

## WITNESS INTERVIEW TRANSCRIPT

# $Structural\ Group\ of\ South\ Florida$

Miami, FL

HWY18MH009

(40 pages)

#### UNITED STATES OF AMERICA

#### NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:

\*

PEDESTRIAN BRIDGE COLLAPSE

MIAMI, FLORIDA \* Accident No.: HWY18MH009

MARCH 15, 2018

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Interview of: JOHN JACKSON

Structural Group of South Florida

Thursday, March 22, 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

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### 1 INTERVIEW (8:45 a.m.)2 3 MR. BRAGG: Today is Thursday, March 22nd, 2018. It's about 4 8:45 a.m. and this interview is in regards to the FIU bridge 5 collapse in Miami, Florida. 6 My name is Kenney Bragg, highway accident investigator for 7 the Office of Highway Safety, the National Transportation Safety 8 Board. To my right we have? 9 MR. HOLT: Reggie Holt, Federal Highway. 10 Dan Walsh, highway bridge investigator with the MR. WALSH: 11 National Transportation Safety Board. 12 MR. BRAGG: And, sir, please state your first and last name 13 and your company you're affiliated with. 14 MR. JACKSON: John Jackson. I'm owner of the Structural 15 Group of South Florida and I am working currently as an employee for MCM. 16 17 INTERVIEW OF JOHN JACKSON BY MR. BRAGG: 18 19 I'm going to go ahead and start off by talking about, a 2.0 little bit about your background with MCM and the other company. 21 How long have you been with MCM? 22 Off and on 27 years. Α. 23 And what's your current role? 24 General superintendent. 25 How long have you --

- 1 A. For the shell division.
- 2 Q. For the shell division.
- 3 A. Yes, sir.
- 4 Q. Explain what this shell division is.
- 5 A. That is the nuts and bolts of any particular building. It's
- 6 the foundation. It's the reinforcing steel. It's the concrete.
- 7 It's the form work. Sometimes it's setting psi. Sometimes it's
- 8 | running cable. Sometimes it's finishing concrete. Just
- 9 everything -- nothing electrical, plumbing, MEPs, none of that.
- 10 No roofing. Just strictly a shell.
- 11 Q. Got you. And how long have you served in that position?
- 12 A. Say again?
- 13 Q. How long have you served in that position?
- 14 A. Forty-six years.
- 15 Q. Forty-six years. How long with MCM?
- 16 A. Well, in the position I'm in right now?
- 17 Q. Yes.
- 18 A. Four years.
- 19 Q. Four years.
- 20 A. Right.
- 21 Q. And prior to that, what did you do? What was your position?
- 22 A. I worked for everybody else, all the other sub -- all the
- 23 other contractors in South Florida, Styles, everybody. Suffix
- 24 Styles. I've got a whole resume if you'd like to see it for the
- 25 last 42 years.

- 1 Q. When did you become involved in this project?
- 2 A. April 4th, 2017.
- 3 Q. Okay. What was your involvement initially?
- 4 A. To build this structure here.
- 5 Q. And what part of that building process were you responsible
- 6 for?
- 7 A. Foundations.
- 8 Q. Foundation.
- 9 A. And shoring for the bridge, the form work for the bridge,
- 10 the foundations for the elevator. The -- all, everything you see
- 11 here that's concrete, I'm responsible for. What I'm not
- 12 responsible for and what I had no part in is the bolts, the
- 13 tensioning, the cables, the trays or anything else. We only had
- 14 the rebar.
- 15 Q. Okay. And so, you didn't pour the concrete?
- 16 A. We poured the concrete. Yes, sir. We did not finish the
- 17 | concrete, but we poured the concrete.
- 18 Q. And what size crew do you have working on this?
- 19 A. On this particular job or overall?
- 20 Q. This particular job.
- 21 A. This particular job there's about 30 plus. On that day I
- 22 | think it was 32 of us. We've been having some down time because
- 23 of the movement for the bridge and for the road plates and for
- 24 | having issues on the other side with the elevator and foundations
- 25 over there. Certain pipes had to get moved.

- 1 Q. And were you on the site when it began to move?
- 2 A. Yes, sir. When it began to move?
- 3 O. Yes.
- 4 A. I got here about an hour after they had started the move.
- 5 Q. Okay.
- 6 A. But I was here up until (indiscernible).
- 7 Q. When did you first become aware that there were cracks in the
- 8 bridge?
- 9 A. At what location?
- 10 Q. No, what time?
- 11 A. At what time it would have been the weekend of March the -- I
- 12 need a calendar, I can't remember. It was when we stripped the
- 13 bridge.
- 14 Q. Here's a calendar.
- 15 A. Okay. We were -- we got in there and we stripped the
- 16 canopies on this date. We jumped in here on the 24th. The 24th
- 17 of March.
- 18 Q. You said this date. What date was that?
- 19 A. Oh, I'm sorry, the 22nd.
- 20 Q. That's today's date.
- 21 A. Oh, I meant last month. I'm sorry.
- 22 Q. Oh, February Okay.
- 23 A. Yeah. Okay. We had to be out of the way by the 28th.
- 24 Q. Of February?
- 25 A. Of February for the road play. So, we got in here on the

- 1 22nd. 22nd and 23rd we stripped the canopy and everything around
- 2 the trusses.
- 3 Q. And that's February.
- 4 A. Yes.
- 5 Q. And I want you to specify.
- 6 A. February, sorry. Okay. Then on weekend we worked Saturday.
- 7 We were supposed to work Sunday if we needed to. But we were able
- 8 too get in there on the 23rd, which is a Friday, and start
- 9 stripping the bottom of the -- we had to take out a 30-foot
- 10 section underneath the middle of the bridge. Now, remember we
- 11 have already put all the mega shores up on each end. The mega
- 12 | shores they are to hold the whole bridge up when everything is
- 13 stripped.
- Now, this thing has sat there like 4 months. So, while we
- 15 | built it but we couldn't do any stripping till all the stressing
- 16 was done and that was a different company. And we couldn't be
- 17 around them so we were working on the north side because, you
- 18 know, when you stretch cables that there's always a chance
- 19 something happens.
- 20 Q. Okay.
- 21 A. We couldn't be around them so we went on this side and we
- 22 | worked there for 3 weeks, 4 weeks while they did all the stressing
- 23 and all the grouting of there -- whatever they do. And I'm not
- really familiar with what they do. But anyhow, we were given the
- 25 green light to go strip. And we had to do it in a hurry, you

know.

- 2 So, the first thing we did was pour the curbs on both sides
- 3 that were left after the tensioning and everything else, we had to
- 4 do the curbs, upturned curbs. And we put safety rails up there,
- 5 you know, which we came up with that idea. Anyway, so back to
- 6 what we had to do. So, when we started stripping on the 23rd
- 7 underneath, now remember everything up top was done, gone out of
- 8 there. Looking beautiful, sweet.
- 9 Then we started stripping in the middle. And our engineer of
- 10 record for us, for shoring RC Group --
- 11 Q. What's the individual's name?
- 12 A. Eduardo Canto, yeah, you might want to talk to him. He
- 13 wasn't here at the time but he was responsible for the shoring and
- 14 reshoring of this element.
- 15 Q. Okay. And spell Eduardo's last name.
- 16 A. Oh, last name, C-a-n -- let me think. I don't have much
- 17 | charge here. Let's see.
- 18 O. Okav. Eduardo Canto.
- 19 A. Yes.
- 20 O. And what firm is he with?
- 21 A. RC Group.
- 22 Q. RC Group?
- 23 A. Yes, sir.
- 24 Q. And where are they based at?
- 25 A. Miami.

Q. Okay. I'm sorry, continue.

- 2 A. Okay. So, we had a verbiage on how to strip the underside of
- 3 the bridge. So, it as to take out a 30-foot swarth in the middle
- 4 and then have them come out and look at everything. And he did.
- 5 We felt the pressure on the shores, you know, it seemed extreme at
- 6 the time after the stressing. Everybody thought the stressing was
- 7 going to raise the bridge up off the scaffold to some degree. So,
- 8 we kept monitoring it. Every day we monitored it four times, our
- 9 guys, to see if there was any downward, upward. If there's any
- 10 extra stress on the shores more than it should be because
- 11 eventually it was supposed the stress -- the weight was supposed
- 12 to go off to the ends, you know, after you start stripping. So,
- 13 we did. We did. And then I went -- he gave us a green light to
- 14 continue. So, we did some more on Friday.
- 15 | Then Saturday we brought in -- actually, we had a double crew
- 16 on Friday night. I can check the payroll book, yeah. I'm pretty
- 17 | sure it was a double crew Friday night. And then we had
- 18 everybody, so we had two crews stripping. One in the morning.
- 19 And then the other crew came in at 12:00 and worked to 8:00.
- 20 | That's right. I'm sorry. Then Saturday we brought everybody in
- 21 and we blitz it.
- 22 As we were stripping it I looked out of the office and
- 23 everybody was out from underneath the bridge. I said, oh, shit.
- 24 So, I ran out there and everybody said, Awe, man, awe man, the
- 25 bridge went whoop like that. It made a loud noise, just like

- that. They said it made a loud noise. I didn't hear it. I said,
  well, you guys stand down. I'll go up on top of the bridge to
  find out what's up.
  - So, I get up there and both trusses on each end cracked at the bottom where it meets the bridge. They cracked here and on the other one. So, I called Ernie on the radio and had Ernie come up and look with me. And he said, oh, that's normal because they haven't been -- there's no tension on those yet. Okay. So, we called -- I guess he called FIGG, whoever, and they said, no, go ahead and proceed.
  - So, then we proceeded very slowly because we were about half, maybe three-quarters -- we were very close to the end by that time. So, we finished stripping, monitoring everything with lasers and instruments to make sure that there as no more further movement. We monitored the -- how much the bridge settled. And it ends up being an inch and three-eighths over all. I asked how much is it supposed settle and nobody had an answer. So, we just kept monitoring. And then once it was all stripped and cleaned out it sat on the shores for 2 weeks.
- MR. WALSH: Dan Walsh.
- 21 BY MR. WALSH:
- 22 Q. What day was that?
- 23 A. That it popped, Saturday the 24th.
- 24 O. Of?

25 A. February.

- 1 Q. February 24th, Saturday?
- 2 A. Yes. I thought it was very unusual and we were very leery of
- 3 | the fact that now, you know, if that -- they said if that was the
- 4 reaction it was supposed to have. They were significant. They
- 5 were half inch, three-quarters.
- 6 Q. Dan Walsh continuing. So, on February 24th, you heard as you
- 7 characterize a popping --
- 8 A. I didn't hear it. No, sir. It was told to me that it made a
- 9 loud sound. That's why everybody was out from underneath the
- 10 bridge, equipment too.
- 11 Q. And what -- specifically what members were they in the bridge
- 12 structure?
- 13 A. The two very long ones on each end. Yes, sir.
- 14 Q. Was there any experience, did you hear of any other popping -
- 15 | --
- 16 A. No, sir.
- 17 Q. -- or monitor any other cracking after February 24th?
- 18 A. No, sir. I didn't monitor any more cracking after that. But
- 19 we did monitor any more movement from underneath the bridge.
- 20 0. And what were the results of that movement?
- 21 A. It never went any more than an inch and three-eighths
- 22 settlement.
- 23 Q. Is this documented anywhere?
- 24 A. I don't know, sir. I know that Ernie was -- he was the
- 25 | superintendent for MCM was aware of it. And I'm -- God, I hope he

- 1 | had called somebody to give us a green light because he gave me
- 2 the green light.
- 3 Q. So, how did you convey this information?
- 4 A. I called Ernie and brought him up there, him and Pedro
- 5 Cortez, the gentleman that got hurt on the thing was up there.
- 6 Who is our quality control guy? He's been here since day one.
- 7 And they all looked at it. And we all stood down for an hour
- 8 while they came up with this is fine. Continue the stripping.
- 9 Q. So, you don't know if there was any documentation --
- 10 A. No, sir. I think there was pictures taken.
- 11 Q. There are some pictures?
- 12 A. Yes, sir.
- 13 Q. We'd like to get --
- 14 A. I have find out who took them though. I think Pedro took
- 15 them.
- 16 O. After this interview --
- 17 A. Yes, sir.
- 18 Q. -- we would like to obtain a copy of those photos, okay?
- 19 A. Okay.
- 20 Q. That's the only documentation that you're aware of and we
- 21 would like to get copy of those photographs.
- 22 A. Okay.
- 23 Q. How many photographs do you think there are?
- 24 A. I think there's probably two or three on each side. I'm not
- 25 | sure if they are from my guys who went up there with me. I don't

- 1 think I took any. I think that Pedro did take some. I think they
- 2 sent them to FIGG and I think FIGG is the one that gave us the
- 3 green light but that's hearsay. I don't know any of that.
- 4 Q. That's fine. So, they are not on someone's cell phone, they
- 5 are printed --
- 6 A. No, no, no. They are on someone's phone.
- 7 Q. On somebody's phone?
- 8 A. Here again, I don't know what they did after they took those.
- 9 I just -- I think I might have some on mine. I will check.
- 10 Q. If you could forward those to us that would be terrific.
- 11 A. Okay. I can forward to his phone if he calls me.
- 12 Q. That would be -- And you're not aware of any response from
- 13 the engineer at FIGG as it pertains to that issue?
- 14 A. That? No, sir. I have no -- in fact, I didn't even know who
- 15 | FIGG was until meeting the morning of that Thursday. So, but no,
- 16 I had no communicate with FIGG. That's way past me.
- 17 Q. I'm just going to ask you some general questions about the
- 18 concrete pour. When you poured the concrete did you take any
- 19 cylinder samples for testing?
- 20 A. Oh, yeah. Yes, sir. Everything was by the books. In fact,
- 21 | we had to return trucks because they were over -- either over
- 22 slumped or under slumped. We had the range that went from  $5\frac{1}{2}$  to
- 23 7. Anything below or above was rejected.
- 24 Q. How many cylinders did you take?
- 25 A. Every truck had a slump test but I think every 50 yards was

- 1 tested for -- with cylinders. Now, I could be wrong. They could
- 2 | have tested every one because I was busy pouring. I don't know
- 3 | but typically we -- it's white concrete. This stuff was, forgive
- 4 me, a pain in the ass. Really, major pain in the ass. You know,
- 5 | it was pasty.
- 6 Q. I was going to ask you that, what type of concrete was it?
- 7 A. It's 85, it's 8,000 PSI. There was two different types. One
- 8 was for the structural elements as far as the super structure and
- 9 the foundations are 55. And I think the -- some of the concrete
- 10 in the elevators is 55. Everything that had to do with the
- 11 | superstructure was 8,000 PSI and it's all regular rock. They
- 12 didn't approve any -- They didn't even submit any P rock
- 13 (Indiscernible).
- 14 Q. Have you worked with this type of concrete before?
- 15 A. Never. This is the first time anybody has worked with this
- 16 here. They had to do a special design for this titanium. This is
- 17 | a self-cleaning white concrete in theory. The sun is supposed to
- 18 -- photosynthesis clean it. You are supposed to be able to spill
- 19 coffee on it and it cleans itself. We didn't experience that.
- 20 Q. And you said titanium is involved. What do you --
- 21 A. Yeah, I'm not sure. I'm not -- I don't have any engineering
- 22 | degree. I just have a lot of -- some years of work. Yes, sir.
- 23 Q. What made it difficult to work with?
- 24 A. It was very -- it set fast. Okay. it would not set, not
- 25 set, (Indication) like a rock. And so, that and the pastiness.

- 1 | So, we had to over vibrate -- not over vibrate. But we had to do
- 2 | a lot of vibrating. We had six vibrators on it, you know, so we
- 3 | had monitors there. The cap was there. The inspectors were
- 4 there. Every time we did anything everybody was there, you know
- 5 what I'm saying.
- 6 Q. Thank you. Do you recall what the results of the concrete
- 7 cylinder tests were?
- 8 A. They all came up way over 8,000. And like I say, it sat here
- 9 for -- we poured it back in November, I got to go back to the
- 10 (Indiscernible) sitting in here for a year. But it was -- it's
- 11 | been -- we finally poured the canopy right before Christmas so
- 12 that when we got back they could start doing all their work,
- 13 prestressing everything.
- 14 Q. Did you see any anomalies?
- 15 A. No, sir. It was -- to me everything was -- there was no
- 16 | honeycomb. There was no -- I mean very minimal surface
- 17 | imperfections as far as where the plywood joins we had to do some
- 18 | finish rubbing and things and our normal stuff. But since there
- 19 was no product we could use to patch it, it had to be perfect, you
- 20 know, it had to be perfect. And it did. It came out -- there was
- 21 no voids. There was no Rice Krispies. It actually came out
- 22 really nice.
- 23 Q. Did you take slump tests of the concrete?
- 24 A. Yes, sir.
- 25 Q. And what were the results of the slump tests?

- 1 A. Well, the slump it had to be in that range. It had to be
- 2 | between 5-and-a-half to 7 every truck. If it wasn't in that it
- 3 | was rejected. They didn't sit here and cook it and make it come
- 4 | up. And they didn't sit here and put water in it. We couldn't.
- 5 We had 20 gallons of water we could put in it if it was in range,
- 6 | but we -- I don't think we had to pour for any trucks.
- 7 Q. When you say 5-and-a-half to 7.
- 8 A. Yes, sir.
- 9 Q. What --
- 10 A. That's the slump range. I argued that too several times
- 11 because, you know, when you lose a truck and you send it back your
- 12 | waiting again, you know, on the (Indiscernible) but that night
- 13 that we poured everything we poured including the trusses they
- 14 | were all done at separate times. So, the bridge went first. We
- 15 had the wall up for the trusses, you know, we invented this wall
- 16 to be floating over the bridge so that we could build the trusses
- 17 because everything is connected. Everything down there is
- 18 monolithic. Everything comes from the base up. So, from the
- 19 diaphragm and from the bridge everything is connected. So, it
- 20 wasn't like we drilled or (Indiscernible) everything was sitting
- 21 in there. So, we had to have the profile of all these trusses
- 22 before we poured the base. And then we came back and poured the
- 23 trusses about 2 weeks later we found other trusses all ready to
- 24 go. And then once that was poured then we started right on the
- 25 canopy. And I had the canopy premade on the ground, the form work

- 1 and all we did is set a scalpel and set it up there and then
- 2 started building our (Indiscernible).
- MR. WALSH: Thank you. I have no further questions.
- 4 MR. HOLT: Reggie Holt, Federal Highway.
- 5 BY MR. HOLT:
- 6 Q. Sir, I'm going to go through the shoring.
- 7 A. Yes, sir.
- 8 Q. The process I believe you said was new to me.
- 9 A. Okay.
- 10 Q. So, could you walk through from plain site --
- 11 A. Okay.
- 12 Q. -- phase 1 shoring --
- 13 A. Yes, sir.
- 14 Q. -- then the form work came next, then the next base shoring
- 15 and then repeat it. Can you just walk through just the shoring
- 16 process from day one to final casting so we better idea?
- 17 A. Okay. The first thing we had to do was put in two -- well,
- 18 they put a road bed in there for them to work off of, a level road
- 19 bed. Now, this was a small change. Okay. The next thing we did
- 20 was put two major foundations on each end where eventually the
- 21 mega shores were going to hold up the whole bridge while it got
- 22 stripped and cleaned and everything else. And we were supposed to
- 23 have more time to do all that work, but because there was some
- 24 issues with the post-tensioning and the bolts it brought us right
- 25 to the deadline of when the movers were coming. Let me back up to

- 1 | -- I don't know what the issues were with the cables or any of
- 2 | that. I'm not -- I just know there was a hold that took them
- 3 longer than they anticipated.
- 4 But this part, okay, I got ahead of myself. I'll get to
- 5 that.
- 6 So, the next thing we did was to start to assemble our
- 7 scaffold. And we had elevations. They were supposed to be the
- 8 same on each end. The moving people discovered that they needed
- 9 to have our -- that they only had so much tribal in their shoring
- 10 --
- 11 Q. Head room. It was a head room issue?
- 12 A. Right. So, we had to change the pitch of our bridge. So, we
- 13 ended up having to build our bridge off site on a 3-foot plane so
- 14 that when they turned the bridge around they would have enough
- 15 lift to get it up on the pylon and the vent. So, what was going
- 16 to be level before ended up we had to -- it made it very hard for
- 17 us to --
- 18 Q. So, the bottom soffit --
- 19 A. Yes, sir.
- 20 0. -- was cast --
- 21 A. At an angle.
- 22 Q. -- at an angle --
- 23 A. Correct.
- 24 Q. -- so, one end was 3 feet higher than the other angle?
- 25 A. Yes, sir. The north end.

- 1 Q. Did I mention that the north end had to go up high --
- 2 A. Yes. Correct.
- 3 Q.
- 4 A. Yes, sir.
- 5 Q. So plum wasn't really plum anymore. Plum was on your
- 6 diagonals that is now on a --
- 7 A. Yes. Correct. it made it harder for the scaffolding
- 8 because, you know, putting a ladder scaffold up is easy. So, we
- 9 had, you know, Pedro helped us with all those little -- you know,
- 10 so once we got that we did a false work that we worked off of and
- 11 I doubled the layer of plywood. That wasn't called for but we
- 12 decided that -- I decided that I didn't want to have any
- 13 imperfections in there. So, we screwed the second layer of
- 14 plywood and then we covered it with plastic for the whole time.
- 15 And we built on top of the plastic. Then we ripped the plastic
- 16 out from underneath it to preserve the finish look on the bridge.
- 17 So, that gets us to the base.
- Now, we did not have the mega shores installed. We did it on
- 19 | a regular working scaffold.
- 20 Q. Okay. So, you had parts hanging out yet to be constructed.
- 21 A. Yeah. You all don't have a picture of any of this stuff?
- 22 O. Huh?
- 23 A. You guys don't have pictures of any of all this.
- 24 Q. Yeah, I understand it. I'm just trying to -- we don't have
- 25 | -- well, not yet. The documentation of what -- here in the

- 1 casting we understand -- we understand the bridge, right. So, the
- 2 mega shores were on the very end.
- 3 A. Correct. But they weren't at the time.
- 4 Q. They weren't at that time.
- 5 A. Right. Because at the beginning of the thing there was a
- 6 discussion whether it was going to be needed before the pour or
- 7 after the pour. So, we cast the bridge without the mega shores
- 8 and then we installed the mega shores in -- after, I guess
- 9 after -- after a period of time we ended up putting the mega
- 10 | shores in amongst ours and then when we set them --
- 11 Q. So, you had traditional false work and the mega shore
- 12 location --
- 13 A. Yes, sir.
- 14 Q. -- to cast it?
- 15 A. Yes, sir.
- 16 Q. Then there was a process to remove the traditional false work
- 17 and break in the mega shores.
- 18 A. Yes, sir. And mega shores, right.
- 19 Q. We are out of sequence here, but when did that happen?
- 20 A. That happened after we poured the base of the bridge.
- 21 Q. So, just the walkway.
- 22 A. Correct.
- 23 Q. No diagonals yet?
- 24 A. No.
- 25 Q. Just a traditional walkway. So, you poured it, the

- 1 traditional false work
- 2 A. Yes.
- 3 Q. -- there was an operation where you moved the traditional
- 4 | false work involving pulling in the mega shores before you did
- 5 everything else.
- 6 A. Yes.
- 7 Q. Okay. So, then --
- 8 A. I take that back. I'm sorry. The mega shores came in -- I'm
- 9 sorry. Let's back up. That was a false statement I just made.
- 10 We did the deck. We did the diagonals and we did the CAP before
- 11 | we changed out the mega shores. The mega shores came in at the
- 12 beginning of the year.
- 13 Q. What's the CAP the canopy?
- 14 A. Canopy.
- 15 Q. So, the whole bridge was essentially --
- 16 A. But before we could stress it and put the weight on the --
- 17 because they all assumed that the stressing was going to take the
- 18 | weight off my shoring and put it there. So, we didn't need
- 19 anything until they started stressing. So, that's when we
- 20 replaced it with the mega shores, the beginning of the year 2018.
- 21 Q. So, the entire bridge, except the reinforced concrete --
- 22 A. Yes, sir.
- 23 Q. -- was cast on traditional false work.
- 24 A. On traditional shoring with the approval of the engineer --
- 25 Q. -- shoring I mean, poured out, mega shores came in

- 1 (Indiscernible)
- 2 A. Yes. But it's not like that, like we didn't strip it. You
- 3 know, we sectioned it mega, little vat. We didn't just go clean
- 4 out underneath the --
- 5 Q. Yeah, I understand you didn't bring --
- 6 A. Yeah. We did it systematically, yes.
- 7 Q. So, approximately what's the (Indiscernible) this mega shore?
- 8 A. Well, the base is like 18, 12 feet by I think it's 22 feet is
- 9 the base. The mega shores took up the entire bottom of the
- 10 diaphragm. I mean it was amazing that each one of those things
- 11 | could hold 20 kip. So, each end could hold 9 almost a million
- 12 pounds, 9,050 tons each side could hold.
- 13 Q. So, the mega shore --
- 14 A. Yes, sir.
- 15 Q. -- was supporting the cast bridge -(Indiscernible) --
- 16 A. Right.
- 17 Q. -- at the very end where the diaphragm is?
- 18 A. Yes, sir. At both ends.
- 19 Q. At both ends plus some --
- 20 A. Plus, all the shoring. We didn't take anything out of the
- 21 | bottom. We just slid them underneath where the diaphragm was.
- 22 Q. So, it was only underneath the diaphragm?
- 23 A. Yes, sir.
- 24 O. It was no --
- 25 A. No, no, no. We couldn't touch nothing else.

- 1 Q. The mega shore was just under the diaphragm okay, both sides?
- 2 A. Yes, sir.
- 3 Q. Can you talk about -- so, you had the diagonal form in place
- 4 when you cast the lower soffit?
- 5 A. Yes.
- 6 Q. So, how was that diagonal soffit suspended?
- 7 A. We had every 8 feet we came up a PVC dropped a steel rod
- 8 through it and welded it to my scaffold underneath my big metal
- 9 beams underneath and it sat on the bottom of my form. So, --
- 10 Q. So, every 8 feet there was a hole through the bottom soffit
- 11 | that accepted this --
- 12 A. Correct.
- 13 Q. -- rod the supporting --
- 14 A. And that held up. And then, of course, we had it all braced
- 15 off in this one. We have all those pictures.
- 16 Q. And I get the picture. So, then do you cast the bottom side
- 17 | --
- 18 A. Yes, sir.
- 19 Q. Was any surface prep required for the interface for the
- 20 diagonal hit, the bottom slide?
- 21 A. Yes. it had to be roughened up.
- 22 Q. So, each one had a roughened surface?
- 23 A. Yes.
- 24 Q. And how did you -- just try all buffing or --
- 25 A. Yeah, we just left it like it was. I mean we just roughed

- 1 boomed it and, you know, how you just mix it up with a trowel.
- 2 You just don't -- you don't do a nice finish on it. you just
- 3 leave it roughened up.
- 4 Q. So, it's just as it settles.
- 5 A. Yes. Then before we pour it, obviously, we had one side up.
- 6 We had everything in, everything inspected --
- 7 Q. Right.
- 8 A. -- and then we closed it up. Left the bottoms all open so
- 9 they could be washed out and cleaned out and put a -- whatever
- 10 they call for -- I don't know it was a bonding agent. But there
- 11 was something that was called for there or just roughened up the
- 12 surface. I'm not sure.
- 13 Q. So, it wasn't prescribed -- sometimes you get surface
- 14 (Indiscernible) so they kind of ask you to roughen it to a certain
- 15 | but it was just don't finish it.
- 16 A. Don't finish it, yeah.
- 17 Q. You talked earlier about the casting or rejecting trucks
- 18 | because of the failed slump. Was that a regular thing or was it
- 19 higher than normal?
- 20 A. Much higher than normal.
- 21 Q. Much higher than normal.
- 22 A. Yes.
- 23 Q. Okay. And if you get 10 trucks how many would you -- one in
- 24 | 10, 1 in 20?
- 25 A. One in maybe 10; one in six. We never had too many at one

- 1 | time. the only one that we had at one time the bridge pour was
- 2 like 2:00, 3:20, 3:30 on the bridge and then the trusses were only
- 3 80 and that went fine. We lost one of the trucks I believe but
- 4 the records will show that because I made a record of everyone of
- 5 them. But it was a hard mix for cement to -- just over here in the
- 6 last 2 weeks ago when were trying to pour they used two columns
- 7 over there that are not stripped yet because that's what we are
- 8 doing. The first two trucks were rejected. And then the next
- 9 four or five were fine.
- 10 Q. Was it failing on the low end or on the high end?
- 11 A. The high end over there. It's like they left the water on.
- 12 It was like an 11-inch --
- 13 Q. So, it was in excess of 7 inches?
- 14 A. Yes.
- 15 Q. Was that typical --
- 16 A. No, typically, if they do that one then the next one is so
- 17 dry you can't get it out of the truck. So, you know, they over
- 18 compensate half the time.
- 19 Q. So, were they -- were you failing trucks on high and the low
- 20 end?
- 21 A. Yes, sir.
- 22 Q. So, it wasn't --
- 23 A. It was random it seemed like.
- Q. So, they had difficulty hitting as well.
- 25 A. Yes.

- 1 Q. So, they were going back and forth, back and forth --
- 2 A. Correct.
- 3 Q. Let's talk about the placement. What you said you did the
- 4 reinforcing also?
- 5 A. Yes, sir.
- 6 Q. So, there's a few areas that are very congested?
- 7 A. Yes.
- 8 Q. Longitudinal transfer, post-tensioning, diagonals --
- 9 A. Not so much on the bridge but the diaphragms were so
- 10 | congested. We brought it up to FIGG said, FIGG you can't, you
- 11 know, it's like -- how we going to get concrete underneath.
- 12 Q. Right. Let me ask you. We are interested in the diaphragm
- 13 diagonal area.
- 14 A. Yes, right.
- 15 Q. Because that's where you have --
- 16 A. A tremendous amount of --
- 17 Q. -- longitudinal post-tensioning on either side, you have PT
- 18 bars coming down on the diagonal and you have a whole lot of
- 19 reinforcing in there. So, was there difficulty, I guess, forming
- 20 | up that reinforcing?
- 21 A. No. No. The form work --
- 22 Q. -- tying it --
- 23 A. We had one side and we had the two ends and then we just --
- 24 | we had one and we fed everything in and then it was open and then
- 25 | we closed it up. But the pouring of the concrete we did very

- 1 | cautiously. We brought one truck in there just to test the slump
- 2 and everything else. So, we could pour that small amount and then
- 3 | we watched to make sure that it went through all the steel at the
- 4 | bottom. And then we did another little layer, then another little
- 5 | layer, then another -- I mean it all happened within 30 minutes,
- 6 | but it still was -- it wasn't just sit there and just drop
- 7 | concrete in there. No, we were very cautious about all that rebar.
- 8 Q. So, you had the diaphragm area where you were casting it.
- 9 So, you had the truck ready to go and you just went back and forth
- 10 and you brought it up, brought it up, brought it up.
- 11 A. Four very small vibrators.
- 12 O. Four small vibrators.
- 13 A. And then once we got past the rebar then we went to the
- 14 bigger vibrators.
- 15 Q. There was no disruption in that pour?
- 16 A. No, when we stripped it it looked like glass. It was
- 17 beautiful. Now, could it have been hollow inside? I don't think
- 18 so. I mean I was right there. It didn't look like it. But, you
- 19 know, it could have. It could have.
- 20 Q. But there was no need to make any kind of adjustments to what
- 21 was shown in the contract documents to conflicts reinforcing or
- 22 other things?
- 23 A. None that I'm aware of.
- 24 Q. Things fit up?
- 25 A. Right. Correct. It was just adjusted.

- 1 Q. So, to get a better understanding. So, you cast it, post-
- 2 | tensioned it, the mega shores are in, now you're extracting
- 3 your --
- 4 A. Regular shoring.
- 5 Q. -- regular shoring. What was the removal of your traditional
- 6 shoring process?
- 7 A. We started in the middle.
- 8 Q. Uh-huh.
- 9 A. Ground zero right there and then we have to work not only
- 10 this way, we have to work this way. So, systematically piece by
- 11 piece. It wasn't just go there and blitz -- we had to do that 30
- 12 foot --
- 13 Q. So, middle transversely out --
- 14 A. Yes.
- 15 Q. And middle longitudinally?
- 16 A. Yes. And we worked both ways simultaneously with both crews.
- 17 But we could only do 30 feet until it was re-inspected.
- 18 Q. So, every 30 feet you re-inspected --
- 19 A. No, just one 30 foot.
- 20 O. Huh?
- 21 A. Just the first 30 foot. We kept monitoring the whole time
- 22 | because I didn't want anybody underneath that if it was going to
- 23 go, you know.
- Q. What was the inspection? What was done when you say 30 foot
- 25 | inspection?

- 1 A. Well, he came out there and he reviewed the --
- 2 Q. Who is he?
- 3 A. -- the engineer that designed the shoring.
- 4 Q. Okay.
- 5 A. He was there all the time. We took the extra precaution to
- 6 do wind bracing that was not on his first plan with the mega
- 7 | shores. Everybody, Jim, included was suspicious that there was
- 8 nothing -- you know, they were small pedestals --
- 9 Q. Right.
- 10 A. -- you know, even though they had some girth to it there
- 11 wasn't, you know, it wasn't like a fixed object. So, we ended up
- 12 putting welding braces down to bit Jersey Girds and all the sides
- 13 to prevent any type of wind or any type of lateral movement. So,
- 14 that was done prior to us stripping everything out.
- 15 Q. You took it out all the way to the mega shores?
- 16 A. Yes. Eventually, but after the inspection and after he went
- 17 | -- so, then what he had us doing. He had us after the 30-foot
- 18 section he had us go through and systematically just release the
- 19 pressure on all our legs. Okay. that's the first thing we did.
- 20 Not remove it. Release the pressure so it was loose.
- 21 Q. All right. I'm with you.
- 22 A. So, in case something happened the shoring was still there --
- 23 Q. The shoring was there to catch it.
- 24 A. Right.
- 25 Q. There was no post-tensioning -- there was no interaction

- 1 between your shoring removal and the post-tensioning up on the
- 2 deck --
- 3 A. Not the first time. Everything was done. Well, except for
- 4 the two that weren't supposed to be done.
- 5  $\mathbb{Q}$ . Well, the two that were -- were they tension at that point?
- 6 A. No.
- 7 Q. Because they were tensioned and then detensioned here. So,
- 8 the two diagonals --
- 9 A. They were never grouted, right.
- 10 Q. They were never grouted. They were tensioned but not
- 11 grouted.
- 12 A. I don't -- that I'm sorry. I don't know because I wasn't
- 13 here. We were over here. I don't know. I thought that they
- 14 | weren't supposed to be until it got picked up because a load was
- 15 | already on the ends. So, I don't know that part. I don't know if
- 16 | they were pulled -- I don't know if the polls were stretched or
- 17 not stretched up there on those two.
- 18 O. On those two.
- 19 A. I know they weren't grouted because they had to destressed.
- 20 Q. Destressed, but you're not sure whether they were tensioned
- 21 or not --
- 22 A. Right. I don't know.
- 23 Q. -- at the time of shoring?
- 24 A. Correct.
- 25 Q. Can we go back to the pop sound?

- 1 A. Yes.
- 2 Q. You said post-tensioning was done. Do you know which, was it
- 3 the bottom longitudinal, bottom soffit post-tensioning, was it a
- 4 diagonal --
- 5 A. All was done.
- 6 Q. Huh?
- 7 A. All was done.
- 8 Q. You mentioned earlier that there as a pop sound and everybody
- 9 ran out from underneath the bridge.
- 10 A. Yes, correct.
- 11 Q. And you -- I think you indicated that post-tensioning was
- 12 being performed on the bridge at the time -- at the sound?
- 13 A. No, no, no. We couldn't touch that bridge until all that was
- 14 done.
- 15 Q. So, you were offsite. So, when did -- what operation was
- 16 happening when you heard the pop?
- 17 A. We were stripping the bottom of the deck out.
- 18 Q. Stripping to bottom of the -- completed bridge?
- 19 A. A hundred percent.
- 20 Q. Do you -- you were stripping out the lower scaffolding.
- 21 A. Right. The canopy was already stripped.
- 22 Q. Okay.
- 23 A. The trusses were already cleaned up and stripped.
- 24 Q. So, they were okay.
- 25 A. Everything was cleaned up at the top.

- 1 Q. Okay. Right.
- 2 A. And then we were given the go ahead to strip 30 foot and have
- 3 the deck looked at.
- 4 Q. And did it pop the 30 feet?
- 5 A. No, no, no. It popped when we got further towards the
- 6 end.
- 7 Q. Okay. So, at some point -- so, you're closer --
- 8 A. Yes.
- 9 Q. -- so, as you got closer to --
- 10 A. To loading it on to the riggers.
- 11 Q. You were approaching that diagonal set --
- 12 A. Yes.
- 13 Q. That's when you removed that shoring, that's when it popped.
- 14 A. When about 70 percent of the shoring was out is when the
- 15 popping.
- 16 Q. Were you sequencing the top, left, right --
- 17 A. Yes, yes.
- 18 Q. So, you were --
- 19 A. They popped both the same time.
- 20 Q. So, you were basically unloading the bridge.
- 21 A. Simultaneously.
- 22 Q. -- equally, right?
- 23 A. Yes.
- Q. And then that's the reason you got a left and right pop.
- 25 That happened pretty much at the same time?

- 1 A. At the same time.
- 2 MR. WALSH: Dan Walsh, NTSB.
- 3 BY MR. WALSH:
- 4 Q. Was the post-tensioning, had that already occurred?
- 5 A. No. The cracks weren't there prior to the removal of this,
- 6 | if that's what you're asking. In other words, there was no cracks
- 7 evident before we started removing the scaffold.
- 8 Q. My an is: Was the post-tensioning done prior to the popping
- 9 of the cracks --
- 10 A. Oh, yes.
- 11 Q. -- or after the popping of the cracks --
- 12 A. No, no, no. Everything was -- the bridge was in its entire,
- 13 how it's supposed to be to move.
- 14 Q. -- with the post-tensioning?
- 15 A. Yes, sir. Except for the -- I don't know about the two.
- 16 Q. So, the pop evidently was very loud?
- 17 A. Obviously, they were under it and heard it and they all
- 18 backed away.
- 19 Q. It was heard throughout the site?
- 20 A. Yes. I just didn't hear it in the trailer.
- 21 MR. WALSH: That was my last question. Thank you.
- 22 MR. BRAGG: Kenny Bragg.
- BY MR. BRAGG:
- 24 Q. Tom, were you on site when the collapse occurred?
- 25 A. Yes, sir.

- 1 Q. And where exactly were you at?
- 2 A. In the trailer.
- 3 Q. You was in --
- 4 A. My room faces out so I can see my boys standing there with
- 5 their hands on their hips. So, I go out in the yard and get on
- 6 the radio. I hate standing. Yes, I was in the trailer with my
- 7 daughter who had just been agreed back to work as an OJT. She was
- 8 on the bridge the day before and she was underneath the day before
- 9 on that end when the aerial lift just getting her certification.
- 10 So, very scary. But, yes, I was on site.
- 11 Q. So, here's the question. Why do you think it collapsed?
- 12 A. If I was to speculate?
- 13 Q. Yes, speculate.
- 14 A. I'm not a -- this is the first suspension bridge I've built,
- 15 but I mean it's such a pretty thing. But how could it be that
- 16 | fragile. I don't know. I got to believe it's pulling those --
- 17 | re-tensioning those bolts. It's right there. It broke right
- 18 there. It's either that or the diaphragm was too small, you know,
- 19 I don't know the dynamics of it. I'm not an engineer but I would
- 20 | speculate that's the area right there. Whether the bolts stripped
- 21 through the plate or popped the plate or busted the concrete, but
- 22 | how could one bolt or one section cause I mean, you're supposed
- 23 to have -- a bridge is supposed hold the fricking world.
- MR. HOLT: Reggie Holt.
- 25 BY MR. HOLT:

- 1 Q. One more question. You mentioned that you had a daughter but
- 2 other employees observing the bridge after it was settled?
- 3 A. Yes. The day it was settled, yes.
- 4 Q. The day it was settled. Was there any discussion on
- 5 | additional cracking other than the surface cracking that you
- 6 mentioned that you saw on both sides after the --
- 7 A. There was no discussion at that time. But on Monday from
- 8 | what I gather there was discussion about they had some cracks on
- 9 the diaphragm on the north end.
- 10 Q. But your staff and employees did not --
- 11 A. (Indiscernible) I didn't want nobody on the bridge once I
- 12 heard that on Monday and nobody got on the bridge to work.
- 13 Everybody started working on the elevators and the stairway over
- 14 here and working on the north side getting ready to go over the
- 15 bridge across the canal.
- 16 Q. Reggie Holt again. So, you -- did you direct your employees
- 17 | not to get on the bridge?
- 18 A. We had no activity, sir. I said stay --
- 19 O. (Indiscernible).
- 20 A. Yes, I do. Yes. Okay. I didn't want anybody on the bridge.
- 21 BY MR. BRAGG:
- 22 Q. Did you have any concerns when they first put it in place?
- 23 A. No. Huh-uh. They were taking so damn long to set it down I
- 24 | left before they actually set it. They were finagling with the
- 25 | bolts that's on those two ends that came up out of the pylon. They

- 1 were sitting there, sitting there. I worked all night and all day
- 2 and I was tired. So -- it looked like it was going to be fine to
- 3 me but, I didn't see the actual last setting. I did see it on
- 4 Monday.
- 5 MR. WALSH: Dan Walsh, NTSB.
- 6 BY MR. WALSH:
- 7 Q. Just one final question. Were you involved with the placing
- 8 of the shims?
- 9 A. No, sir. The big metal shims that they made us put in there
- 10 I was -- I know it was being done. I knew that M&M Steel made
- 11 them. I know that -- I think two of my guys were responsible for
- 12 putting them up there with Pedro. I think it was Eduardo. I have
- 13 to find out for sure. I think it was Eduardo Jivera (ph.) and
- 14 somebody else. I think because they were very very heavy. So, I
- 15 think we put two guys to help them put them in. I don't know what
- 16 they were for. I thought that was part of the bridge. In
- 17 | hindsight I guess it was -- they were suspicious of the four
- 18 pillars only underneath the bridge when it was sitting over here
- 19 was fully, you know, fully it had I don't know every few inches it
- 20 | had a mega shore big beam underneath the frame. I think that was
- 21 to eliminate more stress or something. Probably the point loaded
- 22 stress. I guess we had some involvement in that. Not personally
- 23 but some of my guys.
- MR. BRAGG: Any more questions?
- MR. HOLT: No.

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1
         MR. WALSH: I'm straight.
         MR. BRAGG: Okay. The time is 9:31 a.m., we will conclude
 2
 3
    the interview. Thank you for your participation.
         MR. JACKSON: You're quite welcome.
 4
          (Whereupon, the interview was concluded.)
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#### 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 John Jackson

HWY18MH009 ACCIDENT NO.:

PLACE:

DATE: March 22, 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.

Letha J. Wheeler

MUULIN

Transcriber