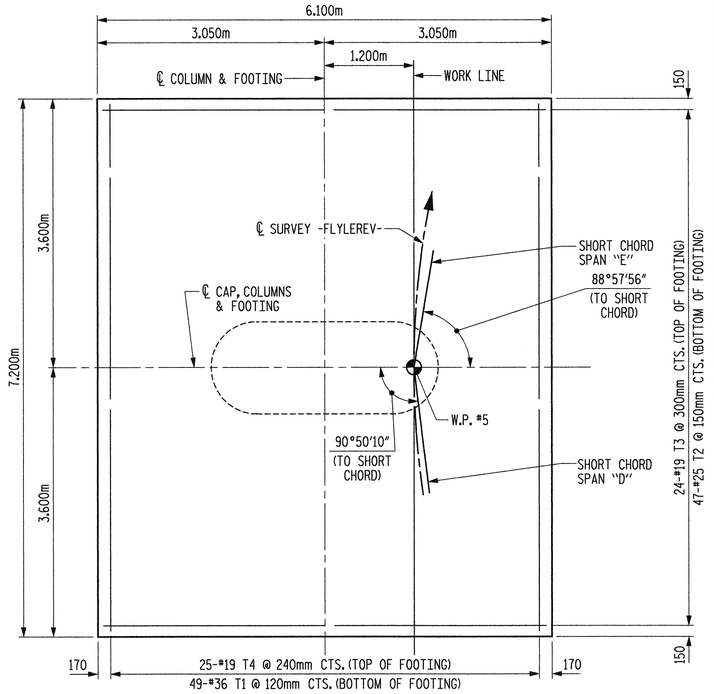
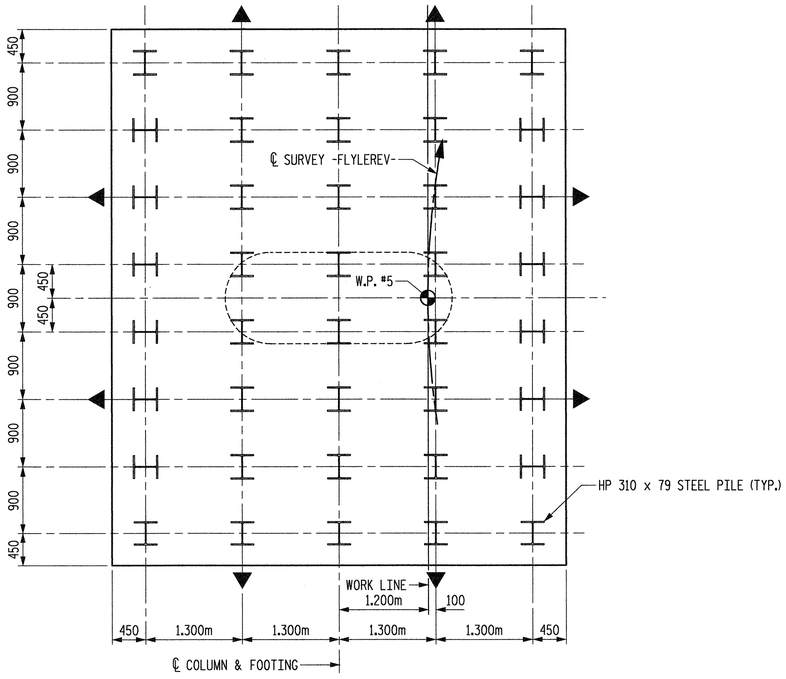


PLAN OF FOOTING

SHOWING REINFORCING BARS

NOTE: FOR REINFORCING IN COLUMNS, SEE SECTION C-C, SHEET 2 OF 3.



PLAN OF FOOTING

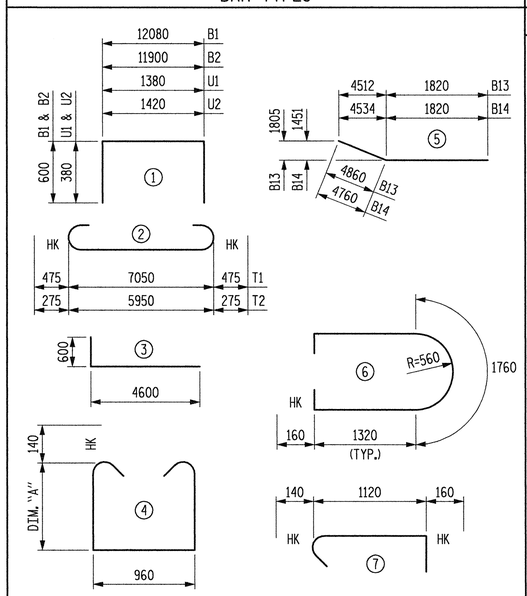
SHOWING PILES

NOTE: FOR DIMENSIONS NOT SHOWN, SEE PLAN OF FOOTING ABOVE.

▲ INDICATES DIRECTION OF 125:1000 BATTER.

DRAWN BY B.E. LANNING	DATE JAN. 2005
CHECKED BY J.C. KO / A.K. ORR	DATE JAN. 2005

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

BENT #4

BAR	NO.	SIZE	TYPE	DIM. "A"	LENGTH	WEIGHT
B1	9	36	1		13280	945
B2	9	36	1		13100	932
B3	4	36	STR		11700	370
B4	10	25	STR		12100	481
B5	2	25	STR		11960	95
B6	2	25	STR		10840	86
B7	2	25	STR		9720	77
B8	2	25	STR		8600	68
B9	2	25	STR		7500	60
B10	2	25	STR		6380	51
B11	2	25	STR		5260	42
B12	2	25	STR		4140	33
B13	6	19	5		6680	90
B14	6	19	5		6580	88
B15	36	13	STR		900	32
B16	10	13	STR		1420	14
M1	64	36	3		5200	2631
S1	2	16	4	1490	4220	13
S2	2	16	4	1520	4280	13
S3	2	16	4	1560	4360	14
S4	2	16	4	1590	4420	14
S5	2	16	4	1630	4500	14
S6	2	16	4	1660	4560	14
S7	2	16	4	1700	4640	14
S8	2	16	4	1730	4700	15
S9	2	16	4	1770	4780	15
S10	2	16	4	1800	4840	15
S11	2	16	4	1840	4920	15
S12	2	16	4	1870	4980	15
S13	2	16	4	1910	5060	16
S14	2	16	4	1940	5120	16
S15	2	16	4	1980	5200	16
S16	2	16	4	2010	5260	16
S17	2	16	4	2050	5340	17
S18	2	16	4	2080	5400	17
S19	2	16	4	2120	5480	17
S20	2	16	4	2150	5540	17
S21	2	16	4	2190	5620	17
S22	2	16	4	2220	5680	18
S23	2	16	4	2260	5760	18
S24	2	16	4	2290	5820	18
S25	2	16	4	2330	5900	18
S26	2	16	4	2360	5960	18

BAR	NO.	SIZE	TYPE	DIM. "A"	LENGTH	WEIGHT
S27	2	16	4	2400	6040	19
S28	2	16	4	2430	6100	19
S29	2	16	4	2470	6180	19
S30	2	16	4	2500	6240	19
S31	2	16	4	2540	6320	20
S32	2	16	4	2570	6380	20
S33	2	16	4	2610	6460	20
S34	2	16	4	2640	6520	20
S35	2	16	4	2680	6600	20
S36	2	16	4	2710	6660	21
S37	2	16	4	2750	6740	21
S38	2	16	4	2780	6800	21
S39	2	16	4	2820	6880	21
S40	2	16	4	2850	6940	22
S41	2	16	4	2890	7020	22
S42	2	16	4	2920	7080	22
S43	2	16	4	2960	7160	22
S44	2	16	4	2990	7220	22
S45	2	16	4	3030	7300	23
S46	2	16	4	3060	7360	23
S47	2	16	4	3100	7440	23
S48	2	16	4	3100	7440	23
S49	2	16	4	3090	7420	23
S50	2	16	4	3080	7400	23
S51	2	16	4	3070	7380	23
S52	2	16	4	3060	7360	23
S53	2	16	4	3050	7340	23
S54	2	16	4	3050	7340	23
S55	2	16	4	3040	7320	23
S56	2	16	4	3030	7300	23
S57	2	16	4	3020	7280	23
S58	2	16	4	3010	7260	23
S59	2	16	4	2970	7180	22
S60	2	16	4	2940	7120	22
S61	2	16	4	2910	7060	22
S62	2	16	4	2880	7000	22
S63	2	16	4	2840	6920	21
S64	2	16	4	2810	6860	21
S65	2	16	4	2780	6800	21
S66	2	16	4	2740	6720	21
S67	2	16	4	2710	6660	21
S68	2	16	4	2680	6600	20
S69	2	16	4	2640	6520	20
S70	2	16	4	2610	6460	20
S71	2	16	4	2580	6400	20

BAR	NO.	SIZE	TYPE	DIM. "A"	LENGTH	WEIGHT
S72	2	16	4	2540	6320	20
S73	2	16	4	2510	6260	19
S74	2	16	4	2480	6200	19
S75	2	16	4	2440	6120	19
S76	2	16	4	2410	6060	19
S77	2	16	4	2380	6000	19
S78	2	16	4	2340	5920	18
S79	2	16	4	2310	5860	18
S80	2	16	4	2280	5800	18
S81	2	16	4	2250	5740	18
S82	2	16	4	2210	5660	18
S83	2	16	4	2180	5600	17
S84	2	16	4	2150	5540	17
S85	2	16	4	2110	5460	17
S86	2	16	4	2080	5400	17
S87	2	16	4	2050	5340	17
S88	2	16	4	2010	5260	16
S89	2	16	4	1980	5200	16
S90	2	16	4	1950	5140	16
S91	2	16	4	1910	5060	16
S92	2	16	4	1880	5000	16
S93	2	16	4	1850	4940	15
S94	2	16	4	1810	4860	15
S95	2	16	4	1780	4800	15
S96	2	16	4	1750	4740	15
S97	2	16	4	1710	4660	14
S98	2	16	4	1680	4600	14
S99	2	16	4	1650	4540	14
S100	2	16	4	1620	4480	14
S101	2	16	4	1580	4400	14
S102	2	16	4	1550	4340	13
S103	2	16	4	1520	4280	13
S104	2	16	4	1480	4200	13
S105	46	16	6		4720	337
S106	69	16	7		1420	152
T1	49	36	2		8000	3100
T2	47	25	2		6500	1214
T3	24	19	STR		5940	319
T4	25	19	STR		7040	393
U1	20	13	1		2140	43
U2	28	13	1		2180	61
V1	64	36	STR		8460	4281

REINFORCING STEEL	17909 kg
CLASS A CONCRETE BREAKDOWN	
POUR #1 (FOOTING)	87.0 CU. METERS
POUR #2 (COLUMNS)	22.8 CU. METERS
POUR #3 (CAP)	47.6 CU. METERS
TOTAL CLASS A CONCRETE	157.4 CU. METERS
HP 310 x 79 STEEL PILES NO. 40	252.0 LIN. METERS

PROJECT NO. R-2552AA

WAKE-JOHNSTON COUNTY

STATION: 28+31.359 -I1Y1-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT #4

METRIC

Plans prepared by:
KO & ASSOCIATES, P.C.
Consulting Engineers
1011 SCHAUB DR., SUITE #202
RALEIGH, N.C. 27606
For Division of Highways

NORTH CAROLINA PROFESSIONAL SEAL 5601 ENGINEER CHIH KUO KO 01/28/05

DWG. NO. 48

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-131
1			3			TOTAL SHEETS
2			4			429

PLOT: 01/27/2005 04:11:19 PM Ko & Associates, P.C.
FILE NAME: r:\r2552aa_sd_bdc_03.dgn