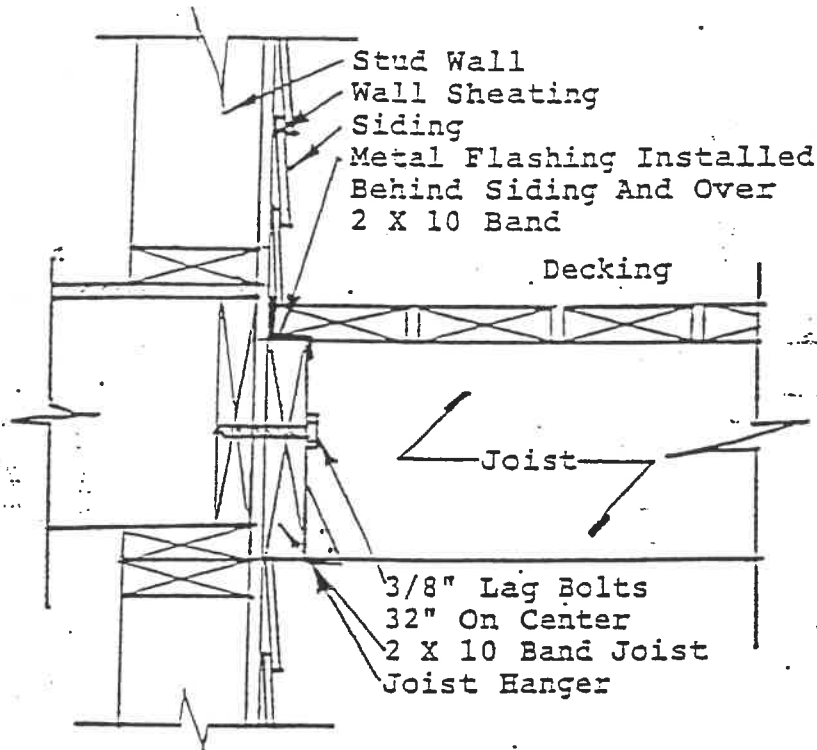
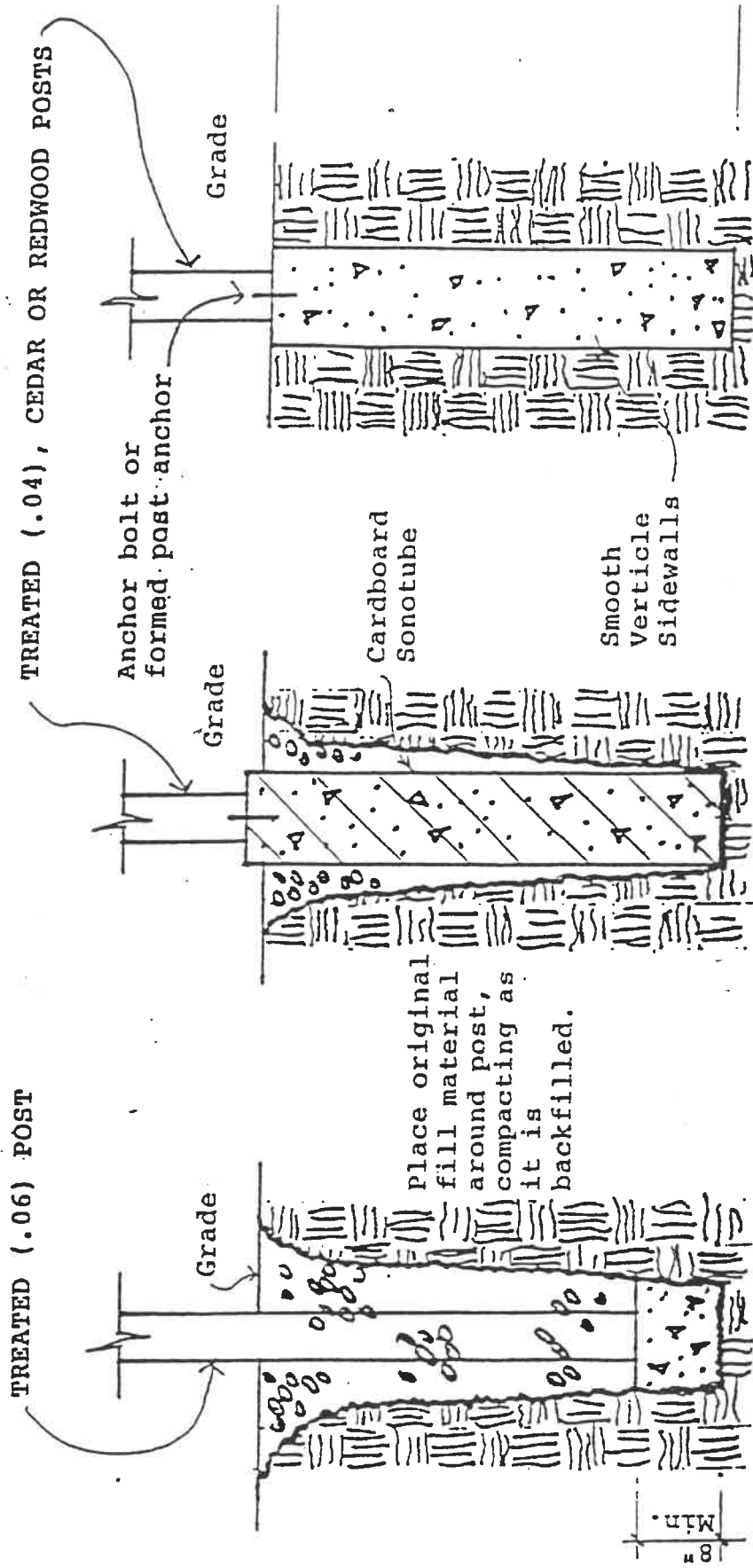


METAL FLASHING ABOVE BAND JOIST



NOTE: DIMENSIONS OF JOISTS TO BE DETERMINED BY ARCHITECT

DECK AND PORCH PIER FOOTING DETAILS



SHALLOW CONCRETE PIER FOOTING

Soil type: Sand, Sandy clay & Rocky
 Sidewall of hole is uneven and tapers outward at the top.

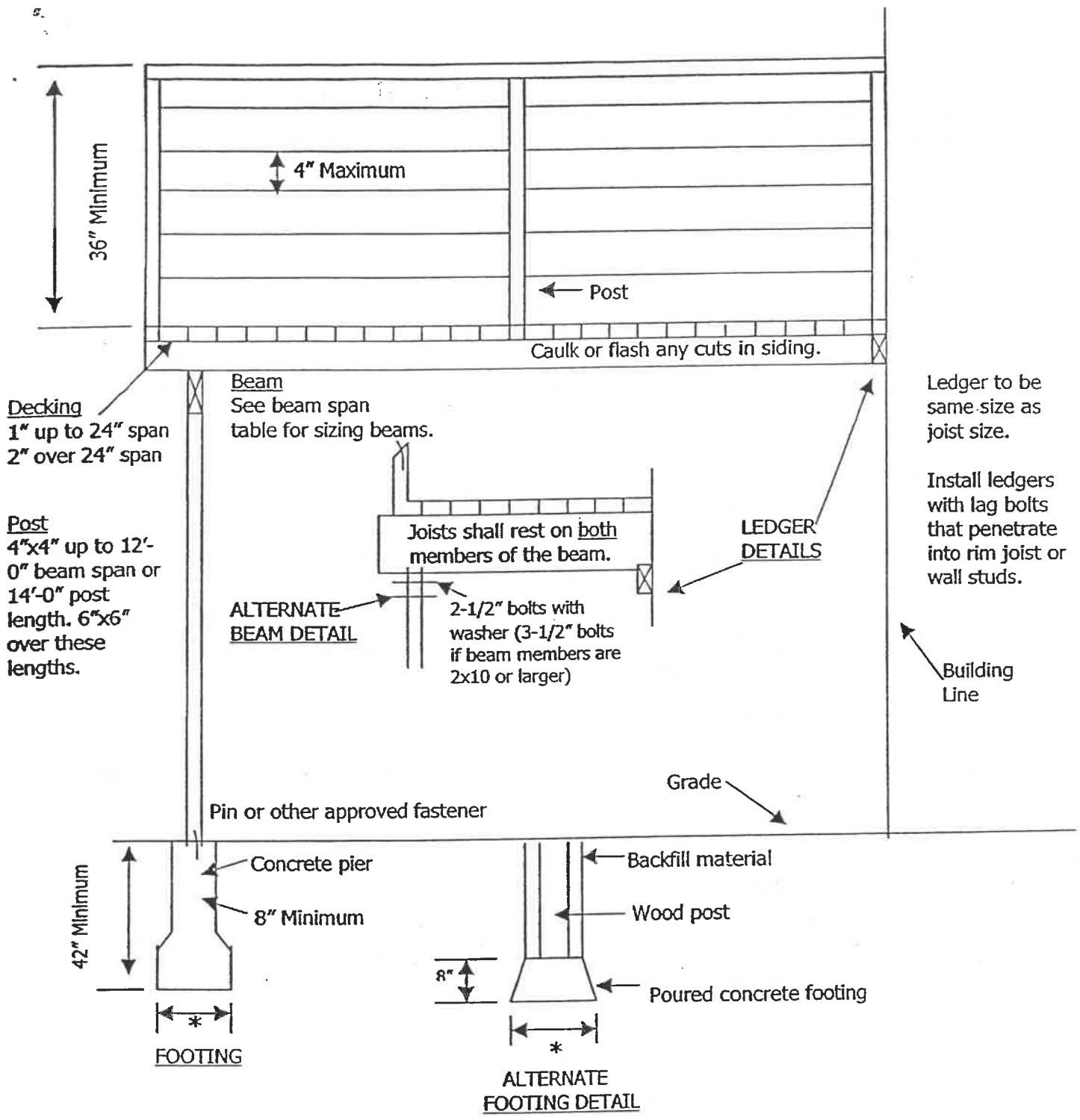
SONOTUBE CONCRETE PIER FOOTING

Soil type: Any type
 Sidewall of hole is uneven and tapers outward at the top.

SOLID CONCRETE PIER FOC

Soil type: Clay
 Sidewall of hole must be verticle and smooth.

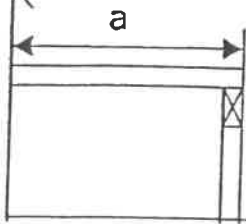
NOTE: DIAMETER OF FOOTING IS DETERMINED BY THE LOAD OF THE STRUCTURE.



NOTE: ALL MATERIALS USED FOR POSTS, JOISTS, BEAMS, AND DECKING SHALL BE OF APPROVED WOOD OF NATURAL RESISTANCE TO DECAY OR APPROVED TREATED WOOD.

*** - REFER TO ATTACHED "DECK FOOTING SIZES" TABLE FOR FOOTING DIMENSIONS.**

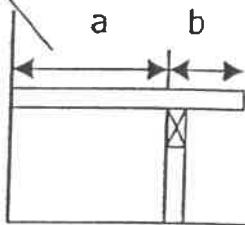
WOOD DECKS – SAMPLE CALCULATIONS FOR USING THE SPAN TABLE



Case I Solution: Refer to table for joist and beam sizes.

Example: $a = 12'$, Post Spacing = $8'$

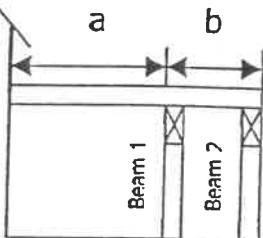
Refer to the span table. Joist size may be either 2x8's 12" O.C. or 2x10's 16" O.C. Beam size may be either 3-2x8's or 2-2x10's.



Case II Solution: Use "a" for joist size and "a" + "b" to determine beam size (The length of "b" is restricted by both the length of "a" and the size of the joists).

Example: $a = 8'$, $b = 2'$, Post Spacing = $10'$

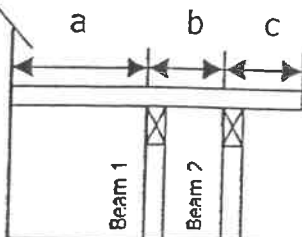
Find the joist size required by looking under 8' on the table. Joist length is indicated as 2x6's 16" O.C. or 2x8's 24" O.C. For sizing the beam, use a joist length of 10' ($8' + 2' = 10'$) and a post spacing of 10'. The table indicates that 4-2x8's or 3-2x10's are required for the beam.



Case III Solution: Use "a" or "b", whichever is greater, to determine joist size. Use "a" + "b" to determine the size of Beam No. 1 and use joist length "b" to determine the size of Beam No. 2.

Example: $a = 6'$, $b = 7'$, Post Spacing = $9'$

The joist length (7') is determined by the longest span joist ("b"). The table indicates that 2x6's 16" O.C. or 2x8's 24" O.C. are required for a 7' span. For Beam No. 1, use joist length of 13' ($6' + 7' = 13'$) and post spacing of 9'. The table indicates that 3-2x10's or 2-2x12's are required for Beam No. 1. For Beam No. 2 use joist length of 7' with a post spacing of 9'. The table indicates that 4-2x6's or 3-2x8's are required for Beam No. 2.



Case IV Solution: Use "a" or "b", whichever is greater, to determine joist size. Use "a" + "b" to determine the size of Beam No. 1 and "b" + "c" to determine the size of Beam No. 2. (The length of "c" is restricted by both the length of "b" and the size of the joist).

Example: $a = 7'$, $b = 8'$, $c = 2'$, Post Spacing = $12'$

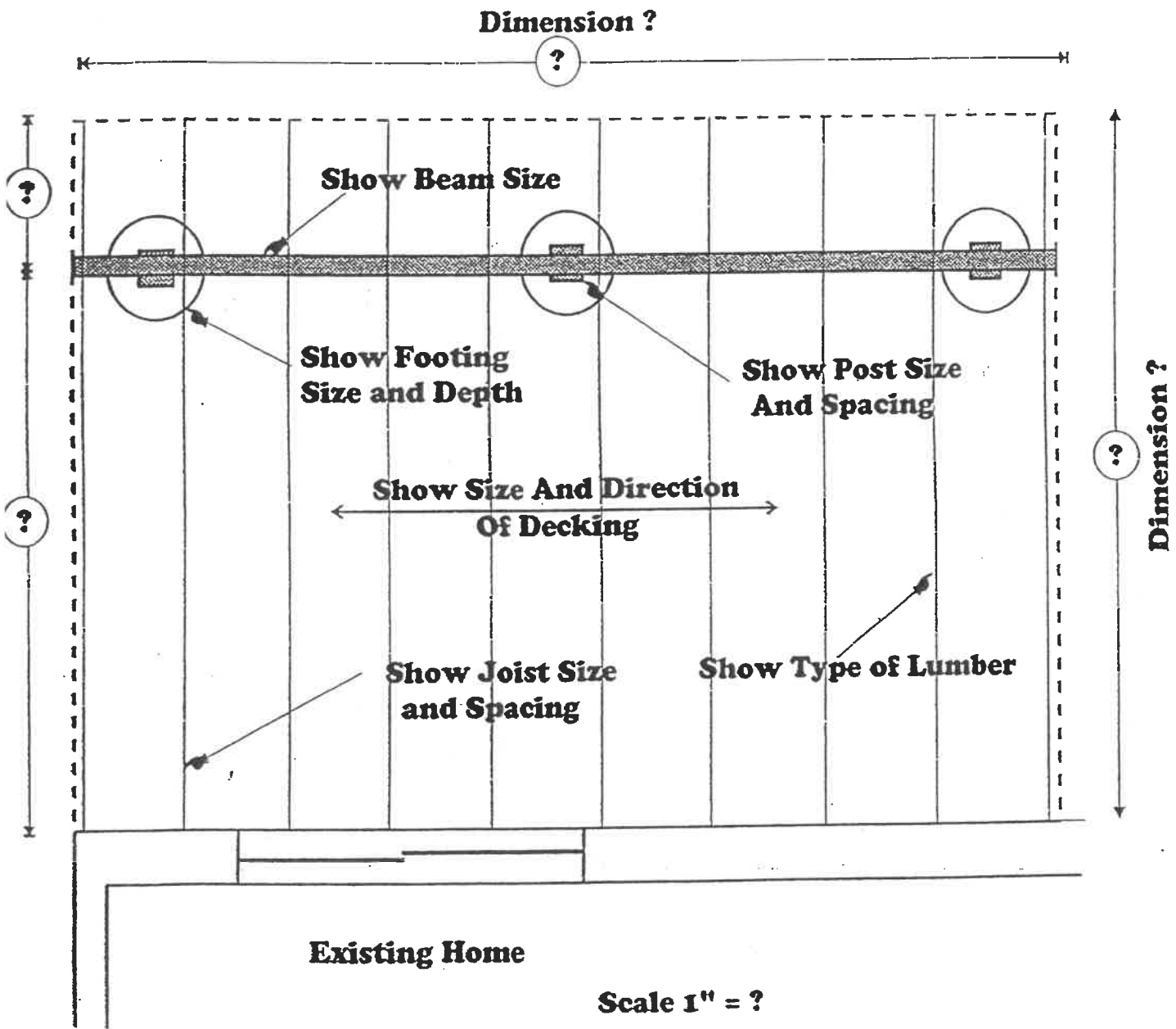
The longest joist span is 8'; therefore, the table indicates that 2x6's 16" O.C. or 2x8's 24" O.C. are required. For Beam No. 1, use joist length of 15' ($7' + 8' = 15'$) and post spacing of 12'. The table indicates that 3-2x12's are required for Beam No. 1. For Beam No. 2, use joist length of 10' ($8' + 2' = 10'$) and post spacing of 12'. The table indicates that 3-2x10's or 3-2x12's are required for Beam No. 2.

NOTES:

Post size must be adequate to provide full beam bearing, ie., one-member and two-member beams must be placed on a 4x4 post, three-member beams must be placed on 4x6 or 6x6 posts, and four-member beams must be placed on 8x8 posts.

Most of the boxes in this table contain two optional means of support. Wood members may be increased above those indicated in the table, but in no event may lesser members be used.

Sample Floor Plan



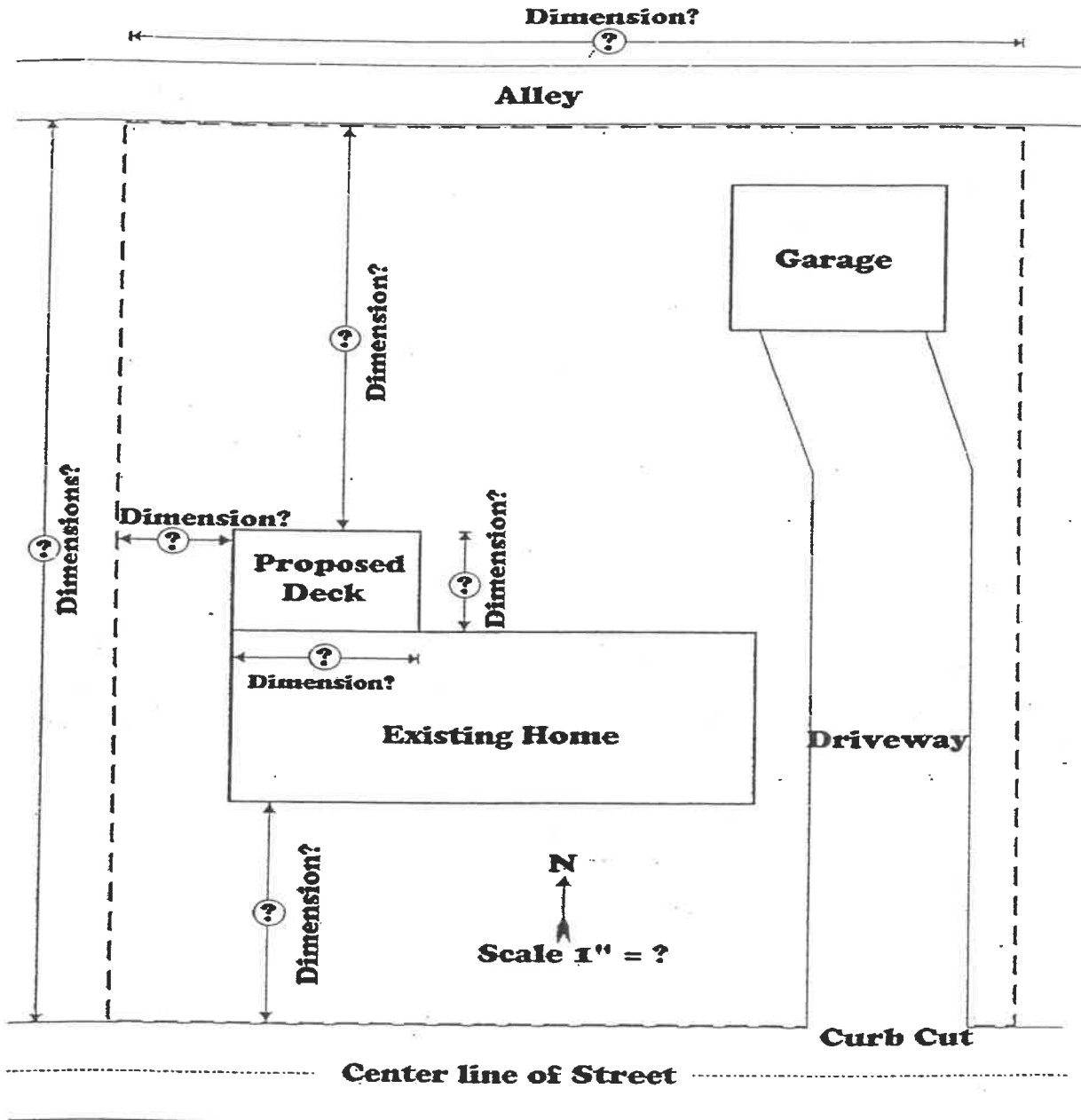
DECK JOIST AND BEAM SIZES

POST SPACING	JOIST LENGTH													
	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'	16'			
4'	JOIST SIZE	2x6 16"OC	2x6 16"OC	2x8 16"OC	2x8 16"OC	2x8 16"OC	2x8 12"OC	2x10 16"OC	2x10 16"OC	2x10 16"OC	2x10 16"OC	2x10 16"OC	2x10 16"OC	2x12 16"OC
	BEAM SIZE	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 24"OC	2x12 24"OC	2x12 24"OC	2x12 24"OC	2x12 24"OC	2x12 16"OC
5'	JOIST SIZE	1-2x6	1-2x6	1-2x6	1-2x6	1-2x6	1-2x8	1-2x8	1-2x8	1-2x8	1-2x8	1-2x8	1-2x10	1-2x12
	BEAM SIZE	2x6 24"OC	2x6 24"OC	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 16"OC
6'	JOIST SIZE	1-2x6	1-2x6	1-2x6	1-2x6	1-2x6	1-2x8	1-2x8	1-2x8	1-2x8	1-2x8	1-2x8	1-2x10	1-2x12
	BEAM SIZE	2x6 24"OC	2x6 24"OC	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 16"OC
7'	JOIST SIZE	2-2x6	1-2x8	2-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x8	2-2x8	2-2x8	2-2x8	2-2x10	2-2x12
	BEAM SIZE	2x6 24"OC	2x6 24"OC	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 16"OC
8'	JOIST SIZE	2-2x6	2-2x6	2-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x8	2-2x8	2-2x8	2-2x8	2-2x10	2-2x12
	BEAM SIZE	2x6 24"OC	2x6 24"OC	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 16"OC
9'	JOIST SIZE	3-2x6	2-2x8	3-2x6	3-2x6	3-2x6	3-2x8	3-2x8	3-2x8	3-2x8	3-2x8	3-2x8	3-2x10	3-2x12
	BEAM SIZE	2x6 24"OC	2x6 24"OC	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 16"OC
10'	JOIST SIZE	3-2x6	3-2x6	3-2x6	3-2x6	3-2x6	3-2x8	3-2x8	3-2x8	3-2x8	3-2x8	3-2x8	3-2x10	3-2x12
	BEAM SIZE	2x6 24"OC	2x6 24"OC	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 16"OC
11'	JOIST SIZE	4-2x6	3-2x8	4-2x6	4-2x6	4-2x6	4-2x8	4-2x8	4-2x8	4-2x8	4-2x8	4-2x8	4-2x10	4-2x12
	BEAM SIZE	2x6 24"OC	2x6 24"OC	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 16"OC
12'	JOIST SIZE	4-2x6	3-2x8	4-2x6	4-2x6	4-2x6	4-2x8	4-2x8	4-2x8	4-2x8	4-2x8	4-2x8	4-2x10	4-2x12
	BEAM SIZE	2x6 24"OC	2x6 24"OC	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 16"OC
13'	JOIST SIZE	3-2x8	3-2x10	3-2x8	3-2x8	3-2x8	3-2x10	3-2x10	3-2x10	3-2x10	3-2x10	3-2x10	3-2x12	3-2x12
	BEAM SIZE	2x6 24"OC	2x6 24"OC	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 16"OC
14'	JOIST SIZE	3-2x8	3-2x10	3-2x8	3-2x8	3-2x8	3-2x10	3-2x10	3-2x10	3-2x10	3-2x10	3-2x10	3-2x12	3-2x12
	BEAM SIZE	2x6 24"OC	2x6 24"OC	2x6 24"OC	2x8 24"OC	2x8 24"OC	2x8 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x10 24"OC	2x12 16"OC

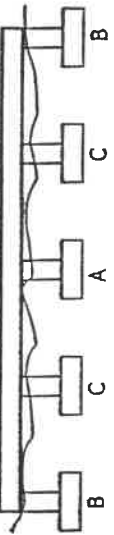
This table is based on the use of Ponderosa Pine No. 2 or better (treated for weather and/or ground exposure).

POST SPACING

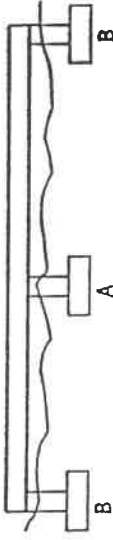
Sample Site Plan



POST SPACING



Footing Types: A=Center Foot
 B=Center Foot
 C=Intermediate Foot



JOIST LENGTH

Post Footing Calculations for Decks:	6'		7'		8'		9'		10'		11'		12'		13'		14'		15'					
	FOOTING TYPE		FOOTING TYPE		FOOTING TYPE		FOOTING TYPE		FOOTING TYPE		FOOTING TYPE		FOOTING TYPE		FOOTING TYPE		FOOTING TYPE		FOOTING TYPE					
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	C	
Soil Type 1	12"	9"	13"	10"	14"	10"	15"	11"	16"	11"	15"	12"	16"	17"	18"	18"	18"	18"	18"	18"	18"	18"	18"	
	100	54	100	126	144	72	144	162	81	162	180	99	198	198	216	234	252	270	270	270	270	270	270	
	10"	7"	10"	8"	12"	8"	12"	9"	12"	13"	6"	13"	13"	14"	15"	15"	15"	15"	15"	15"	15"	15"	15"	15"
Soil Type 2	72	34	72	84	96	48	96	108	54	108	120	66	132	144	156	168	180	180	180	180	180	180	180	180
	9"	6"	10"	7"	10"	7"	10"	11"	8"	11"	8"	12"	12"	14"	15"	16	168	180	180	180	180	180	180	180
	54	27	54	63	72	36	72	81	41	81	90	99	108	120	132	144	156	168	180	180	180	180	180	180
Soil Type 3	13"	9"	14"	10"	15"	11"	16"	12"	16"	17"	12"	17"	18"	19"	19"	19"	19"	19"	19"	19"	19"	19"	19"	19"
	130	65	130	152	173	87	173	195	90	195	216	238	278	303	320	330	348	378	403	432	462	486	516	546
	11"	8"	12"	8"	13"	9"	13"	9"	12"	14"	10"	14"	11"	15"	15"	16"	17"	17"	17"	17"	17"	17"	17"	17"
Soil Type 1	87	44	87	101	116	58	116	130	65	130	144	144	159	173	188	202	216	230	244	258	272	286	300	314
	9"	7"	10"	7"	11"	8"	12"	8"	11"	9"	12"	9"	13"	13"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"
	65	33	65	76	87	44	87	98	49	98	108	119	130	141	152	163	174	185	196	207	218	229	240	251
Soil Type 2	14"	10"	15"	11"	16"	12"	17"	13"	17"	14"	18"	19"	15"	20"	21"	22"	23"	24"	25"	26"	27"	28"	29"	30"
	152	76	152	177	202	101	202	227	114	227	252	278	303	328	353	378	403	428	453	478	503	528	553	578
	12"	8"	13"	9"	14"	10"	14"	10"	13"	11"	13"	16"	11"	16"	12"	17"	18"	19"	20"	21"	22"	23"	24"	25"
Soil Type 3	101	31	101	110	119	59	119	135	68	135	152	168	185	202	219	236	253	270	287	304	321	338	355	372
	18"	7"	18"	11"	12"	8"	12"	9"	12"	13"	9"	14"	10"	14"	10"	14"	11"	15"	16"	17"	18"	19"	20"	21"
	76	38	76	89	101	51	101	114	57	114	126	139	152	165	178	191	204	217	230	243	256	269	282	295
Soil Type 1	13"	11"	15"	16"	18"	13"	18"	19"	13"	19"	20"	21"	22"	23"	24"	25"	26"	27"	28"	29"	30"	31"	32"	33"
	173	87	173	202	231	116	231	260	130	260	288	317	346	375	404	433	462	491	520	549	578	607	636	665
	12"	8"	13"	9"	14"	10"	14"	10"	13"	11"	13"	16"	11"	16"	12"	17"	18"	19"	20"	21"	22"	23"	24"	25"
Soil Type 2	116	58	116	135	154	77	154	173	87	173	192	212	232	251	271	290	310	329	349	368	388	407	427	446
	11"	8"	12"	8"	13"	9"	13"	10"	14"	10"	14"	11"	15"	11"	15"	12"	16"	12"	16"	13"	17"	13"	17"	14"
	87	14	87	101	116	58	116	138	65	130	144	159	174	188	203	217	231	245	260	274	288	302	316	330
Soil Type 3	16"	12"	17"	12"	19"	13"	19"	20"	14"	20"	21"	22"	23"	24"	25"	26"	27"	28"	29"	30"	31"	32"	33"	34"
	194	97	194	227	259	130	259	292	146	292	324	356	389	421	453	485	517	549	581	613	645	677	709	741
	13"	9"	14"	10"	15"	11"	15"	12"	17"	12"	17"	18"	19"	20"	21"	22"	23"	24"	25"	26"	27"	28"	29"	30"
Soil Type 1	129	65	129	151	173	87	173	195	97	195	216	237	259	281	303	325	347	369	391	413	435	457	479	501
	12"	8"	12"	9"	13"	10"	13"	14"	10"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"	24"	25"	26"	27"	28"
	97	49	97	113	130	65	130	146	73	146	162	178	194	210	227	243	259	275	291	307	323	339	355	371

Soil Type 1: 1000 lb/sqft = Clay, Sandy Clay, Silty Clay Soil Type 2: 1500 lb/sqft = Sand, Silty Sand, Clayey Sand, Silty Gravel Soil Type 3: 2000 lb/sqft = Sandy Gravel, Gravel
 Upper Numbers = Minimum required Diameter of Footing Lower Numbers = Minimum required Area of Footing

