

3D File name : V15 Saint Catherine of Sienna Catholic Church 3d.3d Customer:
 Export date from 3D: 08-21-2025 - 11:47:59 Project number:
 Date: 08-21-2025
 Customer:
 Project name: Saint Catherine of Sienna Catholic Church
 Customer:
 Project number:

No. PL	Name	Material	Quantity	Real width inch	Real height inch	Real Length inch
1	Plug	Oak	182	1"	1"	9 1/2"
2	Plug	Oak	20	3/4"	3/4"	5/16"
3	Plug	Oak	23	1 1/8"	1 1/8"	1/2"
4	Plug	Oak	20	2 1/4"	2 1/4"	3/4"
5	Log Hog	Steel	10	1/4"	1/4"	7"
6	Log Hog	Steel	10	1/4"	1/4"	9"
7	Log Hog	Steel	40	1/4"	1/4"	1'-1"
8	Galv. RLL Thread	Steel	10	3/4"	3/4"	1'-2 1/2"
9	Galv. RLL Thread	Steel	10	3/4"	3/4"	2'-6"
10	Galv. Lag	Steel	10	3/4"	3/4"	3"
11	Galv. Lag	Steel	30	3/4"	3/4"	6"
12	Galv. RLL Thread	Steel	8	7/8"	7/8"	1'-1 3/8"
13	Galv. RLL Thread	Steel	5	7/8"	7/8"	2'-6 3/4"
14	TimberLink RA75	Steel	13	1"	1"	4 3/4"
15	TimberLink RA75	Steel	5	1"	1"	6 3/4"
16	Galv. Shear Plate	Steel	30	4"	4"	5/8"
17	Simpson SDF Screw	Steel	40	3/8"	3/8"	5 1/2"
18	Galv. RLL Thread	Steel	20	3/4"	3/4"	1'-3 7/16"
19	Galv. F436 Structural Washer	Steel	40	1 1/16"	1 1/16"	1/8"

3D File name : V10 Saint Catherine of Sienna Catholic Church 3d.3d Customer:
 Export date from 3D: 06-24-2025 - 10:39:51 Project number:
 Date: 06-24-2025
 Customer:
 Project name: Saint Catherine of Sienna Catholic Church
 Customer:
 Project number:

No. PL	Name	Material	Quantity	Real width inch	Real height inch	Real Length inch	Remark
20	Rod	Steel	20	3/4"	3/4"	4'-4"	Plain/Primed Black
21	Rod	Steel	10	7/8"	7/8"	1'-9"	Plain/Primed Black
22	Galv. Pin	Steel	40	1"	1"	7 1/2"	Unfinished
23	Rod	Steel	10	1"	1"	1'-4"	Plain/Primed Black
24	Rod	Steel	10	3/4"	3/4"	5'-5 1/4"	Plain/Primed Black
25	Plate Washer	Steel	5	2"	3/8"	3 1/2"	Plain/Primed Black
26	Plate Washer	Steel	10	2 1/2"	3/8"	4 1/2"	Plain/Primed Black
27	Surp	Steel	5	2 1/2"	3/8"	15 1/8"	Plain/Primed Black
28	Plate	Steel	10	3"	1/4"	2'-3"	Plain/Primed Black
29	Plate Washer	Steel	10	3"	1/2"	4"	Plain/Primed Black
30	Plate Washer	Steel	10	3 1/2"	3/8"	3 1/2"	Plain/Primed Black
31	Plate Washer	Steel	10	4"	1/2"	5"	Plain/Primed Black
32	Plate	Steel	10	5"	1/2"	5 3/4"	Plain/Primed Black
33	Plate	Steel	10	5 3/4"	1/2"	6 1/2"	Plain/Primed Black
34	Plate	Steel	10	5 3/4"	1/2"	11"	Plain/Primed Black
35	Plate	Steel	20	6 1/2"	3/8"	11"	Plain/Primed Black
36	Galv. Plate	Steel	10	8"	1/2"	1'-11 1/4"	Unfinished
37	Galv. Plate	Steel	8	9"	1/2"	9"	Unfinished
38	Galv. Plate	Steel	10	9 1/2"	1"	10 1/4"	Unfinished

3D File name : V10 Saint Catherine of Sienna Catholic Church 3d.3d Customer:
 Export date from 3D: 06-25-2025 - 15:27:57 Project number:
 Date: 06-25-2025
 Customer:
 Project name: Saint Catherine of Sienna Catholic Church
 Customer:
 Project number:

No. PL	Name	Material	Quantity	List width inch	List height inch	List length inch	Real Length inch
101	Final	Douglas Fir F04C	5	10"	10"	2'	1'-1"
102	Final	Douglas Fir F04C	2	10"	10"	2'	1'-5"
103	Hammer Post	Douglas Fir F04C	10	10"	10"	5'	4'-0 1/8"
104	Tie	Douglas Fir F04C	4	10"	10"	7'	6'-5"
105	King Post	Douglas Fir F04C	5	10"	10"	8'	7'-9 13/16"
106	Post	Douglas Fir F04C	2	10"	10"	12'	10'-1"
107	Post	Douglas Fir F04C	2	10"	10"	12'	10'-11"
108	Tie	Douglas Fir F04C	2	10"	10"	14'	12'-3 1/2"
109	Post	Douglas Fir F04C	2	10"	10"	16'	14'-3 5/8"
110	Post	Douglas Fir F04C	2	10"	10"	16'	14'-3 5/8"
111	Tie	Douglas Fir F04C	5	10"	10"	22'	20'-4 13/16"
112	Hammer Tie	Douglas Fir F04C	10	10"	1"	2'	6'-2 1/2"
113	Top Chord	Douglas Fir F04C	10	10"	1"	20'	19'-6 11/16"
114	Post	Douglas Fir F04C SS	10	10"	10"	12'	10'-9 1/8"
115	Brace DF Glulam 24F-V8-1.8e	10	5 1/8"	7 1/2"	5'	4'-5 13/16"	
116	Brace DF Glulam 24F-V8-1.8e	10	5 1/8"	7 1/2"	6'	5'-1 9/16"	
117	Web DF Glulam 24F-V8-1.8e	10	5 1/8"	7 1/2"	6'	5'-10 3/16"	
118	Ridge DF Glulam 24F-V8-1.8e	2	6 3/4"	1'-3"	8'	9'	
119	Ridge DF Glulam 24F-V8-1.8e	4	6 3/4"	1'-3"	12'	12'	
120	Arch DF Glulam 24F-V8-1.8e	4	6 3/4"	7 1/2"	6'	5'-6 15/16"	
121	Arch DF Glulam 24F-V8-1.8e	10	6 3/4"	7 1/2"	12'	10'-4 1/2"	

3D File name : V15 Saint Catherine of Sienna Catholic Church 3d.3d Customer:
 Export date from 3D: 08-21-2025 - 11:43:58 Project number:
 Date: 08-21-2025
 Customer:
 Project name: Saint Catherine of Sienna Catholic Church
 Customer:
 Project number:

No. PL	Name	Material	Quantity	Real width inch	Real height inch	Real Length inch	Remark
39	Galv. Sch. 40 Black Pipe	Steel	7	13/16"	13/16"	3 1/2"	Color-Galvanized
40	Galv. Plate	Steel	20	3 1/2"	3/4"	6"	Color-Galvanized

BASIS OF DESIGN

- The heavy timber trusses and/or frame is designed for gravity loads and as part of the main lateral force resisting system (MLFRS). The heavy timber portion of the structure is responsible for the MLFRS transverse to the ridge line only from Lines 1 to 7. The MLFRS supporting longitudinal wind loads and wind loads on other parts of the structure is to be designed and installed by others.
- The following design loads are based on the site location, ASCE 7-10, and Petersburg Borough (AK) amendment to the IBC.
- Architect and/or Structural Engineer of Record is responsible to review and approve design loads.

ROOF LOADS	VALUE
Live Load	20 psf
Dead Load	15 psf + self weight
FLOOR LOADS	VALUE
Live Load	n/a
Dead Load	n/a
ROOF SNOW LOADS	VALUE
Pg	95 psf
Pf	73 psf
Ca	1
Ct	1.1
I	1
Snow Drift & Unbalanced Snow	As applicable
WIND LOADS	VALUE
Basic Wind Speed	139 mph (3sec gust)
Building Category	II
Building Classification	Enclosed
Exposure	C
Internal Pressure Coefficient	+/- 0.18
SEISMIC DESIGN DATA	VALUE
Occupancy Category	II
Seismic Importance Factor	1.0
Mapped Structural Response Accelerations	
Ss =	0.27
S1 =	0.25
Site Class	D (Default)
Spectral Response Coefficients	
SDS =	0.28
SD1 =	0.44
Seismic Design Category	D
Response Modification Factor For Heavy Timber (1997 UBC Table 16-N)	2.8
Analysis Procedure Used	
Equivalent Lateral Force Analysis (ASCE 7-10 Section 12.8) (Wind Loads Govern)	

POST LOAD FORMAT

- Post loads shown are unfactored loads.
- Snow loads result in vertical components and lateral base shear.
- MLFRS result in vertical components and lateral base shear.
- Dead and Snow loads result in vertical reactions and lateral base shear reactions due to configuration of truss.
- +/- values indicate reaction in each direction.
- Post Loads use the format:

Dy = Vertical Dead Load (lbs)
 Dx = Horizontal Dead Load (lbs)
 Sy = Vertical Snow Load (lbs)
 Sx = Horizontal Snow Load (lbs)
 Wv = Vertical Wind Reaction (lbs)
 Wh = Lateral Base Shear from Wind (lbs)

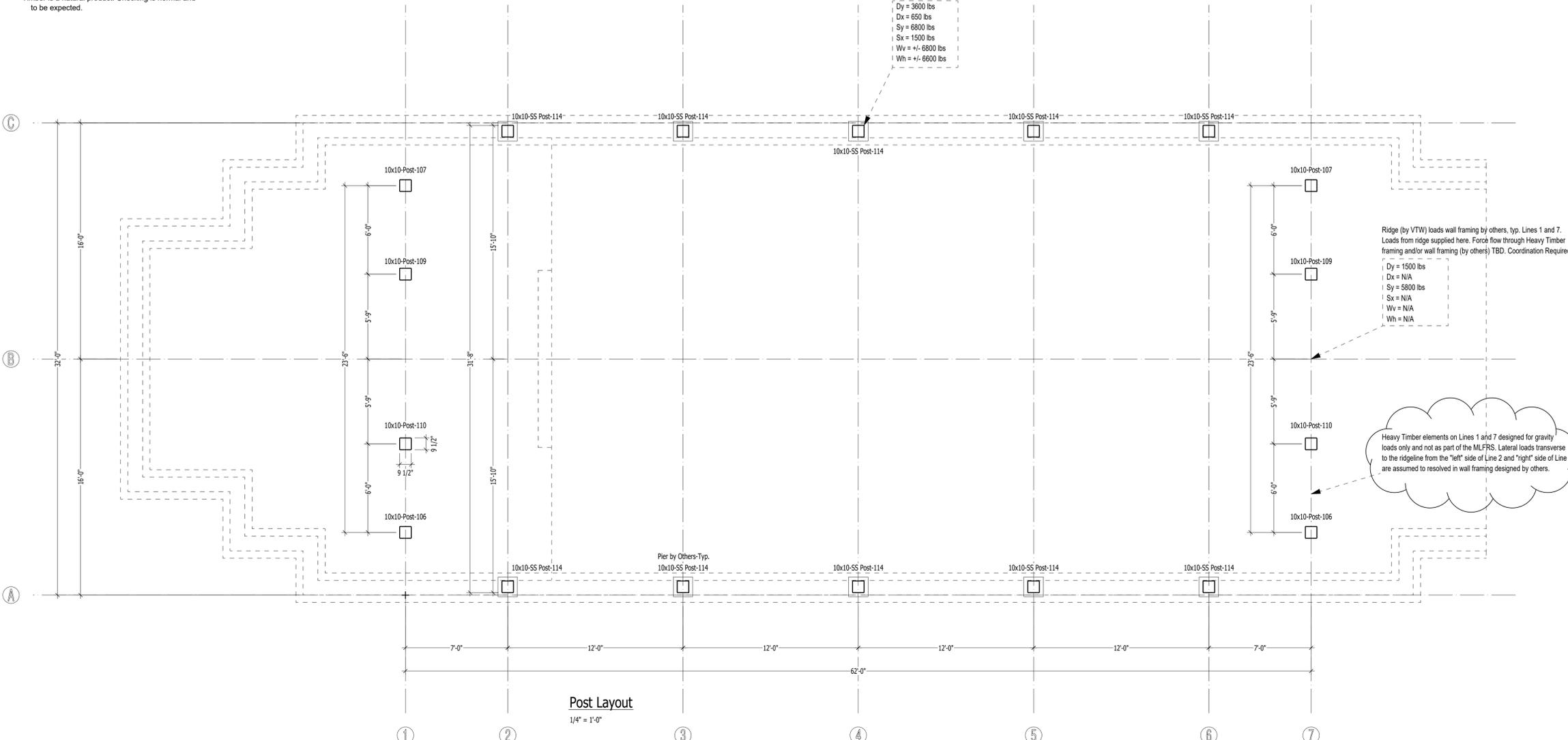
General Notes:

Timbers to be Douglas Fir #1 S4S and DF 24F-V8-1.8e Glulams.
 Pegs to be Oak.
 All plugs to be Oak.
 All edges to have 1/2" chamfer.
 Two coats of stain, oil or urethane to be shop applied on all sides.
 All Bolts, Lags, All Thread to be galvanized Grade A307.
 All Steel to be A36 and to be shop primed flat black U.N.O.
 Timber is a natural product. Checking is normal and to be expected.

Typ. All Post Bases Lines 2-6
 Dy = 3600 lbs
 Dx = 850 lbs
 Sy = 6800 lbs
 Sx = 1500 lbs
 Wv = +/- 6800 lbs
 Wh = +/- 6600 lbs

Ridge (by VTW) loads wall framing by others, typ. Lines 1 and 7.
 Loads from ridge supplied here. Force flow through Heavy Timber framing and/or wall framing (by others) TBD. Coordination Required.
 Dy = 1500 lbs
 Dx = N/A
 Sy = 5800 lbs
 Sx = N/A
 Wv = N/A
 Wh = N/A

Heavy Timber elements on Lines 1 and 7 designed for gravity loads only and not as part of the MLFRS. Lateral loads transverse to the ridge line from the "left" side of Line 2 and "right" side of Line 6 are assumed to be resolved in wall framing designed by others.



S4S Timbers
 S4S Timbers (surfaced four sides) are 1/2" under the sizes listed on these prints. A timber listed as 8x12 will measure 7 1/2"x11 1/2"

Field-fitting & trimming may be required during final erection on-site.



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Axonometric Post Layout Plan

Project: Saint Catherine of Sienna Catholic Church
 Timber Frame
 Petersburg, Alaska

Drawn By: df
 Checked By: ad
 Date: 08-22-25
 Plot Date: 03-26-26

REVISIONS	BY	CHECKED BY
XX/XX/XX	XX	XX

SHEET
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