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**UNITED STATES DISTRICT COURT  
DISTRICT OF NEW JERSEY**

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EAGLE VIEW TECHNOLOGIES,  
INC., and PICTOMETRY  
INTERNATIONAL CORP.,

Plaintiffs,

v.

GAF MATERIALS LLC,

Defendant.

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Civil Action No.: 1:21-cv-10669  
(RMB-SAK)

**FIRST AMENDED COMPLAINT**

*Filed Electronically*

Plaintiffs Eagle View Technologies, Inc. (“EagleView”) and Pictometry International Corp. (“Pictometry”) (collectively, “Plaintiffs”), by their undersigned attorneys, for their First Amended Complaint against Defendant GAF Materials LLC (“GAF” or “Defendant”), hereby allege as follows:

### **NATURE OF ACTION**

1. This is an action for patent infringement. Over the course of more than a decade, Plaintiffs have developed technologies and products that produce aerial roof reports that are extremely accurate and detailed. These reports are used, *inter alia*, to estimate the costs of roof repairs, construction, and insurance. Plaintiffs are market leaders in providing technologies relating to such reports in the construction, government, solar, and insurance markets. GAF directly competes with Plaintiffs, including in at least the construction, government, insurance, and solar markets, with at least rooftop aerial measurement products, including GAF QuickMeasure roof reports and the software used to generate these reports (“Accused Product” or “QuickMeasure”).

2. GAF QuickMeasure reports can be for residential, commercial, or multi-family buildings:

For as little as \$18, you get everything above!		
	SINGLE-FAMILY HOME IN LESS THAN 1 HOUR	COMMERCIAL/MULTIFAMILY IN LESS THAN 24 HOURS
Master Elite®, Master Select™, Master, PCS	\$18 <sub>USD</sub>	\$54 <sub>USD</sub>
Certified™, Authorized™	\$23 <sub>USD</sub>	\$69 <sub>USD</sub>
Not GAF Certified	\$28 <sub>USD</sub>	\$84 <sub>USD</sub>
*Pricing Per Building		

See Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>). These reports are all generated using technologies that were patented by EagleView, as described in more detail below.

3. Plaintiffs EagleView and Pictometry now bring this action to halt GAF's infringement of nine (9) patents, and obtain other relief as necessary. As more fully described below, GAF infringes each of United States Patent Nos. 8,078,436; 8,170,840; 8,209,152; 8,542,880; 8,670,961; 9,129,376; 9,514,568; 10,528,960; and 10,685,149 (collectively, "Patents-in-Suit") in connection with the Accused Product.

### **THE PARTIES**

4. Plaintiff Eagle View Technologies, Inc. is a corporation organized and existing under the laws of the State of Washington, having a principal place of business at 25 Methodist Hill Drive, Rochester, NY 14623. EagleView launched in 2008, and was the first remote aerial roof measurement service. EagleView has developed and continues to develop products and technologies that produce aerial roof and wall measurement reports. These reports are used, *inter alia*, to estimate the costs of roof repairs, construction, and insurance. EagleView's roof reports are used by a wide range of organizations, large and small, across a number of industries, including the government, construction, insurance, and solar industries.

5. Plaintiff Pictometry International Corp. is a corporation organized and existing under the laws of the State of Delaware, having a principal place of business at 25 Methodist Hill Drive, Rochester, NY 14623. Pictometry, which was founded

in 1996, is an innovator of, among other things, aerial oblique image capture and processing technologies.

6. In January 2013, a merger between EagleView and Pictometry resulted in the creation of a new company called EagleView Technology Corporation (“EVT”), which is comprised of EagleView and Pictometry.

7. Defendant GAF Materials LLC is a corporation organized and existing under the laws of the State of Delaware, having a regular and established place of business at 1 Campus Drive, Parsippany-Troy Hills, New Jersey 07054. GAF directly competes with EagleView and Pictometry including in the construction, insurance, and solar markets, with at least the Accused Product.

### **PATENTS-IN-SUIT**

8. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 8,078,436 (the “’436 Patent”), entitled “Aerial Roof Estimation Systems and Methods,” which was issued by the United States Patent and Trademark Office (“USPTO”) on December 13, 2011. A true and correct copy of the ’436 Patent is attached hereto as Exhibit 1. As confirmed by an *ex parte* reexamination, Claims 1, 18, 36, 37, and 41 of the ’436 Patent are valid and enforceable as amended, Claims 2-17, 19-35, 38-40, 42, and 46-56 are dependent on an amended claim and are thus valid and enforceable, and new claims 57-66 are valid and enforceable. The reexamination certificate for the ’436 Patent is appended at the end of Exhibit 1.

9. The '436 Patent was subject to three *inter partes review* petitions (IPR2016-00582, IPR2016-01775, IPR2017-00021), for all of which institution was denied.

10. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 8,170,840 (the "'840 Patent"), entitled "Pitch Determination Systems and Methods for Aerial Roof Estimation," which was issued by the USPTO on May 1, 2012. A true and correct copy of the '840 Patent is attached hereto as Exhibit 2.

11. The '840 Patent was subject to an *inter partes review* petition (IPR2016-00586), for which institution was denied. All claims of the '840 Patent are valid and enforceable.

12. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 8,209,152 (the "'152 Patent"), entitled "Concurrent Display Systems and Methods for Aerial Roof Estimation," which was issued by the USPTO on June 26, 2012. A true and correct copy of the '152 Patent is attached hereto as Exhibit 3.

13. The '152 Patent was subject to an *inter partes review* (IPR2016-00591), after which Claims 2, 4, 5, 7, 8, 10, 11, 15, 17, 18, 20, 21, 24, and 25 remain valid and enforceable. The '152 Patent was also subject to another *inter partes review* petition (IPR2017-00034), for which institution was denied.

14. Pictometry is the owner of the entire right, title, and interest in and to United States Patent No. 8,542,880 (the “’880 Patent”), entitled “System and Process for Roof Measurement Using Aerial Imagery,” which was issued by the USPTO on September 24, 2013. A true and correct copy of the ’880 Patent is attached hereto as Exhibit 4.

15. The ’880 Patent was subject to an *inter partes* review (IPR2016-00594) in which claims 1–10 and 13–20 were instituted upon but remained valid and enforceable. All claims of the ’880 Patent are valid and enforceable.

16. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 8,670,961 (the “’961 Patent”), entitled “Aerial Roof Estimation Systems and Methods,” which was issued by the USPTO on March 11, 2014. A true and correct copy of the ’961 Patent is attached hereto as Exhibit 5.

17. All claims of the ’961 Patent are valid and enforceable.

18. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 9,129,376 (the “’376 Patent”), entitled “Pitch Determination Systems and Methods for Aerial Roof Estimation,” which was issued by the USPTO on September 8, 2015. A true and correct copy of the ’376 Patent is attached hereto as Exhibit 6.

19. The ’376 Patent was subject to an *inter partes* review petition (IPR2016-00587), for which institution was denied. Thus, all claims of the ’376 Patent are valid

and enforceable.

20. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 9,514,568 (the “’568 Patent”), entitled “Aerial Roof Estimation Systems and Methods,” which was issued by the USPTO on December 6, 2016. A true and correct copy of the ’568 Patent is attached hereto as Exhibit 7.

21. All claims of the ’568 Patent are valid and enforceable.

22. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 10,528,960 (the “’960 Patent”), entitled “Aerial Roof Estimation Systems and Methods,” which was issued by the USPTO on January 7, 2020. A true and correct copy of the ’960 Patent is attached hereto as Exhibit 8.

23. All claims of the ’960 Patent are valid and enforceable.

24. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 10,685,149 (the “’149 Patent”), entitled “Pitch Determination Systems and Methods for Aerial Roof Estimation,” which was issued by the USPTO on June 16, 2020. A true and correct copy of the ’149 Patent is attached hereto as Exhibit 9.

25. All claims of the ’149 Patent are valid and enforceable.

26. The Patents-in-Suit are directed to specific concrete improvements in roof-estimation technology that, among other things, rely on unconventional correlations of non-stereoscopic images to generate roof reports with accurate

information concerning a roof. Before EagleView's inventions, repairing or replacing a roof typically entailed asking roofing contractors to visit the house to determine the style of roof, take measurements, and to inspect the area around the house for access and cleanup before preparing a written estimate. By contrast, EagleView's Patents-in-Suit solve the specific problem of generating a roof repair estimate without direct human measurement of a roof using, *inter alia*, concrete and specific technological solution of a computer's correlating, with or without user input, different location points on two, different, non-stereoscopic aerial views and then generating a roof report including accurate information concerning the real-world roof.

27. For example, all Patents-in-Suit claim using specific, tangible inputs that are in no way required by merely using a computer, including multiple aerial images that are taken from different angles and in some cases, at different times. There are countless other ways one could try to develop a roof measuring system other than using EagleView's patented selection of images, but GAF has chosen to use EagleView's patented ways.

28. The Patents-in-Suit also use specific, tangible methods of analyzing those inputs. For example, the '436 Patent teaches improving a computer system by "receiv[ing]" and "correlate[ing]" aerial images and "generating" "a three-dimensional model of the roof" that "includes a plurality of planar roof sections that



each have a corresponding slope, area, and edges” and subsequently “transmitting” a corresponding “roof estimate report” annotated with numerical values. Likewise, the ’568 Patent improves a computer system by “calibrating” and “correlating” multiple aerial images by, *inter alia*, “registering pairs of points” on both aerial images that “correspond[] to a same point on the roof depicted in” each of the images, which is then used to “generate” a “three dimensional model of the roof,” and subsequently output a tangible “roof estimate report” that includes measurements of the roof. Similarly, the ’960 Patent improves a computer system to “calibrate” those two different images, including by “identifying common reference points depicted” in the images and using that correlation and/or calibration to “convert a distance in pixels... into a physical length,” which is likewise used to generate the tangible “roof estimate report.” In addition, the ’961 Patent improves a computer system that “calibrate[s]” and “analy[zes]” those two different images and generates a “pitch for each one of a plurality of roof sections” based on that analysis, which is ultimately used to output the tangible “roof report” that “includes the pitch of each of the plurality of roof sections.”

29. The Patents-in-Suit also use adjustments to claimed points, markers, and lines overlaid on 2D images of roofs to display, process, and generate 3D models and roof-estimate reports more efficiently and accurately than was possible using conventional procedures. Indeed, many of the Patents-in-Suit require specific

adjustments to a model of the roof, claiming interactive tools through which the user makes specific selections and determinations that results in a practical, useful result. For example, the '376 Patent requires displaying “a graphical user interface including an aerial image of a roof structure of a building and a pitch determination marker” that “can be manipulated by the operator in order to specify pitch of the roof structure of the building.” The '840 Patent further requires “displaying a pitch determination marker operable to indicate pitch of planar roof section” and “modifying a model of the roof based on the received indication of the pitch of one planar roof section.” The '152 Patent requires “receiving an indication of a feature of the roof,” and then based on that indication, “modifying a three-dimensional model.” Others, such as the '880 Patent, require the manipulation of “visual markers,” which are used to allow a computer system to identify specific, real-world “attributes of a roof structure.” The '152 Patent further requires overlaying “line drawings” in a user interface, which the user can manipulate to indicate specific real-world “feature[s] of the roof” in selected aerial images, which are then used to ultimately calculate the real-world measurements for that roof. And still others, such as the '149 Patent, “receiv[e], based on alignment of the display interactive user interface control,” an indication from the user of the pitch of a roof section, which is then subsequently used to “modify the model” of the real-world roof and generate measurements.

30. The Patents-in-Suit, including the '436, '840, '152, '961, '376 '568,

'960, and '149 Patents, also output a tangible “roof estimate report,” including roof reports that include, *inter alia*, “one or more top plan views,” and are “annotated” in a number of ways, including with “numerical values that indicate a corresponding pitch,” and the “length of edges of at least some of the plurality of roof sections using at least two different indicia for different types of roof properties.”

31. Developing a system that uses the specific images and methods covered by the Patents-in-Suit—as opposed to the countless other ways one could try to develop a roof measuring system—is neither abstract, nor in any way preempts the field of roof measuring. Instead, the Patents-in-Suit cover specific and concrete processes that achieve the highest echelon of accuracy, which could not be accomplished manually and without using EagleView’s inventive concepts.

32. EagleView’s technology was undeniably inventive, revolutionary, and critical to this industry. After a multi-week trial, a federal court in the District of New Jersey concluded that “the evidence at trial revealed that EagleView’s patented technology revolutionized the roofing industry” and “obviated the need for manual measurements of roofs with a tape measure in order to estimate the cost of repairing a roof.” *See* Ex. 10 (*EagleView Technologies, Inc. et al., v. Xactware Solutions, Inc., et al.*, No. 1:15-cv-07025-RMB-JS, Dkt. 901 (D. N. J. Sept. 9, 2020)) at 7. The Court concluded that there were “at least three clear advantages” to EagleView’s patented technology, which included several of the Patents-in-Suit, as well as patents related

to many of the Patents-in-Suit, including “improved safety,” “decreased measurement time,” and, “perhaps most importantly, increased accuracy.” *Id.* There can be no doubt that this technology was critical to the industry, as even the Court concluded that “[t]he evidence regarding this breakthrough was overwhelming.” *Id.*

33. Some of that “overwhelming” evidence included praise of the technologies of EagleView’s asserted patents by Verisk and Xactware, two of the former competitive leaders in this space, who noted that EagleView’s technology was “cutting edge,” “very accurate,” “innovative,” “a breakthrough,” and was unlike “anything that [previously] emerged as possible.” *Id.* at 7-8.

34. Other evidence included press contemporaneous with EagleView’s launch, including a CNN Money article titled “One small company reinvents a \$30 billion market,” which noted that “EagleView founder Chris Pershing changed how the roofing industry operates with a software breakthrough.” *See* Ex. 11 (<https://money.cnn.com/2011/12/09/smallbusiness/eagleview/index.htm>).

35. Likewise, the California Business Journal wrote about EagleView’s launch, noting that “Eagle View made one of the biggest breakthroughs in the history of the industry by creating a state-of-the-art software program that remotely snaps sophisticated aerial pictures of roofs and accurately measures lengths, pitches, valleys and other hard-to-see areas on roofs.” *See* Ex. 12 (<https://calbizjournal.com/eagleviewmeasurements>).

36. Indeed, a District of New Jersey court has already found the '436, '376, and '840 Patents directed to patentable subject matter. For example, in its January 2019 order denying the summary judgment motion filed by defendants Xactware Solutions, Inc. and Verisk Analytics (Ex. 13, *EagleView Technologies, Inc. et al., v. Xactware Solutions, Inc., et al.*, No. 1:15-cv-07025-RMB-JS, Dkt. 557 (D. N. J. Jan. 29, 2019)), the Court explained that, contrary to those defendants' assertion that the '436, '376, and '840 Patents, *inter alia*, were directed to unpatentable subject matter under 35 U.S.C. § 101, "[t]he relevant claims are not directed merely to correlating by the human mind two different aerial views" and do not "merely replace a human's sketch of a roof section from different aerial views." *Id.* at 9. Instead, the Court found that "[t]he claims are directed to methods and systems by which a user may: 1) specify points on two different, non-stereoscopic, aerial views of a roof or roof section; 2) have those points correlated to each other; 3) change locations of the specified points on the two aerial views; and 4) then have the software calculate the geometry in terms of slope, area, and perimeter of those roof views." *Id.* Moreover, the Court found that "[t]he correlation steps and the steps in which a user may change correlated locations in the aerial views give rise to a presumption of a specific implementation of photogrammetric methods combined with roof pitch estimation, which in turn suggests a specific inventive concept." *Id.* at 11 (emphasis in original).

37. Likewise, in denying Xactware and Verisk's motion for a new trial in

September 2020, the Court explained that, for example, the '436 Patent “addresses a concrete, tailored approach to measure the roof from which a roof estimate report is generated. There is nothing abstract about this,” and that an examination of, *inter alia*, the '376 and '840 Patents “leads the Court to the same conclusion,” since these patents require “specific, tangible images as inputs and generates tangible roof-estimate reports as outputs,” and “also require[] modifying a model of the roof based on specific adjustments to claimed markers on the 2D roof images.” Ex. 10 at 20.

### **JURISDICTION AND VENUE**

38. This is an action for patent infringement arising under the provisions of the Patent Laws of the United States of America, Title 35, United States Code.

39. Subject matter jurisdiction over Plaintiffs' claims is conferred upon this Court by 28 U.S.C. §§ 1331 and 1338(a).

40. This Court has personal jurisdiction over GAF because, *inter alia*, GAF: (1) has substantial, continuous, and systematic contacts with this State; (2) has solicited business in, transacted business within, and attempted to derive financial benefit from residents of New Jersey, on a substantial and not isolated basis; (3) has committed and continues to commit purposeful actions in this State that infringe the Patents-in-Suit; (4) enjoys substantial income from such infringement in this State; and (5) maintains a regular and established place of business in this State, including by maintaining employees in this State. For example, GAF's “global headquarters” has been located in Parsippany, NJ since 2015, and comprises a 377,000 square foot

facility on a 40-acre campus. *See, e.g.,* Ex. 14 (<https://www.gaf.com/en-us/commercial-case-studies/asphaltic-projects/gaf-headquarters-project>).

41. Venue is proper in this Court under 28 U.S.C. §§ 1391 and 1400(b) because GAF maintains a regular and established place of business in this District, has committed acts of infringement in this District, and is subject to personal jurisdiction in this District.

**COUNT I - INFRINGEMENT OF THE '436 PATENT BY GAF**

42. Plaintiffs reallege paragraphs 1-41 as if fully set forth herein.

43. The USPTO duly and legally issued the '436 Patent on December 13, 2011.

44. GAF has directly and indirectly infringed and continues to directly and indirectly infringe the '436 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Product.

45. GAF makes and uses rooftop aerial measurement products, including but not limited to the Accused Product, within the United States, and as such, GAF has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '436 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

46. Claim 1 of the '436 Patent recites:

**A computing system for generating a roof estimate report, the computing system comprising:**

**a memory;**

**a roof estimation module that is stored on the memory and that is configured, when executed, to:**

**receive a first and a second aerial image of a building having a roof, each of the aerial images providing a different view of the roof of the building, wherein the first aerial image provides a top plan view of the roof and the second aerial image provides an oblique perspective view of the roof, and are not a stereoscopic pair;**

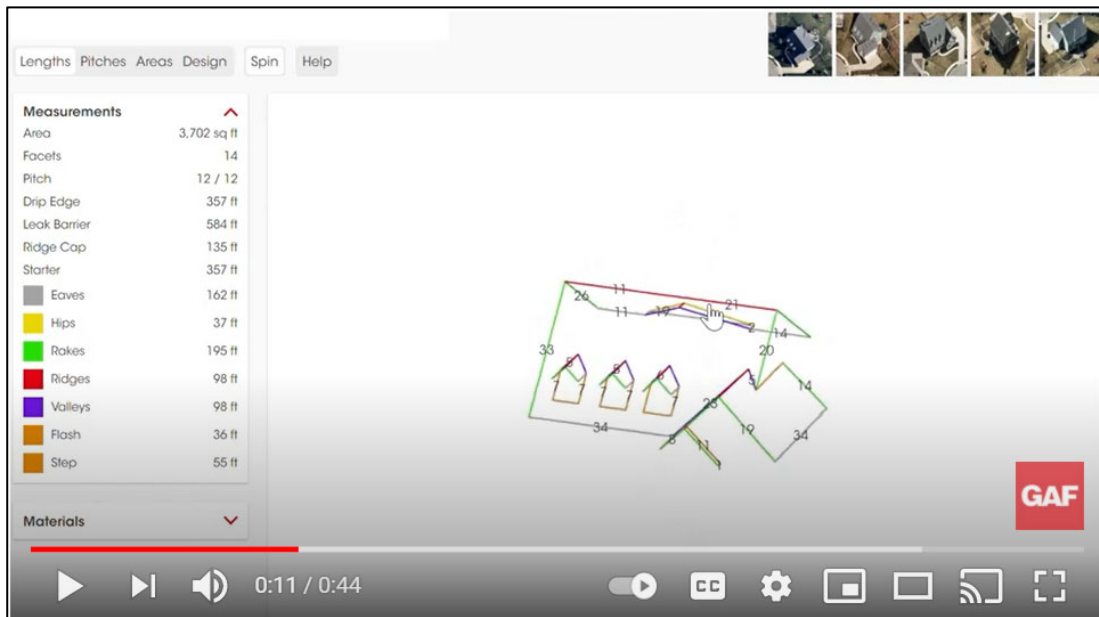
**correlate the first aerial image with the second aerial image;**

**generate, based at least in part on the correlation between the first and second aerial images, a three-dimensional model of the roof that includes a plurality of planar roof sections that each have a corresponding slope, area, and edges; and**

**generate and transmit a roof estimate report that includes one or more top plan views of the three-dimensional model annotated with numerical values that indicate the corresponding slope, area, and length of edges of at least some of the plurality of planar roof sections using at least two different indicia for different types of roof properties.**

47. GAF's Accused Product infringes at least claim 1 of the '436 Patent. As one example, QuickMeasure infringes claim 1. QuickMeasure uses a computing system for generating a roof estimate report. For example, as shown below, the system is implemented on a computer:





See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

48. The requesting process is also computer implemented:

The screenshot shows the GAF QuickMeasure website interface. The header includes the GAF logo and the text 'QuickMeasure Roof Reports in Under an Hour'. The main content area contains a form for requesting a report:

Single Family Home 1 credit \$15 | Commercial/Multifamily 3 credits \$45

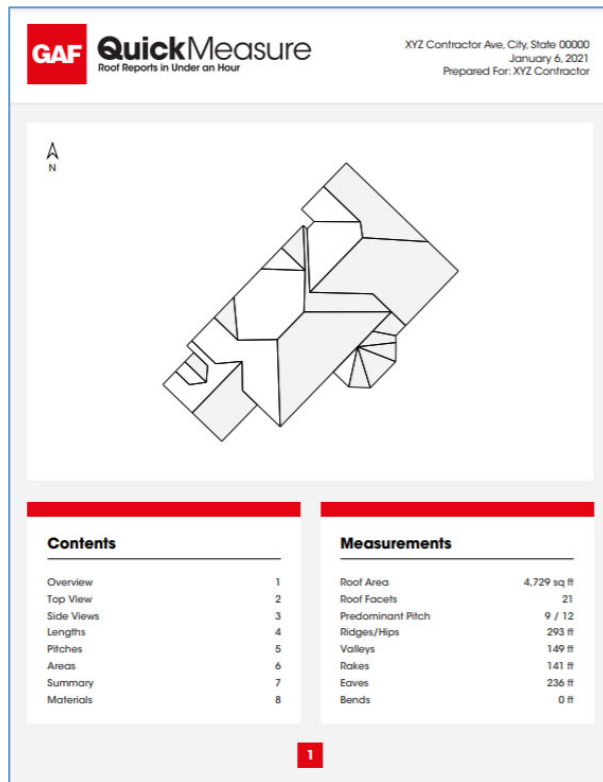
randymilbert@gaf.com | 138 9th Ave N, Hopkins, MN | REQUEST

RMilbert@gaf.com | Master Elite | BUY CREDITS | 9 credits - 37 minutes average response - Open

The GAF logo is visible in the bottom right corner of the website. The video player controls at the bottom indicate the video is at 0:13 / 2:24.

See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

49. QuickMeasure also generates a roof estimate report:



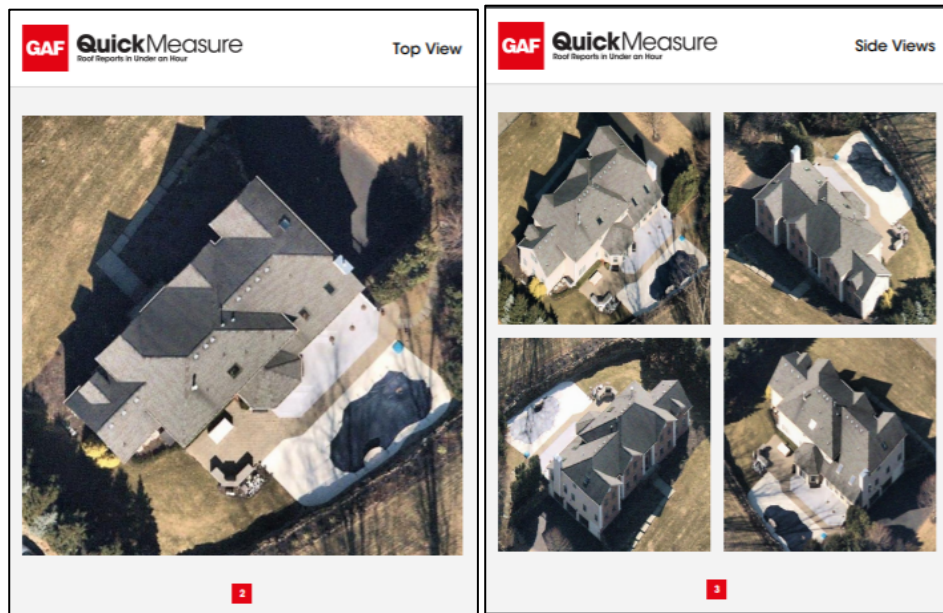
See Ex. 15 ([https://www.gaf.com/en-us/document-library/documents/documents/formsdocuments/QuickMeasure/SingleFamily\\_Residential\\_Roof\\_Report.pdf](https://www.gaf.com/en-us/document-library/documents/documents/formsdocuments/QuickMeasure/SingleFamily_Residential_Roof_Report.pdf)) at 1.

50. QuickMeasure contains a memory. For example, a memory is used to store and transmit the roof reports.

51. QuickMeasure includes a roof estimation module that is stored on the memory. For example, in order to calculate the measurements included in the roof report, QuickMeasure uses a roof estimation module that analyzes and calibrates information associated with the aerial images (such as, for example, the height and angle from which they were taken).

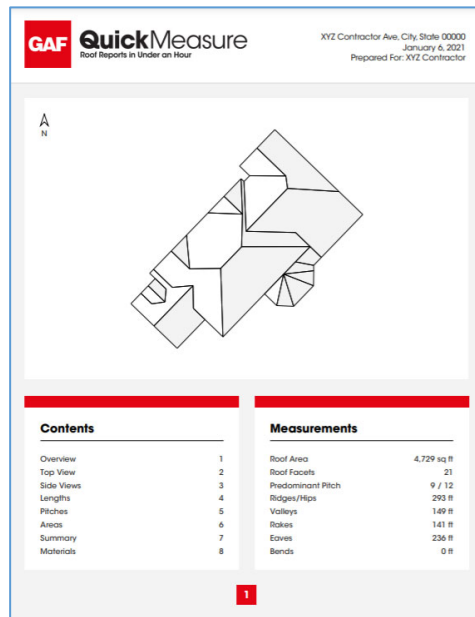
52. QuickMeasure receives a first and a second aerial image of a building

having a roof, each of the aerial images providing a different view of the roof of the building, wherein the first aerial image provides a top plan view of the roof and the second aerial image provides an oblique perspective view of the roof, and are not a stereoscopic pair. For example, the aerial images provide different views of the roof (e.g., top down plan view and various oblique views), and are not a stereoscopic pair:



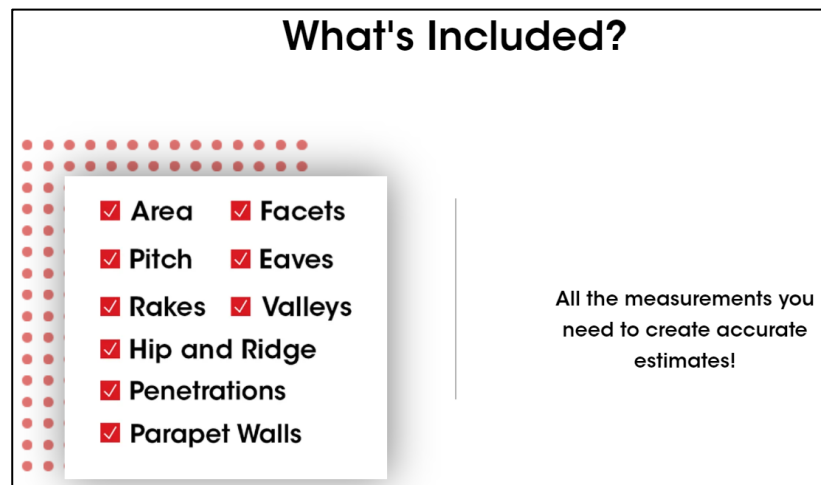
See Ex. 15 at 2-3.

53. QuickMeasure correlates the first aerial image with the second aerial image. For example, QuickMeasure correlates the top plan view and/or different oblique images in order to calculate the measurements included in the roof report:

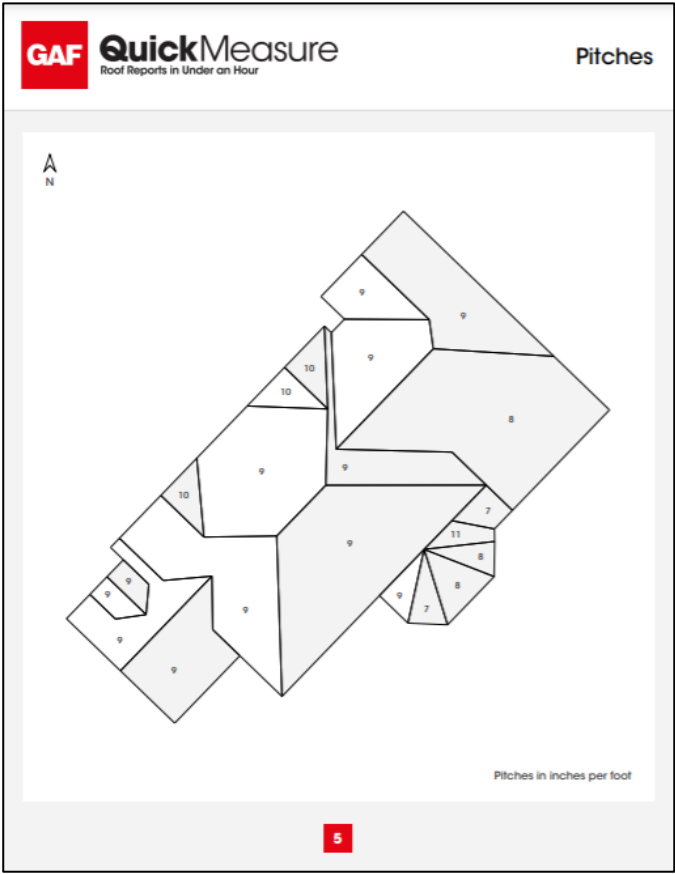


See Ex. 15 at 1.

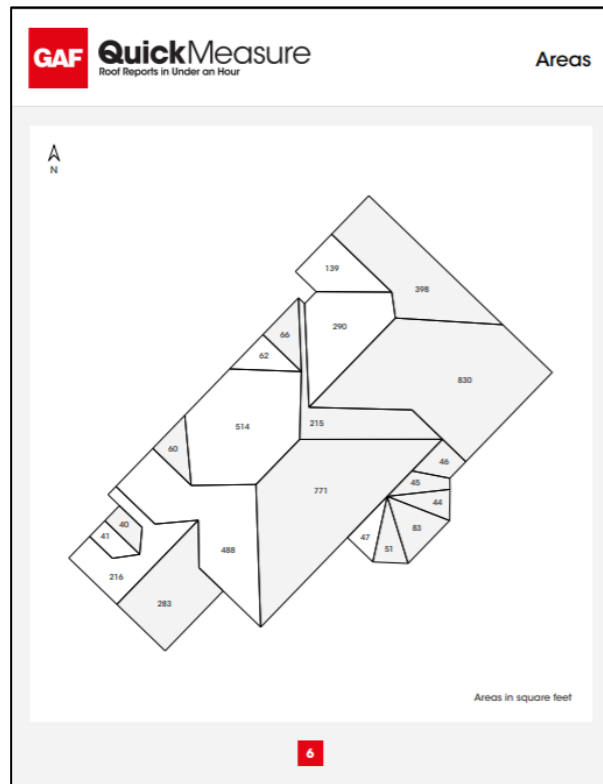
54. QuickMeasure generates, based at least in part on the correlation between the first and second aerial images, a three-dimensional model of the roof that includes a plurality of planar roof sections that each have a corresponding slope, area, and edges. For example, the slope, area, and length of edges of all roof sections is included in the roof report:



See Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>).



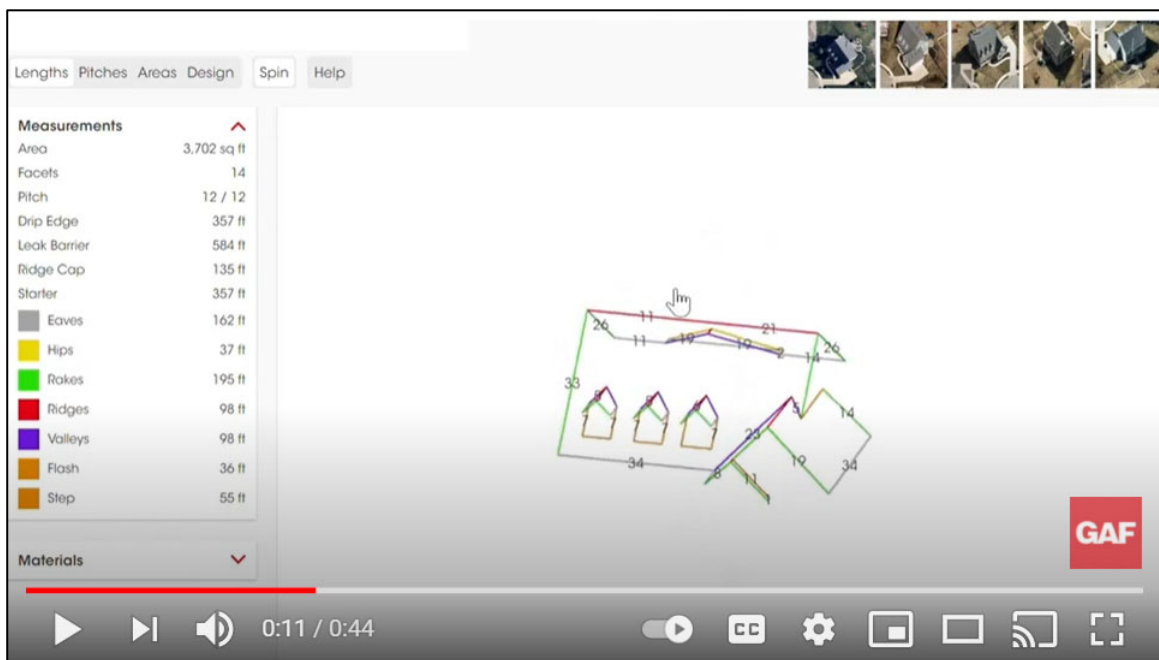
*See* Ex. 15 at 5.



See Ex. 15 at 6.

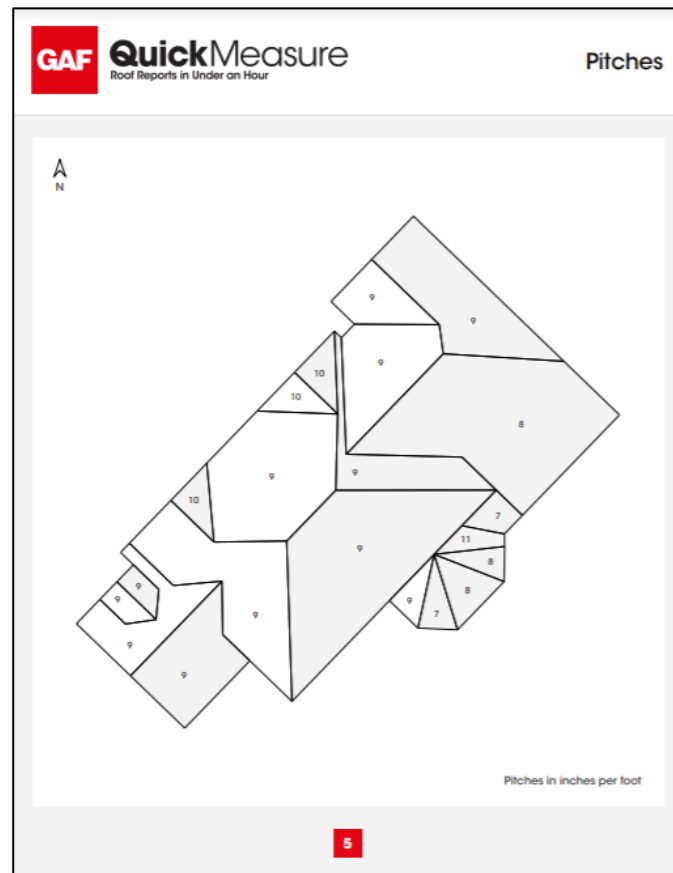


See Ex. 15 at 4.



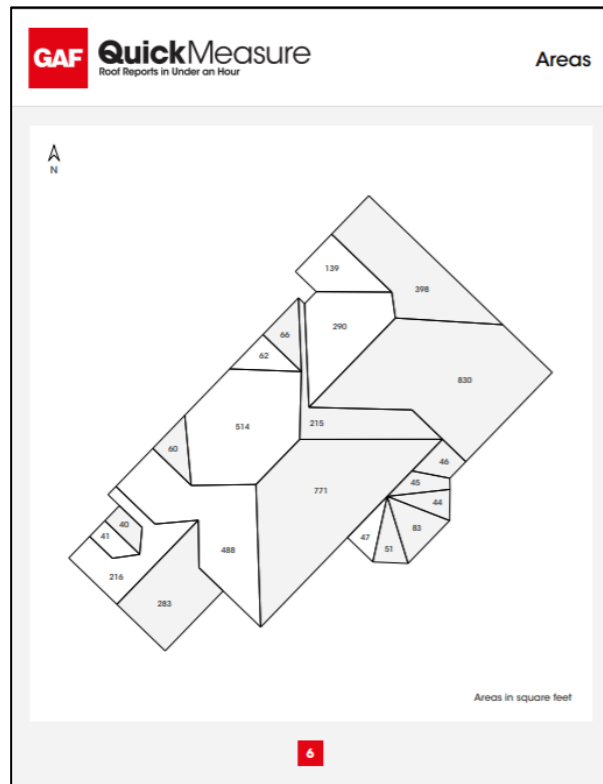
See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

55. QuickMeasure generates and transmits a roof estimate report that includes one or more top plan views of the three-dimensional model annotated with numerical values that indicate the corresponding slope, area, and length of edges of at least some of the plurality of planar roof sections using at least two different indicia for different types of roof properties. For example, the slope, area, and length of edges of all roof sections is included in the roof report, and annotated on a top plan view of the three-dimensional model:



See Ex. 15 at 5.

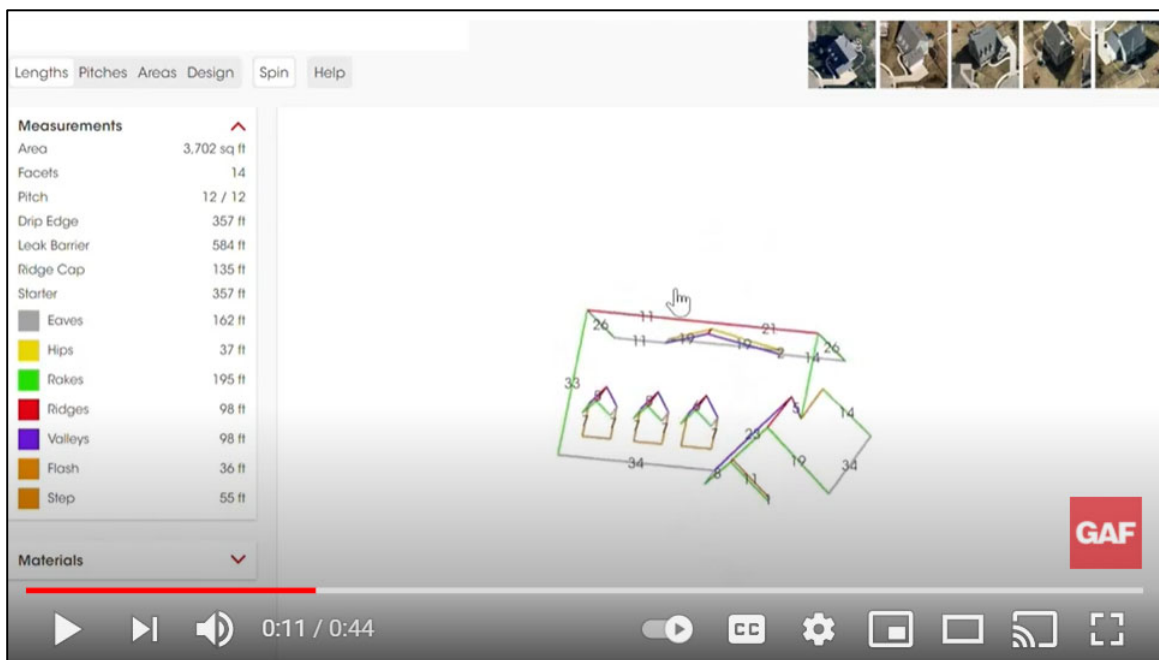




See Ex. 15 at 6.

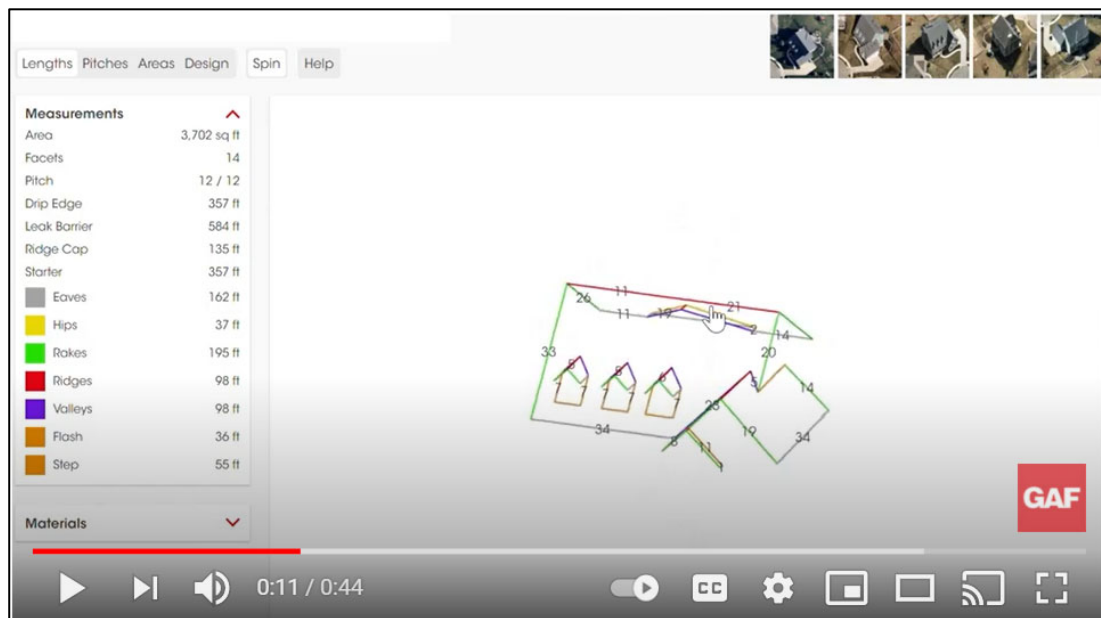


See Ex. 15 at 4.

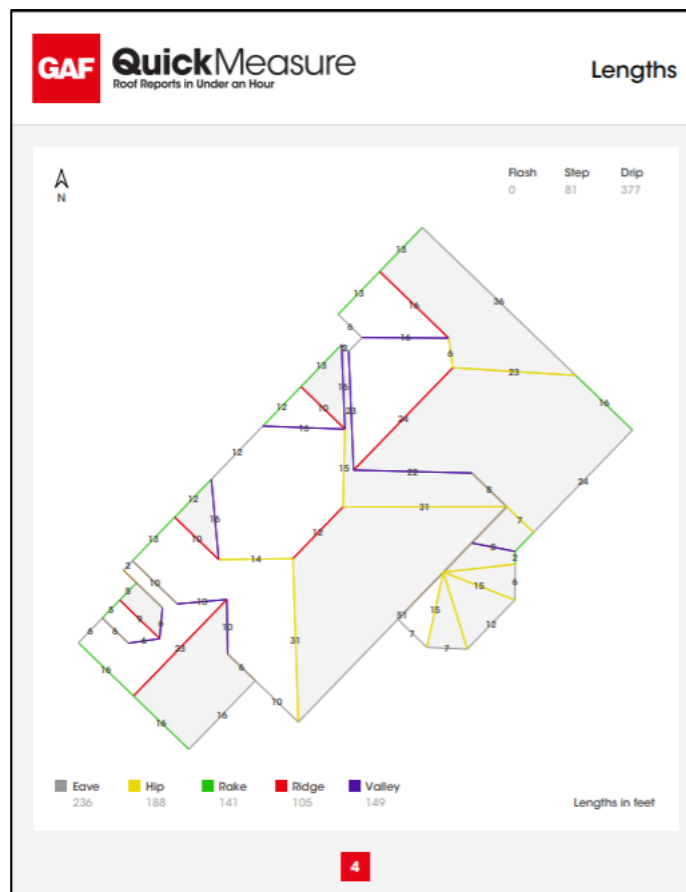


See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

56. Different colors indicate different types of roof properties:



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.



*See* Ex. 15 at 4.

57. On information and belief, GAF has had knowledge of the '436 Patent prior to the filing of the instant complaint (and in no case later than the filing of the original complaint on May 4, 2021), including because the '436 Patent is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. GAF's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that GAF monitors EagleView's website, products, roof reports, and patents. *See, e.g.,* <https://www.eagleview.com/>. Additionally, GAF would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '436 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.,* <https://www.law360.com/articles/1355754/eagleview-s-adventures-in-ip-earn-co-375m-enhanced-win>.

58. In addition to directly infringing the '436 Patent, GAF has in the past and continues to indirectly infringe the '436 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Product. As set forth above, GAF knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Product, by its end users infringes at least one claim of the '436 Patent prior to the filing of the instant complaint. GAF knowingly induced such use of those products in a manner that infringes the '436 Patent, including through at least

promotional, advertising, and instructional materials, and GAF had the requisite intent to encourage such infringement. As such, GAF has indirectly infringed and continues to indirectly infringe at least one claim of the '436 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

59. GAF's infringement of the '436 Patent has been and continues to be willful. GAF has acted with knowledge of the '436 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '436 Patent. For example, subsequent to learning of the '436 Patent, GAF continued to make and use rooftop aerial measurement products, including but not limited to the Accused Product, within the United States in a manner that infringes the '436 Patent. GAF has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '436 Patent. This objectively-defined risk was known or is so obvious that it should have been known to GAF. GAF's infringement of the '436 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

60. GAF's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from GAF the damages sustained by EagleView as a result of GAF's wrongful acts in an amount subject to proof at trial.

61. GAF's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for

which there is no adequate remedy at law.

62. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT II - INFRINGEMENT OF THE '840 PATENT BY GAF**

63. Plaintiffs reallege paragraphs 1-62 as if fully set forth herein.

64. The USPTO duly and legally issued the '840 Patent on May 1, 2012.

65. GAF has directly and indirectly infringed and continues to directly and indirectly infringe the '840 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Product.

66. GAF makes and uses rooftop aerial measurement products, including but not limited to the Accused Product, within the United States, and as such, GAF has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '840 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

67. Claim 1 of the '840 Patent recites:

**A computer-implemented method for generating a roof estimate report, the method comprising:**

**displaying an aerial image of a building having a roof comprising a plurality of planar roof sections that each have a corresponding pitch;**

**displaying a pitch determination marker operable to indicate pitch of a planar roof section, wherein the pitch determination marker is overlaid on the aerial image of the building having the roof;**

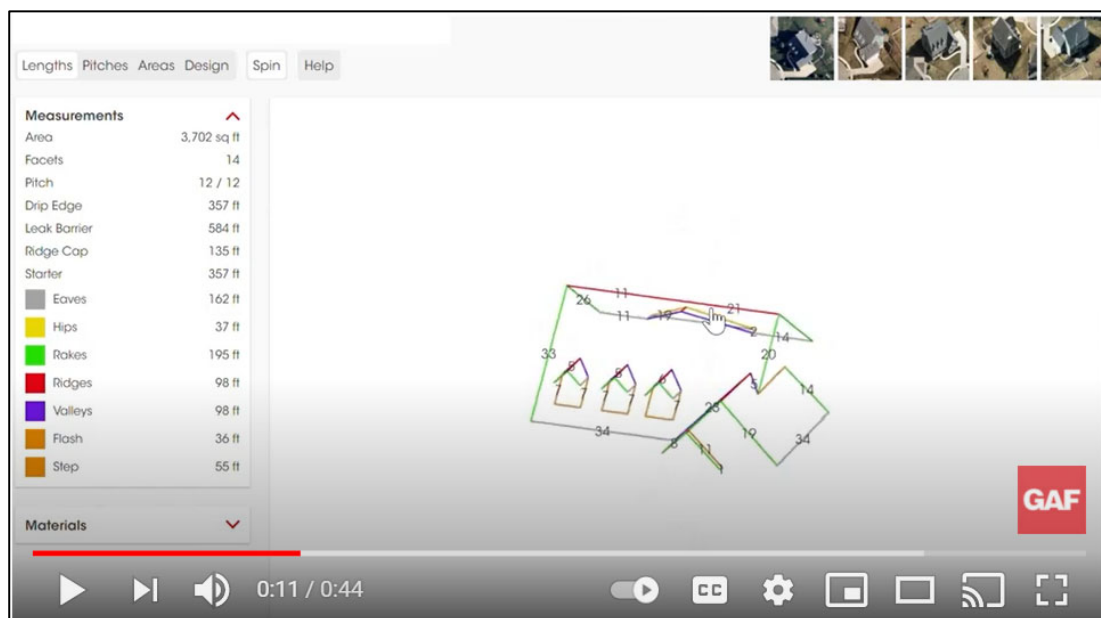
**receiving, based on the displayed pitch determination marker, an**

**indication of the pitch of one of the plurality of planar roof sections of the roof of the building; and**

**modifying a model of the roof based on the received indication of the pitch of the one planar roof section.**

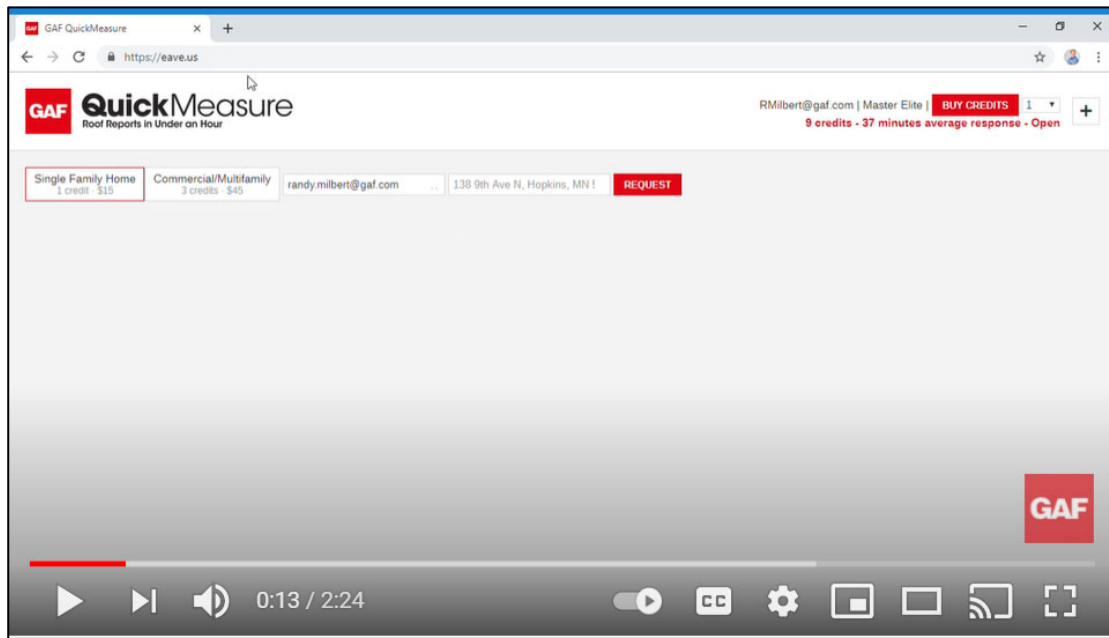
68. GAF's Accused Product infringes at least claim 1 of the '840 Patent, including by GAF's use of the Accused Product to perform the claimed method.

69. As one example, QuickMeasure infringes claim 1. QuickMeasure uses a computer-implemented method for generating a roof estimate report. For example, as shown below, the process is computer implemented:



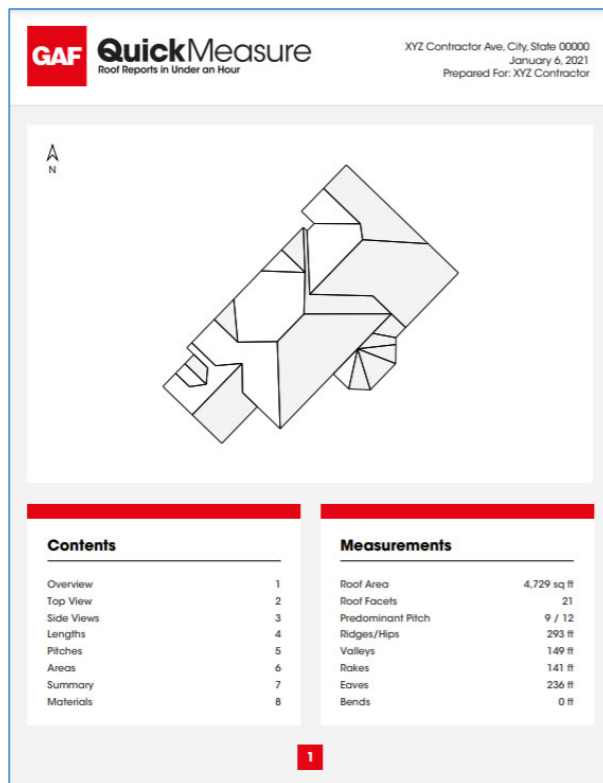
See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

70. The requesting process is also computer implemented:



See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

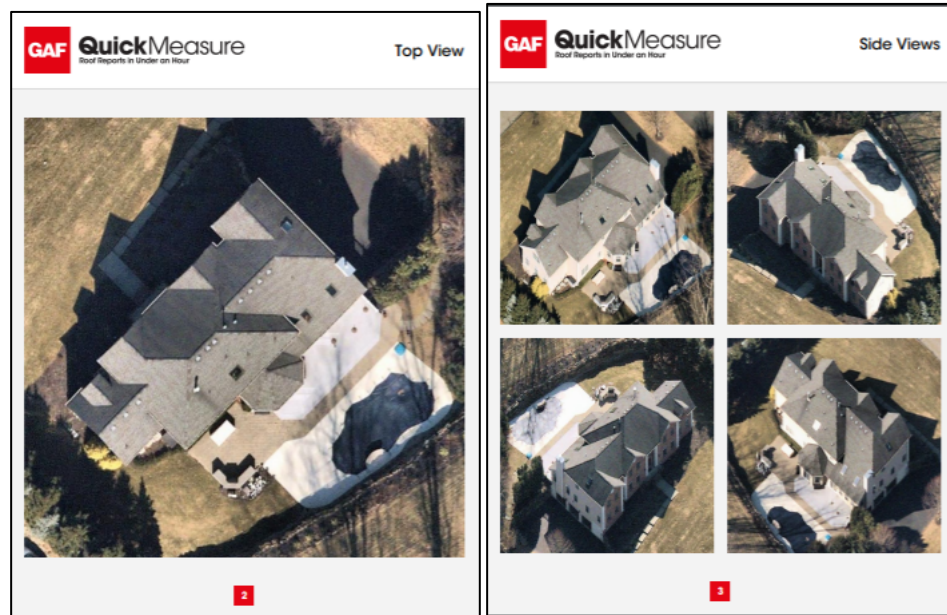
71. QuickMeasure also generates a roof estimate report:



See Ex. 15 at 1.



72. QuickMeasure displays an aerial image of a building having a roof comprising a plurality of planar roof sections that each have a corresponding pitch. For example, a top down view of the building and multiple oblique views of the building are displayed and included in the report:



*See Ex. 15 at 2-3.*

73. QuickMeasure displays a pitch determination marker operable to indicate pitch of a planar roof section, wherein the pitch determination marker is overlaid on the aerial image of the building having the roof. For example, during the report generation process, a user moves a pitch determination marker overlaid on the aerial images that are include in the final report.

74. QuickMeasure receives, based on the displayed pitch determination marker, an indication of the pitch of one of the plurality of planar roof sections of the roof of the building. For example, during the report generation process, a user moves

a pitch determination marker overlaid on the aerial images that are include in the final report, and the received pitch indication determines the numbers included in the final roof report.

75. QuickMeasure modifies a model of the roof based on the received indication of the pitch of the one planar roof section. For example, during the report generation process, a user moves a pitch determination marker overlaid on the aerial images that are include in the final report, and the received pitch indication determines the numbers included in the final roof report. Additionally, the three-dimensional model of the roof included in the final report is modified during the report generation process to reflect the actual pitch of the roof sections. *See, e.g.,* <https://www.bigmarker.com/jobprogress/JobProgress-QuickMeasure-now-live?bmid=7162652c195a> (GAF’s Director of Marketing, Vishal Laddha, stating that “We do have a human QA at the end ... because ... a human eye is better than any computer when it comes to making sure the measurements, ... the lines are properly drawn by the computer.”).

76. On information and belief, GAF has had knowledge of the ’840 Patent prior to the filing of the instant complaint (and in no case later than the filing of the original complaint on May 4, 2021), including because the ’840 Patent is identified on EagleView’s website and roof reports as covering EagleView’s technology and roof reports. GAF’s product is remarkably similar to, and appears to have been copied from, EagleView’s technology and roof reports, confirming that GAF

monitors EagleView's website, products, roof reports, and patents. *See, e.g.,* <https://www.eagleview.com/>. Additionally, GAF would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '840 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.,* <https://www.law360.com/articles/1355754/eagleview-s-adventures-in-ip-earn-co-375m-enhanced-win>.

77. In addition to directly infringing the '840 Patent, GAF has in the past and continues to indirectly infringe the '840 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Product. As set forth above, GAF knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Product, by its end users infringes at least one claim of the '840 Patent prior to the filing of the instant complaint. GAF knowingly induced such use of those products in a manner that infringes the '840 Patent, including through at least promotional, advertising, and instructional materials, and GAF had the requisite intent to encourage such infringement. As such, GAF has indirectly infringed and continues to indirectly infringe at least one claim of the '840 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

78. GAF's infringement of the '840 Patent has been and continues to be willful. GAF has acted with knowledge of the '840 Patent and without a reasonable

basis for a good-faith belief that it would not be liable for infringement of the '840 Patent. For example, subsequent to learning of the '840 Patent, GAF continued to make and use rooftop aerial measurement products, including but not limited to the Accused Product, within the United States in a manner that infringes the '840 Patent. GAF has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '840 Patent. This objectively-defined risk was known or is so obvious that it should have been known to GAF. GAF's infringement of the '840 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

79. GAF's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from GAF the damages sustained by EagleView as a result of GAF's wrongful acts in an amount subject to proof at trial.

80. GAF's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.

81. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

### **COUNT III - INFRINGEMENT OF THE '152 PATENT BY GAF**

82. Plaintiffs reallege paragraphs 1-81 as if fully set forth herein.

83. The USPTO duly and legally issued the '152 Patent on June 26, 2012.

84. GAF has directly and indirectly infringed and continues to directly and

indirectly infringe the '152 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Product.

85. GAF makes and uses rooftop aerial measurement products, including but not limited to the Accused Product, within the United States, and as such, GAF has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '152 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

86. Exemplary claim 10 of the '152 Patent, which depends from Claim 1, recites:

**The method of claim 1 further comprising:**

**displaying a marker operable to specify a point on an image;**

**receiving, via the marker, an indication of a point on the first aerial image; and**

**registering, based on the received indication of the point, the aerial image to a reference grid corresponding to the three-dimensional model.**

87. Claim 1 of the '152 Patent recites:

**A computer-implemented method for generating a roof estimate report, the method comprising:**

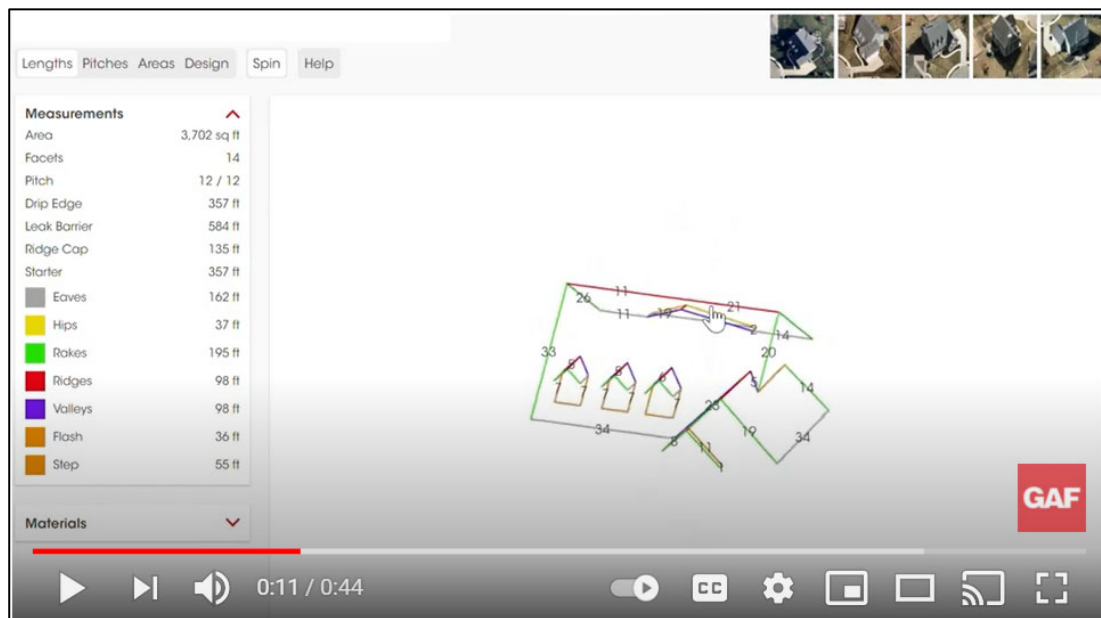
**displaying a first and a second aerial image of a building having a roof, each of the aerial images providing a different view of the roof of the building;**

**receiving an indication of a feature of the building shown in the first aerial image;**

**modifying a three-dimensional model of the roof based on the received indication of the feature of the building; and**

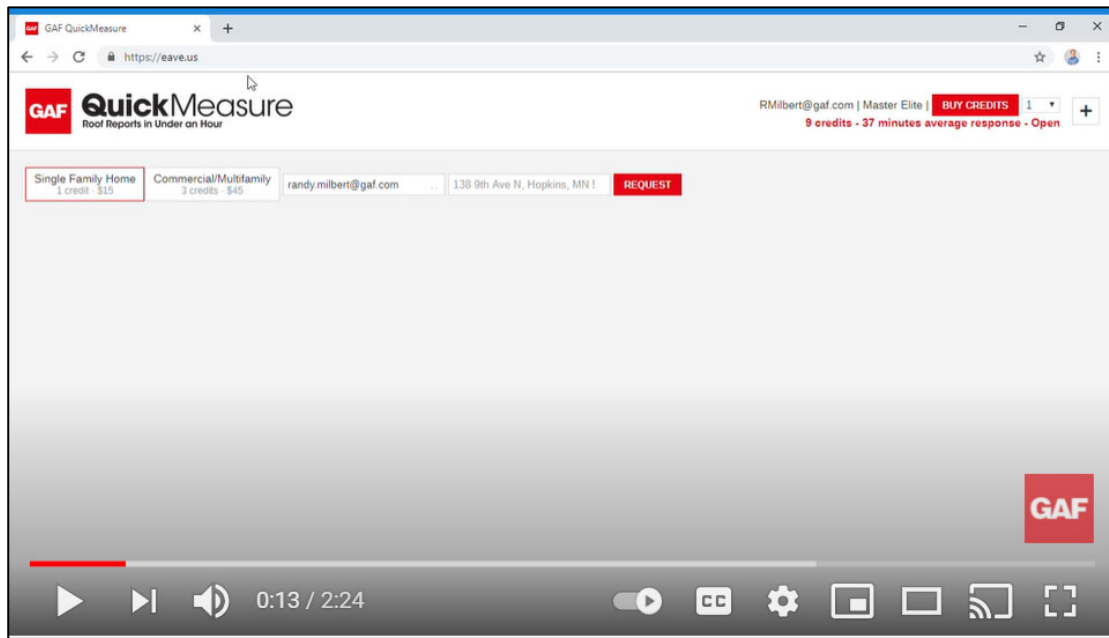
**displaying a projection of the feature from the modified three-dimensional model onto the first and second aerial images as a line drawing of the feature, each overlaid on corresponding locations of the feature on the first and second aerial images.**

88. GAF's Accused Product infringes at least claim 10 of the '152 Patent, including by GAF's use of the Accused Product to perform the claimed methods. As one example, QuickMeasure infringes claim 10. QuickMeasure provides a computer-implemented method for generating a roof estimate report. For example, as shown below, the process is computer implemented:



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

89. The requesting process is also computer implemented:



See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

90. QuickMeasure also generates a roof estimate report:

# QuickMeasure

Roof Reports in Under an Hour

XYZ Contractor Ave, City, State 00000

January 6, 2021

Prepared For: XYZ Contractor

A  
N

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Overview	1
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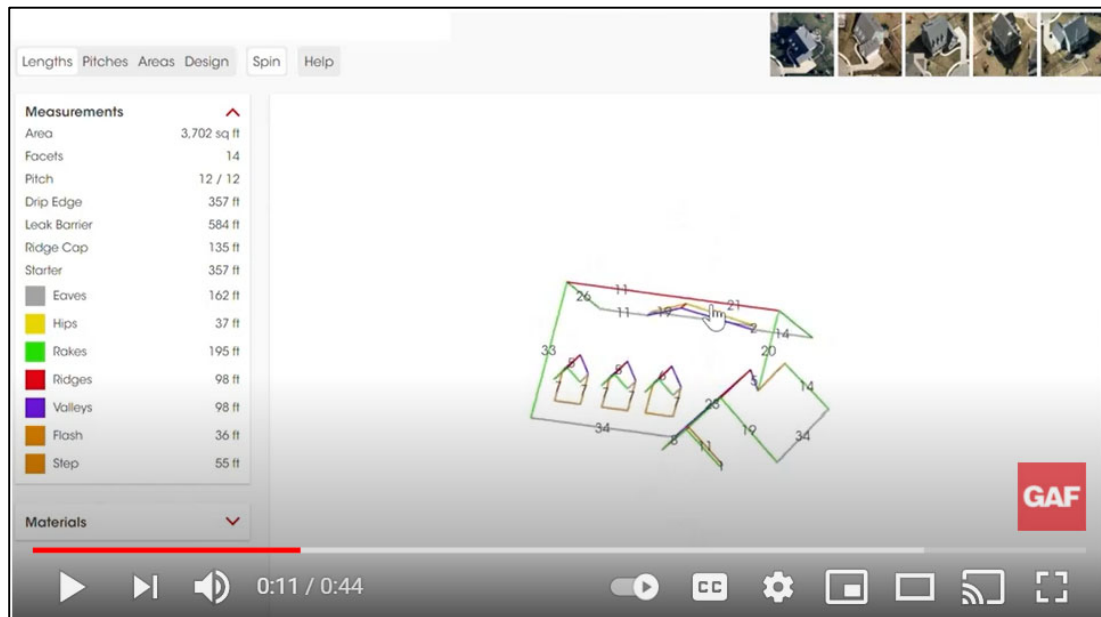
## Measurements

Roof Area	4,729 sq ft
Roof Facets	21
Predominant Pitch	9 / 12
Ridges/Hips	293 ft
Valleys	149 ft
Rakes	141 ft
Eaves	236 ft
Bends	0 ft

1

See Ex. 15 at 1.

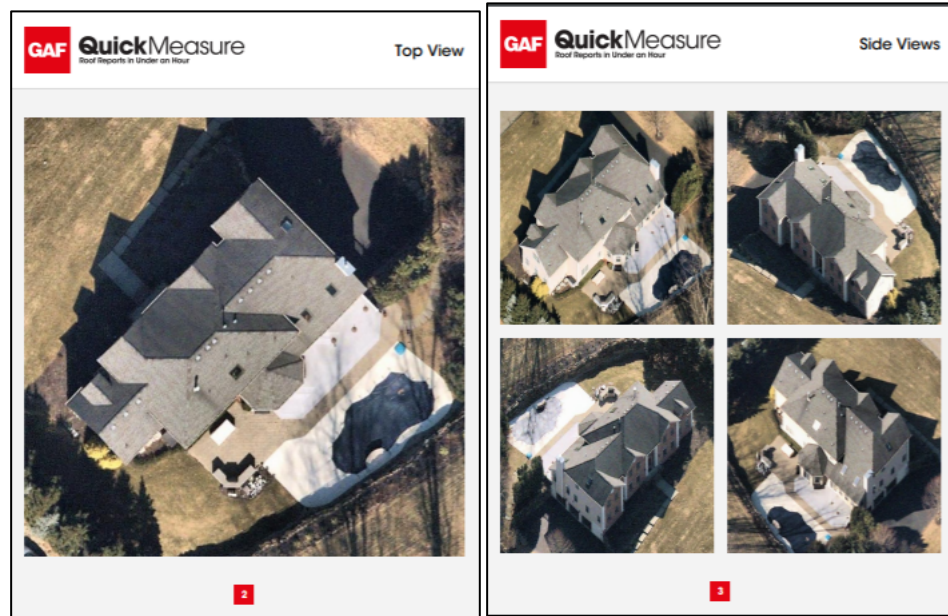
91. QuickMeasure displays a first and a second aerial image of a building having a roof, each of the aerial images providing a different view of the roof of the building. For example, QuickMeasure displays a top plan view aerial images and multiple oblique images from different views, as shown in the upper right corner of the user interface:



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

92. The top plan view and oblique aerial images are also included in the final report:





See Ex. 15 at 2-3.

93. QuickMeasure receives an indication of a feature of the building shown in the first aerial image. For example, a user provides an indication of a feature of the building (such as a roof corner) in a user interface during the report generation process.

94. QuickMeasure modifies a three-dimensional model of the roof based on the received indication of the feature of the building. For example, the three-dimensional model of the roof included in the roof report was modified based on indication of roof features by a user:



See Ex. 15 at 4.

95. QuickMeasure displays a projection of the feature from the modified three-dimensional model onto the first and second aerial images as a line drawing of the feature, each overlaid on corresponding locations of the feature on the first and second aerial images. For example, QuickMeasure overlays line projections of features from the modified three-dimensional model onto multiple aerial images during the report generation process.

96. QuickMeasure displays a marker operable to specify a point on an image. For example, a user interface is provided during the report generation process whereby a marker operable to specify a point on an image (such as the corners of roof plans) is displayed. This process would take place during the hour-or-less turnaround

time for report generation:

GAF QuickMeasure is the complete aerial roofing measurement software that delivers roof measurements in under 1 hour for single-family homes, and under 24 hours for multi-family and commercial properties. For as little as \$18 a report, it's the only roof measuring tool you need.

See Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>).

97. QuickMeasure receives, via the marker, an indication of a point on the first aerial image. For example, a user interface is provided during the report generation process whereby a user indicates a point (such as a roof corner) on the first aerial image. This process would take place during the hour-or-less turnaround time for report generation:

GAF QuickMeasure is the complete aerial roofing measurement software that delivers roof measurements in under 1 hour for single-family homes, and under 24 hours for multi-family and commercial properties. For as little as \$18 a report, it's the only roof measuring tool you need.

See Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>); *see also, e.g.,* <https://www.bigmarker.com/jobprogress/JobProgress-QuickMeasure-now-live?bmid=7162652c195a> (GAF's Director of Marketing, Vishal Laddha, stating that "We do have a human QA at the end ... because ... a human eye is better than any computer when it comes to making sure the measurements, ... the lines are properly drawn by the computer.").

98. QuickMeasure registers, based on the received indication of the point, the aerial image to a reference grid corresponding to the three-dimensional model. For example, the three-dimensional wireframe of the roof that is included in the final

report has been registered to a reference grid:



See Ex. 15 at 4.

99. On information and belief, GAF has had knowledge of the '152 Patent prior to the filing of the instant complaint (and in no case later than the filing of the original complaint on May 4, 2021), including because the '152 Patent is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. GAF's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that GAF monitors EagleView's website, products, roof reports, and patents. See, e.g., <https://www.eagleview.com/>. Additionally, GAF would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '152 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New

Jersey. *See, e.g.,* <https://www.law360.com/articles/1355754/eagleview-s-adventures-in-ip-earn-co-375m-enhanced-win>.

100. In addition to directly infringing the '152 Patent, GAF has in the past and continues to indirectly infringe the '152 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Product. As set forth above, GAF knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Product, by its end users infringes at least one claim of the '152 Patent prior to the filing of the instant complaint. GAF knowingly induced such use of those products in a manner that infringes the '152 Patent, including through at least promotional, advertising, and instructional materials, and GAF had the requisite intent to encourage such infringement. As such, GAF has indirectly infringed and continues to indirectly infringe at least one claim of the '152 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

101. GAF's infringement of the '152 Patent has been and continues to be willful. GAF has acted with knowledge of the '152 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '152 Patent. For example, subsequent to learning of the '152 Patent, GAF continued to make and use rooftop aerial measurement products, including but not limited to the Accused Product, within the United States in a manner that infringes the '152 Patent. GAF has disregarded and continues to disregard its infringement and/or an

objectively high likelihood that its actions constitute infringement of the '152 Patent. This objectively-defined risk was known or is so obvious that it should have been known to GAF. GAF's infringement of the '152 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

102. GAF's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from GAF the damages sustained by EagleView as a result of GAF's wrongful acts in an amount subject to proof at trial.

103. GAF's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.

104. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

#### **COUNT IV - INFRINGEMENT OF THE '880 PATENT BY GAF**

105. Plaintiffs reallege paragraphs 1-104 as if fully set forth herein.

106. The USPTO duly and legally issued the '880 Patent on September 24, 2013.

107. GAF has directly and indirectly infringed and continues to directly and indirectly infringe the '880 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Product.

108. GAF makes and uses rooftop aerial measurement products, including but not limited to the Accused Product, within the United States, and as such, GAF

has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '880 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

109. Claim 1 of the '880 Patent recites:

**A process for determining attributes of a roof structure of a real-world three-dimensional building, comprising the acts of:**

**providing at least one computer input field for a user to input first location data generally corresponding to the location of the building;**

**providing visual access to an aerial image of a region including the roof structure of the building corresponding to said first location data, the aerial image taken from a straight down overhead view with respect to the roof structure;**

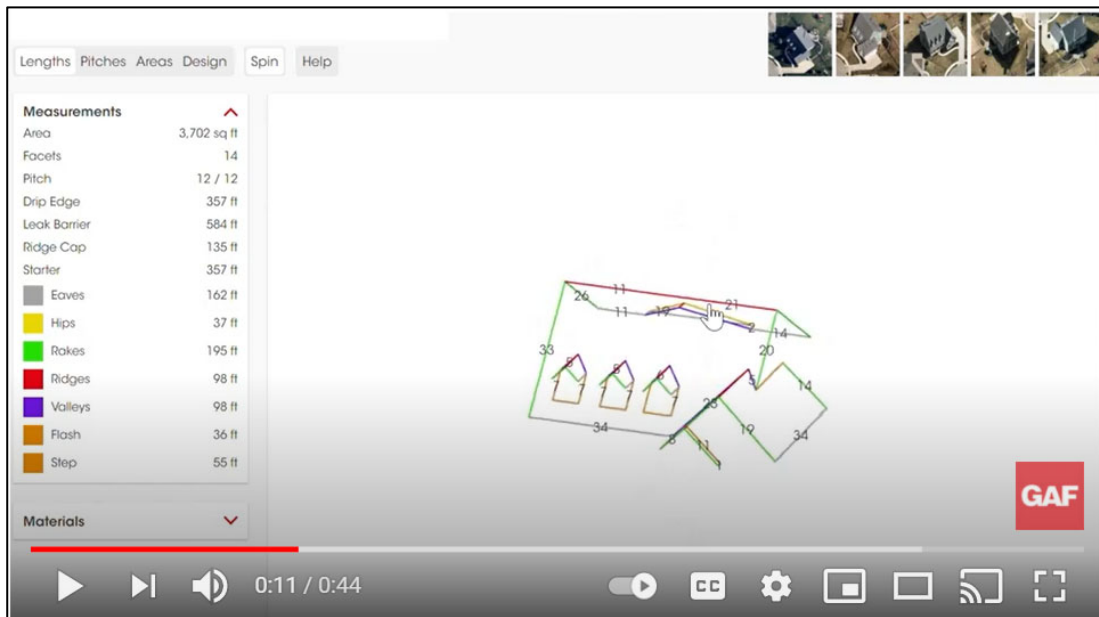
**on the aerial image of the region, providing a visual marker that is moveable on a computer monitor around said region, said visual marker initially corresponding to said first location data, wherein said visual marker may be moved to a final location on top of the building to more precisely identify the location of the building roof structure, the final location having location coordinates;**

**providing a computer input capable of signaling user-acceptance of the final location of said marker; and,**

**providing visual access to one or more oblique images of an aerial imagery database corresponding to location coordinates of the final location.**

110. GAF's Accused Product infringes at least claim 1 of the '880 Patent. As one example, QuickMeasure infringes claim 1.

111. QuickMeasure uses a process for determining attributes of a roof structure of a real-world three-dimensional building. For example, as shown below, the process is computer implemented:



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

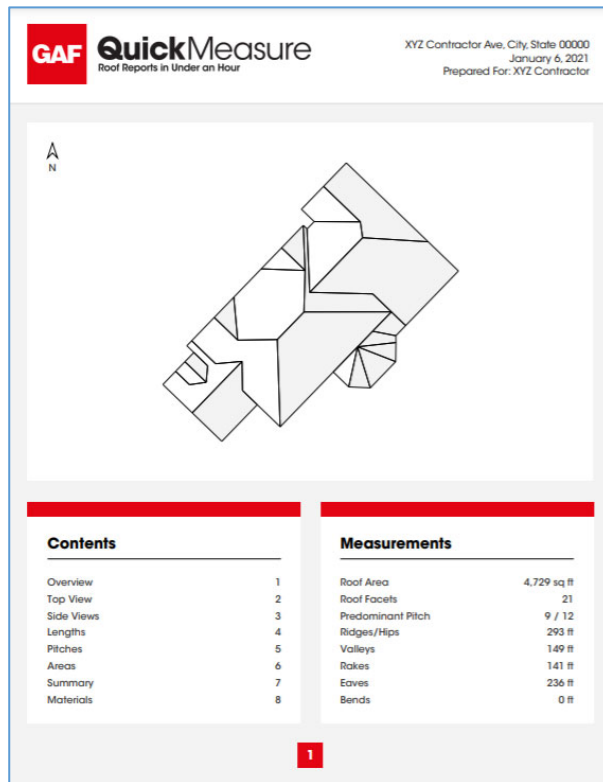
112. The requesting process is also computer implemented:

The screenshot shows the GAF QuickMeasure web interface in a browser window. The URL is <https://eave.us>. The page features the GAF logo and the text 'QuickMeasure Roof Reports in Under an Hour'. A user profile is displayed as 'RMilbert@gaf.com | Master Elite' with a 'BUY CREDITS' button and a note '9 credits - 37 minutes average response - Open'. Below this, there is a form with two tabs: 'Single Family Home' (1 credit - \$15) and 'Commercial/Multifamily' (3 credits - \$45). The 'Single Family Home' tab is selected. The form contains the email 'randymilbert@gaf.com' and the address '138 9th Ave N, Hopkins, MN'. A red 'REQUEST' button is visible. The GAF logo is also present in the bottom right corner. The video player controls at the bottom indicate a duration of 0:13 / 2:24.

See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

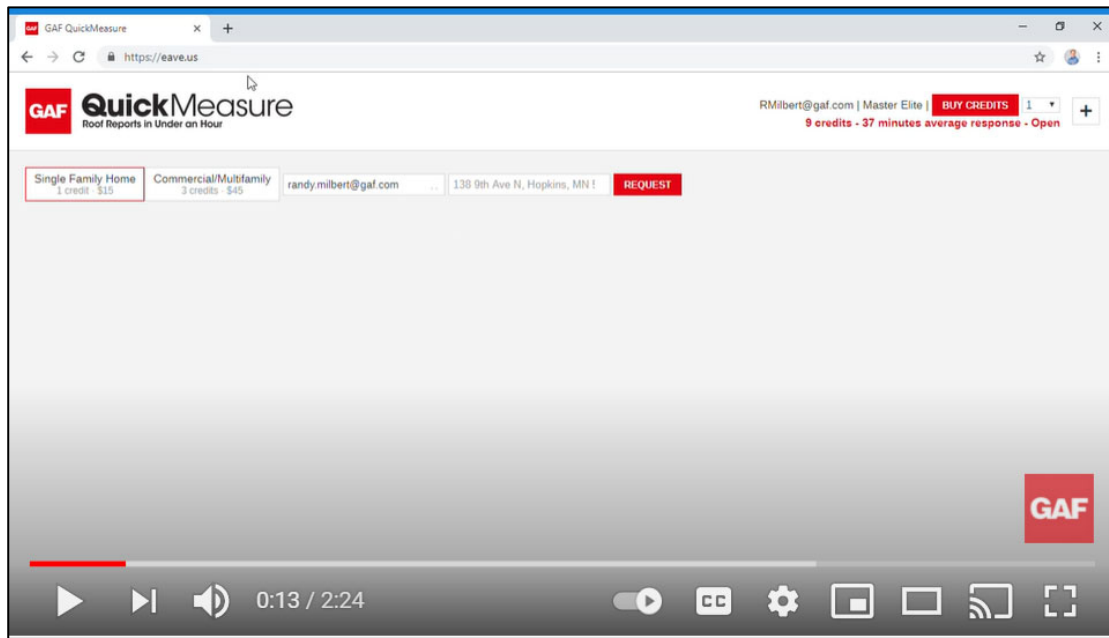
113. QuickMeasure also generates a roof estimate report:





See Ex. 15 at 1.

114. QuickMeasure provides at least one computer input field for a user to input first location data generally corresponding to the location of the building. For example, a user can enter an address and/or move a pin around, to request a roof report for that particular building:



See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

## Order a roof report

Select property type

Single family

Multi-family

Commercial

Enter the address of the property

807 S 500 E, Salt Lake City, UT 84102, USA

Enter your primary email

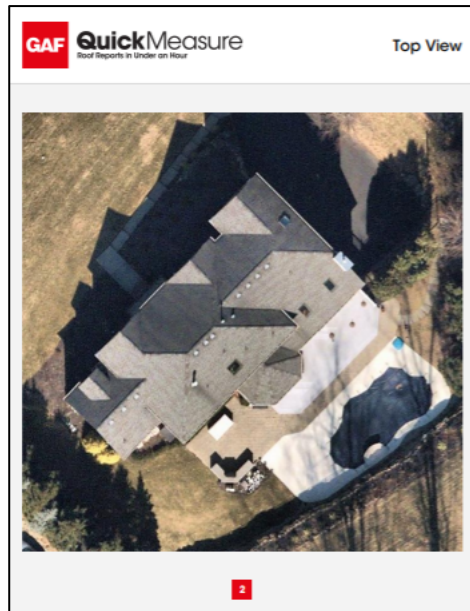
Email(s) to receive this report.  
Separate email addresses with commas. Do not include spaces after each comma.

Drag and drop the pin to confirm the location of the property

See Ex. 17 (<https://quickmeasure.gaf.com/guest-home-page>).

115. QuickMeasure provides visual access to an aerial image of a region including the roof structure of the building corresponding to said first location data, the aerial image taken from a straight down overhead view with respect to the roof

structure. For example, a straight down overhead view of the building is displayed and included in the report:



See Ex. 15 at 2.

116. A straight down overhead view of the building is also displayed immediately after a user enters address information into the report order form:

## Order a roof report

Select property type

Single family

Multi-family

Commercial

Enter the address of the property

807 S 500 E, Salt Lake City, UT 84102, USA

Enter your primary email

Email(s) to receive this report.  
Separate email addresses with commas. Do not include spaces after each comma.

Drag and drop the pin to confirm the location of the property

See Ex. 17 (<https://quickmeasure.gaf.com/guest-home-page>).

117. On the aerial image of the region, QuickMeasure provides a visual marker that is moveable on a computer monitor around said region, said visual marker initially corresponding to said first location data, wherein said visual marker may be moved to a final location on top of the building to more precisely identify the location of the building roof structure, the final location having location coordinates. For example, the red visual marker (pin) may be moved to the final location by a user. The final location has location coordinates, which is how QuickMeasure determines which aerial images to display and use in the report:

**Order a roof report**

Select property type

☒ Single family ☐ Multi-family ☐ Commercial

Enter the address of the property

807 S 500 E, Salt Lake City, UT 84102, USA

Enter your primary email

Email(s) to receive this report.  
Separate email addresses with commas. Do not include spaces after each comma.

Drag and drop the pin to confirm the location of the property

Aerial map showing a red pin on a house roof. Zoom controls (+, -) are visible.

See Ex. 17 (<https://quickmeasure.gaf.com/guest-home-page>).

118. QuickMeasure provides a computer input capable of signaling user-acceptance of the final location of said marker. For example, when the marker is where the user wants it to be, they can click “Checkout” to indicate acceptance of the

final marker location:

By submitting this order, you agree you have read and agree to the [GAF QuickMeasure Roof Report Terms and Conditions](#)

**Total: \$28.00**

**CHECKOUT**

See Ex. 17 (<https://quickmeasure.gaf.com/guest-home-page>).

119. QuickMeasure provides visual access to one or more oblique images of an aerial imagery database corresponding to location coordinates of the final location. For example, multiple oblique images of an aerial imagery database are included in the report for the location coordinates of the final location:



See Ex. 15 at 3.

120. On information and belief, GAF has had knowledge of the '880 Patent prior to the filing of the instant complaint (and in no case later than the filing of the

original complaint on May 4, 2021), including because the '880 Patent is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. GAF's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that GAF monitors EagleView's website, products, roof reports, and patents. *See, e.g.,* <https://www.eagleview.com/>. Additionally, GAF would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '880 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.,* <https://www.law360.com/articles/1355754/eagleview-s-adventures-in-ip-earn-co-375m-enhanced-win>.

121. In addition to directly infringing the '880 Patent, GAF has in the past and continues to indirectly infringe the '880 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Product. As set forth above, GAF knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Product, by its end users infringes at least one claim of the '880 Patent prior to the filing of the instant complaint. GAF knowingly induced such use of those products in a manner that infringes the '880 Patent, including through at least promotional, advertising, and instructional materials, and GAF had the requisite intent to encourage such infringement. As such, GAF has indirectly infringed and continues to indirectly infringe at least one claim of the '880 Patent under one or



more subsections of 35 U.S.C. § 271, including § 271(b).

122. GAF's infringement of the '880 Patent has been and continues to be willful. GAF has acted with knowledge of the '880 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '880 Patent. For example, subsequent to learning of the '880 Patent, GAF continued to make and use rooftop aerial measurement products, including but not limited to the Accused Product, within the United States in a manner that infringes the '880 Patent. GAF has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '880 Patent. This objectively-defined risk was known or is so obvious that it should have been known to GAF. GAF's infringement of the '880 Patent has been and continues to be willful, entitling Pictometry to enhanced damages under 35 U.S.C. § 284.

123. GAF's acts of infringement have caused damage to Pictometry, and Pictometry is entitled to recover from GAF the damages sustained by Pictometry as a result of GAF's wrongful acts in an amount subject to proof at trial.

124. GAF's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to Pictometry for which there is no adequate remedy at law.

125. This case is exceptional, entitling Pictometry to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT V - INFRINGEMENT OF THE '961 PATENT BY GAF**

126. Plaintiffs reallege paragraphs 1-125 as if fully set forth herein.

127. The USPTO duly and legally issued the '961 Patent on March 11, 2014.

128. GAF has directly and indirectly infringed and continues to directly and indirectly infringe the '961 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Product.

129. GAF makes and uses rooftop aerial measurement products, including but not limited to the Accused Product, within the United States, and as such, GAF has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '961 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

130. Claim 1 of the '961 Patent recites:

**A computing system for generating a roof report, the computing system comprising:**

**a memory; and**

**a roof estimation module that includes a calibration module, the roof estimation module being stored on the memory and being configured, when executed, to:**

**receive a plurality of aerial images of a building having a roof, the plurality of aerial images having been taken independent of each other, at different times and on different dates, the aerial images providing different views from each other of the roof of the building, the plurality of aerial images including at least a first aerial image that is a top plan view of the roof and a second aerial image that is an oblique perspective view of the roof wherein at least one of the first and/or second aerial images is calibrated using calibration information received from the calibration**



**module;**

**perform image analysis on at least two of the plurality of aerial images;**

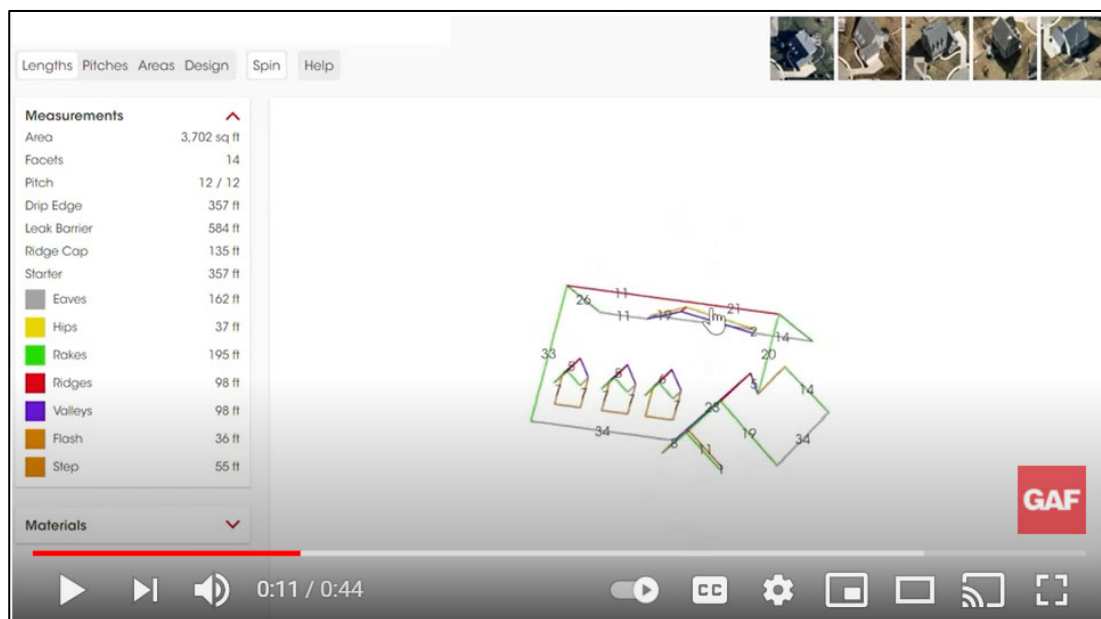
**calculate a pitch for each one of a plurality of roof sections of the roof based on the image analysis;**

**generate a roof report that includes the pitch of each of the plurality of roof sections based on the calculated pitch; and**

**output the roof report, wherein the roof report includes one or more top plan views of a model of the roof annotated with numerical values that indicate a corresponding pitch, area, and length of edges of at least some of the plurality of roof sections using at least two different indicia for different types of roof properties.**

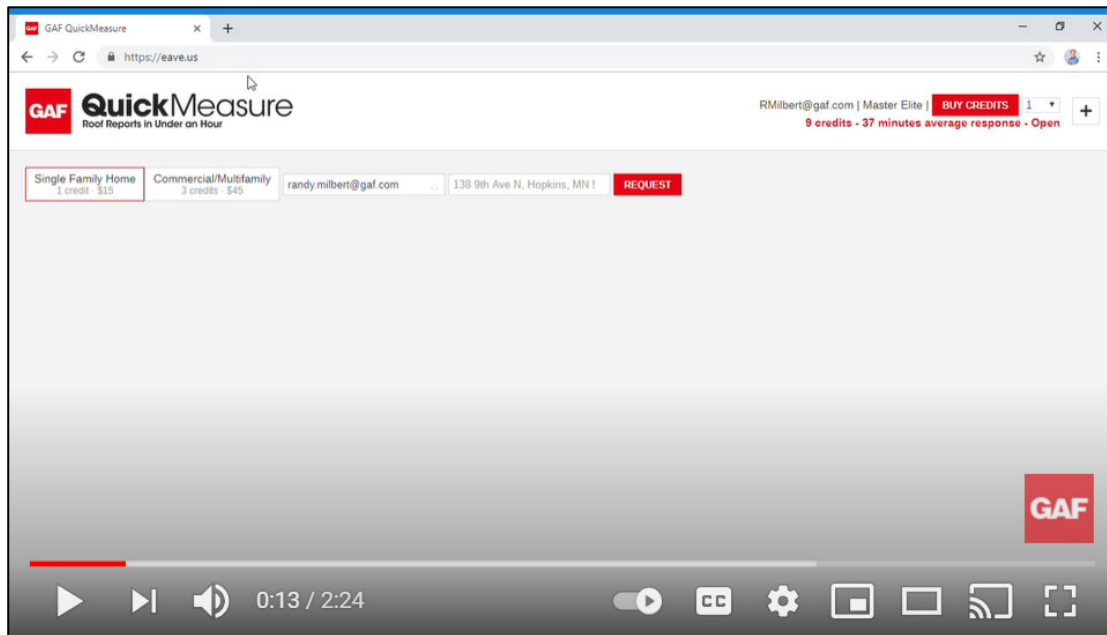
131. GAF's Accused Product infringes at least claim 1 of the '961 Patent. As one example, QuickMeasure infringes claim 1.

132. QuickMeasure uses a computing system for generating a roof report. For example, as shown below, the process is computer implemented:



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

133. The requesting process is also computer implemented:



See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

134. QuickMeasure also generates a roof estimate report:

# QuickMeasure

Roof Reports in Under an Hour

XYZ Contractor Ave, City, State 00000

January 6, 2021

Prepared For: XYZ Contractor

A  
N

## Contents

Overview	1
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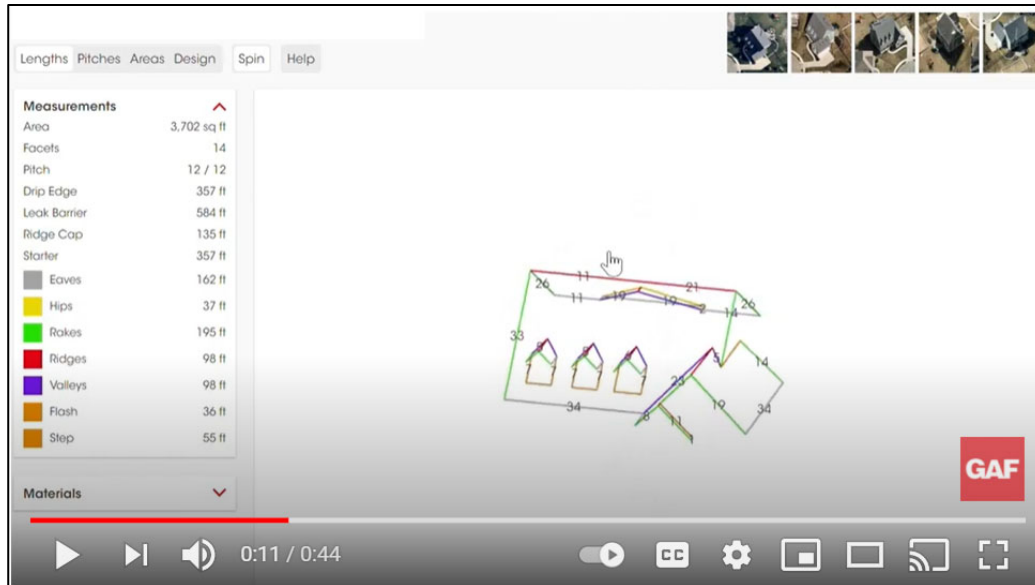
## Measurements

Roof Area	4,729 sq ft
Roof Facets	21
Predominant Pitch	9 / 12
Ridges/Hips	293 ft
Valleys	149 ft
Rakes	141 ft
Eaves	236 ft
Bends	0 ft

1

See Ex. 15 at 1.

135. QuickMeasure includes a memory. For example, reports are stored in memory on the computer:



See <https://www.youtube.com/watch?v=HGMJdkPjktw>

136. QuickMeasure includes a roof estimation module that includes a calibration module, the roof estimation module being stored on the memory. For example, in order to calculate the measurements included in the roof report, QuickMeasure uses a calibration modules that analyzes and calibrates information associated with the aerial images (such as, for example, the height and angle from which they were taken).

137. QuickMeasure receives a plurality of aerial images of a building having a roof, the plurality of aerial images having been taken independent of each other, at different times and on different dates. For example, the aerial images provide

different views of the roof:



See Ex. 15 at 2-3.

138. The aerial images were taken at different times and on different dates. For example, GAF uses images of the same site that were taken over the course of multiple days, as imagery needs to be updated at regular intervals, and/or because it can take multiple days to fully photograph a particular site.

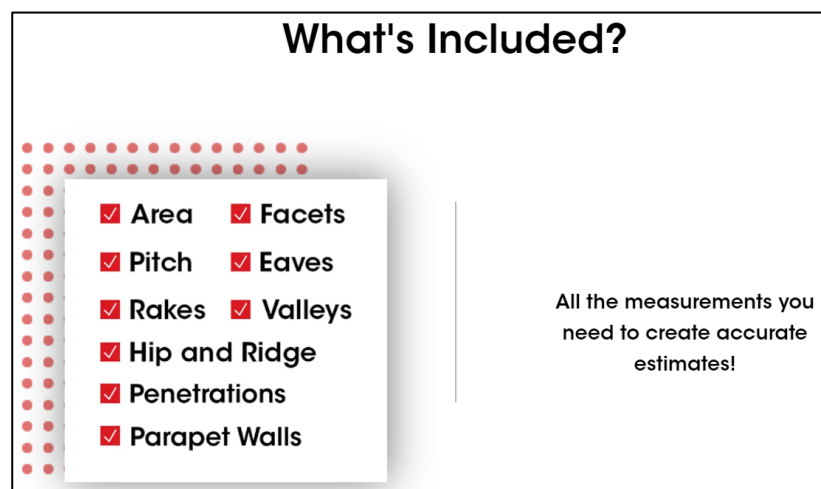
139. Additionally, as shown above, the aerial images provide different views from each other of the roof of the building, the plurality of aerial images including at least a first aerial image that is a top plan view of the roof and a second aerial image that is an oblique perspective view of the roof.

140. Additionally, at least one of the first and/or second aerial images is calibrated using calibration information received from the calibration module. For example, QuickMeasure uses a calibration modules that analyzes and calibrate

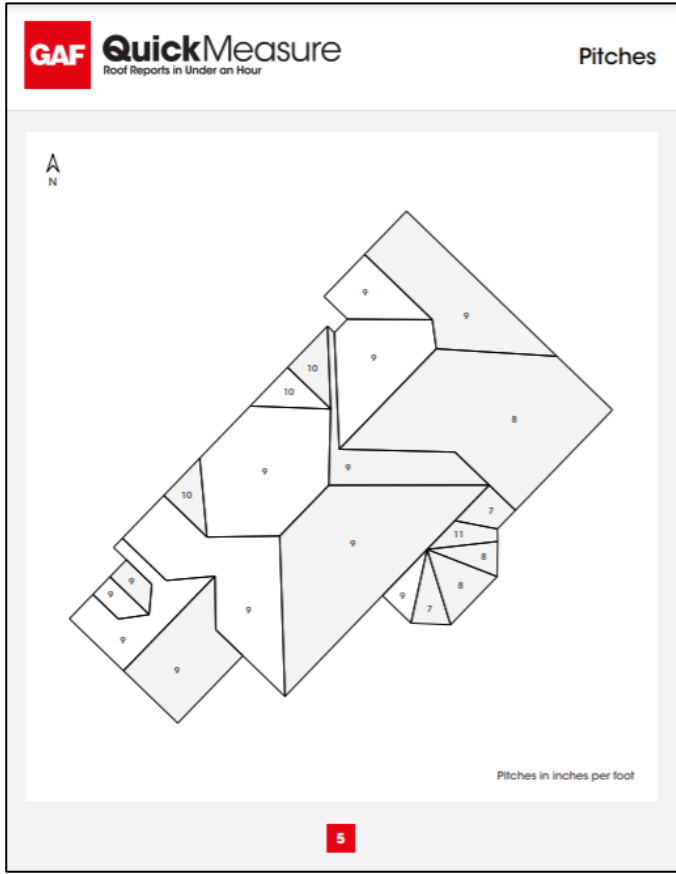
information associated with the aerial images (such as, for example, the height and angle from which they were taken).

141. QuickMeasure performs image analysis on at least two of the plurality of aerial images. For example, QuickMeasure performs image analysis on the top plan view and/or oblique images in order to calculate the measurements included in the roof report. *See also, e.g.,* <https://www.bigmarker.com/jobprogress/JobProgress-QuickMeasure-now-live?bmid=7162652c195a> (GAF's Director of Marketing, Vishal Laddha, stating that "We do have a human QA at the end ... because ... a human eye is better than any computer when it comes to making sure the measurements, ... the lines are properly drawn by the computer.").

142. QuickMeasure calculates a pitch for each one of a plurality of roof sections of the roof based on the image analysis. For example, the pitch of all roof sections is included in the roof report:

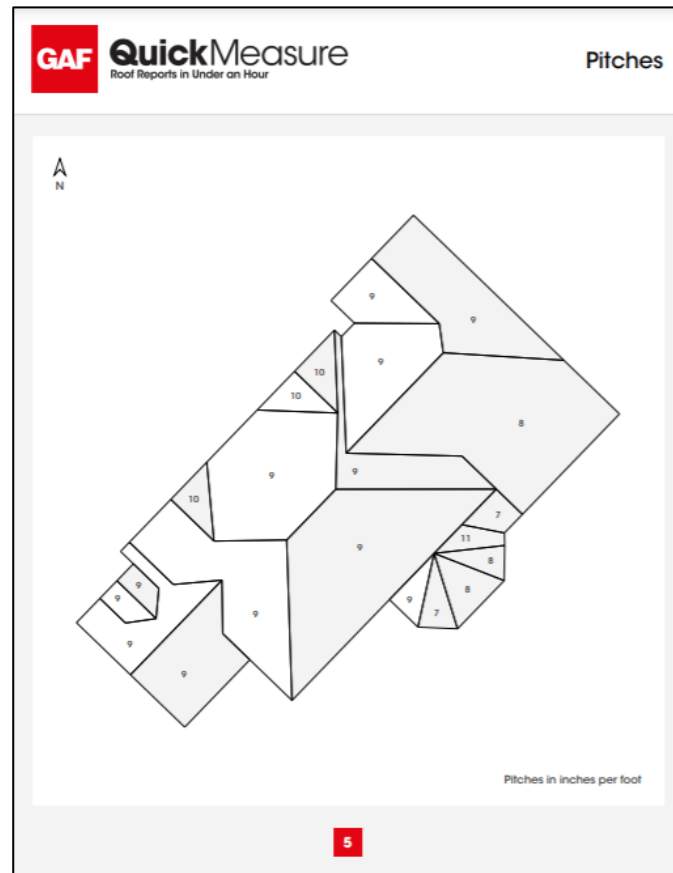


*See* Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>).



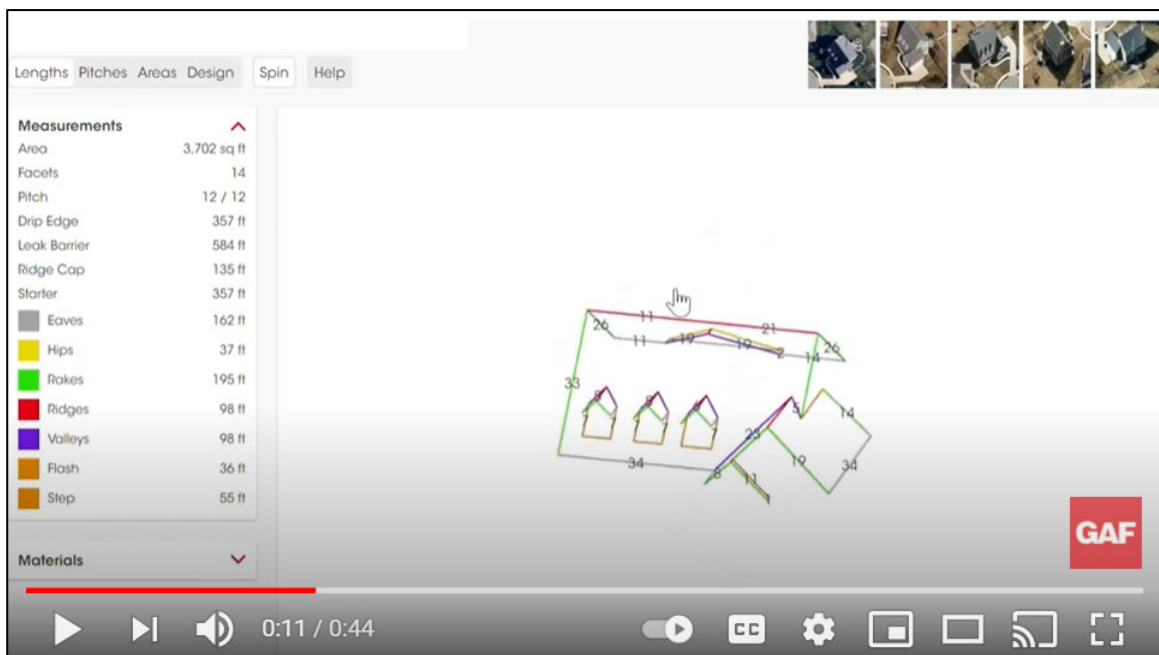
*See* Ex. 15 at 5.

143. QuickMeasure generates a roof report that includes the pitch of each of the plurality of roof sections based on the calculated pitch. For example, the pitch of all roof sections is included in the roof report:



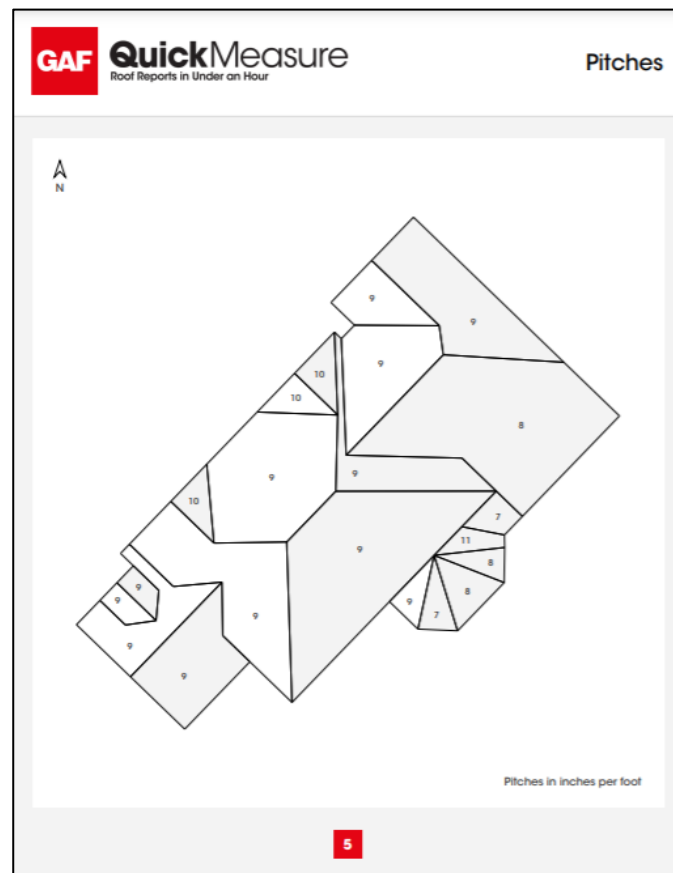
See Ex. 15 at 5.

144. Pitch can also be viewed in the computer interface:



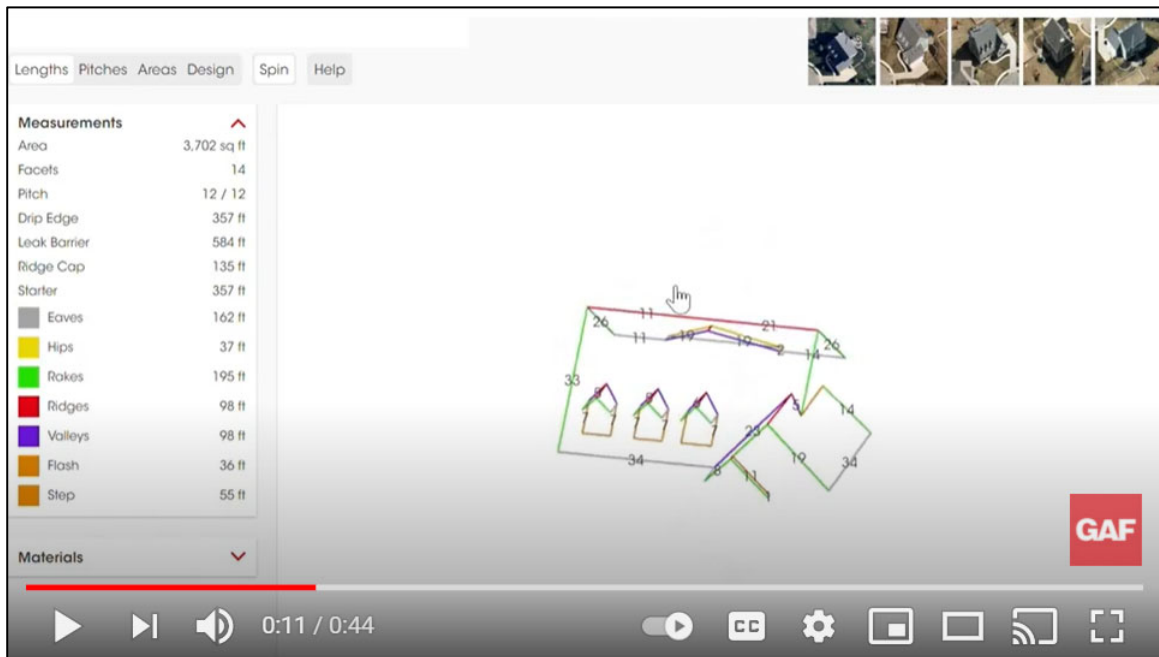
See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

145. QuickMeasure outputs the roof report, wherein the roof report includes one or more top plan views of a model of the roof annotated with numerical values that indicate a corresponding pitch, area, and length of edges of at least some of the plurality of roof sections using at least two different indicia for different types of roof properties. For example, the pitch of all roof sections is included in the roof report:



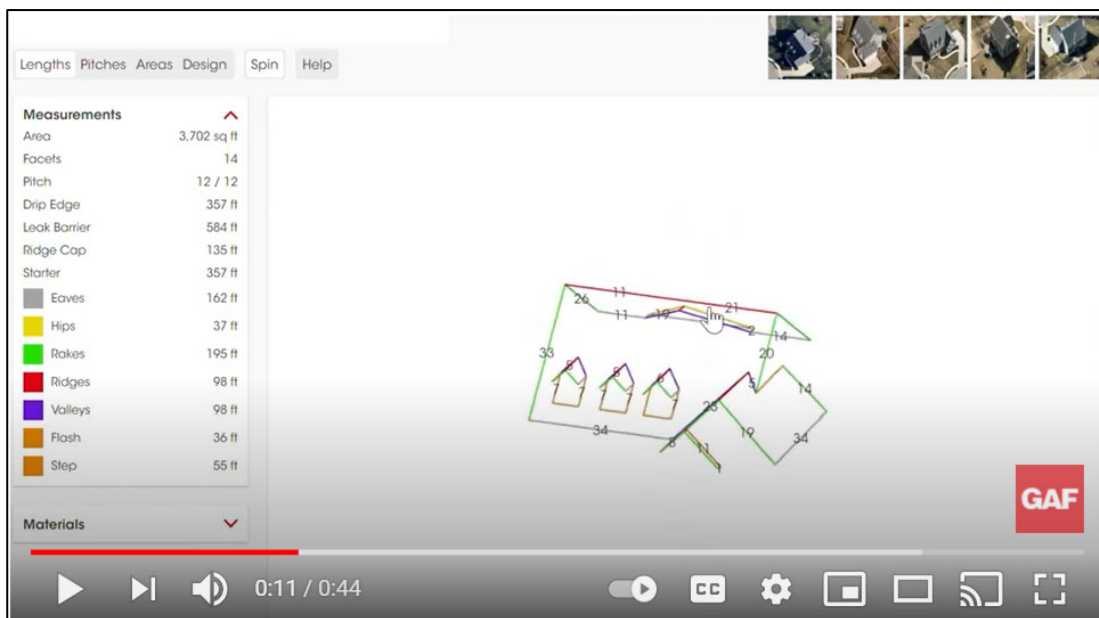
See Ex. 15 at 5.





See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

146. Different colors indicate different types of roof properties:



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

147. On information and belief, GAF has had knowledge of the '961 Patent prior to the filing of the instant complaint (and in no case later than the filing of the

original complaint on May 4, 2021), including because the '961 Patent is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. GAF's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that GAF monitors EagleView's website, products, roof reports, and patents. *See, e.g.,* <https://www.eagleview.com/>. Additionally, GAF would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '961 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.,* <https://www.law360.com/articles/1355754/eagleview-s-adventures-in-ip-earn-co-375m-enhanced-win>.

148. In addition to directly infringing the '961 Patent, GAF has in the past and continues to indirectly infringe the '961 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Product. As set forth above, GAF knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Product, by its end users infringes at least one claim of the '961 Patent prior to the filing of the instant complaint. GAF knowingly induced such use of those products in a manner that infringes the '961 Patent, including through at least promotional, advertising, and instructional materials, and GAF had the requisite intent to encourage such infringement. As such, GAF has indirectly infringed and continues to indirectly infringe at least one claim of the '961 Patent under one or

more subsections of 35 U.S.C. § 271, including § 271(b).

149. GAF's infringement of the '961 Patent has been and continues to be willful. GAF has acted with knowledge of the '961 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '961 Patent. For example, subsequent to learning of the '961 Patent, GAF continued to make and use rooftop aerial measurement products, including but not limited to the Accused Product, within the United States in a manner that infringes the '961 Patent. GAF has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '961 Patent. This objectively-defined risk was known or is so obvious that it should have been known to GAF. GAF's infringement of the '961 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

150. GAF's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from GAF the damages sustained by EagleView as a result of GAF's wrongful acts in an amount subject to proof at trial.

151. GAF's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.

152. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

**COUNT VI - INFRINGEMENT OF THE '376 PATENT BY GAF**

153. Plaintiffs reallege paragraphs 1-152 as if fully set forth herein.

154. The USPTO duly and legally issued the '376 Patent on September 8, 2015.

155. GAF has directly and indirectly infringed and continues to directly and indirectly infringe the '376 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Product.

156. GAF makes and uses rooftop aerial measurement products, including but not limited to the Accused Product, within the United States, and as such, GAF has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '376 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

157. Claim 1 of the '376 Patent recites:

**A computer-implemented process method in a roof estimation system, the method comprising:**

**displaying, by the roof estimation system, a graphical user interface including an aerial image of a roof structure of a building and a pitch determination marker that is an interactive user interface control that can be manipulated by the operator in order to specify pitch of the roof structure of the building;**

**moving the pitch determination marker with respect to the aerial image of the roof structure to a first location in the graphical user interface overlaying the aerial image in response to input from the user;**

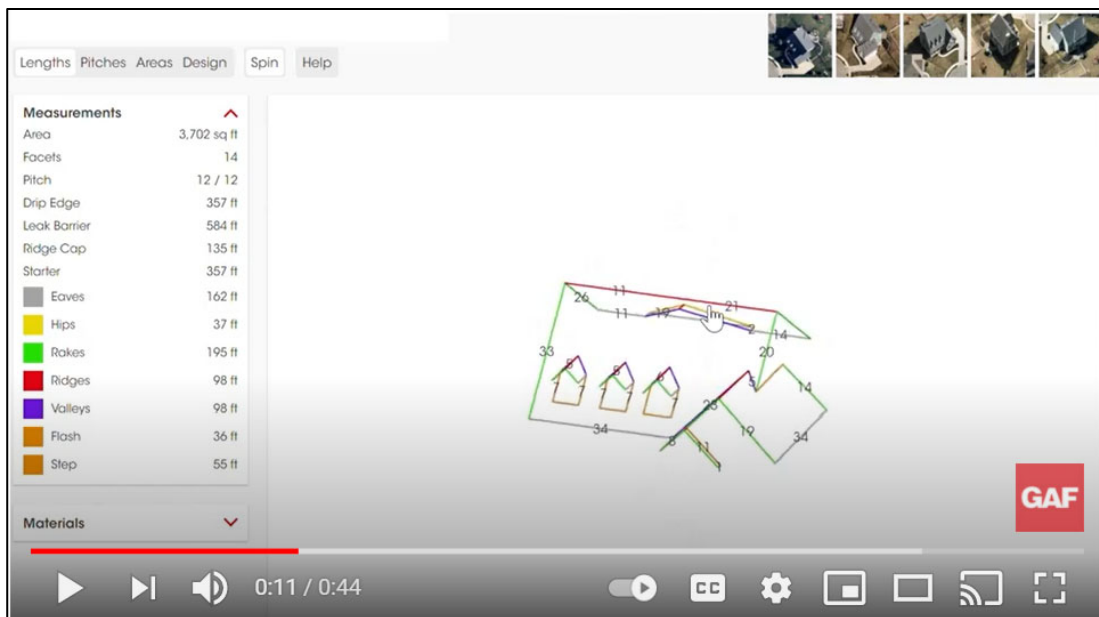
**adjusting an arm of the pitch determination marker so that the arm of the pitch determination marker substantially aligns with a sloped edge**

**of a planar roof section of the aerial image of the roof structure;**

**determining, by the roof estimation system, a pitch of the planar roof section based on a configuration of the pitch determination marker; and**

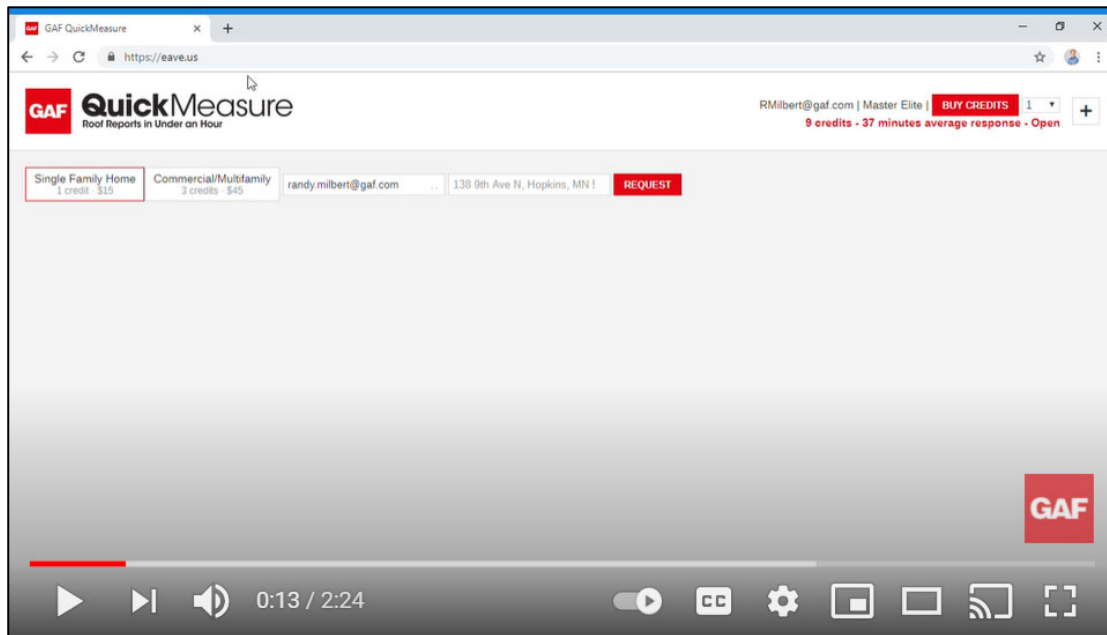
**generating and outputting, by the roof estimation system, a roof estimate report using a report generation engine, wherein the roof estimate report includes one or more top plan views of a model of the roof structure annotated with numerical values for corresponding slope, area, or lengths of edges of at least some of a plurality of planar roof sections of the roof structure, wherein the generated roof estimate report is provided for repair and/or constructing the roof structure of the building.**

158. GAF's Accused Product infringes at least claim 1 of the '376 Patent, including by GAF's use of the Accused Product to perform the claimed method. As one example, QuickMeasure infringes claim 1. QuickMeasure uses a computer-implemented process method in a roof estimation system. For example, as shown below, the method is computer implemented:



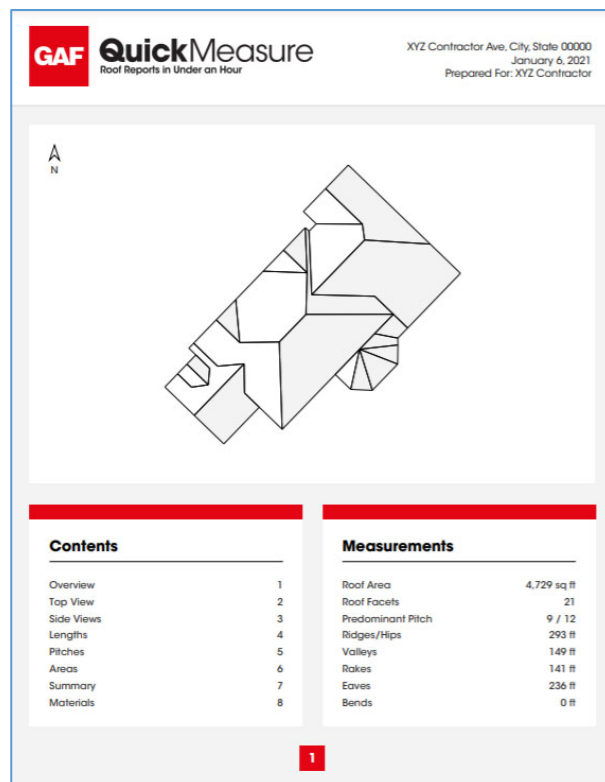
See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

159. The requesting method is also computer implemented:



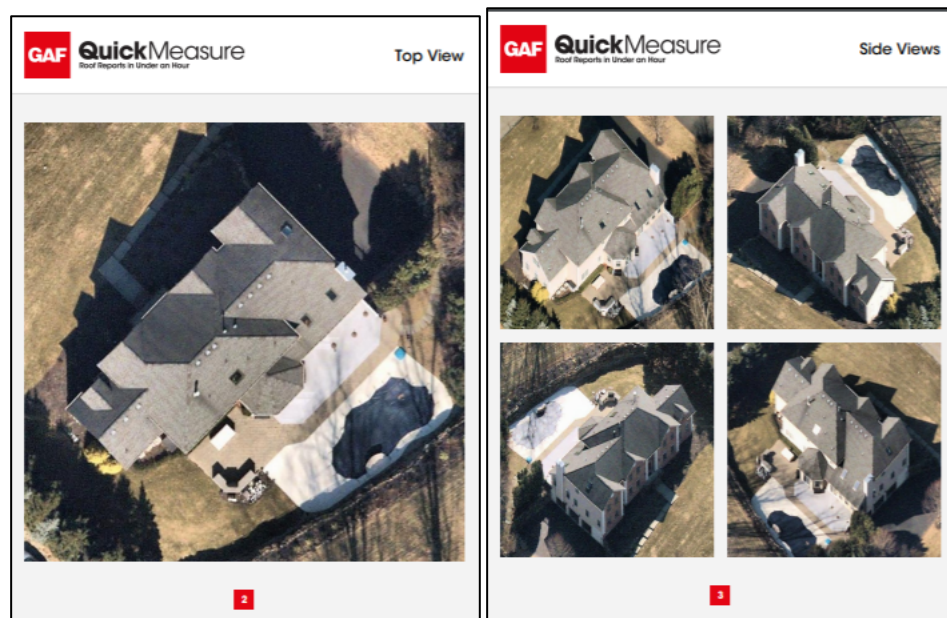
See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

160. QuickMeasure also generates a roof estimate report:



See Ex. 15 at 1.

161. QuickMeasure displays, by the roof estimation system, a graphical user interface including an aerial image of a roof structure of a building and a pitch determination marker that is an interactive user interface control that can be manipulated by the operator in order to specify pitch of the roof structure of the building. For example, images of both a top down view of the building and oblique images of the building are displayed in a graphical user interface, and are later included in the report:



See Ex. 15 at 2-3.

162. QuickMeasure includes a pitch determination marker that is an interactive user interface control that can be manipulated by the operator. For example, in order to calculate the pitch that is included in the roof report, a user manipulates an interactive user interface control, such as a pitch determination



marker, to specify the pitch of the roof sections shown in the pictures. *See, e.g.,* <https://www.bigmarker.com/jobprogress/JobProgress-QuickMeasure-now-live?bmid=7162652c195a> (GAF’s Director of Marketing, Vishal Laddha, stating that “We do have a human QA at the end ... because ... a human eye is better than any computer when it comes to making sure the measurements, ... the lines are properly drawn by the computer.”).

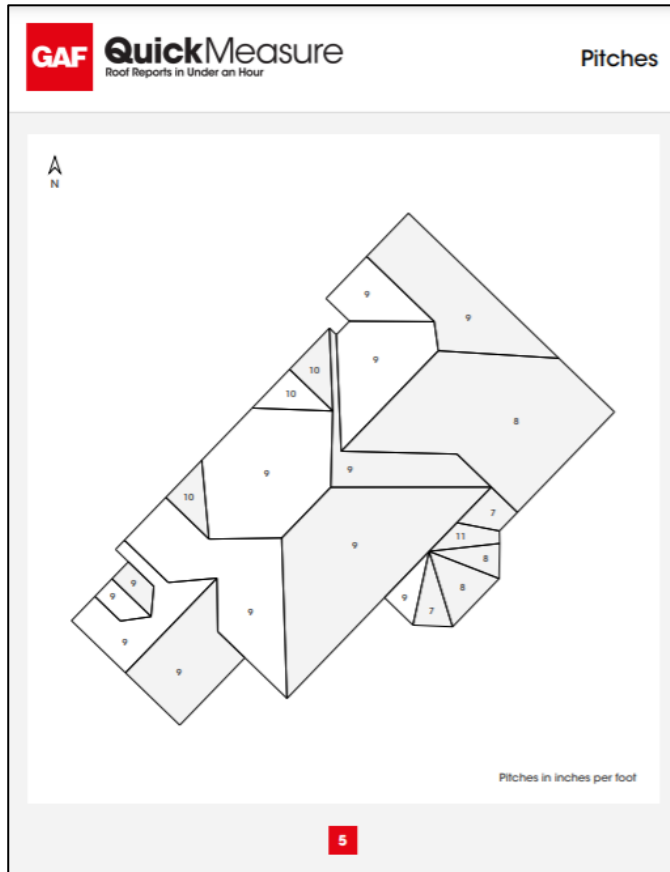
163. QuickMeasure moves the pitch determination marker with respect to the aerial image of the roof structure to a first location in the graphical user interface overlaying the aerial image in response to input from the user. For example, a user moves the pitch determination marker to a first location, in order to specify the pitch of the roof sections shown in the pictures.

164. QuickMeasure adjusts an arm of the pitch determination marker so that the arm of the pitch determination marker substantially aligns with a sloped edge of a planar roof section of the aerial image of the roof structure. For example, a user moves the pitch determination marker to align with a sloped edge of each roof section, in order to specify the pitch of the roof sections shown in the pictures.

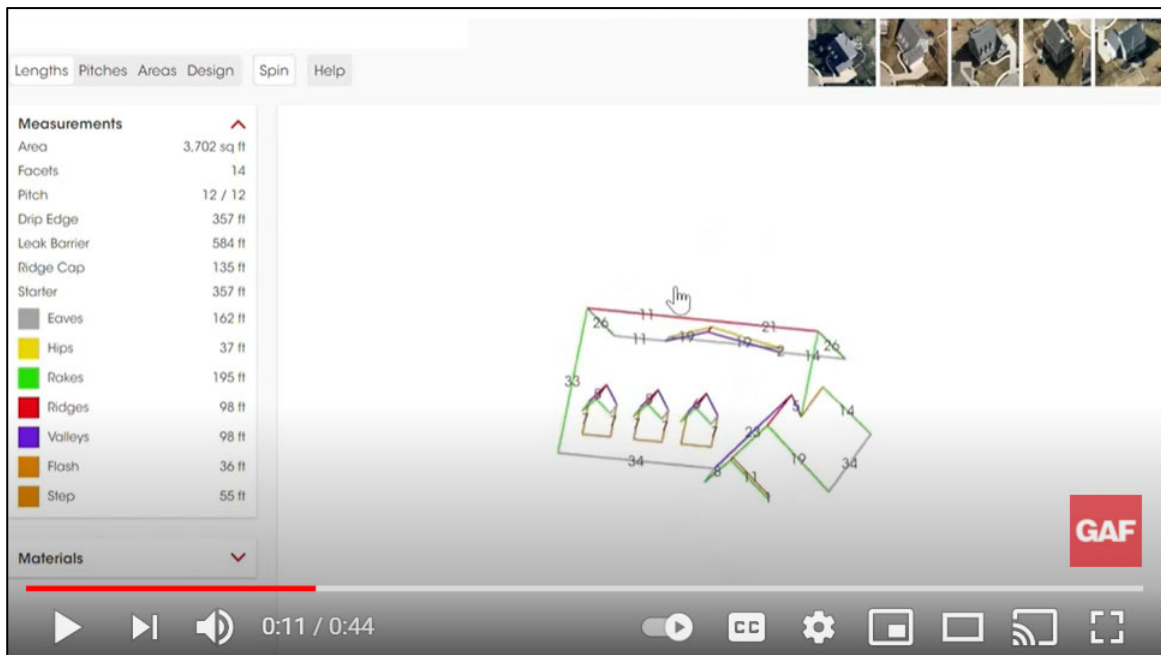
165. QuickMeasure determines, by the roof estimation system, a pitch of the planar roof section based on a configuration of the pitch determination marker. For example, based on the user aligning the pitch determination marker in the user interface, QuickMeasure determines the pitch, which is then included in the generated



roof report for all roof sections:



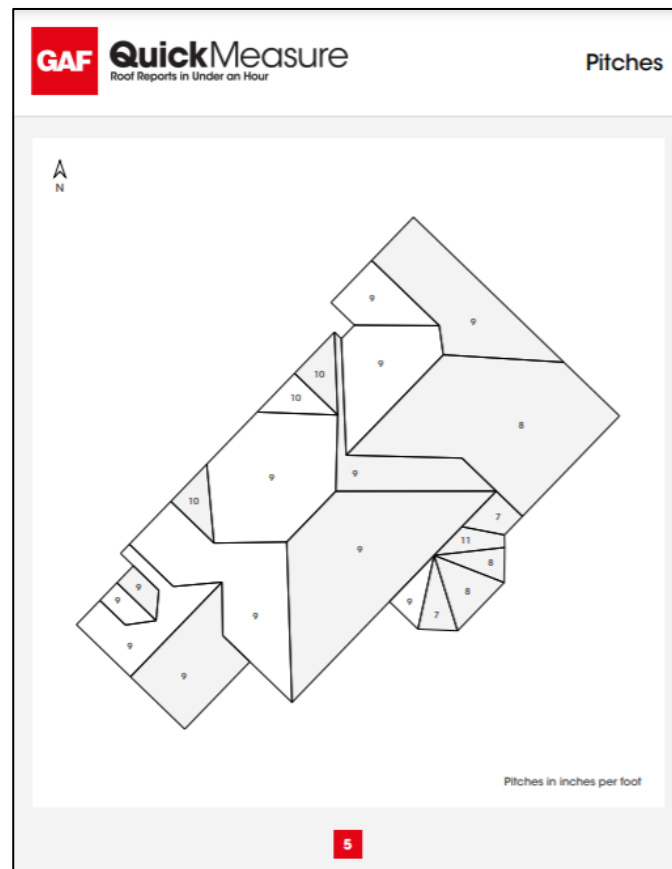
*See* Ex. 15 at 5.



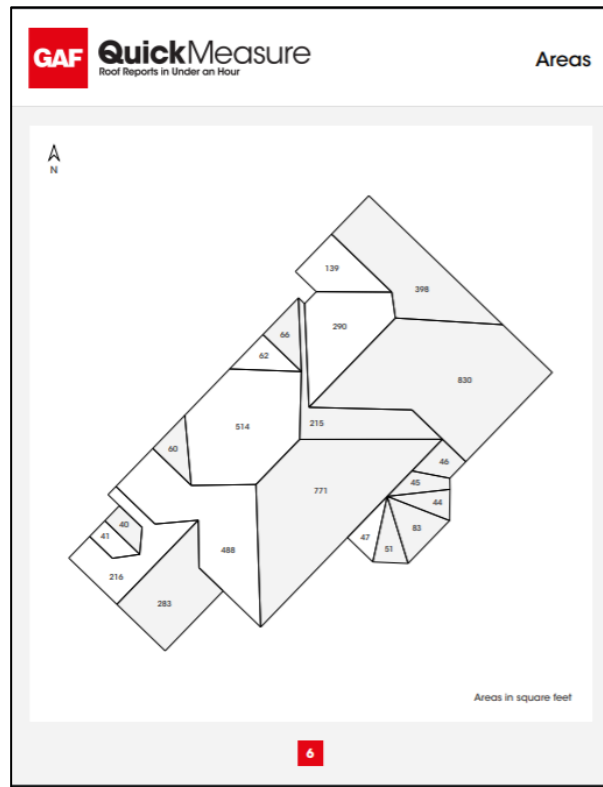
See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

166. QuickMeasure generates and outputs, by the roof estimation system, a roof estimate report using a report generation engine, wherein the roof estimate report includes one or more top plan views of a model of the roof structure annotated with numerical values for corresponding slope, area, or lengths of edges of at least some of a plurality of planar roof sections of the roof structure, wherein the generated roof estimate report is provided for repair and/or constructing the roof structure of the building.

167. For example, the generated roof report includes the slope, area, and length of edges for all roof sections, including the totals:



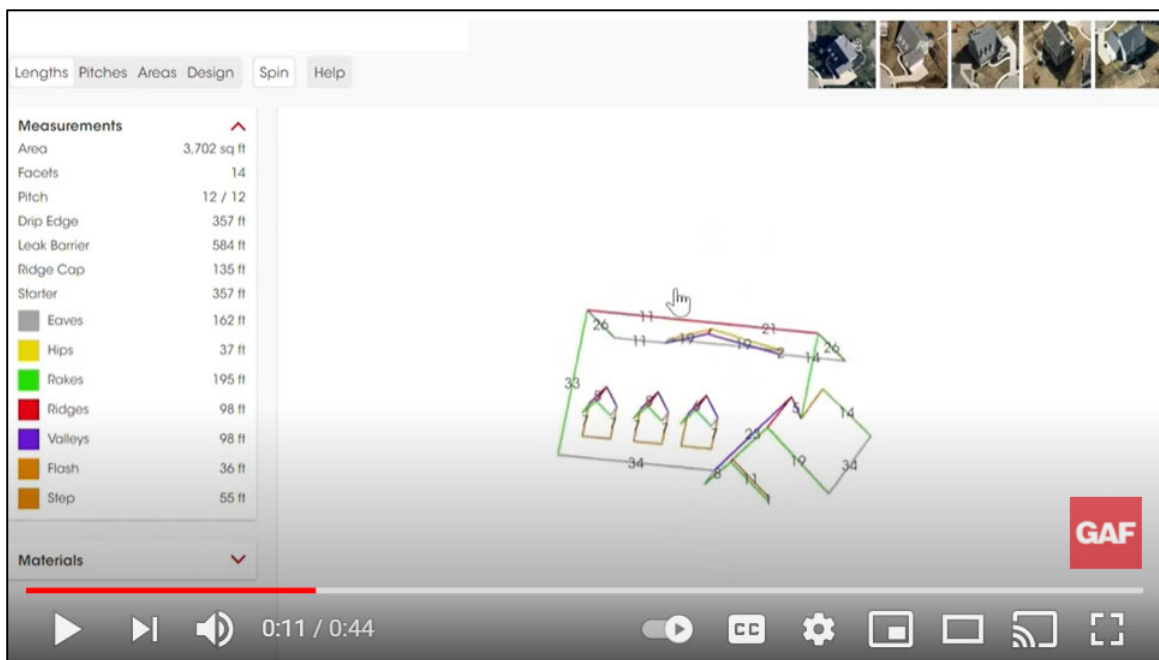
See Ex. 15 at 5.



See Ex. 15 at 6.



See Ex. 15 at 4.



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

168. The generated roof estimate report is provided for repair and/or constructing the roof structure of the building:



See Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>).

**A complete materials list  
based on measurement**

Not available on commercial reports

	Waste	0%	10%	15%	20%
<b>Timberline Products</b>					
HDE, HD, Natural Shadow, American Harvest, Reflector, Royal Sovereign, and Cool Series	bundle	142	156	163	170
<b>Starliner</b>					
WeatherBlocker	bundle	4	5	5	5
Pro-Start	bundle	4	4	4	4
Quick-Start	roll	12	13	14	15
<b>Roof Deck Protection *</b>					
Deck-Armor, Tiger Paw, FeltBuster 10 sq	roll	5	6	6	6
ShingleMate	roll	12	13	14	14
VersaShield	roll	14	15	16	16
<b>Leak Barrier *</b>					
StormGuard, WeatherWatch 2 sq	roll	12	13	14	14
WeatherWatch 1.5 sq	roll	16	18	18	19
<b>Ridge Cap</b>					
Seal-A-Ridge	bundle	12	13	14	14
TimberTex	bundle	15	16	17	17
Z-Ridge	bundle	9	10	10	11
TimberCrest	box	15	16	17	17
<b>Ventilation</b>					
Rigid Vent 3, Snow Country, Snow Country Advanced, Hip Vent, IntakePro, Exhaust Vent (Mesh), RidgeRunner, Master Flow Vents					

GAF recommends at least one square foot of attic ventilation (evenly split between intake and exhaust) for every 300 square feet of attic floor space. Visit the GAF ventilation calculator for more information at [www.gaf.com/ventcalculator](http://www.gaf.com/ventcalculator).

See Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>).

The more you're able to use digital tools to automate your estimating process, the more estimates you will be able to perform, and the more work you can schedule. Using these tools helps you speak the same language as insurance companies, which may help lead to additional approved work and even expedited payment.

See Ex. 18 (<https://www.gaf.com/en-us/blog/how-to-use-digital-tools-to-speed-up->

storm-repair-estimates-281474980041161).

169. On information and belief, GAF has had knowledge of the '376 Patent prior to the filing of the instant complaint (and in no case later than the filing of the original complaint on May 4, 2021). For example, GAF would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '376 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.*, <https://www.law360.com/articles/1355754/eagleview-s-adventures-in-ip-earn-co-375m-enhanced-win>.

170. In addition to directly infringing the '376 Patent, GAF has in the past and continues to indirectly infringe the '376 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Product. As set forth above, GAF knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Product, by its end users infringes at least one claim of the '376 Patent prior to the filing of the instant complaint. GAF knowingly induced such use of those products in a manner that infringes the '376 Patent, including through at least promotional, advertising, and instructional materials, and GAF had the requisite intent to encourage such infringement. As such, GAF has indirectly infringed and continues to indirectly infringe at least one claim of the '376 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

171. GAF's infringement of the '376 Patent has been and continues to be

willful. GAF has acted with knowledge of the '376 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '376 Patent. For example, subsequent to learning of the '376 Patent, GAF continued to make and use rooftop aerial measurement products, including but not limited to the Accused Product, within the United States in a manner that infringes the '376 Patent. GAF has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '376 Patent. This objectively-defined risk was known or is so obvious that it should have been known to GAF. GAF's infringement of the '376 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

172. GAF's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from GAF the damages sustained by EagleView as a result of GAF's wrongful acts in an amount subject to proof at trial.

173. GAF's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.

174. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

#### **COUNT VII - INFRINGEMENT OF THE '568 PATENT BY GAF**

175. Plaintiffs reallege paragraphs 1-174 as if fully set forth herein.

176. The USPTO duly and legally issued the '568 Patent on December 6,

2016.

177. GAF has directly and indirectly infringed and continues to directly and indirectly infringe the '568 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Product.

178. GAF makes and uses rooftop aerial measurement products, including but not limited to the Accused Product, within the United States, and as such, GAF has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '568 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

179. Claim 1 of the '568 Patent recites:

**A computer-implemented method for generating a roof estimate report, the method comprising:**

**receiving a request for a roof estimate report for a roof of a building;**

**receiving location information regarding the building having the roof;**

**receiving a first aerial image of the building having the roof;**

**receiving a second aerial image of the building having the roof, the first and second aerial images of the building having been taken independent of each other, the first and second aerial images of the building providing different views of the roof from each other, the first aerial image of the building including a top plan view of the roof and the second aerial image of the building including an oblique perspective view of the roof;**

**calibrating at least one of the first and second aerial images of the building using calibration information received from a calibration module;**



**performing image analysis on the first and second aerial images of the building by correlating the first aerial image of the building with the second aerial image of the building, the correlating including registering pairs of points on the first and second aerial images of the building, each pair of points corresponding to a same point on the roof depicted in each of the first and second aerial images of the building;**

**generating, based at least in part on the correlation of the first and second aerial images of the building, a three-dimensional model of the roof that includes a plurality of planar roof sections that each have a corresponding pitch, area, and edges;**

**determining a pitch of a plurality of sections of the roof;**

**determining a direction of the pitch for each of the plurality of sections of the roof for which a pitch was determined;**

**generating a roof estimate report that includes at least one top plan view of the three-dimensional model annotated with numerical indications of the determined pitch and the direction of the pitch;**

**determining a ridge line and a valley line of the roof;**

**displaying, on at least one top plan view of the three-dimensional model included in the roof estimate report, a ridge line in which a property of the ridge line being a ridge line is conveyed by the ridge line being displayed in a first color;**

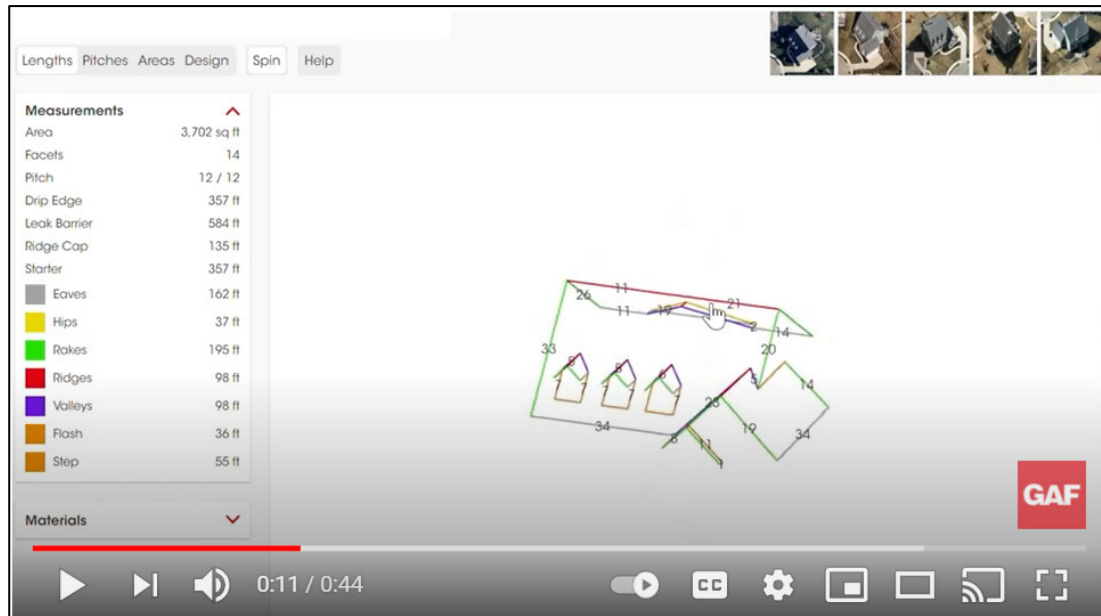
**displaying, on at least one top plan view of the three-dimensional model included in the roof estimate report, a valley line in which a property of the valley line being a valley line is conveyed by the valley line being a second color different from the first color; and**

**transmitting the generated roof report.**

180. GAF's Accused Product infringes at least claim 1 of the '568 Patent, including by GAF's use of the Accused Product to perform the claimed method. As one example, QuickMeasure infringes claim 1.

181. QuickMeasure uses a computer-implemented method for generating a

roof estimate report. For example, as shown below, the method is computer implemented:



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

182. The requesting process is also computer implemented:

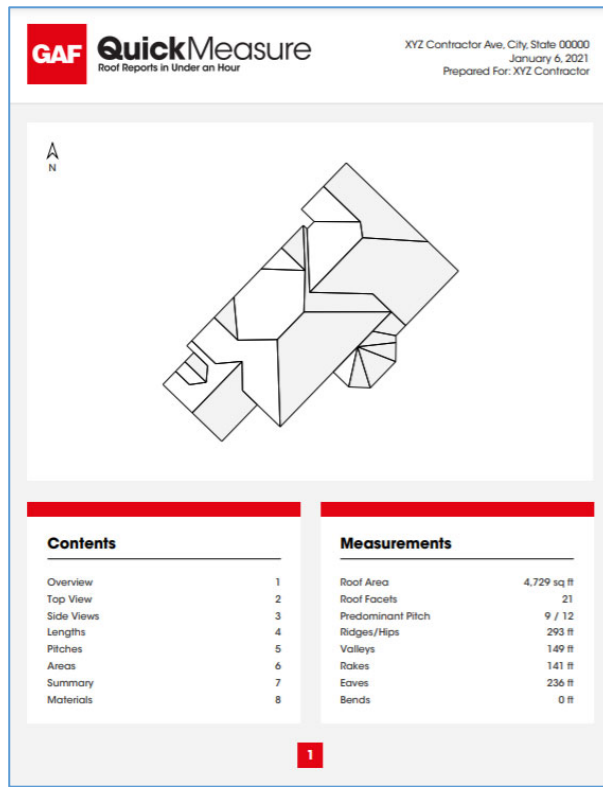
The screenshot shows the GAF QuickMeasure website interface. The header includes the GAF logo and the text 'QuickMeasure Roof Reports in Under an Hour'. The main content area contains a form for requesting a report:

Single Family Home 1 credit - \$15    Commercial/Multi-Family 3 credits - \$45           

The GAF logo is visible in the bottom right corner of the website.

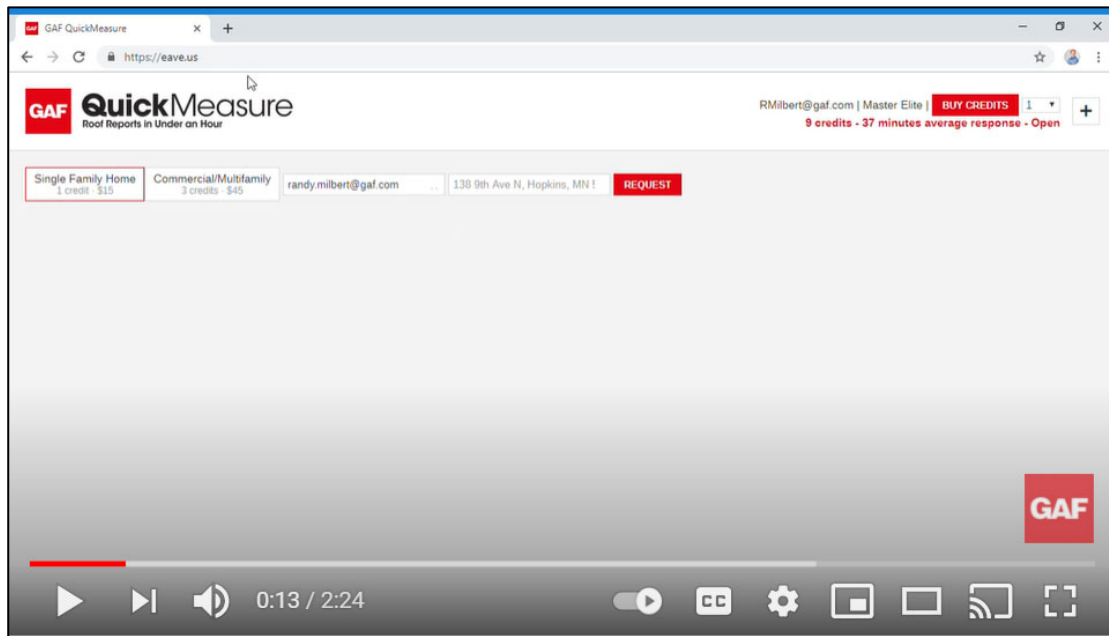
See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

183. QuickMeasure also generates a roof estimate report:



See Ex. 15 at 1.


184. QuickMeasure receives a request for a roof estimate report for a roof of a building. For example, a user can enter an address and/or move a pin around, to request a roof report for that particular building:




See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

### Order a roof report


Select property type



Single family ✓



Multi-family



Commercial

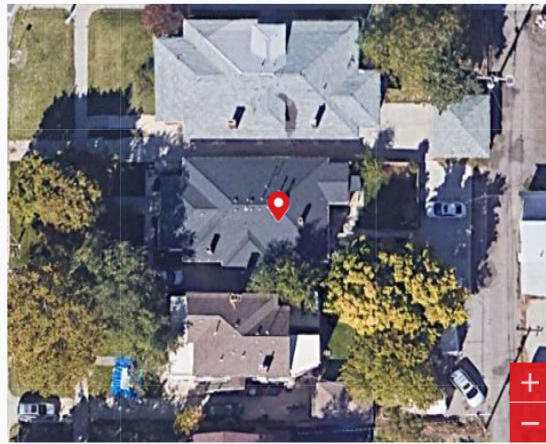
Enter the address of the property

807 S 500 E, Salt Lake City, UT 84102, USA

Enter your primary email

Email(s) to receive this report.  
Separate email addresses with commas. Do not include spaces after each comma.

Drag and drop the pin to confirm the location of the property



See Ex. 17 (<https://quickmeasure.gaf.com/guest-home-page>).

185. After entering the correct address, a user can “Checkout”:

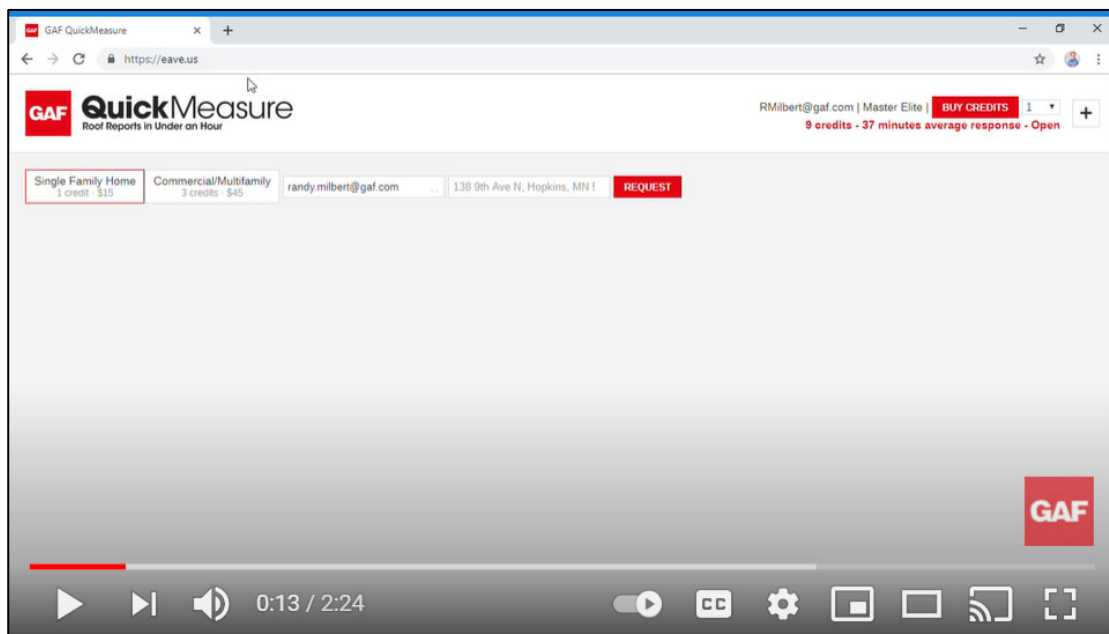
By submitting this order, you agree you have read and agree to the [GAF QuickMeasure Roof Report Terms and Conditions](#)

**Total: \$28.00**

**CHECKOUT**

See Ex. 17 (<https://quickmeasure.gaf.com/guest-home-page>).


186. QuickMeasure receives location information regarding the building having the roof. For example, a user enters address information or drags a pin to the correct location, and then checks out:





See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

## Order a roof report

Select property type

 Single family

 Multi-family

 Commercial

Enter the address of the property

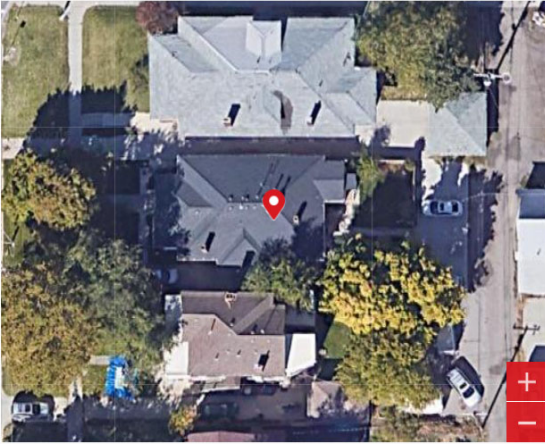
807 S 500 E, Salt Lake City, UT 84102, USA

Enter your primary email

Email(s) to receive this report.

Separate email addresses with commas. Do not include spaces after each comma.

Drag and drop the pin to confirm the location of the property



See Ex. 17 (<https://quickmeasure.gaf.com/guest-home-page>).

By submitting this order, you agree you have read and agree to the [GAF QuickMeasure Roof Report Terms and Conditions](#)

Total: \$28.00

CHECKOUT

See Ex. 17 (<https://quickmeasure.gaf.com/guest-home-page>).

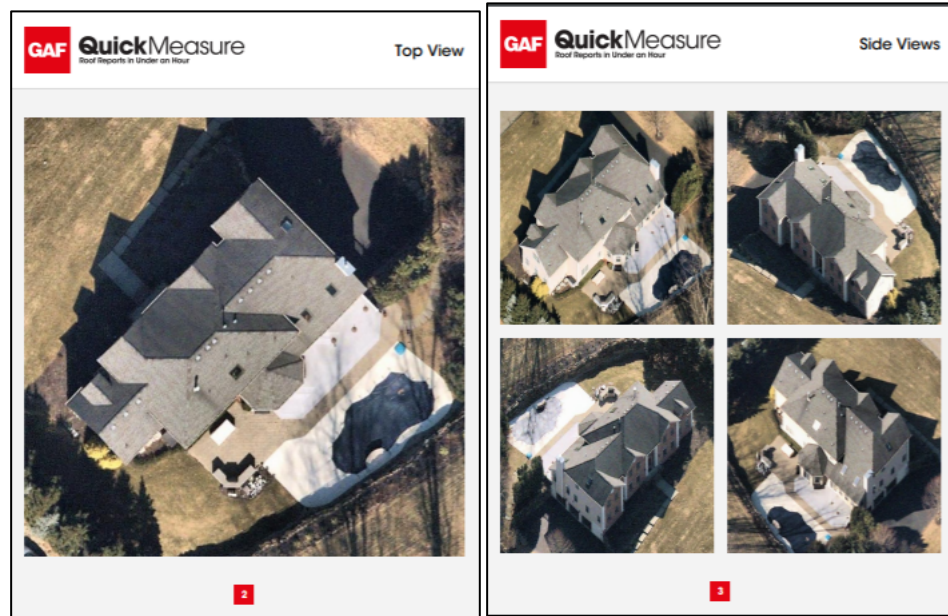
187. QuickMeasure receives a first aerial image of the building having the roof. For example, a top down view of the building is displayed and included in the report:



*See* Ex. 15 at 2.

188. QuickMeasure receives a second aerial image of the building having the roof, the first and second aerial images of the building having been taken independent of each other, the first and second aerial images of the building providing different views of the roof from each other, the first aerial image of the building including a top plan view of the roof and the second aerial image of the building including an oblique perspective view of the roof. For example, a top down view of the building and multiple oblique views of the building are displayed and included in the report:





See Ex. 15 at 2-3.

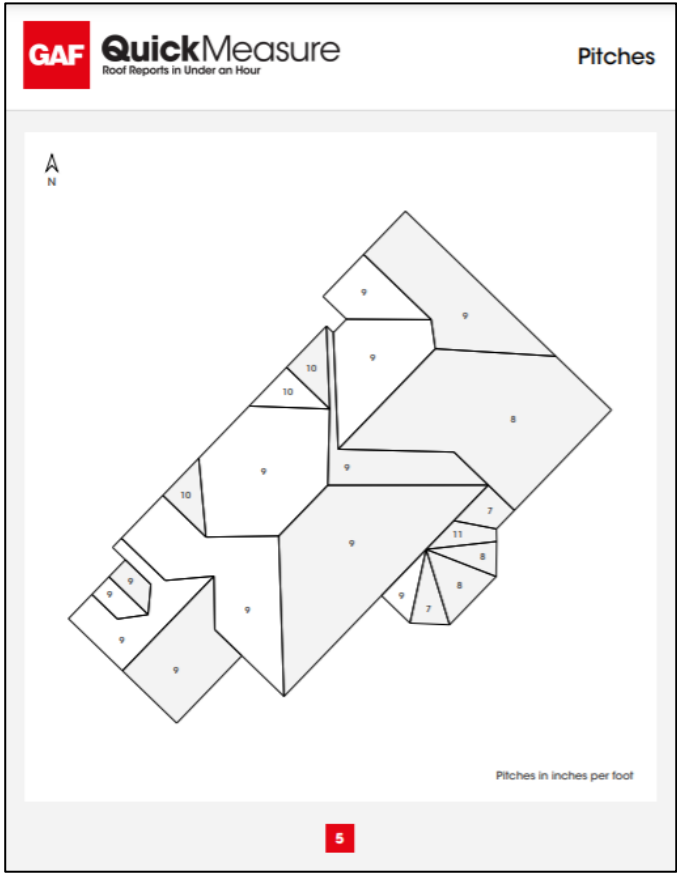
189. QuickMeasure calibrates at least one of the first and second aerial images of the building using calibration information received from a calibration module. For example, in order to calculate the measurements included in the roof report, QuickMeasure uses a calibration module that analyzes and calibrates information associated with the aerial images (such as, for example, the height and angle from which they were taken).

190. QuickMeasure performs image analysis on the first and second aerial images of the building by correlating the first aerial image of the building with the second aerial image of the building, the correlating including registering pairs of points on the first and second aerial images of the building, each pair of points corresponding to a same point on the roof depicted in each of the first and second aerial images of the building. For example, in order to calculate the measurements

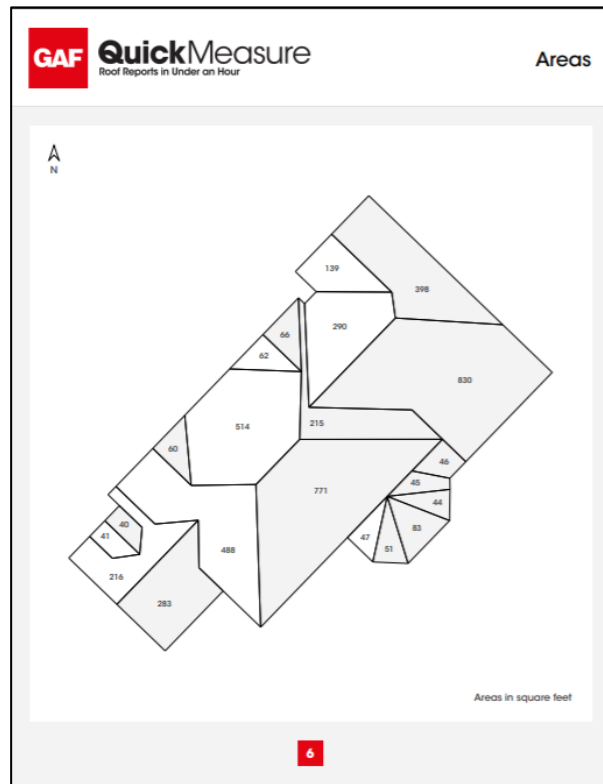


included in the roof report, QuickMeasure uses a calibration modules that analyzes and calibrates information associated with the aerial images (such as, for example, the height and angle from which they were taken) to register pairs of points as claimed. *See also, e.g.,* <https://www.bigmarker.com/jobprogress/JobProgress-QuickMeasure-now-live?bmid=7162652c195a> (GAF's Director of Marketing, Vishal Laddha, stating that "We do have a human QA at the end ... because ... a human eye is better than any computer when it comes to making sure the measurements, ... the lines are properly drawn by the computer.").

191. QuickMeasure generates, based at least in part on the correlation of the first and second aerial images of the building, a three-dimensional model of the roof that includes a plurality of planar roof sections that each have a corresponding pitch, area, and edges. For example, the generated roof report includes the pitch, area, and length of edges for all roof sections:



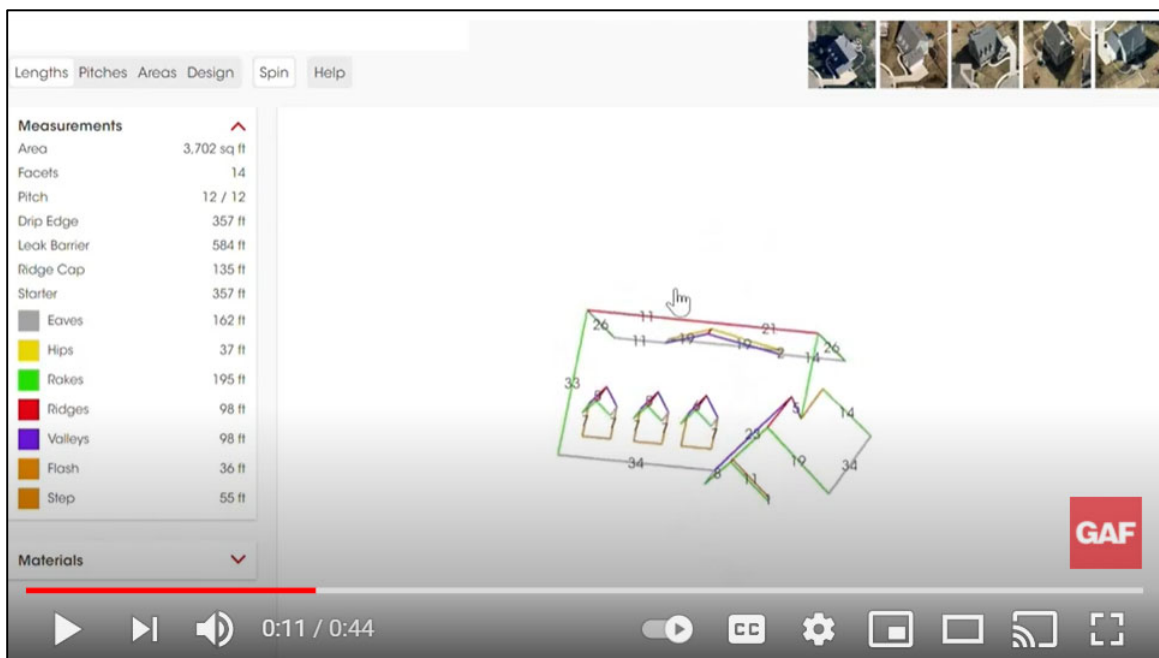
*See* Ex. 15 at 5.



See Ex. 15 at 6.



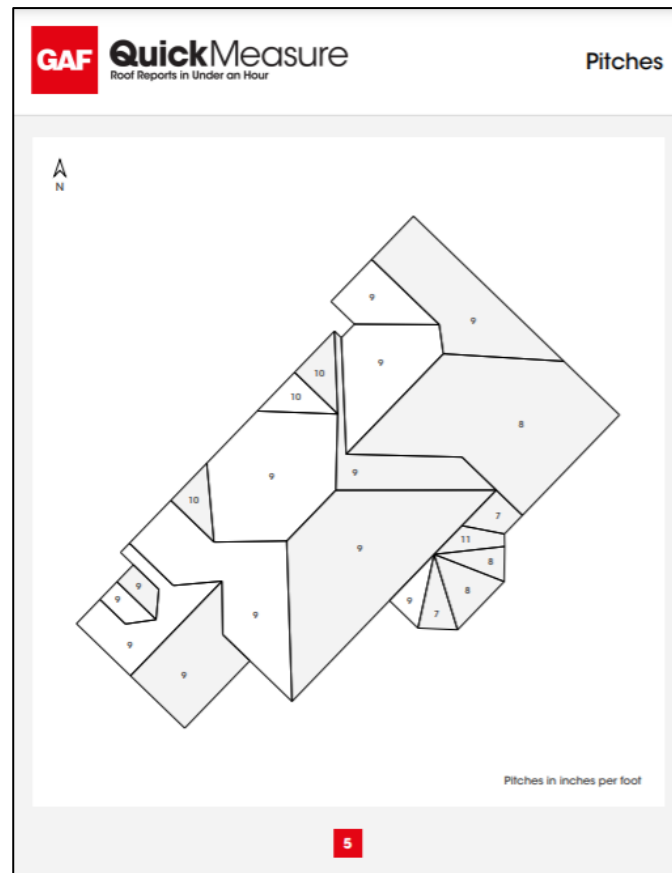
See Ex. 15 at 4.



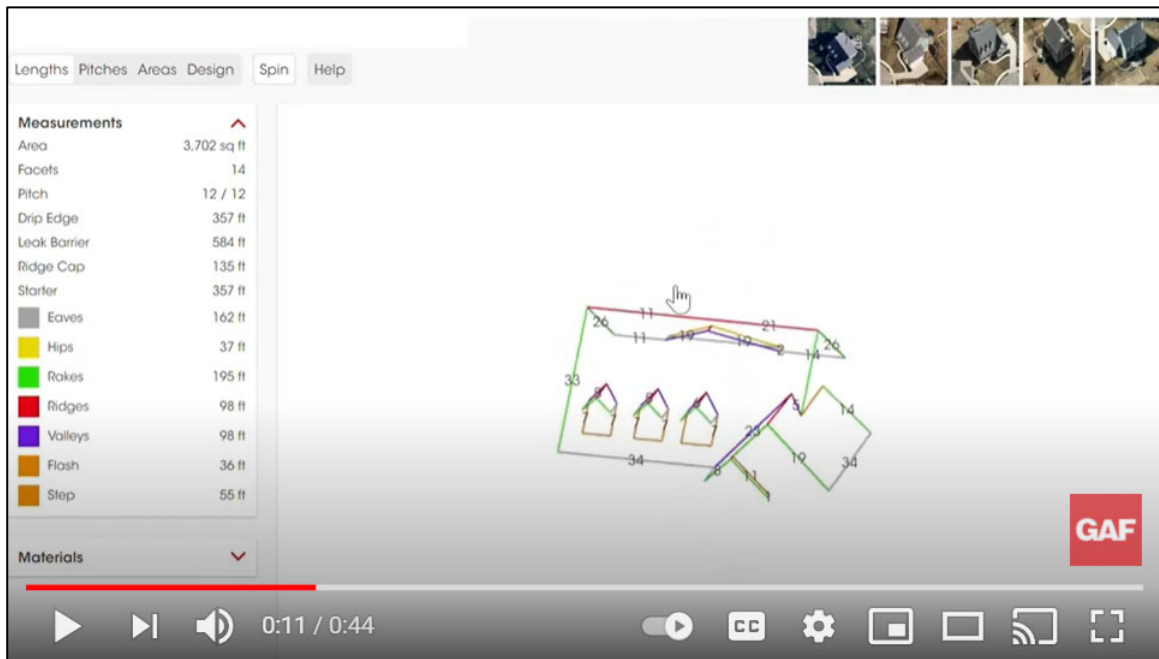
See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

192. QuickMeasure determines a pitch of a plurality of sections of the roof.

For example, the generated roof report includes the pitch for all roof sections:

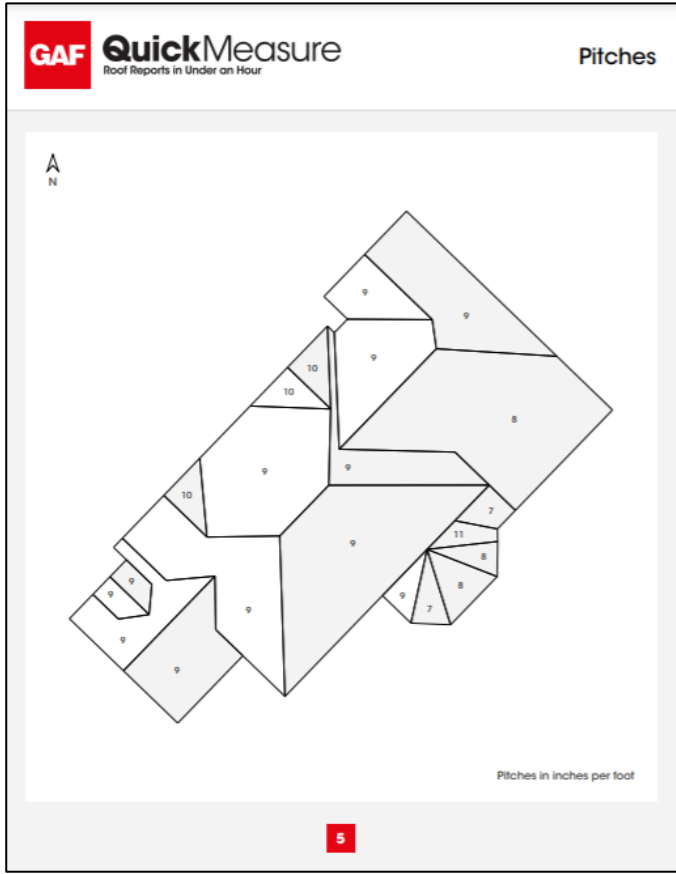


*See* Ex. 15 at 5.

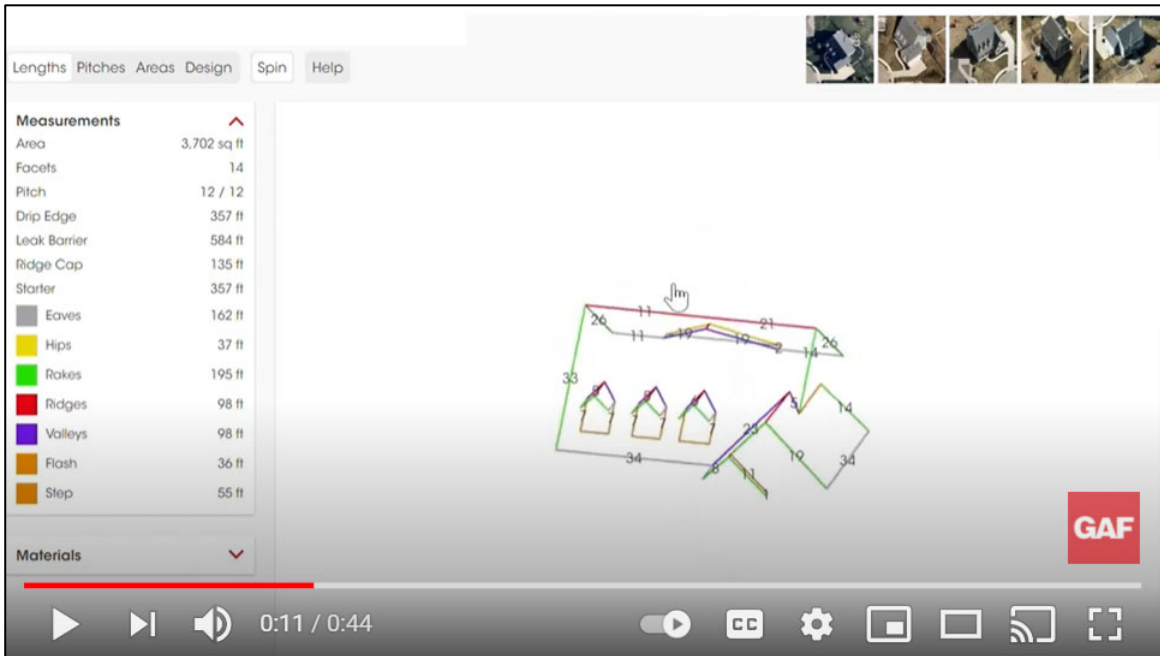


See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

193. QuickMeasure determines a direction of the pitch for each of the plurality of sections of the roof for which a pitch was determined. For example, the generated roof report includes the pitch and direction of the pitch (e.g., as indicated by the shading) for all roof sections:

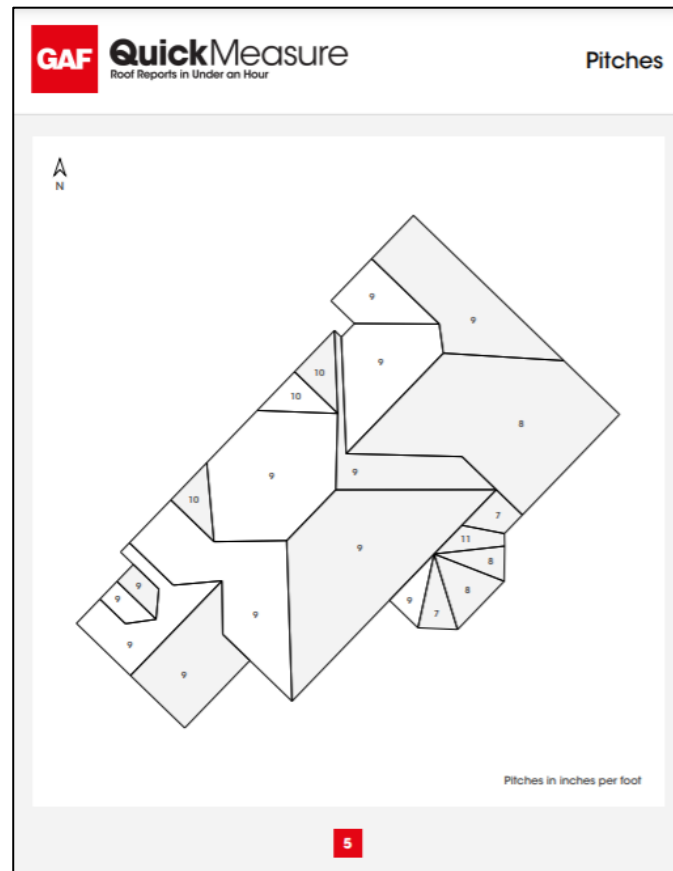


*See* Ex. 15 at 5.



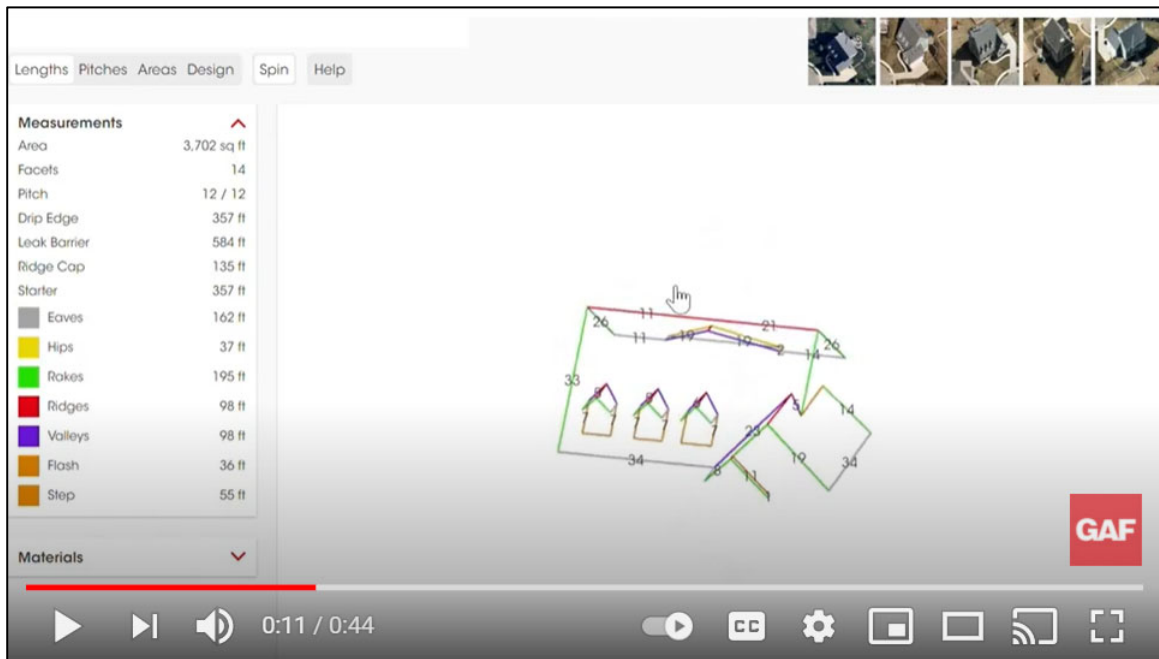
See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

194. QuickMeasure generates a roof estimate report that includes at least one top plan view of the three-dimensional model annotated with numerical indications of the determined pitch and the direction of the pitch. For example, the generated roof report includes the pitch and direction of the pitch (e.g., as indicated by the shading) for all roof sections:



See Ex. 15 at 5.



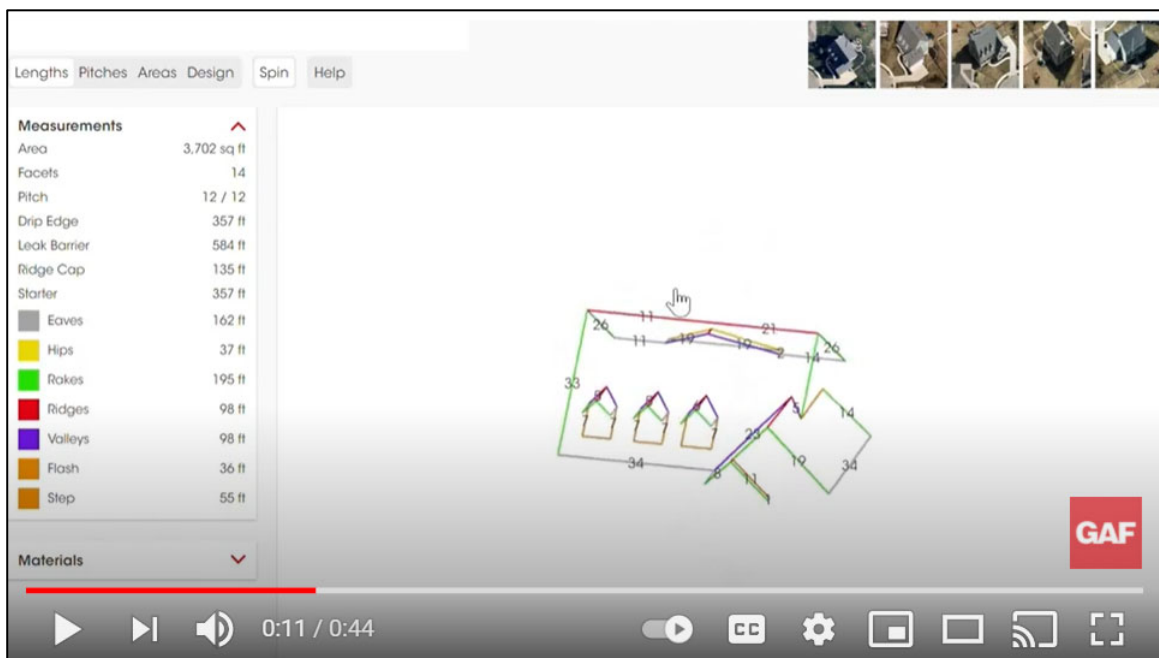


See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

195. QuickMeasure determines a ridge line and a valley line of the roof. For example, the generated report indicates the ridge lines and valley lines on the roof in different colors:



See Ex. 15 at 4.

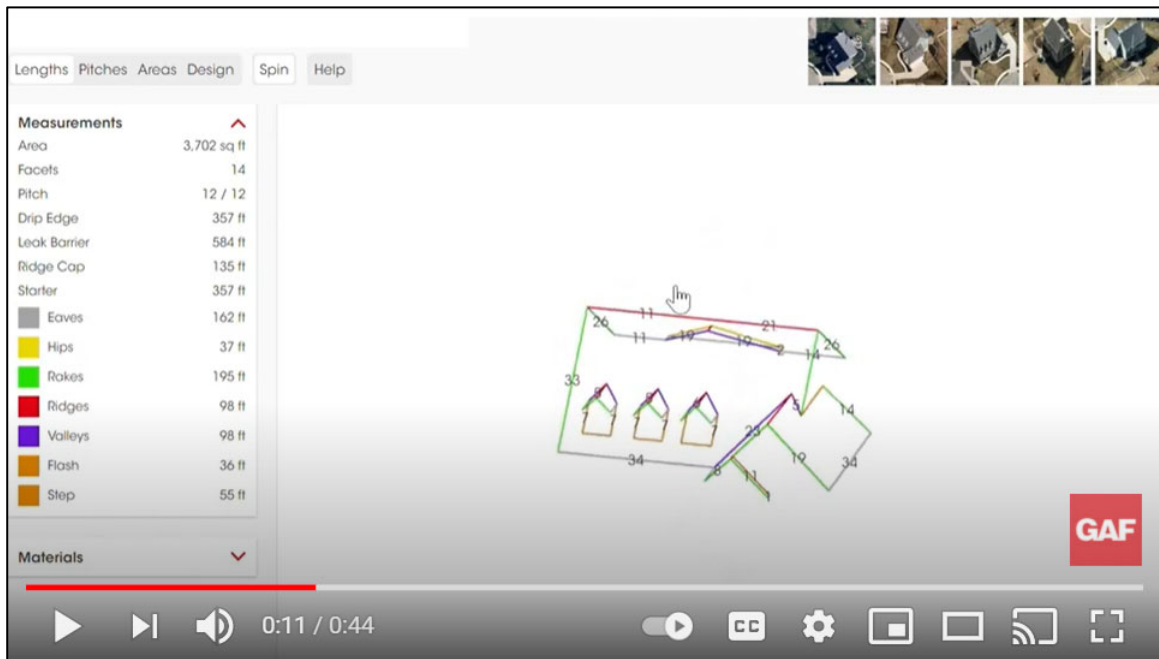


See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

196. QuickMeasure displays, on at least one top plan view of the three-dimensional model included in the roof estimate report, a ridge line in which a property of the ridge line being a ridge line is conveyed by the ridge line being displayed in a first color. For example, the ridge line in the exemplary roof report is red:



See Ex. 15 at 4.

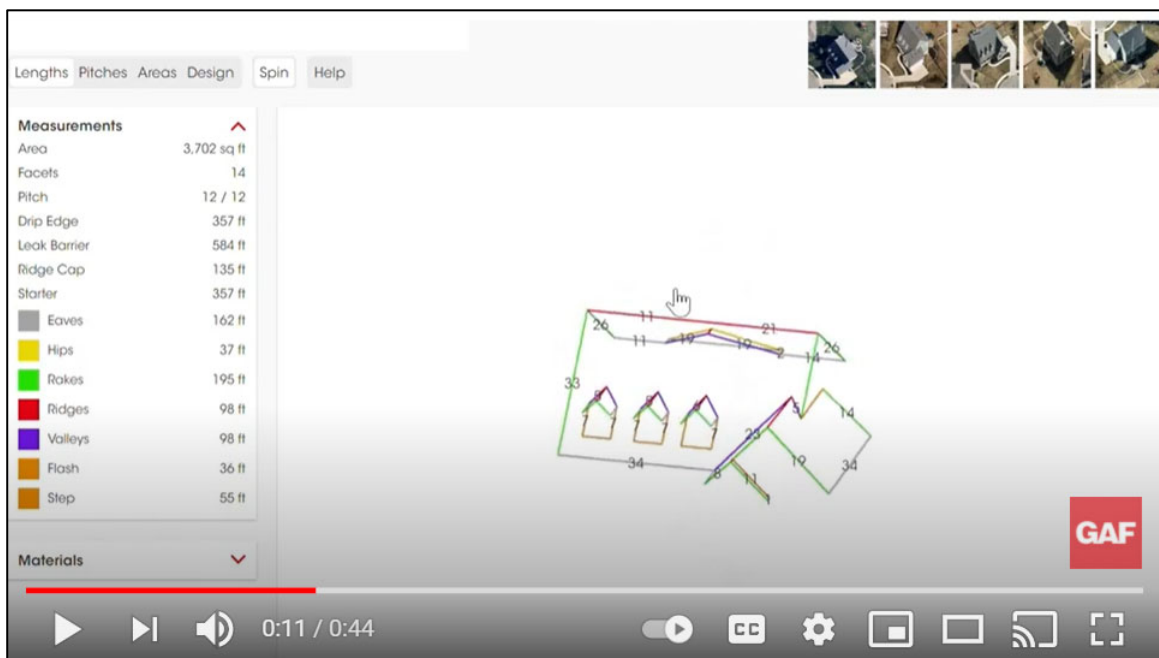


See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

197. QuickMeasure displays, on at least one top plan view of the three-dimensional model included in the roof estimate report, a valley line in which a property of the valley line being a valley line is conveyed by the valley line being a second color different from the first color. For example, the valley line in the exemplary roof report is purple:



See Ex. 15 at 4.





See <https://www.youtube.com/watch?v=HGMJdkPjktw>.


198. QuickMeasure transmits the generated roof report. For example, QuickMeasure sends the generated roof report to a user's email (e.g., "Email(s) to receive this report"):

## Order a roof report

Select property type

 **Single family**

 Multi-family

 Commercial

Enter the address of the property

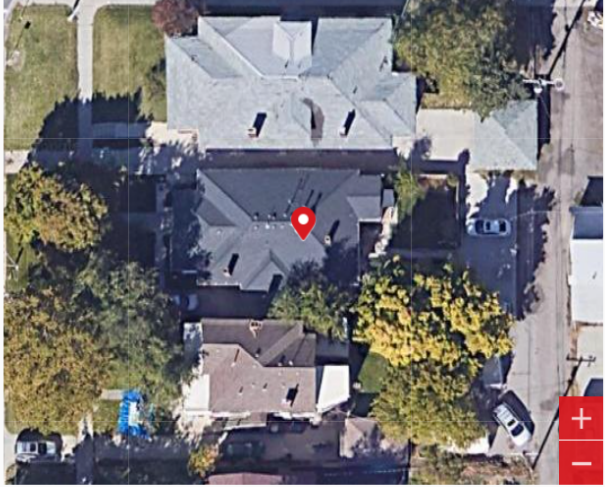
807 S 500 E, Salt Lake City, UT 84102, USA

Enter your primary email

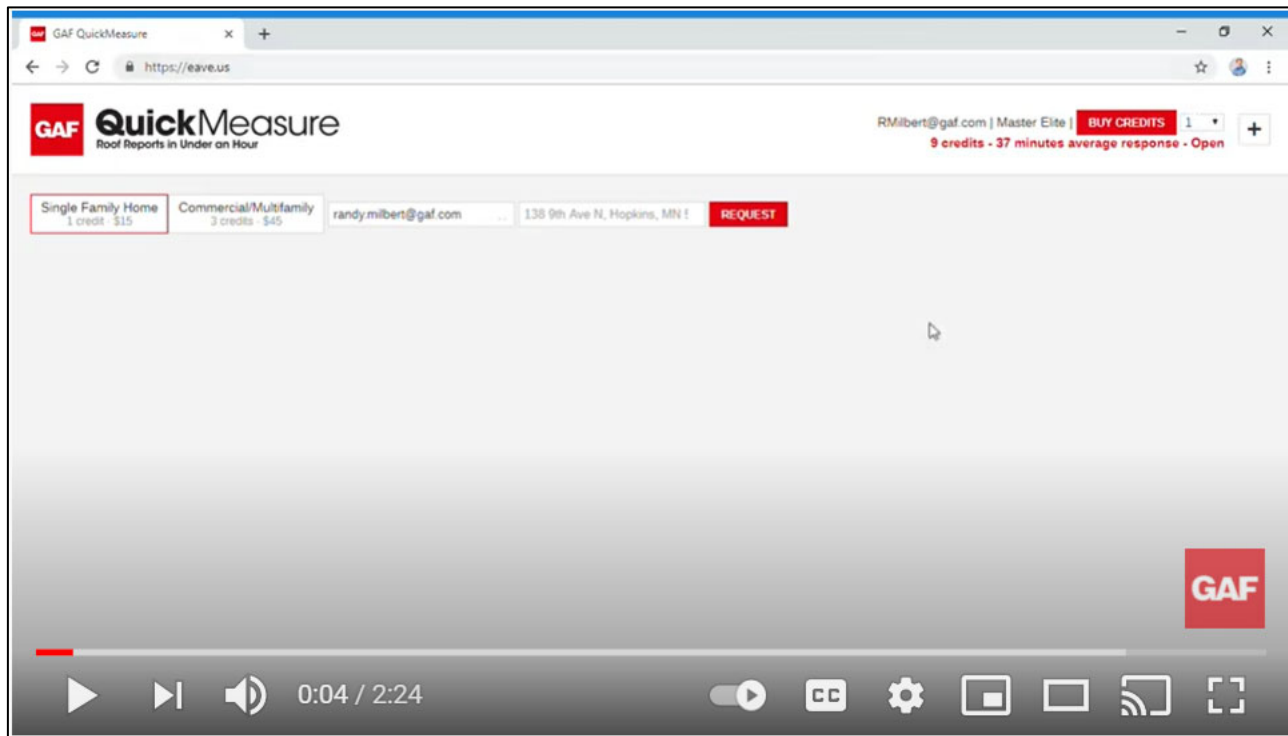
Email(s) to receive this report.

Seperate email addresses with commas. Do not include spaces after each comma.

Drag and drop the pin to **confirm the location** of the property



See Ex. 17 (<https://quickmeasure.gaf.com/guest-home-page>).



See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

199. On information and belief, GAF has had knowledge of the '568 Patent prior to the filing of the instant complaint (and in no case later than the filing of the original complaint on May 4, 2021), including because the '568 Patent is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. GAF's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that GAF monitors EagleView's website, products, roof reports, and patents. *See, e.g.,* <https://www.eagleview.com/>. Additionally, GAF would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '568 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New

Jersey. *See, e.g.,* <https://www.law360.com/articles/1355754/eagleview-s-adventures-in-ip-earn-co-375m-enhanced-win>.

200. In addition to directly infringing the '568 Patent, GAF has in the past and continues to indirectly infringe the '568 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Product. As set forth above, GAF knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Product, by its end users infringes at least one claim of the '568 Patent prior to the filing of the instant complaint. GAF knowingly induced such use of those products in a manner that infringes the '568 Patent, including through at least promotional, advertising, and instructional materials, and GAF had the requisite intent to encourage such infringement. As such, GAF has indirectly infringed and continues to indirectly infringe at least one claim of the '568 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

201. GAF's infringement of the '568 Patent has been and continues to be willful. GAF has acted with knowledge of the '568 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '568 Patent. For example, subsequent to learning of the '568 Patent, GAF continued to make and use rooftop aerial measurement products, including but not limited to the Accused Product, within the United States in a manner that infringes the '568 Patent.



GAF has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '568 Patent. This objectively-defined risk was known or is so obvious that it should have been known to GAF. GAF's infringement of the '568 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

202. GAF's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from GAF the damages sustained by EagleView as a result of GAF's wrongful acts in an amount subject to proof at trial.

203. GAF's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.

204. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

#### **COUNT VIII - INFRINGEMENT OF THE '960 PATENT BY GAF**

205. Plaintiffs reallege paragraphs 1-204 as if fully set forth herein.

206. The USPTO duly and legally issued the '960 Patent on January 7, 2020.

207. GAF has directly and indirectly infringed and continues to directly and indirectly infringe the '960 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Product.

208. GAF makes and uses rooftop aerial measurement products, including but not limited to the Accused Product, within the United States, and as such, GAF

has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '960 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

209. Claim 1 of the '960 Patent recites:

**A process comprising:**

**receiving, by any at least one computer processor that includes a calibration module stored in a non-transitory memory coupled to the at least one processor, a plurality of aerial image files of a building having a roof including a first aerial image file taken from a first viewpoint of the building a second aerial image file taken from a second viewpoint of the building different than the first viewpoint, wherein at least one of the first aerial image file and the second aerial image file has calibration information associated with the at least one of the first aerial image file and the second aerial image file;**

**determining, by any of the at least one computer processor, a pitch and an area of one or more roof sections of the roof based on an image analysis performed on the plurality of aerial image files, wherein the image analysis comprises:**

**constructing a three dimensional model of one or more roof sections by:**

**calibrating at least one of the first and second aerial image files using the calibration information associated with the at least one of the first aerial image file and the second aerial image file to convert a distance in pixels between two points on the respective aerial image file into a physical length;**

**identifying common reference points depicted in at least the first aerial image file and the second aerial image file;**

**identifying, for all such reference points, a location in three-dimensional space by triangulating the reference points by projecting a first line originating from the first viewpoint through one of the reference points and a second line originating from the second viewpoint through the same reference point and determining an intersection of the first and**

second lines; and

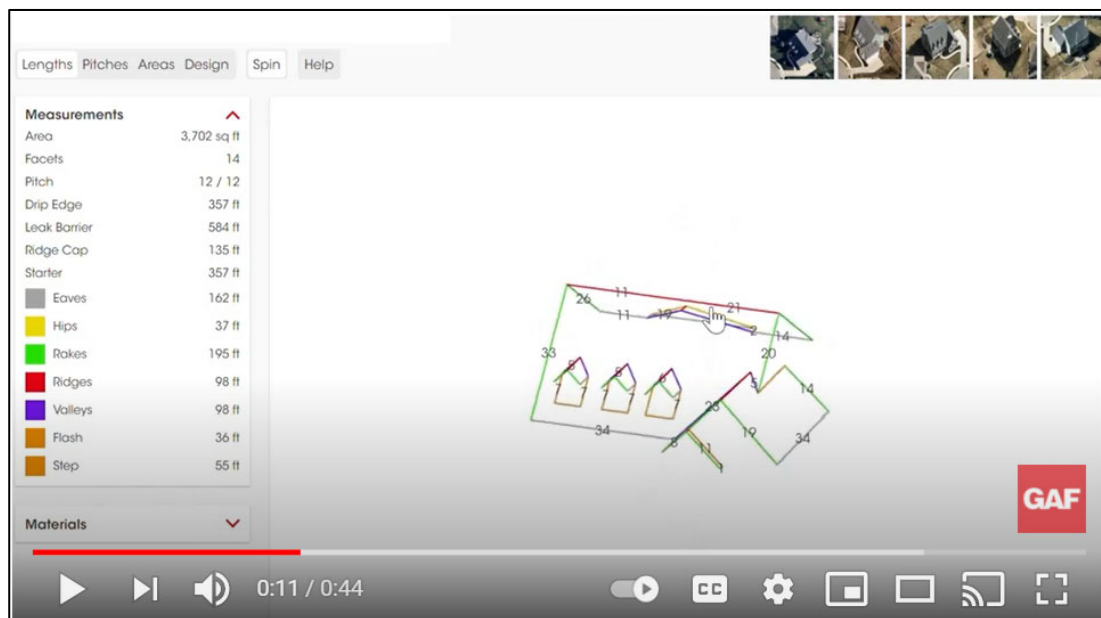
determining physical length between at least two of the reference points in three-dimensional space based at least in part on the calibration;

generating, by any of the at least one computer processor a roof report that includes the pitch and the area of the one or more roof sections based on the determined pitch and area of the one or more roof sections wherein the roof report is useful as a guide to repair or replace the roof of the building, wherein the pitch is indicative of a vertical rise of a roof section over a horizontal run of the roof section; and

outputting the roof report having the determined pitch therein.

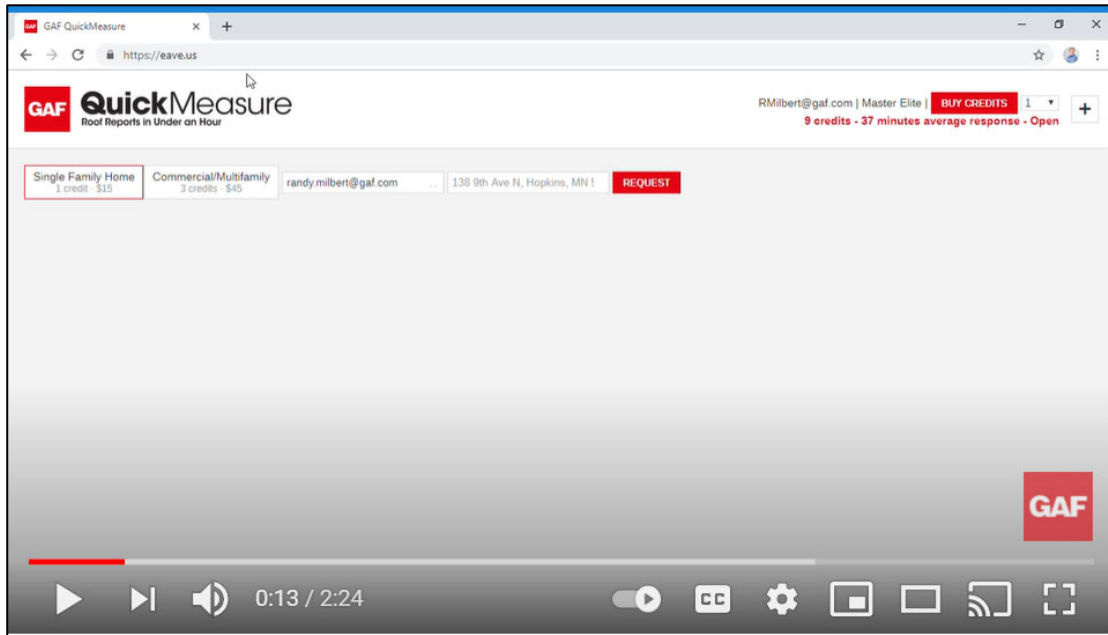
210. GAF's Accused Product infringes at least claim 1 of the '960 Patent. As one example, QuickMeasure infringes claim 1.

211. QuickMeasure uses a computer-implemented process for generating a roof estimate report. For example, as shown below, the process is computer implemented:



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

212. The requesting process is also computer implemented:



See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

213. QuickMeasure also generates a roof estimate report:

# QuickMeasure

Roof Reports in Under an Hour

XYZ Contractor Ave, City, State 00000

January 6, 2021

Prepared For: XYZ Contractor

A  
N

## Contents

Overview	1
Top View	2
Side Views	3
Lengths	4
Pitches	5
Areas	6
Summary	7
Materials	8

## Measurements

Roof Area	4,729 sq ft
Roof Facets	21
Predominant Pitch	9 / 12
Ridges/Hips	293 ft
Valleys	149 ft
Rakes	141 ft
Eaves	236 ft
Bends	0 ft

1

See Ex. 15 at 1.

214. QuickMeasure receives, by any at least one computer processor that includes a calibration module stored in a non-transitory memory coupled to the at least one processor, a plurality of aerial image files of a building having a roof including a first aerial image file taken from a first viewpoint of the building a second aerial image file taken from a second viewpoint of the building different than the first viewpoint, wherein at least one of the first aerial image file and the second aerial image file has calibration information associated with the at least one of the first aerial image file and the second aerial image file. For example, a top down view of the building and multiple oblique views of the building are displayed and included in the report:

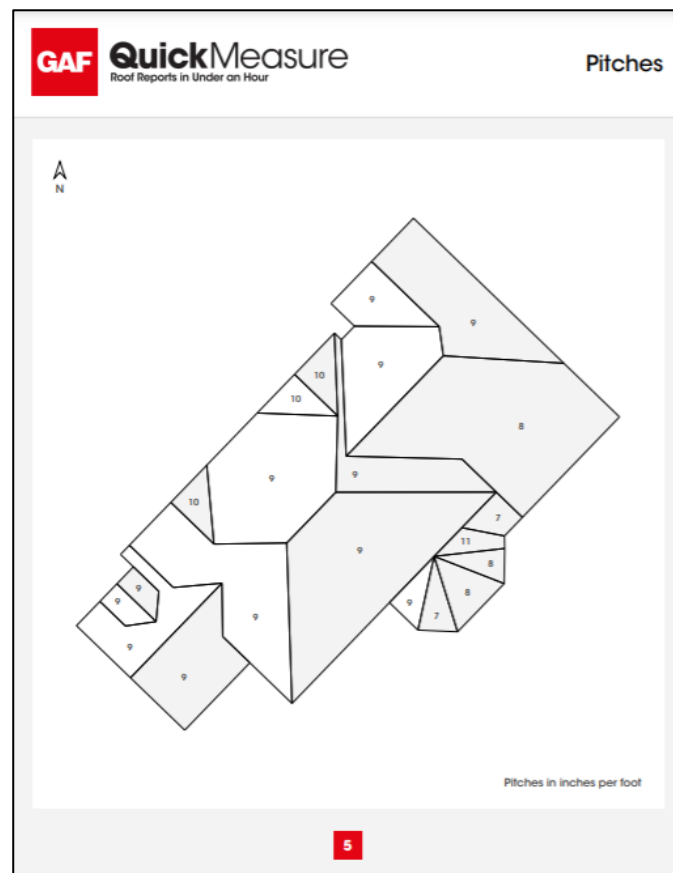


See Ex. 15 at 2-3.

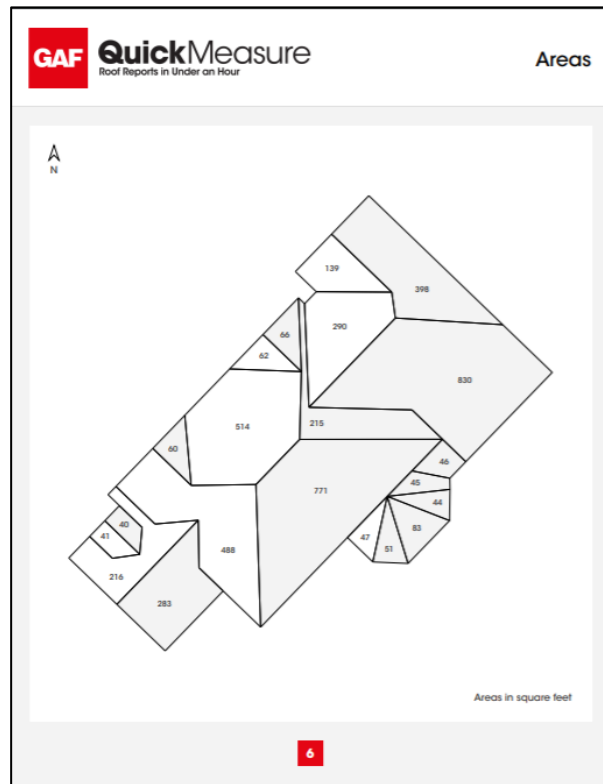
215. The computer processor includes a calibration module stored in a non-

transitory memory coupled to the at least one processor (which is necessary to process the images), and the images have calibration information associated with them, such as, for example the height and angle from which they were taken. This is necessary in order to calculate the measurements included in the roof report.

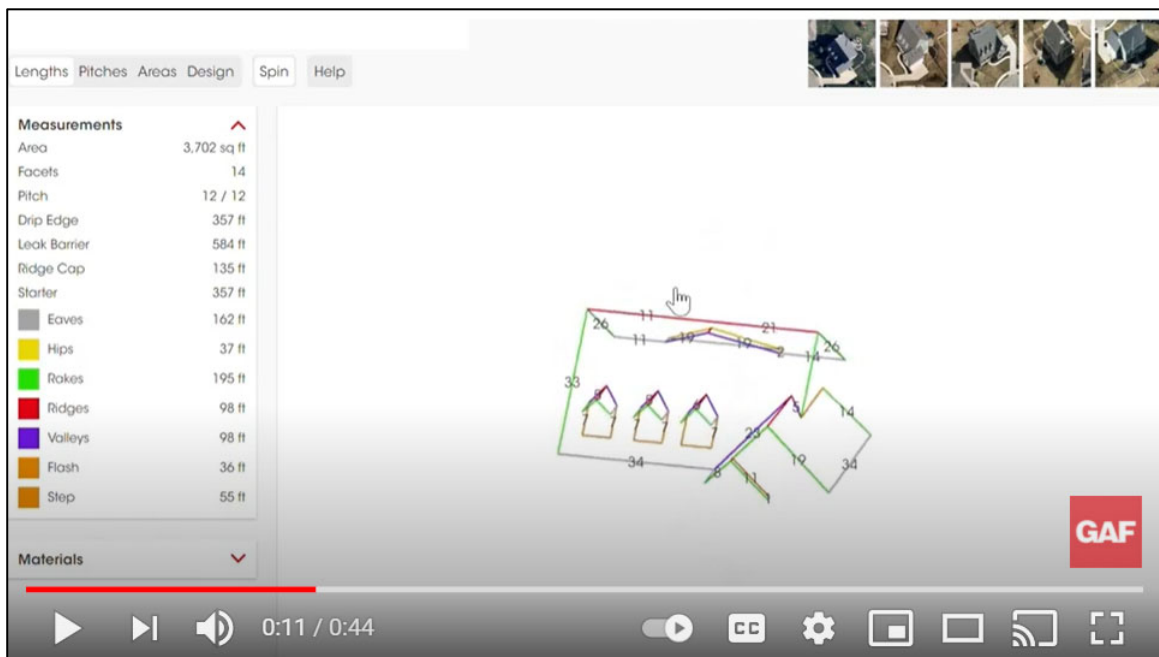
216. QuickMeasure determines, by any of the at least one computer processor, a pitch and an area of one or more roof sections of the roof based on an image analysis performed on the plurality of aerial image files. For example, the generated roof report includes the pitch and area for all roof sections:



See Ex. 15 at 5.



See Ex. 15 at 6.



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

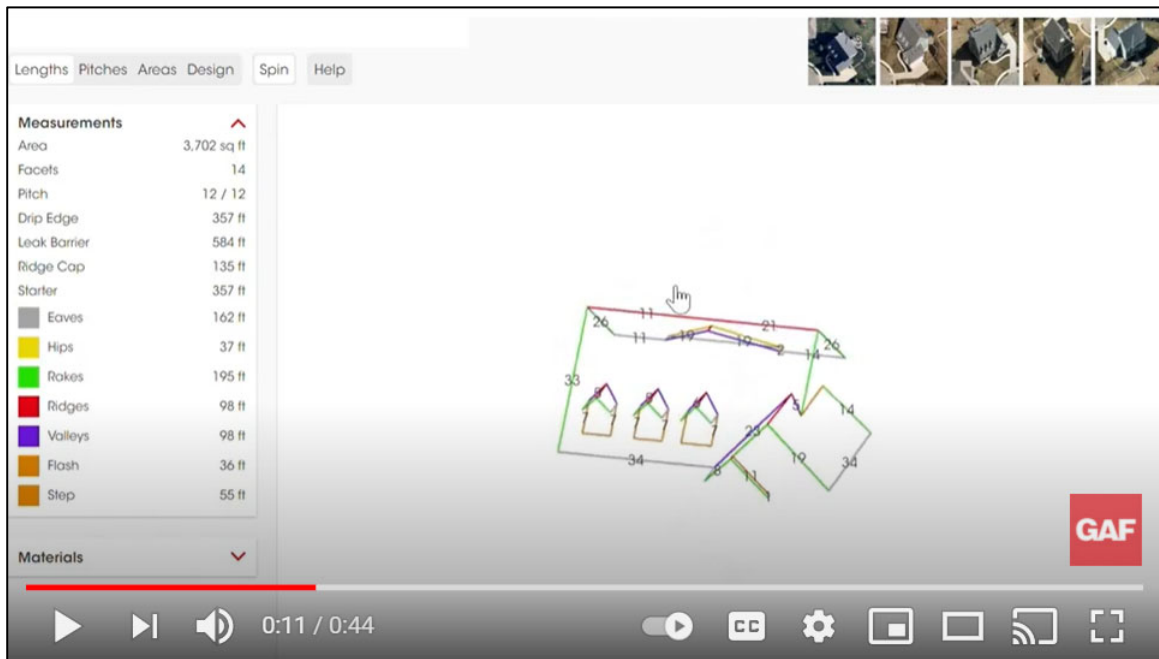
217. QuickMeasure constructs a three dimensional model of one or more roof

sections. For example, the roof report includes a three dimensional model of all roof sections:



See Ex. 15 at 4.





See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

218. QuickMeasure calibrates at least one of the first and second aerial image files using the calibration information associated with the at least one of the first aerial image file and the second aerial image file to convert a distance in pixels between two points on the respective aerial image file into a physical length. For example, in order to calculate the physical length measurements included in the roof report, QuickMeasure uses a calibration modules that analyzes and calibrates information associated with the aerial images (such as, for example, the height and angle from which they were taken) by converting the distance in pixels to a physical length as claimed.

219. QuickMeasure identifies common reference points depicted in at least the first aerial image file and the second aerial image file. For example, in order to

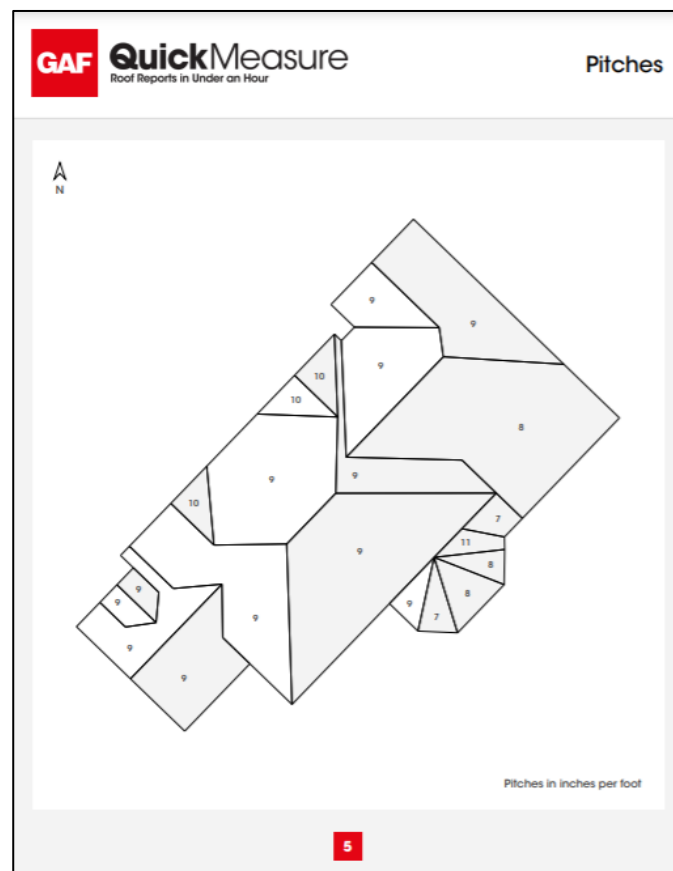
calculate the physical length measurements included in the roof report, QuickMeasure uses a calibration modules that analyzes and calibrates information associated with the aerial images (such as, for example, the height and angle from which they were taken) by identifying common reference points as claimed.

220. QuickMeasure identifies, for all such reference points, a location in three-dimensional space by triangulating the reference points by projecting a first line originating from the first viewpoint through one of the reference points and a second line originating from the second viewpoint through the same reference point and determining an intersection of the first and second lines. For example, in order to calculate the physical length measurements included in the roof report, QuickMeasure uses a calibration modules that analyzes and calibrates information associated with the aerial images (such as, for example, the height and angle from which they were taken) by triangulating the reference points as claimed. *See also*, e.g., <https://www.bigmarker.com/jobprogress/JobProgress-QuickMeasure-now-live?bmid=7162652c195a> (GAF's Director of Marketing, Vishal Laddha, stating that "We do have a human QA at the end ... because ... a human eye is better than any computer when it comes to making sure the measurements, ... the lines are properly drawn by the computer.").

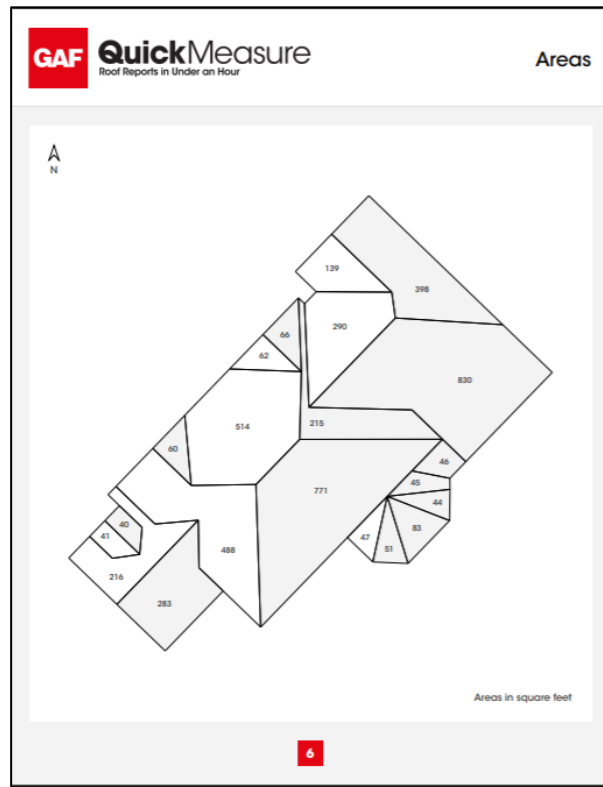
221. QuickMeasure determines physical length between at least two of the reference points in three-dimensional space based at least in part on the calibration.

For example, in order to calculate the physical length measurements included in the roof report, QuickMeasure uses a calibration modules that analyzes and calibrates information associated with the aerial images (such as, for example, the height and angle from which they were taken) as claimed.

222. QuickMeasure generates, by any of the at least one computer processor a roof report that includes the pitch and the area of the one or more roof sections based on the determined pitch and area of the one or more roof sections wherein the roof report is useful as a guide to repair or replace the roof of the building, wherein the pitch is indicative of a vertical rise of a roof section over a horizontal run of the roof section. For example, the pitch and area are included for all sections of the roof:



See Ex. 15 at 5.



See Ex. 15 at 6.

223. QuickMeasure describes how the roof report is useful as a guide to repair or replace the roof of the building, for example by providing roof reports to remodeling companies, providing lists of materials required for the roof, and/or assisting with payments from insurance companies for roof repair:

"The Quick Measure service is **quick and accurate**. I'm saving a lot of time and money on my estimating needs."

Lester Waxman  
Classic Remodeling Corp.

See Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>).

**A complete materials list  
based on measurement**  
Not available on commercial reports

		Waste	0%	10%	15%	20%
<b>Timberline Products</b>						
HDE, HD, Natural Shadow, American Harvest, Reflector, Royal Sovereign, and Cool Series	bundle	142	156	163	170	
<b>Starter</b>						
WeatherBlocker	bundle	4	5	5	5	
Pro-Start	bundle	4	4	4	4	
Quick-Start	roll	12	13	14	15	
<b>Roof Deck Protection *</b>						
Deck-Armor, Tiger Paw, FeltBuster 10 sq	roll	5	6	6	6	
Shingle-Mate	roll	12	13	14	14	
VersaShield	roll	14	15	16	16	
<b>Leak Barrier *</b>						
StormGuard, WeatherWatch 2 sq	roll	12	13	14	14	
WeatherWatch 1.5 sq	roll	16	18	18	19	
<b>Ridge Cap</b>						
Seal-A-Ridge	bundle	12	13	14	14	
TimberTite	bundle	15	16	17	17	
2-Ridge	bundle	9	10	10	11	
TimberCrest	box	15	16	17	17	
<b>Ventilation</b>						
BigD Vent 3, Snow Country, Snow Country Advanced, Hip Vent, IntakePro, Exhaust Vent (Mesh), RidgeRunner, Master Flow Vents						
GAF recommends at least one square foot of attic ventilation (evenly split between intake and exhaust) for every 300 square feet of attic floor space. Visit the GAF ventilation calculator for more information at <a href="http://www.gaf.com/ventcalculator">www.gaf.com/ventcalculator</a> .						

See Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>).

The more you're able to use digital tools to automate your estimating process, the more estimates you will be able to perform, and the more work you can schedule. Using these tools helps you speak the same language as insurance companies, which may help lead to additional approved work and even expedited payment.


See Ex. 18 (<https://www.gaf.com/en-us/blog/how-to-use-digital-tools-to-speed-up-storm-repair-estimates-281474980041161>).


224. QuickMeasure outputs the roof report having the determined pitch


therein. For example, QuickMeasure sends the generated roof report to a user's email (e.g., "Email(s) to receive this report"):

## Order a roof report

Select property type

 **Single family**

 Multi-family

 Commercial

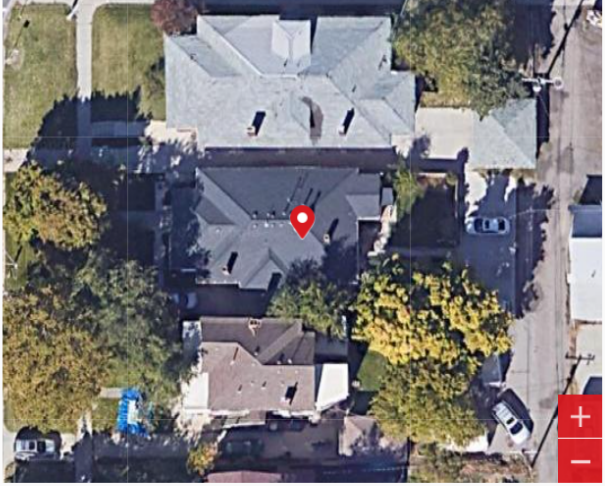
Enter the address of the property

807 S 500 E, Salt Lake City, UT 84102, USA

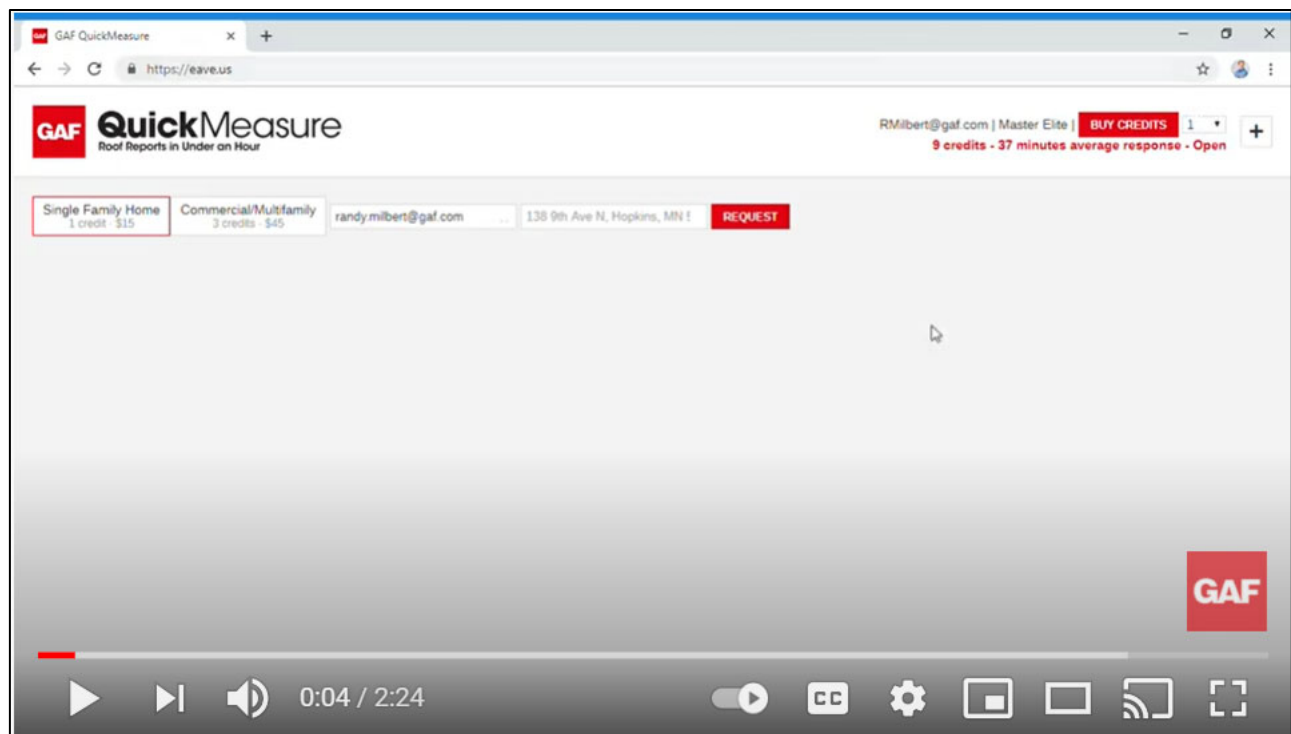
Enter your primary email

Email(s) to receive this report.  
Separate email addresses with commas. Do not include spaces after each comma.

Drag and drop the pin to confirm the location of the property

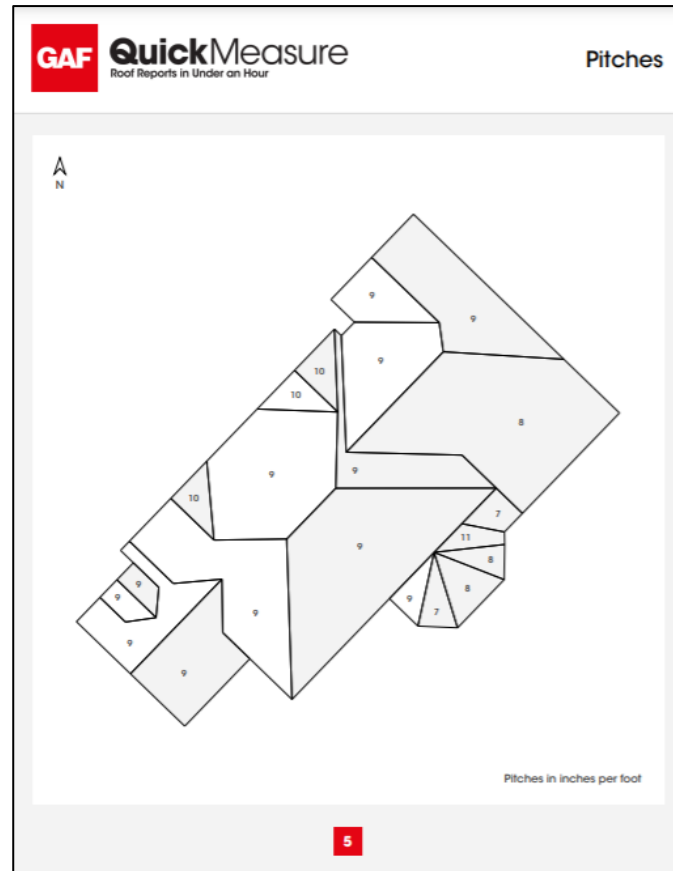


See Ex. 17 (<https://quickmeasure.gaf.com/guest-home-page>).

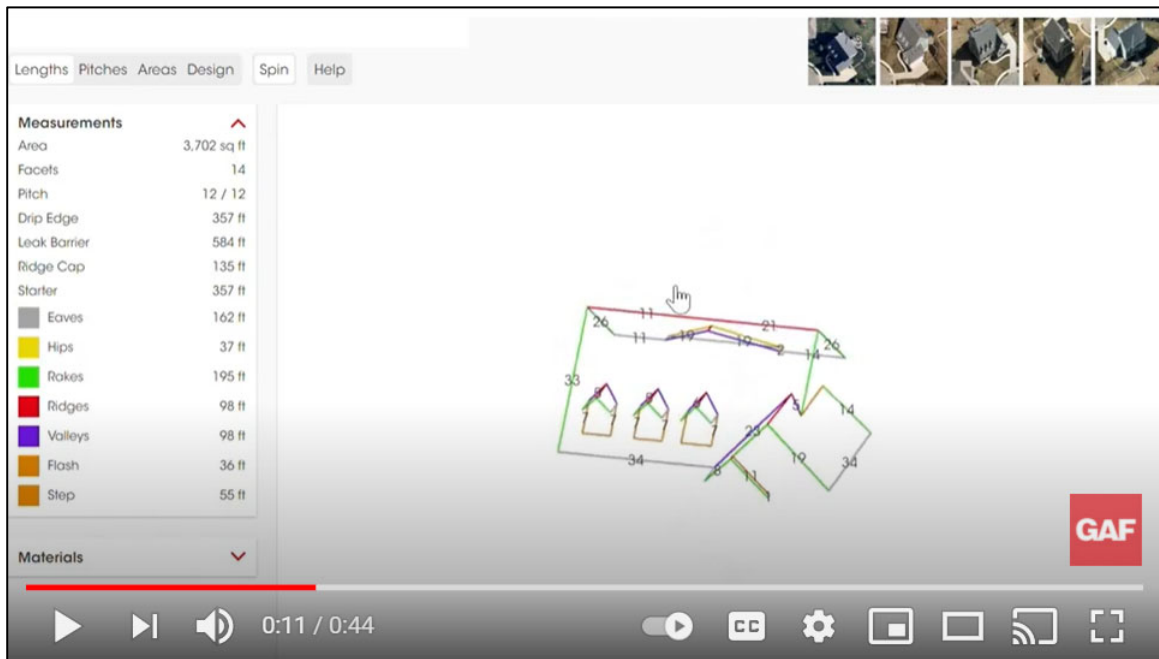


See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

225. The outputted report includes the pitch information:



*See* Ex. 15 at 5.



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

226. On information and belief, GAF has had knowledge of the '960 Patent prior to the filing of the instant complaint (and in no case later than the filing of the original complaint on May 4, 2021), including because the '960 Patent is a direct continuation of Application No. 12/148,439, now U.S. Pat. No. 8,145,578, which is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. GAF's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that GAF monitors EagleView's website, products, roof reports, and patents. *See, e.g.,* <https://www.eagleview.com/>. Additionally, GAF would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '960 Patent, in light of EagleView's recent successful litigation



against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.,* <https://www.law360.com/articles/1355754/eagleview-s-adventures-in-ip-earn-co-375m-enhanced-win>.

227. In addition to directly infringing the '960 Patent, GAF has in the past and continues to indirectly infringe the '960 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Product. As set forth above, GAF knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Product, by its end users infringes at least one claim of the '960 Patent prior to the filing of the instant complaint. GAF knowingly induced such use of those products in a manner that infringes the '960 Patent, including through at least promotional, advertising, and instructional materials, and GAF had the requisite intent to encourage such infringement. As such, GAF has indirectly infringed and continues to indirectly infringe at least one claim of the '960 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

228. GAF's infringement of the '960 Patent has been and continues to be willful. GAF has acted with knowledge of the '960 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '960 Patent. For example, subsequent to learning of the '960 Patent, GAF continued to make and use rooftop aerial measurement products, including but not limited to the

Accused Product, within the United States in a manner that infringes the '960 Patent. GAF has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '960 Patent. This objectively-defined risk was known or is so obvious that it should have been known to GAF. GAF's infringement of the '960 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

229. GAF's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from GAF the damages sustained by EagleView as a result of GAF's wrongful acts in an amount subject to proof at trial.

230. GAF's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.

231. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

#### **COUNT IX - INFRINGEMENT OF THE '149 PATENT BY GAF**

232. Plaintiffs reallege paragraphs 1-231 as if fully set forth herein.

233. The USPTO duly and legally issued the '149 Patent on June 16, 2020.

234. GAF has directly and indirectly infringed and continues to directly and indirectly infringe the '149 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Product.

235. GAF makes and uses rooftop aerial measurement products, including

but not limited to the Accused Product, within the United States, and as such, GAF has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '149 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

236. Claim 1 of the '149 Patent recites:

**A computer-implemented method, comprising:**

**displaying an aerial image of a building having a roof comprising a plurality of planar roof sections that each have a corresponding pitch;**

**displaying an interactive user interface control configured to be manipulated by an operator to align with a slope of a first planar roof section of the plurality of planar roof sections in order to specify pitch of the first planar roof section, wherein the interactive user interface control is overlaid on the aerial image of the building having the roof;**

**receiving, based on alignment of the displayed interactive user interface control, an indication of the pitch of the first planar roof section of the plurality of planar roof sections of the roof of the building;**

**modifying a model of the roof based on the received indication of the pitch of the first planar roof section; and**

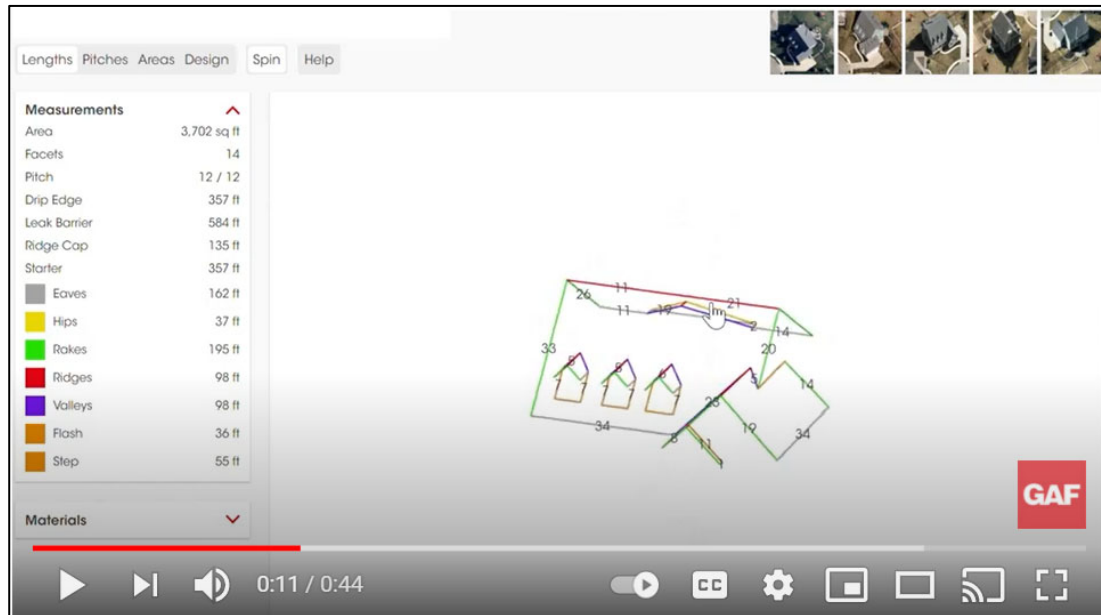
**generating and output a roof estimate report using a report generation engine, wherein the roof estimate report includes numerical values annotated with corresponding slope, pitches, total area of the roof, identification and measurement of ridges and valleys of the roof, different elevation views rendered from a 3D model of the roof, and lengths of corresponding roof section for each line segment of edges of a plurality of planar roof sections of the roof,**

**wherein the generated roof estimate report is provided for repair or construction of a corresponding roof structure of the building.**

237. GAF's Accused Product infringes at least claim 1 of the '149 Patent, including by GAF's use of the Accused Product to perform the claimed method. As

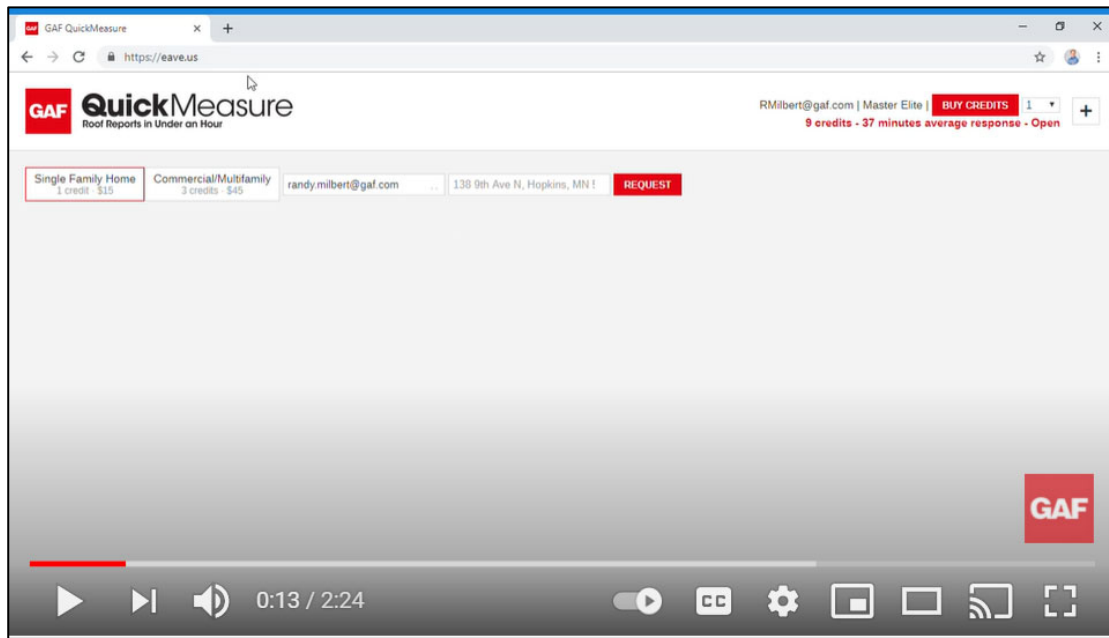
one example, QuickMeasure infringes claim 1.

238. QuickMeasure uses a computer-implemented method for generating a roof estimate report. For example, as shown below, the method is computer implemented:



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

239. The requesting process is also computer implemented:



See [https://www.youtube.com/watch?v=FZb\\_wuXz-aw](https://www.youtube.com/watch?v=FZb_wuXz-aw).

240. QuickMeasure also generates a roof estimate report:

# QuickMeasure

Roof Reports in Under an Hour

XYZ Contractor Ave, City, State 00000

January 6, 2021

Prepared For: XYZ Contractor

A  
N

## Contents

Overview	1
Top View	2
Side Views	3
Lengths	4
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Materials	8

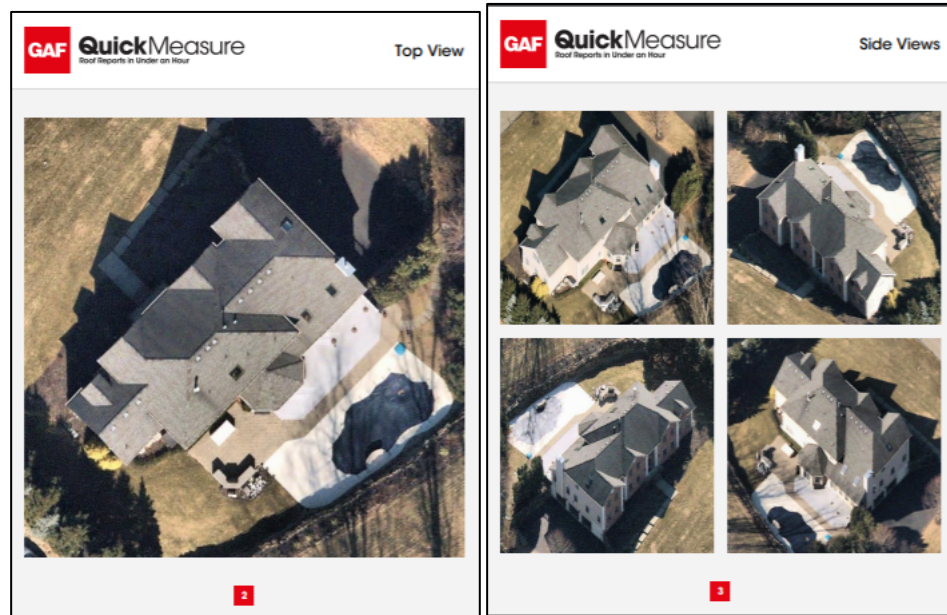
## Measurements

Roof Area	4,729 sq ft
Roof Facets	21
Predominant Pitch	9 / 12
Ridges/Hips	293 ft
Valleys	149 ft
Rakes	141 ft
Eaves	236 ft
Bends	0 ft

1

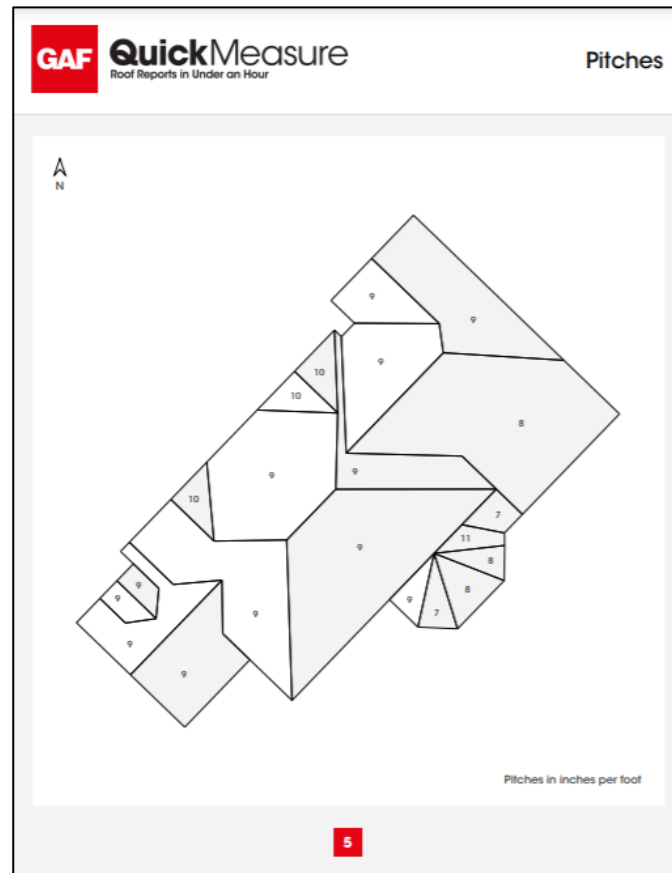
See Ex. 15 at 1.

241. QuickMeasure displays an aerial image of a building having a roof comprising a plurality of planar roof sections that each have a corresponding pitch. For example, images of both a top down view of the building and oblique images of the building are displayed and included in the report:



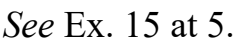
*See Ex. 15 at 2-3.*

242. QuickMeasure displays an interactive user interface control configured to be manipulated by an operator to align with a slope of a first planar roof section of the plurality of planar roof sections in order to specify pitch of the first planar roof section, wherein the interactive user interface control is overlaid on the aerial image of the building having the roof. For example, in order to calculate the pitch that is included in the roof report, a user manipulates an interactive user interface control, such as a pitch determination marker, to specify the pitch of the roof sections shown in the pictures:



See Ex. 15 at 5; see also, e.g., <https://www.bigmarker.com/jobprogress/JobProgress-QuickMeasure-now-live?bmid=7162652c195a> (GAF’s Director of Marketing, Vishal Laddha, stating that “We do have a human QA at the end ... because ... a human eye is better than any computer when it comes to making sure the measurements, ... the lines are properly drawn by the computer.”)..

243. QuickMeasure receives, based on alignment of the displayed interactive user interface control, an indication of the pitch of the first planar roof section of the plurality of planar roof sections of the roof of the building. For example, based on the user aligning the pitch determination marker in the user interface, QuickMeasure receives an indication of pitch, which is then included in the generated roof report for



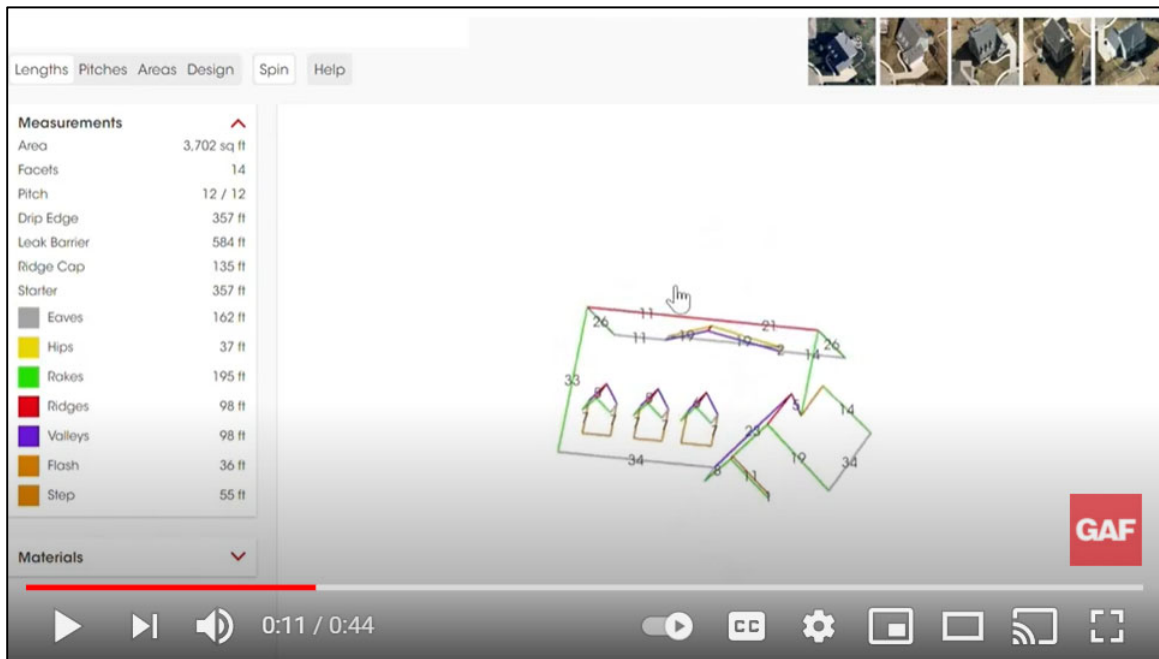


See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

244. QuickMeasure modifies a model of the roof based on the received indication of the pitch of the first planar roof section. For example, the model of the roof that is included in the final roof report has been modified based on the received indication of the pitch from the user in the user interface:



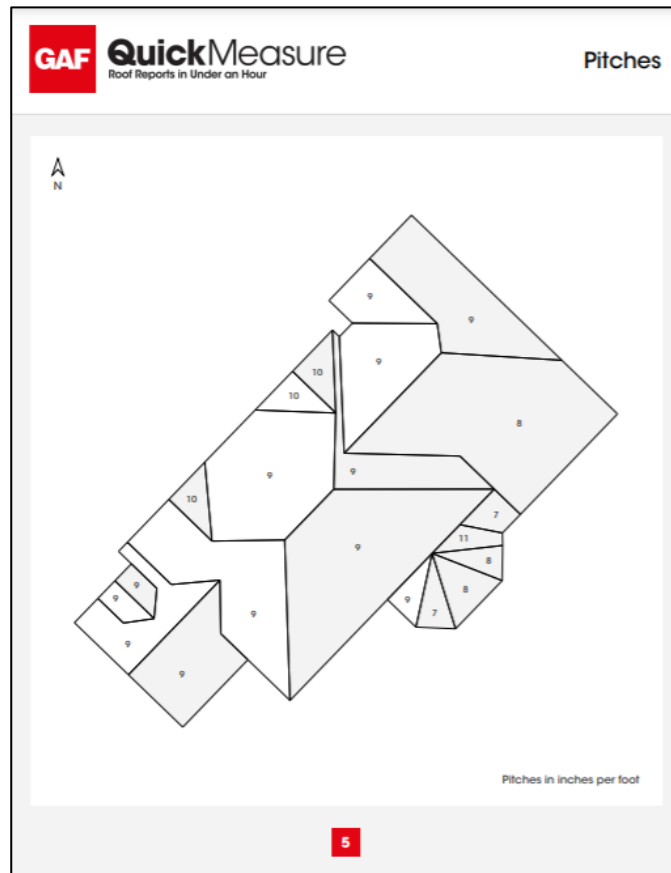
See Ex. 15 at 4.



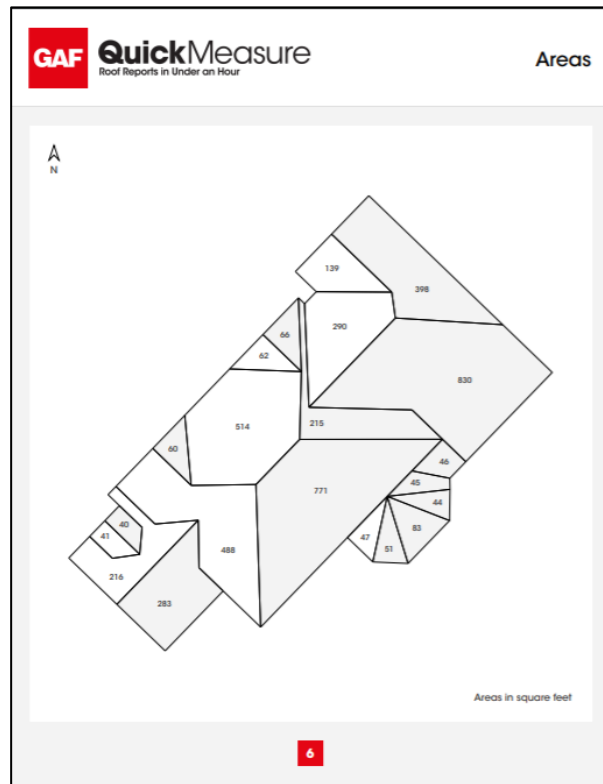
See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

245. QuickMeasure generates and outputs a roof estimate report using a report generation engine, wherein the roof estimate report includes numerical values annotated with corresponding slope, pitches, total area of the roof, identification and measurement of ridges and valleys of the roof, different elevation views rendered from a 3D model of the roof, and lengths of corresponding roof section for each line segment of edges of a plurality of planar roof sections of the roof, wherein the generated roof estimate report is provided for repair or construction of a corresponding roof structure of the building.

246. For example, the generated roof report includes the pitch, area, and length of edges for all roof sections, including the totals, and identifies and measures all roof features, including ridges, valleys, different elevation views, and lengths:



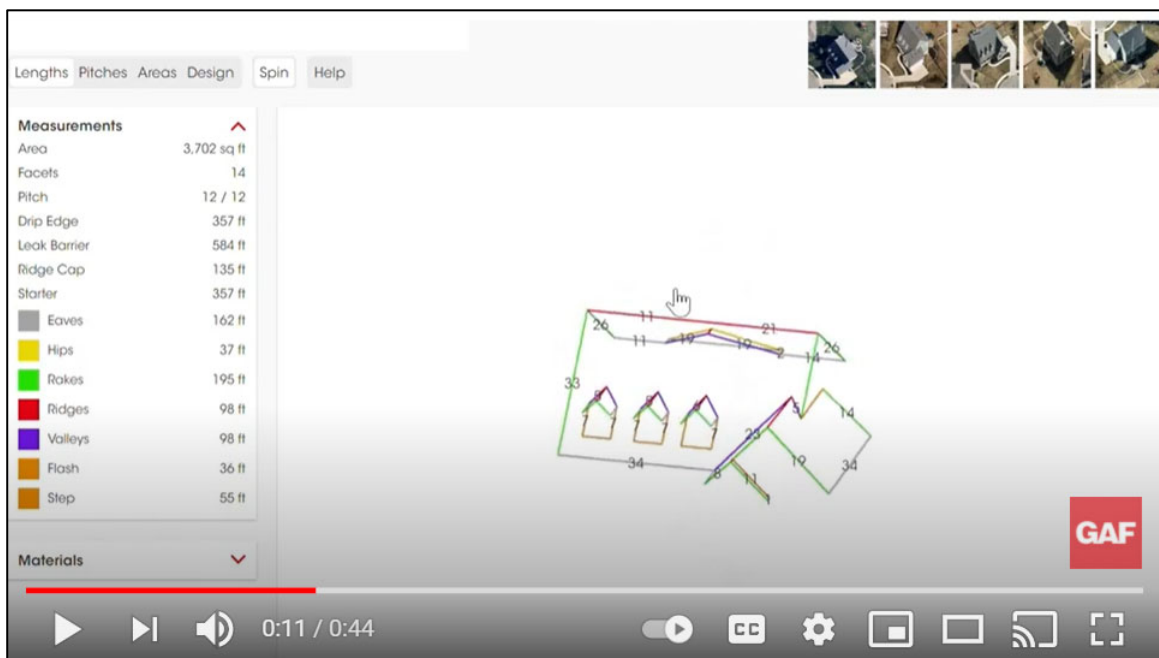
See Ex. 15 at 5.



See Ex. 15 at 6.



See Ex. 15 at 4.



See <https://www.youtube.com/watch?v=HGMJdkPjktw>.

247. The generated roof estimate report is provided for repair or construction of a corresponding roof structure of the building:



See Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>).

**A complete materials list  
based on measurement**

Not available on commercial reports

	Waste	0%	10%	15%	20%
<b>Timberline Products</b>					
HDE, HD, Natural Shadow, American Harvest, Reflector, Royal Sovereign, and Cool Series	bundle	142	156	163	170
<b>Starliner</b>					
WeatherBlocker	bundle	4	5	5	5
Pro-Start	bundle	4	4	4	4
Quick-Start	roll	12	13	14	15
<b>Roof Deck Protection *</b>					
Deck-Armor, Tiger Paw, FeltBuster 10 sq	roll	5	6	6	6
ShingleMate	roll	12	13	14	14
VersaShield	roll	14	15	16	16
<b>Leak Barrier *</b>					
StormGuard, WeatherWatch 2 sq	roll	12	13	14	14
WeatherWatch 1.5 sq	roll	16	18	18	19
<b>Ridge Cap</b>					
Seal-A-Ridge	bundle	12	13	14	14
TimberTex	bundle	15	16	17	17
Z-Ridge	bundle	9	10	10	11
TimberCrest	box	15	16	17	17
<b>Ventilation</b>					
Rigid Vent 3, Snow Country, Snow Country Advanced, Hip Vent, IntakePro, Exhaust Vent (Mesh), RidgeRunner, Master Flow Vents					

GAF recommends at least one square foot of attic ventilation (evenly split between intake and exhaust) for every 300 square feet of attic floor space. Visit the GAF ventilation calculator for more information at [www.gaf.com/ventcalculator](http://www.gaf.com/ventcalculator).

See Ex. 16 (<https://www.gaf.com/en-us/quickmeasure>).

The more you're able to use digital tools to automate your estimating process, the more estimates you will be able to perform, and the more work you can schedule. Using these tools helps you speak the same language as insurance companies, which may help lead to additional approved work and even expedited payment.

See Ex. 18 (<https://www.gaf.com/en-us/blog/how-to-use-digital-tools-to-speed-up->

storm-repair-estimates-281474980041161).

248. On information and belief, GAF has had knowledge of the '149 Patent prior to the filing of the instant complaint (and in no case later than the filing of the original complaint on May 4, 2021). For example, the '149 patent is a family member of U.S. Pat. No. 9,129,376, U.S. Pat. No. 8,818,770, and U.S. Pat. No. 8,170,840, all of which were asserted by EagleView in a recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.*, <https://www.law360.com/articles/1355754/eagleview-s-adventures-in-ip-earn-co-375m-enhanced-win>. Thus, GAF would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '149 Patent. Additionally, the '770 and '840 Patents, which are family members of the '149 Patent, are identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. GAF's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that GAF monitors EagleView's website, products, roof reports, and patents. *See, e.g.*, <https://www.eagleview.com/>.

249. In addition to directly infringing the '149 Patent, GAF has in the past and continues to indirectly infringe the '149 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Product. As set forth above, GAF knew or should have

known that use of rooftop aerial measurement products, including but not limited to the Accused Product, by its end users infringes at least one claim of the '149 Patent prior to the filing of the instant complaint. GAF knowingly induced such use of those products in a manner that infringes the '149 Patent, including through at least promotional, advertising, and instructional materials, and GAF had the requisite intent to encourage such infringement. As such, GAF has indirectly infringed and continues to indirectly infringe at least one claim of the '149 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

250. GAF's infringement of the '149 Patent has been and continues to be willful. GAF has acted with knowledge of the '149 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '149 Patent. For example, subsequent to learning of the '149 Patent, GAF continued to make and use rooftop aerial measurement products, including but not limited to the Accused Product, within the United States in a manner that infringes the '149 Patent. GAF has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '149 Patent. This objectively-defined risk was known or is so obvious that it should have been known to GAF. GAF's infringement of the '149 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

251. GAF's acts of infringement have caused damage to EagleView, and



EagleView is entitled to recover from GAF the damages sustained by EagleView as a result of GAF's wrongful acts in an amount subject to proof at trial.

252. GAF's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.

253. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

### **PRAYER FOR RELIEF**

254. WHEREFORE, Plaintiffs respectfully pray for the following relief:

A. For entry of judgment by this Court against GAF and in favor of Plaintiffs in all respects, including that GAF has and continues to directly infringe and/or indirectly infringe, by way of inducement, the '436, '840, '152, '880, '961, '376, '568, '960, and '149 Patents;

B. For an order permanently enjoining GAF, and its officers, directors, shareholders, agents, servants, employees, attorneys, all parent, subsidiary and affiliate corporations, their successors in interest and assigns, and all other entities and individuals acting in concert with it or on its behalf, including customers, from making, importing, using, offering for sale, and/or selling any product or service falling within the scope of any claim of the '436, '840, '152, '880, '961, '376, '568, '960, and '149 Patents, including the Accused Product, or otherwise infringing any claim of the '436, '840, '152, '880, '961, '376, '568, '960, and '149 Patents;

C. Alternatively, in the event that an injunction does not issue, that this Court award a compulsory ongoing future royalty;

D. For damages arising from GAF's infringement of the '436, '840, '152, '880, '961, '376, '568, '960, and '149 Patents, including lost profits suffered by Plaintiffs as a result of GAF's infringement and in an amount not less than a reasonable royalty, together with pre-judgment and post-judgment interest;

E. That this Court declare GAF's infringement to be willful and award increased damages in an amount not less than three times the damages assessed for GAF's infringement to Plaintiffs for the period of such willful infringement pursuant to 35 U.S.C. § 284;

F. That this Court declare this to be an exceptional case pursuant to 35 U.S.C. § 285 and award Plaintiffs their attorneys' fees;

G. That Plaintiffs be awarded costs of court; and

H. For such other and further relief as the Court may deem just and proper.

### **DEMAND FOR JURY TRIAL**

255. Pursuant to Fed. R. Civ. P. 38(b), Plaintiffs respectfully demand a jury trial on any and all issues triable as of right by a jury in this action.

Dated: July 23, 2021

Respectfully submitted,

By: /s/ Liza M. Walsh

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*Attorneys for Plaintiffs Eagle View Technologies, Inc.  
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**LOCAL RULE 11.2 CERTIFICATION**

Pursuant to Local Civil Rules 11.2 and 40.1, I hereby certify that the matter in controversy in this action is related to the following actions: *Eagle View Technology, Inc., et al. v. Xactware Solutions, Inc., et al.*, Civil Action No. 1:15-cv-07025 (RMB-JS) pending before the United States District Court for the District of New Jersey; *Eagle View Technologies, Inc., et al. v. Xactware Solutions, Inc., et al.* Nos. 21-1048, 21-1049, 21-1743 pending before the United States Court of Appeals for the Federal Circuit; and *Eagle View Technologies, Inc., et al. v. Nearmap US, Inc.*, Civil Action No. 2:21-cv-00283 (TS)(DAO) pending before the United States District Court for the District of Utah.

I further certify that, to the best of my knowledge, the matter in controversy is not the subject of any other action pending in any court, or of any pending arbitration or administrative proceeding. In addition, I recognize a continuing obligation during the course of this litigation to file and to serve on all other parties and with the Court an amended certification if there is a change in the facts stated in this original certification.

Dated: July 23, 2021

/s/ Liza M. Walsh

Liza M. Walsh

Hector D. Ruiz

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*Attorneys for Plaintiffs Eagle View Technologies, Inc.  
and Pictometry International Corp.*

**LOCAL RULE 201.1 CERTIFICATION**

I hereby certify that the above-captioned matter is not subject to compulsory arbitration in that the Plaintiff seeks, inter alia, injunctive relief.

Dated: July 23, 2021

/s/ Liza M. Walsh

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