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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON
PORTLAND DIVISION

MASONRY BUILDING OWNERS OF)
OREGON, an Oregon mutual)
benefit nonprofit corporation,)
FOUNTAIN VILLAGE DEVELOPMENT)
LLC, an Oregon limited)
liability company, and JIM A.)
ATWOOD, in his capacity as)
trustee of the Jim. A. Atwood)
Trust dated August 10, 2017,)

Plaintiffs,)

Case No. 3:18-cv-02194-AC

v.)

May 15, 2019

TED WHEELER, in his official)
capacity as Mayor of the City)
of Portland and Commissioner)
in charge of the Bureau of)
Development Services, JO ANN)
HARDESTY, in her official)
capacity as Commissioner in)
charge of the Fire Bureau, and)
CITY OF PORTLAND, an Oregon)
municipal corporation,)

Defendants.)

ORAL ARGUMENT

TRANSCRIPT OF PROCEEDINGS

VOLUME 2

BEFORE THE HONORABLE JOHN V. ACOSTA

UNITED STATES DISTRICT COURT MAGISTRATE JUDGE

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TRANSCRIPT OF PROCEEDINGS

(May 15, 2019)

(In open court:)

MR. DiLORENZO: Your Honor, Counsel and I have conferred about the course that we would like to suggest we take this morning.

THE COURT: Go ahead.

MR. DiLORENZO: The next three witnesses are the City's witnesses. They're Michael Hagerty, Shelly Duquette, and Amit Kumar. We've made arrangements for them to be here this morning.

Because of the City's witnesses, Ms. Moynahan will conduct the directs as if they're her witnesses, and then I'll cross.

THE COURT: Sure. Sounds good.

MR. DiLORENZO: And then this afternoon we'll revert to our regular course, and we will call our last three witnesses in the afternoon.

THE COURT: All right.

MR. DiLORENZO: Thank you, Judge.

Mr. Swift, you're late.

MR. SWIFT: I apologize, Your Honor.

THE COURT: You have to sing now.

MR. SWIFT: I'm ready to sing. Happy to belt it out, Your Honor.

THE COURT: It's warm in here. I told the lawyers

Hagerty - D

1 you can take your jackets off. That's fine.

2 All right. So, Ms. Moynahan, I suppose we're going to
3 start with you, then.

4 MS. MOYNAHAN: Yes, Your Honor. We will call
5 Michael Hagerty, please.

6 THE COURT: All right. Mr. Hagerty, if you would
7 come forward, please.

8

9 MICHAEL HAGERTY,
10 called as a witness on behalf of the Defendants, being first
11 duly sworn, is examined and testified as follows:

12

13 DEPUTY COURTROOM CLERK: Please state your name for
14 the record and spell your last name.

15 THE WITNESS: Michael R. Hagerty, H-a-g-e-r-t-y.

16

17 DIRECT EXAMINATION

18 BY MS. MOYNAHAN:

19 Q. Good morning, Mr. Hagerty, can you state for the record
20 what your current employment is.

21 A. I'm mainly retired, but I work part time for a small
22 engineering firm.

23 Q. And what firm is that?

24 A. Talbott Associates, Incorporated.

25 Q. And have you ever been employed by the City?

Hagerty - D

1 A. I have.

2 Q. Can you please tell us what your employment was?

3 A. I worked for the City in the -- at the time it was called
4 Bureau of Buildings. I was an engineer, structural engineer,
5 who viewed plans for a while. And then eventually, when I
6 retired, I was the supervisor of the Engineering Plan Review
7 Section.

8 Q. And is that the bureau that eventually became the Bureau
9 of Development Services?

10 A. That's correct.

11 Q. Okay. And how many years were you a structural engineer
12 for the City?

13 A. Approximately 23 years, 24 years.

14 Q. From 1975 to '03?

15 A. It's closer to 1979.

16 Q. Okay. And you retired in 2003?

17 A. That's correct.

18 Q. Okay. And what were your job duties as the Engineering
19 Plan Review Section supervisor?

20 A. I oversaw structural engineers who reviewed plans and
21 documents that were associated with building permit
22 applications for buildings in the city.

23 Q. Okay. And do you have any other experience related to
24 building structures? Any committees or associations?

25 A. Yes. I was past president of the Structural Engineers

Hagerty - D

1 Association of Oregon. I'm a member of the Earthquake
2 Engineering Research Institute. I worked as a private
3 consultant before I worked for the City.

4 Q. Are you a licensed PE? Professional engineer?

5 A. I am a licensed professional engineer. Structural and
6 civil.

7 Q. Okay. Are you familiar with unreinforced masonry
8 buildings?

9 A. I am.

10 Q. How is it that you're familiar with them?

11 A. Through my experience in design and research.

12 Q. Okay. And did you sign a declaration last month in this
13 lawsuit?

14 A. I did.

15 MS. MOYNAHAN: And, Mr. Gale, would you please give
16 to the witness the City's exhibits? The second binder that
17 starts at 106.

18 THE COURT: Mr. Hagerty, we have the exhibit binders
19 right here. The City's are in blue and the plaintiffs' are in
20 orange.

21 So if you go to the City's binders, they are marked one
22 and two.

23 MS. MOYNAHAN: Thank you.

24 BY MS. MOYNAHAN: (Continuing)

25 Q. I'll ask you to turn to Exhibit 132, please.

Hagerty - D

1 A. 132?

2 Q. It's a binder that starts with 106. I'm not sure what you
3 have there.

4 Is this a copy of the declaration that you've signed?

5 Oh, I'm sorry.

6 A. Yes, it is.

7 Q. Okay. In paragraph 2 you discuss -- or you state that in
8 the mid 1990s the City undertook a project to create a database
9 of unreinforced masonry buildings and you supervised it.

10 Can you please tell the Court exactly what you were
11 charged with doing -- how the database project came about.

12 A. In the mid 1990s, it became -- it was -- it became more
13 knowledge -- in the mid 1990s the state of knowledge about
14 seismicity in Oregon changed. There was recognition that there
15 was a higher incidence or a higher chance of a large earthquake
16 in our area. The state building code changed. And in my work
17 as an engineer in researching and reading documents and
18 periodicals, it's apparent that unreinforced masonry buildings
19 were at particular hazard in earthquakes, more so than any
20 other type of construction.

21 Because of this information and knowledge, the bureau felt
22 it was important to have an idea of the extent of the problem
23 in Portland as far as the number of unreinforced masonry
24 buildings in the city, and so in the process of trying to
25 determine how many there were, we decided to hire work study

Hagerty - D

1 students from Portland State University, train them, and do a
2 survey of buildings to determine how many there were available
3 and roughly what size they were.

4 Q. So let me stop you there, if I may.

5 Was this solely on your own initiative that you undertook
6 this project?

7 A. No. It was under the guidance -- I consulted with my
8 director.

9 Q. Okay. And when you said you enlisted the help of
10 students, were those PSU students?

11 A. They were Portland State University engineering students.

12 Q. Okay. And can you please tell us, first of all, what did
13 you -- what you were going to do with these students, what you
14 were going to ask them to do?

15 A. We were going to ask them to do -- walk around the city --
16 walk around the streets and try to determine which buildings
17 were unreinforced masonry buildings. We trained them first in
18 a methodology that was developed by FEMA.

19 Q. Can you please tell us exactly what the methodology was?

20 A. It's a rapid value -- rapid -- I don't know the exact
21 word. Rapid visual screening for buildings, and it has been
22 used extensively to do evaluation of buildings either before or
23 after earthquakes.

24 We trained them. And then as they -- we also showed them
25 records that the City had that would help determine the type of

Hagerty - D

1 construction of the buildings, building permit records, as well
2 as Sanborn maps.

3 Q. Let me stop you there again.

4 Can you please turn to Exhibit 115 in your notebook.

5 You mentioned -- you just mentioned rapid visual
6 screening. Is this exhibit -- is this related to the screening
7 that you were performing with the students?

8 A. Yes. This is -- this document here is a subsequent
9 version of the document we used.

10 Q. So you used the version at the time?

11 A. Yes.

12 Q. And exactly how did you train these -- there's water in
13 front of you. I'm not sure --

14 A. It's a cold. I don't know if it's going to help.

15 Q. Help yourself to the water.

16 Exactly how did you train the students? You mentioned you
17 trained them, but what was entailed in that? Did you go
18 through the manual with them? What exactly did you do?

19 A. First of all, we hired students that were juniors and
20 seniors, so they had some experience and some training in
21 engineering.

22 Secondly, what we do is we would show them the document,
23 have them read it, and then I would take them, walk around some
24 streets where I knew there was unreinforced masonry buildings,
25 and let them determine whether or not there were any and how

Hagerty - D

1 they -- how they determined it. And then we took them to the
2 building permit records, showed them how to access those and
3 how to read them and showed them the Sanborn maps and showed
4 them how to read those.

5 And after they were trained and -- in groups of two or
6 three, they would go out in areas of the city and do a survey.

7 After they -- while they're doing that, I would spot-check
8 their work to make sure they weren't -- make sure they're doing
9 it correctly.

10 Q. Okay. I'll ask you to turn to page -- on that
11 Exhibit 115 -- 101 of 163. They're marked in the lower
12 right-hand corner.

13 Did you -- I'm sorry.

14 A. Okay.

15 Q. Can you tell me what this is that we're looking at here?

16 A. This is 101?

17 Q. Yes.

18 A. This is a form that's used for people who are performing a
19 rapid visual survey to --

20 Q. Did you -- sorry. Go ahead.

21 A. And they would evaluate it, evaluate the building, and
22 record scores and information on it.

23 Q. Did you use a similar form with your students?

24 A. We used a similar one, yes.

25 Q. Did you walk them through the form so they would know how

Hagerty - D

1 to fill it out?

2 A. Yes.

3 Q. Okay. How many buildings did the students look at?

4 A. Well over 2,000. Because the original number of
5 unreinforced masonry buildings that they came up with was
6 around 12- or 1,300.

7 Q. So when you mentioned 2,000, is that because not all of
8 them were URMs?

9 A. That's correct.

10 Q. Did you perform any quality control over the work that the
11 students did?

12 A. As I said, I did spot-checks to verify that they were
13 doing it correctly.

14 Q. Okay. Did you find a lot of errors?

15 A. No, not a lot.

16 Q. Is the type of screening they did highly technical --
17 technical?

18 A. It's moderately technical.

19 Q. Okay. What are they looking for when they do these
20 screenings?

21 A. Well, to try to determine the type of -- the structure,
22 the main part of the building that keeps it upright, determine
23 whether it's concrete, reinforced concrete, steel, structural
24 steel, or masonry.

25 Q. Did you have them look at other types of perhaps

Hagerty - D

1 vulnerable buildings?

2 A. No. I mean, as part of their engineering education, we
3 can point out things that may be a problem. But we were
4 focusing on unreinforced masonry buildings. Locating and
5 recording the number of unreinforced masonry buildings.

6 Q. Were you also concerned with soft story or non-ductile
7 concrete buildings?

8 A. Not at that time. I mean, I was personally concerned,
9 but --

10 Q. Are they --

11 A. -- it wasn't part of the survey.

12 Q. Okay. Are they also buildings of concern in an
13 earthquake?

14 A. They can be, yes.

15 Q. Can be.

16 Are URMs considered to be more vulnerable than soft story
17 or non-ductile concrete buildings?

18 A. They are.

19 Q. Do you have a basis for the -- your response? Why?

20 A. Past history of buildings performing or not performing in
21 earthquakes.

22 Q. Structurally, is there a difference?

23 A. Structurally, yes, there's a difference.

24 Reinforced concrete is a little more durable, can
25 withstand more excursions, more motion, before collapsing or

Hagerty - D

1 partially collapsing.

2 Q. How long did this study take for you to have the students
3 assess the buildings?

4 A. I think we did it over a period of three different years.

5 Q. Okay. How did -- did you coordinate the study with
6 Portland State University, or was this your study with PSU
7 students?

8 A. It was our study with PSU students.

9 Eventually, a professor at Portland State University
10 inquired about the database because he was going to use the
11 data for his own studies or purposes, and not all the -- we
12 hadn't covered the entire city yet, and so he said they could
13 cover the rest of the city with his students, and then we could
14 meld the databases.

15 Q. And prior to instituting this database project, did you
16 talk to any other engineers or officials outside of Portland to
17 develop the project?

18 A. I don't think so.

19 Q. Okay. You didn't speak to any jurisdictions in
20 California?

21 A. No, I didn't talk to any of them.

22 Q. Okay. What was -- what were the results of the database
23 study that you performed?

24 A. The results were we located a number of unreinforced
25 masonry buildings. The database was consolidated with Portland

Hagerty - D

1 State University's, and actually it was posted on the City's
2 website with a disclaimer at the top that they're unreinforced
3 masonry buildings and this list may not be totally correct.
4 But usual disclaimers at the top of something like that.

5 Q. And so let's talk about that a little bit more. Were you
6 concerned that the -- with the accuracy of the database?

7 A. No, not -- no, I wasn't concerned, but there's always --
8 it wasn't -- there's no guarantee you'll get everything exactly
9 correct, but I was very confident it was, you know, 95 percent
10 correct or more.

11 Q. Did you have available to you all of the building records
12 for every URM building on the database at the time of your
13 study?

14 A. The building permit records?

15 Q. Right. Or other materials you would have relied upon to
16 confirm the URM database.

17 A. I believe most -- almost all of them, yeah.

18 Q. Okay.

19 A. There may have been a few that records were missing.

20 Q. Okay. And what did you do with the database after the
21 surveys were complete?

22 A. We consolidated it and digitized it.

23 This happened in the mid '90s, and so it was a time when
24 computer information was still developing, so we -- we put it
25 on a database, basically. A spreadsheet.

Hagerty - D

1 Q. Were the PSU data and your data overlapping? Were they
2 mutually exclusive?

3 A. They were intended to be mutually exclusive.

4 Q. And so what was the scope of the PSU data?

5 A. I'm not sure I understand your question.

6 Q. Geographically, were you looking at the same buildings?

7 A. No. We -- we looked at buildings -- we started at the
8 center of the city, in the older part of the city where I knew
9 there was more unreinforced masonry buildings than further out,
10 and so we did the center part -- central part of the city
11 mainly and then worked out from there, and Portland State
12 University did some of the outlying areas, some of the other
13 neighborhoods like St. Johns or places like that.

14 They covered the rest of the city, basically.

15 Q. Okay. As a licensed PE, working -- who's worked
16 structural engineering with URMs, what do you do when you
17 enter a URM?

18 A. Oh, now?

19 Q. Yes.

20 A. Well, I look around to see if it's been upgraded, see if
21 there's been strengthening in any way. And also, because of my
22 previous experience working with fire and life safety, I look
23 for -- make sure there's a proper number of fire exits to the
24 building.

25 Q. Would you live in a URM building?

Hagerty - D

1 A. Not unless it's been upgraded.

2 Q. Okay. Upgraded to the life safety level or upgraded to a
3 different level?

4 A. Probably a little higher level. A little higher level.

5 Q. Higher?

6 A. I'm pausing because I'm getting up in years, and so you've
7 got to figure out, well, I'm not going to live forever, but --

8 Q. When you say "a higher level," do you mean higher than
9 life safety or just close to --

10 A. The life safety level for structural design, the goal of
11 it is to prevent -- or to minimize the amount of life -- life
12 loss in -- in a major event.

13 There are other levels you can do to a building that
14 aren't that much more that would guarantee more preservation of
15 the building as well as life safety.

16 Q. Are you aware of the City's efforts at issue here in this
17 lawsuit to require URM building owners to put placards at the
18 entrance of their buildings?

19 A. I'm aware of this initiative.

20 Q. And have you been reading about it in the press, or how is
21 it you're aware?

22 A. I read about it in the press.

23 Q. Okay. And do you have -- do you believe that placards are
24 important for public safety?

25 A. I believe it's important for the public to know about the

Hagerty - D

1 safety or relative safety of the buildings they're in. There's
2 an expectation on the part of the public that they live in a
3 safe environment.

4 The purpose of the building department is to verify that
5 buildings are constructed in accordance to a code that provides
6 them a minimum degree of public safety. I know these
7 placards -- similar placards have been used in California to
8 identify buildings so that people are aware of what the
9 potential hazard is so they can make informed decisions about
10 whether or not they want to use the building.

11 Q. So this is a sample of the placard that will be required,
12 and it says -- I don't know if you can read it from there.

13 "This is an unreinforced masonry building. Unreinforced
14 masonry buildings may be unsafe in the event of a major
15 earthquake," and then there's a citation to city code.

16 How do you think a placard with this language would
17 increase public awareness?

18 A. Well, the more people that know about these buildings and
19 what they look like, the more they would be able to determine
20 whether or not they want to use the buildings.

21 And indirectly, I suppose, it would encourage owners of
22 the buildings to do something to improve the safety of the
23 buildings.

24 MS. MOYNAHAN: Okay. No further questions. Thank
25 you.

Hagerty - X

1 Oh, I move to admit Exhibit 134, please, which is the
2 declaration.

3 MR. DiLORENZO: No objection.

4 THE COURT: It's received.

5 MS. MOYNAHAN: Thank you. And 115, which is the
6 rapid visual screening study.

7 MR. DiLORENZO: No objection.

8 THE COURT: All right.

9 MS. MOYNAHAN: Thank you, Your Honor.

10 THE COURT: All right.

11

12 CROSS-EXAMINATION

13 BY MR. DiLORENZO:

14 Q. Good morning, Mr. Hagerty.

15 A. Good morning.

16 Q. I'm John DiLorenzo. I'm one of the attorneys for the
17 plaintiffs. I'll have an opportunity to talk with you -- now,
18 I guess.

19 How many engineering students were involved in your
20 project?

21 A. I think about eight, in general.

22 Q. Eight?

23 A. Yeah. I think we had three students for three summers in
24 a row. One of the people -- person -- one of the people doing
25 the surveys was not an engineering student but a former

Hagerty - X

1 building inspector for the City of Los Angeles who had
2 expertise in the area of unreinforced masonry buildings.

3 Q. Okay. So you had eight. You had a team of eight total?

4 A. Each summer we had about three or four.

5 Q. Three or four each summer. Were they the same people?

6 A. Were -- I'm sorry?

7 Q. Were they the same people?

8 A. No. Not necessarily. It -- I can't remember exactly.

9 Some years we had people come back for more than one year.

10 Q. So do you remember who the people were?

11 A. I remember some of them, yeah. Three of them, at least,
12 are currently practicing structural engineers in the city of
13 Portland.

14 Q. Okay. How about -- how about the rest of them?

15 A. One of them moved overseas. One of them is, at last
16 report, still a building inspector.

17 Q. Do you have a record of who was working on the project
18 over these three years?

19 A. I don't have a record, no.

20 Q. As far as you know, does the City have any records of who
21 they were?

22 A. I don't know.

23 Q. How much were they paid?

24 A. I don't remember that. They were work study students.

25 Q. Does this include the students who worked on the PSU side

Hagerty - X

1 of the project?

2 A. No. Those are different students.

3 Q. And how many of those students were there?

4 A. I don't know.

5 Q. Do you know anything about the students who participated
6 on the PSU side of the project?

7 A. I believe they're engineering students. In fact, I'm
8 pretty certain they were engineering students because they were
9 working for a structural engineer who was a professor there.

10 Q. Do you know how many of them were involved in the project?

11 A. I don't know.

12 Q. Do you know how they were trained?

13 A. I don't know that.

14 Q. Do you know even whether they were trained for a fact?

15 A. I'm sure they were trained.

16 Q. You surmise they were trained?

17 A. No. I -- the professor that was supervising them, that
18 utilized them to develop his database, I know well, and I'm
19 sure he would have trained them to properly evaluate buildings
20 because the information he wanted and needed was something that
21 he wanted to be sure was correct.

22 Q. So you're speculating, based on you knowing him, as to
23 what you think he would have --

24 THE COURT REPORTER: I'm sorry. "He would have"?

25 ///

Hagerty - X

1 BY MR. DiLORENZO: (Continuing)

2 Q. Based on you knowing him, you are speculating as to what
3 you think he would have done?

4 A. Based on knowing him and what he was trying to do, yeah.

5 Q. But you don't know for a fact whether they were trained or
6 not?

7 A. I did not witness them being trained.

8 Q. Okay. And did you specifically ask him -- ask him whether
9 they were trained?

10 A. No.

11 Q. And you don't know how many there were?

12 A. I do not.

13 Q. Let's talk about the training you know about. What did
14 the training of your team involve?

15 A. As I explained earlier --

16 THE WITNESS: Am I too far away?

17 THE COURT REPORTER: No, you're fine.

18 THE WITNESS: When I hired them, I verified that they
19 were engineering students. I showed them the records, the
20 building permit records. I showed them the document for rapid
21 visual surveys, explained how it worked. I took them out,
22 showed them some buildings that were unreinforced masonry
23 buildings -- unreinforced masonry buildings, showed them how to
24 fill out the forms.

25 And then after doing that I had them go out and try and

Hagerty - X

1 evaluate, find unreinforced masonry buildings, and verify that
2 they were doing it correctly.

3 BY MR. DiLORENZO: (Continuing)

4 Q. Did you train them all in one group?

5 A. No. They're different.

6 Q. Individuals?

7 A. It was over a period of three different summers that we
8 did this, so it was three different times at least.

9 Q. Okay. So at the beginning of each summer, would there be
10 one training session before you deployed your team, or would
11 there be more training sessions?

12 A. There's at least one, but I can't remember if there was
13 more.

14 Q. Okay. And what was involved in the training sessions,
15 that you can remember, besides what you said? Did you do the
16 training?

17 A. I did.

18 Q. Did anyone else assist you in the training?

19 A. I don't remember.

20 Q. Did the training take a number of days?

21 A. Yes, it did.

22 Q. How many days were devoted to the training?

23 A. I don't remember how many. It was more than one day,
24 though.

25 Q. One full day?

Hagerty - X

1 A. Yeah, at least one full day.

2 Q. Okay. Can you take a look at 115, which I think is now in
3 evidence.

4 A. Is that in -- which --

5 Q. That would be the City's binder. That's the 2002 Edition
6 of the Rapid Visual Screening Handbook.

7 A. Okay.

8 Q. I would like to call your attention to page 34.

9 I'm sorry. Before we get to that, let's go to page 4.
10 This was the forward. And page 4 references that there -- I'm
11 sorry. I've got you on the wrong page again. Page 8.

12 Page 8, in the first paragraph, says both this document
13 and the companion document are second editions of similar
14 documents published by FEMA in 1988.

15 Do you see that in the first paragraph on page 8?

16 A. I see that.

17 Q. Okay. So I presume you had the 1988 FEMA Handbook
18 available to you at the time you did the training; is that
19 correct?

20 A. That's correct.

21 Q. Okay. And did -- had you read the 1988 FEMA Handbook at
22 the time?

23 A. Yes.

24 Q. So you were conversant in it?

25 A. Yes.

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1 Q. And did you distribute the 1988 FEMA Handbook to the
2 students who were being trained?

3 A. Yes.

4 Q. Did they read the whole handbook?

5 A. I don't know if they read the whole handbook, but they
6 read the pertinent parts of it.

7 Q. Did you ask them to read the handbook?

8 A. I asked them to review the handbook.

9 Q. Okay. The handbook is pretty thick?

10 A. Yes.

11 Q. So -- and you're sure that each and every one of them got
12 a copy of the handbook; is that right?

13 A. They had -- each and every one of them had access to it.

14 Q. What do you mean by "access"?

15 A. They could -- we had handbooks in our office, so we -- I
16 didn't personally distribute a handbook to each one of them.

17 Q. Okay. So they would have had to ask you to access a copy
18 of the handbook if they needed to look at it?

19 A. No, they could just -- they knew where it was. They could
20 access it.

21 Q. They knew where it was?

22 A. Yeah, they could access it. They didn't have to ask.

23 Q. And how many handbooks were there?

24 A. I think we had two or three of them available.

25 Q. So they would have had to access it in your office, but

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1 they didn't have them. They weren't distributed to them
2 personally?

3 A. No.

4 Q. And of course you have no idea what the PSU students had
5 available to them or not?

6 A. No, I don't.

7 Q. Okay. If you can take a look at -- I'll give you a page
8 number here. On page 34. It's page 11 of the document, but
9 it's page 34 of 163 of the exhibit. It's paragraph 2.5. Let
10 me know when you get to paragraph 2.5.

11 A. I'm there.

12 Q. Okay. It says, "It is anticipated that a training program
13 will be required to ensure a consistent, high quality of the
14 data and uniformity of decisions among screeners. Training
15 should include discussions of lateral-force-resisting systems
16 and how they behave when subjected to seismic loads. How to
17 use the data collection form, what to look for in the field,
18 and how to account for uncertainty."

19 Were each and every one of the people you trained trained
20 in lateral-force-resisting systems and how they behave when
21 subjected to seismic loads?

22 A. They were trained in lateral-load-resisting systems, but
23 the purpose of our survey was to determine which buildings were
24 unreinforced masonry buildings. It was not to do a complete
25 survey of every building in the city and determine its

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1 characteristics as this "qualifications for screeners"
2 indicates.

3 And this document, that was not the document we used, but
4 a previous one.

5 Q. Okay. So is it fair to say that you did not train the
6 students who worked for you to the standard required in
7 paragraph 2.5?

8 A. I did not train them to that, but part of their education
9 would educate them in that regard.

10 Q. And is that something you know or an assumption that
11 you're making?

12 A. It's something I know. Educating engineering students.

13 Q. And how do you know they would have known that by the time
14 they were working for you?

15 A. Well, discussing it with them, discussing
16 lateral-load-resisting systems, and knowing curriculum at the
17 time, I believe.

18 Q. Do you recall any particular discussion you had with any
19 of them --

20 A. No, I don't recall that.

21 THE COURT REPORTER: I'm sorry. I didn't get the end
22 of your question.

23 MR. DiLORENZO: Concerning lateral loads. Thank you.

24 BY MR. DiLORENZO: (Continuing)

25 Q. Let's skip ahead to page 40 of 163, paragraph 2.7.

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1 That's a -- let me know when you're there. I'm sorry.

2 A. Which paragraph again?

3 Q. 2.7.

4 A. Okay.

5 Q. "Whenever possible, design and construction documents
6 should be reviewed prior to the conduct of field work to help
7 the screener identify the type of lateral-force-resisting
8 system for each building."

9 Did you have your screeners review design and construction
10 documents for any of the buildings they looked at prior to
11 looking at the buildings?

12 A. No. They reviewed those documents after looking at the
13 buildings.

14 Q. But not before?

15 A. Not generally. I think in some cases they could have
16 looked at them before.

17 Q. You think or you know?

18 A. Oh, I -- as best as I can remember, I'm sure some of them
19 did. I didn't look at everything every minute that they did.

20 Q. Did you ask them to look at construction documents first
21 before they went out into the field?

22 A. I did not ask them that.

23 Q. Let's look at paragraph 2.9. I'm just skipping around the
24 document. There are more criteria here, but let's just look at
25 2.9.

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1 "The last step in the implementation of rapid visual
2 screening is checking the quality and filing the RVS data in
3 the recordkeeping system established for this purpose."

4 Tell me about how you stored the data which came back from
5 the field.

6 A. The data that was stored were documents, papers, and they
7 were stored in files, broken down in quarter sections of the
8 city.

9 After a large amount of it was assembled, a person entered
10 it into a database.

11 Q. And how did they enter data into the database?

12 A. I'm not sure I understand your question.

13 Q. Who entered data into the database?

14 A. Let's see. Another engineering student, I believe. I'm
15 trying to remember who it was that did it. But they entered it
16 into a database.

17 At the time, computerized databases were just getting
18 started, so we -- we got someone that was knowledgeable about
19 computers and databases, and he entered it into a database.

20 Q. Okay. Were you personally knowledgeable about computers
21 at the time?

22 A. Well, I knew about computers, if that's what you're
23 asking.

24 Q. No. But were you -- were you knowledgeable as to the
25 activities that you were asking this person you have identified

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1 to undertake, or was he the expert?

2 A. Well, he was -- I was knowledgeable that the information
3 should be entered in a database. That much I knew.

4 Q. Did you know enough to check his work?

5 A. I could read it, yeah, and determine -- I could read a
6 database and say -- determine whether or not it was entered
7 correctly.

8 Q. Did you have the ability to determine whether it was
9 entered correctly?

10 A. Yeah. It's just a matter of comparing what's in the paper
11 documents versus what's written in the database.

12 Q. How often did you do that?

13 A. I don't remember how often.

14 Q. You said you spot-checked work generally.

15 A. Yes.

16 Q. What does "spot-check" mean?

17 A. Occasionally look at stuff they do, just to verify that
18 it -- you know, just randomly pick some example and see whether
19 or not it matched up with what I thought was correct.

20 Q. Okay. Every couple of hours?

21 A. No.

22 Q. Every day?

23 A. Yeah. Every day or every few days, yes.

24 Q. Every few days you would skip around and look at one or
25 two?

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1 A. Yeah. I had other obligations at the time, so I was quite
2 busy with other things.

3 Q. Sure. No, I understand.

4 If you could take a look at paragraph -- or, I'm sorry,
5 page 42. 3.1. I think this is a description of the data
6 collection form that you identified earlier in your testimony.

7 A. It's similar to the one that was used.

8 Q. Okay. And for each building that was inspected, did your
9 team verify and update building identification information?

10 There's a whole list here --

11 A. Yeah.

12 Q. -- one through nine, of the things they're supposed to do,
13 so I'm -- I'm getting at did they do each and every one of
14 those things?

15 A. Well, since we didn't have this document at the time, I
16 can't say that we did all these things. I'm not sure whether
17 these -- this list is in the older document or not. I don't
18 know if it is or not. But they did verify that the building
19 was -- as I said, they checked building permit records to
20 verify information about the building based on their rapid
21 visual survey.

22 Q. Okay. Would they have -- let's look at number 6.

23 "Identify the seismic lateral-load-resisting system and circle
24 the basic structural hazard score on the data collection form."

25 A. No. We didn't -- we didn't score them, per se.

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1 As I said, we used this document as -- as a tool to help
2 determine which buildings were unreinforced masonry. We didn't
3 use this document, this form here, to rate the buildings as
4 to far -- as far as its relative hazard compared to other types
5 of construction.

6 Q. Okay. If you can turn to the next page, 3.2.3, Screener
7 Identification.

8 A. I'm sorry. Where is this?

9 Q. 3.2.3 at the end of the next page.

10 A. I see it.

11 Q. It says, "The screener should be identified, by name,
12 initials, or some type of code. At some later time it may be
13 important to know who the screener was for a particular
14 building, so this information should not be omitted."

15 Did you take steps to make sure that someday in the future
16 people would know who conducted the screening?

17 A. They did indicate who conducted the screening on the
18 paper -- the documents they had.

19 Q. Okay. Let's turn to now a different volume. It's
20 plaintiffs' Exhibit 44.

21 I'll wait until you get there.

22 A. This is Exhibit 44?

23 Q. Yes, sir.

24 A. Okay.

25 Q. And this purports to be an email trail from Amit Kumar to

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1 a Mr. Dave McLean.

2 Do you see that?

3 A. I see that.

4 Q. And who is Amit Kumar?

5 A. Amit Kumar is currently the supervisor of the structural
6 engineering section at the Bureau of Development Services.

7 Q. Okay. When you were employed at the City of Portland, did
8 you have occasion to work with him?

9 A. I did.

10 Q. He is explaining to Mr. McLean about Mr. McLean's building
11 and talking about what was done to identify it.

12 If you can turn to the third page, there's a form, and
13 it's called "Rapid Visual Screening of Seismically Sensitive
14 Buildings."

15 Do you see that?

16 A. I see it.

17 Q. And it looks similar to the form that you identified on
18 the FEMA Handbook?

19 A. Yes.

20 Q. Were these -- is this, in fact, an example of the types of
21 forms that were used by your screening staff?

22 A. It looks like it is.

23 Q. Okay. Let's take a look at this one. It looks like
24 there's a -- there's a small drawing, and then there's an
25 inspector, a TR, and we've been trying to figure out who that

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1 is. We think we know who that was.

2 And then at the bottom it says "building type," and it
3 looks like "URM" is circled.

4 Do you see that?

5 A. I see it.

6 Q. Okay. Who decided to circle what building type?

7 A. The inspector.

8 Q. And who's the inspector?

9 A. TR.

10 Q. Okay. And so was it TR's responsibility to visually look
11 at the building and then conclude what kind of building it was?

12 A. That's correct.

13 Q. And was TR instructed by you to do any kind of inspection
14 of the building other than just glancing at it?

15 A. You mean --

16 Q. Other than looking at it visually.

17 A. I'm not sure I understand your question.

18 Q. Was TR supposed to look under -- underneath the veneer or
19 do any kind of invasive examination?

20 A. No.

21 Q. Was TR supposed to go into the building?

22 A. No. Generally, we encouraged them not to.

23 Q. You --

24 A. Unless it was, you know, a public building or something.

25 Q. So all these visual inspections were made from the street?

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1 A. I wouldn't say all of them.

2 Q. But you did encourage -- you encouraged people not to go
3 inside of buildings; is that right?

4 A. I encouraged them not to be invasive of people's private
5 buildings. If it was a business that was opened to the public,
6 they could walk into it. If it was an apartment building that
7 they had no business having access to, I did not -- I suggested
8 they did not go in it.

9 Q. Okay. Can you take a look at your declaration? And at
10 paragraph 3 it says, "Students and staff were organized into
11 teams of two to three individuals for the survey. If it was
12 decided that a building should be included in the database, it
13 would require all team members to agree."

14 MS. MOYNAHAN: You mean --

15 MR. DiLORENZO: I'm sorry.

16 THE WITNESS: Where is it?

17 MR. DiLORENZO: Which exhibit number?

18 MS. MOYNAHAN: 132.

19 MR. DiLORENZO: I'm sorry. It's 132, sir.

20 THE WITNESS: Yes. Okay.

21 BY MR. DiLORENZO: (Continuing)

22 Q. Paragraph 3 of your -- that's your declaration that --

23 A. Yes.

24 Q. Okay. Paragraph 3 said that if a building was going to be
25 included in the database, it had to require all team members to

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1 agree.

2 A. Yeah.

3 Q. Okay. Where on this form, Exhibit 44, does it show who
4 the team members were?

5 A. It doesn't look -- it does not.

6 Q. Okay. So as far as you know, only TR would have made the
7 decision to call this a URM; is that correct?

8 A. No. The inspectors went out in groups, and they didn't go
9 alone. So I would assume that the person or persons that were
10 accompanying here would agree with this.

11 Q. But you wouldn't ask all of the members on the team to
12 identify themselves on the form --

13 A. No.

14 Q. -- so --

15 No?

16 A. No.

17 Q. Okay. And then there's another box that requires -- that
18 requests other information, and there's nothing filled out on
19 that.

20 Did -- well, I guess there is. There's -- "poor
21 condition" is checked off for URM.

22 Okay. How -- how would TR have been qualified at the time
23 to determine whether a URM building was in poor condition if
24 they didn't go inside the building?

25 A. It could -- you could determine it was poor looking at the

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1 outside.

2 Q. So it was a subjective determination by the person filling
3 out the form?

4 A. It was a determination by the person filling out the form.

5 Q. Okay. And were all the forms filled out essentially the
6 same way?

7 Let me rephrase that.

8 Is the process that we've just been going through, is that
9 going to be common to all of the forms that were filled out by
10 your various team members?

11 A. The forms -- after they filled out the forms, they would
12 determine -- they would go in and look at building permit
13 records and Sanborn maps to help verify their evaluation of the
14 building -- of the structure.

15 Q. Okay. Where -- where does it say what they did to further
16 verify?

17 A. It doesn't say it on this form.

18 Q. Did it say it on any form?

19 A. No.

20 Q. You didn't have them fill out another form indicating
21 anything they did to verify their initial conclusions?

22 A. No.

23 Q. Now, you said you were -- how -- how many buildings were
24 surveyed by this group of eight people?

25 A. Well, probably more than the number of buildings that

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1 ended up on the survey. They looked at some buildings that
2 determined -- and subsequently determined they were
3 unreinforced masonry. So if you're asking me how many they
4 actually looked at --

5 THE COURT REPORTER: I'm sorry. They were or
6 weren't?

7 THE WITNESS: I'm sorry?

8 THE COURT REPORTER: You said they determined they
9 were unreinforced masonry? I wasn't sure if you said "were" or
10 "weren't."

11 THE WITNESS: I don't remember what -- excuse me.

12 THE COURT REPORTER: Do you want me to --

13 THE WITNESS: Would you repeat the question, please.

14 THE COURT: Jill, read back the question please?

15 (The court reporter read as follows: "Question:
16 Now, you said you were -- how -- how many buildings were
17 surveyed by this group of eight people?")

18 THE WITNESS: How many buildings were surveyed? And
19 I said that more than the number of buildings that occurred on
20 the database because they would look at some buildings,
21 possibly determine they were unreinforced masonry, and then go
22 back and check records, building permit records, and determine
23 they were not. So it's difficult to answer the question about
24 how many exact buildings that were surveyed.

25 ///

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1 BY MR. DiLORENZO: (Continuing)

2 Q. Okay. I'm sorry. I -- I didn't understand that.

3 So if a team member or a team inspected a building and
4 concluded that it was not a URM, then they didn't fill out a
5 form at all?

6 A. That's correct.

7 Q. Oh, so you have no records to determine which buildings
8 were looked at. Only the buildings that they concluded were
9 URM; is that right?

10 A. That's probably correct.

11 Q. All right. And how many URMs did they identify in their
12 three summers of work, approximately?

13 A. Approximately, 1,200, 1,300 buildings.

14 Q. 12- to 1,300.

15 And to identify 12- to 1,300 buildings, how many buildings
16 do you think they would have likely inspected?

17 A. I don't know. It's a guess because as they -- as they got
18 along, they got better at determining which buildings were
19 unreinforced masonry buildings and which ones weren't. So as a
20 survey went on, they would have probably not looked at
21 buildings that they knew were not unreinforced masonry
22 buildings.

23 Q. Okay. And I'm trying to figure this out. Because you
24 said they were in groups of three, but there were only eight of
25 them.

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1 A. Two or three. Groups of two or three.

2 Q. So with eight of them, there would have been three groups;
3 right?

4 A. There was three summers and probably three people per
5 summer, to the best of my recollection.

6 Q. Okay. And now I'm confused.

7 So there were only three people per summer working on the
8 project?

9 A. I believe so.

10 Q. Okay. And then they were in groups of three, so they
11 would all go -- walk together for each and every building?

12 A. No, I don't think so. Not for each and every building.

13 Q. Well, then how could your declaration be right when you're
14 saying that these were deployed in groups of three and all
15 three had to agree if they all three saw the same building?

16 A. Well, they could -- they -- they went out together. So
17 I -- they looked at the buildings and compared notes on
18 buildings. I'm sure if they went to an area someone would go
19 down one -- you know, one block and someone would go down the
20 other.

21 Q. Okay. So --

22 A. And then they would -- they would consult and verify that
23 they were correct.

24 Q. So years ago when I would go door to door for a -- for a
25 politician, we would go in groups of two or three, and we would

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1 each take different sides of the street. Is that the kind of
2 thing they were doing?

3 A. Yeah. Yes. That's correct.

4 Q. Okay. So, for instance, for number 44 that we're looking
5 at, this particular form filled out by TR --

6 A. Yes.

7 Q. -- the group of three would not have looked at this
8 particular building to fill out this particular form. They
9 would have just been in the same area?

10 A. They would have been in the same area, and they would have
11 looked at the other buildings. As they found them, they would
12 look at the buildings and verify that -- you know, what they
13 determined was correct.

14 Q. Okay. So you -- at most, you have three people working
15 during three summers each. So three --

16 A. To the best of my recollection, that's correct.

17 Q. -- three-person summers. Okay.

18 And, yet, they were able to look at several thousand
19 buildings?

20 MS. MOYNAHAN: Object to the form of the question.

21 MR. DiLORENZO: Well, I'm asking how did they have
22 the time to look at so --

23 THE COURT: Overruled.

24 MR. DiLORENZO: Thank you, Your Honor.

25 ///

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1 BY MR. DiLORENZO: (Continuing)

2 Q. How -- how did they have the time to look at so many
3 buildings if there were only three of them?

4 A. They worked eight-hour days is all I can say, and they had
5 an idea of where the buildings were that were unreinforced
6 masonry.

7 Q. All right. They worked eight-hour days for a summer. So
8 a summer is, like, three months. Is that about right? Is that
9 how long they were working for you? For three months?

10 A. Yeah. Approximately, yeah.

11 Q. Okay. And so you've got how many weeks? You've got -- so
12 you have 12 weeks. So you've got a total of 36 weeks of work
13 over three summers; right? Is that right?

14 A. I -- I don't know.

15 Q. Well, you're an engineer. You can probably do the math
16 better than I can. So there's -- so you've got 12 weeks of
17 work per summer. Three summers. So that's 36 weeks of work.
18 Is that -- am I right on that?

19 A. Your math appears to be correct.

20 Q. Okay. You have 36 weeks of work, and you've got three
21 people. So how many buildings, you know, per week are they
22 going to have to look at to survey all those buildings?

23 A. I don't have -- I don't have a calculator in front of me,
24 so --

25 Q. Okay. Okay. So how did they know where to go? Did you

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1 just sort of drop them into some part of town and say, "Start
2 looking"?

3 A. We started at the -- like I said, we started at the center
4 of the city. The older parts of the city, where we knew there
5 was a fair number of unreinforced masonry buildings.

6 Q. How did they keep track of where they had been?

7 A. They kept track on a -- a map that was broken out into
8 quarter sections of the city.

9 Q. Okay. And did they keep the records so that you would
10 have known that they weren't --

11 A. Yes, they kept the records.

12 Q. Okay. And you believe that -- or how much ground did they
13 cover in these three summers, these three people -- three
14 people each?

15 A. What do you mean "how much ground"?

16 Q. How much -- how many blocks of the city did they walk?

17 A. I don't -- I don't have any idea.

18 Q. All right. So they -- you would have all three of them
19 start somewhere. Did -- do you know where they started? You
20 said central city. Do you recall what street they started on?

21 A. No, I don't recall.

22 Q. Did they start downtown?

23 A. Yes.

24 Q. Okay. So they start downtown.

25 And did you give them guidance as to which direction to

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1 walk in or where to go or how to spread out there?

2 A. No. No.

3 Q. Okay. And when they were done with downtown, where did
4 they go next?

5 A. Well, like I said, they branched out to certain areas of
6 the area -- of the city, starting with the middle and kind of
7 working their way around.

8 Q. All three of them as a group?

9 A. Yes.

10 Q. Okay. Because you said they were all generally in the
11 same area together all the time?

12 A. Generally, yes.

13 Q. Okay. All right. How do you know how much ground they
14 covered?

15 A. Well, like I said, they indicated on a map which areas
16 they covered.

17 Q. Did they cover the entire city?

18 A. No.

19 Q. What parts of the city did they cover?

20 A. The central part of the city and some other areas, to the
21 best of my knowledge.

22 Q. Okay. For that three-summer project?

23 A. Yes.

24 Q. But there's more to Portland than the central part of the
25 city.

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1 A. That's correct.

2 Q. And, in fact, isn't it true that most of the URM
3 construction is on the east side of the river?

4 A. I wouldn't say so.

5 Q. Do you -- I'm sorry?

6 A. No. I don't -- the larger buildings? Not -- no. The
7 amount of square feet of unreinforced masonry buildings is
8 probably greater on the west side than it is on the east.

9 Q. Okay. Portland State University's database -- their
10 students covered what part of the city?

11 A. The parts that we didn't.

12 Q. Okay. And did you coordinate with the professors at PSU
13 to instruct them as to what parts of the city they should be
14 sending their teams to?

15 A. We let them know which parts we had done so they didn't
16 waste their time and replicate what we did.

17 Q. Again, you have absolutely no idea what kind of quality
18 control they maintained?

19 A. No.

20 Q. And you don't know how many students they deployed?

21 A. I do not know.

22 Q. Okay. Paragraph 2 of your declaration, if you still have
23 it open, you mentioned that you did not want them to survey
24 one- and two-family dwellings that were of masonry
25 construction.

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1 Do you see that?

2 A. No. We didn't want them to -- we -- we decided not to
3 evaluate one- and two-family dwellings for a couple -- some
4 reasons. First of all, one and two -- most -- the vast
5 majority of one- and two-family dwellings in the city are
6 wood-framed construction.

7 Wood-framed construction was not unreinforced masonry,
8 number one, and it's not a particular life hazard to people in
9 earthquakes either, so --

10 Q. That's wood frame?

11 A. That's wood-framed buildings, yes.

12 Q. How about -- how about one- and two-family structures that
13 are masonry buildings?

14 A. Like I said, there were very, very few of them in the
15 whole database, based on my personal observation.

16 Q. Okay.

17 A. So -- and there was thousands more one- and two-family
18 dwellings in the city than are non-one- and two-family
19 dwellings. So it was a matter of not having any kind of
20 manpower to evaluate those buildings, and there was no need to
21 because they're not unreinforced masonry buildings by and
22 large.

23 Q. Okay. Excuse me just for a second.

24 Mr. Hagerty, you're familiar with the Oregon Department of
25 Geology and Mineral Industries?

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1 A. Yes.

2 Q. It's called DOGAMI for short?

3 A. Yes.

4 Q. And are they viewed as seismic experts in the state?

5 A. There are seismic experts in DOGAMI, yes.

6 Q. Are you generally familiar with their report that was
7 issued in 2018 which evaluated earthquake regional impacts for
8 the tri-county area?

9 A. Which study are you referring to?

10 Q. If you can take a look at our exhibits, it's number 31.

11 A. 31?

12 Q. I'll let you get there.

13 A. I see it.

14 Q. Okay. If you could turn to the exhibit before, that's
15 Exhibit 30. That is one page that is -- comes out of that
16 report. There's Table 5-1, and DOGAMI has listed the number of
17 various types of buildings in the tri-county area.

18 A. Okay.

19 Q. Are you with me yet?

20 A. Yeah, I see it.

21 Q. And you see under Occupancy Type, single-family
22 residential, they have wood, manufactured housing, reinforced
23 masonry, and unreinforced masonry.

24 Do you see those terms?

25 A. I see these.

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1 Q. Okay. Just to the right of unreinforced masonry, under
2 single-family residential, they list 1,455 buildings in the
3 tri-county area that are unreinforced masonry single-family
4 residences?

5 A. I see that.

6 Q. And all the way to the right, they show there are 3,277
7 permanent residents who live in those buildings.

8 A. I see what it says.

9 Q. Okay. And then down below, where it says multifamily
10 residential, which I presume means apartments or triplexes,
11 things like that --

12 A. Uh-huh.

13 Q. -- under unreinforced masonry, they show 403 buildings.

14 A. Yes.

15 Q. And they show 8,139 permanent residents?

16 A. I see that.

17 Q. So does it appear to you that about 30 percent of the
18 permanent residents who live in unreinforced masonry structures
19 actually are living in single-family residences?

20 A. No. I'm not sure the source of this document. The
21 methodology used to develop these numbers may or may not be
22 correct, I guess, is what I would like to say.

23 Q. Okay. Well, I will point out that it's the City's exhibit
24 and it's been introduced into evidence. It's got a City
25 exhibit number. This is just a carbon copy of that.

Hagerty - X

1 So assuming these numbers are correct -- let's just assume
2 the numbers are correct -- if you add 3,277 to the 8,139, you
3 come up with about 12,000 or so; right?

4 A. I'm sorry. You're adding something to 8,000 there?

5 Q. All right. You've got 3,200 -- I'm sorry, 3,277 residents
6 in unreinforced single-family residential buildings, according
7 to this document.

8 A. According to this document.

9 Q. Okay. So I'll do 3,277.

10 And then you have 8,139 residents in multifamily
11 residential unreinforced masonry; right?

12 A. Uh-huh.

13 Q. So I add that up real quick, and that's 11,416 people
14 altogether. Is that about right?

15 A. Okay. I would like to point out under multifamily
16 residential --

17 Q. Yes.

18 A. -- that includes apartment buildings.

19 Q. Yes.

20 A. Buildings that are more than one- and two-family
21 dwellings.

22 Q. Yes.

23 A. Those buildings were captured by our survey.

24 Q. Right.

25 A. Okay.

Hagerty - X

1 Q. Super. But not the -- not the buildings that have 3,277
2 people in them?

3 A. No. Not the 3,000 buildings they list for three counties.

4 Q. Okay. So let's do a little math, then. All right. So if
5 these numbers are right, if there's 11,416 total residents that
6 live in unreinforced masonry structures altogether, and if
7 3,277 of them live in -- live in single-family buildings,
8 that's about 30 percent of them, isn't it, roughly?

9 A. According to these numbers, that sounds like 30 percent,
10 doesn't it?

11 Q. Right. So by leaving out the identical form of
12 construction that just happens to house single families, you
13 leave out potentially 30 percent of the population that you
14 think might be at risk -- isn't that right -- in an earthquake?

15 A. I don't follow you.

16 Q. Well, if you think unreinforced masonry buildings are
17 risky in an earthquake --

18 A. Yes.

19 Q. -- and if you don't address the number of people who live
20 in the identical form of construction but just for
21 single-family homes, are you not leaving out a large percentage
22 of the population who you feel are at risk?

23 A. No. If there are that number of unreinforced masonry
24 one-family -- single-family dwellings, there are a number that
25 would be at risk. I question whether there are that many.

Hagerty - X

1 Q. No, I understand that. Okay. Thank you. I appreciate
2 your answer, though.

3 A. Okay.

4 Q. And I also understand that the reason you didn't have --
5 deploy your teams to identify unreinforced masonry
6 single-family or dual-family homes is because they would have
7 just had to look at so many houses that were made of wood it
8 just wasn't -- it wasn't efficient. Is that -- is that pretty
9 much it?

10 A. That's part of it. And, plus, it would be more difficult
11 to evaluate building permit records for -- for houses --

12 Q. Okay.

13 A. -- and older houses that --

14 Q. Okay. Let's take a look at number 39. If --

15 A. The same -- same document?

16 Q. Yeah. Oh, no. I'm sorry. It's Exhibit 39.

17 A. 39.

18 Q. This appears to be a letter you issued on April 23, 2001?

19 A. That's correct.

20 Q. Okay. And I would like to go through it. It's
21 referencing the following database: What -- what was the
22 condition of the database at the time you issued this letter?

23 A. What do you mean "what was the condition"?

24 Q. Well, what did the database look like? Was it on a
25 website? Was it -- I mean, 2001 is pretty early for the

Hagerty - X

1 internet. I don't know if we even -- how developed that was
2 then?

3 A. I think it was on the internet.

4 Q. Okay. And so the results of your team's work were placed
5 on a spreadsheet and then entered into a database; is that
6 right?

7 A. That's correct.

8 Q. And you say it was combined with the Portland State
9 University work?

10 A. Yeah.

11 Q. Right?

12 And -- but -- but you don't know how the Portland State
13 University material came together. How did you reconcile data
14 input between your team and the Portland State University team?

15 A. Which -- what do you mean how did I --

16 Q. Well, you had to input data into a database; right?

17 A. Data had to be entered into a database, yes.

18 Q. Right. And you know how the data from your team was
19 entered into the database because you just testified that there
20 was a person you knew who did it; right?

21 A. Yes. Yes.

22 Q. How was the data from the Portland State University study
23 entered into your database?

24 A. You know, I'm not sure how that was done.

25 Q. Did you supervise the consolidation of PSU's database with

Hagerty - X

1 the City's database?

2 A. I did not supervise that.

3 Q. Who did?

4 A. I don't know. The bureau had people who -- at that time
5 had people that were in charge of databases, and I believe
6 someone at the bureau did that.

7 Q. Are you sure that Portland State University didn't do it
8 themselves?

9 A. I'm not sure.

10 Q. Okay. All right. So I am going to ask you, then, at the
11 time your April 23, 2001, letter is issued, is there now a
12 consolidated database?

13 A. You know, I don't know. I don't remember.

14 Q. Okay. All right. So you say the following database,
15 whatever it was, contains some information about buildings in
16 the city of Portland which are believed to be of unreinforced
17 masonry construction.

18 Now, is this the same database that you say you were
19 95 percent confident in being accurate? You said during your
20 testimony that you were 95 percent confident that -- in the
21 accuracy.

22 A. Yes. Yeah. In the accuracy of the -- accuracy as to --
23 as regards to whether the buildings on the list are, in fact,
24 unreinforced masonry.

25 Q. Yes. So you were confident.

Hagerty - X

1 A. Yeah.

2 Q. 95 percent confident that the data on the database, then,
3 was accurate; is that right?

4 A. Well, I'm confident now that 95 percent of them on the
5 database is correct.

6 Q. Sorry. I misunderstood. I thought at the time the work
7 was done you were 95 percent confident that it was --

8 A. I was pretty confident at the time too.

9 Q. Okay. All right. So notwithstanding that, you say, "The
10 City of Portland makes no representations, express or implied,
11 as to the accuracy of this database."

12 A. That's correct.

13 Q. "For the following reasons, there are no assurances as to
14 whether the information contained in this database is correct
15 or comprehensive."

16 A. Yes, I wrote that.

17 Q. Why did you write that when you had 95 percent confidence
18 that the database was correct?

19 A. I think it was to make sure people understood that the
20 database that they were reading on the internet was not a
21 hundred percent correct and that there were possibilities that
22 the buildings that were on the database may not be, in fact,
23 unreinforced masonry buildings, and there was possibilities
24 that there may be an unreinforced masonry building that was out
25 there that was not in the database.

Hagerty - X

1 Q. Mr. Hagerty, I know you've been an engineer for a long
2 time, and, with all due respect, this language doesn't sound
3 like an engineer wrote it. It sounds like a lawyer wrote it.
4 Is this something a lawyer wrote?

5 A. No, a lawyer didn't write it; but, unfortunately, I've had
6 to hang around attorneys too long.

7 Q. Okay. Well, it must be the inner lawyer in you, then,
8 coming out.

9 A. I don't know.

10 Q. At the bottom it says, "Again, the City of Portland" --
11 "again" is your word. "Again, the City of Portland makes no
12 representations that the information is currently accurate or
13 was accurate at the time the -- of the compilation of the
14 database."

15 Now, why would you say that if you were 95 percent
16 confident in your database?

17 A. To help make people understand that -- potential users of
18 this database, that they had to be very careful about using it.
19 It -- especially with regards to legal efforts one way or the
20 other.

21 Q. Okay. And was that disclaimer posted in printed material
22 or on the internet that accompanied the database at the time?

23 A. I believe at the time that this -- this document was a
24 preface to the database.

25 Q. Okay. Can you turn to Exhibit 42. This purports to be a

Hagerty - X

1 screenshot or a -- or a web page from the City's URM database.

2 Have you -- have you visited the City's URM database
3 recently?

4 A. No, I have not.

5 Q. Okay. Is -- is this page from the City's URM database
6 familiar?

7 A. I haven't seen this before.

8 Q. Okay. Could you take a moment to read it and see if it's
9 similar to the disclaimer you originally wrote?

10 MR. DiLORENZO: Your Honor, while the witness is
11 looking at that, I'll take up some housekeeping. I would like
12 to offer numbers 31, 39, 42, and 50.

13 MS. MOYNAHAN: 39?

14 MR. DiLORENZO: 31, 39, 42, and 50.

15 MS. MOYNAHAN: No objection.

16 THE COURT: They are received.

17 MR. DiLORENZO: Thank you, Your Honor.

18 THE COURT: Ms. Moynahan, the declaration that we
19 admitted is not 134. It's 132. So that's admitted.
20 Mr. Hagerty's declaration.

21 MS. MOYNAHAN: Thank you, Your Honor. I apologize.

22 THE COURT: That's all right.

23 BY MR. DiLORENZO: (Continuing)

24 Q. Mr. Hagerty, have you had a chance to take a look at
25 number 42?

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1 A. I have.

2 Q. Is that statement similar to the disclaimer statement that
3 you wrote in 2001?

4 A. It appears to be.

5 THE COURT: Paul, I think Mr. Hagerty needs some
6 water.

7 Mr. DiLorenzo, go ahead, please.

8 MR. DiLORENZO: Thank you, Judge.

9 BY MR. DiLORENZO: (Continuing)

10 Q. And, I'm sorry, your -- your answer was, yes, it's
11 similar?

12 A. It appears to be, yeah. It appears to be.

13 Q. Thank you.

14 Let's turn to Exhibit 6. This purports to be a 2015 City
15 report entitled, "Unreinforced Masonry Seismic Retrofit
16 Project: Retrofit Standards Committee Report."

17 A. Yes.

18 Q. Okay. And is that document familiar to you?

19 A. Somewhat.

20 Q. Could you elaborate a little bit on that?

21 A. Well, obviously, my name's on it.

22 Q. Have you seen it before?

23 A. Yeah. I'm trying to remember. I've seen a lot of
24 documents. I haven't seen this one in a while.

25 Q. Okay. What was 2015? Were you on the retrofit standards

Hagerty - X

1 committee?

2 A. I was.

3 Q. And there was earlier testimony about there being three
4 committees. One was the policy committee, one was the
5 standards committee, and then there was another committee. I
6 lost track of that one.

7 A. Okay.

8 Q. But you were on the standards committee?

9 A. Yes.

10 Q. And other than Mr. Peterson, was everyone on the standards
11 committee a civil engineer?

12 A. Yes.

13 Q. Okay.

14 A. Except for Brian Emerick who's an architect.

15 Q. Okay. And you --

16 A. Ian Madin is also not an engineer.

17 Q. Okay. And you served on the committee as a private
18 citizen?

19 A. I did.

20 Q. Okay. And Mr. Zimmerman was there again. Reid Zimmerman.
21 He served with you?

22 A. He did.

23 Q. And what was the purpose of the committee, as far as you
24 knew?

25 A. It was to try to develop and put forward some engineering

Hagerty - X

1 standards to try and reduce the hazard from these unreinforced
2 masonry buildings.

3 Q. Okay. And, now, throughout this document we've
4 highlighted a couple of areas just to help you find where they
5 are because I'm going to ask you about them. At page 2 of the
6 document --

7 A. Page 2.

8 Q. -- in the middle of the middle paragraph, it says, "The
9 committee also noted that consideration should be given to an
10 upgrade policy for other dangerous building types such as
11 non-ductile concrete structures."

12 A. Yes.

13 Q. Was that, in fact, the committee's viewpoint?

14 A. Yes.

15 Q. Was that your personal view?

16 A. Yes. It should be.

17 Q. Okay.

18 A. It should be considered, yes.

19 Q. Can you explain to the Court what is a non-ductile
20 concrete structure?

21 A. A non-ductile concrete structure? Let's see. The
22 concrete structure involves -- besides concrete, involves
23 reinforcing steel to try and resist tensile forces. The
24 concrete resists the compressive forces.

25 In -- if you consider, say, a structural frame with

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1 columns and beams, at the joints, there currently is
2 requirements for what's called ductile detailing; in other
3 words, additional reinforcing steel to help keep the joints
4 intact in a major event.

5 Older reinforced concrete buildings do not have that
6 reinforcing steel in the joints, and so, consequently, they can
7 be hazardous in the fact that they could become disconnected at
8 those joints and lead to partial collapse or collapse of the
9 building.

10 Q. Okay. So let me make sure I've -- I've got it straight,
11 because I have no inner engineer in me.

12 So -- so the -- the concrete itself is sufficient to
13 withstand -- I'm going to call them vertical forces, but -- but
14 lateral forces, they're inflexible, unless they have steel in
15 them; is that -- is that right?

16 A. No, that's not right.

17 Concrete will withstand compressive forces besides --
18 besides vertical forces, which are compressive; but lateral
19 forces in an earthquake, there's -- there's an individual
20 member. For instance, in a column, there's both tensile forces
21 because the part that's trying to bend away is in tension and
22 the part that's -- the other side is in compression.

23 Joints where it moves back and forth in an earthquake,
24 both sides of the members go into alternating compression and
25 tension.

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1 Q. Okay. And what's -- those kinds of buildings were built
2 before what year, would you say? Non-ductile concrete
3 buildings.

4 A. Oh, I don't know the exact year that they -- they use --
5 that the industry uses as a -- as a standard and top point, but
6 the building codes evolved based on, you know, knowledge and
7 behavior in earthquakes, so they changed with times. Early
8 '60s buildings can have some non-ductile problems with them.

9 Q. Okay. And a building like that would not do very well in
10 a 9.0 or -- or a -- even a 6.0 West Hills quake, would it?

11 A. It might not.

12 Q. Okay. Can you turn to page 6. On the first paragraph
13 we've highlighted some language. And it says, "Unreinforced
14 masonry and non-ductile concrete buildings are generally the
15 most dangerous type of buildings in an earthquake and should
16 not be allowed to remain in service indefinitely unless they
17 are fully upgraded."

18 Now, that is a quote that comes from the Oregon Resilience
19 Plan. Are you familiar with the Oregon Resilience Plan?

20 A. Yes.

21 Q. Do you agree with that quotation?

22 A. Yes.

23 Q. It then says, "OSSPAC," which is the Oregon Resilience
24 Plan, "also recommended that," quote, "'the danger of URM and
25 non-ductile concrete buildings should be disclosed at the time

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1 a building sale or lease,'" unquote, "so that," quote, "'market
2 pressures and upgrades triggered by other building repairs'"
3 unquote, "would incentivize seismic strengthening of these
4 structures."

5 Do you -- do you agree with that quote?

6 A. Do I agree philosophically with that quote?

7 Q. Yes, sir.

8 A. Is that what you're asking?

9 Yeah. Yes, I do.

10 Q. Okay. What do you mean, then, when you agree to -- what
11 do you mean by "market pressures"?

12 A. Market pressures? Boy, that's a -- as -- as -- as the
13 public becomes more aware, purchasers of other buildings,
14 purchasers of buildings become aware of the real risk involved
15 in some of these buildings. They would use it probably as a
16 negotiating tool for determining whether or not they want to
17 purchase the building, encourage the owners to do some upgrades
18 to the building to provide them -- to provide a building that's
19 safer for an investor.

20 Q. Okay. Page 22. If you can turn to that.

21 THE COURT: Mr. DiLorenzo, we'll take our morning
22 break at this time.

23 MR. DiLORENZO: That will be just fine, Your Honor.

24 THE COURT: We'll be in recess for about 15 minutes.

25 MR. DiLORENZO: Thank you, Judge.

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1 MS. MOYNAHAN: Thank you, Judge.

2 THE WITNESS: How long?

3 THE COURT: Fifteen. You may step down.

4 (Recess taken.)

5 THE COURT: Mr. DiLorenzo, how much longer for your
6 examination?

7 MR. DiLORENZO: About five minutes, Your Honor, or
8 less.

9 THE COURT: All right. I want to -- thank you.

10 I just want to make sure everyone remembers we have only
11 this day left to complete evidence and final arguments. All
12 right. And if everyone would make sure, because we just had a
13 break, please turn off your phones or at least silence them.
14 Those of you who are sitting there thinking, "I did that," yes,
15 that's great. Please check.

16 Mr. DiLorenzo, go ahead, please.

17 MR. DiLORENZO: Thank you, Your Honor.

18 BY MR. DiLORENZO: (Continuing)

19 Q. Mr. Hagerty, before the break, I think we were on page 22
20 of that report.

21 Do you have that page open?

22 A. I do.

23 Q. Okay. I would like to call your attention to the last
24 paragraph that is also highlighted. It says, "Non-URM
25 hazardous building types: While URM buildings pose a special

Hagerty - X

1 and significant hazard in a seismic event, it is the opinion of
2 the committee that other building types such as non-ductile
3 concrete buildings, precast concrete, and buildings with
4 concrete frame and masonry infill also pose a significant
5 hazard to the public. The committee strongly recommends that
6 City Council consider providing funding to create an inventory
7 of these vulnerable building types and develop seismic retrofit
8 policies similar to that for URM buildings."

9 Do you recall that being a conclusion of the committee?

10 A. I do.

11 Q. And is that also your view?

12 A. Yes.

13 Q. Okay. Can you tell us -- we've talked about non-ductile
14 concrete buildings. What is precast concrete?

15 A. Precast concrete is construction that the -- the concrete
16 members are constructed at a -- off-site usually. Sometimes
17 on-site. And then they are in pieces and then they are brought
18 to the site and assembled.

19 Q. Okay. What about buildings with concrete frame and
20 masonry infill? What are those?

21 A. Well, a concrete frame is obviously reinforced concrete
22 frame, which consists of columns and beams, and the masonry
23 infill is a -- masonry, usually unreinforced, that is -- fills
24 in a -- a portion of the frame.

25 Q. Okay. Are you familiar with soft story construction?

Hagerty - X

1 A. I am.

2 Q. Can you explain to the Court what soft story construction
3 is?

4 A. Soft story construction consists of construction where
5 other than the first floor or usually -- just usually is the
6 case the first floor doesn't have the amount of structural
7 resistance or structural support that the upper floors do.

8 For instance, a good example would be apartment buildings,
9 concrete or masonry apartment buildings with first floor
10 garages all along.

11 Q. Okay. Now, we have quite a few of those in Portland,
12 especially in the West Hills. Have you -- have you seen
13 examples of soft story construction there?

14 A. I have seen some, yeah.

15 Q. And soft story construction, it's my understanding, also
16 may not do well in an earthquake. Is that your understanding?

17 A. That's correct.

18 Q. And would you extend -- would you view soft story
19 construction also as a hazardous building type?

20 A. It's a -- it's a hazardous characteristic for a building,
21 depending on -- you know, sometimes they can have what appears
22 to be a soft story but the building has been designed such that
23 it can't have that soft story.

24 Q. Okay. Now, we talked about, I think, whether you would
25 feel comfortable in a URM building. Do you remember those last

Hagerty - X

1 couple of questions from Ms. Moynahan?

2 A. Yes. Yes.

3 Q. Okay. And I -- I imagine that you would be comfortable in
4 a URM building that was retrofitted to ASCE 41-17 standards.
5 Is that a fair statement?

6 A. Yeah. Depending on what level of the standards you
7 picked.

8 Q. Okay.

9 A. There's different levels.

10 Q. Okay. How about a building that was -- that met the 1993
11 structural code? Are you comfortable in a URM building that
12 meets the 1993 structural code?

13 A. Well, the 1993 structural state building code would not
14 allow an unreinforced masonry building to be constructed. In
15 other words, unreinforced masonry buildings were not allowed to
16 be constructed in 1993.

17 If an unreinforced masonry building was upgraded to a
18 certain level, I would feel more comfortable in it.

19 Q. A 1993 level?

20 A. Well, it depends on the standards that were in effect at
21 that time.

22 Q. Okay. I think I'll get that more -- we'll take that up
23 more with another witness.

24 A. Okay.

25 Q. My final question is I think you said that the public has

Hagerty - X

1 a right to know if they're in a URM building.

2 A. Yes.

3 Q. Now, are you familiar with this ordinance that we're
4 litigating about?

5 A. Somewhat.

6 Q. Okay. And this ordinance requires URM buildings to be
7 posted with placards, and the placard will say, "This is a
8 URM -- this is an unreinforced masonry building and may be
9 unsafe in the case of a major earthquake"?

10 A. Right.

11 Q. If URM buildings are placarded pursuant to the ordinance
12 and the other dangerous buildings that you have identified are
13 not, do you think there's a risk that the public may be misled
14 into believing that because some buildings are placarded and
15 others are not, that the ones that are not are safer in an
16 earthquake?

17 A. You're asking my opinion whether I think the public will
18 be --

19 Q. Sure. I mean, some are placarded; some are not. If you
20 don't placard ones that are equally susceptible to an
21 earthquake, is that itself misleading?

22 A. Well, first of all, I don't think they're not -- they're
23 not necessarily equally susceptible to damage in an earthquake.
24 An unreinforced masonry building -- buildings have a long
25 history of being particularly susceptible to even moderate

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1 earthquakes.

2 It would be good if the public was made knowledgeable
3 about those buildings, but if I had to pick any particular type
4 to placard to begin with, it would be unreinforced masonry
5 buildings.

6 Q. But would you placard them all?

7 A. Not without some evaluation of the buildings, I think.

8 Q. Okay. Notwithstanding the fact that you believe that
9 those types of building -- of buildings, quote, "also pose a
10 significant hazard to the public," unquote?

11 A. They do. They can. They can.

12 MR. DiLORENZO: Okay. Your Honor, I have nothing
13 further.

14 THE COURT: Ms. Moynahan?

15 MS. MOYNAHAN: Thank you, Your Honor.

16

17 REDIRECT EXAMINATION

18 BY MS. MOYNAHAN:

19 Q. Mr. Hagerty, if you'll stay on page 22 of -- 22 of
20 Exhibit 6.

21 A. Okay.

22 Q. The same section you were just looking at. The first
23 sentence says, "While URM buildings pose a special and
24 significant hazard in a seismic event," but then further down
25 the quote is that the other building types also -- also pose a

Hagerty - ReD

1 significant hazard.

2 Is there a distinction in your mind between the special
3 and significant hazard of URM as opposed to significant hazards
4 of other types of buildings?

5 A. Yes. I think the unreinforced masonry buildings are more
6 hazardous.

7 Q. Okay. Thank you.

8 Going back to the database, how the database was -- was
9 amassed, counsel asked you several questions as to the training
10 of the PSU students and whether you recall how much they were
11 paid, what they did. Might you have had a better understanding
12 of the makeup of the PSU students and what information they
13 were provided 20 years ago?

14 A. Possibly.

15 Q. Possibly.

16 So are there standard methodologies employed when
17 conducting a study for engineering purposes?

18 A. Yes, there are. For evaluating buildings?

19 Q. Right. Or conducting a study of buildings like you did?

20 A. Yes. Yes.

21 Q. There are standards that are employed?

22 And is quality control part of a typical study that an
23 engineer would employ?

24 A. Quality control in what regard? To the --

25 Q. With respect to how the study is being performed.

Hagerty - ReD

1 A. Yes.

2 Q. Okay. Can you give us some examples of what standards an
3 engineer would employ in conducting a study such as the one you
4 did for the unreinforced masonry buildings?

5 A. An engineer would look at the results of the work that was
6 performed and determine whether or not it was correct, that
7 they evaluated the building correctly.

8 Q. How about how to conduct the study?

9 A. Yes. The engineer would make sure that the person knew
10 how to conduct the study.

11 Q. Do you know the PSU professor who conducted the PSU study
12 well enough to have confidence in that person's ability to
13 conduct a study?

14 A. Yes.

15 Q. How?

16 A. Yes, I do.

17 Q. What would be that person's credentials? Do you know?
18 That professor's.

19 A. Well, he's a licensed professional engineer, a structural
20 engineer. He belongs to many national organizations. He's
21 been a longtime professor at Portland State University. He
22 taught many students, many engineering students.

23 Q. Do you know him personally?

24 A. I do.

25 Q. Have you worked with him in a professional capacity?

Hagerty - ReD

1 A. Not as -- yes, I have worked with him in that capacity. I
2 have served on committees with him.

3 Q. So you had confidence at the time -- or did you have
4 confidence at the time that the PSU study was following what
5 would be standard protocols for an engineering study?

6 A. Yes.

7 Q. Okay. If you would turn, please, to plaintiffs'
8 Exhibit No. 115. I'm sorry. Defendants' exhibits. That's the
9 other book that you had.

10 A. I have it.

11 Q. 115. And page 8 of 163, please.

12 At the top of the page, the first paragraph reads, "This
13 FEMA 155 report, Rapid Visual Screening of Buildings for
14 Potential Seismic Hazards: A Handbook, is the first of a
15 two-volume publication on a recommendation -- recommended
16 methodology for rapid visual screening of buildings for
17 potential seismic hazards."

18 The study that you performed to amass the database with
19 PSU students, was that designed to screen buildings for
20 potential seismic hazards?

21 A. Yes.

22 Q. It was.

23 You testified earlier that the study was designed to find
24 URM buildings.

25 A. Yes.

Hagerty - ReD

1 Q. Okay.

2 A. Basically. Yes.

3 Q. And so were you also looking for potential seismic
4 hazards?

5 A. In other buildings or --

6 Q. Well, you tell me.

7 A. Let me explain. In the evaluation of unreinforced masonry
8 buildings on the form, there were certain characteristics of
9 the buildings, some of them would be higher seismic hazards
10 than others. For instance, lack of grout between the bricks
11 and things like that. So the characteristics of unreinforced
12 masonry buildings would be on the document.

13 Q. Okay. So to be clear, your study focused on URM
14 buildings, and as a part of that, the students were recording
15 potential seismic hazards; correct?

16 A. Yes. Certain characteristics of the building could make
17 it more hazardous. For instance, on the document that the
18 plaintiffs' counselor cited earlier for inspector TR, there was
19 an evaluation that the building was in poor condition on the
20 outside.

21 Q. I see. But the purpose wasn't to go find all buildings
22 that had potential seismic hazards; is that correct?

23 A. That is correct.

24 Q. Okay. Thank you.

25 Counsel asked you about the groups of threes going out and

Hagerty - ReD

1 looking at particular buildings. And just to clarify, because
2 there was a lot of testimony back and forth, my understanding
3 of what you said -- please correct me if I'm wrong -- was that
4 the group of three would be dispatched to a certain
5 neighborhood. They might all go down different streets, but
6 when they found a URM building, they would all go to that
7 building and confirm; is that correct?

8 A. No, I can't say for certain that that's correct. They
9 would evaluate what -- they'd look at the documents that they
10 had, the different evaluation papers -- in other words, the
11 buildings that they found were unreinforced masonry -- and they
12 would talk about -- meet those. I can't say for certain they
13 all go and stare at the building.

14 Q. So would that determination that it was a URM building
15 happen right there at the site, or was that after they returned
16 to the office and looked at other building -- other documents
17 that were available to them?

18 A. It would happen after they looked at other documents.
19 They would -- rapid visual survey would indicate that, oh, this
20 looks like it could be an unreinforced masonry building, but
21 then they would confirm their evaluation by looking at the
22 documents and the records.

23 Q. I see.

24 So it wasn't a matter of them all having to be at the same
25 building at the same time?

Hagerty - ReD

1 A. That's correct.

2 Q. I see.

3 And then they would return to the office as a group, look
4 at all of the documents, and make a determination for each
5 building; is that correct?

6 A. Yes.

7 Q. Okay. Thank you.

8 Have you ever driven around Washington County?

9 A. Yes.

10 Q. Have you ever driven around Multnomah County outside the
11 city limits?

12 A. Yes.

13 Q. And have you ever driven around Clackamas County?

14 A. Yes.

15 Q. In your experience, have you noticed more single-family
16 homes outside the center of Portland?

17 A. Outside the center? Yes.

18 Q. And particularly in the suburbs, are there more
19 single-family homes than you would see in the -- in Portland
20 proper?

21 A. Yes.

22 Q. And is it possible that the results that we see in the
23 DOGAMI table with the number of -- I believe it was 1,600
24 single-family homes throughout the tri-county area, is it
25 possible that a large percentage of those homes are actually

Hagerty - ReD

1 outside of the city of Portland?

2 A. Yes, it's possible.

3 Q. And you had commented in your testimony that in your
4 experience you hadn't noticed a lot of masonry or unreinforced
5 masonry single-family homes within the city of Portland; is
6 that correct?

7 A. That's correct.

8 Q. And, in fact, would that reinforce your position that a
9 large percentage of those single-family unreinforced masonry
10 homes are probably outside of the city of Portland?

11 A. Assuming that they're -- the numbers provided in the
12 document are correct, that would be -- then my answer would be
13 yes.

14 Q. And your database only considers buildings within the city
15 of Portland; correct?

16 A. That's correct.

17 MS. MOYNAHAN: Okay. I have no further questions.

18 MR. DiLORENZO: Your Honor, I have -- I have no
19 further questions.

20 I would like to -- I'm reminded that I need to offer 6 and
21 44.

22 THE COURT: Any objection?

23 MS. MOYNAHAN: No objection.

24 THE COURT: All right. Thank you.

25 MR. DiLORENZO: No further questions.

Hagerty - ReD

1 THE COURT: I have some questions.

2 THE WITNESS: Okay.

3 THE COURT: The retrofit committee that issued the
4 report that has been admitted as Exhibit 6, do you know which
5 City agency directed the committee's formation?

6 THE WITNESS: I don't know for sure. Bureau of
7 Development Services?

8 THE COURT: But it was a City agency?

9 THE WITNESS: That directed the formation of the
10 committee?

11 THE COURT: Correct.

12 THE WITNESS: Yes.

13 THE COURT: The committee, from the report, appears
14 to have reviewed other source materials, as well as overseeing
15 the field survey that we've been talking about. Is it correct
16 that the committee looked at other written sources about URM's
17 seismic upgrades, retrofitting?

18 THE WITNESS: Yes.

19 THE COURT: One of those sources is the Oregon
20 Resilience Plan; correct?

21 THE WITNESS: That's one thing they use.

22 THE COURT: Right. It's not the only thing, but it
23 is a source.

24 THE WITNESS: Yes.

25 THE COURT: All right. I'm going to read, Counsel,

1 Exhibit 6, page 6, at the top, and I'll read the top first
2 paragraph in its entirety, indicating quotes where the report
3 itself is quoting a third source. In 2011, the Oregon
4 legislature directed the Oregon Seismic Safety Policy Advisory
5 Commission, OSSPAC, in parens, to create a plan to prepare
6 Oregon's infrastructure and economy for the impacts of a large
7 Cascadia subduction zone earthquake. In their report, the
8 Oregon Resilience Plan, OSSPAC found that, quote, unreinforced
9 masonry, in parens, URM, closed paren, and non-ductile concrete
10 buildings are generally the most dangerous types of buildings
11 in an earthquake and should not be allowed to remain in service
12 indefinitely unless they are fully upgraded. OSSPAC also
13 recommended that, quote, the danger of URM and non-ductile
14 concrete buildings should be disclosed at the time of building
15 sale or lease, closed quote, so that, quote, market pressures
16 and upgrades triggered by other building repairs, closed quote,
17 would incentivize seismic strengthening of these structures.

18 Here is my question: Reviewing the committee's report,
19 which is Exhibit 6, there are a number of recommendations aimed
20 at URMs but none aimed at non-ductile concrete buildings, which
21 the Oregon Resilience Plan identified, as -- as far as I can
22 tell, of equal danger in an earthquake to URMs.

23 Do you know why non-ductile concrete buildings were not
24 targets of the committee's recommendations in its report?

25 THE WITNESS: I believe that the committee felt that

1 the unreinforced masonry group of buildings should be addressed
2 first because they are hazardous in all sorts of earthquakes,
3 small as well as large. They can be.

4 In addition, there was a database available to identify
5 them and start working on them. The other types of
6 construction hadn't been identified. There's no idea of the
7 extent of that problem with the non-ductile concrete buildings.
8 There may be just a few.

9 So I think I -- I'm speaking of my own recollection of the
10 committees.

11 THE COURT: Yes.

12 THE WITNESS: I believe that they felt it would be in
13 the public safety's best interest to move forward on
14 unreinforced masonry buildings and to deal with the other
15 hazardous buildings at a later time.

16 THE COURT: I want to make sure I understand what
17 you've said and that I don't misconstrue it.

18 THE WITNESS: Okay.

19 THE COURT: At the time the committee met and
20 reviewed this issue, including different types of structures --
21 one of which is, of course, URMs, another of which is
22 non-ductile concrete structures -- did the committee make an
23 affirmative determination that as between URMs and non-ductile
24 concrete, URMs presented more types of risk in an earthquake
25 than non-ductile concrete structures?

Hagerty - Further ReD

1 THE WITNESS: When the committee met, the original
2 intent of the committee was to deal with unreinforced masonry
3 buildings. This information from -- or this report from OSSPAC
4 that did mention non-ductile concrete buildings was considered
5 and cited as not just the City trying to do something on its
6 own but a concern on the part of the experts at the State that
7 something should be done about buildings with regards to
8 seismic hazards. Unreinforced masonry as well as non-ductile
9 concrete frames. But the genesis of the committee was to deal
10 with the unreinforced masonry issue.

11 THE COURT: All right. One more question, then, to
12 make sure I understand that response.

13 The committee was composed and given the directive to look
14 at URMs. Is that a fair statement?

15 THE WITNESS: I believe that is.

16 THE COURT: All right. Thank you.

17 Ms. Moynahan, follow-up?

18 MS. MOYNAHAN: Yes, Your Honor. Thank you.

FURTHER REDIRECT EXAMINATION

21 (Continuing)

22 BY MS. MOYNAHAN:

23 Q. With all due respect to Your Honor's question,
24 Mr. Hagerty, the sentence that the judge read, that OSSPAC in
25 the Oregon Resilience Plan found unreinforced masonry and

Hagerty - Further ReD

1 non-ductile concrete buildings are generally the most dangerous
2 type of buildings in an earthquake, first of all, Mr. Hagerty,
3 that does not say that they're of equal danger. Does that
4 statement say that?

5 A. That statement does not say that they're equal.

6 Q. And if you were -- as a structural engineer, if you were
7 to draw a line somewhere between most dangerous types of
8 buildings and those of lesser danger, is it not possible you
9 could draw that line somewhere below the non-ductile and soft
10 story buildings? Isn't that correct?

11 A. Yes, that's correct.

12 Q. So the universe of most dangerous types could include --
13 include both URMs and those other -- we've called other risky
14 buildings, such as soft story and non-ductile. But that still
15 does not mean that they are of equal danger; correct?

16 A. That's correct.

17 Q. Do you agree with what I'm saying? I don't want to put
18 words in your mouth.

19 A. Well, the reason why I hesitate is because every building
20 is different, and you take a building that's non-ductile
21 concrete and you could have one that's -- you could have one
22 that's more dangerous than another building that happens to be
23 an unreinforced masonry building. But by and large, if you
24 look at the groups, the types of construction, the whole
25 universe of those unreinforced masonry buildings, there's more

Hagerty - ReX

1 hazard involved in those buildings than there are in reinforced
2 concrete buildings.

3 Reinforced concrete buildings consist of a lot of
4 different types of construction. Some of them are non-ductile,
5 but there's a lot of those. A lot of unreinforced concrete
6 buildings that are fine. So the universe of unreinforced
7 masonry buildings are the most hazardous group in an
8 earthquake.

9 MS. MOYNAHAN: Thank you.

10 MR. DiLORENZO: I have a follow-up, Your Honor.

11

12

RECROSS-EXAMINATION

13 BY MR. DiLORENZO:

14 Q. Mr. Hagerty, if these buildings are so dangerous and if
15 the risk of an earthquake is so imminent, why didn't the City
16 just follow your -- the recommendations of your committees and
17 find the money to help owners retrofit their buildings
18 directly?

19 A. I don't have an answer for that. I don't know why the
20 City -- other than the fact of lack of funds.

21 The -- the whole body of unreinforced masonry buildings,
22 from when I started with the buildings before -- when I started
23 working for the City, was a well-known hazard in earthquakes.
24 In the '80s and '90s, it became apparent that there's a higher
25 seismic risk here than previously understood. So there was a

Hagerty - ReX

1 need to start addressing these buildings a little bit more
2 rigorously.

3 Some building owners actually did improve their buildings,
4 and some are still continuing to do that. They did it because
5 they either had to change the occupancy of the building or
6 they're spending a lot of money on the building and they want
7 to preserve the building. Some of them are historic buildings
8 people wanted to preserve.

9 As time went on, it became apparent that these buildings
10 were more hazardous than previously thought because of the
11 knowledge about the potential for a very large earthquake and
12 how frequently it happens.

13 So there was a desire to -- on the part of the City to do
14 something about this, to try and get owners of these buildings
15 to try and address this issue. In the interest of public
16 safety, to get these buildings upgraded over a period of time.
17 Originally, the idea of -- was kicked around of doing it over a
18 period of 20 years.

19 MR. DiLORENZO: I have another follow-up if I may.

20 THE COURT: Go ahead.

21 BY MR. DiLORENZO: (Continuing)

22 Q. Well, the standards have been increasing over the years
23 for seismic upgrades. Is that a fair characterization? The
24 standards that have been posed by ASCE have been increasing?

25 A. Well, they have become more -- more sophisticated, I

Hagerty - ReX

1 guess, is a fair statement.

2 Q. Would "stringent" be a good word? They're more stringent
3 today?

4 A. Possibly more stringent. I mean, as far as upgrading the
5 building as a type of construction, more knowledge has occurred
6 with some of these buildings on how to upgrade them. So the --
7 the standards have changed over time, I guess, is a fair
8 statement.

9 Q. Well, sir, we -- we have plaintiffs in this case who have
10 spent millions of dollars upgrading their buildings to the
11 codes that existed at the time. They can -- they did the
12 upgrades, yet they still have to placard because the standards
13 have changed once again.

14 So are these standards changing, and do you expect them to
15 change in the future?

16 A. I don't expect them to change much in the future, but I --
17 I'm not a fortuneteller.

18 MR. DiLORENZO: Thanks. Thank you, Your Honor, for
19 your leeway.

20 THE COURT: Mr. Hagerty, you can step down. Thank
21 you.

22 Ms. Moynahan.

23 MS. MOYNAHAN: The City is calling

24 Ms. Shelly Duquette.

25 THE COURT: Ms. Duquette, if you would come forward,

Duquette - D

1 please, and be sworn as a witness.

2

3

SHELLY DUQUETTE,

4 called as a witness on behalf of the Defendants, being first
5 duly sworn, is examined and testified as follows:

6

7

THE WITNESS: Yes.

8

DEPUTY COURTROOM CLERK: Please step up and have a
9 seat. There are exhibit notebooks. Defendants are right there
10 when they ask you to. Here's some water.

11

Please state your name for the record and spell your last
12 name.

13

THE WITNESS: My full name or first and last?

14

DEPUTY COURTROOM CLERK: First and last is good.

15

THE DEFENDANT: Shelly Duquette. S-h-e-l-l-y,
16 D-u-q-u-e-t-t-e.

17

18

DIRECT EXAMINATION

19

BY MS. MOYNAHAN:

20

Q. Good morning, Ms. Duquette. Can you please tell us how
21 you're employed?

22

A. I am employed by the City of Portland.

23

Q. And in what capacity?

24

A. As a structural engineer for the Bureau of Development
25 Services.

Duquette - D

1 Q. And how long have you been with the City?

2 A. Fifteen years in June.

3 Q. And how long -- can you just briefly run us through the
4 time frame in the various bureaus you have worked?

5 A. June 2004 through October 2009 I was with Bureau of
6 Development Services. October 2009 to, I believe, June 2013 I
7 was with the Portland Bureau of Transportation, also as a
8 structural engineer. And June 2013 to current, I am back with
9 Bureau of Development Services still as a structural.

10 Q. And what is your educational background?

11 A. I have a bachelor of science in civil engineering and a
12 master's of science in civil engineering with a structural
13 emphasis.

14 Q. And where did you get your master's degree?

15 A. At Portland State.

16 Q. Okay. And do you have any professional licenses?

17 A. Yes. I am a licensed civil engineer and a licensed
18 structural engineer.

19 Q. So that would be a PE license?

20 A. Yes. A PE and an SE.

21 Q. And an SE. Thank you.

22 And what are your -- do you -- do you belong to any
23 professional associations or boards?

24 A. Currently, I am the president of the Oregon Board of
25 Engineers and Land Surveyors. I am on the National Council for

Duquette - D

1 Engineering Examiners, which is NCES, their committee that
2 writes, develops, and grades the national structural
3 engineering exam for people to get licensed as a structural
4 engineer.

5 Q. Okay. What are your current job duties?

6 A. My current job duties are structural plan review. So any
7 building permit that comes in that has a structural aspect,
8 myself or one of my colleagues reviews it for code compliance.

9 Q. And what is your main area of job duties?

10 A. I'm currently structural plan review.

11 Q. Okay. And do you have any job responsibilities related to
12 what is called the URM database?

13 A. Yes. I was tasked in the fall of 2015 to update the
14 original list and verify it and any new buildings that were
15 added and maintain that database because it's a living
16 document, because we get new information all the time. So I
17 would determine if a building had been demolished, if it had
18 any seismic upgrades, and the like.

19 Q. Okay. And I'll ask you more questions about the database
20 in a minute.

21 Do you know what a URM is?

22 A. I do.

23 Q. And what is it?

24 A. It is an unreinforced masonry building, which means brick,
25 concrete masonry units that do not have a minimum amount of

Duquette - D

1 reinforcing.

2 Q. And does the Portland City -- Portland City Code have a
3 particular definition of URMs?

4 A. They do.

5 Q. And do you know what that is?

6 A. Yes. It is a building constructed of unreinforced masonry
7 that has at least one load-bearing wall supporting 100 pounds
8 per linear foot or more.

9 Q. Okay. And if a building has been retrofitted, might it
10 still fall within the definition of URM?

11 A. Yes.

12 Q. According to the city code?

13 A. Yes.

14 Q. Okay. So is there, in your mind, any question, per the
15 definition, as to whether a building is a URM in the city of
16 Portland? Is there -- could there be -- I'll rephrase the
17 question.

18 If you say a building is a URM, to you, who knows the city
19 code, does it have particular meaning?

20 A. Yes, it does.

21 Q. Okay. And a building what has been retrofitted well above
22 what we would call the life safety or at the life safety level,
23 would that fall within the City definition of a URM?

24 A. It could, yes.

25 Q. How could that be?

Duquette - D

1 A. Because there still would be aspects of unreinforced
2 masonry in -- within the building even if it's been upgraded.

3 Q. Okay. But that might come off the database; is that
4 correct?

5 A. No. If there's still a load-bearing URM wall, it will
6 stay on the database.

7 Q. Okay. I'll get back to that. Thank you.

8 Do you read professional journals related to building
9 constructions?

10 A. Not consistently.

11 Q. Okay. Are you familiar with studies related to URMs and
12 how they perform in earthquakes?

13 A. I am.

14 Q. And can you share with us some of those studies?

15 A. Historically, URM buildings are the poorest performing
16 buildings during a seismic event.

17 Q. What studies are you referring to there?

18 A. FEMA has done some studies. There's been a lot of
19 professional articles. I mean, after any significant seismic
20 event, we always learn something new, and that's why codes are
21 always changing. Because you don't know what you don't know
22 until you find out, and, unfortunately, earthquakes usually
23 tell us by having buildings collapse.

24 Q. But in a major Cascadia subduction zone earthquake,
25 wouldn't all types of buildings be damaged?

Duquette - D

1 A. Most likely, yes.

2 Q. And why are URMs different from the others?

3 A. Because they are most likely not to just be damaged but
4 collapse completely.

5 Q. And that's based on studies you've read?

6 A. Studies and performance of these buildings in past
7 earthquakes.

8 Q. Is this a generally accepted principle among structural
9 engineers -- that URMs are the poorest performing buildings in
10 the event of an earthquake?

11 A. Of all the engineers I have spoken with about this, yes.

12 Q. And have you spoken with other engineers about this?

13 A. Yes. I'm on -- in addition to the committees I told you
14 about earlier, I've been on several others in the past that I
15 am no longer on, but I have not heard a structural engineer
16 think URMs are the best buildings ever.

17 Q. Well, let's start -- let's reverse that. Have you heard
18 them say that they're the worst type of building?

19 A. Yes.

20 Q. Okay. So do you know of any credible controversy
21 surrounding the proposition that URMs are the most vulnerable
22 types of structures in an earthquake?

23 A. I do not.

24 Q. Okay. Let's turn to the database. When you first started
25 working on the database project, what were you charged with?

Duquette - D

1 What was your task?

2 A. I was given a list of buildings believed to be
3 unreinforced masonry buildings, and I was to research every
4 building, determine if it was a URM, if it had been demolished,
5 if it had been upgraded.

6 Q. And so you said -- did you say you were given a list? Is
7 that correct?

8 A. That's correct.

9 Q. And was the list the City's work from the 1995 survey?

10 A. It included that information, but there were other
11 information -- there were more buildings than on the original
12 1990 survey.

13 Q. Did it include the buildings that PSU had also surveyed?

14 A. I believe it did, but I don't know for sure.

15 Q. Well, have you looked at the buildings that PSU has
16 studied?

17 A. I have -- I don't know what buildings PSU studied.

18 Q. Okay. My understanding is that your database consists of
19 all the buildings that the City of Portland surveyed in the
20 1990 study; correct?

21 A. Correct.

22 Q. Does it not include the information that the City received
23 from PSU?

24 A. I don't know if it does or not.

25 Q. Okay.

Duquette - D

1 A. I was just -- I have the City's -- I have a list that was
2 published in the mid '90s. I don't know if it was all City or
3 if they grabbed information from PSU or not.

4 Q. Okay. How many buildings were on the list that you
5 received?

6 A. Around 1,850 -- no. Which? The list I received, there
7 was over 2,100 buildings.

8 Q. Okay. And I'm going to ask you to please look at what has
9 been marked -- well, you have a book in front of you that says
10 "Defendant Exhibits," and there's a volume one and a volume
11 two.

12 Do you see those?

13 A. I do.

14 Q. Could you please take volume two? And in volume two, if
15 you would please turn to Exhibit 131.

16 And do you recognize that document?

17 A. Yes.

18 Q. Is that the declaration you signed a few weeks ago in this
19 matter?

20 A. Yes.

21 Q. Okay. I'm going to ask you about some of the issues or
22 facts that you state in the declaration.

23 So in paragraph 4, you reference the BDS 1990s inventory
24 that they were -- that the City amassed; correct?

25 A. Yes.

Duquette - D

1 Q. Okay. And you said in 1914 -- or, I'm sorry, 2014 BDS
2 created a working list of potential URMs from the 1990s list
3 and GIS data. Can you explain what that means? What's the GIS
4 data?

5 A. GIS data is -- we have a computer program called Mapworks,
6 which imports it, and so basically GIS has data on topography,
7 historic buildings, and one of the layers is URM buildings.

8 Q. Okay. So you state that there were 2,100 buildings on the
9 list originally; correct?

10 A. On the list I was given, yes.

11 Q. That you were given. And that -- was that the list from
12 the 1990s, or did that include the GIS data as well?

13 A. It was the list from the 1990s and GIS data, and that's
14 all I'm aware of, but there could have been other sources.

15 Q. Okay. Okay. So can you please tell us what steps you
16 took to ensure that the database was accurate?

17 A. Yes. In the 1990s, when the City of Portland created the
18 list, this was created from inventory of buildings that the
19 City did for all buildings, so -- and those were called rapid
20 visual surveys.

21 So I reviewed all the rapid visual surveys that were done
22 in the 1990s. I did a permit history search to see if in our
23 permit histories if -- you know, if a seismic upgrade had been
24 done, then it usually noted, oh, yes, you know, this was a
25 seismic upgrade for a URM building. If a reroofing had been

Duquette - D

1 done, you know, for wall anchorage, you -- I would know that
2 would be for a URM building. The -- our fire inspectors go
3 out, I believe, every other year, and a lot of times they would
4 put notes in our permits. You know, masonry building.

5 I also used Google Street View because a lot of -- if a
6 building doesn't have stucco or veneer, you can determine its
7 building type. And based on the age of a building, it is known
8 if it's reinforced or not.

9 I also used Sanborn maps, and we have microfiche of most
10 of our building permits going -- sometimes going back to the
11 early 1900s. So I would search through the microfiche to see
12 if I could find original building plans so you could verify
13 construction that way.

14 And I also would review inspection cards because sometimes
15 the inspectors would note, you know, wood framing went up.
16 Okay. If there's wood framing, it's not a URM. Or they'll
17 talk about, you know, lintels installed. Okay. This is
18 probably a brick building.

19 Q. And did you use the rapid visual survey results that the
20 City had from its work that it had done originally in the
21 1990s?

22 A. I did.

23 Q. And were you able to find it in your -- in paragraph 9 of
24 your declaration, you say if the original rapid visual surveys
25 could be located, you reviewed them. Were there some that were

Duquette - D

1 missing?

2 A. Yes, there were.

3 Q. And were you -- how -- do you have any idea how many you
4 were able to find or how many you weren't able to find?

5 A. I don't.

6 Q. Okay. And did you -- is this everything you did to
7 confirm each building?

8 A. No. I also -- prior to my starting this process, surveys
9 had been sent out to building owners -- or URM building owners
10 that were on the list that I was given, and so one of the
11 questions on those surveys was do you believe this is a URM
12 building? It was "I agree, I disagree," or "I don't know." So
13 I looked at those answers, too, because some people, you know,
14 thought their building was a URM or wasn't, and so I did that.

15 I also -- there was some buildings where we didn't have
16 any plans. We didn't have any microfiche or inspection cards
17 so -- and, visually, they had stucco or veneer, so you couldn't
18 determine their building type. So I did two to three days of
19 site visits to see if that would help in the determination of
20 the building's construction type.

21 Q. Okay. So first of all, you said surveys were sent to
22 building -- URM -- what you believe to be URM building owners.
23 Did you send those surveys, or is that someone else?

24 A. I -- I didn't personally. I believe it was the Bureau of
25 Development Services, though.

Duquette - D

1 Q. But you had the results?

2 A. Yeah. They -- yeah. They are in a box under my desk
3 still.

4 Q. And do you have any idea how -- how many owners responded
5 to the survey?

6 A. Off the top of my head, I would say 5-, 600, but my
7 confidence in that number is not terribly high.

8 Q. Okay. And so when you said that you spent two or three
9 days out ground-truthing or visually observing the buildings
10 that you had no information for, that was for how many
11 buildings? You started with 2,100. How many buildings did you
12 have to go out and look at over two or three days?

13 A. I probably did around 30 or 40.

14 Q. And was that the universe of buildings that you just
15 didn't have enough information for?

16 A. Correct.

17 Q. Okay. Did you go inside those buildings?

18 A. No.

19 Q. Why not?

20 A. Typically, buildings are finished, so you wouldn't be able
21 to see how it's constructed anyway. And I don't think I had a
22 right to enter the buildings.

23 Q. Okay. And so what could you see from walking around the
24 buildings that you couldn't otherwise?

25 A. Sometimes -- I mean, because Google Street View covers

Duquette - D

1 what you can see from the street. Sometimes you get in the
2 parking lot and see sides of buildings you couldn't see or not.

3 Occasionally, you would see an unfinished clay tile wall
4 or bricks that were exposed.

5 Most of the buildings, however, had stucco or veneer over
6 all four sides.

7 Q. So you weren't able to confirm most of those --

8 A. Correct.

9 Q. -- subset.

10 Okay. And so what did you do if you couldn't confirm?
11 How did you enter that in the database?

12 A. I -- well, if the building wasn't on the original City of
13 Portland mid '90s list and I couldn't confirm it was a URM, I
14 did not add it to the list.

15 Q. Why would you be looking at a building that wasn't on the
16 list?

17 A. Because I was given this other list that -- again, this
18 was -- there was work done before I was involved. They just
19 said, "Here's what we have. Go with it." And there were more
20 buildings from then, from the original list, and I don't know
21 for sure how other buildings got added to it or not.

22 Q. Okay. So this other list, you don't know where they came
23 from?

24 A. Well, I have inferred on -- because sometimes with the GIS
25 data, if you have buildings that are touching or are very close

Duquette - D

1 together -- so if you think of the buildings in southwest
2 Portland, like in Multnomah Village, where they're just
3 stacked, stacked, stacked, stacked, GIS imported the addresses
4 from the mid '90s list and considered all those buildings one
5 building. And so then they got split. And now all of a sudden
6 instead of one building that's a URM, now there's five. And so
7 that happens.

8 Sometimes in GIS the single tax lot will have more than
9 one building. So GIS will just say all these buildings are
10 URMs, so I -- I believe that's part of what happened.

11 Q. Okay. And, again, you did this verification process for
12 approximately 2,100 buildings?

13 A. Yes.

14 Q. Is that's correct? That's correct?

15 A. Uh-huh.

16 Q. And did you do this alone?

17 A. Yes.

18 Q. How long did it take you?

19 A. Eighteen months to two years. I mean, it's still -- like
20 I say, it's a living document. Every time we get new
21 information, if a building comes in for a seismic upgrade
22 permit that we have on our URM list, we keep track of that
23 data. If a URM has been demolished, we keep track of that. If
24 a licensed design professional will, you know, even -- well,
25 when a building permit comes in and the licensed design

Duquette - D

1 professional will identify it as a URM that we didn't have on
2 the list -- so the list is always -- as we get new information,
3 is always updating. And if we get a permit in that says this
4 is a concrete building that's on our URM list, and we look at
5 it and say, "Is this really a concrete building?" And the
6 licensed design professional says "Yes."

7 THE COURT REPORTER: I'm sorry. Could you slow down
8 a little bit?

9 THE WITNESS: A new permit where a licensed design
10 professional will identify it as not a URM, we'll ask him, "How
11 did you do this?"

12 And it will be like, "Well, I went out and looked at it.
13 All the finishes are gone. It's all concrete," or the building
14 owner had the original plans. Okay. Great. I'll take it off
15 the list, then.

16 BY MS. MOYNAHAN: (Continuing)

17 Q. Okay. So let's talk about buildings that you've taken off
18 the list. First of all, you had these survey results, and I
19 imagine there's a percentage of people who said, "My building
20 is not a URM"; correct?

21 A. Correct.

22 Q. And what did you do with that information?

23 A. I made a list. Because a lot of times it's very easy
24 to -- if you visually see, like, old brick buildings, you can
25 see that they have a soldier course, which means typically you

Duquette - D

1 can see the long sides of the bricks, and about every four feet
2 you'll see the short end, and that's called a soldier course,
3 that is -- that is a URM building. You can visually see this.
4 Okay. I'm done. I don't need to go through all these other
5 steps because this confirmed it for me.

6 But those -- people who said they disagreed, I did
7 everything that I could. So I visually did it, did a permit
8 search, did a microfiche search, looked for plans, look at the
9 inspection cards, and -- just to make sure. Because, you know,
10 they're the building owner. I would assume they know how it
11 was constructed.

12 Q. And did you remove any buildings from the URM list based
13 upon that subsequent effort to look at buildings that were
14 being, for lack of a better term, contested by the owner?

15 A. I didn't keep track of that, no.

16 Q. Did you remove any from the list?

17 A. Oh, yes. I removed about 260 that were not unreinforced
18 masonry and about 185 that had been demolished.

19 Q. Okay. And there were some buildings that you removed
20 because an owner -- did an owner give you sufficient evidence
21 to remove a building?

22 A. Yeah. That's another way, is, you know, if people would
23 contact me. Because the owner surveys, we had no contact
24 information on, other than the mailing address. But if
25 people -- we also had set up an email address for the database

Duquette - D

1 where people -- if they had questions or comments. So people
2 would email building owners. "This is a URM building."

3 "Why do you think that?"

4 "Well, I have the building plans" or "We don't" -- didn't
5 have the building plans. "Can you send me copies?" So they
6 could send me copies of building plans.

7 If they had been doing a remodel and had taken off the
8 finishes, that would expose the construction type. We'd accept
9 that.

10 If they didn't have that, they could hire a licensed
11 engineer who could investigate and know where to look. Instead
12 of having to rip off all finishes, "Oh, I just need you to rip
13 off a finish here in this location and this location," and they
14 could send us a -- their sealed memo and what they looked at,
15 and that works too.

16 Q. So in paragraph 10 of your declaration, Exhibit 131, you
17 state, "Once I found conclusive evidence that a building on the
18 potential URM list was a URM, I stopped the research project --
19 process for that particular URM. It remained on the list. Or
20 if I found conclusive evidence that a potential URM building
21 was not a URM, that building was removed from the list."

22 Now, then you state, "If there's no conclusive evidence
23 that a building is a URM and it was not on the original 1990s
24 list, it was not added." Correct?

25 A. That's correct, yes.

Duquette - D

1 Q. And why would you have been looking at a building that was
2 not on the 1990s list?

3 A. Because the list I was given included that -- that list
4 and other buildings.

5 Q. Okay. And did you ever receive information about
6 buildings that weren't on any list?

7 A. I did. Actually, I had a couple licensed design
8 professionals email me. "You need to add this building on the
9 list. It's a URM."

10 "Well, we don't have it on the list. I don't have any
11 plans showing me this."

12 And they'll be like, "Well, I did the remodel for this.
13 Here are the plans. There are URM bearing walls. It should be
14 on the list." So then I would add it.

15 Q. So if you received conclusive evidence from somebody and
16 you were satisfied it was a URM, you put it on the list?

17 A. Correct.

18 Q. What about the universe of buildings where it's on the
19 list and you've gone through your verification process and you
20 still can't determine if it is or is not a URM? What happens
21 to those buildings?

22 A. It depends. There's the 1990s list, and then there is the
23 list that was given to me. If the building was on the 1990s
24 list and I could not find conclusive evidence either way, it
25 stayed on the list because records get lost. People check out

Duquette - D

1 drawings and don't bring them back. Things get misarchived.

2 Q. So you're making an assumption that it should have been on
3 the list in the first place?

4 A. Correct.

5 Q. And what can be done to take that building off a list?

6 A. What I explained before. If owners have plans. If they
7 have pictures. If they've hired an engineer to look. I've met
8 with many building owners who have brought in their building
9 plans.

10 Q. Okay. So the ball is in the owner's court at that point?

11 A. Yes.

12 Q. Okay.

13 A. But I will say if it wasn't on the original list and I
14 could not find conclusive evidence, I did not add it to the
15 list.

16 Q. Okay. And how certain are you that the current database
17 is accurate?

18 A. I have a relatively high confidence level.

19 Q. And what is that based on?

20 A. Just on I know the number of buildings that I could
21 actually find plans for. I know that -- of the engineering
22 reports we've got in, that so far that the -- the engineer
23 reports that came in have taken off maybe 25 buildings, which
24 is less than 2 percent of the list, and some reports have come
25 in and shown that it was a URM building.

Duquette - D

1 Q. Okay. Can you put any percentage on your level of
2 confidence as to the accuracy of the database?

3 A. Probably 95 percent or higher.

4 Q. And is it a conservative estimate? I mean, you're an
5 engineer.

6 A. Yes. Yes, I'm an engineer. It's conservative.

7 Q. Okay. How often do you update the database?

8 A. If I'm not under an injunction to not touch the database,
9 I update it as soon as I get new information.

10 Q. And currently are you updating the database?

11 A. I am not.

12 Q. And why is that?

13 A. Because we're under an injunction not to do anything to
14 the database. Information is still coming in, and we're
15 putting it in a holding pile that we may update or we may not.

16 Q. Okay. So if the injunction is lifted, you will go ahead
17 and process that new information?

18 A. Correct.

19 Q. Okay. So based on your knowledge of URMs, do you make any
20 observations or do anything in particular when you walk into a
21 URM?

22 A. Well, I do -- even do something particular if I walk by a
23 URM sometimes. But, yes, it's -- you want to know where the
24 falling hazards are going to be. So if there's high parapets
25 over a doorway, look for the exits, look for something sturdy

Duquette - D/X

1 that will withstand bricks falling on it.

2 Q. Do you actually do this, or are you just recommending?

3 A. No, I kind of do this.

4 Q. You do this?

5 A. Yes. It's kind of an occupational hazard. I look -- any
6 building I walk into, I try to figure out how it's built.

7 Q. And is that just out of interest?

8 A. Yeah.

9 Q. Okay. But how about for personal safety? Do you make any
10 observations?

11 A. Yeah, I -- again, that's part of my interest in how is a
12 building built. How old is it? Because I can make an estimate
13 on how I think it will perform.

14 MS. MOYNAHAN: Okay. I have no further questions.

15 THE COURT: Mr. DiLorenzo.

16 MR. DiLORENZO: Thank you, Your Honor.

17

18

CROSS-EXAMINATION

19 BY MR. DiLORENZO:

20 Q. Good morning, Ms. Duquette.

21 A. Good morning.

22 Q. URM. Unreinforced masonry. That's a term of art in the
23 city code, is it not?

24 A. It's a term of what, sir?

25 Q. Term of art in the city code, as a definition.

Duquette - X

1 A. Yes, it does.

2 Q. And it's your testimony that once a building is a URM,
3 always a URM, even if it's upgraded?

4 A. If there is still an unreinforced masonry bearing wall,
5 yes.

6 Q. So if an unreinforced masonry building is upgraded to the
7 highest standards there are today, in your view, it is still an
8 unreinforced masonry building?

9 A. It depends on how it was upgraded. But if a URM bearing
10 wall still remains, yes, it is a URM building.

11 Q. Okay. Now, do you think most residents of the city are
12 conversant in the City building codes?

13 A. I do not.

14 Q. Have you -- are you familiar with the DOGAMI report that
15 was issued in 2018 about -- about earthquake regional impacts?

16 A. Earthquake what?

17 Q. Regional impacts.

18 A. I have not read that report, no.

19 Q. Can you take a look at Exhibit 7 -- or, I'm sorry,
20 Exhibit 31. It might be in a different book.

21 MS. MOYNAHAN: It's in plaintiffs' exhibits.

22 MR. DiLORENZO: It would be in plaintiffs' exhibits.
23 There's a corresponding one in the defendants book too, but
24 let's go off of this book.

25 THE WITNESS: That was 31?

Duquette - X

1 BY MR. DiLORENZO: (Continuing)

2 Q. Yeah. I think we looked at this during your deposition,
3 but I just want to see if you're familiar with 31.

4 A. I have not read this report.

5 Q. Okay. But you've seen it before?

6 A. I am not sure if I have.

7 Q. Really? Okay. Well, let me ask you a couple of questions
8 about it anyway.

9 If you go to page 2 of the report, there's a Table ES1,
10 and it's called "Loss Estimate Summary for Two Earthquake
11 Scenarios in the Portland Metropolitan Area."

12 Now, have you generally heard bantered about the City
13 staff a 9.0 Cascadia earthquake? Have you ever heard that
14 term?

15 A. I have heard that term, yes.

16 Q. Okay. What's your understanding of a 9.0 Cascadia
17 subduction earthquake?

18 A. That it's a large earthquake.

19 Q. And where does it occur?

20 A. Off the coast of Washington, Oregon, and a little bit of
21 California.

22 Q. And it has impacts on land; is that correct?

23 A. Yes.

24 Q. Okay. Have you heard reference to a Portland Hills fault
25 magnitude 6.8 earthquake?

Duquette - X

1 A. I have heard of the Portland Hills. I haven't had a
2 magnitude associated with it. Because when -- as an engineer,
3 when we design buildings, it's not to a magnitude number. It's
4 based on the USGS ground acceleration, and there is a way to
5 get there that seismologists use. And so instead of saying,
6 "This is a peak ground acceleration," because lay people don't
7 understand that, so then they try to put it into magnitudes.

8 But I -- as an engineer, I don't design for magnitude. I
9 design for ground acceleration.

10 Q. Okay. But it's true that there is a fault that runs right
11 through the West Hills in Portland?

12 A. Correct.

13 Q. Okay. So DOGAMI has estimated, using its models, two loss
14 scenarios. The first one, in Table ES1, is what would happen
15 if there was a Cascadia subduction zone magnitude 9.0
16 earthquake. Are you there with me?

17 Do you see the chart?

18 A. I do.

19 Q. Okay. Take a look at Multnomah County. There's
20 Clackamas, Multnomah, Washington, and then total. For
21 Multnomah County, DOGAMI is estimating that building repair
22 costs would range between \$13 billion to \$20 billion. Do you
23 see that?

24 A. I do.

25 Q. Okay. And then over to the right, Long-term Displaced

Duquette - X

1 Population in Thousands. They estimate that there would be
2 nine point seven thousand to 37,000 people displaced.

3 Do you see that?

4 A. I do.

5 Q. Okay. And then they have different -- then they have
6 casualties depending on whether the earthquake happened in the
7 day or at night.

8 Do you see that?

9 A. I do.

10 Q. And if the earthquake happened during the day, there would
11 be casualties from 11,000 to 16,000 people, and if it happened
12 at night, there would be 2,000 to 5,000 casualties.

13 Do you see that?

14 A. I do.

15 Q. Okay. Now let's look at the Portland Hills fault
16 magnitude 6.8 earthquake. DOGAMI has estimated that for
17 Multnomah County, instead of the range being \$13 billion to
18 \$20 billion, the range would actually be \$32 billion to
19 \$42 billion.

20 Do you see that?

21 A. I do.

22 Q. And the long-term displaced population would be 50,000 to
23 120,000 people displaced for a 6.8 Portland Hills fault.

24 Do you see that?

25 A. Yes.

Duquette - X

1 Q. And the casualties would number up to 36,000 casualties if
2 the earthquake occurred in the day and 15,000 if it occurred at
3 night.

4 Do you see that?

5 A. I do.

6 Q. Okay. Those numbers of people who would be displaced in
7 these scenarios and those casualty numbers are more than the
8 total number of people who live in URM's in Portland; isn't that
9 correct?

10 A. Probably, yes.

11 Q. Is that because if we sustained earthquakes either at a
12 9.0 Cascadia subduction level or at a 6.8 magnitude Portland
13 Hills fault level there are very few forms of construction that
14 would survive? Isn't that right?

15 A. Well, when they're talking about displaced, buildings are
16 designed for life safety so you can get out in an earthquake
17 and they'll still stand up. They may not be safe to occupy.
18 So the buildings haven't collapsed, but they may be damaged.
19 So people would be displaced because they cannot get back into
20 the buildings while they're being repaired.

21 Q. Okay. So look at the casualty numbers. The casualty
22 numbers for a Portland Hills fault magnitude 6.8 earthquake
23 range from 28,000 to 36,000 casualties. That's much more
24 people than live in URM's; isn't that right?

25 A. Correct. A lot of casualties in seismic events come from

Duquette - X

1 falling objects, things that aren't tied down. Equipment
2 falling, books falling off of shelves.

3 Q. Okay. So the point is, though, for an earthquake of
4 either scenario, either magnitude, other forms of construction
5 would be equally dangerous; isn't that right?

6 A. No, that is not correct.

7 Q. That is not correct?

8 A. That is not correct.

9 Q. You don't -- you -- you don't think that soft story
10 construction would not collapse in an earthquake of that
11 magnitude?

12 A. It may or may not. It could. It may stand. Soft stories
13 have withstood the San Francisco earthquakes, but they were
14 very damaged and they leaned.

15 Q. What about non-ductile concrete? How would that do?

16 A. It would not do well, but it would do better than a URM.

17 Q. Okay. Now let's talk about your declaration.

18 Paragraph 10.

19 A. Sorry. I put it away.

20 Q. That's all right. No problem. Paragraph 10.

21 MS. MOYNAHAN: Exhibit 131.

22 MR. DiLORENZO: Yeah.

23 BY MR. DiLORENZO: (Continuing)

24 Q. You talked about what you would do while you were
25 reviewing the 1990 list. Now I want to make sure I got the

Duquette - X

1 vernacular right. The 1990 list is the list that was developed
2 under the supervision of Mr. Hagerty; is that right?

3 A. Yes.

4 Q. Okay. And that's the list that utilized students and PSU
5 and other sources to -- to generate? Is that your
6 understanding?

7 A. I know there was some students. I believe some were
8 inspectors. I wasn't with the City then, so I don't know the
9 exact makeup.

10 Q. Okay. Well, I'm going to call it "the Hagerty list."

11 A. Perfect.

12 Q. So you started with the Hagerty list, and then you
13 truth-checked?

14 A. No, I did not start with the Hagerty list. I was given a
15 list that included the Hagerty list.

16 Q. Okay. And how did the rest of the list come into being?

17 A. Well, as I stated before, GIS would misidentify due to
18 proximity of buildings, duplicate buildings on a lot.
19 Buildings were added when permits came in, and so -- I mean, I
20 don't -- those are just my assumptions. I had a list I was
21 given to verify that included the Hagerty list.

22 Q. Okay. But when you talk about the 1990 list --

23 A. That's the Hagerty list.

24 Q. -- that's the Hagerty list?

25 A. Correct.

Duquette - X

1 Q. Okay. So if you found conclusive evidence that a building
2 was not a URM because of your other fact-checking --

3 A. Uh-huh.

4 Q. -- then if it wasn't already on the Hagerty list, it
5 stayed off the database?

6 A. No, I added it. If I found conclusive evidence it was a
7 URM, I added it, or it stayed on the list.

8 Q. But what if you found -- I'm sorry. I -- I asked if you
9 found conclusive evidence that a building was not a URM.

10 A. I took it off.

11 Q. You would take it off the list?

12 A. Correct.

13 Q. Okay. If it was on the original list, if a building was
14 on the original list but you could not confirm whether the
15 building was truly a URM or not, you kept it on the list?

16 A. I did.

17 Q. And why did you keep it on the Hagerty list?

18 A. Again, as I stated earlier, records get lost. I knew the
19 list had been vetted by a licensed engineer and a certified
20 inspector, so I assumed that they had information that we no
21 longer had.

22 Q. Okay. Hold on for a second. Who was the licensed
23 engineer who had vetted the -- the building that was on the
24 Hagerty list?

25 A. That would be Mike Hagerty.

Duquette - X

1 Q. That was Mike Hagerty.

2 So because Mike Hagerty said it was on the list, you took
3 that for gospel; is that right?

4 A. Yes. He is a licensed engineer.

5 Q. Okay. All right. Now, if you were presented with a
6 building and there was no conclusive evidence that it was a URM
7 and it wasn't on Mr. Hagerty's list, then you didn't add it to
8 the database; right?

9 A. Correct.

10 Q. Okay. So you had two different standards. Standard one
11 was buildings that were already on the Hagerty list did not get
12 the benefit of the doubt, but buildings that were not on the
13 Hagerty list did get the benefit of the doubt; is that correct?

14 A. Correct.

15 Q. Now, in paragraph 13 of your declaration, you say that of
16 approximately 2,100 URM buildings on the original working
17 list -- are you talking about the Hagerty list?

18 A. No. I'm talking about the list I was given.

19 Q. Now, this is a different list. Okay.

20 And how many more buildings were added to the Hagerty list
21 to make up your working list?

22 A. The Hagerty list had approximately 1,850 buildings. So
23 300-ish.

24 Q. Okay. And then so there was 1,850 buildings on the
25 Hagerty list and then about 300 some --

Duquette - X

1 A. Correct.

2 Q. -- added?

3 And where were they added from? These new buildings on
4 this other source, where did they come from again?

5 A. Either from Mapworks, GIS, permits have come in, and other
6 engineers said, "This is a URM building. It's not on the
7 list." There's -- you know, I don't know. I was given a list.

8 Q. Okay. Who gave you that list?

9 A. It was started by a former city employee who had done it
10 and they said his name is Jacob Balderas, and they said, "Here
11 is Jacob's list. Go."

12 Q. Do you have any understanding how Jacob Balderas prepared
13 his list?

14 A. I don't know. I wasn't involved in the project then.

15 Q. Did you make any inquiry about what methods Jacob Balderas
16 used to prepare his list?

17 A. I didn't because I was verifying everything.

18 Q. So it was just like, "Here's more buildings. Verify"?

19 A. Yes.

20 Q. Now, you say you removed approximately 250 from the
21 working list, which included the Hagerty list, and I'm going to
22 call it the Balderas list.

23 A. Correct.

24 Q. Right. Do you know how many of the 250 came from the
25 Balderas list and how many of the 250 that you removed came

Duquette - X

1 from the Hagerty list?

2 A. I do not.

3 Q. All right. Well, assuming that they were equally
4 distributed --

5 A. Uh-huh.

6 Q. -- that means you found about 10 percent inaccuracies. Is
7 that about right?

8 A. I wouldn't say they were equally distributed. I was -- I
9 did find -- I don't have hard numbers, but I did find the
10 Hagerty list to be very accurate.

11 Q. Okay. So the Balderas -- so if the Hagerty list was very
12 accurate, then the Balderas list must have been the inaccurate
13 one?

14 A. Well, it was a working list. As I stated earlier, GIS
15 imported -- if a building touched a URM, it counted it as a URM
16 just the way it worked.

17 If there were more than one building on the site, it was
18 counted also as a URM. It's just how -- which is why we
19 verified it -- to find those.

20 Q. Okay. If the Balderas list was 300 buildings or so and
21 you removed 250 buildings and the Hagerty list was very
22 accurate, you must have just decimated the Balderas list?

23 A. Well, probably, because, again, I think it was the GIS
24 computer on how they imported the data.

25 Q. Okay. And you say you have a high confidence level that

Duquette - X

1 the URM -- that the current URM list is accurate; is that
2 right?

3 A. Correct.

4 Q. And you said your confidence was 95 percent or higher?

5 A. Correct.

6 Q. Are you aware that Mr. Hagerty testified earlier that his
7 confidence was 95 percent or higher in his list?

8 A. No, I have not.

9 Q. Okay. Well, I find it interesting you use the same
10 confidence level.

11 A. Well, engineers are not a hundred percent confident, and
12 95 is a nice round number.

13 Q. Okay. Close enough then; right?

14 Okay. Let's take a look at Exhibit 42, then.

15 A long time ago I was told by a professor that
16 mathematicians are perfect and engineers are close enough. Is
17 that -- is that -- when you say 95 percent, is that your way of
18 saying you think the list is accurate?

19 A. Yes.

20 Q. Okay. Number 42 is a disclaimer that appears on your
21 current database. Do you recognize it?

22 A. Yes.

23 Q. It says, under Important Disclaimers, "The City of
24 Portland makes no representations, express or implied, as to
25 the accuracy of this database. There are no assurances as to

Duquette - X

1 whether the information presented is correct or comprehensive."

2 Why is there such a statement on the City of Portland
3 database when you are 95 percent confident it's correct?

4 A. I'm 95 percent confident the buildings on the list are URM
5 buildings. I am sure there are a number of URM buildings that
6 are not on the list because I -- we don't know what we don't
7 know.

8 I have had people even call me, "I have a URM building.
9 It's not on the list, and I'm not going to tell you where it
10 is," which --

11 Q. Are you aware of any other City of Portland websites, like
12 PortlandMaps or other websites that have disclaimers like this
13 on them?

14 A. I'm not aware of any, no. I don't spend a lot of time on
15 city websites.

16 Q. Do you use PortlandMaps in your work?

17 A. Occasionally, yes.

18 Q. Okay. And you've never seen this disclaimer on the
19 PortlandMaps website?

20 A. No.

21 MR. DiLORENZO: Okay. That's all I have, Your Honor.

22 THE COURT: Redirect.

23 MS. MOYNAHAN: Just a couple of questions. First, I
24 would like to offer 131, which is Ms. Duquette's declaration.

25 THE COURT: Any objection?

Duquette - ReD

1 MR. DiLORENZO: No objection, Your Honor.

2 THE COURT: Received.

3 MS. MOYNAHAN: Thank you, Your Honor.

4

5

REDIRECT EXAMINATION

6 BY MS. MOYNAHAN:

7 Q. Ms. Duquette, if you would turn back to Exhibit 31 in the
8 plaintiffs' binder, please. Do you recognize -- I'm sorry.
9 Mr. DiLorenzo asked you if you recognized this document, and
10 you said you didn't; correct?

11 A. Correct.

12 Q. And he seemed to express a little disbelief. But, in
13 fact, this was not shown to you in your deposition, was it?

14 A. I don't believe so, no.

15 Q. Okay. Would you please turn to page 2? The table that we
16 had been looking at.

17 Okay. First, Mr. DiLorenzo was referring to the word
18 "casualties." And, in fact, casualties is defined by an
19 asterisk, isn't it?

20 A. It is.

21 Q. And what does it include?

22 A. Minor injuries, injuries requiring hospitalization, and
23 fatalities.

24 Q. So it's not just how many people are going to die in this
25 earthquake; correct?

Duquette - ReD

1 A. Correct.

2 Q. It could include broken arms?

3 A. Yes.

4 Q. Okay. And, finally, he said -- he was making a point
5 about the number of people who live in URMs as opposed to the
6 number of casualties from URMs; but, in fact, people do more
7 than live in URMs, don't they?

8 A. Correct. They work and walk by and shop and go to
9 restaurants.

10 Q. So the number of casualties due to an earthquake might not
11 relate at all to the number of people who live in a URM with
12 respect to that number; correct?

13 A. Correct.

14 MS. MOYNAHAN: Okay. I have no further questions.

15 MR. DiLORENZO: Nothing further, Your Honor.

16 THE COURT: You may step down.

17 Do we have time for the last morning witness?

18 MS. MOYNAHAN: We do, Your Honor.

19 Your Honor, our next witness, as I mentioned to Mr. Gale,
20 just had back surgery two weeks ago. He's been sitting out
21 there since 9:30. He may need -- I think we'll only be going a
22 short period of time. He may need a break or may need to stand
23 up for a minute.

24 THE COURT: Or lie down.

25 MS. MOYNAHAN: Yeah. Or lie down. He's in

Duquette - ReD

1 considerable pain right now.

2 THE COURT: All right. Have him come in.

3 MS. MOYNAHAN: The City's next witness is Amit Kumar.

4 THE COURT: Mr. Kumar, if you would come forward
5 please and be sworn as a witness.

6

7

AMIT KUMAR,

8 called as a witness on behalf of the Defendants, being first
9 duly sworn, is examined and testified as follows:

10

11

THE WITNESS: I do.

12

13

DEPUTY COURTROOM CLERK: Please step up and around
and have a seat. Exhibit notebooks are over here -- right
14 there -- if and when you need them.

15

THE WITNESS: Okay.

16

17

DEPUTY COURTROOM CLERK: Here is some water if you'd
like it.

18

19

THE COURT: Mr. Kumar, I understand you have had
recent back surgery. If you wish to stand, that's fine.

20

THE WITNESS: Thank you.

21

22

DEPUTY COURTROOM CLERK: State your name for the
record and spell your last name.

23

THE WITNESS: Amit Kumar. Last name is K-u-m-a-r.

24

DEPUTY COURTROOM CLERK: Thank you.

25

Kumar - D

1 DIRECT EXAMINATION

2 BY MS. MOYNAHAN:

3 Q. Good morning, Mr. Kumar.

4 A. Good morning.

5 Q. Can you please tell us where you're employed.

6 A. I'm employed with the City of Portland, Bureau of
7 Development Services.

8 Q. Thank you. I am going to ask you to make sure you speak
9 slowly because the court reporter is going to be taking down
10 your information. Thank you.

11 And what's your title at the Bureau of Development
12 Services?

13 A. I'm supervising engineer at BDS.

14 Q. And what is your educational background?

15 A. I have a bachelor's degree from Birla Institute of
16 Technology in India and a master of science in civil
17 engineering with a structural emphasis from the University of
18 Washington.

19 Q. Okay. Thank you.

20 And so do you hold a PE license?

21 A. Yes, I do have a PE license in Oregon and California and
22 an SE license. Structural engineer.

23 Q. Thank you. How long have you been employed with the City?

24 A. 20 years.

25 Q. And have you been with BDS that entire time?

Kumar - D

1 A. Yes.

2 Q. And do you have any professional memberships you belong
3 to?

4 A. I'm a member of the Structural Engineers Association of
5 Oregon. I was the president of the Structural Engineers
6 Association of Oregon from 2013 to 2014. I'm also a member and
7 a delegate of the SEA0 to the NC SEA. Structural Engineers
8 Association of Oregon. So I'm a member of the NC SEA and a
9 delegate to NC SEA on behalf of the Structural Engineers
10 Association of Oregon.

11 Q. And so do you serve on -- you may have said this. Do you
12 serve on an ASCE committee?

13 A. Yes. I currently serve on the ASCE 41 subcommittee on
14 masonry.

15 Q. Okay. And did you mention your affiliation with the
16 Structural Engineers Association of Oregon?

17 A. Yes.

18 Q. Do you hold office with that?

19 A. I'm a delegate to NC SEA.

20 Q. Have you ever been president?

21 A. Yes.

22 Q. And do you have experience with URMs?

23 A. I have experience with URMs. As you know, as a practicing
24 structural engineer, I have been -- I'm a structural engineer
25 for over 30 years, both in private practice and as BDS, in

Kumar - D

1 designing buildings, retrofits of URMs, and reviewing any
2 retrofits of URMs.

3 Q. Okay. And do you have experience with visiting sites
4 after an earthquake has occurred?

5 A. During the 1994 earthquake at Northridge, I was sent down
6 by the firm I was working with at that time. I assisted the
7 firm down in Los Angeles in evaluating buildings.

8 Q. Okay. Now, do you recall signing a declaration in this
9 matter?

10 A. Yes, I do.

11 Q. So you have some notebooks behind you. One of them says
12 defendants' notebook, and it's volume two. Would you please
13 remove that.

14 And I'll ask you to turn to Exhibit 133, please.

15 A. Okay.

16 Q. Do you have that?

17 A. Yes.

18 Q. And is that the declaration that you signed?

19 A. Yes.

20 Q. Okay. I would like to point your attention to paragraph 3
21 where you say as part of your duty as the structural engineer
22 with the Engineering Plan Review Section and subsequently as
23 its supervisor, you were made aware of the City's mid 1990s
24 database of all commercial buildings and surveys of URMs in the
25 city limits, which was used in the development of City of

Kumar - D

1 Portland's Chapter 24.85 Seismic Design Requirements for
2 Existing Buildings.

3 What is the 1990s database you're referring to?

4 A. It's -- it was a survey that was conducted by the City of
5 all commercial and multifamily use buildings in the City of
6 Portland. That's the database that was developed over, I
7 believe, three summers.

8 Q. Okay. And you weren't involved in amassing that database,
9 were you?

10 A. I was not. I was not employed with the City at that time.

11 Q. Okay. How was the 1990s database used in the development
12 of Chapter 24.85 for URM buildings?

13 A. There was a City seismic task force that was created by
14 City Council to look into existing buildings because there was
15 a change of code that happened, and that put basically most of
16 the buildings within the city of Portland to be classified as
17 dangerous buildings.

18 So the -- the City Council established a seismic task
19 force to see how to address these buildings from a seismic
20 standpoint.

21 So to assess the -- the extent of the building risk that
22 we have in the City of Portland, the task force then wanted to
23 look and see how many buildings there are, what different types
24 of buildings there are, and they use this database. And the
25 seismic task force was aware of the dangers of unreinforced

Kumar - D

1 masonry buildings.

2 And so they, using the database, created some special
3 requirements specifically targeted towards upgrading of
4 unreinforced masonry buildings.

5 Q. Okay. Back to the database. First of all, do you
6 understand that it just consists of URM buildings, as opposed
7 to other types?

8 A. There are -- the database consists of all types of
9 buildings, and URMs was one class of building that was carved
10 out from that database.

11 Q. From the 1990s database?

12 A. 1995 database, yes.

13 See, it was all -- buildings of all commercial and
14 multifamily use buildings.

15 Q. Well, Mr. Hagerty testified this morning that the -- that
16 he charged the students with finding URM buildings. Is that
17 not your understanding?

18 A. So the URM buildings were a subset of all the buildings
19 that were there.

20 Q. Okay.

21 A. We have surveys that showed all the different types of
22 buildings. URMs was one subset of those buildings.

23 Q. The City has a database that includes other types?

24 A. Yes.

25 Q. I see. So can you explain why -- strike that.

Kumar - D

1 So you state in your declaration at paragraph 5 that in
2 May of 2014 Council directed the City staff in a workshop on
3 hazards posed by URMs to develop policy recommendations to
4 reduce the risk posed by URMs.

5 Were you one of the staff who was directed to do so?

6 A. I was at the work session presenting to City Council about
7 unreinforced masonry buildings. At the Council, yeah. At the
8 work session, yes.

9 Q. First of all, how did Council direct you? Was it verbal?

10 A. They did not direct me directly. It came through the
11 Portland Bureau of Emergency Management. Commissioner Novick,
12 who was in charge of the Portland Bureau of Emergency
13 Management, I believe directed the director there to address
14 this issue.

15 Q. Okay. But this wasn't by ordinance or resolution?

16 A. That's correct.

17 Q. Okay. Did Council also direct the City staff to study
18 other risky buildings, such as soft story or non-ductile
19 concrete buildings?

20 A. No. Not at this time.

21 Q. Okay. And was there discussion at that time of including
22 non-ductile concrete or soft story buildings?

23 A. At the work session?

24 Q. Yes.

25 A. The work session was primarily focused on unreinforced

Kumar - D

1 masonry buildings.

2 Q. Okay. Let's see. If you'll look at paragraph 6, please.
3 You state that -- well, first of all. In paragraph 5, you
4 discuss your participation in a standards committee. Can you
5 please explain the standards committee and what your role was?

6 A. So at the direction of City Council, City staff formed a
7 core group, and they then performed three separate volunteer
8 committees. One of them was a standards retrofits committee,
9 which was charged with looking at what standards would be --
10 need to be used to upgrade unreinforced masonry buildings.

11 I was mostly a facilitator and -- a lead facilitator on
12 behalf of the City, and I facilitated the building -- the
13 meetings of the retrofit standards committee. I then took the
14 recommendations of the retrofit standards committee and
15 forwarded those to the support committee, and then I was also a
16 resource for the support committee and the policy committee on
17 technical matters for -- that related to unreinforced masonry
18 buildings.

19 Q. Okay. And, again, I'm going to ask you to slow down for
20 the court reporter.

21 A. Okay.

22 Q. Thank you.

23 You state in paragraph 6 that you referenced for the
24 committee. "In my advisory capacity, it was a normal practice
25 for myself and others on the committee to reference reports,

Kumar - D

1 documents, and peer-review articles published by FEMA, the
2 American Technology Council, and other professional engineering
3 journals, just to name a few, for up-to-date information."

4 What do you mean by you referenced those documents?

5 A. For example, FEMA 774, that we used, was one of the
6 documents that was used to look at. You know, what are the
7 other cities? What practices did they adopt to mitigate the
8 hazards of unreinforced masonry buildings? We looked at
9 reports, the best practices for other cities, to see -- most of
10 the people on the retrofit standard committee, by their
11 experience and knowledge, they already knew what the
12 performance of these unreinforced masonry buildings is in an
13 earthquake.

14 So you're looking mostly to look at and see how do we
15 adopt -- what kind of measures do we want to adopt to mitigate
16 these hazards.

17 Q. Okay. And so you provided the committee members with
18 those -- that information? Is that what you mean by you
19 referenced these?

20 A. Yeah.

21 Q. Okay. All right. And in paragraph 7, you -- I'll be
22 honest. I find this paragraph difficult to understand. You
23 reference the standards committee. You say that the standards
24 committee developed the unreinforced masonry seismic retro
25 report and the objectives outlined in the Oregon Resilience

Kumar - D

1 Plan, developed by the Seismic -- Oregon Seismic Safety Policy
2 Advisory Commission --

3 Which I believe is referred to as OSSPAC; right?

4 O-S-S-P-A-C?

5 A. Uh-huh.

6 Q. -- cited to the standards committee served as a guiding
7 principle.

8 Can you explain what you mean in this paragraph? What
9 exactly are you saying?

10 A. So the Oregon -- OSSPAC basically developed the resiliency
11 plan for Oregon, and they identified vulnerable buildings of
12 which URMs were one of the most vulnerable buildings. And one
13 of the objectives that they had cited in there was to either
14 seismically retrofit all URM buildings or have them demolished
15 by the year 2050 because they posed a significant risk -- life
16 safety risk to people and the resiliency of the state of
17 Oregon.

18 And so that was a principle that was there to either
19 retrofit -- have buildings retrofitted or demolished by 2050
20 was the guiding principle that we used.

21 Q. Have you ever been on the OSSPAC committee?

22 A. I was on the committee for the resiliency report that was
23 created. I was a member of the subcommittee for critical
24 buildings.

25 Q. Okay. So you've had a hand in the Oregon Resilience Plan,

Kumar - D

1 then?

2 A. Yes.

3 Q. Okay. And after the standards committee developed its
4 committee report, do you know what became of this report, then?

5 A. The recommendations of this report were then forwarded to
6 what we called a support committee that was established to look
7 at what financial incentives or other help could be provided to
8 building owners of URMs, and they created another report. And
9 these two reports were then forwarded to the policy committee
10 for consideration to, you know, combine the two reports and
11 come up with one set of recommendations.

12 Q. Okay. I'd like to ask you to turn to what's been marked
13 in the -- there's another binder there that says plaintiffs'
14 exhibits.

15 A. Stay that again, please.

16 Q. It says "plaintiffs'." It's a different binder that says
17 "plaintiffs' exhibits."

18 A. Says MBOO exhibits? Is that --

19 THE COURT: Yes, that's it.

20 THE WITNESS: Which volume?

21 THE COURT: Which volume?

22 MS. MOYNAHAN: There's only one for plaintiffs.

23 THE COURT: No, there's two. It's been broken into
24 two.

25 MS. MOYNAHAN: First one, please. I didn't know

Kumar - D

1 that.

2 BY MS. MOYNAHAN: (Continuing)

3 Q. Can you please turn to Exhibit 6.

4 A. Yes.

5 Q. Do you recognize Exhibit 6?

6 A. Yes.

7 Q. And what is that?

8 A. That is the report that the retrofit standards committee
9 prepared.

10 Q. Okay. And is that the report that you were -- you just
11 referred to in your paragraph 7? You don't need to go back to
12 this Standards Committee Developed the URM Seismic Retrofit
13 Report Project. Is this that report?

14 A. That's correct.

15 Q. Okay. Thank you.

16 I see your name is on the front, so this is a committee
17 you were a member of?

18 A. Right.

19 Q. Correct.

20 Would you please turn the page to page 3, please.

21 A. Yes.

22 Q. And, actually, I'm sorry. I'm going to go back one page.
23 Page 2. In the middle of the page, towards the bottom, you'll
24 see some yellow highlighting.

25 A. Uh-huh.

Kumar - D

1 Q. I know it says the committee also noted that consideration
2 should be given to upgrade policy for other dangerous building
3 types, such as non-ductile concrete structures.

4 So can you please explain what that means? What is that
5 referring to there?

6 A. The committee was basically saying that the City Council
7 should provide maybe funding to look at other structures that
8 might be risky, like non-ductile concrete, to create an
9 inventory and then to maybe develop some mitigation measures
10 similar to URM buildings.

11 Q. And so buildings such as -- I believe we've used the term
12 soft story. Soft story?

13 A. Yeah.

14 Q. And as well as non-ductile concrete. Are those types of
15 buildings as dangerous as URM buildings in an earthquake?

16 A. In my opinion, if we had to classify buildings and, you
17 know, grade them of which ones are more dangerous than the
18 others, I would say unreinforced masonry buildings are probably
19 the most dangerous type. But that doesn't mean that
20 non-ductile are not risky. They are risky. But unreinforced
21 masonry buildings are probably the most dangerous type of
22 building because they perform very poorly in even a smaller or
23 more moderate earthquake.

24 And, you know, like an example would be, like, 1993, I
25 believe, when we had the spring break earthquake, and you look

Kumar - D

1 at what happened in Molalla High School. The facade of that
2 building came tumbling down, and that was just a 5.3
3 earthquake, I believe.

4 Q. Okay. And in -- if you'll turn to paragraph 5, please.
5 I'm sorry. Page 5.

6 A. Yes.

7 Q. Under the section of Background, the third paragraph down
8 reads, "In an earthquake, URM buildings have historically been
9 the most vulnerable building type, having a high risk of
10 collapse and structural failure. Life-threatening partial or
11 complete collapse of URM buildings have occurred in virtually
12 every major earthquake around the world and in the United
13 States." And then it references Klamath Falls and Scotts
14 Mills.

15 Do you agree with that statement?

16 A. Yes.

17 Q. And that was the statement of your standards committee;
18 correct?

19 A. That's correct.

20 Q. And, again, you sat on which committee of OSSPAC?

21 A. It was critical buildings. And those buildings are
22 typically buildings like schools, police stations, hospitals,
23 that kind of building.

24 Q. Okay. I see.

25 If you look at the next page, page 6., and there is a

Kumar - D

1 statement in that discussing that -- right off the bat, it says
2 the Oregon Legislature directed Oregon Seismic Safety Policy
3 Advisory Commission to create a plan to prepare Oregon's
4 infrastructure and committee for the impacts of a large
5 Cascadia subduction zone earthquake. In the report, the Oregon
6 Resilience Plan, OSSPAC found that unreinforced masonry, URM,
7 and non-ductile concrete buildings are generally the most
8 dangerous types of buildings in an earthquake and should not be
9 allowed to remain in service indefinitely unless they are fully
10 upgraded.

11 Do you understand that -- that sentence to mean that --
12 that OSSPAC believes URM buildings and non-ductile concrete
13 buildings are equally dangerous in an earthquake?

14 A. I don't think that there's an equivalency there, but
15 they're just saying that they are dangerous.

16 Q. That they're both in the category of most dangerous
17 buildings?

18 A. Of most vulnerable buildings, yes.

19 Q. Okay. And the yellow highlighted section below that,
20 OSSPAC also recommended that the danger of URM and non-ductile
21 concrete buildings should be disclosed at the time of building
22 sale or lease so market pressures and upgrades triggered by
23 other building repairs would incentivize seismic strengthening
24 of those structures.

25 Do you have any understanding or opinion regarding that

Kumar - D

1 statement?

2 A. I do believe that -- that market pressures could force
3 building owners of these types of buildings to upgrade the
4 buildings.

5 Q. And why do you believe that?

6 A. Because people would probably want to live in safer
7 buildings, and they'd start moving to buildings that are more
8 earthquake safe. Then the owners of the other buildings would
9 probably, from a consumer-demand point of view, would want to
10 upgrade the buildings.

11 Q. Okay. Now, you're familiar -- are you familiar with the
12 City of Portland's ordinance that's at subject in this lawsuit
13 that requires, among other things, a placard -- that a placard
14 similar to this one be posted on URM buildings?

15 A. That's correct, yes.

16 Q. Okay. Do you know why single- and two-family buildings
17 are not included in the placarding requirements?

18 A. This was a recommendation that came from the standards
19 committee report, and I believe that -- there are a couple of
20 reasons in my mind that would exclude one- and two-family
21 dwellings.

22 The first is all building codes are based on exposure to
23 risk. One- and two-family dwellings generally have less
24 intensive users. There's less people who are exposed to the
25 risk, as compared to, for example, multistory or multifamily

Kumar - D

1 buildings or even commercial buildings.

2 So when you have limited resources to do upgrades and
3 stuff like that, you would want to put it where you have the
4 biggest bang for the buck.

5 And, secondly, based on the experiences of the committee
6 members, and there are very few unreinforced masonry buildings
7 within the city -- the city of Portland that are one- and
8 two-family buildings, so there's really not that much exposure
9 for one- and two-family dwellings.

10 Q. Okay. Does the Portland City Code treat residential
11 buildings -- is there a distinction between residential
12 buildings and commercial buildings?

13 A. Yes. It is very -- there's a big difference in there.
14 Even, like, the City of Portland's Title 24.85, which is the --
15 the ordinance for seismic upgrades for existing buildings,
16 there is a hazard classification table which lists the building
17 based on occupancy type. And so one- and two-family dwellings
18 are the least hazardous in that hazard classification. They
19 are what we call a hazard classification one, whereas
20 multifamily dwellings are classified as occupancy category
21 three or classified as occupancy -- hazard classification four
22 out of the five that we have.

23 Q. Okay. Thank you.

24 A. And building codes also are different. There's a separate
25 building code with less-intensive requirements for one- and

Kumar - D

1 two-family dwellings versus commercial buildings.

2 MS. MOYNAHAN: Okay. Thank you. I would like to --
3 first of all, I would like to offer Exhibit 133.

4 MR. DiLORENZO: No objection.

5 THE COURT: 133 is admitted.

6 MS. MOYNAHAN: Thank you, Your Honor.

7 BY MS. MOYNAHAN: (Continuing)

8 Q. Mr. Kumar, since we're discussing the code, do you know
9 how URMs are defined in the Portland City Code?

10 A. Yes. In Title 24.85, they define basically buildings that
11 are not reinforced masonry, and then there's a definition of
12 what a reinforced masonry building is, where it tells you what
13 minimum reinforcements are required in a -- to be considered as
14 a reinforced masonry building. For example, it needs .2 square
15 inches of steel every 4 feet on center vertically and then
16 horizontally it needs .2 square inches of steel.

17 Q. Okay. And so there is an objective measure to determine
18 whether a building is or is not a URM under the Portland City
19 Code; is that correct?

20 A. That's correct.

21 Q. Okay. Can you please explain to us the different levels
22 of -- of buildings -- a URM building's retrofitting? For
23 example, we've heard the terms "life safety, collapse
24 prevention, bolts plus." Can you please explain what they are
25 and how they relate to engineering standards?

Kumar - D

1 THE COURT: Mr. Kumar, wait just a minute.

2 All right. How much longer do you think, Ms. Moynahan,
3 for your questions?

4 MS. MOYNAHAN: Probably -- I have quite a few,
5 Your Honor. 20 minutes at least.

6 THE COURT: Yeah, we're going to take our lunch
7 break.

8 MS. MOYNAHAN: Thank you.

9 THE COURT: All right. So we will come back, have
10 that question answered before we proceed with Mr. Kumar's
11 direct. All right.

12 MR. DiLORENZO: Your Honor?

13 THE COURT: It's 12:10 right now.

14 Yes, Mr. DiLorenzo.

15 MR. DiLORENZO: I think this might be an appropriate
16 time to talk about our schedule for the rest of the afternoon.

17 THE COURT: Sounds good. Go ahead.

18 MR. DiLORENZO: We had -- we were ambitious in
19 thinking that we would have concluded the City's remaining
20 three witnesses this morning. Now it looks like we're going on
21 into the afternoon. I will probably have another 35, 40
22 minutes' worth of questions, maybe, for Mr. Kumar.

23 And then we have the other witnesses too. I think we will
24 be able to conclude the other witnesses, the other three, this
25 afternoon.

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1 Mr. Vannier and Ms. Moynahan and I had a conversation, and
2 we were suggesting that the Court, maybe during the lunch
3 break, consider proceeding as follows: Closing the testimony
4 today and then maybe scheduling an hour or two Friday or
5 whenever the Court has some time to hear our closing arguments.
6 That would give us some time to marshal all of the facts that
7 we have heard, and it might accommodate the schedule more.

8 We're prepared to go today, also, if the Court wants to
9 hear oral arguments today, but we're also willing to postpone
10 them. And I see some advantages if the Court has two hours or
11 an hour sometime soon to do that.

12 It's just a suggestion for the Court, but we would both
13 support it if that's what the Court would like us to do.

14 THE COURT: All right. So we will finish evidence
15 today. I encourage you over the lunch break to look at your
16 questions and be efficient and avoid digressions and cumulative
17 evidence because I think we are now at the point where that is
18 starting to happen.

19 Get out your calendars, please.

20 All right. This is also my criminal calendar duty month.
21 Other judges are covering my schedule today as well as
22 yesterday.

23 So the criminal calendar starts every day at 1:30. We
24 will conduct our closing remarks on Monday, the 20th, as soon
25 as my criminal docket is finished. So I will ask everyone to

Kumar - D

1 be here at 2:00 with the understanding that I might not be
2 finished by then and you might have to wait, and you might have
3 to wait more than 30 minutes. But as soon as criminal calendar
4 has finished, then we will take -- I'll take a brief recess,
5 and then we will proceed with the closing remarks and
6 arguments.

7 MS. MOYNAHAN: Your Honor, Mr. Vannier is arguing on
8 behalf of the City. I will be away on vacation. I won't be
9 able to attend. Is that acceptable to Your Honor?

10 THE COURT: Where are you going?

11 MS. MOYNAHAN: To Eagle Crest to go biking for a
12 week.

13 THE COURT: We're all going. We'll do the arguments
14 on bikes. How's that?

15 MS. MOYNAHAN: We can do that. We can do that.

16 THE COURT: All right. That's acceptable to me as
17 long as you're comfortable with it.

18 MS. MOYNAHAN: Absolutely.

19 THE COURT: I don't have much flexibility in my
20 schedule.

21 MR. DiLORENZO: That's fine.

22 THE COURT: All right. Let's be back here at 1:30 to
23 resume evidence.

24 MS. MOYNAHAN: We have a question pending, I believe.

25 THE COURT: Yeah, he'll answer it when he comes back.

Kumar - D

1 MS. MOYNAHAN: Got it. Thank you.

2 THE COURT: In the meantime, don't talk about it.

3 MS. MOYNAHAN: Thank you.

4 MR. DiLORENZO: Thank you, Judge.

5 THE COURT: Mr. Kumar, you can step down. Sorry for
6 the inconvenience.

7 (Lunch recess taken.)

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Kumar - D

1 DEPUTY COURTROOM CLERK: All rise.

2 THE COURT: All right. Jill, would you read back the
3 question before we took our lunch break, please.

4 (The court reporter read back as follows: "Question:
5 Can you please explain to us the different levels of
6 buildings -- a URM building's retrofitting? For example, we've
7 heard the terms "life safety, collapse prevention, bolts plus."
8 Can you please explain what they are and how they relate to
9 engineering standards?")

10 THE WITNESS: So ASCE 41 building standard defines
11 different performances of a building. The lowest performance
12 standard is what is called a collapse prevention where a
13 building, when subject to seismic earthquakes, has suffered
14 enough damage that it is on the verge of collapsing, and a
15 building of this -- of that -- in that state could have
16 suffered severe damage. It's probably not repairable. It's
17 something that the building would have to be torn down.

18 You can expect significant injuries and for possible
19 fatalities in that performance.

20 A life safety performance level is the next higher level
21 of performance of a building subject to the earthquake, and
22 that is when the building has suffered damage but it probably
23 could be prepared, depending on the level of damage, and the
24 people would probably have -- would be able to safely exit
25 after an earthquake, the -- it's not expected to have major

Kumar - D

1 fatalities in that building in that performance level. And
2 then there are other benchmarks where you have things like
3 immediate occupancy, where, after an earthquake, you expect
4 that the building would be able to be functional with some --
5 maybe some minor repairs, and will be up and running as soon as
6 possible.

7 So those are the some of the three standards that are
8 there.

9 Bolts plus is not a standard defined in the code, but it
10 was something that was used in California in the 1980s. But it
11 is a lower performance level than even collapse prevention.

12 Q. Thank you.

13 Now, Mr. Kumar, what level of rehabilitation or
14 retrofitting does a building in Portland have to attain to come
15 off of the URM database?

16 A. So the performance level that we have is based on what
17 type of earthquake a building is supposed to be subject to. So
18 there's dual objectives in there. One of them is called a
19 collapse prevention, and that is for the earthquake that the
20 building is subject to and what is defined, in technical terms,
21 as BSE-2, which is basically something like a maximum credible
22 earthquake that can be expected to happen in this area.

23 The second objective in there is a life safety performance
24 under a smaller earthquake, which is called BSE-1E, which is a
25 more frequent kind of earthquake that we might expect here in

Kumar - D

1 Portland.

2 Q. Right. But given those standards, if I had a building on
3 the URM database that right now is any color other than
4 green -- green, meaning they no longer have to have a
5 placard -- what level of retrofitting do I need or any person
6 need to attain to change their building to green and not have
7 to have a placard up?

8 A. It is those two objectives in there. Loss prevention
9 under BSE-2E and life safety under BSE-1E.

10 Q. Okay. Are those -- if you can refresh my memory, are
11 those levels based upon a national standard?

12 A. Yes. That is what is defined in the ASCE 41 as a -- what
13 we call a BPOE, this is Basic Performance Objective for
14 Existing Buildings.

15 Q. Is that a standard that is recognized nationally?

16 A. Yes.

17 Q. Mr. Kumar, would you please turn to -- if you would grab
18 the plaintiffs' first -- I'm not sure if it's first volume --
19 yes, the first volume -- that contains Exhibit 6, please.

20 MS. MOYNAHAN: Sorry, Judge, I'm having technical
21 binder difficulties. Sorry, Judge.

22 THE COURT: Did the binder come apart?

23 MS. MOYNAHAN: My binder came apart, yes.

24 THE COURT: It needs to be reinforced, I think.

25 MS. MOYNAHAN: I was thinking that.

Kumar - D

1 Counsel, do you know the number for DOGAMI? Number 38?

2 MR. DiLORENZO: I do. Mine or yours?

3 MS. MOYNAHAN: Maybe at this point mine.

4 MR. DiLORENZO: 31 on ours.

5 MS. MOYNAHAN: 31 on yours?

6 MR. DiLORENZO: 31.

7 MS. MOYNAHAN: Thank you.

8 BY MS. MOYNAHAN: (Continuing)

9 Q. Can you please look at Exhibit 31. I'm sorry.

10 A. Yeah.

11 Q. Do you recognize this report?

12 A. I was given this report by Mr. DiLorenzo at my deposition.

13 Q. Okay. Had you seen it prior to your deposition?

14 A. No, I hadn't.

15 Q. Okay. Would you kindly turn to page 2 of the report? Do
16 you see a table ES-1? It's actually page 2 of the report. You
17 have to turn a couple of pages in.

18 A. Yes.

19 Q. On this report it indicates if you will -- sorry. I think
20 I have the wrong page. I'm sorry. Losing my copy has thrown
21 me off.

22 MS. MOYNAHAN: We'll have to come back to that.

23 I'm sorry, Judge.

24 BY MS. MOYNAHAN: (Continuing)

25 Q. Okay. Mr. Kumar, we've heard a number during this court

Kumar - D

1 hearing that according to the DOGAMI report there are 403
2 multifamily URM buildings in the tri-county area. Have you
3 heard that number or seen it before in this litigation?

4 A. Not other than what's in this report.

5 Q. Right. You saw it in the report, however?

6 A. Yes.

7 Q. And does that square with what you think -- how many URMs
8 for multifamily exist in the city of Portland?

9 A. No. I think we have a much larger number of buildings
10 here in the city of Portland.

11 Q. What's the basis of your knowledge?

12 A. From URM database.

13 Q. Do you have any idea how many multifamily buildings are on
14 the database of URM buildings?

15 A. I don't have an exact number here, no.

16 Q. But you know it's above 403?

17 A. Yeah.

18 Q. So, in fact, this data might not be accurate in this
19 table?

20 A. Yes.

21 Q. Okay. Are you reasonably confident of that?

22 A. Yes.

23 Q. Okay. I'm going to ask you to turn now to Exhibit 70 of
24 the plaintiffs' binder. Now, those are in two volumes now, so
25 it may be the second binder for plaintiffs up there.

Kumar - D

1 Thank you.

2 A. Which exhibit?

3 Q. 70?

4 A. Exhibit 70.

5 Q. 70. One of the last ones. I don't know if you're able to
6 do this -- you just put that away. Are you -- can you possibly
7 take the second volume of the defendants' exhibits as well? I
8 want to hold two exhibits side by side. I don't know how much
9 room you have up there.

10 So it would be the second volume of defendants'.

11 A. Okay.

12 Q. If you'll look at Exhibit 120, please.

13 A. Yes.

14 Q. First of all, do you recognize Exhibit 120?

15 A. Yes.

16 Q. What is that?

17 A. That is the plan that was submitted to the City of
18 Portland for plan review for the seismic upgrades to the
19 Trinity building.

20 Q. Trinity Place Apartments?

21 A. Trinity Place Apartments, yes.

22 Q. Okay. And towards the bottom of the left-hand side, there
23 are five bullet points. And do you happen to know -- and it
24 says in the paragraph above it, "Deficiencies mitigated. Known
25 deficiencies remaining are" -- do you recognize -- do you see

Kumar - D

1 that?

2 A. That's correct.

3 Q. Do you know what those deficiencies are remaining for the
4 Trinity Place Apartments?

5 A. Yes. Those are based off of the plan check that my staff
6 did.

7 Q. Okay. So your staff came up with a list of five
8 deficiencies?

9 A. Yes. When we did a plan review of these, we identified
10 the issues that the seismic upgrade that they had presented
11 does not conform to the standards.

12 Q. Okay. And can you turn the page of that same exhibit,
13 please. You'll see an email that I believe mirrors the
14 language of that -- it may be easier to read. It mirrors the
15 language of the page before it.

16 A. Right.

17 Q. And that email is from -- do you know who that email is
18 from?

19 A. Shelly Duquette.

20 Q. No, I think it's from --

21 A. Oh, from Wade Younie, who is the DCI -- principal at DCI
22 Engineers.

23 Q. And do you know if he's the engineer who works on the
24 Trinity Place Apartments or was at the time?

25 A. He's the one who stamped the drawings that were submitted

Kumar - D

1 to us for review.

2 Q. Can you please explain to us where the five bullet points
3 are -- can you please explain what those deficiencies mean?

4 A. These are some of the basic deficiencies that we see in
5 URM buildings. For example, it talks about out-of-plane
6 capacity of URM walls. These are walls in an earthquake as
7 they move around. As they shake in an earthquake, they may not
8 have adequate capacity to be able to stand up. They may --
9 they could essentially break and fall off the building.

10 When we did an analysis, the analysis that the engineer
11 himself submitted showed what these buildings could move like
12 23 inches out of plumb, and we asked that -- asked the
13 engineers to demonstrate that this would -- the URM walls would
14 be stable under those, and the response we got back was, no,
15 that -- we can show that this is a deficiency, and that's why
16 we're noting it on the plans.

17 Same thing with in-plane capacity with the URM walls.
18 These URM walls take seismic loads. And if they are not able
19 to handle it, then they can also crack and fall.

20 So that's what the in-plane capacity talks about. Again,
21 out-of-plane capacity, one of the deficiencies we ask the
22 engineer to prove that the attachment of the wall to the floors
23 is adequate for the forces that ASCE 41 -- the design, and the
24 response was "We are noting that as a deficiency."

25 Same thing with chord and collector elements. Collector

Kumar - D

1 elements are basically elements in the building where, for
2 example, if you have a wall that is designed to resist seismic
3 loads, but a collector basically delivers that load to the
4 wall. So if the wall has -- there's no path to get that load,
5 that wall really doesn't act to resist seismic loads.

6 So these are some of the basic -- in our mind, some very
7 fundamental and very important building aspects that have not
8 been addressed in the seismic upgrade.

9 Q. Okay. Would you also look at Exhibit 70, which I had
10 asked you to turn to simultaneously?

11 A. Yes.

12 Q. What is that?

13 A. That's a letter from DCI Engineers, I believe, to
14 Walter McMonies.

15 Q. Have you had a chance to review this letter?

16 A. I did.

17 Q. And can you tell me do you agree with the conclusions of
18 the report?

19 A. For the most part, I think they are -- the letter
20 basically reiterates that those are the deficiencies that have
21 not been addressed and should be addressed.

22 One of the deficiencies that are noted is like the
23 out-of-plane capacity of the walls, and as a resolution, he
24 basically says that we have looked at -- we looked at their
25 analysis and said that this out-of-plane capacity of the wall

Kumar - D

1 on the top story is adequate. I do take exception to that
2 because I believe -- I don't know if you want me to get into
3 the details.

4 Q. Some details. Just a bird's-eye level.

5 A. Okay. Basically, the code requests -- it shows that if
6 you can show that the height of the wall to the thickness ratio
7 is above a certain number, then the wall is supposed to be
8 adequate for its performance at that performance level.

9 Now, he has looked at this and said that originally they
10 had looked at the height-to-thickness ratio was nine, and the
11 wall exceeded that, and therefore it was not adequate.

12 But then they went back and looked at it again, and they
13 said -- the code says it should be 14. But that is to a
14 different performance objective and performance level, which
15 is -- collapse prevention under BSE-2 is what he should be
16 looking at, but I think he -- I believe he's looked at
17 performance level of life safety at BSE-1E.

18 Q. Okay.

19 A. And so --

20 Q. Would you agree that Trinity Place Apartments --
21 Mr. McMonies -- had made substantial progress towards attaining
22 the life safety prevention level?

23 A. Yes. Definitely he's added some seismic reinforcing that
24 does make the building safer than it was before, but it still
25 has several major deficiencies.

Kumar - D

1 Q. And are you anticipating that Mr. McMonies' building,
2 Trinity Place Apartments, will, in fact, achieve a level of
3 life safety based upon your working relationship with his
4 engineers?

5 A. It would certainly perform better than without any
6 reinforcements that were there before.

7 Q. But do you think he'll get there? He'll get to the
8 standard of life safety?

9 A. With further upgrades?

10 Q. Yes.

11 A. I -- I believe so. Yes. Because I believe Mr. McMonies
12 understands the risk that those buildings pose.

13 Q. Okay. Can you turn to Exhibit 71. The next page, please.

14 And first of all, are you familiar -- I believe you
15 testified this morning that you're familiar with the City's
16 ordinance regarding placarding; is that correct?

17 A. That's correct.

18 Q. Okay. Would you please look at paragraph 10? And, by the
19 way, have you had any involvement in the drafting of the
20 ordinance for placarding or the intended implementation?

21 A. Yes.

22 Q. What's your involvement with it?

23 A. Once the City resolution was passed, I worked with our
24 business analyst to craft the language for the placarding
25 ordinance based on what the City Council directed us to do.

Kumar - D

1 Q. And you have an understanding as to whom the ordinance
2 applies; is that correct?

3 A. That's correct.

4 Q. Would you please look at the second sentence? "This
5 ordinance requires all privately owned for-profit
6 City-identified URM buildings to, among other actions, post a
7 sign prominently near the building entrance, stating that" --
8 et cetera, et cetera.

9 Do you believe this is an accurate statement?

10 A. Sorry. Which? I'm not sure which --

11 Q. Second sentence of paragraph 10.

12 A. I'm looking at which?

13 Q. Exhibit 71, I believe. Is that the one? The McMonies
14 declaration? Yes.

15 You might be looking at the wrong book now.

16 A. Okay.

17 Q. Sorry. It should have lower numbers.

18 A. Yeah, I have it.

19 Q. Is there an Exhibit 71 in that book?

20 A. Yes.

21 Q. Would you turn to paragraph 10.

22 A. 10. Okay. Uh-huh.

23 Q. The second sentence, is that an accurate statement as to
24 whom the ordinance applies?

25 A. Yes.

Kumar - D

1 Q. Does the ordinance not apply to public structures?

2 A. It does, yes. It includes -- it should include public
3 buildings too.

4 Q. Okay. Would you turn to paragraph 11, please.

5 In the last sentence -- second-to-last sentence, it reads,
6 "We have asked BDS to review the work done on the Trinity in
7 hopes of having the Trinity taken off the URM list. To date,
8 we have received no relief."

9 Do you have pending before you something that you're
10 supposed to be reviewing for Trinity Place Apartments?

11 A. No. And we have responded back to the engineer who's
12 requested that this be removed, and we gave them reasons why we
13 would not be able to remove this building from the database.

14 Q. Okay. Thanks.

15 Okay. I'm going to switch gears a little bit. Are you
16 familiar with Western Rooms?

17 A. Yes.

18 Q. And is that a URM building?

19 A. Yes.

20 Q. And do you know if it's ever been upgraded?

21 A. I believe it was partially upgraded in 1979.

22 Q. Okay. How about Glade Apartments? Is that a URM?

23 A. Yes.

24 Q. Was that ever upgraded?

25 A. Not to my knowledge.

Kumar - D

1 Q. So are you comfortable with the fact that they are on the
2 URM database?

3 A. Yes.

4 Q. Okay. Are you familiar with the appeals process to take a
5 building off of the URM database?

6 A. Yes.

7 Q. And what is that?

8 A. We would require documentation first. The first level
9 would be that the building owner would submit to us, the bureau
10 staff, some documentation that they have proof that the
11 building is not an unreinforced masonry building.

12 This could include things like plans that they may have
13 that we don't have access to or maybe some photographs that
14 they have taken during some renovations that they did, an
15 engineering report from an engineer who has gone and evaluated
16 the building. They would submit that, and BDS engineering
17 staff would review the documentation required. If we need to,
18 we would ask for additional information. But if -- if there
19 was evidence that would satisfy us that the building is indeed
20 not a URM, we would remove it at that stage.

21 If we determined that, no, that evidence is not adequate
22 to prove it, then the building owner would be notified about
23 that, and they have an option to appeal that decision to the
24 BDS's administrative appeal board with their evidence.

25 If they're still not satisfied with the determination by

Kumar - D

1 the BDS appeals board, they go to the next level of an appeals
2 board, which consists of citizen members who are also
3 professionals, and they can appeal there. And that's the
4 appeal process.

5 Q. Thank you. One last question. Can you please turn to
6 Exhibit 114 in the defendants' exhibits?

7 A. Okay.

8 Q. Do you recognize this document?

9 A. I believe this is a page from the City of Berkeley's
10 website.

11 Q. Okay. Can you turn the page, please. Do you recognize
12 the schematic on retrofitting old brick buildings?

13 A. Yes.

14 Q. How is it that you recognize it?

15 A. We have a similar graphic in our --

16 Q. Okay. And you've actually questioned as to whether this
17 is the City's graphic, haven't you?

18 A. Yeah. I mean, this is a common graphic that is used among
19 different jurisdictions.

20 MS. MOYNAHAN: Okay. I have no further questions,
21 Your Honor.

22 THE COURT: Cross-exam.

23 MR. DiLORENZO: Thank you.

24 ///

25 ///

Kumar - X

1 CROSS-EXAMINATION

2 BY MR. DiLORENZO:

3 Q. Good afternoon, Mr. Kumar.

4 A. Good afternoon.

5 Q. I'd like to refer you to Exhibit 16. If you would be so
6 kind as to find that. It's in our -- it's in the plaintiffs'
7 book. 16.

8 A. Okay.

9 Q. That's Resolution 3736, which was adopted by the City
10 Council in June of 2018?

11 A. That's correct.

12 Q. Are you familiar with the resolution?

13 A. Yes.

14 Q. Is that the resolution that led to the development of the
15 ordinance that appears at Exhibit 17?

16 A. I believe so, yes.

17 Q. Pardon me?

18 A. I believe so, yes.

19 Q. Okay. And Exhibit 17 is the first version of the
20 placarding ordinance -- ordinance that is the subject of this
21 lawsuit; is that right?

22 A. Yes.

23 Q. Okay. Now, prior to the development of that ordinance,
24 when the City Council was considering the resolution, which is
25 16, you gave a presentation before the City Council advocating

Kumar - X

1 passage of the resolution; is that right?

2 A. Yes.

3 Q. Okay. And did you -- if you can take a look at, now, the
4 City's exhibit. 103. It would be in the first volume of the
5 City's exhibits.

6 Sorry to give you all these assignments.

7 A. Okay.

8 Q. If you can go to the tab in 103 that says "201810.03
9 ordinance," and it says "agenda."

10 Let me know when you're there.

11 MS. MOYNAHAN: Counsel, which page?

12 MR. DiLORENZO: It's Exhibit 103, and we're going to
13 start at page 9, I believe. Page 9 of 178. It's a photograph.

14 THE WITNESS: Okay. Okay. Yes.

15 BY MR. DiLORENZO: (Continuing)

16 Q. Okay. You see that photograph?

17 A. Yes.

18 Q. Is that photograph familiar?

19 A. Yes.

20 Q. What does that photograph depict?

21 A. It's the facade of an unreinforced masonry building that
22 has fallen off.

23 Q. What was the purpose of the photograph? Why were you
24 using the photograph?

25 A. Just to depict the nature of the risk that the URM

Kumar - X

1 buildings pose.

2 Q. The risk that URM buildings pose. And where was this
3 building?

4 A. I believe this was in New Zealand.

5 Q. Is this part of the Christchurch earthquake?

6 A. I believe so, yes.

7 Q. And you commented on this photograph as part of your
8 presentation; isn't that true?

9 A. I may have showed the photograph. I don't remember
10 exactly what I said then.

11 Q. But you represented to the City Council that this was
12 indicative of the force and violence of the earthquake?

13 A. Yes. Yes.

14 Q. I now would like to have you turn to Plaintiffs'
15 Exhibit 74, if you would.

16 A. Yes.

17 Q. Is this the same photograph?

18 A. Yes.

19 Q. Only this one is in color and the other one is in black
20 and white?

21 A. Uh-huh.

22 Q. Okay. Who is Nancy Thorington?

23 A. She is with Bureau of Development Services. She's -- I
24 believe her title is a business analyst. I'm not exactly sure
25 of her title, but she's a business analyst at the City. BDS.

Kumar - X

1 Q. Is she currently with the Bureau of Emergency -- no.

2 A. She is an employee of Bureau of Development Services.

3 Q. Okay. She's at Bureau of Development Services?

4 A. That's correct.

5 Q. And does she work with you on projects?

6 A. Yes.

7 Q. And was she working with you on your project to advocate
8 before the City Council for this ordinance?

9 A. She was helping us draft the ordinance itself.

10 Q. Okay. If you flip the page, you'll see TM1, which appears
11 to be a note to a slide, and it is signed by Nancy Thorington.
12 And it says, "I think this photo is of a building with a brick
13 facade, not a URM."

14 Do you see that?

15 A. Yes.

16 MS. MOYNAHAN: Your Honor, if I may, we never
17 received those exhibits. You mentioned them this morning, but
18 I don't have a copy.

19 MR. DiLORENZO: You do, I believe.

20 MS. MOYNAHAN: Okay. Well, continue. I just don't
21 have that. Are those the ones you got this morning?

22 MR. DiLORENZO: Yes, those are the ones that --

23 MS. MOYNAHAN: We don't know, Your Honor. I'll --
24 that's fine.

25 MR. DiLORENZO: Do we have an extra copy? I'll see

Kumar - X

1 if we have an extra copy for you.

2 I'll give you mine.

3 MS. MOYNAHAN: That's fine. You don't need to. I
4 can just look over your shoulder, see what they are, and I'll
5 sit back down. Thank you.

6 BY MR. DiLORENZO: (Continuing)

7 Q. "I think this photo is of a building with a brick facade,
8 not a URM."

9 Do you see that?

10 A. Yes.

11 Q. Okay. Did Ms. Thorington inform you of that prior to the
12 hearing?

13 A. I don't recall that at all, no.

14 Q. But you used this photo to show the City Council the
15 destructive force of an earthquake in the context of URMs;
16 right?

17 A. Yes.

18 Q. Okay. Now, if a Cascadia 9.0 or a West Hills fault 6.0 or
19 above occur, you don't expect many buildings to escape
20 unharmed, do you?

21 A. It depends on the building type.

22 Q. What do you expect, with an earthquake of that intensity,
23 would occur to the bridges in Portland?

24 A. Well, I'm not a bridge engineer. I do not want to
25 speculate.

Kumar - X

1 Q. What do you expect would be the damage caused to
2 non-ductile concrete buildings?

3 A. I would expect that they would suffer some damage.

4 Q. What about soft story buildings?

5 A. That they would also suffer some damage.

6 Q. Okay. In a 9.0 earthquake, do you think the damage would
7 be major or minor for those buildings?

8 A. I would probably think they would be major.

9 Q. Okay. And do you think the risk in living in one of those
10 buildings would be any more than the risk in living in a URM if
11 there were a 9.0 earthquake?

12 A. My opinion is that URMs would probably suffer a lot more
13 damage than the other buildings.

14 Q. But all of those buildings would be damaged, nevertheless;
15 isn't that right?

16 A. Yes.

17 Q. Now, we have what are known as liquefaction hazard zones
18 in Portland; is that right?

19 A. That's correct.

20 Q. Can you tell the Court what a liquefaction hazard zone is?

21 A. A liquefaction basically means that soils in an earthquake
22 that are saturated would basically liquefy in an earthquake and
23 lose its what's called the shear strength to support the
24 building.

25 So I believe DOGAMI has created a map that shows potential

Kumar - X

1 of liquefaction. And most of these zones are along the river.

2 Q. I'm sorry. You said most of them are along the river?

3 A. Along the Willamette River.

4 Q. Okay. And so are we currently in a liquefaction zone here
5 at the federal courthouse?

6 A. I don't know. I would have to look at the map to see.

7 Typically, the map generally provides, you know, a
8 generalized location. You would probably have to do a site --
9 a specific site analysis to figure out if this particular site
10 has a hazard potential.

11 Q. Can you turn to 33?

12 A. In which? Whose --

13 Q. Plaintiffs'. They're all in order. So ours are the lower
14 numbers, and the City's are the higher numbers.

15 A. Okay.

16 Q. I think a clearer depiction is 34. If you can take a look
17 at No. 34.

18 A. You say go to 34?

19 Q. Yes. Does this appear familiar -- this map?

20 A. It's not very clear, but it seems to be something from our
21 database, I guess.

22 Q. Right. It says "Bureau of Development Services" up in the
23 upper left-hand corner.

24 Do you see that?

25 A. Yes.

Kumar - X

1 Q. Is that -- sorry. Is that --

2 A. Yes.

3 Q. All right. And it's color-coded. Pink is very high -- or
4 purple is very high. Pink is high, and orange appears to be
5 moderate, and then white appears to be lower; is that right?

6 A. Yes.

7 Q. Okay. Does this appear to be a depiction of downtown and
8 the close-in east side?

9 A. Yes.

10 Q. And does it appear to you that the very high liquefaction
11 zone includes much of the Pearl District?

12 A. Yes.

13 Q. Okay. How about on Burnside Street up by the U.S. Bancorp
14 tower? Does it appear that that's part of it?

15 A. Yes.

16 Q. How about where we are, the federal courthouse, does that
17 look like we might be close by?

18 A. Could be, yes.

19 Q. So we're in the moderate liquefaction to high liquefaction
20 risk?

21 A. Yes.

22 Q. What if you were in a building that was built before 1990
23 and you happen to be in a liquefaction zone? What is the risk
24 in an earthquake in the intensities we're talking about?

25 A. If -- again, depends on the site itself, not -- just

Kumar - X

1 because it's in the zone doesn't mean that that building has a
2 potential for liquefaction. But assuming that the site shows
3 that there is a high liquefaction potential at the site, it
4 would mean that the buildings could have a lot of --
5 differential settlement.

6 And if the building type -- depending on the building
7 type, they may or may not be able to handle that kind of
8 differential settlement from liquefaction.

9 Q. So liquefaction would be equivalent to taking a bowl of
10 wet sand and shaking it so violently that it becomes almost
11 liquid. Is that pretty much what happens?

12 A. Something similar to that, yes.

13 Q. If all the soil around a building built prior to 1990 did
14 that, is there a chance that the building would topple over?

15 A. It could suffer severe damage, yes.

16 Q. And that kind of building wouldn't have to be an
17 unreinforced masonry building. It could be a building of any
18 construction, couldn't it?

19 A. Yes.

20 Q. Okay. And so for an earthquake of 9.0 or 6.0 and above in
21 the West Hills, this is a risk for any building in a high-risk
22 liquefaction zone; right?

23 A. Again, you know, the liquefaction that is there is based
24 on -- what we call the maximum credible earthquake that we
25 would expect at that site. So it doesn't mean that in any kind

Kumar - X

1 of an earthquake that the soil would liquefy.

2 So, for example, if you have a smaller earthquake, which
3 might be a 6.0 earthquake, the soil might not liquefy in that
4 situation. But an unreinforced masonry building would probably
5 perform very poorly compared to another building that the
6 liquefaction is not subjected to.

7 Q. Okay. So you're familiar with tsunami zones on the coast?

8 A. Correct.

9 Q. And various jurisdictions post tsunami warning signs, the
10 jurisdictions do themselves, in the tsunami zones; right?

11 A. Yes.

12 Q. Given your interest, why wouldn't the City of Portland
13 post liquefaction zone warning signs in the liquefaction zones?

14 A. Yeah, that is not something that was ever discussed.

15 Again, you know, like I said, we have maps that are
16 published that show the high liquefaction zones that are there,
17 and in order for us to post something, it would be based on
18 site-specific investigations of that particular site.

19 Q. Okay. But wouldn't it further the City's interest in
20 making people aware of their surroundings if they knew that
21 they were in liquefaction zones and there were liquefaction
22 zone signs posted by the City?

23 A. Possibly, yes.

24 Q. But this ordinance doesn't do that?

25 A. That's correct.

Kumar - X

1 Q. This ordinance only addresses unreinforced masonry
2 buildings?

3 A. That's correct.

4 Q. Which are a subset of other dangerous buildings in
5 earthquakes; isn't that right?

6 A. That's correct.

7 Q. Okay. Okay. Let's talk about the ordinance itself for a
8 second.

9 MR. DiLORENZO: Excuse me, Your Honor. Oh, here it
10 is.

11 I'm accused of refrigerator blindness at home, and I
12 suffered the same affliction here.

13 BY MR. DiLORENZO: (Continuing)

14 Q. Can you turn to the ordinance, which is exhibit -- what
15 happened to my ordinance?

16 MS. MOYNAHAN: 17.

17 MR. DiLORENZO: Is it 17?

18 BY MR. DiLORENZO: (Continuing)

19 Q. 17.

20 A. Okay.

21 Q. And I'm going to ask some questions about -- I'm going to
22 ask some questions about page 5, which is subsection F of the
23 ordinance. That's the section that determines whether a
24 building is exempt from the placarding requirements.

25 Do you see it?

Kumar - X

1 A. Is it page 5?

2 Q. It would be page 5 at the bottom of the page numbers.

3 A. Yeah. Yes.

4 Q. Okay. We're at subsection F?

5 A. Yes.

6 Q. And now there have been a number of amendments to this
7 ordinance since the first one passed?

8 A. Uh-huh.

9 Q. As far as you know, this section has not been amended?

10 A. That's correct.

11 Q. Okay. So "F" says, "The following are evidence that an
12 unreinforced masonry building meets the required retrofit
13 standards and will exempt the building owner from complying
14 with" -- various subsections.

15 A. That's correct.

16 Q. And those various subsections are the placarding and
17 notification and other requirements?

18 A. That's correct.

19 Q. Okay. Now, these are evidence. Does evidence mean that
20 the decider can still decide not to exempt the buildings, or is
21 it your bureau's interpretation that this means if that
22 evidence is adduced they're off the list?

23 A. I'm sorry. If you can repeat that.

24 Q. Well, it says the following is evidence --

25 A. Yeah.

Kumar - X

1 Q. -- that it meets the required retrofit standards.

2 Does it mean that if that evidence is produced, then there
3 is no placarding requirement?

4 A. That's correct.

5 Q. That's how you read it?

6 A. Yeah.

7 Q. Okay. Well, the first category are buildings that have
8 been fully retrofitted to or shown to meet or exceed the
9 following standards, and there's two standards. Are they
10 alternative standards?

11 A. So these refer to the different codes that the buildings
12 have been retrofitted to.

13 Q. Okay. What is the Basic Performance Objective for
14 Existing Buildings, BPOE, or better, as defined in ASCE 41-17
15 or ASCE 41-13 for collapse prevention structural performance
16 level under BSE-2 seismic hazard or life safety structural
17 performance level under BSE-1E seismic hazard?

18 What is that?

19 A. Those are the standards that are published in the ASCE 41.
20 That is the performance objective for existing buildings.

21 Q. Okay. And ASCE stands for American Society of --

22 A. Civil Engineers.

23 Q. -- Civil Engineers?

24 A. Uh-huh.

25 Q. And ASCE 41-17 is a standard or a methodology?

Kumar - X

1 A. It's a standard. It's ASCE 41. "17" refers to the year
2 it was published. 41-13 is an earlier version of it, which is
3 currently what we specify in our City's code, Title 24.85.

4 Q. What is the difference between 41-17 and 41-13?

5 A. They are just the next version of the standard. So as we
6 learn from previous earthquakes or as more research comes in,
7 we incorporate or improve on the standards. So this is a newer
8 version of that standard.

9 Q. Okay. If I wanted to show that my building met one of
10 these standards, what would I have to do?

11 A. So you would have to do an evaluation of the building and
12 analyze that building to show that it meets the -- the
13 requirements in the code for the two different performance
14 levels that are stated there for Basic Performance Objective.
15 BPOE.

16 Q. Okay. So ASCE 41-13 includes three tiers; is that right?

17 A. That's correct.

18 Q. And the first tier is a quick check and calculation; is
19 that right?

20 A. That's correct.

21 Q. And what is involved in doing a quick check and
22 calculation?

23 A. So this is like the term says. It's a quick check. You
24 do some very basic calculations. You do -- there's a checklist
25 that is there that the engineers would go and evaluate the

Kumar - X

1 building, and they have to do some quick numbers to show that,
2 yes, this building would meet the -- the collapse prevention or
3 the life safety objectives. So it's a quick method to
4 determine the ability of the buildings and identify all the
5 different -- deficiencies in the building.

6 Q. Okay. So now you're familiar with the Trinity?

7 A. Yes.

8 Q. Okay. So let's use the Trinity as an example, then.

9 A. Okay.

10 Q. What would be involved in doing a quick check and
11 calculation on the Trinity? What exactly would your engineers
12 do?

13 A. There's a checklist for the building type that is there,
14 so they would -- it's probably, like, a four-page checklist.
15 They would go and identify what the deficiencies are. And, for
16 example, they'd have to do a quick check on what is the shear
17 capacity of the wall. So they'd give you equations that you
18 would run through and show is it adequate or not. Same thing
19 with the building out-of-plane capacity of the URM wall. A
20 quick check on that is the height-to-thickness ratios of these
21 walls.

22 So if you meet that, then you are deemed to be -- that the
23 building would be adequate from -- for that particular
24 component.

25 Q. Okay. And you said there were formulas; is that right?

Kumar - X

1 A. Yes.

2 Q. And those formulas, can you perform those on a calculator,
3 or do you need a computer to perform those formulas?

4 A. Depends on the building. Some of them are designed to be
5 really quick checks, so you could probably do it with a
6 calculator.

7 Q. So let's say your building doesn't pass Tier 1, then you
8 go on to Tier 2. What does Tier 2 of 41-13 require?

9 A. It requires more in-depth calculations. The Tier 1 is
10 designed to be more conservative. So if somebody wants to
11 spend additional time to do an in-depth analysis, they could,
12 and show that what was not passing under Tier 1 could pass
13 under Tier 2 because you do a more intensive calculation.

14 Q. And are there more formulas that need to be --

15 A. Yeah. It goes into a little more deeper depth.

16 Q. How extensive is the process to determine whether a
17 building let's say like the Trinity, would pass Tier 2?

18 A. What do you mean "how extensive"?

19 Q. How long would it take to test and see?

20 A. I don't know. Maybe a couple of days.

21 Q. Okay. Now, I'm asking you because you're on the committee
22 that created 41-13; isn't that right?

23 A. No.

24 Q. You did not create 41-13?

25 A. No. I'm on the -- the committee that is now looking at

Kumar - X

1 ASCE 41-23.

2 Q. You're looking at ASCE 41-23.

3 A. The next version that's coming out.

4 Q. The next version.

5 A. Yeah.

6 Q. So as part of your work to detail the next version of
7 standards, have you acquainted yourself with what is required
8 under 41-13?

9 A. We have used these -- when we look at the permits that
10 come through, we ask for evaluation of buildings, and those are
11 the different evaluations that we look at.

12 Q. Okay. So let's say after two days of running computer
13 models the Trinity does not pass Tier 2. Then it needs to go
14 to Tier 3; is that right?

15 A. That's an option.

16 Q. And what is involved in Tier 3?

17 A. Again, it's even more analysis and calculations to be
18 done.

19 Q. So is it fair to say that Tier 3 would then look at every
20 permutation, every single possibility that the engineers can
21 imagine for forces on a building to predict what its response
22 would be with those forces?

23 A. I would say it's somewhat in-depth to look at the stuff.
24 I wouldn't say every permutation and combination of that, but
25 it's just a more in-depth look at it.

Kumar - X

1 Q. And do you need a computer usually to run all of these
2 permutations for Tier 3?

3 A. Probably, yes.

4 Q. Okay. All right. So while we're at it, you're now
5 working -- what's the next one up from 41-13? There's going to
6 be 41-what?

7 A. There's a 41-17 now that is published.

8 Q. All right.

9 A. And now we are starting working on the next version of it.
10 41-23.

11 Q. And is the next version, 41 -- did you say 22 or --

12 A. 23.

13 Q. 23. That means you expect it to be out in 2023?

14 A. Yes. That's the goal.

15 Q. Do you expect it to be even more stringent than 41-13 and
16 41-17?

17 A. It's basically looking at, again, new research that is
18 available. Again, based on some of the issues that have been
19 identified in 41 -- when practitioners use 41-13 and 17, some
20 of the issues that were not addressed would now be addressed in
21 the next version.

22 Q. How does someone who spends lots of money on a building to
23 satisfy the requirements of ASCE 41-13 know that in a couple of
24 years there isn't going to be ASCE 41-23 and they're not going
25 to be able to comply with that? How do they know?

Kumar - X

1 A. That they would not comply with 41-23?

2 Q. How do they know that they're free and clear once they
3 comply with 41-13?

4 A. In regards to what? Free and clear to what?

5 Q. With regard to having a municipality telling them that
6 they have to do even more?

7 A. Because the ordinance basically specifies 41-13 and 41-17
8 as the standard that they need to meet.

9 Q. All right. So now you're familiar with -- with
10 Mr. Beardsley's building; right?

11 A. Yes.

12 Q. And his building met all of the standards when it was
13 upgraded -- when it was upgraded; right?

14 A. That's correct.

15 Q. And you probably don't know, but the testimony here is
16 that he spent a lot of money to do that.

17 A. Uh-huh.

18 Q. And, yet, he is now expected, if he wants his placard
19 removed, to have to spend even more money to comply with an
20 even higher level of certainty?

21 A. Right. Because at that time, in 1979, when his building
22 upgrades were done, the risk that -- the seismic risk that we
23 know of now was not known at that point.

24 1993 is when the building codes changed drastically. That
25 increased the building forces on the building by more than

Kumar - X

1 50 percent, which meant that most of the buildings that were
2 designed before then were not -- not up to seismic codes at
3 this point.

4 So there was a big change in 1993, and his building was
5 upgraded in 1979. And we ran some quick numbers to show that
6 if they were designed to the current code, the forces would be
7 somewhere in the range of five to ten times what that building
8 was upgraded to.

9 Q. So if you take a look over time, complying with these
10 standards are moving targets; right? You never quite know what
11 standards you're going to need to comply with in the future, do
12 you?

13 A. That's correct. We don't know what's going to happen in
14 the future.

15 Q. Okay. All right. So let's get back to getting on the --
16 or getting off the list.

17 All right. So you either have to show that you comply
18 with ASCE 41-17 or 41-13 -- and there's a lot of other things
19 in here too -- or there's another way, and that is if your
20 building was retrofitted prior to January 1, 2018?

21 A. Right.

22 Q. Now, when did this ordinance pass?

23 A. In September of 2018.

24 Q. All right. So this ordinance grandfathered into a
25 different standard --

Kumar - X

1 A. Yes.

2 Q. -- buildings that had been retrofitted prior to January 1,
3 2018?

4 A. Correct.

5 Q. All right. Why was January 1, 2018, picked?

6 A. We -- the purpose of that date was basically to show that
7 any buildings that come in for retrofits would want to meet the
8 current standards that are there. So we didn't want to have
9 somebody come in and, say, get their -- get out of this
10 placarding requirements that they would retrofit to an old
11 standard. We want people to use the current standard.

12 Just as we look for any buildings that come in, we -- we
13 want buildings to meet the current code and not the building
14 code. For the sake of simplicity, we decided that January 1
15 would be -- for that year when the ordinance was passed would
16 be the date.

17 From a practical standpoint, 41-13 has already been the
18 standard that buildings have been upgraded to since 2015 in the
19 city of Portland, so it really didn't matter whether it was
20 June of 2018 or September of 2018. But for simplicity, we
21 decided January would be -- at the start of the year would be
22 the date.

23 Q. Okay. So let's say a person owns a building that is
24 subject to the ordinance and it appears to them that they're
25 going to have to placard and they want to get off the list.

Kumar - X

1 A. Uh-huh.

2 Q. And they did a retrofit prior to January 1, 2018.

3 Now it says it has to be fully retrofitted prior to
4 January 1, 2018. What does that mean: Fully retrofitted?

5 A. So we have several buildings that have been partially
6 retrofitted. For example, some buildings would have just
7 raised a parapet when they do a reroof on a building.

8 Q. Okay.

9 A. That doesn't mean that's a full retrofit. It's just one
10 aspect of the entire retrofit of the building. So you have to
11 do a complete retrofit because there are several hazards that
12 are there in addition to a parapet from bracing in there. So
13 that's what we mean. It has to undergo -- it has to address
14 all the deficiencies that have been identified in ASCE 31 or
15 the standard that they use. They need to address all the
16 deficiencies and upgrade those.

17 Q. So for Mr. McMonies' building --

18 A. Yes.

19 Q. -- the Trinity --

20 A. Yes.

21 Q. -- there are a number of deficiencies which you have
22 identified.

23 A. Yes.

24 Q. So would you say that building is currently fully
25 retrofitted?

Kumar - X

1 A. No.

2 Q. Is it -- you used the term "partially retrofitted" a
3 moment ago. Is it partially retrofitted?

4 A. Yes.

5 Q. Okay. And does that mean it's partially reinforced?

6 A. I would say partially retrofitted. What do you mean by
7 "partially reinforced"?

8 Q. What is the purpose of retrofitting?

9 A. It is to make the building to withstand an earthquake.

10 Q. To reinforce, in other words; right?

11 A. Yeah. In that term, yes.

12 Q. The common person would understand retrofitting meaning
13 reinforcing?

14 A. Well, from an engineering standpoint, reinforcing would
15 probably mean like actually having steel bars in a building, so
16 there are different meanings.

17 Q. If it's partially retrofitted --

18 A. Okay.

19 Q. -- it is somewhat reinforced; is that right? There's some
20 reinforcement.

21 A. Not necessarily. I mean, again, when you talk about
22 reinforcement, to me, as an engineer, that would have a
23 different connotation.

24 Q. I'm talking to you as a person. As a person, you should
25 view, I would think, retrofitting as reinforcing.

Kumar - X

1 A. Okay.

2 Q. Okay? So if Mr. McMonies' building is partially
3 retrofitted, can you understand why he is uncomfortable
4 posting a placard that says this building is unreinforced
5 masonry?

6 A. It is unreinforced masonry.

7 Q. Okay. Let's move on.

8 A. There's a definition of what an unreinforced masonry
9 building is, and his building doesn't comply with it.

10 Q. Oh, so it's a technical definition of what unreinforced
11 masonry is?

12 A. Yes.

13 Q. A term of art?

14 A. Say that again.

15 Q. A term of art?

16 A. It's an engineering term.

17 Q. An engineering term. Something an engineer would know?

18 A. Yes.

19 Q. Okay. Okay. So let's get back to what happens if
20 Mr. McMonies' building had been fully retrofitted prior to
21 January 1, 2018. Then other standards would have applied;
22 right?

23 A. That's correct.

24 Q. Okay. And the other standards are life safety performance
25 level or better using FEMA 178, FEMA 310, or ASCE 31, including

Kumar - X

1 bracing of parapets, cornices, and chimneys, or the Oregon
2 Structural Building Code from 1993?

3 A. That's correct.

4 Q. So tell me what is FEMA 178?

5 A. It was a building evaluation -- it was a precursor to the
6 ASCE 41 that we have. If you were -- there was no -- ASCE 41
7 first came into existence in 2003. Before that, we had these
8 different standards: FEMA 178, FEMA 310, and others -- or
9 ASCE 31.

10 Q. How about FEMA 310?

11 A. It was, again, the standard for upgrading buildings,
12 existing buildings, at that time.

13 Q. How does that relate to FEMA 178?

14 A. FEMA 178 was the standard before FEMA 310.

15 Q. And how about ASCE 31?

16 A. ASCE 31 was a standard that was developed -- it was
17 primarily an evaluation standard that was developed in 2000.

18 Q. Okay. So which one is more stringent than the other?

19 A. The FEMA 178 is the oldest of all the standards that are
20 there. 310 would be an upgrade, so they are -- they have
21 different standards. One was for evaluation, and one was for
22 upgrade standard. So 310 was an upgrade standard, and ASCE 31
23 came after that.

24 Q. How about the Oregon Structural Speciality Code in 1993?
25 How did that relate as far as being more stringent or less

Kumar - X

1 stringent than these standards?

2 A. The Oregon Structural Speciality Code deals with new
3 buildings.

4 Q. Oh.

5 A. The others are dealing with existing buildings.

6 So if somebody upgrades the building to a new standard --
7 new building standards, then they use the Oregon Structural
8 Specialty Code. So that's a different standard.

9 Q. So, hypothetically, if a person upgrades an unreinforced
10 masonry building and fully retrofits prior to January 1, 2018,
11 and meets A or B, FEMA 178, FEMA 310, or ASCE 31, they can take
12 the placard off; is that right?

13 A. That's correct.

14 Q. And who decides whether they have met those standards?

15 A. You would get a permit to do the retrofits and the -- we
16 issue a permit saying if that building has been designed to the
17 standard and if permit is issued, then that would say that,
18 yes, that building has been retrofitted to that standard.

19 Q. Okay.

20 A. Issued and final.

21 Q. But for my hypothetical, the work was already done prior
22 to January 1 --

23 A. Yes.

24 Q. -- 2018.

25 A. Yes.

Kumar - X

1 Q. The City says I have to post a placard. I want to remove
2 the placard. I come in and show you my permits.

3 A. Yes.

4 Q. Who decides whether I have -- I have complied with 2A or
5 B?

6 A. So one of the things that we have done, as far as the
7 database, was gone back to our records and looked at whatever
8 permits that we have that show that this upgrade was done. We
9 have showed that those -- we have noted on our database that
10 those buildings have been fully retrofitted.

11 If that's not the case, then the -- the building owners
12 believe that the building has been retrofitted, and they can
13 give us that documentation that shows that through a permit,
14 then we would look at that, and if that is a legitimate permit,
15 then we would take the building off the database.

16 Q. And you're saying "us" and "we."

17 A. The City of Portland.

18 Q. Okay. Who, though? Which person decides?

19 A. The engineering staff would look at that first. And,
20 again, if the determination from the engineering staff is not
21 to the satisfaction of the building owner, they have the
22 appeals process that they can go to the appeals board.

23 Q. And you were in charge of the engineering staff?

24 A. That's correct.

25 Q. So the decider is you. You're the decider, are you not?

Kumar - X

1 A. Ultimately, the bureau does.

2 Q. But the bureau is you, isn't that correct --

3 A. Yes.

4 Q. -- for --

5 A. Yes.

6 Q. So you are the decider?

7 A. Okay.

8 Q. Okay. So let's say you decide that, yes, the building has
9 met those standards --

10 A. Uh-huh.

11 Q. -- and you can remove the placard.

12 Now, let's say my neighbor has an identical building and
13 he met that very standard but in February of 2018. He cannot
14 come off the placard list; is that correct?

15 A. That's correct.

16 Q. Okay. Now, let's say my other neighbor has an identical
17 building and he has exceeded the standards provided for in 2A
18 and 2B but has not gotten high enough to the standards in 1.
19 In other words, he's somewhere in between now. Higher than 2,
20 but not quite up there to 1. That building is arguably even
21 safer than the grandfathered building, is it not?

22 A. Again, what we are referring to is buildings that have
23 already been retrofitted previously. So the buildings that
24 have been previously retrofitted to those standards is what we
25 are saying. So if somebody comes in new with a retrofit, we

Kumar - X

1 want them to be meeting the newer standards.

2 Q. All right. So let's say that the Trinity gets to the
3 point where it exceeds subsection 2. That standard. It wasn't
4 done by January 1, 2018. It still has a placard. It's
5 exceeded those standards, but it still hasn't quite resolved
6 the deficiencies to your satisfaction. Okay? It still has to
7 have a placard; right?

8 A. Yes. The deficiencies that we have noted on -- for the
9 Trinity building, whether it was done to FEMA 178, ASCE 31, it
10 would still be the same deficiencies.

11 Q. So, hypothetically, it is possible --

12 A. Yes.

13 Q. -- that there could be a building that is safer than a
14 grandfathered building but has to have a placard even though
15 the grandfathered building does not have to have a placard; is
16 that right? Hypothetically, that could happen?

17 A. Well, so one of the -- the ASCE 41 says that if a building
18 has been retrofitted to a certain standard, they're considered
19 equal to the ASCE 41 upgrade. So they are called what we call
20 benchmark buildings. They are not the same as what we have in
21 41. So if an upgrade can be shown to each one of these
22 benchmark buildings, then that would satisfy ASCE 41, and
23 therefore they would not need to be placarding.

24 So they're technically -- for example, FEMA 178 --
25 buildings that have been upgraded are identified in ASCE 41 as

Kumar - X

1 a benchmark building.

2 Q. Right. So it sounds like there's a certain amount of
3 subjectivity in this. You could have two engineers who
4 disagree as to whether any one of these standards has been met
5 for any particular building; isn't that right?

6 A. Those standards have been specifically noted in the -- in
7 the standard itself; so, yeah, there should not be any
8 subjectivity.

9 Q. You don't think there's any room for disagreement
10 whatsoever among engineers as to whether a building has
11 complied with ASCE 41-17?

12 A. No. I mean, that's something that we would have -- they
13 would have to show why, in their opinion, they comply with
14 the -- whatever standard they claim to be upgrading it to.

15 Q. All right. They would show in their opinion as to why?

16 A. Yes.

17 Q. And then would you decide in your opinion?

18 A. Yes.

19 Q. Okay.

20 MS. MOYNAHAN: Your Honor, may I interrupt to inquire
21 as to whether Mr. Kumar needs to stand? He's just recently had
22 back surgery.

23 THE COURT: Yes. I understand that.

24 MR. DiLORENZO: Feel free to --

25 THE WITNESS: I'm okay. Thank you.

Kumar - X

1 MS. MOYNAHAN: Thank you. Sorry for the
2 interruption.

3 MR. DiLORENZO: No problem.

4 BY MR. DiLORENZO: (Continuing)

5 Q. Tell us again, very quickly, how much has -- I think I got
6 that. I got the ASCE issues.

7 Let's talk a little bit about the 1995 database.

8 A. Okay.

9 Q. You were talking about the 1995 database, and you weren't
10 here in the courtroom, but we used the short-term "the Hagerty
11 database" or "the Hagerty list."

12 A. Okay.

13 Q. And there was the Hagerty list, and then there was a point
14 at which the Hagerty list was combined with the Portland State
15 list.

16 A. Okay.

17 Q. Okay?

18 MS. MOYNAHAN: Objection. Mischaracterizes
19 testimony.

20 MR. DiLORENZO: Did it?

21 THE COURT: Sustained.

22 MR. DiLORENZO: Okay.

23 BY MR. DiLORENZO: (Continuing)

24 Q. There was the Hagerty list, and I believe Ms. Duquette
25 said at some point the Portland State list was --

Kumar - X

1 MS. MOYNAHAN: The GIS list.

2 MR. DiLORENZO: Oh, the GIS list. Okay.

3 BY MR. DiLORENZO: (Continuing)

4 Q. Okay. The Hagerty list included the Portland State list.
5 Pardon me. I've got it.

6 MS. MOYNAHAN: I also believe that's incorrect. I
7 don't think there was ever any evidence to show how the PSU
8 list was incorporated into the database is my recollection.

9 THE COURT: I think that's right.

10 MR. DiLORENZO: Okay. But the database includes the
11 PSU list.

12 MS. MOYNAHAN: We don't -- you may ask Mr. Kumar, but
13 that never was established this morning.

14 MR. DiLORENZO: Okay.

15 MS. MOYNAHAN: He may know.

16 BY MR. DiLORENZO: (Continuing)

17 Q. Do you know whether the 1995 database included more than
18 what the three students each summer who worked on identifying
19 URM buildings produced?

20 A. Well, I don't know how many students they used in the
21 thing, but my understanding was, yes, they included --

22 Q. It included more?

23 A. Yes.

24 Q. It included the Portland State list also?

25 A. That is my understanding.

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1 Q. Okay. Now, you said there were more buildings on the
2 database, on the 1995 database, besides URM buildings; is that
3 right?

4 A. Not in the URM database. The URM database was carved out
5 of the survey of all the buildings that was there and done.

6 Q. Okay. So is there another database that includes all
7 buildings, URM and others?

8 A. We have the rapid visual surveys of all buildings
9 excluding one- and two-family dwellings. So we have physical
10 copies of those surveys.

11 Q. And they include buildings of other construction forms?

12 A. That's correct.

13 Q. And are they posted somewhere on a database -- the other
14 construction forms?

15 A. No.

16 Q. Where are they?

17 A. We have actual physical copies of all the surveys.

18 Q. So you do know about where other buildings with other
19 forms besides URMs are located; is that correct?

20 A. We have buildings of different construction types, yes.

21 Q. And you have lists of those?

22 A. We have physical copies of the surveys.

23 Q. Okay. How big a subset is the URM database from the
24 overall list that you have?

25 A. I believe the URM buildings are about -- I don't know the

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1 exact number, but somewhere around 12 percent of the total
2 number of buildings in the city of -- the city.

3 Q. Okay. Thank you.

4 Let's talk about your declaration. If I can find it
5 again. Paragraph 8, I believe.

6 Paragraph 8 you say, "Geologists estimate there is greater
7 than 20 percent probability of a Cascadia subduction earthquake
8 occurring in the next 50 years."

9 A. Can you refer me to which --

10 Q. Oh, I'm sorry. I keep -- exhibit number?

11 DEPUTY COURTROOM CLERK: 133.

12 MR. DiLORENZO: 133? Thank you.

13 BY MR. DiLORENZO: (Continuing)

14 Q. Are you there?

15 A. Yes.

16 Q. You say, "Geologists estimate that there is greater than a
17 20 percent probability of a Cascadia subduction zone earthquake
18 occurring in the next 50 years"; is that right?

19 A. Yes.

20 Q. And where do you get that information from?

21 A. That's based on information that we have from geologists,
22 like I said. Principally, Dr. Chris Goldfinger, who's the
23 leading geologist, who's done work on the Cascadia subduction
24 zone earthquake.

25 Q. Okay. If that's true, then does that conversely mean that

Kumar - X

1 there's an 80 percent chance that that will not occur?

2 A. No. It's basically just saying that there's a 20 percent
3 probability that this would happen.

4 Q. Right. If there's a 20 percent probability that something
5 will happen, isn't there then an 80 percent probability that it
6 will not?

7 A. I guess so.

8 Q. Okay. Now, did the City Club do a report on earthquake
9 preparedness?

10 A. I believe so, yes.

11 Q. And did you appear before the City Club as a witness?

12 A. No. They came and interviewed me.

13 Q. I guess they consider you a witness, then. So they
14 interviewed you?

15 A. Yeah.

16 Q. Okay. Did you receive a copy of their report?

17 A. No.

18 Q. Okay. I would like to turn to paragraph -- to page -- I'm
19 sorry. To Exhibit 38.

20 Have you ever seen Exhibit 38?

21 A. Just one minute.

22 Q. Sure.

23 A. I have not.

24 Q. Okay. Then we're going to skip over that. Save that for
25 another witness.

Kumar - X

1 Okay. If you haven't seen it.

2 Now, you said that -- I think you said the reason that
3 your committee was not concerned about one- and two-family
4 dwellings that were in URM structures was that there was less
5 exposure and you wanted to get the biggest bang for the buck.

6 Do you remember saying that?

7 A. Yes.

8 Q. Okay. Now in the context of placarding, it doesn't cost a
9 lot of money to put a placard up, does it?

10 A. No.

11 Q. Okay. So why, given the concerns of your committee, in
12 the context of placarding, why wouldn't one- and two-family
13 dwellings that are of URM construction also not be -- why would
14 they not be placarded?

15 A. Again, we were just -- you know, the exposure to the risk
16 was low because -- first of all, at least in our experience,
17 that there are very few residential building one- and
18 two-family dwellings. Most of the recommendations that were
19 made were with respect to URM buildings that were not one- and
20 two-family dwellings.

21 And like we said, most of the codes and everything else is
22 based on what the exposure to the risk is. So, you know -- you
23 know, the risk in a multistory building with several
24 multifamily residences in there is a lot more than in a
25 single-family dwelling.

Kumar - X

1 Q. A URM that is a triplex has to post a placard under the
2 terms of the ordinance; is that right?

3 A. That's correct.

4 Q. Okay. But a URM that is a duplex does not have to; is
5 that correct?

6 A. That's correct.

7 Q. Is there a significant difference in risk between a
8 triplex and a duplex?

9 A. Again, there's a line that you draw at some point; right?
10 And so one- and two-family dwellings are treated separately
11 even in building codes. Like, a triplex is treated different
12 from one- and two-family dwellings. They have less
13 requirements than a triplex would. It's in the same vein.

14 Q. Okay. Let's talk about appeals. If someone is not
15 satisfied with the decision that you make, what is their next
16 step?

17 A. We have an appeals board that they could appeal to, and if
18 they're not satisfied with that administrative appeals board,
19 there's the next level of appeals board, which is again made up
20 of citizens that are professionals, and they could appeal to
21 that board.

22 Q. Who's on the administrative appeal board?

23 A. BDS staff from different responsibilities, looking at
24 different aspects from, like, life safety, fire, inspections.
25 You know, they are -- and includes the building facial for the

Kumar - X

1 City of Portland.

2 Q. So if somebody believes they should not have a placard and
3 they go to BDS and you say, no, you don't meet the standard,
4 they go, then, to BDS again to appeal what BDS already told
5 them; is that right?

6 A. Initially, yes.

7 Q. Okay. And then if they are dissatisfied because the very
8 agency they went to that denied their petition in the first --
9 at the first point denies it again, they go to a committee that
10 consists of whom?

11 A. They are citizens. They're not BDS employees. Like, for
12 now, they are people who are professionals -- architects,
13 contractors, engineers -- on the board.

14 Q. But they're all -- they're all professional staff?

15 A. Yes.

16 Q. Okay. And if they grant the appeal, does BDS have final
17 authority to reverse their decisions?

18 A. No. We would grant that decision.

19 Q. Okay. And if they're dissatisfied with that, where else
20 can they appeal?

21 A. As far as I know, that's it.

22 Q. Okay. Let's talk about penalties.

23 Let's say someone has exhausted all their appeals and they
24 say, "I'm not putting up the placard period," what does BDS do
25 next?

Kumar - X

1 A. So the enforcement process is something that we would be
2 publishing in the future if this goes forward. The process, if
3 you would like me to walk you through, would be like we would
4 send -- before this ordinance goes into effect, we would send a
5 letter to the building owners who need to placard the
6 buildings, giving them -- telling them how they would need to
7 comply with this requirement. There would be a reminder letter
8 before.

9 Once the date for the ordinance passes, approximately
10 about a month later on, if we are aware that they have not
11 complied with the ordinance, we would send another reminder
12 letter at that point, and then we would refer them to the
13 Fire Bureau who would then put it on the list of inspections
14 that they do. They are required to inspect those buildings
15 every two years.

16 So during the regular inspections, then, they would then
17 look at -- to see if they put the placard up. If they haven't,
18 then they would let the owners know that they haven't met that
19 requirement, and they would ask them to put the placard in, and
20 they would come back and reinspect the building 40 days later.

21 Q. And 40 days later the placard still isn't up.

22 A. Right. Then they would then refer it to our BDS
23 enforcement section, which then the BDS enforcement section
24 would send them another letter saying "You need to comply with
25 this."

Kumar - X

1 Q. And let's say they ignore the letter?

2 A. If they ignore the letter, then they would be sent another
3 letter saying that they have 60 days to comply.

4 Q. They tear that letter up. Then what do they do?

5 A. They would then start fining them.

6 Q. And what would the fines be?

7 A. The fines will depend on the type of building that are
8 there. So we would use our typical enforcement section
9 enforcement authority to build the fines in there. So right
10 now, I believe for a building that has -- I forget exactly how
11 many units, but let's say it's one to three units, the fine is
12 like \$343 per month.

13 The schedule right now says it's 300 -- I believe
14 340-some-odd dollars per month per unit. And for 20 units or
15 more it's somewhere around 600-odd dollars.

16 Q. Is it \$643?

17 A. Something like that, yeah.

18 Q. Per month per unit?

19 A. Per unit.

20 But, practically, we do not enforce it on a per-unit
21 basis. We just do it per-cost -- per-month basis. And that we
22 would be clarifying when we write the administrative rules.

23 So, for example, if it's a building that is 20 units, the
24 fine would be \$643 per month for the first three months. If
25 they still don't comply, the fine then doubles.

Kumar - X

1 Q. Okay. But that hasn't been drafted yet; is that right?

2 A. That's correct.

3 Q. This is just your concept of what the fine should be?

4 A. This was the concept that has been discussed within the
5 bureau.

6 Q. Okay. So if you decide that the owner is not going to
7 comply even with fines, you have the authority, do you not, to
8 fine up to \$643 per unit for any building that has more than 20
9 units?

10 A. Yes.

11 Q. Okay. So for a 60-unit apartment building, that could be
12 over \$38,000 per month?

13 A. No.

14 Again, like I said, the -- they're not going to be based
15 on per unit. The fines will be based on \$643 per month for
16 that building.

17 Q. Because you're saying it's going to be that way; is that
18 right?

19 A. And, practically, that is what is enforced now for other
20 buildings.

21 Q. But your authority is up to \$38,000?

22 A. Yes. But that's not how that's enforced at this point.

23 Q. Okay. I think we're just about done.

24 Can you turn to Exhibit 54.

25 54 is a communication between me and the City's counsel --

Kumar - X

1 A. Okay.

2 Q. -- about the acknowledgment provision.

3 A. Okay.

4 Q. First of all, are you aware that the current form of the
5 ordinance provides that in addition to placarding and in
6 addition to language printed on a rental application, that, in
7 addition, the building owner must acknowledge compliance with
8 the ordinance?

9 A. Correct.

10 Q. Okay. But there isn't a form yet to do that. Is that
11 your understanding?

12 A. I believe there's a draft form that has been created.

13 Q. Okay. If you can turn the page, is that the draft form
14 that has been created?

15 A. I believe so, yes.

16 Q. Okay. And if you can take a look at number 3, are you
17 expecting building owners to check all three boxes?

18 A. Yes.

19 Q. All right. So the second box -- the first box says "I
20 have caused to be posted the placard."

21 The second box acknowledges that the City requires some
22 ongoing duty.

23 What is the ongoing duty that the City is going to
24 require?

25 A. That they maintain the placard and that the placard is not

Kumar - X/ReD

1 defaced.

2 Q. So it's BDS's intention that owners are going to
3 acknowledge that they are going to continue to maintain the
4 placard in the future. Is that --

5 A. Yes.

6 Q. Okay. And then the last box also says that all
7 applications for lease or rental of the property will contain
8 the following statement; right?

9 A. Yes.

10 Q. And that is also a promise to do something in the future?

11 A. Yes.

12 MR. DiLORENZO: Okay. Your Honor, I would like to
13 offer 74, 33, 34, and 54.

14 MS. MOYNAHAN: No objections.

15 THE COURT: They are received.

16 MR. DiLORENZO: Thank you. Those are all the
17 questions I have.

18 THE COURT: All right. Redirect.

19 MS. MOYNAHAN: Thank you, Your Honor, I think I have
20 five very direct questions.

21

22

REDIRECT EXAMINATION

23 BY MS. MOYNAHAN:

24 Q. First of all, that same exhibit that you were just looking
25 at, which is Exhibit 54, the acknowledgment form, okay, the

Kumar - ReD

1 second item with the check box would be -- reads "The City" --
2 okay, in whole it says, "As record owner of the property, I
3 acknowledge the following: The City requires me to ensure that
4 the placard is not defaced," et cetera. It does not require
5 the owner to acknowledge that they are going to do that, does
6 it? That is not a promise on the owner's part, is it?

7 A. It's acknowledgment.

8 Q. Acknowledgment that they understand "what the City
9 requires me to do"; correct?

10 A. That's correct.

11 Q. Okay. Secondly, with respect to the appeal process, when
12 Mr. DiLorenzo asked you what you can -- what an owner can do
13 after the second round of appeals and you said you thought they
14 were over, are you familiar with the process called writ of
15 review that the City has?

16 A. I am not.

17 Q. Okay. That's fair enough.

18 Can you please turn to the City's exhibits. The volume
19 that contains 119.

20 A. Yes.

21 Q. Can you turn to page 33 of 90?

22 A. Yes.

23 Q. You'll see a table there. Table 5. 5-1.

24 A. Yes.

25 Q. Earlier I asked you about the number that we had heard

Kumar - ReD

1 about multifamily residential URM buildings in the tri-county
2 area, and I had suggested to you the number was 403. I asked
3 you if that seemed about right to you, and you said no; is that
4 correct?

5 A. Yes.

6 Q. Can you look at the number above that for unreinforced
7 masonry buildings for single-family residential? Do you see
8 the number 1,455?

9 A. Yes.

10 Q. Does that seem to be an accurate number for you of
11 single-family URM residential?

12 A. No. It's -- it seems way too high for me, but I'm not
13 sure what they included in that. For example, if they
14 included, you know, buildings on unreinforced brick
15 foundations, those buildings behave very differently because
16 those buildings have unreinforced brick foundations, but their
17 superstructure is all wood framed. That would behave fairly
18 decently in an earthquake.

19 So I'm not sure what went into behind that number, but my
20 experience, being with the City for 20 years, we have not seen
21 buildings, one- and two-family buildings, of the unreinforced
22 masonry buildings as defined in the code.

23 Q. If you had to ballpark it, would you have an idea of how
24 many single- and two-family residential URM buildings are in
25 the city of Portland?

Kumar - ReD

1 A. Based on --

2 MR. DiLORENZO: Objection, Your Honor.

3 THE COURT: Go ahead.

4 MR. DiLORENZO: Witness has already said he hasn't
5 counted them and he doesn't know. So how would he be
6 ballparking?

7 THE COURT: Sustained.

8 MR. DiLORENZO: Thank you.

9 BY MS. MOYNAHAN: (Continuing)

10 Q. Okay. With respect to liquefaction, Mr. DiLorenzo asked
11 you a series of questions about various areas in the city where
12 there are liquefaction zones and why the City -- has the City
13 considered a tsunami zone type sign.

14 With liquefaction, there are numerous variables to
15 consider in determining whether -- how a building will perform
16 during a major earthquake; isn't that true?

17 A. Yes.

18 Q. And what would some of those variables be?

19 A. Again, just based on the site, on the building there,
20 depending on the local site conditions, that would be one.
21 Buildings, like, for example, you know, steel-like framed
22 buildings probably would not perform as badly as an
23 unreinforced masonry building or maybe a concrete building, so
24 there would be different -- different performance levels for
25 different types of buildings.

Kumar - ReD

1 Q. Okay. In contrast to URM buildings, which are
2 specifically discernable from other URM -- from other types of
3 buildings; is that correct?

4 A. Could you repeat that question, please?

5 Q. Sure. There would be many variables in deciding what a
6 building would do in liquefaction?

7 A. Yes.

8 Q. But wouldn't a URM building, in fact, be more accurate to
9 predict what would happen in an earthquake?

10 A. Again, as a building class, those buildings, just because
11 the way they were constructed, would perform very poorly.

12 Q. And we've heard the term "other risky buildings." What
13 does "other risky buildings" mean to you? How do you interpret
14 that?

15 A. It is buildings like under-reinforced concrete or
16 buildings that are concrete moment frames and those type of
17 building types.

18 Q. But it doesn't include -- they are other than URM
19 buildings; isn't that correct?

20 A. Yes.

21 Q. So when Mr. DiLorenzo asked you -- when he stated that
22 URMs are a subset of other risky -- other dangerous buildings,
23 in fact, they're complements of one another, aren't they?

24 A. Yes.

25 Q. And, finally, you weren't involved in the 1990s database;

Kumar - ReD

1 correct?

2 A. That's correct.

3 Q. So if Mr. Hagerty had -- where did you learn your
4 information about the 1990s database?

5 A. Mr. Hagerty was my supervisor when I was working at the
6 City of Portland in 1999. When I joined the City, I had
7 documentation -- granted, it's past documentation -- on how the
8 database was created. So that's how I know that.

9 Q. If Mr. Hagerty testified in an area that's different from
10 your testimony, would he actually have more knowledge of how
11 the database were -- were put together?

12 A. Yes. He was the one that was supervising the database
13 creation at that point.

14 Q. And what was included in the database as well?

15 A. Yes.

16 MS. MOYNAHAN: Okay. I have no further questions.

17 MR. DiLORENZO: Nothing further, Your Honor.

18 THE COURT: You may step down.

19 MS. MOYNAHAN: Your Honor, I move to admit 114,
20 please.

21 THE COURT: Any objection?

22 MR. DiLORENZO: Is that a declaration?

23 MS. MOYNAHAN: That is -- well, good question.

24 That is the Berkeley URM.

25 MR. DiLORENZO: No objection, Your Honor.

Kumar - ReD

1 THE COURT: All right. 114 is admitted.

2 DEPUTY COURTROOM CLERK: Mr. DiLorenzo, did you also
3 want to submit 38, which is the City Club bulletin?

4 MR. DiLORENZO: No. I'm holding off on that.

5 DEPUTY COURTROOM CLERK: Thank you.

6 MS. MOYNAHAN: Your Honor, I'm quite concerned about
7 the time.

8 THE COURT: I am too.

9 MS. MOYNAHAN: Mr. DiLorenzo still has three
10 witnesses, and I have one extremely short witness.

11 MR. DiLORENZO: Mine are short too.

12 MS. MOYNAHAN: Then let's do it.

13 THE COURT: We'll take a ten-minute break right now.
14 Be back here ready to go in ten minutes.

15 (Recess taken.)

16 THE COURT: Just to be clear, we're stopping at 5:00.

17 MR. DiLORENZO: Understood, Your Honor.

18 THE COURT: Reasonably speaking, how likely is it
19 we'll get all witnesses finished by 5:00?

20 MR. DiLORENZO: Likely. They're short, as far as my
21 questions.

22 THE COURT: You think that's right?

23 MS. MOYNAHAN: I don't know. Three of them are his
24 witness. I have no idea.

25 THE COURT: All right.

Dortignacq - D

1 MR. DiLORENZO: We call Robert Dortignacq to the
2 stand.

3 ROBERT DORTIGNACQ,
4 called as a witness on behalf of the Plaintiffs, being first
5 duly sworn, is examined and testified as follows:
6

7 DEPUTY COURTROOM CLERK: Step up and have a seat.
8 Notebooks are right there if you need them, and when you're
9 ready, if you could state your name for the record and spell
10 your last name.

11 THE WITNESS: Robert Dortignacq, D-o-r-t-i-g-n-a-c-q.

12 MR. DiLORENZO: Your Honor, with your permission -- I
13 realize Mr. Dortignacq is my witness, but I am going to lead
14 him through the preliminaries and his qualifications to save
15 time.

16 THE COURT: That's fine. Go ahead.

17 MR. DiLORENZO: Thank you, Your Honor.

18

19 DIRECT EXAMINATION

20 BY MR. DiLORENZO:

21 Q. Mr. Dortignacq, good afternoon. What is your occupation?

22 A. Architect.

23 Q. And are you here in response to a subpoena?

24 A. Yes.

25 Q. And I understand you have a master's degree in

Dortignacq - D

1 architecture.

2 A. Yes.

3 Q. And from where?

4 A. From UCLA.

5 Q. And you also have a degree in civil engineering?

6 A. Yes. Civil structural from Cornell University.

7 Q. And are you a registered architect?

8 A. Yes.

9 Q. Do you work on public renovations?

10 A. Yes.

11 Q. I am going to name a couple familiar renovations and ask
12 you to briefly tell us the scope of your work. There's a Frank
13 Lloyd Wright Gordon House?

14 A. The Gordon House, yes. That was threatened for
15 demolition. It was located in Charbonneau. I worked with the
16 Frank Lloyd Wright Conservancy to develop some strategies for
17 saving the house. It's the only Frank Lloyd Wright house in
18 Oregon. We were successful, and I was part of the team led by
19 the successful bidder on that project to direct them on how to
20 do that -- the move and reconstruction. It was dismantled,
21 moved to the Oregon Garden, seismically upgraded, and
22 reconstructed.

23 Q. Okay. And I'm going to name some others and just let me
24 know whether you have done work on those and whether there's
25 been a significant amount of work and whether it's been

Dortignacq - D

1 retrofitted.

2 Officers Row in Vancouver.

3 A. Yes. That was a large project. It was done by the
4 partnership George McMath, Bill Hawkins, and myself.

5 Q. How about Pioneer Courthouse?

6 A. Pioneer Courthouse. We had a flexible services agreement
7 with the GSA, so we did numerous studies. I led the historic
8 preservation program assessment for the building, and we did
9 some other studies, law library, so forth, and I did design the
10 existing handicap access ramp on the west side.

11 Q. And you've also done work on the Multnomah County Library;
12 is that right?

13 A. Yes. We developed the -- our office developed the
14 development plan that held to the successful bond measure, and
15 then we -- I was instrumental in the design of that, and we
16 were involved with the original architect --

17 THE COURT REPORTER: I'm sorry. I didn't understand
18 what you said after architect.

19 THE COURT: Read back his response as far as you have
20 it.

21 (The court reporter read as follows: "Answer: We
22 developed the -- our office developed the development plan that
23 held to the successful bond measure, and then we -- I was
24 instrumental in the design of that, and we were involved with
25 the original architect --")

Dortignacq - D

1 THE WITNESS: Yes. After the bond measures passed,
2 we were part of the team that created the library as you see
3 now.

4 BY MR. DiLORENZO: (Continuing)

5 Q. And your -- you have done similar work for Union Station,
6 The Old Church and New Market Theater; is that right?

7 A. We did. Yes, we -- I worked on Union Station developing
8 numerous projects with the PDC developing a 10-year plan, and
9 then I was the architect involved in the second 10-year plan
10 led by Degenkolb Engineers. D-e-g-e-n-k-o-l-b.

11 Q. Okay.

12 A. And then The Old Church, that was a project that had been
13 in the office in various phases. What I worked on there was
14 leading -- was the reconstruction of the porte-cochère, the
15 drive-through that's on the south side of the building.

16 Q. Okay.

17 A. What was the third one that you --

18 Q. And the third one was -- The Old Church and then the New
19 Market Theater.

20 A. New Market Theater. That project, we -- it was the New
21 Market Theater south wing, which I did. The New Market Theater
22 was a project by Bing Sheldon's office.

23 Q. Okay. So can I refer you to Exhibit 53? It's in the
24 volume that's called plaintiffs' exhibits.

25 A. 5-3?

Dortignacq - D

1 Q. 5-3.

2 A. Oh, okay. Yep.

3 Got it.

4 Q. Let me know when you're there.

5 A. I'm there.

6 Q. Okay. Is this a report that you prepared for the City of
7 Portland?

8 A. Yes.

9 Q. And were you hired by the City of Portland to prepare this
10 report?

11 A. Yes.

12 Q. What was the purpose of your engagement with the City?

13 A. The purpose of this report?

14 Q. Of this report.

15 A. Yeah. What they -- it was multiple aspects. One, they
16 wanted to -- they wanted to get a better handle on the URM
17 buildings on the north and east side of Portland. They -- and
18 if you looked at a map of Portland and plotted out where these
19 buildings were, you could see many of them were on streetcar
20 lines, like Sandy Boulevard, or so forth. They wanted -- these
21 are mostly smaller one-, two-story types of buildings, and they
22 wanted to -- a lot of them are underutilized, so they wanted to
23 get a feel for what -- how they could better utilize the
24 buildings and what incentives, maybe, to get them contributing
25 to the city healthy fabric.

Dortignacq - D

1 And then the other part of that is to take a look at the
2 inventory that -- that was in existence on URM buildings.

3 It was also partially funded by the State Historic
4 Preservation Office, so we did an inventory for them, what they
5 call a recognizance level survey for that, and that's published
6 and publicly available.

7 Q. Okay. And when you began your engagement, did you find
8 that most of the buildings were on the west side of town or
9 were an equal number on the east side?

10 A. Well, we were only looking at the -- they had identified
11 certain zoned corridors -- 11 of them -- and we did a quick
12 windshield survey of those. We weren't looking at central core
13 or northwest. These were on the east side and north. So north
14 being at St. Johns, and east side being Sandy, Kerns, Sellwood,
15 Alberta, and some of those neighborhoods -- Montavilla.

16 And so they had picked out some certain zones, if you
17 will, that we -- they wanted us to look at, and then we worked
18 with them to narrow it down, which ones -- we ended up with
19 eight that seemed viable. A couple were dropped, like
20 Hawthorne and Division, because there had been so much work and
21 economic boom in that area that was -- they didn't really --
22 they weren't interested in looking at that, in terms of those
23 aspects.

24 Q. Okay. And what was your methodology in deciding what
25 buildings to pick out for case studies?

Dortignacq - D

1 A. Did you start with a list?

2 Well, the case studies came later. We did -- we did
3 this -- we did the field work, and then we would meet with City
4 staff, planning staff to kind of go over where we were with --
5 with all of that.

6 So case studies was a -- was a part of that they wanted to
7 have. That came more at the end of the project.

8 Q. Were you supplied with a list of buildings to look at?

9 A. Yeah, we had the whole list of URM buildings within each
10 of those zones.

11 Q. And where did the list of URM buildings come from?

12 A. It came from the -- originally, we -- we were told that it
13 came from the 1990s list. That was their most comprehensive
14 list.

15 But they had -- they weren't quite sure of how that -- it
16 needed -- it was a pretty basic list. It didn't have a lot of
17 information on it, so they wanted to get a better feel for what
18 that represented and types of buildings and so forth.

19 MS. MOYNAHAN: Objection. Hearsay.

20 THE COURT: Overruled.

21 BY MR. DiLORENZO: (Continuing)

22 Q. Okay. So as you were conducting your project, how did you
23 use the list that the City gave you?

24 A. Okay. So when you do a walking survey, it's important for
25 your time -- to be efficient in your time to have -- be able to

Dortignacq - D

1 go from -- they gave us a spreadsheet, if you will, of all the
2 different properties, as well as some mapping information,
3 aerial photos with the -- the map -- the mapping department had
4 shown URM buildings and all structures, and then -- and then
5 just more, like, a plat map with the same thing. So we took
6 that information and basically walked and looked at every
7 single building.

8 Q. Okay. And as you did that, did you form any impression
9 relating to the accuracy of the list?

10 A. After we were completely done, we kind of -- we compiled
11 the list, and as -- as we said in the report, a number of
12 buildings we could immediately identify as a URM building.
13 There was approximately about a 20 percent error in buildings
14 that were either mapping errors or we -- we couldn't find or
15 whatever. Some buildings just weren't there. They had been
16 replaced. We had the impression and the feeling that really no
17 one had walked or looked at this -- these properties since that
18 list was done.

19 Q. Okay.

20 A. And so -- and then there were a number of buildings, high
21 percentage, were you simply could not tell what the structure
22 was. They -- we could see some walls were, for example, board
23 floored and concrete, which would be a same thickness as a
24 masonry wall, but you might see that on the side walls, which
25 would being load-bearing, logically, the longitudinal walls;

Dortignacq - D

1 but other buildings would be covered with plaster, inside and
2 out, and we -- we poked around quite a bit to try to determine
3 what buildings were made of, and a lot were made of mixed --
4 mixed construction materials as well; but without, you know,
5 this larger aspect of -- of group of those buildings, you would
6 have to get in and start tearing into the building, removing
7 materials to -- in order to really see how things were
8 supported.

9 Q. Okay. Could I refer you to page 10 of your report?

10 There's a heading that is called Data and Accuracy.

11 MS. MOYNAHAN: I don't have a page 10. Do we have
12 any other page?

13 Your Honor, the copy we got from counsel --

14 THE WITNESS: I have a page 9 and a page 11.

15 MS. MOYNAHAN: We only have every other page.

16 THE COURT: Move on to something else, please.

17 THE WITNESS: I think the even pages are missing.

18 MR. DiLORENZO: Oh, my goodness.

19 THE COURT: Do you have all the pages? Give it to
20 the witness, please.

21 MR. DiLORENZO: Your Honor, I have one copy here. If
22 we can access a photocopy machine, I can move on to something
23 else.

24 THE WITNESS: I have it.

25 MR. DiLORENZO: Oh, do you have it?

Dortignacq - D

1 THE WITNESS: Yeah.

2 MS. MOYNAHAN: May I have your copy, Counsel?

3 MR. DiLORENZO: You can have mine. I'll look on
4 with you, and we will replace that, then.

5 Your Honor, I apologize for this. This is one of those
6 things where whoever was doing the copying didn't realize it
7 was front and back.

8 I think what we'll do is I'll look on with counsel.

9 Mr. Dortignacq has another copy of it that has front and
10 back.

11 Is that right, sir?

12 THE WITNESS: Yes.

13 MR. DiLORENZO: What we'll do is we'll send for a
14 replacement exhibit that has all of the pages, if that's okay
15 with you.

16 THE COURT: Yes.

17 MR. DiLORENZO: Thank you. Okay.

18 BY MR. DiLORENZO: (Continuing)

19 Q. Page 10. Data Accuracy. Overall, 36 percent of the
20 URM-noted buildings were able to be confirmed as such. And
21 approximately 41 percent were noted as undetermined due to a
22 variety of reasons.

23 Can you elaborate about that a little bit?

24 A. As I just previously said, you really couldn't tell
25 definitively.

Dortignacq - D

1 In my training, I very often am very sensitive to, in all
2 my work, of not overreaching the data. And I think to label
3 one -- some of these buildings as URM, when you're not
4 positively sure, it was something I wouldn't allow to do.

5 Q. Okay.

6 A. Now, the other ones, the 20 percent error, some we found
7 that were listed at URM that were wood buildings, in fact,
8 and -- but not -- not that many, but some -- a good number had
9 been replaced since the 1990 survey with new buildings or were
10 vacant lots.

11 Q. So the 36 percent of URM-noted buildings, are you
12 referring to URM-noted buildings off of the list that the City
13 gave you?

14 A. Yeah. That was -- we were working from the list that we
15 were given.

16 Q. So the City said these are -- this is our list of URM
17 buildings?

18 A. Right.

19 Q. And then you were only able to confirm 36 percent of
20 those; is that right?

21 A. Right.

22 This is sort of the average of all the eight zones that we
23 looked at.

24 Q. And can you --

25 A. You know, I -- I guess it -- if I could say a little

Dortignacq - D

1 further, I would say that this -- as I mentioned in the
2 beginning, I don't think anyone had -- if anyone has really
3 done these surveys where you walk and survey buildings, we've
4 done a lot of these for historic districts to, you know,
5 inventory historic resources. It's hard to do successfully on
6 a first go-around. It's hard to do with a group where you have
7 a lot of recorders doing it. So I felt what I was working from
8 was a good attempt. I appreciated it, and it needed to be
9 done, but it was really a rough draft of what data we needed to
10 have.

11 Q. And this is your criticism of the draft of the list that
12 you received from the City?

13 A. I think it needed -- it was one of our recommendations --
14 that it need to be updated and a better listing made.

15 Q. Okay. And then if I can refer you to -- hopefully you
16 have page 29 and 30.

17 A. Okay.

18 Q. What was case study three? I guess it would start at
19 page 27. What is case study three?

20 A. Case study three was a multistory residential URM
21 building.

22 Q. And is that the Trinity?

23 A. Yes.

24 Q. Is that the building owned by Mr. McMonies?

25 A. Yes.

Dortignacq - D

1 Q. And what -- when did you inspect that building?

2 A. And this -- I should elaborate a little bit. This is --
3 was out of our study area, but we were looking for a
4 representative multistory residential building. And in
5 consultation with the planning bureau staff, they suggested
6 that we -- even though this wasn't in the area, it was one
7 where the owner would be willing to allow us to look at and
8 elaborate and so forth.

9 So that's why it's in there and not part of the east side.
10 There are similar buildings over on -- close-in Sandy Boulevard
11 in the Kerns district, but we didn't have a -- an owner contact
12 to be able to do that.

13 Q. Okay. When you inspected the building, had it undergone
14 any retrofitting?

15 A. Yes. It may not have had everything. It was done in
16 phases, and I did speak with the structural engineer for the
17 project to learn a little bit about it, as well as
18 Mr. McMonies, and it was being done as -- they were doing the
19 work as tenants would move out. And they would do the work,
20 and then freshen up the place. So it was kind of done over
21 time, which we thought was a very good model to be used in many
22 buildings, and that's why we thought it would be great for
23 this.

24 We really wanted this report to be a point of discussion
25 for the community and to come up with ideas and develop some

Dortignacq - D

1 further thought.

2 Q. Okay. Did you regard Mr. McMonies' building as partially
3 reinforced?

4 A. I think it was pretty well on the way of doing everything
5 that needed to be done, is my understanding.

6 Q. So those --

7 A. They were working on doing -- they had done some of the
8 high priority items first as well as -- you know, some of the
9 parapet walls and appendages and so forth.

10 Q. Were those things done to reinforce it?

11 A. Yes. Yes.

12 Q. Okay.

13 A. And to keep its historic integrity, I assume. So a good
14 effort was applied to that, and that made it a great model.

15 Q. The inaccuracies in the list that you pointed out in the
16 report, did you convey your concerns to anyone in the City
17 about how inaccurate the list was?

18 A. We talked about it with the planning staff. We would have
19 periodic meetings and kind of review where we were with the
20 data and where the survey and the inventory and, you know,
21 develop the case study and so forth, so --

22 Q. Do you know whether your recommendation to the planning
23 staff to develop a better list was ever acted on?

24 A. Not to my knowledge.

25 MR. DiLORENZO: Okay. Thank you. I have no further

Dortignacq - X

1 questions, Your Honor.

2

3

CROSS-EXAMINATION

4 BY MS. MOYNAHAN:

5 Q. Can you please -- good afternoon, Mr. Dortignacq. Can you
6 please show me that list of errors?

7 A. The list of errors?

8 Q. Yeah. We're talking about a list of inaccuracies. Where
9 is that?

10 A. We had -- it was consolidated in -- on the spreadsheet
11 here.

12 Q. Can you show me which page?

13 A. Well, it goes from --

14 Q. Is it all of Appendix C?

15 A. Let's see. Yeah. I think so. It's -- it goes from
16 page 44 through 53.

17 MS. MOYNAHAN: Okay. Your Honor, I am moving to
18 strike this testimony. I have only been able to prepare with
19 half of the pages of this report. I don't even have the first
20 page of the appendix to know exactly what it is that we were
21 supposed to be looking at. I feel like I have been hamstrung
22 in -- with respect to my examination.

23 I move to strike this document.

24 THE COURT: Mr. DiLorenzo?

25 MR. DiLORENZO: Well, Your Honor, this is a report

Dortignacq - X

1 published by the City of Portland. It's a statement by a party
2 opponent. Mr. Dortignacq wrote it on behalf of the City of
3 Portland. All of the statements contained in this report are
4 reports of the City of Portland.

5 Now, I apologize for the every other page not being there,
6 but, frankly, we delivered this to counsel prior to the
7 beginning of the trial. Evidently counsel didn't look at it
8 until now, anyway. Had counsel looked at it before, would have
9 discovered that there was every other page. So I don't know
10 whether counsel has been deprived of any opportunity to look at
11 it. We will replace the page.

12 I can ask the -- I can ask the witness whether this is
13 generally available on the City website. I'm sure it is.

14 THE WITNESS: It's a public document.

15 THE COURT: Just hang on a minute, please.

16 THE WITNESS: Sorry.

17 MR. DiLORENZO: If it is, it's in the City's
18 possession. This is a City document.

19 MS. MOYNAHAN: May I, Your Honor?

20 THE COURT: Does your copy in your exhibit notebook
21 have all the pages?

22 MR. SWIFT: Ours does not.

23 MR. DiLORENZO: I have a working copy.

24 THE COURT: So not only did the City apparently not
25 look at the exhibit, neither did you.

Dortignacq - X

1 MR. DiLORENZO: Well, Your Honor, I was using my
2 working copy that did. I understand that.

3 THE COURT: Somebody is responsible for making sure
4 the exhibits are complete and comply with the Court's orders.
5 Every other page is not complete. That's certain.

6 MR. DiLORENZO: All right. Well, Your Honor, there
7 is a distinction between the exhibit --

8 THE COURT: Yes.

9 MR. DiLORENZO: -- and the witness's testimony.

10 THE COURT: True.

11 MR. DiLORENZO: And the witness has also testified as
12 to what happened and the witness has also testified as to the
13 inaccuracies that were found. I believe that even if this City
14 document is not considered by the Court, certainly the
15 witness's testimony should be.

16 THE COURT: Ms. Moynahan?

17 MS. MOYNAHAN: I don't object to that. I misspoke
18 when I said striking the witness. I meant the document.

19 THE COURT: All right. We'll strike the document.
20 The witness's testimony will be admissible to the extent that
21 it complies with the rules of evidence.

22 Go ahead.

23 MS. MOYNAHAN: Thank you, Your Honor.

24 MR. DiLORENZO: Thank you.

25 ///

Dortignacq - X

1 BY MS. MOYNAHAN: (Continuing)

2 Q. Mr. Dortignacq, you're not an engineer, are you?

3 A. I'm not a registered engineer.

4 Q. You're not an engineer. You can't use the term "engineer"
5 in the state of Oregon, can you?

6 A. No.

7 Q. No?

8 A. No. I said I have a degree in engineering.

9 Q. You did say that. I'm just asking -- I'm just mentioning
10 you are not an engineer.

11 A. No.

12 Q. Okay. So you mentioned that there were 20 percent clear
13 errors. Can you please tell me exactly what they were?

14 A. What made up the 20 percent?

15 Q. Yes. Exactly what kind of errors.

16 A. They were attributed to mapping errors.

17 Q. What does that mean? Mapping errors?

18 A. What that means is for whatever reason, if you try to find
19 that building and you may have the map or the listing of where
20 that building is supposed to be, its address, you go there and
21 you look all around, and it's just not there; so something is
22 amiss and you --

23 Q. Is the building somewhere else, or is the building gone?

24 A. Who knows? There may be just -- you know, you can't
25 account for it because something is amiss.

Dortignacq - X

1 Q. So a building might have been demolished. That's one?

2 A. Well, there are sites where it shows where a building was
3 demolished and it was, like, a vacant lot. It's more of a
4 conflict maybe in the transcription of writing for the errors,
5 but there were -- there were other ones that were -- that was a
6 portion -- another portion was the buildings that had been
7 removed that had been already demolished, and those, in some
8 cases, were a vacant lot. When you say, "Okay, this building
9 was there. Now it's just a vacant lot." Okay. We say,
10 "Vacant."

11 Or it might be a new townhouse development, for example,
12 and so, okay, this isn't the original building, and it has no
13 resemblance to the footprint and the aerial photo and so forth.

14 That's kind of most of what the -- that 20 percent was.

15 Q. Okay.

16 A. I mean, there were some that were, like, a wood house and
17 we go, "Why is this on the URM list?" You know, I have no
18 idea.

19 Q. Let's go back one at a time. So if a building had been
20 demolished and the City hadn't been apprised to it and that was
21 still on the database, that would be one type of error;
22 correct?

23 A. Yes.

24 Q. And if a building had been replaced by a new building and
25 the City hadn't been apprised, that would be another type of

Dortignacq - X

1 building; correct?

2 A. Correct. The list hadn't been updated.

3 Q. Do you know if anyone had told the City? Do you know if
4 the new owner had apprised the City of the new building?

5 A. I imagine the buildings all had permits, yeah.

6 Q. And do you know if --

7 A. And demolition permits.

8 Q. Right. And do you know if the City had been requested by
9 the owner to remove the inaccurate information from the
10 database?

11 A. I don't know that. I would suspect they didn't or they
12 maybe didn't even know about it.

13 Q. But you don't know?

14 A. No, I don't know.

15 Q. No.

16 How about did you find any buildings that -- well, let's
17 talk about the universe of the buildings that you couldn't
18 identify as a URM. Did you go back and look at the building
19 permits?

20 A. At the permits?

21 Q. Yes, at the building permits.

22 A. No.

23 Q. Did you --

24 A. That was beyond the scope of our project.

25 Q. Sure it was.

Dortignacq - X

1 Did you look at the microfiche?

2 A. No. We -- we did our work in the field.

3 Q. Right.

4 So just because you couldn't identify a building as a URM
5 does not mean that it was misidentified as a URM; is that
6 correct?

7 A. Possibly.

8 Q. Well, you didn't have complete information, did you?

9 A. We had field information.

10 Q. Exactly.

11 And with field information, you still need to do further
12 research with respect to many types of URMs, don't you?

13 A. Possibly.

14 Q. For example, if there were a brick facade, you might not
15 know whether or not this building is a URM based upon your walk
16 down the street, would you?

17 A. Yes. But on the other hand, there were buildings that
18 were concrete that were listed as URM, which we could see.

19 Q. Uh-huh.

20 A. Okay.

21 Q. And you have -- again, you don't have any information that
22 BDS might have in its files that you are not privy to; correct?

23 A. No. The planning department gave us what information they
24 had.

25 Q. Sure. And you don't know if within that building there's

Dortignacq - X

1 a URM weightbearing wall, do you? You didn't go in the
2 building?

3 A. Some buildings we did go in, yeah, because we were trying
4 to see as their -- what else we could learn. Some buildings
5 were private and, you know, you really couldn't, but if it
6 was -- if it was a restaurant or a public kind of space, we --
7 in order to try to see if these were what -- what the building
8 was constructed --

9 Q. Right.

10 A. This was part of our -- our approach. We were also
11 looking at the other aspects I mentioned at the very beginning
12 about the historic preservation, how we can reutilize the
13 buildings, and all of that. It was not focused solely on
14 determining is this a URM building or not.

15 Q. Exactly.

16 Your charge was not to determine whether something was a
17 URM building, was it?

18 A. Part of the charge was to look at the inventory and in
19 that aspect it was, but that wasn't the sole aspect.

20 Q. And so wouldn't you agree that all you really did was an
21 initial cut at looking at the buildings on the database in that
22 particular area?

23 A. I wouldn't say it was an initial cut. We -- we were
24 pretty thorough. Pretty darn thorough.

25 Q. So you went back?

Dortignacq - X

1 A. We could see. Not unless it's in the field, as you said.

2 Q. But you didn't go back to BDS and look at their files on
3 those particular buildings, did you?

4 A. No.

5 Q. No. Okay. Let's see.

6 Let's look at page -- oh, no. Strike that.

7 With respect to Trinity, you mentioned that you had gone
8 to look at Trinity Place Apartments, correct --

9 A. Yes.

10 Q. -- as part of your study, even though it was outside the
11 scope of your study?

12 A. Right.

13 Q. And you would agree that life safety level of retrofitting
14 has not yet been achieved at Trinity Place Apartments, wouldn't
15 you?

16 A. I think it was in -- as I recall, it was -- work was still
17 being done on it.

18 Q. But there's still deficiencies; correct?

19 A. I'm sorry?

20 Q. There's still deficiencies; correct?

21 A. Well, I -- I believe -- yeah, I think they were -- they
22 had a path to fix it, but --

23 MS. MOYNAHAN: Okay. I have no further questions.

24 MR. DiLORENZO: Nothing further, Your Honor.

25 THE COURT: You may step down.

Kaiser - D

1 MR. DiLORENZO: We're going to call Ben Kaiser next.

2 MS. MOYNAHAN: Your Honor, I have been remiss. I
3 haven't introduced our client representative Doug Morgan. He's
4 a supervisor with BDS.

5 THE COURT: Mr. Morgan, hello.

6 MR. MORGAN: Hello.

7 THE COURT: Thank you.

8

9 BENJAMIN KAISER,

10 called as a witness on behalf of the Plaintiffs, being first
11 duly sworn, is examined and testified as follows:

12

13 THE WITNESS: I do.

14 DEPUTY COURTROOM CLERK: Please step up and have a
15 seat.

16 State your name for the record and spell your last name.

17 THE WITNESS: My name is Ben -- Benjamin Kaiser,
18 K-a-i-s-e-r.

19

20 DIRECT EXAMINATION

21 BY MR. DiLORENZO:

22 Q. Good afternoon, Mr. Kaiser.

23 A. Good afternoon.

24 Q. Are you a registered architect?

25 A. Here in the state of Oregon, yes.

Kaiser - D

1 Q. And are you also a general contractor?

2 A. Yes, I am.

3 Q. And where did you attend college?

4 A. Rhode Island School of Design.

5 Q. And your degree is in?

6 A. Bachelor of architecture.

7 Q. Okay. And I've got some work history I'm going to tick
8 through, and I would just like you to very quickly tell us what
9 your involvement was.

10 You worked for Karlsberger Architects?

11 A. A large firm back in Ohio. I worked there for a number of
12 years. Yep.

13 Q. What kind of projects did you work on?

14 A. Hospitals mostly.

15 Q. And how about for Honda Corporation?

16 A. We built a 2 million square foot research and design
17 facility there in Columbus, Ohio.

18 Q. And Portwest Properties?

19 A. A development company here in Portland, and we built and
20 renovated condominiums and apartments and retail space and
21 warehouses.

22 Q. How many condominiums have you built?

23 A. 400, maybe 500.

24 Q. Okay. And then you have been with the Kaiser Group; is
25 that correct?

Kaiser - D

1 A. Yes.

2 Q. Named after you?

3 A. It is.

4 Q. Yes?

5 And what does the Kaiser Group do?

6 A. We're a development firm that's also an architecture firm
7 and a general contracting firm. So we're kind of a vertically
8 integrated design build company.

9 Q. What is Core First?

10 A. Core First is an idea that I had, oh, maybe six years ago
11 as kind of a different approach to seismic upgrades -- one that
12 would save money and provide safety at the same time. A little
13 different branch than what the present engineering approach is
14 to this problem.

15 Q. Okay. Now, have you built buildings out of wood?

16 A. I have, yeah.

17 Q. And I understand that you have built some of the tallest
18 wood buildings in the world?

19 A. The tallest wood building in the United States right now,
20 95 feet, it's with a new technology called mass timber.
21 Cross-laminated timber, to be exact. And it's an
22 environmentally advanced, more friendly way of in-kind
23 replacement for post-tension concrete.

24 Q. What's the name of that building?

25 A. That's Carbon12.

Kaiser - D

1 Q. Okay. Have you also built a building by the name of The
2 Radiator?

3 A. We have. That was a mass timber building. That was the
4 tallest of its kind in probably a hundred years here in Oregon.
5 That kind of broke through the mass timber building.

6 Q. Where is that located?

7 A. In Northeast Portland.

8 Q. How many stories?

9 A. Six stories.

10 Q. Okay. And how about The Spar?

11 A. The Spar we're in design for. It's a 450-foot tall mass
12 timber building. It will be the tallest in the world. It was
13 a U.S. Forest Service grant on research and development for
14 different ways -- different engineering ways to go about
15 achieving those heights in mass timber.

16 Q. Where is that going to be built?

17 A. It's theoretically right now on the post office blocks,
18 but that's just theoretical at this point until we solidify the
19 agreements that are necessary to push that forward.

20 Q. Okay. And then you also have built a facility known as
21 The Canyons?

22 A. The Canyons is under construction right now. Another mass
23 timber 70-unit elder housing complex that we're working on.

24 Q. Where will that be?

25 A. Also Northeast Portland.

Kaiser - D

1 Q. Have you held any public positions?

2 A. I was on the Portland Design Commission for eight years as
3 a vice chair, and now I'm on the -- Governor Kate Brown
4 appointed me to the Capitol Planning Commission down in Salem.

5 Q. What does the Design Review Commission do?

6 A. Oh, for those years and continuing on, it's -- it's
7 oversight of any design or zoning implications that go beyond
8 what's code allowed. So things that stretch the limits of
9 what's allowed here in the city of Portland.

10 Q. Have you had occasion to retrofit masonry buildings in
11 Portland?

12 A. Oh, I have renovated quite a few from schools to
13 warehouses to apartment buildings, yeah.

14 Q. How many would you say you have retrofitted?

15 A. Six. Six large buildings.

16 Q. Okay. And those -- at the end of your retrofitting
17 projects, those have all received the blessing of the Bureau of
18 Development Services?

19 A. What's interesting about that question is that the
20 buildings that we did in the Pearl back in 1996, for instance,
21 would not pass today's code requirement.

22 So those were from fully upgraded to the code requirements
23 of the day, but if we went back in for a change of use on those
24 buildings, for instance, they would need a whole other seismic
25 upgrade. I think we're on revision 11, if I'm correct, of the

Kaiser - D

1 ASCE kind of statute. So each time those revisions happen,
2 then the seismic code changes, and the buildings that were just
3 upgraded a few years ago become no longer valid.

4 So it's a moving target in the world of seismic upgrades.

5 Q. Okay. Are you familiar with other types of construction
6 that do not fare well in earthquakes?

7 A. Oh, back in the flood of '96 here in Portland, we were
8 working on a building up on Broadway Drive, 39 units, Broadway
9 condominium. It's what had beneath it called a soft story.
10 And although we didn't have an earthquake, we had a slight -- a
11 pretty small landslide that hit the back of that, and that
12 building collapsed and almost fell into the other building.
13 And that's what's, as I say, known as a soft story building.
14 It was a park-under condominium project, so the parking garage
15 is situated beneath the living space, which means that there's
16 no lateral reinforcement in one direction or actually very
17 minimal lateral reinforcement in one direction. And that's the
18 direction that the building collapsed when the mudslide hit it.

19 So although not a seismic event, very similar, because it
20 was a lateral load placed on one side of the building, and
21 that's what pushed that building over.

22 Q. Okay. Can you take a look at Exhibit 10. This is a
23 July 2017 draft of the City's Unreinforced Masonry Building
24 Policy Committee Report.

25 A. Okay.

Kaiser - D

1 Q. If you could turn to page 32. There was a section in this
2 report which did not survive to the final but which in the
3 draft said, "The committee recognizes that while URM buildings
4 are dangerous in earthquakes, they are not the only buildings
5 to pose a significant life safety risk."

6 Do you agree with that statement?

7 A. I do, yep.

8 Q. And then they talk about soft story buildings that lack a
9 shear wall on the first floor are vulnerable to collapse for
10 that reason.

11 They also talked about non-ductile concrete buildings. Do
12 you have any experience with those?

13 A. Yeah. Some of the buildings we have upgraded have been
14 non-ductile. And by that I mean they were concrete buildings
15 that on first blush you would assume they have rebar in them.
16 And what's interesting in that is that at the time even the
17 drawings of the day showed rebar in those concrete buildings.
18 But upon further X-ray of the walls, we found that the rebar
19 was much less, if at all, on some of the portions that had been
20 represented as having had rebar. So then that turns that into
21 a non-ductile concrete building.

22 Q. Okay. And those are vulnerable in an earthquake?

23 A. Yes. That building, in particular, required a full
24 seismic upgrade when we did it, regardless of the fact it was a
25 concrete -- poured-in-place concrete building.

Kaiser - D

1 Q. Can you turn to Exhibit 35.

2 MS. MOYNAHAN: Did you say 35 or 45, Counsel? 35 or
3 45?

4 MR. DiLORENZO: 35.

5 BY MR. DiLORENZO: (Continuing)

6 Q. And flip to the second page of 35. There are -- there's a
7 picture up at the top.

8 Do you see that?

9 A. Oh, yeah.

10 Q. Is that an example of a soft story building?

11 A. That is, and that's practically -- could have been taken
12 up on Broadway Drive.

13 Q. So, in other words, this one isn't from Broadway Drive?

14 A. No, but very similar.

15 Q. Okay. Now, San Francisco requires retrofits for even wood
16 frame structures if they have soft ground floors. Sir, are you
17 familiar with their rules?

18 A. Peripherally, yes.

19 Q. And why does San Francisco require retrofit of even wood
20 frame structures that have soft ground floors?

21 A. If my memory serves me right, the Loma Prieta earthquake,
22 the majority of the buildings damaged were soft story
23 structures, so I think that's what San Francisco focused on in
24 their repairs and their seismic upgrades.

25 I do know that Simpson Strong-Tie, an international

Kaiser - D

1 company, has been stepping into that conversation and been
2 coming up with specific engineering tools to solve those soft
3 story structure problems.

4 Q. Can you turn to Exhibit 37.

5 And this is a -- from the Cascadia Risk Solutions and
6 it's -- they are pictures, for illustrative purposes, of
7 various types of construction.

8 So number one is unreinforced masonry. If you flip the
9 page, does that look like an unreinforced masonry building in
10 an earthquake?

11 A. Sure. Yep.

12 Q. Number 2, can you -- you've already talked about soft
13 story buildings. What does this picture depict?

14 A. Yeah, it looks like a soft story building that collapsed
15 on cars here.

16 Q. So those were garages before?

17 A. Appears so, yeah.

18 Q. Okay. Number 3. Hillside homes. Tell us about the
19 earthquake risk associated with hillside homes.

20 A. From what I know -- this is conjecture a bit, but from
21 what I know, it all depends on the soils that are beneath the
22 foundations that these hillside homes rest on. So no matter
23 how robust of a foundation you have, if the soils they rest on
24 aren't equally as robust, that building is suspect in an
25 earthquake.

Kaiser - D

1 And that's -- the West Hills are exactly that. They
2 are -- I think it's called fluvial silt. So you can go down
3 50 feet and still be in sediment that came in the last flood.
4 Whenever that was. So that would make buildings also a risky
5 venture.

6 Q. You have done quite a bit of construction in the
7 West Hills in Portland?

8 A. No. Not much. Only that project, as far as I remember.

9 Q. Okay. But are you familiar with the soil types there?

10 A. We are, yeah.

11 Q. Would it surprise you if it took digging down 30 or
12 40 feet before one hit bedrock?

13 A. No.

14 Q. And why is that?

15 A. When that building collapsed, we did significant soil
16 studies up there, and that's exactly what we found.

17 Q. Are there many older homes in the West Hills that do not
18 have pilings into the bedrock?

19 A. That, I can't speak to.

20 Q. Okay. If those older homes did not have pilings into the
21 bedrock, in a 9.0 Cascadia or a 6.0 West Hills fault quake,
22 would you expect many of the hillside homes to look like what's
23 depicted in this picture?

24 A. I would. And, again, going back to '96, the landslides
25 that did occur in the West Hills took a lot of those homes

Kaiser - D

1 down. You wouldn't have to look far for evidence of what
2 happens with lateral events. And in that case, soil would take
3 those homes down the hill, so --

4 Q. Okay. Now let's talk about non-ductile concrete. You
5 have mentioned that a little bit. Turn the page. There
6 appears to be a concrete building tilting. Is that a depiction
7 of a non-ductile concrete building in an earthquake?

8 A. I would assume so. Although, some of the indicators are
9 that there's rebar. So it depends on the amount of rebar in
10 these buildings, whether they're delineated as ductile or
11 non-ductile. So I can't speak to that one exactly, but it
12 appears it collapsed due to a lack of -- or an inadequate
13 amount of rebar.

14 Q. How about concrete tilt-up buildings? What are those?

15 A. Concrete tilt-up buildings are when you precast the facade
16 of the building on the ground and then tilt them up. And we've
17 done a number of those. And what's interesting is we've
18 seismically upgraded a number of those. And what's interesting
19 about that is the attachment back in the day -- and by that I
20 mean even 40 years ago -- was very, very rudimentary at the
21 connection point to the foundation. So there's only, I think,
22 in these panels, which were -- that we did were about 40 feet
23 tall, maybe roughly 12 to 15 feet wide. Probably only had
24 three connection points at the foundation.

25 So, again, in a lateral event either direction on those

Kaiser - D

1 panels, they are suspect to fall.

2 Q. Okay. And are you familiar with steel moment frame
3 buildings?

4 A. Yes.

5 Q. And if you flip the page, there's a picture of a steel
6 moment column. Can you tell us about that?

7 A. Yes. Steel moment frames are essentially welded
8 connections where the frame itself is taking the lateral loads.
9 And I think in these particular cases they weren't -- this may
10 have been done to previous or nonexistent or simply wind loads
11 to take up those moments, that lateral load, so probably not
12 designed to take up the significant lateral loads caused by
13 earthquakes.

14 Steel moment frames are still used today and actually
15 succeed, so it really depends on the grade and the quality and
16 level of welding used on the particular steel moment frame
17 they're referencing.

18 Q. Okay. In an earthquake of the magnitudes that we're
19 discussing, would you expect all of these building types that
20 you described to fail?

21 A. That's a very complex question, but I think a lot has to
22 do with what we were previously talking about. The soil types
23 beneath them. I think what's fascinating, if you study
24 earthquakes around the world -- we went up to northern Japan
25 and studied all the earth -- the large Tohoku earthquake that

Kaiser - D

1 happened up there back in March a few years ago, and what's
2 interesting about that is you could be next to an unreinforced
3 masonry building and, depending on the soil type, that could be
4 fine, and right next door could be a building built six years
5 ago that would have collapsed.

6 And, again, I think the thing overlooked a lot in seismic
7 codes around not only the country but around the world is the
8 soil types that are beneath these buildings.

9 And without really understanding those, you could be
10 having a fully upgraded building that is on a liquefiable soil,
11 and that building could collapse regardless of the fact it was
12 built two years ago.

13 Q. Okay.

14 A. So it's hard to tell. It's hard to answer that question.

15 Q. Are you familiar with the City placarding ordinance?

16 A. I am.

17 Q. And it does not apply to single-family or dual-family
18 homes made out of URM construction; is that right?

19 A. As far as I know.

20 Q. Nor does it apply to the building types that we've just
21 discussed; is that correct?

22 A. Correct.

23 Q. Now, if URMs are placarding but other equally vulnerable
24 building types are not, does the City create the impression
25 that the nonplacarded buildings can be safe in an earthquake

Kaiser - D

1 when they really are not?

2 A. I would agree with that.

3 Q. Okay. And can you give us any of examples that -- that
4 confirm that opinion, in your mind?

5 A. There was a funny example of this. A number of years ago,
6 probably four years ago now, a friend of mine was out at the
7 Oregon Coast with his mother, and she's from Baltimore, and
8 they were traveling up and down the Oregon Coast as tourists,
9 and they stopped in Cannon Beach. And I think they went out to
10 Manzanita -- I'm not going to get the cities exactly right, but
11 in one of those two towns at the time one had a tsunami
12 evacuation map and signage, and the mother from Baltimore said,
13 "Let's go back to Cannon Beach. I didn't see those signs, so
14 let's get a hotel there tonight."

15 Q. Assuming that the absence of signs meant safety?

16 A. Assuming the tsunami would not hit Cannon Beach, whereas
17 it was probably going to hit Manzanita.

18 Q. Can URM buildings be identified with any certainty by just
19 visual means?

20 A. In my opinion, no. We've fully upgraded buildings that I
21 bet the majority in this room could walk into and you wouldn't
22 know we were even there, and that's to today's code.

23 MR. DiLORENZO: Thank you. I have no further
24 questions.

25 THE COURT: Thank you.

Kaiser - X

1 Cross-exam.

2 MS. MOYNAHAN: Thank you.

3

4

CROSS-EXAMINATION

5 BY MS. MOYNAHAN:

6 Q. Mr. Kaiser, are you familiar with what's called OSSPAC?

7 A. I am.

8 Q. And what does that stand for?

9 A. I get their emails every few weeks. I apologize. I don't
10 know.

11 Q. Okay. Are you aware that committee member Althea Rizzo,
12 who's from Oregon Emergency Management, criticized you for your
13 Core First product, stating that your literature says that the
14 product is backed by FEMA, and, in fact, FEMA specifically said
15 that it found there were -- in a letter -- that there were
16 significant concerns about this technique and cannot recommend
17 or support its use listing numerous reasons why it found your
18 product to be flawed?

19 Are you aware?

20 A. To get into that conversation would take us all of
21 probably four hours of great conversation, and it goes way up
22 the food chain to NIST. We've been to Washington a number of
23 times, met with code officials in Washington, met with the Red
24 Cross.

25 And what's interesting about Althea Rizzo is that FEMA --

Kaiser - X

1 first of all, our literature never said it was FEMA-backed, so
2 I would challenge anybody to find literature that was produced
3 that said we were FEMA-backed, because we never said that.

4 With Althea Rizzo, we applied for a grant just to explore
5 a different way of going about this, and it got onto someone's
6 desk at FEMA, and they wrote a letter, unbeknowing to them --
7 unbeknownst to them what exactly we were up to.

8 So they really challenged us without ever engaging with
9 us. We actually had to go all the way up to our senator to try
10 to get a response from FEMA as to why they wrote that letter
11 challenging us without, again, any kind of evidence, any kind
12 of open conversation. So we were anxious to converse about
13 this.

14 And I think this is a great question that you bring up
15 because, I think, really, rather than placarding or rather than
16 kind of more and more onerous codes that none of us can abide
17 by, I think we, as a city, should sit down and figure out this
18 as a logical solution and not be political, and this is why --
19 just to finish up your question, not to have it degrade into a
20 political battle, which that one did, and so I'm sorry it got
21 to that with Althea Rizzo, but she was really just passing on
22 this one missive that was sent from FEMA.

23 MS. MOYNAHAN: Your Honor, I move to strike the
24 entire statement as nonresponsive.

25 I asked if he was aware of the statement made by

Kaiser - X

1 Althea Rizzo. It was yes or no.

2 THE WITNESS: I think you went on further to say
3 about FEMA and challenge me on whether it was --

4 THE COURT: Overruled.

5 BY MS. MOYNAHAN: (Continuing)

6 Q. Mr. Kaiser, are you aware of your reputation in the
7 community with respect to Core First?

8 A. You know, it's interesting. Again, a great question.
9 NIST --

10 THE COURT: That question was yes or no.

11 THE WITNESS: Sorry. Am I aware of my reputation?

12 BY MS. MOYNAHAN: (Continuing)

13 Q. Yes.

14 A. As good or bad? What's your question?

15 Q. Do you know what your reputation is -- good or bad?

16 A. I think with, like, any kind of ideas that deviate from
17 the norm, partial are good and partial are bad.

18 Q. And are you aware that FEMA has criticized Core First
19 because it would require school children to run out of a
20 building, requiring at least two minutes of warning time, and,
21 in fact, the Portland Hills 6.8 earthquake would not allow that
22 much time. Are you aware of that criticism?

23 A. Not that particular criticism, no.

24 Q. Okay. Have you written an article stating that since the
25 country began more people have been killed by vending machines

Kaiser - X

1 toppling over than earthquakes?

2 A. That's on our website, yeah.

3 Q. Of course, vending machines have only been around since
4 the 1940s or so; correct?

5 A. That would not be in your favor.

6 Q. No, that would not.

7 And do you also -- you stated that cross-laminated timber
8 is environmentally advanced. That's a tag that's been given to
9 that product by the timber industry; correct?

10 A. No. It goes well beyond that. The Nature Conservancy
11 has -- has taken this up, as well as a number of other
12 environmentally advanced -- Ecotrust has picked this up, so --
13 but it goes well beyond the timber industry.

14 Q. The product has got a lot of glue which has been
15 criticized by environmental groups as well?

16 A. Well --

17 MR. DiLORENZO: Your Honor, objection. If this is
18 impeaching, I just don't see -- I don't get the connection.

19 THE COURT: Relevance, please?

20 MS. MOYNAHAN: It's impeachment, Your Honor. He's
21 given us all his credentials and the buildings he's built,
22 but --

23 THE WITNESS: Sure. I'll be happy to answer that.

24 THE COURT: Quiet, please.

25 THE WITNESS: Oh, sorry.

Kaiser - X

1 THE COURT: Go ahead and answer the question.

2 Jill, read it back, please.

3 (The court reporter read as follows: "Question: The
4 product has got a lot of glue which has been criticized by
5 environmental groups as well?")

6 THE WITNESS: These glues -- it's another good
7 question. Glues have been exhaustively researched and coming
8 out of Finland now, and Finland is well ahead of the United
9 States on anything environmentally oriented. So the glues
10 actually surpass the wood in their environmental approach, so
11 the glue, as well as the wood, I think, is a far better --
12 again, keep in mind that what we're trying to replace is
13 concrete. Regardless of whether the glue and wood, it's
14 replacement of the highest carbon generator in the country
15 outside of cars.

16 BY MS. MOYNAHAN: (Continuing)

17 Q. You stated that the -- I believe you stated that the City
18 seismic code is a moving target; correct?

19 A. Correct.

20 Q. But the code is pretty clear that buildings that were
21 retrofitted to the current standards between 1993 and 2018 are,
22 in fact, sufficient to meet the life safety standard today.
23 And after January 1, 2018, the ASCE 41-17 code applies, doesn't
24 it?

25 A. I agree.

Kaiser - ReD

1 MS. MOYNAHAN: Okay. No further questions.

2 MR. DiLORENZO: Just one, Your Honor, because Core
3 First was attacked. The Court might not know what Core First
4 is.

5 THE COURT: Go ahead.

6

7

REDIRECT EXAMINATION

8 BY MR. DiLORENZO:

9 Q. Could you explain to His Honor what your Core First idea
10 is?

11 A. Sure. Thank you.

12 We, during the recession, were asked to upgrade a Waldorf
13 School in Southwest Portland, and we put about \$400,000 of
14 concrete and steel behind the walls. As I mentioned earlier,
15 any -- most of you could walk into that school and not know
16 that we were there. And it struck me as unfortunate that this
17 little school, this little nonprofit organization struggling to
18 teach these kids, would then have to sustain over \$400,000 of
19 debt for the next 30 years. They had to take a big loan from
20 one of their -- one of their parents, as well as a large loan
21 from a bank to sustain this upgrade to a building that was
22 probably 30 -- 30,000 feet, two stories tall, and when I left
23 that building I almost felt guilty for devoting that much money
24 to a seismic upgrade, when, in fact, the odds are completely
25 against an earthquake hitting that building.

Kaiser - ReD

1 The odds of an earthquake hitting northwestern United
2 States, then hitting Oregon, then hitting southwest Portland,
3 then hitting that street, and then hitting that building are
4 incredibly low odds to place over a \$400,000 bet on it.

5 So when we walked away, we thought what can we do better?
6 How can we improve that conversation for other nonprofit
7 schools as well as PPS, but the city at large, and what we
8 realize is that the better solution is if the objective is to
9 preserve life and not just to preserve the architecture, but if
10 the objective is to preserve life, we should actually focus on
11 that and have what every other natural disaster does, and that
12 asks the occupant to step in and be part of the solution.

13 So fires and tsunami and tornadoes -- I'm from the
14 Midwest. No one in the Midwest would ever suggest making the
15 Midwest tornado-proof. That would be financially untenable;
16 right? So why don't we apply the same thinking of asking the
17 occupants to contribute to the solution, which means we worked
18 with Simpson Strong-Tie -- like I say, they're out of Torrance,
19 California -- on an idea where you put safe zones within
20 buildings and accompany that with seismic detection systems and
21 treat it like every other natural disaster.

22 So when you hear this alarm go off, you have children or
23 adults or workers or everybody just move to the safe zones on
24 their way to the eventual objective, which is outside.

25 And Japan, Mexico, Guatemala, parts of Southeastern Asia

Kaiser - ReD

1 all use seismic detection systems successfully and have done so
2 for 30 years, and I'm a little puzzled why here in the United
3 States we resist this technology that's everywhere, and I think
4 for just the few upgrades here in Oregon we could implement
5 citywide early seismic detection and then accompany that with
6 an evacuation plan.

7 And I challenge the question around children being able to
8 move out of buildings. Children move out of buildings now for
9 fires and active shooters and every other thing, so I think to
10 add a seismic evacuation plan, we -- we were asked by Portland
11 Public Schools to actually study their building on their
12 request. So we got pretty deep into it at Boise-Eliot School
13 and did a full analysis for them.

14 And, really, the end game is that we can solve this --
15 this preservation of life for about 20 percent of the cost of a
16 seismic upgrade, and I think that that -- that is where I think
17 we, as a city, should go, is just get a few folks to want to
18 come up with innovative ways to solve this problem that we're
19 all facing and do it knowing that we're all with limited funds.
20 But we all have the same objective. Everybody on both sides of
21 this conversation, same objective of preserving life.

22 MR. DiLORENZO: Thank you.

23 THE COURT: Anything else?

24 MS. MOYNAHAN: Just one question.

25

Kaiser - ReX

1 RE CROSS-EXAMINATION

2 BY MS. MOYNAHAN:

3 Q. BPS didn't buy your Core First product, did it?

4 A. It didn't. It unfortunately got very political.

5 MS. MOYNAHAN: It's a yes-or-no question.

6 THE WITNESS: Sorry. All right.

7 THE COURT: You may step down, Mr. Kaiser.

8 THE WITNESS: Thank you.

9 MS. MOYNAHAN: Your Honor, I request that -- I
10 request that the -- Mr. DiLorenzo's last witness be limited
11 until 4:35 so we have time for our last witness.

12 THE COURT: Is your -- is your last witness here?

13 MS. MOYNAHAN: Yes.

14 MR. DiLORENZO: Well, ours is too.

15 THE COURT: Go ahead. Go ahead. Go ahead.

16 MR. DiLORENZO: Your Honor, our witness is here. He
17 had to visit the hospital for a surgery for his young child and
18 has now come back to testify and needs to get back to the
19 hospital again, is my understanding, and counsel's last witness
20 is a City employee who is with the Mayor's office. I would
21 hope that we could just accommodate, in order, our witnesses.

22 THE COURT: How long do you expect your witness to
23 take?

24 MR. DiLORENZO: I think about 15 or 20 minutes tops.

25 THE COURT: For your questioning?

1 MR. DiLORENZO: For me.

2 MS. MOYNAHAN: And, Your Honor, I don't mind his
3 witness going first. I just want to make sure we preserve
4 adequate time for my last witness.

5 THE COURT: How long do you think you're going to
6 question --

7 MS. MOYNAHAN: I will question her for about
8 ten minutes.

9 MR. DiLORENZO: And, Your Honor, if --

10 THE COURT: And then your last witness?

11 MS. MOYNAHAN: Yes.

12 THE COURT: Will be how long?

13 MS. MOYNAHAN: That is my last witness. I have --
14 oh, how long will I question his witness?

15 THE COURT: Yes.

16 MS. MOYNAHAN: I don't know what he's going to say.
17 I don't know anything about him.

18 MR. DiLORENZO: Your Honor, I can tell you that her
19 last witness is going to, I presume, testify -- it's Ms. Perez
20 who's with the Mayor's office. I presume she's going to
21 testify in accordance with the declaration she submitted. The
22 declaration gives her opinions as to the purposes of this, and
23 I'm going to move to strike those anyway, and I will object to
24 her testimony if she is going to be delivering post hoc
25 rationalizations as to the purposes of the ordinance.

1 And maybe we can just talk about her declaration now to
2 see whether her testimony is necessary at all.

3 MS. MOYNAHAN: Well, she will be testifying outside
4 the scope of her declaration, Counsel.

5 THE COURT: Yep. All right.

6 MS. MOYNAHAN: And I don't --

7 THE COURT: Hang on --

8 MS. MOYNAHAN: Sorry.

9 MR. DiLORENZO: Sorry.

10 THE COURT: Here's what we're going to do: Your last
11 witness, Mr. DiLorenzo, is who?

12 MR. DiLORENZO: It is Adam Jongeward.

13 THE COURT: All right.

14 All right. We're going to take Mr. Jongeward, and then
15 we're going to recess for the day, and we'll do Ms. Perez
16 tomorrow at 8:30.

17 MS. MOYNAHAN: Okay, Your Honor.

18 THE COURT: I know you're going on vacation.

19 MS. MOYNAHAN: Not until next week.

20 THE COURT: I know that, but the only other option is
21 next week, and you probably would prefer to examine the
22 witness, since you're likely the one who prepared to talk to
23 her.

24 MS. MOYNAHAN: Sure.

25 THE COURT: Great. And our court reporter is

1 available. I expect we can get Ms. Perez done within
2 90 minutes tomorrow.

3 MS. MOYNAHAN: Your Honor, we may be done today. If
4 we can start today, that will be terrific. I don't know how
5 long we will be.

6 Secondly, I cannot imagine we will take more than a half
7 an hour with Ms. Perez.

8 THE COURT: Probably not, but we might take a half an
9 hour arguing over whether she gets to talk at all.

10 MS. MOYNAHAN: We might. We might.

11 THE COURT: Because we're lawyers.

12 MS. MOYNAHAN: Sure.

13 THE COURT: Okay. Mr. Jongeward, come forward,
14 please, and be sworn as a witness.

15
16 ADAM JONGEWARD,
17 called as a witness on behalf of the Plaintiffs, being first
18 duly sworn, is examined and testified as follows:

19
20 DEPUTY COURTROOM CLERK: Please step up and have a
21 seat. There's water here and notebooks there if they start
22 referencing those for you.

23 THE WITNESS: Okay. Great.

24 DEPUTY COURTROOM CLERK: Please state your name for
25 the record and spell your last name.

Jongeward - D

1 THE WITNESS: My name is Adam Jongeward.
2 J-o-n-g-e-w-a-r-d.

3 DEPUTY COURTROOM CLERK: Thank you.
4

5 DIRECT EXAMINATION

6 BY MR. DiLORENZO:

7 Q. Welcome, Mr. Jongeward. Good afternoon. I take it you
8 are a civil engineer; is that right?

9 A. I am.

10 Q. And who do you work for?

11 A. I work for DCI Engineers.

12 Q. And what is your -- what are your degrees in?

13 A. My undergrad degree is in civil and environmental
14 engineering from the University of Illinois, and I have a
15 master's degree in structural engineering from Stanford
16 University.

17 Q. Okay. And I'm going to list some projects, and I'm going
18 to ask you to briefly describe for the Court the type of work
19 that you have done related to those projects. I understand you
20 did upgrade work for Lloyd Center.

21 A. Yes.

22 Q. And what did that entail?

23 A. So Lloyd Center is a big mall here in town, and we --
24 there was a parking garage that used to be in Lloyd Center, so
25 the floor was removed years ago. And so over the course of the

Jongeward - D

1 last 15 years my firm -- myself included -- has retrofitted
2 those columns to be reinforced where they have inadequately cut
3 away the slab. They just went through a big renovation where
4 they moved the ice skating rink. So we evaluated the new
5 location of the rink and upgrades like that.

6 Q. Okay. And I understand you've done seismic retrofitting
7 work for Pioneer Courthouse.

8 A. That's correct.

9 Q. And what did that entail?

10 A. So Pioneer Courthouse is seismically base isolated, which
11 means it's on big fancy springs and it moves back and forth,
12 and in order to move back and forth with a basement and to not
13 impose load onto the soil and not be supported by the soil,
14 there's a moat that goes all the way around in order to allow
15 that movement. And there's a knock breakaway panel that
16 creates a sidewalk that wraps around the courthouse, and it
17 wasn't performing correctly, and so we redesigned that
18 sidewalk.

19 We also braced the stone chimneys at the top, so we put in
20 steel reinforcing to -- you would expect a lot of movement in a
21 base isolated structure, so they were going to wiggle a lot, so
22 you want to make sure they're strong.

23 Q. Okay. And you've also done work for the University of
24 Oregon, the student rec center; is that right?

25 A. That's correct.

Jongeward - D

1 Q. What did that entail?

2 A. That was -- there was three buildings that currently -- or
3 that originally made up the rec center. We put in a brand new
4 building that kind of tied all three together. There was about
5 a \$45 million project for a new build. It included an
6 Olympic-sized swimming pool with three basketball courts over
7 the top of that swimming pool, so long span trusses. It's all
8 steel framed.

9 And then there was a component where an old pool building
10 was needing a seismic upgrade, and so the project came in under
11 budget, and so the university put money towards upgrading that
12 building. So we did -- we designed the upgrade as well.

13 Q. And tell me about the work you've done for Washington
14 State University.

15 A. So Washington State University had a stadium, Martin
16 Stadium, is the name of it. That needed a renovation, and so
17 they ripped down a big portion of the football stadium and
18 rebuilt it. And essentially it was a three -- three quarters
19 of the stadium was all -- all newly rebuilt, and so I
20 specifically worked on all of the seismic evaluation for
21 building the new concrete cores that would support it
22 laterally.

23 Q. Okay. Now, you and your firm were the engineers who
24 helped design a seismic upgrade for the Trinity; is that
25 correct?

Jongeward - D

1 A. That's correct.

2 Q. And I would like to refer you to Exhibit 70.

3 A. Do I grab it here?

4 THE COURT: Plaintiffs are in blue -- or in orange,
5 yeah. 70.

6 THE WITNESS: Right. Okay.

7 BY MR. DiLORENZO: (Continuing)

8 Q. Does -- can you identify this letter?

9 A. Yes. This is a letter that we wrote summarizing the work
10 that we had done on the Trinity Place Apartments.

11 Q. Okay. And does the letter bear your registered
12 professional engineer stamp?

13 A. It does.

14 Q. And it also has the stamp for Wade Younie; is that right?

15 A. Yes, it does.

16 Q. And who is Mr. Younie?

17 A. Wade is a principal engineer in my office.

18 Q. And you worked together on this project?

19 A. Correct.

20 Q. What is the -- your description of the current seismic
21 integrity for the Trinity as we sit here today?

22 A. How much detail do you want?

23 Q. Well, first of all, generally speaking, how up to code is
24 the Trinity?

25 A. I think that's probably best described by just a brief

Jongeward - D

1 process of the way that we go about most URM upgrades.

2 Q. Sure.

3 A. We'll identify -- we walk the building, and we look at old
4 plans, and we identify potential hazards that that building
5 has, and we oftentimes will list out all of those hazards and
6 we will look at how much money the owner has to spend, and
7 we'll prioritize where can you get the most -- the most
8 improved performance for the dollars that you're willing to
9 spend.

10 And so we have checked off most of the -- all of the kind
11 of very hazardous, easy-to-fix type things. We have braced all
12 the parapets. We have braced all the walls for the floor
13 diaphragms. We have -- all the kind of standard URM stuff we
14 have done, and then we've also done a center core drilling,
15 which is a flexural reinforcement of the URM walls in order to
16 reinforce them.

17 Q. So you have actually drilled through the brick?

18 A. That's correct.

19 Q. And you have created pillars made of what material?

20 A. It's rebar with grout around them. So it's like a 40-plus
21 foot drill bit.

22 Q. What's the purpose for those?

23 A. So URM, which is unreinforced masonry, doesn't have much
24 flexural strength, so that means that when it bends there's
25 nothing to really take any tension, so that's where you get a

Jongeward - D

1 lot of problems. Especially with tall, skinny piers, just like
2 the piers that are there. And so what we did was the rebar
3 that gets grouted in place to the URM is what gives it that
4 tension reinforcement in the same way that concrete doesn't
5 have much tension capacity, and so you put rebar in it to take
6 the tension.

7 Q. I see. Now, there's a reference in the summary all the
8 way at the end of the letter to PMLs. Do you see that?

9 A. Uh-huh.

10 Q. And what is a PML?

11 A. A PML is a probable max loss. So a PML is primarily
12 driven or primarily used in the financial realm. So, like, for
13 banks or insurance or things like that. And so owners are
14 oftentimes looking for PML studies to be done to quantify their
15 loss that they are expected to see.

16 And so a PML, the lower the number, the better it is, and
17 that's -- yeah. It -- it is describing how much amount of
18 value is expected to be lost after a seismic event.

19 Q. Okay. And so here you say that the PML went from 38 to
20 approximately 20.

21 A. That's correct.

22 Q. Okay. Now let's drill down a little bit as to what that
23 means. So the probable maximum loss for the Trinity before any
24 of your retrofitting would have been 38 percent loss of the
25 building; is that correct? Is that what that means?

Jongeward - D

1 A. It's not quite as -- not quite as clear as just like you
2 lose exactly 38 percent. It's -- it's trying to assign it to,
3 like, from a financial standpoint, to say how much financial
4 risk is associated or how much money would you expect to have
5 to put back into the building in order to bring the building
6 back up to usable again.

7 Q. I see. And what intensity of an earthquake are these PML
8 numbers calculated in response to?

9 A. The PMLs are -- there's a lot of math that goes into them,
10 and there's not necessarily a ton of actual engineering. It's
11 more closely associated with kind of check boxes of sorts, and
12 so there's -- there's a lot of kind of back end work that's
13 being done that a program will essentially do for us, and we
14 can go in and essentially identify -- we check the right check
15 boxes in order to identify if something is hazardous or if an
16 irregularity exists.

17 So to be honest, I'm not a hundred percent sure which
18 earthquake or if multiple earthquakes are being evaluated in
19 a PML.

20 Q. And is a PML calculated based on proprietary software?

21 A. Correct.

22 Q. And --

23 A. It's not -- I take that back. It's not the only way to
24 calculate it, but that's the way most people calculate it.

25 Q. And 20 is a good number?

Jongeward - D

1 A. 20 is a pretty good number, Yeah.

2 Q. And 38 is --

3 A. Well, it's a good number for a URM building. If you were
4 to build a brand new building today, you should be less than
5 five or something. It would be very low.

6 But a URM building, 20 is a good number. And 20 is about
7 the number that most banks want to see. You want it to be 20
8 or less in order to continue to get funding.

9 Q. Is there any way to get appreciably under 20 for
10 unreinforced masonry buildings?

11 A. I mean, you might be able to get it down to 15. I mean,
12 there's always a way, so if -- if you wanted to essentially gut
13 the entire building and, you know, systematically replace or
14 reinforce every wall with concrete, you're going to get the
15 number down low; but it's not cost-effective to do so, and it's
16 definitely not going to follow historic guidelines on how to
17 upgrade buildings.

18 So there's other constraints than just "Get me down as low
19 as you can."

20 Q. It would be better to knock the building down and start
21 all over?

22 A. Yeah. Correct.

23 Q. Okay. Has your firm been retained by Mr. McMonies to
24 attempt to get the building off the URM list?

25 A. Yes, I believe so.

Jongeward - D

1 Q. And can you describe the efforts that you have gone
2 through in order to do that?

3 A. To be honest, I -- I personally have not done any of those
4 efforts. That would be Wade Younie. But I can describe what
5 we would typically do to get off the list.

6 Q. Okay. Have you had experience in attempting to persuade
7 the City to take other buildings off the list?

8 A. Yes, I have had that experience.

9 Q. Okay. Can you tell us about those experiences?

10 A. So there's a couple of ways that you go about trying to
11 get off of the list. The first -- the first one is the obvious
12 one, is that you are on the list and you're not actually a URM
13 building.

14 So we've had that happen. And you have to essentially
15 prove that you don't have unreinforced masonry in your
16 building. More specifically, you have to prove that maybe you
17 have unreinforced masonry, but you're not a bearing wall.
18 Because the list is trying to specifically identify bearing
19 wall buildings.

20 So --

21 Q. Let me stop you there for a second.

22 A. Okay.

23 Q. Have there been instances, which you're aware of, which
24 buildings have been identified by the City as URM on the list
25 but they weren't bearing walls?

Jongeward - D

1 A. Correct. Yes.

2 Q. So that has, in fact, happened?

3 A. That has happened, yes.

4 Q. Okay.

5 A. Uh-huh.

6 Q. So what happens next?

7 A. So that's the first -- so if we walk the building, maybe,
8 with an owner, or something, and we figure out that it's not a
9 URM building, then we try to prove to them with pictures or a
10 site walk with them, or whatever it is, to get them off the
11 list that way.

12 Assuming you are a URM building, then you typically try to
13 prove, through calculations, that you are either sufficient as
14 is without any upgrade or you can upgrade the building to meet
15 the City's requirements of a building conforming with life
16 safety.

17 So if you can propose an upgrade and complete that upgrade
18 and the City signs off on it, then you can get off the list.

19 Q. Have you had success in -- in accomplishing that stuff so
20 far with the City?

21 A. We have definitely done full upgrades, and I assume that
22 once those full upgrades are completed that we get off the
23 list, but usually that's not my role to fight that battle.
24 It's more the building owner. So once we get the permit and
25 the construction is complete, my role is done. I'm assuming

Jongeward - D

1 they're off the list, but I don't go back in and check.

2 Q. Okay. And what's the ranging cost for a full upgrade for
3 a URM to satisfy the City?

4 A. It's a gigantic range. In theory? In theory, you don't
5 have -- if you have solid walls on all sides, you have a URM
6 bunker, you could get -- in theory, it could work without any
7 upgrade at all. That's highly unlikely and definitely not
8 practical in, like, apartment buildings where obviously you
9 have windows.

10 I would say your -- to be honest, I'm not a hundred
11 percent certain of the dollars or dollars per square foot.
12 I'm -- I could take a stab at it, but it would be a guess.

13 Q. Okay. Are you aware of any cost data for any of the
14 clients that you've serviced so far?

15 A. Am I aware of?

16 Q. Of how much these retrofits have cost.

17 A. Yeah. I mean, there's -- they're typically millions of
18 dollars for -- for upgrades of buildings.

19 Are you looking for, like, a dollar per square foot?

20 Q. No. Just a general idea.

21 A. Okay.

22 Q. Let's say a 60-unit apartment building that's a URM,
23 without any other reinforcement, that wants to get rid of the
24 placard, what would be the range that you would tell an owner
25 they may have to spend?

Jongeward - D

1 A. I would always work with a contractor because it's always
2 very complicated to come up with that number.

3 Q. Okay. Fair to say it's lot of money?

4 A. Yes.

5 Q. Okay.

6 A. It's in the millions for sure.

7 Q. Now, you happen to serve on what is called the ASCE 41
8 National Committee; is that right?

9 A. Yes.

10 Q. Congratulations.

11 A. Thank you.

12 Q. What does that entail?

13 A. So the ASCE 41 is a national standard for evaluating and
14 upgrading existing buildings, and so what does it entail to be
15 on the committee?

16 Q. Yes.

17 A. So I applied to be on the committee with a resumé of work
18 and example of projects and things like that and was accepted.

19 Wade Younie was on the committee for many years, and he
20 was retiring, and he wanted to continue some DCI
21 representation, and I was the best candidate. So we meet four
22 times a year, and we meet in San Francisco, and we discuss
23 various change proposals.

24 The committee is essentially broken up into -- each
25 chapter gets a subcommittee, more or less. That's overly

Jongeward - D

1 simplified, but I currently sit on the analysis subcommittee,
2 which is chapter 7, and the masonry subcommittee.

3 Q. Okay. And how many members are on the committee?

4 A. In total, maybe a couple hundred. I think that we have
5 around -- I think it's something like 50 to 75 voting members,
6 and then the rest associate members, and I'm an associate
7 member.

8 Q. Okay. And how -- you meet four times a year. And what
9 does the committee do?

10 A. We look at research that is being done at the university
11 level or at -- in private practice. We look at earthquakes,
12 earthquake failures that have happened, and we see if there are
13 ways that we could change the standard to make it more clear
14 for engineers to use it, to make it more aligned with the new
15 building code, to make it more complete in terms of load path
16 and failure mechanisms, so --

17 Q. If I want a building to meet ASCE 41-13 standards, what do
18 I need to do?

19 A. So the standard actually out -- outlines several different
20 levels of performance and several different earthquake levels.
21 So you would need to understand what earthquake level you would
22 want to apply and how you want your building to perform at that
23 earthquake level.

24 Q. Okay. I want my building to satisfy Mr. Kumar at the City
25 of Portland Bureau of Development Services.

Jongeward - D

1 A. Have you gone through a change of occupancy?

2 Q. I have not.

3 A. That means that you are at what they call a BPOE level,
4 which means you need to apply a very specific earthquake, the
5 BSE-1E, and you need to meet life safety under that earthquake.

6 Q. What is the BSE-1E earthquake? What is that?

7 A. That's a great question. It's the basic -- basic safety
8 earthquake 1, and E stands for the -- at the existing -- for an
9 existing building.

10 Q. Okay. Does it have a Richter scale on this earthquake?

11 A. Not really. The Richter scale identifies how much energy
12 is released at the epicenter of an earthquake, but that's not
13 actually what affects a building.

14 A really big Richter scale could not really affect a
15 building at all if a building happened to be a long ways away.
16 And what you're trying to identify is an intensity of ground
17 shaking. And the way that we do that is a probabilistic means,
18 and we say that it is 2 percent in 50 years is the -- you know,
19 there's different percentages for different return periods, but
20 that's how we calculate them.

21 Q. All right. So this is a complicated formula?

22 A. Yeah. The USGS has done all of the seismology behind it,
23 and they essentially provide us with coefficients.

24 Q. And you run your computer models and you determine whether
25 a building meets ASCE 13. And does -- do you -- what do you

Jongeward - D

1 get as your output? Do you get a printout?

2 A. No. It's much more complicated than that. You get a --
3 the engineer will assemble a binder of calculations in order to
4 prove what they're trying to prove, and then those calculations
5 inform what we put on the drawings, which is the proposed
6 retrofit.

7 Q. Okay. So if you want to prove that a building that is
8 currently on the list has already been upgraded to those
9 standards, those standards being ASCE 41-13, how would you
10 prove that?

11 A. You would essentially have to check every mode of failure
12 that it talks about in the standard and show that each mode of
13 failure is adequate. And there's various ways of doing that,
14 but there is a lot of things to check, and you -- you need to
15 think about -- you're essentially comparing -- the standard is
16 trying to capture the amount of ductility in the building, and
17 if the -- if the building is very ductile, then it will behave
18 better, and if it's not very ductile, then it will behave
19 worse. But just because it's not very ductile doesn't mean
20 it's going to fail, so you have to quantify that.

21 Q. Can there be a circumstance in which the proponent goes to
22 the City and says, "Look, given these results, this building
23 satisfies ASCE 41-13," and the code enforcer says, "No, I
24 disagree. It does not"?

25 A. Yes. That happens all the time.

Jongeward - D

1 Q. So there's a certain amount of subjectivity, then, that is
2 built in to whether or not a building has met the ASCE 41-13
3 standard?

4 A. That's correct.

5 Q. All right. So it's not like a mathematical problem where
6 there's only one answer?

7 A. Definitely not.

8 Q. Okay. Now, there are other ASCE standards besides 41-13;
9 is that correct?

10 A. That's correct.

11 Q. All right. There's a 41-06. What is that?

12 A. It's an older version of the code. 41-06 was a specific
13 one. It's actually the first 41, and it now is combined
14 with -- ASCE 41-13 has combined ASCE 41-06 and ASCE 31, I
15 think, 03.

16 Q. Okay. And there's also a 41-17; is that correct?

17 A. That's correct.

18 Q. And what is that?

19 A. It's a newer version of 41-13.

20 Q. And I think the Portland code references 17, does it not?

21 A. I think the Portland code references 13.

22 Q. 13.

23 Then there's a 41-21. Is that in process?

24 A. That's in process, yes.

25 Q. Mr. Kumar told us he was working on 41-23.

Jongeward - D

1 A. Yeah, I was going to say that I'm not sure it's going to
2 be 21. I think it's somewhat up to the judgment of the
3 committee. It's definitely not published yet. So it depends
4 on if we feel like we're ready at 21, and my hunch is it will
5 be more like 23.

6 Q. So these are moving standards, are they not?

7 A. Yes. But I wouldn't say -- it's not like, you know, the
8 next book comes out and all of a sudden it's totally different.
9 The idea is just to make small tweaks, and, you know, maybe you
10 find one mode of failure that you hadn't thought of before, or
11 maybe there was research that provided better insight so you
12 tweak the standard.

13 Q. So in my world, if a citizen wants to read the law, they
14 can go to the law library and get the Oregon Revised Statutes
15 and read the law. What if a citizen wants to say, "Adam, I
16 would like to read 41-13"? What would they look at to
17 determine what the law is?

18 A. They could go buy it. It costs money. It's a -- there's
19 a paper copy, or you can get a PDF copy, but it's \$150 to \$200.

20 Q. And how many pages is it?

21 A. I have one in my bag. It's maybe around --

22 Q. Can you pull one out --

23 A. Sure.

24 Q. -- so His Honor can appreciate what 41-13 is?

25 That's 41-13?

Jongeward - D/X

1 A. Yes. This is 518 pages.

2 Q. Okay.

3 MR. DiLORENZO: Thank you.

4 Your Honor, I have no further questions.

5 THE COURT: Ms. Moynahan, go ahead.

6 MS. MOYNAHAN: Thank you, Your Honor.

7

8

CROSS-EXAMINATION

9 BY MS. MOYNAHAN:

10 Q. Mr. -- is it Jongeward?

11 A. It's "Young-ward," but nobody gets it right. It's okay.

12 Q. I'll try my best.

13 Mr. Jongeward, you mentioned -- Mr. DiLorenzo asked you if
14 the City's code was -- the standards were a moving target. I
15 believe your answer was that the ASCE is changing it
16 incrementally; is that correct?

17 A. Yes.

18 Q. A little bit each time it changes.

19 But the code is quite clear that if you retrofitted your
20 building between 1993 and the -- and December 31, 2017, to
21 standards that were current at that time, then, in fact, you
22 would be considered adequately retrofitted; is that correct?

23 A. I don't actually think that the code says that it -- that
24 it says standards of that time. Although, that has been the
25 way it's been interpreted, yes.

Jongeward - X

1 Q. Okay. And it's clear that after January 1, 2018, you have
2 to meet the life safety standard or ASCE 41-13 or -17; correct?

3 A. Yes. But you had to meet that standard even before 2018.
4 The old version of the City code also referenced ASCE 41-13.

5 Q. So that actually hasn't changed; right?

6 A. Correct.

7 Q. And you mentioned that Mr. DiLorenzo stated that
8 ASCE 41-13, when you interact with BDS, that it's -- he said it
9 was subjective and you agreed; is that correct?

10 A. Yeah, I would say it's subjective.

11 Q. And because you disagree with BDS, does that make it
12 subjective?

13 A. I'm not sure. I -- I think so. Because I truly believe
14 I'm correct, and they truly believe that they're correct, and
15 the rest of the engineers on the committee outside of the
16 Portland -- I mean, we -- that's the reason we meet four times
17 a year, that's the reason we have meetings multiple times a
18 month, is to hash out how we can write the code so that we can
19 take out that subjectivity.

20 Q. Okay. With respect to Trinity, the -- it's Exhibit 70, I
21 believe, that you have in front of you. Trinity Place
22 Apartments. In fact, there is still numerous deficiencies
23 before that building reaches ASCE 41-17; is that correct?

24 A. That's correct.

25 Q. And some of those are significant, such as out-of-plane

Jongeward - X

1 capacity?

2 A. If -- if it had an out-of-plane capacity failure, I think
3 that it would be significant, but it's not actually proven that
4 it has that deficiency. Because we changed the rules in ASCE
5 41-13 to ASCE 17, and we've actually changed the way that we
6 calculate it. So it might meet 13 and it might fail 17 or vice
7 versa. I would have to check.

8 Q. Okay. How about in-plane capacity of URM walls? You
9 would have to add shear walls still to bring that up to code or
10 to the standard, wouldn't you?

11 A. In plane?

12 Q. In plane.

13 A. Yes.

14 Q. And that's fairly significant, isn't it?

15 A. That would be significant, yes.

16 Q. How about chord and collector elements for wood diaphragm?
17 The resolution is what -- you're missing drag struts at the
18 entry corners. Is that something that's significant?

19 A. Yep. That would -- yeah.

20 Q. And so, in fact, Mr. McMonies has made significant
21 investment and has come very close; but, in fact, the building
22 still is deficient, isn't it, with respect to life safety
23 standard?

24 A. Yes. With respect to life safety standard, it is not
25 meeting it.

Jongeward - X

1 Q. Okay. Now, with respect to the bearing walls, bearing
2 walls can't be seen from the outside, can they?

3 A. No.

4 Q. No. So with respect to some URM buildings, in your
5 experience, that is -- that may be on the list but you don't
6 believe it's a URM, in fact, you can't see the bearing walls
7 from the outside. So you wouldn't necessarily know if a
8 building is a URM until you had further study of the building;
9 correct?

10 A. Sure.

11 Q. Or allowed inside the building?

12 A. I will say a lot of URM buildings you can't tell they are
13 URM from the outside. If they get a skin coat, you can't tell.
14 You always need to walk the building.

15 Q. And you mentioned to do that, to get it off the list, you
16 could just send a picture to BDS of what they needed to see;
17 correct?

18 A. It's not quite as simple as that. You've got to fight
19 them pretty hard in order to get them to really sign off on it.
20 You have to document the entire building. You have to show
21 maybe why -- why they thought it was on -- why they thought it
22 should be on the list and then prove that it actually isn't, or
23 sometimes there's calculations or other things.

24 Q. And you have been successful in removing buildings from
25 the -- or convincing BDS to remove a building from the URM

Jongeward - X

1 list?

2 A. I can think of three times that -- that I personally have
3 tried, and I don't think any of them have actually gotten off
4 the list without some sort of upgrade.

5 Q. So they performed the upgrade, in fact?

6 A. Yes.

7 Q. And you also mentioned that you've done full upgrades and
8 you assume that the owner succeeded in getting the building off
9 the list, but you don't know; correct?

10 A. Correct.

11 Q. But if, in fact, there was still work to do, wouldn't the
12 owner -- wouldn't you assume the owner would have gotten back
13 to you?

14 A. No. Because the -- in the past, you don't always have to
15 get off the list. The goal of the owner, in my experience, has
16 not been to get off the list. The goal is to actually improve
17 the seismic performance of the building.

18 MS. MOYNAHAN: I have no further questions.

19 MR. DiLORENZO: No further questions, Your Honor.

20 THE COURT: You may step down. Thank you.

21 THE WITNESS: Thanks. Should I put this back?

22 THE COURT: You can just leave it there. Thank you.

23 MS. MOYNAHAN: Your Honor, I intend to withdraw

24 Ms. Perez's declaration and rely on her testimony, which will
25 be very brief, because I do agree with Mr. DiLorenzo that she

Jongeward - X

1 can't testify as to the purpose of the ordinance, and that was
2 a substantial portion of her declaration. So I really intend
3 to inquire just a few different issues with her. Can we try?

4 THE COURT: We are stopping at 5:00. I have a
5 commitment.

6 MS. MOYNAHAN: Okay.

7 THE COURT: Which I set based on our agreement many,
8 many weeks ago that we would need only two days.

9 MS. MOYNAHAN: Okay.

10 THE COURT: All right. Go ahead.

11 MS. MOYNAHAN: Thank you.

12

13 ELISABETH PEREZ,

14 called as a witness on behalf of the Defendants, being first
15 duly sworn, is examined and testified as follows:

16

17 THE WITNESS: I do.

18 DEPUTY COURTROOM CLERK: Step up and have a seat.

19 Some water there if you would like it. State your name
20 for the record and spell your last name.

21 THE WITNESS: Elisabeth Perez, P-e-r-e-z.

22 MS. MOYNAHAN: Your Honor, permission to also lead
23 the witness through credentials.

24 THE COURT: Yes. Go ahead.

25

Perez - D

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DIRECT EXAMINATION

BY MS. MOYNAHAN:

Q. Ms. Perez, you're the Mayor of Portland's operations director; is that correct?

A. Correct.

Q. And you're his policy advisor for emergency management, emergency communications, and Smart Cities; is that correct?

A. Correct.

Q. And you have a master's in disaster resilience; correct?

A. Correct.

Q. Okay. How long have you been employed by the City?

A. Since July of 2017.

Q. Okay. And your job duties include being the Mayor's liaison or policy lead with the policy committee of the URM policy workgroup. You attended policy committee meetings and you advise the Mayor regarding City resolutions and ordinances related to the placarding and tenant lease application notifications; correct?

A. Correct.

Q. Okay. Ms. Perez, can you explain for the -- can you explain to the Court what -- what purpose a -- does the City have an obligation with respect to public safety to its citizens?

A. Yes. So public safety, I would say, is one of the City's core functions. We have at least four bureaus dedicated to

Perez - D

1 ensuring the public safety of the residents of Portland. So we
2 have the Bureau of Emergency Management, the Bureau of
3 Emergency Communication, Police, and Fire that all have a
4 mission to ensure public safety.

5 Q. What other measures does the City take to promote public
6 safety?

7 A. So there are -- I would say other bureaus that also focus
8 on doing some public safety. The Bureau of Transportation, the
9 Bureau of Development Services.

10 Q. Is there a disaster mitigation and management function of
11 the City?

12 A. Yes. That is generally done by the Bureau of Emergency
13 Management.

14 Q. Okay. Are you familiar with the City's placarding
15 ordinance?

16 A. I am.

17 Q. Does the City's placarding ordinance promote public
18 safety?

19 A. It does.

20 MR. DiLORENZO: Objection, Your Honor.

21 THE COURT: Go ahead.

22 MS. MOYNAHAN: Withdraw -- withdraw, Your Honor.

23 THE COURT: All right. Continue.

24 BY MS. MOYNAHAN: (Continuing)

25 Q. Does the City's placarding requirement promote public

Perez - D

1 safety?

2 MR. DiLORENZO: Objection. Your Honor --

3 THE COURT: Go ahead.

4 MR. DiLORENZO: -- we're now getting into that area
5 of the purpose of the placarding ordinance. There is no
6 placarding, other than required under the ordinance, and
7 therefore this is a backdoor way of attempting to now create a
8 new purpose for the placarding ordinance. The purposes of the
9 placarding ordinance are based on what was uttered during the
10 City Council meeting when the ordinance was adopted and what
11 Commissioner Saltzman further testified to elaborate on that,
12 and that is it.

13 THE COURT: Ms. Moynahan, go ahead.

14 MS. MOYNAHAN: Your Honor, I'm not asking the purpose
15 of the ordinance. I'm asking whether a placard can promote
16 public safety.

17 THE COURT: Is Ms. Perez on record as having made
18 that statement during the time the ordinance was under
19 consideration?

20 MS. MOYNAHAN: I don't believe Ms. Perez has made any
21 statement during that time period.

22 THE COURT: Sustained.

23 MR. DiLORENZO: Thank you, Your Honor.

24 MS. MOYNAHAN: Would you read back the question,
25 please?

Perez - D

1 (The court reporter read as follows: "Question:
2 Does the City's placarding requirement promote public safety?")

3 MS. MOYNAHAN: You may answer.

4 MR. DiLORENZO: No.

5 THE COURT: Wait. No.

6 MS. MOYNAHAN: Oh, sustained. I'm so sorry,
7 Your Honor. I'm so sorry, Your Honor. I'm just a little
8 tired. Okay.

9 BY MS. MOYNAHAN: (Continuing)

10 Q. Ms. Perez, the -- the existence of a placard on a city
11 building that states that the building is a URM and may be
12 dangerous in the event of an earthquake, what value do you
13 think it has?

14 MR. DiLORENZO: Objection, Your Honor.

15 THE COURT: Sustained.

16 All right. We're going to recess.

17 MS. MOYNAHAN: Okay. And I'm done with the witness
18 Thank you, Judge.

19 THE COURT: Do you want her to come back tomorrow
20 after you review questions?

21 MS. MOYNAHAN: No, thank you, Judge.

22 THE COURT: Do you have any questions?

23 MR. DiLORENZO: I have none, Your Honor.

24 THE COURT: All right. Ms. Perez, you may step down.

25 THE WITNESS: Thank you.

1 MR. VANNIER: I tried to tell her that, Your Honor.

2 THE COURT: Yeah, I know. It's up to you. All

3 right. For now, we're in recess.

4 We'll see everybody Tuesday morning at 8:30. Thank you.

5 (Hearing concluded.)

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C E R T I F I C A T E

Masonry Building Owners of Oregon, et al.

v.

Wheeler, et al.

3:18-cv-02194-AC

ORAL ARGUMENT

May 15, 2019

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/s/Jill L. Jessup, CSR, RMR, RDR, CRR, CRC

Official Court Reporter
Oregon CSR No. 98-0346

Signature Date: 5/29/19
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