

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SIMPSON STRONG-TIE COMPANY, INC.

Petitioner

v.

COLUMBIA INSURANCE COMPANY

Patent Owner

Case PGR2024-00050

Patent 11,920,339

VIDEOCONFERENCE DEPOSITION OF
THOMAS J. IRMITER

TAKEN ON BEHALF OF THE PETITIONER

AUGUST 5, 2025

(Starting time of the deposition: 10:02 a.m. CT.)

Simpson Strong-Tie Company EX1054
Simpson v. Columbia
PGR2024-00050

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1 UNITED STATES PATENT AND TRADEMARK OFFICE

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4 -----

5 SIMPSON STRONG-TIE COMPANY, INC.
 Petitioner

6 v.

7 COLUMBIA INSURANCE COMPANY
8 Patent Owner

9 -----

10 Case PGR2024-00050
Patent 11,920,339

11
12 VIDEOCONFERENCE DEPOSITION OF THOMAS J. IRMITER,
13 produced, sworn and examined on August 5, 2025,
14 between the hours of ten o'clock CT in the forenoon
15 and twelve o'clock CT of that day, with all
16 attendees via Zoom videoconference, with the Witness
17 physically located in Clayton, Missouri, before
18 William L. DeVries, a Certified Court Reporter (MO),
19 Registered Diplomate Reporter, and Certified
20 Realtime Reporter, in a certain cause now pending in
21 the United States Patent and Trademark Office,
22 Before the Patent Trial and Appeal Board, between
23 SIMPSON STRONG-TIE COMPANY, INC., Petitioner, vs.
24 COLUMBIA INSURANCE COMPANY, Patent Owner; on behalf
25 of the Petitioner.

A P P E A R A N C E S

(All appearances via Zoom videoconference.)

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William L. DeVries, RDR/CRR
Missouri CCR #566

1 IT IS HEREBY STIPULATED AND AGREED by
2 and between counsel for the Petitioner and counsel
3 for the Patent Owner that this deposition may be
4 taken in shorthand by William L. DeVries, RDR/CRR, a
5 Certified Court Reporter and Certified Shorthand
6 Reporter, and afterwards transcribed into
7 typewriting; and the signature of the witness is
8 expressly reserved.

9 * * * * *

10 THOMAS J. IRMITER,
11 of lawful age, produced, sworn and examined on
12 behalf of the Petitioner, deposes and says:

13 (Starting time of the deposition: 10:02 a.m.)

14 COURT REPORTER: Do you swear or affirm
15 that the testimony you are about to give in this
16 proceeding will be the truth, the whole truth, and
17 nothing but the truth?

18 THE WITNESS: I do.

19 EXAMINATION

20 QUESTIONS BY MS. VAN KEULEN:

21 Q. Good morning, Mr. Irmiter.

22 A. Good morning.

23 Q. Can you -- my name is Lindsay. I'll be
24 taking your deposition today. Can you please state
25 your full name and address for the record?

1 A. Thomas Irmiter. I-R-M-I-T-E-R. 23 --
2 I'm sorry, 2408 Richard Bolling, B-O-L-L-I-N-G,
3 Williamsburg, Virginia, ZIP Code 23185.

4 Q. And you understand that you are here
5 today to have your deposition taken in connection
6 with the testimony you provided in a post-grant
7 review proceeding challenging U.S. Patent Number
8 11,920,339; is that correct?

9 A. Yes.

10 Q. And I'm going to refer to the
11 challenged patent using the last three digits of the
12 patent number, so I'll refer to it as the '339
13 patent. Is that okay?

14 A. That's fine.

15 Q. Mr. Irmiter, have you ever been deposed
16 before?

17 A. Yes.

18 Q. How many times?

19 A. Over 750 times.

20 Q. Great. You know, I'll just go over the
21 ground rules very quickly then. You know, it's
22 important that we don't speak over each other. Wait
23 until the question is complete and answers should be
24 verbal. Sound good?

25 A. Understood.

1 Q. If you don't understand my question,
2 let me know. If I ask a question and you don't ask
3 a clarification, I will assume that you understand
4 it. Is that fair?

5 A. Yes.

6 Q. And you're more than welcome to take a
7 break. I just ask that before we take a break that
8 we answer any pending question that may be out
9 there, okay?

10 A. Sounds good.

11 Q. Is there any reason that you cannot
12 testify truthfully today?

13 A. No.

14 Q. Are you under any medication that may
15 impair your testimony in any way today?

16 A. No.

17 Q. And you understand that you are under
18 oath and you have to tell the whole truth, correct?

19 A. Yes.

20 Q. So you mentioned that you have been
21 deposed over 750 times. What types of cases
22 generally do those -- do those depositions take
23 place with?

24 A. They've involved almost anything you
25 can think about revolving around construction of

1 buildings, construction defect cases, first-party
2 insurance cases which include damages caused by
3 natural events, wind, hail, hurricane, flood, pipe
4 burst, freeze/thaw, movement of buildings,
5 explosions, fires.

6 I also was an expert on the largest
7 pharmaceutical disaster case in U.S. history, the
8 fungal meningitis case back in 2012. Let's see.
9 That's about the gamut of it.

10 Q. And over what time frame did those
11 depositions take place?

12 A. My first deposition 38 years ago.

13 Q. And when was the last deposition before
14 this one?

15 A. Last week -- last week.

16 Q. Okay. Have you ever given a deposition
17 in relation to a post-grant review or a PGR
18 proceeding such as this one?

19 A. I have not.

20 Q. So this is your first deposition
21 related to a PGR proceeding, correct?

22 A. Yes.

23 Q. Were any of those depositions related
24 to any type of dispute involving a patent?

25 A. No.

1 Q. So you don't do much work related to
2 patents. Would that be fair to say?

3 A. Not yet, but that's true.

4 Q. What did you do to prepare for today's
5 deposition?

6 MR. KRIEGER: Objection to the extent
7 it calls for any attorney-client privileged
8 communications or work product that the witness did
9 not rely on for the declaration, I'm going to
10 instruct him not to answer. Otherwise, he may
11 answer.

12 MS. VAN KEULEN: Of course. Proceed.

13 A. I reviewed my file, which included the
14 documents that are cited in my report -- or I'm
15 sorry, the declaration. I basically met with the
16 attorneys yesterday and -- for a while and that's
17 about it.

18 Q. (By Ms. van Keulen) So you mentioned
19 you reviewed your file. Any other documents
20 besides -- outside of the documents cited in your
21 report that you reviewed?

22 A. Well, the patent itself. I don't know
23 if I cite the patent in here as a document received,
24 but I do have a copy of that and I did review that.

25 Q. Okay.

1 (WHEREIN, Exhibit 2052, Declaration of
2 Thomas Irmiter, was marked for identification by the
3 Court Reporter.)

4 Q. (By Ms. van Keulen) So I'm going to
5 mark what has been previously marked in this
6 proceeding as Exhibit 2052. That is the copy of
7 your report. Mr. Irmiter, you have a copy of
8 Exhibit 2052 in front of you, correct?

9 A. I do, right here.

10 Q. And you recognize this document?

11 A. Yes, I do.

12 Q. This is the declaration that you
13 prepared for this case, PGR2024-0005000, correct?

14 A. Yes.

15 Q. All right. And if we go to page 26 of
16 the declaration, let me know when you're there.

17 A. 26?

18 Q. 26.

19 A. Yes.

20 Q. That is your signature on that -- on
21 the page, correct?

22 A. Yes.

23 Q. And the declaration is dated the 27th
24 day of May 2025, yes?

25 A. Yes.

1 Q. So going back to what you did to
2 prepare for today's deposition, you mentioned that
3 in addition to the documents listed in your report
4 you reviewed the patent, a copy of the '339 patent.
5 Did you review that document in preparation for the
6 declaration?

7 A. Yes.

8 Q. Did you review any of the other -- or
9 sorry. Excuse me. Have you reviewed any of the
10 other declarations submitted in this proceeding?

11 A. No.

12 Q. And you mentioned you met with counsel
13 to prepare for today's deposition. Who did you meet
14 with particularly?

15 A. I met with the gentleman to my right
16 and I can't remember the other guy's name.

17 MR. KRIEGER: I can let you know who
18 that was if you want.

19 MS. VAN KEULEN: That would -- that
20 would be appreciated. Can you tell me the
21 gentleman's to your right's name, Mr. Irmiter for
22 the record?

23 MR. KRIEGER: So Tim Krieger is here
24 right next to him and then John Schroeder was the
25 other attorney he met with, yeah.

1 A. Tim and John.

2 Q. (By Ms. van Keulen) Okay. And
3 Mr. Irmiter, you mentioned that you met with them
4 for a while, but approximately how -- how long was
5 that meeting?

6 A. About three hours.

7 Q. Did you speak with anyone else to
8 prepare for this deposition besides counsel?

9 A. No.

10 Q. Do you have an understanding of what
11 the '339 patent covers?

12 MR. KRIEGER: Objection, form.

13 A. In general, yes. I haven't memorized
14 it.

15 Q. (By Ms. van Keulen) Where did that
16 understanding come from?

17 A. Just -- I -- when I went through it I
18 focused on the -- the design of the fastener itself,
19 hanger, and the methodology of the process of
20 installing the hanger into a two-hour firewall
21 because that was really my focus in looking --

22 (Court reporter interruption.)

23 A. Two-hour firewall.

24 Q. (By Ms. van Keulen) So that
25 understanding came just for your -- from your own

1 review of the patent, correct?

2 A. Well, no. That understanding also came
3 from the documents that I cited. I went -- after I
4 received that -- that document once I looked at it I
5 went to the International Code Council, what's
6 called the ICC ES, Evaluation Services, and looked
7 at the Evaluation Services reports for this
8 particular hanger to see if in fact it had been
9 researched and approved for installation by the
10 International Code Council.

11 I think I cite that document in my
12 report. In addition, I went to -- I think I
13 probably went to Lowe's, Menard's just to look at
14 generally what -- what the hanger was costing at the
15 time. I looked at it for some pictures of the
16 hanger from those distributors. So that was more or
17 less the research that I did initially.

18 Q. To understand what the '339 patent
19 covers?

20 A. Exactly.

21 Q. That was what you were researching,
22 correct?

23 A. Yes. And please understand this is not
24 the first time I've seen the '339. I've seen it in
25 the field, okay? I've seen it installed. So I was

1 just doing some additional research on it at those
2 sites.

3 Q. You've seen the MiTek FWH --

4 A. Yes.

5 Q. -- product installed?

6 A. Yes.

7 Q. But going back to the '339 patent, the
8 actual patent, did you meet with anyone in terms of
9 getting information on what the patent covers,
10 information about the patent, or did your
11 understanding just come from what -- what you just
12 described to me?

13 A. Information about what the patent
14 covers was discussed with the attorneys as well.

15 Q. And we kind of already touched on this,
16 but you have reviewed the FWH -- sorry. The -- you
17 are aware the FWH is a MiTek product that covers --
18 sorry, that embodies the '339 patent, correct?

19 MR. KRIEGER: Objection, form.

20 A. Correct.

21 Q. (By Ms. van Keulen) Okay. And in
22 preparing for this declaration did you review any
23 buildings that had installed the FWH?

24 A. Yes.

25 Q. Did -- in preparing for your

1 declaration did you watch anyone install the FWH?

2 A. No, not -- not in real time and not --
3 no.

4 Q. You said not in real time. Is there
5 a --

6 A. I didn't go to a -- I'm sorry. I
7 didn't go to a job site and watch it being installed
8 while I -- as part of preparing this.

9 Q. I'm sorry, could you repeat that last
10 part?

11 A. Yes. I did not go to a specific job
12 site during the preparation of this document. I
13 think I worked on this for a couple weeks during
14 that period of time to actually witness it being
15 installed.

16 Q. And did you review or analyze any of
17 the Simpson products or any -- sorry, I should say
18 any Simpson products in preparation for this
19 declaration?

20 MR. KRIEGER: Objection, form.

21 A. I did look at the Simpson -- some of
22 the Simpson products, yes.

23 Q. (By Ms. van Keulen) Do you recall
24 which products you looked at?

25 A. I know there was one that was on the

1 market a few months before this product originally
2 came out. I think it's called the DU or DW. I
3 can't remember. It's a different application, but
4 it is at that point for a two -- two-hour firewall,
5 and I'll -- I'll add supposedly.

6 And then I did look at the current -- I
7 think I -- I list that at the very end of my report,
8 my last paragraph, I indicate that -- that there is
9 a product from Simpson on the market as well. I
10 think that's in paragraph 49. Similar hangers and
11 methods it says. The only way -- the only way I
12 could say similar and -- is by looking at those
13 products from Simpson.

14 Q. And do you recall what that product --
15 the name of that product?

16 A. No, I don't have the number memorized.

17 Q. And going back really quickly, you
18 mentioned as part of your preparation for this
19 declaration that you looked at Evaluation Services
20 reports?

21 A. Yes.

22 Q. Am I restating that correctly?

23 A. You are.

24 Q. And you talk about how you cite to
25 those in the report. Do you recall where in your

1 report you cite to those documents?

2 A. Sure. On page seven, Exhibit 2155 and
3 Exhibit 2156.

4 Q. Thank you. Sticking on page six and
5 seven of your declaration, as we've kind of already
6 discussed and -- this is the list of documents or
7 materials that you reviewed in preparation for your
8 declaration. It -- it is complete, correct?

9 MR. KRIEGER: Objection, form.

10 A. Yes, other than noting in this
11 particular -- in these items the '339 patent, which
12 I obviously reviewed. I couldn't have written the
13 report without reviewing it.

14 Q. (By Ms. van Keulen) Were these
15 documents, this list that's on page six and seven,
16 were they documents that you specifically requested
17 be provided to you?

18 A. No. These were documents that I had
19 either in my library already at work or that I
20 researched on -- on the internet. So for example, I
21 have the 1967 Uniform Building Code. I have those
22 books. Very -- very few people do. So --

23 Q. So -- sorry. So they were documents
24 that you already had in your possession. They
25 weren't provided to you by anyone else in

1 preparation for your declaration?

2 A. Not that I recall, no.

3 Q. Did you request any documents at all to
4 prepare for your declaration?

5 A. Yeah. I mean, I -- I requested any
6 documents that -- that would be probative. So I
7 requested to see the patent. I requested to see
8 any -- any installation instructions that they had
9 for the doc -- for the particular fastener -- or
10 hanger, excuse me.

11 I did not -- and I received -- I might
12 have received 2135 exhibit, Simpson installation
13 guideline 2024 from counsel, but I also would have
14 downloaded that myself and have my own copy of that.
15 So --

16 Q. I'm sorry, you said --

17 A. I'm sorry?

18 Q. I didn't mean to interrupt you.

19 A. That's okay. That's okay.

20 Q. You said you asked for Exhibit 2025?

21 A. No, I may -- I would have asked for any
22 installation instructions that they had. So they
23 may have sent me Exhibit 2135. I don't recall. And
24 that's Simpson installation guidelines for 2024.

25 Q. I am -- oh, 2135. Okay. There it is.

1 A. Okay.

2 Q. Yeah. All documents that you requested
3 were -- you -- sorry. Let me rephrase that.

4 Of the documents that you requested,
5 did you receive all of those documents?

6 A. Yes.

7 Q. Did you write your declaration or was
8 your declaration written for you?

9 A. No, I wrote 100 percent of it.

10 Q. At this time --

11 A. Excuse me. I'll go on record as saying
12 without any assist from AI.

13 Q. I think you have to now.

14 A. You do.

15 Q. At this time do you have any
16 corrections, additions, or deletions to make to the
17 declaration?

18 A. No.

19 Q. Are you planning on doing any further
20 work on this matter after this deposition?

21 MR. KRIEGER: Objection, form.

22 A. How could I know? So as I sit here
23 right now, I have not been asked.

24 Q. (By Ms. van Keulen) Sitting here
25 today.

1 A. Sitting here today, I have not been
2 asked.

3 Q. Okay. Turning -- we're staying with
4 your declaration, looking at paragraph two, which is
5 on page two, let me know when you're there.

6 A. Yes.

7 Q. So it's -- there you state that you are
8 currently the CEO of Forensic Building Science, Inc.
9 or FBS, which you founded in 2004. What type of
10 services does FBS provide?

11 A. So Forensic Building Science -- excuse
12 me. FBS does a number of things. We provide
13 condition assessments for virtually every type of
14 structure except bridges and water towers. Those
15 are the only two things we don't do.

16 We do that inspection work for purposes
17 of due diligence, purposes of property being traded
18 or leasehold improvement lease -- leases being given
19 up. What's the condition of the building when
20 the -- when the tenant moves out?

21 Majority of our work focuses on some
22 type of a dispute, either a defect in construction
23 or design or damage that has been caused by, as I
24 mentioned before, all of the natural disaster-type
25 things.

1 Wildfires, explosions, hurricanes,
2 tornados, wind and hail, flood, buildings being
3 struck by vehicles or trucks that cause them to be
4 damaged. It's a variety of those things. That --
5 that is the general breadth of the work that the
6 company does.

7 I also because of my experience, I have
8 served as an arbitrator on I think four commercial
9 arbitrations, three-person panels. These are all
10 hurricane cases. And then I also do for the company
11 work that's called appraisal in the insurance
12 policy.

13 Under first-party cases there is an
14 appraisal clause. The appraisal clause is basically
15 arbitration, and so I will serve as an appraiser
16 representing whoever hires me.

17 The other side of the argument hires an
18 appraiser and then we appoint a neutral third-party
19 umpire. And then we do a dispute resolution to come
20 up with a cost to repair. So I do that work as
21 well. I think I've done over 2,000 of those
22 appraisals.

23 Q. Any other services that FBS provides?

24 A. No, I think that covers it.

25 Q. How many employees does FBS employ?

1 A. 22 I think currently.

2 Q. And going over to paragraph six, which
3 is on page four, let me know when you're there.

4 A. Yes.

5 Q. You describe yourself as a building
6 damage, envelope, and construction expert. Can you
7 describe what that entails?

8 A. That's on page -- what page?

9 Q. Page four, paragraph six.

10 A. Oh, I went to page six, I'm sorry.

11 Q. Yeah. That's probably going to happen
12 a couple times here, so --

13 A. So lots of people can call themselves
14 experts. It's always been my opinion that an expert
15 is determined by the courts. So these are the
16 designations that federal courts have prescribed to
17 me for the testimony that I give.

18 Q. What does envelope mean in the
19 construction industry?

20 A. Envelope would be anything that is
21 installed on the structure of the building. So once
22 the building is built -- for example, in the room
23 that we're sitting in right now the windows that are
24 to my right are -- are installed on a curtain wall
25 system that actually hangs on the structure of the

1 building.

2 So that would be part of the envelope
3 of the building. The roof material up on top of
4 this building would be part of the envelope of the
5 building. The cladding, paint, the siding, the
6 brick, those would all be envelope-type things.

7 Q. Anything on the outside of the
8 building, is that a kind of -- is that too
9 simplistic?

10 A. No, I -- no, I don't think it's too
11 simplistic. As a code official, I would -- I
12 would -- the way the code lists it is anything that
13 is on the exterior side of the structural cladding.
14 Anything on the -- so you have the exterior clad,
15 you know, of the structure, and anything that gets
16 attached to that structure is called the envelope.

17 Q. Okay. All right. Flipping back to
18 appendix A of your declaration, this is on page
19 20 -- it starts on page 28 of Exhibit 2052.

20 A. Yes.

21 Q. So on that first page you list under
22 education and credentials the University of
23 Wisconsin school of engineering, four credit hours.
24 What -- what does that mean?

25 A. 2007 I applied to the University of

1 Min -- or I'm sorry, University of Wisconsin. I was
2 living in Minnesota at that time. To the school of
3 engineering. I was going to get my master's in
4 engineering.

5 I applied for three classes, took one
6 of them, and dropped the other two because of my
7 workload. So in essence I have four credit hours
8 towards a master's degree in engineering. That's
9 all.

10 Q. Okay. Okay. And looking at -- or I'm
11 sorry, flipping next to PDF page 36, let me know
12 when you're there.

13 A. Yes. I'm there.

14 Q. Great. Give me one moment. And this
15 is -- at the bottom of the page starts the list of
16 all your testimonies, depositions, appraisals and
17 arbitration, and there are quite a few of them. But
18 as we discussed, this is your first -- first
19 deposition related to a PGR proceeding, correct?

20 A. Correct. Yes.

21 Q. Okay. Going back to the front of your
22 declaration, paragraph three, let me know when
23 you're there.

24 A. All right. I'm there.

25 Q. Paragraph three, you state that while

1 working for your family's construction company you
2 had advanced to a journeyman's level in carpentry
3 and that included construction of a two-hour
4 firewalls using two layers of five-eighths gypsum,
5 correct?

6 A. Yes.

7 MR. KRIEGER: Objection, form.

8 A. Sorry. Yes.

9 Q. (By Ms. van Keulen) And so by that do
10 you mean that you have actually constructed two-hour
11 firewalls using two layers of five-eighths gypsum?

12 A. Yes, I have.

13 Q. Okay. And do -- how long -- let me --
14 when was the last time that you constructed such a
15 firewall?

16 A. Probably 1998.

17 Q. So sitting here today, do you recall
18 how -- generally how you would go about doing that,
19 constructing those firewalls?

20 A. Yes.

21 Q. Can you describe that process for me?

22 A. Well, there's a bunch of different
23 ways, and it would depend on where the firewall is
24 in the -- in the building itself. But in general
25 terms we're working with a wood framing member

1 called a stud, 2 by 4 or 2 by 6 stud.

2 Typically those are framed 16 inches on
3 center creating a 14 and a half inch space
4 in-between each stud. To create the two-hour wall I
5 need two layers of type X five-eighths inch gypsum
6 over that wall on the side that requires the two
7 hours.

8 I can have a building depending on its
9 use where I have one hour on one side and two hour
10 on the other side or two hours on both sides. If I
11 have two hours on both sides I need to put both of
12 those two layers of sheetrock on there.

13 I'm going to call it sheetrock today,
14 excuse me, because I've hung a lot of sheetrock in
15 my day and that's what we call it. Where it becomes
16 complicated, that's a pretty simple thing to do.

17 It becomes complicated when you have
18 the attachment of the joists into a beam on a
19 bearing wall. That's where the question of now how
20 do we -- how do we deal with -- with that? Prior to
21 hangers, using hangers to construct that interface,
22 we would back nail the -- the actual joist into the
23 header or into the beam itself.

24 The beam in this case, let's say it's a
25 2 by 12 and let's say my joists are 2 by 12 and I'm

1 going to use six 16d nails to go into the 2 by 4. 2
2 by 10 I'm going to use 5. 2 by 8 I'm going to use
3 four. It's a two-to-one ratio.

4 The reason those nails are used and the
5 number of nails that are used not only is defined by
6 the size of the lumber, but the distribution of the
7 load path on that particular element that's
8 occurring.

9 And then prior to the use of hangers we
10 would simply cut our gypsum around each one of those
11 joists, slide it up into place, and that would
12 essentially be -- back in the day in the seventies
13 and even in the eighties, that would be your -- your
14 two-hour firewall. We weren't even required to use
15 fire caulk at that point in time.

16 (Court reporter interruption.)

17 A. Sorry. So in that situation you had a
18 wood-on-wood butt that was occurring, and that
19 occurred in this industry quite frankly until this
20 MiTek product came on the market in 2014. I know
21 that's a lot of information.

22 Q. (By Ms. van Keulen) Don't worry about
23 it. I just want to clarify. When you were talking
24 about the process, you said back nail.

25 A. Yes.

1 Q. Just want to make sure that that got --
2 that was clear. So when you were constructing, you
3 personally were constructing these two-hour rated
4 firewalls in wood structures, did you use any joist
5 hangers at all?

6 A. Not until the mid-seventies.

7 Q. Not until the mid-seventies?

8 A. And in fact, we probably -- arguably we
9 probably didn't use joist hangers until the eighties
10 actually because my dad was a old school. I mean,
11 he's a -- he's a master carpenter and he -- I don't
12 think he trusted joist hangers.

13 He trusted six nails going into a 2 by
14 12. I don't think he bought into the idea that you
15 could put this hanger on there and you wouldn't --
16 so when we first started using hangers we were
17 actually still doing the back nailing and then
18 adding the hanger.

19 Q. Belt and suspenders I think we call
20 that.

21 A. Absolutely. Belt and suspenders. Way
22 overdesigned.

23 Q. And were there any issues with the --
24 with that method, belt and suspenders or just the
25 back nailing, passing fire inspection or fire safety

1 inspection at the time?

2 A. No, back then -- back then I don't
3 think building inspectors actually even looked at
4 that quite frankly because you have to understand
5 when the -- when the inspection periods happen,
6 inspection happens after all of rough-in.

7 So all your electric, all your HVAC,
8 all your plumbing is in place and then they come in
9 and they inspect which also means all your framing
10 is done, right? So in that situation we haven't
11 installed any sheetrock yet.

12 And they didn't inspect sheetrock. So
13 they never really were inspecting. And this is
14 country -- nationwide. There never really were
15 inspections for two-hour firewall back then. There
16 are now, but there weren't.

17 Q. But to answer my question, so there
18 wasn't any issue with them passing code?

19 A. No.

20 Q. And you mentioned that the last time
21 you constructed a two-hour firewall was in about
22 1998. So just for the record you never personally
23 installed the product at -- products at issue in
24 this dispute?

25 MR. KRIEGER: Objection, form.

1 A. That is correct.

2 Q. (By Ms. van Keulen) Looking quickly at
3 paragraph ten on page six of your declaration. Let
4 me know -- are you there?

5 A. Yes. Thank you.

6 Q. You mentioned that you are compensated
7 at \$475 per hour. Approximately how many hours did
8 you spend preparing your declaration?

9 A. About 20 hours, I believe.

10 Q. All right. Moving forward to paragraph
11 12 on the next page, can you describe to me what
12 semi-balloon framing is?

13 A. Yes. It's where instead of using
14 complete balloon framing and installing a wooden
15 ledger board nailed into the studs, we're basically
16 now using a joist hanger system into a beam as
17 opposed to the ledger board.

18 So the ledger board has been replaced
19 by the hangers in -- in balloon frame construction.
20 Balloon frame construction is not used very often.
21 It's rare to find it anymore.

22 Q. Any idea where the -- like the
23 reference to balloon comes from?

24 A. You know, it's funny because when we
25 had my -- with our construction company most of the

1 work that we did in the residential side was in
2 historic homes, and so all of that was balloon frame
3 construction.

4 I heard balloon frame construction
5 passed down from my father, who probably heard it
6 from his grandfather and so on and so on. So I'm
7 not -- I can't tell you the providence of the word
8 balloon frame.

9 However, what does happen when you have
10 a fire inside a balloon frame house that doesn't
11 have fire blocking and you've got 20, 30 -- say we
12 have a 24-foot high wall and I have a floor
13 intersecting at ten feet held in place by these wood
14 ledgers that are nailed in.

15 That cavity is a mini -- is a chimney.
16 So it creates this chimney effect, and so the
17 ballooning effect may have come from what happens
18 when there's a fire in that kind of a building.

19 Q. Interesting. Looking at paragraph 17
20 on page nine, let me know when you're there. So --
21 are you there, Mr. Irmiter?

22 A. Yes. Yes.

23 Q. So you have a figure in your
24 declaration here, correct?

25 A. Yes.

1 Q. And this figure, though, is -- is a
2 more -- is a modern -- I would call this figure a
3 modern detail. Would you agree with me there?

4 MR. KRIEGER: Objection, form.

5 A. Yes. These are I-joists. This is a
6 modern figure that you would see today, yes.

7 Q. (By Ms. van Keulen) Okay. Okay.
8 Looking at paragraph 22 on page 12, let me know when
9 you're there.

10 A. Yes.

11 Q. In this paragraph you talk about how
12 joist hangers must perform three essential
13 functions, one of which is to prevent rotational
14 moment forces from acting -- from acting I think I
15 can just -- there. Is that -- is that correct?

16 A. Yes.

17 Q. And if a hanger -- however, if a hanger
18 didn't do that, if it couldn't counteract rotational
19 moment forces would there be a way for someone when
20 they're installing the hanger to like fix that
21 problem?

22 MR. KRIEGER: Objection, form,
23 incomplete hypothetical.

24 A. Well, I'll answer it as a building code
25 official, all right. I would need to see a specific

1 design on that then from a licensed structural
2 engineer on that -- on that change because you're
3 modifying an existing approved fastener or hanger.
4 I mean, anything is possible -- anything is
5 possible. I have been doing this long enough to
6 realize that anything is possible. So -- but you
7 would need design on that.

8 Q. (By Ms. van Keulen) Right. You -- as
9 I understand it, the process normally is like, hey,
10 we've spec'd hanger XYZ, I'm in the field installing
11 it, contractor, and I maybe add some metal or, you
12 know, make something so it's stronger. I got to
13 call -- before that gets approved or before I do
14 that I've got to get the design team involved and a
15 bunch of people signed off on it, correct?

16 MR. KRIEGER: Objection, form.
17 Objection, form.

18 A. In a perfect world that is what would
19 typically happen. That is not what we see in the
20 field, however.

21 Q. (By Ms. van Keulen) In terms of don't
22 see -- like what -- you don't see people signing off
23 on those changes or you don't see people asking for
24 those sign-offs?

25 A. So -- so we get -- we get involved when

1 the failure occurs, okay? So in this instance when
2 rotational movement occurs at this particular
3 situation, how it evidenced itself is not in a
4 building collapse luckily, but it does evidence
5 itself on the shifting of the framing material
6 causing the gypsum board to crack, and to actually
7 tear in sections.

8 So when we see that type of damage we
9 then open up that gypsum and that's when we see that
10 the hangers have been manipulated. There's
11 additional straps that have been put in. They've
12 been cut. That's where it evidences itself is in
13 the finished material that go over that.

14 Q. And you mentioned additional straps
15 being added; is that what you said?

16 A. I've seen that in the field, yes.
17 Absolutely.

18 Q. Can you describe generally what that
19 entails, like what -- how that would be added to a
20 hanger?

21 A. Yes. So typically what we see in the
22 field is we'll see a -- it's called pipe strap.
23 It's usually three-quarters to an inch wide, comes
24 in a roll and it's got holes every inch. And so
25 they'll cut, you know, 12-inch piece of this and

1 they'll nail it on one side of the joist, maybe
2 twice with a couple of roofing nails or something
3 like that and they'll fold it underneath and then
4 they'll nail it on the other side.

5 And what -- it literally is somebody's
6 idea that, hey, I'm adding some additional strength
7 here without calculating the load or the capacity of
8 that at all. And honestly a lot of times the reason
9 they do that is that that's what they were taught to
10 do by somebody prior to them learning how to frame.

11 Q. There are -- okay. Let me just --
12 however, when they are adding -- you know, if the
13 idea is to add that strap, they could also go to the
14 design team and get sign-off on that modification?

15 MR. KRIEGER: Objection, form,
16 incomplete hypothetical.

17 A. They certainly could try. I don't know
18 a registered design professional who has ever
19 approved that type of a -- I've never seen it
20 before. I've never seen a building department
21 approve something like that.

22 Q. (By Ms. van Keulen) Have you seen
23 modifications to hangers approved by design
24 professionals, though?

25 MR. KRIEGER: Objection, form.

1 A. No, I never have.

2 Q. (By Ms. van Keulen) Never? You've
3 never seen a --

4 A. No. Never seen an RFI that -- that
5 approves a modification to an engineered hanger.
6 And if I -- if I may, part of our construction
7 defect work that we do is we look at all of the
8 blueprints and all of the RFIs. I've looked at tens
9 of thousands of RFIs in my career.

10 I have yet to ever find an RFI where
11 they've asked for modification of an engineered
12 hanger in the field. We want to do this field
13 modification of this hanger from Simpson, for MiTek,
14 from anybody, and I've never yet seen that --
15 anybody ask for that.

16 Q. Is the request then more of a
17 substitution request?

18 MR. KRIEGER: Objection, form.

19 A. Yes. You'll see a substitution request
20 or quite frankly they just don't ask at all. They
21 just do what they want to do.

22 Q. (By Ms. van Keulen) And we talked
23 about the -- preventing the rotational moment forces
24 and how it is possible to potentially modify the
25 hanger to combat those forces if the hanger couldn't

1 combat those forces in its original form.

2 The same could be said about the other
3 two functions, correct, that if the hanger in its
4 original form couldn't perform those two functions
5 there could be some potential modifications that
6 could be made to those hangers?

7 MR. KRIEGER: Objection, form,
8 misstates the witness's prior testimony, compound.

9 A. Yeah, could you break it apart a little
10 bit? That was actually kind of compound.

11 Q. (By Ms. van Keulen) No worries. No, I
12 was just saying we talked about how -- while we got
13 into like the approval and nonapproval, that
14 modifications are possible to prevent the impact of
15 rotational moment forces, correct?

16 MR. KRIEGER: Objection to form.

17 A. Yes, anything is possible. However,
18 the first thing you learn in your first day of class
19 taking -- I have over 400 hours of training from the
20 International Code Council in interpreting building
21 codes.

22 The first thing you learn in your first
23 class is the word shall. They put up big letters
24 shall. Building code is full of the word shall.
25 S-H-A-L-L. Shall. Means has to be done, okay?

1 So in that instance that modification
2 has to be, shall be approved by the code official.
3 Shall be designed by a design professional in the
4 jurisdiction. Those are very clear messages that
5 would impact that decision.

6 Q. (By Ms. van Keulen) And my question
7 was just as we discussed with the rotational moment
8 forces, for the other two essential functions that
9 you described in that paragraph, is it possible that
10 modifications could be made to a hanger to allow it
11 to perform those functions?

12 MR. KRIEGER: Objection, form,
13 misstates the witness's prior testimony, incomplete
14 hypothetical.

15 A. I don't believe that you could
16 modify -- physically modify or manipulate the hanger
17 itself. Cutting into it, removing part of it,
18 making it smaller. That's different than adding
19 additional strapping to the assembly.

20 So what I was talking about
21 modification was adding additional strapping to the
22 assembly of some -- some kind, blocking, strapping,
23 something like that. I don't believe any
24 modification should be or would be allowed ever to
25 be done to the hanger itself.

1 Q. (By Ms. van Keulen) Okay. Could you
2 add to the hanger to create those other two
3 essential functions?

4 MR. KRIEGER: Objection, form.

5 A. Again, with approval. Yes.

6 Q. (By Ms. van Keulen) Moving to the next
7 paragraph, paragraph 23 that's on the next page.
8 And there are several types of construction listed
9 here. Do you have experience with all of these
10 types of construction?

11 A. Yes.

12 Q. Is there one type of construction that
13 you're more familiar with than others?

14 A. No.

15 Q. And what you have here is an excerpt
16 from the 2012 IBC, but in regards to the type three
17 construction that's listed here, this isn't the
18 first time -- that wasn't the first time type three
19 construction has been in a code, correct?

20 MR. KRIEGER: Objection, form.

21 A. Correct.

22 Q. (By Ms. van Keulen) What about type
23 three construction in wood?

24 A. Well, type three construction, the --
25 typically the exterior elements are noncombustible,

1 but on the interior of the building we're using wood
2 framing. So it's concrete structure. Hell, it
3 could be even steel stud construction on the
4 outside.

5 I don't know why you would not use
6 steel on the inside, but you could do interior walls
7 then out of wood. I think the real takeaway here is
8 the type one and two you really can't have
9 combustible materials inside the building at all
10 other than the ones you bring in like your desks and
11 your chairs and those kinds of things once it's
12 built.

13 So we want all of our interior stud
14 walls to be steel. We want all our exterior to be
15 masonry, stone, poured concrete, steel, something
16 like that. Three is where we get into that mix of
17 exterior noncombustible but we're going to allow
18 interior to be combustible material. So now we got
19 to figure out how do we protect them and fire rate
20 them.

21 Q. (By Ms. van Keulen) Do you recall
22 when -- sorry. Let me back up.

23 So type three construction always
24 entailed some wood element?

25 A. Yes.

1 Q. And however, while it's been in the
2 code for a long time, it wasn't very common for a
3 while. Would you agree?

4 MR. KRIEGER: Objection, form.

5 A. I just have to think for a second on
6 some of the -- yeah, I would say less common, but we
7 certainly would see it. I mean, I can -- I'm
8 thinking of some buildings that we've done forensic
9 work on either after fires or major damages that are
10 condominiums that are concrete construction, but all
11 the interiors are wood frame, and some of those are
12 from the mid to late seventies in terms of when they
13 were built.

14 Q. (By Ms. van Keulen) So would you agree
15 with me that there was not a lot of demand for type
16 three construction before the late 2000s when
17 industry groups like Woodworks or others like
18 Woodworks started to really push for the higher use
19 of wood generally and more wood in type three
20 structures?

21 MR. KRIEGER: Objection, form,
22 foundation, outside the scope of the declaration.

23 A. All I can tell you is that we were --
24 we were seeing more presentations being done by
25 Woodworks and people -- organizations like that

1 to -- trade groups about building taller
2 construction, if you will.

3 Really where it came in -- it had less
4 to do with the size of the first floor. It had more
5 to do with now we're starting to stack two, three,
6 four, and now five and in some case six floors all
7 built out of wood.

8 That wasn't being contemplated before
9 we had the big change in hanger, fasteners, and
10 quite frankly more engineering that was done on all
11 of these products to say, yeah, this is going to
12 work.

13 Q. (By Ms. van Keulen) And do you recall
14 generally when those presentations started to occur?

15 MR. KRIEGER: Objection, form.

16 (Court reporter interruption.)

17 MR. KRIEGER: Form, foundation, outside
18 the scope of the declaration.

19 A. I don't know specifically. I can't
20 recall when we started hearing that in the industry.

21 Q. (By Ms. van Keulen) And you -- you
22 kind of touched on this that the demand for the
23 taller structures, that was allowed because of the
24 development of joist hangers or firewall hangers
25 that would allow for the firewalls to be built in

1 these type of structures, correct?

2 MR. KRIEGER: Objection, form,
3 misstates the witness's prior testimony, outside the
4 scope of the declaration.

5 A. I don't know that it was just for
6 firewalls. Really it wasn't a firewall issue. It
7 was more of a structural load path issue.

8 Q. (By Ms. van Keulen) And in preparing
9 your declaration you did not do any analysis
10 regarding the demand for type three wood structures,
11 correct?

12 MR. KRIEGER: Objection, form.

13 A. Correct, I did not research anything.

14 Q. (By Ms. van Keulen) Going over to
15 paragraph 34 of your declaration on page 19. Let me
16 know when you're there.

17 A. I'm there.

18 Q. How -- Mr. Irmiter, how do you define a
19 person of skill in the art?

20 MR. KRIEGER: Objection, form, outside
21 the scope of the declaration.

22 A. Well, this would be somebody who has
23 built two-hour fire rated assemblies and has created
24 penetrations through those assemblies and has sealed
25 those assemblies to meet the current fire code

1 requirements at the time of installation. That's
2 what I mean by that.

3 Q. (By Ms. van Keulen) And did you come
4 up with that definition yourself in writing this
5 declaration?

6 A. Yes.

7 Q. Going to paragraph 41 on page 23. Let
8 me know when you're there.

9 A. Yes.

10 Q. So in this paragraph you talk about
11 generally failures that can happen as a result of
12 installation when -- like with hangers with a
13 load-bearing problem. Would you generally agree
14 with me with a summary of that paragraph?

15 MR. KRIEGER: Objection, form.

16 A. Yes.

17 Q. (By Ms. van Keulen) Okay. Have you
18 seen those types of failures described in paragraph
19 41 in the products at issue here?

20 A. No.

21 Q. (By Ms. van Keulen) Looking at the
22 next paragraph, paragraph 42, and so there's the
23 paragraph and there's a figure that you point to in
24 that paragraph, which is actually on the next page,
25 24. You describe this figure as an example of water

1 damage occurring during framing at a firewall prior
2 to dry-in, correct?

3 A. Yes.

4 Q. However, does -- is this image show --
5 the fact that there are roof trusses at the top of
6 the wall mean that this is not a firewall?

7 A. Those aren't roof trusses at the top of
8 the wall.

9 Q. What are they?

10 A. This is -- this is on the second floor
11 of a four-story building called the Metropolitan. I
12 took this photo personally on 5-9-2019.

13 Q. All right. Do you recall -- if you say
14 those aren't roof trusses, do you recall what they
15 are?

16 A. They're floor trusses.

17 Q. Floor trusses. I apologize if you said
18 that and I didn't hear it. Backtracking slightly to
19 paragraph 38, page 21. Let me know when you're
20 there.

21 A. Yes.

22 Q. So you state in the first sentence here
23 (quote as read):

24 The commercially available hangers and
25 installation methods on the market at

1 the time of 1997 -- at that time of
2 1997 and before, and up until 2014 when
3 MiTek produced the FWH hanger,
4 generally required penetration of the
5 firewall at the mounting point of the
6 hangers.

7 The sentence continues. Do you see
8 that there?

9 A. Yes.

10 Q. What do you mean by generally required?

11 A. That generally would mean how -- how
12 much sheetrock did they cut away at the interface of
13 the hanger. I gave you a demonstration of how it
14 was done in the old days with face nailing and then
15 we would notch around the joist itself.

16 Now I have a hanger. I'm notching
17 around a hanger. Are we notching -- are we -- so
18 the legs of the hanger on either side, that
19 measurement might be an inch and a half out from the
20 actual wood member itself, the joist. So am I
21 notching to the edge of that an inch and a half or
22 am I notching right up to the joist?

23 Okay? The problem with that is the
24 size of those hangers have dimples that stick out.
25 And so I'm going to push a piece of drywall into

1 those dimples and I'm going to break that drywall.
2 So I'm using that word because I've seen both done.
3 I've seen them cut it all the way to
4 the edge and the bottom -- and damage the sheetrock
5 as they push it in and I've seen them cut it wide
6 enough to go all the way to the end of the flange
7 and then fill in with fire caulk an inch and a half
8 wide.

9 Q. Before 2014 when MiTek produced the FWH
10 hanger, did you see any instances where the -- where
11 the firewall -- or the sheetrock was not cut?

12 A. No.

13 Q. Flipping forward to paragraph 40 on
14 page 22. Are you there, Mr. Irmiter?

15 A. I am.

16 Q. Here you list out examples of
17 work-arounds. That's how you describe these that
18 you've seen in the field. Is that -- is that
19 correct?

20 A. Yes.

21 Q. Is this a complete list of work-arounds
22 that you've seen in the field?

23 MR. KRIEGER: Objection, form.

24 A. No. I have also seen the application
25 of spray-on fireproofing.

1 Q. (By Ms. van Keulen) Can you describe
2 that for me, please?

3 A. Yes. Fireproofing is -- is a material
4 that gets sprayed on steel and/or wood. It's
5 required in buildings that are over two stories on
6 all of the steel columns and steel beams. It's also
7 required on wood columns and wood beams. So you
8 could either wrap that in sheetrock or you could
9 just come in and just spray it with fire coating.

10 Q. And for these work-arounds there are
11 instances where you saw -- as I think we've
12 discussed -- where the drywall was cut to fit around
13 the hanger?

14 A. Yes.

15 Q. And we've talked about that there was
16 variations in how close those cuts could be made,
17 correct?

18 A. Yes.

19 Q. And the closest -- what was the closest
20 you saw that those cuts could be made?

21 MR. KRIEGER: Objection, form.

22 A. Well, the closest would be right up to
23 the -- right up to the wood member basically, but it
24 still didn't -- the problem is that's still not a
25 complete, continuous firewall in any of those

1 applications because I have wood joist on wood beam.
2 I have wood on wood at that point still, so it's
3 not -- I don't have a continuous firewall.

4 Q. (By Ms. van Keulen) And for these --
5 these work-arounds that you've identified in
6 paragraph 40, were any of these work-arounds found
7 to be code compliant?

8 MR. KRIEGER: Objection, form.

9 A. In my opinion, none of these
10 work-arounds would be code compliant. Bullet point
11 number two would be the closest to being code
12 compliant provided that there was design of the
13 cantilever hangers, the nails, excuse me, or
14 fasteners, that those were engineered for the load
15 path.

16 Q. (By Ms. van Keulen) So going to page
17 17 of your definition, let me know when you're
18 there.

19 A. Page 17?

20 Q. Yes.

21 A. All right.

22 Q. So generally throughout your
23 declaration you talk about how building codes
24 require that fire partitions be continuous, that
25 there would be concerns about aggregate effect of

1 penetrations in a firewall. Would you generally
2 agree that your declaration discusses those
3 concerns?

4 MR. KRIEGER: Objection, form.

5 A. Yes.

6 Q. (By Ms. van Keulen) But the FWH, the
7 MiTek FWH that embodies the '339 patent, that also
8 requires penetrations in the firewall, does it not?

9 MR. KRIEGER: Objection, form.

10 A. I wouldn't call it a penetration. It
11 does require a slit. It does require a cut. Not a
12 hole. We're not cutting away a large section of
13 sheetrock or drywall. We're doing a simple cut slit
14 and sliding it up into place.

15 Q. (By Ms. van Keulen) So --

16 A. Where it's -- I'm sorry. Where it is
17 sliding up into place, behind that is steel. So I
18 have -- that's what's unique about this -- what's
19 unique about this product is that it has that steel
20 also behind it.

21 So I have -- I have the wood beam, I
22 have the MiTek hanger and steel, and then I have the
23 sheetrock. So where I'm making my slit, the slit is
24 protected by the steel of the engineered and
25 approved hanger.

1 So it -- the method is really I think
2 key to this particular product, that method of
3 installation. But I don't need to caulk that --
4 that cut now, I don't need to caulk that cut because
5 I've got the steel behind it.

6 Q. So the penetration -- so let me -- when
7 sheetrock is being installed with the MiTek, there
8 is no notch being cut out, there's no hole as you
9 said. It's like a slit where if I'm looking at it,
10 it looks still whole. Like it looks still complete
11 I should say, like there's no -- there's no break in
12 the drywall?

13 MR. KRIEGER: Objection, form,
14 compound, incomplete hypothetical.

15 Q. (By Ms. van Keulen) I'm just trying to
16 get an understanding of like the difference in the
17 cuts that are being made and what you've observed in
18 other work-arounds versus the cut that is made in
19 the sheetrock that's being installed with the FWH.
20 I'm just trying to clarify that difference.

21 MR. KRIEGER: Objection, form.

22 A. As I said before, the FWH is -- it's a
23 single cut, cut wide enough to accept that channel,
24 and the sheetrock is slid up into place. So now
25 everything that needs to be protected is now

1 protected.

2 The wood is protected and at the cut
3 the wood is protected by the back side of the
4 hanger. In the other applications you physically
5 are -- in all the other applications you're still
6 have wood to wood.

7 So you have wood to wood which now this
8 Simpson -- I'm sorry, the MiTek hanger has taken
9 that out of the equation is huge in terms of that --
10 that continuous assembly. So yes, you could -- on
11 the other ones you do have to cut sheetrock -- some
12 sheetrock out of the way around the hanger, and
13 yeah, you can fill that with fire caulk, but I still
14 have the wood-to-wood connection behind all that.

15 Q. (By Ms. van Keulen) So the fact that
16 in installing the FWH you only have to make a very
17 narrow slit is very -- is important?

18 MR. KRIEGER: Objection, form.

19 A. That's important for the ease of
20 installation. I have now eliminated in the process
21 the methodology of this particular hanger, I've
22 eliminated need -- needing to have a framing crew
23 touch any sheetrock on this job.

24 I've eliminated exposing any of that
25 prerocking, presheetrocking to exposure before the

1 building is dried in for water damage and mold. And
2 I've reduced my cost because I have people
3 installing sheetrock who install sheetrock every
4 single day. And that little slit that they're
5 making is protected by the design of the hanger, the
6 backside of that hanger, the metal on the hanger.
7 It's just really unique.

8 MS. VAN KEULEN: I've just a couple
9 more -- I know we've been going for over an hour,
10 but I just have a couple more questions, but if you
11 would like to take a break.

12 MR. KRIEGER: Yeah, if you have only a
13 couple more that should be fine.

14 MS. VAN KEULEN: Yeah, we're not going
15 to go like another 30 minutes I don't think. So we
16 can keep going or we can take a short break now.

17 THE WITNESS: Can I get a quick cup of
18 coffee behind me?

19 MS. VAN KEULEN: Yeah, let's --

20 THE WITNESS: Let's take five.

21 MS. VAN KEULEN: Yeah.

22 THE WITNESS: That would be great.

23 Thanks.

24 (WHEREIN, a recess was taken from
25 11:12 a.m. to 11:18 a.m.)

1 Q. (By Ms. van Keulen) One thing -- or if
2 you could -- we're going to start at paragraph 35 on
3 page 20. You might be there already. Let me know
4 when you're there.

5 A. Okay.

6 Q. Okay. So in this paragraph you discuss
7 how prior to the market release of the FWH in 2014
8 the construction industry would have discouraged the
9 use of any penetrations into the firewall around the
10 joist hangers, correct?

11 A. Yes.

12 Q. And so what changed after the
13 introduction of the MiTek firewall hanger in 2014?

14 MR. KRIEGER: Objection, form.

15 A. As I already discussed, the methodology
16 for design of the firewall completely changed and
17 was impacted by this. It allowed us to get away
18 from preinstalling gypsum at the firewalls prior to
19 dry-in and left that up to the sheetrockers when
20 they came in after rough-in inspection was
21 completed.

22 Q. (By Ms. van Keulen) And in -- well,
23 sorry. Sorry. But the -- the IBC allows
24 penetrations in firewalls, correct?

25 MR. KRIEGER: Objection, form.

1 A. Oh, yes.

2 Q. (By Ms. van Keulen) So penetration --
3 like just because there's a penetration in a drywall
4 doesn't mean that something isn't code compliant,
5 correct?

6 MR. KRIEGER: Objection, form,
7 incomplete hypothetical.

8 A. Perhaps the word penetration is maybe
9 mischaracterized around the hangers. It's not
10 really a penetration. It's an incomplete -- it's
11 incomplete continuity of firewall that's occurring.
12 A penetration is something that is cut for the
13 purposes of running wiring, running piping, cabling,
14 those type of things.

15 That's not why the sheetrock was being
16 cut at the hanger. So I guess I couldn't think of a
17 better word than penetration. I used it as
18 penetration, but in effect it's really not a
19 penetration. It's a removal or cutting away of
20 drywall to accommodate the hanger.

21 Q. (By Ms. van Keulen) And how is that
22 different than what you just discussed where drywall
23 is cut out for a light switch?

24 MR. KRIEGER: Objection, form,
25 incomplete hypothetical.

1 A. So the drywall is cut out for the light
2 switch. If it's in a fire-rated wall, that light
3 switch is going to be attached to the wood joist on
4 one side. That is going to be a fire-rated box that
5 is sealed and designed specifically for that type of
6 a penetration. That would be different than cutting
7 away the sheetrock and simply installing fire caulk
8 because I still haven't addressed the wood-to-wood
9 connection behind the fastener -- the hanger.

10 Q. (By Ms. van Keulen) So going to
11 paragraph 43 of your declaration, that's on page 24.

12 A. Thank you.

13 Q. The first sentence of that paragraph
14 states (quote as read):

15 In my opinion, the engineered
16 cantilever in the MiTek hanger was an
17 innovative part of the FWH.

18 Is that what you're talking -- is that
19 what you're talking about when you're talking about
20 the fact that there's steel behind -- you know,
21 drywall, then steel, then wood?

22 MR. KRIEGER: Objection, form.

23 A. Well, yes because it's addressing two
24 things at once. It's addressing the steel in place
25 between the drywall and the wood. So I'm protecting

1 for fire rating, but the design comes up at an
2 angle.

3 And that angle is really the key to the
4 hanger having its -- its cantilever being able to
5 support the load. For example, if I build at your
6 house, Lindsay, a bay window, I put a bay window in.
7 Typically I put in --

8 Q. I have a bay window.

9 A. If it's not on a foundation, okay, it's
10 up above ground, I'm typically putting two 4 by 4
11 posts to go back into the building, creating that
12 angle, that structural support from rotation and
13 tilt. That's what the MiTek hanger does with that
14 angle.

15 I've seen hangers where people have
16 taken the hanger that has say three nails on the top
17 for a top hanger and they'll move it out, all right,
18 and they'll just use one nail going back at an
19 angle.

20 So you can actually look up and you can
21 see the two holes that aren't being used because
22 they're floating in air, but that creates space then
23 for the sheetrock. The problem is the hanger then
24 tilts because it doesn't have anything coming back
25 at an angle to support it. This is the first one

1 that did that.

2 Q. As an aside, that's exactly how the bay
3 window at my house looks like, so I'm able to follow
4 that completely. On the next page, paragraph 46 you
5 talk about hanger applications being utilized in
6 construction prior to the FWH hanger and its
7 installation method that penetrated the firewall.

8 And you say that those did not
9 adequately maintain the fire-resistive rating of the
10 two-hour fire resistive assembly wall requirements
11 to meet the code requirements. Is that correct?

12 A. Yes.

13 Q. But are you aware that the Simpson DU,
14 DHU hangers which we've -- we talked about way at
15 the beginning of this deposition have been tested
16 and have received flame and temperature ratings
17 for -- for use on one or both sides of the wall?

18 MR. KRIEGER: Objection, form,
19 misstates the witness's prior testimony, outside the
20 scope of the declaration.

21 A. I didn't really look at all of the -- I
22 mean, I looked at those hangers but I did not study
23 those particular hangers. I do -- I do say -- in
24 the last paragraph I talk about that (quote as
25 read):

1 And the more recent addition to the
2 market of similar hangers and methods
3 by Simpson.

4 So I'm aware that there is a product
5 out there that Simpson has that has been approved.

6 Q. (By Ms. van Keulen) Going to that next
7 page on that last paragraph, you talk about how the
8 use of the FWH has eliminated the need for
9 engineered design options or work-arounds at these
10 installation locations in firewalls, correct?

11 A. I have, yes.

12 Q. What do you mean by eliminated the
13 need?

14 A. Okay. So the building code, when --
15 prior to 2000 there were I believe eight different
16 building codes around the United States. And each
17 jurisdiction had its own -- the Uniform Building
18 Code was the main code.

19 Starting in 1998 the industry began
20 putting together what was going to be the
21 international family of building codes, the ICC. It
22 took effect in 2000. All right? Within that --
23 that's also when they codified the difference
24 between the other codes that were out there.

25 Some of the codes that were out there

1 were performance based. In other words, you can do
2 anything you want as long as it performs and you
3 have testing to prove from a third-party independent
4 agency that what you're going to do meets the
5 minimum requirement of code.

6 You had other codes that were
7 prescriptive. Do it this way, cut -- if you're
8 going to cut your studs exactly this size, use
9 exactly 125 nails on your exterior plywood sheeting
10 for an eight-foot sheet of -- or a 4 by 8 sheet.

11 Don't use any more, don't use any less.
12 Very prescriptive, very cut and dry, right? This
13 combined both prescriptive and the other method
14 of -- in the other code basically.

15 So as long as you are using a
16 prescriptive path, and that's where the ICC ESR
17 reports come in, the first thing you do is you look
18 at the ES, is there an ES report on this particular
19 hanger? Yes, there is.

20 What does it say, how does it say it
21 should be used and what's the application it should
22 be used in? Awesome. That's -- that's
23 prescriptive. I don't need an engineer now to
24 design my wall because the building code has done it
25 for me. So it lowers the cost of construction by

1 making more universal design decisions that are
2 accepted and already approved.

3 Q. So when you said eliminated the need,
4 that doesn't mean that work-arounds like what we
5 talked about earlier no longer exist?

6 A. No, it doesn't mean that work-arounds
7 no longer exist. It also doesn't mean that the code
8 requires generally in most every jurisdiction that
9 if you are pulling a building -- you need a building
10 permit and you need to submit a design.

11 Most -- a lot of jurisdictions don't
12 require architectural engineering on residential.
13 State of Virginia, for example, does. Okay? If I
14 want to put that bay window in that you have at your
15 house, I have to have an engineer actually -- as
16 simple as it is to do, I have to have an engineer
17 supply a plan and stamp it to get that bay window.

18 Minnesota you don't have to do that.
19 Wisconsin you don't have to do that. Contractor can
20 just say, hey, I'm going to put a bay window in
21 because he's going to follow the prescriptive path.
22 So it didn't eliminate engineering at all.

23 Engineers are still required to stamp
24 that overall plan, but what it did allow the
25 engineers to do is in their notes, say use this

1 fastener, this fastener, or this fastener, or this
2 hanger, this hanger, this hanger, and you're going
3 to be fine. So it gave an a la carte option.

4 MS. VAN KEULEN: Okay. Mr. Irmiter, I
5 have no further questions.

6 MR. KRIEGER: All right. We reserve
7 the right to read and sign.

8 COURT REPORTER: Counsel, forgive the
9 usual routine here, but Lindsay, other than the
10 realtime feed, the rough draft at the end of the
11 day, an electronic final in normal turnaround,
12 correct?

13 MS. VAN KEULEN: If that's what's
14 normally been the standing order, then yes, but
15 yeah, rough -- rough today would be -- is needed for
16 sure.

17 COURT REPORTER: And Tim, same thing,
18 realtime today, no rough if I remember correctly,
19 and final electronic, correct?

20 MR. KRIEGER: That works.

21 (Ending time of the deposition: 11:30 a.m.)

22

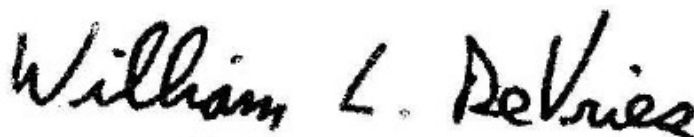
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I, William L. DeVries, a Certified Court Reporter (MO), Registered Diplomate Reporter, and a Certified Realtime Reporter, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me pursuant to Section 492.010 RSMo; that the testimony of said witness was taken by me to the best of my ability and thereafter reduced to typewriting under my direction; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken, and further that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the action.



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