

SCHEDULE																																								
SOLDIER BEAMS						ANCHORS																																		
						'A'								'B'								'C'								'D'								COMMENTS		
SOLDIER BEAM NUMBER & SIZE		SECT.	MAX. VERT. DIST. OF TENDON (FEET)	CORNER DIST. OF TENDON (FEET)	SHRINK UP (INCHES)	DESIGN LOAD (KIPS)	1500 LB LOAD (KIPS)	2000 LB LOAD (KIPS)	NUMBER OF 6" DIA. TENDONS	ANCHOR HOLE DIAMETER (INCHES)	ANCHOR HOLE DEPTH (FEET)	MIL. LENGTH (FEET)	TOTAL LENGTH (FEET)	DESIGN LOAD (KIPS)	1500 LB LOAD (KIPS)	2000 LB LOAD (KIPS)	NUMBER OF 6" DIA. TENDONS	ANCHOR HOLE DIAMETER (INCHES)	ANCHOR HOLE DEPTH (FEET)	MIL. LENGTH (FEET)	TOTAL LENGTH (FEET)	DESIGN LOAD (KIPS)	1500 LB LOAD (KIPS)	2000 LB LOAD (KIPS)	NUMBER OF 6" DIA. TENDONS	ANCHOR HOLE DIAMETER (INCHES)	ANCHOR HOLE DEPTH (FEET)	MIL. LENGTH (FEET)	TOTAL LENGTH (FEET)											
NOTE 4	#1 W16x45	(1) (3)	56	8	36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	CORNER PILE										
NOTE 4	#2 & #3 W24x131	(1) (3)	56	8	36	12"ø x 0.375 PIPE								8"ø x 0.372 PIPE								8"ø x 0.322 PIPE								—										
NOTE 4	#4 W24x131	(1) (3)	56	8	36	14"ø x 0.375 PIPE								10"ø x 0.365 PIPE								10"ø x 0.365 PIPE								—										
NOTE 4	#5 W24x131	(1) (3)	56	8	36	16"ø x 0.375 PIPE								12"ø x 0.375 PIPE								12"ø x 0.375 PIPE								—										
NOTE 4	#6 W24x131	(1) (3)	56	8	36	18"ø x 0.375 PIPE								14"ø x 0.375 PIPE								14"ø x 0.375 PIPE								—										
NOTE 4	#7 THRU #10 W16x36	(1) (3)	56	8	24	105	158	210	—	1 1/8	25	30	16	58	110	165	220	—	1 1/8	25	31	52	120	180	240	—	1 1/8	25	34	49	125	188	250	—	1 1/8	25	36	46	—	
NOTE 4	#11 THRU #13 W16x36	(1) (3)	55	8	24	100	150	200	—	1 1/2	25	28	16	56	122	183	244	—	1 1/8	25	35	56	117	176	234	—	1 1/8	25	33	46	105	158	210	—	1 1/8	25	30	40	—	
NOTE 4	#14 & #15 W16x36	(1) (3)	54	8	24	100	150	200	—	1 1/2	25	28	16	56	120	180	240	—	1 1/8	25	34	55	115	173	230	—	1 1/8	25	33	45	100	150	200	—	1 1/2	25	28	38	—	
NOTE 4	#16 THRU #18 W16x36	(1) (3)	54	8	24	90	135	180	—	1 1/2	25	25	16	52	120	180	240	—	1 1/8	25	34	55	115	173	230	—	1 1/8	25	32	45	100	150	200	—	1 1/2	25	28	38	—	
NOTE 4	#19 THRU #22 W16x36	(1) (3)	52	8	24	103	155	206	—	1 1/8	25	30	16	56	106	159	212	—	1 1/8	25	30	48	88	132	176	—	1 1/4	25	25	38	100	150	200	—	1 1/2	25	28	38	—	
NOTE 4	#23 THRU #32 W16x36	(1) (3)	50	8	24	100	150	200	—	1 1/2	25	28	16	52	100	150	220	—	1 1/2	25	27	45	100	150	200	—	1 1/2	25	25	36	100	150	200	—	1 1/2	25	28	38	NO TIEBACKS @ S.B. #32	
NOTE 4	#33 THRU #38 W12x45	(1) (3)	49	8	24	85	128	170	—	1 1/2	25	25	—	48	91	137	182	—	1 1/2	25	26	44	78	117	156	—	1 1/2	25	25	35	86	129	172	—	1 1/2	25	25	35	—	
NOTE 4	#39 THRU #44 W12x58	(1) (3)	49	8	24	75	113	150	—	1 1/2	25	25	—	45	96	144	192	—	1 1/2	25	27	46	88	132	176	—	1 1/2	25	25	37	94	141	188	—	1 1/2	25	27	37	BLDG. SURCHARGE	
NOTE 4	#45 THRU #46 W12x58	(1) (3)	47	8	24	95	143	190	—	1 1/2	25	27	—	55	105	158	210	—	1 1/8	25	29	51	105	158	210	—	1 1/8	25	29	44	130	195	260	—	1 1/2	25	36	46	BLDG. SURCHARGE	
NOTE 4	#47 & #48 W12x72	(1) (3)	47	8	24	95	143	190	—	1 1/2	25	27	—	55	105	158	210	—	1 1/8	25	29	51	105	158	210	—	1 1/8	25	29	44	130	195	260	—	1 1/2	25	36	46	BLDG. SURCHARGE	
NOTE 4	#49-#50 & #50A W12x58	(1) (3)	47	8	24	95	143	190	—	1 1/2	25	27	—	55	105	158	210	—	1 1/8	25	29	51	105	158	210	—	1 1/8	25	29	44	130	195	260	—	1 1/2	25	36	46	BLDG. SURCHARGE	
4	NOTE 2	#51 THRU #67 W16x36	(1) (3)	48	8	24	85	128	170	—	1 1/2	25	25	16	50	90	135	180	—	1 1/2	25	26	43	76	114	152	—	1 1/2	25	25	35	80	120	160	—	1 1/2	25	25	35	NO TIEBACKS @ S.B. #51
	NOTE 3	#51 THRU #67 W16x45	(1) (3)	48	8	24	110	165	220	—	1 1/8	25	32	16	56	95	143	190	—	1 1/2	25	26	43	77	116	154	—	1 1/2	25	25	35	87	131	174	—	1 1/2	25	25	35	NO TIEBACKS @ S.B. #51
NOTE 4	#68 THRU #82 W16x36	(1) (3)	54	8	24	77	116	154	—	1 1/2	25	25	16	48	91	137	182	—	1 1/2	25	26	48	91	137	182	—	1 1/2	25	26	42	133	200	266	—	1 1/2	25	38	48	NO TIEBACKS @ S.B. #82	
NOTE 4	#83 THRU #92 W18x50	(1) (3)	53	8	30	75	113	150	—	1 1/2	25	22	—	48	95	143	190	—	1 1/2	25	27	49	90	135	180	—	1 1/4	25	25	40	125	188	250	—	1 1/8	25	35	45	—	
NOTE 4	#93 THRU #95 W16x36	(1) (3)	36	8	24	60	90	120	—	1	25	20	—	35	100	150	200	—	1 1/2	25	29	41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
NOTE 4	#96 W24x131	(1) (3)	36	8	24	18"ø x 0.375 PIPE								14"ø x 0.375 PIPE								14"ø x 0.375 PIPE								—										
NOTE 4	#97 W24x131	(1) (3)	36	8	24	16"ø x 0.375 PIPE								12"ø x 0.375 PIPE								12"ø x 0.375 PIPE								—										
NOTE 4	#98 W24x131	(1) (3)	36	8	24	14"ø x 0.375 PIPE								10"ø x 0.365 PIPE								10"ø x 0.365 PIPE								—										
NOTE 4	#99 AND #100 W16x36	(1) (3)	36	8	24	12"ø x 0.375 PIPE								8"ø x 0.372 PIPE								8"ø x 0.322 PIPE								—										
NOTE 4	#101 THRU #103 W14x30	(1) (3)	16	4	24	4"ø SCH40 PIPE								—								—								—										
NOTE 4	#104 THRU #110B W24x84	(1) (3)	16	20	36	—	—	—	—	—	—	—	—	—	104	THRU	#110B	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	INCLUDES 109A & B AND 110A & B			
NOTE 4	#111 THRU #114 W21x62	(1) (3)	18	20	36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NOTE 4	#115 THRU #119 W24x84	(1) (3)	18	22	36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NOTE 4	#120 W24x84	(1) (3)	18	22	36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NOTE 4	#121 THRU #124 W16x36	(1) (3)	21	8	24	75	113	150	—	1	45	18	—	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NOTE 4	#125 THRU #127 W16x36	(1) (3)	25	8	24	90	135	180	—	1 1/2	45	18	—	28	60	90	120	—	1	45	18	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NOTE 4	#128 AND #129 W14x30	(1) (3)	16	4	24	4"ø SCH40 PIPE								—								—								—										
	#130 W16x36	(1) (3)	22	8	24	4"ø SCH40 PIPE								—								—								—										
NOTE 4	#131 THRU #133 W16x45	(1) (3)	28	8	24	110	165	220	—	1 1/8	45	43	—	53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NO TIEBACKS @ S.B. #131			
NOTE 4	#134 THRU #136 W16x45	(1) (3)	28	8	24	8"ø x 0.372 PIPE								—								—								#135 IS CORNER PILE										
NOTE 4	#137 THRU #139 W16x45	(1) (3)	26	8	24	105	158	210	—	1 1/2	20	30	—	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NOTE 4	#140 THRU #142 W12x53	(1) (3)	12	20	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	CANTILEVER			
	#143 THRU #145 W12x50	(1) (3)	12	18	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	CANTILEVER			

- NOTES:
1. AN EXTRA STRAND OR THE NEXT LARGER ROD SHALL BE ADDED/USED, AS NEEDED, TO TEST THE ANCHORS TO 200% OF THEIR DESIGN LOADS.
  2. NO CRANE OUTRIGGER SURCHARGE.
  3. CRANE OUTRIGGER SURCHARGE OPTION. SEE DETAIL 15/SH-3
  4. GENERAL CONTRACTOR TO DETERMINE WHAT BEAMS & TIEBACKS TO BE SURCHARGED
  5. FADED DESIGN UNDER SEPARATE PERMIT

#### CITY OF SANTA MONICA GEOTECHNICAL STANDARD NOTES

1. An as-built report shall be submitted to the City for review. This report prepared by the Geotechnical Consultant must include documentation of any foundation inspections, the results of all compaction tests as well as a map depicting their fill, locations of all density tests, outline and elevation of all removal botoms, and location and elevation of all retaining wall backdrains and outlets. Geologic conditions exposed during grading must be depicted on an as-built geologic map.
2. The as-built report by the Geotechnical Consultant must also include documentation of the soldier pile excavations including, but not limited to, total depth or tip elevation, depth below the toe of the excavation, material profile, and depth to groundwater.

#### TREE PROTECTION ZONE GUIDELINES

1. Trees within the public right-of-way may not be removed for any reason and are to be protected from injury or damage during construction. Pruning shall only be done by City Tree Trimmers to provide clearance for construction activities. All questions regarding street trees are to be directed to the Community Forester.
2. The typical TPZ should encompass the canopy plus an additional radial width of ten feet (10'). However, since these conditions are unique, the application should be evaluated with the final limits of the TPZ being established by the Community Forester.
3. Much the entire area of the TPZ in an effort to improve the growing environment for the roots. During construction phase maintain a four to six inch layer of chip mulch over the soil surface to reduce soil compaction, improve aeration, enhance moisture retention and reduce temperature extremes. Much generally consists of shredded leaves or bark, pine straw, peat moss, wood chips or composted greenwaste.
4. Fence the TPZ with suitable fencing material to prevent wounds to the tree and soil compaction within the root zone. Post the fence with a sign stating: "TREE PROTECTION ZONE—KEEP OUT".
5. Should it be necessary to trench within the TPZ all trenches shall be hand dug. No roots larger than two inches (2") shall be cut unless no other alternative is feasible. All smaller roots that require cutting shall be cut with pruning saws. Cuts shall be made flush with the side of the trench. If at any time twenty-five percent (25%) of the area within the TPZ is being separated from the tree by a trench, then the line shall be either relocated or installed by boring.
6. Removal of hardscape materials from within the TPZ shall be done manually.
7. The minimum distance between an open trench and any tree shall be one foot (1') or six inches (6") for every inch of trunk diameter measured at four and a half feet (4 1/2) above existing grade if this method defines a greater distance. Minimum clearance shall be ten feet (10') from the trunk of the tree.
8. In the event root pruning is required to accommodate grade changes or the installation of hardscape features the root pruning procedures described in this outline should be followed.
9. At no time shall any equipment, materials, supplies or fill soil be allowed in the TPZ unless necessary.
10. Prune and fertilize the trees after the completion of all exterior work on the building and at the beginning of the landscape phase.
11. All questions regarding the City tree adjacent to your project may be directed to the Community Forester, Walt Warner at (310) 458-8974.

#### ANCHOR STRANDED TENDONS:

1. Design loads on stranded cables per SCHEDULE on sheet SH-2.
2. Strands shall be fabricated from 0.6-inch diameter, seven-wire, low relaxation strands conforming to ASTM A-416.
3. Strands shall be high-strength with a guaranteed ultimate minimum strength of 270 ksi.
4. Stranded anchor assembly shall conform to PTI's "Recommendations for Prestressed Rock and Soil Anchors" 4<sup>th</sup> Edition.
5. Strands shall not be welded or used for grounding welding equipment.
6. Diameter of strands, number of strands per anchor and size of concrete anchor shafts shall be logged and checked by the Geotechnical Engineer. Copies of the logs shall be submitted to the Design Engineer.
7. The minimum unbonded length for all stranded anchors is 15 feet.
8. The maximum stranded anchor design and test loads are given below:

Number of Strands	Approx. Area	Max. Design Load	Max. Test Load
3-0.6"ø	0.65 in <sup>2</sup>	105.5 kips	140.6 kips
4-0.6"ø	0.87 in <sup>2</sup>	140.6 kips	187.5 kips
5-0.6"ø	1.09 in <sup>2</sup>	175.8 kips	234.4 kips
6-0.6"ø	1.30 in <sup>2</sup>	211.0 kips	281.3 kips
7-0.6"ø	1.52 in <sup>2</sup>	246.2 kips	328.2 kips
8-0.6"ø	1.74 in <sup>2</sup>	281.3 kips	375.0 kips