

**PILE LAYOUT**

Pile	Station at Working Point	Top of Parapet El.	Top of Pile El.	Bot. of Wall El.	Section	Pile Tip El.	Pile Length
P-1	1316+34.85	11.45	6.95	4.68	HP14x117	-21.38	28'-4"
P-2	1316+42.43	11.42	6.92	4.46		-21.58	28'-6"
P-3	1316+50.02	11.40	6.90	4.24		-21.77	28'-8"
P-4	1316+57.60	11.37	6.87	4.02		-22.04	28'-11"
P-5	1316+65.19	11.35	6.85	3.80		-22.24	29'-1"
P-6	1316+72.77	11.32	6.82	3.58		-22.43	29'-3"
P-7	1316+80.36	11.30	6.80	3.35		-22.70	29'-6"
P-8	1316+87.94	11.27	6.77	3.13	HP14x117	-22.89	29'-8"
P-9	1316+95.52	11.25	6.75	2.91	W21x147	-28.17	34'-11"
P-10	1317+03.11	11.22	6.72	2.69		-28.36	35'-1"
P-11	1317+10.69	11.20	6.70	2.47		-28.55	35'-3"
P-12	1317+18.27	11.17	6.67	2.25		-28.83	35'-6"
P-13	1317+25.85	11.15	6.65	2.03		-29.02	35'-8"
P-14	1317+33.43	11.12	6.62	1.80		-29.21	35'-10"
P-15	1317+41.01	11.10	6.60	1.58		-29.49	36'-1"
P-16	1317+48.60	11.07	6.57	1.36		-29.68	36'-3"
P-17	1317+56.18	11.05	6.55	1.14		-29.87	36'-5"
P-18	1317+63.76	11.02	6.52	0.92		-30.14	36'-8"
P-19	1317+71.34	11.00	6.50	0.70		-30.34	36'-10"
P-20	1317+78.91	10.97	6.47	0.47	W21x147	-30.53	37'-0"
P-21	1317+86.48	10.96	6.46	0.25	W24x176	-30.79	37'-3"
P-22	1317+94.06	10.96	6.46	0.03		-31.04	37'-6"
P-23	1318+01.64	10.96	6.46	-0.19		-31.21	37'-8"
P-24	1318+09.22	10.96	6.46	-0.41		-31.45	37'-11"
P-25	1318+16.80	10.96	6.46	-0.63		-31.70	38'-2"
P-26	1318+24.39	10.96	6.46	-0.85		-31.87	38'-4"
P-27	1318+31.97	10.97	6.47	-1.08		-32.12	38'-7"
P-28	1318+39.55	10.97	6.47	-1.30		-32.37	38'-10"
P-29	1318+47.13	10.97	6.47	-1.52		-32.53	39'-0"
P-30	1318+54.71	10.97	6.47	-1.74		-32.78	39'-3"
P-31	1318+62.29	10.97	6.47	-1.96		-33.03	39'-6"
P-32	1318+69.87	10.97	6.47	-2.18		-33.20	39'-8"
P-33	1318+77.42	10.97	6.47	-2.34		-33.36	39'-10"
P-34	1318+85.00	10.97	6.47	-2.42		-33.44	39'-11"
P-35	1318+92.59	10.97	6.47	-2.50		-33.53	40'-0"
P-36	1319+00.17	10.97	6.47	-2.58		-33.61	40'-1"
P-37	1319+07.75	10.98	6.48	-2.67		-33.69	40'-2"
P-38	1319+15.32	10.98	6.48	-2.75		-33.77	40'-3"
P-39	1319+22.82	10.98	6.48	-2.83		-33.86	40'-4"
P-40	1319+30.32	10.98	6.48	-2.92	W24x176	-33.94	40'-5"
P-41	1319+37.82	10.97	6.47	-3.00	W27x178	-36.03	42'-6"
P-42	1319+44.65	10.95	6.45	-3.07		-36.13	42'-7"
P-43	1319+51.49	10.93	6.43	-3.15		-36.15	42'-7"
P-44	1319+58.32	10.91	6.41	-3.23		-36.26	42'-8"
P-45	1319+65.15	10.89	6.39	-3.30		-36.36	42'-9"
P-46	1319+71.99	10.87	6.37	-3.38		-36.38	42'-9"
P-47	1319+78.82	10.85	6.35	-3.45		-36.48	42'-10"
P-48	1319+85.65	10.83	6.33	-3.53		-36.59	42'-11"
P-49	1319+92.82	10.80	6.30	-3.74		-36.79	43'-1"
P-50	1320+05.32	10.78	6.28	-3.77		-36.81	43'-1"
P-51	1320+12.82	10.75	6.25	-3.79		-36.83	43'-1"
P-52	1320+20.32	10.73	6.23	-3.81		-36.85	43'-1"
P-53	1320+27.82	10.71	6.21	-3.83		-36.87	43'-1"
P-54	1320+35.32	10.69	6.19	-3.85		-36.89	43'-1"
P-55	1320+42.82	10.67	6.17	-3.87		-36.92	43'-1"
P-56	1320+50.32	10.65	6.15	-3.89		-36.94	43'-1"
P-57	1320+57.76	10.62	6.12	-3.82		-35.88	42'-0"
P-58	1320+65.25	10.59	6.09	-3.64		-35.66	41'-9"
P-59	1320+72.74	10.56	6.06	-3.46		-35.52	41'-7"
P-60	1320+80.23	10.54	6.04	-3.28		-35.30	41'-4"
P-61	1320+87.73	10.51	6.01	-3.10		-35.16	41'-2"
P-62	1320+95.22	10.48	5.98	-2.92		-34.94	40'-11"
P-63	1321+02.71	10.45	5.95	-2.74		-34.80	40'-9"
P-64	1321+10.20	10.42	5.92	-2.56		-34.58	40'-6"
P-65	1321+17.70	10.39	5.89	-2.38	W27x178	-34.44	40'-4"

**PILE LAYOUT**

Pile	Station	Top of Parapet El.	Top of Pile El.	Bot. of Wall El.	Section	Pile Tip El.	Pile Length
P-66	1321+25.19	10.36	5.86	-2.20	W27x178	-34.22	40'-1"
P-67	1321+32.68	10.33	5.83	-2.02	W27x178	-34.08	39'-11"
P-68	1321+40.17	10.31	5.81	-1.84	W27x178	-33.86	39'-8"
P-69	1321+47.67	10.30	5.80	-1.66	W21x147	-29.70	35'-6"
P-70	1321+55.16	10.31	5.81	-1.48		-29.52	35'-4"
P-71	1321+62.65	10.32	5.82	-1.31		-29.35	35'-2"
P-72	1321+70.14	10.33	5.83	-1.13		-29.17	35'-0"
P-73	1321+77.64	10.35	5.85	-0.95		-28.99	34'-10"
P-74	1321+85.13	10.36	5.86	-0.77		-28.81	34'-8"
P-75	1321+92.62	10.37	5.87	-0.59		-28.63	34'-6"
P-76	1322+00.11	10.38	5.88	-0.41		-28.45	34'-4"
P-77	1322+07.61	10.39	5.89	-0.23		-28.27	34'-2"
P-78	1322+15.10	10.41	5.91	-0.05		-28.09	34'-0"
P-79	1322+22.59	10.42	5.92	0.13		-27.92	33'-10"
P-80	1322+30.08	10.43	5.93	0.31	W21x147	-27.74	33'-8"
P-81	1322+37.56	10.44	5.94	0.49	W21x147	-30.56	36'-6"
P-82	1322+45.04	10.45	5.95	0.67		-30.38	36'-4"
P-83	1322+52.53	10.47	5.97	0.85		-30.20	36'-2"
P-84	1322+60.02	10.48	5.98	1.03		-30.02	36'-0"
P-85	1322+67.50	10.49	5.99	1.20		-29.84	35'-10"
P-86	1322+74.99	10.50	6.00	1.38		-29.66	35'-8"
P-87	1322+82.48	10.51	6.01	1.56		-29.49	35'-6"
P-88	1322+89.96	10.53	6.03	1.74		-29.31	35'-4"
P-89	1322+97.45	10.54	6.04	1.92		-29.13	35'-2"
P-90	1323+04.94	10.55	6.05	2.10		-28.95	35'-0"
P-91	1323+12.42	10.56	6.06	2.28		-28.77	34'-10"
P-92	1323+19.91	10.57	6.07	2.46	W21x147	-28.59	34'-8"

**BAR TABLE SCHEDULE**

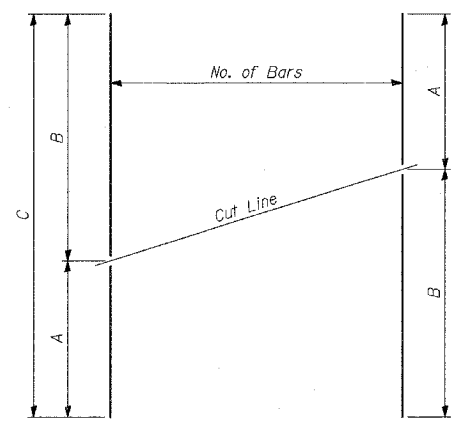
Bar	No. of Sets	No. of Bars Req'd	No. of Bars Per Set	A	B	C
v(E)	1	31	31	3'-7"	4'-4"	7'-11"
v1(E)	1	31	31	4'-4"	5'-1"	9'-5"
v2(E)	1	31	31	5'-1"	5'-11"	11'-0"
v3(E)	1	31	31	5'-11"	6'-8"	12'-7"
v4(E)	1	31	31	6'-8"	7'-6"	14'-2"
v5(E)	1	31	31	7'-6"	8'-4"	15'-10"
v6(E)	1	31	31	8'-4"	9'-3"	17'-7"
v7(E)	1	31	31	9'-3"	10'-2"	19'-5"
v8(E)	1	31	31	10'-2"	10'-6"	20'-8"
v9(E)	1	31	31	10'-6"	10'-10"	21'-4"
v10(E)	1	31	31	10'-10"	11'-1"	21'-11"
v11(E)	1	31	31	11'-1"	10'-7"	22'-0"
v12(E)	1	31	31	10'-7"	9'-9"	20'-4"
v13(E)	1	31	31	9'-9"	8'-11"	18'-8"
v14(E)	1	31	31	8'-11"	8'-3"	17'-2"
v15(E)	1	31	31	8'-3"	7'-7"	15'-10"
v16(E)	1	31	31	7'-7"	6'-11"	14'-6"
v17(E)	1	31	31	6'-11"	6'-3"	13'-2"
v20(E)	1	31	31	6'-3"	5'-7"	11'-10"
v21(E)	1	31	31	5'-7"	4'-11"	10'-6"

**BILL OF MATERIAL**

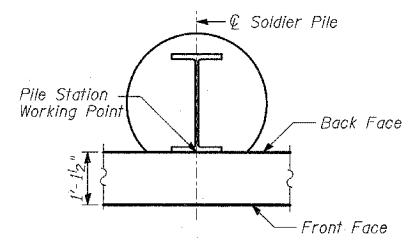
Bar	No.	Size	Length	Shape
d(E)	708	#4	5'-3"	L
d1(E)	708	#6	6'-6"	—
d2(E)	30	#5	4'-8"	L
e(E)	112	#5	32'-2"	—
e1(E)	64	#5	29'-8"	—
e2(E)	8	#5	24'-8"	—
h(E)	331	#5	32'-2"	—
h1(E)	189	#5	29'-8"	—
h2(E)	29	#5	24'-8"	—
v(E)	31	#4	7'-11"	—
v1(E)	31	#4	9'-5"	—
v2(E)	31	#4	11'-0"	—
v3(E)	31	#4	12'-7"	—
v4(E)	31	#4	14'-2"	—
v5(E)	31	#4	15'-10"	—
v6(E)	31	#4	17'-7"	—
v7(E)	31	#4	19'-5"	—
v8(E)	31	#4	20'-8"	—
v9(E)	31	#4	21'-4"	—
v10(E)	31	#4	21'-11"	—
v11(E)	52	#4	11'-2"	—
v12(E)	124	#4	11'-5"	—
v13(E)	31	#4	22'-0"	—
v14(E)	31	#4	20'-4"	—
v15(E)	31	#4	18'-8"	—
v16(E)	31	#4	17'-2"	—
v17(E)	31	#4	15'-10"	—
v18(E)	31	#4	14'-6"	—
v19(E)	31	#4	13'-2"	—
v20(E)	31	#4	11'-10"	—
v21(E)	31	#4	10'-6"	—
v22(E)	61	#5	12'-1"	C

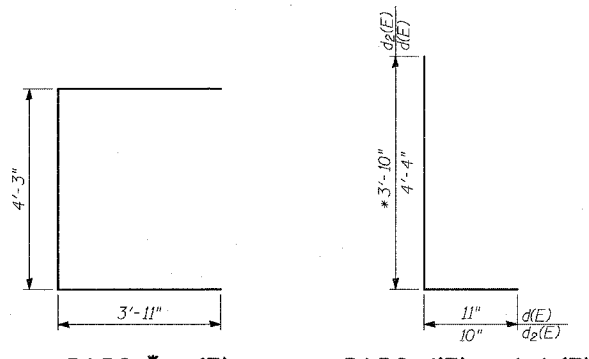
Reinforcement Bars, Epoxy Coated	POUND	41,310
Concrete Structures	CU YD	359
Protective Coat	SQ YD	1041
Furnishing Soldier Piles (HP Section)	FOOT	232
Furnishing Soldier Piles (W Section)	FOOT	3,233
Drilling and Setting Soldier Piles (in Soil)	CU FT	22,031



**SERIES OF BAR CUTTING DIAGRAM**  
See table for dimensions. Make all cuts normal to bar axis



**SOLDIER PILE WORKING POINT**



**BARS \*v22(E)**      **BARS d(E) and d2(E)**  
\* Cut bars to fit in field.

**LAP SPLICES**

Bar	Lap
#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**F.A.I. 94 (DAN RYAN EXPRESSWAY)**  
**RETAINING WALL ALONG LAFAYETTE AVE.**  
**77TH PL. TO 78TH ST.**  
**WALL 73A**  
**PILE LAYOUT, DETAILS & BILL OF MATERIAL**  
 S.N. 016-W972      DESIGNED BY: MI, DJR  
 SCALE: N.T.S.      DRAWN BY: MAF, DJR  
 DATE: MARCH 25, 2005      CHECKED BY: TD, MI