

06-NOV-09
13:32:34

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; 193' SPAN; 80' TALL; BRIDGE 2B ; PIER 8

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 TOP | * CAP MAX | REINFORCING MAX | STEEL MIN | * MIN TOP | * * MIN CL. | * * CAP MIN DEPTH | BOT 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.P | 1.00 | REINFORCING MAX.P | 8.00 | STEEL CL.SP. | 2.50 | R CLEAR | 3.750 | KL MODE | 2 | OC COEF | 0.70 | OF | 0.90 | CM | 1.00 | BD1 | 1.00 | BD2 | 0.75 | IMPACT % | 15.15 | SOIL WT | 0.120 | ALL.S.P. | 0.000 | MIN PL | 3.00 | MAX PL | 9.00 | EDGE DIST | 1.250 | PILE DEPTH | 1.000 | REBAR CLEAR | 3.000 | ALL.PILE CAPACITY | 235.000 | ALL.PILE UPLIFT | -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 | V | T | | 80.000 | 6.000 | 8.000 | 6.000 | 11.083 | 9.083 | 6.000 | 0.000 | 8 | 6 | 11 | 11 | 9 | 11 | 22 | 16 | 11 | 31 | 25 | 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 | 13.083 | 13.083 | 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 INTENSITIES * WIND FORCE ARM * WIND ON PIER | | | | | | | | | | | | | | | |
| SUPERSTRUCTURE AREA*STD. TRANS. LONG. WIND FT1 FL1 WIND ON SUPERSTRUCTURE INTENSITIES FT2 FL2 FT3 FL3 FT4 FL4 FT5 FL5 WIND ON LIVE LOAD INTENSITIES FT1 FL1 FT2 FL2 FT3 FL3 FT4 FL4 FT5 FL5 LENGTHS OF LL * WIND ON LL ARMS TRANS. LONGI. APT APL | | | | | | | | | | | | | | | |
| 2029. 9435. 1 50 0 44 6 41 12 33 16 17 19 7.771 7.771 11.461 21.268 | | | | | | | | | | | | | | | |

| STD. WIND FT1 | * WIND FT1 | ON FL1 | SUPERSTRUCTURE FT2 | INTENSITIES FL2 | FT3 | FL3 | FT4 | FL4 | FT5 | FL5 | STD. WIND FT1 | * WIND FT1 | ON FL1 | SUPERSTRUCTURE FT2 | INTENSITIES FL2 | FT3 | FL3 | FT4 | FL4 | FT5 | FL5 | LENGTHS OF LL TRANS. | * WIND ON LL ARMS LONGI. APT | LL APL | |
|---------------|------------|--------|--------------------|-----------------|-----|-----|-----|-----|-----|-----|---------------|------------|--------|--------------------|-----------------|-----|-----|-----|-----|-----|-----|----------------------|------------------------------|--------|--------|
| 1 | 50 | 0 | 44 | 6 | 41 | 12 | 33 | 16 | 17 | 19 | 1 | 100 | 0 | 88 | 12 | 82 | 24 | 66 | 32 | 34 | 38 | 192.5 | 895.0 | 16.375 | 16.375 |

| CENTRI. FT | TRACTION FL | FORCE APT | MISCELLANEOUS FORCES AND ARMS APL | EXPANSION COEFFICIENT | SHRINKAGE COEFFICIENT | STREAM PT | FLOW PL |
|------------|-------------|-----------|-----------------------------------|-----------------------|-----------------------|-----------|---------|
| 14.624 | 29.540 | 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 | 430.960 | 383.700 | 0.000 | 0.000 | 428.450 | 351.190 | | | | | | |
| LL01 | 1 | 35.930 | 65.110 | 0.000 | 0.000 | 96.980 | 121.680 | | | | | | |
| LL02 | 1 | 143.590 | 75.370 | 0.000 | 0.000 | 69.030 | 28.500 | | | | | | |
| LL03 | 2 | 53.250 | 110.630 | 0.000 | 0.000 | 157.350 | 150.180 | | | | | | |
| LL04 | 2 | 50.940 | 115.060 | 0.000 | 0.000 | 166.020 | 126.170 | | | | | | |
| LL05 | 2 | 156.560 | 140.490 | 0.000 | 0.000 | 113.000 | 41.440 | | | | | | |
| LL06 | 2 | 179.520 | 124.540 | 0.000 | 0.000 | 104.700 | 39.550 | | | | | | |

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

| LOAD | COL | TRANSVERSE | | | | | | | * LONGITUDINAL | | | | | |
|------------------|-----|----------------------|-----------|---------|----------|----------|----------|-----------|----------------|----------|------------|------------|--------|--|
| | | PC | MT | V | MB | RF | ML | MR | MT | V | MB | MF | | |
| UNIT F.AT CL.CAP | 1 | 0.000 | -6.000 | 1.000 | 80.000 | 0.000 | 0.000 | 0.000 | 0.000 | 6.000 | 1.000 | 80.000 | 80.000 | |
| DEAD LOAD TOTAL | 1 | 1799.050 2606.567 | -907.932 | 0.000 | 907.932 | 2606.567 | 8621.605 | -7713.674 | 0.000 | 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 | -660.958 | -29.540 | -2846.917 | -2846.917 | | |
| CENT. FORCE 1 LN | 1 | 0.000 | -327.212 | 14.624 | 1409.388 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | |
| WIND ON SUBSTR. | 1 | 0.000 | -68.766 | 11.461 | 916.880 | 0.000 | 0.000 | 0.000 | -127.608 | -21.268 | -1701.440 | -1701.440 | | |
| GROUP 2 WIND 1 1 | 1 | 0.000 | -1465.834 | 112.911 | 9821.248 | 0.000 | 0.000 | 0.000 | -127.608 | -21.268 | -1701.440 | -1701.440 | | |
| GROUP 2 WIND 1 2 | 1 | 0.000 | -1465.834 | 112.911 | 9821.248 | 0.000 | 0.000 | 0.000 | 127.608 | 21.268 | 1701.440 | 1701.440 | | |
| GROUP 2 WIND 2 1 | 1 | 0.000 | -1298.186 | 100.737 | 8752.724 | 0.000 | 0.000 | 0.000 | -907.184 | -77.878 | -6670.156 | -6670.156 | | |
| GROUP 2 WIND 2 2 | 1 | 0.000 | -1298.186 | 100.737 | 8752.724 | 0.000 | 0.000 | 0.000 | 907.184 | 77.878 | 6670.156 | 6670.156 | | |
| GROUP 2 WIND 3 1 | 1 | 0.000 | -1214.362 | 94.650 | 8218.462 | 0.000 | 0.000 | 0.000 | -1686.761 | -134.488 | -11638.873 | -11638.873 | | |
| GROUP 2 WIND 3 2 | 1 | 0.000 | -1214.362 | 94.650 | 8218.462 | 0.000 | 0.000 | 0.000 | 1686.761 | 134.488 | 11638.873 | 11638.873 | | |
| GROUP 2 WIND 4 1 | 1 | 0.000 | -990.831 | 78.418 | 6793.763 | 0.000 | 0.000 | 0.000 | -2206.478 | -172.228 | -14951.352 | -14951.352 | | |
| GROUP 2 WIND 4 2 | 1 | 0.000 | -990.831 | 78.418 | 6793.763 | 0.000 | 0.000 | 0.000 | 2206.478 | 172.228 | 14951.352 | 14951.352 | | |
| GROUP 2 WIND 5 1 | 1 | 0.000 | -543.769 | 45.954 | 3944.365 | 0.000 | 0.000 | 0.000 | -2596.266 | -200.533 | -17435.709 | -17435.709 | | |

| GROUP | WIND | 5 | 2 | 1 | 0.000 | -543.769 | 45.954 | 3944.365 | 0.000 | PIER-32-4-193-80.OUT | 0.000 | 2596.266 | 200.533 | 17435.709 | 17435.709 |
|-----------|--------|---|---|---------|----------|----------|-----------|----------|---------|----------------------|-----------|----------|-----------|-----------|-----------|
| GROUP 3 | WIND 1 | 1 | 1 | 0.000 | -870.469 | 53.123 | 4801.593 | 0.000 | 0.000 | 0.000 | -38.282 | -6.380 | -510.432 | -510.432 | |
| GROUP 3 | WIND 1 | 2 | 1 | 0.000 | -870.469 | 53.123 | 4801.593 | 0.000 | 0.000 | 0.000 | 38.282 | 6.380 | 510.432 | 510.432 | |
| GROUP 3 | WIND 2 | 1 | 1 | 0.000 | -768.488 | 47.161 | 4258.410 | 0.000 | 0.000 | 0.000 | -512.463 | -34.103 | -3036.114 | -3036.114 | |
| GROUP 3 | WIND 2 | 2 | 1 | 0.000 | -768.488 | 47.161 | 4258.410 | 0.000 | 0.000 | 0.000 | 512.463 | 34.103 | 3036.114 | 3036.114 | |
| GROUP 3 | WIND 3 | 1 | 1 | 0.000 | -717.498 | 44.180 | 3986.818 | 0.000 | 0.000 | 0.000 | -986.643 | -61.826 | -5561.797 | -5561.797 | |
| GROUP 3 | WIND 3 | 2 | 1 | 0.000 | -717.498 | 44.180 | 3986.818 | 0.000 | 0.000 | 0.000 | 986.643 | 61.826 | 5561.797 | 5561.797 | |
| GROUP 3 | WIND 4 | 1 | 1 | 0.000 | -581.524 | 36.230 | 3262.573 | 0.000 | 0.000 | 0.000 | -1302.763 | -80.308 | -7245.585 | -7245.585 | |
| GROUP 3 | WIND 4 | 2 | 1 | 0.000 | -581.524 | 36.230 | 3262.573 | 0.000 | 0.000 | 0.000 | 1302.763 | 80.308 | 7245.585 | 7245.585 | |
| GROUP 3 | WIND 5 | 1 | 1 | 0.000 | -309.575 | 20.331 | 1814.084 | 0.000 | 0.000 | 0.000 | -1539.854 | -94.170 | -8508.426 | -8508.426 | |
| GROUP 3 | WIND 5 | 2 | 1 | 0.000 | -309.575 | 20.331 | 1814.084 | 0.000 | 0.000 | 0.000 | 1539.854 | 94.170 | 8508.426 | 8508.426 | |
| LIVE LOAD | LL01 | | 1 | 319.700 | 1349.237 | 0.000 | -1349.237 | 319.700 | 806.888 | -2156.126 | 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 | 316.490 | -1640.849 | 0.000 | 1640.849 | 316.490 | 2362.012 | -721.163 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| LIVE LOAD LL03 | 1 | 471.410 | 1575.062 | 0.000 | -1575.062 | 471.410 | 1261.810 | -2836.872 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| LIVE LOAD LL04 | 1 | 458.190 | 1291.050 | 0.000 | -1291.050 | 458.190 | 1250.145 | -2541.195 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| LIVE LOAD LL05 | 1 | 451.490 | -1739.976 | 0.000 | 1739.976 | 451.490 | 2847.507 | -1107.531 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| LIVE LOAD LL06 | 1 | 448.310 | -2052.173 | 0.000 | 2052.173 | 448.310 | 3094.508 | -1042.335 | 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 | -579.470 | -19.222 | -579.470 | -19.222 | -969.208 |
| P 2 | -5746.261 | -5746.261 | -9383.686 | -5746.261 | -5746.261 | -5746.261 | -7924.359 | -649.729 | -1148.539 | -649.729 | -1148.539 | -1039.467 | -1808.653 | | |
| P 3 | -6514.385 | -6514.385 | -10592.105 | -6514.385 | -6514.385 | -6514.385 | -8956.133 | -1154.706 | -1154.706 | -1154.706 | -1154.706 | -1814.820 | -1814.820 | | |
| C 1L | -11208.087 | -11208.087 | -17926.264 | -11208.087 | -11208.087 | -11208.087 | -15230.946 | -1192.146 | | -1192.146 | | -1852.260 | | | |
| C 1R | -10027.775 | -10027.775 | -16186.624 | -10027.775 | -10027.775 | -10027.775 | -13715.709 | | 1146.620 | | 1814.267 | | 1146.620 | | |
| P 4 | -5516.178 | -5516.178 | -9004.437 | -5516.178 | -5516.178 | -5516.178 | -7604.956 | 1109.179 | 1109.179 | 1776.827 | 1776.827 | 1109.179 | 1109.179 | | |
| P 5 | -4778.420 | -4778.420 | -7821.358 | -4778.420 | -4778.420 | -4778.420 | -6600.539 | 1103.013 | 546.028 | 1770.660 | 872.069 | 1103.013 | 546.028 | | |
| P 6 | -33.476 | -33.476 | -33.476 | -33.476 | -33.476 | -33.476 | -33.476 | 475.769 | 19.222 | 801.810 | 19.222 | 475.769 | 19.222 | | |

| PT. | M+ UNF. K-FT. | | M- UNF. K-FT. | | TOP REINFORCE. AS NO.SIZE | | BOT.REINFORCE. AS NO.SIZE | | CAP DESIGN DATA LEFT STIRRUPS M.SP. AV/IN BAR&SPAC | | RIGHT STIRRUPS M.SP. AV/IN BAR&SPAC | | D IN. | FC PSI | PS % | FS/FF RATIO | FS/FZ RATIO |
|-----|---------------|------------|---------------|---------|---------------------------|--------|---------------------------|----------------|--|----------------|-------------------------------------|-------|-------|--------|-------|-------------|-------------|
| | P 1 | -25.751 | -25.751 | 3.12 | 2 # 11 | 3.12 | 2 # 11 | 0.00 | 0.000 #5@ 0.00 | 24.00 | 0.189D#5@ 6.57 | 60.77 | | | | | |
| P 2 | -4420.201 | -6095.661 | 23.90 | 16 # 11 | 3.12 | 2 # 11 | 24.00 | 0.084 #5@ 7.41 | 24.00 | 0.251D#5@ 4.95 | 93.65 | | 0.40 | 0.642 | 0.953 | | |
| P 3 | -5011.065 | -6889.333 | 26.40 | 17 # 11 | 3.12 | 2 # 11 | 24.00 | 0.243D#5@ 5.11 | 24.00 | 0.243D#5@ 5.11 | 96.00 | | 0.44 | 0.679 | 1.002 | | |
| C 1 | -7713.674 | -11716.113 | 46.27 | 30 # 11 | 3.12 | 2 # 11 | 24.00 | 0.253D#5@ 4.91 | 24.00 | 0.245D#5@ 5.07 | 96.00 | | 0.75 | 0.793 | 0.898 | | |
| P 4 | -4243.214 | -5849.966 | 22.28 | 15 # 11 | 3.12 | 2 # 11 | 24.00 | 0.234D#5@ 5.30 | 24.00 | 0.234D#5@ 5.30 | 96.00 | | 0.37 | 0.636 | 0.969 | | |
| P 5 | -3675.708 | -5077.338 | 19.81 | 13 # 11 | 3.12 | 2 # 11 | 24.00 | 0.242D#5@ 5.12 | 24.00 | 0.060 #5@10.33 | 93.65 | | 0.34 | 0.663 | 1.040 | | |
| P 6 | -25.751 | -25.751 | 3.12 | 2 # 11 | 3.12 | 2 # 11 | 24.00 | 0.132 #5@ 4.71 | 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 | | | | | | | | | | | | | | | | | | |
|----|-----|-----------------------|------|-----|---|-----|-----|-----|--------|---------|---------|--------|--------|---------|--------|---------|---------|-------|--------|--------|
| | | GR | LLC | WC | R | E S | C F | S F | PF | MTF | MLF | PM | MTM | MLM | PU | MTU | MLU | PU/PM | B | D |
| 1 | T | 3 | LL06 | 5.1 | | | | C | 2921.6 | -5101.3 | -3720.3 | 2921.6 | 6319.0 | 4904.0 | 5735.9 | 12443.4 | 9657.1 | 1.969 | 72.00 | 96.00 |
| 1 | B | 2 | | 5.1 | | | | | 3388.5 | 6308.0 | ***** | 3388.5 | 7802.6 | 28353.0 | 4600.0 | 10571.2 | 38413.6 | 1.355 | 109.00 | 133.00 |

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 | 0.175 | 3446. | 17885. | 1.239 | 1.318 | 1.000 | 2 | 0.70 |
| 1 | B | 25 # 11 | 25 # 11 | 22 # 11 | 22 # 11 | 146.64 | 1.012 | 1.00 | 0.406 | 2864. | 14950. | 1.237 | 1.251 | 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-32-4-193-80.OUT | | | | | | | | | | | | | | | |
|----------------------|------|-----|---|-------------------|----------|---------------|---------------|---------|---------|---------|---------|---------|--------|--------|--------|
| 1 3 | LL06 | 4.1 | C | 2995.894 | 8771.455 | 65.478 | *****-139.388 | 188.639 | 33.193 | 136.992 | 292.438 | 295.150 | 28.881 | 53.461 | MAX.P1 |
| 1 3 | LL06 | 4.1 | C | 3894.66311402.891 | 85.122 | *****-181.205 | 245.230 | 43.151 | 178.090 | 380.170 | 383.695 | 37.546 | 69.500 | MAX.MT | |
| 1 3 | LL06 | 4.1 | C | 3894.66311402.891 | 85.122 | *****-181.205 | 245.230 | 43.151 | 178.090 | 380.170 | 383.695 | 37.546 | 69.500 | MAX.VT | |
| 1 3 | LL05 | 5.1 | C | 3898.253 | 9167.396 | 64.453 | *****-199.225 | 268.585 | 46.765 | 155.034 | 376.854 | 363.852 | 35.384 | 69.562 | MAX.VP |
| 1 2 | | 5.1 | | 3388.537 | 6307.986 | 59.740 | *****-260.693 | 289.503 | 16.306 | 91.640 | 364.837 | 536.166 | 44.105 | 60.767 | MAX.ML |
| 1 2 | | 5.1 | | 3388.537 | 6307.986 | 59.740 | *****-260.693 | 289.503 | 16.306 | 91.640 | 364.837 | 536.166 | 44.105 | 60.767 | MAX.VL |
| 1 5 | | 4.1 | E | 2606.567 | 7701.694 | 78.418 | *****-172.228 | 190.566 | 10.344 | 102.621 | 282.843 | 260.099 | 25.278 | 46.743 | 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 |
| 30.500 | 30.500 | 4.750 | 0.996 | 2.24 | 44 #11 | @ 8.250 | TOP TRAN | 384.772 | 48.136 | 96.273 | 39.885 | 0.000 |
| | | | | 3.08 | 61 #11 | @ 6.000 | BOT.LONG | 542.971 | 49.838 | 99.676 | 41.295 | 0.000 |

NUMBER OF PILES = 24 BP = 7.000 DP = 7.000