

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SIMPSON STRONG-TIE
COMPANY, INC.,

Petitioner,

vs.

No. PGR2024-00050

U.S. Patent No.

11,920,339

COLUMBIA INSURANCE
COMPANY,

Patent Owner.

_____ /

DEPOSITION OF W. ANDREW FENNELL, PE, CPEng

May 14, 2025

REPORTED BY:

EARLY K. LANGLEY RMR, RSA, B.A.

CSR NO. 3537

JOB NO: MW 7366722

Page 2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 INDEX PAGE W. ANDREW FENNELL, PE, CPEng 7 EXAMINATION BY MR. EIDSON 7 EXHIBITS EXHIBIT NO. PAGE Exhibit PGR1 Fennell PGR1, Schematic 98 previously marked as Fennell 12 from 4/15/25 (Yamaguchi) Exhibit PGR2 Fennell PGR2, Schematic 98 previously marked as Fennell 13, 4/15/25 (Cullen) Exhibit PGR3 Fennell PGR3, previously marked 72 EX1007, a document, Design Registration 1213894, schematics with Mr. Fennell's handwriting Exhibit 1001 U.S. Patent 11,920,339 44 Exhibit 1003 Declaration of W. Andrew Fennell 49 in Support of Petition for Post-Grant Review of U.S. Patent No. 11,920,339 Exhibit 1004 U.K. Patent Application 2,541,853 50	Page 4 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 DEPOSITION OF W. ANDREW FENNELL, PE, CPEng BE IT REMEMBERED, that pursuant to Notice, and on May 14, 2025, commencing at the hour of 8:57 a.m., in the offices of Shartsis Friese LLP, 425 Market Street 11th Floor, San Francisco, California, before me, EARLY LANGLEY, a Certified Shorthand Reporter, State of California, personally appeared W. ANDREW FENNELL, PE, CPEng, produced as a witness in said action, and being by me first duly sworn, was thereupon examined as a witness in said cause. --- APPEARANCES: On behalf of Petitioner: STERNE KESSLER GOLDSTEIN & FOX BY: JOHN D. HIGGINS, ESQ. BY: MICHELLE K. HOLOUBEK, ESQ. 1101 K Street, 10th Floor Washington, D.C. 20005 (202) 371-2600 Higgins@sternekessler.com Holoubek@sternekessler.com
Page 3 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 Exhibit 1005 U.S. Patent 9,394,680 50 Exhibit 1006 U.S. Patent 4,827,684 50 Exhibit 1009 U.S. Patent 4,696,113 69 Exhibit 1011 U.K. Patent Application 2,433,522 74 Exhibit 1031 Color brochure from ARCHITECTURAL 80 RECORD, "Live from Beijing CCTV" Exhibit 1032 U.S. Patent 4,714,372 76	Page 5 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 On behalf of the Patent Owner: STINSON LLP BY: B. SCOTT EIDSON, ESQ. 7700 Forsyth Boulevard, Suite 1100 St. Louis, Missouri 63105 (314) 863-0800 Scott.eidson@stinson.com

Page 6 1 --oOo-- 2 P R O C E E D I N G S 3 --oOo-- 4 5 THE REPORTER: Good morning. My name is Early 6 Langley. I am a California Certified Shorthand 7 Reporter, License Number 3537. 8 Today's date is May 14, 2025, and the time is 9 approximately 8:57 a.m. 10 This is the deposition of ANDREW FENNELL in the 11 matter of Simpson Strong-Tie Company versus Columbia 12 Insurance Company. This case is venued in the United 13 States Patent and Trademark Office, before the Patent 14 Trial and Appeal Board. The case number is 15 PGR2024-00050. 16 Counsel, please identify yourselves and whom 17 you represent, and after that, I'll swear in the 18 witness. 19 MR. EIDSON: Very good. Scott Eidson for 20 Columbia Insurance Company, Stinson LLP, on behalf of 21 the patent owner. 22 MS. HOLOUBEK: Michelle Holoubek, with Sterne 23 Kessler Goldstein & Fox, representing the petitioner, 24 Simpson Strong-Tie. 25 And John Higgins of Sterne Kessler with	Page 8 1 Q. Do you have any medical conditions that would 2 affect your ability to testify truthfully or accurately 3 today? 4 A. No. 5 Q. This is a little bit of a different proceeding, 6 as you know, than the last time we took your deposition 7 in the District Court litigation. 8 You're familiar with that; right? 9 A. Yes. 10 Q. All right. However, there is some overlap when 11 it comes to your prior testimony as it pertains to 12 certain prior art references. And so my goal is to try 13 to streamline the testimony as best we can. I don't 14 intend to replot old ground. If we need to replot it, 15 we can replot it. 16 But when we come to those things, I will ask 17 you a few questions about those references, for 18 instance, Yamaguchi, and if your testimony is 19 relatively unchanged, then we can go from there? 20 Does that sound fair? 21 A. It is. 22 Q. Very good. In this particular proceeding, the 23 '339, you have been retained by Simpson to render 24 opinions regarding the validity of the '339 patent; 25 correct?
Page 7 1 petitioner, Simpson Strong-Tie. 2 W. ANDREW FENNELL, PE, CPEng 3 sworn as a witness, 4 testified as follows: 5 EXAMINATION BY MR. EIDSON: 6 Q. Good morning, Mr. Fennell. 7 A. Good morning, Counselor. 8 Q. How are you doing? 9 A. I'm very well. 10 Q. Good. We've done this a few times, and the 11 last time we did this was April 15th, tax day, but in a 12 different case. I take it I don't need to belabor the 13 rules of the deposition process with you; is that fair? 14 A. That's fair. We can waive those. 15 Q. Okay. Very good. Just a few quick reminders. 16 We'll go at your pace today, but if there's a question 17 pending, I just want to make sure that we answer the 18 question before you ask to take a break and we take a 19 break. 20 Does that sound fair? 21 A. I understand. 22 Q. All right. Very good. Are you on any 23 medication that would affect your ability to testify 24 truthfully or accurately today? 25 A. No.	Page 9 1 A. I have. 2 Q. And you prepared one declaration, which is 3 dated August 29, 2024; correct? 4 A. Yes. 5 Q. And all of the opinions you plan on offering to 6 date in this case are contained in that August 29, 7 2024, declaration; correct? 8 A. I believe so, yes. 9 Q. As you sit here today, you can't think of any 10 other opinions that you have pertaining to the validity 11 of the '339 patent? 12 A. No. 13 Q. And you're prepared to talk about all of your 14 opinions in your declaration today? 15 A. Yes. 16 Q. All of the documents and information that you 17 relied on in forming your opinions are cited in your 18 declaration; correct? 19 A. Yes. 20 Q. You didn't forget to cite anything or you 21 didn't omit anything? 22 A. Not that I am aware of. 23 Q. Your report is complete and accurate as far as 24 you know; correct? 25 A. Yes.

Page 10 1 Q. Are you aware of any errors in your report? 2 A. No. 3 Q. You had access to all the information you 4 needed to form your opinions in this case? 5 A. Yes. 6 Q. You had access to Simpson's attorneys; correct? 7 A. Yes. 8 Q. You had access to Simpson personnel; correct? 9 A. If I needed them, yes. 10 Q. No one restricted your access to information in 11 any way in forming your opinions in this case; correct? 12 MS. HOLOUBEK: Objection. Form. 13 THE WITNESS: No. I had a free rein. 14 BY MR. EIDSON: 15 Q. Did you look at any Simpson documents when you 16 were forming your opinions in this case? 17 A. I'm not sure what you mean by "Simpson 18 documents." I have looked at catalogs and patents and 19 prior art. 20 Q. Did you look at any other Simpson documents in 21 forming your opinions in this case? 22 A. You need to break that down for me and give me 23 a multiple choice here. 24 Q. Sure. You got it. Emails, internal documents 25 from Simpson regarding this case, prior art, the	Page 12 1 MS. HOLOUBEK: Objection. Form. 2 THE WITNESS: No. No. 3 BY MR. EIDSON: 4 Q. Did you consult with any third parties in 5 rendering in your opinions in this matter? 6 A. Just my internal staff. 7 Q. You didn't talk to any contractors in rendering 8 your opinions in this matter? 9 A. I don't believe I talked to anybody outside my 10 company or the Simpson counsel in preparing that 11 declaration. 12 Q. It's fair to say, then, you didn't talk to any 13 customers in the MiTek firewall hanger product in 14 rendering your opinions; correct? 15 A. That's correct. 16 Q. You agree with me that that's something you 17 could have done; correct? 18 A. I had free rein to develop my opinions, yes. 19 Q. And you didn't do that because Simpson 20 instructed you not to do it? 21 MS. HOLOUBEK: Objection. I will instruct the 22 witness not to answer in the case that it would reveal 23 privileged information from the attorneys. 24 But, otherwise, you can answer. 25 THE WITNESS: I had no restrictions on me.
Page 11 1 patents, their design of competing hangers, anything 2 like that? 3 MS. HOLOUBEK: Objection. Form. 4 MR. EIDSON: That was multiple choice, though. 5 MS. HOLOUBEK: Yes. 6 BY MR. EIDSON: 7 Q. Go ahead. 8 A. As we could read, there's a specific paragraph 9 in my declaration here that talks about documents such 10 as you're describing, and at the time I signed this, 11 no, I hadn't seen any, and I hadn't requested them, 12 so... 13 And as my paragraph goes on to say, I'm not 14 sure it would have changed my opinion anyway. 15 Q. And we'll get to that. And you're referring to 16 your paragraph regarding review of documentation 17 outside of the prior art references; correct? 18 A. I believe so, yes. 19 Q. Did you speak with any Simpson personnel in 20 rendering in your opinions in this matter? 21 A. No. 22 Q. Last time we chatted, about a month ago, I 23 asked you about a variety of Simpson individuals. Have 24 you since spoken with any of those individuals that 25 we -- I asked you about last time?	Page 13 1 BY MR. EIDSON: 2 Q. Did you make any requests to Simpson to gather 3 additional data beyond what's cited in your report? 4 A. I don't believe so. 5 Can I ask a question? 6 Q. Fire away. 7 A. Are we using the term "report" and 8 "declaration" interchangeably today? 9 Q. Yes, because I won't be able to use the same 10 term throughout the day? 11 A. That works for me. 12 Q. And I am talking about that one report, that 13 August 29, 2024, declaration report, yeah. I'm glad 14 we're on the same page. 15 A. That's what I am here to chat about today. 16 Q. Very good. Did you read the Patent Owner 17 Preliminary Response in this matter? 18 A. Yes-ish. I mean, I've read parts of it. 19 Q. Okay. Is it fair to say you skimmed it, or 20 what parts did you read? Let me ask that question. 21 I'll ask a better question. 22 What parts did you read? 23 A. I don't recall. 24 Q. When did you read it? 25 A. I don't recall that either.

Page 14 1 Q. And your opinions in this matter are that each 2 claim of the '339 patent is invalid as obvious; 3 correct? 4 A. Yes. 5 Q. And you also have opinions that certain claims 6 are invalid under '112; right? 7 A. If that's lack of written description, yes. 8 Q. Among other things, but yes. 9 And then you've opined on validity in other 10 proceedings as it pertains to MiTek's patents; correct? 11 A. Yes. I think you referred to it as the patent 12 war. 13 Q. Fair enough. And you gave testimony in the 14 '867 PGR, correct? 15 A. Yes. 16 Q. And the '626 patent PGR; correct? 17 A. I submitted declarations, yes. 18 Q. And then also in the '510 patent litigation, 19 which we were here just about a month ago; correct? 20 A. Yes. 21 Q. Did I forget anything where you've offered 22 testimony as to the validity of the MiTek firewall 23 hanger? 24 A. No. I think that's the universe of reporting 25 that I have offered.	Page 16 1 as a general contractor for a construction job? 2 A. No, I don't think I've put my general 3 contracting license here in California on any permits 4 for projects. "No" is the short answer. 5 Q. And I'm not just relating it to California. 6 I'm talking anywhere. Have you ever served as a 7 general contractor for a construction project? 8 A. No. I use different terms of art when I'm 9 providing construction services through my company. 10 Q. And those are more engineering-specific 11 services; correct? 12 A. Or construction management or owner's 13 representative. There are different ways we can 14 provide our expertise to -- to a project. 15 Q. As it pertains to the construction process for 16 multi-family, multi-level wood frame construction, are 17 you familiar with that process in the United States? 18 A. Oh, very much so, yes. 19 Q. Are you familiar with the construction 20 process -- well, let me back up before we go on. 21 What is your familiarity with the construction 22 process for, I'll call it, multi-family wood frame 23 construction? 24 A. If you have a day or two, I'll -- 25 Q. I don't.
Page 15 1 Q. Last time we ran through some of your 2 experience, and we looked at your resumé. Do you 3 recall that, about a month ago? 4 A. I do. 5 Q. Is there any additional change in education, 6 certifications, or experience, from the last time we 7 chatted until today? 8 A. No. I have renewed a couple of my engineering 9 licenses, but the resumé that we discussed a month ago 10 is -- is still the current one. 11 Q. So we'll kind of incorporate that in this, and 12 we'll move on and we won't replot that ground. 13 Last time we chatted about the firewall hanger 14 and your experience with the firewall hanger, whether 15 it be installing the firewall hanger or physically 16 examining a sample; do you recall that. 17 A. I do. 18 Q. Is there any change in your experience, as it 19 pertains to dealing with the physical firewall hanger, 20 that you've had since your last deposition? 21 A. No. 22 Q. So you still haven't put hands on one; correct? 23 A. That's correct. 24 Q. One thing we didn't talk about was if you had 25 any general contracting experience. Did you ever serve	Page 17 1 A. I'll give you the Reader's Digest version that 2 in my practice, professional practice, most of my 3 clients are multi-residential builders, and I represent 4 them when they get into trouble, and I support them 5 during their new construction. 6 So I have a great degree of familiarity, 7 whether it's helping them improve the documents and 8 detailing with plans, specifications, and the various 9 instruments of contracting and delivering a project, to 10 site services, such as inspection and quality control, 11 plan compliance, product evaluations, whatever it takes 12 for them to deliver the project. 13 Q. And so you're familiar with the construction 14 process, essentially, from start to finish for 15 multi-family wood frame construction; fair to say? 16 A. Yes. By professionally testifying in court or 17 teaching it at University. 18 Q. And does that process differ in different parts 19 of the country? 20 A. I mean, at 30,000 feet, not really. 21 Q. Does it differ in different parts of the world? 22 A. It can. It really depends on the intended use 23 of the structure. Usually defined by occupancy 24 categories. 25 The primary building materials for structure,

Page 18 1 the height of the building, et cetera. I mean, those 2 are your -- your differences. But Australian building 3 codes or English building codes or United States 4 building codes have quite a bit of overlap and echos 5 within them. 6 And then when you get to parts and portions of 7 structures, the building envelopes and the various 8 window testing standards, for example, again, there's 9 quite a bit of overlap between German standards and 10 United States standards. 11 Q. What about United States and Mexico? 12 MS. HOLOUBEK: Objection. Form. 13 THE WITNESS: Any time we've worked on Mexico 14 structures, they tend to be using a lot of U.S.-based 15 codes. It is the same when you go on to Indian 16 reservations. You will find U.S.-based codes. 17 Technology that drives codes, some of it comes from 18 Canada. 19 BY MR. EIDSON: 20 Q. So does Canada then follow a similar 21 construction process as the United States? 22 A. Yes. Yes. 23 Q. For multi-family construction? 24 A. Yes. The same identification of occupancy 25 categories and intended use that drives materials and	Page 20 1 Q. For all the jurisdictions that you mentioned, 2 you agree that it's generally desirable to get to 3 dry-in as fast as possible in the construction process; 4 correct? 5 A. Ideally drying-in the building efficiently is a 6 good thing. However, for example, here on the West 7 Coast of the United States, we stick-frame these 8 multi-residential structures year-round. Frame through 9 the wet. 10 Q. And I guess my question was, generally 11 speaking, from a construction process and flow 12 perspective, it's desirable to get to dry-in as quick 13 as possible; right? 14 MS. HOLOUBEK: Objection. Form. Objection. 15 Scope. 16 THE WITNESS: Generally, the idea is to follow 17 the schedule and not have delays. 18 BY MR. EIDSON: 19 Q. So you have no opinion about whether it's more 20 desirable to get to dry-in as quick as possible in a 21 multi-frame wood frame construction process? 22 MS. HOLOUBEK: Objection. Scope. 23 THE WITNESS: Well, I have an opinion, but 24 you're asking a very, very broad question. And as I 25 say, the schedule will identify all of the steps. I
Page 19 1 height, et cetera. 2 Q. Any differences in the processes that you're 3 aware of? 4 A. Massive. 5 Q. What are the differences between the U.S. and 6 Canada when it comes to constructing multi-family wood 7 frame construction? 8 A. Metric versus imperial. 9 Q. Anything else? 10 A. Again, you give me several days, we'll come up 11 with an itemized list. No. A light frame 12 multi-residential structure. In Canada, they're going 13 to look substantially the same as the U.S. one when 14 viewed from the car park. 15 Q. And it will be constructed roughly in the same 16 manner? 17 A. From a sequencing-scheduling standpoint, yeah, 18 we'll start at the bottom, dig a hole, work up. 19 Q. What might be different in the construction 20 process between the U.S. and Canada? 21 A. It's really a big question. As I say, it 22 starts with metric and imperial units on the drawings 23 and the specifications. The codes that are in effect 24 in -- from the authorities having jurisdictions will 25 vary. So, dot, dot, dot.	Page 21 1 mean, no point drying things in if you've left out bits 2 of the building. 3 BY MR. EIDSON: 4 Q. Why is it important to get to dry-in? 5 MS. HOLOUBEK: Objection. Scope. 6 THE WITNESS: In the context of what we're 7 talking about here today, when we're talking about 8 fire-resistive assemblies that rely on fire-resistive 9 materials, we had long discussions in my previous 10 deposition about sequencing of drywall which -- or in 11 the past was thought to be moisture-sensitive, and that 12 there would be a premium on completing the building 13 envelope or drying-in, as you're referring to it. 14 So before, as a precedent schedule activity to 15 bringing in drywallers, but as we discussed, with 16 different types of resistive materials, they can serve 17 both a resistive function and also have a 18 moisture-resistant function that tolerates what I would 19 call "construction wetting." 20 Q. We also talked about how those materials are 21 more expensive; correct? 22 MS. HOLOUBEK: Objection. Form. Foundation. 23 THE WITNESS: I think so, yeah. I don't 24 recall. 25 BY MR. EIDSON:

Page 22 1 Q. You don't know? 2 A. Well, I don't remember -- I don't remember what 3 we discussed when it came to the relative cost of 4 materials a month ago. Maybe you can remind me what I 5 said. I'll see if I still agree with it. 6 Q. And there's the rub. You're familiar with the 7 sequencing of tradesmen as they have to come through in 8 the construction process for multi-frame, multi-family 9 wood frame; right? 10 A. Yes. 11 Q. And you agree that it is more efficient to have 12 the tradesmen come one time and do all of their work as 13 best they can, rather than make multiple trips to a 14 jobsite; right? 15 A. Oh, I mean, in a very simplistic world if we 16 were only building a single building, yes, a single 17 mobilization would be ideal. But in reality, most -- 18 virtually all multi-residential projects are going to 19 have multiple buildings that the trades are going to be 20 spread out over a series of buildings that are at 21 different levels of completion. 22 Q. And that's the rub. I'm talking about one 23 building, and you're talking about a project. 24 Of course, if different buildings are at 25 different levels of completion, the tradesmen are going	Page 24 1 give you the short version. 2 BY MR. EIDSON: 3 Q. How much more expensive is it for a sheet of 4 5/8ths drywall that is not weatherproof versus one that 5 is? 6 Do you know what the price difference is? 7 MS. HOLOUBEK: Objection. Scope. 8 THE WITNESS: I don't know the exact price 9 right now, but it will be more expensive if you have 10 more features to the product. 11 BY MR. EIDSON: 12 Q. Do you know a rough estimate? 13 MS. HOLOUBEK: Objection. 14 BY MR. EIDSON: 15 Q. If you had to ballpark it, what would you 16 ballpark it at? 17 MS. HOLOUBEK: Objection. Form and scope. 18 THE WITNESS: Yeah, I would be speculating 19 right now. Prices are varying quite a bit because of 20 recent fires here in California. 21 BY MR. EIDSON: 22 Q. I thought you were going to blame tariffs. 23 A. There are other factors at work. It's a 24 legitimate impact on projects currently, the cost of 25 materials, the availability of materials.
Page 23 1 to be coming in at a different time. But I'm talking 2 about the one building, and if you're doing one 3 building you agree with me that it is better to have, 4 for instance, the drywallers come in at one time to do 5 all of their work, rather than have them come back and 6 do a floor, do another floor, do another floor and make 7 three, four, five separate trips; right? 8 MS. HOLOUBEK: Objection. Form. 9 THE WITNESS: In the -- in the instance you 10 describe as a multi-residential project that has just a 11 single building, yes. A single mobilization would be 12 preferred for each trade. 13 BY MR. EIDSON: 14 Q. And that reduces the cost for the project 15 owner, right, by having the tradesmen come through with 16 a single mobilization; correct? 17 MS. HOLOUBEK: Objection. Form. 18 THE WITNESS: Again, yes. Just in reality in 19 the practicality even if you are mobilizing once, the 20 number of crews that any given trade might have on a 21 project can swell and shrink as necessary with the 22 construction schedule. 23 So these questions we're talking about don't 24 lend themselves to absolute-type answers. There's a 25 lot of commentary that go with each. So I'll try to	Page 25 1 Q. Other than drywall, what types of materials are 2 you familiar with that are used for a two-hour firewall 3 rating in multi-frame -- or multi-family wood frame 4 construction? 5 A. Well, there's an entire table in the building 6 codes that lists identified rated assemblies for use by 7 design professionals, contractors, and building 8 officials. And the materials there that comprise those 9 assemblies are not only gypsum-based sheet products but 10 fire-treated wood masonry perlite. 11 Q. And I'm talking about -- I didn't mean to 12 interrupt you. 13 MS. HOLOUBEK: Please let the witness finish 14 his question, please. 15 BY MR. EIDSON: 16 Q. We're just getting a little off track. I'm 17 asking about -- 18 MS. HOLOUBEK: Counsel, can the witness finish 19 answering too. 20 BY MR. EIDSON: 21 Q. -- in the wood frame construction, masonry -- 22 is masonry used in wood frame construction? 23 A. Yeah. Might be in different levels of the 24 building. 25 Q. Okay. Go ahead.

Page 26 1 A. You asked a very open-ended question. I was 2 trying to give you a -- 3 Q. Please continue. 4 A. -- a relatively complete list, but -- and then 5 what I'm familiar with? 6 I mean, I can create two-hour-rated assembly in 7 multi-residential wood frame using spray-on intumescent 8 paint. 9 Q. Okay. Intumescent paint, fire-treated wood. 10 And then masonry, that's also used in wood frame 11 multilevel construction for a two-hour firewall 12 barrier? 13 A. Within the structure, yes. I mean, 14 cast-in-place concrete, precast concrete. 15 Q. What else? 16 A. Stucco. 17 Q. Stucco? 18 A. Stucco, yeah. 19 Q. What else? 20 A. I mean, these are all components of a rated 21 assembly is what I am giving you here. So to say 22 there's a long list, we can get into perlite and steel. 23 Q. Perlite -- you mean, p-u-r-e-l-i-t-e (sic)? 24 A. P-e-a-r-l-i-t-e (sic). 25 Q. And what is perlite?	Page 28 1 generally, at the component level. 2 Q. What do you mean by the "component level"? 3 A. The -- the bits and pieces that then get used 4 in combination to create an assembly which then are 5 interconnected to create a system. The system would be 6 the multi-residential building. The assemblies might 7 be the walls, the rated walls, the floors. 8 Q. Let's keep going, and I'll come back to some of 9 this. 10 Other than the detailing materials, I think you 11 mentioned something like a fire caulking. You 12 mentioned mineral wool. Is there anything else that 13 could be used to create the assembly of a two-hour 14 firewall, setting aside the detailing materials? 15 MS. HOLOUBEK: Objection. Form. 16 THE WITNESS: I would refer you to that set of 17 listings that are in the code. There is also other 18 places to find fire-resistive assemblies that are 19 recognized. The Gypsum Association publishes manuals 20 that design professionals use. 21 BY MR. EIDSON: 22 Q. Can you think of any others -- were you done, 23 answering? I'm sorry, Mr. Fennell. 24 A. I am. I think the underlying question you had 25 is am I familiar with these materials, and the short
Page 27 1 A. It's a sprayed-applied insulating material used 2 for fireproofing on structural steel generally. 3 Q. What else? 4 A. I can pack cavities with mineral wool. 5 Q. What else? 6 A. There's also sorts of proprietary products that 7 are fire-rated sealants and putties. 8 Q. Would you use a fire-rated-and-sealant putty to 9 do the whole wall or just spot-treat a hole in a place? 10 A. Generally, just for detailing. 11 Q. Detailing? 12 A. Penetrations. 13 Q. And my question, and I apologize if I wasn't 14 clear, was for doing the whole wall, and did I 15 correctly understand your prior answer is about the 16 mineral wool, the perlite, the stucco, to be for 17 creating an entire firewall, or were those for spot 18 treatments? 19 A. It might help if I -- the engineer brain -- the 20 POSITA brain, there are components or elements that are 21 then used in combination to create assemblies and then 22 assemblies are interconnected by design or by 23 prescriptive code to create systems. All of these that 24 we just listed there, and the many more that we could 25 go on through are at one level of that hierarchy,	Page 29 1 answer is "yes." 2 Q. And, as you sit here today, are you able to 3 identify any of the materials that are used to create a 4 two-hour firewall assembly, other than gypsum board? 5 MS. HOLOUBEK: Objection. Form. 6 THE WITNESS: Yes, I could. I would pull out 7 one of the exhibits to my declaration where I have 8 Table 721 from the International Building Code, which 9 has a number of listings for rated assemblies. And 10 within that we'll find the longer list of materials 11 that I am familiar with. 12 BY MR. EIDSON: 13 Q. Okay. 14 A. But from memory, that's not a bad list. 15 Q. I'll take your word for it. 16 Let's start with fire-treated wood. In 17 multi-family wood frame construction, how is 18 fire-treated wood used in place of gypsum board to 19 create a two-hour firewall? 20 MS. HOLOUBEK: Objection. Scope. 21 THE WITNESS: As I told you, it's part of an 22 assembly, so right now, if we get into Type III 23 construction for multi-residential construction, the 24 exterior walls and the load-bearing walls are required 25 to be made out of fire-treated lumber.

Page 30 1 The sheathing that would then, if needed, be on 2 the wall to create a partition or rated-wall assembly 3 could be out of fire-treated wood sheathing. 4 Q. And that fire-treated wood sheathing product 5 would be put into place just like the gypsum board 6 would? 7 MS. HOLOUBEK: Objection. Form. 8 THE WITNESS: It would be put in per the list 9 of assembly. You use the right type of nails, the 10 right spacing, the right thickness, and you have 11 detailing at any penetrations or boundaries. 12 BY MR. EIDSON: 13 Q. All right. I have the same question as it 14 pertains to masonry. So I'll ask it now: 15 How would masonry be used to construct a 16 two-hour firewall in wood frame construction? 17 MS. HOLOUBEK: Objection. Scope. 18 THE WITNESS: We'd look to the listed assembly 19 to see thickness of the material, whether it is, all of 20 the cells need to be grout-filled. The answer to each 21 one of these will be: Go read the listing; follow the 22 listing; achieve the advertised rated endurance. 23 BY MR. EIDSON: 24 Q. I appreciate that, Mr. Fennell. 25 And my question just for you is from a	Page 32 1 height course by course with any subsequent detailing, 2 structural connectors, penetrations, as necessary, as 3 the wall gets taller, which may include filling the 4 hollow cavities of the masonry units with grout, if 5 called for, by design, which, in turn, might be 6 referring to a listing to achieve a fire rating. 7 Q. And that's used in multi-level wood frame 8 construction? 9 MS. HOLOUBEK: Objection. Form. 10 THE WITNESS: It's quite common now to have 11 multiple levels of masonry or cast-in-place concrete, 12 or post-tension concrete, or shotcrete to create lower 13 levels of a building prior to starting levels of wood 14 framing or light framing. 15 BY MR. EIDSON: 16 Q. I understand, so -- I think I do. 17 So your testimony is that the masonry firewalls 18 might be in the base, and then on top of whenever a 19 builder decides to transition from masonry walls to 20 wood frame walls, that is how the masonry is used in 21 the overall structure. 22 They are not used together with the wood frame; 23 is that fair to say or no? 24 MS. HOLOUBEK: Objection. Form. 25 THE WITNESS: I -- I routinely see on hillside
Page 31 1 practical construction manner, I want to know your 2 understanding for how these things are constructed. 3 And so do you have that knowledge for how a 4 builder would construct a two-hour firewall using 5 masonry instead of drywall? 6 MS. HOLOUBEK: Objection. Form. 7 THE WITNESS: I do, yes. 8 BY MR. EIDSON: 9 Q. Okay. And so then what is that construction 10 process, just briefly? 11 MS. HOLOUBEK: Objection. Scope. 12 THE WITNESS: The designer will calculate 13 detail and draw it onto the plans. 14 The plans will be checked by a jurisdiction for 15 code compliance. 16 The builder will then determine means and 17 methods for delivering that project, and will award 18 portions of the scope to subcontractors or will 19 self-perform that work themselves. 20 But in the exemplary review of masonry wall, at 21 some point somebody is going to create the foundation 22 with whatever reinforcement is stubbed up out of it. 23 Individual masonry units often referred to as 24 CMU, concrete masonry unit, will be placed over the 25 reinforcement in courses, and the wall will grow in	Page 33 1 projects where there are changes in elevation, vertical 2 offsets where some of the walls that are at the lower 3 levels are fire-rated, but also include elements of 4 light framing. 5 But I think in a simplest form, they are 6 separate in that there's the lower level non-timber 7 levels, and then above a podium, then you start with 8 your timber construction. 9 BY MR. EIDSON: 10 Q. And you wouldn't use -- if I had, you know, 11 wood framing on a level, I wouldn't stick masonry 12 blocks in between the studs, so to speak -- I mean, I 13 don't think that's even possible; you tell me. 14 But I wouldn't stick masonry between the studs 15 when I'm framing, would I? 16 MS. HOLOUBEK: Objection. Form. Scope. 17 THE WITNESS: Yeah. I don't think so. I can't 18 think of a reason why that would happen. 19 BY MR. EIDSON: 20 Q. Okay. Let's talk about intumescent paint. 21 So how is intumescent paint used to create a 22 two-hour firewall assembly in multi-level wood frame 23 construction? 24 MS. HOLOUBEK: Objection. Scope. 25 THE WITNESS: The Building Code is -- building

Page 34 1 codes are generic by nature. And don't typically 2 recognize products, proprietary products, unless they 3 have gone through some listing process. 4 So intumescent paint is one tool in the POSITA 5 toolbox to achieve fire rating, and there are various 6 proprietary listed products that, if you spray on this 7 paint, think of it as a slightly thicker paint than 8 your typical house paint, it's more like a swimming 9 pool paint. You spray it on with a given wet film 10 thickness so that when it dries, it has a dry film 11 thickness that matches the listing report. And 12 generally, the thicker the paint, the longer the 13 rating. 14 So you spray on something, the thickness of 15 house paint, you might get a one-hour rating. Spray it 16 on a bit thicker, and you get the two-hour rating. 17 I tend to use it in a retrofit application 18 where there's something wrong with the as-built 19 assembly, not enough nails or something, or the nails 20 are too short, and then it's more economic to spray the 21 entire wall with this listed paint to provide an 22 ultimate means of compliance for the jurisdiction. 23 Q. Have you ever used it or seen it used in new 24 construction? 25 MS. HOLOUBEK: Objection. Form.	Page 36 1 two hour; is that right? 2 MS. HOLOUBEK: Objection. Scope. 3 THE WITNESS: With the listings I know of, yes. 4 I mean, if for some reason I wanted to put a second 5 layer of stucco on, hypothetically, that might work, 6 but it's not common. 7 BY MR. EIDSON: 8 Q. You mentioned perlite spray insulation, I 9 believe. How is that used to create a two-hour-rated 10 firewall assembly in wood frame construction? 11 MS. HOLOUBEK: Objection. Scope. 12 THE WITNESS: I am familiar with proprietary 13 products that are used to fill the cavities of light 14 frame walls. From memory, the one I have worked with 15 in the past was called Denda, D-e-n-d-a, mix. I'm not 16 actually sure whether that's a pure perlite-type 17 material or whether there's other proprietary goodies 18 in the mix. 19 But the thought is that if, again, there's a 20 wall, a rated wall that has insufficient as-built 21 endurance, the cavities of said wall can be filled with 22 a proprietary product similar to perlite to provide an 23 alternative means of compliance. 24 BY MR. EIDSON: 25 Q. Have you seen that used in new construction?
Page 35 1 THE WITNESS: No. It's -- my experience with 2 it is still as a retrofit. 3 BY MR. EIDSON: 4 Q. That's your personal experience? 5 A. Yes. 6 Q. Have you ever been around intumescent paint 7 after it's been sprayed? 8 A. Yes. 9 Q. What's it smell like? 10 A. Paint. 11 Q. You mentioned stucco. How is stucco used to 12 create a two-hour firewall assembly in multi-family 13 wood frame construction? 14 MS. HOLOUBEK: Objection. Scope. 15 THE WITNESS: Again, it's going to be part of a 16 known listing. Generally, in the additive calculation 17 of fire resistance, a layer, a single layer of 18 three-coat cementitious stucco generally gives one-hour 19 resistance. 20 So in an assembly, and the goal is to achieve a 21 two-hour endurance or listing, I'd need something else 22 in addition to the stucco component to get beyond one 23 hour. 24 BY MR. EIDSON: 25 Q. So stucco by itself wouldn't be good enough for	Page 37 1 MS. HOLOUBEK: Objection. Form. Scope. 2 THE WITNESS: Same discussion as before. It's 3 retrofit in my experience. I'm not aware of it in new 4 construction. 5 The other use of perlite as a material is, as I 6 mentioned, spray-approved as sprayed-applied 7 fireproofing for structural steel, and that could give 8 you any number of hours of endurance. 9 It's generally the thicker the layer, the 10 longer the listed rated endurance. 11 BY MR. EIDSON: 12 Q. You mentioned mineral wool. How is that used 13 to create a two-hour firewall assembly for multi-family 14 wood frame construction? 15 A. It's generally used as a detailing material 16 around penetrations and gaps as a fire-stopping 17 component. It can also be used as a stud bay filling 18 material in place of regular fiberglass insulation, you 19 might use mineral wool instead at a higher cost. 20 Q. And so you're familiar with -- I don't know -- 21 maybe they call it ceramic or stone wool-type 22 insulation that is used in walls to create a two-hour 23 firewall assembly; correct? 24 MS. HOLOUBEK: Objection. Form. 25 THE WITNESS: I think so. I mean, I would have

Page 38 1 to look at the literature to whatever you're referring 2 to, but generically, yes. 3 BY MR. EIDSON: 4 Q. And are you familiar with stone wool insulation 5 use in new construction to create a two-hour firewall? 6 MS. HOLOUBEK: Objection. Scope. 7 THE WITNESS: Only at penetration detailing, as 8 I mentioned before. 9 BY MR. EIDSON: 10 Q. Never to do the whole wall assembly? 11 MS. HOLOUBEK: Objection. Form. 12 THE WITNESS: Never is a big word. 13 Every multi-residential project is -- there is 14 a lot of similarities, but there's also case-by-case, 15 wall-by-wall, builder-by-builder, designer-by-designer 16 differences. So I find myself drifting away from 17 absolutes. 18 BY MR. EIDSON: 19 Q. I can buy that type of insulation at a Home 20 Depot, can't I? 21 MS. HOLOUBEK: Objection. Form. 22 THE WITNESS: Maybe. 23 BY MR. EIDSON: 24 Q. Do you know what a plenum wrap is, primarily 25 used around ducts? Are you familiar with that?	Page 40 1 Q. For the two-hour-firewall-rating purpose? 2 A. If that was -- 3 MS. HOLOUBEK: Objection. Form. 4 THE WITNESS: If that was the design objective, 5 yes. 6 BY MR. EIDSON: 7 Q. And that's the design objective of my 8 questions. Are we on the same page still? 9 MS. HOLOUBEK: Objection. Form. 10 THE WITNESS: Generally, I understand whether 11 you're asking just philosophical, can I buy it at Home 12 Depot questions and whether I have familiarity with 13 them versus how would you go about designing a two-hour 14 wall in a multi-residential building; right? I think 15 I'm tracking. 16 BY MR. EIDSON: 17 Q. Okay. Of all the that also we just 18 discussed -- well, let me back up. I'll take this 19 piece by piece. 20 Thinking about the construction and wall 21 assembly that is ultimately constructed using the 22 methods of the '339 patent, which I assume you're 23 familiar with; correct? 24 MS. HOLOUBEK: Objection. Form. 25 THE WITNESS: Yes.
Page 39 1 MS. HOLOUBEK: Objection. Form. 2 THE WITNESS: I am. 3 BY MR. EIDSON: 4 Q. What is a plenum wrap? 5 A. It's a type of insulation material generally 6 soft, batt-like material, that is wrapped around a duct 7 or a plenum. 8 Q. Have you ever used that type of material used 9 in a two-hour fire assembly for multi-family wood frame 10 construction? 11 MS. HOLOUBEK: Objection. Scope. 12 THE WITNESS: Yes. Around ducts that are 13 required to penetrate a rated assembly. 14 BY MR. EIDSON: 15 Q. What about to create the wall assembly itself? 16 MS. HOLOUBEK: Objection. Form and scope. 17 THE WITNESS: I wouldn't think it would be a 18 front-line material for sheathing a wall to achieve a 19 rating. It could, but usually reserved for detailing 20 purposes. 21 BY MR. EIDSON: 22 Q. What do you mean by front-line material? 23 A. A common first choice to consider in solving 24 any design issue or constructing, selecting components 25 to go within an assembly.	Page 41 1 BY MR. EIDSON: 2 Q. Okay. If I were to construct that wall but not 3 use gypsum, so using a joist hanger, putting a truss 4 down, would fire-treated wood be one acceptable way to 5 achieve my two-hour firewall rating? 6 MS. HOLOUBEK: Objection. Form. Objection. 7 Incomplete hypothetical. 8 THE WITNESS: As counselor mentioned, it is a 9 hypothetical here. So "maybe" is the short version. 10 BY MR. EIDSON: 11 Q. What about spray-on intumescent paint? 12 MS. HOLOUBEK: Objection. Form. Incomplete 13 hypothetical. 14 THE WITNESS: Hypothetically, I could create a 15 fire-rated wall using intumescent paint as a component. 16 BY MR. EIDSON: 17 Q. And what about any type of fire-rated 18 insulation, whether it be mineral wool or ceramic or 19 stone wall? 20 MS. HOLOUBEK: Objection. Form and incomplete 21 hypothetical. 22 THE WITNESS: Again, hypothetically, I can 23 probably integrate those components into the wall to 24 create a rated assembly. 25 BY MR. EIDSON:

Page 42 1 Q. And then what about, we'll call it a spray 2 insulation, whether it's Dendamix, perlite, or 3 something else, could I use that as well in that 4 particular application using a joist hanger? 5 MS. HOLOUBEK: Objection. Form. Incomplete 6 hypothetical. 7 THE WITNESS: Hypothetically, I could probably 8 brew up a list of assembly that could make it through 9 plane check, yes. 10 BY MR. EIDSON: 11 Q. And then, lastly, stucco. Could I use stucco 12 for the same purpose and application? 13 MS. HOLOUBEK: Objection. Form. Incomplete 14 hypothetical. 15 THE WITNESS: Again, hypothetically, if I was 16 asked to evaluate that and try to make it work, I 17 probably could. 18 BY MR. EIDSON: 19 Q. We talked about this a little bit at the last 20 deposition, and this may be the one thing I do have to 21 replot and I apologize, because it's a different 22 proceeding. 23 But the definition of a POSITA, you've kind of 24 thrown that term around a little bit today. You 25 understand what that is; correct?	Page 44 1 numbers that are already given to make it super easy. 2 MR. EIDSON: Yeah. That's what I was inclined 3 to do, unless it was something new that we threw out 4 there. Making sure we're on the same page. 5 Here you go. Let me give you a copy here. 6 MS. HOLOUBEK: Thank you. 7 MR. EIDSON: You're welcome. 8 (Fennell Exhibit 1001 previously marked for 9 identification.) 10 BY MR. EIDSON: 11 Q. Mr. Fennell, I've handed you what is 12 Exhibit 1001 in this proceeding. It's a copy of the 13 '339 patent. 14 A. Okay. 15 Q. I take it you're familiar with this document 16 and have read it? 17 A. Yes. 18 Q. What is your understanding of the invention 19 that that's claimed by the '339 patent? 20 A. If I read from page 1 of this exhibit -- 21 Q. You can, but I asked for your understanding and 22 not a recitation of what the document is? 23 MS. HOLOUBEK: Please let the witness answer. 24 Please don't interrupt the witness when he's answering 25 a question.
Page 43 1 A. I do. I have a written definition in my 2 declaration. Although, this time, I was using the 3 slightly shorter acronym, POSA, P-O-S-A. 4 Q. And you agree with me that the definition of a 5 POSA or a POSITA that you are utilizing in this case 6 doesn't require expertise in firewall testing or 7 construction; correct? 8 MS. HOLOUBEK: Objection. Form. 9 THE WITNESS: No. As with last time and here, 10 being a firewall, there isn't actually a POSITA 11 requirement. However, I would say that using -- any 12 type of designer is trying to complete a design or 13 solve of a problem, they need to have competency within 14 the area that they are designing. 15 I gave you a long answer previously about how 16 engineers, by license, are also obligated to operate 17 within their area of competency. 18 BY MR. EIDSON: 19 Q. Did you read your prior deposition transcript 20 in the '510 case to prepare for today? 21 A. I did not. 22 MR. EIDSON: Let me take a quick pause. These 23 already have exhibit numbers. 24 Are you guys marking them again, or -- 25 MS. HOLOUBEK: No, we're just using the exhibit	Page 45 1 MR. EIDSON: I think he asked me a question. 2 Can you read from the page? And I was just answering 3 that question. 4 MS. HOLOUBEK: He did not ask a question, nor 5 did he finish. 6 THE WITNESS: In trying to give you my best 7 answer today to any given inquiry, I believe this 8 patent is for a method of constructing a fire-resistive 9 wall assembly, and it's a -- identified here to the 10 abstract it describes (as read): 11 "A hanger for connecting a structural 12 component to a wall that can have sheathing 13 mounted thereon." 14 And it goes on. That's my understanding of the 15 invention. It's a method of constructing, that at some 16 point features a hanger. 17 BY MR. EIDSON: 18 Q. Are you able to articulate the method that is 19 claimed for constructing a fire-resistive wall assembly 20 in your own words? 21 MS. HOLOUBEK: Objection. Form. 22 THE WITNESS: I have. I've got 336 pages of my 23 own words. 24 BY MR. EIDSON: 25 Q. So what is -- in your own words, what are the

Page 46 1 steps of the method that is claimed by the '339 patent 2 for creating the fire-resistive wall assembly? 3 MS. HOLOUBEK: Objection. Form. 4 THE WITNESS: Yeah. I would take you to the -- 5 the claims section of this patent and start reading the 6 various steps that are written into the claims. 7 BY MR. EIDSON: 8 Q. So other than reading directly from the patent, 9 are you able to articulate any other understanding of 10 what the steps of the method are for constructing a 11 firewall assembly claimed by the '339 patent? 12 MS. HOLOUBEK: Objection. Form. Asked and 13 answered. 14 THE WITNESS: Yes, I can. 15 BY MR. EIDSON: 16 Q. And what is your understanding? 17 MS. HOLOUBEK: Objection. Form. 18 THE WITNESS: Well, the complete answer is as 19 described in the claims of this patent here. 20 But at some point there is taking the hanger 21 thought to be appropriate for a wood-framed wall with 22 studs, top flights, and then ultimately fire-rated 23 sheathing, and arranging the hanger, the member being 24 supported in the hanger, and then arranging the 25 fire-rated sheathing on the wall.	Page 48 1 perpendicular to the wall, would be a feature of this 2 hanger to allow for members supported coming in in 3 directions other than parallel. 4 Q. And how so? How do you see that from the 5 invention? 6 MS. HOLOUBEK: Objection. Form. 7 THE WITNESS: Just looking at the invention, I 8 can see that the three parts, the connection, the 9 extension, and then the channel. I sometimes called it 10 a "bucket." But here, a repetitive framing member or a 11 beam or a truss can sit in the channel and be spaced 12 away from the face of a wall, allowing, permitting a 13 sheathing product to be put on the face of the wall 14 such as fire-rated sheathing. 15 BY MR. EIDSON: 16 Q. Sheathing to put on after the hanger and the 17 joists are hung? 18 MS. HOLOUBEK: Objection. Form. 19 THE WITNESS: Easily, it could happen after the 20 hanger is installed. 21 BY MR. EIDSON: 22 Q. You don't disagree that that's one of the 23 benefits of the claimed invention; correct? 24 MS. HOLOUBEK: Objection. Form. 25 THE WITNESS: No. No. That would be a
Page 47 1 BY MR. EIDSON: 2 Q. Do you agree that the claimed method pertains 3 to construction process for utilization with firewalls? 4 A. Fire-resistive walls, yes. 5 Q. What are the benefits of the invention that you 6 are aware of? 7 MS. HOLOUBEK: Objection. Form. 8 THE WITNESS: Well, to the extent a designer 9 would want to bring structural components in to a wall 10 at an angle and have them supported, where that wall 11 has some type of sheathing on the face of it. 12 BY MR. EIDSON: 13 Q. I don't understand. Please explain your 14 answer. 15 A. In wood frame building or light frame 16 buildings, there is, generally, a framing system that 17 is repetitive. Many sticks of material vertically or 18 horizontally at set spacings. 19 Those various repetitive framing members are 20 oriented within the building, so that if we are talking 21 about horizontal framing members, repetitive framing 22 members in a floor or a roof, the directional span of 23 those members is one of the design steps, and with 24 respect to a rated wall, whether those repetitive 25 members are being supported at an angle or	Page 49 1 benefit. 2 MS. HOLOUBEK: We have been going a little over 3 an hour. Do you mind if we take a break? 4 MR. EIDSON: Not at all. 5 THE WITNESS: Yeah, I could benefit from a 6 short break. 7 MR. EIDSON: Fair enough. 8 MS. HOLOUBEK: If we say ten minutes, is that 9 fine? 10 THE WITNESS: Yes, I just need to extend my 11 legs. 12 MR. EIDSON: Okay. 13 (Recess taken.) 14 BY MR. EIDSON: 15 Q. Welcome back, Mr. Fennell. 16 A. Thank you. 17 Q. I am going to hand you a variety of exhibits 18 just to make our conversation go a little easier about 19 these exhibits. Feel free to refer to them as you 20 need. Okay? 21 A. Thank you. 22 MR. EIDSON: The first one I'm going to hand 23 you is Exhibit 1003, which is a copy of your 24 declaration. 25 (Fennell Exhibit 1003 previously marked for

Page 50 1 identification.) 2 MR. EIDSON: I'm assuming you have this 3 electronically, but I'll add more paper anyway. 4 Here's Exhibit 1004, which we are calling 5 Cullen. 6 (Fennell Exhibit 1004 previously marked for 7 identification.) 8 MR. EIDSON: Handing you Exhibit 1005, which 9 we'll call Bundy. 10 (Fennell Exhibit 1005 previously marked for 11 identification.) 12 MR. EIDSON: Handing you Exhibit 1006, Allan. 13 (Fennell Exhibit 1006 previously marked for 14 identification.) 15 BY MR. EIDSON: 16 Q. Mr. Fennell, thinking about your declaration 17 that you prepared in this case, all the legal standards 18 that you utilized to come up with your opinions in this 19 matter are detailed in your report; correct? 20 A. Yes-ish. Although I noted I didn't write down 21 the term "improper" in the definitions, but the other 22 wounds, as I understand them, have been put into this 23 declaration. 24 Q. The term "improper"? 25 A. Yes.	Page 52 1 A. Not that I am aware of. 2 Q. Did you do any independent legal research to 3 determine whether there are any additional standards 4 you ought to consider when forming your opinions in 5 this case? 6 A. No. 7 Q. It's fair to say you relied exclusively on 8 counsel for the legal framework you needed and 9 considered in forming your opinions in this matter? 10 A. Yeah, I think that's fair, yes. 11 Q. As you sit here today, other than the citation 12 to the improper dependent claim section that we talked 13 about earlier, are you aware of any additional legal 14 principles that you should have considered when forming 15 your opinions in this matter? 16 A. No. Not that I am aware of. 17 Q. Let's flip -- in Exhibit 1003, which is your 18 declaration, let's look at the specific grounds, if you 19 will, which is on page 2 but also referenced elsewhere. 20 I see you did have it open. 21 Do you want to turn to that page? 22 A. Okay. 23 Q. Very good. And then if you want to open the 24 '339 patent, which is Exhibit 1001. And you want to 25 look at the claims, which are on page 55 of the
Page 51 1 Q. Explain, if you don't mind. 2 A. Well -- 3 Q. Is this a typo, or what are you -- 4 A. No. 5 Q. Okay. 6 A. In Section 12, I have a series of claims 7 that -- in my opinion, that if they're not indefinite 8 in the ultimate, they are improper dependent claims, 9 and you can see there the code section, 112D, for 10 delta. 11 Q. And so I guess I'm not following you. You left 12 out the word "improper" where? 13 A. Well, in the Section 5 where I write down my 14 understanding of the relevant legal standards -- 15 Q. Yes. 16 A. -- that I am applying as a POSA or POSITA, and 17 as I have learned from counsel, I have each of those 18 legal standards in my declaration except that last one, 19 an improper dependent claim, as I've described in 20 Section 12. 21 Q. But you cite to that section in the heading of 22 Section 12 and in other places in that section; 23 correct? 24 A. I did. 25 Q. Anything else?	Page 53 1 exhibit, starting at Column 12. 2 It's where independent Claim 1 is. 3 Mr. Fennell, looking at your third ground, your 4 first 103 challenge, which is Cullen, Bundy, and Allan; 5 do you see that? 6 A. I do. 7 Q. You agree with me that nowhere in those three 8 references is the step "inserting the fire-retardant 9 sheathing between the channel-shaped portion of the 10 firewall hanger and the frame wall" disclosed? 11 MS. HOLOUBEK: Objection. Form. Objection. 12 Mischaracterization. 13 THE WITNESS: I'm sorry, I lost your question. 14 BY MR. EIDSON: 15 Q. Sure. 16 Would you mind reading it back? 17 (Record read by the court reporter.) 18 MS. HOLOUBEK: Same objection. 19 THE WITNESS: In the combination of these prior 20 art references, I have no problem envisioning drywall 21 being adapted to the wall in and around the hanger that 22 I have selected. 23 BY MR. EIDSON: 24 Q. All right. Let me try it a different way, 25 Mr. Fennell.

Page 54 1 Looking at Exhibit 1005, which is Bundy, you 2 would agree with me that the step "inserting the 3 fire-retardant sheathing between the channel-shaped 4 portion of the firewall hanger and the frame wall" is 5 not disclosed in Bundy? 6 MS. HOLOUBEK: Objection. Form. 7 BY MR. EIDSON: 8 Q. After the mounting of the hanger. So let me 9 ask it again. 10 You agree with me that after the hanger is 11 mounted, the step of "inserting the fire-retardant 12 sheathing between the channel-shaped portion of the 13 firewall hanger and the frame wall after the hanger is 14 mounted" is not disclosed in Bundy? 15 MS. HOLOUBEK: Objection. Form. 16 THE WITNESS: Oh, if we were just looking in 17 isolation at just the Bundy reference, I would agree 18 with you, and particularly that the hanger in the Bundy 19 reference is installed after the Sheetrock. As I 20 mentioned before, I have been looking at these in 21 combination, but yes, to your question right now. 22 BY MR. EIDSON: 23 Q. And so I have -- you can set Bundy aside, and 24 you can pick up Exhibit 1004. I have the same question 25 about Cullen. You agree with me that after the hanger	Page 56 1 BY MR. EIDSON: 2 Q. And I have similar questions with Allan. 3 Do you agree with me that Allan does not 4 disclose "inserting fire-retardant sheathing between a 5 channel-shaped portion of the firewall hanger and the 6 frame wall after the hanger is hung"? 7 A. Allan is different, in answering your question, 8 because I do find disclosure of cutting the sheathing 9 to allow for the structural connector or hanger to be 10 inserted, and there is the necessity to install the 11 hanger prior to the sheathing. 12 Q. So -- so you disagree with my statement then; 13 is that fair to say? 14 MS. HOLOUBEK: Objection. Form. 15 THE WITNESS: I think so, yes. 16 BY MR. EIDSON: 17 Q. Okay. Well, then, where in Allan does it 18 disclose "inserting the fire-retardant sheathing 19 between a channel-shaped portion of the firewall hanger 20 and the frame wall after the hanger is hung," line and 21 column -- or column and line? 22 A. If we were in column 2, for example, at, say, 23 line 45 and a half, it says, and I quote (as read): 24 "That is to say, the anchor is fastened to 25 the building frame member but a sheet of
Page 55 1 is mounted Cullen does not disclose the step of 2 "inserting the fire-retardant sheathing between the 3 channel-shaped portion of the firewall hanger and the 4 frame wall"? 5 MS. HOLOUBEK: Objection. Form. Objection. 6 Mischaracterization. 7 THE WITNESS: Similar sort of answer that if we 8 were just looking exclusively at Cullen prior art, I 9 tend to agree with you, I can't find a step about 10 sheathing. The difference I note this time is that the 11 hanger would go on before, in combination, adapting 12 this hanger for a sheathing application. 13 BY MR. EIDSON: 14 Q. I'm sorry, Mr. Fennell, I got lost. "Yes" or 15 "no," you agree with me that Cullen does not disclose 16 "inserting fire-retardant sheathing between the 17 channel-shaped portion of the firewall hanger and the 18 frame wall after the hanger is hung"; correct? 19 MS. HOLOUBEK: Objection. Form. 20 Mischaracterization. And asked and answered. 21 THE WITNESS: I thought I was clear. I agreed 22 with you, that it does not, but I just have those 23 caveats, that it's a stand-alone reference, and that in 24 this case, the hanger would go on first before any 25 Sheetrock would be introduced or fire-rated sheathing.	Page 57 1 drywall or insulating material is placed 2 between the anchor and the building frame 3 member." 4 There are other places I can take you that talk 5 about the cutting and inserting steps. But, again, I'm 6 using this prior art reference in combinations. 7 But this one here does disclose a hanger that's 8 installed prior to sheathing and then has sheathing cut 9 and arranged over the structural connector or hanger. 10 Q. And your support for that is this column 2, 11 that you cited with line 44 through 49? 12 A. There are other locations that I'm going to 13 find for you here. 14 Q. We are going to come back to that I just want 15 to make sure I have all of your testimony on that. 16 If you're looking in your report, and you're 17 looking for what you might have cited, it's -- I'm sure 18 you found it already. 19 A. Uh-huh. 20 Q. Okay. I don't see anything cited there, so 21 that's why I'm curious. 22 A. I -- 23 MS. HOLOUBEK: I'm sorry. Objection. 24 Argumentative. 25 THE WITNESS: Me or him?

Page 58 1 MS. HOLOUBEK: Oh, him. Sorry. 2 You can answer the question. 3 THE WITNESS: The sections I had were in 4 paragraph 145 of my declaration on page 82. It was 5 from the Allan Exhibit 1006, and I had found two 6 portions of supporting text. That was column 4, lines 7 1 through 14, and column 3, lines 12 through 20. 8 I could read both of them into the record if 9 you would like or not. 10 BY MR. EIDSON: 11 Q. No. I see them. 12 And so those are -- your understanding is that 13 those columns in Allan teach that fire-retardant 14 sheathing is inserted between a channel-shaped portion 15 in Allan of the firewall hanger and the frame wall 16 after the hanger is disclosed? 17 MS. HOLOUBEK: Objection. Form. 18 THE WITNESS: Well, in my combination, it 19 teaches that a hanger that is installed before the 20 sheathing is introduced, teaches a cutting step, and an 21 arranging of the sheathing over the structural 22 connector. 23 BY MR. EIDSON: 24 Q. Are you done? 25 A. Yes.	Page 60 1 sheathing? 2 MS. HOLOUBEK: Objection. Form. 3 THE WITNESS: In the strictest sense, the way 4 you describe it, I don't see those exact words. 5 However, in my combination, I see and envision most of 6 those steps. 7 BY MR. EIDSON: 8 Q. And it's not about the exact words. That's not 9 quite what I am asking, Mr. Fennell. 10 I'm asking, as one of ordinary skill in the 11 art, do you understand Allan to disclose that step that 12 I just read explicitly? 13 MS. HOLOUBEK: Objection. Form. Objection. 14 Asked and answered. 15 BY MR. EIDSON: 16 Q. Or at all? 17 MS. HOLOUBEK: Objection. Form. Asked and 18 answered. 19 THE WITNESS: Again, as I said, most of those 20 words, I see the hanger disclosed in here, and it 21 predates the introduction of any sheathing layer. 22 I see the cutting disclosed. I see the 23 arranging, moving of the sheathing over the structural 24 connector or hanger. Those are the words I see 25 disclosed in this patent, and as I have used them in a
Page 59 1 Q. And I'm just asking -- I understand the 2 combination. I understand your testimony on that. I'm 3 asking specifically about the Allan reference. Okay? 4 MS. HOLOUBEK: Objection. Form. 5 BY MR. EIDSON 6 Q. And so then my question is: The portions of 7 Allan that you cited, it is your understanding that 8 those portions teach inserting fire-retardant sheathing 9 between a channel-shaped portion of a firewall hanger 10 and the frame wall after the hanger is on? 11 A. In a strict sense, the way you're asking it, I 12 don't -- it doesn't discuss a channel shape. But in my 13 combination if my hanger has a channel shape, then I 14 get what I need from this prior art. 15 But, again, like the other ones, if it was 16 strictly just on this stand-alone reference, I don't 17 see those exact words. 18 Q. And sticking with Allan, and just looking at 19 Allan, do you agree with me that Allan does not 20 disclose, after the hanger is hung, moving the 21 fire-retardant sheathing relative to the firewall 22 hanger mounted on the frame wall so that an edge of the 23 fire-retardant sheathing bounding the opening moves 24 alongside the extension portion of the firewall hanger, 25 extends through the opening in the fire-retardant	Page 61 1 POSITA role in developing my combinations. Back to 2 your original question, those strict words in all of 3 them, I don't see that exact combination. 4 BY MR. EIDSON: 5 Q. I'm trying to avoid us getting caught in 6 semantics, which is why I'm being a little particular 7 here, Mr. Fennell. 8 When you say "I don't see those exact words," 9 my understanding the exact words don't appear in there. 10 But my question goes to whether it's disclosed to one 11 of ordinary skill in the art, so that's the vein and 12 the spirit I'm asking the question. 13 Does that make sense? 14 MS. HOLOUBEK: Objection. Form. And asked and 15 answered. 16 THE WITNESS: Yes. I mean, that is the 17 analysis of performing as a POSITA, what would I have 18 understood if I read this back in the day. 19 BY MR. EIDSON: 20 Q. I did not think you were playing word games 21 with me, but I just had to make sure. 22 And then looking at Cullen, which is 23 Exhibit 1004, do you understand Cullen to disclose 24 "after the firewall hanger is hung, moving the 25 fire-retardant sheathing relative to the firewall

Page 62 1 hanger mounted on the frame wall, so that an edge of 2 the fire-retardant sheathing bounding the opening moves 3 alongside the extension portion and the firewall hanger 4 extends through the opening in the fire-retardant 5 sheathing"? 6 MS. HOLOUBEK: Objection. Form. 7 THE WITNESS: That's a lot of question there. 8 I actually struggled quite a bit with a number 9 of the terms within your question, and have 10 subsequently presented opinions in the indefinite 11 section about some of those terms as a POSITA would try 12 to understand them. That's by way of footnote to 13 answering your question. 14 So to the extent that when I got into the 15 obvious most combination part of my analysis, again, I 16 didn't find those exact words in the Cullen reference, 17 but I did find components of what you read out. 18 I find a hanger adaptable for a fire-resistive 19 wall that gets installed prior to the sheathing, that 20 then allows for fire-rated sheathing to be installed 21 between the supported member and the face of a wall. 22 Q. Where does Cullen talk about fire sheathing? 23 A. As a stand-alone reference, it does not. 24 Q. And these are my questions, Mr. Fennell. It's 25 about the stand-alone references and what they disclose	Page 64 1 from the claims or the specification. 2 BY MR. EIDSON: 3 Q. You were looking at me as if, you know, you 4 were uncertain. The language is directly from the '339 5 claims. 6 You understand that; right? 7 MS. HOLOUBEK: Objection. Form. 8 THE WITNESS: I do. I'm not sure what I was 9 thinking. 10 BY MR. EIDSON: 11 Q. And then I have the same question about the 12 Bundy reference standing on its own. 13 Do you agree with me that Bundy Exhibit 1005 14 does not disclose that "after you install the firewall 15 hanger that you move the fire-retardant sheathing 16 relative to the firewall hanger mounted on the frame 17 wall so that an edge of the fire-retardant sheathing, 18 bounding the opening moves alongside the extension 19 portion and the firewall hanger extends through the 20 opening in the fire-retardant sheathing"? 21 MS. HOLOUBEK: Objection. Form. 22 THE WITNESS: Similar to the previous 23 discussion, as a stand-alone, I'm not going to find the 24 words you read, and I would further note that Bundy 25 hanger is installed after the Sheetrock.
Page 63 1 individually. 2 And so you agree with me that Cullen doesn't 3 disclose "installing a hanger and then moving 4 fire-retardant sheathing relative to the firewall 5 hanger mounted on the frame wall so that an edge of the 6 fire-retardant sheathing, bounding the opening moves 7 alongside the extension portion and the firewall hanger 8 extends through the opening in the fire-retardant 9 sheathing"? 10 MS. HOLOUBEK: Objection. Form. Asked and 11 answered. 12 THE WITNESS: I don't think I can improve on 13 what I already told you. 14 As a stand-alone hanger -- as a stand-alone 15 reference, I don't find the discussion of Sheetrock on 16 the wall in behind the supported member. 17 BY MR. EIDSON: 18 Q. And this is no secret. I'm tracking claim 19 elements of the '339 patent. 20 You see that; right? 21 MS. HOLOUBEK: Objection. Form. Objection. 22 Argumentative. 23 THE WITNESS: I can imagine that because I've 24 gone to a lot of effort in this declaration to also map 25 and track each of the claim elements, whether it be	Page 65 1 BY MR. EIDSON: 2 Q. And I'm not -- again, it's not just the words. 3 I'm talking about an element of the claim. 4 You understand that, Mr. Fennell? 5 A. Oh, I do. 6 Q. Okay. 7 A. But to the POSITA brain, those claims are 8 broken down into the words and the components. 9 Q. And hopefully we can streamline this a little 10 bit, but if not, we can certainly go back to it. 11 We discussed the claim element as it pertains 12 to Cullen, Allan, and Bundy, about "inserting the 13 fire-retardant sheath between the channel-shaped 14 portion of the firewall hanger and the frame wall after 15 mounting the hanger." 16 Do you recall that? 17 MS. HOLOUBEK: Objection. Form and foundation. 18 THE WITNESS: You may have to repeat it just to 19 make sure. 20 BY MR. EIDSON: 21 Q. No. I'm happy to do it. We started this line 22 of inquiry by looking at the claim element that is 23 "inserting the fire-retardant sheathing between the 24 channel-shaped portion of the firewall hanger and the 25 frame wall after mounting the firewall hanger."

Page 66 1 Do you recall that? 2 A. I do. 3 Q. And if you look over to claim, independent 4 Claim 27, you see that that same claim element appears 5 in independent Claim 27 starting at line 26? 6 MS. HOLOUBEK: Objection. Form. 7 THE WITNESS: Okay. 8 BY MR. EIDSON: 9 Q. Do you agree with that, or do you disagree? 10 MS. HOLOUBEK: Objection. Form. 11 THE WITNESS: No, I agree. 12 BY MR. EIDSON: 13 Q. And, Mr. Fennell, I'm trying to save us some 14 time here. So all of the questions I had about that 15 claim element when we were looking at Claim 1 regarding 16 whether that particular element is disclosed in Cullen, 17 Bundy, or Allan, your answers would be the same 18 regardless of which claim that element appears in; 19 correct? 20 MS. HOLOUBEK: Objection. Form. 21 THE WITNESS: I think generally, yes, and it is 22 in effect one of the other opinions I have is that I 23 don't know what the difference, functionally, between 24 independent claim and independent Claim 1 and Claim 27 25 are.	Page 68 1 A. Yes. 2 Q. Looking at Bundy, which is Exhibit 1005, you 3 agree that the arranging step is not disclosed in 4 Bundy? 5 MS. HOLOUBEK: Objection. Form. 6 THE WITNESS: Similar sort of answer. As a 7 stand-alone reference, I'm not going to find that 8 arranging step until I get to my combination where I 9 get what I need from Bundy to achieve parity. 10 BY MR. EIDSON: 11 Q. And you agree with me that that arranging step 12 is not found in Allen as well? 13 MS. HOLOUBEK: Objection. Form. 14 BY MR. EIDSON: 15 Q. Which is Exhibit 1006? 16 A. Partially. From my combination, I find the 17 arranging of the sheathing over the structural 18 connector to get into the correct place up against the 19 wall is there. Section cited previously. 20 But as a stand-alone, I don't find the entirety 21 of your arranging step. 22 Q. And then same question for Cullen. You agree 23 with me that the arranging step is not disclosed in 24 Cullen? 25 A. Similar answer. I can find portions of it,
Page 67 1 And the only words I can see that are different 2 from a functioning standpoint is that one has 3 "inserting and moving," and the other is "inserting and 4 arranging" the fire-rated sheathing. And I'm not sure 5 what the practical difference is there. 6 But as far as all your other questions about 7 whether I can find those words in independent 8 references, Cullen, Bundy, it's going to be the same as 9 what I previously answered. 10 Q. Claim 27 has a little bit of a different claim 11 element at the end. I think you just referred to that, 12 and it's the arranging step. 13 Do you see that? 14 A. I do. 15 Q. It's the step that starts -- you know what, 16 maybe if I call it the "arranging step," can you and I 17 understand that to mean the step in Claim 27 that 18 says "arranging the fire-retardant sheathing relative 19 to the firewall hanger so that the firewall hanger 20 extends through the opening in the fire-retardant 21 sheathing and part of the extension portion of the 22 firewall hanger is received in the opening in the 23 fire-retardant sheathing"? 24 Can you and I have an understanding if I call 25 that the "arranging step" to save me a mouthful?	Page 69 1 which works for my combination, but as a stand-alone 2 prior art reference, I don't see the entirety of the 3 arranging step. 4 MS. HOLOUBEK: Do you want -- let the record 5 reflect, that you just handed the witness -- 6 MR. EIDSON: I was about to, yes. 7 MS. HOLOUBEK: Okay. Just checking. 8 (Fennell Exhibit 1009 previously marked for 9 identification.) 10 BY MR. EIDSON: 11 Q. Mr. Fennell, I have handed you what we have 12 marked as Exhibit 1009, and this is the Rice reference. 13 A. Yes. I think this is Rice 113. 14 Q. Can we take a two-minute break? 15 MS. HOLOUBEK: You said two-minute? 16 MR. EIDSON: Literally two, maybe two and a 17 half. 18 MS. HOLOUBEK: Sure. Sure. 19 (Recess taken.) 20 BY MR. EIDSON: 21 Q. We were looking at Rice before the break, or we 22 had just started to, and I have some similar questions 23 about the Rice reference which you used in your ground 24 4. 25 Looking at Rice, you agree with me that Rice

Page 70 1 does not disclose the step of "inserting the 2 fire-retardant sheathing between the channel-shaped 3 portion of the firewall hanger and the frame wall after 4 the hanger is hung"? 5 MS. HOLOUBEK: Objection. Form. 6 THE WITNESS: Similar sort of answer. So as a 7 stand-alone reference, I don't find the entirety of 8 your step described, but I have used the Rice reference 9 in different places of my report for portions of the 10 claimed elements. 11 BY MR. EIDSON: 12 Q. And the step I just read, can we shorthand that 13 one and call that the "inserting step"? 14 A. Sure. I mean, it's the word you read, and then 15 my ultimate understanding of what that means for 16 combination purposes. 17 Q. Okay. And I'm reading the words as you can see 18 them, if you want to look at -- we just did, I think, 19 Claim 1 around lines 47-48. 20 A. Yes. 21 Q. And then do you agree with me that -- let's 22 start off. I should have done this at the beginning. 23 The next step of the claim method is -- Claim 1 24 is "moving the fire-retardant sheathing relative to the 25 firewall hanger mounted on the frame wall so that an	Page 72 1 THE WITNESS: Similar answer. As a 2 stand-alone, there's no inserting of Sheetrock. 3 BY MR. EIDSON: 4 Q. And -- were you done? 5 A. I mean, there's certainly Sheetrock involved in 6 what Rice discloses because it's for cutting holes in a 7 sheathing layer using a template. But as far as moving 8 the Sheetrock, I don't find that step in Rice as a 9 stand-alone. 10 Q. Well, I'm not talking about the moving step, 11 I'm talking about the inserting step of Claim 27. Are 12 we on the same page? 13 A. We are. But... 14 Q. And then looking at the arranging step of 15 Claim 27, you agree with me that Rice does not disclose 16 the arranging step of Claim 27; correct? 17 A. Several parts. As a stand-alone, I agree with 18 you. I don't see the arranging step in its entirety. 19 I would also take you back to my initial 20 opinion that I am not sure the difference between 21 "inserting and moving" versus "inserting and 22 arranging." There must be a difference there but I 23 don't know what it is. 24 (Fennell Exhibit PGR 3, 1007 previously marked 25 for identification, now marked as Fennell PGR
Page 71 1 edge of the fire-retardant sheathing bounding the 2 opening moves along the extension portion and the 3 firewall hanger extends through the opening in the 4 fire-retardant sheathing." 5 Do you see that in the '339 patent? 6 A. Yes, I do. Yeah, in Claim 1. 7 Q. And can we call that the "moving step" for 8 shorthand? 9 A. We can, yes. 10 Q. Very good. And you agree with me that the Rice 11 reference does not disclose the moving step of Claim 1; 12 correct? 13 A. Again, as a stand-alone reference, it does not. 14 Rice has portions of the claimed elements that I have 15 used in my combination analysis and also in my 16 identification of portions of the claims. 17 An example would be that if I turn to the Rice 18 and how I'm using it, in claim analysis, it would be, 19 say, Section 14; where in shorthand, Rice teaches a 20 template for cutting obstructions or existing features 21 in the wall. 22 Q. Mr. Fennell, looking at Claim 27, do you agree 23 with me that Rice does not disclose the inserting -- 24 inserting step of Claim 27? 25 MS. HOLOUBEK: Objection. Form.	Page 73 1 Exhibit 3 with the Witness's handwriting.) 2 BY MR. EIDSON: 3 Q. Mr. Fennell, I have handed you what we have 4 marked as Exhibit 1007. It's a reference we are 5 calling Yamaguchi. 6 You are familiar with this; correct? 7 A. Yes. 8 Q. And it's also a reference that you use in two 9 of your grounds, grounds 5 and ground 6, correct, 10 page 2 of your report? 11 A. Yes. 12 Q. Looking at Yamaguchi, you agree with me that 13 Yamaguchi does not disclose the inserting step of 14 Claim 1 and Claim 27? 15 MS. HOLOUBEK: Objection. Form. 16 MR. EIDSON: I'm trying to lump them together 17 to save us some time, but I can break it up. 18 BY MR. EIDSON: 19 Q. Mr. Fennell, you agree with me that Yamaguchi 20 does not disclose the inserting step of Claim 1? 21 MS. HOLOUBEK: Objection. Form. 22 THE WITNESS: Similarly, as a stand-alone 23 reference, I don't see the inserting step in this 24 reference to Yamaguchi because it doesn't -- 25 BY MR. EIDSON:

Page 74 1 Q. And -- sorry. 2 A. I don't see a reference to a sheathing layer in 3 this prior art. It just is -- it's useful to me when I 4 get to my combination analysis. 5 Q. And you also agree with me that Yamaguchi does 6 not disclose the moving step of Claim 1; correct? 7 A. It would be a similar answer. It's a 8 stand-alone reference. There is no sheathing to be 9 moved; just the opportunity to adapt in a combination 10 setting this hanger for that purpose. 11 Q. You agree with me that Yamaguchi does not 12 disclose the inserting step of Claim 27; correct? 13 A. To the extent I understand it, yes. 14 Q. And you agree with me that Yamaguchi does not 15 disclose the arranging step of Claim 27; correct? 16 A. Same answer. 17 (Fennell Exhibit 1011 previously marked for 18 identification.) 19 BY MR. EIDSON: 20 Q. Mr. Fennell, I have handed you what has been 21 marked as Exhibit 1011, the Robinson reference. 22 A. Okay. 23 Q. And you rely on Robinson for your grounds 7 and 24 8; correct? 25 A. Yes.	Page 76 1 that's why I have to re-ask, and I apologize. 2 You agree with me that Robinson does not 3 disclose the moving step of Claim 1; correct? 4 A. Not in its entirety, correct. 5 Q. And you agree with me that Robinson does not 6 disclose the inserting step of Claim 27; correct? 7 A. Again, as a stand-alone reference, not in its 8 entirety, correct. 9 Q. And you agree with me that Robinson does not 10 disclose the arranging step of Claim 27; correct? 11 A. Again, as a stand-alone reference, it does not 12 have the arranging step in its entirety. 13 (Fennell Exhibit 1032 previously marked for 14 identification.) 15 BY MR. EIDSON: 16 Q. There you go. Mr. Fennell, I have handed you 17 what we have marked as Exhibit 1032, this is the 18 comments reference which you have utilized in grounds 19 9, 10, and 11 of your opinions. 20 Did I get any of that wrong? 21 A. No. 22 Q. And looking at the comments reference -- first 23 of all, comments is for a hurricane tie; correct? 24 MS. HOLOUBEK: Objection. Form. 25 THE WITNESS: It is.
Page 75 1 Q. And you agree with me that Robinson does not 2 disclose the inserting step of Claim 1? 3 MS. HOLOUBEK: Objection. Form. 4 THE WITNESS: Again, similar to the previous 5 stream of answers, partially as a stand-alone 6 reference, there is no discussion of sheathing in 7 Robinson as it stands alone. 8 But as used by me and my obviousness analysis 9 for combination purposes, there is discussion of 10 inserting elements between the channel and the wall, 11 just not rated sheathing. 12 BY MR. EIDSON: 13 Q. You agree with me that Robinson does not 14 disclose the moving step of Claim 1; correct? 15 A. Again, to the extent it's any different than 16 the arranging step, it's the same answer. 17 Q. And I just didn't understand the qualification 18 there. 19 Does that mean you agree with me that it 20 doesn't disclose the moving step or you don't? 21 MS. HOLOUBEK: Objection. Form. 22 BY MR. EIDSON: 23 Q. Yeah. So let me ask the question again, and 24 I'm sorry, Mr. Fennell, I just didn't -- when you 25 qualify things, it -- I don't track you as well, so	Page 77 1 BY MR. EIDSON: 2 Q. And you agree with me that the Commins 3 reference does not teach the inserting step of Claim 1; 4 correct? 5 A. The Commins reference, standing alone, does 6 teach a POSITA about cutting Sheetrock in and around a 7 hanger that's already on a wall. 8 So it partially addresses the step you're 9 asking about. But I need to take Commins in 10 combination with the other references, ArchRecord, and 11 Cullen, to complete my analysis for the grounds you 12 mentioned. 13 If you wanted a specific Cullen line reference 14 to the teaching of Commins with respect to cutting, I 15 would direct you to column 4 at, say, line 32 starting 16 with (as read): 17 "Thus, if it were desired to Sheetrock the 18 inside wall, a notch would have to be made in 19 the gypsum board around extension 23 of the 20 hanger tie member." 21 Q. But -- okay. Looking at that -- in looking at 22 the inserting claim element, or the inserting element 23 of Claim 1, which is "after the firewall hanger is 24 mounted inserting the fire-retardant sheathing between 25 the channel-shaped portion of the firewall hanger and

Page 78 1 the frame wall," that element is not disclosed in 2 Commins; correct? 3 MS. HOLOUBEK: Objection. Form. Objection. 4 Asked and answered. 5 THE WITNESS: I think I agree with you, the 6 entirety of what that step described is not in the 7 stand-alone Commins reference that I have used. 8 BY MR. EIDSON: 9 Q. And then looking at the moving step of Claim 1, 10 you agree with me that the moving step is not disclosed 11 in Commins? 12 MS. HOLOUBEK: Objection. Form. 13 THE WITNESS: Again, only in part, would be the 14 same text that I have pointed you to, that after 15 cutting the Sheetrock, it's moved up and around the 16 existing hanger. 17 BY MR. EIDSON 18 Q. Okay. But as a claim element as a whole, and 19 I'm not -- I just want to track what your answer is, 20 Mr. Fennell. And so looking at the moving element in 21 Claim 1, is that step disclosed in Commins? 22 MS. HOLOUBEK: Objection. Form. Asked and 23 answered. 24 THE WITNESS: Again, only in part, Counselor. 25 BY MR. EIDSON:	Page 80 1 THE WITNESS: That's correct. I don't find the 2 entirety of the step. 3 BY MR. EIDSON: 4 Q. At any time today when you said, "I find 5 partial disclosure" that essentially means that you 6 don't find the entirety of the step disclosed; correct? 7 MS. HOLOUBEK: Objection. Form. Objection. 8 Characterization. 9 THE WITNESS: Generally, I think that's fair: 10 The full answer is in my declaration. 11 (Fennell Exhibit 1031 previously marked for 12 identification.) 13 BY MR. EIDSON: 14 Q. Mr. Fennell, now I have handed you what is 15 Exhibit 1031. It's the ArchRecord reference. 16 A. Yes. 17 Q. You relied on this for three of your grounds, 18 grounds 9, 10 and 11; correct? 19 A. Yes. 20 Q. Very good. And I have a similar pattern of 21 questioning for you. Looking at the ArchRecord 22 reference, do you agree that the step of the -- the 23 inserting step of Claim 1 is not disclosed in the 24 ArchRecord reference? 25 A. Similar to previous answers, I find this prior
Page 79 1 Q. And the part that's disclosed is cutting a hole 2 in the sheathing? 3 MS. HOLOUBEK: Objection. Form. 4 THE WITNESS: It was -- it was notching the 5 sheathing to fit around the extension portion of the 6 hanger that's already installed on the wall. 7 BY MR. EIDSON: 8 Q. Then looking at Claim 27, do you agree with me 9 that the inserting step of Claim 27 is not disclosed in 10 Commins? 11 A. That's a similar answer, to the extent that 12 "inserting and arranging" is any different 13 than "inserting and moving." 14 I only find partial teachings in Commins for 15 those steps. 16 Q. You agree with me that the arranging step of 17 Claim 27 is not disclosed in Commins; correct? 18 MS. HOLOUBEK: Objection. Form. 19 THE WITNESS: Same answer as to the moving 20 step. I only find partial support in the Commins prior 21 art. 22 BY MR. EIDSON: 23 Q. You don't find the entirety of the step 24 disclosed; is that fair to say? 25 MS. HOLOUBEK: Objection. Form.	Page 81 1 art reference standing alone does teach part of the 2 steps with respect to inserting, moving, arranging, 3 sheathing in and around a structural component that's 4 already installed on the wall. 5 Q. And I appreciate your intent at efficiency, but 6 I want to try to be just specific and go claim element 7 by claim element as we have with the rest. 8 Okay, Mr. Fennell? 9 So as it pertains to the inserting element of 10 Claim 1, you agree with me that that step of the claim 11 is not disclosed in ArchRecord? 12 MS. HOLOUBEK: Objection. Form. 13 THE WITNESS: And my answer again is that I 14 find partial support for the inserting step, that when, 15 in the stand-alone ArchRecord reference, refers to -- 16 in fact, I'm just going to read from paragraph 418 of 17 my declaration. (As read): 18 "Just as ArchRecord teaches that it was 19 well known to install gypsum sheathing up 20 behind a truss to a top plate of a frame wall 21 for 'fire safety.'" 22 And that's on page 166 of this document. And 23 can be seen in illustration at the bottom of page 166 24 in the two figures. 25 There is a figure on the left with a I-joist

Page 82 1 framing member being supported in a bucket-style 2 hanger, and on the right-hand side, an open web floor 3 truss arranged perpendicular to a wall where the 4 support comes from a combination of double top cords, 5 the truss bearing on the wall, in combination with 6 their truss plates or structural connectors. 7 But in these cases, the drywall is inserted 8 behind the structural connectors, and I find support in 9 this stand-alone reference. 10 Q. Okay. Let's break that down a little bit. 11 So what you read for me in your report was 12 referring to the top plate in the truss cord, which is 13 the far right picture on page 6 of ArchRecord; correct? 14 A. Yes. When referring to the truss. 15 Q. And then the picture on the left is the only 16 one that uses a hanger; correct? 17 A. Well, it uses a bucket-style hanger, and I'm 18 not trying to pick words with you here, but I see a lot 19 of equivalency between these two different support 20 conditions for detailing, whether it be truss or 21 I-joist here, whether it be bucket-style hanger or 22 whether it be the truss plates on the right-hand side. 23 Both of them are configured to accept sheathing 24 on the face of the wall all the way up to the underside 25 of the floor sheathing.	Page 84 1 THE WITNESS: I don't recall at this time. 2 Keep in mind that my use here is in 3 combination, but the teachings of this reference are 4 clear to the POSITA in the 2012 time frame was 5 installing hangers over a layer of drywall. 6 BY MR. EIDSON: 7 Q. It was already there; right? 8 MS. HOLOUBEK: Objection. Form. 9 THE WITNESS: Could be there, yes. It's an 10 either/or. 11 BY MR. EIDSON: 12 Q. At the time, what product did Simpson have on 13 the market that allowed you to install the hanger first 14 and then do the drywall second? 15 MS. HOLOUBEK: Objection. Scope and 16 foundation. 17 THE WITNESS: There were a number of hangers 18 that were usable in that intended function, and then as 19 I described to you in our last deposition, it was a 20 unique transitional time where the -- the practice had 21 changed and the desire to bring more members, in 22 repetitive members, perpendicular to rated walls, had 23 practitioners using different types of hangers. 24 For example, Simpson hangers, in exactly the 25 application shown on the left-hand side here. So an
Page 83 1 Q. And where does it disclose, as it pertains to 2 using the bucket-style hanger in the left picture, the 3 installation of the hanger and then the installation of 4 the sheathing? 5 A. I don't see an explicit callout in the text of 6 this reference. It's -- to a POSITA looking at this 7 detail, it could be either way. It could be bucket 8 first, then sheathing, or the sheathing could be on the 9 wall, then the hanger installed. 10 Q. What type of hanger is used in the far left 11 picture of ArchRecord? 12 A. That's a top flange wall hanger. 13 Q. The Bundy-style hanger? 14 MS. HOLOUBEK: Objection. Form. 15 THE WITNESS: It's the LBV Simpson hanger. 16 It's written in very, very small print. 17 BY MR. EIDSON: 18 Q. And is that LBV Simpson hanger designed to be 19 installed before Sheetrock? 20 MS. HOLOUBEK: Objection. Form. Speculation. 21 THE WITNESS: It could be either way. 22 BY MR. EIDSON: 23 Q. How does Simpson instruct one to install that 24 hanger vis-à-vis Sheetrock? 25 MS. HOLOUBEK: Objection. Form. Foundation.	Page 85 1 LBV would be a type that would have been tried and 2 used. 3 Q. Tried and used for what? 4 MS. HOLOUBEK: Objection. Form. 5 THE WITNESS: For supporting members on walls 6 which were adept to receive drywall or rated sheathing. 7 BY MR. EIDSON: 8 Q. Before or after the hanger is hung? 9 MS. HOLOUBEK: Objection. Form. 10 THE WITNESS: Either. 11 BY MR. EIDSON: 12 Q. Did you ever see, in this time period, a 13 Simpson hanger with a top-flange mount and nothing else 14 that was installed before the Sheetrock and a truss or 15 a floor joist put in that channel-shaped portion and 16 then drywall slid up behind it? 17 MS. HOLOUBEK: Objection. Form. Incomplete 18 hypothetical. Objection. Scope. 19 THE WITNESS: I can't recall an instance in my 20 professional practice where that was occurring. 21 BY MR. EIDSON: 22 Q. It doesn't make sense from an engineering 23 perspective, right, because if you just had a top 24 flange mount and you left a space between the 25 channel-shaped portion and the wall and you put a floor

Page 86 1 joist in there, it would sag toward the back of the 2 wall and close that gap; right? 3 MS. HOLOUBEK: Objection. Form and 4 argumentative. 5 THE WITNESS: We discussed this previously, and 6 I was telling you that I had no such concerns about 7 this cranking of the bracket back towards the wall in 8 such a way that it would cut off the opportunity to 9 install sheathing on the face of the wall. We 10 discussed it at length last time, and I haven't changed 11 my mind since. 12 BY MR. EIDSON: 13 Q. So your testimony, then, could simply be that 14 one could take Bundy and just slide it out a little 15 bit, use the top flange, put a joist in it, and you'd 16 be able to put two 5/8ths layer drywall right behind it 17 after a joist is hung from it? 18 MS. HOLOUBEK: Objection. Form. Incomplete 19 hypothetical. 20 THE WITNESS: Yes-ish. Couple of things to the 21 "ish" is it has to be a style of Bundy hanger that has 22 a top flange to begin with, not just the face-mounted 23 one. 24 Two, it's my design. So I'm adapting it for my 25 intended function and whatever load-carrying capacity I	Page 88 1 hangers and hanging then off the face of the wall to 2 achieve support for perpendicular members, while also 3 adapting the wall for Sheetrock. 4 BY MR. EIDSON: 5 Q. Mr. Fennell, that's not quite my question. My 6 question is as it pertains to Simpson testing documents 7 for a purely top flange mounted hanger that leaves a 8 space with nothing more than just the top flanges on 9 the wall, where a joist or a truss is hung from that 10 channel-shaped portion. 11 Are you familiar with any of that testing and 12 what the results showed vis-à-vis compressing the space 13 between the channel-shaped portion and the wall? 14 MS. HOLOUBEK: Objection. Form. Scope. 15 Incomplete hypothetical. 16 THE WITNESS: No, I have no access -- I don't 17 have access to those internal Simpson test results. 18 BY MR. EIDSON: 19 Q. And so when you earlier testified that you 20 don't believe that if you had Bundy and you just moved 21 it out and left a space there, and then put the joist 22 in, you believed it would maintain the integrity of 23 that space with only the top flange hangers? That's 24 not the result of any testing you've done; correct? 25 MS. HOLOUBEK: Objection. Form.
Page 87 1 need it for to then allow for, as you -- your 2 hypothetical suggested, two layers of sheathing to be 3 installed -- post-installed after the hanger and the 4 joist are installed. 5 BY MR. EIDSON: 6 Q. Are you aware of any Simpson documentation 7 where they tried this configuration with the top flange 8 mounted hanger -- 9 MS. HOLOUBEK: Objection. Form. Scope. 10 BY MR. EIDSON: 11 Q. -- and tested -- 12 MS. HOLOUBEK: Sorry. 13 BY MR. EIDSON: 14 Q. -- and tested it to see if it would sag back 15 into the gap created with only top flanges? 16 MS. HOLOUBEK: Objection. Form. Objection. 17 Scope. 18 THE WITNESS: Again, as previously discussed in 19 our last deposition, we did refer to the bulletin put 20 out, published by Simpson. 21 I have it referenced in my declaration here, 22 where tested values were published for designers to 23 use, and I also went on to say that it was my 24 recollection, personally, that it was in response to 25 litigation-type claims against designers for taking	Page 89 1 THE WITNESS: No. That's not. I mean, as I 2 said in my answer there, it's by design for a capacity 3 that I would imagine, and with any modifications, I 4 would need to make to make to that hanger to make it 5 work. I might have to beef up the gauge of the metal. 6 BY MR. EIDSON: 7 Q. So now looking back at ArchRecord, the 8 inserting step that we were talking about in Claim 1, 9 the inserting step talks about "inserting the 10 fire-retardant sheathing between the channel-shaped 11 portion of the firewall hanger after the hanger is 12 installed." 13 Where is that claim limitation in ArchRecord? 14 MS. HOLOUBEK: Objection. Form. Asked and 15 answered. 16 THE WITNESS: As I mentioned before, it was on 17 page 166 of this document where it's talking about the 18 fire safety quote. 19 But then I take you to those two detailed 20 illustrations at the bottom of page 166, and refresh us 21 that I see a lot of equivalency between these two 22 details, that the inserting, I see, is on the 23 right-hand side. 24 There's two layers of sheathing shown there and 25 with the dotted -- or hidden lines, that structural

Page 90 1 hanger or structural connector plate goes through the 2 sheathing. 3 And, in fact, the sheathing would be inserted, 4 in my mind, after all of the wood is installed there. 5 Sheathing comes later and is inserted up and around 6 that structural connector, whether that be a truss 7 plate connector or whether it be a bucket-style hanger. 8 BY MR. EIDSON: 9 Q. So let's break this down one by one. You 10 mentioned the fire safety quote on page 166. Where are 11 you at on that? 12 MS. HOLOUBEK: Objection. Form. 13 THE WITNESS: Well, there's two parts. There's 14 the actual term "fire safety" is the last two words 15 directly above that truss detail on page 166. 16 There's also a reference further up the page in 17 that right-hand column of text that -- that says (as 18 read): 19 "In the U.S. where most codes follow the 20 International Building Code, semi-balloon 21 framing is often used as an alternative to 22 platform framing in structures where fire 23 requirements or shrinkage may be a challenge." 24 So both of those areas describe the fire safety 25 portion of the design challenge.	Page 92 1 "5/8ths type X gypsum" on that right-hand detail. 2 On the left with the bucket-style hanger, the 3 top flange, it's an either/or. Drywall first, then 4 hanger, or hanger first, then drywall. 5 BY MR. EIDSON: 6 Q. Where do you see that it's hanger first and 7 then drywall? Where is that supported in here? 8 MS. HOLOUBEK: Objection. Form. 9 BY MR. EIDSON: 10 Q. I'll ask a different -- or the same question. 11 Where does that explicitly say you install the 12 hanger before the drywall? 13 MS. HOLOUBEK: Objection. Form. 14 THE WITNESS: As I mentioned, it's not 15 explicitly mentioned. In my experience of means and 16 methods, there's nothing to prevent that drywall from 17 being inserted after the hanger. 18 BY MR. EIDSON: 19 Q. You agree with me that at the time, the only 20 channel-shaped portion hangers utilized for hanging 21 joists for constructional firewall purposes, were hung 22 after the drywall? 23 MS. HOLOUBEK: Objection. Form. 24 THE WITNESS: No, I don't think I agreed with 25 that. I just was not aware of the actual sequencing at
Page 91 1 If I may add, this is just what is in the 2 POSITA's toolbox or the POSA's toolbox circa 2012, as 3 far as where the design practice was for balancing the 4 various competing design criteria, fire, acoustics, 5 structural, et cetera. 6 Q. So you pointed out the words "fire safety" at 7 the end of page 166 and then some language referencing 8 building codes and fire-retardant treated wood at the 9 top. 10 And where do you see, in this reference, that 11 it discloses first installing a hanger, and then, 12 second, "inserting fire-retardant sheathing between a 13 channel-shaped portion of a firewall hanger and a frame 14 wall"? 15 MS. HOLOUBEK: Objection. Form. Asked and 16 answered. 17 THE WITNESS: Yeah. Back to our original 18 stream of questioning, as a stand-alone document, I 19 don't find the entirety of the inserting step. 20 But I very much see drywall in behind 21 structural connectors in those two details at the 22 bottom. 23 And the one on the right is very clear to me 24 that truss first with its hangers and connectors, 25 drywall second, sheathing. It actually calls it	Page 93 1 the time. 2 BY MR. EIDSON: 3 Q. Are you aware of any products out there where 4 you would install the hanger first and then the 5 drywall? 6 MS. HOLOUBEK: Objection. Form and scope. 7 THE WITNESS: Well, I've identified a number 8 here in combinations where I can install the hanger 9 first and then the drywall. 10 BY MR. EIDSON: 11 Q. Mr. Fennell, my question is, in your experience 12 as an engineer, a specifier, and at this time, can you 13 identify one product that was around at the time where 14 you would install the hanger first and then the 15 drywall? 16 MS. HOLOUBEK: Objection. Form. 17 THE WITNESS: I see no problem why the LBV 18 would not work for that application. 19 As I discussed last time with you, it's simply 20 just the load of the joist in the hanger at that time 21 under its own self-weight. 22 You recall we discussed that, and then very 23 likely the floor sheathing above would be installed at 24 that point, which further adds to composite strength of 25 the connection.

Page 94 1 BY MR. EIDSON: 2 Q. LBV is a top flange hanger; correct? 3 A. It is. 4 Q. Looking at the moving step of Claim 1, you 5 agree with me that the ArchRecord does not disclose the 6 moving step of Claim 1? 7 MS. HOLOUBEK: Objection. Form. 8 THE WITNESS: Similar answer. As a 9 stand-alone, I don't see the entirety of the moving 10 step. 11 However, in the pictorial details here, it's 12 very clear to me as a POSITA, that the drywall is moved 13 up and around the existing truss hanger, truss plate on 14 the right-hand side. 15 BY MR. EIDSON: 16 Q. What about the hanger on the left, the 17 channel-shaped portion hanger? 18 MS. HOLOUBEK: Objection. Form. 19 BY MR. EIDSON: 20 Q. Where do you see the moving step disclosed as 21 it pertains to the channel-shaped hanger? 22 MS. HOLOUBEK: Objection. Form. Asked and 23 answered. 24 THE WITNESS: In the sequencing where hanger 25 first, drywall second, I see in the cross-sectional	Page 96 1 Are your answers the same for the inserting 2 step and the arranging step? 3 MS. HOLOUBEK: Objection. Form. 4 THE WITNESS: Yes, to the extent I understand 5 what's meant by those claims, it's the same answer. 6 BY MR. EIDSON: 7 Q. Well, I want to make sure we're on the same 8 page, so let me ask. 9 You agree that the inserting step of Claim 27 10 is not disclosed by ArchRecord? 11 MS. HOLOUBEK: Objection. Form. 12 THE WITNESS: Again, as a stand-alone 13 reference, I only find part of the inserting step 14 supported by the artwork of this reference. 15 BY MR. EIDSON: 16 Q. And then the arranging step of Claim 27, you 17 agree that the arranging step is not disclosed in 18 ArchRecord? 19 MS. HOLOUBEK: Objection. Form. 20 THE WITNESS: Again, to the extent I understand 21 "arranging" versus "moving," it must be something 22 different. I only find partial support being taught by 23 this reference with its artwork. 24 BY MR. EIDSON: 25 Q. So it's fair to say, you don't find the
Page 95 1 detail here that the drywall on the wall continues all 2 the way up to the underside of the sheathing. There 3 would need to be a small notch around the top flange of 4 the hanger. 5 But that's where I see it. 6 BY MR. EIDSON: 7 Q. That's where you see the entirety of the moving 8 claim element of Claim 1 in ArchRecord? 9 MS. HOLOUBEK: Objection. Form. Asked and 10 answered. 11 THE WITNESS: I see the part of it that is 12 taught that I have used in my combination for 13 obviousness. 14 BY MR. EIDSON: 15 Q. And my question is: Do you see the entirety of 16 the moving claim element in Claim 1 in ArchRecord? 17 MS. HOLOUBEK: Objection. Form. Asked and 18 answered. 19 THE WITNESS: I already said that I agree that 20 I don't see the entirety of it explicitly written in 21 this stand-alone reference. 22 BY MR. EIDSON: 23 Q. And looking at -- and I've got the same 24 questions for Claim 27, the inserting step and the 25 arranging step.	Page 97 1 entirety of that claim element disclosed; correct? 2 MS. HOLOUBEK: Objection. Form. 3 THE WITNESS: To the extent it's any different 4 than moving, correct. 5 MS. HOLOUBEK: If we are at a good breaking 6 point, it might make sense to break for lunch. 7 MR. EIDSON: I think that we probably are. I 8 wanted to kind of finish that. 9 MS. HOLOUBEK: Sorry, if you are not through. 10 MR. EIDSON: Yeah. I think we are. It works 11 for me. 12 MS. HOLOUBEK: Okay. 13 (Lunch break taken.) 14 BY MR. EIDSON: 15 Q. Mr. Fennell, before the break, we were 16 discussing the prior art references that made up the 17 grounds of your obviousness challenge. 18 Do you recall that? 19 A. Yes. 20 Q. I want to pick up right there where we left 21 off. And also, hopefully, short-circuit some things. 22 At your last deposition, we were talking about 23 Yamaguchi and Cullen, and do you recall we talked about 24 the tabs that would be created when you would have to 25 cut the drywall utilizing those references as you

Page 98 1 modify them? 2 MS. HOLOUBEK: Objection. Form. 3 BY MR. EIDSON: 4 Q. I'm going to hand you some exhibits. 5 (Fennell PGR Exhibit 2 was marked for 6 identification.) 7 (Fennell PGR Exhibit 1 was marked for 8 identification.) 9 BY MR. EIDSON: 10 Q. Mr. Fennell, I'm handing you what we are going 11 to mark as Fennell PGR Exhibits 1 and Fennell PGR 12 Exhibit 2. 13 Fennell PGR Exhibit 1 is Exhibit 12 to your 14 April 15th deposition, and PGR2 was Exhibit 13 to your 15 April 15th deposition. 16 MS. HOLOUBEK: Thank you. 17 MR. EIDSON: Hold on. I got one more. 18 MS. HOLOUBEK: And for the record, I'm going to 19 object to these exhibits under scope, relevance, 20 authentication. 21 BY MR. EIDSON: 22 Q. Mr. Fennell, you recall drawing Fennell PGR1 23 and Fennell PGR2 at your last deposition in April; 24 correct? 25 MS. HOLOUBEK: Objection. Scope.	Page 100 1 I'm sorry. 2 MS. HOLOUBEK: Sorry, which one is which, 3 because you were -- 4 MR. EIDSON: PGR1 is the Yamaguchi. PGR2 is 5 the Cullen. Sorry. I put a -- 6 MS. HOLOUBEK: Okay. Thank you. 7 Can you repeat the question? I apologize. 8 BY MR. EIDSON: 9 Q. So we're looking at the Yamaguchi drawing, 10 which is Fennell PGR1. 11 Do you see that? 12 A. I do. 13 Q. And what did Fennell PGR1 represent when you 14 drew it? 15 MS. HOLOUBEK: Objection. Scope. Relevance. 16 Form. 17 THE WITNESS: I was generally trying to show 18 how, in the '510 matter, federal matter, how with 19 Claim 40, I could notch the drywall to receive the -- 20 to work in and around the Yamaguchi prior art as 21 modified by me. 22 BY MR. EIDSON: 23 Q. And so then the notching in the drywall for the 24 Yamaguchi to install it would create that tab piece in 25 the middle; is that right?
Page 99 1 THE WITNESS: I did. 2 BY MR. EIDSON: 3 Q. Do you recognize these as the drawings you've 4 done with your signature and smiley faces at the 5 bottom? 6 MS. HOLOUBEK: Objection. Scope. 7 THE WITNESS: I did. 8 BY MR. EIDSON: 9 Q. Okay. And do you recall that we had a 10 discussion about the cutouts that would have to be done 11 for Cullen and Yamaguchi? 12 MS. HOLOUBEK: Objection. Form and scope. 13 BY MR. EIDSON: 14 Q. Do you recall that testimony? 15 MS. HOLOUBEK: Same objections. 16 THE WITNESS: Generally, yes. 17 BY MR. EIDSON: 18 Q. Okay. Well, let's -- all right. So let's just 19 take this one by one. I want to make sure that we're 20 on the same page. 21 Looking at the document that you created that's 22 Fennell PGR1; do you see that? 23 MS. HOLOUBEK: Counsel, I don't have a label of 24 PGR1 versus PGR2 in either of these. 25 MR. EIDSON: Yeah, I read it into the record.	Page 101 1 MS. HOLOUBEK: Objection. Scope. Relevance 2 and form. 3 THE WITNESS: It would. With the other 4 hand-drawn sketch, not to scale, that you've been 5 calling PGR2 exhibit, I scribbled at the time that you 6 could see also see the annotated Figure 1 in my federal 7 report at page 120, paragraph 199. 8 I could have added a similar reference to a 9 more beautiful version of this for the Yamaguchi, and I 10 may be able to point you to that in my current 11 declaration as well. 12 But the intent was the basic shape of the 13 drywall permitted and using that tab terminal, which 14 ultimately developed during the deposition. 15 Q. And what was the tab? 16 MS. HOLOUBEK: Objection. Scope. Relevance. 17 Form. 18 THE WITNESS: On the day, it was the central 19 portion of drywall between the crenellations. 20 BY MR. EIDSON: 21 Q. Has it changed today? 22 MS. HOLOUBEK: Objection. Scope. Relevance. 23 Form. 24 THE WITNESS: No, not as far as the tab goes. 25 We could discuss whether it's one layer or two layers.

Page 102 1 But these were just to permit the single layer. 2 BY MR. EIDSON: 3 Q. And we talked about last time how the tab 4 portion of the drywall here created a bit more of a 5 fragile portion of the drywall. 6 Do you recall that? 7 MS. HOLOUBEK: Objection. Scope. Relevance 8 and form. 9 THE WITNESS: We did have a discussion about 10 its relative vulnerability and how the installers would 11 require a degree of care to not break off that portion 12 of drywall. 13 BY MR. EIDSON: 14 Q. And I don't want to replot that ground. 15 Do you stand by that testimony regarding the 16 tabs and the installation with the installers and these 17 particular Sheetrock? 18 MS. HOLOUBEK: Objection. Scope. Relevance 19 and form. 20 THE WITNESS: Yeah. To the extent we were 21 discussing it a month ago, I haven't changed my mind. 22 BY MR. EIDSON: 23 Q. We also talked about the Yamaguchi reference, 24 and we can briefly revisit that. I don't intend to 25 replot a lot of old ground there. But if you want to	Page 104 1 there's a drafting anomaly or bug in the drafting here, 2 but that the intent and the interpretation by me and, I 3 think, a POSITA at the time, would see the supporting 4 member extending to the back of the seat portion. 5 Q. What is the drafting anomaly or bug? 6 MS. HOLOUBEK: Objection. Form. 7 THE WITNESS: What I was referring to is that 8 on page 5, whether the 5 at the top of the page or the 9 5 at the bottom of the page shows an isometric usage 10 view of the -- of the hanger, and if you look at the 11 extent of the supported member, I believe the back of 12 the member is coincident with the face of the bearing 13 wall, and that lines up with the back of the seat for 14 the channel portion. 15 If I was to draw a line vertically straight up 16 the page from there, this drafting bug shows the 17 supporting member extending to the right beyond that, 18 which, I think, a POSITA or someone skilled in the art 19 would be easily able to resolve that drafting bug and 20 know that that's not possible. 21 Q. I'm not sure I follow you. 22 Do you have a pen or something? Let me get you 23 a pen. 24 All right. On that exhibit, 1007, on that 25 diagram 5, will you show me what you mean by the
Page 103 1 pull that reference up in your exhibits, to the extent 2 you need it, it's 1007. 3 A. Okay. 4 Q. And Yamaguchi is intended to be used for a sill 5 plate; correct? 6 MS. HOLOUBEK: Objection. Form. 7 THE WITNESS: It does refer to sills and 8 illustrates a -- what would be a sill or soleplate 9 condition. 10 BY MR. EIDSON: 11 Q. And it doesn't disclose anything about 12 fire-retardant sheathing; correct? 13 MS. HOLOUBEK: Objection. Form. 14 THE WITNESS: No, this existing reference does 15 not discuss sheathing. But as I describe in my 16 motivation section of my report -- declaration, this 17 provides excellent opportunity to integrate sheathing. 18 BY MR. EIDSON: 19 Q. And looking at Yamaguchi, the joist sits all 20 the way in the back of the hanger; correct? 21 A. I don't recall what we discussed previously, 22 but I've got lots of description in my declaration 23 here. 24 But, conceptually, I see the supported member 25 extending to the back of the seat member, and I believe	Page 105 1 drafting bug, or draw on it if you need to? 2 MS. HOLOUBEK: Objection. Form. 3 THE WITNESS: What I would do is first draw 4 your attention to my declaration on page 42. You can 5 see where I put the channel-shaped portion colored in 6 red, and I believe that's where the end of the member 7 is, the supporting member, and if I then drew a line 8 straight up from that red hatching, just as a 9 construction line -- 10 BY MR. EIDSON: 11 Q. Yeah. 12 A. -- when we arrive at that top outer corner of 13 the supported member, that's where I was describing 14 that the way it's drafted here in isometric it 15 continues further back, and unless there's actually a 16 notch in the bearing wall to receive the extension, 17 which I do not believe it does, then I would simply 18 have had the drafters redraw this to show the end of 19 the supporting member here where I added a second 20 construction line. 21 Q. Will you just sign, date, and initial that for 22 me? 23 A. (Witness complies.) 24 What is today? May 14th? 25 Q. Yes. I probably need to make that a new

Page 106 1 exhibit. 2 Mr. Fennell, I'm going to put an exhibit 3 sticker on that, whenever you're done notating, and 4 please take your time. 5 A. All right. 6 Q. I'll give this right back to you, and we have 7 labeled the modified Exhibit 1007 as Fennell PGR 8 Exhibit 3. 9 So, as I understand what you're saying then, 10 the error that you see in the drawing is that the 11 picture shows the joist or support member going too far 12 back toward the sill plate; correct? 13 MS. HOLOUBEK: Objection. Form. 14 THE WITNESS: I see a bug there. The bottom 15 part stops at the face of the bearing wall, as 16 interpreted by POSITA Fennell, but that the top portion 17 of the supported member goes beyond the face of the 18 bearing wall back towards the -- the sill member. 19 BY MR. EIDSON: 20 Q. Wouldn't that tell one of ordinary skill in the 21 art that the support member is notched? 22 MS. HOLOUBEK: Objection. Scope. I'm sorry. 23 Scratch that objection. Objection. Form. 24 THE WITNESS: Not necessarily, no. 25 BY MR. EIDSON:	Page 108 1 Q. And what structural connectors are you familiar 2 with, their manufactured -- their manufacturing process 3 of? 4 MS. HOLOUBEK: Objection. Form, scope, and 5 relevance. 6 THE WITNESS: I've literally seen thousands of 7 structural connectors that -- I have studied the shop 8 drawings for fabrication if not actually manufacturing 9 drawings. So there's nothing exotic about these types 10 of bits of Origami. They're out of -- tend to be out 11 of sheet metal. 12 BY MR. EIDSON: 13 Q. So then for this particular referenced 14 Yamaguchi, is this one that you could see lends itself 15 to being manufactured out of a flat sheet of steel and 16 then bent into shape? 17 MS. HOLOUBEK: Objection. Scope. Relevance. 18 Calls for speculation. 19 THE WITNESS: I haven't been asked to do that 20 in this particular assignment. But may have done this 21 in other declarations. But, yeah, no problem. I see 22 this being a bendy, foldable sheet metal. 23 BY MR. EIDSON: 24 Q. What do you recall that manufacturing process 25 where you have one particular piece of steel, you stamp
Page 107 1 Q. It could be one possible explanation; right? 2 MS. HOLOUBEK: Objection. Form. 3 THE WITNESS: Yeah. That's possible, yes, not 4 likely. 5 BY MR. EIDSON: 6 Q. How would you manufacture the Yamaguchi hanger? 7 MS. HOLOUBEK: Objection. Form and scope. 8 THE WITNESS: Hypothetically, it's -- it's just 9 a hanger, and it looks like it lends itself to any of 10 the well-known technology for using sheets of sheet 11 metal to create these little structural connectors. 12 BY MR. EIDSON: 13 Q. Could you make it out of a template and then 14 bend it into shape, is that what you are talking about? 15 MS. HOLOUBEK: Objection. Scope and form and 16 relevance. 17 THE WITNESS: Yeah, I haven't been asked to 18 report on that in this particular declaration, but I 19 don't see why not. 20 BY MR. EIDSON: 21 Q. Do you have any understanding about how 22 structural connectors can be manufactured? 23 MS. HOLOUBEK: Objection. Scope. Relevance. 24 THE WITNESS: Yes. 25 BY MR. EIDSON:	Page 109 1 it out, and bend it into shape? 2 MS. HOLOUBEK: Objection. Scope and relevance. 3 THE WITNESS: I would just call it punching, 4 pressing sheet products for the purposes of subsequent 5 bending or drilling or maybe even secondary welding or 6 fusing parts or portions. It really -- it's 7 case-by-case, connector-by-connector. 8 BY MR. EIDSON: 9 Q. Let's look at Cullen, Exhibit 1004. 10 What application is Cullen used for? 11 MS. HOLOUBEK: Objection. Form. 12 THE WITNESS: Its advertised title is a 13 "Bracket for use in decking and other timber 14 constructions." 15 BY MR. EIDSON: 16 Q. And then looking -- let's look at your picture, 17 if you want to turn to your report on page 43. And, 18 likewise, if you can look on page 139 -- or, actually, 19 129 is probably a better reference, if you can look 20 there. 21 So we'll look at 43 and 129 of your report, and 22 I'm looking at just annotated pictures of Cullen. 23 Let me know when you're there. 24 A. I am there. 25 Q. Okay. Very good. Do you agree with me that

Page 110 1 Cullen -- in Cullen the joist is designed to sit at the 2 back of the hanger; correct? 3 MS. HOLOUBEK: Objection. Form. 4 THE WITNESS: We had a long discussion about 5 this previously. 6 BY MR. EIDSON: 7 Q. Yes. 8 A. And some of the figures of Cullen show the 9 joist going to the back of the hanger, and engaging the 10 barbs as we previously discussed, and then a decking 11 application, the unmodified Tab 84 at the top, to 12 establish an elevation control. 13 But we also had lengthy discussions about how I 14 interpret Figure 2 of same reference, that when you 15 introduce the seat section, that the joist could be 16 brought away from the wall to permit drywall as shown 17 in annotated Figure 1 on page 129. 18 Q. So the prior discussion that we had regarding 19 Cullen and where the joist sits, I take it you stand by 20 all that old testimony; is that fair to say? 21 MS. HOLOUBEK: Objection. Scope. 22 THE WITNESS: I do. I haven't changed my mind 23 in the last month. 24 BY MR. EIDSON: 25 Q. I didn't want to have to replot that old ground	Page 112 1 versus extension portion when applying the optional 2 seat discussed in the original patent. 3 BY MR. EIDSON: 4 Q. As it's understood by the reference and looking 5 at the labels, the sidewalls 30 and 32, they would run 6 all the way out away from the wall and essentially 7 toward the elbow or the bend; correct? 8 MS. HOLOUBEK: Objection. Form. Asked and 9 answered. 10 THE WITNESS: Yeah. I think I just described 11 that, Counselor, as the -- it's best described as how 12 I've annotated it on Figure 1 on page 129, the red 13 versus the green. 14 BY MR. EIDSON: 15 Q. So then you -- and you were getting to the 16 heart of what I am trying to decipher, Mr. Fennell. 17 Do you say that the sidewall stops where the 18 red begins? 19 A. No. That is the portion of the sidewall that 20 is channel, as opposed to the portion of sidewall that 21 is extension. 22 Q. So there's some additional sidewall that would 23 run all the way out and also be included in the red 24 that you would call -- that would run out into the red; 25 correct?
Page 111 1 and talk about where the screws go and all that stuff. 2 That's my point. 3 MS. HOLOUBEK: Objection. Form and scope. 4 BY MR. EIDSON: 5 Q. You're good with your prior testimony? 6 A. Yeah. 7 MS. HOLOUBEK: Objection. Scope. 8 BY MR. EIDSON: 9 Q. You can answer, Mr. Fennell. 10 A. No change. 11 Q. Okay. Thank you. Let's look at what we've got 12 labeled as Exhibit 30 or 32. You can see it a little 13 more clearly on page 43, but I'm also looking at 14 page 129. 15 Do you see that it's the sidewalls? 16 A. I do. 17 Q. Okay. You agree with me that the sidewalls 18 include kind of the entirety of that sidewall, which 19 you also have colored red, not just what you label as 20 the "extension portion"; correct? 21 MS. HOLOUBEK: Objection. Form. 22 THE WITNESS: Yes. The actual part number on 23 the original base reference, yes, this is a vertical 24 portion to 30 and 32, as well as a horizontal portion. 25 I have annotated them to denote them as channel portion	Page 113 1 Let me ask that question again. 2 There is a portion of the sidewall that would 3 also include some of what you have shaded red here; 4 correct? 5 MS. HOLOUBEK: Objection. Form. 6 THE WITNESS: What is labeled part 30 and 32, 7 yeah, has both a green portion and a red portion. 8 BY MR. EIDSON: 9 Q. And where does the boundary of the sidewall 10 begin and end as you move horizontally? 11 MS. HOLOUBEK: Objection. Form. 12 THE WITNESS: Using the optional seat to create 13 a three-sided channel that would be shaded red, the 14 back of seat extending vertically upwards would create 15 the distinction between channel and extension portion. 16 Just how I've annotated it between red and green, there 17 is a vertical division there. 18 BY MR. EIDSON: 19 Q. And without the seat as you have pictured and 20 annotated in pages 129 and 43? 21 MS. HOLOUBEK: Objection. Form. 22 THE WITNESS: Then I would have to just modify 23 where the barbs were and extend Tab 84 so that I could 24 still achieve a joist that does not necessarily go all 25 the way to the back of wall.

Page 114 1 BY MR. EIDSON: 2 Q. And my question is, where in the figures that 3 you have on page 43 and 129, which doesn't include a 4 channel-shaped portion, what is the boundary of the 5 sidewall horizontally from left to right, so to speak? 6 MS. HOLOUBEK: Objection. Form. Objection. 7 Asked and answered. 8 THE WITNESS: I think the answer is going to be 9 the same. 10 I'm just going to be pointing to what I define 11 as the channel portion when I view the artwork from the 12 extension portion. 13 It will be a vertical dividing between the red 14 and the green. 15 BY MR. EIDSON: 16 Q. But if you look at your diagram on page 129, 17 how you've divided the red and the green runs right in 18 between the numbers 30 that define the sidewall. 19 Do you see that? 20 MS. HOLOUBEK: Objection. Form. 21 THE WITNESS: Okay. I see that. 22 BY MR. EIDSON: 23 Q. The 3 is in the red and the zero is in the 24 green; right? 25 MS. HOLOUBEK: Objection. Form.	Page 116 1 misunderstand? 2 MS. HOLOUBEK: Objection. Form. 3 THE WITNESS: No. That's what I said. The 4 part 30 has a red portion and a green portion, and it 5 results in something L-shaped. Repeat for part 32. 6 BY MR. EIDSON: 7 Q. Do you agree with me that there is no 8 disclosure in Cullen for a fire-retardant sheathing; 9 correct? 10 MS. HOLOUBEK: Objection. Form. 11 THE WITNESS: Yeah. We discussed that this 12 morning. Strictly on its own, it does not discuss 13 sheathing, but as annotated by Fennell, makes for an 14 excellent adaptation to receive sheathing. 15 BY MR. EIDSON: 16 Q. And last time we chatted about how far out you 17 could move a joist member in the non-stirruped portion 18 and how close the screws could get to the edge of the 19 joist to the support member. 20 Do you recall that conversation? 21 MS. HOLOUBEK: Objection. Form. Scope. 22 Relevance. 23 THE WITNESS: I do recall that if I was seating 24 a supporting member in the channel as annotated by me, 25 that the little annotated holes would need to be
Page 115 1 Argumentative. 2 THE WITNESS: It's the same piece of sheet 3 metal, it's just it's serving two different functions 4 in my combination. 5 BY MR. EIDSON: 6 Q. And my question is, in this particular 7 reference, looking at that picture where you've got the 8 3 in the red and the zero in the green, where does the 9 sidewall begin and where does it end? 10 MS. HOLOUBEK: Objection. Asked and answered 11 and form. 12 THE WITNESS: Well, part 30 and part 32 is an L 13 shape. It starts at the bottom of the channel section 14 in red, and that L shape continues through the green 15 extension portion all the way to the back flange of the 16 hanger. 17 Those are parts 30 and 32 as shown in the 18 original patent. 19 BY MR. EIDSON: 20 Q. I'm sorry, Mr. Fennell, I just -- I lost you, 21 or I didn't understanding you. That's on me. 22 I'm just trying to figure out where the 23 sidewall would be. And so are you -- was your 24 testimony just now that the sidewall is the entirety of 25 what you've got in green and red, or did I	Page 117 1 configured to meet required end distance, requirements 2 for the capacity of the member, and prescriptively in 3 any applicable code. 4 BY MR. EIDSON: 5 Q. One of the things that I don't recall that we 6 talked about was what would happen if you push down on 7 the joist or the support member in the middle of it, 8 and so that's what I want to talk to you about next. 9 Okay? That's not a question. I'm just kind of guiding 10 our conversation. 11 So thinking about installing a support member 12 in Cullen, and spacing it away from the wall such that 13 you could fit 2/8ths -- two 5/8ths gypsum in there. 14 Okay? 15 A. Okay. 16 MS. HOLOUBEK: Objection. Form. 17 BY MR. EIDSON: 18 Q. All right. So that's the setup. 19 You agree with me that the back of the joist or 20 support member is no longer going to be supported by 21 the back plate of Cullen or the wall; correct? 22 MS. HOLOUBEK: Objection. Form. Scope. 23 THE WITNESS: To the extent it was ever 24 necessary in this hypothetical, no, I'm hypothetically 25 bearing the self-weight of the carry member on the seat

Page 118 1 in the channel section. 2 BY MR. EIDSON: 3 Q. And the back of that support member leaves a 4 space, and therefore, is not touching the back of the 5 wall; correct? 6 MS. HOLOUBEK: Objection. Form. 7 THE WITNESS: It does leave a space, and that's 8 where I am adapting it to receive drywall in that -- in 9 that space. 10 BY MR. EIDSON: 11 Q. So then if I went to the middle of the support 12 member and I push down on it, and there were no 13 fasteners, what would happen to the end of the support 14 member? 15 MS. HOLOUBEK: Objection. Objection. Form and 16 incomplete hypothetical. 17 THE WITNESS: In this hypothetical, that would 18 be not good. 19 You would install the joist in the hangers to 20 maintain -- to maintain stability during construction. 21 The joist would be supported at the other end by 22 presumably a similar hypothetical hanger. 23 They tend to travel in pairs. And that the 24 contractors will provide whatever temporary bracing is 25 needed until the fasteners are installed at both ends,	Page 120 1 BY MR. EIDSON: 2 Q. What other modifications? 3 MS. HOLOUBEK: Objection. Form. 4 THE WITNESS: Well, in the example of Cullen, 5 you have that optional seat that I've discussed. 6 But you could see also on Figure 2, that the 7 sidewalls that you are interested in, parts 30 and 32, 8 they've been beefed up in Figure 2 in that they have 9 additional material running diagonally down where the 10 extension portion transitions into the channel portion. 11 And, similarly, there are some embossing ribs 12 that will -- like rib stiffeners, parts 44, to help 13 beef up that transition as well. 14 And that fastener 58 has been -- or is it 38? 15 There's a fastener in that transition zone in Figure 1 16 that has been moved away in Figure 2. 17 Those would be logical modifications to adopt 18 for my hanger that is configured to permit drywall. 19 I would then also take Tab 84 and make use of 20 that, extend that tab outward, so that I could further 21 spike it into the top of the carry member. But the 22 modifications start with the seat. 23 Q. Let's look at Exhibit 1001 which is Robinson. 24 Let me know when you're there. 25 A. I have the Robinson exhibit in front of me.
Page 119 1 and now the member is just under its own self-weight. 2 The loading that you are concerned about, 3 hypothetically, could arrive during service, but that's 4 only after the building is further completed, and 5 additional composite strength is added back in. The 6 horizontal floor sheathing adds quite a bit of 7 composite strength to the assembly. Any additional 8 blocking. 9 So as we discussed previously, just under its 10 own self-weight and once it's fastened at both ends, I 11 don't have any concerns for the capacity of this hanger 12 both before or after the Sheetrock is installed. 13 Q. Do you have any idea how much downward force 14 this particular hanger could support before the space 15 between the wall and the beam is violated? 16 MS. HOLOUBEK: Objection. Scope. 17 THE WITNESS: I still am optimistic that 18 success can be arrived at with this modification and 19 still have the usable carrying capacity for that 20 connector. 21 We're talking hundreds of pounds, but that's 22 outside of what I have been asked to opine upon in this 23 declaration, other than, I'm pretty sure I could make 24 it work, and with modifications such as metal gauge, 25 yeah, I'm pretty sure I can make it work.	Page 121 1 Q. And what is the application of Robinson? 2 MS. HOLOUBEK: Objection. Form. 3 THE WITNESS: Robinson is another joist hanger. 4 BY MR. EIDSON: 5 Q. It's a timber joist to masonry; is that fair to 6 say? 7 MS. HOLOUBEK: Objection. Form. 8 THE WITNESS: Well, that's one of its 9 embodiments and usages, but I would draw your attention 10 to the last portion of the specification on page 6 of 11 the Robinson patent, lines 1 through 5, which pick up 12 from your question that (as read): 13 "Although the example described is a 14 timber-to-masonry joist hanger, it will be 15 understood that the invention is applicable to 16 other types of joist hangers. For example, 17 timber-to-timber, timber-to-concrete, 18 timber-to-steel, and timber-to-truss to get 19 joist hangers. Also, it will be understood 20 that the invention is not limited to timber 21 joists." 22 BY MR. EIDSON: 23 Q. What about Robinson makes it particularly 24 suitable for timber-to-masonry? 25 MS. HOLOUBEK: Objection. Form.

Page 122 1 THE WITNESS: Well, it's an English patent. 2 English construction has features, masonry 3 construction, but as a hanger, it has both top flanges 4 for providing support, and it also has additional 5 face-mounted apertures for attaching to, say, a masonry 6 wall. 7 The side-mounted features are called out as 8 parts 134 and 130 on Figure 2 on the cover of the 9 Robinson patent, Exhibit 1011. 10 BY MR. EIDSON: 11 Q. And what does Figure 120 do? 12 MS. HOLOUBEK: Objection. Form. 13 BY MR. EIDSON: 14 Q. Figure. How about the part labeled Number 120? 15 A. It's a horizontal set of flanges that provide 16 support on the top of the wall and then extend it out 17 and connect other parts of the hanger together, such as 18 part, I guess, 124 and as well as for the -- the back 19 flanges, 122, to extend from. 20 Q. Are you done, Mr. Fennell? 21 A. Answering or coughing? Both. 22 Q. Either one. 23 A. I'm complete. 24 Q. Okay. The top flange 120 sits on top of 25 masonry in this invention; correct?	Page 124 1 A. We're in the same place. And, in fact, if we 2 drift back to line 20 for a second, it says (as read): 3 "The hanger, the entire hanger, part 100 4 also includes a number of holes not shown for 5 receiving fasteners, whereby, the hanger is 6 affixed to the joist and/or -- and to the 7 masonry. The fasteners may include nails, 8 screws, bolts, or masonry anchors, for 9 example." 10 So pick -- pick a fastener that's consistent 11 with the materials being used and to illustrate that 12 choice for the -- for the designer. That's where I 13 bring you to line 25 on page 11. I guess it's 14 column 4. Sorry. I'm mumbling. 15 Line 25 says (as read): 16 "The hanger 100 may be made of metal, for 17 example, steel, stainless steel, or carbon 18 fiber and may be pressed, stamped, cast, bent, 19 or molded." 20 So your original question about how do you 21 manufacture this bad boy, there's lots of options 22 there, depending on the material. 23 Q. Do you know what a welded part is versus one 24 that's stamped, bent? 25 MS. HOLOUBEK: Objection. Form.
Page 123 1 MS. HOLOUBEK: Objection. Form. 2 THE WITNESS: In one application. As I pointed 3 out, it could easily be sitting on a wood wall, timber 4 wall. 5 BY MR. EIDSON: 6 Q. If it was sitting on a wood wall, you typically 7 would expect to see holes for the affixing of 8 fasteners; correct? 9 MS. HOLOUBEK: Objection. Form. 10 THE WITNESS: Yes. It would be desirable to 11 have some Dell fastener installed through the part 20 12 to attach to whatever the wall substrate is, whether 13 it's masonry or timber. 14 BY MR. EIDSON: 15 Q. How is Robinson manufactured? 16 MS. HOLOUBEK: Objection. Form. Calls for 17 speculation. And scope. 18 THE WITNESS: On page 4 of the Robinson patent, 19 down at line 25 -- 20 BY MR. EIDSON: 21 Q. Hold on a second. Page 4 of the detailed 22 description of the invention -- that starts with 23 "detailed description of the invention"? 24 A. Yes. That page 4, also page 11. 25 Q. Page 11 of the exhibit.	Page 125 1 THE WITNESS: I do. If you had to weld, 2 solder, or fuse parts that were previously separate 3 or -- that are now in contact, yeah, some sort of 4 welding to fool the metal into thinking it's one piece, 5 is the way a POSITA or engineer would think about it. 6 BY MR. EIDSON: 7 Q. Is it more costly to manufacture things that 8 are welded versus stamped, bent and molded? 9 MS. HOLOUBEK: Objection. Scope. Relevance. 10 Form. 11 THE WITNESS: It's outside of what I'm opining 12 on here, but generally, yes. 13 BY MR. EIDSON: 14 Q. You're familiar with Simpson's DU product; 15 correct? 16 MS. HOLOUBEK: Objection. Scope. Relevance. 17 THE WITNESS: Yes. 18 BY MR. EIDSON: 19 Q. You understand that to be -- 20 A. That's one of the Bundy family. 21 MS. HOLOUBEK: Objection. Form. 22 BY MR. EIDSON: 23 Q. I was getting there. You understand that to 24 be -- you were saving us time. You understand that to 25 be one of the Bundy family line of products; correct?

Page 126 1 MS. HOLOUBEK: Objection. Scope and form. 2 Relevance. 3 THE WITNESS: Yes. 4 BY MR. EIDSON: 5 Q. Did you make any inquiry about the relative 6 commercial success between the Bundy product that is 7 installed after the Sheetrock is put in place versus 8 other Simpson products that are installed before the 9 Sheetrock is put in place? 10 MS. HOLOUBEK: Objection. Form. 11 THE WITNESS: The entirety of my answer to your 12 question could be found at paragraph 34 on page 15. I 13 can read it into the record. 14 BY MR. EIDSON: 15 Q. Well, I don't need you to read the entirety of 16 paragraph 34. I just -- can you answer me "yes" or 17 "no" whether you made any inquiry regarding the 18 relative commercial success between the DU series of 19 Simpson's hangers, covered by Bundy, and those hangers 20 that they have that you can install first and then 21 install the drywall second? 22 MS. HOLOUBEK: Objection. Form and scope. 23 THE WITNESS: I can answer your question. To 24 the extent any of that information would have been 25 available to me, which it hasn't, I don't believe it	Page 128 1 MS. HOLOUBEK: Objection. Form and -- 2 Objection. Form. 3 THE WITNESS: Yes, is the short answer. The 4 longer answer is if you will be patient with me. 5 As a material specifier or a product evaluator 6 or the designer in response of a charge, information 7 comes from a variety of sources to the designer. And 8 often, I'll get information from a sales department 9 where everything is beautiful and shiny but may not 10 answer all my technical questions. 11 So then I'll move to the manufacturer's 12 technical department and start talking to engineers for 13 the type of information I might need to complete a 14 design. 15 And then I may also end up at the warranty 16 department to get the final part of what I need to 17 evaluate a design, much like a POSITA would be doing in 18 evaluating structural connectors and hangers. 19 So that gives you a hint that even if I had 20 received literature from a sales department, it may 21 have been pre-weighted by me as a POSITA about how 22 useful it might be to my ultimate design that I am 23 responsible in charge for. 24 BY MR. EIDSON: 25 Q. Okay. Let's look at -- do you want to jump to
Page 127 1 would have changed my opinion. 2 That's what my last sentence says that "it 3 would not change my opinion regarding the invalidity of 4 the claims of the '339 patent," in that these 5 combinations that I have come up with are strong, in my 6 opinion, that they each preexisted the end of year 7 2013, and each, in combination, allow for me to detail 8 drywall onto the wall with the hanger in a way that's 9 going to work. 10 BY MR. EIDSON: 11 Q. So my question is as it relates to the 12 commercial success between the DU versus their other 13 products, I believe you said that wasn't made available 14 to you; is that correct? 15 MS. HOLOUBEK: Objection. Form. 16 THE WITNESS: I didn't seek it out, Counselor. 17 BY MR. EIDSON: 18 Q. You could have had it if you would have asked; 19 correct? 20 MS. HOLOUBEK: Objection. Form. 21 THE WITNESS: Oh, I believe so. I haven't been 22 denied anything that I did ask for, yes. 23 BY MR. EIDSON: 24 Q. And that was entirely under the control of 25 Simpson; correct?	Page 129 1 paragraph 34, and I'll jump with you here. 2 Let's look at paragraph 34 in your report. You 3 were instructed by counsel that when making a 4 determination when something was obvious, you were to 5 consider whether there were any objective indicia of 6 nonobviousness that supports validity; correct? 7 A. That's correct. That's what I have here 8 written here. 9 Q. The report says you should consider that; 10 correct? 11 A. Yes. 12 Q. Is it your understanding that it is something 13 that is optionally considered in the obviousness 14 analysis? 15 MS. HOLOUBEK: Objection. Form. 16 THE WITNESS: Well, as to when I write this 17 declaration in August of last year, my only 18 understanding of that type of information was that, as 19 it says here, that there was a declaration submitted by 20 the patent owner that did not have appended information 21 for verifying whether there was objective indicia to 22 consider. 23 And that's why I wrote here that even if I had 24 seen it, and if it was true, it would not change my 25 opinion regarding the grounds that I have developed

Page 130 1 regarding the '339 patent. 2 BY MR. EIDSON: 3 Q. What are the possible sources of objective 4 indicia evidence? 5 MS. HOLOUBEK: Objection. Form. 6 THE WITNESS: Well, as described here, it's 7 commercial success, long-felt but unmet need, the 8 failures of others, praise in the industry, unexpected 9 superior results. 10 And then further down, documentation that 11 includes financial information or consumer 12 attestations, or something else that might be 13 considered persuasive. 14 Q. Where can that information come from? 15 MS. HOLOUBEK: Objection. Form. Objection. 16 Asked and answered. 17 BY MR. EIDSON: 18 Q. I'll ask it a different way. Maybe it will 19 address the objection, maybe not. 20 If you wanted to find out information about any 21 of these factors of objective indicia or 22 nonobviousness, where would you look? 23 MS. HOLOUBEK: Objection. Form. 24 THE WITNESS: It depends who's trying to 25 persuade with this information. If it's from the	Page 132 1 Q. So then you weigh the technical considerations 2 as it pertains to the prior art references more than 3 you would any other sort of objective indicia evidence? 4 MS. HOLOUBEK: Object to form -- sorry. 5 Objection. Form. 6 THE WITNESS: The short answer is yes. I mean, 7 it needs to work, first, no matter how shiny the sales 8 literature is. 9 BY MR. EIDSON 10 Q. And so that's -- and that's why you say 11 regardless of what types of objective indicia evidence 12 might be out there, it wouldn't change your opinion 13 regarding the invalidity of the '339 patent; correct? 14 MS. HOLOUBEK: Objection. Form. 15 THE WITNESS: That's what I believe a POSITA 16 would think, and it's also my personal opinion, 17 professional, that, yes, you start with function and 18 technical, and then with the rest of the product 19 evaluation. 20 Testimonials are one part of it, but similarly, 21 what the warranty department might tell me is equally 22 important to looking at a product. 23 BY MR. EIDSON: 24 Q. And I understand that, if I mischaracterize you 25 that's wrong, your personal opinion is one thing. I
Page 131 1 patent owner, it would be from MiTek, the manufacturer, 2 or it would -- if it was, as you were asking before 3 about the DU, that would come from the other 4 manufacturer, Simpson. 5 BY MR. EIDSON: 6 Q. Well, the evidence is what it is. It's not 7 about whether you're trying to persuade; right? 8 MS. HOLOUBEK: Objection. Argumentative. 9 THE WITNESS: No. Persuade is good, because 10 you're asking through the eyes of a POSITA, and that's 11 the analysis that I have done here. And I'm trying to 12 be convinced, as a POSITA, in and around the year 2013, 13 that our product is somehow novel or unique. And 14 listening to -- I mean, if we all listened to just the 15 sales department, probably got a bit more forensic 16 work. 17 But, no, I -- it is one part of the obviousness 18 analysis. But as I conclude here, it's unlikely to 19 change my opinion, because I start, first and foremost, 20 as a technician looking for the structural components 21 of the hanger, and then whether it can satisfy the 22 other design criteria of the situation, in this case, 23 timber framing, fire-resistive construction, repetitive 24 framing. 25 BY MR. EIDSON:	Page 133 1 want to know about your expert opinion as it pertains 2 to the validity of the '339 patent claims. 3 MS. HOLOUBEK: Objection. Form. 4 BY MR. EIDSON: 5 Q. So was your answer that you gave me based on 6 your expert opinion and analysis and how you considered 7 the facts in this case? 8 MS. HOLOUBEK: Objection. Form. 9 THE WITNESS: Yes. When I said "personal," I 10 meant I'm wearing all my engineer and POSITA hats as an 11 expert here in this case. 12 BY MR. EIDSON: 13 Q. So is there any amount or type of objective 14 indicia evidence that you can think of that would 15 change your opinion regarding the validity of the '339 16 patent claims? 17 MS. HOLOUBEK: Objection. Form. Calls for 18 speculation. 19 THE WITNESS: I doubt it. I highly doubt it. 20 If I can illustrate in my practice both with my current 21 company and my previous company, builders would bring 22 me products that they felt were wonderful, and asked me 23 to professionally kick the tires. 24 And, generally, we ended up with either a 25 thumbs down or two thumbs down for them that they were

Page 134 1 going to be disappointed by what they had been led to 2 believe by sales folks. 3 So I have a long history of evaluating products 4 to see whether they are applicable for 5 multi-residential construction primarily, but also in 6 hospitals and other industrial applications. 7 But that's why I believe that it's highly 8 unlikely that any of this secondary-type literature 9 would persuade me beyond whatever I arrive at 10 technically. 11 Q. And, as you sit here today, there's not 12 anything you can think of that would persuade you 13 otherwise from an objective indicia perspective? 14 MS. HOLOUBEK: Objection. Form. Speculation. 15 Incomplete hypothetical. 16 THE WITNESS: Not -- not as defined by the 17 terms the lawyers have told me, and I read it before. 18 Commercial success, long-felt itch, et cetera. 19 BY MR. EIDSON: 20 Q. Earlier we were talking about the fact that for 21 your analysis here and your opinion, the technical 22 aspect weighs more heavily than the objective indicia 23 aspect. 24 Are you able to articulate a degree of that 25 weighting? Is it two-thirds, is it --	Page 136 1 Q. Let's go back now to -- I asked you, I believe, 2 where could some of this evidence come from, and I 3 believe you mentioned from either of the parties, 4 Simpson and MiTek. 5 Was there anywhere else that you thought some 6 of this objective indicia evidence might come from? 7 MS. HOLOUBEK: Objection. Form. Scope. 8 THE WITNESS: Well, yes. I am constantly in 9 the presence of builders here on the West Coast doing 10 lots and lots and lots of multi-residential wood-framed 11 buildings and projects. 12 And I have not heard any of them raving, one 13 way or the other, about the way they've changed their 14 framing operations. One. 15 Two, I sit on a number of technical committees 16 that deal with wood-framed design considerations for 17 engineering practice and building codes. 18 And other than back in the 2012-2013 time frame 19 where my colleagues were being dragged into litigations 20 for adapting hangers in fire-resistive constructions, I 21 don't hear about that anymore one way or the other, 22 good, bad, or indifferent. 23 And, lastly, in my teaching, it's not 24 emphasized beyond when developing framing connections 25 that designers should consider all aspects required for
Page 135 1 MS. HOLOUBEK: Are you through with your 2 question? 3 MR. EIDSON: Yeah. Yeah. 4 MS. HOLOUBEK: Okay. Objection to form and 5 mischaracterization. 6 THE WITNESS: Yeah. I can't give you a 7 quantitative breakdown, Counselor. From a qualitative 8 standpoint, I'd say the majority of my analysis is 9 technical, and each of the combinations that are 10 presented in this declaration, I feel are good at 11 satisfying the problem to solve here. 12 And in each one of those combinations, it would 13 be hard to imagine anything in the form of secondary 14 indicia that would change my mind or change my opinion 15 as presented. 16 BY MR. EIDSON: 17 Q. So it's fair to say, then, that the technical 18 aspect weighs more heavily than the objective indicia 19 aspect when you reached your opinions, but you just 20 can't articulate how much more heavily. 21 Is that fair to say? 22 MS. HOLOUBEK: Objection. Form and asked and 23 answered. 24 THE WITNESS: That's fair. 25 BY MR. EIDSON:	Page 137 1 the connection, whether it be structural, 2 fire-resistive, acoustic, or cosmetic in developing a 3 design. 4 And, again, in that teaching community, I have 5 not heard anything that I would throw into the 6 secondary indicia category that would dissuade me one 7 way or the other. 8 BY MR. EIDSON: 9 Q. Any other source of information? 10 MS. HOLOUBEK: Objection. Form. 11 THE WITNESS: Well, in doing each of these 12 categories that I talk about, going to seminars or 13 reading professional magazines, other places that 14 continuing education is acquired and consumed. Again, 15 not hearing a drumbeat one way or the other about this 16 particular type of data you describe. 17 BY MR. EIDSON: 18 Q. Anything else? 19 MS. HOLOUBEK: Objection. Form. Asked and 20 answered. 21 THE WITNESS: Yeah. No. I think I got it 22 there. 23 BY MR. EIDSON: 24 Q. I'll throw one at you. The Internet might be a 25 source of information? Yes? No?

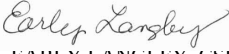
Page 138 1 MS. HOLOUBEK: Objection. Form. 2 THE WITNESS: It could be. I generally find 3 the material on the Internet to be more in the sales 4 category. 5 BY MR. EIDSON: 6 Q. You wouldn't rely on a Reddit post in an expert 7 report, would you? 8 MS. HOLOUBEK: Objection. Form. 9 MR. EIDSON: That's a joke. 10 THE WITNESS: No. 11 MR. EIDSON: Sorry, I couldn't resist. 12 MS. HOLOUBEK: It's on the record. I have to 13 object. 14 BY MR. EIDSON: 15 Q. All right. I've got some more questions. Do 16 you want to take a break, Mr. Fennell? 17 A. If you're at a logical stopping point. 18 MR. EIDSON: I mean, yeah. We'll stop here, 19 and I'll pick up. Take five, ten minutes? 20 MS. HOLOUBEK: Sounds like a plan. 21 (Recess taken.) 22 BY MR. EIDSON: 23 Q. Mr. Fennell, before the break we were talking 24 about potential sources of evidence where you might 25 look for objective indicia of nonobviousness. We	Page 140 1 or any other third party regarding objective indicia of 2 nonobviousness? 3 MS. HOLOUBEK: Objection. Form. Asked and 4 answered. 5 THE WITNESS: Two parts. First part, is I 6 relied on my accumulated experience with all of those 7 categories before and after the -- that 2013 priority 8 date. 9 December 31, 2013, is an important date, is the 10 first part, which is years and years and years of 11 exposure to those categories. 12 And the second part is, did I actively go out 13 and try to interview builders? I did not. 14 BY MR. EIDSON: 15 Q. And my question wasn't limited to builders. It 16 was any third party. Did you go out and actively 17 interview or seek information regarding objective 18 indicia of nonobviousness from any third party, not 19 just builders? 20 MS. HOLOUBEK: Objection. Form. Asked and 21 answered. 22 THE WITNESS: Yeah, not in current times, or do 23 I recall from at or around 2013. 24 BY MR. EIDSON: 25 Q. And that's something you could have done when
Page 139 1 talked about from the parties, the builders, technical 2 committees, in your teaching community, seminars, 3 professional magazines, and then the Internet. 4 Do you recall? 5 A. I do. 6 Q. As it pertains to information and documents 7 from Simpson, did you make any efforts to look for 8 objective indicia of nonobviousness from Simpson? 9 MS. HOLOUBEK: Objection. Form. 10 THE WITNESS: I don't recall any. 11 BY MR. EIDSON: 12 Q. That's something you could have done; correct? 13 MS. HOLOUBEK: Objection. Form. 14 THE WITNESS: As I mentioned before, yes. 15 BY MR. EIDSON: 16 Q. Did you ask Simpson whether it had access to 17 any MiTek documentation that might bear on objective 18 indicia of nonobviousness? 19 MS. HOLOUBEK: Objection. Form. And also to 20 the extent the answer would reveal privileged 21 communications, I'll ask the witness not to answer. 22 THE WITNESS: We had previously discussed 23 paragraph 34 as the extent of my reporting. 24 BY MR. EIDSON: 25 Q. Did you make any effort to interview builders	Page 141 1 rendering your opinions in this case; correct? 2 MS. HOLOUBEK: Objection. Form and asked and 3 answered. 4 THE WITNESS: Yeah. As I answered before, I 5 could have gone out and gathered that type of anecdotal 6 information, but it doesn't enjoy a huge weighting in 7 my overall analysis, qualitatively lower. 8 BY MR. EIDSON: 9 Q. And then the last category is the Internet. 10 Did you make any effort to search the Internet, 11 or do any other type of online due diligence for 12 objective indicia of nonobviousness? 13 MS. HOLOUBEK: Objection. Form and asked and 14 answered. 15 THE WITNESS: That's hard to say. I can't 16 imagine -- I can't recall any active steps as part of 17 this current matter retention. But going back over 18 time, I've, for example, used the MiTek catalog as an 19 ultimate connector catalog for my students. 20 They've had access to both Simpson and MiTek 21 catalogs during my timber class. I've looked at 22 various product videos available on the Internet from 23 various manufacturers, whether it be Simpson, MiTek, or 24 others. 25 So that's the secondary part. So, yeah there's

Page 142 1 been in casual accumulation of information that might 2 fall into this category over time. But I haven't gone 3 and actively supplemented that as part of this recent 4 work. 5 BY MR. EIDSON: 6 Q. And that's something you could have done in 7 forming your opinions in this matter; correct? 8 MS. HOLOUBEK: Objection. Form and asked and 9 answered. 10 THE WITNESS: Yeah. I keep going back to the 11 type of information available, in my experience, from 12 manufacturers is limited to design professionals and 13 POSITA types that manufacturers are usually -- keep 14 their technical literature pretty in-house. 15 You won't find a lot of really useful 16 information on the Internet, from my experience, so I 17 have a -- a low weighting that typically goes with 18 anything I can find on the Internet. 19 BY MR. EIDSON: 20 Q. Looking at the various objective indicia of 21 nonobviousness that you list in your report, I'll take 22 the first one, "commercial success." What is your 23 understanding of what that means? 24 A. That they sell a lot of them. 25 Q. Who's "they"?	Page 144 1 about that particular objective indicia? 2 MS. HOLOUBEK: Objection. Form. 3 THE WITNESS: Well, any scientific research, 4 engineering research and development is an iterative 5 process that does involve trial and error. 6 There is some failure that may or may not be 7 written about in technical literature that folks have 8 tried to experiment to solve a problem and not been 9 able to crack it. 10 In fact, most technical research papers start 11 with a fairly decent literature search about prior 12 research efforts and what they were trying to achieve 13 that might fall into the category of failure of others. 14 Where the end of their research they suggest where 15 people picking it up with any more energy and funding 16 might continue the research. 17 I mean, there's a serious answer to this, but 18 it's -- again, I struggle to think what it might be 19 that would change my opinion of this declaration I've 20 developed. 21 Q. What is your understanding of what "praise in 22 the industry" means? 23 A. Generally, industry-based awards or buzz. That 24 might be folks talking about something. But, again, I 25 rattle down my list of places that I might run into
Page 143 1 A. Whoever is selling the widget in question. 2 Q. Is that the extent of your understanding of 3 what that means? 4 MS. HOLOUBEK: Objection. Form. 5 THE WITNESS: Yeah. From an engineer POSITA, 6 yes. 7 BY MR. EIDSON: 8 Q. What is your understanding of what "long-felt 9 but unmet need" means? 10 A. Again, some sort of desire that end users might 11 wish they had a solution to. 12 Q. What do you mean by that? 13 A. It's -- it wasn't intended to be as -- to be 14 vague. It's just long-felt but unmet need. That's 15 usually something associated with a hamburger. You 16 don't have any builders running around having desires 17 and dreams about a structural connector. Hard to 18 imagine. 19 Q. Is that the extent of your understanding of 20 long-felt but unmet need? 21 A. Now I'm hungry. 22 Q. What about failure of others? What is your 23 understanding of what "failure of others" means? 24 A. I'm glad I'm not alone. 25 Q. Is there any other understanding that you have	Page 145 1 that type of praise in the industry, and I can't recall 2 any attached to a structural connector. 3 Q. Would you consider customers to be part of the 4 industry that might give praise about a particular 5 product? 6 A. Sure. I mean, in this case it would be said 7 same builders or framing subcontractors or engineering 8 colleagues that might be specifying these widgets. 9 Q. And what do you understand "unexpected superior 10 results" to mean? 11 A. Just how it sounds, that you thought it was 12 going to work, but it just somehow worked out better 13 than you thought. It might even become unexpected. 14 Q. Is that the extent of your understanding? 15 MS. HOLOUBEK: Objection. Form. 16 THE WITNESS: Yeah. Again, I try to apply it 17 to this secondary indicia category of information that 18 might change my opinion. And, again, I'm not -- I'm 19 not feeling it. 20 BY MR. EIDSON: 21 Q. In the '510 case, you relied on the opinion of 22 Dr. Serwin. 23 Do you recall that? 24 MS. HOLOUBEK: Objection. Scope and relevance. 25 THE WITNESS: Yes.

Page 146 1 BY MR. EIDSON: 2 Q. And in that case and in your old report, you 3 attributed the commercial success of the firewall 4 hanger to the ability to install the hanger before the 5 drywall; correct? 6 MS. HOLOUBEK: Objection. Form. Scope. 7 Relevance. 8 THE WITNESS: I actually don't recall too much 9 of that Dr. Serwin discussion. I just simply refer you 10 back to the record from a month ago or the supplemental 11 report. I haven't changed my mind since then. 12 BY MR. EIDSON: 13 Q. All right. Did you read Dr. Serwin's 14 transcript? 15 MS. HOLOUBEK: Objection. Form. 16 THE WITNESS: No. 17 BY MR. EIDSON: 18 Q. I've got some spot questions about some of the 19 prior art exhibits that we've talked about, and I'll 20 start with Allan. Feel free to reference it if you 21 need, Mr. Fennell. 22 My first question is: Does Allan's wall anchor 23 require it to support a vertical load? 24 A. Not primarily, no. It's -- it's really for out 25 of -- out-of-plane lateral forces.	Page 148 1 just going to have some pinpoint questions about a few 2 paragraphs in your report. Okay? 3 A. Very well. 4 Q. All right. And that's Exhibit 1003 if you want 5 to put that up in front of you. 6 And the first one is going to utilize Cullen as 7 well. So let's look at paragraph 136, which is on 8 page -- got it here -- 74. 9 Let me know when you're there. 10 A. I found 74. 11 Q. Okay. Very good. So I am looking at 12 paragraph 136, and I'm looking at the very first 13 sentence in the paragraph. It says (as read): 14 "Joist hangers used in these applications 15 often include a space between the end of a 16 joist and the wall for a number of reasons, 17 including to receive drywall as evidenced by 18 Bundy." 19 Do you see that? 20 A. I do. 21 Q. And then you cite Exhibit 1004, which is 22 Cullen, and how does the Cullen citation support that 23 statement? 24 A. Well, if you look at where this paragraph falls 25 in the section to give it some context, we're in
Page 147 1 Q. Does Commins require support to a vertical 2 load? 3 MS. HOLOUBEK: Objection. Form. 4 THE WITNESS: Yes. 5 BY MR. EIDSON: 6 Q. How so? 7 A. Uplift is a vertical load. 8 Q. So as a hurricane tie, it resists uplift based 9 on its intended use; is that fair to say? 10 MS. HOLOUBEK: Objection. Form. 11 THE WITNESS: Yes. 12 BY MR. EIDSON: 13 Q. And what about a downward vertical load; does 14 Commins require to support a downward vertical load? 15 MS. HOLOUBEK: Objection. Form. 16 THE WITNESS: Generally not. 17 BY MR. EIDSON: 18 Q. Mr. Fennell, don't mistake my silence for lack 19 of interest. I'm just -- if we can streamline some 20 things, based on what you have already said, I'm not 21 big on re-asking questions. 22 Does that sound fair? 23 A. Oh, it's fine. I'm here for the day. 24 Q. Let's turn to your report/declaration, and 25 we'll kind of jump around a little bit in there. I'm	Page 149 1 Section 13, where it's a combination opinion arriving 2 at an obviousness ground that is Cullen in view of 3 Bundy and further in view of Allan renders obvious 4 Claims 1 through 11, 13 through 22, 24, 25, and 27 5 through 31, that I go on in successive paragraphs to 6 describe my motivation to modify Cullen given the 7 teachings of Bundy and Allan. 8 So I cite Cullen because, as modified, I can 9 take the two layers of drywall from Bundy, which neatly 10 arrives at a common, known two-hour listing, and to 11 adapt Cullen to receive those two layers. That's why 12 I'm citing it in that location. 13 Q. Okay. But you agree with me that there's 14 nothing in what you have cited that supports the 15 proposition that joist hangers used in these 16 applications often include a space between the end of a 17 joist and the wall? 18 MS. HOLOUBEK: Objection. Form. 19 THE WITNESS: In combination, yeah, that's a 20 true statement, but it includes space available between 21 the end of a joist and a wall to receive drywall as 22 modified. But we went through at length this morning 23 that if you just took Cullen as a stand-alone patent, 24 it wouldn't. 25 BY MR. EIDSON:

Page 150 1 Q. And so then your testimony then is as to that 2 statement at the beginning of paragraph 136, Cullen 3 standing alone doesn't necessarily support that 4 statement; is that fair to say? 5 MS. HOLOUBEK: Objection. Form. 6 THE WITNESS: But in my motivation to modify 7 and adapt Cullen in view of Bundy, it does, yes. 8 BY MR. EIDSON: 9 Q. Again, looking at paragraph 155 and Cullen, 10 we'll keep Exhibit 1004 out. It's on page 89. 11 Let me know when you're there, Mr. Fennell. 12 A. I am there. 13 Q. So my question is about the sentence that 14 starts off with "indeed." And the sentence reads (as 15 read): 16 "Indeed, a POSA would have recognized that 17 there were only two potential orders of 18 assembly, the firewall hanger is installed 19 first and then the drywall is slid in place or 20 vice versa. The drywall is installed first and 21 then the hanger is slid over the drywall." 22 And then you say, "See Exhibit 1004." 23 And you cite Cullen, and "two methods of assembly are 24 available"; do you see that? 25 A. I do.	Page 152 1 either/or logic in adapting the drywall onto the wall, 2 that you could put the hanger on first, probably 3 preferable, get to use those apertures at the back and 4 spike it to the back wall and then thread the drywall 5 in. But, equally, that you could have drywall on, and 6 then just simply flop the hanger over the front of 7 everything. 8 Q. But you agree with me that what you have cited 9 here in Cullen doesn't pertain to the installation of 10 drywall before or after a hanger? 11 MS. HOLOUBEK: Objection. Form and asked and 12 answered. 13 THE WITNESS: No. I think if you read 14 Exhibit 1004 in those places, you will see two methods 15 of assemblies are available. Whether it's the joist 16 and the hanger in the wall, or whether it's the joist, 17 the hanger, and the drywall, I think a POSITA has no 18 problem using that in combination style. 19 BY MR. EIDSON: 20 Q. Where does it describe in what you have cited 21 as the installation of drywall? 22 MS. HOLOUBEK: Objection. Form and asked and 23 answered. 24 THE WITNESS: It's the same places. I mean, 25 it's 16, starting at line 23 going through to 17, going
Page 151 1 Q. But the two methods of assembly that you cite 2 there in Cullen don't have anything to do with drywall 3 being installed before or after a hanger; correct? 4 MS. HOLOUBEK: Objection. Form. 5 THE WITNESS: Okay. I'm up to speed, but I've 6 forgotten your question. 7 BY MR. EIDSON: 8 Q. My question is that what you have cited as 9 support for your statement from Cullen doesn't pertain 10 to installing drywall before or after a hanger is 11 installed; correct? 12 MS. HOLOUBEK: Objection. Form. 13 THE WITNESS: No, I don't see a problem there. 14 Recalling that this is an adapted combination. But the 15 section cited in the Cullen base reference talks about 16 two sequences, and only two sequences at that section. 17 It's whether you pre-attach the hanger to the joist and 18 then drop it into place and attach it to the wall, or 19 whether you attach the hanger to the wall and then drop 20 your joist in. Those are the two flavors being 21 described there. 22 Again, it's whether the hanger -- "chicken and 23 egg" hanger, you know, get to the wall first, or does 24 it come after the fact somehow? 25 I just think the POSITA would see that same,	Page 153 1 through to line 7 that describes the two methods of 2 installation in base patent Cullen, where, as I said, 3 it was pre-attach the hanger to the end of the joist 4 and then hang it on the wall, one; or two, put the 5 hanger on the wall and then attach the joist. 6 In my POSITA combination, I think it's 7 either/or, the hanger comes first or the hanger comes 8 second. The drywall is an adaptation. 9 BY MR. EIDSON: 10 Q. So this doesn't necessarily pertain to the 11 installation of drywall? 12 MS. HOLOUBEK: Objection. Form. Asked and 13 answered. 14 THE WITNESS: Yeah. We've discussed it 15 multiple times here. The base patent does not describe 16 drywall or fire-resistive sheathing, or whatever we're 17 calling it today. 18 BY MR. EIDSON: 19 Q. Let's look at your report on paragraph 33. 20 This is in your legal understanding of the obviousness 21 section. 22 Let me know when you're there. 23 A. I am there. 24 Q. You say (as read): 25 "I understand that courts have held that

Page 154 1 when there is a 'design need' or a 'market 2 demand,' and there are a finite number of 3 solutions, it would have been obvious for a 4 person of ordinary skill in the art to try such 5 solutions." 6 Do you see that? 7 A. I do. 8 Q. Okay. As applied to your opinions in this 9 matter, what did you consider to be a finite number of 10 solutions? 11 A. Well, you have to go combination by combination 12 and read the specific sections. But generally, it came 13 down to whether the drywall is there first and then the 14 hanger is installed to create finite combination 1, or, 15 the hanger is attached to the wall first, and then the 16 drywall is integrated second to create finite solution 17 Number 2. 18 Generally, it's 2. But, again, I have to go 19 case-by-case to see whether I had a third way, just not 20 recalling one right now. 21 Q. Would 3 in your mind also be a finite number? 22 A. Yes. 23 Q. What about 4? 24 A. 4 is a good number. I call that finite, too. 25 Q. What about 5?	Page 156 1 But that is outside of what I have considered 2 here right now. It's really the, when does the hanger 3 arrive at the wall with respect to the drywall step. 4 BY MR. EIDSON: 5 Q. And my question to you is: What number of 6 solutions would need to be present for it to cease 7 being finite? 8 MS. HOLOUBEK: Objection. Relevance and form. 9 THE WITNESS: I'm not sure I know the answer to 10 your question. It would just be a matter of how many 11 ways do you want to dissect the problem. If you 12 created a separate step for drywall and the drywall 13 fasteners and any putties I might put in there, I mean, 14 those might each represent a step, and I might be able 15 to identify more than two steps at that point. 16 It would still be finite, and I wouldn't rule 17 it out. It's just I need to get to a final assembly 18 here, which is a fire-resistive wall with a joist 19 hanger on it. 20 Q. So is it fair to say that, as you sit here 21 today, you don't know what number of solutions would 22 need to be present for it to cease being a finite 23 number for purposes of your obviousness analysis? 24 MS. HOLOUBEK: Objection. Form. Relevance and 25 asked and answered.
Page 155 1 A. Keep going. No. This was generally either/or. 2 It was usually one or the other. 3 Q. And my question to you is if somebody presented 4 seven options, would you consider that to be a finite 5 number as one of ordinary skill in the art? 6 MS. HOLOUBEK: Objection. Form. Relevance. 7 THE WITNESS: I would look at it, yeah, sure. 8 I mean, they could present 20 different ways, and I 9 would have a good look at all of them to see if they 10 were reasonable, rational. 11 BY MR. EIDSON: 12 Q. And my question is, though, what would you 13 consider to be a finite number for obviousness 14 purposes? 15 MS. HOLOUBEK: Objection. Form. Asked and 16 answered. 17 THE WITNESS: It's using the tools in a POSITA 18 toolbox of commonly available technology. I mean, 19 that's why I'm looking at hangers, I'm looking at 20 typical fire-resistive wall assemblies that involve 21 wood framing, and the sequences that go with those. 22 And then to date, we're really only talking about wall 23 hanger and drywall. I guess if you added in whether 24 the joist comes in at a certain time, that might create 25 another finite situation.	Page 157 1 THE WITNESS: Yeah, that's above a POSITA pay 2 grade. It's too philosophical but, you know, 3 primary -- primary steps, I'm at 2. 4 I suppose we're staying with whole numbers, 5 too? 6 BY MR. EIDSON: 7 Q. Yeah. Why don't we do this, Mr. Fennell, I'm 8 going to ask you -- I'm going to pivot and ask you a 9 couple of other questions, then we'll take a break. I 10 will check my notes here just to make sure we're at a 11 good stopping point, and then I'll turn it over to your 12 counsel, rather than you guys sit here and have me look 13 through my notes and my report to make sure we are 14 there. 15 So let me pivot and ask you some other 16 questions, and then we'll take a break. And I'll tidy 17 up, and then I'll move on. 18 Does that work for you guys? 19 MS. HOLOUBEK: Yes. 20 BY MR. EIDSON: 21 Q. Did you prepare for your deposition today? 22 A. Yes. 23 Q. Who did you meet with? 24 A. I met with these two counsel, and occasionally 25 Counselor Mauch would pop his head in.

Page 158 1 Q. How long did you spend preparing for your 2 deposition today? 3 A. I don't know the exact time that -- probably 10 4 or more hours with the lawyers, and then I've spent 5 more than that on my own or with colleagues from my 6 company. 7 Q. Outside of Simpson's lawyers and colleagues 8 from your company, did you meet or discuss with anybody 9 else in preparation for your deposition today? 10 A. No. 11 Q. When it came to preparing your opinions in this 12 case, which attorneys were your main points of contact? 13 A. It was Counselor Holoubek and another associate 14 from their firm in D.C. 15 Q. From the Sterne Kessler shop -- 16 A. Yes. 17 Q. -- firm. Sorry. 18 Us attorneys, we call everything a shop. 19 A. I'm afraid I have lowered the term today. 20 MR. EIDSON: Very good. Why don't we take a 21 six-minute and 42-second break. 22 Let me make sure that I've covered most 23 everything that I wanted to cover, and then we'll come 24 back, and I'll turn it over to Simpson's counsel. 25 THE WITNESS: Thank you, Counselor.	Page 160 1 STATE OF CALIFORNIA 2 ss. 3 REPORTER'S CERTIFICATE 4 5 6 I, EARLY LANGLEY, a Certified Shorthand 7 Reporter, License Number 3537, State of California, do 8 hereby certify: 9 That W. ANDREW FENNELL, PE, CPEng, in the 10 foregoing deposition named, was present and by me sworn 11 as a witness in the above-entitled action at the time 12 and place therein specified; 13 That said deposition was taken before me at 14 said time and place, and was taken down in shorthand by 15 me, a Certified Shorthand Reporter of the State of 16 California, and was thereafter transcribed into 17 typewriting, and that the foregoing transcript 18 constitutes a full, true and correct report of said 19 deposition and of the proceedings that took place; 20 IN WITNESS WHEREOF, I have hereunder subscribed my hand 21 on May 15, 2025. 22 23 24  EARLY LANGLEY, CSR NO. 3537 State of California 25
Page 159 1 MS. HOLOUBEK: Sounds good. 2 MR. EIDSON: Thank you. 3 (Recess taken.) 4 MR. EIDSON: I'm going to turn it over to my 5 colleague to the extent she has any questions. 6 MS. HOLOUBEK: We have no questions for 7 redirect. 8 MR. EIDSON: That gives me no recross. 9 (Whereupon, the deposition was 10 concluded at 3:26 p.m.) 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	Page 161 1 Veritext Legal Solutions 2 1100 Superior Ave 3 Suite 1820 4 Cleveland, Ohio 44114 5 Phone: 216-523-1313 6 7 May 15, 2025 8 9 To: Ms. Holoubek 10 11 Case Name: Simpson Strong-Tie Company, Inc. v. Columbia Insurance 12 Company 13 Veritext Reference Number: 7366722 14 Witness: W. Andrew Fennell , PE, CPEng Deposition Date: 15 5/14/2025 16 17 Dear Sir/Madam: 18 19 Enclosed please find a deposition transcript. Please have the witness 20 review the transcript and note any changes or corrections on the 21 included errata sheet, indicating the page, line number, change, and 22 the reason for the change. Have the witness' signature notarized and 23 forward the completed page(s) back to us at the Production address 24 shown 25 above, or email to production-midwest@veritext.com. 26 27 If the errata is not returned within thirty days of your receipt of 28 this letter, the reading and signing will be deemed waived. 29 30 Sincerely, 31 Production Department 32 33 NO NOTARY REQUIRED IN CA

Page 162 1 DEPOSITION REVIEW CERTIFICATION OF WITNESS 2 3 ASSIGNMENT REFERENCE NO: 7366722 CASE NAME: Simpson Strong-Tie Company, Inc. v. Columbia Insurance Company 4 DATE OF DEPOSITION: 5/14/2025 WITNESS' NAME: W. Andrew Fennell , PE, CPEng 5 In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me. 7 I have made no changes to the testimony as transcribed by the court reporter. 8 9 Date _____ W. Andrew Fennell , PE, CPEng 10 Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that: 12 They have read the transcript; 13 They signed the foregoing Sworn Statement; and 14 Their execution of this Statement is of their free act and deed. 15 16 I have affixed my name and official seal 17 this _____ day of _____, 20____. 18 _____ Notary Public 19 _____ Commission Expiration Date 20 21 22 23 24 25	Page 164 1 ERRATA SHEET VERITEXT LEGAL SOLUTIONS MIDWEST 2 ASSIGNMENT NO: 7366722 3 PAGE/LINE(S) / CHANGE /REASON 4 _____ 5 _____ 6 _____ 7 _____ 8 _____ 9 _____ 10 _____ 11 _____ 12 _____ 13 _____ 14 _____ 15 _____ 16 _____ 17 _____ 18 _____ 19 _____ 20 Date _____ W. Andrew Fennell , PE, CPEng 21 SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ 22 DAY OF _____, 20____. 23 _____ 24 Notary Public 25 _____ Commission Expiration Date
Page 163 1 DEPOSITION REVIEW CERTIFICATION OF WITNESS 2 3 ASSIGNMENT REFERENCE NO: 7366722 CASE NAME: Simpson Strong-Tie Company, Inc. v. Columbia Insurance Company 4 DATE OF DEPOSITION: 5/14/2025 WITNESS' NAME: W. Andrew Fennell , PE, CPEng 5 In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me. 7 I have listed my changes on the attached Errata Sheet, listing page and line numbers as well as the reason(s) for the change(s). 9 I request that these changes be entered as part of the record of my testimony. 10 11 I have executed the Errata Sheet, as well as this Certificate, and request and authorize that both be appended to the transcript of my testimony and be incorporated therein. 12 13 Date _____ W. Andrew Fennell , PE, CPEng 14 15 Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that: 17 They have read the transcript; 18 They have listed all of their corrections in the appended Errata Sheet; 19 They signed the foregoing Sworn Statement; and 20 Their execution of this Statement is of their free act and deed. 21 I have affixed my name and official seal 22 this _____ day of _____, 20____. 23 _____ 24 Notary Public 25 _____ Commission Expiration Date	

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Illinois Code of Civil Procedure

Article II, Part E

Rule 207, Signing and Filing Depositions

Signing and Filing Depositions

(a) Submission to Deponent; Changes; Signing.

Unless signature is waived by the deponent, the officer shall instruct the deponent that if the testimony is transcribed the deponent will be afforded an opportunity to examine the deposition at the office of the officer or reporter, or elsewhere, by reasonable arrangement at the deponent's expense, and that corrections based on errors in reporting or transcription which the deponent desires to make will be entered upon the deposition with a statement by the deponent that the reporter erred in reporting or transcribing the answer or answers involved. The deponent may not otherwise change either the form or substance of his or her answers. The deponent shall provide the officer with an electronic or physical address to which notice is to be sent when the transcript is available for examination and signing. When the deposition is fully transcribed, the officer shall deliver to the deponent, at the address supplied,

notice that it is available and may be examined at a stated place at stated times, or pursuant to arrangement. After the deponent has examined the deposition, the officer shall enter upon it any changes the deponent desires to make, with the reasons the deponent gives for making them. If the deponent does not appear at the place specified in the notice within 28 days after the mailing of the notice, or within the same 28 days make other arrangements for examination of the deposition, or after examining the deposition refuses to sign it, or after it has been made available to the deponent by arrangement it remains unsigned for 28 days, the officer's certificate shall state the reason for the omission of the signature, including any reason given by the deponent for a refusal to sign. The deposition may then be used as fully as though signed, unless on a motion to suppress under Rule 211(d) the court holds that the reasons given by the deponent for a refusal to sign require rejection of the deposition in whole or in part.

(b) Certification, Filing, and Notice of Filing.

(1) If the testimony is transcribed, the officer

shall certify within the deposition transcript that the deponent was duly sworn by the officer and that the deposition is a true record of the testimony given by the deponent. A deposition so certified requires no further proof of authenticity

(2) Deposition transcripts shall not be filed with the clerk of the court as a matter of course. The party filing a deposition shall promptly serve notice thereof on the other parties and shall file the transcript and any exhibits in the form and manner specified by local rule.

DISCLAIMER: THE FOREGOING CIVIL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE STATE RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted

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