Trials@uspto.gov
571-272-7822

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROOFR INC.,
Petitioner

v.

PICTOMETRY INTERNATIONAL CORP.,
Patent Owner.

IPR2023-00435 (Patent 10,648,800 B2)
IPR2023-00436 (Patent 9,183,538 B2)

Record of Oral Hearing
Held: April 23, 2024

Before STACEY G. WHITE, GARTH D. BAER, and RUSSELL E. CASS, *Administrative Patent Judges*.

APPEARANCES:

ON BEHALF OF THE PETITIONER:

JAMES GLASS, ESQUIRE
SCOTT BAKER, ESQUIRE
Quinn Emanuel Urquhart & Sullivan, LLP
1300 I Street NW
Suite 900
Washington, D.C. 20005

ON BEHALF OF THE PATENT OWNER:

MICHAEL SPECHT, ESQUIRE
JONATHAN TUMINARO, ESQUIRE
RICHARD BEMBEN, ESQUIRE
STEVEN PAPPAS, ESQUIRE
JENNIFER CHAGNON, ESQUIRE
Sterne, Kessler, Goldstein & Fox P.L.L.C.
1101 K St NW 10th floor
Washington, DC 20005

The above-entitled matter came on for hearing on Tuesday, April 23, 2024, commencing at 1:00 p.m., at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

P R O C E E D I N G S

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JUDGE BAER: Good afternoon, everyone. This is our combined hearing for IPRs 2023-00435 and 436. I'm Judge Baer. We also have Judge Cass and Judge White. Judge Cass and Judge White, can you hear me?

JUDGE WHITE: Yes.

JUDGE CASS: Yes.

JUDGE BAER: Great. Let's get the party's appearances if we could, please. Who do we have for Petitioner?

MR. GLASS: Good afternoon, Your Honors. James Glass, for the Petitioner. With me today is my colleague and Counsel of Record, Ron Hagiz. Mr. Hagiz will be presenting on behalf of Petitioner today.

JUDGE BAER: Great.

MR. GLASS: And if I could, Your Honors, I do have hard copies of our slides. If the bench would like a copy, or the court reporter would like a copy.

JUDGE BAER: I have everything I need from you. Thank you. Unless our court reporter needs one. A hard copy. Court reporter, do you need a hard copy of the slides? Don't think so. So, I think we're all set. Thank you, Mr. Glass.

COURT REPORTER: You're going to display them, right?

MR. GLASS: Correct.

COURT REPORTER: Okay. I'll just read them off of the screen.

JUDGE BAER: Thank you. Appreciate it.

COURT REPORTER: Thank you, Your Honor.

JUDGE BAER: And who do we have for Patent Owner?

MR. SPECHT: Good afternoon, Your Honor, Michael Specht, on behalf of the Patent Owner. With me is my colleague Richard Bemben. I will be arguing the '538 and Richard will be arguing the '800 Patent.

JUDGE BAER: Great. Thank you, Counsel. It's good to have you all here. Thank you for being here. We do appreciate you making the effort to be here. We set forth the procedure in, obviously, our hearing order, but just a couple of issues. Each party is going to have 75 minutes. We're going to do a combined hearing. So, you can divvy up those 75 minutes however you like for the two cases, but we will do a combined hearing. Before we get started, does Counsel for Petitioner have any questions procedurally, anything like that?

MR. GLASS: No, Your Honor.

JUDGE BAER: Great. Thank you. And Counsel for Patent Owner, any questions for me?

MR. GLASS: No, Your Honor.

JUDGE BAER: Great. With that, we're ready to begin. We'll start with Petitioner. First of all, do you want to reserve any time for rebuttal?

MR. HAGIZ: Yes, Your Honor. Let me tentatively reserve 35 minutes for rebuttal.

JUDGE BAER: By my math, that's going to be 40. I should have asked you how much time do you want, so I didn't have to do the math. But nonetheless, we'll go with 40 for now. And take your time getting set up. We do have the slides in front of us, but just, it would help for keeping the record clear, if you're referring to a slide or an exhibit, if you would let us know.

MR. HAGIZ: I will do that, Your Honor. One moment. Okay. Ready, Your Honors. Afternoon, Your Honors, this is Ron Hagiz, on behalf of the Petitioner. Just a few notes on the slides themselves, because this is a joint proceeding on both the ‘800 Patent in the 00435 and the ‘538 Patent in the 00436 IPR. For the Board's convenience, I've placed on the slides themselves labels that indicate whether a particular demonstrative relates to an issue in the 00435 or the 00436.

Same prior art is asserted in both proceedings with the same exhibit numbers. So, that's just convenient. I'll refer to the exhibit number for the references themselves, and it will apply to both proceedings. Now, I know that Your Honors are familiar with the patents and the issues, so I'd like to dive right into the substance.

JUDGE BAER: Please.

MR. HAGIZ: At a high level, just as a refresher, the 00435 proceeding is about the ‘800 Patent. The claims are generally about a user interface in a roof measurement software, and of particular importance, there are inputs that let a user designate where the roof or where our roof structure is in an overhead image and then confirm that designation. The 00436 proceeding is about the ‘538 Patent. Those claims are generally about determining several different features and measurements of a roof from images of the roof, and in particular, the features that we'll be concerned with for today's argument is the footprint and the predominant pitch.

In both proceedings, primary dispute between the parties is over one of the secondary references that is used to disclose a particular limitation or set of limitations in all the grounds. So, you will primarily, and for most of my time, you will hear me talking about the Abhyanker reference, which is

Exhibit 1005 in the 00435 proceeding. And primarily, you'll hear me talking about the Bailey reference, which is Exhibit 1010 in the 00436 proceeding.

Now, looking at slide 3 from our demonstratives, we have a summary of the issues across both of the proceedings. In both of the proceedings, there is a dispute over the qualifications and the weight that the Board should give to Petitioner's expert and expert declarations. On the substantive issues, I think we can divide them up into a couple of discrete disputes, and the disputes are fairly straightforward, I believe in both of the proceedings.

For each of the two patents that are challenged, there are a couple of primary disputes that are about specific limitations in the independent claims, and there are the secondary dispute regarding a subset of the dependent claims. Now, importantly, there are a number of things that are not disputed in either proceeding. There is no dispute that the cited reference, the references that are relied on are prior are to the challenge patents. And with one exception, on one of the dependent claims in the 00436 proceeding, there's no dispute on the substance of the motivation to combine analysis that Petitioner's offering. I'll start with the disputes over the substance. I think those will help put into context the disputes over the expert declaration.

So, now we'll move to jump to slide 50 in the demonstratives and this is summarizing the arguments on the '800 Patent and the 00435 proceeding. There's three main disputes here. On the independent claims, the first dispute is whether Abhyanker's marker-locking request satisfies the limitation relating to a second computer input that signals user acceptance. There is a second dispute that only applies to two of the three independent

claims, claims 1 and 11, about whether that second computer input, or rather whether Abhyanker's marker-locking request specifically is responsive to a designation of a roof structure which is in claims 1 and 11, but not in 17. And then on each of the three grounds, there is a dispute over dependent claims relating to an outline drawing and in some of the dependent claims that drawing has to be superimposed on an image.

So, let's start with the first dispute on slide 51. This relates to, again, the user acceptance and second computer input in the independent claims of the '800 Patent. Now, the petition relies on Abhyanker's teaching of a marker-locking request that a user can use to drag and drop a marker onto a structure in a map and then use the marker-locking request prevent or to control future relocation of the marker. And the petition asserts that the marker-locking request satisfies Abhyanker's second computer input because it is used to signal acceptance of the location of the structure on map.

Patent Owner raises two arguments. The first one is essentially on a part of Abhyanker that discloses something referred to as additional verifications. Patent Owner in its initial response spends a lot of time arguing on whether or not Abhyanker's marker-locking request is an example of additional verifications or is something distinct. And then also, Patent Owner argues that Abhyanker's marker-locking request is not actually directed to signaling user acceptance, it's related to a different function that is described as claiming a wiki profile.

So, let's take a look at what the petition actually says about Abhyanker. Now there's a dispute. There's an issue raised in Patent Owner's sur-reply suggesting that Petitioner's position that the marker-locking request is the second computer input, is a new argument. I think the

petition makes very clear that it's not. The petition specifically, and this is slide 54 and it's citing to the petition on page 34. The petition specifically points out that Abhyanker teaches that a user may lock the location of a marker, preventing unauthorized future relocation and cites to paragraph 64 of Abhyanker for the proposition, the locking module 220 may process a marker-locking request and the locking module may enable the user to control the future relocation of the marker.

Now, the issue that Patent Owner raises on the supposed newness of the argument is that the petition also characterizes the marker-locking request as an example of Abhyanker's additional verifications. But the fact of the matter is, the plain language of the petition makes clear that it is the marker-locking module and the marker-locking request that is relied on to the extent that whether or not the marker-locking module and request are or are not an example of additional verification doesn't actually factor to the argument and the position that's advancing the petition. So, we don't see this as a new argument by any means.

All right, moving on to slide 56. Abhyanker's marker-locking feature is specifically described in Abhyanker as enabling users to secure, which we view the same as accepting the location of a marker and preventing or controlling future relocation. There are two embodiments, two examples that primarily describe this functionality. One is in paragraph 64 where the locking module 220 is described as processing a marker-locking request and paragraph continues to explain that the marker-locking request or the locking module rather may enable the user to control the future relocation of the marker in the mapping environment. In other words, it is signaling that the user has accepted the location of the structure that the marker is

designating. And then in paragraph 95, there is another example, and again, this is in Abhyanker Exhibit 1500 that describes a lock pushpin button on a user interface, and when the lock pushpin button is pushed, it enables the user to secure the pushpins from future relocations in the geospatial environment.

On slide 57. Patent Owner's argument here is that the marker-locking feature is not used to prevent relocation or to signal acceptance of a location, it is used to claim a wiki profile. Now, if Your Honors, look at where the wiki profile is described in Abhyanker, it's described as a condition that can cause a marker-locking request to issue. In other words, this is in paragraph 64, there's a description that the locking module may process a marker-locking request when the particular user claims the wiki profile. Now that's describing the condition that will trigger a marker-locking request. But the actual effect of the request is to control future relocation.

So, the function is not to claim the wiki profile, it is to prevent relocation to secure the location. And that's consistent with, on slide 58, that's consistent with the example on paragraphs 95 and 96 and figure 9 of Abhyanker Exhibit 1005. Both of those paragraphs, there's no discussion of claiming the wiki profile even. Those examples just show the lock pushpin option, which is used to secure the pushpins from future relocation, or in other words, to lock the pushpins from movement.

And just in case there is any doubt, Patent Owner's expert agrees that the embodiment in figure 9 is an example of that marker-locking module. So, that part is undisputed. And this is with reference to slide 59. It's paragraph 48 of Exhibit 1000 and -- sorry, Exhibit 2031, which is Patent Owner's experts declaration.

All right. So, I'll move on to the next dispute over the responsive to language that's in claim 11 and claim 17. So, the question is whether Abhyanker's marker-locking feature is responsive to a designation of a location on a map. And Patent Owner's argument is essentially raising a claim construction dispute. Does responsive to create a temporal requirement so that the input that signals user acceptance must only be provided after the designation takes place? And our view is that that contradicts the intrinsic evidence and the description of the user acceptance signal in the '800 Patent itself, and is also contradicted by Patent Owner's expert's interpretation of the claim language.

So, starting on slide 62 --

JUDGE BAER: Just a moment, Counsel. You disagree that it creates a temporal restriction or you disagree whether Abhyanker discloses that temporal characterization?

MR. HAGIZ: I think we would disagree with the nature of the temporal restriction. So, the way the Patent Owner describes it, the temporal restriction is that the second input itself cannot be provided to the user until after the designation takes place.

JUDGE BAER: And you would characterize that as a disagreement over the word responsive?

MR. HAGIZ: Over the word responsive to, or what responsive to is modifying or characterizing in the claim language. And I think the testimony from Patent Owner's expert, Dr. Bajaj, I think helps clarify that distinction or the way that we view the claims. Dr. Bajaj, when asked at his deposition specifically if that limitation of the responsive to language creates a temporal requirement, and this is Exhibit 1014 at 4715 to 4805 on slide 62.

I asked him specifically if his understanding is that the limitation requires the system to provide the second computer input after it receives the designation of the building roof structure location. And he said no. He said the providing of a computer input could be already on the interface. So, the input can already be there when you make the designation.

JUDGE BAER: But if that's true, how is it providing something responsive? I understand you got the concession out of the expert, but how do we give some meat and meaning to that provision if it doesn't mean that there must be something that happens later temporally?

MR. HAGIZ: Absolutely, Your Honor. So, that's explained in the rest of Dr. Bajaj's testimony. So, he explains that what that means is that the signaling user acceptance, that signaling is responsive to the designation. So, when the user activates the second computer input, for example pressing a confirm button on the display, that is --

JUDGE BAER: But it doesn't say that signaling acceptance is responsive. The claim limitation at issue says providing a second computer input responsive. Am I misunderstanding the claim language or something different?

MR. HAGIZ: Yes. So, yeah I would -- let me just pull up the precise claim language here because I think that will make it.

JUDGE BAER: I'm looking at column 15 of the ‘800 Patent line --

MR. HAGIZ: Yes, it's slide 52. We have claim language on it. So, what follows the responsive to. So, responsive to begins the paragraph and what follows is the longer description of providing a second computer input capable of signaling user acceptance of the building roof structure location within the first image. So, I think the way that Dr. Bajaj interprets it and the

way that Petitioner interprets it, it's not a question of at what point in time does the second computer input actually appear on the display. The question is, is that second computer input responsive to the designation? So, when you're signaling user acceptance, are you accepting the designation that was made? So, the activation -- the temporal requirement of the relationship is not about the timing of when a button is displayed on the screen. It is that that button is responsive to the designation that was made previously.

JUDGE BAER: Well, the later limitation says what that button must do. I certainly agree with you on that point. But I'm still stuck on providing a second computer input responsive to the receiving. How can providing an input be responsive? If it's something other than displaying later or Patent Owner points to giving, it can be an audio cue. That's fine. But doesn't there have to be some signal to the user that indicates some sort of change to the user? Why or why not?

MR. HAGIZ: I don't believe so, Your Honor. I think when you look at the full limitation because it doesn't stop at provide a second computer input full stop. Right? The full description or the full element that follows responsive to is provide a second computer input capable of signaling user acceptance of the building roof structure location. And that second computer input the button, even if the button is there before, it is not signaling user acceptance of the location until -- or rather it is not signaling user acceptance of the location that's been designated until after that designation is made, right. It's not predicting or anticipating ahead of time this is where the designation will be. And so, and in that sense kind of never changing, right. The designation and what will be accepted changes in response to the designation that is made. And so, when you consider the full

language of that provides limitation, I think the responsive two step would be tied to as Dr. -- as Patent Owner's expert explains, it's tied to what it is that is being accepted or what it is that the input is signaling user acceptance for.

JUDGE WHITE: Counsel, you're going to have to help me with that one, because when I look at that, I see the second part of this clause describing what the input is capable of doing, not what it's responsive to. It's capable of marking that you've accepted something, but the responsiveness relates to the provision of it. What -- why would the capability be what it's responsive to as opposed to the provision? Because if I look at the language especially in claim 11, you're talking about computer hardware that is responsive to receiving and then providing. Why are you pulling the capability language up in front of the provision?

MR. HAGIZ: Your Honor, I wouldn't characterize it as pulling the capability language in front. I think the way that we view it is that the actual, the function of the button changes in response to the designation. And so, it is still the same graphical button on the display. But what it is doing changes in response to the designation what it is accepting changes in response to the designation. So, the button --

JUDGE WHITE: Let's talk about that. When you say what it is doing changes are you just saying that the thing being accepted has changed or is something else changed?

MR. HAGIZ: I think the thing being accepted certainly changes. I think before a designation has been made the button is not even confirming or signaling acceptance of a designation at all. It is signaling acceptance of a preliminary, kind of, automated decision of where to place the marker in the

first instance. So, until a designation -- before a designation has been made the button is not, is at that time not capable of signaling acceptance of a location that a user is selected. After a designation has been made the button is capable of making that because there is a designation to accept in the first place.

JUDGE WHITE: What has changed within the machine? If we're looking at claim 11, which is talking about logic in the hardware that is executed to do certain things, the change you're talking about is right now in the user's perception. Whether the user likes this particular thing. But the responsiveness and the providing, those are the things that the computer hardware is supposed to be doing. And that's not based on the user's mindset.

MR. HAGIZ: Sure. So, Your Honor, I guess first I would clarify, I think, in the claims this is being implemented in software rather than in hardware. But setting that aside --

JUDGE WHITE: Agreed.

MR. HAGIZ: -- it's not a question of what the user has in mind. It's a question of the nature in the software itself of what this button is pointing to. Right? When I press the button before there's a designation, that button is pointing to. To something, some automated location that the software has selected. It's not responsive to user input. After there is a designation, that button is now responsive to the user input. It is now processing a location that has been selected by the user. So, it's the input to the function that the button performs. It's not just a question, in my view, of what the user intends or not. It is the actual of data or information that the button is processing pre-designation and post-designation.

JUDGE WHITE: And that may go to the capability. But does that go to what's been provided by the software? Because the software is supposed to be providing something in response to this designation.

MR. HAGIZ: I think it does. In terms of what is actually -- if you look at the -- in terms of software implementation, what is actually the information or the data that would be collected or retrieved to use. And the acceptance for the assignment function would be a different value in the software itself. In the one instance, we are looking to a value that the computer system itself has selected when it initially generates that aerial view and places the marker somewhere. And in the second instance, we're talking about a user input that is different from the automatically selected location pre-designation. So, I think from a software perspective, you could characterize it as -- or you would characterize it as actually different inputs that are being used as a basis for the function of that button.

JUDGE BAER: Let me ask a follow up question. Can you give me an example of a button that would do the second part of that limitation but not do the first? In other words, a button that would confirm the designation of the building roof structure but that would not be responsive to receiving the designation of the building structure location, provide a second computer input.

MR. HAGIZ: Absolutely. If I had a button that we'll call it a select original location button. Something along those lines. I could have a button that would just confirm the original location that the computer system or the software selected without any user input. And that could select that original location regardless of where or how many times the user moves the marker. It would not be responsive to the designation in any way. But it would still

be capable of signaling user acceptance of the building roof structure in the image.

JUDGE BAER: I think I follow. Thank you.

JUDGE CASS: So, Counsel, this is Judge Cass. And just make sure I address this. So, in Abhyanker if -- so, it's got this lock pushpin button. What happens if a user tries to select that before they've done the activity to lock the pushpin?

MR. HAGIZ: So, my understanding of Abhyanker is that the lock pushpin button is going to lock the current location. So, if the user presses it before the marker has been moved then the original, just as the way that we're understanding the claims, if the lock pushpin button is selected before it has ever been moved, then the position that will be selected will be the one that the computer system that the software has determined as the initial state. If the lock pushpin button is selected after the marker has been dragged or moved by a user, then the position that's been selected or designated by the user will be the one that the pushpin is locked to.

JUDGE CASS: Okay, and so as I understand your argument, you're saying responsive to the designation, in other words moving the pushpin, the system will provide a second computer input and, you know, it's also provided, it's been providing this button all along. But I guess what's changing is the button now becomes capable of signaling user acceptance of that new location.

MR. HAGIZ: Absolutely, Your Honor.

JUDGE CASS: So, in other words, what's, you know, what's -- the input that's responsive, you know, really is not just a button, but it's also the button having this capability of locking the pushpin to the new location.

MR. HAGIZ: Exactly. So, it's not just about showing a button on the screen and when you show it. It's a question of what is the functionality that the button is doing. And in the first instance without a designation, that button, in both the patent and both the Abhyanker's lock pushpin example. In that first example, the button, the function of the button is to lock the original computer-selected position of the marker. After there is a designation, the function of the button is now to be responsive to the user input and to lock and select the location that's been designated by the user. So, the function changes in that respect even though the appearance of the button itself may not be any different.

JUDGE CASS: Okay, I think I understand. Thank you.

JUDGE BAER: I'd like to turn to your assertion that that's how it is disclosed in the '800 Patent. I don't understand why in figure 4 of the '800 Patent, that 104 confirm selection button has to be this second computer input as opposed to what Patent Owner contends it is, which is the checkbox there on figure 4D. I understand that it could be, but why can't figure 4D be that second confirmation and figure 4C, while it has a button, that's just not the button at issue here?

MR. HAGIZ: The main issue, and this is turning to slide 63 of our demonstratives, I think attempts to address that. The main issue is how these two elements are described. So, the only element that the patent ever describes as signaling user acceptance is that confirm selection button that's presented beginning in figure 4a before any designation has been made, and through figure 4C after the designation has been made, and this is specifically in the '800 Patent 962 to 1033, there's the passage that describes essentially from the beginning of 4a through the end. And importantly,

towards the end of that passage it says if confirm selection button 104 or other such user acceptance is activated, then another screen optionally may be provided. And so --

JUDGE BAER: So that certainly is a confirmation and it says right there the button on 4C, confirm selection. I don't think Patent Owner would say, would argue that that is a confirmation. The question is, can't also the picture in 4D be that claimed confirmation? It uses the word confirm. By it, I mean the picture in 4D with that checkbox uses the word confirm and it uses the word selection. Why can't that also be the confirmation? And Patent Owner would say, this one happens responsive of the input, which is what's critical here.

MR. HAGIZ: I think the main thing would be that the confirm selection button is actually described as user acceptance, which is the exact words that appear in the paper.

JUDGE BAER: Where is the, I assume you mean the confirmation selection button 104 is described as user acceptance. Where is that described as user acceptance?

MR. HAGIZ: So, specifically in the orange highlighted language, which is towards the end of that passage, 962 to 1033, it says if confirm selection button 104 or other such user acceptance is activated. So, that is the only place, and that is the only element that is specifically described as something that relates to user acceptance, which is the precise language in the claim limitation. Figure 4D, as Your Honor notes, figure 4D describes the checkbox and this is slide 64. Figure 4D describes the checkbox as providing a further reconfirmation. But I'd say two notes on that. Number one, the claim language, user acceptance is not used to describe the

checkbox. And number two, I think by describing it as a reconfirmation, it acknowledges the fact that the selection has already been made. Right? The confirmation is the selection and the acceptance. Reconfirming it does not change that the confirm selection button is what actually signaled user acceptance in the first place.

JUDGE BAER: Thank you. That's helpful.

MR. HAGIZ: All right.

JUDGE CASS: Counsel, this is Judge Cass. What is your understanding of how the '800 Patents is displaying this confirm selection button in figure 4A and 4C? In other words, is there something visually that changes when the button that's -- well, let me step back. Is there, before the system has moved the marker to its location, what happens if you press that confirm selection button? Does it do nothing? Is it grayed out? You know, what's --

MR. HAGIZ: So, what --

JUDGE CASS: What's going on there?

MR. HAGIZ: So, what I didn't show in slide 63, but the patent describes an intermediate figure 4B, and figure 4B shows an initial state of the marker. So, in figure 4A, the patent doesn't tell us what the confirm selection button would do. But at that point, there isn't even an address that's been entered into the system yet. There is no aerial image or a designation that even the software has selected yet. So, presumably at that point in time, the confirm selection button is not going to do anything because there is nothing that can be confirmed yet. There is no computer selected designation. There's no user selected designation. In figure 4B, the patent explains that at that point in time, the software has selected an initial

location for the marker. The user has not done anything yet. And again, at that point in time, my understanding would be that if you press the confirm selection button then, you are confirming that automated software-selected initial designation.

JUDGE BAER: But that particular set of events would not read on these claims, would you agree? Because there's no user placing the marker.

MR. HAGIZ: If that's where it ended, that's correct. So, if the button could only confirm that original location, that does not read on the claims. It's the fact that the button has the functionality for confirming the user designation that happens after that initial figure 4B state. That's what maps it to the claims. Because at that point, the confirm selection button is responsive to the user designation. It's confirming the location that the user selected.

JUDGE CASS: Okay, so going back to my question, then, the way you'd understand it at least is the appearance in the button itself doesn't change. But, you know, its ability, you know, its capability and what it does changes depending on whether you're, you know, where you are entering the address and having the user move to a new point on the map.

MR. HAGIZ: Precisely. So, before, in figure 4B, before the user has made a designation, the confirm selection button would confirm and essentially select the automated software identification of a location. In figure 4C, the appearance of the button does not change, but the functionality changes insofar as it now designates or accepts the user input and the user selected designation rather than the computer selected designation.

JUDGE CASS: Okay, thank you.

JUDGE BAER: Would it be fair to characterize your position to be while the display doesn't change, the provision has changed? Is my question clear?

MR. HAGIZ: I think I would agree. In the sense that if you think of the button as both a display element and a functionality, the display has not changed, but in terms of the functionality, the provision has changed. You are now providing a different functionality in response to the designation than the functionality that the button possessed beforehand.

JUDGE BAER: Thank you.

MR. HAGIZ: All right, Your Honor, any other question on responsive to? Otherwise, I'll move on.

So, let me jump forward to slide 67. I want to briefly touch on the issues relating to the dependent claims. I think the arguments on the dependent claims, claims 2, 9, and 4, for grounds 1 through 3 are similar. In all three instances, Patent Owner argues that the primary references, whether that is Pershing-789 in ground 1, Pictometry in ground 2, or Kennedy in ground 3, do not disclose an outline drawing or an outline drawing superimposed.

JUDGE BAER: Counsel, in the interest of saving time, I didn't see this argument about Pershing-789. I saw your argument in the petition that it was disclosed, but not that it would have been obvious in light of two separate disclosures. So, this is your slide 56. Where is this argument made in your petition or in your Petitioner's response?

MR. HAGIZ: Absolutely. So, in slide 69, this refers to petition. Petition, page 37. There's two parts that we rely on in connection with this limitation. The first part references Pershing's disclosure of a drawing of a

roof structure outline, which is separate from that scale marking. So, we call out the fact Pershing discloses a roof structure outline. That's not disputed. Then we call out, this is slide 70 referring to petition page 57. Then we call out the fact that the calibration -- Pershing also discloses a calibration module that can display a scale marker on the image itself.

JUDGE BAER: Yeah, I see where you said on page 57 of your petition that the scale marker constitutes the outline drawing. I don't see it in your petition where you said this scale marker, when combined with the disclosure on page 56 of your petition, that's the outline. I saw those two things separately, but I didn't see anything characterizing it as the combination of those two things. And to the extent that it was a combination of those two things, why one skilled in the art would have a reason to combine them in the way you suggest.

MR. HAGIZ: I think, Your Honor, our intent in referencing the outline on page 56 for the same limitation was to advocate or to propose a combination of the two. I think our position was that the outline, that drawing or displaying an outline is disclosed, and displaying drawings superimposed on an image are disclosed. And between the two, it would be obvious that at that point, the drawing that can be displayed is an outline. It doesn't just have to be a length marker or a scale marker.

JUDGE BAER: I understand your intention, but I guess what I'm asking is, is there anything I am missing on page 56 or 57 or anywhere else in your papers other than on this slide for the first time that points to the combination of those two things disclosing it, rather than those individual things disclosing it?

MR. HAGIZ: Understood. I don't think there is a more express disclosure. I think the reason we cited to the disclosure of the outline on slide -- or on page 56 of the petition was to incorporate that into a combination with the scale marker. But I don't know that there is more. I can't point you to more express language that would make that statement beyond that.

JUDGE BAER: Thank you.

MR. HAGIZ: I think regardless of ground -- of whether or not that's disclosed from ground 1, I think for ground 2, where we use Pictometry in combination with Pershing for the outline drawing superimposed, and this is on slide 74. For Pictometry, the petition relies on disclosures specifically of a distance tool and an annotation tool. Both of those describe, and this is Pictometry Exhibit 1008 at 116. Both describe actually annotating or drawing on the aerial image itself. And specifically, the distance tool in Pictometry is described in one example as allowing users to draw a line around a parcel. That would be an outline drawing of a parcel building a roof.

JUDGE BAER: I apologize, I know this is sort of a nuanced point, but I think it's important. Are you paraphrasing Pictometry there or are you quoting Pictometry? And to the extent you're quoting Pictometry, can you actually point us to where in the exhibit? I know you've got it cited as page 116, but can you help me with that cite specifically?

MR. HAGIZ: So, specifically, I am --

JUDGE BAER: Let me parse that question out. Were you just quoting the reference or were you paraphrasing the reference?

MR. HAGIZ: So, the specific quote, the specific part about drawing a line around a parcel is a quote from the reference. And so on the excerpts shown on slide 74, that is from page 116 of Pictometry, there is a specific description of a distance, quote, distance tool which allows the user to measure things contained within the image. And then in that same paragraph, it continues and says, by drawing a line around a parcel and where a hostage situation is taking place, for instance, law enforcement officers could learn the square footage of the area. And so, in that particular example, it describes drawing an outline around a parcel, which could be a building, could be a roof, and then it provides square footage of the area. And so, we think that, in combination with Pershing, would disclose drawing in a superimposing outline on an aerial image of the roof.

I think there's a similar issue for Kennedy, though. For Kennedy, the dispute is not over claims 9 and 14 about the superimposing. It's a question of whether Kennedy discloses an outline drawing corresponding to a roof structure. On slide 77, the petition relies on Kennedy's sizing tool. And this is petition on page 75. And specifically, Kennedy describes or illustrates the sizing tool on slide 78. And this is showing figures 35 and 36 of Kennedy, shows the sizing tool as an outline that is sized or placed, positioned around a roof structure. In slide 79, this is Kennedy Exhibit 1009, paragraph 121. Specifically describes that measuring tool 1107 comprises a 2D rectangle with predetermined height and width. And that is then overlaid over the image of an object. And so that is an outline that is sized to correspond to a roof structure that's shown on the image itself.

All right, so let me turn next, Your Honors, to the ‘538 Patent. And here again, there are a handful of discrete issues. The main one corresponds

to the disclosure of predominant pitch and estimating roofing area based on a predominant pitch in the independent claims 1, 13, and 14. In the interest of time, I'm going to focus on that. And on the other issue raised with the independent claims, specifically whether Pershing-789 and Kennedy disclose a footprint of a roof.

So, on the question of predominant pitch, in the original Patent Owner response there was an argument that Bailey does not even disclose a predominant pitch for a roof at all. I think that Patent Owner might not be advancing that specific argument anymore. But briefly, just to touch on that, on slide 84, there is, I think, no dispute that Bailey describes expressly, and this is Exhibit 1010 at page 17, there's specifically a description or disclosure of a predominant slope. And there's no dispute that in Bailey, slope is the same as pitch. So, there is an express discussion of a predominant pitch. So, the question is whether that predominant pitch is for an entire roof or a portion of a roof. The issue is that Bailey uses the term roof section. This is slide 86, Bailey at 10, and figures 2, Bailey describes or explains that a roof section is any portion, any area of a roof that is under 10,000 square feet. And in the particular example that's shown on figure 2, that roof section is the entirety of the roof.

JUDGE BAER: Counsel, I guess I'm a little confused as to why any of this matters. It seems like the only thing you need Bailey for is a predominant pitch. So, once you have a roof section in the other reference, I can't remember whether Pershing, but anyway, all you need is a predominant pitch. That's it. That's all that matters. So, this dispute strikes me as distracting. So, I just would like to know whether we need this information?

MR. HAGIZ: I don't think so. I think at the point that Bailey describes that the predominant pitch is actually the pitch of the roof, right. I think if there were a reasonable argument that Bailey's predominant pitch is not for the roof, it is for some small section that may be different. But I don't think there's an actual dispute on that point, right? I mean --

JUDGE BAER: Isn't the point that the other reference has pitch for a roof and all we're doing is replacing pitch with predominant pitch, period.

MR. HAGIZ: Absolutely. I think the main argument, the crux of the dispute, I think, at this point is whether the predominant pitch would be used to estimate the area of a roof. And I think Petitioner's -- or Patent Owner's argument is really that Bailey has a teaching away from using the predominant pitch for estimating the area of the roof. I think that's the crux of the dispute. So, I would agree that the whole dispute over whether it's an entire roof or a section of a roof, I don't really think that's a meaningful dispute. It's about how the predominant pitch gets used in the combination, whether there's a teaching away.

And so, well, let me just jump right into that issue. So, on slide 90, I think the argument that I understand from Patent Owner is that Bailey essentially teaches away because there is an appendix attached to Bailey. And in that appendix it describes using individual pitch values to estimate the different portions of the roof and then adding them together. Now, I think the argument that that is a teaching away is both legally and factually incorrect. So, starting with factually, the main description that Patent Owner relies on is, again, in this page 17 of Bailey, that describes the predominant slope. And it has a reference to Appendix B. But importantly, the reference is, if such information is not available, and that's referring back to the slope

information, the predominant slope, then field measurement will, will be required, use the method in Appendix B. And so, what Bailey says here is, if you don't have information to determine the predominant slope, then go do the field measurements for the individual pitch values in appendix b. So, that is not teaching away from using a predominant slope.

The other part of the argument is on slide 93 that Bailey's predominant slope supposedly is not actually used for measurement or for any functional purposes. It's just data collection. Now, that's hard to fathom because Bailey specifically explains, Exhibit 1010 at page eight, that it's collecting information for software that is performing, quote, performing automated calculations, data analyses, and reporting. So, the idea that Bailey is collecting predominant pitch information and is just sitting there in a database not being used seems contrary to the entire purpose of why this information is being collected.

Now, the other thing that Patent Owner refers to is Bailey, on 22, there's a discussion of how to calculate the roof section area. And Bailey explains the area can be determined from a roof section plan having horizontal dimensions, and then can be converted to the actual area by adjusting for roof slope. And then there's another site to Appendix B. What is this actually saying? It's saying that if you have the horizontal dimensions of a roof and you need to compute the actual area, the surface area, there is a formula that you can convert to using the roof slope. Now this does not say by itself that you shouldn't use the predominant slope for this calculation. I think Patent Owner is relying on the fact that it cites to Appendix B that has the guide for field measurements. But what Appendix B also has, and this is on slide 85, what Appendix B also has, and this is on page 137 of Bailey, is

this section that describes specifically conversion to actual area. And all it says, the important part of what it says is to calculate the actual area, you multiply the horizontal area by an area, slash, rake factor. And that's exactly what that excerpt on page 22 of Bailey was describing. And then on page 137 of Bailey, it also has this table where the slope that you determined, for example, the predominant slope in the example that Bailey gives on pages 13 through 15 is, I think, four out of twelve. And so, this table says if your slope is four inches per foot, then the rake factor, the area, slash, rake factor is 1.054. You multiply that by the horizontal area and you get the surface area. And so --

JUDGE BAER: Counsel, I will remind you that you're into your rebuttal time. You may use as much as you like, but I just wanted you to know.

MR. HAGIZ: Absolutely. I think I'll keep going just a little bit more just to make sure we can cover the '538 disputes. So, the way that we understand this, what Bailey is saying, Bailey's reference to Appendix B for calculating the area is to this conversion description, the formula that says you get the surface area by multiplying horizontal area by pitch. Now, given the disclosure of predominant pitch, it is clear that you can use the predominant pitch as the input to that equation, with the horizontal area of the roof as the input to that equation. I don't think anything in this disclosure description says you have to use the individual pitch values and compute each individual portion of the roof rather than using the predominant pitch. So, just from a factual perspective, I don't think that there is an actual teaching away in the reference to Appendix B.

And from a legal perspective, even if Your Honors were to determine that that description is an example of using the individual pitch factors, that itself is not teaching away. The fact that bailey provides that example is not enough. Now, in Patent Owner's sur-reply they point to the Polaris v. Arctic Cat case, which is 882 F.3d 1056, for the notion that if a person of ordinary skill, upon reading the reference, would be led in a direction divergent from the path that was taken by the applicant. That's a teaching away.

I just want to point out that the actual issue in Polaris was that in the proposed -- it was a patent relating to vehicle design. And in the proposed combination, the seat of the vehicle had to be elevated in order to insert a fuel tank underneath. And there were specific teachings in the reference saying that elevating the seat like that causes vehicle instability and can cause the vehicle to roll over. So, there was an express discouragement from taking that specific approach.

There is no such discouragement here. There is no specific teaching that would advocate for a different approach or different way of implementing the area calculation. It's just that the particular example that's in Appendix B has individual pitch value. So, I don't think from a legal perspective that rises to the level of teaching away.

The last thing on the '538 Patent that I want to very briefly cover is the third argument and the independent claims, the one relating to the footprint of a roof. It's the same argument that's raised for both Pershing and Kennedy grounds 1 and 3. Essentially, the Patent Owner's argument is resting on an assumption that a footprint must actually include the numerical calculation of area.

JUDGE BAER: Counsel, do you understand this argument to be any different from the argument they made pre-institution?

MR. HAGIZ: I think the only difference is that they're now taking the position that in the petition we advocated that the footprint must include that numerical calculation of area. I think Your Honors saw in the petition itself, based on your Institution Decision that we were adopting the definition from the specification which just says the footprint is the two-dimensional outline or boundary in the roof. I don't think the argument is changing any other way. I think Patent Owner does not dispute that there is an outline or boundary of a roof. It's just a claim construction question, which is the same one that was presented during institution or prior to institution.

JUDGE BAER: Which is if you include the area measurements, that thing stops being a footprint. Is that correct?

MR. HAGIZ: It's more, I think the argument is that, that the area measurements have to be horizontal area and not surface area. And the specific disclosures in Kennedy and Pershing in the petition show a measurement of surface area. But our position is that you don't need to show a measurement of area, period. It doesn't matter whether it's horizontal or surface. You just need the outline of the roof. And I think that's how Your Honors understood the argument in the petition during your Institution Decision. Nothing's changed in that respect.

All right, so the only other things I want to cover briefly are some of the challenges to the expert declarations. There's really three issues. One is --

JUDGE BAER: I'm sorry, if we could back up to one more substantive issue, just to put it on the table.

MR. HAGIZ: Yes, Your Honor.

JUDGE BAER: I want to make sure I understand something. At your petition, around pages 51 through 52, you argued about these dependent claims that require multiple measurements, or a weighted average, if you will. And I understood the petition to be arguing that there's this other reference, this RSMeans Illustrated Construction Dictionary that discloses such a measurement. You have a sentence that says, a POSITA would understand that by definition, a weighted average can be used to give -- I don't understand what you mean by definition. Are you talking about a claim construction there, or just that a person of skill in the art would know based on this other teaching and this other reference?

MR. HAGIZ: I think when the petition talks about by definition, it means by the nature of what a predominant pitch is, right? So, the predominant pitch is a single value that represents the pitches for the entire roof. And so, in some way, it is accounting for the entirety of the roof. And so, whether you take a single pitch. So, essentially, the notion that by definition is pointing to the fact that the predominant pitch is in some way representing or corresponding to multiple portions of a roof, which may have different individual pitches themselves. And so, you need to combine or in some way account for those values.

JUDGE BAER: Wouldn't a predominant pitch just be the one section, one pitch, that is the most frequent, but not taking into account multiple measurements of pitch?

MR. HAGIZ: You could. I think our argument isn't that you can't do it other ways, it’s that there's really only a small number of ways. When you have multiple measurements, there's really only a very small finite number

of things you can do with them to get to a single measurement. You can just pick one and say I'm just going to go with that one. You can take a regular average which just weights everything equally. Or you can take a weighted average. And I think all three of those, our position, are ways that would be well known to a person of ordinary skill in the art. And saying pick one over the other is something that would be obvious and be clearly within the realm of obviousness from a legal perspective.

JUDGE BAER: Thank you, that's helpful.

MR. HAGIZ: So, on the expert disputes, I'm going to try to move quickly through these. In both petitions, Patent Owner argues is that because the expert declaration repeats the petition, it's conclusory. In the 00435 there's a dispute over whether Mr. Cummings meets the definition of a POSITA; and, in the 00436 there's a dispute over how the Board should weigh the testimonies of the relevant experts. On the first issue on the expert declaration repeating the petition, on slide 26, that was addressed in the Institution Decision. I don't think anything has changed in that regard. If anything, I would say the record at this point confirms why that should not be a reason to disregard the testimony.

Mr. Cummings specifically, at his deposition, this is slide 31, Exhibit 2032 at 13, 1 to 22, he explained how the process of putting together the declaration. He met with and spoke to the attorneys. They had a back and forth to figure out the positions and the arguments and that led to the declaration. So, the fact that the declaration and the petition have similar language, that's natural result of the fact that the attorneys and the expert were involved in the process leading up to both of them.

I think the only other issue that Patent Owner raises is the citation on the Xerox case. This is on slide 27. Xerox case just says when there are conclusory assertions that are the same in both the petition and in the expert declaration, then they have no weight. It doesn't say anything about just discarding or disregarding expert testimony just because it repeats language from the petition. So, I think there's no reason to get to a different result than what was in the Institution Decision on this particular issue.

On the question of whether Mr. Cummings is qualified or is a person of ordinary skill in the art. Just reminder that in the Institution Decision, the standard, the level of skill that the Board preliminarily adopted was Patent Owner's proposal of bachelor's degree in an academic area emphasizing the design of electrical, computer software technologies, or similar discipline, and at least two years of experience related to computerized image analysis and three-dimensional modeling with the caveat that education, essentially, with a caveat that more experience would compensate for less formal education. And applying that standard at the time on slide 35, this is Institution Decision at eight. Applying that definition at the time, the Board thought that the fact that Mr. Cummings doesn't have formal experience, a formal computer-related education, does not mean that he is not qualified as a skilled artisan.

Mr. Cummings experience with computer software, particularly as a user, and collaborating in its development, that is the same as what was presented in the petition. There's no dispute. This is on slide 36. There's no dispute from the Patent Owner response at 37 that Mr. Cummings has experience with software packages that are commonly used in the field of architecture. So, the real question at this point that Patent Owner raises is

whether there is a requirement to have computer programming experience to be a person of ordinary skill on the art. Now that's not on the Board's initial definition. I don't think there is a reason why a programming requirement is necessary for the '800 Patent, specifically. The actual -- all right, sorry. On slide 38 or slide 39, the actual disclosures of the patent are not about programming and software implementation. Many of the disclosures, for example in the '800 Patent, 765 to 816, is about mathematical relationships and roofing concepts. The disclosures on the actual software application itself, for example, in 10, 5 to 28 are describing things that don't require programming knowledge to understand. They describe user interfaces, use of images from third-party software applications like Google Earth, clicking and dragging a marker using a mouse, pressing a checkbox or a confirm button. None of these things require programming experience or a formal education in computer to understand. And I think on slide 40, even Patent Owner's expert acknowledges person of ordinary skill in the art would not necessarily need to look at source code in order to understand this particular patent. That's Exhibit 14, 1622 to 1715.

So, in that respect, if the Board's original level of skill in the art is maintained, Mr. Cummings has experience relating to computer software. And specifically, the opinions that he offers are from the perspective of a user. So, for example, his opinions on motivation to combine, this is Exhibit 1003, paragraph 45 and paragraphs 124 to 125. The opinions Mr. Cummings offered on motivation to combine are from his perspective as a user; what would be convenient to the user of the application; what would promote accuracy for the user. All of these things he is qualified to give

opinions on, even if he is not qualified as a person of ordinary skill in the art under Patent Owner's more rigorous defense.

And I think the final takeaway from all this is that on all of these issues, especially motivation to combine, there isn't a substantive dispute. Right? So, while Patent Owner challenges Mr. Cummings qualifications, they don't actually dispute the substance of any of these opinions. The disputes are centered on the disclosures in the references itself. What does Abhyanker actually teach? What does Pershing actually teach? Which Your Honor can resolve from reading the references and seeing what it actually says.

The only other point I'll make on this is that Patent Owner also questions whether Mr. Cummings applied the correct level of skill in the art in his analysis. In our papers, we cite the deposition testimony where he explained his opinion doesn't change under the level of skill in the art. Patent Owner hasn't offered any reason why the analysis would be different under a different level of skill in the art.

On the '538 Patent and the dispute there, I'll touch on this very briefly. The only real question, it's not whether Mr. Cummings is qualified as a person of ordinary skill in the art. The question is whose testimony should be weighed more. And the main issues that Patent Owner raises is that Mr. Cummings's experience is earlier in time, and that Mr. Cummings worked with blueprints, not aerial images. Now, I think at the end of the day, there is very little actual dispute between the experts. Again, here, motivation to combine isn't really disputed, except for on that weighted average, where again, I think our position isn't that one or the other approach is correct, that there are only a small number of ways that you could compute the

predominant pitch from the individual pitches. And a weighted average is known in the art. And so, it would be one clear way to do it.

The only other real disputes is whether there is a teaching away in Bailey. And that is something that can be resolved just from a legal perspective and from the disclosures without reliance on the experts. So, there is really no dispute that requires weighing the experts' testimony to resolve in this case. So, I don't really think that there is much more we need to say on that issue.

So, unless there are any other questions, I'll reserve the rest of my time.

JUDGE BAER: None from me. From my colleagues? Great.

MR. HAGIZ: All right, thank you.

JUDGE BAER: Mr. Bemben. Correct?

MR. BEMBEN: Correct. Thank you.

JUDGE BAER: Take your time. Whenever you're ready. But would you like to reserve any time for sur rebuttal?

MR. BEMBEN: Yes, we'd like to reserve 25 minutes.

JUDGE BAER: I didn't hear you.

MR. BEMBEN: Twenty-five minutes, please.

JUDGE BAER: Twenty-five minutes. I will put 50 minutes on the clock. I'm not going to hold you to be 50 minutes, but obviously any time that you go into your sur-rebuttal will cost against your total time. Take your time, but whenever you're ready, you're welcome to begin.

MR. BEMBEN: Thank you, Your Honors. So, again, my name is Richard Bemben and I'm here on behalf of the Patent Owner, Pictometry. I'm going to just jump right into what we're calling the temporal requirement

of claim elements 1f and 11f. And so, there are -- Petitioner's theories have shifted throughout this proceeding. I'm first going to address the theories that were presented in the petition, then I'm going to address the theories that were presented in the reply, and then I'll present the issues or the theories that were presented today during the arguments.

And so let me just refresh. Can you go to slide 4 of our demonstratives, please. Okay, so this is just showing you claims 1 and 11 and 1f and 11f are highlighted. The yellow highlighting is what we're referring to as the temporal requirement. And the blue highlighting is what we're referring to as the functional requirement. And if you can go to slide 5, Steve, just to confirm. So, claim 17 is just referring to the functional requirement. So, the temporal aspect is with respect to 1f and 11f. So, the theory that they presented in the petition.

Steve, can you go to slide six? In the petition, what Petitioner argued is that Abhyanker's additional verifications are the claimed second computer input. okay.

JUDGE BAER: I'm sorry to cut you short this early.

MR. BEMBEN: Go ahead.

JUDGE BAER: But it strikes me, I understand your position that there is a temporal, there's a nice, clear temporal disclosure in the additional verifications, and your position to be they can't use that because the locking screen is not one of those additional verifications. I don't understand Petitioner to be disputing that. So, you're welcome to discuss the additional verifications, and you're welcome to discuss whether the locking was addressed in the petition. But if we could not spend a lot of time on whether the additional disclosures have everything. Excuse me, the additional

verifications have everything, I think Petitioner has clearly said we're not asserting that the additional disclosures by themselves without the locking has it. Is that helpful?

MR. BEMBEN: I agree with you completely on that. And that is helpful. I wasn't planning to spend a lot of time discussing that. What I'm planning to show or what this slide shows is just the change in theory.

JUDGE BAER: And why does that change in theory matter so long as the locking screen was clear in the petition, which it strikes me that it was, and they're now relying on that locking, the locking screen?

MR. BEMBEN: So, I believe that it is important because the additional verifications are the only aspect in Abhyanker that follows the drag and drop. And so, they rely on combination --

JUDGE BAER: Temporally, you mean?

MR. BEMBEN: Yes, the temporal requirement. Right. So, what, they've mapped the designation of the, if I just look at the claim limitations real quick, there's a designation and they mapped Abhyanker's drag and drop to that designation. Then in the petition, they mapped Abhyanker's additional verifications because that follows the drag and drop.

JUDGE BAER: But that wasn't maintaining that second position anyway.

MR. BEMBEN: That's correct. That is correct. And I guess the point is that they never argued that the marker-locking satisfied that temporal requirement until they got to the reply. That was the first time we got that argument. And what they had to do then was because they didn't have anything that taught the temporal aspect or following the drag and drop, they had to create a claim construction argument, a new claim construction that

satisfied their mapping. And we think that that is improper. It's an improper new claim construction argument, but it's also wrong. So, if we look at slide 8, this is Petitioner slide 8. Please go to Petitioner slide eight.

So, the claim construction is wrong. The new claim construction, essentially what they said is there's a single embodiment now in the '800 Patent. It's shown in figures 4A through 4C. And that's what reads on that confirm selection button that's shown in figure 4C, button 104. That's what reads on the second computer input in the claim. Now that's wrong for four reasons. One, it reads out the responsive to language. Second, it's contrary to Petitioner's arguments. Third, it's contrary to the patent's own disclosure. And finally, it's just unsupported attorney argument. There's nothing in the record from their expert that says, I reviewed the patent and this is how a person of ordinary skill in the art would have understood this claimed term to mean or what they would have understood it to mean. So, let me take each one of those reasons one at a time.

So, Steve, can you go to our slide 8, please? So, here's essentially what they've done. They're reading out the confirm selection button, which is 104. Confirm selection button in the patent is provided throughout the entire process. And they're saying that that's what reads on this claim element. But it just. There's nothing in the patent that explains that or explains that to be the case. In fact, what the patent describes is figure 4D. The checkbox is provided in response to the designation.

So, first of all, they're writing out --

JUDGE WHITE: I think the language they're relying on is the language in the patent that says that the confirm selection button is what's

used to confirm the user's -- acknowledge the user selection. I can get the exact language.

JUDGE BAER: I think it's user acceptance.

JUDGE WHITE: Yes. And it said, and then you move on to screen 100, which is, I think, them saying then you move on to the area with the checkbox, which is just a reconfirmation of the acknowledgement you already made.

MR. BEMBEN: So, I agree that there, as Judge Baer had said earlier, I agree that what is shown in figures 4A through 4C, we agree that that is a confirmation. The button is a confirmation. But there's another confirmation that is described in the '800 Patent, and that is what's shown in figure 4D. That's the checkbox. And Steve, maybe you can go to slide 9, our slide 9. And I'll point out that this is something that the Petitioner in the petition also agreed with. So, on the left hand side is the petition at 4. And their own characterization in the petition of the patent describes both figures 4C and figure 4D as providing the user confirmation.

And so, there's not just one embodiment in the patent that describes user confirmation. There's at least two embodiments, one being the one that's shown in figures 4A through 4C. The confirm selection button that's provided throughout the process, it's not provided in response to the designation. But then you have also the embodiment in figure 4D, which is provided in response to the designation. That is the embodiment that is claimed in claim elements 1f and 11f.

JUDGE BAER: I get the confirmation part. But to piggyback on Judge White's question, I get that it's a user confirmation, that both those buttons can be user confirmation, and neither one is sort of preferable to the

other in that sense. What Judge White was asking about is user acceptance, because the claim language says that it indicates user acceptance. Now, Petitioner told us that there's only one passage that describes user acceptance and that refers to button 104 on figure 4C, not that checkbox on 4D. Do you dispute that? And is there anywhere else that that checkbox, in the record, through your expert or in the patent itself, that that checkbox is described as user acceptance?

MR. BEMBEN: So, let me just go. Can we go to slide, our slide 10, Steve?

JUDGE BAER: That was a long winded question. If it's not clear --

MR. BEMBEN: I understand --

JUDGE BAER: -- let me know.

MR. BEMBEN: -- your question. I think that that is an unfair characterization of this disclosure, which is in paragraph or, I'm sorry, column 10, 30 through 42 of the '800 Patent that this checkbox that's shown in figure 4D isn't user acceptance. What the checkbox says is, I have reviewed the image and confirmed my selection is correct. They don't say user acceptance, but that's exactly what it is. That is user acceptance. I'm confirming my selection is correct.

JUDGE BAER: You would agree, though, that the patent explicitly characterized that earlier box as a user acceptance and that the patent does not explicitly characterize that second box as a user acceptance? You would just say, well, it doesn't use those words, that's what it is. Do I have your argument correct?

MR. BEMBEN: I agree. I agree with that. That is correct. And I'll also just say that from a claim construction standpoint, you don't have to use

the exact words that are in the specification in order to capture a certain embodiment. And that's what is actually going on with figure 4D. I mean, to the extent that you would read figure 4D and the checkbox is not user acceptance, you'd have to read out the responsive to language that's also recited in figure, I'm sorry, in claim element 1f and 11f. And you just can't do that. I mean, it's very clear what the patent is describing, and it's describing this, what's shown in figure 4D.

And so, just as I mentioned before, the new claim construction theory, as I'm calling it, we also believe that it's just unsupported attorney argument. We don't have any testimony from their expert or anything in the record other than attorney argument explaining that this is how the claim should be construed. So, let me turn to slide 7. Our slide seven, please, Steve.

So, we disagree that you should read a single -- that there's a single embodiment in the claims. And our position is that figure 4D, what's shown in figure 4D, that some computer input is provided and responsive to the designation is required. And, kind of, the shortcoming that cuts through all of their arguments, whether it's the positions they took in the petition, or in the reply, or the argument that they made today about the button can be capable of but it doesn't have to be capable of until you make the designation. All of those arguments fail because none of that is in Abhyanker. Abhyanker doesn't teach that with respect to the marker-locking feature. There's nothing in Abhyanker that explains that the lock pushpin that is shown in figure 9 is grayed out, is not available, is in some way unavailable to the -- or is not provided to the user until you move the icon. That simply is not described at all in Abhyanker. And that's what our expert, which is shown in slide 7, this is Dr. Bajaj's testimony at 78. He went

through Abhyanker and he said it's just simply silent about this pushpin. It certainly shows it on the screen and it tells you that it can lock or that it can claim a wiki profile, but that's it. It doesn't explain to you when the graphical user interface or how the graphical user interface interacts with the user and provides this button or functionality associated with that button. And that's key.

JUDGE BAER: I certainly agree with you --

JUDGE WHITE: Well, Counsel --

JUDGE BAER: Sorry, Judge White, go ahead.

JUDGE WHITE: Counsellor, if I understand that your argument correctly, they're characterizing that locking button as not being capable of signaling user acceptance until there's been some sort of user movement, user input, however you want to describe it. So, the button provided isn't the one that is in the claims until there's been some type of a user input to be accepted. I would like to hear your, sort of, reaction to that argument that they're making on that.

MR. BEMBEN: So, I think that that is a completely new argument. I have not seen that in any of their papers and I had also not seen that in Abhyanker itself. Neither of the experts testified about that. Certainly, their own expert did not provide any testimony that said that that is how a lock pushpin button in Abhyanker is shown and how that functions. There's simply nothing in Abhyanker that describes that. And so, if that's the argument that they're making today, that is unsupported, and I would ask that they show in the reference where that's actually taught, because it's not.

By contrast --

JUDGE BAER: Another question on that issue. Assume that we agree with you about the temporal requirement that that button would have to come up later. And assume that we also agree with you that in the relevant picture of Abhyanker, it shows that button on the same screen. We don't really know when that button comes up. That's going to be figure 9 of Abhyanker. If you would, on Petitioner's expert declaration, which is Exhibit 1003, Petitioner's expert said, and I'll give you a minute to pull up the document.

MR. BEMBEN: Go ahead, Your Honor.

JUDGE BAER: Petitioner's expert said a POSITA would have been motivated by the teachings of Abhyanker to allow users of Pershing-789's roofing system the option to specifically designate the geographic position of a roof to be analyzed using a marker and to include a subsequent user confirmation option to ensure the correct roof is being analyzed. So, my question is, under a 103 analysis, why isn't that good enough? Even if you're right, Abhyanker is silent as to when that button would show up. Petitioner's expert has explained why it would show up subsequent to the marker move.

MR. BEMBEN: So, I will just say that when we get to the claim limitation and breaking down the claim limitation, not the motivation to combine, but the claim language limitation itself, their theory was that that confirmation was taught by Abhyanker. And I think that that's the reason why, because there's nothing in any of the reference -- let's just take a step back. What the patent describes at a high level is it is roofing software and it's in a mapping environment software. And it is trying to be able to accurately locate a certain roof in order for a user to be able to take measurements or generate a report. So, it's very important in the patent, the

'800 Patent, to correctly identify the location of the roof. Okay? None of the reference -- and it provides, when you make a movement of the marker, it asks you, is this the correct location, to make sure that it's confirming that that's the location that you want. There's nothing in any of the references that allow you to move a marker on the map, in a mapping environment, in a software mapping environment, and asks you is that the correct location. There's simply nothing in any of the references that teach that, whether it's the combination of Pershing-789 and Abhyanker, or if it's just Abhyanker itself. And so, we don't have any teaching. And that's why --

JUDGE BAER: Right. But I think you're arguing the functional aspect, not the temporal one. Correct me if I'm wrong.

MR. BEMBEN: No, the temporal one. So, I mean, I'm saying that there's nothing -- there are teachings in Abhyanker that allow the user to drag and drop a marker, for example, in a mapping environment. but that's it. That's the extent of the teaching in Abhyanker. There's nothing in any of the references that are trying to get to the accuracy question about the mapping software and trying to add -- and provides the user the ability to interact with the software and to confirm that the designation or the marker movement is correct. It's not in Pershing, which is why they turn to Abhyanker. And Abhyanker comes up short. And it comes up short because it's really not the same application at all. What Abhyanker is describing is -- its application is different. It's like a social networking environment. You can see it in figure 9. It's a multi-user mapping environment in which different users can move different markers to different locations. They can claim wiki profiles and they can lock. And what that means is claiming the wiki profile and locking, it's not about signaling that

you're accepting a location, a designation of a location. What that's about is that you're claiming the profile. It's about you're controlling it, Judge Baer, for example. You want to control a certain profile. You want to control the information that's available with that profile or that's displayed with the profile. And also, where that marker is placed on the map. You can move it to different locations in the future if you want to. You can place it anywhere. But it's a different application. And that's why you don't see the same type of and kind of one of the key claim features here, which is the user confirmation. Because they're not concerned about is this accurately determining the location of a roof. They're concerned about something completely different.

JUDGE BAER: I understand your argument that a lock feature is not a user confirmation of a location. I understand that argument. It still strikes me as a different argument as compared to the temporal restriction that the provision of the user input must be responsive to receiving the location difference. And my question is, it sounds to me a little bit like you're saying, well, these aren't really even analogous art. That's fine. My question is, why isn't Petitioner's expert correct that the mere disclosure of a lock button and the mere disclosure of the ability to drag and drop a new location, that those two together, regardless of how the reference describes their temporal relationship, a person of skill in the art would know the temporal relationship, and that is to include a subsequent user confirmation to ensure the correct roof is being analyzed. Why isn't that disclosure or that analysis enough in a 103 analysis?

MR. BEMBEN: I think because you don't. All you have from Petitioner's expert is just that conclusory statement. They haven't explained

why it would have been obvious or elaborated, provided any corroborating support. But what we do have is Dr. Bajaj, who is a PhD professor. He has experience in this computing space. And what he has said is that that would not have been obvious to do, and he's provided his reasons why as far as what Abhyanker teaches. And so, I think that if you're looking at that from perspective and you're just looking at it from, there's no specific teaching in the references, we're just going to rely on the experts here, or we're going to rely on what the expert is saying, Mr. Cummings is not a credible expert. He doesn't have -- he's not a person of skill in the art in this case. You should not be crediting his opinion from the person of skill in the art. He did not, when I cross examined him, he did not understand Abhyanker and Abhyanker's teachings. And so, if you're just, if there's no express teaching and you're just going to rely on expert testimony to fill the gap, you should not be relying on testimony from Mr. Cummings because he's not a person of skill in the art, and he doesn't have -- and his testimony is conclusory. Those are the reasons.

JUDGE BAER: But if I could shift gears just a little bit, on the same limitation, is there any indication in the record about the prosecution history and where this limitation came from, if it was added in response to something or anything that might help us understand what this, sort of, provision responsive to limitation is getting at?

MR. BEMBEN: So, the prosecution history, I believe, I can double check this and let you know answer rebuttal, but was a first Office action allowance and so it didn't get into these, any kind of, anything that would help assess the claim and the construction of the claim.

JUDGE BAER: And is there anything other than those figure 4 figures that would help us decipher what this responsive provision is? I understand your position is, look at the checkbox. That checkbox doesn't appear until after the user has moved the marker. I understand that. Is there anything other than those pictures, any text description of that that would help us understand what the responsive provision is?

MR. BEMBEN: Anything in the patent, in the '800 Patent itself?

JUDGE BAER: Or anywhere in the record for that matter?

MR. BEMBEN: Well, so let me think about the record. So, in the '800 Patent, I would say no. The operative portion is to look at, I believe it's column 10 of the patent and look at the description of figures 4A through 4D. And that's kind of also important too, because it's only describing two embodiments of confirmation. There's one embodiment that's provided throughout the entire process and one that's provided in response to something happening. And I think that's --

JUDGE BAER: But does that describe anything being responsive, or does the text use that word responsive, or --

MR. BEMBEN: Can you go back to slide 10, Steve, please? Yeah. So, it doesn't necessarily say responsive, but if you look in the highlighted portion, it says, also a checkbox may be providing a further reconfirmation that the users reviewed the image is correct. And I guess the sentence right above that, I should probably start it with that one, but it says, well, this may provide a wide variety in the formats, in the one example provided, some or all of the regional image may also be depicted showing the marker. I'm sorry, that was the wrong one. But I think it's the fact that the checkbox provides the further reconfirmation and that in this way the user will be, will

ensure that when placing the order, the vendor is measuring the correct roof. So, I think that's showing that this is provided, the screen is provided and it's also providing the reconfirmation. And what it says there is that I have reviewed the image and confirm my selection is correct. So, it doesn't say responsive, but it says that it is provided after a reconfirmation, a confirmation, or user acceptance, some other user acceptance.

JUDGE BAER: Thank you.

MR. BEMBEN: Okay. Are there any more questions about the temporal requirement, what we call the temporal requirement? So, this is a really important point and I want to make sure that we, that there's no other questions on this. Okay, I'm going to turn to --

JUDGE CASS: Well, I have one. Counselor, this is Judge Cass. I just wanted to follow up. I think Judge White asked this question before. I'm not sure I was fully satisfied by the response to it. As we heard from Petitioner, you know, their view is that when the marker in Abhyanker, the marker is moved to a new location the button to lock it thereby becomes capable of signaling the user acceptance of the new location. And it was not capable of signifying, of signaling that user acceptance before because the user hadn't moved the marker before. And I understand you feel like that's a new argument and wasn't presented, but substantively, do you have a response to it? Why is that? Putting aside whether it was properly raised, why is that incorrect?

MR. BEMBEN: So, it's incorrect because that's not what Abhyanker teaches. I mean, that's the bottom line. I mean, Abhyanker doesn't teach that the mark, that the locking button becomes capable of locking at some point during the process. It simply doesn't say that. It provides very little

description of the locking button. And it's also just inconsistent with what is described in Abhyanker, where different users can move things. And there's no requirement that in order to lock a pushpin, it has to be moved first. Which means that there's no the lock pushpin or, I'm sorry, the lock button doesn't somehow, throughout the process, gain a capability that it didn't have before. It's provided on the screen. It is available for claiming wiki profile and locking. And it doesn't describe exactly what Petitioner's argued. That's the reason.

JUDGE CASS: So, are you disagreeing that it's disclosing or teaching that once a user moves the marker, that the user at that point can use the button to then signify that it should be locked in place? Is there a dispute about what the specific operations that are being taught, or is it more of, you know, whether both parties agree on how the reference is operating, it's just a question of whether it meets its claim? Since that's what I'm struggling with.

MR. BEMBEN: So, I think it's both. I don't think that we're agreeing on what the reference teaches. We have our --

JUDGE CASS: So, where do you see the dispute on that? I mean, what is the dispute between the parties as to --

MR. BEMBEN: Sure.

JUDGE CASS: -- what the reference is actually teaching, you know, from a factual standpoint, putting the claim language aside?

MR. BEMBEN: So, to the extent that Petitioner's arguing today that the lock button after a marker movement, suddenly, it was not capable previously, but then after a marker movement it becomes capable of signaling user acceptance of a roof, we're disagreeing with that. That's one.

Abhyanker doesn't teach that with respect to the lock button. It doesn't actually describe the functionality of the lock button in a whole lot of detail. We're also --

JUDGE CASS: So, I think what Petitioner said is that the button can't be used before that, if the system just, the marker might be in a particular position that the computer has assigned, and the user can lock it there if the user wants to. So, the button still has a capability, but it doesn't have the capability to confirm a user's selection of a new location because the user hasn't selected that location, hasn't moved the marker to that location yet. So, once the user moves the marker, the button then becomes capable of selecting that new location because it's responsive to the user's moving of the marker.

MR. BEMBEN: So, my response that --

JUDGE CASS: Is that incorrect?

MR. BEMBEN: I believe that that is incorrect, and I think that there's a number of reasons why that's incorrect. First, that's not an argument that they raised before in their papers. Second, that's just, that it just is not something that's taught by Abhyanker. And so, if in order for -- so, this is about, this is a dispute about the teaching of the reference. And references must be analyzed from the perspective of a person of ordinary skill in the art. So, in order for them to make that argument or to present that argument, that this is how it's working, and this is what it means, and this is what a person of ordinary skill in the art would have understood, they need to provide an argument to show that, and they need to provide some support to show that that's how a person of ordinary skill in the art would have understood this reference. They haven't done that. And it's just that description that the way

that you just characterized Abhyanker is not in Abhyanker. It's not something that's disclosed.

JUDGE CASS: So, what part of it -- so most of what I heard you say was basically a failure of proof argument that they --

MR. BEMBEN: Well, no.

JUDGE CASS: -- not so much disputed reference, but that they haven't sufficiently proven that that's the way it operates. But you know, how, what about that is incorrect? How is Abhyanker operating differently than that?

MR. BEMBEN: So, Abhyanker -- so, it's not just a failure proof. It's not something that's actually disclosed in the reference. All Abhyanker says about the locking button, at least it's shown in figure 9, is that it has the ability to prevent other users from moving that pushpin. Okay? And in other places, the patent of the patent application, Abhyanker, it describes that that's used in conjunction with claiming a wiki profile. This functionality, that it isn't able to designate a location, that's something that simply is not described in Abhyanker. And my point about the failure of proof is just that if their theory is that that's how a person of ordinary skill in the art would have understood Abhyanker, then they need to provide some testimony, they need to provide some evidence to support that theory. And they haven't done that either. So, it's not in the reference described that way at all. And it's also not something that they have any evidence to support, and it's their burden to proof.

JUDGE CASS: Okay, thank you, Counsel.

MR. BEMBEN: And so, let me get to the functional, what we're calling the functional requirement of Abhyanker. And this kind of, this may

help with that question that you just asked me as well. And so, Steve, could you go to Petitioner's slide 57? So, we also fundamentally disagree with Petitioner's position that a person of ordinary skill in the art would have understood that the marker-locking in Abhyanker signals user acceptance or confirmation of the roof's location. We believe that this fails for two reasons. First, we think it's just wrong on the merits. If you look at Petitioner slide 57, it, they're essentially saying that it's not about claiming a wiki profile, that it's just about locking the module. You know, the patent describes the -- Abhyanker describes both. And what our expert testified is that when you look at the reference as a whole, what you have to do when you're analyzing the reference, these things are used in conjunction.

The important thing is that the locking module, what that signifies, doesn't signify that you're accepting a location. It signifies that you're controlling that marker. It signifies that you're controlling the information. You're claiming the wiki. You're claiming that marker. It signifies that you're controlling that information that's provided. Whether it's your house, or your restaurant, or whatever you want, a park, you can add to that wiki and you're the one that's controlling the information; and, it's also preventing others from being able to move it around on you. But it's not designating the location.

And I think it's important to also just look at some of the discussion that we have and some of the evidence that we do have in the record. So, for example, paragraph 80 of Dr. Bajaj's declaration, this is Exhibit 2031. He explains this, he explains exactly what I'm talking about with respect to claiming the wiki profile. And he says at the bottom of that, this is on page 44 of his declaration. Claiming such a wiki profile, Abhyanker explains,

allows the user to control the information that is provided in the profile and prevent other users from relocating the marker to a different location. But claiming a wiki profile in Abhyanker has nothing to do with confirming the location of a building roof structure.

And one of the paragraphs that he cites to in Abhyanker is paragraph 58. And if you look at paragraph 58, that's very telling because -- I'm going to Abhyanker. This is Exhibit 1005. And in paragraph 58, this is describing what I described to you earlier, that Abhyanker's application is talking about a social networking environment. And what Abhyanker says is if -- it's a very, unfortunately, paragraph 58 in Abhyanker is a single sentence, so it's a little hard to parse. But one of the things that Abhyanker does mention is that members of the social network are able to relocate pushpins that are not claimed in addition to relocating their own claimed profile pushpins. That's kind of in the middle of the paragraph. Yeah, my colleague just pulled that up.

So, you're able to claim it and you're able to move it around. If you were just -- if your concern was that you wanted to signal that you're, yes, this is the correct location, the pin is in the right location now, there would be no purpose to relocate it to a different location later. And that's why the claim, or, I'm sorry, this functionality that's described in Abhyanker isn't about signaling user acceptance of a certain location. It's about you being able to control that pushpin and the narrative around that pushpin.

JUDGE BAER: Is there any description in the patent of signaling user acceptance other than a button that says confirm selection? Does it give other examples in the text of the patent?

MR. BEMBEN: Yes, it does. Well, one of them is the checkbox, so that's not necessarily a button. But there's the confirm selection button that's shown in figures 4A through 4C. There's the checkbox that's shown in figure 4D, which is our contention that that's what reads on elements 1f and 11f. But then there's also, if you just look at the definition, I think, yeah, paragraph three of the patent, line 11, starting at line 11, talks about computer input and what that can encompass. And that can encompass numbers, words, mouse clicks, enter check boxes, dialog boxes, and otherwise.

JUDGE BAER: I get that user input was defined. I guess, we had this discussion earlier about user acceptance and whether the button in 4C or the button in 4D was characterized as user acceptance. I understood you to concede that as far as explicitly characterizing it as user acceptance, it only describes button 4D as, excuse me, button 4C as explicitly characterizing that as user acceptance. My question is, is there any other indication anywhere in the patent of what user acceptance means other than the example given by 4C? I understand you're saying, well, I think 4D does, too. We had a discussion of whether the picture in 4D actually uses those words. Are those words used anywhere else in the patent to describe anything else other than the button on 4C?

MR. BEMBEN: I will have to, so, I'll have to look at that a little bit closer. But one of the things that I will say is, if you look at column 9 of the patent, starting at 62, it says, another optional feature is to provide for user acceptance of the final location of a roof structure. One optional way to do this is to provide an Internet based interface for the customer user. One example of such is shown in figures 4A through 4D. So, there it expressly

characterized, which is shown in figure 4D, as well as 4A through 4C as user acceptance.

JUDGE BAER: If there are any other references that would be helpful if you could point those out to us.

MR. BEMBEN: Absolutely.

JUDGE BAER: And you are welcome to do that in sur-rebuttal.

MR. BEMBEN: Absolutely. Okay, I think that I'm going to pause there and turn it over to my colleague to discuss the '538 Patent.

JUDGE BAER: Thank you. Counsel, whenever you're ready.

MR. SPECHT: Yeah. Good afternoon again. I'm Michael Specht, also here on behalf of Pictometry. I'm going to address the '538 Patent. During Petitioner's arguments, Your Honors raised essentially six points on the merits. I'm going to try to focus my presentation to, given the time, to focus on those. Two of those points. One point was you raised the issue of the predominant slope only for a roof section or the entire roof, and you asked the question, is it irrelevant. I agree, irrelevant. Nothing else needs to be said from my perspective, unless you have any questions.

The other issue that you raised that I'll jump to is you talked about footprint. I'm going to briefly touch on that. The bottom line on footprint is they simply got it wrong in their petition. It's a failure of proof. They pointed to the wrong thing; they pointed to surface area. If you use the disclosure and the arguments they made in their petition, supported by Mr. Cummings's declaration, you will get the wrong answer. He didn't understand it. It was presented in such a way that they didn't meet their burden of proof on that particular issue. We asked him questions during his deposition about footprint, and again, going to his credibility, he could not

figure it out. He had -- gave the wrong answer multiple times with respect to footprint. Just a failure of proof in their petition. And I would disagree, there was a comment, I'm going to try to paraphrase it, that was made by opposing Counsel, something along the lines of don't rely on the expert, the Board can read the references and figure them out. Well, that's exactly why we have experts, to help understand how a person of ordinary skill in the art would understand those, to help educate and inform the Board on these decisions. So, we can't just disregard what their experts said in a petition on this issue and suddenly have you figure it out for yourselves.

JUDGE BAER: So, is it your position that figure 5C of Pershing-789 is a footprint, but that's not what Petitioner argued, what Petitioner argued was that the square footage is a footprint; so, even though it is a footprint, that's not what they argued, it's not your job to do their job for them?

MR. SPECHT: Mostly correct. I agree with most of that. I don't believe that what is depicted there is even a footprint, a footprint that's of use for the purpose of determining roofing area, because you have no dimensions to it. That is a useless piece of information from the perspective of determining the area. It's pitch and you need the footprint, the horizontal footprint. That information doesn't exist here. And if you use the figure that he pointed to with the square footage of the roof, you get the wrong answer.

JUDGE BAER: So, your point is that under a proper claim construction of footprint, it must include a numerical value that is different from the surface area, is that correct?

MR. SPECHT: It must include a --

JUDGE BAER: To constitute --

MR. SPECHT: It must have --

JUDGE BAER: -- a footprint --

MR. SPECHT: Yeah?

JUDGE BAER: -- it must include not just an outline drawing, but numerical values for the shadow projection of the roof, not the surface area of the roof?

MR. SPECHT: Correct. Now, if we could just bear with me, if we could go back to, go back to our slide 4.

JUDGE BAER: And if I could just touch on that issue one more time. Would you agree with Petitioner's Counsel, that basically this is the same issue? We addressed the issue. You would contend we got the wrong answer, but we addressed this issue in the Institution Decision. Would you agree that this is the same issue that we addressed in the Institution Decision?

MR. SPECHT: I would, and I would characterize it the way you just did. So, if you could bear with me just for a second, I want to walk back to what this patent is all about, the '538, because I think some of that is lost in the argument here. And it is very instructive when we look at the predominant pitch limitations. So, what we are showing here on slide 4 is the abstract from the '538 Patent. And there's two things on here to highlight. One, as I think we all are, we should be all aware of both of these issues, but it is about determining a roofing area based on the predominant pitch and the footprint. So, roofing measurement is fundamentally important. And also, it's a set of instructions. So, it's software. It's software to determine this.

And if we can go to slide 5. And what do we then know? What is the goal of this patent? The goal is highlighted there in that second yellow.

Basically, estimating construction projects, improving speed, reducing labor costs, safety is certainly another factor, but in effect, it is moving away from the sorts of things that Bailey teaches. Bailey is sending a technician out to the field to take measurements, to get up on the roof with a tape measure and make these measurements. This patent, which goes to the first highlighted area, now, a decade ago, aerial images were starting to be used. They were starting to be able to be relied upon for different sorts of imagery analysis. And so, they're taking that to achieve these benefits, to move away from the sorts of things that the Corps of Engineers and Bailey was doing in the exhibit. And I think that's loss. It's an alternative to Bailey. It's moving beyond that. Now, if we could go to the next slide, Steve.

The last point I'll make in the background, and we haven't had a whole lot of discussion about this, but it is really about using these aerial images. And that's important to keep in mind when we're thinking about predominant pitch. The predominant pitch of the '538 Patent relies on those aerial images. That's not what Bailey is doing. Bailey is a guy with a tape measure going out there -- or we think, we think. We don't even know for sure what they're doing because that's not disclosed in the worksheet.

JUDGE BAER: Assume you're correct about what Bailey is about. You used the term moving away. Is it your argument that Bailey teaches away from the combination? Is it your argument that Bailey is non-analogous art? Or is it something different? Because I'm not sure what move away means in a patent law context.

MR. SPECHT: That's fair. So, there are aspects of it that I do think teach away. I think it's analogous art. It's in the art of roof measurement. So, we're with you there. But there are aspects of it, and this goes to the

issue of the predominant pitch, we have the worksheet, and it is just that it is a worksheet. There is nothing that describes predominant slope, what it means, other than its entry 33. We don't know anything about the meaning of that in the worksheet. But what we do know then is it refers you to the appendix, which is the only place in the Bailey references that gives a methodology for teaching area, the roof area. And what we know about the appendix then, it does not use predominant slope. It tells you, it takes you down a different path. It takes each of the individual areas of the roof, takes a measurement, takes the slope, and then adds them up to come up with area. That's not relying on the predominant slope. It's moving away from potentially using that. If they were doing what we're doing in the '538, why not use predominant slope in that appendix? And so, from that perspective, to your question, it is moving us away, teaching away from, essentially, the disclosure or the view, use predominant slope to compute roofing area.

And so, if just momentarily, we can go to slide 7 to come back, this is their proposed level of skill in the art. I'm not going to spend a lot of time on this, but it tells the story of what I think happened here. In this description, it doesn't mention using aerial images, doesn't mention software, and it doesn't even mention roof measurements. It talks roof estimation, which covers all sorts of potential things. But the real focus of the patent is roof measurements, using aerial images to come up with a roofing area.

So, why is this important? One, we want to get this right, right, when we come up with what the actual person of ordinary skill. But it tells the story. They went in the wrong direction. They went right when they should have been going left, and they sent the Board down the wrong path, in our view, as well. One, they chose an expert that wasn't qualified in the '538

technology, and two, because they went the wrong direction, they missed some of these nuances and distinctions about predominant pitch and how you would go about computing area.

I'm going to jump ahead. So, Steve, go to slide 14. So, slide 14 is just claim 1. We're pretty well familiar with it at this point. We've highlighted two of the limitations. The first, determining a footprint and a predominant pitch of the roof by analyzing one or more images. So, right, that predominant pitch, it must be looking based on images, not a guy with a tape measure. The second part of that is then we're actually going to use that to determine an estimated roofing area based on the predominant pitch and footprint of the roof. I don't think they've demonstrated in their petition that Bailey, in combination with Pershing or Kennedy, teaches either of these limitations.

And just to be clear, if we go to slide, the next slide, Steve, slide 15. So, the petition, just, and I said, to be clear, and I think this is a fairly straightforward point, both of their combinations rely exclusively on Bailey for the use of predominant pitch. There is nothing in Pershing, nothing in Kennedy that mentions predominant pitch. There isn't even anything in those two references that talks about how you would compute a roofing area. It talks about, in Kennedy, it's looking at, basically, it's superimposing to see roof measurements for the placement of solar panels. It doesn't necessarily need the area per se, a measurement of it, just so that the template would fit on the roof. In Pershing, it doesn't get into any details in terms of the specifics of how you would compute the roofing area. It says, yes, we have this calibration system, and it's going to generate an area, but it's a mystery how that occurs.

And so, to -- and I think it was, Your Honor, Judge Baer, you made the comment. You put it out there that, so, all we are basically doing is replacing predominant pitch for pitch in Pershing and Kennedy. And I don't think that's the case because Pershing and Kennedy don't show you how to compute a roofing area. They talk about it, right, being available in their system, but it doesn't give you the methodology to do that, which is what our claims, these two limitations, are talking about a method for doing that.

So, the next slide, Steve, slide 16. This is also just two points here reiterating that, again, they're basing in the Kennedy combination. Predominant pitch relies solely on Bailey. But I also want to highlight in the highlighted portion on the left hand of the screen, it says, as discussed above, a POSITA would have been motivated to use Bailey's teaching of calculating the predominant pitch. That is absolutely incorrect. There is nothing in Bailey that tells you how to calculate a predominant pitch. It's on a worksheet. But we don't know how they got there. Those were questions that we asked both experts. Our expert, as you might imagine, confirmed that it wasn't calculated. But even during cross examination, during his deposition, their expert admitted that Bailey doesn't calculate predominance pitch.

JUDGE BAER: And this goes to, a little bit, what we said in our Institution Decision, what you said here. As I understand it, the independent claims don't use that word calculating, but some of the dependent claims do. So, am I correct that these arguments only impact dependent claims? Your argument was that Bailey does not have calculating --

MR. SPECHT: Yeah.

JUDGE BAER: -- a predominant pitch. And I want to know if that affects the independent claims or just the dependent claims that require the certain way of calculating a predominant pitch.

MR. SPECHT: Fair. So, it directly relates to the dependent claims, 10, 11, and 18, directly relates to those. Indirectly relates to the independent claim 1, because it goes to the credibility of the expert. He's simply wrong here. This is another wrong position he took. And so, to the extent when you look at the petition for the arguments, for example, on the Pershing-Bailey ground, it is scant. Right? There's like a very short paragraph that says basically nothing. Do you have the petition? Go to -- yeah, I'm looking for something different right now. Actually, no, this is it. Sorry, Steve. Steve is always correct. Go back to where you are. This is the entirety of their argument for claim element 1D for the Pershing-Bailey combination. That's it. And so, from our -- that's not enough, one. It's an error. Right? And this is 1D. We're talking about 1D here, not the dependent claims. So, it's an error. But this is the extent of the argument, and there isn't anything that they're pointing to Pershing in their petition that says, oh, here's how Pershing would show you how to take this predominant pitch and then calculate a roofing area, which is what's needed for this element. It's just not there, primarily because it's not in Pershing, I would think, because if it was, I'd hope they include it, would include it.

So, Steve, if you can now jump to slide 17. So, slide 17. Just very quickly, we've kind of covered this. This is just a small excerpt of the worksheet. Again, there's nothing, nothing, absolutely nothing, where Bailey defines what he means by predominant slope. So, same words, predominant slope, predominant pitch, but different meanings as they relate

to the ‘538 and what's being presented here. And we don't know what the meaning is in Bailey. So, in effect, this is a claim construction issue on predominant slopes from the patent, but Bailey doesn't tell you what predominant slope even means.

So, next slide. So, on the next slide, we've more or less covered this, but Bailey's estimate roofing area without use of a predominant slope, this is the whole notion of it teaches away from. And a couple comments that I want to make to here, also going to the credibility of their expert. On the bottom here, they make the statement in their position, a POSITA would have been highly motivated to consider the teachings of such a well-respected guide, first -- and then that's a mere copy in Mr. Cummings declaration, absolutely conclusory, for one. For two, prior to this proceeding, Mr. Cummings, a supposed expert, wasn't even aware of this highly respected guide. We asked him that question during his deposition. This was the first time he saw it. And even though he had been using it, he wasn't even familiar that it was what was making up Appendix B of the Bailey reference.

Slide 19, please, Steve. So, in 19, again, just the evidence, to the point I made earlier. Both experts agree that opinion does not use predominant slope to estimate roofing. On the left-hand side, you see our expert's testimony, Mr. Kestner, plain and simple. Nowhere does Bailey use a predominant or primary slope for estimating the entirety of a roof or a roof. And so, we asked Mr. Cummings those questions, or I did, during cross-examination, and page 136 is referring back to the Bailey reference. And I asked, so the calculations, this is in the second box. So, in the calculations that Bailey uses to estimate the area of complex roofs, does he use

predominant slope in any way? And you can read his answer. When you estimate the individual areas like this, that's not a predominant slope calculation. So, I tried to confirm that. So, in this example, the only example in Bailey, he does not use predominant slope as part of his calculation. No, Bailey does not. It's just simply not there.

Now, Steve, if we could jump, I want to jump to the dependent claims quickly. Jump to 23. On slide 23, just to level set and remind us, these are the dependent claims 10 and 11, very similar in structure. The predominant pitch, looking at 18, is based on a weighted average of individual pitch factors. And here again, I would like to address one of the points that came up earlier. There was a discussion about a limited number of ways to determine predominant slope, and I don't remember the examples given, I think were an average, a weighted average, but there's many different ways that you could determine it. It could be the steepest portion that's of most interest. It could be the easiest to measure coming out of the world from Bailey, if there's a real steep part, maybe they don't want to go measure it. They just measure the easier parts. It could be a median in these roof estimation. And what the Corps of Engineers were doing, they were looking at damage. It could be the areas that were most damaged. Right? What's the predominant sold for those areas? It could be based on aerial measurements. It could be based on blueprints. It could be based on tape measure. So, there was a whole multitude of possibilities for --

JUDGE BAER: Assume you're right about that. Assume we agree with you that there are not just a limited number of ways to do predominant pitch, such that all of them are known and would have been obvious. Petitioner in the petition noted the RMS Illustrated Construction Dictionary,

and it describes doing a weighted average. So, even if there are multiple ways to do it, why isn't that a disclosure of a known way to do it? And it's one thing if an expert says everybody knew that, but don't they have something here, evidence supporting it in that Exhibit 1013? Why is that not good enough?

MR. SPECHT: Yeah, Steve, if you could go to slide 26. It is absolutely not good enough. It begs the question. What we're looking to define as predominant slope, not the definition for weighted average, we're defining, in our patent, '538, predominant slope in this claim as being a weighted average. We're not disputing that a weighted average exists. What we're disputing is a person of ordinary skill in the art would not have known what predominant slope meant, and it would not necessarily have meant a weighted average, because there's these multitude of possibilities. So, the fact that they went out and found a definition for the weighted average is largely irrelevant. What is in --

JUDGE BAER: What they found is a definition that showed you one way to find predominance is by doing a weighted average. So, a description of a predominant pitch with a description in another reference, that one way to do predominance --

MR. SPECHT: Yeah.

JUDGE BAER: -- is through a weighted average, and they've articulated some reasons, that gives you predominant pitch by weighted average. So, is --

MR. SPECHT: Yeah.

JUDGE BAER: Is your argument, well, that's not in one reference, or --

MR. SPECHT: No.

JUDGE BAER: Why doesn't that work? Or am I just misunderstanding their argument?

MR. SPECHT: Yeah, I don't, can't answer that latter part. But in terms of our position on this, the driver here is, is there a definition that a person of ordinary skill in the art would understand for predominant slope? And we have on this particular slide, for example, we're actually looking at this residential asphalt roofing manual, which they indicated was a respected guide, which we agree. And you look at, they have a glossary in there. Predominant slope's not there. In our papers, we went through, I don't know, three or four other industry references at the time. None of them define what predominant slope is. So, there wasn't, it wasn't as though this was a term of art. And the fact that a weighted average could be used as one weight sort of is a little bit circular in the sense that we have all of these different -- I could go through any of these different cases and make the argument why that could be a predominant slope.

The important issue is coming at it from what is the definition of a predominant slope; is it a term of art. It was not. But that's why our experts spent time, in his declaration or in our Patent Owner response, explaining what it would mean in the context of -- I thought they were telling me it's time to be quiet. But it's actually more helpful than that. Looking at the industry, right, all of these, it lacks it. So, our expert had to explain what it was in the context of the ‘538 Patent. That's why I made the comment earlier, it’s essentially a claim construction argument on what is predominant slope. And we think we've presented that here. Clearly, that's consistent with the specification, the claims, industry references that don't define it as a

term of art, and our expert's testimony. And that definition, that concept is not what is presented in Bailey, the predominant slope. We simply really don't know anything about that. It's an entry on a worksheet. And I'm supposed to read, the definition of a weighted average, in response to your question, also doesn't show evidence of use for calculating a predominant pitch.

JUDGE BAER: It is certainly true that they're not saying that either. Reference by itself has calculating a predominant pitch using weighted average. It's just that one reference says predominant pitch and another one says weighted average is a way to figure out predominance. So, I'm putting those together. Why can't I put those two teachings together? I agree with you that Bailey doesn't have that disclosure. The question is, why doesn't Bailey and the RMS Illustrated Construction Dictionary have that disclosure together?

MR. SPECHT: Yeah.

JUDGE BAER: The answer may be, well, they're separate. There's no reason --

MR. SPECHT: Yeah.

JUDGE BAER: -- to combine them.

MR. SPECHT: That would be my argument. I mean, there are two independent thoughts, and the only reason why they went looking for the definition of weighted average was because they saw it in our claim language. Right? That was the only connection. And that's perfect example of hindsight. They're driven by what's in our patent to look for that definition and then say, oh, here's a weighted average, that's a way of

determining predominance. But that's inconsistent with everything else that's been presented, the evidence in the case on this issue.

JUDGE BAER: Fair enough. And if we could turn to one other issue, and one of the dependent claims, the discussion of outline drawing in the references was sort of necessarily terse. I understand there were a lot of issues. I am not following why Kennedy's disclosure in figure 35 and figure 36 is not an outline of a roof structure. This is on, for example, their slide, excuse me, Petitioner's slide 78. You can also find it at petition. I don't have the reference right now, but let me just ask the question. Kennedy's figures 35 and 36, why are those not outlines of a roof structure?

MR. SPECHT: I don't -- I'll address that in --

JUDGE BAER: You're welcome to address that in your --

MR. SPECHT: Yeah. I don't remember that argument being made. So, in my case or the '538 case.

JUDGE BAER: And I might be conflating the two.

MR. SPECHT: I just --

JUDGE BAER: We can address that on sur-rebuttal, if you like.

MR. SPECHT: Yeah, I think this is an argument. Yeah, I'll let Richard address that.

JUDGE BAER: I Apologize.

MR. SPECHT: And if I can just finish up very quickly. I know we're into our rebuttal time, but I did want to address very briefly the issues that we haven't so far in terms of Mr. Cummings testimony, just to highlight maybe two quick points beyond what we've already discussed.

Steve, why don't you jump to slide 40. So, this is a series of questions. On the left side is, during his cross examination, I wanted to get a

sense of his experience in roof measurement. So, I asked the question after 1988, did you do any work in the roof estimation area? I did not. So, for the last 36 years, his answer was, he did nothing in roof estimation. That doesn't seem like an expert in the subject matter of this patent. It doesn't even seem like a person of ordinary skill in the art in the subject matter of this patent. We're not making the argument that you should exclude his testimony. We're just saying that it should get no weight.

Interestingly, they did redirect, and during redirect, they asked him some questions, and during that, he said that he had done a significant number of roof estimates from 1990 onward. So, then, on my re-cross, which is shown on the right, I asked that question. So, you indicated you did a significant number of roof estimates from 1990 onward? Yes. Can you quantify significant? Hmm, let's see. And he -- probably in the neighborhood of, I'd say, 15 to 20. So, basically, every other year, he would do a roof measurement that is not an expert in the subject matter of this patent.

And with that, I will reserve the rest of our time for our rebuttal.

JUDGE BAER: Thank you. Petitioner, you have 16 minutes of time remaining. No hurry. Start when you're ready.

MR. HAGIZ: One minute. I'm ready. So, Your Honor, I want to first, Judge Baer, I want to address the point, the question that you asked about the ‘800 Patent and the combination with Abhyanker. And you pointed out in the proposed combination, I think 100 percent correctly, that in the proposed combination, I just want to pull this up. There we go. Here we go. The proposed combination is, as you mentioned.

JUDGE BAER: What are we looking at? What exhibit?

MR. HAGIZ: So, this is the petition in the 00435 proceeding. And in the petition, the proposed combination was to use Abhyanker's teaching to allow users of Pershing-789's roofing system the option to designate the geographic position of the roof. And I forgot to highlight the key part. And to include a subsequent user confirmation option to ensure the correct roof is being analyzed. And so --

JUDGE WHITE: What page of the petition are you on? Sorry?

MR. HAGIZ: Sorry. This is page 24 of the petition.

JUDGE WHITE: Thank you.

MR. HAGIZ: And it continues onto page 25, where specifically the petition says it would have been obvious to include, provide specific motivations and reasons to apply Abhyanker's combination in this way, specifically, things such as being able to confirm that the selection is right, promotes accuracy, saves money, saves time, avoid customer losses, and adds convenience. And so, even if, even if we decide, even if Your Honors decide that per the claims of the '800 Patent, the second computer input has a temporal requirement, so it has to show up, it cannot show up until the designation has been made. Even if Your Honors conclude that in Abhyanker, when the designation is made and the locking is of a designated position, as opposed to the computer-generated position, even if we accept all of that, the fact remains that Abhyanker teaches a button that locks the position, and in the proposed combination, it can be displayed after the designation is made. And there's reasons given to do that. There's no specific rebuttal to the proposed combination by Patent Owner's expert. Patent Owner's expert's position is that Abhyanker simply doesn't disclose the temporal requirement.

I looked. I wanted to be sure. I didn't see any response to the proposed combination and the motivation to combine offered in the petition and offered by Mr. Cummings that says that in the proposed combination, you would display the button after, and I haven't heard articulated any reason why you couldn't do that or why it would be difficult. At a minimum, it's a design choice. At the point that you have a disclosure of a button that confirms a location that locks the position, whether you display that button before the designation or after, from an implementation perspective, there's no practical difference. And so, once you have that disclosure, where and when you actually display the button, that's purely, purely obvious, based on common sense and based on knowledge of a person of ordinary skill.

Now one of the other questions that was raised is if there's any other disclosure in the '800 Patent of what user acceptance actually means. There are a few. I don't know that any of them are actually helpful compared to the one in figure 4. So, the main in this is Exhibit 1001, the '800 Patent. In figure, sorry, in column 5, lines 13 to 15, there's a definition of user acceptance as an affirmative step, or series of steps, or computer input undertaken by the user to make a selection. Now, the problem is that doesn't tell us when we're looking at the buttons or the checkbox in figure 4, that doesn't tell us which one of these is signaling user acceptance, right? It's something that is undertaken to make a selection. But in that particular example, the only one that is actually described as signaling user acceptance is that confirm selection button that's there from the beginning. There's another example in figure 3. I'm not going to, well, I can't show this one. There's another example in figure 3, but again, this one just shows --

JUDGE BAER: Figure 3 is a flowchart, a logical flow chart, not a screen print, correct?

MR. HAGIZ: Exactly. So, figure 3 is the same thing. It refers to a user acceptance signal. It doesn't tell us what that actually is or what that's going to look like. So, the only example that, the only embodiment, the only disclosure that provides an example of what the user acceptance or the computer input that provides a user acceptance signal looks like is the one that we looked at in figure 4. And of that only the confirm selection button is actually explicitly described as user acceptance means. And so, I think based on that, based on that understanding, I think it's difficult to import the temporal requirement of when the button is actually displayed.

There were some questions as to -- there are some arguments that this entire position was new in the reply. I think our position would be, we never argued in the petition that this temporal requirement exists, and we never argued that we need the additional verifications in order to meet any part of the limitation. I understand that that's Patent Owner's interpretation, but we didn't make that argument. And so, there wasn't a reason for us to go into this claim construction position until they raised it for the first time in their Patent Owner response. So, our response to the temporal requirement of the reply that was directly responsive to an argument that appeared in the Patent Owner response in the first instance.

The only other point I think I want to address on the ‘800 Patent. I think going back to the argument of whether this locking module is claiming a wiki profile or a user acceptance, I understood Patent Owner’s argument when they stood up just now is that Abhyanker’s locking module is not signaling user acceptance because it may be possible to still select some

other option after you've pressed that button. I did not see that argument in their papers or expert declaration. The argument that I saw was that the locking module is not signaling user acceptance because it's claiming a wiki profile.

But in any event, there is no requirement in the '800 Patent that the signaling of user acceptance that that is some final thing that cannot later be changed or undone. Especially when we consider the figure 4 example with the confirm selection button. The fact that a screen shows up after that which you would have an option to exit out of, indicates that the confirm selection button doesn't need to be the final point.

So, I think the lock pushpin button in Abhyanker, fact is that it is a step towards user acceptance. It is a step that is affirming the selection of a position. The fact that there may be an option of further changing it later does not change the fact that it is user acceptance per the definition in the patent that we just looked at.

Now, unless there are other questions on the '800 Patent or Abhyanker specifically, I want to address a few of the points that were raised on the '538 and Bailey. Okay. All right. I thought that I heard Patent Owner argue in the context of the '538 that they do now believe that the construction of footprint as requiring the area is correct. I mean, I would just go back to what we showed on slide 102. I mean, in our petition we quote the exact definition from the specification. This is the petition in the 00436 proceeding in page 28. It's quoting from the '538 Patent at 12, 8 to 9, express definition, which was the same definition relied on in the Institution Decision, is footmen may -- footprint may provide a two-dimensional

boundary and or outline of the roof. There's absolutely nothing to suggest or indicate that the proper construction would require area.

The other thing I want to address at a higher level is this notion that Bailey is quote/unquote, a guy with a tape measure. There are two parts to Bailey. There is the body of Bailey that has a description of this software product that can do automated measurements. And then there's Appendix B. And Appendix B is this field manual of how to do field measurements. And what Bailey teaches and part of what we were looking at in the slides earlier, especially, the description of a predominant slope, is there is information that is determined for the software application, like the predominant slope. And when that information is not available, then you have to go out and do the field measurements, which does not suggest that field measurements are the preferred approach for Bailey. It is the alternative when information is not available. So, I think in the first instance, describing Bailey as a guy with a tape measure is not appreciating the distinction between Bailey's main teachings and the appendix, which is a backup for how to get certain information when it's not available.

But I think, regardless, I think that was raised in connection with whether or not Bailey discloses doing these measurements or determining these measurements from an image. And at the end of the day, that doesn't matter, because Pershing-789 and Kennedy, the primary references for the '538 Patent, are determining pitches and areas and other measurements from an image that's not disputed. The only argument I heard is that they don't specifically teach you how they're determining those measurements. Well, that's true of the '538 Patent as well. I didn't see anything in the '538 Patent that explains how it's actually determining the pitches. Predominant pitch, it

tells you, is a weighted average of individual pitch values. Doesn't tell you how it's actually determining the pitch values even for the area. The claims just say that the area is based on the predominant pitch and the footprint. There isn't a specific equation; there isn't a specific formula for how you're actually using those values to get to the actual area of the roof.

Now, in any event, you know, these are all essentially new arguments and attorney argument. There was no actual dispute from Patent Owner's expert on motivation to combine for the independent claims. I understand they're raising this dispute on weighted average. I talked about it earlier, and I don't plan to come back to it unless there are questions. But on the independent claims, there isn't a dispute on motivation to combine from their expert. And so, there isn't a dispute that you can take Bailey's predominant pitch and apply it into Pershing-789 and Kennedy's systems, which are already doing the other measurements and the other calculations. And if there's any question at all as to how you would do the estimated, the estimated roof area, I mean, Bailey tells you the exact formula, which is you take the horizontal same area and you multiply it by a pitch, and you get to the roof area. Now, I understand Patent Owner wants to read this on Appendix B and says that means you have to do the individual pitches. But if you actually look, think about the example that Bailey gives in connection with this particular methodology.

JUDGE BAER: If I could just interrupt. I'm confused. Are you arguing that Bailey discloses calculating predetermined pitch by using a weighted average without the additional field manual -- excuse me, without the additional reference? Or are you arguing something different?

MR. HAGIZ: No, so, I'm just arguing, so, in response to the point that Pershing and Kennedy don't necessarily specifically say, here is how you compute the roof area from pitch information and from horizontal area. I didn't see that argument in Patent Owner's papers, but that's the argument that I thought I heard a minute ago. So, that specific formula, right, take the horizontal area, multiply it by the slope factor to get the actual area. That is very clearly in Bailey. That was on slide 93 that we were just looking at, which is from Bailey at page 8. Sorry, Bailey at page 22. And when you apply that to the example that Bailey gives, so, there's a worksheet that's shown on pages 13 and 15 in that example, right, there is an area given for the entire roof. There is a primary slope, which Bailey tells us is the same as the predominant slope. There is a predominant slope given for the entire roof. If you apply the teachings of multiply the horizontal area by the slope factor, you're multiplying the footprint of the roof, the total area, by the predominant pitch. That's all that you need for the proposed combination.

All right. And then the final point I'll make on the weighted average, I heard Patent Owner argue that there are maybe a number of different ways that you could determine the predominant pitch for a roof. I don't think that changes the fact that there's really only a finite number of ways. And even of the additional examples I heard right, use the steepest section, use the most damaged section. That boils down to the same, select one pitch and use it as representative.

The only other two ways of actually calculating it that anyone has raised, including the experts is a standard average or a weighted average. I heard median, too. But again, we've got a small number of options, and these are all basic mathematical computations that take a number of values

and then combine them to get some representative singular value. And in this particular case, we're not just saying use a weighted average, full stop, no explanation. Because Petitioner's expert gives a reason why you would want to use the weighted average specifically. And he specifically says that weighted average is better in this particular instance, because you're giving greater weight to roof facets with larger surface area. And what that means is that you get a more accurate estimate.

But at the end of the day with Pershing, and especially with Pershing and Kennedy and the proposed combination, we're not trying to calculate the definitive area. And in the claims too, we're not calculating, we're estimating. So, weighted average, according to Patent Owner's expert, and I didn't see a response or rebuttal to this specific opinion, weighted average is going to get us a more representative value predominant pitch. That means we have a more accurate estimate. So, that is definitely a reason to use that one of the other well-known standard mathematical techniques for combining numbers into a single one.

I think I have 45 seconds left. I think those are the key points I wanted to hit on. Is there any other issue that was raised that Your Honors would like me to address or respond to?

JUDGE BAER: Nothing for me. For my colleagues?

JUDGE WHITE: Nothing for me.

JUDGE BAER: Thank you, Counsellor.

MR. HAGIZ: All right. Thank you.

JUDGE BAER: Patent Owner, you have 12 minutes remaining. As I said, you're free to use them however you like and start whenever you're ready.

MR. BEMBEN: Thank you, Your Honor. Steve, can you go to slide 4, please? Again, this is Richard Bemben, and I'm talking about the '800 Patent. And so, there's been a lot of discussion of user acceptance and what that term means in the claims, and let's just put this to bed. The claim, 1f and 11f, they define user acceptance. It says in the blue part, you see that, user acceptance is one or more affirmative steps undertaken by the user to confirm the designation of the building roof structure location. That's what it says. That's what is required by the claim. And that reads on both the confirm selection button that is shown in figure 4C. That satisfies it. It's also what is shown in figure 4D. That's user acceptance. But the key element, or the key aspect of figure, I'm sorry, of 1f and 11f, is that the user acceptance, the second computer input capable of signaling the user acceptance, has to be provided in response to or responsive to receiving the designation of the building roof structure. That only reads on what's shown in figure 4D.

Also, Judge Baer, you had asked about where else in the patent. I mentioned to you before, and I just kind of want to qualify what I said before. The discussion in column 10 at lines 30 through 42 doesn't expressly use the word user acceptance to describe figure 4D. I don't think that matters for the reason that I just mentioned, but I will say that again, column 9, 63 through 66 does characterize figure 4D as user acceptance. So, I think that that should answer the questions about user acceptance and demonstrate that what we're describing, what's recited in and claim element 1f and 11f is figure 4D, is the user checkbox of figure 4D.

Now, one of the things I just heard Petitioner's say essentially is that when we're talking about Abhyanker and whether Abhyanker satisfies this

limitation, even if you disagree with them, that there's a statement in the patent, I'm sorry, in the petition on page 29, and that this would be a design choice and that this would be common sense, those are new arguments. Design choice that has certain showings that need to be made. They haven't made those arguments. Common sense, also, under obviousness law is something that has certain showings. That's something that they have not made.

But what I didn't hear them say is point you to anything in Abhyanker that shows their theory that prior to a user moving a marker, the locking feature or the locking button is inactive, incapable of signaling user -- incapable of locking the marker. And then after a marker has been dragged and dropped, suddenly there's functionality associated with that, with that button. That simply is not disclosed in Abhyanker. And what I'll contend to you is that Abhyanker, the only place that Abhyanker describes the locking button in figure 9 is in paragraphs 94 through 96 of Abhyanker. It's a very sparse description of what's shown on the interface and that is it. There's no description of how that functionality works.

Finally, with respect to -- we had talked about the locking module again and the functionality of that locking module and one of the things that I pointed to and that I discussed was paragraph 58 of Abhyanker. This relates to the functionality. And what our expert said when the expert looked at Abhyanker, and again, this is in paragraph 80 of our expert's declaration which is 2031. Again, the functionality around Abhyanker's marker-locking has to do with claiming the wiki profile, controlling the information that's in that profile, and preventing other users from relocating the marker. But it doesn't have to do with confirming the location of a

building roof structure. I mentioned in my opening arguments that we think that paragraph 58 of Abhyanker, which shows that a user can claim the wiki profile but then continue to move the marker around. And also, it says at the bottom of that paragraph that a user can set it a certain threshold distance from other markers. All of those things indicate or suggest the notion that this functionality, the functionality associated with the locking, is not about designating or signaling acceptance of a certain location. But it's --

JUDGE BAER: It's your position, if I understand you correctly, none of those aspects are decisive. In other words, you're not arguing that in order to be a user confirmation, it has to be final and can't be undone. You're suggesting, as a whole, they don't teach the user confirmation because of the, sort of, whole effect of those aspects. Is that correct?

MR. BEMBEN: That is correct. Absolutely correct. It's just evidence supporting our notion.

JUDGE BAER: Yeah.

MR. BEMBEN: And what our expert did is look through the reference, looked at the reference as a whole, and provided his opinion as to what that functionality associated with the locking mechanism is. And what he said is that it is not signaling user acceptance of the building roof structure, which is the function that's recited in the claim.

Do Your Honors have any questions for me?

JUDGE BAER: Yes, if you could address the question that I actually addressed to your Co-Counsel about Kennedy's outline. Why are Kennedy's figure 35 and 36 not an outline of the roof structure?

MR. BEMBEN: Yeah, so I'm just looking at the petition. Hold on. I didn't see anywhere in the petition in where the Kennedy section for claim 2

that they relied on figures 35 and 36. Hold on, let me get to that. So, I'm looking at page 75 of the petitions, and I don't see them relying on those figures, but I do see them relying on as the sizing tool. And we explain in our papers why the sizing tool is not in outline.

JUDGE BAER: Because it's not superimposed. Correct?

MR. BEMBEN: It's not superimposed. And it's also, one of the things that Mr. Cummings explained or testified about during his cross-examination was that an outline drawing encompasses the entire outline. It's not just the length and width of one side or something along those lines, which is shown by the sizing tool. It's an outline drawing of the entire outline of the outside, the perimeter, if you will, of the roof. So, the sizing tool is not described in that manner, and it's not shown in that manner. And they did not rely on figures 35 or 36.

JUDGE BAER: So, just to put a sort of punctuation on this, you would, would you concede that the Kennedy's outline, as disclosed on figures 35 and 36 are an outline, but that's just not what they relied on? Do you contest that figures 35 and 36 disclose an outline?

MR. BEMBEN: I don't think I can answer that without looking at the reference --

JUDGE BAER: Fair enough.

MR. BEMBEN: -- and saying what that is. But what I do know is that they did rely on, they said Kennedy expressly disclosed discloses a sizing tool. This is on page 75. And I don't know if what's shown in that outline, drawing on 35 and 36, figures 35 and 36 of Kennedy is that sizing tool. To the extent that it is not, I don't think they're relying on that.

JUDGE BAER: Fair enough. Thank you.

MR. SPECHT: Thank you, Your Honors. Steve, can you go to slide 87 of Petitioner's slides. Just a few comments. Most of what I heard just said about the '538 Patent I disagree with. I'm just going to address a couple of those points. A lot of discussion was given just moments ago with respect to the worksheet from Bailey and how you can use this to figure out area and all of that. There's nothing here that tells you how to do that. It's two entries, one the primary slope and one the area. There's no connection between those two things. We don't know how area was generated. For all we know, it was a person with a tape measure measuring all sides of the roof and writing it in the block. We don't know that it was calculated based on the slope information. Simply, it's not there.

The other comment that was made with respect to Bailey and that Bailey is -- it's not preferred that they're using the worksheet and having they took issue with my guy going out with the tape measure, well, the reason we focused on that is this is what they focused on in their petition, is the use of this worksheet. And this worksheet is exactly that. It is a tool for a technician going out in the field so that technicians would record data in a consistent manner for process improvement for the Army Corps of Engineers. So, that's why we focused on it. It's kind of irrelevant whether it's preferred or not. It is what was in the petition and was the focus of the petition for an alleged teaching of predominant slope.

The other comment, and Steve, if you could pull up the '538 Patent, column 12. The other comment that I heard was that, if I understood it correctly, there wasn't a specific way to evaluate or determine roof area that was disclosed in the '538 Patent. Well, there is. Column 12 shows how you use the weighted average approach to come up with a predominant slope

based on the weighted average. It's very detailed, such calculation. Such an analysis is not in Pershing, something comparable. It's not in Kennedy. The closest thing we have to this sort of a calculation and how you would determine your roofing area or make any calculation is in Bailey's appendix, which we've already talked about, which is inconsistent and teaches away from what we're trying to do in the '538 Patent.

And again, I'll remind a point I made on my opening comments, that both of the experts agree that Bailey does not show you how to calculate the predominant pitch. And there's no disclosure how, absolutely no disclosure how you would use it to compute an area.

The final comment I wanted to address that was made was, how do you know, there was an argument made that the weighted average, well, that would be the most accurate approach, so that would be the natural approach. Well, first of all, being most accurate may not be the only driver here. Our expert testified that speed is also critical. There are other factors that might drive the use of a parameter or how we calculate that parameter.

JUDGE BAER: But isn't the point that it's a known approach? It doesn't matter if it's the best approach. It doesn't matter. It's a known approach, and I don't even need, it's not even relevant whether Petitioner's expert said it was a known approach. It's whether the references teach that it was a known approach. Isn't that what's critical?

MR. SPECHT: I would respectfully disagree. I think what is critical is what is the, what we talked about earlier, what is the definition of predominant slope. That's what --

JUDGE BAER: I'm not seeing the connection between the definition of predominant slope and whether weighted average was known. Can you help me make that connection?

MR. SPECHT: The connection, because what we're most interested in this case is the construction for predominant slope. And one of our claims, or two of our claims, defines predominant slope as a weighted average. So, that's the connection that's being made by the two. By our patents. It's driving that. If but for that connection in our patent, you could go off in a bunch of different directions, as we discussed. And I only had 30 seconds to come up with a handful of different ways that we could define predominant slope. I'm quite sure there are many, many more. So, that's the connection, I think, is our patent makes the connection. And based on that connection, they went out and found a dictionary definition of weighted average, which is, it begs the question, it doesn't seem very helpful to me. It doesn't give you a definition for predominant slope. It just says, we know how to calculate a predominant or a weighted average. We're not disputing that people don't know how to calculate weighted averages. It's just, was that the best measure? It doesn't have to be the best measure. Is that part of the definition, if you will, for a predominant slope, at least with respect to the dependent claims?

So, in my last, I'm not sure I'm reading this right, but you can tell me to stop. I'll make just a two quick closing argument comment.

JUDGE BAER: If you would be brief.

MR. SPECHT: Briefly. So, just to comment on, to finish up on the expert and the credibility, we talked about individual things. Any one of those individual points probably doesn't merit the kind of position we're

taking, but if you look at it, his declaration is a mere copy of the petition. No supporting references except the dictionary reference. That was the only one. He did not identify the references. Knew none of them ahead of time. Wholly unfamiliar with his declaration of evidence. Check out our Patent Owner response at 46. He admitted during cross-examination that he understood -- or that he did not understand section 102(b). He's not expected to be a patent expert, but in his declaration, he testified that Bailey qualified under 102(b) as prior art. He should understand that if that's his opinion. He's unable to calculate the footprint of a simple gable roof multiple times. As I indicated in my earlier remarks, he's hardly done this in 30 years, roof measurements. And what I failed to mention, he's never ever done roof estimates involving aerial imagery. That's not the definition of an expert or a person of ordinary skill in the art.

And I think I'll wrap it up there. I appreciate your indulgence with the extra two minutes and thank you for your time. Very much appreciated today.

JUDGE BAER: Thank you. Unless there any additional questions from my colleagues?

JUDGE WHITE: Nothing for me.

JUDGE BAER: With that, that will conclude our hearing. Thank you to the parties. We appreciate you making the effort to be here. We appreciate your preparation. That was very helpful. The case is submitted. We will adjourn. If the parties would remain afterwards and answer any questions that our court reporter has. Thank you.

(Whereupon, the proceedings at 3:39 p.m. were concluded.)

PETITIONER:

James Glass
Sean Gloth
QUINN EMANUEL URQUHART & SULLIVAN, LLP
jimglass@quinnemanuel.com
seangloth@quinnemanuel.com

PATENT OWNER:

Michael Specht
Jonathan Tuminaro
Richard Bemben
Steven Pappas
Jennifer Chagnon
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
mspecht-ptab@sternekessler.com
jtuminar-ptab@sternekessler.com
rbemben-ptab@sternekessler.com
spappas-ptab@sternekessler.com
jchagnon-ptab@sternekessler.com