

06-NOV-09 10:06:59  
 GEORGIA DEPARTMENT OF TRANSPORTATION  
 PRECONSTRUCTION DIVISION - OFFICE OF BRIDGE & STRUCTURAL DESIGN  
 THE ANALYSIS AND DESIGN OF PIERS FOR BRIDGES - V 4.2.07 - AASHTO SPECS 1984 INTERIM  
 REVISED: JUNE 30, 2008  
 32' CURB-CURB; 4 BEAMS; 158' SPAN; 60' TALL; BRIDGE 2B ; PIER 4  
 PROB. NO. 0001

| DESIGN NO.  | NO. CAN | NO. COL | NO. LLC | SKEW D  | ANG M | F'C S | FC PSI | N    | FY PSI | FS PSI | DESIGN DATA EC KSI | ES KSI | CONC. STRAIN | Z FACT | * MAIN SIZE | * STR SIZ | * CAP MAX TOP | REINFORCING MAX BOT | STEEL MIN SIZE | * MIN NO. | * TOP CL. | * CAP MIN DEPTH | * CAP CL. |      |
|-------------|---------|---------|---------|---------|-------|-------|--------|------|--------|--------|--------------------|--------|--------------|--------|-------------|-----------|---------------|---------------------|----------------|-----------|-----------|-----------------|-----------|------|
| D D D L     | 2       | 1       | 6       | 0-00-00 |       | 3500. | 1400.  | 8.   | 60000. | 24000. | 3409.              | 29000. | 0.0030       | 170.   | 11          | 5         | 16            | 16                  | 11             | 2         | 2.00      | 4.00            | 3.00      | 2.00 |
| COLUMN MIN. | 1.00    | 8.00    | 2.50    | 3.750   | 2     | 2.00  | 0.70   | 0.90 | 1.00   | 1.00   | 0.75               | 16.67  | 0.120        | 0.000  | 3.00        | 9.00      | 1.250         | 1.000               | 3.000          | 235.000   |           | -9.999          |           |      |

CAP DATA

| CN | C | L                    | A     | DE    | BC    | BE    | DH    | LH     | XB1    | XB2   | XB3   | XB4 | XB5 | XB6 | XB7 | XB8 |
|----|---|----------------------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-----|-----|-----|-----|-----|
| 11 | L | 17.625               | 4.000 | 4.000 | 6.000 | 6.000 | 4.000 | 13.625 | 14.000 | 9.333 | 0.667 |     |     |     |     |     |
| 12 | 2 | SAME AS CANTILEVER 1 |       |       |       |       |       |        |        |       |       |     |     |     |     |     |

COLUMN DATA

| CN | P | I | T | S | HT     | A     | DT    | BT    | DB    | BB    | DL    | FLEX  | ND NB | SZ ND | NB SZ | ND NB | SZ ND | NB SZ | SLOPE | EP | AP |       |       |       |
|----|---|---|---|---|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|----|-------|-------|-------|
| 21 | 0 | C | T |   | 60.000 | 0.000 | 8.000 | 6.000 | 8.000 | 6.000 | 6.000 | 0.000 | 8     | 6     | 11    | 8     | 6     | 11    | 22    | 16 | 11 | 0.000 | 0.000 | 0.000 |

FOOTING DATA

| CN  | S/P | B      | D      | T     | DEL.B | DEL.D | DEL.T | R.B/D | R.D/B | S.HT. | NP | SYM. | BP    | DP    | SET.  |       |       |        |  |  |  |  |  |  |
|---|-----|--------|--------|-------|-------|-------|-------|-------|-------|-------|----|------|-------|-------|-------|-------|-------|--------|--|--|--|--|--|--|
| 31  | P   | 10.000 | 10.000 | 3.000 | 0.500 | 0.500 | 0.250 | 1.000 | 1.000 | 2.500 | 4  | 3    | 0.000 | 0.000 | 0.000 |       |       |        |  |  |  |  |  |  |
| SUPERSTRUCTURE AREA*STD. WIND ON SUPERSTRUCTURE INTENSITIES * WIND FORCE ARM * WIND ON PIER<br>TRANS. LONG. WIND FT1 FL1 FT2 FL2 FT3 FL3 FT4 FL4 FT5 FL5 WIND FT1 FL1 FT2 FL2 FT3 FL3 FT4 FL4 FT5 FL5 APT APL PT PL |     |        |        |       |       |       |       |       |       |       |    |      |       |       |       |       |       |        |  |  |  |  |  |  |
|   |     | 1660.  | 1660.  | 1     | 50    | 0     | 44    | 6     | 41    | 12    | 33 | 16   | 17    | 19    | 7.771 | 7.771 | 7.676 | 16.653 |  |  |  |  |  |  |

GROUP III WIND

| STD.     | * WIND ON SUPERSTRUCTURE INTENSITIES | * STD.   | * WIND ON LIVE LOAD INTENSITIES     | * LENGTHS OF LL * WIND ON LL ARMS |
|----------|--------------------------------------|----------|-------------------------------------|-----------------------------------|
| WIND FT1 | FL1 FT2 FL2 FT3 FL3 FT4 FL4 FT5 FL5  | WIND FT1 | FL1 FT2 FL2 FT3 FL3 FT4 FL4 FT5 FL5 | TRANS. LONGI. APT APL             |
| 1        | 50 0 44 6 41 12 33 16 17 19          | 1        | 100 0 88 12 82 24 66 32 34 38       | 157.5 157.5 16.375 16.375         |

MISCELLANEOUS FORCES

| CENTRI. FT | TRACTION FL | FORCE APT | AND ARMS APL | EXPANSION COEFFICIENT | SHRINKAGE COEFFICIENT | STREAM PT | FLOW PL |
|------------|-------------|-----------|--------------|-----------------------|-----------------------|-----------|---------|
| 14.624     | 5.940       | 16.375    | 16.375       | 0.00018000            | 0.00044000            | 0.000     | 0.000   |

DEAD LOAD SUPERSTRUCTURE AND LIVE LOAD CASES

| I.D. | NL | P1      | P2      | P3    | P4    | P5      | P6      | P7 | P8 | P9 | P10 | P11 | P12 |
|------|----|---------|---------|-------|-------|---------|---------|----|----|----|-----|-----|-----|
| D.L. | 0  | 366.960 | 352.170 | 0.000 | 0.000 | 415.320 | 346.260 |    |    |    |     |     |     |
| LL01 | 1  | 26.360  | 58.220  | 0.000 | 0.000 | 89.000  | 109.810 |    |    |    |     |     |     |
| LL02 | 1  | 119.550 | 66.440  | 0.000 | 0.000 | 63.330  | 26.170  |    |    |    |     |     |     |
| LL03 | 2  | 40.160  | 100.850 | 0.000 | 0.000 | 145.110 | 135.980 |    |    |    |     |     |     |
| LL04 | 2  | 38.540  | 103.840 | 0.000 | 0.000 | 152.330 | 113.100 |    |    |    |     |     |     |
| LL05 | 2  | 125.230 | 124.660 | 0.000 | 0.000 | 103.100 | 34.840  |    |    |    |     |     |     |
| LL06 | 2  | 145.920 | 108.870 | 0.000 | 0.000 | 94.960  | 108.870 |    |    |    |     |     |     |

COLUMN MOMENTS(KIP-FEET), SHEARS(KIPS), REACTIONS(KIPS)

TRANSVERSE

\*

LONGITUDINAL

| LOAD             | COL | PC                   | MT        | V      | MB       | RF       | ML       | MR        | MT       | V       | MB        | MF        |
|------------------|-----|----------------------|-----------|--------|----------|----------|----------|-----------|----------|---------|-----------|-----------|
| UNIT F.AT CL.CAP | 1   | 0.000                | -6.000    | 1.000  | 60.000   | 0.000    | 0.000    | 0.000     | 6.000    | 1.000   | 60.000    | 60.000    |
| DEAD LOAD TOTAL  | 1   | 1685.460<br>2074.260 | 4.921     | 0.000  | -4.921   | 2074.260 | 7578.455 | -7583.376 | 0.000    | 0.000   | 0.000     | 0.000     |
| TRAC. FORCE 1 LN | 1   | 0.000                | 0.000     | 0.000  | 0.000    | 0.000    | 0.000    | 0.000     | -132.908 | -5.940  | -453.668  | -453.668  |
| CENT. FORCE 1 LN | 1   | 0.000                | -327.212  | 14.624 | 1116.908 | 0.000    | 0.000    | 0.000     | 0.000    | 0.000   | 0.000     | 0.000     |
| WIND ON SUBSTR.  | 1   | 0.000                | -46.056   | 7.676  | 460.560  | 0.000    | 0.000    | 0.000     | -99.918  | -16.653 | -999.180  | -999.180  |
| GROUP 2 WIND 1 1 | 1   | 0.000                | -1189.049 | 90.676 | 6085.553 | 0.000    | 0.000    | 0.000     | -99.918  | -16.653 | -999.180  | -999.180  |
| GROUP 2 WIND 1 2 | 1   | 0.000                | -1189.049 | 90.676 | 6085.553 | 0.000    | 0.000    | 0.000     | 99.918   | 16.653  | 999.180   | 999.180   |
| GROUP 2 WIND 2 1 | 1   | 0.000                | -1051.890 | 80.716 | 5410.554 | 0.000    | 0.000    | 0.000     | -237.077 | -26.613 | -1674.179 | -1674.179 |
| GROUP 2 WIND 2 2 | 1   | 0.000                | -1051.890 | 80.716 | 5410.554 | 0.000    | 0.000    | 0.000     | 237.077  | 26.613  | 1674.179  | 1674.179  |
| GROUP 2 WIND 3 1 | 1   | 0.000                | -983.310  | 75.736 | 5073.055 | 0.000    | 0.000    | 0.000     | -374.236 | -36.573 | -2349.178 | -2349.178 |
| GROUP 2 WIND 3 2 | 1   | 0.000                | -983.310  | 75.736 | 5073.055 | 0.000    | 0.000    | 0.000     | 374.236  | 36.573  | 2349.178  | 2349.178  |
| GROUP 2 WIND 4 1 | 1   | 0.000                | -800.431  | 62.456 | 4173.055 | 0.000    | 0.000    | 0.000     | -465.676 | -43.213 | -2799.178 | -2799.178 |
| GROUP 2 WIND 4 2 | 1   | 0.000                | -800.431  | 62.456 | 4173.055 | 0.000    | 0.000    | 0.000     | 465.676  | 43.213  | 2799.178  | 2799.178  |
| GROUP 2 WIND 5 1 | 1   | 0.000                | -434.674  | 35.896 | 2373.058 | 0.000    | 0.000    | 0.000     | -534.255 | -48.193 | -3136.677 | -3136.677 |

| GROUP     | WIND   | 5 | 2 | 1       | 0.000    | -434.674 | 35.896    | 2373.058 | 0.000   | PIER-32-4-158-60.OUT | 0.000    | 0.000   | 534.255   | 48.193    | 3136.677 | 3136.677 |
|-----------|--------|---|---|---------|----------|----------|-----------|----------|---------|----------------------|----------|---------|-----------|-----------|----------|----------|
| GROUP 3   | WIND 1 | 1 | 1 | 0.000   | -709.121 | 42.953   | 3028.572  | 0.000    | 0.000   | 0.000                | -29.975  | -4.996  | -299.754  | -299.754  |          |          |
| GROUP 3   | WIND 1 | 2 | 1 | 0.000   | -709.121 | 42.953   | 3028.572  | 0.000    | 0.000   | 0.000                | 29.975   | 4.996   | 299.754   | 299.754   |          |          |
| GROUP 3   | WIND 2 | 1 | 1 | 0.000   | -625.684 | 38.075   | 2681.724  | 0.000    | 0.000   | 0.000                | -113.412 | -9.874  | -646.603  | -646.603  |          |          |
| GROUP 3   | WIND 2 | 2 | 1 | 0.000   | -625.684 | 38.075   | 2681.724  | 0.000    | 0.000   | 0.000                | 113.412  | 9.874   | 646.603   | 646.603   |          |          |
| GROUP 3   | WIND 3 | 1 | 1 | 0.000   | -583.966 | 35.636   | 2508.299  | 0.000    | 0.000   | 0.000                | -196.848 | -14.752 | -993.451  | -993.451  |          |          |
| GROUP 3   | WIND 3 | 2 | 1 | 0.000   | -583.966 | 35.636   | 2508.299  | 0.000    | 0.000   | 0.000                | 196.848  | 14.752  | 993.451   | 993.451   |          |          |
| GROUP 3   | WIND 4 | 1 | 1 | 0.000   | -472.718 | 29.132   | 2045.835  | 0.000    | 0.000   | 0.000                | -252.473 | -18.004 | -1224.683 | -1224.683 |          |          |
| GROUP 3   | WIND 4 | 2 | 1 | 0.000   | -472.718 | 29.132   | 2045.835  | 0.000    | 0.000   | 0.000                | 252.473  | 18.004  | 1224.683  | 1224.683  |          |          |
| GROUP 3   | WIND 5 | 1 | 1 | 0.000   | -250.220 | 16.124   | 1120.906  | 0.000    | 0.000   | 0.000                | -294.191 | -20.443 | -1398.108 | -1398.108 |          |          |
| GROUP 3   | WIND 5 | 2 | 1 | 0.000   | -250.220 | 16.124   | 1120.906  | 0.000    | 0.000   | 0.000                | 294.191  | 20.443  | 1398.108  | 1398.108  |          |          |
| LIVE LOAD | LL01   |   | 1 | 283.390 | 1311.950 | 0.000    | -1311.950 | 283.390  | 640.753 | -1952.703            | 0.000    | 0.000   | 0.000     | 0.000     | 0.000    | 0.000    |

COLUMN MOMENTS(KIP-FEET), SHEARS(KIPS), REACTIONS(KIPS)

| LOAD           | COL | TRANSVERSE |           |       |           |         |          |           |       | LONGITUDINAL |       |       |       |
|----------------|-----|------------|-----------|-------|-----------|---------|----------|-----------|-------|--------------|-------|-------|-------|
|                |     | PC         | MT        | V     | MB        | RF      | ML       | MR        | MT    | V            | MB    | MF    |       |
| LIVE LOAD LL02 | 1   | 275.490    | -1321.834 | 0.000 | 1321.834  | 275.490 | 1983.776 | -661.941  | 0.000 | 0.000        | 0.000 | 0.000 | 0.000 |
| LIVE LOAD LL03 | 1   | 422.100    | 1548.041  | 0.000 | -1548.041 | 422.100 | 1032.907 | -2580.948 | 0.000 | 0.000        | 0.000 | 0.000 | 0.000 |
| LIVE LOAD LL04 | 1   | 407.810    | 1270.143  | 0.000 | -1270.143 | 407.810 | 1024.181 | -2294.324 | 0.000 | 0.000        | 0.000 | 0.000 | 0.000 |
| LIVE LOAD LL05 | 1   | 387.830    | -1366.081 | 0.000 | 1366.081  | 387.830 | 2335.008 | -968.928  | 0.000 | 0.000        | 0.000 | 0.000 | 0.000 |
| LIVE LOAD LL06 | 1   | 458.620    | -583.618  | 0.000 | 583.618   | 458.620 | 2550.976 | -1967.358 | 0.000 | 0.000        | 0.000 | 0.000 | 0.000 |

CAP MOMENTS AND SHEARS

| POINT | D.L.TOT.  | MOMENTS(KIP-FEET) |            |           |           |           |            | SHEARS(KIPS) |           |           |           |           |           |         |          |
|-------|-----------|-------------------|------------|-----------|-----------|-----------|------------|--------------|-----------|-----------|-----------|-----------|-----------|---------|----------|
|       |           | G1 MAX.+          | G1 MAX.-   | G2 MAX.+  | G2 MAX.-  | G3 MAX.+  | G3 MAX.-   | DL T.LT      | DL T.RT   | G1 + LT   | G1 + RT   | G1 - LT   | G1 - RT   |         |          |
| P 1   | -33.476   | -33.476           | -33.476    | -33.476   | -33.476   | -33.476   | -33.476    | -33.476      | -33.476   | -19.222   | -496.270  | -19.222   | -496.270  | -19.222 | -813.062 |
| P 2   | -4969.756 | -4969.756         | -7926.378  | -4969.756 | -4969.756 | -4969.756 | -6740.188  | -566.529     | -1024.350 | -566.529  | -1024.350 | -883.321  | -1577.499 |         |          |
| P 3   | -5655.045 | -5655.045         | -8980.618  | -5655.045 | -5655.045 | -5655.045 | -7646.406  | -1030.516    | -1030.516 | -1030.516 | -1030.516 | -1583.666 | -1583.666 |         |          |
| C 1L  | -9851.990 | -9851.990         | -15390.160 | -9851.990 | -9851.990 | -9851.990 | -13168.260 | -1067.956    |           | -1067.956 |           | -1621.105 |           |         |          |
| C 1R  | -9858.389 | -9858.389         | -15461.627 | -9858.389 | -9858.389 | -9858.389 | -13213.621 |              | 1123.141  |           | 1733.388  |           | 1123.141  |         |          |
| P 4   | -5440.702 | -5440.702         | -8602.955  | -5440.702 | -5440.702 | -5440.702 | -7334.267  | 1085.702     | 1085.702  | 1695.948  | 1695.948  | 1085.702  | 1085.702  |         |          |
| P 5   | -4718.605 | -4718.605         | -7473.824  | -4718.605 | -4718.605 | -4718.605 | -6368.437  | 1079.535     | 539.619   | 1689.781  | 834.831   | 1079.535  | 539.619   |         |          |
| P 6   | -33.476   | -33.476           | -33.476    | -33.476   | -33.476   | -33.476   | -33.476    | 469.360      | 19.222    | 764.572   | 19.222    | 469.360   | 19.222    |         |          |

| PT. | M+ UNF. K-FT. |               | M- UNF. K-FT. |         | TOP REINFORCE. AS NO.SIZE |         | BOT.REINFORCE. AS NO.SIZE |       | CAP DESIGN DATA |       |       |          | D IN. | FC PSI | PS % | FS/FF RATIO | FS/FZ RATIO |
|-----|---------------|---------------|---------------|---------|---------------------------|---------|---------------------------|-------|-----------------|-------|-------|----------|-------|--------|------|-------------|-------------|
|     | M+ UNF. K-FT. | M- UNF. K-FT. | AS            | NO.SIZE | AS                        | NO.SIZE | M.SP.                     | AV/IN | BAR&SPAC        | M.SP. | AV/IN | BAR&SPAC |       |        |      |             |             |
| P 1 | -25.751       | -25.751       | 3.12          | 2 # 11  | 3.12                      | 2 # 11  | 0.00                      | 0.000 | #5@ 0.00        | 24.00 | 0.136 | #5@ 4.57 | 60.77 |        | 0.08 | 0.000       | 0.098       |
| P 2 | -3822.889     | -5184.761     | 20.09         | 13 # 11 | 3.12                      | 2 # 11  | 24.00                     | 0.060 | #5@10.33        | 24.00 | 0.200 | #5@ 6.18 | 93.65 |        | 0.34 | 0.659       | 1.062       |
| P 3 | -4350.035     | -5881.851     | 22.22         | 15 # 11 | 3.12                      | 2 # 11  | 24.00                     | 0.193 | #5@ 6.42        | 24.00 | 0.193 | #5@ 6.42 | 96.00 |        | 0.37 | 0.615       | 0.974       |
| C 1 | -7578.455     | -10164.324    | 39.43         | 26 # 11 | 3.12                      | 2 # 11  | 24.00                     | 0.203 | #5@ 6.11        | 24.00 | 0.227 | #5@ 5.46 | 96.00 |        | 0.64 | 0.627       | 0.918       |
| P 4 | -4185.156     | -5641.744     | 21.26         | 14 # 11 | 3.12                      | 2 # 11  | 24.00                     | 0.217 | #5@ 5.72        | 24.00 | 0.217 | #5@ 5.72 | 96.00 |        | 0.35 | 0.636       | 1.022       |
| P 5 | -3629.696     | -4898.798     | 18.91         | 13 # 11 | 3.12                      | 2 # 11  | 24.00                     | 0.225 | #5@ 5.51        | 24.00 | 0.060 | #5@10.33 | 93.65 |        | 0.32 | 0.596       | 1.004       |
| P 6 | -25.751       | -25.751       | 3.12          | 2 # 11  | 3.12                      | 2 # 11  | 24.00                     | 0.119 | #5@ 5.21        | 0.00  | 0.000 | #5@ 0.00 | 60.77 |        | 0.08 | 0.000       | 0.098       |

NOTE: \*\*\* FS/FZ RATIO EXCEEDS 1.0! \*\*\*

COLUMN ANALYSIS AND DESIGN OUTPUT

| CN | T B | CRITICAL COLUMN LOADS |      |     |   |     |     |        |         |         |        |        |        |        |         | B      | D     |       |       |
|----|-----|-----------------------|------|-----|---|-----|-----|--------|---------|---------|--------|--------|--------|--------|---------|--------|-------|-------|-------|
|    |     | GR                    | LLC  | WC  | R | E S | C F | S F    | PF      | MTF     | MLF    | PM     | MTM    | MLM    | PU      |        |       | MTU   | MLU   |
| 1  | T   | 1                     | LL05 | 0.0 |   |     | C   | 3033.1 | -3810.1 | 0.0     | 3033.1 | 4835.9 | 2808.4 | 8523.4 | 13591.9 | 7893.4 | 2.811 | 72.00 | 96.00 |
| 1  | B   | 3                     | LL05 | 3.1 |   |     | C   | 3200.7 | 7934.3  | -2471.0 | 3200.7 | 9799.1 | 3611.6 | 5498.7 | 16902.0 | 6229.5 | 1.724 | 72.00 | 96.00 |

COLUMN DESIGN DATA

| CN | T B | FACE    |         |         |         | AS    | PS    | BD12 | BD    | SUMPU | SUMPC  | DEL.T | DEL.L | CM    | R | PHIC |
|----|-----|---------|---------|---------|---------|-------|-------|------|-------|-------|--------|-------|-------|-------|---|------|
|    |     | NO.SIZE | NO.SIZE | NO.SIZE | NO.SIZE |       |       |      |       |       |        |       |       |       |   |      |
| 1  | T   | 15 # 11 | 15 # 11 | 8 # 11  | 8 # 11  | 71.76 | 1.038 | 1.00 | 0.000 | 3286. | 15491. | 1.269 | 1.543 | 1.000 | 2 | 0.70 |
| 1  | B   | 15 # 11 | 15 # 11 | 8 # 11  | 8 # 11  | 71.76 | 1.038 | 1.00 | 0.000 | 2948. | 15491. | 1.235 | 1.462 | 1.000 | 2 | 0.70 |

FOOTING 1 DESIGN LOADS

| F G | LLID | WC | ES | C | S | P | MT | VT | ML | VL | P4 | P3 | P2 | P1 | MTF | VBF | VPF | LOAD |
|-----|------|----|----|---|---|---|----|----|----|----|----|----|----|----|-----|-----|-----|------|
|-----|------|----|----|---|---|---|----|----|----|----|----|----|----|----|-----|-----|-----|------|

| PIER-32-4-158-60.OUT |      |      |   |                   |          |                  |         |         |         |         |         |         |         |        |        |        |
|----------------------|------|------|---|-------------------|----------|------------------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|
| 1 3                  | LL05 | 3.1  | C | 2406.676          | 5908.086 | 64.884-1900.786  | -26.632 | 153.661 | 92.607  | 232.549 | 293.603 | 297.387 | 48.291  | 25.688 | MAX.P1 |        |
| 1 3                  | LL05 | 1.1  | C | 3128.679          | 8356.867 | 93.861-1569.216  | -21.939 | 177.123 | 126.727 | 324.950 | 375.346 | 396.541 | 64.332  | 33.395 | MAX.MT |        |
| 1 3                  | LL05 | 1.1  | C | 3128.679          | 8356.867 | 93.861-1569.216  | -21.939 | 177.123 | 126.727 | 324.950 | 375.346 | 396.541 | 64.332  | 33.395 | MAX.VT |        |
| 1 3                  | LL06 | 1.1  | C | 3207.557          | 7485.005 | 93.861-1569.216  | -21.939 | 192.069 | 141.673 | 320.521 | 370.917 | 391.140 | 63.488  | 34.292 | MAX.VP |        |
| 1 3                  | LL06 | 3.1  | C | 3207.557          | 6808.650 | 84.349-2471.022  | -34.621 | 214.705 | 135.335 | 297.885 | 377.255 | 279.502 | 39.365  | 34.292 | MAX.ML |        |
| 1 3                  | LL06 | 3.1  | C | 3207.557          | 6808.650 | 84.349-2471.022  | -34.621 | 214.705 | 135.335 | 297.885 | 377.255 | 279.502 | 39.365  | 34.292 | MAX.VL |        |
| 1 2                  |      | 3.1R |   | 2074.260-5077.976 |          | -75.736 2349.178 |         | 36.573  | 147.527 | 71.419  | 194.361 | 270.469 | 259.995 | 42.449 | 21.906 | MAX.P3 |

FOOTING 1 ANALYSIS/DESIGN RESULTS

| FOOTING SIZE |        |       | * BAR REINFORCEMENT STEEL * |      |         |         |           |         |        | SECTION CAPACITIES |        |       |  |
|--------------|--------|-------|-----------------------------|------|---------|---------|-----------|---------|--------|--------------------|--------|-------|--|
| B            | D      | T     | P1/PA                       | AS   | NO.SIZE | SPAC.   | PLACEMENT | MT.     | VB     | VP                 | DS     | FC    |  |
| 20.500       | 20.500 | 6.000 | 1.000                       | 1.32 | 27 # 9  | @ 9.000 | TOP LONG  | 319.570 | 66.410 | 132.820            | 55.026 | 0.000 |  |
|              |        |       |                             | 1.60 | 22 #11  | @11.125 | BOT.TRAN  | 413.509 | 67.941 | 135.883            | 56.295 | 0.000 |  |

NUMBER OF PILES = 15 BP = 4.500 DP = 9.000