WITNESS INTERVIEW TRANSCRIPT

MCM Construction

Miami, FL

HWY18MH09

(100 pages)

Table of Contents

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
PEDESTRIAN BRIDGE COLLAPSE	*	
MIAMI, FLORIDA	*	Accident No.: HWY18MH009
MARCH 15, 2018	*	
	*	

Interview of: PEDRO CORTES
MCM

Miami, Florida

Wednesday,
April 11, 2018

APPEARANCES:

KENNETH BRAGG, Accident Investigator
National Transportation Safety Board

DAN WALSH, Senior Highway Accident Investigator
National Transportation Safety Board

REGGIE HOLT, Senior Bridge Engineer
Federal Highway Administration

PETER GOULD, Attorney
Squire Patton Boggs
(On behalf of MCM)

I N D E X

I N T E R V I E W

(8:27 a.m.)

MR. BRAGG: Today is Wednesday, April 11, 2018. It's about 8:27 a.m. We are at the residence of Mr. Pedro Cortes in Miami, Florida. This interview is in reference to the FIU bridge collapse, which occurred on March 15, 2018 in Miami, Florida.

My name is Kenny Bragg. I'm an investigator from the Office of Highway Safety. We're going to do introductions around the room, starting to my left.

MR. WALSH: Dan Walsh with the National Transportation Safety Board.

MR. HOLT: Reggie Holt with the Federal Highway Administration.

MR. BRAGG: Mr. Gould?

MR. GOULD: Peter Gould, Squire Patton Boggs, counsel for MCM.

INTERVIEW OF PEDRO CORTES

BY MR. BRAGG:

Q. And, sir, please state and spell your name.

A. My name is Pedro Cortes. I work with MCM.

Q. And could you spell your first name?

A. P-E-D-R-O.

Q. The last name?

A. C-O-R-T-E-S.

Q. Okay. And so you currently work with who?

A. With MCM currently.
Q. And how long have you been with MCM?
A. I've been working with them maybe 13 interrupted years. Seven years before (indiscernible) '12, from 2012 to -- until now, 5 years. Or 6 years.
Q. And what's your current role with the company?
A. I'm a QC technician.
Q. You're a QC technician?
A. Yes.
Q. And just explain to me, you know, in just plain language what a QC technician is and what they do.
A. Well, I'm in charge of all the tests, the concrete. All the earthworks testing, you know, and make sure the -- all the structure is done according with the plans and specs.
Q. Okay. And how long have you served in that position?
A. Since 2013.
Q. Since 2013. And when did you become involved in the FIU bridge project?
A. I was pretty much assigned to that project most of the time. Even I have to go everywhere, but most of it I have the experience to be in the project. That's why they choose me to be there.
Q. Okay. Tell me a little bit about the day of the collapse. Tell me what you did and what occurred.
A. When after the -- we have a meeting with all the parties involved. They decide and say, well, we're going to go up there

and stress again those two bars that was destressed maybe 3 days before. And then I had to be just a witness because I'm not certified for PT. So one of the inspectors was up there with me, so I was there just as a witness.

So they proceed with the -- they have a sheet with the specs of the stressing sequence of the two parts of the member 11, they call it. I just remember it goes diagonal from the canopy to diaphragm 2, which is here north of the element support on the north side. So they proceeded with the stressing the bars. And then one at a time, they say do top first and then the second, the -- I wasn't, I wasn't sure how many, how many pounds -- it was kips -- we're doing at a time, because the gauge -- I don't understand the gauges.

And then they have six stages. I mean three stages, because one on each of the PT bars. So one and one. Let's say, let's say, let's put 2500 on each bar. First the top, and then the bottom. That's the first stage. Then they proceed with the second stage, right? Another certain number of pounds. I don't know. I don't know. So on the very last -- they were about to finish. In the very last, in the bottom, which is -- what was the last stage, and then the bridge collapses.

Q. Okay. And where were you? Where were you standing when the bridge collapsed?

A. I mean, the ram (indiscernible) right there. I was standing right here. There was -- the main guy of the VSL was here and the

two helpers over there. This was checking the -- proceeding the pressure machine, and the other was controlling the ram, and the other was, you know, with a wrench adjusting the machine.

Q. Okay. So you were on the ground?

A. No, I was with them on top.

Q. I'm talking about -- were you on the, were you on the canopy or you --

A. On the canopy. On the canopy.

Q. And do you know where you ended up once it collapsed, or what did you --

A. No. Don't remember a thing.

Q. Okay.

MR. WALSH: Dan Walsh with NTSB.

BY MR. WALSH:

Q. Just to follow up with Mr. Bragg's line of questioning, you were on the canopy at the time of --

A. The collapse.

Q. -- restressing number 11?

A. Yes.

Q. How far away were you from the VSL operators who were calibrating?

A. Maybe 4 or 5 feet.

Q. Four or 5 feet?

A. Yeah.

Q. Okay. Was Alex Molina there? Do you recall Alex Molina

being there?
A. Yes, I know him. No, he wasn't up there.
Q. He was not up there?
A. No.
Q. Okay. Whose responsibility was it to inform Alex -- whose responsibility was it to inform Alex Molina of the restressing operation typically?
A. Typically there are usually two guys. The other guy was named, was named -- let's see. Carlos Chapman, was one of the BPA representative up there.
Q. Was Carlos Chapman present during --
A. Right.
Q. -- the restressing?
A. Right.
Q. And where was he, where was he standing?
A. He was standing -- let's say this is a stressing point, which is -- was a blister, which is two diagonal members come down. I was standing on that side. Carlos Chapman was standing on the other side.
Q. So he was on the canopy?
A. Yes.
Q. Okay. I'll ask you again. Whose responsibility was it to inform Alex Molina?
A. Carlos Chapman.
Q. Carlos Chapman?

A. Yes.
Q. And he is with who?
A. BPA.
Q. He's with BPA?
A. BPA, which is the CEA companies.
Q. And whose responsibility was it to inform Carlos Chapman of the restressing operation? Typically. From MCM, who -- from MCM, whose responsibility was it to inform Carlos Chapman?
A. To inform Carlos Chapman? They usually go -- because all the parties were involved at the time of the meeting, so they decided that Carlos, myself, and the other people who are supposed to do the job to be up there. I mean, just as witnesses so they do it the proper way.
Q. Now for the initial tensioning that was done on the fabrication site and for the destressing that was done after the move, what was the communication between the contractor and BPA to inform them of -- to make sure that there was an inspector from the Corradino Group to inspect the tensioning and the destressing operations?
A. They usually make a report themselves. We don't have to be involved because it was their responsibility. And they just submit an email saying that it was done correctly and that it was properly done.
Q. So they completed a report after the tensioning and --
A. After the destressing, after they set up the truss.

Q. Okay. Destress.
A. Yeah, yeah. I mean the bridge.
Q. Okay. Was there any -- in terms of the planning for it to take place, was there any communication, formal communication, before the operation took place that indicated that these specific individuals needed to be there?
A. There was a time. There was a time, and sometimes I'd have to be involved in that part, you know. Because since prestress and stuff like that, I've got no certification. So I have no business to be up there. They tell me that day to be up there just as a witness.
Q. Okay. Were you present during the initial tensioning of the PT bars on the construction site when the falsework was underneath -- was under the main span? Were you present for --
A. No, not really.
Q. You weren't --
A. No.
Q. You weren't present for the --
A. Sometimes I went to look at it, how did they work, how it is done, because I wasn't there before for the stressing/destressing the cable. I been involved in jobs that has a lot of cables, but that job was unique. I mean, it's a unique job.
Q. Going back to the stressing operation on number 11 of the day of the collapse, did you observe the stressing to the top bar and then they proceeded to the bottom bar and then they went back to

the top bar, and it was back and forth? Was it --
A. It was no change. Actually there was a guy from BPA that is called Jose Morales. He was on the deck checking the -- or the cracks at the time when they were stressing it. And I asked every time -- I went to the edge of the canopy. What's going on? Any change? He say -- Jose -- there are no changes. That's all.
Q. Okay. So you were talking with Jose --
A. Jose. Yeah.
Q. -- during the, during the restressing operation.
A. Right.
Q. And you were in constant, you were in constant communication with him --
A. Right.
Q. -- through the restressing?
A. On the third -- just wait to see if there was any change, you know. So he decided to stand on the deck to see on the diaphragm if he see any change.
Q. And he -- and what did he indicate to you during that conversation?
A. That there was no change.
Q. There's no change.
A. Was no --
Q. No change to the cracks?
A. No change.
Q. Okay. When you observed the stressing, were they going back

and forth from the top bar to the bottom bar or did they do the entire stressing on the top bar and then they did the entire stressing on the bottom bar?

A. That is why make in sequence, just a little bit at a time.

Q. So it's your opinion or your observation that they went back and forth?

A. Back and forth. Back and forth.

Q. So the crane actually picked it up, went back --

A. Right.

Q. -- and they went back and forth?

A. Back and forth, yeah.

Q. That's what, that's what you observed?

A. Yeah.

Q. Okay. Did you observe any of the tensioning that occurred off-site on the main span when the structure was on falsework? Did you -- were you present at any time during the initial tensioning on the structure when it was off-site?

A. When it was off-site, the setup? No, there was developed a very small -- they call it hair cracks?

Q. Yeah.

A. After they removed the scaffolding.

Q. Right. Did you observe those? Did you see those hairline cracks?

A. Yes.

Q. Okay. Did you produce any reports? Did you take any photos

of those hairline cracks?
A. Yes. I took some photos and made a report, but I put them on files. MCM files.
Q. We request --
MR. WALSH: Peter, we'll request a copy of those photos and those reports.
MR. GOULD: All photos are in process of being collected -- or not collected, but assembled and produced.
MR. WALSH: Okay.
BY MR. WALSH:
Q. How many reports did you produce?
A. I mean, internally, MCM, I just communicate everything we see, or I saw. And then when we believe that it was time to pass it on to the engineers, designers, so we collect all the information and make a whole report and pass it over to the engineers.
Q. Did you produce that report or did --
A. No. No, usually it's my boss, Rodrigo Isaza. I just make it internally, you know, because I have that power to go to them, to go internally. And then he go to the main guys.
Q. Okay. Well, we're -- we'll request a copy of those internal reports and photographs as well as the reports that Rodrigo produced. We'll request a copy of those.
MR. GOULD: And just to be clear, it's my understanding that you've already requested those and we're getting them to you.

MR. WALSH: Okay.

BY MR. WALSH:

Q. Did you observe any other cracks while the main span was on the construction site, off-site? Did you observe any other cracks that were noticeable to you?

A. No.

Q. Were you on the site Saturday, February 24th? Do you recall?

A. I don't remember that. I don't.

Q. Do you recall being on the site and hearing any loud pop, popping noises that occurred on the main span?

A. I've heard that, but -- myself, I didn't hear it. The day that happened, once they start removing the scaffolding, they say they heard a very loud sound, you know.

Q. But you weren't on the jobsite when that occurred?

A. I was there.

Q. You were --

A. But me, I didn't hear anything.

Q. But you --

A. Maybe it was too far, the machines make a lot of noise or (indiscernible).

Q. Okay. You were on that jobsite, but you didn't hear the loud popping noise?

A. I didn't hear anything.

Q. Okay. But you were informed of the loud popping noise by who?

A. I mean, it's a lot of people that hear it. So it's a big commotion, you know. Yeah.
Q. Okay. Did you observe any cracking on the structure after the loud popping noise?
A. There were some cracks on the rest of the -- on some of the truss members. But we made sure that we took pictures and they was sent to -- and they say it was something not too alarming; it was normal. So those cracks after the destress, they close. So they were right about it.
Q. Okay, but the destressing occurred after the move. It's the -- I guess I'm concerned about after the loud popping noise that occurred off-site on the -- off-site. Were there any photographs taken of the cracks after the loud popping noise?
A. The loud popping was like (indiscernible) before we set the bridge.
Q. Right.
A. So we didn't -- that wasn't a big concern.
Q. Okay. Did you take any photographs --
A. No.
Q. -- after the loud noise?
A. No. A small crack, it's hard to see it on a -- in a whole picture, you know. Very tiny, so --
Q. Were you present for the destressing of the PT bars number 2 and number 11 after the move?
A. No.

Q. You weren't?
A. I was there, but I wasn't up there with them.
Q. You were not there with them. Okay. Did you observe any cracking after the destressing?
A. No. I went up there to check every member that I saw cracks before, and it wasn't any change at all.
Q. Did you observe any unusual cracking either off-site or after the move on the main span? Any unusual --
A. No.
Q. -- cracking or observation that you observed?
A. No. No. After they set the bridge with the -- when they removed the carts, I mean, it was pretty much the same. No cracks.
Q. So when did the destressing take place exactly after the move?
A. When?
Q. Yes.
A. The same day they set it up.
Q. In terms of the time frame after the move, what was the approximate time frame after the move?
A. Probably a couple hours.
Q. A couple hours?
A. A couple hours. Yeah.
Q. And were the transporters removed during that time, underneath the structure?

A. They were outside completely. There was no cars under the bridge. I call it cars, but some people call it cranes.
Q. Okay. So you observed no cracking, no cracking after the destressing operation?
A. No. No.
Q. Did you observe any cracking from that point until the collapse on Thursday --
A. I mean --
Q. -- March 15?
A. The cracks, I saw them Sunday, which was the same -- following day. I mean, I don't, I don't want to say that it was overnight. I don't know, because it could happen any minute. I didn't notice.
Q. Did you take photographs of those cracks on Sunday?
A. No.
Q. No photographs? Did you make a report?
A. No.
Q. So --
A. Because I saw it from very far. I saw it -- I don't see anything, so I didn't have time to get on the machine and check it.
Q. So no report was generated?
A. On Monday it was generated, the report.
Q. Monday?
A. Monday morning.

Q. Monday morning?
A. Yeah.
Q. Okay. And what kind of report was that, that was generated?
A. I didn't do any report, so -- it's the other guys who went up there and check it and they notice that pre-cracks have developed.
Q. And who was that?
A. Probably Jose Morales, Rodrigo Isaza. I went up there after them.
Q. And the photographs in the report were generated by Jose and Rodrigo?
A. Yeah. I took some pictures. (Indiscernible) took some of them too. Yeah.
MR. WALSH: That is part of the request of information as well.
MR. GOULD: Yes, it is.
MR. WALSH: Okay. I don't have any further questions at this time.
MR. BRAGG: Mr. Holt?
MR. HOLT: Reggie Holt, Federal Highway.
BY MR. HOLT:
Q. I'll start with generalities. So you said you were in charge of the material testing?
A. Yeah.
Q. So can you explain some -- your typical sampling and testing that was done for the concrete?

A. I mean, concrete design for the bridge is 3500 psi. Very high strength. And it was produced by CEMEX. And every check was performed, you know. Every 50 yards I took all my tests, so we have samples over the pour that day.
Q. What testing was done every 50 yards?
A. I mean --
Q. Like what specific tests were performed?
A. The slump, air and temperature.
Q. Slump, air and temp?
A. Yeah.
Q. Did you take cylinders also?
A. Yeah.
Q. And what was the frequency of the cylinder test?
A. We have early breaks for 7, 14, 28 and 56. Because the (indiscernible) is designed for 56 days (indiscernible). But we have early break for 7, 14 and 28.
Q. And were cylinders taken every 50 yards also or was it taken at a different frequency?
A. We have a lot of early breaks, that we took breaks every 60 -- 50 yards.
Q. So every 50 yards also?
A. Yeah.
Q. Were you also inspecting the reinforcement that was in place?
A. Yes.
Q. Can you explain the process that -- I mean, what you used to

verify that the reinforcement was placed correctly?
A. I mean, first, I got the plans in my hand, you know. Make sure that everybody's placed in its place. And I have coverage, (indiscernible) and everything else. Yeah.
Q. And the drawings you used, were they shop drawings or what did you physically have in your hand to --
A. They were contract drawings.
Q. The contract drawings.
A. Yeah.
Q. Were there any issues with the concrete -- with the placement and reinforcing? Was there a need to manipulate, move any bars, remove any bars due to congestion or is it --
A. I mean, the diaphragm was over-congested. A lot of rebar in a small place, especially the north side. I mean, the diaphragm too, right?
Q. And despite this congestion, the reinforcement at the north face diaphragm --
A. I mean --
Q. -- you were able to put -- you were able to --
A. No. We are able to put the rebars, but it took a lot of time, but it tedious work because it's so much rebar in a small place.
Q. Were your roles also to observe the placement of the contract -- the concrete, you said?
A. Yes, yes.

Q. Can you speak to especially the deck area, were there any issues or difficulties placing the concrete?
A. Not really. Since we have two firms, one crew on each side, because we have our (indiscernible) in the middle because you have to support the trusses. So it was, I mean, a very new way to go uniformly. So in this one and the -- not to put so much concrete at a time. So we were very, very slow.
Q. How about as far as vibration of the concrete and placement? Was it, was it normal? Required more, less, especially --
A. More than enough. We have like 16 vibrators. Had a lot of vibrators, four of each on each side, plus the one on the finisher in the middle, so it was pretty good.
Q. Can you say that number again? How many --
A. Eight on -- say four, three -- probably seven on each side.
Q. And these same seven were used in the heavily congested --
A. Yes.
Q. -- diaphragm area?
A. Yeah.
Q. Were there any trucks rejected during a pour?
A. Not on the second time. What was -- our second attempt. We have our first attempt, that the plant broke down.
Q. Okay, so --
A. We did a pour that day. We poured about 35 feet that we had to demo that time. And very soon after that, maybe month and a half after that, do that again.

Q. So there were trucks rejected during that initial pour, where the plant broke down. The second pour, they --
A. The second pour there's no problem.
Q. The delivery of concrete came the second time --
A. Right. No, there was no problem. No pumping problems, no concrete problems.
Q. Which end of the bridge did you start placement?
A. That was -- that is now the side which is west of the east. Because the bridge was (indiscernible) the side?
Q. Yeah.
A. It wasn't the -- see, we turn it to like that, it becomes the south.
Q. So the end placed south, then?
A. The one done first on the south.
Q. Okay. It was on a 3-foot slope, right? The former was a, was a 1 and 3-foot --
A. Not that much. It was maybe -- because it's a 1 percent slope and the bridge was 175 feet, so 1 foot 9 because -- 1 foot 9. One percent.
Q. And casting was started on the downslope, then?
A. Yeah.
Q. Okay. So were you also in charge to oversee the finishing of the concrete?
A. Pretty much. Yeah.
Q. Was any special treatment made to the finish at the, at the

deck surface where the diagonals came in and connected to the --
A. No, just to cover where instead of using the special products, like compounds or anything, for curing, we used curing blankets. Yeah. And then protect it with plywood, which -- yes.
Q. Was that, was that surfaced roughened in any way or prepped in any way?
A. No. After the finish, that was it.
Q. So it wasn't finished. It was just covered and --
A. Just covered. Yes.
Q. Just covered. It's my understanding that the second concrete placement -- the diagonals were cast in the second concrete placement after the --
A. Second one after the deck was poured.
Q. Were the surfaces of the diagonals cleaned and prepped prior to placement? Was any kind of prep done to those surfaces?
A. You have to understand that the -- in order to lift it better, those PT bars has to be placed before we pour. So all the forms was pretty much done with the rebar, and the PT was in place. So practically those was a second pour, the trusses.
Q. Were all four sides of the formwork in place of the --
A. No.
Q. -- diagonal when you placed the soffit?
A. Three sides.
Q. Three sides.
A. Yeah.

Q. So there was one face --
A. One side open.
Q. -- to give you access to cure it.
A. Right. Right. Cure and clean it after -- to do the second pour.
Q. Right. Okay. Were you also involved in the testing of the post-tensioning grout?
A. Testing the post-tensioning grout?
Q. Grout. Yes. The (indiscernible) material --
A. I just took samples and take it to the lab.
Q. What kind of samples were -- did you take of the, of the grout?
A. For the grout, I mean, small, 6-inch cylinder; 3-by-6 cylinders.
Q. Did you perform any field testing?
A. No. No. Going to say that kind of grout potentially doesn't need any testing. We just do it for ourselves to check it. The test is just to fill a gap. That's why they say they don't test it.
Q. Was the mud balance --
A. That is something that our tech probably does, not us. Not me.
Q. But did you witness of what -- a mud balance --
A. No.
Q. -- a flow cone --

A. Not really.
Q. -- being done at the PT grout?
A. No, we didn't.
Q. Okay, the -- you stated that you were asked to observe the PT. Were you ever asked to observe the post-tensioning operation prior to --
A. Just that day.
Q. Huh?
A. Just that day of the collapse.
Q. So the only day that you were, you were asked to observe --
A. To witness.
Q. -- the tensioning was the, was the detensioning.
A. Yes.
MR. WALSH: Retension.
MR. HOLT: Retensioning. Yes. Sorry. The Thursday operation, the retensioning. Yeah, sorry.
MR. CORTES: Yeah.
MR. HOLT: Yeah.
BY MR. HOLT:
Q. Did they -- were you offered a reason why you were -- they wanted you to observe this retensioning on Thursday?
A. I don't know. Maybe they wanted to make sure that they were done right because it was very delicate, I mean, that stage. To stress it again. Because that was -- that wasn't a part of the plan. The part of the plan was destress and that's it. Those

bars doing nothing after all, after that.
Q. And you were asked this before. I just want to make it really clear. So you witnessed the stressing operation. The top bar was stressed to an increment, then the bottom bar was stressed to an increment, then back to the top bar stressed to another increment, then to the bottom.
A. Right.
Q. Back and forth.
A. Right.
Q. And that was the procedure followed.
A. They say 200 pounds/200 pounds.
Q. Right.
A. Next step, 400 pounds/400 pounds. And so on.
Q. Right.
A. That was the sequence of it.
Q. I think I -- so you said you noticed a cracking -- this was after placement -- on a Sunday? Was that the same day you saw Jose Morales and Mr. Isaza up on the bridge? Was it Sunday or Monday?
A. Monday morning.
Q. That was Monday.
A. Monday morning, yes.
Q. After placement, how could you get access to the bridge deck? Did you need a manlift, or was there, was there a walkway?
A. After the placement?

Q. Uh-huh.
A. There was a manlift. Manlift.
Q. There were, there were no access points via steps or scaffolding steps or anything like that to get to the deck?
A. No, you have to go toward the south side and climb out the work that was in progress there to walk to the deck.
Q. So it was manlift or work ladder on the south side --
A. On the outside was a manlift.
Q. -- south end and walk up to the north.
A. Yeah. I couldn't go any day because I didn't have the key to that manlift. That's why I went Monday morning to see the cracks.
Q. Did you see anybody else looking at the cracking on that Monday, other than the MCM employees that you mentioned?
A. Just the BPA people. FIGG, which is the designers.
Q. FIGG was there on Monday?
A. I mean -- no. FIGG, no. Just MCM and the BPA.
Q. So you stated you saw the cracking from afar on Sunday? Was that --
A. That wasn't the truss that I can see it from the far (indiscernible). Because I know what it was and it's a little bigger. But I didn't took a walk and see it.
Q. But you were able to notice cracking from ground level looking up at the bridge.
A. Yeah, from maybe 60 feet apart, you can see a crack. Especially when you know the structure pretty good, you know.

Q. And what location did you see this cracking?
A. That was the bottom of 11, truss 11.
Q. When you, when you say "bottom," you're talking about the diaphragm that was sitting on the pier, when you say "bottom?"
A. No, the truss 11 runs diagonally from the canopy down to --
Q. The deck.
A. -- to the deck. When it meets with the last column and the diaphragm. That big part on the floor looks a little cracked. Where the (indiscernible) that I was, well, no, I couldn't see it. I couldn't say how much, but --
Q. Right. Did you observe cracking on any other viewable surfaces?
A. No. Just that end.
MR. HOLT: That's all I have. Thank you.
MR. BRAGG: I just have a, I just have a few follow-up questions.
BY MR. BRAGG:
Q. If you could, there was a construction joint on the north deck, on the north side of the deck, where diagonal number 11 comes -- connects into, and there's a construction joint that runs along that deck. Do you -- are you aware of that construction joint?
A. Construction joint on the deck?
Q. Yes.
A. No, there was no construction joint.

Q. There's no --
A. It was a monolithic pole. It was poured in one, in one shot.
Q. It was poured in one shot?
A. Yeah.
Q. Okay. And what pour was that? What pour was that?
A. The deck was -- the west was the first pour that we did. It took pretty much 200 yards.
Q. Okay. And that was on the north side?
A. The whole deck.
Q. The whole deck?
A. The whole deck. It was done in one night.
Q. And so no construction joint whatsoever.
A. No. The only construction joint in the deck is the curb on the edges. That was poured later. I mean, you know, for the -- where the, where the fence is going to sit. But it's not part of the heavy structure. It's supposed to go all the way (indiscernible). It was the second pour. It was because there was some transverse tendons that were hidden underneath that had to be poured, placed and cut to pour that later. That's why it's done on the second pour.
Q. Okay. And what was the time between the first pour and the second pour?
A. I don't remember when we poured that deck. Maybe October or September. I don't recall.
Q. Okay. You had indicated earlier that the rebars were close-

spaced in that area of node 11 and 12. There's a lot -- the rebars were closely spaced in that area?

A. Right. Imagine that it has a small case for the, for a beam. And plus that, it has docks from the post-tensioning. Big docks on the spirals and it reinforces the spirals, the (indiscernible) bars. There's a lot of stuff.

Q A lot of -- yeah.

A. A lot of rebar.

Q. Was there anything else in that area besides the rebar? Was there --

A. I mean, there was, there's a few -- we had to leave some sleeves from bars. So some bars coming wrapped from the pier to secure the deck. There were four sleeves, one for anchors -- two for anchors and two for two bars continued from there all the way to the, to the pylon.

Q. And all of that concrete in that area was poured at the same time.

A. Yes.

Q. Could you characterize this concrete? Because I understand it was a white concrete, a special type of concrete. Can you characterize how --

A. The first time that I work with that concrete, so -- it is called -- what's the name of it? I was there when they produced that concrete. I went to Daytona. Some kind, over there to see the production and everything. And what is the name of that weird

stuff? I can't recall.
Q. That's fine. It's the first time you worked with this type of concrete.
A. Yes.
Q. Yeah. Could you see anything that -- unusual about working with this concrete?
A. I mean, the finishers complained because it was very sticky. They said it was very sticky to work with. That's all the complaint they have with it. And it dried real fast.
Q. But nothing in terms of the pour.
A. No.
Q. The pouring, there was not --
A. During the pour, it was normal operation.
Q. Okay. Just going -- the photos that were taken of the cracking and the reports that were generated through MCM, did they contain any measurement devices on the photos?
A. The hair cracks, some of the first initial hair cracks? Yeah, they have a gauge next to it.
Q. They have a gauge?
A. Yes.
Q. Okay. Did the photographs taken on Sunday and Monday, did they, did they have a gauge?
A. We just put a measuring tape next to it so it can calculate how much --
Q. Okay. So there was a, there was a measuring tape --

A. Right. Yeah.
Q. -- on it. Okay.
A. Something to compare with. You can see the dimensions of it.
Q. Right. Right. Do you recall how wide those cracks were on Sunday? Sunday and Monday, do you recall how wide they were, approximately?
A. I mean, the diaphragm on the back side -- I mean, there was a lot coming from one point and they start opening up and getting bigger and bigger on the bottom. Yeah, they were, they were really bad there.
Q. But can you recall a specific width?
A. It hard to say, you know. I cannot say 3/8ths of an -- I mean 3/16ths or a quarter. But starting from hair to wide, you know, it's hard to say.
Q. Okay. But you characterized those as pretty big cracks.
A. Yeah.
Q. Yeah.
MR. BRAGG: That's all I have.
MR. HOLT: Okay. Reggie Holt. Just one follow-up question.
BY MR. HOLT:
Q. You said that you observed the cracking on the back side of the diaphragm. How did you get access to that area?
A. From manlift.
Q. From the manlift?
A. Or you can, you can lie on the deck. You know, you can, you

can say --
Q. But you observed from a manlift?
A. Yeah.
Q. Who was in the manlift with you?
A. Excuse me?
Q. Were you by yourself making this observation on the Monday this observation was made?
A. I went up with Rodrigo. I show him first before I show anyone else.
Q. Okay. While you had access to this manlift, did you look at any other surfaces? Did you look at the underside or the front side of the diaphragm?
A. No, that wasn't the main concern because all the big cracks was in that end.
Q. Were you overseeing the installation of the temporary shims that were prescribed by FIGG?
A. Temporary shims?
Q. The additional shims underneath the diaphragm were requested by the engineer to be installed. Were you --
A. Okay, original, they say they put four shims. And after realized the thing cracks real bad, they decided to put on additional shims in the center. So yeah, there was -- those was installed.
Q. Was there a cracking -- when those shims were installed, was the area -- were they installed from the front?

A. From the front.
Q. So when they were installing the shims from the front, did you see any cracking or distress of the diaphragm?
A. There was some hair cracks in the front, in front.
Q. In the front. There was cracking in the front also.
A. Right.
Q. Can you describe the cracking that you saw in the front?
A. I mean, it started from the center. It started toward the edges. And it started, it started getting bigger on the bottom.
Q. This was observed to --
A. During the installation, the installation of the --
Q. Of the shims.
A. -- of the last shim. I'll call it last shim. Wasn't in the plan.
Q. And was there any other, any other cracking other than the fanning out cracking, I think you're talking about?
A. No.
MR. HOLT: Okay, thank you. That was it.
MR. BRAGG: Anything further?
MR. WALSH: No, sir.
MR. BRAGG: Okay. We're going to conclude the interview. The time is 9:28. Thank you.
MR. CORTES: You're welcome.
(Whereupon, the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	PEDESTRIAN BRIDGE COLLAPSE MIAMI, FLORIDA MARCH 15, 2018 Interview of Pedro Cortes
ACCIDENT NO.:	HWY18MH009
PLACE:	Miami, Florida
DATE:	April 11, 2018

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

[redacted]

Eileen Gonzalez
Transcriber

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
PEDESTRIAN BRIDGE COLLAPSE	*	
MIAMI, FLORIDA	*	Accident No.: HWY18MH009
MARCH 15, 2018	*	
	*	

Interview of: ERNESTO HERNANDEZ
MCM

Florida International University
Miami, Florida

Tuesday,
March 20, 2018

APPEARANCES:

KENNETH BRAGG, Senior Highway Accident Investigator
National Transportation Safety Board

DAN WALSH, Highway Factors Investigator
National Transportation Safety Board

REGGIE HOLT, Senior Bridge Engineer - Concrete Specialist
Federal Highway Administration

MATTHEW COOPER, Esq. Squire
Patton Boggs (US) LLP
(On behalf of MCM)

I N D E X

I N T E R V I E W

(1:10 p.m.)

MR. BRAGG: Today is Thursday, March 22nd, 2018. It's 1:10 p.m., Eastern daylight time. This interview is regarding the FIU bridge collapse in Miami, Florida.

My name is Kenneth Bragg. I'm an investigator in the office of Highway Safety for the National Transportation Safety Board Also present in the interview to my right?

MR. HOLT: Reggie Holt, Federal Highway.

MR. WALSH: Dan Walsh, highway bridge engineer with the National Transportation Safety Board.

MR. BRAGG: Okay. Sir, will you identify yourself?MR. COOPER: Matthew Cooper, Squire Patton Boggs, representing MCM.

MR. BRAGG: Okay.

MR. HERNANDEZ: Ernesto Hernandez, MCM.

INTERVIEW OF ERNESTO HERNANDEZ

BY MR. BRAGG:

Q. I'm going to start off just by getting some background information about your experience. How long have you been with MCM?

A. Overall 28 years.

Q. Twenty-eight years.

A. Yes, sir.

Q. And what's your current role?

A. Superintendent.
Q. How long have you served in that role?
A. Approximately 26 and a half years.
Q. So, you came on as a superintendent?
A. I was a carpenter. I worked myself up to superintendent.
Q. Okay. So, my question is how long have you served at MCM as a superintendent?
A. Superintendent 26 years.
Q. Twenty-six years?
A. Yes, sir.
Q. Okay. And when did you become involved in this project?
A. April 2017.
Q. April 2017. And what was your initial involvement in the Project? What did that entail?
A. My involvement was originally, continue with clearing (Indiscernible). Before somebody -- before I came in, somebody was here.
Q. Okay.
A. And my part of a superintendent is to schedule subcontractors, schedule everybody as needed.
Q. Okay.
A. Schedule concrete, arrange everything regarding the job.
Q. Okay. And let's talk a little bit about the move. Explain your role in the move. What did you do?
A. My part is just make sure the Barnhardt (ph.) was here,

oversee, most of it was Figg involved. When they came out they were making sure that the movers were in the right location before they picked up. So, basically, Figg was handling the move as far as telling the Barnhardt when they can move, when they have to stop and when they were clear. We were not involved.

What our schedule was -- that gentleman that laid out the maps came in on March the 1st, laid them down first in our work area. Then eventually on March 9th, 11:00 p.m., we started doing the first closure. They started laying out the rest of the maps.

Q. Okay. And then what happened?

A. Then Barnhardt started moving at approximately 4 in the morning.

Q. Okay. Anything unusual happen during the move?

A. About half way BEI, the gentlemen that were monitoring the movement to be sure that everything was going well, they lost their Wi-Fi so the movement was stopped for about 40 minutes until they finally identified there was an issue with Wi-Fi. They hardwired straight into the laptop and the movement continued.

Q. Okay. And then once the movement ceased, then explain what transpired.

A. Then the movement continued. Figg, there was two gentlemen from Figg, one was what we call a pylon based north side. I was on south base. Everything was finally lined up. They lowered it into place. They made sure that the bridge was all level and in the correct location. Once it was all like that, they

(indiscernible) they told Barnhardt to move back to the site again. Which that happened, I think 12 -- about 1 in the morning.

Q. And who did you deal with primarily from Figg? What individual?

A. He was a gentleman by the name of Franklin.

Q. First name or last name?

A. Franklin Hines.

Q. Franklin Hines, okay. And at some point he became aware of cracks in the bridge?

A. Cracks came when they started stressing truss number 11.

Q. And describe how that transcribed and what you observed.

A. I didn't observe it. My QC guy and VSL.

Q. And who's your QC guy?

A. Pedro Cortes.

Q. And so, what happened?

A. He notified us of the cracks. I went up and I saw them. We immediately, my project manager immediately notified Figg. We sent them pictures of what was occurring.

Q. Who did you notify?

A. I didn't. It was my project manager.

Q. So, you don't know --

A. No. It might have been Dempsey, Dwight, but I can't tell you exactly.

Q. I'm sorry. Go ahead.

A. And he immediately sent pictures notifying him of everything.

They came back with responses. They needed to add some extra shims in center. So we did. We put them up. Sent them pictures when that was put in. Sent them everything. Continued back and forth with them.

Q. And so, what was your understanding of the purpose of the shims?

A. They just were extra precaution, according to Figg.

Q. Okay. Did you document the cracks that you initially observed?

A. Yes.

Q. How did you do that?

A. Our QC manager -- not manager, QC got pictures.

Q. And what's his name?

A. Pedro Cortes.

Q. He took pictures?

A. Yes, sir.

Q. And what did he do with --

A. (Indiscernible) be here.

Q. Okay. And what did they do to those pictures?

A. He's got them.

Q. Okay.

A. And they were forwarded to Figg.

Q. So explain to me the process -- explain to me the decision process in addressing the cracks. What was going to be done?

A. What Figg told us to do, put the shims in and then notify us

to stress truss number 2 at a certain point; 50 kips, 50 kips, 50 kips, 50 kips until we reach 280 kips. It's my understanding that was never reached, the bridge collapsed before.

Q. Okay. Now was there any type of organizational meeting to discuss how this was going to be done prior to?

A. We had a meeting that Thursday morning at 9 a.m.

Q. And who was present?

A. It was Figg. I don't remember the gentleman's name.

Q. Okay.

A. It was the CEI, which was BPA.

Q. Who was that individual?

A. It was three of them. It was Raphael. It was Jose, Carlos Chapman and Maria Christina. There were two individuals from FIU and one gentleman from FDOT, myself, and Rodrigo Isaza, the project manager.

Q. And when did this meeting take place?

A. Thursday -- this past Thursday. It started at 9 a.m.

Q. And this is the day of the collapse, correct?

A. Yes, sir.

Q. Okay. How long did the meeting last?

A. I'd say until about 10:30, 10 to 10:30.

Q. Okay. And who ran the meeting?

A. Figg.

Q. Figg. And what was the source of the meeting? What did you discuss?

A. They brought up everything, all the calculations they had performed.
Q. Uh-huh.
A. All explain it. I'm not an engineer so I really don't understand what was -- but mentioned twice that the bridge was safe.
Q. So, did you discuss in the meeting any way of addressing the cracks?
A. Not at that moment.
Q. Did anyone in the meeting raise concerns that these cracks may be --
A. BPA and we did also.
Q. Okay. And what was your concern?
A. What was our concern? Why was, you know -- what was the cause of the cracks.
Q. Okay. So did you have an opinion as to how the cracks should have been addressed?
A. I have no opinion. I'm not an engineer.
Q. I understand. So after the meeting concluded -- let's back up. What was the conclusion of the meeting?
A. What we going to do. I know that we gave a question out like do we need extra shoring on that end. They would be analyzing that. Looking into it.
Q. Okay. And then what did you do after the meeting?
A. Went into my office.

Q. And what work was done to the bridge?
A. To the bridge?
Q. Yeah. I mean, is that when they began to re-tension it?
A. It was closed. That second lane was closed by 10 a.m., Eventually (indiscernible) got in. The three gentlemen from BSO arrived approximately, I'd say, about 10:15, 10:20. The jack was put up, the generator and the equipment. So they must have started approximately somewhere around 11 a.m. to start stressing. Pedro Cortes was up there with them, my QC, and the senior inspector for BPA was up there, Carlos Chapman, along with the three gentlemen from VSL.
Q. So at any point, you know, after they decided they are going to reapply tension, were there any discussions about deciding to close the road off?
A. The full closure?
Q. Yes.
A. No, sir.
Q. Nobody would consider it?
A. No, sir. Because they -- someone was saying, they were saying it was safe. It was safe.
Q. Okay.
A. That bridge was safe.
MR. BRAGG: Do you have any questions?
MR. HOLT: Yes.
MR. BRAGG: Yeah, go ahead.

BY MR. HOLT:

Q. Let's go through the sequence. So you were in this position when they were casting the bridge also?

A. Yes, sir.

Q. How did that go? Were there any issues, any NCRs of the concrete?

A. When we were going to do the first pour we had an issue with cement. The plant broke down.

Q. Okay.

A. We were only able to get 30 cubic yards and when it was sitting in the position was in now that would have been the east end which would have been currently now if the bridge is in position would have been the south end.

Q. Uh-huh.

A. We stopped the pour. Weren't able to get concrete. Had to clean it all out, ship it all out, replace rebar that was damaged. Anything that was damaged got replaced. Again, that would have been on the south end of the bridge by type 1 diaphragm.

Q. Okay. How about the -- so it was fully supported at the point on false work from end to end?

A. Yes, sir.

Q. And our understanding was that very -- with the word mega shoring was added to the end --

A. To both ends.

Q. Both ends?

A. Yes, sir.
Q. And then shoring in the middle was removed to get room for the SPMTs to come in for the --
A. Yeah. Actually, once all the stressing was done, all the information was sent to Figg. It all come back that it was good, that we could start striping, we started at the canopy. Removed all the shoring all the form work. Then we went down to what we call the walkway, the main span and we started from the middle and started stripping towards both ends.
Q. And how did that go?
A. That went well.
Q. So, that's the point where you were transferring the load to the loaded condition in place similar and that transfer to the best of your knowledge happened?
A. Yes, sir.
Q. Well, no cracking, no issues with that transfer?
A. No, sir.
Q. So, the bridge was put in place, was swung in, our understanding that the north end was set first?
A. They were both set at the same time.
Q. Both set at the same time?
A. Yes, sir.
Q. The north end was a little higher, right, the bars on the north end that had to be --
A. They were little, but yeah. Also, the south end hadn't been

set in place yet. It wasn't fully resting.
Q. It was fully rested?
A. That's correct.
Q. Okay. So, when the -- so, the bridge was set. Can you explain your understanding of the performance of the bridge as it was coming into its set condition from the SPMTs on the bearings, on those new bearings?
A. What do you mean performance?
Q. Well, there was cracking, and the timeline of when you first saw the cracking --
A. The cracking was --
Q. -- as it relates to the sequence that was happening at that point.
A. Okay. The cracking occurred after the bridge was set and VSL was up there, destressing as we were told --
Q. Right.
A. -- truss number 2 and truss number 11.
Q. Okay. And cracking was only on -- was on both?
A. No. North side.
Q. Just on -- that would be diagonal 11?
A. Yes, sir.
Q. Right. And did you have a sense -- did you see that cracking at that point?
A. Not at that point, no. Our QC guy was up there and he also notified us.

Q. On-site, already, he notified you?
A. Yes, sir.
Q. How did he describe that cracking?
A. He says there's minor cracks. So, again, he took pictures.
Q. Uh-huh.
A. And we sent all the information for them to Figg.
Q. Now, after they destressed, did the cracking grow? I mean did the destressing operation have an effect on the cracking that was observed?
A. No. It was noticed again on Monday when out QC guy went up there again.
Q. So, you were off the bridge Sunday --
A. Yes, sir.
Q. -- came back Monday --
A. That's the only individuals that were here Sunday was Barnhardt taking their equipment apart.
Q. And was any growth in the crack communicated to you or when they observed it again Monday after Saturday?
A. From Monday to myself and also to BPA --
Q. Uh-huh.
A. -- and to my project manager.
Q. And how did they describe the cracks, the same as Saturday, worse or?
A. A little larger.
Q. A little -- so there was growth from Saturday --

A. Yes, sir.
Q. -- Monday?
A. Yes.
Q. You said you immediately contacted Figg? What was that date? You used the word immediately I'm --
A. It would be Monday. That's when we came back to the job site. And that would be my project manager he would have sent the photos over and all the information we had.
Q. Okay. So, you had the crack -- so, cracking was observed on Monday and you were up there to do and inspection. Is that the reason you were up there on Monday or were there other operations that needed to be done?
A. I was doing other operations. But then after that as soon as we heard we went up on the roof at the cracks.
Q. On Monday?
A. Yes, sir.
Q. And did you continue working on the bridge after Monday or --?
A. After with received the information from Figg to install the shims then we went in on there.
Q. So, you were -- you stayed off it until they said to shim on Tuesday I believe it was at some point?
A. Tuesday or Wednesday, sir, I can't remember exactly right now.
Q. So, once shims were installed it was determined that you were

safe to go back up on the bridge?
A. Like I said, we took pictures of all the shims.
Q. Right.
A. Forwarded that back to Figg as they were the ones that to us where to exactly to place the shims.
Q. You stayed off the bridge until this meeting on Thursday; is that safe to say?
A. Yes, sir.
Q. Was that due to a decision to stay off the bridge because of the cracking or is it just wasn't anything to do on the bridge?
A. Not at all. Not at all.
Q. Just no work to be performed?
A. That's correct. On that Thursday, I believe -- well, on Wednesday we finally -- late Wednesday we received the information that was sent to Rodrigo about restressing two leaky bars on tress number 11. So that was scheduled for Thursday, Thursday morning.
Q. Right. And was diagonal 2 also the similar one on the other side?
A. No.
Q. Just the one.
A. Just truss number 11, diagonal number 11 to be restressed. Then like they mentioned they had the sequence 50 kips, 50 kips, 50 kips, 50 kips was my understanding before that end -- the bridge collapsed.
Q. So, the cracking that was communicated to you was isolated to

diagonal 11?
A. Yes.
Q. Was there cracking on other parts of the bridge?
A. Not that I recall.
Q. You have been a superintendent for 26 years, in your experience have you seen cracking like this before?
A. I've seen minor cracks, but again, not on this sort of bridge.
Q. Not on this sort of bridge.
A. I've seen hairline cracks.
Q. I mean, based on your 26 years' experience did you think it was alarming to see cracks this large? I mean, you said, it's the largest you've seen 26 years.
A. It was - might have been a little concerned. That's why we forwarded mean that we forwarded it to Figg. They are the engineers. They are the signors.
Q. Were you concerned about -- I mean this is a major component, were you concerned about the stability?
A. Not afterwards. Not afterwards. They was notified that the bridge is safe. The bridge is safe. Like I said, I'm not an engineer. I got to take their word for it.
Q. So, you had concern and you stayed away till Figg said it was safe?
A. Well, we going to stay away. We didn't have work to be performed on there.

Q. Right. But you wouldn't have sent anybody up there is what you're saying?
A. If there was work there that needed to be done, yes, we would send somebody up there.
Q. So, if you had work up there even though these cracks, you would have sent them up there?
A. Yes, sir. Again, Figg constantly you know was saying it was safe, it was safe. So, we would have considered they are the engineers.
Q. I'm trying to determine when you were informed it was safe from Figg --
A. Yes, sir.
Q. -- and how that led to your -- how that wasn't interpreted for employee safety. What I'm saying is, were you concerned with the structure until Figg said it was safe or would you have sent people out there to do tasks that were planned before you would have heard it was safe?
A. Well, again, I'm not an engineer.
Q. Right.
A. I think yeah, the cracks were there.
Q. Uh-huh.
A. But if somebody needed to go up we were already had documentation that Figg safe, the bridge is safe.
Q. Okay. So, you would have --
A. I would have sent somebody --

Q. -- been up there based on the fact that you -- your records said it was safe, right?
A. Based on the fact it was safe, yes, sir.
Q. So, you prevented full exposure until you got that notification.
A. Well, again, we didn't have anything to do up there that's why nobody was working up there.
Q. So, you didn't have to. Did you -- were you aware of any other difficulty with the concrete placement performance?
A. No.
Q. (Indiscernible) the truss. So based on your experience, the placement of the concrete --
A. (Indiscernible) the truss came in, we checked the cement to water ratio, the slump, before any of the concrete was placed. That was also done with Pedro Cortez and Carlos Chapman, or the BPA representative.
Q. Just, I guess, one more question. This pertains to your Thursday meeting.
A. Yes, sir.
Q. So, you shimmed and you re-tensioned for remedial measure on the diagonal 11. Was there discussion at that meeting that additional remedial measures were either needed or would be beneficial or were coming in the future?
A. It was brought by BPA. It was questioned by BPA if there was any additional, how would I word this, remedial work that needed

to be done and they said they were going to look into it but the bridge was safe the way it was. But that they were going to look into it.
Q. So, they stated that they were going to continue looking into --
A. Yes, sir. If there was any additional items that needed to be done.
Q. The phrase that we here is relieving the force on the node I guess was the theme (indiscernible).
A. I guess.
MR. HOLT: That's it for me.
MR. WALSH: Dan Walsh with NTSB.
BY MR. WALSH:
Q. Are you aware of any cracking that occurred during the stripping operation that was done on February 24th? Are you aware of any cracks that occurred on the structure?
A. Not that I recall. No.
Q. You don't recall any of them? You don't recall that at all?
A. (Indiscernible) I don't recall.
Q. Other employees that work at MCM that would have identified cracking on that date --
A. That day was myself and -- that was a Saturday, that was --
Q. -- February 24th. Do you recall any popping of the bridge structure during that day?
A. No.

Q. No popping?
A. No, sir.
Q. Were you on scene?
A. I was in my trailer, yes.
Q. You were in your trailer that day?
A. Yes, sir. I was there in my trailer. Yes, sir.
Q. You don't recall any discussion of that whatsoever within MCM personnel --
A. I was the only MCM personnel on site that day.
Q. How about any of the -- who did -- removed the - who did the stripping?
A. A subcontractor TSG.
Q. TSG?
A. Yes, sir.
Q. And do you remember any of them having concerns with being underneath the bridge as they were performing stripping -- after they performed the stripping?
A. After they performed the stripping?
Q. Yeah.
A. Not that I'm aware of.
Q. So, you never received a report of them hearing some cracking or popping sound from the structure and then them leaving from under it?
A. (Indiscernible).
Q. First you ever heard of it?

A. Yes, sir. I know they worked underneath it after it was stripped. I know they were grinding smoothing things out.
Q. Who was in charge of the contractors, what individual?
A. I'm sorry. Say again.
Q. What individual is in charge of the stripping?
A. Oh, the stripping?
Q. Yeah.
A. Overall, it's John Jackson was obviously in charge. You have (indiscernible) out there, one of his foremen.
Q. Was John Jacksons present that day?
A. He was present. He was in the trailer also. Yes, sir.
Q. Okay. So, you were in the trailer with John Jackson?
A. Yes. He was in his office and I was in my office.
Q. And it's in the same trailer?
A. It's in the same trailer.
Q. So, if he would have left his trailer to go see where the noise was you would have likely have gone too?
A. Not if I wasn't aware of that noise, where it was.
Q. So, if John Jackson heard a popping noise and he thought it was important enough to go see what it is, you don't think he would have made you aware of it, he would have just walked out by himself?
A. No, I'm sure he would have called me.
MR. WALSH: Dan Walsh again with NTSB.
BY MR. WALSH:

Q. Are you in constant communication with John Jackson?
A. Yes. When he's going into the trailer, yes.
Q. And do you a line of communication with him? Do you go over the status of the day's events each day with him?
A. What needs to be done. What's has occurred. What's occurring. What needs to be done the following day. We communicate on a daily basis.
Q. So, if he reported a popping noise on February 24th he should have disclosed that to you -- he would have disclosed that to you?
A. Sure, yes, (indiscernible).
Q. Okay. And you're not aware of any -- any of such occurrence?
A. (Indiscernible).
Q. Have you been superintendent on this type of structure before?
A. This particular --
Q. That particular type of structure.
A. No, sir.
Q. Regarding your answers to Mr. Holt's question about the cracks growing from Saturday to Monday, how much did they grow in your mind?
A. They grew in length and probably I would say width maybe about a quarter of an inch.
Q. How much did they grow in length?
A. Approximately a foot, foot and a half.
Q. How was that documented?

A. The pictures.
Q. Any other means of documentation? Was it documented in notes --
A. By QC and BPA.
Q. Was an email sent to the engineer regarding that?
A. Yes, for Figg. Yes, sir.
Q. We'd like a copy of those photographs --
A. Okay.
Q. -- and the email that was sent to the engineer documenting that.
A. Okay.
Q. Did the email consist of photographs and the measurements?
A. I believe so.
Q. It included both?
A. Yes, sir.
Q. Okay. We'd like to have a copy of that.
A. Okay.
Q. Did you make any other documentation on any other days that would have documented the expansion or growth of the cracks?
A. It would have been done by our QC Pedro and I know BPA also was monitoring the cracks.
Q. Well, you said it was done from Saturday to Monday. Was it done from Monday to Tuesday?
A. Yes.
Q. Same form, photographs and emails?

A. Correct.
Q. We'd like a copy of that. Was that sent to the engineer?
A. Yes. All the pictures were taken all the information was constantly sent to Figg.
Q. Okay. So, every day from the time of the move to the day of the collapse there was an email sent to the engineer Figg documenting the growth of the cracks?
A. Yes, sir.
Q. Okay. We'd like to have a copy of all of those emails every day to the engineer.
A. Emails and pictures, okay.
Q. And those emails included photographs and the growth of the cracks?
A. That -- if it's in all the emails I can't say if there were pictures included. But there were definitely emails going back and forth (indiscernible).
Q. Thank you. We'd like a copy of those.
A. We'll forward you a copy of the emails and the pictures.
Q. Have you ever closed a bridge before based on cracking?
A. No, sir.
Q. Have you ever closed a bridge during construction in any event?
A. No, sir.
Q. In your mind do you think you have the responsibility to close a bridge if you think it's unsafe?

A. I -- that would have to come from the engineer. I'm not an engineer in reality.
Q. So, you're thinking that the engineer would have to make that decision and not the contractor?
A. That's hard to say depending on I guess on the cracks. And again, we would have to notify the engineer that
MR. BRAGG: Kenny Bragg.
BY MR. BRAGG:
Q. Was the engineer on the scene during the move?
A. During the move?
Q. Yes.
A. Yes, they were from Figg.
Q. But once they left you were still -- was there a time when you were on the scene without the engineer?
A. The engineer was here Monday. Sunday I wasn't here. And they came back Thursday for the meeting.
Q. Okay. So, they weren't here Monday?
A. No, sir.
Q. So, if you encountered a safety problem on Monday and the engineer was here would you -- what would be your steps to close the road?
A. Definitely talk to them and ask them do we need to close the bridge, do we need to stop traffic.
MR. WALSH: Dan Walsh again, from the NTSB.
BY MR. WALSH:

Q. In the line of questioning from Mr. Bragg, if the engineer of record was not on scene and you were the only -- the contractor was the only representative on the site, in your mind would you have the responsibility to close the bridge if it was necessary?
A. I would have to run it again to my project manager and my superiors. And I'm sure they would have contacted the engineers by phone immediately.

MR. WALSH: That's all I have.

MR. HOLT: Reggie Holt.

BY MR. HOLT:

Q. Just to follow up to your popping gating crack from 12 to 16 inches increase in length and a quarter inch in width. In that immediate email you sent the Figg was the information about the cracks' growth included?
A. Yes, sir.
Q. So, they were not only given information that there was cracking this length and the significant fact due to the fact that it had grown from Saturday to Monday?
A. Yes, sir.
Q. Now, Figg was still onsite Saturday for the move?
A. Yes, sir.
Q. But they were not present when the cracking was observed on Saturday was noted?
A. On Saturday when the bridge was put into place Mr. Franklin once it was in place he walked the bridge. He didn't make any

notice of the cracking or anything.
Q. The engineer?
A. Saturday morning, engineer from Figg. Yes, sir.
Q. Saturday noon --
A. Saturday morning -- I'm sorry, afternoon.
Q. After noon.
A. Yes.
Q. He did an immediate assessment right after it was set and didn't see the cracks?
A. He didn't see any cracks. That's correct. after the bridge was set.
Q. Right. But yet the cracking was noticed before stressing and after stressing. So, how much time between setting and stressing?
A. Destressing.
Q. I meant to say destressing.
A. The destressing started at approximately I would say 2:00 to 3:00 p.m., Saturday. By that time there wasn't a representative from Figg on site.
Q. Okay. So, Figg's assessment right after setting.
A. Yes, sir.
Q. Close to it?
A. Yes.
Q. No cracking because nothing was noted?
A. That's correct.
Q. And significant cracking or larger cracking after destressing

that grew from the cracking you noticed before stressing was in that, you know, 90 to 120-minute timeframe. You said at two hours you were destressing. So, there was identification of cracks within that 2-hour timeframe, there was identification 2 hours later that those cracks observed had also grown.

A. After they had been destressed.

Q. Destressed. So you didn't go from seeing no cracks before destressing to seeing cracks after destressing --

A. Like I said, he walked the bridge after it was set.

Q. Right.

A. He didn't make a mention of anything.

MR. HOLT: Okay. That's it for me.

BY MR. BRAGG:

Q. One more question. When you communicated, did you communicate on your personal phone or company phone, cell phone?

A. My project manager is the one that calls. Sometime I would say he would call from the office phone or from the cellular --

Q. No, I'm talking about how you -- does he call you on your personal phone or do you -- in the office? Do you have a company phone or do you have a personal phone?

A. I have a company phone.

Q. What's the phone number for that?

A. 305 --

Q. 305.

A. -- 345-8360.

Q. What's your company email address?

A. Ernie H@ -- ernieh@MCM-US.com.

MR. BRAGG: I have no further questions. The time is 1:45 p.m., and we will conclude the interview. Thank you.

(Whereupon, at 1:45 p.m., the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	PEDESTRIAN BRIDGE COLLAPSE MIAMI, FLORIDA MARCH 15, 2018 Interview of Ernesto Hernandez
ACCIDENT NO.:	HWY18MH009
PLACE:	Miami, Florida
DATE:	March 20, 2018

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

[redacted]

Letha J. Wheeler
Transcriber

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
PEDESTRIAN BRIDGE COLLAPSE	*	
MIAMI, FLORIDA	*	Accident No.: HWY18MH009
MARCH 15, 2018	*	
	*	

Interview of: RODRIGO ISAZA
MCM

Florida International University
Miami, Florida

Monday,
March 19, 2018

APPEARANCES:

KENNETH BRAGG, Senior Highway Accident Investigator
National Transportation Safety Board

DAN WALSH, Highway Factors Investigator
National Transportation Safety Board

REGGIE HOLT, Senior Bridge Engineer - Concrete Specialist
Federal Highway Administration

I N D E X

I N T E R V I E W

(3:09 p.m.)

MR. BRAGG: Today is Monday, March 19th, 2018. It's approximately 3:09 p.m. We are at FIU University and today's interview is in reference to the FIU bridge collapse in Miami, Florida. My name is Kenneth Bragg. I am an investigator from the Office of Highway Safety, for the NTSB.

And I want to go around the table and identify yourselves. Sir, you name is?

MR. ISAZA: Rodrigo Isaza.

MR. BRAGG: Could you spell your first and last name please?

MR. ISAZA: Rodrigo, R-o-d-r-i-g-o, last name Isaza, I-s-a-z-a.

MR. BRAGG: Okay. And what organization are you with?

MR. ISAZA: MCM.

MR. BRAGG: MCM.

MR. WALSH: Dan Walsh, highway factors investigator with the National Transportation Safety Board.

MR. HOLT: Reggie Holt, concrete bridge specialist, with the Federal Highway Administration.

MR. BRAGG: Okay.

INTERVIEW OF RODRIGO ISAZA

BY MR. BRAGG:

Q. We're first going to ask you to start off by just giving us an overview from your perspective of the events beginning when you

first began moving the bridge from the place it was manufactured to where it was installed.

A. From the time that we started the move?

Q. Yes.

A. Okay. The move started at approximately 4:20 a.m., on March the 10th. It took us approximately 8 hours to set it in place. I mean, it remained in place up to, you know, Thursday afternoon when it collapsed.

Q. And what's your role with the company?

A. I'm the project manager for this project.

Q. Okay. And in layman's terms, what are your responsibilities?

A. I'm in charge of, you know, scheduling, you know, procurement and coordination with all of our subcontractors and subconsultants for the -- you know, from the start to finish of the project and turn it over to the owner.

Q. Okay.

MR. WALSH: Dan Walsh.

BY MR. WALSH:

Q. As you know, we're trying to get to the bottom of the cause of the collapse, and appreciate your frankness and your honesty with us.

Can you go through a little bit more in detail from March 10th until the collapse in terms of the move that occurred on March 10th, if there was any items that you had noticed during that move, also, any details regarding the cracking that was

observed. I know that a meeting took place to address the cracking. What did the meeting consist of? What was talked about at that meeting? What was the conclusion of that meeting? And then talk a little bit about the destressing that occurred and stressing that occurred with VSL. If you can take us a little bit through that in more detail, I would appreciate it.

A. Sure. I mean, essentially the span was scheduled to be moved and set in place. Part of the sequence of construction was to, after the span was set in place, destress two of the members, which were considered by the engineer as a temporary condition for the move itself. We discovered some of the cracks late afternoon after it was set and before the destressing operation, which we brought to the engineer's attention. That basically transpired between that date up to Thursday, where there was communication with the engineer as far as what we have seen and what needed to happen, if any, you know, based on what we have observed.

The engineer evaluated those cracks. We have pictures that we forwarded to them. And as part of the process there was communication between us and the engineer, where it was conveyed to us that there was not a safety concern, but at the same time as part of some of the process to address the cracking that was observed, was to introduce shims underneath the span on the pylon location, which is on the north side, and also to stress the members that have been destressed, but only member number 11 to try to bring it to is previous stage.

At the same time, you know, and apart from that communication, we did have a meeting on the field where Figg the engineer, you know, came to the site. We reviewed on-site the cracks once again with Figg, FIU, FDOT, and Bolton Perez, and MCM as well, before a meeting scheduled that it was, you know, started at 10:00 and it lasted about an hour and a half or so. During the meeting, essentially, we were given a PowerPoint presentation by the engineer, where they conveyed to us that they have evaluated this condition, that they have done some review and calculations. They confirmed once again that there was not a safety concern and, you know, that we were to continue with what they have recommended, which it was scheduled to happen that Thursday and it was to restress member 11.

Q. Was there any operation done during that time that did not conform to the design plans?

A. Any operation? Well, the only operation that -- when you're saying the operation that did not conform, as what they were recommending us to do?

Q. Correct.

A. Well, they recommending us, due to the cracking, to add shims and restress the members.

Q. And was there documentation of that?

A. Yes.

Q. We'd like to have a copy of that documentation. Was it in the form of an email, in the form of a --

A. It was in the form of an email.
Q. Okay. We'd like to have a copy of that.
A. Okay.
Q. So I'm trying to determine the destressing that was done, when was the destressing done?
A. On Thursday -- I mean, I'm sorry. The destressing happened on Saturday the 10th.
Q. Okay. And were the cracks observed after the destressing?
A. It was before and then after.
Q. So they were observed before destressing and after?
A. Correct.
MR. BRAGG: Did the -- this is Kenny Bragg. Did the cracks get -- did they increase after destressing?
MR. ISAZA: For the most part were the same. There was one area that it increased. But for the most part, they were the same as prior to destressing.
BY MR. WALSH:
Q. Okay. I'm going to ask a question and just would like your general, your opinion. What would you believe to be the cause of the collapse?
A. I mean, it's hard to say it. I'm not an engineer, so I really don't know what the cause is.
Q. You would not have an opinion on that?
A. I mean, I don't know if -- I mean, like I said, we set it in place. I don't know if it was the result of the restressing, but

I mean again --
Q. Okay. Can we come around -- let me just ask some questions about your firm if I could.
A. Sure.
Q. What experience does MCM have as being a contractor for this type of bridge?
A. Experience as to what? As to how to build it or --
Q. As a contractor. I mean, is this something that MCM does? Have they performed --
A. We do bridge construction and general construction, which is vertical construction. So we do have two departments.
Q. Okay. So you have experience in this type of bridge construction?
A. On bridge construction? Yes, we do.
Q. Okay. And have you been a project manager on this --
A. On other jobs, yes.
Q. -- type of bridge construction?
A. Yes.
Q. So you have experience doing this type of --
A. Correct.
Q. Okay. Just a few more questions on the move. Was the move videotaped?
A. Yes.
Q. Do you have the original video footage?
A. I mean, I don't have it but I know --

Q. You can get it?
A. It's available, yes.
Q. It's available. I think we'd like to have a copy of the original video footage.
A. Okay.
Q. Did you encounter going over any obstacles when you moved it? Like going over a curb, going over the median, were there any obstacles moving it?
A. I mean, were you're saying obstacles, yeah. We were going over the curb and the median, but there were means to transition through those areas based on utilizing road plates.
Q. And in terms of the grade of those road plates were they -- was it a severe grade or was it -- how would you characterize the grade?
A. Smooth transition.
Q. It was a smooth transition?
A. Yes.
Q. Okay. So there was no -- there was nothing that was jarring associated with the move?
A. No.
Q. You interpreted it as a smooth move?
A. Yes.
Q. Okay. Would you interpret the move to cause any of the cracking that was --
A. No.

MR. WALSH: Okay. That's my -- for now, my questions.

MR. HOLT: All right. Reggie Holt. I have a few questions. Dan got a lot of them. I was checking them off.

BY MR. HOLT:

Q. I noticed in the bridge plans that the diagonals were -- the bridge wasn't totally symmetric, but whatever it did on the left side diagonal they did pretty much the same operation on the right side of the bridge diagonal; there was a back and forth.

So the collapse happened at this core 11, so there's a core 2 on the other side of the bridge that is a very similar nature based on the design, not exact, but it seemed to be very similar, same detensioning. So we talked about the cracking. Was there cracking, same level of cracking observed on diagonal 2 as diagonal 11?

A. No.

Q. Was there any kind of distress on that diagonal number 2?

A. It was destressed as well, yes.

Q. But not to the level of 11?

A. Cracking, no.

Q. When you say -- so what was the distress at diagonal 2 and how was it different than what was at diagonal 11?

A. I mean, both were destressed. Like one reacted differently than the other for some reason, which I don't know.

Q. But was it the cracking at the fillet and the spalling on the side, same type --

A. No. We did not have that reaction on member number 2.
Q. And so when you say distress, was it visible distress?
A. No. What I'm saying when we destressed the bars?
Q. Oh, no, not destressed. I'm sorry. I'm talking about any kind of physical damage observed on 2 like you saw on 11?
A. No.
Q. So it was -- it looked fine --
A. Correct.
Q. -- from a visual inspection?
A. Yes.
Q. Okay. Now was -- did Figg recommend doing the same remedial procedures to diagonal 2?
A. No.
Q. So it was only going to be on diagonal 11?
A. Correct.
Q. We noticed on the pictures that diagonal 2, they chipped away the top to get access to the anchors. You have the blister on the soffit. So we noticed that they had to, instead of having the smooth hollowed out access for the ram, that they chipped it out and -- I mean, our understanding is they weren't expecting to come back and re-tension after they detensioned. So we're assuming that that chipping had to happen to get access to these bars unexpectedly?
A. You talking about bar -- I mean, number 2, member number 2?
Q. Two and 11 both had access --

A. To PT bars.
Q. -- to PT bars chipped away.
A. Right. To be able to get the ram in place.
Q. Right. So my previous question was, were they going to do the same remedial measures on 2 as 11? Did Figg direct you to go back and restress the diagonals, the bars on diagonal 2?
A. No, not on 2. Only on 11.
Q. Only on 11. Okay. Do you know why they would have chipped away the concrete on top of the blister?
A. They were left open because both needed to be destressed.
Q. Oh. So that was done before -- that chipping --
A. Yes.
Q. I thought, okay. Then that chipping happened --
A. Before.
Q. -- they were accidently covered up because they forgot to come back and destress. Okay. That's fine.
A. Exactly.
Q. Okay. That makes sense now. The other -- you mentioned something new that I didn't realize was a part of this remedy, were these shims?
A. Correct.
Q. So what is -- I mean, a shim can be many different things. I mean, what -- how was this shim orientated and aligned and how was it explained to you how it was going to work?
A. I mean, you had four shims that were called for, to -- I

mean, right under the span. But when these cracks came up, they told us to go ahead and install a shim in the center of the span.
Q. Okay.
A. And that's what we did.
Q. Were those, those thick plastic shims you saw on the ground?
A. The permanent ones were plastic. The ones that we were able to install as part of the procedure the engineer dictated were two metal plates --
Q. Uh-huh. Okay.
A. -- and then, you know, some plastic ones on top of it.
Q. So you shimmed from the top of the pier to the underside of the bridge --
A. Correct.
Q. -- to provide some sort of vertical support at that?
A. Correct.
Q. Was there anything prescribed for the back side of the bridge?
A. No.
Q. So it was just the underside that this temporary support was --
A. Correct.
Q. -- was meant to do. Okay. Did you -- I mean, that region -- I mean, we are talking about below where the cord, the diagonal hit the lower slab. You know that's the area that experienced the most damage and that essentially dislodged on the collapse. Was

there any difficulty constructing that? I mean, it's typically referred to as a congested region. A lot of times integrated drawings are produced to reduce conflicts and things like that. Was there any kind of difficulty casting and constructing that complicated region?

A. It was congested, but I mean it was coordinated to make sure that everything, you know, was put in place and it was inspected before we cast that section.

Q. And you were able to construct it as described on the contract documents? You didn't have to do any kind of adjustments?

A. No adjustments.

Q. No field adjustments due to congestion?

A. Correct.

Q. Okay. It's hard to take notes and ask questions at the same time. It's my understanding from discussions that the original sequence for the detensioning, it was purposeful to do that detensioning before traffic was allowed underneath the bridge so the SPMTs came in and the supports were lowered and they were detensioned and then traffic was allowed underneath. Was that decision of restricting traffic due to concerns over stressing these tendons with a lot of traffic underneath?

A. No.

Q. Did you have any concern with stressing tendons -- doing that operation?

A. Destressing the tendons?
Q. Destressing or post-tensioning, doing any kind of post-tensioning operation while there was traffic?
A. No.
Q. So when Figg proposed these remedies, I mean, was shoring the bridge ever discussed as an option?
A. It was.
Q. Because I think you had to shore -- may even had to shore from SPMTs or something, so it would have been -- you knew the bridge worked with the SPMTs --
A. Correct.
Q. -- so you knew you could bring it back to a condition where it performed well. So it was discussed?
A. It was discussed.
Q. And was there a reason it wasn't decided to --
A. We were assured by the engineer there was no need for shoring.
Q. No need for shoring. Would that shoring have restricted traffic?
A. Yes.
Q. It would have. I guess this is based on -- I mean, you stated and, well, I'm familiar with your firm's experience, so you've done concrete bridges. You've seen concrete destressed before?
A. Correct.

Q. I mean, were you ever concerned putting your workers up there with what you saw?
A. No. Based on what we were conveyed by the engineer, no.
Q. Despite that it was a very low redundant structure and being its ability to withstand the stress for this structure, this single low plane structure is very limited, but still you -- I mean, it's a personal question. You were not --
A. No.
MR. HOLT: I think I've gotten most of my questions here.
MR. BRAGG: I have a couple questions.
MR. HOLT: One more.
BY MR. HOLT:
Q. Sir, were there integrated drawings produced for this bridge anywhere?
A. Integrated drawings?
Q. Like the 3D, where they show how everything fits together?
A. I know Figg had it. I mean, we didn't have that, but they integrated the drawings to be able to make sure that everything worked right.
Q. There was no congestion. So --
A. Correct.
Q. Those were produced -- those were developed but weren't part of the package that you used to build the bridge?
A. Correct.
MR. HOLT: Okay. So that might be something we can ask for.

Okay. Thank you.

MR. ISAZA: Oh, sure.

MR. BRAGG: Sir, I got a couple questions about the cracks and it's really just timeline issues.

BY MR. BRAGG:

Q. When were the cracks first discovered?

A. Late Saturday.

Q. Late Saturday. And how were they discovered? Were they discovered just a visual observation or was there a formal inspection?

A. No. Visual observation.

Q. And who discovered the cracks?

A. That was the inspector.

Q. What inspector?

A. Correct.

Q. No, what inspector?

A. Oh, what inspector?

Q. Yes.

A. From Bolton Perez.

Q. Okay. And when he discovered the cracks, what did he do or who did he talk to?

A. He talked to me.

Q. He talked to you. And what was that conversation like?

A. I mean, he pointed it out. We took pictures, we documented the locations, and then we forwarded them to the engineer for

their evaluation.
Q. And the engineer would be someone from Figg; is that correct?
A. Figg, correct.
Q. What individual did you forward them to?
A. We sent them to Dwight Dempsey.
Q. Dwight Dempsey?
A. Correct.
Q. Okay. And what is Dwight's role?
A. He's the project manager for the project.
Q. Okay. So he's the Figg project manager?
A. Correct.
Q. And so, when Dwight Dempsey, when he received notification of these cracks, what was his response?
A. He basically, went into evaluation with his team to review them and then let us know what steps to take.
Q. And what was the turnaround time for that? Did it take him 10 minutes? Did he notify you the next day?
A. No. The next day, I mean, we got response from them, and from the first response, there was no concerns of safety whatsoever.
Q. Okay. And did you communicate that with anybody else besides Figg's project manager?
A. Yes. That was communicated to Bolton Perez. That was also communicated to FIU.
Q. And what individual in Bolton Perez did you communicate that

with?
A. Jose Morales.
Q. Jose Morales. And who is Jose Morales?
A. He is the senior project engineer for Bolton.
Q. Uh-huh. And who did you contact with FIU?
A. FIU John Cal and Patrick.
Q. I'm sorry, John?
A. John Ca; and Patrick Meagher.
Q. And what are their roles?
A. VP and Director of facilities.
Q. BP?
A. Yes.
Q. What's BP?
A. Vice president of --
Q. Oh, VP.
A. Yeah, VP. I'm sorry.
Q. How about anyone from FDOT, from the Florida Department of Transportation?
A. We did not contact them directly.
Q. So did there come a point where you guys sat down and had a meeting?
A. Yes.
Q. And when did that meeting take place?
A. On Thursday morning.
Q. Thursday morning. And where did it take place?

A. At the MCM construction trailer.
Q. And who ran that meeting?
A. It was basically run by Figg.
Q. Okay. And so, the purpose of the meeting was what?
A. To bring the group up to speed on what has been observed and to come up with a procedure to address the cracks.
Q. Okay. So this is on Thursday, so it's my understanding that first discovered on Saturday and then you had this meeting on Thursday.
A. On Thursday.
Q. Yes. So what was done -- was any work done on the bridge between Thursday and Saturday?
A. The shims were installed before that Thursday meeting.
Q. And MCM installed the shims; is that correct?
A. Correct.
Q. Did you oversee that installation?
A. Yes. I saw it.
Q. Okay. And so Thursday morning about what time was the meeting?
A. 9:00.
Q. 9:00. And what was the conclusion at the meeting? What did you -- what did the group decide?
A. The conclusion was that it was a safe condition and Figg was going to go back to their office to complete the procedure that they wanted to implement to address the cracks.

Q. Okay. And you mentioned at some point that there was a PowerPoint presentation --
A. Yes.
Q. -- in this meeting, correct?
A. Correct.
Q. What was the source of that -- what was the content of that PowerPoint?
A. Basically calculations that they have done based on what was encountered and confirming that there was not a safety concern, but at the same time letting the group know that there was some remedial work that needed to happen.
Q. And who designed the PowerPoint presentation? Figg?
A. Figg.
Q. And so, I would imagine that they showed it up on a TV screen?
A. Correct.
Q. Did they send you guys an electronic copy of this as well?
A. Not yet.
Q. Not yet.
A. It was discussed to send it, but no, we did not receive it.
Q. Okay. And who were you to receive it from?
A. From Figg.
Q. But from what individual in Figg?
A. It would have been from Dwight. All the communications go through the project manager.

Q. Okay. So at the time of the bridge collapse what activity was being done on the bridge?
A. Restressing.
Q. Restressing. And I won't get into the technical aspects of that. But and you had how many employees on the bridge?
A. We had -- at the canopy we had three employees from VSL.
Q. Okay.
A. A QC employee from MCM. And a QC -- I mean, an inspector from Bolton.
Q. Okay.
A. And there was a gentleman Jose Morales on the deck.
Q. On the deck, okay. And you had one lane or two lanes closed?
A. Two lanes.
Q. Had two lanes closed. Why were those two lanes closed?
A. Why?
Q. Yeah.
A. We needed to set up the crane.
Q. Okay. And so where was the crane going to set up at? Was it -- use the pickup truck that was damaged that's still there.
A. Uh-huh.
Q. Where was that crane going to be set up in relation to that?
A. Just west of that truck.
Q. Just west of that truck. Who took place in the discussion about whether or not to close the inside roadway?
A. Who took place?

Q. Yeah. Who participated in that discussion?
A. It was a conversation of all of us.
Q. And this is in that Thursday meeting?
A. Correct.
Q. Okay. And what was the gist of that conversation about closing the roadway?
A. That it was needed to close just for the two lanes to set up the crane and be able to handle the ram equipment to destress.
Q. Was there any conversations about why you shouldn't close the roadway? And I'm talking about completely.
A. No.
Q. There was no consideration of closing the entire roadway whatsoever?
A. No.
Q. Okay. And so you discovered the crack on Saturday, and that was prior to the move, correct?
A. No. That was after the move.
Q. I mean, prior to tensioning -- detensioning.
A. Correct.
Q. And so, you apply tension and then you reexamine it and you noticed the crack had worsened a little bit in some areas.
A. At one location, right.
Q. Okay. And who was there to observe the crack after the second operation -- after the first operation?
A. The inspector and myself.

Q. Inspector, yourself. And the inspector was from BP, correct?
A. Correct.
Q. Okay.
MR. BRAGG: Okay. That's all I have right now.
Dan, you have anything?
MR. WALSH: Yeah.
BY MR. WALSH:
Q. What is your relationship with Figg now regarding the project?
A. What do you mean?
Q. After the collapse now, what's the relationship with Figg in terms of the contractual agreement?
A. I mean, we have a contractual agreement. They are subconsultant of -- I mean, they're essentially the designer and we're the builders. So --
Q. Is it dissolving? Is the contract dissolving now because of the collapse?
A. No. No. Not to my knowledge.
Q. Are there steps in place to design another bridge?
A. Not that I'm aware of, no.
Q. Okay. Just general questions on the restressing that was done to the members. What units are used for restressing? When you talk about restressing, what units?
A. Kips.
Q. Kips?

A. Correct.
Q. Okay. And what direction was given to the specific kip amount?
A. They were given direction to restress on intervals, the two bars within member 11.
Q. Okay. What was the specific kip amount that was given to do the restressing, the specific number?
A. The specific number 280 overall, but we were supposed to do it in 50 kips intervals, top and bottom, up to you reach the 280.
Q. So 50 kips intervals until you reach 280 maximum?
A. Correct.
Q. Okay. Who gave that amount, 280 maximum, 50-kip intervals?
A. The engineer of record, Figg.
Q. And just a general question. Could a member become overstressed?
A. It's possible.
Q. Okay. And what steps are in place to not go over the 280-kip maximum? What steps are in place for that -- the operator to know whether he has gone over the 280 kips?
A. They have a gauge which they use to make sure that you do.
Q. So they look at that gauge and they determine from that gauge whether they have reached the 280 maximum or not --
A. Correct.
Q. -- and whether they've gone over it or not?
A. Correct.

Q. Okay. So if a member could -- if it was overstressed beyond 280 kips, it could overstress that member?
A. Like I said, it's possible.
Q. It's possible. Okay. Was there any consideration because of the cracking that was there, that 280-kip maximum was too much for that member to receive based on the cracking that was there?
A. I don't know. I'm sure that was taken into account by Figg when they gave us the parameters.
Q. Was there any discussion of that?
A. Yes.
Q. At the meeting?
A. Correct.
Q. So there was discussion regarding setting that 280 maximum kip based on the cracking that was there?
A. Not of the cracking. It was the -- 280 was the original stress force for that member.
Q. Right.
A. And in order to bring it to its previous stage, which is what the engineer wanted to do, they gave us the parameters on how to get there.
Q. Right. Okay. So 280 was for the original stressing of that member without consideration of the cracks that were there?
A. Correct.
Q. We'll ask for a copy of that PowerPoint from Figg because -- we'll ask for that from Figg because you don't -- you're not in

possession of that PowerPoint?
A. No. We do not have it.
MR. WALSH: Okay. That's all I have.
MR. HOLT: Reggie Holt.
BY MR. HOLT:
Q. Based on your answers, a couple of follow-up questions just for clarity. So were there any construction operations on the bridge after setting the bridge and the restressing that happened on Saturday, other than you said the shims? So you stayed off the bridge?
A. Correct. Yes. There was nothing being done on the bridge.
Q. You stayed off the bridge because of the observed cracking, I guess?
A. That was -- I mean, we had other activities happening and we have completed that phase of construction.
Q. So you didn't really need to be up on the bridge at that point?
A. Correct. Correct.
Q. As far as a -- I mean, they're your engineer of record in this case, your construction engineer, because they're doing some manipulation to the bridge. As far as the deliverable for this remedy, so it was just delivered in the PowerPoint? There was never a formal submission sealed by the engineer or anything, calcs submitted to you for approval?
A. No. The calcs was shown to us as part of the PowerPoint

presentation.
Q. As part of the PowerPoint presentation. And you as the -- and the owner was there, the owner's rep. So that was their opportunity to agree or disagree with the engineer's solution?
A. Correct.
Q. So just a little clarity. I didn't take very good notes here. The observed -- when the cracking was first observed, so you said before and after destressing. So I got that. But was it ever observed before the bridge was set?
A. No. I mean, the engineer actually reviewed the bridge before we moved it --
Q. And it was fine?
A. -- and it was fine and then even after we placed it, there'd be another --
Q. So it was looked at when it was up on the SPMTs supported at the two support locations and bound?
A. Correct.
Q. And there was no cracking?
A. Correct.
Q. It got moved, no cracking. I guess there's observation there. It was set, and the next time you were on the deck that's when you observed the cracking?
A. Correct.
Q. So you can deduce that it happened when the bridge was set. Okay. And then you detensioned after that.

A. Correct.
Q. And the detensioning didn't really affect the cracking.
A. Correct.
Q. It was still the same magnitude?
A. Correct.
MR. HOLT: Okay. Thank you.
MR. ISAZA: You're welcome.
MR. WALSH: I'll just ask just one -- this is Dan Walsh. I'll just ask one general question.
BY MR. WALSH:
Q. Just for my own knowledge, but can a member be overstressed to a point of failure?
A. I don't know.
MR. BRAGG: Okay. The time is now 3:48 p.m. and we will conclude the interview. Thank you very much for your participation.
MR. ISAZA: You're welcome.
(Whereupon, at 3:48 p.m., the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	PEDESTRIAN BRIDGE COLLAPSE MIAMI, FLORIDA MARCH 15, 2018 Interview of Rodrigo Isaza
ACCIDENT NO.:	HWY18MH009
PLACE:	Miami, Florida
DATE:	March 19, 2018

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

[redacted]

Letha J. Wheeler
Transcriber