

PROJECT: CASCADE		SHEET NO. 1/4
BY: CF	DATE: 4/29/20	JOB NO. 20071

THE APPROVED CONSTRUCTION PLANS,  
DOCUMENTS AND ALL ENGINEERING MUST  
BE POSTED ON THE JOB AT ALL  
INSPECTIONS IN A VISIBLE AND READILY  
ACCESSIBLE LOCATION.

FULL SIZED LEDGIBLE COLOR PLANS ARE  
REQUIRED TO BE PROVIDED BY THE  
PERMITEE ON SITE FOR INSPECTION

STRUCTURAL CALCULATIONS  
FOR THE  
CASCADE CHRISTIAN JR HIGH  
LOBBY ADDITION  
(815-21ST ST SE)

- JEFF BROWN ARCHITECTURE

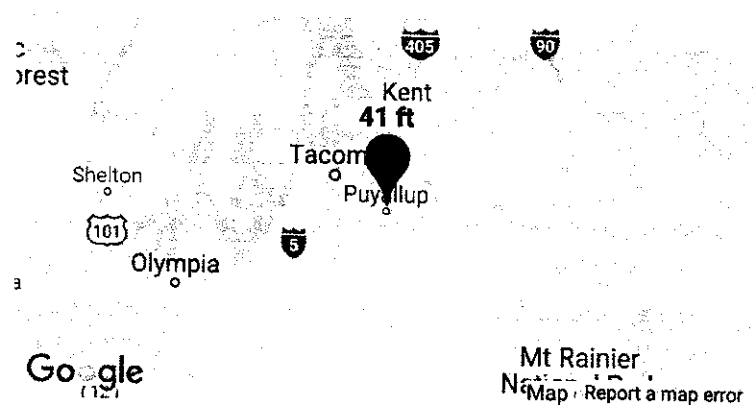
DESIGN PARAMETERS: 2015 IBC  
SEE NOTES ON "S1.1"



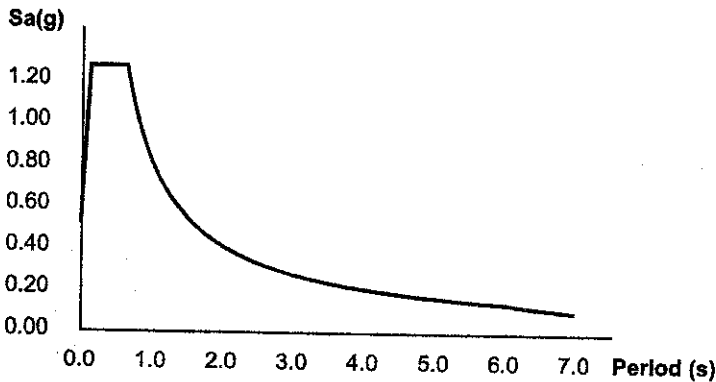
#20071

**Search Information**

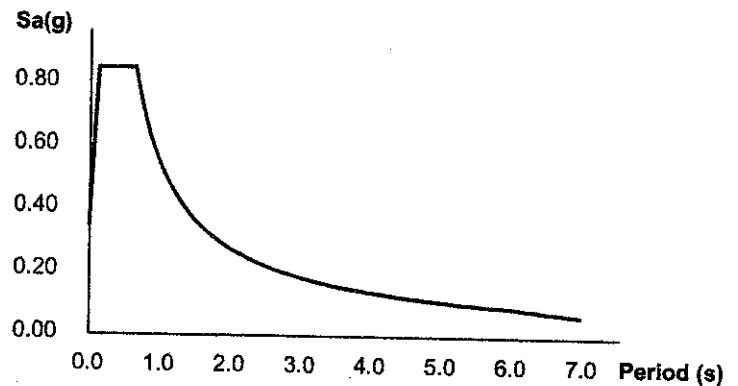
Address: Puyallup, WA, USA  
 Coordinates: 47.1853785, -122.2928974  
 Elevation: 41 ft  
 Timestamp: 2020-04-29T20:34:08.051Z  
 Hazard Type: Seismic  
 Reference Document: NEHRP-2015  
 Risk Category: II  
 Site Class: D



**MCE<sub>R</sub> Horizontal Response Spectrum**



**Design Horizontal Response Spectrum**



**Basic Parameters**

Name	Value	Description
S <sub>S</sub>	1.27	MCE <sub>R</sub> ground motion (period=0.2s)
S <sub>1</sub>	0.437	MCE <sub>R</sub> ground motion (period=1.0s)
S <sub>MS</sub>	1.27	Site-modified spectral acceleration value
S <sub>M1</sub>	* 0.814	Site-modified spectral acceleration value
S <sub>DS</sub>	0.846	Numeric seismic design value at 0.2s SA
S <sub>D1</sub>	* 0.543	Numeric seismic design value at 1.0s SA

$CS = 1.85 / 1.65 = 1.125$   
 $= 1.16$

\* See Section 11.4.7

**Additional Information**

Name	Value	Description
SDC	* D	Seismic design category
F <sub>a</sub>	1	Site amplification factor at 0.2s
	* 1.863	Site amplification factor at 1.0s

B-20-0306

$F_v$		
$CR_S$	0.914	Coefficient of risk (0.2s)
$CR_1$	0.898	Coefficient of risk (1.0s)
PGA	0.5	$MCE_G$ peak ground acceleration
$F_{PGA}$	1.1	Site amplification factor at PGA
$PGA_M$	0.55	Site modified peak ground acceleration
$T_L$	6	Long-period transition period (s)
SsRT	1.27	Probabilistic risk-targeted ground motion (0.2s)
SsUH	1.389	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
SsD	1.5	Factored deterministic acceleration value (0.2s)
S1RT	0.437	Probabilistic risk-targeted ground motion (1.0s)
S1UH	0.487	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S1D	0.6	Factored deterministic acceleration value (1.0s)
PGA <sub>d</sub>	0.5	Factored deterministic acceleration value (PGA)

\* See Section 11.4.7

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

## Disclaimer

Hazard loads are provided by the U.S. Geological Survey [Seismic Design Web Services](#).

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B-20-0306

PROJECT:			SHEET NO.
BY:	DATE:	JOB NO.	7/14
		20071	

$$W_{\text{ROOF}} = .015 \left[ (56)52 + 21(7) \right] = 46k$$

$$W_{\text{2nd Floor}} = .03(52)(40) = \underline{62.4}$$

$$E = 108$$

$$V_{\text{SES}} = .14(108) = 15.1k$$

110mph EXD B V=7.8k  
 P=12.5psf  
 SEISMIC CAT D  
 V=1.4W

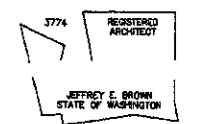
V=7.8k E WIND = 15.6k ← CONTRAS

#20071



JEFF BROWN ARCHITECTURE

JEFF BROWN ARCHITECTURE  
 12181 C STREET SOUTH  
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 PROJECT LEAD  
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PROJECT NAME/ADDRESS

CASCADE CHRISTIAN JR. HIGH SCHOOL  
 LOBBY ADDITION  
 815 21ST STREET SE  
 PUYALLUP, WA 98372

PROJECT NUMBER  
 20004

DRAWING TYPE

PERMIT DOCUMENTS

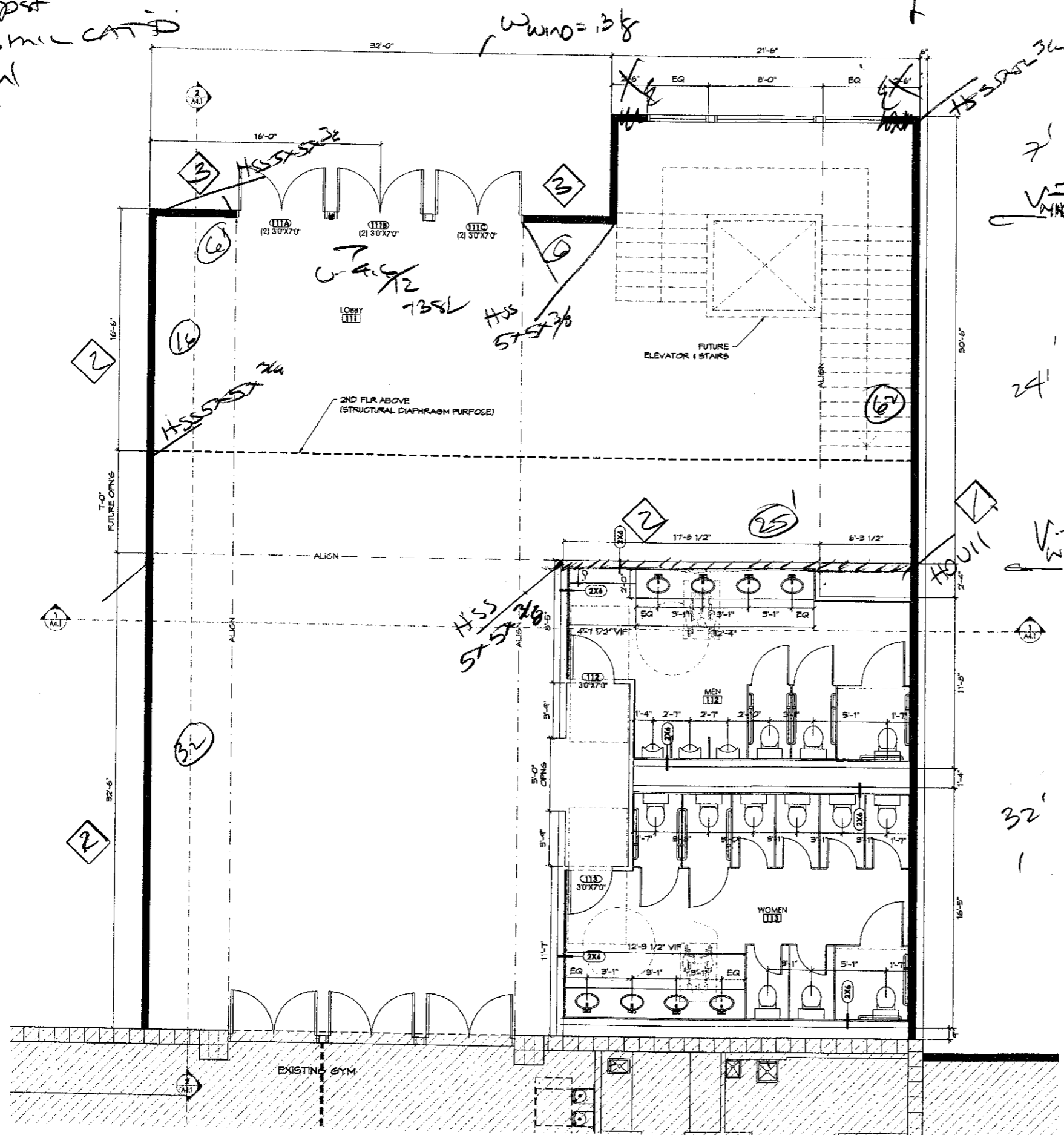
ISSUE DATE	ISSUE DESCRIP.	NO.
08.17.20		

SHEET TITLE

MAIN FLR PLAN

SHEET #

A2.1



WALL LEGEND  
 — EXT. FRAMING WALL  
 — INT. FRAME WALL 2X4 TYP. UNO

V WIND 4.16k

W = 14(0.025) = 129k  
 WIND

V WIND 7.7k

W WIND = (14+10) 0.025 = 0.3k

V WIND = 4.8k

1 MAIN FLOOR PLAN  
 (11X17) SCALE: 1/16" = 1'-0"  
 (22X34) SCALE: 1/8" = 1'-0"

B-20-0306

PROJECT:			SHEET NO.
BY:	DATE:	JOB NO.	5/14
		20071	

Mark (shear capacity)	Wall Type (3)	Panel Edge Nailing (1), (2)	Intermediate Nailing (2)	Bottom Plate Anchor Bolting or Nailing (5)
1 (200 lb/ft.)	½" CDX Plywood or OSB, one side	8d @ 6" o.c.	8d @ 12" o.c.	½" A.B. @ 4'-0" o.c. or 16d @ 7½" o.c.
2 (350 lb/ft.)	½" CDX Plywood or OSB, one side	8d @ 4" o.c.	8d @ 12" o.c.	5/8" A.B. @ 3'-4" o.c. or 16d @ 4" o.c.
3 (700 lb/ft.)	½" CDX Plywood or OSB, both sides	8d @ 4" o.c. (4)	8d @ 12" o.c.	3/4" A.B. @ 2'-0" o.c. or 16d @ 2" o.c.
11 (200 lb/ft.)	½" GWB, both sides	5d cooler nails @ 7" o.c.	5d cooler nails @ 7" o.c.	½" A.B. @ 4'-0" o.c. or 16d @ 8" o.c.

Notes:

1. Block all panel edges.
2. Common or box nails.
3. 2x studs shall be H.F. #2 or better, kiln-dried.
4. Use 3x studs and plates @ panel edges, wall type 3 only.
5. Anchor bolts shall have minimum 3" by 3" by ¼" thick plate washers.

PROJECT:			SHEET NO.
BY:	DATE:	JOB NO.	6/14
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SHEAR WALL (HEAVY VALUES)

①  $1\frac{5}{32}$  STRUCT I  $8d @ 6\frac{1}{4}" \quad 280(.82) = 230$   
 $\frac{1}{2}" \phi AB @ 4'0\frac{1}{4}" \quad 600(1.16/4) = 290 lb/ft$   
 $16d @ 7\frac{1}{2}" \quad 91(1.16)1\frac{3}{4} = 233 lb/ft$   
200 lb/ft

②  $5\frac{1}{32}$  STRUCT I  $8d @ 4\frac{1}{4}" \quad 430(.82) = 353 lb/ft$   
 $5\frac{1}{2}" \phi AB @ 3'4\frac{1}{4}" \quad 860(1.16)/3.33 = 413 lb/ft$   
 $16d @ 4\frac{1}{4}" \quad 91(1.16)1\frac{3}{4} = 437 lb/ft$   
350 lb/ft

③  $1\frac{7}{32}$  STRUCT I  $8d @ 4\frac{1}{2}" \quad 353(.2) = 706 lb/ft$   
 $3\frac{3}{4}" \phi AB @ 2'0\frac{1}{4}" \quad 1150(1.16)/2 = 944 lb/ft$   
 $16d @ 2\frac{1}{2}" \quad 91(1.16)1\frac{3}{4} = 873 lb/ft$   
700 lb/ft

PROJECT:		SHEET NO.
BY:	DATE:	7/14
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Roof

$$l = 24'$$

$$W = .045(53k) = 1.2k$$

$$M = \frac{1.2(24)^2}{8} = 1037k'$$

$$\text{Span} = \frac{1037}{2.4(115)} = 376 \text{ lbs}$$

5 1/2" x 24" CM

FLOOR

$$l = 17'$$

$$W = .125(53k) = 3.3k$$

$$M = \frac{3.3(17)^2}{8} = 1430k'$$

$$\text{Span} = \frac{1430}{2.4} = 596 \text{ lbs}$$

8 3/4" x 24" CM

$$l = 7' \text{ CATTS}$$

$$W = 3.3k$$

$$M = \frac{3.3(7)^2}{8} = 970k'$$

$$\text{Span} = \frac{970}{2.4} = 404 \text{ lbs}$$

8 3/4" x 24"  
24F-V8

PROJECT:		SHEET NO.
BY:	DATE:	JOB NO. 20071
		8/14

12181 C Street S. • TACOMA, WA 98444 • (253) 537-8128 • FAX 531-1285

$$P = 3.3 (17\frac{1}{2} + 7) + 1.2 (40/2) = 42.8k$$

$$L = \frac{42.8}{1.5} = 5.3 \quad \text{HSS } 5 \times 5 \times \frac{3}{8}$$

6"  $\phi$  x 15" core FRP  
U7 (7) FRP

$$W_{FRP} = .095(14) + .125(14) + .01(30)$$

$$= 2.7k$$

2"  $\phi$  W10 x 12  
core FRP  
OK

Table 4-4 (continued) Available Strength in Axial Compression, kips

F<sub>y</sub> = 46 ksi

F<sub>y</sub> = 46 ksi

Table 4-4 (continued) Available Strength in Axial Compression, kips

HSS5 1/2-HSS5

Square HSS

Square HSS

HSS5-HSS4 1/2

Table with columns for Shape, f<sub>design</sub>, lb/ft, Design, and ASD/LRFD strength values for HSS5 1/2 x 5 1/2 x and HSS5 x 5.

Table with columns for Shape, f<sub>design</sub>, lb/ft, Design, and ASD/LRFD strength values for HSS5 x 5 and HSS4 1/2 x 4 1/2 x.

Properties table for the left side, listing A<sub>g</sub>, I<sub>x</sub>, I<sub>y</sub>, r<sub>x</sub>, and r<sub>y</sub> for various HSS sizes.

Properties table for the right side, listing A<sub>g</sub>, I<sub>x</sub>, I<sub>y</sub>, r<sub>x</sub>, and r<sub>y</sub> for various HSS sizes.

Shape is slender for compression with F<sub>y</sub> = 46 ksi.

Shape is slender for compression with F<sub>y</sub> = 46 ksi.

Note: Heavy line indicates KL/r<sub>y</sub> equal to or greater than 200.

Handwritten notes: 2007-1 and 2/14

PROJECT:			SHEET NO.
BY:	DATE:	JOB NO.	10 14
		20071	

ROOF ODISTS

$$W = .045(2) = .09 \text{ k/ft}$$

28" REPL @ 2'0"

FLOOR ODISTS

$$W = .125(1\frac{1}{2}) = .1875$$

# RED-L™ TRUSS ALLOWABLE UNIFORM LOAD TABLE (PLF) / PARALLEL CHORD

Continued from page 6

SEE PAGE 4 FOR ECONOMICAL TRUSS DESIGN

#20071

Load Tables

Span	Depth													
	28"		30"		32"		34"		36"		38"		40"	
	100% TL 100% LL	115% TL 125% TL	100% TL 100% LL	115% TL 125% TL	100% TL 100% LL	115% TL 125% TL	100% TL 100% LL	115% TL 125% TL	100% TL 100% LL	115% TL 125% TL	100% TL 100% LL	115% TL 125% TL	100% TL 100% LL	115% TL 125% TL
14'	295	353	294	324	290	308	277	309	262	300	264	304	243	280
		374		367		365		336		308		318		301
16'	303	347	266	306	264	288	265	305	255	271	256	273	240	275
		380		359		331		332		288		282		283
18'	263	341	266	317	261	279	261	287	237	271	239	250	<b>231</b>	263
		339		345		308		314		297		276		303
20'	270	303	285	298	239	287	242	281	221	259	219	264	221	250
	250	311	267	309		307		327		284		289		274
22'	259	279	257	279	241	266	233	259	228	258	224	253	223	236
	208	282	232	282		279		281		281		278		259
24'	219	255	252	255	242	259	237	258	227	259	218	246	213	246
	185	257	190	260	211	263	228	264		263		264		252
26'	195	231	205	233	233	238	227	237	<b>221</b>	238	232	228	212	230
	158	235	175	242	177	239	198	242	214	243	231	241		237
28'	175	216	214	215	216	220	216	218	218	222	<b>198</b>	222	210	215
	132	220	137	221	152	221	169	224	184	224	195	221		218
30'	159	201	167	204	200	205	194	208	204	208	201	208	204	205
	111	205	124	204	133	207	145	208	159	207	174	205	191	202
32'	149	184	158	191	170	191	181	191	190	195	192	192	189	191
	89	191	99	191	113	193	123	192	137	194	152	190	163	191
34'	138	162	147	174	157	181	165	189	169	182	179	179	180	179
	77	176	87	177	95	174	108	189	119	181	130	182	144	180
36'	123	138	132	146	140	160	151	166	161	170	169	170	170	166
	66	151	75	162	84	171	94	178	103	170	113	169	125	166
38'	113	116	<b>115</b>	134	127	144	136	152	144	161	152	161	159	157
	57	136	64	147	72	157	82	161	91	161	99	161	109	154
40'	102	110	110	122	117	130	125	139	<b>129</b>	147	140	153	148	151
	49	122	55	132	63	142	71	150	79	151	87	151	95	149
42'	<b>92</b>	102	<b>99</b>	108	107	114	114	125	121	129	128	141	133	142
	43	112	49	120	55	127	62	136	69	145	77	145	83	143
44'	<b>78</b>	92	91	96	<b>96</b>	107	103	114	<b>109</b>	121	116	129	121	131
	38	97	43	109	49	117	55	125	61	133	68	137	75	134
46'	77	84	<b>82</b>	92	89	98	95	105	101	112	105	118	112	120
	33	93	38	100	43	106	48	114	54	121	60	128	66	127
48'	70	79	<b>73</b>	85	82	91	87	97	<b>91</b>	102	98	108	103	113
	30	86	34	92	38	98	43	105	48	111	54	118	59	122
50'		72	69	78	<b>71</b>	83	80	89	85	94	90	100	95	105
		79	30	85	34	86	39	96	43	103	48	108	52	115
52'		66		72	70	77	74	82	79	87	<b>83</b>	92	88	97
		73		78	31	84	34	89	39	95	43	100	48	106
54'		62		65		67	69	76	73	81	<b>77</b>	86	82	90
		68		71		78	31	83	34	88	38	93	42	94
56'		57		62		69		72	68	78	72	81	76	86
		65		68		71		78	31	83	35	88	38	93
58'		55		57		62		68		73	67	77	71	82
		58		62		68		75		79	31	83	35	88
60'		52		55		60		64		68		71	66	75
		50		61		65		70		74		78	32	83

- See page 5 for available depths and profiles. For depths and profiles not shown, contact your RedBUILT technical representative for assistance.
- Red numbers refer to 115% Total Load (TL).

**General Notes continued from page 6**

**To size floor trusses:**

Check both total load (100% TL) and live load (100% LL). When live load is not shown, total load will control. Total load values limit deflection to L/240. Live load values are based on the **Commercial Floor Deflection Limit** shown on page 35, and assume a nailed floor system. Live load (100% LL) values may be increased with a glue-nailed floor system; contact your RedBUILT technical representative for assistance.

**To size roof trusses:**

Check the appropriate snow load area (115% TL) or non-snow load area (125% TL) value to determine the maximum allowable total load. Total load (115% TL and 125% TL) values limit truss deflection to L/180.

**Consult local codes to verify deflection limits required for specific applications.**

**Trusses delivered to the jobsite are custom manufactured to resist only project specific application loads provided by the design professional. Actual trusses may not be able to resist the maximum loads shown in the tables above. For questions regarding actual truss capacity contact your RedBUILT technical representative.**

# RED-W™ TRUSS ALLOWABLE UNIFORM LOAD TABLE (PLF) / PARALLEL CHORD

SEE PAGE 4 FOR ECONOMICAL TRUSS DESIGN

W03H

12  
H

Load Tables

Span	Depth																													
	14'		16'		18'		20'		22'		24'		26'		28'		30'		32'		34'		36'		38'		40'			
	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL	100% TL	115% TL		
14'	380	416	402	427	407	442	414	440	422	445	389	442	383	445	375	432	367	411	337	370	335	362	324	326	318	325	304	342		
16'	258	421	315	438	384	453	404	445	451	454	374	388	385	388	380	397	369	390	359	385	338	383	314	383	302	331	299	324	299	325
18'	190	365	244	374	280	385	316	397	398	399	374	388	385	388	380	397	401	415	401	396	395	361	353	282	316	269	331	269	331	
20'	270	292	307	329	334	336	334	339	340	348	339	350	346	355	353	351	334	354	306	354	301	352	296	344	282	316	269	331	269	331
22'	138	320	184	327	222	336	249	342	292	353	328	355	362	335	359	358	362	362	362	364	364	361	361	348	348	358	358	358	358	
24'	220	236	258	289	288	299	303	308	305	314	308	316	309	322	315	321	311	321	325	318	303	322	283	325	288	319	276	315	276	315
26'	105	271	139	296	174	297	206	309	236	314	264	315	289	316	304	323	324	327	327	326	326	326	326	326	324	324	304	304	304	304
28'	185	208	215	242	243	272	271	273	275	280	280	285	284	289	283	291	283	288	281	295	289	292	287	291	276	293	259	291	259	291
30'	85	230	105	258	132	273	160	277	188	281	212	281	237	289	255	287	279	288	277	294	295	293	293	293	293	283	283	283	283	
32'	156	180	177	208	206	234	227	251	251	252	253	260	259	257	259	261	265	262	261	267	263	266	262	264	266	265	263	259	263	259
34'	67	182	85	226	103	245	127	252	152	258	174	259	194	264	212	263	232	267	235	267	259	264	267	267	265	265	263	259	263	259
36'	127	153	146	177	166	201	191	226	212	236	231	237	237	238	240	240	242	242	245	242	248	241	242	245	244	243	240	238	240	238
38'	53	166	69	192	86	215	104	231	122	231	142	236	162	237	179	239	216	243	216	243	220	243	245	245	243	243	240	238	240	238
40'	107	132	125	153	146	174	162	194	179	216	199	219	217	219	219	218	224	220	224	225	231	225	224	226	225	220	222	217	222	217
42'	43	141	57	166	70	188	87	207	102	216	118	216	134	221	149	222	167	223	185	226	202	224	218	226	220	220	217	217	217	217
44'	88	115	112	133	127	152	141	170	157	188	172	206	189	204	203	204	206	206	209	209	209	206	208	208	209	207	204	202	204	202
46'	35	117	47	144	59	165	71	184	86	203	100	202	111	204	127	201	141	206	158	209	175	206	188	208	208	208	208	208	208	208
48'	74	98	98	116	112	133	122	149	136	164	153	181	166	190	181	191	193	193	192	193	201	193	195	193	195	194	189	191	189	191
50'	30	98	39	127	49	144	59	162	72	177	85	185	95	190	106	193	121	193	137	193	149	193	162	193	178	194	187	191	187	191
52'	81	82	104	101	118	115	132	127	147	140	161	150	174	165	180	172	177	183	179	189	182	182	183	181	182	180	180	180	180	180
54'	81	33	111	42	128	51	144	62	159	72	175	82	180	92	179	104	181	117	181	131	182	143	183	159	182	167	180	167	180	180
56'	70	90	90	102	100	114	114	127	125	135	134	151	145	163	158	167	167	170	169	170	170	170	170	170	170	170	170	170	170	170
58'	69	193	36	109	44	125	53	138	62	151	71	165	81	169	91	166	100	170	113	170	126	170	142	170	142	170	146	166	146	166
60'	59	80	74	92	90	103	102	114	112	125	122	136	130	146	142	158	152	162	160	159	162	160	162	160	162	160	159	157	157	157
62'	59	79	31	100	38	112	46	124	54	136	62	148	70	160	78	159	88	160	97	162	109	161	121	160	121	160	127	157	127	157
64'	50	68	83	82	93	90	103	101	113	110	123	117	133	128	143	137	148	145	149	153	151	153	151	153	152	150	151	151	151	151
66'	52	68	89	89	93	90	101	99	112	109	123	117	133	128	143	137	148	145	149	153	151	153	151	153	152	150	151	151	151	151
68'	45	59	75	84	82	93	91	102	96	112	108	116	116	129	124	138	132	143	139	143	146	145	143	143	146	145	143	143	143	143
70'	45	59	78	92	34	102	41	110	47	119	54	131	61	140	68	144	75	145	84	144	94	145	101	143	101	143	101	143	101	143
72'	39	52	67	77	73	84	83	93	91	100	97	110	105	118	113	126	121	135	128	139	135	138	137	136	137	136	136	136	136	136
74'	39	52	68	83	30	92	36	102	42	111	47	120	54	128	60	137	67	137	75	137	82	135	91	136	82	135	91	136	82	135
76'	35	46	59	70	78	86	86	93	89	99	97	108	104	116	110	123	117	130	124	130	130	128	128	128	128	128	128	128	128	128
78'	35	46	59	74	85	93	93	101	42	109	48	117	53	126	59	131	66	130	73	132	81	128	81	128	81	128	81	128	81	128
80'	31	40	52	64	67	74	76	83	83	91	89	99	95	106	101	113	108	120	114	126	120	125	120	125	120	125	120	125	120	125
82'	31	40	51	66	78	85	93	93	38	100	42	108	48	116	53	123	59	126	65	126	73	123	73	123	73	123	73	123	73	123
84'	36	46	58	65	65	71	79	79	76	85	82	92	87	98	94	105	99	108	105	117	110	119	110	119	110	119	110	119	110	119
86'	36	46	58	71	79	86	93	93	86	93	82	92	87	98	94	105	99	108	105	117	110	119	110	119	110	119	110	119	110	119
88'	33	42	49	59	59	67	73	79	73	79	76	85	81	91	86	96	92	102	97	108	102	113	102	113	102	113	102	113	102	113
90'	33	42	42	52	63	72	79	81	79	81	76	85	81	91	86	96	92	102	97	108	102	113	102	113	102	113	102	113	102	113
92'	37	44	55	60	68	73	79	81	73	79	76	85	81	91	86	96	92	102	97	108	102	113	102	113	102	113	102	113	102	113
94'	38	45	56	66	73	79	81	85	73	79	76	85	81	91	86	96	92	102	97	108	102	113	102	113	102	113	102	113	102	113
96'	34	42	50	57	64	68	76	81	68	76	75	80	80	89	85	95	91	101	91	101	91	101	91	101	91	101	91	101	91	101
98'	34	38	50	61	69	76	82	86	69	76	75	80	80	89	85	95	91	101	91	101	91	101	91	101	91	101	91	101	91	101
100'	30	37	47	53	60	65	69	75	65	69	69	75	75	81	75	81	81	87	75	81	81	87	75	81	81	87	75	81	81	87
102'	30	38	42	55	61	69	76	82	61	69	69	75	75	81	75	81	81	87	75	81	81	87	75	81	81	87	75	81	81	87
104'	33	42	50	57	64	68	76	81	68	76	75	80	80	89	85	95	91	101	91	101	91	101	91	101	91	101	91	101	91	101
106'	33	42	50	57	64	68	76	81	68	76	75	80	80	89	85	95	91	101	91	101	91	101	91	101	91	101	91	101	91	101

- See page 5 for available depths and profiles. For depths and profiles not shown, contact your RedBuilt

PROJECT:			SHEET NO. 13/14
BY:	DATE:	JOB NO. 2007-1	

$$\underline{h = 26'}$$

$$W = .0125(12) = .1578$$

$$M = .15 \frac{(26)^2}{8} = 152 \text{ k-in}^2$$

$$S_{\text{RESIST}} = 152 / 46(46) = 5.5 \text{ in}^3$$

$$I_{\text{PRELIM}} = \frac{5}{384} \frac{(1.15)(26)^4(1728)}{29000(1.7)} = 31.2 \text{ in}^4$$

HSS 7x5x1/2

$$\underline{h = 26'}$$

$$W = .0125(7) = .0875$$

$$I_{\text{PRELIM}} = 31.2 \left( \frac{.0875}{.15} \right) = 18.1 \text{ in}^4$$

HSS 5x5x3/8

PROJECT:		SHEET NO. 14/19	
BY:	DATE:	JOB NO. 20071	

