

Total Solar Resource Fraction (TSRF)

#### **Contents**

Annual Solar Values	1
Roof Summary	2 4
Roof Facets	4
Lengths	45
Pitch (Degrees)	46
Pitch (on 12)	47
Rafters	48
Azimuth	49
Area	50
Roof Obstructions	51
Imagery	52
Roofing Report Summary	55

This report can be used for roofing and solar installations. Roof Report Summary page is at the end of the report

#### **Property Address**

10497 1230 W South Jordan, UT 84095

#### Measurements

Area: Roof Facets: Predominant Pitch: Number of Stories: Ridges/Hips: Valleys: Rakes: Eaves: Roof Obstructions: Roof Obstructions Perimeter:	5,882 sq 17 27° >1 353 ft 150 ft 114 ft 375 ft 17	See an overview of all major measurements before you open
Roof Obstructions Area:	40 sq ft	the report

## Prepared for

Monica Smith 123 ABC St Springfield, OR 98123 866 659-8439

## Notes 4

Definitions for the shade report values used in the report

**Solar Access Value (SAV) -** The percentage of the energy that can be captured after taking into account the impact of shading.

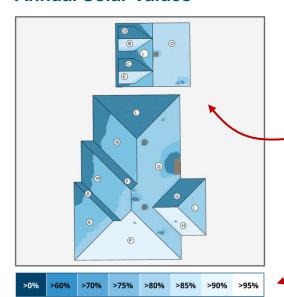
**Tilt and Orientation Factor (TOF)** - The percentage of the energy that can be captured based on the roof plane orientation and pitch. This does not account for shading.

**Total Solar Resource Fraction (TSRF)** – The percentage of energy that can be captured taking into account both the roof plane tilt and orientation, and the impact of shading. This is the most useful value for calculating solar production.

Shade data (pages 2-22) are only in the Inform Advanced report, not included in Essentials +



## **Annual Solar Values**



-			г
	3	ĸ	г

Roof ID	SAV %	TSRF %
А	77	40
В	92	83
С	51	23
D	52	23
E	95	86
F	78	41
G	83	45
Н	96	87
I	95	69
J	69	48
K	92	65
L	79	42
M	87	62

December 19, 2019
Property Address:
1023 Florence Rd Oswego, OR 98321
Report: 32181797

Roof ID	SAV %	TSRF %
N	85	61
0	97	73
Р	98	89
Q	90	65

3D model of the home with a TSRF heat map overlay. Each roof facet is identified with a letter for reference throughout the report

Reference the color key for the TSRF value range. Lighter portions of the roof have the best sun access values

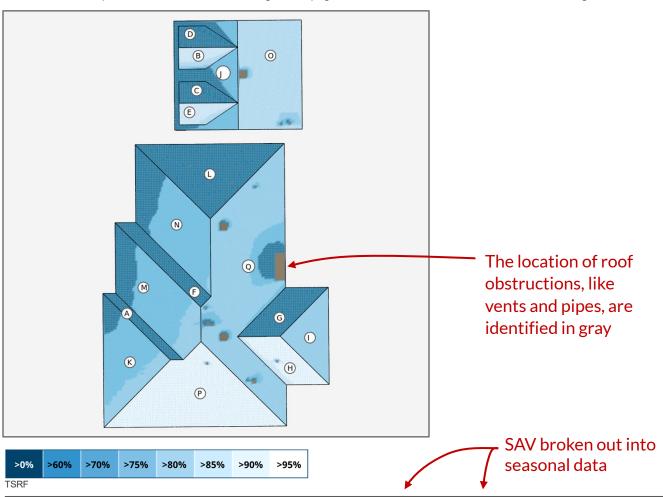
 Table gives annual average solar values for each facet. Values are calculated using a data point every 6" across the roof

Property address and report number listed on the bottom of every page



## **Roof Summary**

The TSRF heatmap has been overlaid on the image. This page is meant as a tool to enable module level design.



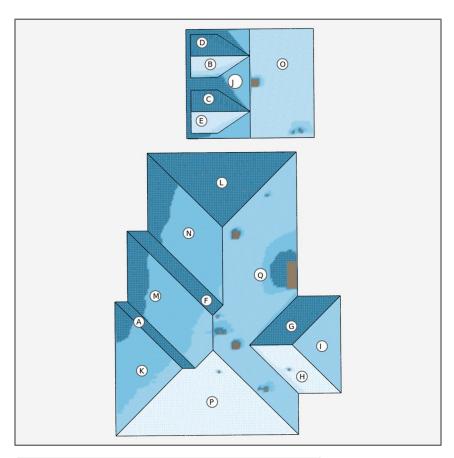
Roof ID	Pitch °	Azimuth °	SAV %	May-Oct SAV %	Nov-Apr SAV %	TSRF %
Α	27	359	77	86	67	40
В	45	179	92	95	88	83
С	45	360	51	76	27	23
D	45	360	52	77	27	23
E	45	179	95	96	94	86
F	27	360	78	89	67	41
G	27	359	83	96	71	45
Н	27	179	96	97	95	87
1	27	89	95	97	94	69
J	34	269	69	76	62	48
K	27	269	92	91	92	65
L	27	360	79	91	68	42
M	27	269	87	87	88	62
N	27	269	85	85	85	61

December 19, 2019 Property Address:

Report: 32181797

Summaries of pitch and azimuth give you useful 1023 Florence Rd Oswego, OR 98321 data before you page through the report

= eagleview



>0%	>60%	>70%	>75%	>80%	>85%	>90%	>95%
-----	------	------	------	------	------	------	------

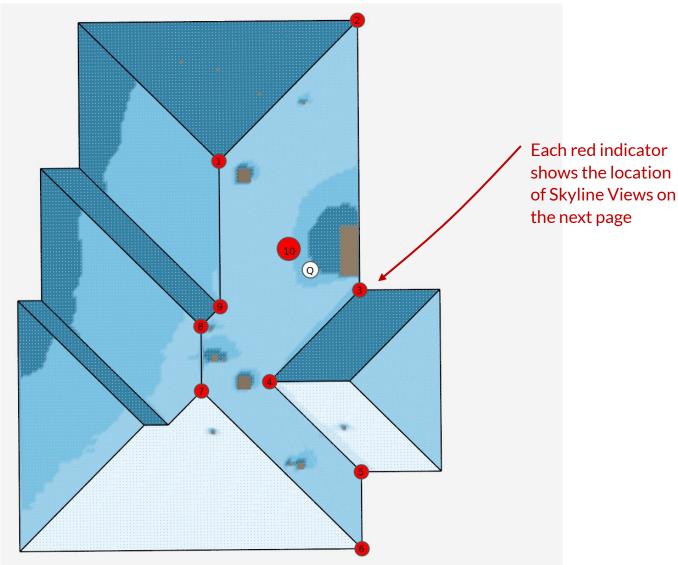
TSRF

Roof ID	Pitch °	Azimuth °	SAV %	May-Oct SAV %	Nov-Apr SAV %	TSRF %
0	14	90	97	97	97	73
Р	27	179	98	99	98	89
Q	27	90	90	91	88	65



## **Roof Facets**

**FACET Q DETAIL** 



TSRF. Red indicators refer to skyline views shown on the following page(s).

Month	SAV %	TOF %	TSRF %
January	85	68	57
February	89	66	58
March	90	69	63
April	92	76	69
May	92	81	74
June	93	86	80

December 19, 2019 Property Address: 1023 Florence Rd Oswego, OR 98321 Report: 32181797 See definitions of terms on the cover page

		<b>V</b>	
Month	SAV %	TOF %	TSRF %
July	93	83	77
August	91	75	68
September	91	67	62
October	89	63	56
November	88	67	59
December	84	63	53

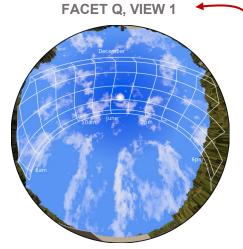
Monthly solar values for the facet



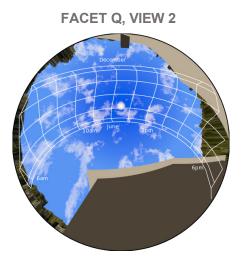
# Skyline views correspond to red indicators on previous page

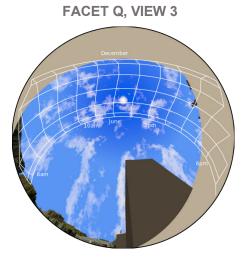
## Facet Q - skyline views

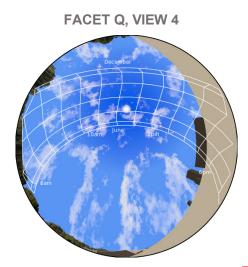
The images here correspond to the previous facet detail page. They show a view looking out towards the sky to allow you to see any shade causing obstructions that would appear from the roof surface. The label on the images match the locations on the roof facet, allowing you to see obstruction views from the corners, and center point, of each facet.

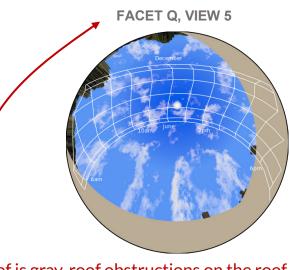


Synthetic skylines show the 360 view from a specific spot on the roof to visualize shade causing obstructions









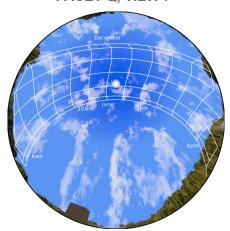
December 19, 2019 Property Address: 1023 Florence Rd Oswego, OR 98321 Report: 32181797 The roof is gray, roof obstructions on the roof itself are black, and the shapes along the border are trees and buildings surrounding the home

## Facet Q - skyline views

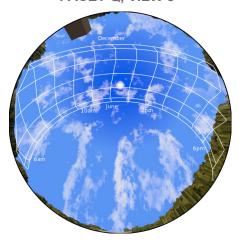
The images here correspond to the previous facet detail page. They show a view looking out towards the sky to allow you to see any shade causing obstructions that would appear from the roof surface. The label on the images match the locations on the roof facet, allowing you to see obstruction views from the corners, and center point, of each facet.



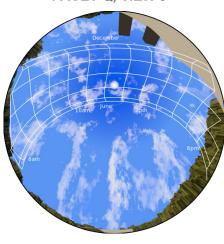
**FACET Q, VIEW 7** 



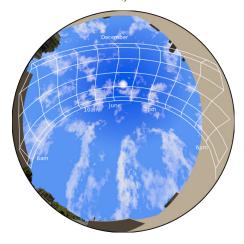
**FACET Q, VIEW 8** 



**FACET Q, VIEW 9** 



**FACET Q, VIEW 10** 



December 19, 2019 Property Address: 1023 Florence Rd Oswego, OR 98321 Report: 32181797

**=**/eagleview

## Lengths Ridges = 111 ft Valleys = 150 ft Flashing = 35 ft Hips = 242 ft Rakes = 114 ft Step flashing = 85 ft Eaves = 23 ft Parapets = 0 ft The length diagram shows all linear measurements, color 18 coded for easy reference 18 Accurate 42 measurements generated remotely allow you to design without leaving the office +6 20 12 12

December 19, 2019 Property Address:

1023 Florence Rd Oswego, OR 98321

= / eagleview

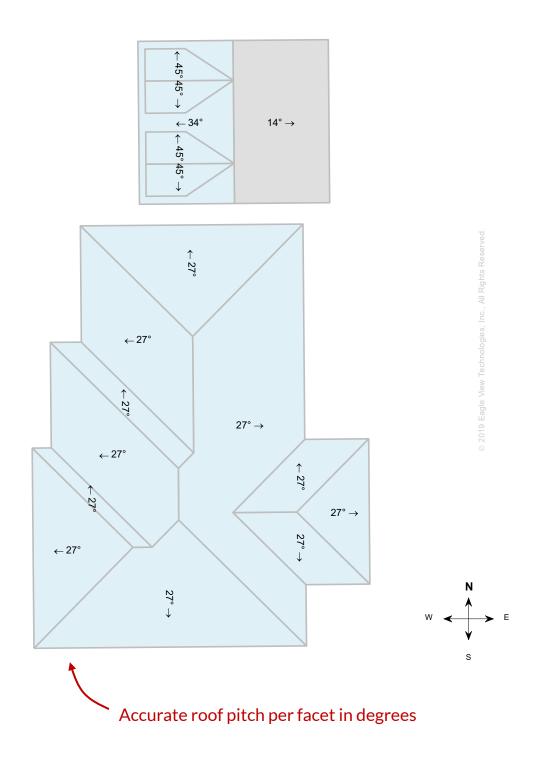
Numbers are rounded for readability.

Exact measurements are in the 3D model

51

## Pitch (Degrees)

Pitches are labeled for facet areas larger than 20 square feet. In some cases, pitch labels have been removed for readability. Flat facets are labeled 'F'.



December 19, 2019 Property Address:

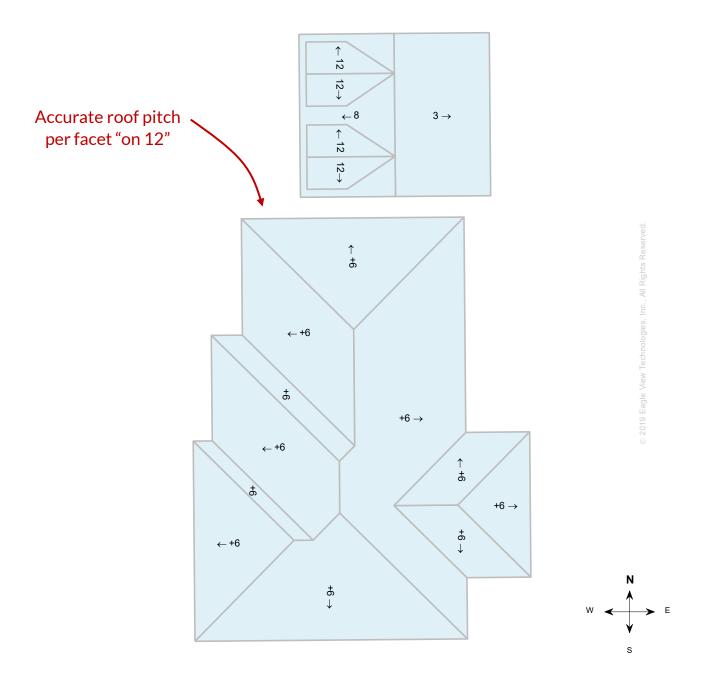
1023 Florence Rd Oswego, OR 98321

Report: 32181797

= eagleview

## Pitch (on 12)

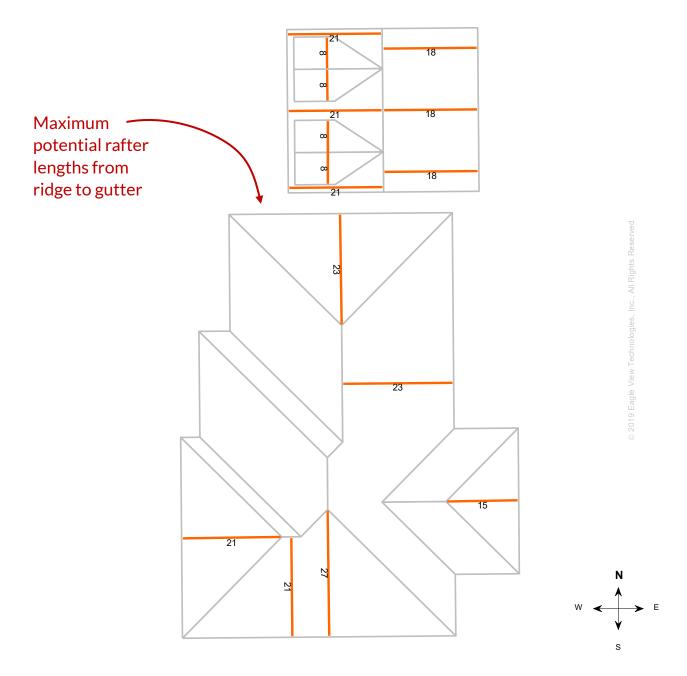
Pitches are labeled for facet areas larger than 20 square feet. In some cases, pitch labels have been removed for readability. Flat facets are labeled 'F'.





## **Rafters**

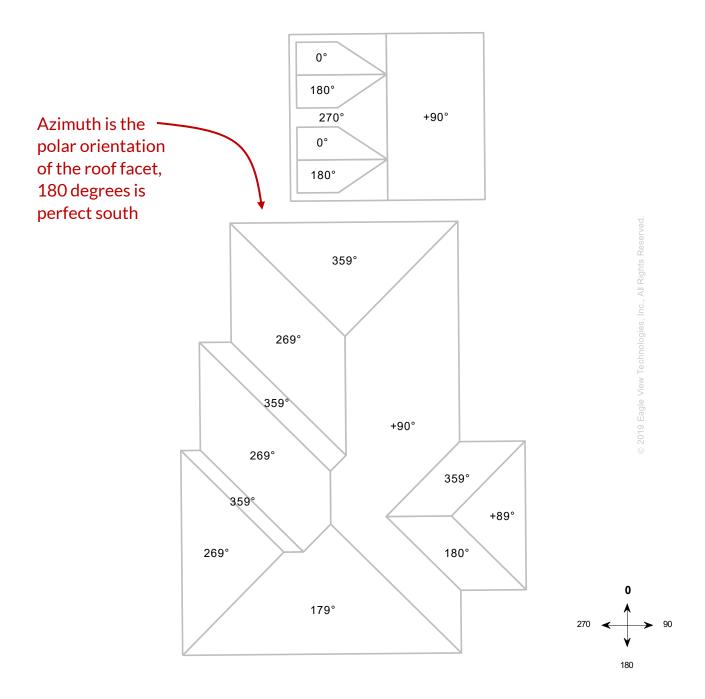
Rafter lengths (rounded to the nearest whole number) over 5 feet. In some cases, segment labels have been removed for readability. Some numbers are prefaced by "+" signs to avoid confusion when rotated (e.g. +6 and +9).





## **Azimuth**

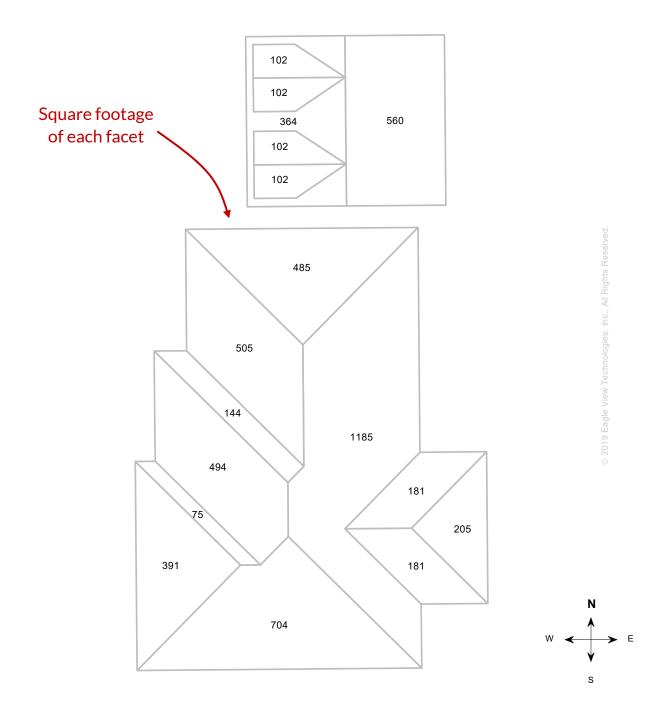
The azimuth is the orientation of the structure to true north. In this diagram roof facet directions are labeled in degrees, with  $0^{\circ}$  (360°) as true north. Flat facets are labeled as 'F'.





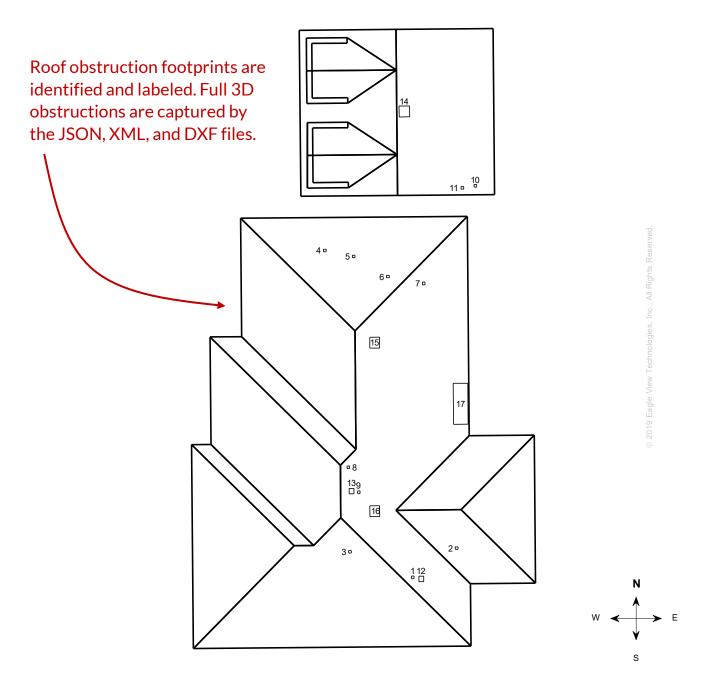
## Area

The area is measured in square feet per roof facet. The values have been rounded to the nearest foot square.





## **Roof Obstructions**



December 19, 2019 Property Address: 1023 Florence Rd Oswego, OR 98321 Report: 32181797

= eagleview

Top-down and side-view aerial imagery gives visual context for the measurements in the report

These are images of the property taken from multiple angles.

#### **TOP VIEW**



### **NORTH SIDE**



Match objects in the environment to Skyline Views on the roof facet pages



### **SOUTH SIDE**



## **EAST SIDE**





### **WEST SIDE**





#### Structure #1

Areas per Pitch	
Roof Pitches	6/12
Area (sq ft)	4550.4
% of Roof	100%

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

Structure Complexity		
Simple	Normal	Complex

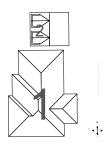
<b>Waste Cal</b>	culation
------------------	----------

NOTE: This waste calculation table is for asphalt shingle roofing applications. All values in table below only include roof areas of 3/12 pitch or greater. For total measurements of all pitches, please refer to the **Lengths, Areas, and Pitches** section below.

▶ Waste %	0%	1%	6%	11%	14%	16%	18%	21%	26%
Area (Sq ft)	4551	4597	4825	5052	5189	5280	5371	5507	5735
Squares *	45.66	46.00	48.33	50.66	52.00	53.00	54.00	55.33	57.66
	Measured					Suggested			

<sup>\*</sup> Squares are rounded up to the 1/3 of a square.

Additional materials needed for ridge, hip, and starter lengths are not included in the above table. The provided suggested waste factor is intended to serve as a guide—actual waste percentages may differ based upon several variables that EagleView does not control. These waste factor variables include, but are not limited to, individual installation techniques, crew experiences, asphalt shingle material subtleties, and potential salvage from the site. Individual results may vary from the suggested waste factor that EagleView has provided. The suggested waste is not to replace or substitute for experience or judgment as to any given replacement or repair work.



Total Roof Facets = 11 Total Roof Obstructions =17

#### **Lengths, Areas and Pitches**

Ridges = 47 ft (4 Ridges) Hips = 243 ft (10 Hips). Valleys = 100 ft (4 Valleys) Rakes† = 0 ft (0 Rakes) Eaves/Starter‡ = 284 ft (12 Eaves)

Drip Edge (Eaves + Rakes) = 284 ft (12 Lengths)

Parapet Walls = 0 (0 Lengths). Flashing = 0 ft (0 Lengths) Step flashing = 0 ft (0 Lengths)

Predominant Pitch = 6/12

Total Area (All Pitches) = 4551 sq ft

#### **Property Location**

Longitude = -111.9259124 Latitude = 40.5604023

#### Notes

This was ordered as a residential property. There were no changes to the structure in the past four years.

Linear Measurements summarized, with the number of roof features

Order roofing materials accurately with Suggested Waste Factor, calculated using the property's unique features

- † Rakes are defined as roof edges that are sloped (not level).
- ‡ Eaves are defined as roof edges that are not sloped and level.

December 19, 2019 Property Address:

1023 Florence Rd Oswego, OR 98321

Report: 32181797

=/ eagleview

#### Structure #2

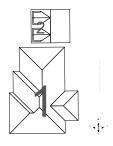
Areas per Pitch						
Roof Pitches	8/12	12/12	3/12			
Area (sq ft)	364.1	407.3	559.7			
% of Roof	27.4%	30.6%	42.1%			

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

Structure Complexity									
	Simple Normal Complex								
Waste Calculation  NOTE: This waste calculation table is for asphalt shingle roofing applications. All values in table below only include roof areas of 3/12 pitch or greater.  For total measurements of all pitches, please refer to the Lengths, Areas, and Pitches section below.									
Waste % <b>0%</b> 5% 10			10%	13%	15%	17%	20%	25%	30%
Area (Sq ft) <b>1332</b> 1399 1466 1506				1506	1532	1559	1599	1665	1732
Squares *	13.33	14.00	14.66	15.33	15.33	15.66	16.00	16.66	17.33
	Measured				Suggested				

<sup>\*</sup> Squares are rounded up to the 1/3 of a square.

Additional materials needed for ridge, hip, and starter lengths are not included in the above table. The provided suggested waste factor is intended to serve as a guide—actual waste percentages may differ based upon several variables that EagleView does not control. These waste factor variables include, but are not limited to, individual installation techniques, crew experiences, asphalt shingle material subtleties, and potential salvage from the site. Individual results may vary from the suggested waste factor that EagleView has provided. The suggested waste is not to replace or substitute for experience or judgment as to any given replacement or repair work.



Total Roof Facets = 6 Total Roof Obstructions = 17

#### **Lengths, Areas and Pitches**

Ridges = 64 ft (5 Ridges)
Hips = 0 ft (0 Hips).
Valleys = 50 ft (4 Valleys)
Rakes† = 114 ft (8 Rakes)
Eaves/Starter‡ = 91 ft (6 Eaves)
Drip Edge (Eaves + Rakes) = 205 ft (14 Lengths)
Parapet Walls = 0 (0 Lengths).
Flashing = 25 ft (6 Lengths)
Step flashing = 32 ft (4 Lengths)
Predominant Pitch = 3/12

Total Area (All Pitches) = 1331 sq ft

#### **Property Location**

Longitude = -111.9259124 Latitude = 40.5604023

#### Notes

This was ordered as a residential property. There were no changes to the structure in the past four years.

December 19, 2019 Property Address:

1023 Florence Rd Oswego, OR 98321

Report: 32181797



Rakes are defined as roof edges that are sloped (not level).

<sup>‡</sup> Eaves are defined as roof edges that are not sloped and level.

## ROOFING REPORT SUMMARY

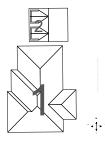


Summary provided for all roof facets for all roof structures included in the report

Areas per Pitch						
Roof Pitches	3/12	6/12	8/12	12/12		
Area (sq ft)	559.7	4550.3	364.1	407.2		
% of Roof	9.5%	77.4%	6.2%	6.9%		

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

#### **All Structures Totals**



Total Roof Facets = 17 Total Roof Obstructions = 17

#### **Lengths, Areas and Pitches**

Ridges = 111 ft (9 Ridges) Hips = 242 ft (10 Hips). Valleys = 150 ft (8 Valleys) Rakes<sup>†</sup> = 114 ft (8 Rakes) Eaves/Starter<sup>‡</sup> = 375 ft (18 Eaves)

Drip Edge (Eaves + Rakes) = 489 ft (26 Lengths)

Parapet Walls = 0 (0 Lengths). Flashing = 24 ft (6 Lengths) Step flashing = 32 ft (4 Lengths)

Total Roof Obstructions Area = 40 sq ft

Total Roof Area Less Roof Obstructions = 5,842 sq ft

Total Roof Obstructions Perimeter = 75 ft

Predominant Pitch = 6/12

Total Area (All Pitches) = 5,882 sq ft

#### **Property Location**

Longitude = -111.9259124 Latitude = 40.5604023

#### **Notes**

This was ordered as a residential property. There were no changes to the structure in the past four years.

- † Rakes are defined as roof edges that are sloped (not level).
- ‡ Eaves are defined as roof edges that are not sloped and level.

