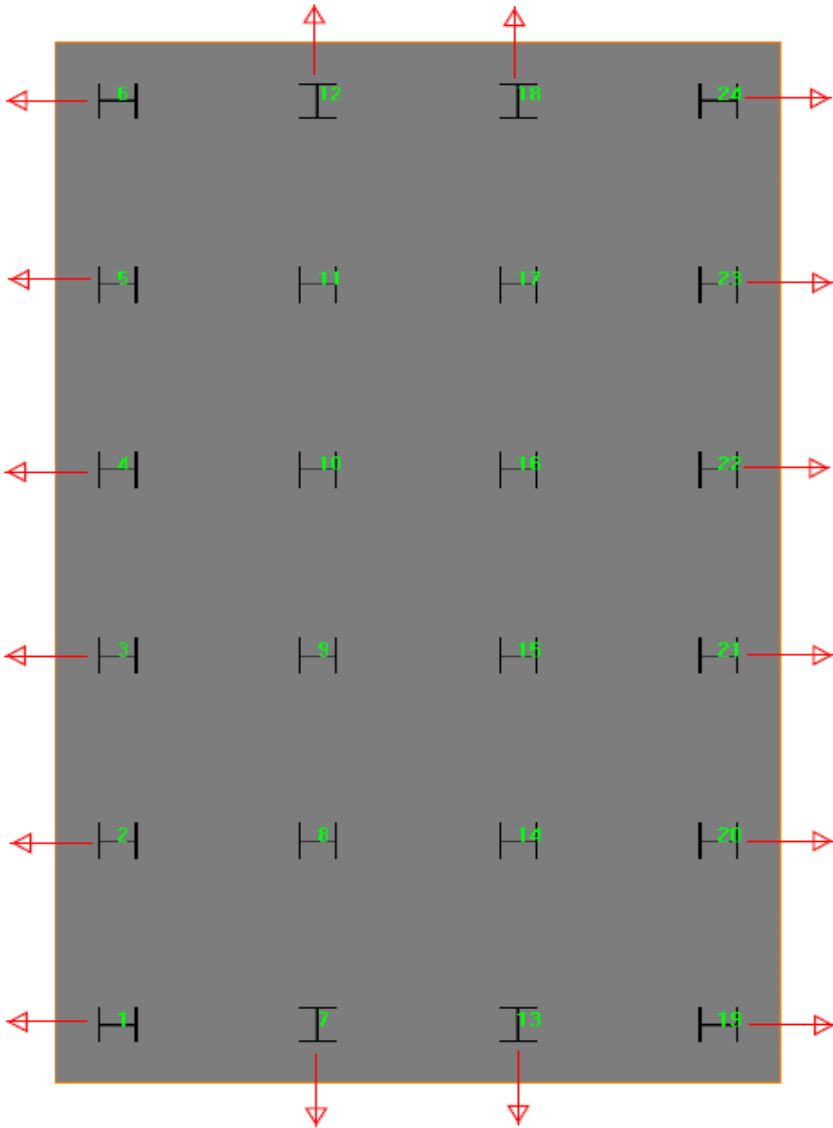
B11 North Pier 2 SLS Pile Loads

			ABS MAXIMUM VALUES										
LOAD CASE	PILE	Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	PILE CAP STIFFNESS					
SLS-C1: MinMy Bottom	1	-1228.20	34.80	5.59	0.00	3.91	30.00	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-1233.00	20.00	9.74	0.00	6.09	15.40	kN/m			kN-m/rad		
	3	-1204.30	19.70	9.82	0.00	6.12	15.10	4.04E+06	7.66E+05	1.12E+06	2.67E+07	2.48E+07	1.66E+07
	4	-1175.70	19.40	9.91	0.00	6.15	14.80						
	5	-1147.00	19.10	10.00	0.00	6.18	14.50						
	6	-1124.80	16.70	8.36	0.00	4.70	11.50	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1181.50	32.30	5.44	0.00	3.85	28.20	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1189.40	13.20	10.20	0.00	6.22	9.91	m			rad		
	9	-1160.70	12.80	10.30	0.00	6.26	9.58	-6.54E-03	5.20E-04	-6.75E-04	1.79E-05	-1.81E-04	2.44E-04
	10	-1132.10	12.40	10.40	0.00	6.29	9.24						
	11	-1103.40	12.00	10.50	0.00	6.32	8.90						
	12	-1076.80	15.20	8.27	0.00	4.67	10.50						
	13	-1134.80	31.50	5.57	0.00	3.89	27.20						
	14	-1141.10	13.40	9.94	0.00	6.01	9.95						
	15	-1112.40	13.00	10.00	0.00	6.04	9.62						
	16	-1083.80	12.60	10.10	0.00	6.08	9.29						
	17	-1055.10	12.10	10.20	0.00	6.11	8.94						
	18	-1028.70	14.30	8.49	0.00	4.74	9.79						
	19	-1088.20	30.80	5.73	0.00	3.93	26.20						
	20	-1062.20	29.30	6.49	0.00	4.40	24.70						
	21	-1034.70	28.80	6.60	0.00	4.44	24.00						
	22	-1007.10	28.10	6.71	0.00	4.49	23.40						
	23	-979.60	27.50	6.83	0.00	4.54	22.70						
	24	-980.63	13.30	8.72	0.00	4.82	9.03						

B11 North Pier 2
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS-C1: MaxMz Bottom	1	-1360.60	33.90	14.40	0.00	10.20	29.40	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-1401.50	9.17	9.30	0.00	4.95	5.92	kN/m			kN-m/rad		
	3	-1393.00	9.85	9.18	0.00	4.91	6.38	4.01E+06	3.77E+05	1.37E+06	2.67E+07	2.56E+07	1.59E+07
	4	-1384.50	10.50	9.06	0.00	4.87	6.84						
	5	-1375.90	11.10	8.93	0.00	4.83	7.29						
	6	-1345.20	23.50	15.50	0.00	10.20	19.00	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1211.70	28.70	14.00	0.00	9.98	25.20	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1233.10	26.70	4.49	0.00	2.95	21.60	m			rad		
	9	-1225.40	26.30	4.54	0.00	2.98	21.20	-6.71E-03	1.38E-03	-3.68E-04	2.99E-05	-4.89E-05	7.72E-04
	10	-1217.60	25.90	4.59	0.00	3.00	20.80						
	11	-1209.90	25.50	4.65	0.00	3.02	20.40						
	12	-1193.90	19.20	15.00	0.00	9.92	15.70						
	13	-1062.70	25.70	14.80	0.00	10.20	22.10						
	14	-1080.00	26.80	4.01	0.00	2.61	21.60						
	15	-1072.30	26.50	4.06	0.00	2.63	21.20						
	16	-1064.50	26.10	4.11	0.00	2.65	20.80						
	17	-1056.80	25.70	4.16	0.00	2.67	20.40						
	18	-1042.60	16.40	15.60	0.00	10.20	13.30						
	19	-913.78	22.40	15.70	0.00	10.50	18.80						
	20	-876.73	35.90	2.80	0.00	1.96	31.50						
	21	-870.06	35.60	2.82	0.00	1.97	31.00						
	22	-863.38	35.20	2.85	0.00	1.98	30.50						
	23	-856.71	34.80	2.88	0.00	1.99	30.10						
	24	-891.33	13.30	16.30	0.00	10.40	10.60						

B11 North Pier 3
Pile Layout



Pile No.	Batter Angle	
	Vertical	Horizontal
1	5	1
2	5	1
3	5	1
4	5	1
5	5	1
6	5	1
7	5	1
8	---	---
9	---	---
10	---	---
11	---	---
12	5	1
13	5	1
14	---	---
15	---	---
16	---	---
17	---	---
18	5	1
19	5	1
20	5	1
21	5	1
22	5	1
23	5	1
24	5	1

Note:
1. Arrows show batter direction.
2. View from bottom of pile group.
3. See pile layout drawings for dimensions.

B11 North Pier 3
ULS Pile Cap Loads

LC 1		ULS: MinNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-35947	665	5572	536	-9091	0

LC 2		ULS: MaxNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-17667	-722	-6056	363	-9727	0

LC 3		ULS: MinMy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-20869	722	6056	1001	-24511	0

LC 8		ULS: MaxQy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-20823	1235	5439	417	-4863	-5460

LC 10		ULS: MaxQz					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-27911	722	6056	1025	-22299	0

B11 North Pier 3
ULS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinNx Bottom	1	-1845.00	27.30	14.90	0.00	10.40	23.00	0.64	0.92	0.008	0.03	0.04	0.06	0.04	0.06
	2	-1787.40	25.20	14.50	0.00	10.20	21.40	0.62	0.89	0.008	0.03	0.04	0.06	0.03	0.06
	3	-1729.90	24.10	14.80	0.00	10.40	20.40	0.60	0.86	0.008	0.03	0.04	0.06	0.03	0.06
	4	-1659.80	23.10	15.10	0.00	10.50	19.30	0.58	0.83	0.008	0.03	0.04	0.06	0.03	0.06
	5	-1577.20	21.90	15.50	0.00	10.60	18.30	0.56	0.79	0.008	0.02	0.04	0.06	0.03	0.06
	6	-1494.60	20.80	15.80	0.00	10.70	17.20	0.53	0.75	0.009	0.02	0.03	0.06	0.03	0.06
	7	-1775.50	19.60	12.60	0.00	8.21	15.40	0.59	0.89	0.007	0.02	0.03	0.05	0.02	0.05
	8	-1712.80	17.30	16.20	0.00	11.10	14.40	0.59	0.86	0.009	0.02	0.03	0.07	0.02	0.06
	9	-1634.70	16.70	16.40	0.00	11.20	13.80	0.57	0.82	0.009	0.02	0.03	0.07	0.02	0.06
	10	-1551.50	16.10	16.60	0.00	11.20	13.30	0.54	0.78	0.009	0.02	0.03	0.07	0.02	0.06
	11	-1468.40	15.40	16.80	0.00	11.30	12.70	0.52	0.73	0.009	0.02	0.02	0.07	0.02	0.06
	12	-1326.50	41.80	6.27	0.00	4.74	38.60	0.49	0.66	0.003	0.05	0.08	0.03	0.06	0.04
	13	-1697.10	16.00	13.40	0.00	8.54	12.30	0.57	0.85	0.007	0.02	0.02	0.05	0.02	0.05
	14	-1603.90	17.20	16.60	0.00	11.40	14.30	0.56	0.80	0.009	0.02	0.03	0.07	0.02	0.06
	15	-1520.70	16.60	16.80	0.00	11.40	13.80	0.54	0.76	0.009	0.02	0.03	0.07	0.02	0.06
	16	-1437.50	16.00	17.00	0.00	11.40	13.20	0.51	0.72	0.009	0.02	0.03	0.07	0.02	0.06
	17	-1354.40	15.30	17.20	0.00	11.50	12.60	0.49	0.68	0.009	0.02	0.02	0.07	0.02	0.06
	18	-1213.70	40.90	6.44	0.00	4.78	37.30	0.45	0.61	0.003	0.04	0.07	0.03	0.05	0.04
	19	-1522.80	40.70	12.80	0.00	9.71	37.50	0.57	0.76	0.007	0.04	0.07	0.06	0.06	0.06
	20	-1442.30	37.80	12.60	0.00	9.58	35.00	0.54	0.72	0.007	0.04	0.07	0.06	0.05	0.06
	21	-1361.80	36.40	13.00	0.00	9.69	33.30	0.52	0.68	0.007	0.04	0.07	0.06	0.05	0.06
	22	-1281.20	35.00	13.30	0.00	9.81	31.60	0.49	0.64	0.007	0.04	0.06	0.06	0.05	0.06
	23	-1200.70	33.50	13.70	0.00	9.93	29.90	0.47	0.60	0.007	0.04	0.06	0.06	0.05	0.06
	24	-1120.20	32.00	14.20	0.00	10.10	28.10	0.44	0.56	0.008	0.04	0.05	0.06	0.04	0.06

B11 North Pier 3
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxNx Bottom	1	-762.18	30.70	7.46	0.00	4.78	24.60	0.30	0.38	0.004	0.03	0.05	0.03	0.04	0.04
	2	-686.10	27.90	7.69	0.00	4.87	22.10	0.27	0.34	0.004	0.03	0.04	0.03	0.03	0.04
	3	-610.02	25.60	8.16	0.00	5.05	19.90	0.25	0.31	0.004	0.03	0.04	0.03	0.03	0.04
	4	-533.94	23.10	8.70	0.00	5.26	17.60	0.22	0.27	0.005	0.03	0.03	0.03	0.03	0.03
	5	-388.19	20.40	9.36	0.00	5.50	15.10	0.18	0.19	0.005	0.02	0.03	0.03	0.02	0.03
	6	-240.61	17.20	10.10	0.00	5.78	12.40	0.13	0.12	0.005	0.02	0.02	0.04	0.02	0.03
	7	-906.90	10.30	13.90	0.00	8.23	7.54	0.33	0.45	0.008	0.01	0.01	0.05	0.01	0.04
	8	-825.13	19.20	8.52	0.00	5.05	14.10	0.30	0.41	0.005	0.02	0.03	0.03	0.02	0.03
	9	-745.53	17.90	8.82	0.00	5.16	13.00	0.27	0.37	0.005	0.02	0.03	0.03	0.02	0.03
	10	-665.93	16.60	9.15	0.00	5.27	11.90	0.25	0.33	0.005	0.02	0.02	0.03	0.02	0.03
	11	-586.33	15.20	9.49	0.00	5.38	10.80	0.22	0.29	0.005	0.02	0.02	0.03	0.02	0.03
	12	-445.03	21.50	7.31	0.00	4.28	15.80	0.19	0.22	0.004	0.02	0.03	0.03	0.02	0.03
	13	-1012.20	15.20	13.00	0.00	7.87	11.40	0.36	0.51	0.007	0.02	0.02	0.05	0.02	0.04
	14	-934.48	19.40	7.47	0.00	4.43	14.20	0.33	0.47	0.004	0.02	0.03	0.03	0.02	0.03
	15	-854.88	18.20	7.76	0.00	4.52	13.20	0.30	0.43	0.004	0.02	0.03	0.03	0.02	0.03
	16	-775.27	17.00	8.07	0.00	4.63	12.10	0.28	0.39	0.004	0.02	0.02	0.03	0.02	0.03
	17	-695.67	15.60	8.41	0.00	4.74	10.90	0.25	0.35	0.005	0.02	0.02	0.03	0.02	0.03
	18	-596.35	22.70	7.01	0.00	4.19	17.00	0.23	0.30	0.004	0.02	0.03	0.03	0.03	0.03
	19	-1129.40	13.60	8.33	0.00	4.49	8.92	0.37	0.56	0.005	0.01	0.02	0.03	0.01	0.03
	20	-1049.40	12.30	8.40	0.00	4.51	8.04	0.35	0.52	0.005	0.01	0.02	0.03	0.01	0.03
	21	-969.32	11.20	8.65	0.00	4.58	7.24	0.32	0.48	0.005	0.01	0.01	0.03	0.01	0.03
	22	-889.29	10.00	8.90	0.00	4.65	6.41	0.30	0.44	0.005	0.01	0.01	0.03	0.01	0.03
	23	-809.26	8.76	9.15	0.00	4.73	5.57	0.27	0.40	0.005	0.01	0.01	0.03	0.01	0.03
	24	-729.23	7.42	9.39	0.00	4.79	4.69	0.25	0.36	0.005	0.01	0.01	0.03	0.01	0.02

B11 North Pier 3
ULS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinMy Bottom	1	-1559.70	15.10	21.20	0.00	14.60	12.70	0.56	0.78	0.011	0.02	0.02	0.09	0.02	0.07
	2	-1363.90	11.60	20.70	0.00	14.20	9.81	0.50	0.68	0.011	0.01	0.02	0.09	0.02	0.07
	3	-1168.10	8.60	21.30	0.00	14.40	7.22	0.44	0.58	0.012	0.01	0.01	0.09	0.02	0.07
	4	-972.23	5.46	21.70	0.00	14.40	4.55	0.38	0.49	0.012	0.01	0.01	0.09	0.01	0.07
	5	-776.41	2.21	22.10	0.00	14.40	1.83	0.32	0.39	0.012	0.00	0.00	0.09	0.01	0.06
	6	-580.59	1.10	22.30	0.00	14.40	0.91	0.26	0.29	0.012	0.00	0.00	0.09	0.01	0.06
	7	-1483.90	4.47	16.90	0.00	10.60	3.42	0.50	0.74	0.009	0.00	0.01	0.06	0.01	0.05
	8	-1258.90	17.30	20.60	0.00	14.40	15.00	0.48	0.63	0.011	0.02	0.03	0.09	0.03	0.07
	9	-1062.40	15.60	21.10	0.00	14.40	13.30	0.42	0.53	0.011	0.02	0.03	0.09	0.02	0.07
	10	-865.88	13.70	21.60	0.00	14.50	11.60	0.36	0.43	0.012	0.02	0.02	0.09	0.02	0.07
	11	-669.38	11.80	22.10	0.00	14.60	9.86	0.30	0.33	0.012	0.01	0.02	0.09	0.02	0.07
	12	-308.70	36.60	5.44	0.00	3.56	30.60	0.17	0.15	0.003	0.04	0.06	0.02	0.04	0.03
	13	-1389.10	10.60	16.40	0.00	10.30	8.13	0.48	0.69	0.009	0.01	0.02	0.06	0.02	0.05
	14	-1158.90	17.00	21.50	0.00	15.00	14.80	0.46	0.58	0.012	0.02	0.03	0.09	0.03	0.07
	15	-962.42	15.30	22.00	0.00	15.10	13.20	0.40	0.48	0.012	0.02	0.03	0.09	0.02	0.07
	16	-765.93	13.50	22.50	0.00	15.20	11.50	0.34	0.38	0.012	0.01	0.02	0.09	0.02	0.07
	17	-569.43	11.50	23.00	0.00	15.20	9.75	0.28	0.28	0.012	0.01	0.02	0.09	0.02	0.07
	18	-112.49	36.50	5.53	0.00	3.56	30.30	0.11	0.06	0.003	0.04	0.06	0.02	0.04	0.03
	19	-1206.50	37.10	19.50	0.00	14.50	34.00	0.50	0.60	0.011	0.04	0.07	0.09	0.05	0.08
	20	-1017.00	31.40	19.60	0.00	14.40	28.70	0.44	0.51	0.011	0.03	0.06	0.09	0.05	0.08
	21	-827.43	26.90	20.80	0.00	14.80	24.00	0.38	0.41	0.011	0.03	0.05	0.09	0.04	0.08
	22	-637.89	21.90	22.10	0.00	15.20	19.10	0.31	0.32	0.012	0.02	0.04	0.09	0.03	0.08
	23	-369.76	16.10	23.40	0.00	15.60	13.80	0.23	0.18	0.013	0.02	0.03	0.09	0.03	0.08
	24	-2.09	9.62	24.60	0.00	15.80	8.05	0.11	0.00	0.013	0.01	0.02	0.10	0.02	0.07

B11 North Pier 3
ULS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxQy Bottom	1	-877.49	57.70	44.80	0.00	39.90	64.30	0.62	0.44	0.024	0.06	0.13	0.24	0.10	0.20
	2	-950.22	24.30	49.50	0.00	43.40	26.60	0.59	0.48	0.027	0.03	0.05	0.26	0.05	0.20
	3	-1023.00	16.50	50.00	0.00	44.10	18.20	0.60	0.51	0.027	0.02	0.04	0.27	0.04	0.20
	4	-1095.70	51.00	44.60	0.00	40.60	57.30	0.68	0.55	0.024	0.06	0.11	0.25	0.09	0.20
	5	-1168.40	76.20	38.80	0.00	37.40	90.00	0.74	0.58	0.021	0.08	0.18	0.23	0.14	0.20
	6	-1241.20	94.40	33.60	0.00	34.60	118.00	0.80	0.62	0.018	0.10	0.23	0.21	0.18	0.20
	7	-1086.20	34.30	34.60	0.00	29.20	35.70	0.56	0.54	0.019	0.04	0.07	0.18	0.06	0.15
	8	-959.10	16.60	32.90	0.00	26.00	16.40	0.47	0.48	0.018	0.02	0.03	0.16	0.03	0.12
	9	-928.36	32.00	30.60	0.00	24.60	32.00	0.48	0.46	0.017	0.04	0.06	0.15	0.05	0.12
	10	-897.62	62.30	24.00	0.00	20.90	67.20	0.52	0.45	0.013	0.07	0.13	0.13	0.10	0.12
	11	-866.89	83.60	20.00	0.00	18.70	97.40	0.55	0.43	0.011	0.09	0.19	0.11	0.14	0.12
	12	-714.35	38.70	64.30	0.00	63.70	48.50	0.69	0.36	0.035	0.04	0.09	0.39	0.08	0.30
	13	-945.28	9.77	39.90	0.00	32.80	10.20	0.49	0.47	0.022	0.01	0.02	0.20	0.02	0.15
	14	-920.31	26.40	3.81	0.00	2.38	20.40	0.32	0.46	0.002	0.03	0.04	0.01	0.03	0.02
	15	-889.57	39.70	2.73	0.00	1.92	34.90	0.34	0.44	0.001	0.04	0.07	0.01	0.05	0.03
	16	-858.83	65.60	1.79	0.00	1.50	68.10	0.39	0.43	0.001	0.07	0.13	0.01	0.10	0.04
	17	-828.10	85.50	1.44	0.00	1.31	98.00	0.44	0.41	0.001	0.09	0.19	0.01	0.14	0.05
	18	-779.19	8.96	67.50	0.00	67.00	11.30	0.65	0.39	0.037	0.01	0.02	0.41	0.03	0.30
	19	-1035.70	46.60	24.70	0.00	20.30	47.20	0.51	0.52	0.013	0.05	0.09	0.12	0.07	0.11
	20	-902.70	5.22	33.20	0.00	25.40	5.15	0.43	0.45	0.018	0.01	0.01	0.15	0.02	0.11
	21	-769.68	41.00	26.10	0.00	20.70	40.60	0.43	0.38	0.014	0.05	0.08	0.13	0.06	0.11
	22	-636.67	67.90	20.60	0.00	17.50	72.80	0.43	0.32	0.011	0.07	0.14	0.11	0.11	0.11
	23	-477.03	88.30	17.60	0.00	15.80	101.00	0.43	0.24	0.010	0.10	0.20	0.10	0.15	0.11
	24	-219.01	104.00	15.60	0.00	14.30	123.00	0.39	0.11	0.008	0.11	0.24	0.09	0.18	0.12

B11 North Pier 3
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxQz Bottom	1	-1811.30	21.70	24.10	0.00	18.10	19.70	0.67	0.91	0.013	0.02	0.04	0.11	0.03	0.09
	2	-1664.30	17.30	23.60	0.00	17.90	15.90	0.62	0.83	0.013	0.02	0.03	0.11	0.03	0.09
	3	-1469.50	13.70	24.40	0.00	18.10	12.50	0.56	0.73	0.013	0.02	0.02	0.11	0.02	0.09
	4	-1274.60	9.89	25.10	0.00	18.20	8.91	0.50	0.64	0.014	0.01	0.02	0.11	0.02	0.09
	5	-1079.70	5.85	25.70	0.00	18.30	5.23	0.43	0.54	0.014	0.01	0.01	0.11	0.01	0.08
	6	-884.84	1.65	26.10	0.00	18.30	1.47	0.37	0.44	0.014	0.00	0.00	0.11	0.01	0.08
	7	-1759.40	9.04	15.40	0.00	9.64	6.87	0.58	0.88	0.008	0.01	0.01	0.06	0.01	0.05
	8	-1547.90	15.20	24.10	0.00	18.10	14.00	0.59	0.77	0.013	0.02	0.03	0.11	0.03	0.09
	9	-1350.20	14.80	24.50	0.00	18.10	13.50	0.53	0.68	0.013	0.02	0.03	0.11	0.03	0.09
	10	-1152.50	14.30	24.80	0.00	18.00	12.90	0.47	0.58	0.013	0.02	0.03	0.11	0.02	0.09
	11	-954.74	13.80	25.20	0.00	18.00	12.40	0.41	0.48	0.014	0.02	0.02	0.11	0.02	0.09
	12	-679.29	44.50	6.96	0.00	5.06	40.60	0.31	0.34	0.004	0.05	0.08	0.03	0.06	0.04
	13	-1669.80	13.70	14.70	0.00	9.31	10.50	0.56	0.83	0.008	0.02	0.02	0.06	0.02	0.05
	14	-1429.70	15.20	24.50	0.00	18.30	14.00	0.55	0.71	0.013	0.02	0.03	0.11	0.03	0.09
	15	-1232.00	14.70	24.80	0.00	18.20	13.40	0.49	0.62	0.013	0.02	0.03	0.11	0.03	0.09
	16	-1034.20	14.20	25.20	0.00	18.20	12.90	0.43	0.52	0.014	0.02	0.03	0.11	0.02	0.09
	17	-836.52	13.70	25.50	0.00	18.20	12.30	0.38	0.42	0.014	0.02	0.02	0.11	0.02	0.09
	18	-562.37	43.60	7.15	0.00	5.11	39.30	0.27	0.28	0.004	0.05	0.08	0.03	0.06	0.04
	19	-1458.30	38.40	21.80	0.00	17.00	36.50	0.60	0.73	0.012	0.04	0.07	0.10	0.06	0.09
	20	-1265.50	33.50	21.50	0.00	16.80	32.00	0.53	0.63	0.012	0.04	0.06	0.10	0.05	0.09
	21	-1072.60	30.30	22.60	0.00	17.10	28.40	0.47	0.54	0.012	0.03	0.06	0.10	0.05	0.09
	22	-879.66	26.80	23.60	0.00	17.40	24.60	0.41	0.44	0.013	0.03	0.05	0.11	0.04	0.09
	23	-686.77	22.90	24.60	0.00	17.60	20.70	0.35	0.34	0.013	0.03	0.04	0.11	0.04	0.09
	24	-458.05	18.60	25.70	0.00	17.90	16.60	0.27	0.23	0.014	0.02	0.03	0.11	0.03	0.09

B11 North Pier 3
SLS Pile Cap Loads

LC 1		SLS-C1: MinNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-27814	462	3876	377	-7432	0

LC 3		SLS-C1: MinMy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-24515	462	3876	391	-14292	0

LC 10		SLS-C1: MaxQz					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-25946	462	3876	584	-7786	0

B11 North Pier 3
SLS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS-C1: MinNx Bottom	1	-1451.20	26.50	9.76	0.00	6.31	20.90	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-1386.60	24.30	9.65	0.00	6.25	19.20	kN/m			kN-m/rad		
	3	-1322.00	23.10	9.95	0.00	6.36	18.10	3.98E+06	6.48E+05	4.92E+05	1.00E+00	4.44E+07	1.77E+07
	4	-1257.40	21.80	10.30	0.00	6.48	16.90						
	5	-1192.80	20.50	10.60	0.00	6.60	15.70						
	6	-1128.20	19.00	11.00	0.00	6.73	14.40	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1383.20	21.70	7.53	0.00	4.59	16.20	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1319.30	12.60	12.00	0.00	7.25	9.32	m			rad		
	9	-1253.60	12.50	12.00	0.00	7.25	9.21	-6.99E-03	4.93E-04	7.80E-04	4.02E-06	-3.11E-04	3.61E-04
	10	-1187.80	12.30	12.10	0.00	7.25	9.10						
	11	-1122.10	12.20	12.10	0.00	7.26	8.98						
	12	-1020.80	32.90	5.01	0.00	3.35	27.30						
	13	-1308.50	19.90	7.95	0.00	4.74	14.50						
	14	-1242.90	12.60	12.10	0.00	7.29	9.30						
	15	-1177.20	12.40	12.10	0.00	7.29	9.19						
	16	-1111.50	12.30	12.20	0.00	7.29	9.08						
	17	-1045.70	12.20	12.20	0.00	7.29	8.97						
	18	-945.69	32.00	5.16	0.00	3.41	26.30						
	19	-1200.10	33.60	8.43	0.00	5.68	27.90						
	20	-1135.80	31.30	8.29	0.00	5.59	26.10						
	21	-1071.60	30.20	8.51	0.00	5.68	25.00						
	22	-1007.30	29.20	8.76	0.00	5.77	23.90						
	23	-943.00	28.10	9.01	0.00	5.87	22.70						
	24	-878.72	26.90	9.29	0.00	5.97	21.60						

B11 North Pier 3
SLS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MinMy Bottom	1	-1471.30	28.10	5.27	0.00	3.37	21.90	kN/m					
	2	-1343.30	25.20	5.47	0.00	3.43	19.30	kN-m/rad					
	3	-1215.40	22.90	5.90	0.00	3.58	17.10	4.14E+06	6.48E+05	4.78E+05	1.00E+00	4.39E+07	1.77E+07
	4	-1087.40	20.40	6.42	0.00	3.77	14.70						
	5	-959.47	17.50	7.07	0.00	3.99	12.10						
	6	-831.52	13.90	7.88	0.00	4.25	9.26						
	7	-1394.00	26.60	6.25	0.00	4.01	20.80						
	8	-1275.30	13.80	7.66	0.00	4.32	9.48						
	9	-1145.20	13.50	7.77	0.00	4.34	9.20						
	10	-1015.20	13.20	7.88	0.00	4.36	8.92						
	11	-885.11	12.80	8.00	0.00	4.37	8.63						
	12	-734.45	24.70	5.50	0.00	3.35	18.80						
	13	-1318.90	25.00	6.55	0.00	4.12	19.30						
	14	-1198.20	13.70	7.92	0.00	4.46	9.44						
	15	-1068.20	13.40	8.03	0.00	4.48	9.16						
	16	-938.14	13.10	8.15	0.00	4.50	8.88						
	17	-808.09	12.80	8.26	0.00	4.52	8.60						
	18	-658.50	23.40	5.73	0.00	3.43	17.60						
	19	-1219.30	33.90	4.88	0.00	3.28	28.10						
	20	-1092.20	30.90	5.00	0.00	3.31	25.40						
	21	-965.07	28.90	5.33	0.00	3.44	23.10						
	22	-837.96	26.60	5.71	0.00	3.58	20.80						
	23	-710.86	24.10	6.17	0.00	3.75	18.30						
	24	-583.75	21.30	6.73	0.00	3.96	15.70						

B11 North Pier 3
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MaxQz Bottom	1	-1374.70	22.50	17.60	0.00	11.80	18.60	kN/m			kN-m/rad		
	2	-1309.70	19.90	17.10	0.00	11.60	16.60						
	3	-1244.70	18.30	17.50	0.00	11.70	15.20	4.06E+06	6.48E+05	3.56E+05	1.00E+00	4.43E+07	1.77E+07
	4	-1179.70	16.60	17.80	0.00	11.90	13.70						
	5	-1114.70	14.90	18.20	0.00	12.00	12.20						
	6	-1049.70	13.00	18.50	0.00	12.10	10.60						
	7	-1326.90	2.21	10.70	0.00	5.67	1.42						
	8	-1241.20	9.82	18.50	0.00	12.30	8.03						
	9	-1174.70	9.99	18.60	0.00	12.20	8.16						
	10	-1108.20	10.20	18.60	0.00	12.20	8.28						
	11	-1041.60	10.30	18.70	0.00	12.20	8.40						
	12	-921.63	38.50	4.90	0.00	3.44	33.70						
	13	-1251.80	1.57	10.80	0.00	5.67	1.01						
	14	-1164.90	9.85	18.50	0.00	12.20	8.03						
	15	-1098.40	10.00	18.60	0.00	12.20	8.16						
	16	-1031.80	10.20	18.60	0.00	12.10	8.28						
	17	-965.32	10.40	18.70	0.00	12.10	8.41						
	18	-847.02	37.50	5.03	0.00	3.48	32.40						
	19	-1125.10	30.60	15.70	0.00	10.70	25.80						
	20	-1059.70	28.10	15.20	0.00	10.50	24.00						
	21	-994.22	27.10	15.50	0.00	10.50	23.00						
	22	-928.77	26.00	15.80	0.00	10.60	21.90						
	23	-863.32	24.90	16.10	0.00	10.70	20.80						
	24	-797.88	23.80	16.40	0.00	10.80	19.70						
								PILE CAP DISPLACEMENTS/ROTATIONS					
								DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
								m			rad		
								-6.39E-03	5.05E-04	1.52E-03	-5.33E-06	-3.14E-04	3.61E-04

B11 North Pier 3
DL Pile Cap Loads

LC 1		DL-factored: MinNx					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-28892	0	0	67	-5593	0

LC 3		DL-factored: MinMy					
	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-21305	0	0	72	-5940	0

B11 North Pier 3
DL Pile Loads

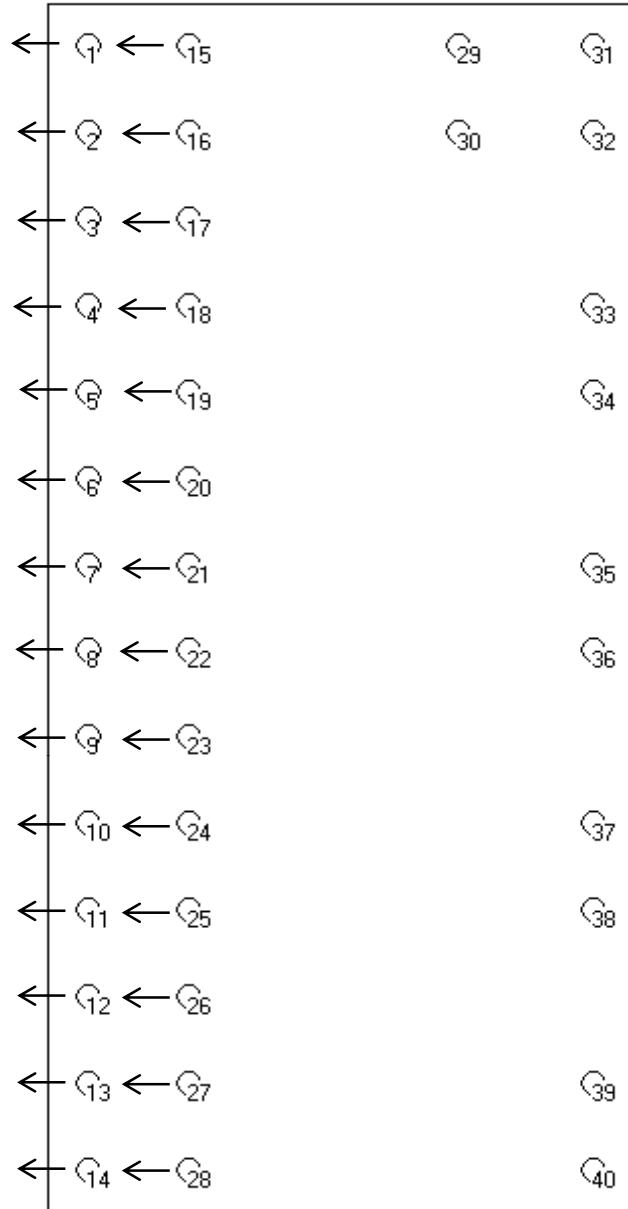
LOAD CASE	PILE	ABS MAXIMUM VALUES						Down Drag Effect			Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL-factored: MinNx Bottom	1	-1336.20	30.00	0.43	0.00	0.29	24.40	-250.00	1.25	-1648.70	0.53	0.82	0.000	0.03	0.05	0.00	0.03	0.02
	2	-1285.50	29.30	0.44	0.00	0.29	23.60	-250.00	1.25	-1598.00	0.51	0.80	0.000	0.03	0.05	0.00	0.03	0.02
	3	-1234.80	28.50	0.46	0.00	0.30	22.70	-250.00	1.25	-1547.30	0.49	0.77	0.000	0.03	0.04	0.00	0.03	0.02
	4	-1184.10	27.70	0.47	0.00	0.30	21.90	-250.00	1.25	-1496.60	0.48	0.75	0.000	0.03	0.04	0.00	0.03	0.02
	5	-1133.50	26.90	0.48	0.00	0.31	21.00	-250.00	1.25	-1446.00	0.46	0.72	0.000	0.03	0.04	0.00	0.03	0.01
	6	-1082.80	27.70	0.53	0.00	0.32	20.90	-250.00	1.25	-1395.30	0.45	0.70	0.000	0.03	0.04	0.00	0.03	0.02
	7	-1335.20	30.40	0.00	0.00	0.00	24.80	-250.00	1.25	-1647.70	0.53	0.82	0.000	0.03	0.05	0.00	0.04	0.02
	8	-1305.90	0.00	2.48	0.00	0.93	0.00	-250.00	1.25	-1618.40	0.47	0.81	0.001	0.00	0.00	0.01	0.00	0.00
	9	-1254.20	0.00	2.48	0.00	0.93	0.00	-250.00	1.25	-1566.70	0.46	0.78	0.001	0.00	0.00	0.01	0.00	0.00
	10	-1202.50	0.00	2.48	0.00	0.93	0.00	-250.00	1.25	-1515.00	0.44	0.76	0.001	0.00	0.00	0.01	0.00	0.00
	11	-1150.80	0.00	2.49	0.00	0.93	0.00	-250.00	1.25	-1463.30	0.43	0.73	0.001	0.00	0.00	0.01	0.00	0.00
	12	-1083.80	27.30	0.00	0.00	0.00	20.50	-250.00	1.25	-1396.30	0.44	0.70	0.000	0.03	0.04	0.00	0.03	0.01
	13	-1335.20	30.40	0.00	0.00	0.00	24.80	-250.00	1.25	-1647.70	0.53	0.82	0.000	0.03	0.05	0.00	0.04	0.02
	14	-1305.90	0.00	2.48	0.00	0.93	0.00	-250.00	1.25	-1618.40	0.47	0.81	0.001	0.00	0.00	0.01	0.00	0.00
	15	-1254.20	0.00	2.48	0.00	0.93	0.00	-250.00	1.25	-1566.70	0.46	0.78	0.001	0.00	0.00	0.01	0.00	0.00
	16	-1202.50	0.00	2.48	0.00	0.93	0.00	-250.00	1.25	-1515.00	0.44	0.76	0.001	0.00	0.00	0.01	0.00	0.00
	17	-1150.80	0.00	2.49	0.00	0.93	0.00	-250.00	1.25	-1463.30	0.43	0.73	0.001	0.00	0.00	0.01	0.00	0.00
	18	-1083.80	27.30	0.00	0.00	0.00	20.50	-250.00	1.25	-1396.30	0.44	0.70	0.000	0.03	0.04	0.00	0.03	0.01
	19	-1336.20	30.00	0.43	0.00	0.29	24.40	-250.00	1.25	-1648.70	0.53	0.82	0.000	0.03	0.05	0.00	0.03	0.02
	20	-1285.50	29.30	0.44	0.00	0.29	23.60	-250.00	1.25	-1598.00	0.51	0.80	0.000	0.03	0.05	0.00	0.03	0.02
	21	-1234.80	28.50	0.46	0.00	0.30	22.70	-250.00	1.25	-1547.30	0.49	0.77	0.000	0.03	0.04	0.00	0.03	0.02
	22	-1184.10	27.70	0.47	0.00	0.30	21.90	-250.00	1.25	-1496.60	0.48	0.75	0.000	0.03	0.04	0.00	0.03	0.02
	23	-1133.50	26.90	0.48	0.00	0.31	21.00	-250.00	1.25	-1446.00	0.46	0.72	0.000	0.03	0.04	0.00	0.03	0.01
	24	-1082.80	27.70	0.53	0.00	0.32	20.90	-250.00	1.25	-1395.30	0.45	0.70	0.000	0.03	0.04	0.00	0.03	0.02

B11 North Pier 3
DL Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						Down Drag Effect			Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL-factored: Min/My Bottom	1	-1026.40	25.10	0.42	0.00	0.26	19.20	-250.00	1.25	-1338.90	0.43	0.67	0.000	0.03	0.04	0.00	0.03	0.01
	2	-972.69	24.20	0.44	0.00	0.27	18.20	-250.00	1.25	-1285.19	0.41	0.64	0.000	0.03	0.04	0.00	0.03	0.01
	3	-918.94	23.20	0.46	0.00	0.27	17.20	-250.00	1.25	-1231.44	0.39	0.62	0.000	0.03	0.03	0.00	0.02	0.01
	4	-865.20	22.20	0.48	0.00	0.28	16.20	-250.00	1.25	-1177.70	0.37	0.59	0.000	0.02	0.03	0.00	0.02	0.01
	5	-811.46	21.10	0.50	0.00	0.29	15.10	-250.00	1.25	-1123.96	0.36	0.56	0.000	0.02	0.03	0.00	0.02	0.01
	6	-757.72	21.20	0.55	0.00	0.31	14.50	-250.00	1.25	-1070.22	0.34	0.54	0.000	0.02	0.03	0.00	0.02	0.01
	7	-1025.60	25.50	0.00	0.00	0.00	19.50	-250.00	1.25	-1338.10	0.43	0.67	0.000	0.03	0.04	0.00	0.03	0.01
	8	-986.84	0.00	2.22	0.00	0.81	0.00	-250.00	1.25	-1299.34	0.38	0.65	0.001	0.00	0.00	0.00	0.00	0.00
	9	-932.04	0.00	2.23	0.00	0.81	0.00	-250.00	1.25	-1244.54	0.37	0.62	0.001	0.00	0.00	0.00	0.00	0.00
	10	-877.23	0.00	2.23	0.00	0.81	0.00	-250.00	1.25	-1189.73	0.35	0.59	0.001	0.00	0.00	0.00	0.00	0.00
	11	-822.42	0.00	2.23	0.00	0.80	0.00	-250.00	1.25	-1134.92	0.33	0.57	0.001	0.00	0.00	0.00	0.00	0.00
	12	-758.53	20.80	0.00	0.00	0.00	14.10	-250.00	1.25	-1071.03	0.34	0.54	0.000	0.02	0.03	0.00	0.02	0.01
	13	-1025.60	25.50	0.00	0.00	0.00	19.50	-250.00	1.25	-1338.10	0.43	0.67	0.000	0.03	0.04	0.00	0.03	0.01
	14	-986.84	0.00	2.22	0.00	0.81	0.00	-250.00	1.25	-1299.34	0.38	0.65	0.001	0.00	0.00	0.00	0.00	0.00
	15	-932.04	0.00	2.23	0.00	0.81	0.00	-250.00	1.25	-1244.54	0.37	0.62	0.001	0.00	0.00	0.00	0.00	0.00
	16	-877.23	0.00	2.23	0.00	0.81	0.00	-250.00	1.25	-1189.73	0.35	0.59	0.001	0.00	0.00	0.00	0.00	0.00
	17	-822.42	0.00	2.23	0.00	0.80	0.00	-250.00	1.25	-1134.92	0.33	0.57	0.001	0.00	0.00	0.00	0.00	0.00
	18	-758.53	20.80	0.00	0.00	0.00	14.10	-250.00	1.25	-1071.03	0.34	0.54	0.000	0.02	0.03	0.00	0.02	0.01
	19	-1026.40	25.10	0.42	0.00	0.26	19.20	-250.00	1.25	-1338.90	0.43	0.67	0.000	0.03	0.04	0.00	0.03	0.01
	20	-972.69	24.20	0.44	0.00	0.27	18.20	-250.00	1.25	-1285.19	0.41	0.64	0.000	0.03	0.04	0.00	0.03	0.01
	21	-918.94	23.20	0.46	0.00	0.27	17.20	-250.00	1.25	-1231.44	0.39	0.62	0.000	0.03	0.03	0.00	0.02	0.01
	22	-865.20	22.20	0.48	0.00	0.28	16.20	-250.00	1.25	-1177.70	0.37	0.59	0.000	0.02	0.03	0.00	0.02	0.01
	23	-811.46	21.10	0.50	0.00	0.29	15.10	-250.00	1.25	-1123.96	0.36	0.56	0.000	0.02	0.03	0.00	0.02	0.01
	24	-757.72	21.20	0.55	0.00	0.31	14.50	-250.00	1.25	-1070.22	0.34	0.54	0.000	0.02	0.03	0.00	0.02	0.01

B11 North East Abutment
Pile Layout

Pile No.	Batter Angle	
	Vertical	Horizontal
1	3	1
2	3	1
3	3	1
4	3	1
5	3	1
6	3	1
7	3	1
8	3	1
9	3	1
10	3	1
11	3	1
12	3	1
13	3	1
14	3	1
15	3	1
16	3	1
17	3	1
18	3	1
19	3	1
20	3	1
21	3	1
22	3	1
23	3	1
24	3	1
25	3	1
26	3	1
27	3	1
28	3	1
29	---	---
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Note:
 1. Arrows show batter direction.
 2. View from top of pile group.
 3. See pile layout drawings for dimensions.

B11 North East Abutment
ULS Pile Cap Loads

LC 1		ULS: MinNx					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-29188	7846	854	1097	-6799	22086

LC 2		ULS: MaxNx					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-14514	6183	650	700	-4004	11128

LC 3		ULS: MinMy					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-19314	11137	1662	623	-20800	34185

LC 6		ULS: MaxMz					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-24942	11488	1439	1107	-10439	42076

LC 8		ULS: MaxQy					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-18456	11492	1263	1462	-8898	33559

LC 10		ULS: MaxQz					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-18941	11492	1777	563	-13275	34407

B11 North East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinNx Bottom	1	-755.28	43.20	17.50	0.00	12.80	39.40	0.37	0.38	0.009	0.05	0.08	0.08	0.060	0.08
	2	-755.51	39.10	16.90	0.00	12.50	36.30	0.37	0.38	0.009	0.04	0.07	0.08	0.056	0.07
	3	-755.74	37.40	17.30	0.00	12.70	34.40	0.36	0.38	0.009	0.04	0.07	0.08	0.053	0.07
	4	-755.97	35.60	17.60	0.00	12.80	32.50	0.36	0.38	0.010	0.04	0.06	0.08	0.050	0.07
	5	-756.20	33.70	18.10	0.00	13.00	30.50	0.36	0.38	0.010	0.04	0.06	0.08	0.048	0.07
	6	-756.43	31.80	18.50	0.00	13.20	28.50	0.35	0.38	0.010	0.03	0.06	0.08	0.045	0.07
	7	-756.66	29.70	19.00	0.00	13.40	26.40	0.35	0.38	0.010	0.03	0.05	0.08	0.042	0.07
	8	-756.89	27.60	19.40	0.00	13.60	24.30	0.35	0.38	0.011	0.03	0.05	0.08	0.039	0.07
	9	-757.12	25.30	19.90	0.00	13.80	22.10	0.35	0.38	0.011	0.03	0.04	0.08	0.036	0.07
	10	-757.35	22.80	20.40	0.00	14.00	19.80	0.34	0.38	0.011	0.03	0.04	0.08	0.033	0.07
	11	-757.58	20.30	20.90	0.00	14.20	17.40	0.34	0.38	0.011	0.02	0.03	0.09	0.030	0.07
	12	-757.81	17.50	21.40	0.00	14.50	15.00	0.34	0.38	0.012	0.02	0.03	0.09	0.027	0.07
	13	-758.04	14.60	21.80	0.00	14.70	12.40	0.33	0.38	0.012	0.02	0.02	0.09	0.023	0.07
	14	-758.27	11.70	22.40	0.00	15.00	9.88	0.33	0.38	0.012	0.01	0.02	0.09	0.020	0.07
	15	-756.00	38.90	17.20	0.00	13.20	37.20	0.37	0.38	0.009	0.04	0.07	0.08	0.057	0.08
	16	-756.23	33.80	15.90	0.00	12.60	33.50	0.36	0.38	0.009	0.04	0.07	0.08	0.051	0.07
	17	-756.46	32.30	16.20	0.00	12.70	31.70	0.36	0.38	0.009	0.04	0.06	0.08	0.049	0.07
	18	-756.69	30.70	16.60	0.00	12.90	30.00	0.36	0.38	0.009	0.03	0.06	0.08	0.047	0.07
	19	-756.93	29.10	16.90	0.00	13.10	28.10	0.35	0.38	0.009	0.03	0.05	0.08	0.044	0.07
	20	-757.16	27.40	17.30	0.00	13.30	26.30	0.35	0.38	0.009	0.03	0.05	0.08	0.042	0.07
	21	-757.39	25.60	17.70	0.00	13.50	24.40	0.35	0.38	0.010	0.03	0.05	0.08	0.039	0.07
	22	-757.62	23.70	18.10	0.00	13.70	22.40	0.35	0.38	0.010	0.03	0.04	0.08	0.036	0.07
	23	-757.85	21.60	18.50	0.00	13.90	20.40	0.34	0.38	0.010	0.02	0.04	0.08	0.034	0.07
	24	-758.08	19.50	19.00	0.00	14.10	18.20	0.34	0.38	0.010	0.02	0.04	0.09	0.031	0.07
	25	-758.31	17.30	19.40	0.00	14.30	16.10	0.34	0.38	0.011	0.02	0.03	0.09	0.028	0.07
	26	-758.54	14.90	19.70	0.00	14.50	13.80	0.33	0.38	0.011	0.02	0.03	0.09	0.024	0.07
	27	-758.77	12.40	20.10	0.00	14.70	11.40	0.33	0.38	0.011	0.01	0.02	0.09	0.021	0.07
	28	-759.00	10.10	21.10	0.00	15.10	9.15	0.33	0.38	0.011	0.01	0.02	0.09	0.018	0.07
	29	-713.26	34.30	34.70	0.00	26.90	33.40	0.43	0.36	0.019	0.04	0.07	0.16	0.056	0.14
	30	-724.38	33.30	32.30	0.00	25.30	32.80	0.43	0.36	0.018	0.04	0.06	0.15	0.055	0.13
	31	-714.52	35.20	32.50	0.00	25.80	35.10	0.43	0.36	0.018	0.04	0.07	0.16	0.058	0.13
	32	-725.64	33.90	29.90	0.00	24.10	34.20	0.42	0.36	0.016	0.04	0.07	0.15	0.056	0.12
	33	-747.87	49.60	22.80	0.00	17.50	47.60	0.42	0.37	0.012	0.05	0.09	0.11	0.073	0.10
	34	-758.99	46.20	22.20	0.00	17.20	44.80	0.41	0.38	0.012	0.05	0.09	0.10	0.069	0.10
	35	-781.23	44.90	23.80	0.00	18.00	42.50	0.42	0.39	0.013	0.05	0.08	0.11	0.066	0.10
	36	-792.34	41.60	23.10	0.00	17.70	39.80	0.41	0.40	0.013	0.05	0.08	0.11	0.062	0.10
	37	-814.58	39.80	24.90	0.00	18.60	37.20	0.42	0.41	0.014	0.04	0.07	0.11	0.059	0.10
	38	-825.69	36.60	24.20	0.00	18.30	34.60	0.42	0.41	0.013	0.04	0.07	0.11	0.055	0.10
	39	-847.93	34.20	26.00	0.00	19.20	31.60	0.42	0.42	0.014	0.04	0.06	0.12	0.051	0.10
	40	-859.05	31.00	25.30	0.00	18.90	28.90	0.42	0.43	0.014	0.03	0.06	0.11	0.047	0.10

B11 North East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxNx Bottom	1	-384.84	78.90	14.80	0.00	12.10	82.20	0.35	0.19	0.008	0.09	0.16	0.07	0.120	0.09
	2	-382.71	76.70	14.50	0.00	12.00	80.70	0.34	0.19	0.008	0.08	0.16	0.07	0.118	0.09
	3	-380.58	76.20	14.60	0.00	12.00	80.00	0.34	0.19	0.008	0.08	0.16	0.07	0.117	0.09
	4	-378.45	75.70	14.60	0.00	12.00	79.30	0.34	0.19	0.008	0.08	0.15	0.07	0.116	0.09
	5	-376.32	75.20	14.70	0.00	12.10	78.60	0.34	0.19	0.008	0.08	0.15	0.07	0.115	0.09
	6	-374.19	74.80	14.80	0.00	12.10	77.90	0.33	0.19	0.008	0.08	0.15	0.07	0.114	0.09
	7	-372.07	74.30	14.90	0.00	12.10	77.20	0.33	0.19	0.008	0.08	0.15	0.07	0.113	0.09
	8	-369.94	73.80	14.90	0.00	12.20	76.50	0.33	0.18	0.008	0.08	0.15	0.07	0.112	0.09
	9	-367.81	73.30	15.00	0.00	12.20	75.80	0.33	0.18	0.008	0.08	0.15	0.07	0.111	0.09
	10	-365.68	72.80	15.10	0.00	12.20	75.10	0.33	0.18	0.008	0.08	0.15	0.07	0.110	0.09
	11	-363.55	72.30	15.20	0.00	12.30	74.50	0.33	0.18	0.008	0.08	0.15	0.07	0.110	0.09
	12	-361.42	71.80	15.20	0.00	12.30	73.80	0.32	0.18	0.008	0.08	0.14	0.07	0.109	0.09
	13	-359.29	71.30	15.30	0.00	12.40	73.20	0.32	0.18	0.008	0.08	0.14	0.08	0.108	0.09
	14	-357.16	71.40	15.60	0.00	12.50	72.90	0.32	0.18	0.008	0.08	0.14	0.08	0.107	0.09
	15	-445.60	68.10	13.30	0.00	11.50	75.90	0.35	0.22	0.007	0.07	0.15	0.07	0.111	0.08
	16	-443.47	63.90	12.60	0.00	11.20	73.00	0.34	0.22	0.007	0.07	0.14	0.07	0.107	0.08
	17	-441.34	63.50	12.60	0.00	11.20	72.40	0.34	0.22	0.007	0.07	0.14	0.07	0.106	0.08
	18	-439.21	63.10	12.70	0.00	11.20	71.80	0.34	0.22	0.007	0.07	0.14	0.07	0.105	0.08
	19	-437.08	62.70	12.80	0.00	11.30	71.10	0.33	0.22	0.007	0.07	0.14	0.07	0.104	0.08
	20	-434.95	62.20	12.80	0.00	11.30	70.50	0.33	0.22	0.007	0.07	0.14	0.07	0.103	0.08
	21	-432.82	61.80	12.90	0.00	11.30	69.90	0.33	0.22	0.007	0.07	0.14	0.07	0.102	0.08
	22	-430.69	61.40	13.00	0.00	11.40	69.30	0.33	0.22	0.007	0.07	0.14	0.07	0.102	0.08
	23	-428.56	61.00	13.00	0.00	11.40	68.60	0.33	0.21	0.007	0.07	0.13	0.07	0.101	0.08
	24	-426.43	60.60	13.10	0.00	11.40	68.00	0.33	0.21	0.007	0.07	0.13	0.07	0.100	0.08
	25	-424.30	60.10	13.20	0.00	11.40	67.40	0.32	0.21	0.007	0.07	0.13	0.07	0.099	0.08
	26	-422.17	59.70	13.20	0.00	11.50	66.70	0.32	0.21	0.007	0.07	0.13	0.07	0.098	0.08
	27	-420.04	59.30	13.30	0.00	11.50	66.10	0.32	0.21	0.007	0.07	0.13	0.07	0.097	0.08
	28	-417.91	61.00	13.90	0.00	11.80	66.70	0.32	0.21	0.008	0.07	0.13	0.07	0.098	0.08
	29	-269.33	29.60	54.20	0.00	44.20	31.60	0.41	0.13	0.029	0.03	0.06	0.27	0.058	0.21
	30	-271.82	29.30	53.30	0.00	43.60	31.40	0.40	0.14	0.029	0.03	0.06	0.26	0.058	0.21
	31	-375.18	28.70	50.00	0.00	42.70	31.80	0.43	0.19	0.027	0.03	0.06	0.26	0.057	0.20
	32	-377.67	28.40	49.00	0.00	42.10	31.60	0.43	0.19	0.027	0.03	0.06	0.26	0.057	0.20
	33	-382.64	79.80	17.50	0.00	14.20	83.70	0.36	0.19	0.009	0.09	0.16	0.09	0.123	0.10
	34	-385.13	78.40	17.40	0.00	14.20	82.60	0.36	0.19	0.009	0.09	0.16	0.09	0.122	0.10
	35	-390.10	78.30	17.70	0.00	14.40	81.70	0.36	0.20	0.010	0.09	0.16	0.09	0.120	0.10
	36	-392.59	76.90	17.60	0.00	14.30	80.60	0.36	0.20	0.010	0.08	0.16	0.09	0.119	0.10
	37	-397.57	76.70	18.00	0.00	14.50	79.70	0.36	0.20	0.010	0.08	0.16	0.09	0.118	0.10
	38	-400.05	75.40	17.80	0.00	14.40	78.50	0.36	0.20	0.010	0.08	0.15	0.09	0.116	0.10
	39	-405.03	75.20	18.20	0.00	14.60	77.60	0.36	0.20	0.010	0.08	0.15	0.09	0.115	0.10
	40	-407.51	73.80	18.10	0.00	14.50	76.50	0.36	0.20	0.010	0.08	0.15	0.09	0.113	0.10

B11 North East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: Min/My Bottom	1	-737.23	129.00	48.50	0.00	52.40	174.00	0.87	0.37	0.026	0.14	0.34	0.32	0.259	0.30
	2	-718.20	127.00	46.30	0.00	50.70	175.00	0.86	0.36	0.025	0.14	0.34	0.31	0.260	0.29
	3	-699.17	130.00	45.80	0.00	50.20	179.00	0.86	0.35	0.025	0.14	0.35	0.30	0.265	0.29
	4	-680.15	133.00	45.30	0.00	49.70	183.00	0.86	0.34	0.025	0.15	0.36	0.30	0.271	0.29
	5	-661.12	135.00	44.80	0.00	49.30	187.00	0.86	0.33	0.024	0.15	0.37	0.30	0.277	0.28
	6	-642.09	138.00	44.40	0.00	48.80	192.00	0.86	0.32	0.024	0.15	0.38	0.30	0.284	0.28
	7	-623.07	140.00	44.00	0.00	48.40	196.00	0.86	0.31	0.024	0.15	0.38	0.29	0.289	0.28
	8	-604.04	143.00	43.60	0.00	48.00	200.00	0.86	0.30	0.024	0.16	0.39	0.29	0.295	0.28
	9	-585.02	145.00	43.20	0.00	47.50	204.00	0.86	0.29	0.023	0.16	0.40	0.29	0.300	0.28
	10	-565.99	148.00	42.80	0.00	47.10	208.00	0.86	0.28	0.023	0.16	0.41	0.29	0.306	0.28
	11	-546.96	150.00	42.40	0.00	46.80	212.00	0.86	0.27	0.023	0.16	0.41	0.28	0.311	0.28
	12	-527.94	153.00	42.10	0.00	46.40	216.00	0.86	0.26	0.023	0.17	0.42	0.28	0.317	0.28
	13	-508.91	155.00	41.70	0.00	46.10	219.00	0.85	0.25	0.023	0.17	0.43	0.28	0.321	0.28
	14	-489.88	159.00	41.90	0.00	46.10	225.00	0.86	0.24	0.023	0.17	0.44	0.28	0.330	0.28
	15	-888.94	111.00	39.40	0.00	45.90	160.00	0.85	0.44	0.021	0.12	0.31	0.28	0.237	0.26
	16	-869.91	105.00	35.90	0.00	43.40	156.00	0.82	0.43	0.019	0.12	0.30	0.26	0.230	0.24
	17	-850.88	107.00	35.50	0.00	43.00	160.00	0.82	0.43	0.019	0.12	0.31	0.26	0.236	0.24
	18	-831.86	110.00	35.10	0.00	42.70	164.00	0.82	0.42	0.019	0.12	0.32	0.26	0.242	0.24
	19	-812.83	112.00	34.70	0.00	42.30	168.00	0.82	0.41	0.019	0.12	0.33	0.26	0.247	0.24
	20	-793.80	114.00	34.40	0.00	42.00	171.00	0.82	0.40	0.019	0.13	0.33	0.25	0.251	0.24
	21	-774.78	116.00	34.10	0.00	41.60	175.00	0.82	0.39	0.018	0.13	0.34	0.25	0.257	0.24
	22	-755.75	118.00	33.70	0.00	41.30	178.00	0.82	0.38	0.018	0.13	0.35	0.25	0.261	0.24
	23	-736.72	120.00	33.40	0.00	41.00	182.00	0.82	0.37	0.018	0.13	0.36	0.25	0.267	0.24
	24	-717.70	122.00	33.10	0.00	40.70	186.00	0.82	0.36	0.018	0.13	0.36	0.25	0.272	0.24
	25	-698.67	124.00	32.90	0.00	40.40	189.00	0.82	0.35	0.018	0.14	0.37	0.24	0.276	0.24
	26	-679.64	126.00	32.60	0.00	40.10	193.00	0.82	0.34	0.018	0.14	0.38	0.24	0.282	0.24
	27	-660.62	128.00	32.30	0.00	39.80	197.00	0.82	0.33	0.018	0.14	0.38	0.24	0.288	0.24
	28	-641.59	135.00	33.50	0.00	40.50	204.00	0.83	0.32	0.018	0.15	0.40	0.25	0.298	0.25
	29	-257.51	75.80	88.20	0.00	87.60	98.90	0.80	0.13	0.048	0.08	0.19	0.53	0.162	0.42
	30	-189.52	73.80	88.70	0.00	88.30	97.10	0.78	0.09	0.048	0.08	0.19	0.54	0.160	0.43
	31	-521.82	64.80	80.60	0.00	85.50	88.30	0.84	0.26	0.044	0.07	0.17	0.52	0.145	0.41
	32	-453.83	62.70	80.60	0.00	86.10	86.30	0.82	0.23	0.044	0.07	0.17	0.52	0.142	0.41
	33	-317.85	144.00	37.30	0.00	37.40	188.00	0.69	0.16	0.020	0.16	0.37	0.23	0.276	0.24
	34	-249.86	144.00	36.40	0.00	36.60	189.00	0.66	0.12	0.020	0.16	0.37	0.22	0.277	0.23
	35	-113.88	153.00	36.90	0.00	36.40	198.00	0.64	0.06	0.020	0.17	0.39	0.22	0.290	0.24
	36	-45.89	153.00	36.10	0.00	35.60	199.00	0.62	0.02	0.020	0.17	0.39	0.22	0.291	0.23
	37	0.00	160.00	36.30	0.00	35.50	209.00	0.62	0.00	0.020	0.18	0.41	0.22	0.306	0.24
	38	0.00	159.00	35.20	0.00	34.80	210.00	0.62	0.00	0.019	0.17	0.41	0.21	0.307	0.23
	39	0.00	167.00	35.20	0.00	34.80	220.00	0.64	0.00	0.019	0.18	0.43	0.21	0.321	0.24
	40	0.00	166.00	34.10	0.00	34.20	221.00	0.64	0.00	0.018	0.18	0.43	0.21	0.322	0.23

B11 North East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxMz Bottom	1	-884.07	113.00	35.40	0.00	36.10	143.00	0.75	0.44	0.019	0.12	0.28	0.22	0.212	0.22
	2	-874.80	110.00	34.10	0.00	35.40	140.00	0.74	0.44	0.018	0.12	0.27	0.21	0.207	0.21
	3	-865.53	110.00	34.10	0.00	35.40	141.00	0.74	0.43	0.018	0.12	0.28	0.21	0.209	0.21
	4	-856.26	110.00	34.10	0.00	35.40	141.00	0.74	0.43	0.018	0.12	0.28	0.21	0.209	0.21
	5	-846.99	110.00	34.10	0.00	35.30	141.00	0.73	0.42	0.018	0.12	0.28	0.21	0.209	0.21
	6	-837.72	110.00	34.20	0.00	35.30	141.00	0.73	0.42	0.019	0.12	0.28	0.21	0.209	0.21
	7	-828.45	110.00	34.20	0.00	35.30	141.00	0.73	0.41	0.019	0.12	0.28	0.21	0.209	0.21
	8	-819.17	110.00	34.20	0.00	35.30	141.00	0.73	0.41	0.019	0.12	0.28	0.21	0.209	0.21
	9	-809.90	111.00	34.20	0.00	35.30	141.00	0.72	0.40	0.019	0.12	0.28	0.21	0.209	0.21
	10	-800.63	111.00	34.30	0.00	35.30	141.00	0.72	0.40	0.019	0.12	0.28	0.21	0.209	0.21
	11	-791.36	111.00	34.30	0.00	35.20	141.00	0.72	0.40	0.019	0.12	0.28	0.21	0.209	0.21
	12	-782.09	111.00	34.30	0.00	35.20	141.00	0.72	0.39	0.019	0.12	0.28	0.21	0.209	0.21
	13	-772.82	111.00	34.30	0.00	35.20	141.00	0.71	0.39	0.019	0.12	0.28	0.21	0.209	0.21
	14	-763.55	112.00	34.70	0.00	35.40	142.00	0.71	0.38	0.019	0.12	0.28	0.21	0.210	0.21
	15	-928.12	101.00	31.10	0.00	33.90	134.00	0.74	0.46	0.017	0.11	0.26	0.21	0.198	0.20
	16	-918.85	93.90	28.70	0.00	32.40	130.00	0.72	0.46	0.016	0.10	0.25	0.20	0.192	0.19
	17	-909.57	94.00	28.80	0.00	32.40	130.00	0.71	0.45	0.016	0.10	0.25	0.20	0.192	0.19
	18	-900.30	94.10	28.80	0.00	32.40	130.00	0.71	0.45	0.016	0.10	0.25	0.20	0.192	0.19
	19	-891.03	94.20	28.80	0.00	32.40	130.00	0.71	0.45	0.016	0.10	0.25	0.20	0.192	0.19
	20	-881.76	94.40	28.80	0.00	32.30	130.00	0.70	0.44	0.016	0.10	0.25	0.20	0.192	0.19
	21	-872.49	94.50	28.90	0.00	32.30	130.00	0.70	0.44	0.016	0.10	0.25	0.20	0.192	0.19
	22	-863.22	94.60	28.90	0.00	32.30	130.00	0.70	0.43	0.016	0.10	0.25	0.20	0.192	0.19
	23	-853.95	94.70	28.90	0.00	32.30	130.00	0.70	0.43	0.016	0.10	0.25	0.20	0.192	0.19
	24	-844.68	94.80	28.90	0.00	32.30	130.00	0.69	0.42	0.016	0.10	0.25	0.20	0.192	0.19
	25	-835.41	94.90	29.00	0.00	32.30	131.00	0.69	0.42	0.016	0.10	0.26	0.20	0.193	0.19
	26	-826.14	95.00	29.00	0.00	32.20	131.00	0.69	0.41	0.016	0.10	0.26	0.20	0.193	0.19
	27	-816.87	95.10	29.00	0.00	32.20	131.00	0.69	0.41	0.016	0.10	0.26	0.20	0.193	0.19
	28	-807.59	98.40	30.10	0.00	32.90	133.00	0.69	0.40	0.016	0.11	0.26	0.20	0.196	0.19
	29	-283.04	66.50	78.30	0.00	74.60	81.10	0.69	0.14	0.042	0.07	0.16	0.45	0.134	0.36
	30	-271.24	65.10	76.70	0.00	73.60	80.30	0.68	0.14	0.042	0.07	0.16	0.45	0.133	0.36
	31	-359.78	62.70	73.10	0.00	72.10	79.20	0.70	0.18	0.040	0.07	0.15	0.44	0.130	0.35
	32	-347.98	61.10	71.20	0.00	70.90	78.20	0.68	0.17	0.039	0.07	0.15	0.43	0.129	0.34
	33	-324.38	122.00	37.10	0.00	35.10	149.00	0.60	0.16	0.020	0.13	0.29	0.21	0.221	0.22
	34	-312.58	119.00	36.30	0.00	34.70	147.00	0.59	0.16	0.020	0.13	0.29	0.21	0.218	0.21
	35	-288.98	122.00	37.20	0.00	35.10	148.00	0.59	0.14	0.020	0.13	0.29	0.21	0.219	0.22
	36	-277.18	119.00	36.50	0.00	34.60	147.00	0.58	0.14	0.020	0.13	0.29	0.21	0.218	0.21
	37	-253.58	122.00	37.40	0.00	35.10	148.00	0.58	0.13	0.020	0.13	0.29	0.21	0.219	0.22
	38	-241.78	120.00	36.60	0.00	34.60	147.00	0.57	0.12	0.020	0.13	0.29	0.21	0.218	0.21
	39	-218.19	122.00	37.50	0.00	35.00	148.00	0.56	0.11	0.020	0.13	0.29	0.21	0.219	0.22
	40	-206.39	120.00	36.70	0.00	34.60	146.00	0.55	0.10	0.020	0.13	0.29	0.21	0.216	0.21

B11 North East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxQy Bottom	1	-648.29	157.00	31.50	0.00	34.50	218.00	0.82	0.32	0.017	0.17	0.43	0.21	0.317	0.23
	2	-637.51	154.00	30.70	0.00	33.90	215.00	0.81	0.32	0.017	0.17	0.42	0.21	0.313	0.23
	3	-626.73	154.00	30.70	0.00	33.90	216.00	0.81	0.31	0.017	0.17	0.42	0.21	0.314	0.23
	4	-615.96	155.00	30.70	0.00	33.80	216.00	0.81	0.31	0.017	0.17	0.42	0.20	0.314	0.23
	5	-605.18	155.00	30.70	0.00	33.80	217.00	0.80	0.30	0.017	0.17	0.42	0.20	0.316	0.23
	6	-594.40	155.00	30.70	0.00	33.70	217.00	0.80	0.30	0.017	0.17	0.42	0.20	0.316	0.23
	7	-583.62	156.00	30.70	0.00	33.70	218.00	0.80	0.29	0.017	0.17	0.43	0.20	0.317	0.23
	8	-572.84	156.00	30.70	0.00	33.60	218.00	0.80	0.29	0.017	0.17	0.43	0.20	0.317	0.23
	9	-562.06	156.00	30.70	0.00	33.60	219.00	0.79	0.28	0.017	0.17	0.43	0.20	0.319	0.23
	10	-551.29	157.00	30.70	0.00	33.50	219.00	0.79	0.28	0.017	0.17	0.43	0.20	0.319	0.23
	11	-540.51	157.00	30.70	0.00	33.50	220.00	0.79	0.27	0.017	0.17	0.43	0.20	0.320	0.23
	12	-529.73	158.00	30.70	0.00	33.40	220.00	0.79	0.26	0.017	0.17	0.43	0.20	0.320	0.23
	13	-518.95	158.00	30.70	0.00	33.40	221.00	0.78	0.26	0.017	0.17	0.43	0.20	0.321	0.23
	14	-508.17	160.00	31.00	0.00	33.60	222.00	0.78	0.25	0.017	0.18	0.43	0.20	0.323	0.23
	15	-849.61	132.00	26.00	0.00	31.60	198.00	0.82	0.42	0.014	0.15	0.39	0.19	0.288	0.21
	16	-838.83	124.00	24.30	0.00	30.40	190.00	0.80	0.42	0.013	0.14	0.37	0.18	0.276	0.20
	17	-828.05	125.00	24.30	0.00	30.40	191.00	0.80	0.41	0.013	0.14	0.37	0.18	0.277	0.20
	18	-817.27	125.00	24.30	0.00	30.30	191.00	0.79	0.41	0.013	0.14	0.37	0.18	0.277	0.20
	19	-806.49	125.00	24.30	0.00	30.30	192.00	0.79	0.40	0.013	0.14	0.38	0.18	0.279	0.20
	20	-795.72	126.00	24.30	0.00	30.20	192.00	0.79	0.40	0.013	0.14	0.38	0.18	0.279	0.20
	21	-784.94	126.00	24.30	0.00	30.20	193.00	0.79	0.39	0.013	0.14	0.38	0.18	0.280	0.20
	22	-774.16	126.00	24.30	0.00	30.20	193.00	0.78	0.39	0.013	0.14	0.38	0.18	0.280	0.20
	23	-763.38	127.00	24.30	0.00	30.10	194.00	0.78	0.38	0.013	0.14	0.38	0.18	0.281	0.20
	24	-752.60	127.00	24.30	0.00	30.10	194.00	0.78	0.38	0.013	0.14	0.38	0.18	0.281	0.20
	25	-741.82	127.00	24.30	0.00	30.00	194.00	0.78	0.37	0.013	0.14	0.38	0.18	0.281	0.20
	26	-731.05	128.00	24.30	0.00	30.00	195.00	0.77	0.37	0.013	0.14	0.38	0.18	0.283	0.20
	27	-720.27	128.00	24.30	0.00	30.00	195.00	0.77	0.36	0.013	0.14	0.38	0.18	0.283	0.20
	28	-709.49	134.00	25.40	0.00	30.70	201.00	0.78	0.35	0.014	0.15	0.39	0.19	0.292	0.20
	29	0.00	61.30	109.00	0.00	110.00	82.30	0.83	0.00	0.059	0.07	0.16	0.67	0.144	0.52
	30	0.00	60.60	108.00	0.00	109.00	81.60	0.82	0.00	0.059	0.07	0.16	0.66	0.143	0.51
	31	-288.57	55.60	97.80	0.00	106.00	78.20	0.88	0.14	0.053	0.06	0.15	0.64	0.135	0.49
	32	-269.97	54.80	96.70	0.00	105.00	77.30	0.87	0.13	0.052	0.06	0.15	0.64	0.134	0.49
	33	-232.77	162.00	32.20	0.00	32.80	216.00	0.69	0.12	0.017	0.18	0.42	0.20	0.315	0.23
	34	-214.17	161.00	31.80	0.00	32.50	215.00	0.68	0.11	0.017	0.18	0.42	0.20	0.313	0.22
	35	-176.96	163.00	32.30	0.00	32.70	217.00	0.67	0.09	0.018	0.18	0.42	0.20	0.316	0.23
	36	-158.36	162.00	32.00	0.00	32.40	215.00	0.66	0.08	0.017	0.18	0.42	0.20	0.313	0.22
	37	-121.16	165.00	32.40	0.00	32.60	218.00	0.66	0.06	0.018	0.18	0.43	0.20	0.318	0.23
	38	-102.56	163.00	32.10	0.00	32.30	216.00	0.65	0.05	0.017	0.18	0.42	0.20	0.315	0.22
	39	-65.35	166.00	32.50	0.00	32.40	218.00	0.64	0.03	0.018	0.18	0.43	0.20	0.318	0.23
	40	-46.75	164.00	32.20	0.00	32.20	217.00	0.63	0.02	0.017	0.18	0.42	0.20	0.316	0.22

B11 North East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxQz Bottom	1	-672.41	148.00	47.60	0.00	52.60	206.00	0.92	0.34	0.026	0.16	0.40	0.32	0.304	0.31
	2	-660.28	144.00	45.60	0.00	51.10	204.00	0.90	0.33	0.025	0.16	0.40	0.31	0.301	0.30
	3	-648.15	145.00	45.40	0.00	50.90	206.00	0.90	0.32	0.025	0.16	0.40	0.31	0.304	0.30
	4	-636.02	147.00	45.20	0.00	50.60	208.00	0.90	0.32	0.025	0.16	0.41	0.31	0.306	0.30
	5	-623.89	148.00	45.00	0.00	50.40	210.00	0.90	0.31	0.024	0.16	0.41	0.31	0.309	0.30
	6	-611.76	149.00	44.80	0.00	50.20	212.00	0.90	0.31	0.024	0.16	0.41	0.30	0.312	0.30
	7	-599.63	151.00	44.60	0.00	50.00	214.00	0.89	0.30	0.024	0.17	0.42	0.30	0.315	0.30
	8	-587.51	152.00	44.40	0.00	49.90	217.00	0.90	0.29	0.024	0.17	0.42	0.30	0.319	0.30
	9	-575.38	153.00	44.30	0.00	49.70	219.00	0.90	0.29	0.024	0.17	0.43	0.30	0.322	0.30
	10	-563.25	155.00	44.10	0.00	49.50	221.00	0.89	0.28	0.024	0.17	0.43	0.30	0.325	0.30
	11	-551.12	156.00	43.90	0.00	49.30	223.00	0.89	0.28	0.024	0.17	0.44	0.30	0.327	0.30
	12	-538.99	157.00	43.70	0.00	49.10	225.00	0.89	0.27	0.024	0.17	0.44	0.30	0.330	0.29
	13	-526.86	159.00	43.60	0.00	48.90	227.00	0.89	0.26	0.024	0.17	0.44	0.30	0.333	0.29
	14	-514.73	162.00	43.90	0.00	49.10	231.00	0.90	0.26	0.024	0.18	0.45	0.30	0.339	0.30
	15	-870.68	127.00	39.40	0.00	47.70	189.00	0.91	0.44	0.021	0.14	0.37	0.29	0.278	0.27
	16	-858.55	118.00	36.00	0.00	45.40	182.00	0.88	0.43	0.020	0.13	0.36	0.28	0.267	0.26
	17	-846.42	119.00	35.80	0.00	45.20	183.00	0.88	0.42	0.019	0.13	0.36	0.27	0.269	0.26
	18	-834.29	120.00	35.70	0.00	45.00	186.00	0.88	0.42	0.019	0.13	0.36	0.27	0.273	0.26
	19	-822.16	122.00	35.50	0.00	44.90	188.00	0.88	0.41	0.019	0.13	0.37	0.27	0.276	0.26
	20	-810.03	123.00	35.40	0.00	44.70	190.00	0.88	0.41	0.019	0.14	0.37	0.27	0.279	0.26
	21	-797.90	124.00	35.20	0.00	44.50	192.00	0.88	0.40	0.019	0.14	0.38	0.27	0.281	0.26
	22	-785.77	125.00	35.10	0.00	44.30	194.00	0.87	0.39	0.019	0.14	0.38	0.27	0.284	0.26
	23	-773.65	126.00	34.90	0.00	44.10	196.00	0.87	0.39	0.019	0.14	0.38	0.27	0.287	0.26
	24	-761.52	127.00	34.80	0.00	44.00	198.00	0.87	0.38	0.019	0.14	0.39	0.27	0.290	0.26
	25	-749.39	128.00	34.60	0.00	43.80	200.00	0.87	0.37	0.019	0.14	0.39	0.27	0.293	0.26
	26	-737.26	129.00	34.50	0.00	43.60	202.00	0.87	0.37	0.019	0.14	0.39	0.26	0.295	0.26
	27	-725.13	126.00	33.70	0.00	42.50	195.00	0.85	0.36	0.018	0.14	0.38	0.26	0.285	0.25
	28	-713.00	137.00	35.70	0.00	44.30	210.00	0.89	0.36	0.019	0.15	0.41	0.27	0.307	0.26
	29	-62.01	83.70	101.00	0.00	101.00	112.00	0.85	0.03	0.055	0.09	0.22	0.61	0.184	0.49
	30	-22.55	81.80	99.80	0.00	101.00	110.00	0.83	0.01	0.054	0.09	0.21	0.61	0.181	0.49
	31	-407.44	74.30	90.60	0.00	98.80	104.00	0.92	0.20	0.049	0.08	0.20	0.60	0.170	0.47
	32	-367.99	72.10	89.20	0.00	98.10	102.00	0.90	0.18	0.048	0.08	0.20	0.59	0.167	0.47
	33	-289.08	157.00	43.50	0.00	44.90	210.00	0.77	0.14	0.024	0.17	0.41	0.27	0.309	0.28
	34	-249.62	155.00	42.50	0.00	44.10	209.00	0.75	0.12	0.023	0.17	0.41	0.27	0.307	0.27
	35	-170.71	161.00	43.40	0.00	44.30	216.00	0.74	0.09	0.024	0.18	0.42	0.27	0.317	0.28
	36	-131.25	160.00	42.50	0.00	43.50	215.00	0.72	0.07	0.023	0.18	0.42	0.26	0.316	0.27
	37	-52.34	166.00	43.40	0.00	43.70	221.00	0.71	0.03	0.024	0.18	0.43	0.26	0.325	0.28
	38	-12.89	164.00	42.40	0.00	42.90	220.00	0.69	0.01	0.023	0.18	0.43	0.26	0.323	0.27
	39	0.00	170.00	43.00	0.00	43.20	227.00	0.71	0.00	0.023	0.19	0.44	0.26	0.333	0.28
	40	0.00	168.00	41.90	0.00	42.50	226.00	0.70	0.00	0.023	0.18	0.44	0.26	0.331	0.27

B11 North East Abutment
SLS Pile Cap Loads

LC 1		SLS-C1: MinNx					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-22867	8571	871	1196	-6420	24516

LC 3		SLS-C1: MinMy					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-21443	8650	1165	683	-12814	22635

LC 6		SLS-C1: MaxMz					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-22757	8729	1033	913	-7697	25548

LC 8		SLS-C1: MaxQy					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-20491	8729	868	1202	-5880	21582

LC 10		SLS-C1: MaxQz					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-21378	8650	1207	609	-9236	22521

B11 North East Abutment
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MinNx Bottom	1	-675.39	82.20	19.20	0.00	16.60	89.50						
	2	-671.35	79.00	18.80	0.00	16.40	87.00						
	3	-667.31	78.20	18.90	0.00	16.50	85.80						
	4	-663.27	77.30	19.10	0.00	16.50	84.60						
	5	-659.24	76.50	19.20	0.00	16.60	83.30						
	6	-655.20	75.60	19.40	0.00	16.70	82.10						
	7	-651.16	74.80	19.60	0.00	16.80	80.90						
	8	-647.12	73.90	19.70	0.00	16.90	79.60						
	9	-643.08	73.00	19.90	0.00	17.00	78.40						
	10	-639.04	72.10	20.10	0.00	17.00	77.10						
	11	-635.00	71.20	20.20	0.00	17.10	75.80						
	12	-630.96	70.30	20.40	0.00	17.20	74.50						
	13	-626.92	69.40	20.60	0.00	17.30	73.30						
	14	-622.89	69.10	21.00	0.00	17.50	72.40						
	15	-706.49	72.10	17.60	0.00	16.20	83.50						
	16	-702.45	66.80	16.50	0.00	15.60	79.60						
	17	-698.41	66.00	16.70	0.00	15.70	78.40						
	18	-694.37	65.30	16.80	0.00	15.80	77.30						
	19	-690.33	64.60	16.90	0.00	15.80	76.20						
	20	-686.30	63.80	17.10	0.00	15.90	75.10						
	21	-682.26	63.10	17.20	0.00	16.00	73.90						
	22	-678.22	62.30	17.40	0.00	16.00	72.80						
	23	-674.18	61.60	17.50	0.00	16.10	71.70						
	24	-670.14	60.80	17.70	0.00	16.20	70.50						
	25	-666.10	60.00	17.80	0.00	16.20	69.30						
	26	-662.06	59.20	18.00	0.00	16.30	68.20						
	27	-658.02	58.50	18.10	0.00	16.40	67.00						
	28	-653.98	59.70	19.00	0.00	16.80	67.00						
	29	-415.83	39.50	57.60	0.00	49.60	43.90						
	30	-420.19	39.10	56.00	0.00	48.50	43.60						
	31	-470.01	39.00	53.40	0.00	47.80	44.70						
	32	-474.37	38.30	51.70	0.00	46.70	44.20						
	33	-483.08	85.30	23.80	0.00	20.30	93.20						
	34	-487.44	83.00	23.50	0.00	20.20	91.20						
	35	-496.15	82.60	24.20	0.00	20.50	89.60						
	36	-500.51	80.40	23.90	0.00	20.40	87.60						
	37	-509.23	79.90	24.70	0.00	20.80	86.00						
	38	-513.58	77.60	24.40	0.00	20.70	84.00						
	39	-522.30	77.10	25.20	0.00	21.00	82.30						
	40	-526.66	74.80	24.90	0.00	20.90	80.30						

B11 North East Abutment
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MinMy Bottom	1	-651.97	86.30	30.20	0.00	27.00	97.90	kN/m			kN-m/rad		
	2	-643.53	83.80	29.10	0.00	26.50	96.70						
	3	-635.09	84.20	29.00	0.00	26.40	97.20	3.66E+06	1.58E+05	3.72E+05	9.25E+07	1.41E+08	3.69E+07
	4	-626.65	84.60	29.00	0.00	26.40	97.80						
	5	-618.21	85.00	28.90	0.00	26.30	98.30						
	6	-609.77	85.50	28.80	0.00	26.30	98.90						
	7	-601.33	85.90	28.80	0.00	26.20	99.40						
	8	-592.89	86.30	28.70	0.00	26.20	99.90						
	9	-584.45	86.70	28.70	0.00	26.10	100.00						
	10	-576.01	87.10	28.60	0.00	26.10	101.00						
	11	-567.57	87.60	28.60	0.00	26.10	102.00						
	12	-559.13	88.00	28.50	0.00	26.00	102.00						
	13	-550.69	88.40	28.50	0.00	26.00	103.00						
	14	-542.25	89.70	28.70	0.00	26.10	104.00						
	15	-710.78	76.20	26.50	0.00	25.20	91.30						
	16	-702.34	71.30	24.40	0.00	24.10	88.30						
	17	-693.90	71.60	24.40	0.00	24.10	88.80						
	18	-685.46	72.00	24.30	0.00	24.10	89.30						
	19	-677.02	72.40	24.30	0.00	24.00	89.80						
	20	-668.58	72.70	24.20	0.00	24.00	90.30						
	21	-660.14	73.10	24.20	0.00	23.90	90.80						
	22	-651.70	73.50	24.10	0.00	23.90	91.30						
	23	-643.26	73.80	24.10	0.00	23.80	91.80						
	24	-634.82	74.20	24.00	0.00	23.80	92.30						
	25	-626.38	74.60	24.00	0.00	23.70	92.80						
	26	-617.94	74.90	24.00	0.00	23.70	93.20						
	27	-609.50	75.30	23.90	0.00	23.70	93.70						
	28	-601.06	78.30	24.80	0.00	24.10	96.00						
	29	-452.37	51.20	59.30	0.00	52.70	58.40						
	30	-438.07	50.10	58.20	0.00	52.20	57.60						
	31	-554.84	47.60	55.30	0.00	51.20	56.00						
	32	-540.54	46.30	53.90	0.00	50.60	55.10						
	33	-511.94	93.00	28.40	0.00	25.30	105.00						
	34	-497.65	91.40	27.80	0.00	25.00	104.00						
	35	-469.05	94.00	28.40	0.00	25.20	106.00						
	36	-454.75	92.40	27.70	0.00	24.90	106.00						
	37	-426.15	95.00	28.30	0.00	25.10	108.00						
	38	-411.85	93.30	27.70	0.00	24.70	107.00						
	39	-383.26	96.00	28.30	0.00	25.00	109.00						
	40	-368.96	94.30	27.70	0.00	24.60	108.00						

B11 North East Abutment
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MaxMz Bottom	1	-685.01	83.00	24.40	0.00	21.40	91.90	kN/m			kN-m/rad		
	2	-680.25	79.80	23.60	0.00	20.90	89.60						
	3	-675.49	79.30	23.70	0.00	21.00	88.90	3.60E+06	1.57E+05	4.09E+05	7.51E+07	1.48E+08	3.61E+07
	4	-670.73	78.80	23.80	0.00	21.00	88.10						
	5	-665.97	78.30	23.90	0.00	21.10	87.40						
	6	-661.21	77.80	24.00	0.00	21.10	86.70						
	7	-656.46	77.30	24.10	0.00	21.20	85.90						
	8	-651.70	76.80	24.20	0.00	21.20	85.20						
	9	-646.94	76.30	24.30	0.00	21.30	84.50						
	10	-642.18	75.70	24.50	0.00	21.30	83.70						
	11	-637.42	75.20	24.60	0.00	21.40	83.00						
	12	-632.66	74.70	24.70	0.00	21.50	82.20						
	13	-627.90	74.20	24.80	0.00	21.50	81.50						
	14	-623.14	74.40	25.20	0.00	21.70	81.10						
	15	-718.17	73.30	22.00	0.00	20.40	86.00						
	16	-713.41	67.90	20.40	0.00	19.70	82.10						
	17	-708.65	67.40	20.50	0.00	19.70	81.50						
	18	-703.89	67.00	20.60	0.00	19.70	80.80						
	19	-699.13	66.60	20.70	0.00	19.80	80.10						
	20	-694.37	66.10	20.80	0.00	19.80	79.40						
	21	-689.61	65.70	20.90	0.00	19.90	78.80						
	22	-684.86	65.30	21.00	0.00	19.90	78.10						
	23	-680.10	64.80	21.10	0.00	20.00	77.40						
	24	-675.34	64.40	21.20	0.00	20.00	76.70						
	25	-670.58	63.90	21.30	0.00	20.10	76.00						
	26	-665.82	63.50	21.40	0.00	20.10	75.30						
	27	-661.06	63.00	21.50	0.00	20.10	74.70						
	28	-656.30	64.80	22.40	0.00	20.60	75.30						
	29	-417.02	46.10	57.80	0.00	50.40	51.70						
	30	-416.93	45.30	56.20	0.00	49.40	51.10						
	31	-474.79	44.50	53.80	0.00	48.70	51.40						
	32	-474.70	43.50	52.00	0.00	47.50	50.70						
	33	-474.51	87.40	27.10	0.00	23.50	96.80						
	34	-474.41	85.10	26.60	0.00	23.20	94.90						
	35	-474.23	85.80	27.40	0.00	23.60	94.60						
	36	-474.13	83.40	26.90	0.00	23.40	92.70						
	37	-473.94	84.10	27.70	0.00	23.80	92.30						
	38	-473.85	81.80	27.20	0.00	23.50	90.50						
	39	-473.66	82.40	28.00	0.00	23.90	90.00						
	40	-473.57	80.10	27.50	0.00	23.70	88.20						

B11 North East Abutment
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MaxQy Bottom	1	-599.53	101.00	19.60	0.00	17.90	117.00	kN/m			kN-m/rad		
	2	-594.79	97.90	19.20	0.00	17.70	115.00						
	3	-590.06	97.30	19.30	0.00	17.80	114.00	3.71E+06	1.57E+05	4.70E+05	6.16E+07	1.50E+08	3.73E+07
	4	-585.32	96.70	19.40	0.00	17.80	113.00						
	5	-580.59	96.10	19.50	0.00	17.90	112.00						
	6	-575.85	95.50	19.60	0.00	17.90	111.00						
	7	-571.12	94.90	19.70	0.00	17.90	110.00						
	8	-566.38	94.30	19.80	0.00	18.00	109.00						
	9	-561.65	93.70	19.90	0.00	18.00	108.00						
	10	-556.91	93.00	20.00	0.00	18.10	107.00						
	11	-552.18	92.40	20.20	0.00	18.10	106.00						
	12	-547.44	91.80	20.30	0.00	18.20	105.00						
	13	-542.71	91.20	20.40	0.00	18.20	104.00						
	14	-537.98	91.40	20.70	0.00	18.30	104.00						
	15	-672.84	87.50	17.60	0.00	17.30	108.00						
	16	-668.11	82.10	16.60	0.00	16.70	104.00						
	17	-663.37	81.50	16.70	0.00	16.80	103.00						
	18	-658.64	81.00	16.80	0.00	16.80	102.00						
	19	-653.90	80.50	16.90	0.00	16.90	101.00						
	20	-649.17	80.00	16.90	0.00	16.90	100.00						
	21	-644.43	79.50	17.00	0.00	17.00	99.40						
	22	-639.70	78.90	17.10	0.00	17.00	98.60						
	23	-634.97	78.40	17.20	0.00	17.00	97.70						
	24	-630.23	77.90	17.30	0.00	17.10	96.80						
	25	-625.50	77.30	17.40	0.00	17.10	95.90						
	26	-620.76	76.80	17.50	0.00	17.20	95.00						
	27	-616.03	76.30	17.60	0.00	17.20	94.20						
	28	-611.29	78.50	18.40	0.00	17.60	95.10						
	29	-313.72	40.60	69.30	0.00	62.40	47.30						
	30	-315.83	40.30	67.90	0.00	61.50	47.00						
	31	-441.46	39.40	63.70	0.00	60.20	47.50						
	32	-443.57	38.90	62.30	0.00	59.10	47.20						
	33	-447.79	103.00	23.40	0.00	21.00	118.00						
	34	-449.90	101.00	23.20	0.00	21.00	116.00						
	35	-454.13	101.00	23.70	0.00	21.20	115.00						
	36	-456.24	98.70	23.50	0.00	21.10	113.00						
	37	-460.46	98.50	24.00	0.00	21.40	112.00						
	38	-462.57	96.70	23.80	0.00	21.30	110.00						
	39	-466.79	96.50	24.30	0.00	21.60	109.00						
	40	-468.91	94.70	24.10	0.00	21.50	107.00						

B11 North East Abutment
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MaxQz Bottom	1	-632.70	89.80	30.10	0.00	27.10	103.00	kN/m			kN-m/rad		
	2	-626.93	86.50	28.90	0.00	26.60	101.00	3.67E+06	1.58E+05	3.62E+05	1.00E+08	1.46E+08	3.70E+07
	3	-621.15	86.50	28.90	0.00	26.60	101.00						
	4	-615.38	86.40	29.00	0.00	26.60	101.00						
	5	-609.61	86.40	29.00	0.00	26.60	100.00						
	6	-603.83	86.40	29.00	0.00	26.60	100.00						
	7	-598.06	86.40	29.00	0.00	26.60	100.00						
	8	-592.29	86.30	29.10	0.00	26.60	100.00						
	9	-586.51	86.30	29.10	0.00	26.60	100.00						
	10	-580.74	86.30	29.10	0.00	26.60	100.00						
	11	-574.97	86.20	29.20	0.00	26.60	100.00						
	12	-569.19	86.20	29.20	0.00	26.60	99.90						
	13	-563.42	86.20	29.20	0.00	26.60	99.80						
	14	-557.65	87.00	29.50	0.00	26.70	100.00						
	15	-693.58	79.40	26.70	0.00	25.70	95.90						
	16	-687.81	73.70	24.60	0.00	24.60	92.00						
	17	-682.03	73.70	24.70	0.00	24.60	92.00						
	18	-676.26	73.70	24.70	0.00	24.60	91.90						
	19	-670.49	73.60	24.70	0.00	24.60	91.80						
	20	-664.71	73.60	24.70	0.00	24.60	91.70						
	21	-658.94	73.60	24.80	0.00	24.60	91.70						
	22	-653.17	73.60	24.80	0.00	24.60	91.60						
	23	-647.39	73.60	24.80	0.00	24.60	91.50						
	24	-641.62	73.50	24.80	0.00	24.60	91.40						
	25	-635.85	73.50	24.90	0.00	24.60	91.40						
	26	-630.07	73.50	24.90	0.00	24.60	91.30						
	27	-624.30	73.50	24.90	0.00	24.60	91.20						
	28	-618.53	75.90	25.90	0.00	25.10	92.80						
	29	-401.68	53.70	61.10	0.00	54.60	61.50						
	30	-395.47	52.50	59.50	0.00	53.80	60.80						
	31	-507.75	50.70	56.90	0.00	53.00	60.00						
	32	-501.54	49.40	55.10	0.00	52.00	59.00						
	33	-489.12	94.50	30.50	0.00	27.30	108.00						
	34	-482.91	92.20	29.80	0.00	27.00	106.00						
	35	-470.49	94.20	30.60	0.00	27.40	107.00						
	36	-464.28	92.00	29.90	0.00	27.00	106.00						
	37	-451.86	93.90	30.70	0.00	27.40	107.00						
	38	-445.65	91.70	30.00	0.00	27.00	105.00						
	39	-433.23	93.70	30.90	0.00	27.40	106.00						
	40	-427.02	91.50	30.10	0.00	27.00	105.00						

B11 North East Abutment
DL Pile Cap Loads

LC 1		DL-factored: MinNx					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-24668	6069	612	767	-5441	10392

LC 6		DL-factored: MaxMz					
Node	Pile Cap	Nx KN	Qy KN	Qz KN	Mx KNm	My KNm	Mz KNm
501	Bottom	-20581	9483	964	1185	-7246	28899

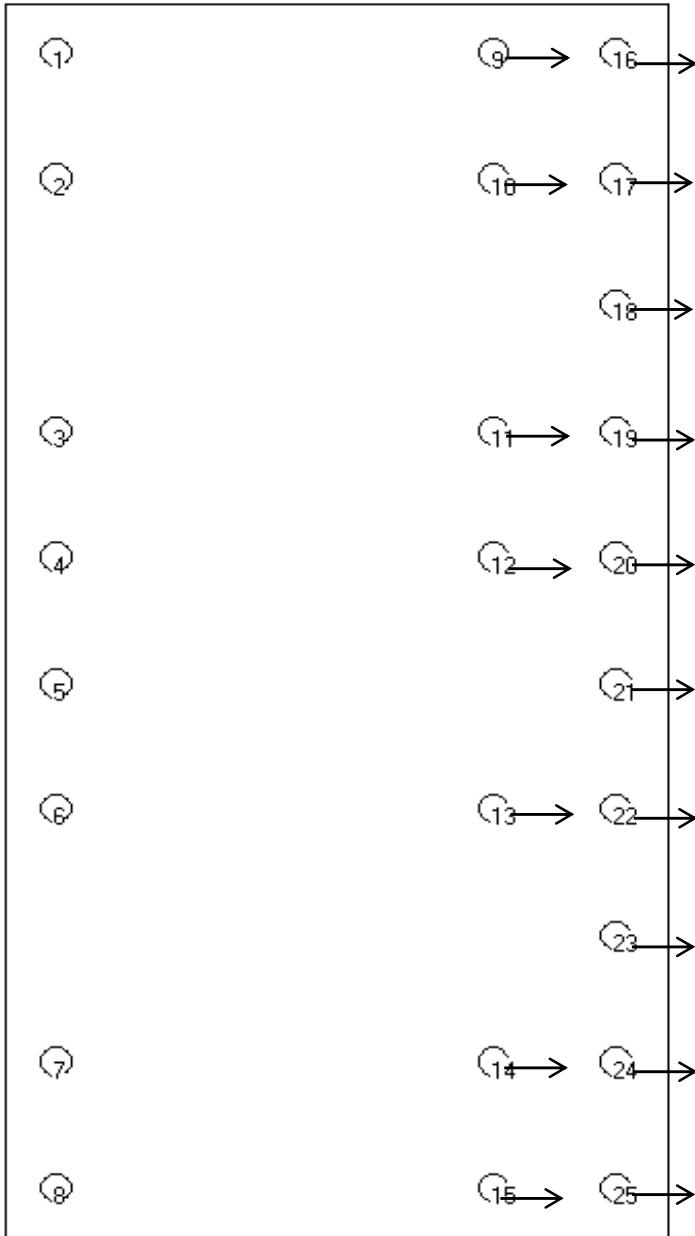
B11 North East Abutment
DL Pile Loads

LOAD CASE	PILE	ABS Maximum Values						Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL-factored: MinNx Bottom	1	-551.14	35.90	11.70	0.00	7.65	29.70	-250.00	1.25	-863.64	0.35	0.43	0.006	0.04	0.06	0.05	0.045	0.05
	2	-553.41	32.80	11.40	0.00	7.54	27.40	-250.00	1.25	-865.91	0.35	0.43	0.006	0.04	0.05	0.05	0.042	0.05
	3	-555.69	31.30	11.70	0.00	7.69	25.90	-250.00	1.25	-868.19	0.35	0.43	0.006	0.03	0.05	0.05	0.040	0.05
	4	-557.96	29.70	12.10	0.00	7.85	24.40	-250.00	1.25	-870.46	0.35	0.44	0.007	0.03	0.05	0.05	0.038	0.05
	5	-560.23	28.10	12.40	0.00	8.02	22.90	-250.00	1.25	-872.73	0.35	0.44	0.007	0.03	0.04	0.05	0.036	0.05
	6	-562.50	26.30	12.80	0.00	8.20	21.20	-250.00	1.25	-875.00	0.34	0.44	0.007	0.03	0.04	0.05	0.033	0.05
	7	-564.78	24.50	13.20	0.00	8.39	19.60	-250.00	1.25	-877.28	0.34	0.44	0.007	0.03	0.04	0.05	0.031	0.05
	8	-567.05	22.50	13.60	0.00	8.59	17.80	-250.00	1.25	-879.55	0.34	0.44	0.007	0.02	0.03	0.05	0.029	0.05
	9	-569.32	20.30	14.10	0.00	8.80	16.00	-250.00	1.25	-881.82	0.34	0.44	0.008	0.02	0.03	0.05	0.026	0.05
	10	-571.59	18.00	14.60	0.00	9.02	14.00	-250.00	1.25	-884.09	0.34	0.44	0.008	0.02	0.03	0.05	0.023	0.05
	11	-573.87	15.60	15.10	0.00	9.24	12.00	-250.00	1.25	-886.37	0.34	0.44	0.008	0.02	0.02	0.06	0.021	0.05
	12	-576.14	12.90	15.50	0.00	9.46	9.83	-250.00	1.25	-888.64	0.33	0.44	0.008	0.01	0.02	0.06	0.018	0.05
	13	-578.41	9.92	16.00	0.00	9.66	7.54	-250.00	1.25	-890.91	0.33	0.45	0.009	0.01	0.01	0.06	0.015	0.05
	14	-580.68	6.85	16.50	0.00	9.89	5.16	-250.00	1.25	-893.18	0.33	0.45	0.009	0.01	0.01	0.06	0.011	0.05
	15	-582.76	31.20	11.80	0.00	8.11	27.20	-250.00	1.25	-895.26	0.36	0.45	0.006	0.03	0.05	0.05	0.042	0.05
	16	-585.03	27.30	11.00	0.00	7.83	24.50	-250.00	1.25	-897.53	0.36	0.45	0.006	0.03	0.05	0.05	0.038	0.05
	17	-587.30	26.00	11.30	0.00	7.96	23.00	-250.00	1.25	-899.80	0.35	0.45	0.006	0.03	0.04	0.05	0.035	0.05
	18	-589.57	24.60	11.60	0.00	8.08	21.50	-250.00	1.25	-902.07	0.35	0.45	0.006	0.03	0.04	0.05	0.033	0.05
	19	-591.85	23.10	12.00	0.00	8.22	20.00	-250.00	1.25	-904.35	0.35	0.45	0.007	0.03	0.04	0.05	0.031	0.05
	20	-594.12	21.50	12.30	0.00	8.36	18.40	-250.00	1.25	-906.62	0.35	0.45	0.007	0.02	0.04	0.05	0.029	0.05
	21	-596.39	19.80	12.70	0.00	8.51	16.80	-250.00	1.25	-908.89	0.35	0.45	0.007	0.02	0.03	0.05	0.027	0.05
	22	-598.66	18.00	13.10	0.00	8.69	15.10	-250.00	1.25	-911.16	0.35	0.46	0.007	0.02	0.03	0.05	0.025	0.05
	23	-600.94	16.10	13.50	0.00	8.89	13.40	-250.00	1.25	-913.44	0.34	0.46	0.007	0.02	0.03	0.05	0.022	0.05
	24	-603.21	14.00	13.90	0.00	9.10	11.60	-250.00	1.25	-915.71	0.34	0.46	0.008	0.02	0.02	0.06	0.020	0.05
	25	-605.48	11.80	14.30	0.00	9.30	9.74	-250.00	1.25	-917.98	0.34	0.46	0.008	0.01	0.02	0.06	0.017	0.05
	26	-607.75	9.44	14.60	0.00	9.48	7.74	-250.00	1.25	-920.25	0.34	0.46	0.008	0.01	0.02	0.06	0.015	0.05
	27	-610.03	6.89	14.90	0.00	9.64	5.63	-250.00	1.25	-922.53	0.34	0.46	0.008	0.01	0.01	0.06	0.012	0.05
	28	-612.30	4.35	15.70	0.00	10.00	3.50	-250.00	1.25	-924.80	0.34	0.46	0.009	0.00	0.01	0.06	0.009	0.05
	29	-677.58	24.20	29.40	0.00	21.10	21.90	-775.00	1.25	-1646.33	0.65	0.82	0.016	0.03	0.04	0.13	0.038	0.11
	30	-688.39	23.70	27.70	0.00	20.00	21.70	-775.00	1.25	-1657.14	0.64	0.83	0.015	0.03	0.04	0.12	0.038	0.10
	31	-732.67	25.10	27.20	0.00	20.20	23.50	-775.00	1.25	-1701.42	0.66	0.85	0.015	0.03	0.05	0.12	0.040	0.10
	32	-743.47	24.50	25.40	0.00	19.10	23.10	-775.00	1.25	-1712.22	0.66	0.86	0.014	0.03	0.05	0.12	0.039	0.10
	33	-765.09	41.30	16.40	0.00	11.70	36.80	-775.00	1.25	-1733.84	0.64	0.87	0.009	0.05	0.07	0.07	0.056	0.07
	34	-775.89	38.80	16.20	0.00	11.60	34.80	-775.00	1.25	-1744.64	0.64	0.87	0.009	0.04	0.07	0.07	0.053	0.07
	35	-797.50	37.40	17.30	0.00	12.10	32.70	-775.00	1.25	-1766.25	0.65	0.88	0.009	0.04	0.06	0.07	0.051	0.07
	36	-808.31	34.90	17.00	0.00	12.00	30.80	-775.00	1.25	-1777.06	0.65	0.89	0.009	0.04	0.06	0.07	0.048	0.07
	37	-829.92	33.10	18.20	0.00	12.50	28.40	-775.00	1.25	-1798.67	0.65	0.90	0.010	0.04	0.06	0.08	0.045	0.07
	38	-840.73	30.60	17.90	0.00	12.40	26.50	-775.00	1.25	-1809.48	0.65	0.90	0.010	0.03	0.05	0.08	0.042	0.07
	39	-862.34	28.40	19.20	0.00	12.90	23.90	-775.00	1.25	-1831.09	0.65	0.92	0.010	0.03	0.05	0.08	0.039	0.07
	40	-873.15	25.80	19.00	0.00	12.80	21.90	-775.00	1.25	-1841.90	0.65	0.92	0.010	0.03	0.04	0.08	0.036	0.07

B11 North East Abutment
DL Pile Loads

LOAD CASE	PILE	ABS Maximum Values						Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL-factored: MaxMz Bottom	1	-674.31	106.00	22.80	0.00	21.50	126.00	-250.00	1.25	-986.81	0.66	0.49	0.012	0.12	0.25	0.13	0.185	0.15
	2	-667.77	103.00	22.30	0.00	21.20	124.00	-250.00	1.25	-980.27	0.65	0.49	0.012	0.11	0.24	0.13	0.182	0.14
	3	-661.23	103.00	22.30	0.00	21.20	123.00	-250.00	1.25	-973.73	0.65	0.49	0.012	0.11	0.24	0.13	0.180	0.14
	4	-654.69	102.00	22.40	0.00	21.30	123.00	-250.00	1.25	-967.19	0.65	0.48	0.012	0.11	0.24	0.13	0.180	0.14
	5	-648.14	102.00	22.50	0.00	21.30	122.00	-250.00	1.25	-960.64	0.65	0.48	0.012	0.11	0.24	0.13	0.179	0.14
	6	-641.60	102.00	22.50	0.00	21.30	122.00	-250.00	1.25	-954.10	0.64	0.48	0.012	0.11	0.24	0.13	0.179	0.14
	7	-635.06	102.00	22.60	0.00	21.30	121.00	-250.00	1.25	-947.56	0.64	0.47	0.012	0.11	0.24	0.13	0.177	0.14
	8	-628.52	101.00	22.60	0.00	21.30	121.00	-250.00	1.25	-941.02	0.64	0.47	0.012	0.11	0.24	0.13	0.177	0.14
	9	-621.98	101.00	22.70	0.00	21.40	120.00	-250.00	1.25	-934.48	0.63	0.47	0.012	0.11	0.23	0.13	0.176	0.14
	10	-615.44	101.00	22.80	0.00	21.40	120.00	-250.00	1.25	-927.94	0.63	0.46	0.012	0.11	0.23	0.13	0.176	0.14
	11	-608.90	101.00	22.80	0.00	21.40	119.00	-250.00	1.25	-921.40	0.63	0.46	0.012	0.11	0.23	0.13	0.175	0.14
	12	-602.36	100.00	22.90	0.00	21.40	119.00	-250.00	1.25	-914.86	0.63	0.46	0.012	0.11	0.23	0.13	0.175	0.14
	13	-595.81	100.00	22.90	0.00	21.40	119.00	-250.00	1.25	-908.31	0.63	0.45	0.012	0.11	0.23	0.13	0.175	0.14
	14	-589.27	101.00	23.20	0.00	21.60	119.00	-250.00	1.25	-901.77	0.62	0.45	0.013	0.11	0.23	0.13	0.175	0.15
	15	-732.69	92.00	20.10	0.00	20.30	116.00	-250.00	1.25	-1045.19	0.65	0.52	0.011	0.10	0.23	0.12	0.170	0.14
	16	-726.15	86.60	18.90	0.00	19.60	112.00	-250.00	1.25	-1038.65	0.64	0.52	0.010	0.10	0.22	0.12	0.164	0.13
	17	-719.61	86.40	18.90	0.00	19.70	112.00	-250.00	1.25	-1032.11	0.64	0.52	0.010	0.09	0.22	0.12	0.164	0.13
	18	-713.07	86.20	19.00	0.00	19.70	111.00	-250.00	1.25	-1025.57	0.63	0.51	0.010	0.09	0.22	0.12	0.162	0.13
	19	-706.53	86.00	19.00	0.00	19.70	111.00	-250.00	1.25	-1019.03	0.63	0.51	0.010	0.09	0.22	0.12	0.162	0.13
	20	-699.99	85.70	19.10	0.00	19.70	111.00	-250.00	1.25	-1012.49	0.63	0.51	0.010	0.09	0.22	0.12	0.162	0.13
	21	-693.45	85.50	19.10	0.00	19.70	110.00	-250.00	1.25	-1005.95	0.63	0.50	0.010	0.09	0.21	0.12	0.161	0.13
	22	-686.91	85.30	19.20	0.00	19.70	110.00	-250.00	1.25	-999.41	0.62	0.50	0.010	0.09	0.21	0.12	0.161	0.13
	23	-680.36	85.10	19.20	0.00	19.80	109.00	-250.00	1.25	-992.86	0.62	0.50	0.010	0.09	0.21	0.12	0.160	0.13
	24	-673.82	84.90	19.30	0.00	19.80	109.00	-250.00	1.25	-986.32	0.62	0.49	0.010	0.09	0.21	0.12	0.160	0.13
	25	-667.28	84.60	19.30	0.00	19.80	108.00	-250.00	1.25	-979.78	0.61	0.49	0.010	0.09	0.21	0.12	0.158	0.13
	26	-660.74	84.40	19.40	0.00	19.80	108.00	-250.00	1.25	-973.24	0.61	0.49	0.011	0.09	0.21	0.12	0.158	0.13
	27	-654.20	84.20	19.40	0.00	19.80	108.00	-250.00	1.25	-966.70	0.61	0.48	0.011	0.09	0.21	0.12	0.158	0.13
	28	-647.66	87.00	20.30	0.00	20.30	109.00	-250.00	1.25	-960.16	0.61	0.48	0.011	0.10	0.21	0.12	0.160	0.13
	29	-258.29	44.80	73.20	0.00	66.80	52.80	-775.00	1.25	-1227.04	0.86	0.61	0.040	0.05	0.10	0.40	0.093	0.32
	30	-254.30	44.30	72.00	0.00	66.00	52.50	-775.00	1.25	-1223.05	0.86	0.61	0.039	0.05	0.10	0.40	0.092	0.31
	31	-360.01	42.70	67.70	0.00	64.40	52.00	-775.00	1.25	-1328.76	0.88	0.66	0.037	0.05	0.10	0.39	0.091	0.31
	32	-356.03	42.10	66.40	0.00	63.50	51.60	-775.00	1.25	-1324.78	0.87	0.66	0.036	0.05	0.10	0.38	0.090	0.30
	33	-348.05	110.00	25.20	0.00	22.90	128.00	-775.00	1.25	-1316.80	0.77	0.66	0.014	0.12	0.25	0.14	0.188	0.16
	34	-344.06	108.00	24.90	0.00	22.70	126.00	-775.00	1.25	-1312.81	0.76	0.66	0.014	0.12	0.25	0.14	0.185	0.15
	35	-336.08	109.00	25.40	0.00	23.00	126.00	-775.00	1.25	-1304.83	0.76	0.65	0.014	0.12	0.25	0.14	0.185	0.16
	36	-332.09	107.00	25.10	0.00	22.80	125.00	-775.00	1.25	-1300.84	0.76	0.65	0.014	0.12	0.24	0.14	0.184	0.15
	37	-324.11	108.00	25.60	0.00	23.10	125.00	-775.00	1.25	-1292.86	0.76	0.65	0.014	0.12	0.24	0.14	0.184	0.16
	38	-320.12	106.00	25.30	0.00	22.90	123.00	-775.00	1.25	-1288.87	0.75	0.64	0.014	0.12	0.24	0.14	0.181	0.15
	39	-312.14	107.00	25.80	0.00	23.10	123.00	-775.00	1.25	-1280.89	0.75	0.64	0.014	0.12	0.24	0.14	0.181	0.16
	40	-308.16	105.00	25.50	0.00	23.00	122.00	-775.00	1.25	-1276.91	0.75	0.64	0.014	0.12	0.24	0.14	0.180	0.15

B11 South West Abutment
Pile Layout



Pile No.	Batter Angle	
	Vertical	Horizontal
1	---	---
2	---	---
3	---	---
4	---	---
5	---	---
6	---	---
7	---	---
8	---	---
9	3	1
10	3	1
11	3	1
12	3	1
13	3	1
14	3	1
15	3	1
16	3	1
17	3	1
18	3	1
19	3	1
20	3	1
21	3	1
22	3	1
23	3	1
24	3	1
25	3	1

Note:

1. Arrows show batter direction.
2. View from top of pile group.
3. See pile layout drawings for dimensions.

B11 South West Abutment
ULS Pile Cap Loads

	Pile	Nx	Qy	Qz	Mx	My	Mz
Node	Cap	kN	kN	kN	kNm	kNm	kNm
401		ULS: MinNx					
	Bottom	-21917	-6194	-1	-1	1203	-16708
		ULS: MaxNx					
	Bottom	-10606	-4633	22	34	1073	-7943
		ULS: MinMz, MinQy					
		-18991	-8768	-1	-1	1203	-29918
		ULS:MaxMz					
	Bottom	-13532	-4576	22	34	1073	-2397

node		ULS: MinQy					
401		-13675	-8768	-12	-18	916	-24013

B11 South West Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinNx Bottom	1	-784	53	0.71	0.00	0.52	48.50	0.32	0.39	0.000	0.06	0.09	0.00	0.069	0.03
	2	-792	53	0.71	0.00	0.52	48.20	0.33	0.40	0.000	0.06	0.09	0.00	0.069	0.03
	3	-807	52	0.72	0.00	0.52	47.60	0.33	0.40	0.000	0.06	0.09	0.00	0.068	0.03
	4	-814	52	0.72	0.00	0.53	47.30	0.33	0.41	0.000	0.06	0.09	0.00	0.067	0.03
	5	-821	52	0.72	0.00	0.53	47.00	0.33	0.41	0.000	0.06	0.09	0.00	0.067	0.03
	6	-829	51	0.73	0.00	0.53	46.70	0.33	0.41	0.000	0.06	0.09	0.00	0.066	0.03
	7	-844	51	0.73	0.00	0.53	46.10	0.34	0.42	0.000	0.06	0.09	0.00	0.066	0.03
	8	-851	51	0.73	0.00	0.53	45.80	0.34	0.43	0.000	0.06	0.09	0.00	0.065	0.03
	9	-938	35	0.19	0.00	0.13	31.80	0.33	0.47	0.000	0.04	0.06	0.00	0.045	0.02
	10	-943	34	0.18	0.00	0.13	31.00	0.33	0.47	0.000	0.04	0.06	0.00	0.044	0.02
	11	-955	34	0.19	0.00	0.14	30.10	0.34	0.48	0.000	0.04	0.06	0.00	0.043	0.02
	12	-960	33	0.19	0.00	0.14	29.60	0.34	0.48	0.000	0.04	0.06	0.00	0.042	0.02
	13	-972	32	0.19	0.00	0.14	28.60	0.34	0.49	0.000	0.04	0.06	0.00	0.041	0.02
	14	-983	32	0.20	0.00	0.14	27.70	0.34	0.49	0.000	0.03	0.05	0.00	0.039	0.02
	15	-989	32	0.20	0.00	0.14	27.50	0.34	0.49	0.000	0.03	0.05	0.00	0.039	0.02
	16	-942	41	0.52	0.00	0.35	34.30	0.34	0.47	0.000	0.04	0.07	0.00	0.049	0.02
	17	-948	40	0.53	0.00	0.35	33.80	0.34	0.47	0.000	0.04	0.07	0.00	0.048	0.02
	18	-953	40	0.53	0.00	0.36	33.30	0.34	0.48	0.000	0.04	0.07	0.00	0.047	0.02
	19	-959	40	0.54	0.00	0.36	32.80	0.34	0.48	0.000	0.04	0.06	0.00	0.047	0.02
	20	-965	39	0.54	0.00	0.36	32.30	0.34	0.48	0.000	0.04	0.06	0.00	0.046	0.02
	21	-970	39	0.55	0.00	0.36	31.80	0.35	0.49	0.000	0.04	0.06	0.00	0.045	0.02
	22	-976	38	0.55	0.00	0.36	31.30	0.35	0.49	0.000	0.04	0.06	0.00	0.045	0.02
	23	-982	38	0.56	0.00	0.37	30.90	0.35	0.49	0.000	0.04	0.06	0.00	0.044	0.02
	24	-987	37	0.56	0.00	0.37	30.30	0.35	0.49	0.000	0.04	0.06	0.00	0.043	0.02
	25	-993	37	0.57	0.00	0.37	29.80	0.35	0.50	0.000	0.04	0.06	0.00	0.042	0.02

B11 South West Abutment
ULS Pile Loads

LOAD CASE	PILE	ABS Maximum Values						Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxNx Bottom	1	-350	87	1.29	0.00	1.06	91.10	0.29	0.18	0.001	0.10	0.18	0.01	0.130	0.05
	2	-357	87	1.29	0.00	1.06	91.00	0.29	0.18	0.001	0.10	0.18	0.01	0.130	0.05
	3	-371	86	1.29	0.00	1.06	90.60	0.29	0.19	0.001	0.09	0.18	0.01	0.129	0.05
	4	-378	86	1.29	0.00	1.06	90.40	0.29	0.19	0.001	0.09	0.18	0.01	0.129	0.05
	5	-385	86	1.30	0.00	1.06	90.20	0.29	0.19	0.001	0.09	0.18	0.01	0.128	0.05
	6	-393	86	1.30	0.00	1.06	90.00	0.30	0.20	0.001	0.09	0.18	0.01	0.128	0.05
	7	-407	85	1.30	0.00	1.06	89.70	0.30	0.20	0.001	0.09	0.18	0.01	0.128	0.05
	8	-414	85	1.30	0.00	1.07	89.50	0.30	0.21	0.001	0.09	0.17	0.01	0.127	0.05
	9	-562	73	0.69	0.00	0.62	83.20	0.33	0.28	0.000	0.08	0.16	0.00	0.118	0.04
	10	-567	72	0.68	0.00	0.61	82.20	0.33	0.28	0.000	0.08	0.16	0.00	0.117	0.04
	11	-576	72	0.68	0.00	0.61	81.80	0.33	0.29	0.000	0.08	0.16	0.00	0.116	0.04
	12	-579	72	0.69	0.00	0.61	81.60	0.33	0.29	0.000	0.08	0.16	0.00	0.116	0.04
	13	-584	71	0.69	0.00	0.62	81.10	0.33	0.29	0.000	0.08	0.16	0.00	0.115	0.04
	14	-589	71	0.69	0.00	0.62	80.70	0.33	0.29	0.000	0.08	0.16	0.00	0.115	0.04
	15	-591	72	0.70	0.00	0.62	81.10	0.33	0.30	0.000	0.08	0.16	0.00	0.115	0.04
	16	-415	86	0.68	0.00	0.56	90.80	0.30	0.21	0.000	0.09	0.18	0.00	0.129	0.05
	17	-420	86	0.68	0.00	0.56	90.60	0.30	0.21	0.000	0.09	0.18	0.00	0.129	0.05
	18	-425	86	0.68	0.00	0.56	90.50	0.30	0.21	0.000	0.09	0.18	0.00	0.129	0.05
	19	-429	85	0.68	0.00	0.56	90.10	0.30	0.21	0.000	0.09	0.18	0.00	0.128	0.05
	20	-434	85	0.68	0.00	0.56	89.90	0.30	0.22	0.000	0.09	0.18	0.00	0.128	0.05
	21	-438	85	0.68	0.00	0.56	89.70	0.31	0.22	0.000	0.09	0.18	0.00	0.128	0.05
	22	-443	85	0.68	0.00	0.56	89.40	0.31	0.22	0.000	0.09	0.17	0.00	0.127	0.04
	23	-448	85	0.69	0.00	0.56	89.20	0.31	0.22	0.000	0.09	0.17	0.00	0.127	0.04
	24	-452	85	0.68	0.00	0.56	88.90	0.31	0.23	0.000	0.09	0.17	0.00	0.126	0.04
	25	-457	84	0.69	0.00	0.56	88.60	0.31	0.23	0.000	0.09	0.17	0.00	0.126	0.04

B11 South West Abutment
ULS Pile Loads

LOAD CASE	PILE	ABS Maximum Values						Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinMz, MinQy Bottom	1	-270	139	0.07	0.00	0.06	171.00	0.41	0.13	0.000	0.15	0.33	0.00	0.243	0.07
	2	-280	139	0.07	0.00	0.06	171.00	0.42	0.14	0.000	0.15	0.33	0.00	0.243	0.07
	3	-300	139	0.07	0.00	0.06	171.00	0.42	0.15	0.000	0.15	0.33	0.00	0.243	0.07
	4	-310	139	0.07	0.00	0.06	171.00	0.42	0.15	0.000	0.15	0.33	0.00	0.243	0.07
	5	-320	139	0.07	0.00	0.06	171.00	0.43	0.16	0.000	0.15	0.33	0.00	0.243	0.07
	6	-330	139	0.07	0.00	0.06	171.00	0.43	0.16	0.000	0.15	0.33	0.00	0.243	0.07
	7	-350	139	0.07	0.00	0.06	171.00	0.44	0.17	0.000	0.15	0.33	0.00	0.243	0.07
	8	-360	139	0.07	0.00	0.06	171.00	0.44	0.18	0.000	0.15	0.33	0.00	0.243	0.07
	9	-1075	108	0.03	0.00	0.03	149.00	0.60	0.54	0.000	0.12	0.29	0.00	0.212	0.05
	10	-1080	106	0.03	0.00	0.03	147.00	0.60	0.54	0.000	0.12	0.29	0.00	0.209	0.05
	11	-1090	105	0.03	0.00	0.03	147.00	0.60	0.54	0.000	0.12	0.29	0.00	0.209	0.05
	12	-1095	105	0.03	0.00	0.03	147.00	0.60	0.55	0.000	0.12	0.29	0.00	0.209	0.05
	13	-1104	105	0.03	0.00	0.03	147.00	0.61	0.55	0.000	0.12	0.29	0.00	0.209	0.05
	14	-1114	105	0.03	0.00	0.03	147.00	0.61	0.56	0.000	0.12	0.29	0.00	0.209	0.05
	15	-1119	107	0.03	0.00	0.03	149.00	0.62	0.56	0.000	0.12	0.29	0.00	0.212	0.05
	16	-1015	131	0.03	0.00	0.03	168.00	0.62	0.51	0.000	0.14	0.33	0.00	0.239	0.07
	17	-1020	131	0.03	0.00	0.03	168.00	0.62	0.51	0.000	0.14	0.33	0.00	0.239	0.07
	18	-1025	131	0.03	0.00	0.03	168.00	0.62	0.51	0.000	0.14	0.33	0.00	0.239	0.07
	19	-1030	131	0.03	0.00	0.03	168.00	0.63	0.51	0.000	0.14	0.33	0.00	0.239	0.07
	20	-1035	131	0.03	0.00	0.03	168.00	0.63	0.52	0.000	0.14	0.33	0.00	0.239	0.07
	21	-1040	131	0.03	0.00	0.03	168.00	0.63	0.52	0.000	0.14	0.33	0.00	0.239	0.07
	22	-1045	131	0.03	0.00	0.03	168.00	0.63	0.52	0.000	0.14	0.33	0.00	0.239	0.07
	23	-1050	131	0.03	0.00	0.03	168.00	0.63	0.52	0.000	0.14	0.33	0.00	0.239	0.07
	24	-1054	131	0.03	0.00	0.03	168.00	0.63	0.53	0.000	0.14	0.33	0.00	0.239	0.07
	25	-1059	131	0.03	0.00	0.03	168.00	0.63	0.53	0.000	0.14	0.33	0.00	0.239	0.07

B11 South West Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxMz Bottom	1	-659	78	1.62	0.00	1.34	80.40	0.36	0.33	0.001	0.09	0.16	0.01	0.115	0.04
	2	-664	78	1.63	0.00	1.34	80.10	0.36	0.33	0.001	0.09	0.16	0.01	0.114	0.04
	3	-675	77	1.63	0.00	1.34	79.30	0.36	0.34	0.001	0.08	0.15	0.01	0.113	0.04
	4	-681	77	1.64	0.00	1.35	78.90	0.36	0.34	0.001	0.08	0.15	0.01	0.112	0.04
	5	-686	77	1.64	0.00	1.35	78.60	0.36	0.34	0.001	0.08	0.15	0.01	0.112	0.04
	6	-691	76	1.65	0.00	1.35	78.20	0.36	0.35	0.001	0.08	0.15	0.01	0.111	0.04
	7	-702	76	1.66	0.00	1.36	77.50	0.36	0.35	0.001	0.08	0.15	0.01	0.110	0.04
	8	-708	75	1.66	0.00	1.36	77.20	0.36	0.35	0.001	0.08	0.15	0.01	0.110	0.04
	9	-604	66	0.62	0.00	0.53	71.80	0.32	0.30	0.000	0.07	0.14	0.00	0.102	0.04
	10	-607	64	0.61	0.00	0.52	70.80	0.32	0.30	0.000	0.07	0.14	0.00	0.101	0.03
	11	-613	64	0.61	0.00	0.53	69.90	0.32	0.31	0.000	0.07	0.14	0.00	0.099	0.03
	12	-617	63	0.61	0.00	0.53	69.50	0.32	0.31	0.000	0.07	0.14	0.00	0.099	0.03
	13	-623	63	0.62	0.00	0.53	68.70	0.32	0.31	0.000	0.07	0.13	0.00	0.098	0.03
	14	-629	62	0.62	0.00	0.53	67.80	0.32	0.31	0.000	0.07	0.13	0.00	0.096	0.03
	15	-632	63	0.63	0.00	0.54	68.00	0.32	0.32	0.000	0.07	0.13	0.00	0.097	0.03
	16	-430	78	0.45	0.00	0.36	79.00	0.28	0.22	0.000	0.09	0.15	0.00	0.112	0.04
	17	-436	77	0.45	0.00	0.36	78.60	0.28	0.22	0.000	0.09	0.15	0.00	0.112	0.04
	18	-442	77	0.45	0.00	0.36	78.20	0.28	0.22	0.000	0.08	0.15	0.00	0.111	0.04
	19	-449	77	0.45	0.00	0.36	77.70	0.28	0.22	0.000	0.08	0.15	0.00	0.110	0.04
	20	-455	76	0.46	0.00	0.36	77.20	0.28	0.23	0.000	0.08	0.15	0.00	0.110	0.04
	21	-461	76	0.46	0.00	0.37	76.90	0.29	0.23	0.000	0.08	0.15	0.00	0.109	0.04
	22	-467	76	0.46	0.00	0.37	76.40	0.29	0.23	0.000	0.08	0.15	0.00	0.109	0.04
	23	-474	76	0.46	0.00	0.37	76.10	0.29	0.24	0.000	0.08	0.15	0.00	0.108	0.04
	24	-480	75	0.46	0.00	0.37	75.50	0.29	0.24	0.000	0.08	0.15	0.00	0.107	0.04
	25	-486	75	0.46	0.00	0.37	75.10	0.29	0.24	0.000	0.08	0.15	0.00	0.107	0.04

B11 South West Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinQy Bottom	1	-105	191	0.74	0.00	0.76	260.00	0.54	0.05	0.000	0.21	0.51	0.00	0.369	0.10
	2	-112	191	0.74	0.00	0.76	260.00	0.54	0.06	0.000	0.21	0.51	0.00	0.369	0.10
	3	-126	191	0.73	0.00	0.76	261.00	0.55	0.06	0.000	0.21	0.51	0.00	0.371	0.10
	4	-133	191	0.73	0.00	0.76	261.00	0.55	0.07	0.000	0.21	0.51	0.00	0.371	0.10
	5	-140	191	0.73	0.00	0.76	261.00	0.55	0.07	0.000	0.21	0.51	0.00	0.371	0.10
	6	-147	191	0.73	0.00	0.76	261.00	0.56	0.07	0.000	0.21	0.51	0.00	0.371	0.10
	7	-161	191	0.73	0.00	0.76	261.00	0.56	0.08	0.000	0.21	0.51	0.00	0.371	0.10
	8	-168	191	0.73	0.00	0.76	262.00	0.56	0.08	0.000	0.21	0.51	0.00	0.372	0.10
	9	-982	149	0.35	0.00	0.46	235.00	0.75	0.49	0.000	0.16	0.46	0.00	0.334	0.08
	10	-986	147	0.34	0.00	0.45	232.00	0.74	0.49	0.000	0.16	0.45	0.00	0.330	0.08
	11	-995	147	0.34	0.00	0.45	232.00	0.74	0.50	0.000	0.16	0.45	0.00	0.330	0.08
	12	-1000	147	0.34	0.00	0.45	233.00	0.75	0.50	0.000	0.16	0.46	0.00	0.331	0.08
	13	-1009	147	0.34	0.00	0.45	233.00	0.75	0.50	0.000	0.16	0.46	0.00	0.331	0.08
	14	-1018	146	0.34	0.00	0.45	233.00	0.75	0.51	0.000	0.16	0.46	0.00	0.331	0.08
	15	-1022	149	0.35	0.00	0.46	235.00	0.76	0.51	0.000	0.16	0.46	0.00	0.334	0.08
	16	-701	186	0.37	0.00	0.43	268.00	0.73	0.35	0.000	0.20	0.52	0.00	0.381	0.09
	17	-706	186	0.37	0.00	0.43	268.00	0.73	0.35	0.000	0.20	0.52	0.00	0.381	0.09
	18	-710	186	0.38	0.00	0.43	269.00	0.73	0.36	0.000	0.20	0.53	0.00	0.382	0.09
	19	-715	186	0.37	0.00	0.43	268.00	0.73	0.36	0.000	0.20	0.52	0.00	0.381	0.09
	20	-719	186	0.37	0.00	0.43	268.00	0.73	0.36	0.000	0.20	0.52	0.00	0.381	0.09
	21	-724	186	0.37	0.00	0.43	269.00	0.74	0.36	0.000	0.20	0.53	0.00	0.382	0.09
	22	-728	186	0.37	0.00	0.43	269.00	0.74	0.36	0.000	0.20	0.53	0.00	0.382	0.09
	23	-733	186	0.37	0.00	0.43	269.00	0.74	0.37	0.000	0.20	0.53	0.00	0.382	0.09
	24	-737	186	0.37	0.00	0.43	269.00	0.74	0.37	0.000	0.20	0.53	0.00	0.382	0.09
	25	-742	186	0.37	0.00	0.43	269.00	0.74	0.37	0.000	0.20	0.53	0.00	0.382	0.09

B11 South West Abutment
SLS Pile Cap Loads

Node	Pile Cap	Nx kN	Qy kN	Qz kN	Mx kNm	My kNm	Mz kNm
401		SLS: MinNx, MinMz, MinQy					
	Bottom	-16903	-6577	6	10	901	-17648
		SLS: MaxNx					
	Bottom	-13533	-5720	13	20	1008	-10580
		SLS: MaxMy					
	Bottom	-15137	-6577	29	44	3563	-14999
		SLS: MinQy					
	Bottom	-15327	-6577	9	13	890	-15283

B11 South West Abutment
SLS Pile Loads

LOAD CASE	PILE	ABS Maximum Values						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MinNx, MinMz, MinQy Bottom	1	-472.63	95.72	-0.21	0.00	0.00	0.00						
	2	-480.11	95.70	-0.21	0.00	0.00	0.00						
	3	-495.07	95.67	-0.21	0.00	0.00	0.00						
	4	-502.55	95.66	-0.21	0.00	0.00	0.00						
	5	-510.03	95.65	-0.21	0.00	0.00	0.00						
	6	-517.51	95.63	-0.21	0.00	0.00	0.00						
	7	-532.47	95.61	-0.20	0.00	0.00	0.00						
	8	-539.95	95.59	-0.20	0.00	0.00	0.00						
	9	-832.15	78.33	-0.23	0.00	0.00	0.00						
	10	-835.90	77.00	-0.22	0.00	0.00	0.00						
	11	-843.41	76.92	-0.22	0.00	0.00	0.00						
	12	-847.17	76.88	-0.22	0.00	0.00	0.00						
	13	-854.68	76.81	-0.22	0.00	0.00	0.00						
	14	-862.19	76.73	-0.22	0.00	0.00	0.00						
	15	-865.95	77.98	-0.23	0.00	0.00	0.00						
	16	-792.06	90.85	-0.28	0.00	0.00	0.00						
	17	-795.82	90.81	-0.28	0.00	0.00	0.00						
	18	-799.57	91.01	-0.28	0.00	0.00	0.00						
	19	-803.33	90.72	-0.28	0.00	0.00	0.00						
	20	-807.09	90.67	-0.28	0.00	0.00	0.00						
	21	-810.84	90.88	-0.28	0.00	0.00	0.00						
	22	-814.60	90.59	-0.28	0.00	0.00	0.00						
	23	-818.35	90.80	-0.28	0.00	0.00	0.00						
	24	-822.11	90.50	-0.28	0.00	0.00	0.00						
	25	-825.87	90.46	-0.28	0.00	0.00	0.00						
								PILE CAP DISPLACEMENTS AND ROTATIONS					
								DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
								m			rad		
								-1.24E-03	-1.13E-02	4.65E-05	2.57E-06	2.20E-05	2.70E-04

B11 South West Abutment
SLS Pile Loads

LOAD CASE	PILE	ABS Maximum Values						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MaxNx Bottom	1	-451.37	102.00	0.61	0.00	0.54	115.00	kN/m			kN-m/rad		
	2	-459.09	102.00	0.61	0.00	0.54	115.00	2.89E+06	1.09E+05	3.23E+06	1.06E+08	9.60E+07	2.95E+07
	3	-474.53	102.00	0.61	0.00	0.54	115.00						
	4	-482.25	102.00	0.61	0.00	0.54	115.00						
	5	-489.97	102.00	0.61	0.00	0.54	115.00						
	6	-497.69	102.00	0.61	0.00	0.54	115.00						
	7	-513.13	102.00	0.61	0.00	0.54	115.00						
	8	-520.85	102.00	0.61	0.00	0.54	115.00						
	9	-671.27	86.50	0.45	0.00	0.43	105.00						
	10	-674.78	85.00	0.44	0.00	0.43	103.00						
	11	-681.81	84.90	0.44	0.00	0.43	103.00						
	12	-685.32	84.80	0.44	0.00	0.43	103.00						
	13	-692.35	84.60	0.44	0.00	0.43	103.00						
	14	-699.38	84.50	0.44	0.00	0.43	103.00						
	15	-702.90	85.80	0.45	0.00	0.43	104.00						
	16	-569.98	101.00	0.50	0.00	0.44	114.00	m			rad		
	17	-576.88	101.00	0.50	0.00	0.44	114.00	-9.55E-05	-1.25E-02	1.12E-04	-3.95E-06	2.27E-05	6.56E-04
	18	-580.94	101.00	0.50	0.00	0.45	114.00						
	19	-584.45	101.00	0.50	0.00	0.44	114.00						
	20	-587.97	101.00	0.50	0.00	0.44	114.00						
	21	-591.48	101.00	0.50	0.00	0.45	114.00						
	22	-595.00	100.00	0.50	0.00	0.45	114.00						
	23	-598.51	101.00	0.50	0.00	0.45	114.00						
	24	-602.03	100.00	0.50	0.00	0.45	114.00						
	25	-605.54	100.00	0.50	0.00	0.45	113.00						

B11 South West Abutment
SLS Pile Loads

LOAD CASE	PILE	ABS Maximum Values						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1: MaxMy Bottom	1	-345.28	117.00	2.66	0.00	2.41	136.00	kN/m			kN-m/rad		
	2	-372.38	116.00	2.67	0.00	2.42	135.00	2.71E+06	9.49E+04	2.71E+06	1.06E+08	8.76E+07	2.77E+07
	3	-426.58	115.00	2.67	0.00	2.43	134.00						
	4	-453.68	114.00	2.67	0.00	2.44	133.00						
	5	-480.79	113.00	2.68	0.00	2.45	132.00						
	6	-507.89	113.00	2.68	0.00	2.45	131.00						
	7	-562.09	111.00	2.69	0.00	2.47	130.00						
	8	-583.69	110.00	2.69	0.00	2.47	129.00						
	9	-761.97	98.10	0.67	0.00	0.68	125.00						
	10	-769.85	95.90	0.66	0.00	0.68	123.00						
	11	-785.62	94.70	0.67	0.00	0.68	121.00						
	12	-793.50	94.10	0.67	0.00	0.69	120.00						
	13	-809.26	92.90	0.68	0.00	0.69	118.00						
	14	-825.02	91.60	0.68	0.00	0.69	116.00						
	15	-832.90	92.50	0.70	0.00	0.70	116.00						
	16	-667.93	114.00	0.28	0.00	0.27	136.00	m			rad		
	17	-675.81	113.00	0.28	0.00	0.27	135.00	-8.32E-05	-1.52E-02	3.25E-04	-9.51E-05	7.96E-05	6.33E-04
	18	-683.69	113.00	0.28	0.00	0.27	134.00						
	19	-691.57	112.00	0.29	0.00	0.27	133.00						
	20	-699.45	111.00	0.29	0.00	0.27	132.00						
	21	-707.34	111.00	0.29	0.00	0.27	131.00						
	22	-715.22	110.00	0.29	0.00	0.27	130.00						
	23	-723.10	110.00	0.29	0.00	0.27	129.00						
	24	-730.98	109.00	0.29	0.00	0.27	127.00						
	25	-738.86	108.00	0.29	0.00	0.27	126.00						

B11 South West Abutment
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS-C1 : MinQy Bottom	1	-438.80	112.00	0.31	0.00	0.28	129.00	kN/m			kN-m/rad		
	2	-445.92	112.00	0.31	0.00	0.28	129.00	2.70E+06	9.49E+04	3.23E+06	1.06E+08	9.65E+07	2.76E+07
	3	-460.17	112.00	0.31	0.00	0.28	129.00						
	4	-467.29	112.00	0.31	0.00	0.28	129.00						
	5	-474.41	112.00	0.31	0.00	0.28	130.00						
	6	-481.53	112.00	0.31	0.00	0.28	130.00						
	7	-495.77	112.00	0.30	0.00	0.28	130.00						
	8	-502.89	112.00	0.30	0.00	0.28	130.00						
	9	-786.03	93.60	0.34	0.00	0.34	117.00						
	10	-789.74	92.10	0.33	0.00	0.34	116.00						
	11	-797.15	92.00	0.33	0.00	0.34	116.00						
	12	-800.86	92.00	0.33	0.00	0.34	116.00						
	13	-808.28	91.90	0.33	0.00	0.34	116.00						
	14	-815.69	91.90	0.33	0.00	0.34	116.00						
	15	-819.40	93.30	0.34	0.00	0.34	117.00						
	16	-698.05	109.00	0.42	0.00	0.39	128.00						
	17	-701.76	109.00	0.42	0.00	0.39	128.00						
	18	-705.47	109.00	0.42	0.00	0.39	128.00						
	19	-709.18	109.00	0.42	0.00	0.39	128.00						
	20	-712.88	109.00	0.42	0.00	0.39	128.00						
	21	-716.59	109.00	0.42	0.00	0.39	128.00						
	22	-720.30	109.00	0.42	0.00	0.39	128.00						
	23	-724.01	109.00	0.42	0.00	0.39	128.00						
	24	-727.72	109.00	0.42	0.00	0.39	128.00						
	25	-731.43	109.00	0.42	0.00	0.39	128.00						

B11 South West Abutment
DL Pile Cap Loads

Nx kN	Qy kN	Qz kN	Mx kNm	My kNm	Mz kNm
DL: MinNx					
-18137	-4576	-4	-6	1098	-7237
DL: MinMz					
-15212	-7150	-4	-6	1098	-20447
DL: MaxMz					
-15210	-4576	-16	-24	1104	-4915

B11 South West Abutment
DL Pile Loads

LOAD CASE	PILE	ABS Maximum Values						Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
ULS-DL: MinNx	1	-807.45	39.00	0.63	0.00	0.41	31.90	-250.00	1.25	-1119.95	0.39	0.56	0.000	0.04	0.06	0.00	0.045	0.02
	2	-813.75	38.70	0.63	0.00	0.41	31.70	-250.00	1.25	-1126.25	0.39	0.56	0.000	0.04	0.06	0.00	0.045	0.02
	3	-826.35	38.20	0.64	0.00	0.42	31.20	-250.00	1.25	-1138.85	0.39	0.57	0.000	0.04	0.06	0.00	0.044	0.02
	4	-832.66	38.00	0.64	0.00	0.42	30.90	-250.00	1.25	-1145.16	0.39	0.57	0.000	0.04	0.06	0.00	0.044	0.02
	5	-838.96	37.70	0.64	0.00	0.42	30.70	-250.00	1.25	-1151.46	0.40	0.58	0.000	0.04	0.06	0.00	0.044	0.02
	6	-845.26	37.50	0.65	0.00	0.42	30.40	-250.00	1.25	-1157.76	0.40	0.58	0.000	0.04	0.06	0.00	0.043	0.02
	7	-857.86	37.00	0.65	0.00	0.42	29.90	-250.00	1.25	-1170.36	0.40	0.59	0.000	0.04	0.06	0.00	0.043	0.02
	8	-864.17	36.70	0.66	0.00	0.43	29.70	-775.00	1.25	-1832.92	0.59	0.92	0.000	0.04	0.06	0.00	0.042	0.02
	9	-721.55	24.50	0.30	0.00	0.19	19.30	-775.00	1.25	-1690.30	0.53	0.85	0.000	0.03	0.04	0.00	0.027	0.01
	10	-726.47	23.70	0.30	0.00	0.19	18.70	-775.00	1.25	-1695.22	0.53	0.85	0.000	0.03	0.04	0.00	0.027	0.01
	11	-736.31	22.80	0.31	0.00	0.19	17.80	-775.00	1.25	-1705.06	0.53	0.85	0.000	0.03	0.03	0.00	0.025	0.01
	12	-741.23	22.40	0.31	0.00	0.19	17.40	-775.00	1.25	-1709.98	0.53	0.85	0.000	0.02	0.03	0.00	0.025	0.01
	13	-751.08	21.50	0.32	0.00	0.20	16.50	-775.00	1.25	-1719.83	0.53	0.86	0.000	0.02	0.03	0.00	0.024	0.01
	14	-760.92	20.60	0.33	0.00	0.20	15.60	-775.00	1.25	-1729.67	0.53	0.86	0.000	0.02	0.03	0.00	0.022	0.01
	15	-765.84	20.50	0.35	0.00	0.21	15.30	-775.00	1.25	-1734.59	0.53	0.87	0.000	0.02	0.03	0.00	0.022	0.01
	16	-678.94	29.80	0.65	0.00	0.39	22.50	-775.00	1.25	-1647.69	0.52	0.82	0.000	0.03	0.04	0.00	0.032	0.02
	17	-683.86	29.30	0.66	0.00	0.40	22.00	-775.00	1.25	-1652.61	0.52	0.83	0.000	0.03	0.04	0.00	0.031	0.02
	18	-688.78	28.90	0.67	0.00	0.40	21.60	-775.00	1.25	-1657.53	0.52	0.83	0.000	0.03	0.04	0.00	0.031	0.02
	19	-693.71	28.30	0.67	0.00	0.40	21.10	-775.00	1.25	-1662.46	0.52	0.83	0.000	0.03	0.04	0.00	0.030	0.02
	20	-698.63	27.80	0.68	0.00	0.41	20.60	-775.00	1.25	-1667.38	0.53	0.83	0.000	0.03	0.04	0.00	0.029	0.02
	21	-703.55	27.40	0.70	0.00	0.41	20.20	-775.00	1.25	-1672.30	0.53	0.84	0.000	0.03	0.04	0.00	0.029	0.02
	22	-708.47	26.80	0.71	0.00	0.42	19.70	-775.00	1.25	-1677.22	0.53	0.84	0.000	0.03	0.04	0.00	0.028	0.02
	23	-713.39	26.40	0.72	0.00	0.42	19.20	-775.00	1.25	-1682.14	0.53	0.84	0.000	0.03	0.04	0.00	0.027	0.02
	24	-718.31	25.80	0.73	0.00	0.42	18.70	-775.00	1.25	-1687.06	0.53	0.84	0.000	0.03	0.04	0.00	0.027	0.01
	25	-723.24	25.30	0.74	0.00	0.43	18.20	-775.00	1.25	-1691.99	0.53	0.85	0.000	0.03	0.04	0.00	0.026	0.01

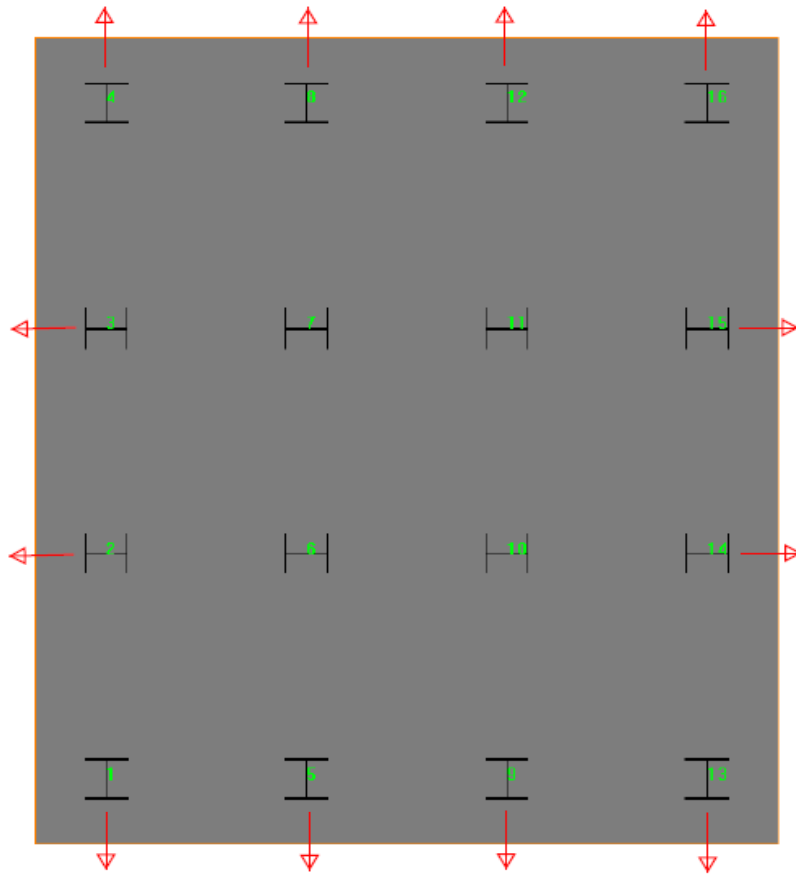
B11 South West Abutment
DL Pile Loads

LOAD CASE	PILE	ABS Maximum Values						Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
ULS-DL: MinMz	1	-296.34	123.00	0.13	0.00	0.12	145.00	-250.00	1.25	-608.84	0.46	0.30	0.000	0.14	0.28	0.00	0.206	0.06
	2	-305.19	123.00	0.13	0.00	0.12	145.00	-250.00	1.25	-617.69	0.46	0.31	0.000	0.14	0.28	0.00	0.206	0.06
	3	-322.89	123.00	0.13	0.00	0.12	145.00	-250.00	1.25	-635.39	0.47	0.32	0.000	0.14	0.28	0.00	0.206	0.06
	4	-331.74	123.00	0.13	0.00	0.12	145.00	-250.00	1.25	-644.24	0.47	0.32	0.000	0.14	0.28	0.00	0.206	0.06
	5	-340.59	123.00	0.13	0.00	0.12	145.00	-250.00	1.25	-653.09	0.47	0.33	0.000	0.14	0.28	0.00	0.206	0.06
	6	-349.44	123.00	0.13	0.00	0.12	145.00	-250.00	1.25	-661.94	0.48	0.33	0.000	0.14	0.28	0.00	0.206	0.06
	7	-367.15	122.00	0.13	0.00	0.12	145.00	-250.00	1.25	-679.65	0.48	0.34	0.000	0.13	0.28	0.00	0.206	0.06
	8	-376.00	122.00	0.13	0.00	0.12	145.00	-775.00	1.25	-1344.75	0.67	0.67	0.000	0.13	0.28	0.00	0.206	0.06
	9	-842.95	102.00	0.15	0.00	0.16	133.00	-775.00	1.25	-1811.70	0.79	0.91	0.000	0.11	0.26	0.00	0.189	0.05
	10	-847.07	101.00	0.15	0.00	0.16	132.00	-775.00	1.25	-1815.82	0.78	0.91	0.000	0.11	0.26	0.00	0.187	0.05
	11	-855.31	100.00	0.15	0.00	0.16	132.00	-775.00	1.25	-1824.06	0.79	0.91	0.000	0.11	0.26	0.00	0.187	0.05
	12	-859.43	100.00	0.15	0.00	0.16	132.00	-775.00	1.25	-1828.18	0.79	0.91	0.000	0.11	0.26	0.00	0.187	0.05
	13	-867.67	100.00	0.15	0.00	0.16	132.00	-775.00	1.25	-1836.42	0.79	0.92	0.000	0.11	0.26	0.00	0.187	0.05
	14	-875.91	100.00	0.15	0.00	0.16	132.00	-775.00	1.25	-1844.66	0.79	0.92	0.000	0.11	0.26	0.00	0.187	0.05
	15	-880.03	102.00	0.15	0.00	0.16	133.00	-775.00	1.25	-1848.78	0.80	0.92	0.000	0.11	0.26	0.00	0.189	0.05
	16	-761.71	119.00	0.19	0.00	0.19	144.00	-775.00	1.25	-1730.46	0.78	0.87	0.000	0.13	0.28	0.00	0.205	0.06
	17	-765.83	119.00	0.19	0.00	0.19	144.00	-775.00	1.25	-1734.58	0.78	0.87	0.000	0.13	0.28	0.00	0.205	0.06
	18	-769.95	119.00	0.19	0.00	0.19	144.00	-775.00	1.25	-1738.70	0.79	0.87	0.000	0.13	0.28	0.00	0.205	0.06
	19	-774.07	119.00	0.19	0.00	0.19	144.00	-775.00	1.25	-1742.82	0.79	0.87	0.000	0.13	0.28	0.00	0.205	0.06
	20	-778.19	118.00	0.19	0.00	0.19	144.00	-775.00	1.25	-1746.94	0.79	0.87	0.000	0.13	0.28	0.00	0.205	0.06
	21	-782.31	119.00	0.19	0.00	0.19	144.00	-775.00	1.25	-1751.06	0.79	0.88	0.000	0.13	0.28	0.00	0.205	0.06
	22	-786.43	118.00	0.19	0.00	0.19	144.00	-775.00	1.25	-1755.18	0.79	0.88	0.000	0.13	0.28	0.00	0.205	0.06
	23	-790.55	118.00	0.19	0.00	0.19	144.00	-775.00	1.25	-1759.30	0.79	0.88	0.000	0.13	0.28	0.00	0.205	0.06
	24	-794.67	118.00	0.19	0.00	0.19	144.00	-775.00	1.25	-1763.42	0.79	0.88	0.000	0.13	0.28	0.00	0.205	0.06
	25	-798.79	118.00	0.19	0.00	0.19	143.00	-775.00	1.25	-1767.54	0.79	0.88	0.000	0.13	0.28	0.00	0.203	0.06

B11 South West Abutment
DL Pile Loads

LOAD CASE	PILE	Nx, KN	ABS Maximum Values					Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
ULS-DL: MaxMz	1	-697.55	61.80	0.32	0.00	0.24	59.40	-250.00	1.25	-1010.05	0.41	0.51	0.000	0.07	0.12	0.00	0.084	0.03
	2	-703.54	61.50	0.32	0.00	0.25	59.00	-250.00	1.25	-1016.04	0.41	0.51	0.000	0.07	0.12	0.00	0.084	0.03
	3	-715.53	60.80	0.32	0.00	0.25	58.20	-250.00	1.25	-1028.03	0.41	0.51	0.000	0.07	0.11	0.00	0.083	0.03
	4	-721.52	60.50	0.32	0.00	0.25	57.80	-250.00	1.25	-1034.02	0.41	0.52	0.000	0.07	0.11	0.00	0.082	0.03
	5	-727.51	60.10	0.33	0.00	0.25	57.30	-250.00	1.25	-1040.01	0.41	0.52	0.000	0.07	0.11	0.00	0.081	0.03
	6	-733.50	59.80	0.33	0.00	0.25	56.90	-250.00	1.25	-1046.00	0.42	0.52	0.000	0.07	0.11	0.00	0.081	0.03
	7	-745.49	59.10	0.33	0.00	0.25	56.10	-250.00	1.25	-1057.99	0.42	0.53	0.000	0.06	0.11	0.00	0.080	0.03
	8	-751.48	58.70	0.33	0.00	0.25	55.70	-775.00	1.25	-1720.23	0.61	0.86	0.000	0.06	0.11	0.00	0.079	0.03
	9	-631.59	49.90	0.79	0.00	0.63	49.60	-775.00	1.25	-1600.34	0.56	0.80	0.000	0.05	0.10	0.00	0.071	0.03
	10	-635.20	48.70	0.79	0.00	0.62	48.60	-775.00	1.25	-1603.95	0.56	0.80	0.000	0.05	0.09	0.00	0.069	0.03
	11	-642.42	48.00	0.79	0.00	0.63	47.60	-775.00	1.25	-1611.17	0.56	0.81	0.000	0.05	0.09	0.00	0.068	0.03
	12	-646.03	47.60	0.80	0.00	0.63	47.20	-775.00	1.25	-1614.78	0.56	0.81	0.000	0.05	0.09	0.00	0.067	0.03
	13	-653.26	46.80	0.81	0.00	0.64	46.20	-775.00	1.25	-1622.01	0.56	0.81	0.000	0.05	0.09	0.00	0.066	0.03
	14	-660.48	46.00	0.82	0.00	0.64	45.20	-775.00	1.25	-1629.23	0.56	0.81	0.000	0.05	0.09	0.00	0.064	0.03
	15	-664.09	46.40	0.84	0.00	0.65	45.20	-775.00	1.25	-1632.84	0.56	0.82	0.000	0.05	0.09	0.00	0.064	0.03
	16	-540.39	59.20	1.26	0.00	0.94	55.70	-775.00	1.25	-1509.14	0.55	0.75	0.001	0.07	0.11	0.01	0.079	0.03
	17	-547.48	58.70	1.27	0.00	0.94	55.20	-775.00	1.25	-1516.23	0.55	0.76	0.001	0.06	0.11	0.01	0.079	0.03
	18	-554.57	58.50	1.28	0.00	0.95	54.70	-775.00	1.25	-1523.32	0.55	0.76	0.001	0.06	0.11	0.01	0.078	0.03
	19	-561.65	57.90	1.28	0.00	0.95	54.10	-775.00	1.25	-1530.40	0.55	0.77	0.001	0.06	0.11	0.01	0.077	0.03
	20	-568.74	57.40	1.29	0.00	0.95	53.60	-775.00	1.25	-1537.49	0.56	0.77	0.001	0.06	0.10	0.01	0.076	0.03
	21	-575.83	57.10	1.30	0.00	0.96	53.10	-775.00	1.25	-1544.58	0.56	0.77	0.001	0.06	0.10	0.01	0.076	0.03
	22	-580.50	56.50	1.31	0.00	0.96	52.50	-775.00	1.25	-1549.25	0.56	0.77	0.001	0.06	0.10	0.01	0.075	0.03
	23	-584.11	56.20	1.32	0.00	0.97	52.10	-775.00	1.25	-1552.86	0.56	0.78	0.001	0.06	0.10	0.01	0.074	0.03
	24	-587.72	55.60	1.32	0.00	0.97	51.40	-775.00	1.25	-1556.47	0.56	0.78	0.001	0.06	0.10	0.01	0.073	0.03
	25	-591.33	55.20	1.33	0.00	0.97	50.90	-775.00	1.25	-1560.08	0.56	0.78	0.001	0.06	0.10	0.01	0.073	0.03

B11 South Pier 1
Pile Layout



Pile No.	Batter Angle	
	Vertical	Horizontal
1	5	1
2	5	1
3	5	1
4	5	1
5	5	1
6	---	---
7	---	---
8	5	1
9	5	1
10	---	---
11	---	---
12	5	1
13	5	1
14	5	1
15	5	1
16	5	1

Note:

1. Arrows show batter direction.
2. View from bottom of pile group.
3. See pile layout drawings for dimensions.

B11 South Pier 1
SLS Pile Cap Loads

Node	Pile Cap	SLS: MinNx					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-18472	0	0	-49	1931	0

Node	Pile Cap	SLS: MaxMy					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-16500	0	0	-27	4612	0

B11 South Pier 1
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS-C1: MinNx Bottom	1	-1073.60	45.10	0.00	0.00	0.00	26.90	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-1130.00	46.30	2.41	0.00	1.18	28.80	kN/m			kN-m/rad		
	3	-1188.90	47.90	2.32	0.00	1.15	30.10	3.00E+06	1.00E+00	1.22E+07	1.00E+00	1.34E+07	1.00E+00
	4	-1245.40	50.90	0.00	0.00	0.00	32.70						
	5	-1073.60	45.10	0.00	0.00	0.00	26.90						
	6	-1145.30	0.00	9.42	0.00	3.26	0.00	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1205.30	0.00	9.41	0.00	3.26	0.00	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1245.40	50.90	0.00	0.00	0.00	32.70	m			rad		
	9	-1073.60	45.10	0.00	0.00	0.00	26.90	-6.15E-03	6.20E-11	9.63E-05	-1.51E-12	2.67E-04	-1.12E-11
	10	-1145.30	0.00	9.42	0.00	3.26	0.00						
	11	-1205.30	0.00	9.41	0.00	3.26	0.00						
	12	-1245.40	50.90	0.00	0.00	0.00	32.70						
	13	-1073.60	45.10	0.00	0.00	0.00	26.90						
	14	-1130.00	46.30	2.41	0.00	1.18	28.80						
	15	-1188.90	47.90	2.32	0.00	1.15	30.10						
	16	-1245.40	50.90	0.00	0.00	0.00	32.70						

B11 South Pier 1
SLS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS-C1: MaxMy Bottom	1	-815.06	25.30	0.00	0.00	0.00	12.20	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-988.22	40.60	12.80	0.00	6.19	25.00	kN/m			kN-m/rad		
	3	-1113.60	44.70	11.70	0.00	5.81	28.10	3.17E+06	1.00E+00	2.57E+07	1.00E+00	1.29E+07	1.00E+00
	4	-1226.60	56.80	0.00	0.00	0.00	38.30						
	5	-815.06	25.30	0.00	0.00	0.00	12.20						
	6	-1000.70	0.00	21.10	0.00	9.23	0.00	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1128.50	0.00	21.10	0.00	9.24	0.00	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1226.60	56.80	0.00	0.00	0.00	38.30	m			rad		
	9	-815.06	25.30	0.00	0.00	0.00	12.20	-5.31E-03	8.06E-11	4.77E-04	-8.16E-12	5.68E-04	-9.40E-12
	10	-1000.70	0.00	21.10	0.00	9.23	0.00						
	11	-1128.50	0.00	21.10	0.00	9.24	0.00						
	12	-1226.60	56.80	0.00	0.00	0.00	38.30						
	13	-815.06	25.30	0.00	0.00	0.00	12.20						
	14	-988.22	40.60	12.80	0.00	6.19	25.00						
	15	-1113.60	44.70	11.70	0.00	5.81	28.10						
	16	-1226.60	56.80	0.00	0.00	0.00	38.30						

B11 South Pier 1
ULS Pile Cap Loads

Node	Pile Cap	ULS: MinNx					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-23983	0	0	-81	2730	0

Node	Pile Cap	ULS: MaxMy					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-16160	0	0	-40	7752	0

B11 South Pier 1
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinNx Bottom	1	-1381.50	52.80	0.00	0.00	0.00	33.30	0.46	0.69	0.000	0.06	0.07	0.00	0.05	0.03
	2	-1467.60	54.60	3.24	0.00	1.72	36.50	0.51	0.73	0.002	0.06	0.07	0.01	0.05	0.03
	3	-1551.10	56.50	3.10	0.00	1.67	38.40	0.53	0.78	0.002	0.06	0.08	0.01	0.06	0.04
	4	-1624.90	60.60	0.00	0.00	0.00	42.40	0.55	0.81	0.000	0.07	0.08	0.00	0.06	0.03
	5	-1381.50	52.80	0.00	0.00	0.00	33.30	0.46	0.69	0.000	0.06	0.07	0.00	0.05	0.03
	6	-1489.50	0.00	12.00	0.00	4.43	0.00	0.46	0.74	0.007	0.00	0.00	0.03	0.00	0.02
	7	-1571.40	0.00	12.00	0.00	4.43	0.00	0.48	0.79	0.007	0.00	0.00	0.03	0.00	0.02
	8	-1624.90	60.60	0.00	0.00	0.00	42.40	0.55	0.81	0.000	0.07	0.08	0.00	0.06	0.03
	9	-1381.50	52.80	0.00	0.00	0.00	33.30	0.46	0.69	0.000	0.06	0.07	0.00	0.05	0.03
	10	-1489.50	0.00	12.00	0.00	4.43	0.00	0.46	0.74	0.007	0.00	0.00	0.03	0.00	0.02
	11	-1571.40	0.00	12.00	0.00	4.43	0.00	0.48	0.79	0.007	0.00	0.00	0.03	0.00	0.02
	12	-1624.90	60.60	0.00	0.00	0.00	42.40	0.55	0.81	0.000	0.07	0.08	0.00	0.06	0.03
	13	-1381.50	52.80	0.00	0.00	0.00	33.30	0.46	0.69	0.000	0.06	0.07	0.00	0.05	0.03
	14	-1467.60	54.60	3.24	0.00	1.72	36.50	0.51	0.73	0.002	0.06	0.07	0.01	0.05	0.03
	15	-1551.10	56.50	3.10	0.00	1.67	38.40	0.53	0.78	0.002	0.06	0.08	0.01	0.06	0.04
	16	-1624.90	60.60	0.00	0.00	0.00	42.40	0.55	0.81	0.000	0.07	0.08	0.00	0.06	0.03

B11 South Pier 1
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxMy Bottom	1	-644.95	7.02	0.00	0.00	0.00	2.38	0.19	0.32	0.000	0.01	0.00	0.00	0.00	0.00
	2	-934.20	38.30	16.80	0.00	8.15	23.60	0.37	0.47	0.009	0.04	0.05	0.05	0.04	0.06
	3	-1149.50	45.00	14.80	0.00	7.43	28.70	0.43	0.57	0.008	0.05	0.06	0.05	0.04	0.06
	4	-1332.20	61.00	0.00	0.00	0.00	42.40	0.47	0.67	0.000	0.07	0.08	0.00	0.06	0.03
	5	-644.95	7.02	0.00	0.00	0.00	2.38	0.19	0.32	0.000	0.01	0.00	0.00	0.00	0.00
	6	-952.70	0.00	24.20	0.00	11.10	0.00	0.34	0.48	0.013	0.00	0.00	0.07	0.01	0.05
	7	-1165.10	0.00	24.10	0.00	11.10	0.00	0.40	0.58	0.013	0.00	0.00	0.07	0.01	0.05
	8	-1332.20	61.00	0.00	0.00	0.00	42.40	0.47	0.67	0.000	0.07	0.08	0.00	0.06	0.03
	9	-644.95	7.02	0.00	0.00	0.00	2.38	0.19	0.32	0.000	0.01	0.00	0.00	0.00	0.00
	10	-952.70	0.00	24.20	0.00	11.10	0.00	0.34	0.48	0.013	0.00	0.00	0.07	0.01	0.05
	11	-1165.10	0.00	24.10	0.00	11.10	0.00	0.40	0.58	0.013	0.00	0.00	0.07	0.01	0.05
	12	-1332.20	61.00	0.00	0.00	0.00	42.40	0.47	0.67	0.000	0.07	0.08	0.00	0.06	0.03
	13	-644.95	7.02	0.00	0.00	0.00	2.38	0.19	0.32	0.000	0.01	0.00	0.00	0.00	0.00
	14	-934.20	38.30	16.80	0.00	8.15	23.60	0.37	0.47	0.009	0.04	0.05	0.05	0.04	0.06
	15	-1149.50	45.00	14.80	0.00	7.43	28.70	0.43	0.57	0.008	0.05	0.06	0.05	0.04	0.06
	16	-1332.20	61.00	0.00	0.00	0.00	42.40	0.47	0.67	0.000	0.07	0.08	0.00	0.06	0.03

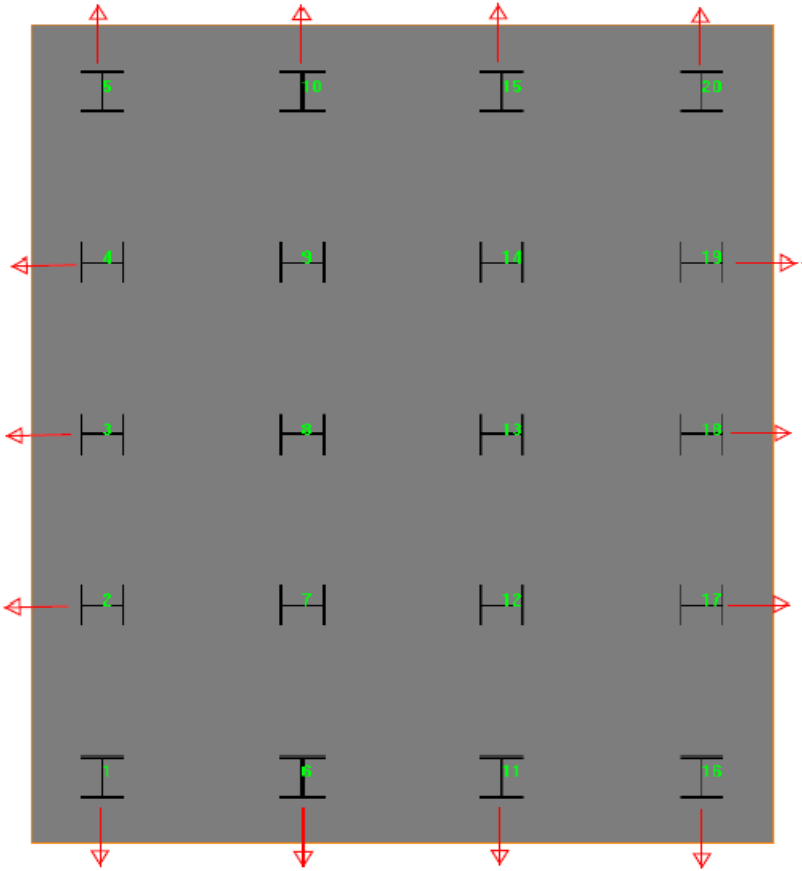
B11 South Pier 1
DL Pile Cap Loads

Node	Pile Cap	DL: MinNx					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
101	Bottom	-16789	0	0	11	1378	0

B11 South Pier 1
DL Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL: MinNx	1	-993.73	36.40	0.00	0.00	0.00	20.40	-250.00	1.25	-1306.23	0.42	0.65	0.000	0.04	0.04	0.00	0.03	0.02
	2	-1032.90	39.10	3.83	0.00	1.82	23.20	-250.00	1.25	-1345.40	0.45	0.67	0.002	0.04	0.05	0.01	0.03	0.03
	3	-1076.00	40.40	3.71	0.00	1.78	24.20	-250.00	1.25	-1388.50	0.46	0.69	0.002	0.04	0.05	0.01	0.04	0.03
	4	-1115.10	44.60	0.00	0.00	0.00	27.40	-250.00	1.25	-1427.60	0.47	0.71	0.000	0.05	0.05	0.00	0.04	0.02
	5	-993.73	36.40	0.00	0.00	0.00	20.40	-250.00	1.25	-1306.23	0.42	0.65	0.000	0.04	0.04	0.00	0.03	0.02
	6	-1046.20	0.00	9.85	0.00	3.50	0.00	-250.00	1.25	-1358.70	0.41	0.68	0.005	0.00	0.00	0.02	0.00	0.02
	7	-1090.10	0.00	9.85	0.00	3.50	0.00	-250.00	1.25	-1402.60	0.43	0.70	0.005	0.00	0.00	0.02	0.00	0.02
	8	-1115.10	44.60	0.00	0.00	0.00	27.40	-250.00	1.25	-1427.60	0.47	0.71	0.000	0.05	0.05	0.00	0.04	0.02
	9	-993.73	36.40	0.00	0.00	0.00	20.40	-250.00	1.25	-1306.23	0.42	0.65	0.000	0.04	0.04	0.00	0.03	0.02
	10	-1046.20	0.00	9.85	0.00	3.50	0.00	-250.00	1.25	-1358.70	0.41	0.68	0.005	0.00	0.00	0.02	0.00	0.02
	11	-1090.10	0.00	9.85	0.00	3.50	0.00	-250.00	1.25	-1402.60	0.43	0.70	0.005	0.00	0.00	0.02	0.00	0.02
	12	-1115.10	44.60	0.00	0.00	0.00	27.40	-250.00	1.25	-1427.60	0.47	0.71	0.000	0.05	0.05	0.00	0.04	0.02
	13	-993.73	36.40	0.00	0.00	0.00	20.40	-250.00	1.25	-1306.23	0.42	0.65	0.000	0.04	0.04	0.00	0.03	0.02
	14	-1032.90	39.10	3.83	0.00	1.82	23.20	-250.00	1.25	-1345.40	0.45	0.67	0.002	0.04	0.05	0.01	0.03	0.03
	15	-1076.00	40.40	3.71	0.00	1.78	24.20	-250.00	1.25	-1388.50	0.46	0.69	0.002	0.04	0.05	0.01	0.04	0.03
	16	-1115.10	44.60	0.00	0.00	0.00	27.40	-250.00	1.25	-1427.60	0.47	0.71	0.000	0.05	0.05	0.00	0.04	0.02

B11 South Pier 2
Pile Layout



Pile No.	Batter Angle	
	Vertical	Horizontal
1	5	1
2	5	1
3	5	1
4	5	1
5	5	1
6	5	1
7	---	---
8	---	---
9	---	---
10	5	1
11	5	1
12	---	---
13	---	---
14	---	---
15	5	1
16	5	1
17	5	1
18	5	1
19	5	1
20	5	1

- Note:
- 1. Arrows show batter direction.
 - 2. View from bottom of pile group.
 - 3. See pile layout drawings for dimensions.

B11 South Pier 2
SLS Pile Cap Loads

Node	Pile Cap	SLS: MinNx					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-20373	-1	-2203	16	115	5

Node	Pile Cap	SLS: MaxMy					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-18840	-5	-1714	157	1558	1

Node	Pile Cap	SLS: MinMz					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-19433	-1	-4990	2	90	-12

B11 South Pier 2
SLS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS: MinNx Bottom	1	-800.53	47.00	1.90	0.00	0.98	29.60	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-804.48	45.50	0.48	0.00	0.24	28.60	kN/m			kN-m/rad		
	3	-806.95	45.70	0.48	0.00	0.24	28.70	2.51E+06	1.25E+07	1.16E+07	6.86E+07	7.55E+06	6.51E+06
	4	-809.42	45.80	0.48	0.00	0.24	28.80						
	5	-809.66	47.70	1.65	0.00	0.86	30.30						
	6	-859.23	45.10	1.70	0.00	0.92	29.80	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1279.40	9.45	1.70	0.00	0.62	4.02	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1283.20	9.30	1.72	0.00	0.62	3.94	m			rad		
	9	-1287.00	9.15	1.74	0.00	0.63	3.87	-8.12E-03	8.45E-05	2.66E-05	1.95E-06	1.91E-05	-3.56E-04
	10	-868.24	45.60	1.47	0.00	0.80	30.50						
	11	-917.94	46.70	1.65	0.00	0.90	31.20						
	12	-1366.60	9.41	1.89	0.00	0.69	4.01						
	13	-1370.30	9.26	1.91	0.00	0.70	3.94						
	14	-1374.10	9.11	1.93	0.00	0.70	3.86						
	15	-926.82	47.20	1.42	0.00	0.79	32.00						
	16	-976.65	48.20	1.60	0.00	0.88	32.70						
	17	-976.59	48.90	0.52	0.00	0.30	33.90						
	18	-979.16	48.90	0.52	0.00	0.30	34.00						
	19	-981.74	49.00	0.52	0.00	0.30	34.00						
	20	-985.40	48.80	1.38	0.00	0.77	33.50						

B11 South Pier 2
SLS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS: MaxMy Bottom	1	-698.42	33.50	2.62	0.00	1.21	19.30	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-724.68	37.10	9.60	0.00	5.09	24.20	kN/m			kN-m/rad		
	3	-759.66	38.20	9.39	0.00	5.03	25.20	2.51E+06	1.25E+07	3.89E+06	6.86E+07	6.83E+06	6.55E+06
	4	-794.64	39.30	9.18	0.00	4.97	26.10						
	5	-817.01	49.40	1.36	0.00	0.78	34.90						
	6	-744.00	35.30	2.49	0.00	1.17	20.70	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1141.30	4.62	15.80	0.00	7.13	2.63	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1193.30	4.53	15.80	0.00	7.14	2.58	m			rad		
	9	-1245.40	4.44	15.80	0.00	7.14	2.53	-7.51E-03	8.82E-05	4.92E-04	1.51E-06	2.65E-04	-2.76E-04
	10	-862.49	49.90	1.31	0.00	0.76	35.80						
	11	-789.58	37.00	2.39	0.00	1.13	22.00						
	12	-1209.00	4.61	15.80	0.00	7.16	2.63						
	13	-1261.00	4.52	15.80	0.00	7.16	2.57						
	14	-1313.00	4.43	15.80	0.00	7.17	2.52						
	15	-907.97	51.00	1.29	0.00	0.75	36.90						
	16	-835.16	38.70	2.30	0.00	1.10	23.30						
	17	-857.31	43.80	8.49	0.00	4.76	30.20						
	18	-892.37	44.70	8.34	0.00	4.72	31.10						
	19	-927.42	45.60	8.20	0.00	4.67	31.90						
	20	-953.45	52.30	1.27	0.00	0.75	38.10						

B11 South Pier 2
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS: MinMz Bottom	1	-649.24	41.80	5.64	0.00	2.78	25.60	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-656.12	37.50	0.47	0.00	0.22	22.30	kN/m			kN-m/rad		
	3	-658.10	37.50	0.47	0.00	0.22	22.20	2.51E+06	1.25E+07	1.16E+07	6.86E+07	7.55E+06	6.41E+06
	4	-660.07	37.50	0.47	0.00	0.22	22.20						
	5	-655.95	42.80	5.95	0.00	2.95	26.30						
	6	-781.90	42.60	4.73	0.00	2.51	27.70	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1164.00	17.00	0.53	0.00	0.22	8.45	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1166.80	17.10	0.53	0.00	0.22	8.56	m			rad		
	9	-1169.60	17.30	0.53	0.00	0.22	8.67	-7.75E-03	2.50E-04	9.41E-06	-3.78E-06	1.42E-05	-8.05E-04
	10	-788.87	43.20	5.02	0.00	2.68	28.30						
	11	-914.57	46.40	4.37	0.00	2.40	31.30						
	12	-1361.30	16.90	0.29	0.00	0.12	8.46						
	13	-1364.10	17.10	0.28	0.00	0.12	8.57						
	14	-1366.90	17.30	0.28	0.00	0.12	8.68						
	15	-921.78	46.80	4.66	0.00	2.57	31.60						
	16	-1047.20	49.90	4.08	0.00	2.31	34.70						
	17	-1043.70	52.90	0.01	0.00	0.01	37.70						
	18	-1045.50	53.00	0.01	0.00	0.01	37.80						
	19	-1047.20	53.10	0.01	0.00	0.01	37.90						
	20	-1054.70	50.10	4.37	0.00	2.48	34.90						

B11 South Pier 2
ULS Pile Cap Loads

Node	Pile Cap	ULS: MinNx					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-26734	-1	-3567	28	442	-14

Node	Pile Cap	ULS: MinMy					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-21154	0	-2672	722	-4915	170

Node	Pile Cap	ULS: MinMz					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-23568	0	-8217	-13	232	-43

B11 South Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinNx Bottom	1	-1024.10	52.20	3.68	0.00	1.99	34.30	0.38	0.51	0.002	0.06	0.07	0.01	0.05	0.03
	2	-1036.30	50.00	1.96	0.00	1.06	32.90	0.37	0.52	0.001	0.05	0.06	0.01	0.05	0.03
	3	-1046.60	50.20	1.95	0.00	1.05	33.10	0.37	0.52	0.001	0.06	0.06	0.01	0.05	0.03
	4	-1056.80	50.50	1.94	0.00	1.05	33.30	0.38	0.53	0.001	0.06	0.07	0.01	0.05	0.03
	5	-1060.20	55.30	3.71	0.00	2.08	37.80	0.39	0.53	0.002	0.06	0.07	0.01	0.05	0.04
	6	-1122.40	51.30	3.27	0.00	1.85	35.60	0.41	0.56	0.002	0.06	0.07	0.01	0.05	0.03
	7	-1647.90	14.30	4.36	0.00	1.80	7.02	0.50	0.82	0.002	0.02	0.01	0.01	0.01	0.02
	8	-1657.60	14.50	4.32	0.00	1.79	7.15	0.50	0.83	0.002	0.02	0.01	0.01	0.01	0.02
	9	-1667.30	14.70	4.27	0.00	1.78	7.28	0.51	0.83	0.002	0.02	0.01	0.01	0.01	0.02
	10	-1158.70	53.50	3.30	0.00	1.93	38.50	0.42	0.58	0.002	0.06	0.08	0.01	0.06	0.04
	11	-1220.60	53.80	3.12	0.00	1.81	38.00	0.44	0.61	0.002	0.06	0.07	0.01	0.05	0.03
	12	-1741.90	14.30	4.09	0.00	1.69	7.04	0.53	0.87	0.002	0.02	0.01	0.01	0.01	0.01
	13	-1751.50	14.50	4.05	0.00	1.68	7.17	0.53	0.88	0.002	0.02	0.01	0.01	0.01	0.01
	14	-1761.20	14.70	4.01	0.00	1.67	7.30	0.53	0.88	0.002	0.02	0.01	0.01	0.01	0.01
	15	-1257.20	55.60	3.17	0.00	1.89	40.60	0.45	0.63	0.002	0.06	0.08	0.01	0.06	0.04
	16	-1318.90	56.10	2.98	0.00	1.77	40.40	0.47	0.66	0.002	0.06	0.08	0.01	0.06	0.04
	17	-1322.90	58.00	1.19	0.00	0.72	43.30	0.47	0.66	0.001	0.06	0.08	0.00	0.06	0.03
	18	-1332.90	58.20	1.18	0.00	0.72	43.60	0.48	0.67	0.001	0.06	0.09	0.00	0.06	0.03
	19	-1342.90	58.50	1.17	0.00	0.72	43.80	0.48	0.67	0.001	0.06	0.09	0.00	0.06	0.03
	20	-1355.80	57.70	3.05	0.00	1.86	42.80	0.49	0.68	0.002	0.06	0.08	0.01	0.06	0.04

B11 South Pier 2
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: Min/My Bottom	1	-1023.70	34.80	8.81	0.00	4.21	20.70	0.36	0.51	0.005	0.04	0.04	0.03	0.03	0.04
	2	-917.43	38.20	16.80	0.00	9.44	26.40	0.37	0.46	0.009	0.04	0.05	0.06	0.04	0.06
	3	-824.93	36.80	17.20	0.00	9.55	25.10	0.35	0.41	0.009	0.04	0.05	0.06	0.04	0.06
	4	-732.42	35.30	17.60	0.00	9.67	23.90	0.32	0.37	0.010	0.04	0.05	0.06	0.04	0.06
	5	-618.68	51.20	0.06	0.00	0.03	36.50	0.25	0.31	0.000	0.06	0.07	0.00	0.05	0.03
	6	-1097.20	35.30	8.67	0.00	4.17	21.20	0.38	0.55	0.005	0.04	0.04	0.03	0.03	0.04
	7	-1460.60	9.12	23.60	0.00	12.60	5.98	0.51	0.73	0.013	0.01	0.01	0.08	0.01	0.06
	8	-1325.90	6.20	24.00	0.00	12.70	4.05	0.47	0.66	0.013	0.01	0.01	0.08	0.01	0.06
	9	-1191.20	3.20	24.30	0.00	12.70	2.08	0.43	0.60	0.013	0.00	0.00	0.08	0.01	0.06
	10	-687.65	53.60	0.05	0.00	0.03	39.10	0.28	0.34	0.000	0.06	0.08	0.00	0.06	0.03
	11	-1170.80	35.80	8.55	0.00	4.13	21.60	0.41	0.59	0.005	0.04	0.04	0.03	0.03	0.04
	12	-1566.40	8.77	24.80	0.00	13.50	5.87	0.55	0.78	0.013	0.01	0.01	0.08	0.01	0.06
	13	-1431.70	5.95	25.20	0.00	13.60	3.97	0.50	0.72	0.014	0.01	0.01	0.08	0.01	0.06
	14	-1297.00	3.07	25.40	0.00	13.60	2.04	0.46	0.65	0.014	0.00	0.00	0.08	0.01	0.06
	15	-756.62	56.40	0.05	0.00	0.03	41.90	0.30	0.38	0.000	0.06	0.08	0.00	0.06	0.03
	16	-1244.40	36.40	8.44	0.00	4.11	22.00	0.43	0.62	0.005	0.04	0.04	0.02	0.03	0.04
	17	-1120.10	50.60	17.90	0.00	10.90	38.10	0.46	0.56	0.010	0.06	0.07	0.07	0.06	0.07
	18	-1031.20	47.20	18.70	0.00	11.20	34.90	0.43	0.52	0.010	0.05	0.07	0.07	0.05	0.07
	19	-942.40	43.50	19.70	0.00	11.60	31.60	0.40	0.47	0.011	0.05	0.06	0.07	0.05	0.07
	20	-825.60	59.40	0.05	0.00	0.03	44.80	0.33	0.41	0.000	0.07	0.09	0.00	0.06	0.03

B11 South Pier 2
ULS Pile Loads

ABS MAXIMUM VALUES								Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
LOAD CASE	PILE	Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinMz Bottom	1	-697.85	42.40	11.10	0.00	5.62	26.40	0.29	0.35	0.006	0.05	0.05	0.03	0.04	0.05
	2	-713.33	33.40	0.95	0.00	0.44	19.20	0.25	0.36	0.001	0.04	0.04	0.00	0.03	0.02
	3	-718.54	33.10	0.96	0.00	0.44	19.00	0.25	0.36	0.001	0.04	0.04	0.00	0.03	0.02
	4	-723.74	32.90	0.97	0.00	0.45	18.80	0.25	0.36	0.001	0.04	0.04	0.00	0.03	0.02
	5	-715.44	44.00	12.40	0.00	6.37	27.70	0.30	0.36	0.007	0.05	0.05	0.04	0.04	0.05
	6	-919.22	46.00	8.95	0.00	4.95	31.20	0.36	0.46	0.005	0.05	0.06	0.03	0.05	0.04
	7	-1372.40	25.30	0.26	0.00	0.12	14.20	0.43	0.69	0.000	0.03	0.03	0.00	0.02	0.01
	8	-1379.50	25.90	0.25	0.00	0.11	14.60	0.43	0.69	0.000	0.03	0.03	0.00	0.02	0.01
	9	-1386.60	26.40	0.25	0.00	0.11	14.90	0.43	0.69	0.000	0.03	0.03	0.00	0.02	0.01
	10	-937.91	46.60	10.20	0.00	5.68	31.90	0.37	0.47	0.006	0.05	0.06	0.03	0.05	0.05
	11	-1140.60	52.10	8.01	0.00	4.66	37.10	0.43	0.57	0.004	0.06	0.07	0.03	0.05	0.05
	12	-1662.50	25.20	0.51	0.00	0.23	14.20	0.51	0.83	0.000	0.03	0.03	0.00	0.02	0.01
	13	-1667.10	25.70	0.50	0.00	0.23	14.60	0.51	0.83	0.000	0.03	0.03	0.00	0.02	0.01
	14	-1671.60	26.20	0.49	0.00	0.23	15.00	0.51	0.84	0.000	0.03	0.03	0.00	0.02	0.01
	15	-1160.40	51.90	9.25	0.00	5.39	37.00	0.44	0.58	0.005	0.06	0.07	0.03	0.05	0.05
	16	-1362.00	57.50	7.29	0.00	4.43	42.50	0.50	0.68	0.004	0.06	0.08	0.03	0.06	0.05
	17	-1356.20	62.90	0.56	0.00	0.35	48.10	0.49	0.68	0.000	0.07	0.09	0.00	0.07	0.03
	18	-1360.50	63.20	0.55	0.00	0.35	48.40	0.49	0.68	0.000	0.07	0.09	0.00	0.07	0.03
	19	-1364.80	63.50	0.55	0.00	0.35	48.80	0.49	0.68	0.000	0.07	0.10	0.00	0.07	0.03
	20	-1382.80	56.70	8.50	0.00	5.16	41.90	0.51	0.69	0.005	0.06	0.08	0.03	0.06	0.05

B11 South Pier 2
DL Pile Cap Loads

Node	Pile Cap	DL: MinNx					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-22141	-1	-2573	24	382	-6

Node	Pile Cap	DL: MinMz					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
201	Bottom	-20622	-1	-3523	-1	181	-11

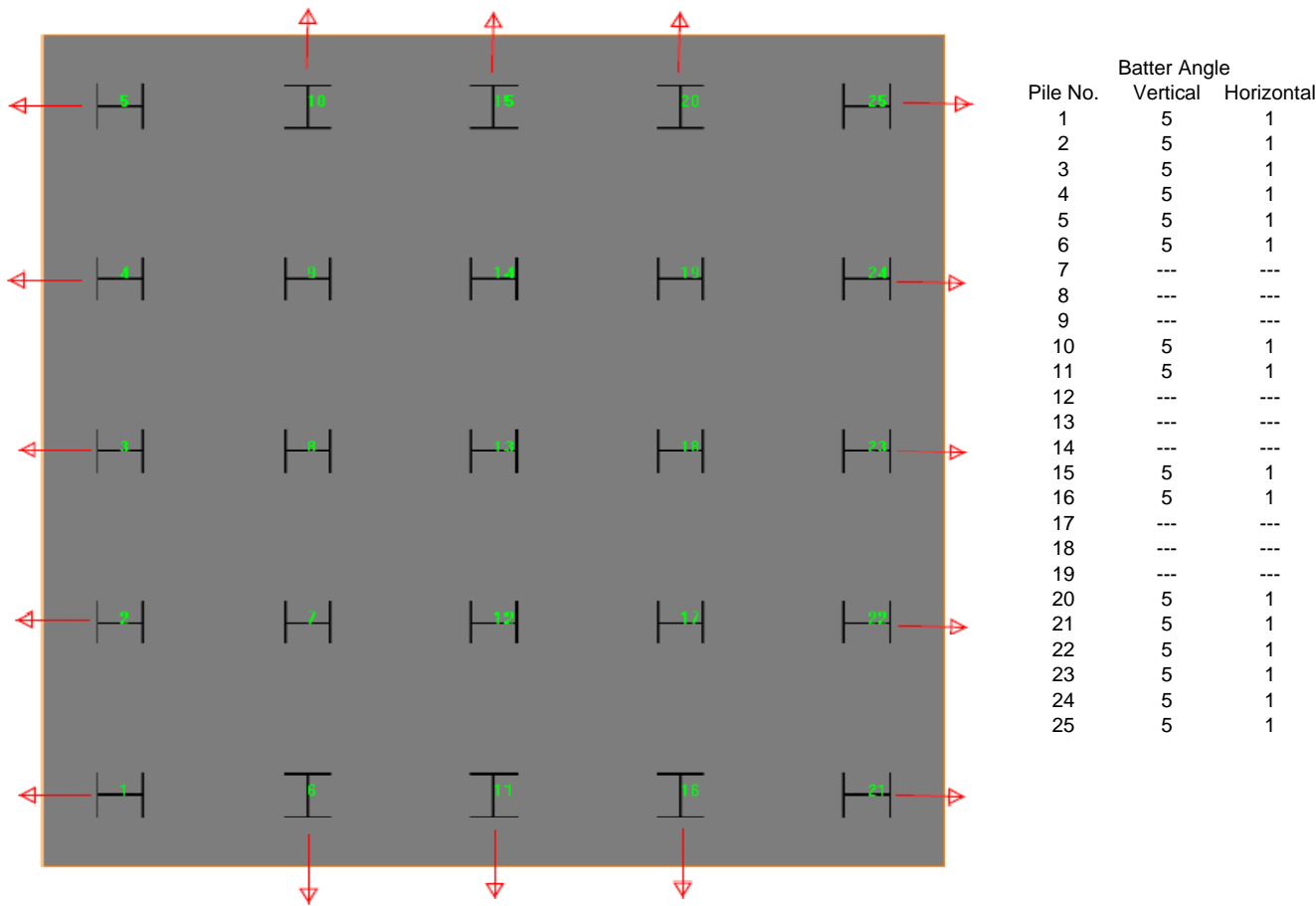
B11 South Pier 2
DL Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
DL: MinNx	1	-853.18	47.80	2.31	0.00	1.19	30.20	0.31	0.43	0.001	0.05	0.06	0.01	0.04	0.03
	2	-862.35	46.00	1.41	0.00	0.74	29.30	0.31	0.43	0.001	0.05	0.06	0.00	0.04	0.03
	3	-870.62	46.20	1.40	0.00	0.74	29.50	0.31	0.44	0.001	0.05	0.06	0.00	0.04	0.03
	4	-878.88	46.40	1.40	0.00	0.73	29.70	0.32	0.44	0.001	0.05	0.06	0.00	0.04	0.03
	5	-883.09	49.60	2.21	0.00	1.19	32.60	0.33	0.44	0.001	0.05	0.06	0.01	0.05	0.03
	6	-921.66	46.90	2.08	0.00	1.13	31.00	0.33	0.46	0.001	0.05	0.06	0.01	0.04	0.03
	7	-1379.30	10.30	3.88	0.00	1.49	4.58	0.42	0.69	0.002	0.01	0.01	0.01	0.01	0.01
	8	-1391.50	10.40	3.86	0.00	1.49	4.62	0.42	0.70	0.002	0.01	0.01	0.01	0.01	0.01
	9	-1403.80	10.40	3.84	0.00	1.48	4.66	0.42	0.70	0.002	0.01	0.01	0.01	0.01	0.01
	10	-951.65	48.00	1.99	0.00	1.12	33.00	0.35	0.48	0.001	0.05	0.06	0.01	0.05	0.03
	11	-990.15	48.80	2.00	0.00	1.10	32.80	0.36	0.50	0.001	0.05	0.06	0.01	0.05	0.03
	12	-1481.10	10.30	3.78	0.00	1.46	4.59	0.45	0.74	0.002	0.01	0.01	0.01	0.01	0.01
	13	-1493.30	10.40	3.77	0.00	1.45	4.63	0.45	0.75	0.002	0.01	0.01	0.01	0.01	0.01
	14	-1505.60	10.50	3.75	0.00	1.45	4.67	0.45	0.75	0.002	0.01	0.01	0.01	0.01	0.01
	15	-1020.20	49.70	1.92	0.00	1.10	34.70	0.37	0.51	0.001	0.05	0.07	0.01	0.05	0.03
	16	-1058.60	50.60	1.93	0.00	1.08	34.60	0.38	0.53	0.001	0.06	0.07	0.01	0.05	0.03
	17	-1063.00	51.00	1.02	0.00	0.59	36.20	0.38	0.53	0.001	0.06	0.07	0.00	0.05	0.03
	18	-1071.20	51.20	1.02	0.00	0.59	36.40	0.38	0.54	0.001	0.06	0.07	0.00	0.05	0.03
	19	-1079.40	51.40	1.02	0.00	0.59	36.60	0.39	0.54	0.001	0.06	0.07	0.00	0.05	0.03
	20	-1088.80	51.40	1.87	0.00	1.08	36.30	0.39	0.54	0.001	0.06	0.07	0.01	0.05	0.03

B11 South Pier 2
DL Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
DL: MinMz	1	-756.33	45.60	3.34	0.00	1.69	28.50	0.28	0.38	0.002	0.05	0.06	0.01	0.04	0.03
	2	-763.08	43.30	0.44	0.00	0.22	26.60	0.27	0.38	0.000	0.05	0.05	0.00	0.04	0.02
	3	-766.89	43.30	0.44	0.00	0.22	26.70	0.28	0.38	0.000	0.05	0.05	0.00	0.04	0.02
	4	-770.70	43.30	0.44	0.00	0.22	26.70	0.28	0.39	0.000	0.05	0.05	0.00	0.04	0.02
	5	-770.37	46.70	3.62	0.00	1.85	29.40	0.29	0.39	0.002	0.05	0.06	0.01	0.04	0.03
	6	-850.00	44.60	2.89	0.00	1.56	29.50	0.31	0.43	0.002	0.05	0.06	0.01	0.04	0.03
	7	-1267.90	13.20	0.74	0.00	0.29	6.07	0.38	0.63	0.000	0.01	0.01	0.00	0.01	0.01
	8	-1273.40	13.40	0.73	0.00	0.29	6.19	0.38	0.64	0.000	0.01	0.01	0.00	0.01	0.01
	9	-1278.90	13.60	0.72	0.00	0.28	6.31	0.38	0.64	0.000	0.01	0.01	0.00	0.01	0.01
	10	-864.27	45.40	3.14	0.00	1.71	30.30	0.32	0.43	0.002	0.05	0.06	0.01	0.04	0.03
	11	-943.68	47.30	2.74	0.00	1.51	32.00	0.34	0.47	0.001	0.05	0.06	0.01	0.05	0.03
	12	-1407.20	13.20	0.46	0.00	0.18	6.08	0.42	0.70	0.000	0.01	0.01	0.00	0.01	0.01
	13	-1412.70	13.40	0.45	0.00	0.18	6.20	0.42	0.71	0.000	0.01	0.01	0.00	0.01	0.01
	14	-1418.30	13.60	0.45	0.00	0.18	6.32	0.42	0.71	0.000	0.01	0.01	0.00	0.01	0.01
	15	-958.18	47.90	2.99	0.00	1.66	32.60	0.35	0.48	0.002	0.05	0.06	0.01	0.05	0.03
	16	-1037.40	49.70	2.60	0.00	1.47	34.40	0.38	0.52	0.001	0.05	0.07	0.01	0.05	0.03
	17	-1037.50	51.50	0.06	0.00	0.03	36.40	0.37	0.52	0.000	0.06	0.07	0.00	0.05	0.03
	18	-1041.20	51.70	0.06	0.00	0.03	36.50	0.37	0.52	0.000	0.06	0.07	0.00	0.05	0.03
	19	-1044.80	51.80	0.06	0.00	0.03	36.70	0.37	0.52	0.000	0.06	0.07	0.00	0.05	0.03
	20	-1052.10	50.20	2.86	0.00	1.62	34.90	0.38	0.53	0.002	0.06	0.07	0.01	0.05	0.03

B11 South Pier 3
Pile Layout



Note:
1. Arrows show batter direction.
2. View from bottom of pile group.
3. See pile layout drawings for dimensions.

B11 South Pier 3
SLS Pile Cap Loads

Node	Pile Cap	SLS: MinNx					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-19295	0	0	31	-283	0

Node	Pile Cap	SLS: MinMy					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-17040	0	0	130	-1187	0

B11 South Pier 3
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS: MinNx Bottom	1	-666.75	47.70	0.47	0.00	0.23	29.90	kN/m			kN-m/rad		
	2	-662.68	40.30	0.40	0.00	0.21	26.70	3.22E+06	1.00E+00	1.45E+07	1.00E+00	9.38E+06	1.00E+00
	3	-658.62	40.20	0.40	0.00	0.21	26.50						
	4	-654.56	40.10	0.40	0.00	0.21	26.40						
	5	-650.50	40.00	0.40	0.00	0.21	26.30						
	6	-667.16	47.30	0.00	0.00	0.00	29.70						
	7	-984.51	0.00	2.91	0.00	0.88	0.00						
	8	-978.48	0.00	2.91	0.00	0.88	0.00						
	9	-972.44	0.00	2.91	0.00	0.88	0.00						
	10	-650.09	39.30	0.00	0.00	0.00	26.20						
	11	-667.16	47.30	0.00	0.00	0.00	29.70						
	12	-984.51	0.00	2.91	0.00	0.88	0.00						
	13	-978.48	0.00	2.91	0.00	0.88	0.00						
	14	-972.44	0.00	2.91	0.00	0.88	0.00						
	15	-650.09	39.30	0.00	0.00	0.00	26.20						
	16	-667.16	47.30	0.00	0.00	0.00	29.70						
	17	-984.51	0.00	2.91	0.00	0.88	0.00						
	18	-978.48	0.00	2.91	0.00	0.88	0.00						
	19	-972.44	0.00	2.91	0.00	0.88	0.00						
	20	-650.09	39.30	0.00	0.00	0.00	26.20						
	21	-666.75	47.70	0.47	0.00	0.23	29.90						
	22	-662.68	40.30	0.40	0.00	0.21	26.70						
	23	-658.62	40.20	0.40	0.00	0.21	26.50						
	24	-654.56	40.10	0.40	0.00	0.21	26.40						
	25	-650.50	40.00	0.40	0.00	0.21	26.30						

B11 South Pier 3
SLS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					PILE CAP STIFFNESS					
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS: MinMy Bottom	1	-617.77	46.00	2.00	0.00	0.99	28.60	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-599.54	38.40	1.73	0.00	0.90	24.80	kN/m			kN-m/rad		
	3	-581.32	37.80	1.76	0.00	0.91	24.20	3.22E+06	1.00E+00	9.35E+06	1.00E+00	8.78E+06	1.00E+00
	4	-563.09	37.20	1.79	0.00	0.92	23.80						
	5	-544.87	36.60	1.82	0.00	0.93	23.30						
	6	-619.47	44.50	0.00	0.00	0.00	27.40	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-890.71	0.00	6.82	0.00	2.49	0.00	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-863.63	0.00	6.83	0.00	2.49	0.00	m			rad		
	9	-836.55	0.00	6.83	0.00	2.49	0.00	-5.29E-03	3.88E-11	7.73E-05	1.21E-12	-1.38E-04	-1.02E-11
	10	-543.16	37.20	0.00	0.00	0.00	24.10						
	11	-619.47	44.50	0.00	0.00	0.00	27.40						
	12	-890.71	0.00	6.82	0.00	2.49	0.00						
	13	-863.63	0.00	6.83	0.00	2.49	0.00						
	14	-836.55	0.00	6.83	0.00	2.49	0.00						
	15	-543.16	37.20	0.00	0.00	0.00	24.10						
	16	-619.47	44.50	0.00	0.00	0.00	27.40						
	17	-890.71	0.00	6.82	0.00	2.49	0.00						
	18	-863.63	0.00	6.83	0.00	2.49	0.00						
	19	-836.55	0.00	6.83	0.00	2.49	0.00						
	20	-543.16	37.20	0.00	0.00	0.00	24.10						
	21	-617.77	46.00	2.00	0.00	0.99	28.60						
	22	-599.54	38.40	1.73	0.00	0.90	24.80						
	23	-581.32	37.80	1.76	0.00	0.91	24.20						
	24	-563.09	37.20	1.79	0.00	0.92	23.80						
	25	-544.87	36.60	1.82	0.00	0.93	23.30						

B11 South Pier 3
ULS Pile Cap Loads

Node	Pile Cap	ULS: MinNx					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-24981	0	0	37	-333	0

Node	Pile Cap	ULS: MinMy					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-19320	0	0	465	-4235	0

B11 South Pier 3
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinNx Bottom	1	-863.20	54.00	0.56	0.00	0.30	35.40	0.32	0.43	0.000	0.06	0.07	0.00	0.05	0.03
	2	-858.42	45.50	0.47	0.00	0.26	31.80	0.31	0.43	0.000	0.05	0.06	0.00	0.05	0.02
	3	-853.64	45.40	0.47	0.00	0.27	31.70	0.31	0.43	0.000	0.05	0.06	0.00	0.05	0.02
	4	-848.86	45.30	0.48	0.00	0.27	31.60	0.31	0.42	0.000	0.05	0.06	0.00	0.04	0.02
	5	-844.08	45.20	0.48	0.00	0.27	31.50	0.31	0.42	0.000	0.05	0.06	0.00	0.04	0.02
	6	-863.76	53.60	0.00	0.00	0.00	35.00	0.32	0.43	0.000	0.06	0.07	0.00	0.05	0.03
	7	-1275.30	0.00	3.51	0.00	1.07	0.00	0.38	0.64	0.002	0.00	0.00	0.01	0.00	0.00
	8	-1268.20	0.00	3.51	0.00	1.07	0.00	0.37	0.63	0.002	0.00	0.00	0.01	0.00	0.00
	9	-1261.10	0.00	3.51	0.00	1.07	0.00	0.37	0.63	0.002	0.00	0.00	0.01	0.00	0.00
	10	-843.52	44.30	0.00	0.00	0.00	31.20	0.31	0.42	0.000	0.05	0.06	0.00	0.04	0.02
	11	-863.76	53.60	0.00	0.00	0.00	35.00	0.32	0.43	0.000	0.06	0.07	0.00	0.05	0.03
	12	-1275.30	0.00	3.51	0.00	1.07	0.00	0.38	0.64	0.002	0.00	0.00	0.01	0.00	0.00
	13	-1268.20	0.00	3.51	0.00	1.07	0.00	0.37	0.63	0.002	0.00	0.00	0.01	0.00	0.00
	14	-1261.10	0.00	3.51	0.00	1.07	0.00	0.37	0.63	0.002	0.00	0.00	0.01	0.00	0.00
	15	-843.52	44.30	0.00	0.00	0.00	31.20	0.31	0.42	0.000	0.05	0.06	0.00	0.04	0.02
	16	-863.76	53.60	0.00	0.00	0.00	35.00	0.32	0.43	0.000	0.06	0.07	0.00	0.05	0.03
	17	-1275.30	0.00	3.51	0.00	1.07	0.00	0.38	0.64	0.002	0.00	0.00	0.01	0.00	0.00
	18	-1268.20	0.00	3.51	0.00	1.07	0.00	0.37	0.63	0.002	0.00	0.00	0.01	0.00	0.00
	19	-1261.10	0.00	3.51	0.00	1.07	0.00	0.37	0.63	0.002	0.00	0.00	0.01	0.00	0.00
	20	-843.52	44.30	0.00	0.00	0.00	31.20	0.31	0.42	0.000	0.05	0.06	0.00	0.04	0.02
	21	-863.20	54.00	0.56	0.00	0.30	35.40	0.32	0.43	0.000	0.06	0.07	0.00	0.05	0.03
	22	-858.42	45.50	0.47	0.00	0.26	31.80	0.31	0.43	0.000	0.05	0.06	0.00	0.05	0.02
	23	-853.64	45.40	0.47	0.00	0.27	31.70	0.31	0.43	0.000	0.05	0.06	0.00	0.05	0.02
	24	-848.86	45.30	0.48	0.00	0.27	31.60	0.31	0.42	0.000	0.05	0.06	0.00	0.04	0.02
	25	-844.08	45.20	0.48	0.00	0.27	31.50	0.31	0.42	0.000	0.05	0.06	0.00	0.04	0.02

B11 South Pier 3
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinMy Bottom	1	-790.18	50.70	9.75	0.00	5.09	32.70	0.32	0.40	0.005	0.06	0.06	0.03	0.05	0.05
	2	-724.93	40.40	8.53	0.00	4.63	27.20	0.29	0.36	0.005	0.04	0.05	0.03	0.04	0.04
	3	-659.68	38.50	8.92	0.00	4.76	25.50	0.27	0.33	0.005	0.04	0.05	0.03	0.04	0.04
	4	-594.43	36.40	9.37	0.00	4.91	23.60	0.25	0.30	0.005	0.04	0.05	0.03	0.04	0.04
	5	-529.18	34.20	9.89	0.00	5.07	21.80	0.23	0.26	0.005	0.04	0.04	0.03	0.03	0.04
	6	-799.77	42.20	0.00	0.00	0.00	25.70	0.28	0.40	0.000	0.05	0.05	0.00	0.04	0.02
	7	-1077.00	0.00	16.20	0.00	7.34	0.00	0.36	0.54	0.009	0.00	0.00	0.04	0.00	0.03
	8	-980.05	0.00	16.20	0.00	7.33	0.00	0.33	0.49	0.009	0.00	0.00	0.04	0.00	0.03
	9	-883.11	0.00	16.30	0.00	7.32	0.00	0.30	0.44	0.009	0.00	0.00	0.04	0.00	0.03
	10	-519.59	41.40	0.00	0.00	0.00	28.10	0.21	0.26	0.000	0.05	0.05	0.00	0.04	0.02
	11	-799.77	42.20	0.00	0.00	0.00	25.70	0.28	0.40	0.000	0.05	0.05	0.00	0.04	0.02
	12	-1077.00	0.00	16.20	0.00	7.34	0.00	0.36	0.54	0.009	0.00	0.00	0.04	0.00	0.03
	13	-980.05	0.00	16.20	0.00	7.33	0.00	0.33	0.49	0.009	0.00	0.00	0.04	0.00	0.03
	14	-883.11	0.00	16.30	0.00	7.32	0.00	0.30	0.44	0.009	0.00	0.00	0.04	0.00	0.03
	15	-519.59	41.40	0.00	0.00	0.00	28.10	0.21	0.26	0.000	0.05	0.05	0.00	0.04	0.02
	16	-799.77	42.20	0.00	0.00	0.00	25.70	0.28	0.40	0.000	0.05	0.05	0.00	0.04	0.02
	17	-1077.00	0.00	16.20	0.00	7.34	0.00	0.36	0.54	0.009	0.00	0.00	0.04	0.00	0.03
	18	-980.05	0.00	16.20	0.00	7.33	0.00	0.33	0.49	0.009	0.00	0.00	0.04	0.00	0.03
	19	-883.11	0.00	16.30	0.00	7.32	0.00	0.30	0.44	0.009	0.00	0.00	0.04	0.00	0.03
	20	-519.59	41.40	0.00	0.00	0.00	28.10	0.21	0.26	0.000	0.05	0.05	0.00	0.04	0.02
	21	-790.18	50.70	9.75	0.00	5.09	32.70	0.32	0.40	0.005	0.06	0.06	0.03	0.05	0.05
	22	-724.93	40.40	8.53	0.00	4.63	27.20	0.29	0.36	0.005	0.04	0.05	0.03	0.04	0.04
	23	-659.68	38.50	8.92	0.00	4.76	25.50	0.27	0.33	0.005	0.04	0.05	0.03	0.04	0.04
	24	-594.43	36.40	9.37	0.00	4.91	23.60	0.25	0.30	0.005	0.04	0.05	0.03	0.04	0.04
	25	-529.18	34.20	9.89	0.00	5.07	21.80	0.23	0.26	0.005	0.04	0.04	0.03	0.03	0.04

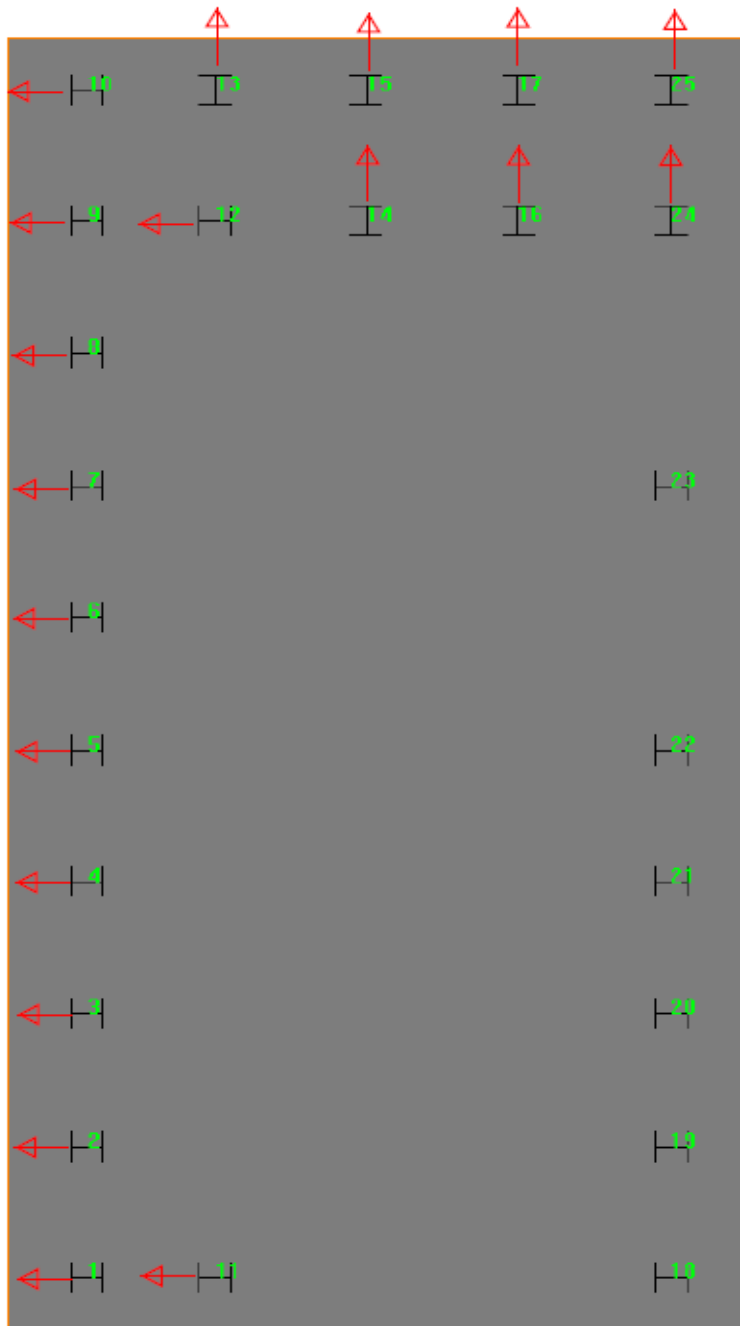
B11 South Pier 3
DL Pile Cap Loads

Node	Pile Cap	DL: MinNx					
		Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
301	Bottom	-20400	0	0	21	-189	0

B11 South Pier 3
DL Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL: MinNx	1	-702.16	44.30	0.33	0.00	0.17	27.40	-700.00	1.25	-1577.16	0.51	0.79	0.000	0.05	0.05	0.00	0.04	0.02
	2	-699.53	38.00	0.29	0.00	0.15	24.80	-700.00	1.25	-1574.53	0.51	0.79	0.000	0.04	0.05	0.00	0.04	0.02
	3	-696.91	38.00	0.29	0.00	0.15	24.80	-700.00	1.25	-1571.91	0.50	0.79	0.000	0.04	0.05	0.00	0.04	0.02
	4	-694.29	37.90	0.29	0.00	0.15	24.70	-700.00	1.25	-1569.29	0.50	0.78	0.000	0.04	0.05	0.00	0.04	0.02
	5	-691.66	37.80	0.29	0.00	0.15	24.60	-700.00	1.25	-1566.66	0.50	0.78	0.000	0.04	0.05	0.00	0.04	0.02
	6	-702.48	44.00	0.00	0.00	0.00	27.20	-700.00	1.25	-1577.48	0.51	0.79	0.000	0.05	0.05	0.00	0.04	0.02
	7	-1039.30	0.00	2.06	0.00	0.63	0.00	-760.00	1.25	-1989.30	0.58	0.99	0.001	0.00	0.00	0.00	0.00	0.00
	8	-1035.40	0.00	2.06	0.00	0.63	0.00	-760.00	1.25	-1985.40	0.58	0.99	0.001	0.00	0.00	0.00	0.00	0.00
	9	-1031.50	0.00	2.06	0.00	0.63	0.00	-760.00	1.25	-1981.50	0.58	0.99	0.001	0.00	0.00	0.00	0.00	0.00
	10	-691.34	37.20	0.00	0.00	0.00	24.50	-760.00	1.25	-1641.34	0.52	0.82	0.000	0.04	0.05	0.00	0.03	0.02
	11	-702.48	44.00	0.00	0.00	0.00	27.20	-700.00	1.25	-1577.48	0.51	0.79	0.000	0.05	0.05	0.00	0.04	0.02
	12	-1039.30	0.00	2.06	0.00	0.63	0.00	-760.00	1.25	-1989.30	0.58	0.99	0.001	0.00	0.00	0.00	0.00	0.00
	13	-1035.40	0.00	2.06	0.00	0.63	0.00	-760.00	1.25	-1985.40	0.58	0.99	0.001	0.00	0.00	0.00	0.00	0.00
	14	-1031.50	0.00	2.06	0.00	0.63	0.00	-760.00	1.25	-1981.50	0.58	0.99	0.001	0.00	0.00	0.00	0.00	0.00
	15	-691.34	37.20	0.00	0.00	0.00	24.50	-700.00	1.25	-1566.34	0.50	0.78	0.000	0.04	0.05	0.00	0.03	0.02
	16	-702.48	44.00	0.00	0.00	0.00	27.20	-700.00	1.25	-1577.48	0.51	0.79	0.000	0.05	0.05	0.00	0.04	0.02
	17	-1039.30	0.00	2.06	0.00	0.63	0.00	-760.00	1.25	-1989.30	0.58	0.99	0.001	0.00	0.00	0.00	0.00	0.00
	18	-1035.40	0.00	2.06	0.00	0.63	0.00	-760.00	1.25	-1985.40	0.58	0.99	0.001	0.00	0.00	0.00	0.00	0.00
	19	-1031.50	0.00	2.06	0.00	0.63	0.00	-760.00	1.25	-1981.50	0.58	0.99	0.001	0.00	0.00	0.00	0.00	0.00
	20	-691.34	37.20	0.00	0.00	0.00	24.50	-700.00	1.25	-1566.34	0.50	0.78	0.000	0.04	0.05	0.00	0.03	0.02
	21	-702.16	44.30	0.33	0.00	0.17	27.40	-700.00	1.25	-1577.16	0.51	0.79	0.000	0.05	0.05	0.00	0.04	0.02
	22	-699.53	38.00	0.29	0.00	0.15	24.80	-700.00	1.25	-1574.53	0.51	0.79	0.000	0.04	0.05	0.00	0.04	0.02
	23	-696.91	38.00	0.29	0.00	0.15	24.80	-700.00	1.25	-1571.91	0.50	0.79	0.000	0.04	0.05	0.00	0.04	0.02
	24	-694.29	37.90	0.29	0.00	0.15	24.70	-700.00	1.25	-1569.29	0.50	0.78	0.000	0.04	0.05	0.00	0.04	0.02
	25	-691.66	37.80	0.29	0.00	0.15	24.60	-700.00	1.25	-1566.66	0.50	0.78	0.000	0.04	0.05	0.00	0.04	0.02

B11 South East Abutment **Pile Layout**



Pile No.	Batter Angle	
	Vertical	Horizontal
1	3	1
2	3	1
3	3	1
4	3	1
5	3	1
6	3	1
7	3	1
8	3	1
9	3	1
10	3	1
11	3	1
12	3	1
13	3	1
14	3	1
15	3	1
16	3	1
17	3	1
18	---	---
19	---	---
20	---	---
21	---	---
22	---	---
23	---	---
24	3	1
25	3	1

Note:

1. Arrows show batter direction.
2. View from bottom of pile group.
3. See pile layout drawings for dimensions.

B11 South East Abutment
SLS Pile Cap Loads

Node	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
501		SLS: MinNx, MaxMz					
	Bottom	-18604	5584	16615	-1610	4689	-1771
		SLS: MaxNx					
	Bottom	-15685	4800	10791	-1612	6077	-1770
		SLS: MaxMy					
	Bottom	-17265	5584	14397	-1606	9969	-1779
		SLS: MaxQy					
	Bottom	-16947	5584	13840	-1612	5134	-1770
		SLS: MinQz					
	Bottom	-16999	5584	13915	-1652	6486	-1702

B11 South East Abutment
SLS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS: MinNx, MaxMz	1	-1132.00	18.70	20.70	0.00	10.10	11.80	kN/m			kN-m/rad		
	2	-1123.90	29.80	18.00	0.00	9.16	19.20						
	3	-1115.80	37.90	15.80	0.00	8.40	25.00	3.20E+06	2.44E+05	5.92E+05	8.00E+07	9.72E+07	2.76E+07
	4	-1107.70	44.50	14.10	0.00	7.79	30.70						
	5	-1099.50	50.00	12.80	0.00	7.30	35.70						
	6	-1091.40	54.90	11.80	0.00	6.91	40.20						
	7	-1083.30	59.30	11.00	0.00	6.59	44.40						
	8	-1075.20	63.30	10.30	0.00	6.30	48.40						
	9	-1067.10	66.90	9.71	0.00	6.04	52.20						
	10	-1059.00	71.10	9.29	0.00	5.85	56.20						
	11	-1013.90	21.00	20.50	0.00	11.40	14.60						
	12	-949.01	57.50	10.80	0.00	7.06	47.60						
	13	-709.19	4.84	51.90	0.00	36.50	4.55						
	14	-612.11	4.82	52.50	0.00	35.70	4.48						
	15	-586.87	5.59	54.70	0.00	37.50	5.20						
	16	-489.79	15.30	52.20	0.00	35.20	13.70						
	17	-464.55	15.80	54.40	0.00	36.90	14.20						
	18	-591.86	55.60	28.60	0.00	17.00	42.40						
	19	-569.90	60.00	27.40	0.00	16.40	46.10						
	20	-547.95	64.00	26.30	0.00	15.90	49.50						
	21	-525.99	67.70	25.30	0.00	15.40	52.80						
	22	-504.03	71.70	24.60	0.00	15.00	56.40						
	23	-460.12	78.10	23.00	0.00	14.40	62.90						
	24	-366.61	25.10	51.50	0.00	34.40	22.10						
	25	-341.38	25.50	53.80	0.00	36.20	22.60						

B11 South East Abutment
SLS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS: MaxNx	1	-867.12	37.60	20.80	0.00	11.40	25.80	kN/m			kN-m/rad		
	2	-867.47	42.50	19.50	0.00	10.90	29.80						
	3	-867.81	46.80	18.40	0.00	10.40	33.40	3.41E+06	2.85E+05	5.91E+05	8.00E+07	9.60E+07	2.97E+07
	4	-868.16	50.60	17.40	0.00	10.00	36.70						
	5	-868.51	54.10	16.50	0.00	9.68	39.90						
	6	-868.86	57.40	15.70	0.00	9.36	42.90						
	7	-869.21	60.40	15.10	0.00	9.08	45.80						
	8	-869.56	63.20	14.40	0.00	8.81	48.50						
	9	-869.90	65.70	13.90	0.00	8.54	51.20						
	10	-870.25	69.30	13.50	0.00	8.40	54.30						
	11	-793.60	34.30	20.30	0.00	11.90	25.40						
	12	-796.38	56.20	13.60	0.00	8.81	46.20						
	13	-605.07	3.25	50.20	0.00	34.30	3.05						
	14	-543.42	10.60	50.10	0.00	33.30	9.49						
	15	-531.09	11.00	52.30	0.00	34.80	9.85						
	16	-469.44	17.90	49.70	0.00	32.90	15.70						
	17	-457.11	18.20	51.90	0.00	34.40	16.00						
	18	-527.54	58.90	27.40	0.00	16.30	45.10						
	19	-516.81	61.90	26.50	0.00	15.90	47.70						
	20	-506.08	64.80	25.70	0.00	15.50	50.20						
	21	-495.36	67.50	25.00	0.00	15.20	52.70						
	22	-484.63	70.90	24.60	0.00	15.00	55.60						
	23	-463.17	75.70	23.40	0.00	14.50	60.40						
	24	-394.94	24.90	49.20	0.00	32.40	21.60						
	25	-382.61	25.20	51.40	0.00	33.90	21.90						

B11 South East Abutment
SLS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS: MaxMy	1	-966.73	57.80	15.90	0.00	9.52	43.50	kN/m			kN-m/rad		
	2	-975.47	60.20	15.40	0.00	9.34	45.70						
	3	-984.20	62.30	15.00	0.00	9.15	47.70	3.29E+06	2.44E+05	5.93E+05	7.96E+07	9.32E+07	2.90E+07
	4	-992.93	64.30	14.60	0.00	8.96	49.70						
	5	-1001.70	66.30	14.20	0.00	8.79	51.70						
	6	-1010.40	68.20	13.80	0.00	8.62	53.60	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-1019.10	70.00	13.40	0.00	8.47	55.50	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-1027.90	71.70	13.10	0.00	8.31	57.20	m			rad		
	9	-1036.60	73.10	12.70	0.00	8.15	58.80	-2.82E-03	5.16E-03	-1.37E-03	-1.26E-04	-5.11E-06	4.42E-04
	10	-1045.30	75.40	12.60	0.00	8.07	60.80						
	11	-872.15	51.50	15.20	0.00	9.56	41.00						
	12	-942.02	62.20	12.00	0.00	8.11	53.10						
	13	-707.00	0.71	53.90	0.00	38.60	0.67						
	14	-606.20	6.19	55.30	0.00	38.50	5.78						
	15	-604.98	6.18	56.80	0.00	39.60	5.76						
	16	-504.18	12.90	55.20	0.00	38.10	11.80						
	17	-502.97	12.90	56.80	0.00	39.30	11.80						
	18	-464.56	75.50	21.30	0.00	13.20	60.20						
	19	-463.51	77.30	20.90	0.00	13.00	62.00						
	20	-462.45	79.10	20.50	0.00	12.90	63.90						
	21	-461.40	80.80	20.10	0.00	12.70	65.70						
	22	-460.35	83.00	19.90	0.00	12.60	67.80						
	23	-458.24	86.30	19.20	0.00	12.30	71.30						
	24	-401.45	19.60	55.10	0.00	37.70	17.60						
	25	-400.24	19.50	56.60	0.00	38.80	17.60						

B11 South East Abutment
SLS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
SLS: MaxQy	1	-1009.00	51.30	19.20	0.00	11.30	37.90	kN/m			kN-m/rad		
	2	-1006.40	56.10	18.00	0.00	10.80	42.10						
	3	-1003.80	60.30	17.00	0.00	10.40	46.10	3.32E+06	2.44E+05	5.91E+05	8.00E+07	9.68E+07	2.89E+07
	4	-1001.30	64.20	16.10	0.00	9.98	49.90						
	5	-998.68	67.90	15.30	0.00	9.62	53.60						
	6	-996.10	71.40	14.70	0.00	9.30	57.00						
	7	-993.52	74.60	14.00	0.00	9.01	60.30						
	8	-990.94	77.50	13.50	0.00	8.74	63.20						
	9	-988.37	80.10	12.90	0.00	8.49	66.00						
	10	-985.79	83.70	12.60	0.00	8.34	69.40						
	11	-918.74	45.60	19.40	0.00	12.10	35.90						
	12	-898.11	68.00	13.10	0.00	9.18	60.30						
	13	-620.48	5.84	57.80	0.00	42.10	5.56						
	14	-550.79	13.90	58.20	0.00	41.30	12.90						
	15	-531.21	14.30	60.50	0.00	43.00	13.30						
	16	-461.52	21.80	57.70	0.00	40.70	20.10						
	17	-441.93	22.20	60.10	0.00	42.40	20.50						
	18	-534.71	69.90	29.10	0.00	18.10	56.10						
	19	-517.67	73.30	28.20	0.00	17.70	59.30						
	20	-500.63	76.40	27.40	0.00	17.40	62.50						
	21	-483.59	79.50	26.70	0.00	17.10	65.60						
	22	-466.56	83.20	26.20	0.00	16.80	69.10						
	23	-432.48	88.80	24.90	0.00	16.30	74.90						
	24	-371.62	29.50	57.20	0.00	40.00	27.10						
	25	-352.04	29.80	59.50	0.00	41.80	27.40						

B11 South East Abutment
SLS Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						PILE CAP STIFFNESS					
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M						
SLS: MinQz	1	-995.67	54.30	19.60	0.00	11.70	40.80	Fx-Fx	Fy-Fy	Fz-Fz	Mx-Mx	My-My	Mz-Mz
	2	-995.90	58.20	18.70	0.00	11.30	44.30	kN/m			kN-m/rad		
	3	-996.14	61.70	17.80	0.00	11.00	47.60	3.31E+06	2.44E+05	5.77E+05	8.35E+07	9.57E+07	2.89E+07
	4	-996.37	64.90	17.10	0.00	10.60	50.70						
	5	-996.60	68.00	16.40	0.00	10.30	53.80						
	6	-996.83	71.00	15.80	0.00	10.00	56.70	PILE CAP DISPLACEMENTS/ROTATIONS					
	7	-997.06	73.70	15.20	0.00	9.76	59.50	DISP X	DISP Y	DISP Z	ROT X	ROT Y	ROT Z
	8	-997.29	76.20	14.70	0.00	9.51	62.00	m			rad		
	9	-997.53	78.40	14.20	0.00	9.27	64.30	-2.75E-03	5.36E-03	-1.67E-03	-1.84E-04	-6.03E-05	4.23E-04
	10	-997.76	81.60	13.90	0.00	9.14	67.30						
	11	-905.17	48.40	19.20	0.00	12.10	38.60						
	12	-907.03	66.60	13.80	0.00	9.62	58.70						
	13	-646.17	6.06	56.90	0.00	41.30	5.74						
	14	-568.27	13.60	57.50	0.00	40.60	12.60						
	15	-553.96	14.00	59.60	0.00	42.20	13.00						
	16	-476.05	21.00	57.10	0.00	40.00	19.30						
	17	-461.75	21.30	59.20	0.00	41.60	19.60						
	18	-512.42	72.40	27.60	0.00	17.20	58.30						
	19	-499.98	75.20	26.90	0.00	16.90	61.00						
	20	-487.53	77.80	26.20	0.00	16.70	63.70						
	21	-475.08	80.40	25.60	0.00	16.40	66.40						
	22	-462.63	83.60	25.20	0.00	16.20	69.40						
	23	-437.74	88.40	24.10	0.00	15.70	74.40						
	24	-383.19	28.20	56.60	0.00	39.50	25.70						
	25	-368.89	28.40	58.70	0.00	41.00	26.00						

B11 South East Abutment
ULS Pile Cap Loads

Node	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
501		ULS: MinNx					
	Bottom	-24234	5320	17048	-1279	4312	-1431
		ULS: MaxNx					
	Bottom	-12868	3897	8896	-1301	6148	-1395
		ULS: MaxMy					
	Bottom	-15754	7393	21285	-2001	15283	-2237
		ULS: MinMz, MinQy					
	Bottom	-15795	3840	3208	-1301	6148	-1395
		ULS: MaxMz					
	Bottom	-21306	7480	28767	-1989	5931	-2257
		ULS: MaxQy					
	Bottom	-15266	7480	20527	-1988	5519	-2260
		ULS: MinQz					
	Bottom	-16792	7393	23072	-2080	8332	-2103

B11 South East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinNx	1	-1392.20	37.10	6.19	0.00	3.22	23.60	0.47	0.70	0.003	0.04	0.05	0.02	0.04	0.03
	2	-1363.70	33.10	6.79	0.00	3.39	20.50	0.46	0.68	0.004	0.04	0.04	0.02	0.03	0.03
	3	-1335.20	28.40	7.57	0.00	3.64	17.00	0.44	0.67	0.004	0.03	0.03	0.02	0.03	0.03
	4	-1306.70	22.90	8.66	0.00	4.04	13.10	0.43	0.65	0.005	0.03	0.03	0.02	0.02	0.03
	5	-1278.20	15.70	10.20	0.00	4.59	8.48	0.41	0.64	0.006	0.02	0.02	0.03	0.01	0.03
	6	-1249.70	4.92	12.00	0.00	5.21	2.55	0.40	0.62	0.007	0.01	0.00	0.03	0.01	0.03
	7	-1221.20	8.37	11.60	0.00	5.06	4.37	0.39	0.61	0.006	0.01	0.01	0.03	0.01	0.03
	8	-1192.70	17.90	9.76	0.00	4.42	9.85	0.39	0.60	0.005	0.02	0.02	0.03	0.02	0.03
	9	-1164.20	24.50	8.33	0.00	3.90	14.20	0.39	0.58	0.005	0.03	0.03	0.02	0.02	0.03
	10	-1135.70	29.80	7.35	0.00	3.54	17.90	0.39	0.57	0.004	0.03	0.03	0.02	0.03	0.03
	11	-1295.70	29.20	3.29	0.00	1.75	18.90	0.42	0.65	0.002	0.03	0.04	0.01	0.03	0.02
	12	-1067.70	25.30	3.62	0.00	1.83	15.80	0.35	0.53	0.002	0.03	0.03	0.01	0.02	0.02
	13	-877.21	36.40	32.90	0.00	21.30	29.70	0.44	0.44	0.018	0.04	0.06	0.13	0.05	0.11
	14	-807.20	33.50	34.30	0.00	21.50	26.50	0.42	0.40	0.019	0.04	0.05	0.13	0.05	0.11
	15	-770.76	31.80	35.90	0.00	22.60	25.30	0.41	0.39	0.019	0.03	0.05	0.14	0.04	0.12
	16	-700.75	26.70	35.70	0.00	22.10	21.00	0.38	0.35	0.019	0.03	0.04	0.13	0.04	0.11
	17	-664.30	25.00	37.30	0.00	23.20	19.80	0.37	0.33	0.020	0.03	0.04	0.14	0.04	0.11
	18	-950.10	44.40	5.68	0.00	3.03	29.30	0.35	0.48	0.003	0.05	0.06	0.02	0.04	0.04
	19	-918.39	46.80	5.45	0.00	2.95	31.40	0.35	0.46	0.003	0.05	0.06	0.02	0.05	0.04
	20	-886.69	49.10	5.25	0.00	2.87	33.50	0.34	0.44	0.003	0.05	0.07	0.02	0.05	0.04
	21	-854.98	51.30	5.07	0.00	2.81	35.50	0.33	0.43	0.003	0.06	0.07	0.02	0.05	0.04
	22	-823.27	53.50	4.91	0.00	2.75	37.40	0.33	0.41	0.003	0.06	0.07	0.02	0.05	0.04
	23	-759.86	57.60	4.64	0.00	2.64	41.20	0.32	0.38	0.003	0.06	0.08	0.02	0.06	0.04
	24	-593.55	19.20	37.10	0.00	22.70	15.00	0.34	0.30	0.020	0.02	0.03	0.14	0.03	0.11
	25	-557.11	17.40	38.60	0.00	23.80	13.70	0.33	0.28	0.021	0.02	0.03	0.14	0.03	0.11

B11 South East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxNx	1	-688.65	29.70	17.40	0.00	8.68	18.90	0.29	0.34	0.009	0.03	0.04	0.05	0.03	0.05
	2	-693.02	32.90	16.60	0.00	8.42	21.10	0.29	0.35	0.009	0.04	0.04	0.05	0.03	0.05
	3	-697.38	35.70	15.90	0.00	8.16	23.00	0.30	0.35	0.009	0.04	0.04	0.05	0.04	0.05
	4	-701.75	38.30	15.20	0.00	7.93	25.00	0.30	0.35	0.008	0.04	0.05	0.05	0.04	0.05
	5	-706.12	40.70	14.50	0.00	7.71	27.00	0.30	0.35	0.008	0.04	0.05	0.05	0.04	0.05
	6	-710.49	43.00	14.00	0.00	7.50	29.00	0.31	0.36	0.008	0.05	0.06	0.05	0.04	0.05
	7	-714.86	45.10	13.50	0.00	7.31	30.80	0.31	0.36	0.007	0.05	0.06	0.04	0.05	0.05
	8	-719.23	47.00	13.00	0.00	7.13	32.60	0.32	0.36	0.007	0.05	0.06	0.04	0.05	0.05
	9	-723.60	48.80	12.50	0.00	6.96	34.20	0.32	0.36	0.007	0.05	0.07	0.04	0.05	0.06
	10	-727.97	51.20	12.30	0.00	6.87	36.10	0.32	0.36	0.007	0.06	0.07	0.04	0.05	0.06
	11	-617.70	28.20	16.20	0.00	8.76	19.20	0.27	0.31	0.009	0.03	0.04	0.05	0.03	0.05
	12	-652.65	42.50	11.70	0.00	6.97	32.00	0.29	0.33	0.006	0.05	0.06	0.04	0.05	0.05
	13	-534.80	3.82	40.30	0.00	25.50	3.16	0.32	0.27	0.022	0.00	0.01	0.15	0.01	0.11
	14	-459.77	2.70	41.00	0.00	25.40	2.19	0.29	0.23	0.022	0.00	0.00	0.15	0.01	0.11
	15	-457.45	2.78	42.40	0.00	26.40	2.26	0.30	0.23	0.023	0.00	0.00	0.16	0.01	0.12
	16	-382.42	9.44	40.80	0.00	25.20	7.64	0.28	0.19	0.022	0.01	0.01	0.15	0.02	0.12
	17	-380.10	9.49	42.20	0.00	26.10	7.70	0.28	0.19	0.023	0.01	0.02	0.16	0.02	0.12
	18	-417.81	51.70	19.90	0.00	11.20	37.20	0.26	0.21	0.011	0.06	0.07	0.07	0.06	0.08
	19	-415.79	53.50	19.40	0.00	11.00	38.80	0.26	0.21	0.011	0.06	0.08	0.07	0.06	0.08
	20	-413.69	55.30	19.00	0.00	10.80	40.30	0.26	0.21	0.010	0.06	0.08	0.07	0.06	0.08
	21	-409.88	57.10	18.60	0.00	10.60	41.90	0.26	0.20	0.010	0.06	0.08	0.06	0.06	0.08
	22	-406.07	59.30	18.30	0.00	10.50	43.60	0.27	0.20	0.010	0.07	0.09	0.06	0.07	0.08
	23	-398.45	62.50	17.60	0.00	10.20	46.50	0.27	0.20	0.010	0.07	0.09	0.06	0.07	0.08
	24	-304.53	16.00	40.40	0.00	24.90	12.90	0.26	0.15	0.022	0.02	0.03	0.15	0.03	0.12
	25	-302.21	16.00	41.90	0.00	25.80	13.00	0.27	0.15	0.023	0.02	0.03	0.16	0.03	0.12

B11 South East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxMy	1	-1045.20	123.00	29.20	0.00	23.40	122.00	0.68	0.52	0.016	0.14	0.24	0.14	0.18	0.16
	2	-1065.80	124.00	29.10	0.00	23.30	123.00	0.69	0.53	0.016	0.14	0.24	0.14	0.18	0.16
	3	-1086.50	125.00	28.90	0.00	23.30	124.00	0.70	0.54	0.016	0.14	0.24	0.14	0.18	0.17
	4	-1107.10	126.00	28.60	0.00	23.20	125.00	0.71	0.55	0.016	0.14	0.24	0.14	0.18	0.17
	5	-1127.80	126.00	28.40	0.00	23.10	126.00	0.71	0.56	0.015	0.14	0.25	0.14	0.19	0.16
	6	-1148.40	127.00	28.20	0.00	23.00	127.00	0.72	0.57	0.015	0.14	0.25	0.14	0.19	0.16
	7	-1169.10	128.00	28.00	0.00	22.90	128.00	0.73	0.58	0.015	0.14	0.25	0.14	0.19	0.16
	8	-1189.70	128.00	27.80	0.00	22.80	129.00	0.73	0.59	0.015	0.14	0.25	0.14	0.19	0.16
	9	-1210.40	128.00	27.50	0.00	22.70	130.00	0.74	0.61	0.015	0.14	0.25	0.14	0.19	0.16
	10	-1231.00	131.00	27.70	0.00	22.90	132.00	0.75	0.62	0.015	0.14	0.26	0.14	0.19	0.17
	11	-978.29	108.00	26.10	0.00	21.80	111.00	0.63	0.49	0.014	0.12	0.22	0.13	0.16	0.15
	12	-1143.50	108.00	23.60	0.00	20.70	116.00	0.68	0.57	0.013	0.12	0.23	0.13	0.17	0.15
	13	-606.56	36.70	83.80	0.00	70.10	39.70	0.68	0.30	0.045	0.04	0.08	0.42	0.08	0.33
	14	-526.90	41.20	85.70	0.00	70.50	43.90	0.67	0.26	0.046	0.05	0.09	0.43	0.08	0.33
	15	-537.58	41.60	87.80	0.00	72.00	44.10	0.68	0.27	0.048	0.05	0.09	0.44	0.08	0.34
	16	-457.92	44.30	85.70	0.00	70.00	47.00	0.65	0.23	0.046	0.05	0.09	0.42	0.09	0.33
	17	-468.60	44.70	87.80	0.00	71.60	47.20	0.66	0.23	0.048	0.05	0.09	0.43	0.09	0.34
	18	-11.68	135.00	34.90	0.00	25.30	128.00	0.41	0.01	0.019	0.15	0.25	0.15	0.19	0.18
	19	-29.21	136.00	34.60	0.00	25.20	129.00	0.41	0.01	0.019	0.15	0.25	0.15	0.19	0.18
	20	-46.74	136.00	34.30	0.00	25.10	131.00	0.42	0.02	0.019	0.15	0.26	0.15	0.19	0.18
	21	-64.27	137.00	34.10	0.00	25.00	132.00	0.43	0.03	0.018	0.15	0.26	0.15	0.20	0.18
	22	-81.80	140.00	34.20	0.00	25.10	134.00	0.44	0.04	0.019	0.15	0.26	0.15	0.20	0.18
	23	-116.86	141.00	33.70	0.00	24.90	136.00	0.45	0.06	0.018	0.15	0.27	0.15	0.20	0.18
	24	-388.46	47.50	85.90	0.00	69.70	50.20	0.63	0.19	0.047	0.05	0.10	0.42	0.09	0.33
	25	-399.14	47.90	88.00	0.00	71.20	50.40	0.65	0.20	0.048	0.05	0.10	0.43	0.09	0.34

B11 South East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinMz, MinQy	1	-722.56	25.50	7.33	0.00	3.34	14.50	0.26	0.36	0.004	0.03	0.03	0.02	0.02	0.03
	2	-718.30	28.90	6.66	0.00	3.09	17.00	0.26	0.36	0.004	0.03	0.03	0.02	0.03	0.03
	3	-714.04	31.90	6.12	0.00	2.88	19.10	0.26	0.36	0.003	0.04	0.04	0.02	0.03	0.03
	4	-709.78	34.50	5.69	0.00	2.72	21.10	0.26	0.35	0.003	0.04	0.04	0.02	0.03	0.03
	5	-705.52	36.90	5.34	0.00	2.60	23.00	0.26	0.35	0.003	0.04	0.04	0.02	0.03	0.03
	6	-701.25	39.20	5.05	0.00	2.52	24.70	0.27	0.35	0.003	0.04	0.05	0.02	0.04	0.03
	7	-696.99	41.40	4.80	0.00	2.44	26.40	0.27	0.35	0.003	0.05	0.05	0.01	0.04	0.03
	8	-692.73	43.40	4.58	0.00	2.37	28.10	0.27	0.35	0.002	0.05	0.05	0.01	0.04	0.03
	9	-688.47	45.30	4.38	0.00	2.31	30.00	0.27	0.34	0.002	0.05	0.06	0.01	0.04	0.03
	10	-684.21	47.30	4.22	0.00	2.25	31.80	0.27	0.34	0.002	0.05	0.06	0.01	0.05	0.03
	11	-718.68	21.40	8.63	0.00	4.10	13.00	0.26	0.36	0.005	0.02	0.03	0.02	0.02	0.03
	12	-684.59	37.60	5.16	0.00	2.90	26.70	0.27	0.34	0.003	0.04	0.05	0.02	0.04	0.03
	13	-551.94	17.00	36.00	0.00	22.50	13.80	0.32	0.28	0.020	0.02	0.03	0.14	0.03	0.11
	14	-562.98	16.00	37.20	0.00	22.80	12.70	0.33	0.28	0.020	0.02	0.02	0.14	0.03	0.11
	15	-553.22	15.40	38.20	0.00	23.50	12.30	0.33	0.28	0.021	0.02	0.02	0.14	0.03	0.11
	16	-564.26	13.40	37.50	0.00	23.00	10.70	0.32	0.28	0.020	0.01	0.02	0.14	0.02	0.11
	17	-554.50	12.80	38.50	0.00	23.70	10.20	0.32	0.28	0.021	0.01	0.02	0.14	0.02	0.11
	18	-724.39	50.70	11.30	0.00	6.23	35.30	0.32	0.36	0.006	0.06	0.07	0.04	0.05	0.05
	19	-715.90	52.20	11.00	0.00	6.12	36.70	0.32	0.36	0.006	0.06	0.07	0.04	0.05	0.05
	20	-707.41	53.70	10.70	0.00	6.01	38.00	0.32	0.35	0.006	0.06	0.07	0.04	0.06	0.05
	21	-698.93	55.10	10.50	0.00	5.91	39.30	0.31	0.35	0.006	0.06	0.08	0.04	0.06	0.05
	22	-690.44	56.70	10.30	0.00	5.83	40.70	0.31	0.35	0.006	0.06	0.08	0.04	0.06	0.05
	23	-673.47	59.40	9.88	0.00	5.65	43.20	0.31	0.34	0.005	0.07	0.08	0.03	0.06	0.05
	24	-565.55	10.80	37.90	0.00	23.20	8.57	0.32	0.28	0.021	0.01	0.02	0.14	0.02	0.11
	25	-555.79	10.20	38.80	0.00	23.90	8.12	0.32	0.28	0.021	0.01	0.02	0.14	0.02	0.11

B11 South East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxMz	1	-1470.20	40.60	30.30	0.00	18.60	31.10	0.60	0.74	0.016	0.04	0.06	0.11	0.05	0.10
	2	-1467.80	51.70	27.30	0.00	17.20	40.50	0.61	0.73	0.015	0.06	0.08	0.10	0.06	0.10
	3	-1465.30	60.60	24.80	0.00	16.00	48.60	0.62	0.73	0.013	0.07	0.09	0.10	0.08	0.10
	4	-1462.90	68.20	22.70	0.00	15.00	56.00	0.62	0.73	0.012	0.07	0.11	0.09	0.09	0.10
	5	-1460.40	74.80	21.00	0.00	14.20	62.60	0.63	0.73	0.011	0.08	0.12	0.09	0.09	0.10
	6	-1458.00	80.70	19.60	0.00	13.50	68.80	0.64	0.73	0.011	0.09	0.13	0.08	0.10	0.10
	7	-1455.60	86.10	18.40	0.00	13.00	75.10	0.65	0.73	0.010	0.09	0.15	0.08	0.11	0.10
	8	-1453.10	90.90	17.40	0.00	12.60	81.10	0.66	0.73	0.009	0.10	0.16	0.08	0.12	0.10
	9	-1450.70	95.40	16.50	0.00	12.20	86.90	0.66	0.73	0.009	0.10	0.17	0.07	0.13	0.10
	10	-1448.20	101.00	16.00	0.00	11.90	93.40	0.67	0.72	0.009	0.11	0.18	0.07	0.14	0.10
	11	-1306.70	39.20	30.10	0.00	19.90	32.50	0.56	0.65	0.016	0.04	0.06	0.12	0.05	0.11
	12	-1269.40	81.90	17.30	0.00	13.70	79.60	0.61	0.63	0.009	0.09	0.16	0.08	0.12	0.10
	13	-858.93	12.70	69.70	0.00	55.90	13.20	0.61	0.43	0.038	0.01	0.03	0.34	0.04	0.25
	14	-684.71	26.40	69.10	0.00	53.40	26.40	0.57	0.34	0.037	0.03	0.05	0.32	0.05	0.25
	15	-645.38	27.00	72.90	0.00	56.50	27.10	0.58	0.32	0.040	0.03	0.05	0.34	0.06	0.26
	16	-471.16	39.30	68.30	0.00	52.00	38.70	0.53	0.24	0.037	0.04	0.08	0.32	0.07	0.25
	17	-431.84	39.80	72.20	0.00	55.00	39.30	0.54	0.22	0.039	0.04	0.08	0.33	0.07	0.26
	18	-471.39	69.20	46.00	0.00	30.60	59.40	0.44	0.24	0.025	0.08	0.12	0.19	0.10	0.17
	19	-437.17	76.00	44.20	0.00	29.60	65.80	0.43	0.22	0.024	0.08	0.13	0.18	0.10	0.17
	20	-393.31	82.20	42.50	0.00	28.70	71.70	0.43	0.20	0.023	0.09	0.14	0.17	0.11	0.17
	21	-328.80	88.00	41.00	0.00	27.90	77.40	0.42	0.16	0.022	0.10	0.15	0.17	0.12	0.17
	22	-264.29	94.50	40.10	0.00	27.40	83.30	0.41	0.13	0.022	0.10	0.16	0.17	0.13	0.17
	23	-135.26	105.00	37.70	0.00	26.00	93.30	0.38	0.07	0.020	0.12	0.18	0.16	0.14	0.17
	24	-256.12	51.50	67.20	0.00	50.30	50.10	0.48	0.13	0.036	0.06	0.10	0.30	0.09	0.25
	25	-216.80	51.90	71.20	0.00	53.40	50.70	0.49	0.11	0.039	0.06	0.10	0.32	0.09	0.26

B11 South East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MaxQy	1	-1123.40	117.00	34.40	0.00	27.60	116.00	0.72	0.56	0.019	0.13	0.23	0.17	0.17	0.18
	2	-1126.30	121.00	33.70	0.00	27.20	120.00	0.73	0.56	0.018	0.13	0.23	0.16	0.18	0.18
	3	-1129.20	124.00	32.90	0.00	26.80	124.00	0.73	0.56	0.018	0.14	0.24	0.16	0.18	0.18
	4	-1132.10	127.00	32.10	0.00	26.40	128.00	0.74	0.57	0.017	0.14	0.25	0.16	0.19	0.18
	5	-1135.00	130.00	31.40	0.00	26.00	132.00	0.74	0.57	0.017	0.14	0.26	0.16	0.20	0.18
	6	-1137.90	133.00	30.70	0.00	25.60	136.00	0.75	0.57	0.017	0.15	0.27	0.16	0.20	0.18
	7	-1140.70	136.00	30.10	0.00	25.20	140.00	0.76	0.57	0.016	0.15	0.27	0.15	0.21	0.18
	8	-1143.60	138.00	29.30	0.00	24.80	143.00	0.76	0.57	0.016	0.15	0.28	0.15	0.21	0.18
	9	-1146.50	140.00	28.70	0.00	24.40	147.00	0.77	0.57	0.016	0.15	0.29	0.15	0.22	0.18
	10	-1149.40	146.00	28.70	0.00	24.40	152.00	0.78	0.57	0.016	0.16	0.30	0.15	0.22	0.18
	11	-1061.40	103.00	32.80	0.00	27.50	106.00	0.68	0.53	0.018	0.11	0.21	0.17	0.16	0.17
	12	-1084.50	118.00	26.40	0.00	23.70	131.00	0.71	0.54	0.014	0.13	0.26	0.14	0.19	0.16
	13	-426.40	46.30	92.40	0.00	78.10	51.40	0.70	0.21	0.050	0.05	0.10	0.47	0.10	0.37
	14	-416.66	53.40	91.70	0.00	76.50	58.30	0.70	0.21	0.050	0.06	0.11	0.46	0.11	0.36
	15	-387.24	54.40	95.90	0.00	79.50	59.20	0.71	0.19	0.052	0.06	0.12	0.48	0.11	0.38
	16	-377.49	59.10	91.00	0.00	75.70	64.40	0.69	0.19	0.049	0.06	0.13	0.46	0.11	0.36
	17	-348.07	60.30	95.20	0.00	78.70	65.40	0.71	0.17	0.052	0.07	0.13	0.48	0.12	0.38
	18	-236.75	126.00	49.20	0.00	36.80	123.00	0.53	0.12	0.027	0.14	0.24	0.22	0.19	0.23
	19	-188.47	130.00	48.50	0.00	36.30	126.00	0.52	0.09	0.026	0.14	0.25	0.22	0.19	0.22
	20	-140.20	133.00	47.80	0.00	35.70	130.00	0.51	0.07	0.026	0.15	0.25	0.22	0.20	0.22
	21	-91.93	136.00	47.10	0.00	35.20	134.00	0.50	0.05	0.026	0.15	0.26	0.21	0.20	0.22
	22	-43.65	142.00	47.20	0.00	35.10	139.00	0.50	0.02	0.026	0.16	0.27	0.21	0.21	0.23
	23	52.90	148.00	46.00	0.00	34.20	146.00	0.51	0.03	0.025	0.16	0.29	0.21	0.22	0.22
	24	-338.06	64.90	90.60	0.00	75.00	70.50	0.69	0.17	0.049	0.07	0.14	0.45	0.12	0.36
	25	-308.63	66.10	94.70	0.00	77.90	71.40	0.70	0.15	0.051	0.07	0.14	0.47	0.12	0.38

B11 South East Abutment
ULS Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Combined Stress Ratio (C _r =3455 kN)	Axial Check (C _r =2000 kN)	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M								
ULS: MinQz	1	-1191.30	100.00	33.60	0.00	25.60	95.10	0.69	0.60	0.018	0.11	0.19	0.16	0.14	0.16
	2	-1196.60	104.00	32.70	0.00	25.20	99.30	0.69	0.60	0.018	0.11	0.19	0.15	0.15	0.16
	3	-1201.90	107.00	31.90	0.00	24.80	103.00	0.70	0.60	0.017	0.12	0.20	0.15	0.15	0.16
	4	-1207.20	110.00	31.10	0.00	24.40	107.00	0.71	0.60	0.017	0.12	0.21	0.15	0.16	0.16
	5	-1212.50	113.00	30.30	0.00	24.00	111.00	0.71	0.61	0.016	0.12	0.22	0.15	0.17	0.16
	6	-1217.90	116.00	29.60	0.00	23.70	114.00	0.72	0.61	0.016	0.13	0.22	0.14	0.17	0.16
	7	-1223.20	119.00	28.90	0.00	23.30	118.00	0.73	0.61	0.016	0.13	0.23	0.14	0.17	0.16
	8	-1228.50	121.00	28.20	0.00	23.00	121.00	0.73	0.61	0.015	0.13	0.24	0.14	0.18	0.16
	9	-1233.80	124.00	27.50	0.00	22.60	124.00	0.74	0.62	0.015	0.14	0.24	0.14	0.18	0.16
	10	-1239.10	129.00	27.50	0.00	22.60	129.00	0.75	0.62	0.015	0.14	0.25	0.14	0.19	0.16
	11	-1082.20	88.70	32.00	0.00	25.60	87.80	0.64	0.54	0.017	0.10	0.17	0.16	0.13	0.16
	12	-1124.80	105.00	25.30	0.00	21.90	112.00	0.68	0.56	0.014	0.12	0.22	0.13	0.17	0.15
	13	-604.84	39.20	83.10	0.00	69.10	42.10	0.68	0.30	0.045	0.04	0.08	0.42	0.08	0.32
	14	-527.44	47.10	82.50	0.00	67.50	49.70	0.66	0.26	0.045	0.05	0.10	0.41	0.09	0.32
	15	-504.89	48.00	86.40	0.00	70.30	50.50	0.67	0.25	0.047	0.05	0.10	0.43	0.09	0.33
	16	-427.49	53.90	82.00	0.00	66.40	56.50	0.64	0.21	0.044	0.06	0.11	0.40	0.10	0.32
	17	-404.93	54.90	85.90	0.00	69.30	57.40	0.65	0.20	0.047	0.06	0.11	0.42	0.10	0.33
	18	-235.05	112.00	46.80	0.00	34.00	105.00	0.48	0.12	0.025	0.12	0.21	0.21	0.16	0.21
	19	-198.05	115.00	46.00	0.00	33.40	108.00	0.47	0.10	0.025	0.13	0.21	0.20	0.16	0.20
	20	-161.05	119.00	45.20	0.00	32.90	112.00	0.46	0.08	0.025	0.13	0.22	0.20	0.17	0.20
	21	-124.05	122.00	44.50	0.00	32.40	115.00	0.46	0.06	0.024	0.13	0.22	0.20	0.17	0.20
	22	-87.05	127.00	44.50	0.00	32.30	120.00	0.46	0.04	0.024	0.14	0.23	0.20	0.18	0.21
	23	-13.05	133.00	43.20	0.00	31.40	127.00	0.44	0.01	0.023	0.15	0.25	0.19	0.19	0.20
	24	-326.83	60.60	81.70	0.00	65.50	63.20	0.62	0.16	0.044	0.07	0.12	0.40	0.11	0.32
	25	-304.28	61.60	85.50	0.00	68.30	64.10	0.63	0.15	0.046	0.07	0.13	0.41	0.11	0.33

B11 South East Abutment
DL Pile Cap Loads

Node	Pile Cap	Nx KN	Qy KN	Mz KNm	Qz KN	My KNm	Mx KNm
501		DL: MinNx					
	Bottom	-20090	3840	8394	-1279	4142	-1434
		DL: MinMz					
	Bottom	-16721	3840	4828	-1277	4417	-1438
		DL: MazMz					
	Bottom	-17162	6000	19875	-1989	5761	-2257

B11 South East Abutment
DL Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL: MinNx	1	-1021.30	39.00	1.31	0.00	0.66	24.70	-250.00	1.25	-1333.80	0.44	0.67	0.001	0.04	0.05	0.00	0.04	0.02
	2	-999.68	36.20	1.43	0.00	0.69	22.40	-250.00	1.25	-1312.18	0.43	0.66	0.001	0.04	0.04	0.00	0.03	0.02
	3	-978.02	33.00	1.57	0.00	0.75	19.90	-250.00	1.25	-1290.52	0.42	0.65	0.001	0.04	0.04	0.00	0.03	0.02
	4	-956.36	29.40	1.77	0.00	0.82	17.10	-250.00	1.25	-1268.86	0.41	0.63	0.001	0.03	0.03	0.00	0.02	0.02
	5	-934.70	25.10	2.05	0.00	0.92	13.90	-250.00	1.25	-1247.20	0.39	0.62	0.001	0.03	0.03	0.01	0.02	0.02
	6	-913.04	20.00	2.54	0.00	1.08	10.20	-250.00	1.25	-1225.54	0.38	0.61	0.001	0.02	0.02	0.01	0.02	0.01
	7	-891.37	12.60	3.63	0.00	1.38	5.77	-250.00	1.25	-1203.87	0.37	0.60	0.002	0.01	0.01	0.01	0.01	0.01
	8	-869.71	5.47	4.96	0.00	1.67	2.31	-250.00	1.25	-1182.21	0.36	0.59	0.003	0.01	0.00	0.01	0.00	0.01
	9	-848.05	16.40	2.95	0.00	1.20	7.82	-250.00	1.25	-1160.55	0.36	0.58	0.002	0.02	0.02	0.01	0.01	0.01
	10	-826.39	22.50	2.26	0.00	0.99	12.00	-250.00	1.25	-1138.89	0.36	0.57	0.001	0.02	0.02	0.01	0.02	0.02
	11	-990.51	32.20	0.75	0.00	0.40	21.20	-250.00	1.25	-1303.01	0.42	0.65	0.000	0.04	0.04	0.00	0.03	0.02
	12	-817.22	16.00	1.43	0.00	0.63	8.56	-250.00	1.25	-1129.72	0.35	0.56	0.001	0.02	0.02	0.00	0.01	0.01
	13	-697.61	31.10	26.30	0.00	16.00	24.10	-250.00	1.25	-1010.11	0.44	0.51	0.014	0.03	0.05	0.10	0.04	0.09
	14	-694.06	31.00	27.20	0.00	16.10	23.30	-250.00	1.25	-1006.56	0.43	0.50	0.015	0.03	0.05	0.10	0.04	0.09
	15	-666.84	29.40	28.60	0.00	17.00	22.30	-250.00	1.25	-979.34	0.43	0.49	0.016	0.03	0.04	0.10	0.04	0.09
	16	-663.30	27.40	28.10	0.00	16.50	20.50	-250.00	1.25	-975.80	0.42	0.49	0.015	0.03	0.04	0.10	0.04	0.09
	17	-636.08	25.70	29.50	0.00	17.40	19.40	-250.00	1.25	-948.58	0.42	0.47	0.016	0.03	0.04	0.11	0.03	0.09
	18	-916.63	36.90	9.03	0.00	4.48	22.80	-775.00	1.25	-1885.38	0.62	0.94	0.005	0.04	0.04	0.03	0.03	0.04
	19	-892.95	39.00	8.61	0.00	4.35	24.60	-775.00	1.25	-1861.70	0.61	0.93	0.005	0.04	0.05	0.03	0.04	0.04
	20	-869.26	41.10	8.25	0.00	4.23	26.40	-775.00	1.25	-1838.01	0.61	0.92	0.004	0.05	0.05	0.03	0.04	0.04
	21	-845.58	43.00	7.92	0.00	4.11	28.10	-775.00	1.25	-1814.33	0.60	0.91	0.004	0.05	0.05	0.02	0.04	0.04
	22	-821.90	44.80	7.62	0.00	4.00	29.60	-775.00	1.25	-1790.65	0.60	0.90	0.004	0.05	0.06	0.02	0.04	0.04
	23	-774.53	48.00	7.11	0.00	3.82	32.50	-775.00	1.25	-1743.28	0.59	0.87	0.004	0.05	0.06	0.02	0.05	0.04
	24	-632.32	23.50	29.00	0.00	16.90	17.50	-775.00	1.25	-1601.07	0.60	0.80	0.016	0.03	0.03	0.10	0.03	0.09
	25	-605.10	21.80	30.40	0.00	17.80	16.40	-775.00	1.25	-1573.85	0.60	0.79	0.016	0.02	0.03	0.11	0.03	0.09

B11 South East Abutment
DL Pile Loads

LOAD CASE	PILE	Nx, KN	ABS MAXIMUM VALUES					Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
			Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL: MinMz	1	-813.64	8.03	7.60	0.00	2.92	3.73	-250.00	1.25	-1126.14	0.35	0.56	0.004	0.01	0.01	0.02	0.01	0.02
	2	-802.08	7.86	7.66	0.00	2.93	3.64	-250.00	1.25	-1114.58	0.35	0.56	0.004	0.01	0.01	0.02	0.01	0.02
	3	-790.52	16.80	5.57	0.00	2.31	8.27	-250.00	1.25	-1103.02	0.35	0.55	0.003	0.02	0.02	0.01	0.01	0.02
	4	-778.96	22.50	4.50	0.00	1.98	12.10	-250.00	1.25	-1091.46	0.35	0.55	0.002	0.02	0.02	0.01	0.02	0.02
	5	-767.40	26.80	3.86	0.00	1.75	15.20	-250.00	1.25	-1079.90	0.35	0.54	0.002	0.03	0.03	0.01	0.02	0.02
	6	-755.84	30.50	3.43	0.00	1.59	18.00	-250.00	1.25	-1068.34	0.35	0.53	0.002	0.03	0.04	0.01	0.03	0.02
	7	-744.28	33.80	3.11	0.00	1.47	20.40	-250.00	1.25	-1056.78	0.35	0.53	0.002	0.04	0.04	0.01	0.03	0.02
	8	-732.72	36.70	2.86	0.00	1.38	22.70	-250.00	1.25	-1045.22	0.36	0.52	0.002	0.04	0.04	0.01	0.03	0.02
	9	-721.16	39.20	2.66	0.00	1.32	24.70	-250.00	1.25	-1033.66	0.36	0.52	0.001	0.04	0.05	0.01	0.04	0.03
	10	-709.60	41.80	2.51	0.00	1.28	26.70	-250.00	1.25	-1022.10	0.36	0.51	0.001	0.05	0.05	0.01	0.04	0.03
	11	-798.36	3.26	10.10	0.00	4.37	1.71	-250.00	1.25	-1110.86	0.35	0.56	0.005	0.00	0.00	0.03	0.00	0.02
	12	-705.89	33.00	4.07	0.00	2.18	22.30	-250.00	1.25	-1018.39	0.35	0.51	0.002	0.04	0.04	0.01	0.03	0.03
	13	-575.04	20.80	33.40	0.00	20.60	16.60	-250.00	1.25	-887.54	0.41	0.44	0.018	0.02	0.03	0.12	0.03	0.10
	14	-580.61	19.80	34.60	0.00	20.90	15.40	-250.00	1.25	-893.11	0.42	0.45	0.019	0.02	0.03	0.13	0.03	0.10
	15	-563.16	18.70	35.70	0.00	21.70	14.70	-250.00	1.25	-875.66	0.41	0.44	0.019	0.02	0.03	0.13	0.03	0.10
	16	-568.73	16.40	35.10	0.00	21.20	12.80	-250.00	1.25	-881.23	0.41	0.44	0.019	0.02	0.03	0.13	0.03	0.10
	17	-551.29	15.30	36.20	0.00	22.00	12.00	-250.00	1.25	-863.79	0.41	0.43	0.020	0.02	0.02	0.13	0.03	0.10
	18	-773.68	45.80	11.10	0.00	5.91	30.90	-775.00	1.25	-1742.43	0.60	0.87	0.006	0.05	0.06	0.04	0.05	0.05
	19	-758.51	47.60	10.70	0.00	5.78	32.40	-775.00	1.25	-1727.26	0.60	0.86	0.006	0.05	0.06	0.04	0.05	0.05
	20	-743.33	49.30	10.40	0.00	5.65	33.90	-775.00	1.25	-1712.08	0.60	0.86	0.006	0.05	0.07	0.03	0.05	0.05
	21	-728.16	51.00	10.10	0.00	5.54	35.40	-775.00	1.25	-1696.91	0.59	0.85	0.005	0.06	0.07	0.03	0.05	0.05
	22	-712.98	52.60	9.81	0.00	5.43	36.80	-775.00	1.25	-1681.73	0.59	0.84	0.005	0.06	0.07	0.03	0.05	0.05
	23	-682.63	55.70	9.32	0.00	5.23	39.60	-775.00	1.25	-1651.38	0.59	0.83	0.005	0.06	0.08	0.03	0.06	0.05
	24	-556.77	12.90	35.60	0.00	21.50	10.10	-775.00	1.25	-1525.52	0.59	0.76	0.019	0.01	0.02	0.13	0.02	0.10
	25	-539.32	11.80	36.70	0.00	22.20	9.28	-775.00	1.25	-1508.07	0.59	0.75	0.020	0.01	0.02	0.13	0.02	0.10

B11 South East Abutment
DL Pile Loads

LOAD CASE	PILE	ABS MAXIMUM VALUES						Down Drag Effect			Combined Stress Ratio Cr=3455 kN	Axial Check Cr=2000 kN	Shear Check 1	Shear Check 2	Moment Check 1	Moment Check 2	Mom./Shear Check 1	Mom./Shear Check 2
		Nx, KN	Qy, KN	Qz, KN	Mx, KN-M	My, KN-M	Mz, KN-M	NSF, KN	factor α_D	Nx+NSF, KN								
DL: MazMz	1	-1116.90	39.10	33.90	0.00	20.80	30.40	-250.00	1.25	-1429.40	0.60	0.71	0.018	0.04	0.06	0.13	0.05	0.11
	2	-1117.20	48.00	31.60	0.00	19.80	37.60	-250.00	1.25	-1429.70	0.61	0.71	0.017	0.05	0.07	0.12	0.06	0.11
	3	-1117.60	55.40	29.50	0.00	18.70	44.10	-250.00	1.25	-1430.10	0.61	0.72	0.016	0.06	0.09	0.11	0.07	0.11
	4	-1117.90	61.90	27.70	0.00	17.80	50.10	-250.00	1.25	-1430.40	0.62	0.72	0.015	0.07	0.10	0.11	0.08	0.11
	5	-1118.30	67.70	26.10	0.00	17.00	55.50	-250.00	1.25	-1430.80	0.63	0.72	0.014	0.07	0.11	0.10	0.09	0.11
	6	-1118.70	72.90	24.60	0.00	16.30	60.60	-250.00	1.25	-1431.20	0.63	0.72	0.013	0.08	0.12	0.10	0.09	0.11
	7	-1119.00	77.70	23.40	0.00	15.70	65.40	-250.00	1.25	-1431.50	0.64	0.72	0.013	0.09	0.13	0.10	0.10	0.11
	8	-1119.40	81.80	22.30	0.00	15.20	70.10	-250.00	1.25	-1431.90	0.64	0.72	0.012	0.09	0.14	0.09	0.11	0.11
	9	-1119.70	85.60	21.20	0.00	14.80	74.70	-250.00	1.25	-1432.20	0.65	0.72	0.011	0.09	0.15	0.09	0.11	0.11
	10	-1120.10	91.70	20.90	0.00	14.60	80.50	-250.00	1.25	-1432.60	0.66	0.72	0.011	0.10	0.16	0.09	0.12	0.11
	11	-975.34	37.40	33.10	0.00	21.40	30.70	-250.00	1.25	-1287.84	0.56	0.64	0.018	0.04	0.06	0.13	0.05	0.11
	12	-978.24	74.10	20.90	0.00	15.60	69.10	-250.00	1.25	-1290.74	0.60	0.65	0.011	0.08	0.13	0.09	0.10	0.11
	13	-693.74	21.20	63.50	0.00	47.90	20.80	-250.00	1.25	-1006.24	0.62	0.50	0.034	0.02	0.04	0.29	0.05	0.22
	14	-580.31	32.20	61.30	0.00	45.20	30.80	-250.00	1.25	-892.81	0.59	0.45	0.033	0.04	0.06	0.27	0.06	0.22
	15	-553.90	32.90	65.40	0.00	48.20	31.50	-250.00	1.25	-866.40	0.60	0.43	0.035	0.04	0.06	0.29	0.06	0.23
	16	-440.47	42.20	60.10	0.00	44.00	40.00	-250.00	1.25	-752.97	0.56	0.38	0.033	0.05	0.08	0.27	0.07	0.21
	17	-414.05	43.00	64.30	0.00	47.00	40.90	-250.00	1.25	-726.55	0.58	0.36	0.035	0.05	0.08	0.28	0.07	0.23
	18	-432.60	61.30	45.90	0.00	29.90	51.70	-775.00	1.25	-1401.35	0.69	0.70	0.025	0.07	0.10	0.18	0.08	0.16
	19	-405.86	67.00	44.40	0.00	29.10	56.90	-775.00	1.25	-1374.61	0.69	0.69	0.024	0.07	0.11	0.18	0.09	0.16
	20	-362.52	72.40	43.00	0.00	28.40	61.90	-775.00	1.25	-1331.27	0.68	0.67	0.023	0.08	0.12	0.17	0.10	0.16
	21	-319.19	77.50	41.60	0.00	27.70	66.70	-775.00	1.25	-1287.94	0.67	0.64	0.023	0.09	0.13	0.17	0.10	0.16
	22	-275.85	83.90	41.20	0.00	27.40	72.20	-775.00	1.25	-1244.60	0.67	0.62	0.022	0.09	0.14	0.17	0.11	0.16
	23	-189.18	92.70	38.90	0.00	26.10	80.80	-775.00	1.25	-1157.93	0.65	0.58	0.021	0.10	0.16	0.16	0.12	0.16
	24	-299.65	51.60	59.00	0.00	42.80	48.70	-775.00	1.25	-1268.40	0.72	0.63	0.032	0.06	0.10	0.26	0.08	0.21
	25	-273.23	52.50	63.10	0.00	45.80	49.50	-775.00	1.25	-1241.98	0.73	0.62	0.034	0.06	0.10	0.28	0.09	0.23