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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  
36' CURB-CURB; 5 BEAMS; 140' SPAN; 40' TALL; BRIDGE 17 ; PIER 15-18

PROB. NO. 0001

| DESIGN DATA |         |         |         |        |       |         |         |       |        |        |               | DESIGN DATA |              |        |             |           |               |                     |                |           |           |            |             |               |      |      |
|-------------|---------|---------|---------|--------|-------|---------|---------|-------|--------|--------|---------------|-------------|--------------|--------|-------------|-----------|---------------|---------------------|----------------|-----------|-----------|------------|-------------|---------------|------|------|
| DESIGN NO.  | NO. CAN | NO. COL | NO. LLC | SKEW D | ANG M | F'C PSI | FC PSI  | N     | FY PSI | FS PSI | DESIGN 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. | * MIN S.SP | * CAP INCR. | * CAP BOT CL. |      |      |
| D           | D       | D       | L       | 2      | 1     | 12      | 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 |

| CAP DATA |   |                      |       |       |       |       |       |        |        |       |       |     |     |     |     |     |
|----------|---|----------------------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-----|-----|-----|-----|-----|
| CN       | C | L                    | A     | DE    | BC    | BE    | DH    | LH     | XB1    | XB2   | XB3   | XB4 | XB5 | XB6 | XB7 | XB8 |
| 11       | L | 19.625               | 4.000 | 4.000 | 6.000 | 6.000 | 4.000 | 15.625 | 16.000 | 8.000 | 4.000 |     |     |     |     |     |
| 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 | SLOPE | EP | AP |       |       |       |
| 21          | 1 | C | T |   | 40.000 | 0.000 | 8.000 | 6.000 | 8.000 | 6.000 | 6.000 | 0.000 | 8  | 6  | 11 | 8  | 6  | 11 | 22 | 16 | 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 |  |

| GROUP II WIND            |       |          |     |          |     |          |     |          |     |          |     |                    |           |                   |         |                      |
|--------------------------|-------|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|--------------------|-----------|-------------------|---------|----------------------|
| SUPERSTRUCTURE AREA*STD. |       |          |     |          |     |          |     |          |     |          |     |                    |           |                   |         |                      |
| TRANS.                   | LONG. | WIND FT1 | FT1 | WIND FT2 | FT2 | WIND FT3 | FT3 | WIND FT4 | FT4 | WIND FT5 | FT5 | * WIND ON PIER APT | FORCE APL | * WIND ON PIER PT | ARM APL | LENGTHS OF LL TRANS. |
| 1365.                    | 2730. | 1        | 50  | 0        | 44  | 6        | 41  | 12       | 33  | 16       | 17  | 19                 | 7.375     | 7.375             | 5.273   | 14.323               |

| GROUP III WIND                            |     |     |     |     |     |     |     |     |     |                 |     |     |     |     |     |     |     |     |     |                        |        |                    |             |        |        |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------------|--------|--------------------|-------------|--------|--------|
| STD. * WIND ON SUPERSTRUCTURE INTENSITIES |     |     |     |     |     |     |     |     |     |                 |     |     |     |     |     |     |     |     |     |                        |        |                    |             |        |        |
| WIND FT1                                  | FL1 | FT2 | FL2 | FT3 | FL3 | FT4 | FL4 | FT5 | FL5 | * STD. WIND FT1 | FL1 | FT2 | FL2 | FT3 | FL3 | FT4 | FL4 | FT5 | FL5 | * LENGTHS OF LL TRANS. | LONGI. | * WIND ON PIER APT | LL ARMS APL |        |        |
| 1   | 50  | 0   | 44  | 6   | 41  | 12  | 33  | 16  | 17  | 19              | 1   | 100 | 0   | 88  | 12  | 82  | 24  | 66  | 32  | 34                     | 38     | 140.0              | 280.0       | 15.583 | 15.583 |

MISCELLANEOUS FORCES

| CENTRI. FT | TRACTION FL | FORCE APT | AND ARMS APL | EXPANSION COEFFICIENT | SHRINKAGE COEFFICIENT | STREAM PT | FLOW PL |
|------------|-------------|-----------|--------------|-----------------------|-----------------------|-----------|---------|
| 0.000      | 9.860       | 15.583    | 15.583       | 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  | 281.621 | 325.334 | 0.000 | 325.334 | 0.000 | 325.334 | 281.621 |    |    |     |     |     |
| LL 1   | 1  | 85.882  | 51.529  | 0.000 | 0.000   | 0.000 | 0.000   | 0.000   |    |    |     |     |     |
| LL 2   | 2  | 85.882  | 103.059 | 0.000 | 85.882  | 0.000 | 0.000   | 0.000   |    |    |     |     |     |
| LL 3   | 3  | 85.882  | 103.059 | 0.000 | 120.235 | 0.000 | 85.882  | 17.176  |    |    |     |     |     |
| LL 4   | 1  | 0.000   | 0.000   | 0.000 | 0.000   | 0.000 | 51.529  | 85.882  |    |    |     |     |     |
| LL 5   | 2  | 0.000   | 0.000   | 0.000 | 85.882  | 0.000 | 103.059 | 85.882  |    |    |     |     |     |
| LL 6   | 3  | 17.176  | 85.882  | 0.000 | 120.235 | 0.000 | 103.059 | 85.882  |    |    |     |     |     |
| LL 7   | 1  | 0.000   | 25.764  | 0.000 | 85.882  | 0.000 | 25.764  | 0.000   |    |    |     |     |     |
| LL 8   | 2  | 42.941  | 111.647 | 0.000 | 94.470  | 0.000 | 25.764  | 0.000   |    |    |     |     |     |
| LL 9   | 3  | 42.941  | 111.647 | 0.000 | 103.059 | 0.000 | 111.647 | 42.941  |    |    |     |     |     |
| LL10   | 2  | 0.000   | 85.882  | 0.000 | 103.059 | 0.000 | 85.882  | 0.000   |    |    |     |     |     |
| LL11   | 2  | 85.882  | 51.529  | 0.000 | 0.000   | 0.000 | 51.529  | 85.882  |    |    |     |     |     |
| LL12   | 3  | 85.882  | 103.059 | 0.000 | 85.882  | 0.000 | 51.529  | 85.882  |    |    |     |     |     |

| 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  | 40.000   | 0.000 | 0.000    | 0.000    | 6.000     | 1.000   | 40.000    | 40.000    |                |  |  |
| DEAD LOAD TOTAL  | 1   | 1765.594 | 2010.394 | 0.000  | 0.000    | 0.000 | 2010.394 | 8089.646 | -8089.646 | 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    | -212.808  | -9.860  | -548.048  | -548.048  |                |  |  |
| WIND ON SUBSTR.  | 1   | 0.000    | -31.638  | 5.273  | 210.920  | 0.000 | 0.000    | 0.000    | -85.938   | -14.323 | -572.920  | -572.920  |                |  |  |
| GROUP 2 WIND 1 1 | 1   | 0.000    | -944.482 | 73.523 | 3444.264 | 0.000 | 0.000    | 0.000    | -85.938   | -14.323 | -572.920  | -572.920  |                |  |  |
| GROUP 2 WIND 1 2 | 1   | 0.000    | -944.482 | 73.523 | 3444.264 | 0.000 | 0.000    | 0.000    | 85.938    | 14.323  | 572.920   | 572.920   |                |  |  |
| GROUP 2 WIND 2 1 | 1   | 0.000    | -834.940 | 65.333 | 3056.262 | 0.000 | 0.000    | 0.000    | -305.021  | -30.703 | -1348.923 | -1348.923 |                |  |  |
| GROUP 2 WIND 2 2 | 1   | 0.000    | -834.940 | 65.333 | 3056.262 | 0.000 | 0.000    | 0.000    | 305.021   | 30.703  | 1348.923  | 1348.923  |                |  |  |

| PIER-36-5-140-40.OUT |   |         |           |        |          |         |          |       |          |         |           |           |
|----------------------|---|---------|-----------|--------|----------|---------|----------|-------|----------|---------|-----------|-----------|
| GROUP 2 WIND 3 1     | 1 | 0.000   | -780.170  | 61.238 | 2862.262 | 0.000   | 0.000    | 0.000 | -524.103 | -47.083 | -2124.925 | -2124.925 |
| GROUP 2 WIND 3 2     | 1 | 0.000   | -780.170  | 61.238 | 2862.262 | 0.000   | 0.000    | 0.000 | 524.103  | 47.083  | 2124.925  | 2124.925  |
| GROUP 2 WIND 4 1     | 1 | 0.000   | -634.115  | 50.318 | 2344.927 | 0.000   | 0.000    | 0.000 | -670.158 | -58.003 | -2642.260 | -2642.260 |
| GROUP 2 WIND 4 2     | 1 | 0.000   | -634.115  | 50.318 | 2344.927 | 0.000   | 0.000    | 0.000 | 670.158  | 58.003  | 2642.260  | 2642.260  |
| GROUP 2 WIND 5 1     | 1 | 0.000   | -342.005  | 28.478 | 1310.257 | 0.000   | 0.000    | 0.000 | -779.699 | -66.193 | -3030.261 | -3030.261 |
| GROUP 2 WIND 5 2     | 1 | 0.000   | -342.005  | 28.478 | 1310.257 | 0.000   | 0.000    | 0.000 | 779.699  | 66.193  | 3030.261  | 3030.261  |
| GROUP 3 WIND 1 1     | 1 | 0.000   | -585.507  | 36.057 | 1811.441 | 0.000   | 0.000    | 0.000 | -25.781  | -4.297  | -171.876  | -171.876  |
| GROUP 3 WIND 1 2     | 1 | 0.000   | -585.507  | 36.057 | 1811.441 | 0.000   | 0.000    | 0.000 | 25.781   | 4.297   | 171.876   | 171.876   |
| GROUP 3 WIND 2 1     | 1 | 0.000   | -516.385  | 31.920 | 1601.661 | 0.000   | 0.000    | 0.000 | -164.025 | -12.571 | -591.436  | -591.436  |
| GROUP 3 WIND 2 2     | 1 | 0.000   | -516.385  | 31.920 | 1601.661 | 0.000   | 0.000    | 0.000 | 164.025  | 12.571  | 591.436   | 591.436   |
| GROUP 3 WIND 3 1     | 1 | 0.000   | -481.824  | 29.851 | 1496.771 | 0.000   | 0.000    | 0.000 | -302.269 | -20.845 | -1010.995 | -1010.995 |
| GROUP 3 WIND 3 2     | 1 | 0.000   | -481.824  | 29.851 | 1496.771 | 0.000   | 0.000    | 0.000 | 302.269  | 20.845  | 1010.995  | 1010.995  |
| GROUP 3 WIND 4 1     | 1 | 0.000   | -389.661  | 24.335 | 1217.065 | 0.000   | 0.000    | 0.000 | -394.431 | -26.361 | -1290.702 | -1290.702 |
| GROUP 3 WIND 4 2     | 1 | 0.000   | -389.661  | 24.335 | 1217.065 | 0.000   | 0.000    | 0.000 | 394.431  | 26.361  | 1290.702  | 1290.702  |
| GROUP 3 WIND 5 1     | 1 | 0.000   | -205.337  | 13.303 | 657.652  | 0.000   | 0.000    | 0.000 | -463.553 | -30.498 | -1500.481 | -1500.481 |
| GROUP 3 WIND 5 2     | 1 | 0.000   | -205.337  | 13.303 | 657.652  | 0.000   | 0.000    | 0.000 | 463.553  | 30.498  | 1500.481  | 1500.481  |
| LIVE LOAD LL 1       | 1 | 137.411 | -1786.344 | 0.000  | 1786.344 | 137.411 | 1786.344 | 0.000 | 0.000    | 0.000   | 0.000     | 0.000     |
| LIVE LOAD LL 2       | 1 | 274.823 | -2198.584 | 0.000  | 2198.584 | 274.823 | 2198.584 | 0.000 | 0.000    | 0.000   | 0.000     | 0.000     |

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

| LOAD           | COL | PC      | MT        | TRANSVERSE |           |         |          |           |       | LONGITUDINAL |       |       |
|----------------|-----|---------|-----------|------------|-----------|---------|----------|-----------|-------|--------------|-------|-------|
|                |     |         |           | V          | MB        | RF      | ML       | MR        | MT    | V            | MB    | MF    |
| LIVE LOAD LL 3 | 1   | 371.011 | -1113.041 | 0.000      | 1113.041  | 371.011 | 1978.726 | -865.685  | 0.000 | 0.000        | 0.000 | 0.000 |
| LIVE LOAD LL 4 | 1   | 137.411 | 1786.344  | 0.000      | -1786.344 | 137.411 | 0.000    | -1786.344 | 0.000 | 0.000        | 0.000 | 0.000 |
| LIVE LOAD LL 5 | 1   | 274.823 | 2198.584  | 0.000      | -2198.584 | 274.823 | 0.000    | -2198.584 | 0.000 | 0.000        | 0.000 | 0.000 |
| LIVE LOAD LL 6 | 1   | 371.011 | 1113.041  | 0.000      | -1113.041 | 371.011 | 865.685  | -1978.726 | 0.000 | 0.000        | 0.000 | 0.000 |
| LIVE LOAD LL 7 | 1   | 137.410 | 0.000     | 0.000      | 0.000     | 137.410 | 206.112  | -206.112  | 0.000 | 0.000        | 0.000 | 0.000 |
| LIVE LOAD LL 8 | 1   | 274.822 | -1374.120 | 0.000      | 1374.120  | 274.822 | 1580.232 | -206.112  | 0.000 | 0.000        | 0.000 | 0.000 |
| LIVE LOAD LL 9 | 1   | 371.011 | 0.000     | 0.000      | 0.000     | 371.011 | 1422.209 | -1422.209 | 0.000 | 0.000        | 0.000 | 0.000 |
| LIVE LOAD LL10 | 1   | 274.823 | 0.000     | 0.000      | 0.000     | 274.823 | 687.056  | -687.056  | 0.000 | 0.000        | 0.000 | 0.000 |
| LIVE LOAD LL11 | 1   | 274.822 | 0.000     | 0.000      | 0.000     | 274.822 | 1786.344 | -1786.344 | 0.000 | 0.000        | 0.000 | 0.000 |
| LIVE LOAD LL12 | 1   | 371.011 | -371.016  | 0.000      | 371.016   | 371.011 | 1978.726 | -1607.710 | 0.000 | 0.000        | 0.000 | 0.000 |

□ CAP ANALYSIS AND DESIGN DATA

| POINT | MOMENTS(KIP-FEET) |            |            |            |            |            |            |          | SHEARS(KIPS) |          |          |           |           |  |  |  |
|-------|-------------------|------------|------------|------------|------------|------------|------------|----------|--------------|----------|----------|-----------|-----------|--|--|--|
|       | D.L.TOT.          | 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   | -33.127           | -33.127    | -33.127    | -33.127    | -33.127    | -33.127    | -33.127    | -18.933  | -385.040     | -18.933  | -385.040 | -18.933   | -571.490  |  |  |  |
| P 2   | -3323.512         | -3323.512  | -4815.111  | -3323.512  | -3323.512  | -3323.512  | -4216.685  | -440.751 | -863.685     | -440.751 | -863.685 | -627.201  | -1273.876 |  |  |  |
| P 3   | -6846.743         | -6846.743  | -9979.105  | -6846.743  | -6846.743  | -6846.743  | -8722.409  | -898.729 | -898.729     | -898.729 | -898.729 | -1308.920 | -1308.920 |  |  |  |
| C 1L  | -10516.539        | -10516.539 | -15289.665 | -10516.539 | -10516.539 | -10516.539 | -13374.699 | -936.169 |              | -936.169 |          | -1346.360 |           |  |  |  |
| C 1R  | -10516.539        | -10516.539 | -15289.665 | -10516.539 | -10516.539 | -10516.539 | -13374.699 |          | 936.169      |          | 1346.360 |           | 936.169   |  |  |  |
| P 5   | -6846.743         | -6846.743  | -9979.104  | -6846.743  | -6846.743  | -6846.743  | -8722.409  | 898.729  | 898.729      | 1308.920 | 1308.920 | 898.729   | 898.729   |  |  |  |
| P 6   | -3323.512         | -3323.512  | -4815.110  | -3323.512  | -3323.512  | -3323.512  | -4216.685  | 863.685  | 440.751      | 1273.876 | 627.201  | 863.685   | 440.751   |  |  |  |
| P 7   | -33.127           | -33.127    | -33.127    | -33.127    | -33.127    | -33.127    | -33.127    | 385.040  | 18.933       | 571.490  | 18.933   | 385.040   | 18.933    |  |  |  |

| PT. | UNF.      |            | TOP REINFORCE. |          | BOT. REINFORCE. |          | CAP DESIGN DATA |           |          |       | D IN.     | FC PSI   | PS %  | FS/FF RATIO | FS/FZ RATIO |       |
|-----|-----------|------------|----------------|----------|-----------------|----------|-----------------|-----------|----------|-------|-----------|----------|-------|-------------|-------------|-------|
|     | M+ K-FT.  | M- K-FT.   | AS             | NO. SIZE | AS              | NO. SIZE | M.SP.           | AV/IN     | BAR&SPAC | M.SP. |           |          |       |             |             | AV/IN |
| P 1 | -25.482   | -25.482    | 3.12           | 2 # 11   | 3.12            | 2 # 11   | 0.00            | 0.000     | #5@ 0.00 | 24.00 | 0.060     | #5@10.33 | 59.14 | 0.08        | 0.000       | 0.099 |
| P 2 | -2556.548 | -3243.604  | 13.63          | 9 # 11   | 3.12            | 2 # 11   | 24.00           | 0.060     | #5@10.33 | 24.00 | 0.169D#5@ | 7.35     | 83.71 | 0.25        | 0.563       | 1.210 |
| P 3 | -5266.726 | -6709.546  | 24.80          | 16 # 11  | 3.12            | 2 # 11   | 24.00           | 0.135     | #5@ 4.59 | 24.00 | 0.135     | #5@ 4.59 | 96.00 | 0.41        | 0.593       | 1.040 |
| C 1 | -8089.646 | -10288.230 | 38.97          | 25 # 11  | 3.12            | 2 # 11   | 24.00           | 0.145     | #5@ 4.29 | 24.00 | 0.145     | #5@ 4.29 | 96.00 | 0.63        | 0.593       | 0.977 |
| P 5 | -5266.726 | -6709.545  | 24.80          | 16 # 11  | 3.12            | 2 # 11   | 24.00           | 0.135     | #5@ 4.59 | 24.00 | 0.135     | #5@ 4.59 | 96.00 | 0.41        | 0.593       | 1.040 |
| P 6 | -2556.548 | -3243.604  | 13.63          | 9 # 11   | 3.12            | 2 # 11   | 24.00           | 0.169D#5@ | 7.35     | 24.00 | 0.060     | #5@10.33 | 83.71 | 0.25        | 0.563       | 1.210 |
| P 7 | -25.482   | -25.482    | 3.12           | 2 # 11   | 3.12            | 2 # 11   | 24.00           | 0.060     | #5@10.33 | 0.00  | 0.000     | #5@ 0.00 | 59.14 | 0.08        | 0.000       | 0.099 |

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

□ COLUMN ANALYSIS AND DESIGN OUTPUT

CRITICAL COLUMN LOADS

PIER-36-5-140-40.OUT

| CN | T | B | GR | LLC  | WC  | R | E | C | S | PF     | MTF     | MLF     | PM     | MTM    | MLM    | PU     | MTU     | MLU    | PU/PM | B     | D     |
|----|---|---|----|------|-----|---|---|---|---|--------|---------|---------|--------|--------|--------|--------|---------|--------|-------|-------|-------|
| 1  | T |   | 1  | LL 2 | 0.0 |   |   |   |   | 2891.9 | -4773.1 | 0.0     | 2891.9 | 5247.4 | 2041.3 | 8630.8 | 15664.3 | 6093.6 | 2.985 | 72.00 | 96.00 |
| 1  | B |   | 3  | LL 2 | 4.1 |   |   |   |   | 2970.8 | 4440.3  | -3102.8 | 2970.8 | 4843.8 | 3600.5 | 7652.5 | 12417.2 | 9230.0 | 2.566 | 72.00 | 96.00 |

COLUMN DESIGN DATA

| CN | T | B | FACE 1  | B | FACE 2  | D | FACE 3 | D | FACE 4 | AS    | PS    | BD12 | BD    | SUMPU | SUMPC  | DEL.T | DEL.L | CM    | R | PHIC |
|----|---|---|---------|---|---------|---|--------|---|--------|-------|-------|------|-------|-------|--------|-------|-------|-------|---|------|
| 1  | T |   | 15 # 11 |   | 15 # 11 |   | 8 # 11 |   | 8 # 11 | 71.76 | 1.038 | 1.00 | 0.000 | 3051. | 33756. | 1.099 | 1.176 | 1.000 | 2 | 0.70 |
| 1  | B |   | 15 # 11 |   | 15 # 11 |   | 8 # 11 |   | 8 # 11 | 71.76 | 1.038 | 1.00 | 0.000 | 2812. | 33756. | 1.091 | 1.160 | 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   |
|---|---|------|-----|----|---|---|----------|----------|-----------------|---------|---------|--------|---------|---------|---------|--------|--------|-----|--------|
| 1 | 3 | LL 2 | 3.1 |    |   |   | 2241.590 | 3346.342 | 29.851-2107.092 | -40.565 | 144.827 | 51.725 | 197.651 | 290.753 | 111.721 | -0.141 | 46.515 |     | MAX.P1 |
| 1 | 3 | LL 2 | 1.1 |    |   |   | 2914.067 | 4759.314 | 46.874-1648.364 | -31.222 | 154.842 | 82.093 | 290.380 | 363.129 | 149.630 | -0.183 | 60.470 |     | MAX.MT |
| 1 | 3 | LL 2 | 3.1 |    |   |   | 2914.067 | 4350.244 | 38.807-2739.219 | -52.734 | 188.275 | 67.243 | 256.947 | 377.979 | 145.238 | -0.183 | 60.470 |     | MAX.VT |
| 1 | 3 | LL 3 | 4.1 |    |   |   | 3019.261 | 2799.441 | 31.636-3601.562 | -68.878 | 248.055 | 88.995 | 212.195 | 371.254 | 133.071 | -0.183 | 62.608 |     | MAX.VP |
| 1 | 3 | LL 3 | 4.1 |    |   |   | 3019.261 | 2799.441 | 31.636-3601.562 | -68.878 | 248.055 | 88.995 | 212.195 | 371.254 | 227.679 | 35.243 | 62.608 |     | MAX.ML |
| 1 | 3 | LL 3 | 4.1 |    |   |   | 3019.261 | 2799.441 | 31.636-3601.562 | -68.878 | 248.055 | 88.995 | 212.195 | 371.254 | 227.679 | 35.243 | 62.608 |     | MAX.VL |
| 1 | 3 | LL 2 | 3.1 |    |   |   | 2241.590 | 3346.342 | 29.851-2107.092 | -40.565 | 144.827 | 51.725 | 197.651 | 290.753 | 111.721 | -0.141 | 46.515 |     | 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    |
| 13.750       | 13.750 | 4.000 | 0.990 | 1.10                        | 20 # 8  | @ 8.250 | TOP TRAN  | 155.770 | 37.522               | 75.044 | 31.090 | 0.000 |
|              |        |       |       | 1.64                        | 15 #11  | @11.000 | BOT.LONG  | 236.369 | 38.976               | 77.952 | 32.295 | 0.000 |

NUMBER OF PILES = 14 BP = 1.875 DP = 1.875