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Consulting Engineers L.L.P.

Structural, Civil and Forensic Engineering



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VIEW 3D MODEL

Areas	Siding	Other
Facades	1461 ft ²	-
Openings	753 ft ²	-
Trims*	17 ft ²	-
Unknown (no photos)*	-	-
Total	2231 ft²	0 ft²

*Any trim or unknown material that touches siding is included in the 'Siding' column. If it does not touch siding, then it's included in the 'Other' column.

Openings	Siding	Other
Quantity	43	0
Tops Length	70' 2"	-
Sills Length	151' 3"	-
Sides Length	158' 7"	-
Total Perimeter	379' 11"	-

Corners	Siding	Other
Inside Qty	3	0
Inside Length	16' 8"	-
Outside Qty	14	0
Outside Length	80' 5"	-

Accessories	Siding	Other
Shutter Qty	0	0
Shutter Area	0 ft ²	0 ft ²
Vents Qty	0	0
Vents Area	0 ft ²	0 ft ²

Trim	Siding	Other
Level Starter	211' 3"	-
Sloped Trim	27' 10"	-
Vertical Trim	3'	-

Roofline	Length	Avg. Depth	Soffit Area
Eaves Fascia	164' 11"	-	-
Level Frieze Board	84' 7"	3' 10"	360 ft ²
Rakes Fascia	103' 8"	-	-
Sloped Frieze Board	77' 4"	1' 9"	117 ft ²

SIDING WASTE TOTALS

Siding & Trim Only*	Area	Squares
Zero Waste	1477 ft ²	15
+10%	1626 ft ²	16½
+18%	1744 ft ²	17½

+ Openings < 20ft ²	Area	Squares
Zero Waste	2026 ft ²	20½
+10%	2230 ft ²	22½
+18%	2392 ft ²	24

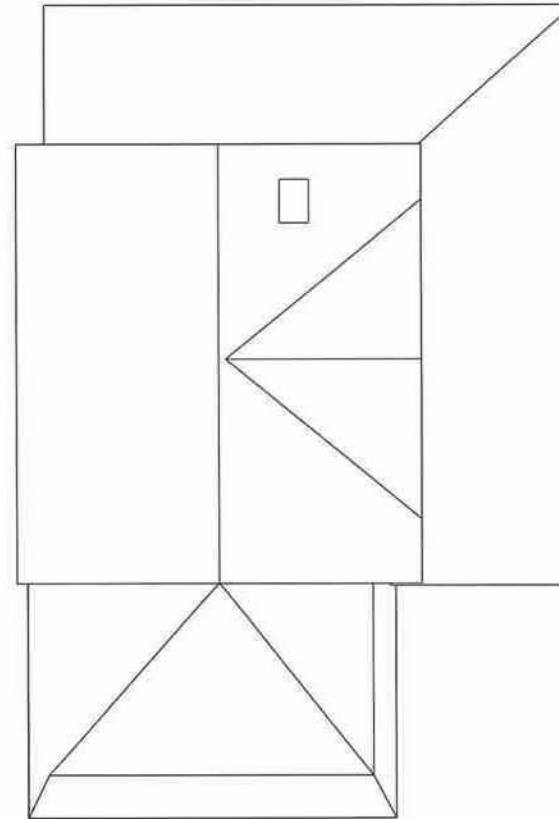
+ Openings < 33ft ²	Area	Squares
Zero Waste	2068 ft ²	20¾
+10%	2276 ft ²	23
+18%	2442 ft ²	24½

*The first three rows of the Siding Waste Factor table are calculated using the total ft² of siding facades, ft² of trim touching siding, and ft² of unknowns touching siding.



Roof	Area	Total	Length
Roof Facets	1868 ft ²	11	-
Ridges / Hips	-	8	97' 1"
Valleys	-	2	34'
Rakes	-	9	103' 8"
Eaves	-	10	164' 11"
Flashing	-	9	52' 8"
Step Flashing	-	8	28' 5"
Drip Edge/Perimeter	-	-	268' 6"

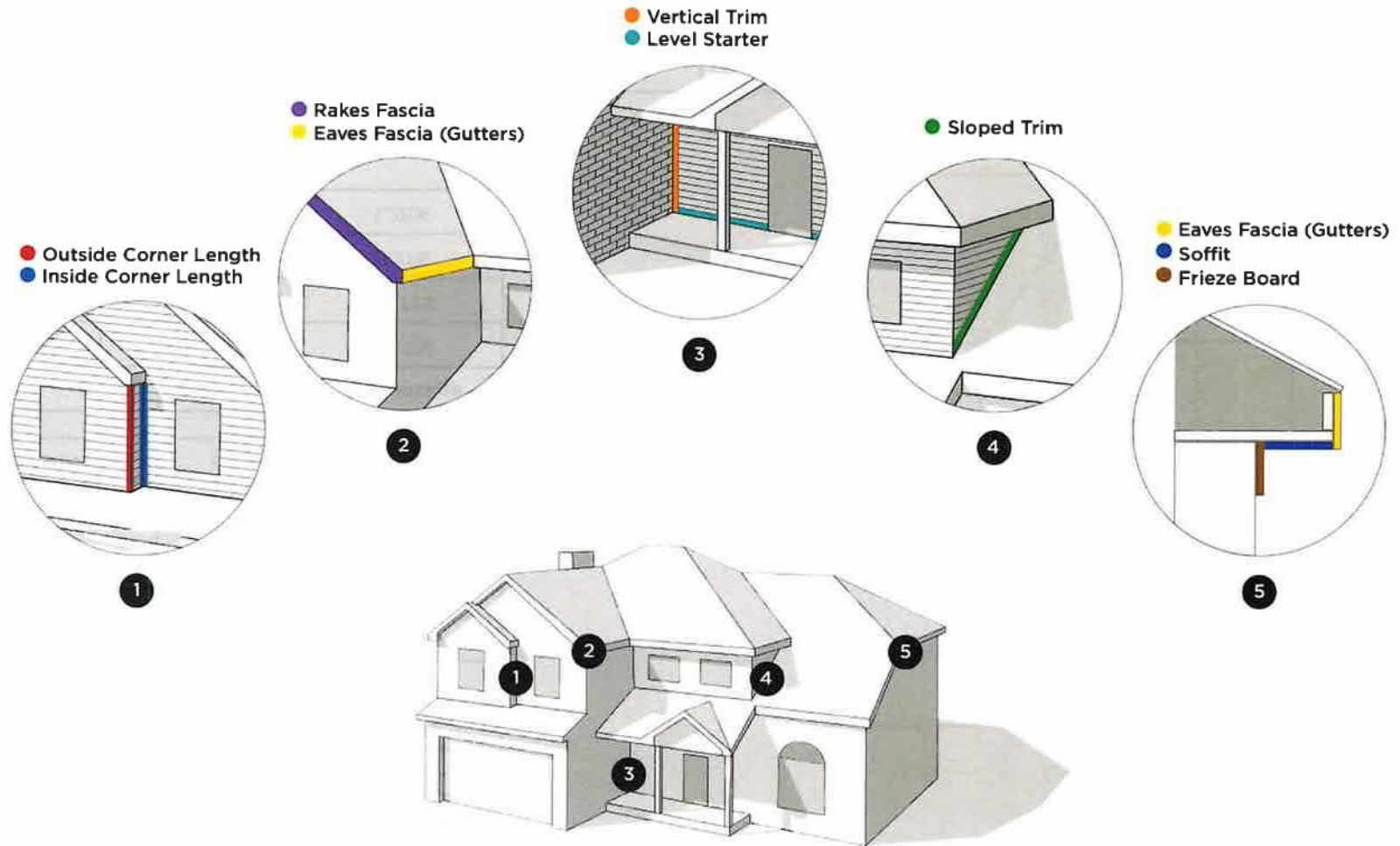
Roof Pitch*	Area	Percentage
6 / 12	1117 ft ²	59.8%
2 / 12	667 ft ²	35.71%
3 / 12	60 ft ²	3.21%
5 / 12	24 ft ²	1.28%



Example Waste Factor Calculations

	Zero Waste	+5%	+10%	+15%	+20%
Area	1868 ft ²	1961 ft ²	2055 ft ²	2148 ft ²	2242 ft ²
Squares	19	19 ² / ₃	20 ² / ₃	21 ² / ₃	22 ² / ₃

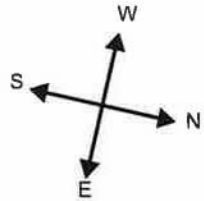
The table above provides the total roof area of a given property using waste percentages as noted. Please consider that area values and specific waste factors can be influenced by the size and complexity of the property, captured image quality, specific roofing techniques, and your own level of expertise. Additional square footage for Hip, Ridge, and Starter shingles are not included in this waste factor and will require additional materials. This table is only intended to make common waste calculations easier and should not be interpreted as recommendations.



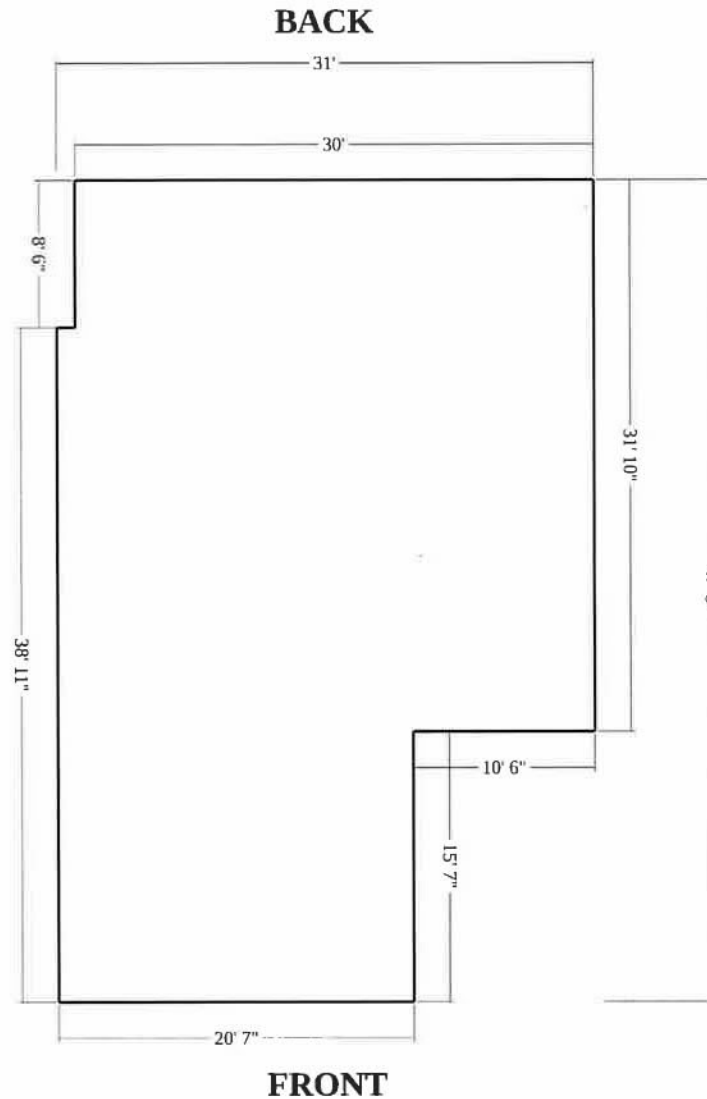


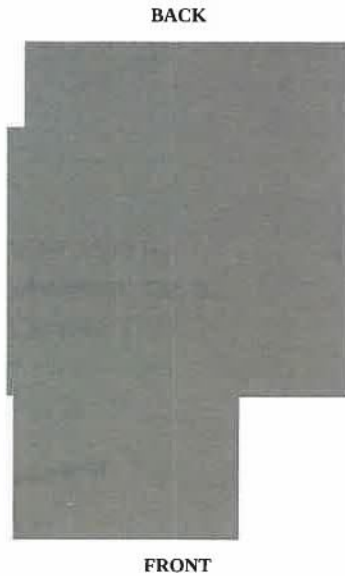
Complete Measurements

24805 154th Lane, McGrath, MN
FOOTPRINT



Number of Stories: 1
Footprint Perimeter: 156' 11"
Footprint Area: 1299 ft²

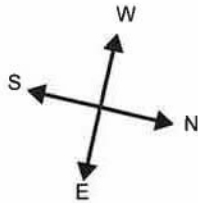




Siding Per Elevation

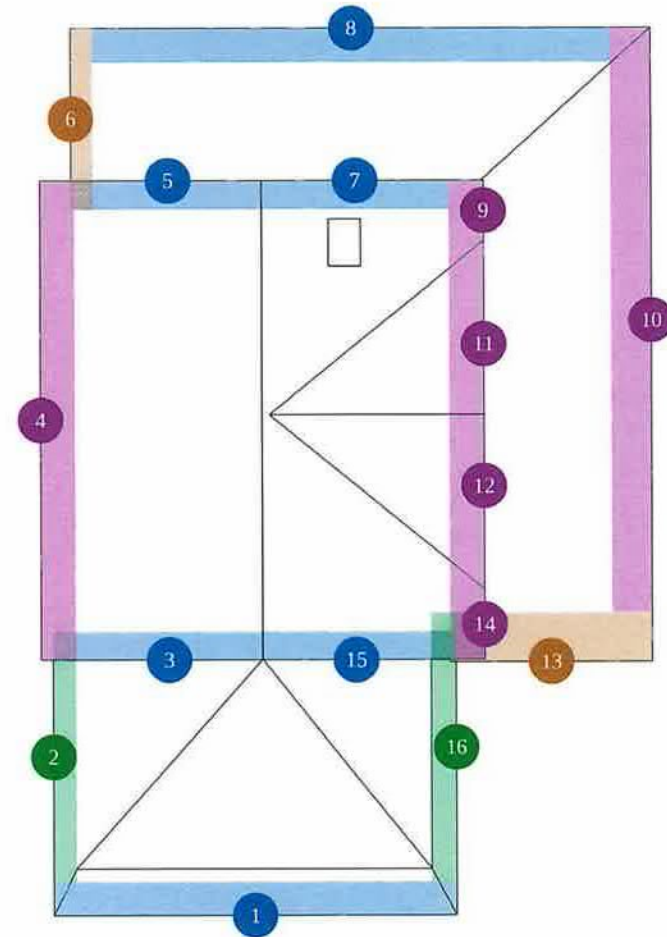
FRONT			RIGHT			LEFT			BACK		
SI-1	-	94 ft ²	SI-2	-	59 ft ²	SI-14	-	7 ft ²	SI-10	-	190 ft ²
SI-3	-	168 ft ²	SI-6	-	138 ft ²	SI-15	-	22 ft ²	SI-11	-	6 ft ²
SI-4	-	35 ft ²	SI-7	-	109 ft ²	SI-16	-	484 ft ²	SI-12	-	103 ft ²
SI-5	-	14 ft ²	SI-9	-	10 ft ²				SI-13	-	11 ft ²
SI-8	-	6 ft ²	SI-17	-	5 ft ²						
317 ft²			321 ft²			513 ft²			310 ft²		

Number of Stories: 1




Soffit Summary

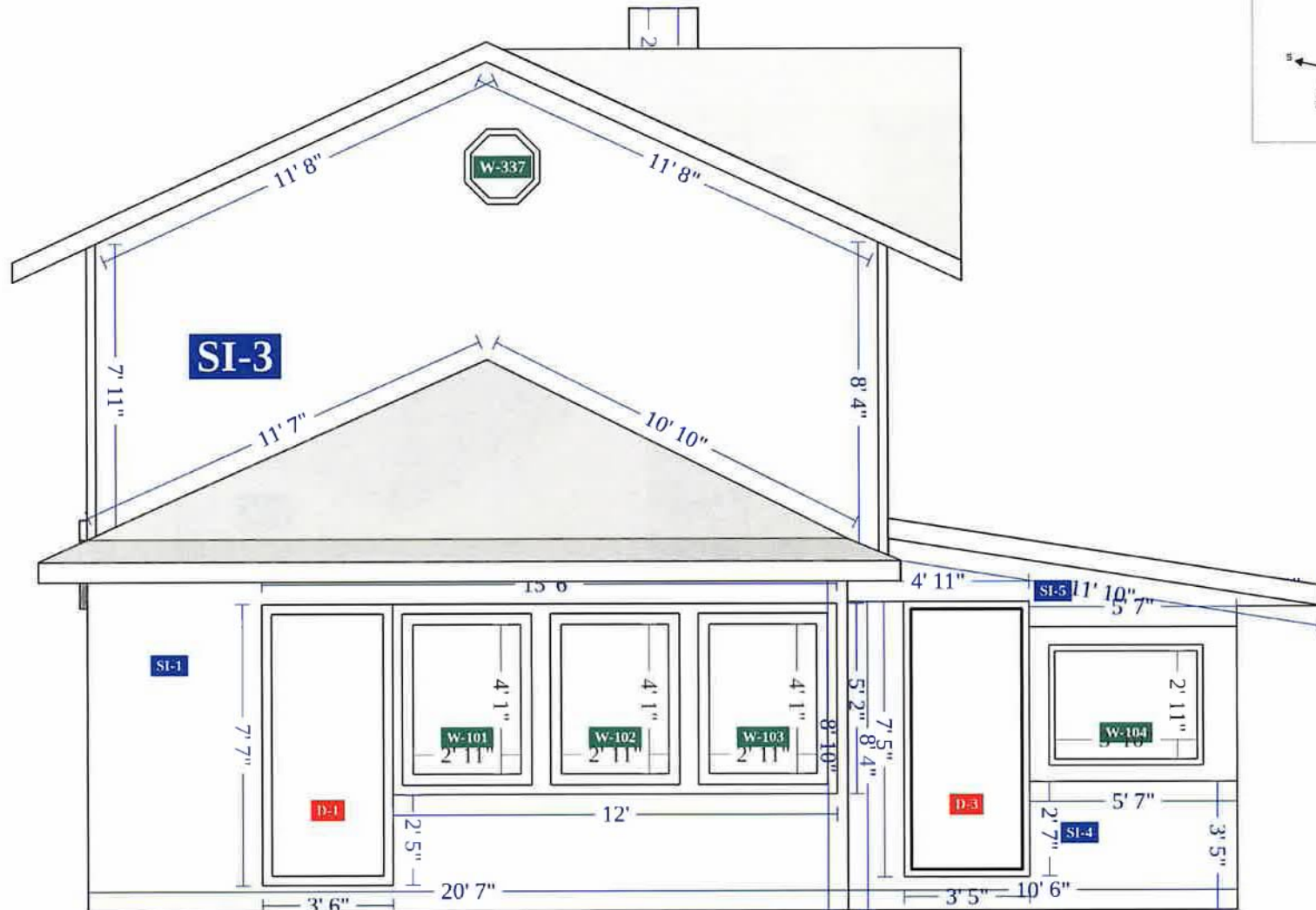
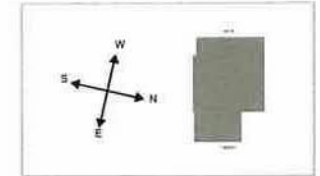
Depth	Type	Count	Total Length	Total Area
12" - 18"	eaves	2	30' 1"	42 ft ²
18" - 24"	rakes	4	47' 8"	79 ft ²
	eaves	2	53' 3"	106 ft ²
24" - 48"	rakes	2	18' 11"	38 ft ²
	eaves	4	72' 10"	165 ft ²
> 48"	eaves	2	4' 2"	48 ft ²
Totals			226' 11"	477 ft²

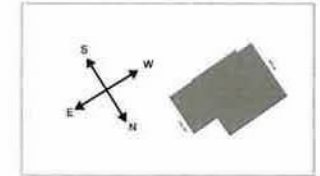


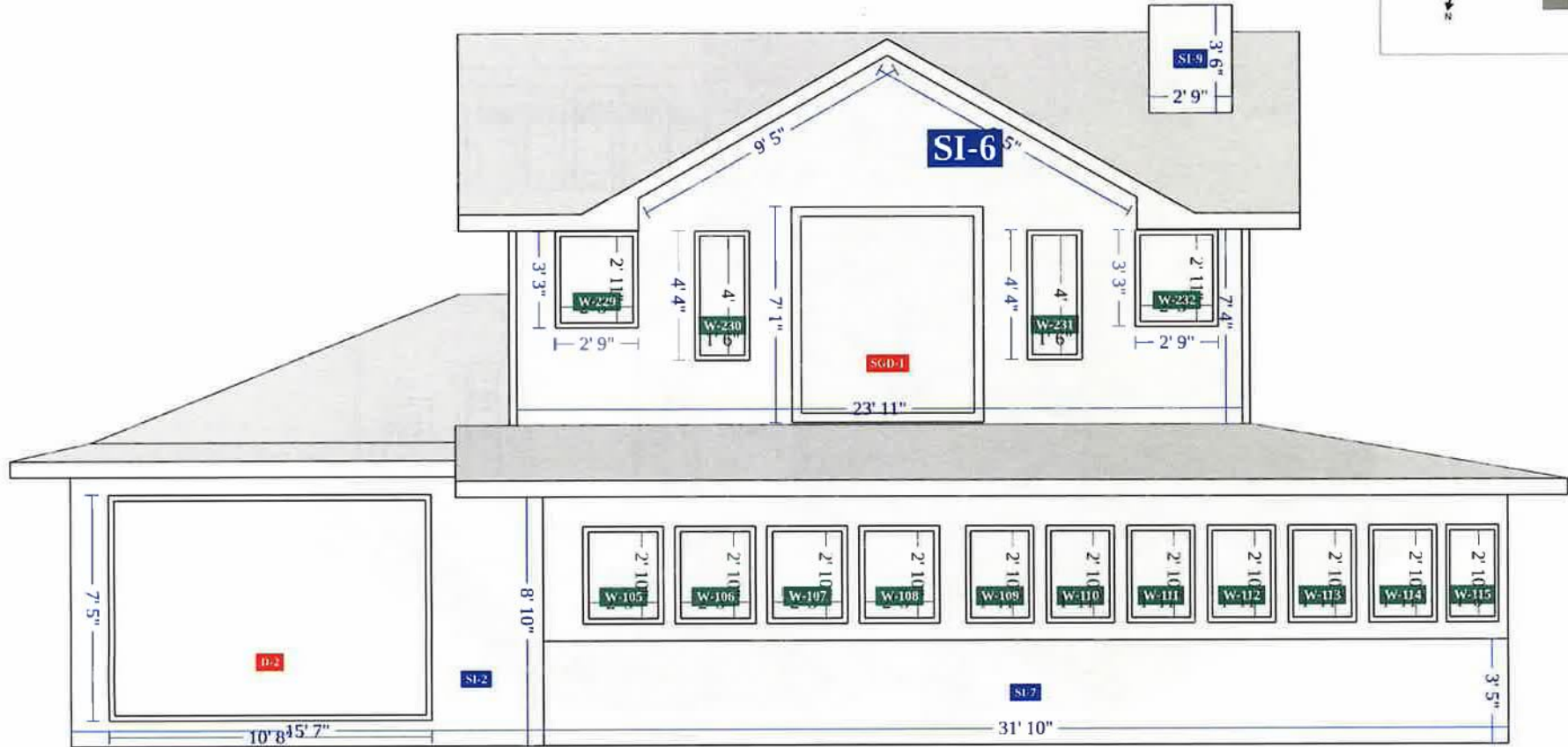
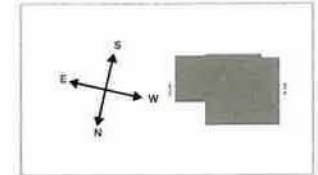
Soffit Breakdown

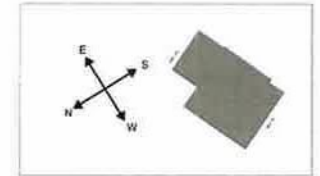
num	Type	Depth	Length	Area	Pitch
1	eave	24"	23' 4"	46 ft ²	3 / 12
2	eave	16"	14' 6"	19 ft ²	6 / 12
3	rake	20"	11' 11"	20 ft ²	6 / 12
4	eave	26"	27' 9"	61 ft ²	6 / 12
5	rake	20"	11' 11"	20 ft ²	6 / 12
6	eave	127"	1' 3"	13 ft ²	2 / 12
7	rake	20"	11' 11"	20 ft ²	6 / 12
8	eave	24"	30'	60 ft ²	2 / 12
9	eave	26"	5' 4"	12 ft ²	6 / 12
10	eave	28"	33' 9"	79 ft ²	2 / 12
11	rake	24"	9' 5"	19 ft ²	6 / 12
12	rake	24"	9' 5"	19 ft ²	6 / 12
13	eave	142"	2' 11"	34 ft ²	2 / 12
14	eave	26"	5' 11"	13 ft ²	6 / 12
15	rake	20"	11' 11"	20 ft ²	6 / 12
16	eave	17"	15' 7"	23 ft ²	5 / 12

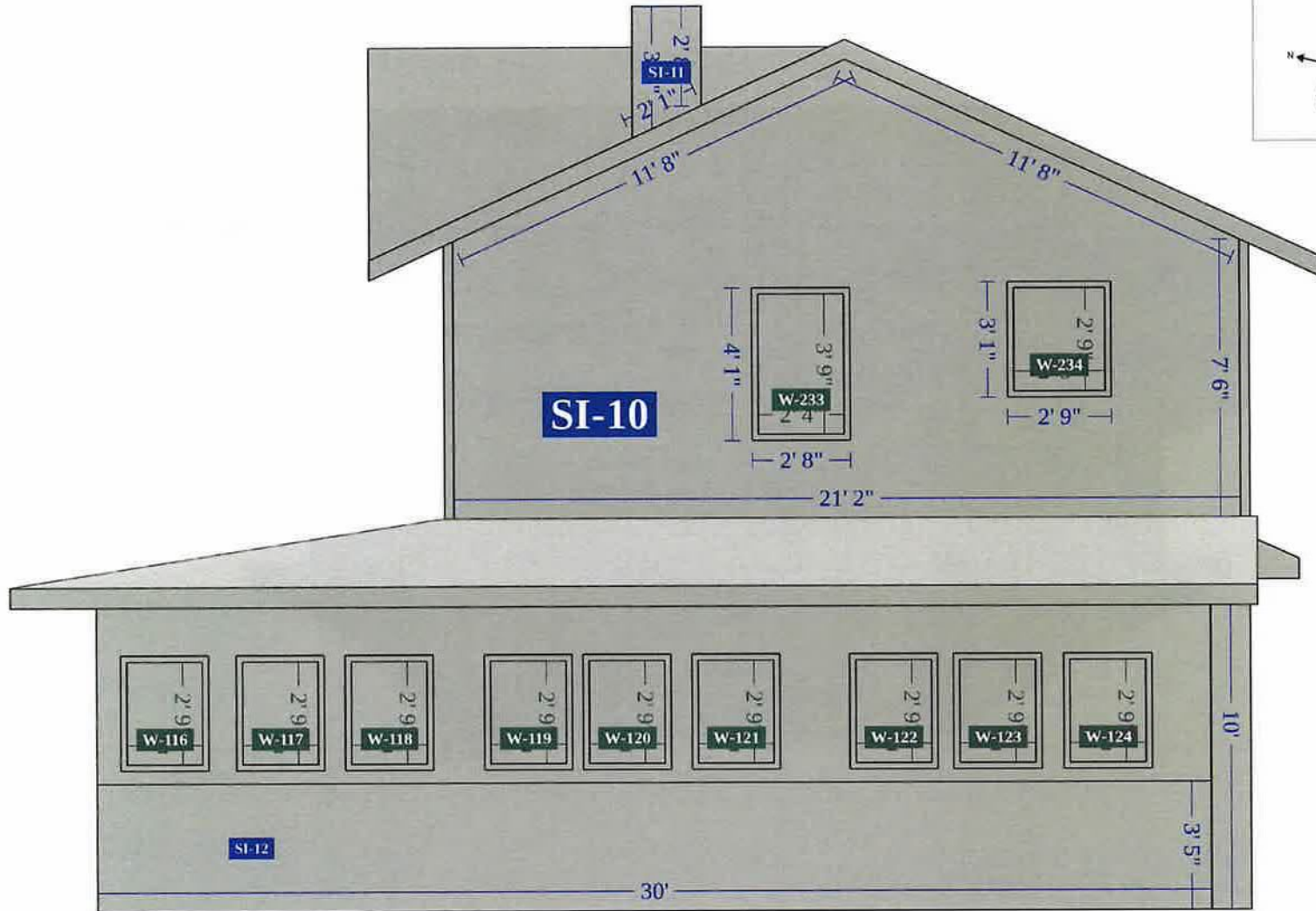
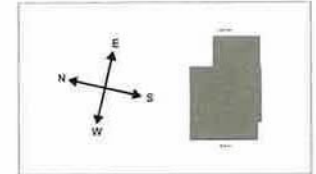
 Feature is too small to label on the plan diagram

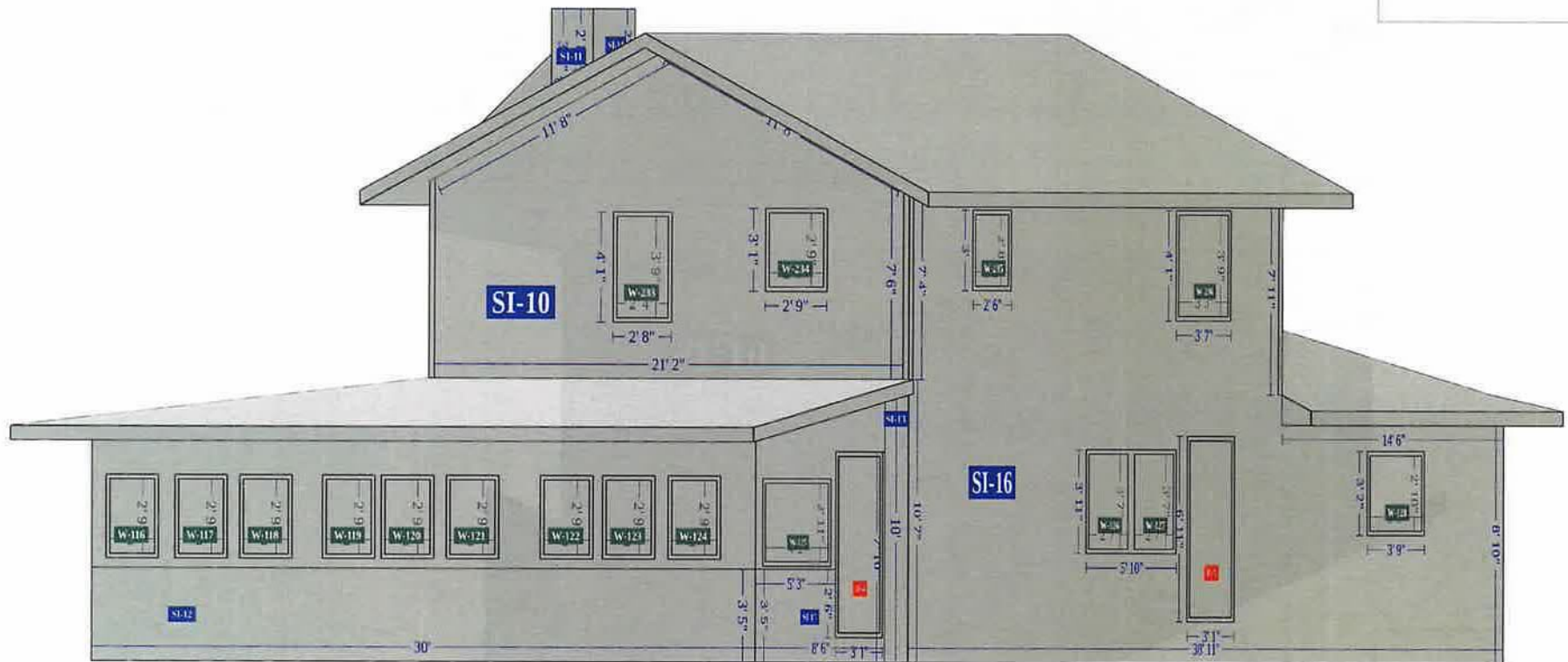
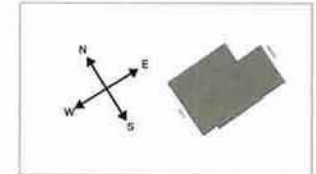


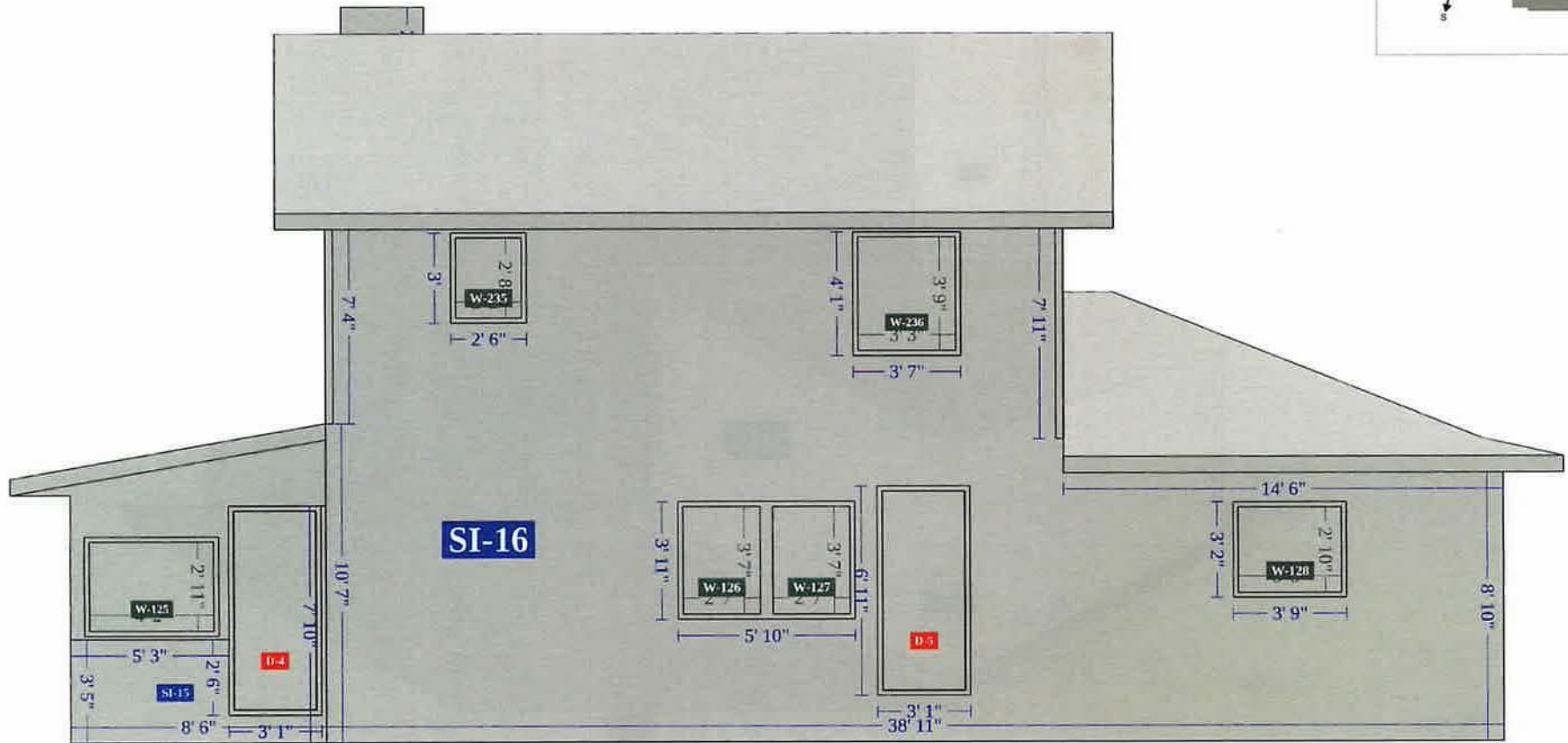
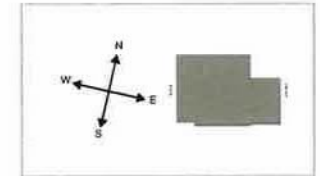












Siding

Facade	Area	Inside Corners	Outside Corners	Openings	Shutters	Vents
SI-1	94 ft ²	-	2	4	-	-
SI-2	59 ft ²	2	1	1	-	-
SI-3	168 ft ²	-	2	1	-	-
SI-4	35 ft ²	1	1	-	-	-
SI-5	14 ft ²	1	-	-	-	-
SI-6	138 ft ²	-	2	5	-	-
SI-7	109 ft ²	-	2	24	-	-
SI-8	6 ft ²	-	2	-	-	-
SI-9	10 ft ²	-	2	-	-	-
SI-10	190 ft ²	-	2	2	-	-
SI-11	6 ft ²	-	2	-	-	-
SI-12	103 ft ²	-	2	-	-	-
SI-13	11 ft ²	1	1	-	-	-
SI-14	7 ft ²	-	2	-	-	-
SI-15	22 ft ²	1	1	-	-	-
SI-16	484 ft ²	-	4	6	-	-
SI-17	5 ft ²	-	-	-	-	-
Total	1461 ft²	6	28	43	0	0

Facades

Facade	Area	Trim			Corners		Roofline		Openings		
		Level Starter	Sloped	Vertical	Inside	Outside	Level Frieze Board	Sloped Frieze Board	Tops	Sills	Sides
SI-1	94 ft ²	20' 7"	-	-	-	17' 9"	20' 7"	-	15' 6"	15' 6"	15' 2"
SI-2	59 ft ²	15' 7"	-	-	8' 10"	8' 10"	15' 7"	-	10' 8"	10' 8"	14' 10"
SI-3	168 ft ²	-	23' 5"	-	-	15' 3"	-	23' 3"	10"	10"	5'
SI-4	35 ft ²	10' 6"	-	-	8' 4"	3' 5"	-	-	-	9'	10'
SI-5	14 ft ²	3' 10"	4"	1'	7"	-	1' 5"	11' 10"	3' 5"	5' 7"	1' 3"
SI-6	138 ft ²	23' 11"	-	4"	-	14' 8"	7' 6"	18' 11"	15' 5"	15' 5"	44' 3"
SI-7	109 ft ²	31' 10"	-	-	-	6' 11"	-	-	-	31' 10"	-
SI-8	6 ft ²	-	2' 1"	-	-	6' 3"	-	-	-	-	-
SI-9	10 ft ²	2' 9"	-	-	-	7' 1"	-	-	-	-	-
SI-10	190 ft ²	21' 2"	-	-	-	14' 8"	-	23' 3"	5' 5"	5' 5"	14' 5"
SI-11	6 ft ²	-	2' 1"	-	-	6' 3"	-	-	-	-	-
SI-12	103 ft ²	30'	-	-	-	6' 11"	-	-	-	30'	-
SI-13	11 ft ²	1' 1"	-	-	7' 10"	10'	1' 1"	-	-	-	2' 2"
SI-14	7 ft ²	2' 9"	-	-	-	5' 4"	-	-	-	-	-
SI-15	22 ft ²	8' 6"	-	-	7' 10"	3' 5"	-	-	2"	8' 4"	9' 5"
SI-16	484 ft ²	38' 11"	-	1' 8"	-	34' 1"	38' 5"	-	18' 9"	18' 9"	42' 1"
SI-17	5 ft ²	-	-	-	-	-	-	-	-	-	-
Total*	1461 ft²	211' 3"	27' 10"	3'	16' 8"	80' 5"	84' 7"	77' 4"	70' 2"	151' 3"	158' 7"

*Totals de-duplicate any line segments that are shared between multiple facades, and as a result may not represent a total summation of the corresponding column.

Example Waste Factor Calculations

SIDING & TRIM ONLY

	Zero Waste	+10%	+18%
SI-1	94 ft ²	103 ft ²	111 ft ²
SI-2	59 ft ²	65 ft ²	70 ft ²
SI-3	168 ft ²	185 ft ²	198 ft ²
SI-4	35 ft ²	39 ft ²	41 ft ²
SI-5	14 ft ²	15 ft ²	17 ft ²
SI-6	138 ft ²	152 ft ²	163 ft ²
SI-7	109 ft ²	120 ft ²	129 ft ²
SI-8	6 ft ²	7 ft ²	7 ft ²
SI-9	10 ft ²	11 ft ²	12 ft ²
SI-10	190 ft ²	209 ft ²	224 ft ²
SI-11	6 ft ²	7 ft ²	7 ft ²
SI-12	103 ft ²	113 ft ²	122 ft ²
SI-13	11 ft ²	12 ft ²	13 ft ²
SI-14	7 ft ²	8 ft ²	8 ft ²
SI-15	22 ft ²	24 ft ²	26 ft ²
SI-16	484 ft ²	532 ft ²	571 ft ²

+ OPENINGS < 20FT²

	Zero Waste	+10%	+18%
	130 ft ²	143 ft ²	153 ft ²
	59 ft ²	65 ft ²	70 ft ²
	171 ft ²	188 ft ²	202 ft ²
	35 ft ²	39 ft ²	41 ft ²
	14 ft ²	15 ft ²	17 ft ²
	164 ft ²	180 ft ²	194 ft ²
	272 ft ²	299 ft ²	321 ft ²
	6 ft ²	7 ft ²	7 ft ²
	10 ft ²	11 ft ²	12 ft ²
	206 ft ²	227 ft ²	243 ft ²
	6 ft ²	7 ft ²	7 ft ²
	103 ft ²	113 ft ²	122 ft ²
	11 ft ²	12 ft ²	13 ft ²
	7 ft ²	8 ft ²	8 ft ²
	22 ft ²	24 ft ²	26 ft ²
	548 ft ²	603 ft ²	647 ft ²

+ OPENINGS < 33FT²

	Zero Waste	+10%	+18%
	151 ft ²	166 ft ²	178 ft ²
	59 ft ²	65 ft ²	70 ft ²
	171 ft ²	188 ft ²	202 ft ²
	35 ft ²	39 ft ²	41 ft ²
	14 ft ²	15 ft ²	17 ft ²
	164 ft ²	180 ft ²	194 ft ²
	293 ft ²	322 ft ²	346 ft ²
	6 ft ²	7 ft ²	7 ft ²
	10 ft ²	11 ft ²	12 ft ²
	206 ft ²	227 ft ²	243 ft ²
	6 ft ²	7 ft ²	7 ft ²
	103 ft ²	113 ft ²	122 ft ²
	11 ft ²	12 ft ²	13 ft ²
	7 ft ²	8 ft ²	8 ft ²
	22 ft ²	24 ft ²	26 ft ²
	548 ft ²	603 ft ²	647 ft ²

SIDING & TRIM ONLY (CONT.)

	Zero Waste	+10%	+18%
SI-17	5 ft ²	6 ft ²	6 ft ²
Trims	16 ft ²	18 ft ²	19 ft ²
Total	1477 ft ²	1626 ft ²	1744 ft ²

+ OPENINGS < 20FT²

	Zero Waste	+10%	+18%
	5 ft ²	6 ft ²	6 ft ²
	257 ft ²	283 ft ²	303 ft ²
	2026 ft ²	2230 ft ²	2392 ft ²

+ OPENINGS < 33FT²

	Zero Waste	+10%	+18%
	5 ft ²	6 ft ²	6 ft ²
	257 ft ²	283 ft ²	303 ft ²
	2068 ft ²	2276 ft ²	2442 ft ²

The first Siding Waste Factor table is calculated using the total ft² of siding facades, ft² of trim touching siding, and ft² of unknowns touching siding.

The tables above provide the area of siding on a given property, segmented by individual and in sum total form. Values include openings (doors & windows) and waste percentages as noted. Please consider that area values and specific waste factors can be influenced by the size and complexity of the property, captured image quality, specific siding techniques, and your own level of expertise. Accessories are not included in these values and may require additional material.

These tables are only intended to make common waste calculations easier and should not be interpreted as recommendations.



Complete Measurements

24805 154th Lane, McGrath, MN
OPENINGS

Windows

Group	Group Width x Height	Group United Inches	Opening	Width x Height	United Inches	Area
WG-1	35" x 49"	84"	W-101	35" x 49"	84"	12 ft ²
WG-2	35" x 49"	84"	W-102	35" x 49"	84"	12 ft ²
WG-3	35" x 49"	84"	W-103	35" x 49"	84"	12 ft ²
WG-4	46" x 35"	81"	W-104	46" x 35"	81"	11 ft ²
WG-5	27" x 34"	62"	W-105	27" x 34"	62"	7 ft ²
WG-6	27" x 34"	62"	W-106	27" x 34"	62"	7 ft ²
WG-7	27" x 34"	62"	W-107	27" x 34"	62"	7 ft ²
WG-8	27" x 34"	62"	W-108	27" x 34"	62"	7 ft ²
WG-9	23" x 34"	57"	W-109	23" x 34"	57"	6 ft ²
WG-10	23" x 34"	57"	W-110	23" x 34"	57"	6 ft ²
WG-11	23" x 34"	57"	W-111	23" x 34"	57"	6 ft ²
WG-12	23" x 34"	57"	W-112	23" x 34"	57"	6 ft ²
WG-13	23" x 34"	57"	W-113	23" x 34"	57"	6 ft ²
WG-14	23" x 34"	57"	W-114	23" x 34"	57"	6 ft ²
WG-15	18" x 34"	52"	W-115	18" x 34"	52"	4 ft ²
WG-16	24" x 33"	58"	W-116	24" x 33"	58"	6 ft ²
WG-17	24" x 33"	58"	W-117	24" x 33"	58"	6 ft ²
WG-18	24" x 33"	58"	W-118	24" x 33"	58"	6 ft ²



Windows (cont.)

Group	Group Width x Height	Group United Inches	Opening	Width x Height	United Inches	Area
WG-19	24" x 33"	58"	W-119	24" x 33"	58"	6 ft ²
WG-20	24" x 33"	58"	W-120	24" x 33"	58"	6 ft ²
WG-21	24" x 33"	58"	W-121	24" x 33"	58"	6 ft ²
WG-22	24" x 33"	58"	W-122	24" x 33"	58"	6 ft ²
WG-23	24" x 33"	58"	W-123	24" x 33"	58"	6 ft ²
WG-24	24" x 33"	58"	W-124	24" x 33"	58"	6 ft ²
WG-25	50" x 35"	85"	W-125	50" x 35"	85"	12 ft ²
WG-26	66" x 43"	109"	W-126	31" x 43"	73"	9 ft ²
			W-127	31" x 43"	73"	9 ft ²
WG-27	41" x 34"	75"	W-128	41" x 34"	75"	10 ft ²
WG-28	29" x 35"	63"	W-229	29" x 35"	63"	7 ft ²
WG-29	18" x 48"	65"	W-230	18" x 48"	65"	6 ft ²
WG-30	18" x 48"	65"	W-231	18" x 48"	65"	6 ft ²
WG-31	29" x 35"	63"	W-232	29" x 35"	63"	7 ft ²
WG-32	28" x 45"	73"	W-233	28" x 45"	73"	9 ft ²
WG-33	29" x 33"	63"	W-234	29" x 33"	63"	7 ft ²
WG-34	26" x 32"	58"	W-235	26" x 32"	58"	6 ft ²
WG-35	39" x 45"	84"	W-236	39" x 45"	84"	12 ft ²



Complete Measurements

24805 154th Lane, McGrath, MN
OPENINGS

Windows (cont.)

Group	Group Width x Height	Group United Inches	Opening	Width x Height	United Inches	Area
WG-36	20" x 20"	41"	W-337	20" x 20"	41"	3 ft ²
			Total	-	2377"	272 ft ²



Complete Measurements

24805 154th Lane, McGrath, MN
OPENINGS

Doors

Opening	Width x Height
D-1	36" x 82"
D-2	120" x 80"
D-3	36" x 82"
D-4	32" x 80"
D-5	32" x 80"
SGD-1	72" x 80"

*Door height and width have been snapped to standard

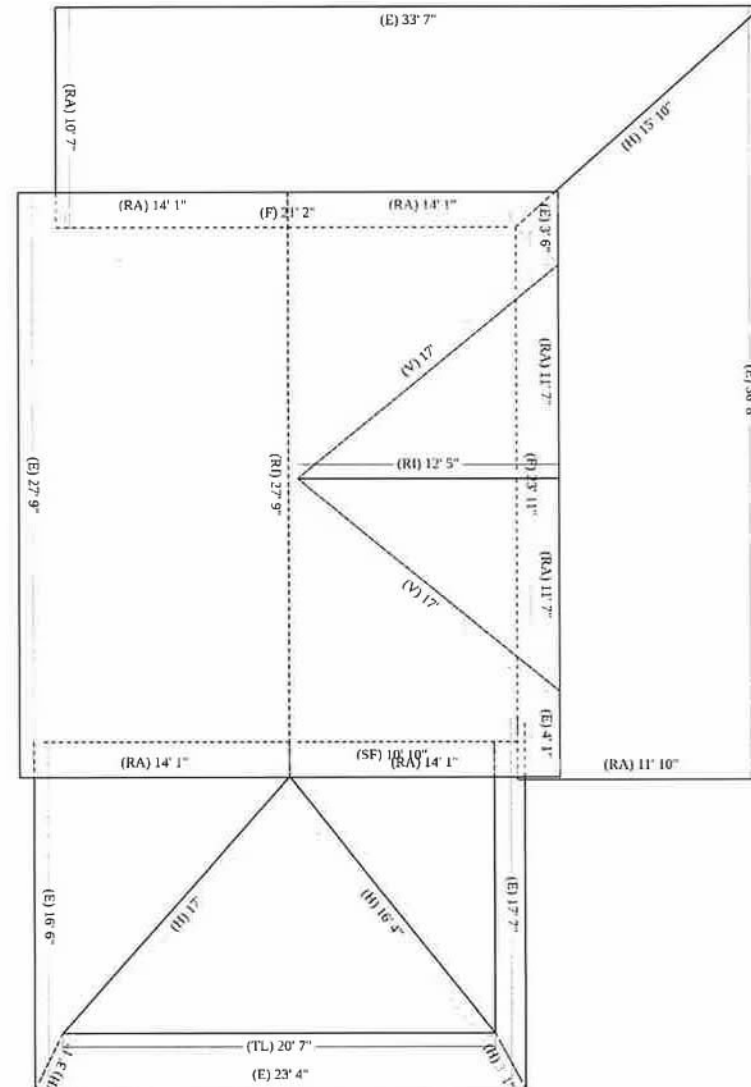
Entire Doors

Opening	Width x Height	Area
D-1	36" x 85"	21 ft ²
D-2	124" x 85"	73 ft ²
D-3	36" x 85"	21 ft ²
D-4	33" x 79"	18 ft ²
D-5	33" x 79"	18 ft ²
SGD-1	69" x 78"	37 ft ²
Total	-	188 ft ²

*Total door square footage includes entire door package (e.g. with transoms, sidelites, etc.)

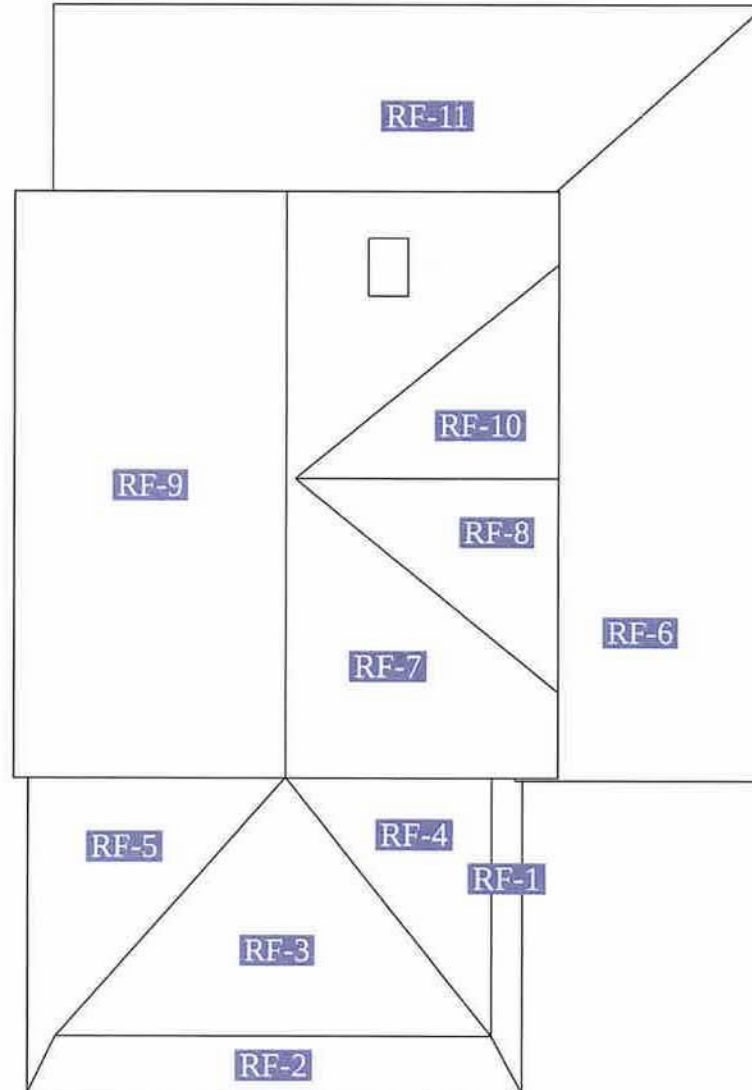
Roof	Length
Ridges (RI)	41' 9"
Hips (H)	55' 4"
Valleys (V)	34'
Rakes (RA)	103' 8"
Eaves (E)	164' 11"
Flashing (F)*	52' 8"
Step Flashing (SF)*	28' 5"
Transition Line (TL)	34' 4"

*Please view the 3D model for more detail (e.g. flashing, step flashing and some other roof lines may be difficult to see on the PDF)

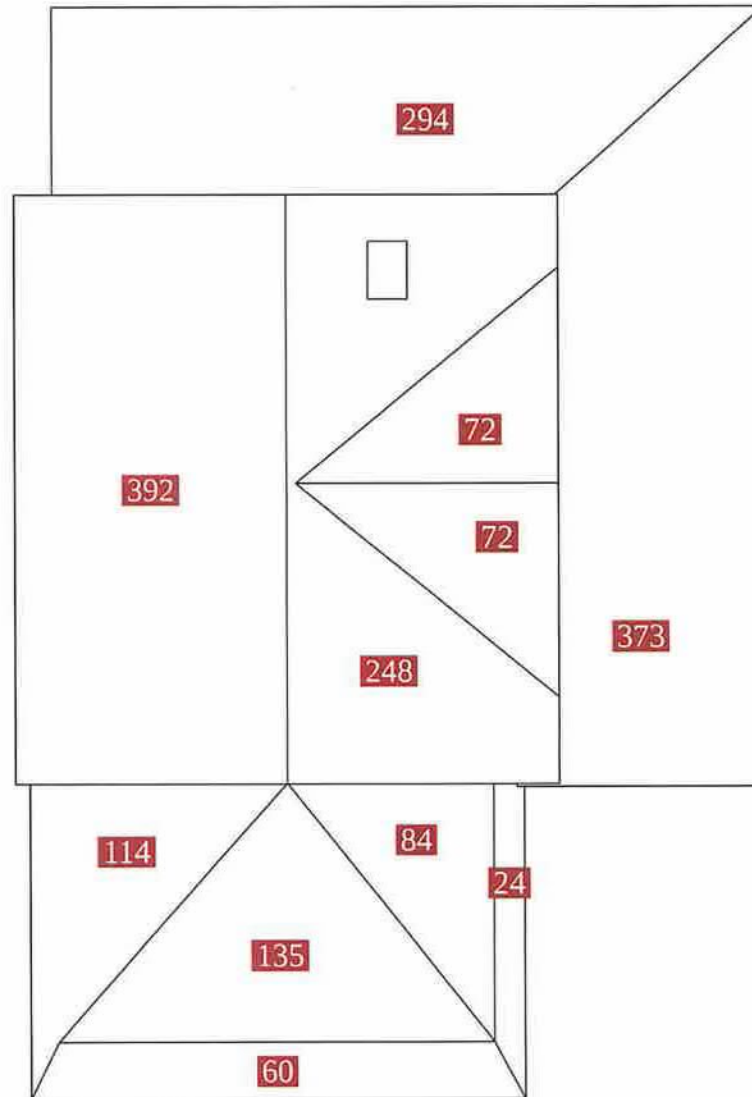


Roof Facets

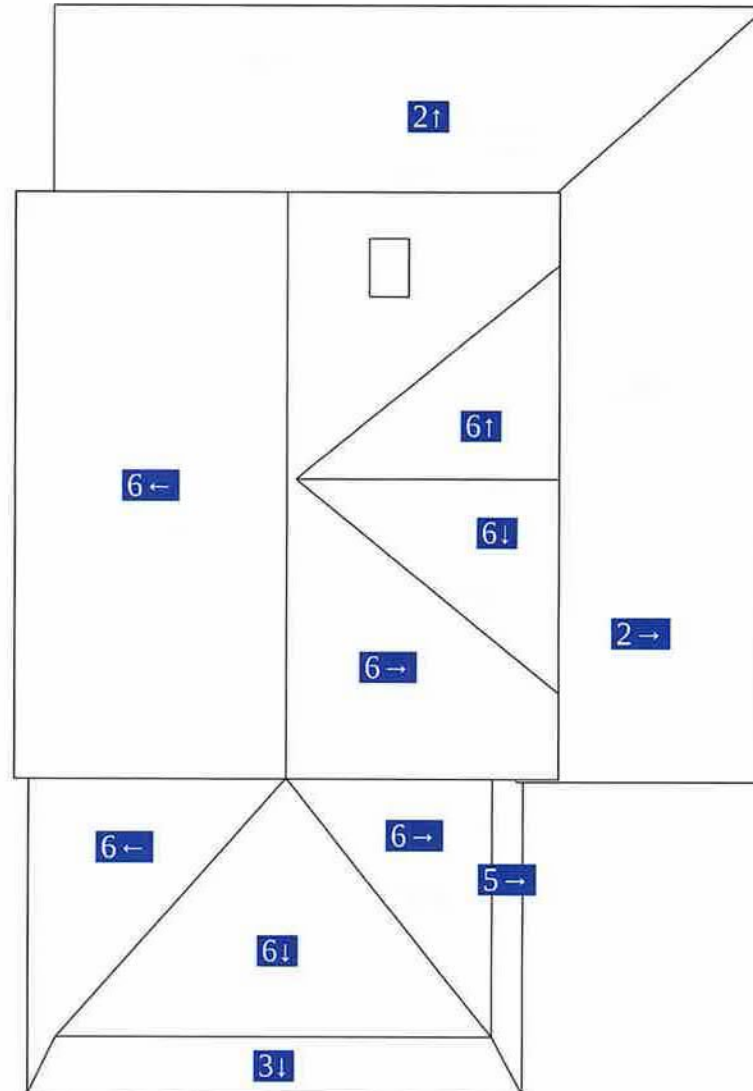
Facet	Area	Pitch
RF-1	24 ft ²	5/12
RF-2	60 ft ²	3/12
RF-3	135 ft ²	6/12
RF-4	84 ft ²	6/12
RF-5	114 ft ²	6/12
RF-6	373 ft ²	2/12
RF-7	248 ft ²	6/12
RF-8	72 ft ²	6/12
RF-9	392 ft ²	6/12
RF-10	72 ft ²	6/12
RF-11	294 ft ²	2/12



Roof	Facets	Total
Total	11	1868 ft ²



Roof Pitch	Area	Percentage
6 / 12	1117 ft ²	59.8%
2 / 12	667 ft ²	35.71%
3 / 12	60 ft ²	3.21%
5 / 12	24 ft ²	1.28%







Complete Measurements

24805 154th Lane, McGrath, MN
PHOTOS



