



Transcript of Interview with PennDOT Assistant Chief Bridge Engineer

Pittsburgh, PA

HWY22MH003

(82 pages)

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

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PENNDOT BRIDGE INSPECTION PROCESS
IN PITTSBURGH, PENNSYLVANIA
ON AUGUST 4, 2022

Accident No.: HWY22MH003

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Interview of: RICH RUNYEN, Assistant Chief Bridge Engineer
Pennsylvania Department of Transportation

Pittsburgh, Pennsylvania

Thursday,
August 4, 2022

APPEARANCES:

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National Transportation Safety Board'

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I N T E R V I E W

(9:25 a.m.)

1
2
3 MR. PROUTY: I mean, you can even do an abbreviated spiel,
4 but --

5 CWO COLLINS: Oh, okay. And Steve also wants me to just say
6 that hey, with the questions we ask, if you, you know, there's no
7 right or wrong answers.

8 So if you don't know something, just tell us you don't know
9 something. We're just, again, trying to get the information we
10 need to get that full picture.

11 So with that, incase -- unless Steve reminds me that I've
12 forgotten anything else, I'll turn it over to Steve.

INTERVIEW OF RICH RUNYEN

BY MR. PROUTY:

13
14
15 Q. I'm starting to forget myself what it is we should say. If
16 we could start with just a general description of your duties and
17 responsibilities.

18 A. Right. So in my previous role, which I think is more
19 applicable to this conversation, I was the Assistant Chief Bridge
20 Engineer for PennDOT, which the main capacity of that role was to
21 ask as both bridge and tunnel program manager in conjunction with
22 FHWA.

23 So overseeing our bridge and tunnel inspection programs,
24 instituting any new policy, and providing oversight of our
25 districts and any other bridge owners who we were responsible for.

1 Q. Can you describe? Like, it's kind of a, like, a high level,
2 the bridge inspection program in Pennsylvania?

3 A. Sure. So you all probably know the numbers now. We have
4 quite a bit of bridges here in Pennsylvania, but it's important to
5 make the distinction between what we consider a bridge at the
6 state versus the FHWA NBIS definition.

7 So when we say you'll hear numbers that we have 30,000
8 bridges in Pennsylvania, you have to be careful about how you look
9 at that. That includes on the state side, though our bridges go
10 down to 8 feet.

11 So we have about 10,000 of those, in addition to the 15,000
12 state owned NBIS length bridges, and the roughly 7,000 locally
13 owned or other owned NBIS length bridges as well, so for roughly a
14 grand total of around 30, 32,000 bridges.

15 So the way the inspection program operates here, we have our
16 bridge inspection section in the bridge office at central office
17 who would -- we over see, like I said, policy, procedure,
18 compliance. We interact directly with FHWA.

19 The 11 district offices are responsible for the actual --
20 I'll say the execution of the inspections for state owned. So
21 some have inspectors on staff, their teams. Some primarily use
22 consultant inspectors. Some use a mixture of both. They also are
23 the ones who directly interact with any other owners and their
24 inspections.

25 We oversee the consultant agreements that are -- I mean, in

1 PennDOT, oversee the consultant agreements that are executed.

2 Most of those are overseen at the district offices.

3 At central office, we have some consultant agreements for
4 statewide type work. So a lot of on demand things, specialized
5 inspections, like underwater inspections, are executed through our
6 central office, and so we maintain those agreements.

7 We do roughly, I think the number is around 18,000 or so
8 inspections a year, because obviously all of the routine
9 inspections, we do have some bridges on 48 month extended
10 interval, but we also have quite a few that according to policy,
11 need either 12 or 6 month bridge inspection intervals. So that
12 comes out to about 18,000 or so a year.

13 Let's see. Anything else in particular -- we also, I should
14 mention, when it comes to bridge maintenance recommendations,
15 obviously, those also come in through our staff. So if it's any
16 type of inspector; consultant inspector, or PennDOT staff, they're
17 the ones in the field making the maintenance recommendations.

18 Those then go through, if it's a state owned bridge, for
19 example, maintenance recommendations come in through the bridge
20 unit and then get filtered into the bridge -- into the maintenance
21 crews who actually do the work, or any type of contract work that
22 needs to be done, that's all instituted through -- or begins with
23 our field inspectors, comes through the bridge unit, and filters
24 to the bridge district maintenance staff.

25 Now, for other owners, those maintenance recommendations

1 would come in. But we are kept aware of any high priority
2 maintenance items through -- we're always copied on any type of
3 letter or correspondence that's sent to another owner. It's
4 usually district staff who would be copied on that.

5 Let's see, what else, bridge -- would this be a good time to
6 go into our quality assurance program, or maybe save that for a
7 separate question? Because that's part of our bridge inspection
8 program down here as well.

9 Q. Those are the next couple questions, so if you want to --

10 A. Just keep going?

11 Q. Sure.

12 A. So our quality assurance program is also done through our
13 central office. We spearhead that, so high level review of what
14 we look at there, we use a third-party unbiased approach where we
15 execute a specific quality assurance contract that uses a team of
16 engineers that usually are not the ones who do the inspection, and
17 I say it's hard to sometimes avoid it.

18 But if it ever is, you know, the prime -- QA engineers, if
19 they're ever the ones who did the inspection, that gets delegated
20 down to one of their subs or somebody else on the team. They
21 never QA their own inspection.

22 Every cycle is roughly a year. It basically coincides with a
23 calendar year. Every district, there are 20 bridges that get
24 pulled in each district. So it's about 220 bridges that are QA'd
25 every year, and then we do some of our other agencies as well.

1 So what they'll do is the QA engineer will go and do a
2 complete inspection on their own without looking at any of the
3 inspection reports prior. They will go and visit the site of 20
4 bridges; ten state and ten local, in a district, give it all of
5 the codings.

6 Any markups, then, they'll come back, they'll compare a lot
7 of those data fields. So we do a data comparison, but then we
8 also look at load ratings. And things like access and note taking
9 have really taken off in the last couple years, I would say.

10 Prior to when I started in 2019 in this position that we're
11 discussing, it was really just data comparison. So what was your
12 condition rating, what was mine? What was your maintenance
13 priority, what was mine?

14 But then we really -- we still do that, but we wanted the
15 focus to then shift to how's your note taking? Are you using the
16 same comments from the last inspection? Things like access came
17 up through our reviews with FHWA that okay, as we saw that in the
18 field, that needs to get incorporated more into our quality
19 assurance program.

20 So we've made some improvements in the last couple years
21 there, too. Expand just beyond numbers and really look at the
22 method of the inspection. So I think that's going in a better
23 direction now.

24 So we'll do that inspection, we give the districts a chance
25 to review those, then we'll sit down, we'll have a closeout

1 meeting. And it's usually, you know, four to six hours long,
2 where we go through those bridges, what the findings were, any
3 discrepancies. Come to an agreement on was it a, you know,
4 something the inspector missed or could have improved? Was it
5 something that was bad policy, or a bad coding guide.

6 There's been plenty of instances where, you know, the guide's
7 a little bit of a gray area. Anybody who's involved with the NBI,
8 the rewrite for the rule making, knows that you've got all those
9 questions on it. The coding is really hard to get specific.

10 But we hash that out, and we see is there a way we can
11 improve our coding manual, which is pub 100A, to try to make that
12 a little bit cleaner. And, you know, after a cycle finished and
13 we make -- we can go back to the pub and make some updates.

14 So we just released the most recent coding guide here a week
15 or two ago, and a lot of that incorporates QA findings. We really
16 -- the big drive, lately, is to have -- I see it as a triangle
17 where you have the policy inspection policy, quality assurance,
18 and training. And we try to have all three talks now.

19 I will say there was a time where I feel like that triangle
20 wasn't equilateral. It wasn't even a triangle to begin with. But
21 it's important that we make it that way so that our policy is
22 directly impacted or driven by findings in quality assurance, and
23 those findings and that policy are taught through our training.

24 And if you don't do that, if you're not making inspectors
25 aware of findings in QA, then, you know, you're not preparing them

1 well in the field. And if you're not taking these findings and
2 incorporating into policy, you have outdated policy and things
3 aren't getting better.

4 So we've really tried to establish that, like I said, that
5 triangle of, you know, relying on the three sides there to drive a
6 better inspection program. So we're really happy with some of
7 those improvements we've made in the last couple years and inspect
8 to really see the fruits of that here in the next couple
9 inspection cycles moving forward.

10 But -- so that's the gist of our quality assurance program.
11 I think I covered, you know, after the two way meeting happens,
12 the report's finalized. And then, like I said, any clarifications
13 that come from that are not only taught in our trainings, but
14 also, they're -- if you've been around PennDOT enough, you've
15 probably heard -- or maybe I'll just state this, about the
16 clarification letter.

17 There used to be an actual hardcopy letter mailed out to the
18 districts or anyone else. And people don't get letters anymore
19 and -- but it only took them until a couple years ago where we
20 finally made the change to let's post these electronically.

21 So that has our inspectors log onto our bridge management
22 system, there's a link right there for the latest clarifications
23 they can go to and realize oh, wait a minute, the way I've been
24 coding something maybe is not correct. And it really especially
25 helped clean up the data part of it.

1 Anything procedural, we really try to hit at trainings to
2 make sure that if it's access, things like that, the training's
3 really -- there -- the proper environment to drive those
4 improvements. So I'll pause there for a second, see if there's
5 any questions or if I'm going too --

6 CWO COLLINS: Steve --

7 MR. RUNYEN: -- quick or jumping ahead.

8 CWO COLLINS: Steve, I've got a question.

9 BY CWO COLLINS:

10 Q. Richard, what is PennDOT's step by step role when the bridge
11 is a city owned bridge?

12 A. So I'll start at the very beginning if that's okay with
13 everybody. So if this was a brand new bridge, say, so the way --
14 it can vary, but I'll go through a couple scenarios here.

15 So typically, if it's a locally owned bridge, in order to get
16 it inspected, almost all of our locally owned bridges go through
17 -- well, pretty much all of them do now go through ECMS, which is
18 our electronic contracting, PennDOT's electronic contracting
19 system.

20 And they do this because A, it guarantees the quality aspect
21 that PennDOT and FHWA want when we're picking consultants. And
22 not a lot of our local owners have any type of mechanism in place
23 like that.

24 Cities may, but, you know, we deal with cities of Pittsburgh
25 and Philadelphia, all the way down to, you know, boroughs of

1 Mechanicsburg where I live, or some very small areas that have
2 part-time staff, so the easiest way for them to go about getting
3 their bridges inspected are to rely on us to utilize ECMS.

4 So we execute the agreements, we go through the consultant
5 selection process, the quality selection process, get an inspector
6 on board, a firm on board to do the inspections.

7 We are responsible for our tracking spreadsheet. So, you
8 know, the local owners can track that as well, but that's data we
9 have access to. So we have a letter that we send to the local
10 owners every year, at least every cycle, but we ask that the
11 districts try to send that every year, saying here are the bridges
12 coming up.

13 In reminds them on, you know, how to handle critical
14 findings, and scour critical bridges, and things like that, and
15 they will be handled. But it also says here are the list of
16 bridges that are scheduled for this cycle. And we basically take
17 that and use that to populate the inspection agreement.

18 So a work order for each district would be executed to do the
19 local bridge inspections. So we get firm A on board. Through
20 that contract, they get their list of bridges to do, they go and
21 inspect those.

22 And then at that point, you know, we've really -- the upfront
23 focus on us is to make sure that the inspections are done timely.
24 Because really, we're the ones that track that. The local owners
25 aren't the ones getting into BMS, or running reports, or anything

1 like that. So we ensure compliance there, and then make sure that
2 that vehicle's in place to get it executed.

3 And then from there, any type of, you know, the inspection is
4 done, and then any type of final report, or if there's a priority
5 letter that needs to go out, or something like that, the inspector
6 does that directly to -- both the local owner and PennDOT are on
7 any type of correspondence, whether it's the final report of a
8 brand new bridge with no findings, or if it's a poor bridge that a
9 new critical maintenance issue was found, the critical maintenance
10 letter would go to the local owner, whether it's the city of
11 Pittsburgh or the borough of whatever, to notify them of that
12 finding.

13 If there's the need to have any type of in person meeting,
14 that's discussed in the letter, and then PennDOT's made aware of
15 that. Now, we also track any of those, I'll use the term zeroes
16 and ones, just because on our maintenance item ranking, we go from
17 zero to five, and zero is the most critical.

18 So zeroes and ones have hard deadlines to them; seven days or
19 six months where we want something done. So those are the ones
20 where, whether we got a letter or not wouldn't matter, because we
21 run the reports on those to see any new ones. So biweekly, we are
22 looking at any new zeroes and ones that have come up, and then
23 what's the plan of action on those and if we agree, so that we can
24 monitor if something came in at a one but maybe was changed to a
25 lesser degree, we can take a look at that and see why --

1 Q. Hey Rich?

2 A. Yes?

3 Q. Just to clarify, when you're saying that if there's any
4 priority letters that need to go out to the owner and PennDOT, is
5 that PennDOT in the district, or is that PennDOT at central
6 office, or is it both, or what?

7 A. It would be the district. Any type of -- when it comes to
8 the actual interaction with the local owners, every district has a
9 -- they may call it something different, but it's basically a
10 local coordinator. So somebody in the inspection unit that deals
11 directly with those local agreements, and then is the contact for
12 any letter like that.

13 Q. And does it come back to central office at some point, or is
14 it just -- it gets in the system, and you might look at it? Or
15 you --

16 A. That would be the way we are -- we, like I said, we run all
17 of the reports through central office. So even if they don't --
18 if they forget or they don't notify us through a letter or include
19 us through any correspondence, we find out. We run the report and
20 we can see, you know.

21 And then we can ask the question, hey, here's a new priority,
22 one that nobody told us about, or kind of snuck through the
23 correspondence process. But ultimately, those wind up on that
24 report. So there's really no hiding the zeroes and the ones.

25 Q. Okay, but is there policy that the district should be

1 notifying central office of these things? Or is it --

2 A. No --

3 Q. -- just that it's in the system.

4 A. It -- as long as it's in the system and comes back to the
5 district. I do not believe, Dennis, that there's any policy
6 saying central office has to be looped in for those.

7 Now, if it involves closure of the bridge, and we're looking
8 at a, what we call a bridge problem report, that needs to come to
9 us. We do ask that anything that results in closure would produce
10 a bridge problem report, which goes out through us to executive
11 staff.

12 So the requirement is that that gets reported into our system
13 so then we can notify -- anybody down here at central office would
14 be, then, in the loop.

15 Q. Thanks.

16 A. Yes.

17 BY MR. WALSH:

18 Q. Hello, Richard. Can you please provide a, you know, the step
19 by step process you just discussed regarding PennDOT's role when
20 the bridge is a city owned bridge. Just a written step by step
21 process after the interview, that would help us tremendously to
22 get that information into our factual report.

23 We requested this from the chief engineer from the City of
24 Pittsburgh as well. And so we would like to have that if you
25 could provide that to us.

1 A. Absolutely.

2 Q. Thank you.

3 A. Now, I will say the one thing I wanted to add to that, there
4 are instances, and I'll just use the City of Philadelphia on the
5 other side of the state as an example, where they have inspectors
6 -- the only changes with the contract part of it, they have
7 inspectors on staff.

8 So the contract aspect of it may not apply. They go and it's
9 just like PennDOT using their own inspectors. However, any
10 finding or anything like that would still, you know, would still
11 loop in the district. And those would still show up on any report
12 we have. It's just a difference of who was doing the inspection.

13 Not -- very few of our local owners have the staff to, you
14 know, use their own people to do, actually do the inspections.
15 And that's mainly because, like I said, of the, I mean, we have
16 over 500 bridge owners, I think, in Pennsylvania. And many, many
17 of them are townships, boroughs, that only have part-time people
18 or, you know, roadmaster, whatever title you may call it.

19 They don't have inspection staff on board to, or the
20 resources to go and get them certified, things like that. So
21 that's why this route's taken by almost all of our local owners.

22 But the bigger cities, I know at least the City of
23 Philadelphia is different. Doesn't mean it will always stay that
24 way, even within PennDOT, you know, times change, and being able
25 to retain bridge inspectors, we're seeing times change. And

1 having internal DOT staff do the inspections, we're slowly losing
2 that group and moving more towards contract inspectors.

3 BY MR. PROUTY:

4 Q. So say for a locally owned bridge that's inspected, how --
5 who pays for that? How did they pay for it? How do they -- is it
6 a reimbursement type thing? Or --

7 A. Yes. So for the -- there are two different ways, and I had
8 to write this down to make sure I made -- said it exactly. So --

9 Q. If you can include that when you send us all that stuff,
10 too --

11 A. Oh, yes. That's fine.

12 Q. -- since you already have it written, that would be great.

13 A. So when they utilize -- that's the first way I explained,
14 when they utilize our contracts, PennDOT, we automatically
15 withhold the local share, the 20 percent. It's 80/20. These are
16 all NBIS length bridges.

17 So they would -- we withhold the 20 percent from their liquid
18 fuels in the following fiscal year. And then this way, they don't
19 have to budget the costs up front. And then, you know, going
20 through the 80 percent reimbursement process, the 20 percent comes
21 out the following fiscal year.

22 Whereas if they were to want to pick their own consultant
23 firm, or somehow, you know, manage that themselves, they -- that
24 whole up front cost would be on them, and then they would get the
25 80 percent reimbursed.

1 So there's no -- when we do this, there's really no state
2 cost. It's an 80/20 split, and it's just a mechanism for how it
3 gets paid. So it's liquid fuels, and like I said, it's when they
4 do it through our agreements, we just withhold that so that that's
5 covered.

6 And then if anything, usually the 80 percent federal piece
7 comes in pretty quick, but if there's any type of need for state
8 funding, it's just to cover that until the federal piece gets
9 reimbursed. But these would all be 80/20 splits.

10 Q. And then with the maintenance recommendations, whose
11 responsibility is it to review those that are made under the
12 contracts and then assure that they're completed? I guess for
13 both -- we'll say for both PennDOT bridge and the locally owned
14 bridge.

15 A. Sure. So I'll start with the PennDOT bridge. So when any
16 maintenance item's recommended, basically what happens is -- and
17 it's not just maintenance, I'll just talk about the inspection in
18 general.

19 When that inspection is done and it is -- goes into submitted
20 status in our system, someone from the bridge office of the
21 district, the bridge inspection section, will populate a report of
22 here's all the bridges currently in submitted status.

23 That means I need eyes on it in order -- because the next
24 step is to put it into accepted status. And once it gets into
25 accepted status, that's the data that gets submitted to -- on the

1 tape.

2 So eyes -- someone's eyes at the district office are on those
3 reports to get it from submitted status to accepted status. So
4 they're looking at anything from -- anything with that report,
5 whether it's, you know, documentation, the condition ratings, the
6 maintenance recommendations.

7 That would be the time where they see something and can say
8 from what I see in these pictures, this is a higher priority than
9 a three. Or maybe they say okay, the inspector recommended a
10 priority one here. I can maybe understand where it's coming from,
11 but the engineering staff and the bridge unit sees it differently,
12 and maybe it's downgraded from a one to a two.

13 You know, that would be the time where all of that review
14 happens for every bridge. The expectation is that QC process
15 happens when you move that report from submitted to accepted
16 status.

17 BY MR. O'SHEA:

18 Q. And that's at the district, right?

19 A. That is at the district, correct.

20 Q. Okay.

21 A. Now, for a local bridge --

22 BY MR. OCEL:

23 Q. Well, can I ask you a question first?

24 A. Yes.

25 Q. Did -- I may have lost it here, I'm sorry. Between submitted

1 and accepted, if PennDOT has a comment, it goes back to the
2 inspector for agreement?

3 A. Yes. If there's any comment there by the reviewing officer,
4 whether it's the supervisor or local coordinator, whoever might be
5 in the district bridge staff, if they question what the inspector
6 has in that report, it absolutely, whether it's consultant or an
7 in house inspector, it absolutely goes back to them to clarify.
8 Or if there's a need to revise, that would be the time to do it,
9 before it goes to accepted status.

10 So most, you know, it's probably 95 percent of our reports
11 can go cleanly through -- from submitted to accepted, but there
12 are a small percentage where a conversation needs to be had before
13 the reviewing officer is comfortable putting it into accepted
14 status.

15 Q. And is the review on the PennDOT side -- is it cover to cover
16 or is it kind of a glance, a quick triage?

17 A. On the PennDOT side, I am much more comfortable saying it is
18 cover to cover. Because talking with our bridge staffs, that is
19 the -- that's our expectation, that it's cover to cover.

20 I have experience in the district office, in one particular
21 office, I can't speak for everybody, but -- and it was cover to
22 cover. And that really has changed over the years, I would say,
23 where 20 years ago, when just everything was -- documentation was
24 fewer, photos were fewer, it almost seems like the review was
25 less.

1 Now that there's so much information coming in during an
2 inspection that it's almost impossible to just do a glance of it.
3 You have to dive in. You have to look at pictures to understand
4 everything else.

5 And then the way we have BMS set up, you know, we have those
6 high level fields that are comparison fields, where if you're a
7 reviewer and you log in, you can see side by side, here's what it
8 was last time, here's what's changed.

9 And it's highlighted in yellow so that you can really hone in
10 on okay, a condition rating has changed. Let me look at that.
11 And let me then see what it -- what's the trickle down of that.
12 Do I have maintenance items to reflect that? So the --

13 BY MR. O'SHEA:

14 Q. Hey Rich?

15 A. -- PennDOT review -- yes, Dennis?

16 Q. When you say PennDOT review, you're saying PennDOT review of
17 a pending --

18 A. State bridge.

19 Q. -- state --

20 A. Yes.

21 Q. -- but you're --

22 A. I think that's --

23 Q. -- it's not PennDOT review of a city bridge? Or is that also
24 the same case?

25 MR. OCEL: Well no, I interrupted before he got to local

1 bridges.

2 MR. RUNYEN: Yes. So that is specifically for --

3 BY MR. O'SHEA:

4 Q. State bridges?

5 A. -- the review of PennDOT bridges, correct.

6 Q. Okay, okay.

7 A. Now, I can go through the same thing for local bridges if
8 everyone would like, because my answer is slightly different.

9 Q. Yes.

10 A. So the -- starting with the process, is the same. To get it
11 from submitted to accepted, it needs to go through a PennDOT hand.
12 It -- nobody else can change that from submitted to accepted. So
13 it still goes through to the district office. Again, that's
14 usually the local coordinator who is responsible for that.

15 Now, the level of review that that goes through, especially
16 from my conversations recently, I know it varies across the state.
17 I cannot say with confidence that we are doing cover to cover on
18 every single inspection.

19 More so, we look more so at locally owned bridges that are
20 in, you know, the worse it gets, the more attention we pay to it.
21 So, you know, if there are priority ones on something, as it gets
22 into poor status, we're looking at that closer to see if there's
23 something that we disagree with.

24 But I can say that the reviewer is less likely -- Justin
25 mentioned that whole -- the opportunity to go back to the

1 inspector if we disagree on something. For a state bridge, we
2 have no problem doing that because we -- this is our bridge. We
3 question, you fix it.

4 For a locally owned bridge, I feel like the thought isn't so
5 much well, I'm the district reviewer, ultimately, you do what I
6 say, and I have that authority. I'm starting to get the sense
7 that I'll look at these, but my opinion, even if I wanted to make
8 them do something, might not matter in the situation.

9 So I'll look, and if it's something I think is, you know, an
10 issue, I'll bring it up. But the idea of looking at everything
11 cover to cover, I think, is where we struggle on the local side.
12 Because it is our authority. We have that oversight on all those
13 bridges. But the sense I'm getting is as I talk to those who do
14 those reviews, it's not always seen that way.

15 And it's certainly not as complete as if it were a state
16 owned bridge. Because eventually, what happens is that report
17 goes to the local owner as well. And they are given the
18 opportunity to look and make any comments or, you know, if they
19 have concerns, to bring it up.

20 And if there's -- not to jump ahead to possible, you know,
21 comments on how it works, but if anything, that's maybe where
22 there's an opportunity for improvement of that conversation
23 between the owner and PennDOT during the review process.

24 But the tricky part of that is for -- as I mentioned, for a
25 lot of our smaller local owners, sometimes there's not always

1 somebody readily available to have that conversation with. That's
2 where it becomes a little bit difficult.

3 If everything was, you know, as intricate as, like, a City of
4 Philadelphia, who has bridge contacts and a staff, you know,
5 that's one thing. But it gets difficult, and that's really the
6 area of what's the best way to move forward there. So --

7 Q. Hey Rich?

8 A. Yes?

9 Q. On that matter, do you feel like your policies are set up to
10 clearly, you know, identify whose responsibilities are what? I
11 mean, right now it seems like the districts, you know, feel like
12 they might have responsibility.

13 You understand from a programmatic standpoint that PennDOT
14 definitely has responsibility and, you know, oversight. But maybe
15 the districts don't. I mean, is the policy set up that they
16 understand what, you know, what should be there, or maybe they
17 need to be revised?

18 A. I think the way I would put it is I think our policy is
19 there, but over -- I don't know if it's over time or as people
20 change, everybody needs to be reminded that this is the policy,
21 and this is not only the responsibility, but what power everybody
22 has, what authority everybody has in the process.

23 And that a local bridge doesn't mean, you know, this is over
24 here, and my concern is over here --

25 Q. Right.

1 A. -- that it's primarily over here, but there's still an aspect
2 that as the district, as the reviewer, I have responsibility and
3 can make whatever comment I need to. I think the policy's there
4 if you read --

5 Q. Okay.

6 A. -- 238, and what we're -- PennDOT's responsible for on the
7 state and local bridges, but is it understood fully at every
8 district --

9 Q. -- as well as by the owners --

10 A. -- I, as the reviewer --

11 Q. -- you know?

12 A. Yes. Oh, yes. And that's -- that -- that's -- my -- the
13 biggest challenge I think we have moving forward is, you know, the
14 first piece of that; reminding -- we can work with the districts.
15 We can -- as there's a lot of stats, especially with inspection,
16 we have those trainings, remind them, bring everybody up to speed.
17 That's the easier piece.

18 But there's only 11 of them. When I'm talking about bridge
19 owners, and almost every municipality, and county, and borough
20 has, you know, bridges they're responsible for, how do I get to
21 all of them and really make a significant change when, I mean, I
22 think our turnover is bad, dealing with the state government and
23 all of that, I -- you see it at the local level. There's always
24 somebody new in those positions.

25 So -- not just corresponding with them can be difficult, but

1 actually making sure there's -- that the person I just
2 communicated this with is now gone two years later, how do we
3 constantly -- that's what we, in my opinion, really need to --
4 what's the vehicle that we use to frequently, because it's -- this
5 isn't just a once every ten year type thing. You know, if it's
6 once a year, or once an inspection cycle, get this information to
7 the local owners outside of this letter that we send, which can't
8 cover everything.

9 I mean, it's a letter. And if somebody even reads it, we're
10 probably lucky. But how do we get to all those 500 plus local
11 owners and let them know when, you know, what happens with a
12 bridge inspection after it's done. And are you doing anything
13 with this information?

14 And how do you, you know, then we get into -- I think part of
15 the question was maintenance responsibilities and who, you know,
16 who sees that they're carried through. You know, that's the other
17 big challenge with dealing with a local owner like many of smaller
18 ones who, you know, we can't even say with confidence they have
19 any type of -- you could call it -- whether you call it asset
20 management or just a maintenance type program to prioritize and
21 push these repairs through.

22 So we can start asking questions when we see a repair go into
23 the system and then sit. But, you know, then what do we do? What
24 is the vehicle we have to really, you know, work with them to make
25 sure, you know, not only that they have the resources, but do they

1 know what they have to do?

2 That's our biggest responsibility, I think, is just -- are
3 you aware of what you have to do with all of your bridge
4 inventory, what your responsibility is, and what you can do to
5 move this forward? And some of them will be, some of them will
6 just argue, we know what we have to do, we just can't. We don't
7 have the money or, you know, there's nothing feasible we can do
8 right now.

9 But some of them just may not know. And I try to put myself
10 in their situation where if I'm new to a small borough or
11 township, and I come in, and I find out I have ten bridges in that
12 township that are my responsibility, do you think anybody's really
13 handing over any type of playbook to them on here, you know, if
14 they have any type of writeup, obviously there's information in
15 our system.

16 But is there any long term plan on their bridge
17 infrastructure, or is it kind of just a, you know, we'd love to
18 fix this bridge as soon as we get money but, you know, there's not
19 too much to it.

20 Q. Do they get any money from PennDOT at all for any
21 maintenance?

22 A. For any maintenance, I don't believe so, Dennis.

23 Q. Okay, but probably for projects they do, but just --

24 A. Yes.

25 Q. -- not for maintenance, right?

1 A. Right.

2 Q. Okay. And if they did enough where they could lump a bunch
3 of stuff into a project, they might be able to do something.

4 A. And that's exactly what we see, Dennis. That tends to be the
5 path that they take is where okay, once I have enough things going
6 on, I now have a project. And now I can move forward with
7 something.

8 But to see anybody do regular maintenance really is rare.
9 And that, as we all know, you know, as we talk about preservation
10 of our infrastructure and moving away from worst first, the local
11 side of that is going to -- it's going to be difficult to try to
12 have any type of preservation program to keep these bridges
13 repaired and moving on, because not many of them, I think, will
14 have the resources; have either the money or the crews to do that.

15 Some have crews, but many of them I don't think do. So
16 that's going to be a struggle. So that -- I think if there's an
17 area we need to focus on moving forward, it's going to be that;
18 that interaction with the local owners, and how we really do that
19 in any type of valuable way.

20 Q. Do you have --

21 A. Did I touch on --

22 Q. -- do you have the sense if the locals want bridges?

23 A. That they want bridges, Justin? Is that what --

24 Q. Well, do they want to own these, or would they just be happy
25 to, like, hey, PennDOT, if you want to take this over, that would

1 be great.

2 A. My honest opinion, I would be very surprised if I went to a
3 local owner and their answer wasn't, here you go.

4 Q. Right.

5 A. Take it. That's my opinion, dealing with different
6 municipalities over the last decade plus with inspection, that I
7 would -- there's not many upsides to owning the infrastructure.

8 You know, they get a lot of the cost covered, you know, for
9 inspection, with the 80/20, and even with projects. But there's
10 still a cost there. And more than that, there's the weight, as we
11 all know, of being titled the owner, if something were to happen.

12 So I would be shocked if we were to -- if we were given the
13 chance to start everything from scratch, if there was a -- more
14 than 2 percent of our local owners said yes, we want to keep all
15 this to ourselves, it would really surprise me.

16 And I -- if I was one of them and given that opportunity, I
17 would choose for PennDOT to be responsible for it all if I was in
18 their shoes. Because it is a burden, and it's tough to manage.

19 I mean, we have -- we can help them with that asset
20 management, coming up with a plan. But again, that's what we're
21 starting to do, talking to our asset management folks. But then
22 there's the -- you -- that's fine, coming up with a plan, but then
23 when you can't carry it out, it's going to be difficult to really
24 follow it through. So yes, I don't think many do want that
25 inventory, Justin.

1 Q. Yes, although it would be a burden to PennDOT to take them
2 over --

3 A. Oh, yes.

4 Q. -- I think if the ease of managing them, it would, you know,
5 would make it worthwhile compared to --

6 A. It would be --

7 Q. -- having to manage, you know, the locals the way they are,
8 so --

9 A. It would be --

10 BY MR. OCEL:

11 Q. What prevents it from happening?

12 A. You know, we had a look into this a little bit, Justin,
13 because it's come up a couple times, you know, whether it'd be as
14 we prepare questions for an executive here, or a lawyer asked a
15 question, you know.

16 It was kind of looked into that why is it that they even own
17 any of the bridges. And I'd have to look up the reference, but
18 there's somewhere in Pennsylvania state law that basically says
19 that those municipalities, or counties, or whatever, have
20 responsibility for the structures on -- that carry their township
21 roads, or something along those lines. The wording --

22 BY MR. O'SHEA:

23 Q. Typically if they're within city limits or something like
24 that, then usually anything within their city limits is what they
25 own.

1 Now, usually the different caveats are US routes or state
2 routes are something that, a lot of times, the states will own
3 those even though they go through the city limits.

4 A. Correct. Absolutely. That's spot on how it is, Dennis. So,
5 you know, that, I think, is the crux of it; why it was ever set up
6 this way to begin with.

7 But yes, it does lead to some headaches where if you consider
8 it -- taking money out of it, you know, the financial burden, just
9 the planning and execution of everything, if it were all PennDOT
10 owned, obviously that would be easier, I think.

11 We would obviously have to supplement some staff to review
12 more bridges or to inspect them or have more agreements to do
13 that. But, you know, the recommendations that come in would be to
14 us. Whether or not we'd have the maintenance staff to do anything
15 with, that could be argued. But, you know, we're more likely to
16 put a contract out to repair a bridge, I think, than a local owner
17 is.

18 So I think you would see improvements there on, you know,
19 cleaning up some of the maintenance needs. But obviously, there's
20 some downsides, too, to taking on 7,000 other bridges.

21 But it's the same type of question where we wonder when pub
22 238, our inspection manual, was originally written, whose idea was
23 it to, in Pennsylvania, to call the bridge 8 feet long when the --
24 FHWA made it perfectly acceptable the definition is greater than 20
25 feet, and someone at PennDOT said no, we'll go down to 8 feet and

1 add 10,000 more bridges to our inventory.

2 You know, it's similar to that where, you know, added burden.
3 But we do them, and we take them on, so it's an interesting
4 conversation to have.

5 BY MR. PROUTY:

6 Q. So you had mentioned that when PennDOT reduced the inspection
7 findings for especially the -- for bridges that you guys owned,
8 and say you disagree with what it was rated at and you want that
9 changed, you know, one direction or the other.

10 Did the local owners still have that same authority to say
11 hey, you know, that you rated this a one, we really think it
12 should be a two. And then would it follow the same process to go
13 back to the inspector for agreement, disagreement?

14 Would that also run through PennDOT, or can, basically --
15 because the zeroes and ones are flagged differently in your system
16 than the two, is this a potential area where, say, a local owner
17 could try and get those numbers bumped up to keep things kind of
18 under the radar for a little longer?

19 A. So --

20 Q. What are the checks and balances there?

21 A. -- right, so the local owner would have the ability, if there
22 was any type of disagreement before it got into accepted status,
23 to voice that concern. If they didn't think that the inspection
24 was complete or disagreed with any type of finding, they certainly
25 could voice their opinion. I would say traditionally, that's not

1 seen. But, you know, that is part of the process.

2 If they, onto the second part of that, if they were to
3 recommend a change to, say, a maintenance priority, that is
4 usually done, you know, if the inspection report comes in and the
5 letter, say they find a priority one, the letter goes to the local
6 owner, and there's a meeting that's held.

7 There may be a decision, we've seen this note as we look at
8 historic priority ones where a discussion is had and ultimately a
9 two is settled on, you know, or a lower priority of something is
10 settled on.

11 So, you know, the initial recommendation came in, you know,
12 you can see it use the similarity to a PennDOT bridge, a state
13 owned bridge, where an inspector could make one recommendation,
14 but during the review process, PennDOT engineers would look and
15 say, you know, they disagree, and they'd downgrade it.

16 Now, that's all internal and that's all PennDOT. But on a
17 local side, we have seen that happen as well, where the initial
18 recommendation comes in at a higher priority level, and after some
19 type of meeting with the local owner, it is downgraded and decided
20 to remain at a two, say.

21 The issue with that is once it goes in as a two and -- once
22 it goes in as a two, it's going to fall off of any type of report
23 that we have, which really just focuses on zeroes and ones. But
24 that's been a topic of discussion not just for locals, but for
25 state bridges as well, of how do we keep those on the radar.

1 Because regardless of if it's state or locally owned, that's
2 a population of bridges that we would really be looking at closely
3 to make sure we agree with that decision, because there -- that's
4 happened on state bridges as well where if it goes to a two fast
5 enough, it never gets on our report, and it's never on our radar.
6 And by our radar, I mean at central office, to do the type of, you
7 know, QA oversight that we like to do on maintenance items.

8 So it has occurred where that has happened. The district,
9 maybe, didn't push back or have any type of say -- or didn't say
10 anything, I should say, to that priority change. It gets accepted
11 and it goes in as a two.

12 So like I said, that's a weakness, I think, in our current
13 report system of there's definitely a group of bridges that
14 someone recommended as a one, but they are in there as a two after
15 discussion.

16 And those would be ones we would really like to be involved
17 in, state or local, to know that we're comfortable with that
18 ultimate recommendation. Because right now, if it's not in that
19 one status, it's not on our report.

20 BY MR. OCEL:

21 Q. When you say we, you mean central office?

22 A. Yes.

23 Q. Okay.

24 A. Because we're the ones running that report and looking at
25 those maintenance items every two weeks.

1 Q. But to Steve's question, all of this negotiation happens
2 between submit and accept. So ultimately, someone in PennDOT did
3 agree with it, correct?

4 A. Yes, correct. Correct, someone at the district who was --
5 put it to accept status either was okay with the change or said
6 they were okay by putting it into accepted status. So --

7 Q. But your concerned at the program level that -- well, you're
8 missing -- you're not getting the whole story.

9 A. Correct.

10 Q. You would prefer that that would trickle up to you.

11 A. Correct, yes.

12 Q. Well, you in your old position.

13 A. Yes, absolutely, because we've just seen it too many times
14 where that occurs and after we do catch wind of it and question
15 it, it goes back.

16 And we, you know, so we wonder why -- only because then, once
17 we get eyes on it and ask the questions, something will get done.
18 So that's why we like to look at those to say are you sure it's a
19 one? Because well, when we look at it, we don't see it. And when
20 we say that and have that conversation, many times it goes back,
21 and then a plan of action is developed.

22 So we don't like those that go from a one to a two, because
23 like I said, it essentially falls off of our current radar until
24 we can expand it to catch those that are on the fence. You know,
25 those one and a halves, if you will. Until we can expand our

1 reporting to bring those in and review that, you know, we don't
2 want those slipping through.

3 MR. O'SHEA: And reporting --

4 MR. OCEL: Well, silly question --

5 MR. O'SHEA: Go ahead, Justin. I'm sorry.

6 BY MR. OCEL:

7 Q. Silly question, then, how about just make zeroes, ones, and
8 twos come to central office -- or to --

9 A. We could. The problem is there's like 12,000 priority twos
10 in the system. So the -- what we're going to try to do is get the
11 report smart enough that -- to know that it -- to look at if it
12 came into the system.

13 We think it could do this, because now we have a history in
14 place, a history mechanism for each maintenance item that it can
15 track any change in priority through the life of that maintenance
16 item.

17 Now that we have that, we can basically write a smarter
18 report to say show me everything that was a one but is now a two
19 in the last year, something like that.

20 We never had that, so it was always static. Something was
21 always either a one or a two. So if I wanted to review all the
22 twos, I have this long report, not really knowing the history.

23 Now, maintenance items have a history, and I can click on any
24 maintenance item and see the date, when it was changed, and what
25 priority it was changed from.

1 So now that that's in the system, we should be able to have a
2 report to say, like I went through, if it was a lower priority
3 before -- or a higher priority before and has recently changed,
4 show me all of those so that we can do a deeper dive and see if
5 we're comfortable with that.

6 BY MR. O'SHEA:

7 Q. So when you -- when do you see the actual maintenance that
8 you can develop your report? Is it after it's accepted or is it
9 just when it's submitted?

10 A. When does the -- when do the maintenance items show up on --

11 Q. On the report that you're --

12 A. -- our reports, Dennis?

13 Q. -- yes, from central office. Would it be after it's
14 accepted? Or is it --

15 A. I -- you know, I'm not sure if it relies on that or if as
16 soon as it comes in submitted status -- that would probably make
17 it messy. I'd have to look at that, but my thought is it's only
18 those in accepted status that are showing up on our reports.

19 Q. Because then they would be essentially final at that point,
20 right?

21 A. Yes.

22 Q. So you'd be reviewing them after the fact, I guess. So that
23 would be more of a -- under your Q -- CQA process.

24 A. Yes.

25 Q. Okay.

1 A. But let me -- that's a good question to see if there are only
2 -- because I can't say 100 percent.

3 Q. I mean, yes. If you could look at them before they're
4 accepted, then you can change them. It's, you know, harder for
5 you to change them, I'm sure, after they've been accepted.

6 A. Sorry, I just wanted to make sure I didn't forget that, too.
7 That'll be a quick one to dive into. I'll find that out today.

8 Q. Okay.

9 BY MR. PROUTY:

10 Q. Can you describe at a high level how the local bridge
11 inspection contract, like in this case with Larson, who -- the --
12 you know, the consulting firm for the inspection, how that
13 contract works? I guess what are PennDOT's responsibilities,
14 Larson's responsibilities, and the local owner's responsibilities?

15 A. So PennDOT, as far as the contract goes, like I said, we
16 execute it, we select the consultants. In order to ensure the
17 quality-based requirements, we do that through ECMS.

18 So we select, execute, populate the work orders, assign the
19 bridges to those contracts to get done. Because again, we can run
20 the reports to know when the bridges are due. So we populate all
21 of those and get them to the point of doing the inspection. That
22 -- all of that up front is basically PennDOT, PennDOT
23 responsibility. We do all of that.

24 Larson then basically becomes, sometimes -- well, I guess
25 that doesn't really happen. They almost become, then, another arm

1 of the local owner if you want. I mean, they then act as the
2 local owner's inspectors where, you know, they go, they're
3 responsible to do the inspection and notify of any issues that
4 come up.

5 But they do all of the planning for the inspection, if
6 equipment is needed, or anything like that to actually complete
7 the inspection is on them. To write the report is on them. To
8 liaison with either us or the local owner on any matters or
9 findings is their responsibility.

10 And then the local owner essentially is responsible to act on
11 anything that comes up from the inspection. There's really no
12 responsibility they have, as we have it set up, leading up to the
13 inspection or -- there may be questions that the consultant would
14 have, since it's their property, their right of way, if they
15 needed to, say, hang something off of a bridge or something like
16 that, the consultant would go to them with those questions. Can I
17 do this? Am I allowed to do that?

18 But otherwise, pretty much through the actual inspection, a
19 local owner doesn't have too many responsibilities to that point.
20 It's once -- it's doing something with any of the findings; taking
21 those results, and then if they have an asset management program
22 or a maintenance program, using those to, you know, plan projects,
23 anything like that. That falls on the local owner.

24 BY MR. O'SHEA:

25 Q. Do they have any reviewer responsibilities at all? Does the

1 local owner have any reviewer responsibilities of the written
2 inspection report?

3 A. Besides, like we mentioned before, where they would get the
4 inspection report and be absolutely given the opportunity to
5 comment or anything like that. But whether or not they even have
6 somebody on staff to do a thorough review would be, you know, in
7 question, likely a lot of the times, which again, is why, you
8 know, it has to ultimately go through PennDOT, who has the BMS
9 access, somebody who can mark it as accepted.

10 Because there are many times where some of these smaller
11 municipalities wouldn't even have access to the system. So they
12 get an electronic or paper copy of the inspection report to look
13 at and comment on. But to actually expect them to go into the
14 system and mark anything as accepted, anything like that, is many
15 times just not possible with the resources they have.

16 BY MR. PROUTY:

17 Q. So -- and I know we've talked about this. I'm just trying to
18 clarify for myself. The local owner essentially receives the
19 inspection report. And if that's, you know, maintenance priority
20 zero or one, you guys are in the loop on that.

21 If it's two or higher, it may or may not be getting looked at
22 at the PennDOT level. And it may or may not be getting looked at
23 by the local owners, depending on if they are even opening the
24 cover of the report essentially?

25 A. Correct. Any low maintenance recommendations, I would say

1 are not scrutinized by the PennDOT reviewer. If they come in as a
2 priority three or something like that, that's considered, you
3 know, mid-level maintenance, not urgent. So it's not going to be
4 scrutinized.

5 That's something that -- it's seen as the owner could add it
6 to their maintenance schedule to take care of at any, you know,
7 when it's convenient for them.

8 Do the local owners scrutinize it, and open the report, and
9 question anything? If I had to honestly answer that, I would say
10 that there's probably a large population that takes those at face
11 value, accepts them for what they are, take -- file the inspection
12 report, and move on to the next bridge.

13 That is the sense that I get from dealing with some of the
14 local owners and just wondering what kind of bridge management
15 section, or staff, or mindset some of them have. It's just
16 because it seems like the inspection gets done, the
17 recommendations get made, and then they're shelved. That's just
18 the honest opinion I have, I think, of what many of these local
19 bridges are going through.

20 And then until it gets, you know, critical enough, then we
21 step in. But we all know that, you know, things can happen
22 between the routine maintenance recommendations and then when it's
23 critical enough. You know, it can make that jump, and so
24 ultimately, who's doing what during that phase, it becomes the big
25 question mark on what's the best way to clean up that part of the

1 process.

2 And I just have to think, with so many local owners, and
3 having very few individuals there who could actually sit and flip
4 through -- maybe there's only five or ten bridges in their county
5 or municipality.

6 But to have somebody who A, understands it, and then has the
7 time to sit and look through it, even if they know what they're
8 looking at, then is there a program they have in place to do
9 something with it?

10 You know, it really makes you wonder, then, from a local
11 standpoint, what is the end game? What's the long-term program
12 look like if we're, you know -- it -- we would hope it's not let's
13 just sit and wait for it to get bad enough that we can then
14 replace it. But that's what's kind of called into question on
15 that -- the local side there.

16 A. Any thoughts for what a solution might be to that?

17 Q. I think for one, I do think we can do -- at least attempt to
18 do better outreach to the local owners. Like I said before, if
19 that's either yearly or once a cycle, something, you know, the
20 question becomes what's the best forum to do that in.

21 You know, the old school method is sending out letters. That
22 way we know we're getting to everyone. But we -- that's just
23 another piece of paper to wind up in someone's office and nothing
24 happen with.

25 So face to face, in person, connecting with them would be

1 best. You know, I think that's done a little bit with some of the
2 municipal reps that the districts would have.

3 But again, these are folks who -- they aren't just bridge
4 people. They need to be the roadway people, the pipe people, the
5 tree trimming people, the -- you know, these are smaller
6 municipalities that, you know, you have one person kind of
7 overseeing all of this.

8 So are they a bridge expert? No. Some of them have, you
9 know, contracted engineering firms to help them with this. And I
10 would bet that if they're in that position and they can afford to
11 do that, they're going to be the municipalities that have a bridge
12 plan; that actually take the inspection report and run with it and
13 do something.

14 But not every county or municipality can afford that. So,
15 you know, I think that if we were even to outreach more and were
16 able to go one on one to all of our bridge owners, I'm sure almost
17 all of those meetings would end with, kind of, arms up. But I
18 understand what you're saying, but what do you want me to do?

19 You know, and that's the frustrating part of -- because I
20 know they're right. I understand that. But if they have such
21 small, you know, staff, and they're not experienced then, you
22 know, what do you want us to do?

23 I mean, they're paying attention to the news and contracts
24 but -- that even a city is only just really getting into having an
25 asset management type plan. What about a borough up in Bradford

1 County who has, you know, Dennis O'Shea is their roadmaster and
2 he's expected to do everything. For him to develop a long-term
3 asset management plan is going to be difficult. And that's where
4 those conversations will go.

5 And it was possibly suggested in gest earlier, but if you
6 really look at it, is the possibility of taking those bridges back
7 the only feasible way to really have the, you know, the best long-
8 term solution to those?

9 There are so many pieces to that, but just from a bridge
10 standpoint, you know, maybe that's not out of the realm of crazy.
11 Because to deal with so many bridge owners with varying degrees of
12 ability, if you -- otherwise, you're going -- it's going to stay
13 this way.

14 You know, we can do a better job, I will say, on the PennDOT
15 side, of oversight and review. And that's going to be a push no
16 matter what comes of this interview or this report, we already
17 know that that's something that we could improve. When we get
18 those reports, scrutinize them. If we have questions, cover to
19 cover, make them known. And then if we disagree, make it known.

20 Will that lead to more pushback possibly? I can guarantee
21 it, because the local owners will say PennDOT's recommending we
22 close this bridge if we can't do this repair in six months, which
23 is absolutely not going to happen. We're going to have to close
24 the bridge and, you know, that's going to be the side effect of
25 that.

1 But, you know, so some, depending on who you ask, will say,
2 you know, is the result of having many more closed bridges on the
3 local side for what some may deem as, because they don't
4 understand it, you know, not safety issues, it's just repairs,
5 this and that. You know, that would get drawn into question.

6 But, you know, there -- it's hard to come up with an ideal
7 solution, Steven, to -- how to proceed with that. But trust me,
8 it's something I've been thinking of just -- so the best we can
9 do, I think, right now is improve our review and our oversight of
10 those reports to make sure that we're comfortable with what's
11 being -- at the very least, if we can communicate our stance on
12 any -- on all of these reports thoroughly and make sure that's
13 clear, then at least on the PennDOT side, that's a win.

14 Because I feel like right now, we're not totally there. So
15 we can do that, but then the question just becomes does that
16 change the overall program -- bridge program on the local side; us
17 speaking up more, are we going to get the result we want?
18 Probably not. It's probably going to still be inaction, which
19 leads to bridge closures or things like that. So -- but if that's
20 ultimately what's needed, then that's, from our standpoint, what's
21 going to be best.

22 Q. Thank you. So for PennDOT bridges, who's responsible for
23 writing the FCM plans and procedures?

24 A. I'm sorry, the -- what plans? Oh, the FCM plans and --

25 Q. Yes.

1 A. -- procedures? So almost all of our FC -- I'll say NSTM
2 bridges, for all of our NSTM bridges, those basically all go
3 through a consultant contract, mainly because of access, the
4 length of time that they take, additional training requirements.

5 Putting that on our staff, we don't -- there's not a
6 guarantee we have the experience or ability there, just from the
7 FC side. So almost all of them go through a consultant contract.
8 Part of that contract would be on them to produce or update the
9 FCM plan.

10 For instance, a big push right now is, you know, we've
11 developed a -- RFC plans were hodgepodge, meaning there wasn't
12 consistency. You know, they were there, but not always
13 consistent. So we at least wanted some consistency from a, like,
14 a coversheet that summarizes some things.

15 So we developed that, and the ask is going to be, for
16 instance, next cycle, for the consultants to populate that FC
17 coversheet with some of that information. It may result in, you
18 know, a slight increased cost, but that's going to be on them to
19 primarily do.

20 BY MR. WALSH:

21 Q. Steve, can I just follow up on that question. Richard, in
22 your experience, it is -- is it common practice for a consultant
23 bridge inspector to rely on a fractured critical member plan in
24 the file, rather than verifying whether members are fracture
25 critical?

1 A. It is my experience that many times they will rely on --
2 well, I've seen it both ways. Some will say that to cover -- you
3 know, when I take over from an old report, I want to look at
4 everything from scratch. And that's the only way I'm going to be
5 comfortable. I've seen that plenty of times. Other times, to
6 either have fewer hours on that task, or whatever it might be, if
7 there's one done, some are comfortable just taking that and
8 running with it.

9 Which one would the majority be? That's a tough question.
10 But I think when -- we're more likely to see, when those
11 agreements change hands, that the preference for the new firm is
12 to look at it from scratch. And at least look at it and review
13 it.

14 Maybe they don't ask to be paid to develop a brand new one,
15 only to result in the same thing. But at least for their comfort,
16 they would review to make sure they agree with it. And if they
17 find a discrepancy, then the conversation would be had with the
18 district saying, you know, we would like some hours to produce a
19 new fracture critical plan because XYZ is erroneous from the last
20 one.

21 MR. WALSH: Thank you.

22 BY MR. PROUTY:

23 Q. And then I guess same original question, but for -- because
24 -- for a local contract.

25 A. Yes, so all of those would be developed through those

1 consultant agreements. And the same thing would be expected, that
2 -- for instance, that coversheet. That's the expectation for any
3 of the FC bridges in the state. So whether it's PennDOT or local,
4 we're going to -- we now require them to have that so that those
5 firms on those contracts will be producing those.

6 And I think the answer is the same that when we see a change
7 in agreement from one firm to the next, it doesn't matter -- the
8 ownership of the bridge to allow for the most comfort -- it's not
9 policy, I would say. But it's just their own -- when I now am
10 taking this on and doing this inspection, what we see is them
11 wanting to at least review that for their agreement for concurrent
12 sessions.

13 BY MR. OCEL:

14 Q. Well let's expand this just to be specific to Forbes Avenue.
15 If Gannett Fleming didn't agree with the FC plan, what would they
16 have done? Or what would they have had to have done?

17 A. So if they didn't agree with the FC plan on how to inspect
18 that, you know, that's going to say what members need hands on,
19 this and that.

20 If they look at that and say I'm -- I do not believe this is
21 accurate or comprehensive, it would be simply a conversation that
22 takes place with -- it would be with PennDOT, the district, since
23 this would be an agreement contract issue, then.

24 Our task is to inspect this bridge. What we're seeing in the
25 writeup on how -- basically the instruction, the FC plan, how to

1 inspect this bridge, is wrong. So what we would like to do is
2 rework that before we go inspect the bridge. Or, you know, in
3 conjunction with inspecting that bridge, and provide you a new
4 one.

5 We're going to ask for an additional unit. We'll just
6 basically charge a little bit more to do that. Have that brief
7 negotiation of it's, you know, three extra hours to do that,
8 whatever it might be. Are you okay with us charging that?

9 Almost always, the answer would be yes, go ahead and do that.
10 We approve of -- because they need our approval, as the agreement
11 owners to -- before they charge extra hours. And then they would
12 proceed with updating it. And there would be, at no point that I
13 would see, any type of pushback or impossibility to get to that
14 point. That's absolutely, you know, a -- it's -- it can be done.
15 I mean, that has been done by other firms.

16 Q. Yes, so it's not unprecedented.

17 A. Correct.

18 Q. It's happened before.

19 A. Correct.

20 Q. Okay.

21 BY MR. PROUTY:

22 Q. So in this case, Larson had the contract with PennDOT, and
23 then Gannett Fleming was a sub. So would they have to go through
24 Larson --

25 A. Yes, correct.

1 Q. -- to get the approval from PennDOT?

2 A. Correct, yes.

3 Q. Okay.

4 A. The sub would never approach us and ask for those hours.
5 They would approach their prime and say -- that same conversation,
6 you know, on this work order, we need additional hours for
7 whatever. Can we have this conversation with PennDOT? And then
8 the same request would come in.

9 But I don't think I've ever seen a sub bypass a prime to make
10 that request. That's kind of not kosher in the agreement world,
11 contract world, between primes and subs. There could be, but I'm
12 sure the prime got upset if that ever happened before.

13 BY MR. O'SHEA:

14 Q. So Rich, just to go back on the original development of the
15 FCM plans, were those done by a separate consultant or were they
16 always done by the inspection consultant who was on board at that
17 time?

18 A. I -- Dennis, I don't think we ever had -- in other words, was
19 there ever, just say, a third party work order produced on another
20 consultant agreement saying you're going to do all the FC plans
21 for District 11 bridges.

22 Q. Right, yes. No? Okay.

23 A. I don't think there was ever an initiative to do something
24 like that, mainly because if you have somebody on board to do the
25 inspection, or if they already did it, they become --

1 Q. Inefficient.

2 A. -- more familiar with that bridge.

3 Q. Right, okay.

4 A. And that's the expectation. I don't think we ever had an
5 operation like that where we said, you know, we want a large group
6 of FC plans put together by this firm who wasn't directly involved
7 with the inspection.

8 Q. Okay. And one other question, about the coversheet you're
9 talking about.

10 A. Yes?

11 Q. What's going to be included in that? Is that procedures? Or
12 would that be --

13 A. Yes, let me see if I can -- so there's some, you know, as
14 part one of our improvement plans, I believe, with FHWA, we
15 realized, you know, some consistency here would be ideal. And I'm
16 sure I have it saved somewhere.

17 But high level things with, you know, type of access needed,
18 you know -- a list of some of the --

19 Q. Requirements --

20 A. -- yes. You know, things like that that right off the bat
21 should strike you, rather than have to flip through an FC plan to
22 garner all this knowledge. There are certain things that should
23 jump out at you right away so that when it does change hands, this
24 at least stays, you know, it's something a new inspector can see
25 right away; some of the primary aspects of the FC plan.

1 Going through emails is a bad idea, trying to find it.
2 That's never going to work. There's just too many of them.

3 BY MR. OCEL:

4 Q. With the other documents you were going to send to NTSB --

5 A. Sure.

6 Q. -- that can be one of them. Let me ask -- well, I'll let you
7 write that down.

8 A. Go ahead.

9 Q. As part of that quality assurance sampling you told us really
10 early on, you know, 20 bridges selected from the district, would
11 the FCM procedures be, I guess, audited as part of that?

12 A. If there was an FC bridge selected for that, then yes, the
13 expectation is that all of the FC documentation would be audited.
14 Now I will say, because this is something we've looked into
15 historically, we wanted to look back and see, you know, I've only
16 known the QA program now for three years, which is a small
17 sampling. We've been doing QA for much, much longer.

18 FC bridges are historically harder -- I shouldn't say harder.
19 There are all the additional requirements that come along with an
20 FC bridge; access, rigging, traffic control; that make them a bit
21 more of a nuisance, I guess, to go through a full third party
22 inspection. What we were -- what we saw was historically, FC
23 bridges tended to be shied away from in the QA program for all of
24 those reasons.

25 Now, that doesn't mean that part of our QA program could at

1 least be an in depth file review of a certain number of FC bridges
2 per cycle, which is something we've considered. But we think that
3 there should be at least a sample size of FC bridges that go
4 through the QA process instead of -- what seemed to be happening
5 was they were avoided because they were a bit of a headache.

6 So one thing we were looking at is okay, I can understand
7 doing a complete inspection of a large truss in the city of
8 Philadelphia if that was just inspected a year ago, to shift
9 traffic, and bring rigging out, and do all that, could be a bit of
10 a nuisance, again, because we try to QA it within about nine
11 months of its last inspection, so that the date is still relevant.

12 I can see where doing the physical inspection would be shielded
13 away from. But the idea is that those are bridges that should at
14 least have an in depth file review of things like the FC plan, of
15 access of the last inspection, things like that, as part of our
16 overall QA program.

17 So not to get ahead of myself, but that's one of the
18 improvements to our QA that we're looking to move towards here in
19 the very near future.

20 Q. I have one other question on FCE members. Would the plans
21 and procedures tell the inspector what details need to be focused
22 on and how? Or is it sort of deferred to -- I can't remember if
23 it's pub 100 or pub 238?

24 A. The expectation would be that those plans would cover --
25 that's your one stop shop, and so --

1 Q. Okay. So the plan should tell the inspector here are the
2 details you should focus on when you're at arm's length, and this
3 is how.

4 A. Correct.

5 Q. Thank you.

6 BY MR. O'SHEA:

7 Q. Rich, I think were seeing that the -- you had the plan on
8 there, and it was identifying the fatigue sensitive details for
9 the fracture critical members. I'm not sure if it actually had
10 procedures, the actual directions on --

11 A. Correct.

12 Q. -- how to do things. I think we're -- and talking with Jon
13 Buck, I think we got the impression that maybe we had to go
14 through the publication -- pub -- whatever, 100 or whatever it is,
15 for information about, you know, more general procedures for
16 fracture critical.

17 You know, I guess from a Federal Highway standpoint, when
18 we're doing a review, we normally look at whether they're bridge-
19 specific or they're, you know, statewide, so --

20 A. Yes, I mean, there's definitely information in 238 to look
21 at. But I think the ideal FC plan should walk you through
22 everything you need from the -- for an FC inspection. And that's,
23 you know, not just high level, but get down to, like Justin was
24 saying, here are the details and how I should inspect that.

25 Because if I go through it myself and, you know, there are

1 certain details on the bridge that are going to take a very
2 specific way to inspect it, that needs to be documented so the
3 next inspector doesn't go through the whole trials and
4 tribulations of figuring that out on their own. That's what's
5 important to be in an FC plan.

6 Now, in that situation, and I'm sure others, that's not
7 always the case. But that's where we want to get with our FC
8 improvements.

9 Q. Yes, that's why I was thinking you were coming up with the --
10 with that coversheet, you know, that was one of the ideas. And
11 even in the coversheet a lot of times, or in the plans, they may
12 refer to another document. But, you know, overall, they outline
13 most of the information for that location, but then refer, you
14 know, not to have to reproduce everything.

15 A. Right.

16 BY MR. OCEL:

17 Q. Does PennDOT certify fracture -- inspectors who can do
18 fracture critical inspections, or do you require our 78 course?

19 A. Currently, or I should say before June, there was no
20 additional requirement to do that. We did not have any type of
21 PennDOT certification, nor did we require the NHI course for FC.

22 Now, obviously, moving forward, that will be the requirement,
23 and we'll make sure that that's, you know -- we have the vehicle
24 to monitor that and check that, you know, when you are a BMS user,
25 if you want to be listed as a team leader, for instance, you need

1 a -- in your profile, you need to put how you qualify.

2 So either your PE or bachelor's plus two years plus EIT. All
3 those -- you can pick which one so that your name shows up on our
4 team leader list.

5 What we'll do is -- we already have a slot free to enter when
6 you took the NHI FC class. So basically, in the new BMS, as we
7 roll that out, there'll be an FC team leader list that will only
8 be generated or populated with those individuals with that
9 certification listed in their profile.

10 Q. Thanks, Rich.

11 MR. PROUTY: Any other questions about fracture critical
12 stuff before I move on to the next one? Okay.

13 BY MR. PROUTY:

14 Q. All right. And this is just a -- hopefully should be a quick
15 one for you. Other than taking a core sample, do you know of any
16 ways, or methods, techniques that could be used, to determine
17 thickness of the asphalt wearing surface.

18 A. I'm sorry. So other than taking a core sample, is there any
19 way we would know of a wearing -- was it wearing surface?

20 Q. Yes, determine the thickness of an asphalt wearing surface on
21 a bridge.

22 A. Traditionally, I -- what we recommend for inspectors would
23 be, you know, obviously using any type of curb reveal, or if
24 there's, you know, right up to a vertical wall on a -- the
25 parapet, indications there, based off of any type of standard or

1 plan you have that shows the reveal should be six inches and now
2 you only have three. It's, you know, generally okay to estimate
3 you have, you know, a three inch wearing surface there.

4 You know, things like that to get you in a ballpark. You
5 know, because obviously, as the bridge gets paved over time, you
6 should be able to notice inspection to inspection some sort of
7 benchmark on your parapet or curbing that signals wait a minute, I
8 have more than I did before.

9 But coring's obviously the best way to get an actual
10 estimate. But curb reveal, something like that is what gets us --
11 what we try to use to get us in the ballpark, at least.

12 BY MR. O'SHEA:

13 Q. Richard, just a few quick follow-up questions on that. In
14 your experience, have you ever found the asphalt wearing surface
15 thickness exceeding the thickness assumed in design?

16 A. Yes. I have -- compared to design, we have had instances
17 where -- I'll speak on the state side, because I have examples
18 there where anytime a roadway is going to get paved, especially if
19 it's a county paving crew, we ask them if it's going to go over a
20 bridge, ask us what you would -- what do you want us to do. You
21 know, do you want us to mill that bridge? Do you want us to pave
22 right over it? Let us know.

23 There have been instances where that will occur, or under a
24 bridge, an underpass, where someone will go out, whether it's the
25 inspector.

1 A lot of the times it's the next inspection, or somebody
2 drives that to work, whatever it might be, where clearly, the
3 photos show new wearing surface, and the inspector starts to ask
4 questions, look at it last -- the last photos, and puts two and
5 two together that this bridge received new wearing surface, and
6 flags that for whether it be a new load rating, or at least to
7 bring it up to the reviewer's attention that we have a new wearing
8 surface here compared to last time.

9 But, I mean, it's rare. But it does happen that we would see
10 a wearing surface that was not anticipated. I'll just -- I'll
11 phrase it that way.

12 BY MR. WALSH:

13 Q. Okay, and then just a quick follow-up. Do you think the
14 asphalt wearing surface should be checked as part of a consultant
15 bridge inspection report?

16 A. Yes, I mean, we have a field in BMS regarding wearing
17 surface. I would double check the general scope of work. But
18 that's -- from the top side of the bridge, that's one of the
19 things that jumps out to you right away. You're obviously looking
20 at it for condition.

21 But obviously, if it looks new or it looks like it was added
22 onto a previous wearing surface, that's a very common note and
23 would be an expectation to at least report that, so to at least
24 have a record of a new -- if, let alone, you know, the load rating
25 implications, things like that.

1 But at least to know from a maintenance standpoint how old
2 the -- you know, to track that new wearing surface so you can then
3 understand longevity of it, things like that. So yes, that is --
4 that would be an expectation.

5 A. Thank you.

6 BY MR. OCEL:

7 Q. What item number in BMS is it? I figured you'd have it
8 memorized.

9 A. No, it's much easier -- I know sometimes 100A is a bit of a
10 burden, so I prefer just to go into BMS and check the screen. So
11 all of the deck wearing surfaces are 5B numbers. So 6A 33 is deck
12 wearing thickness.

13 Q. I see it, I see it now, thank you. Okay.

14 A. And then 6A 34 would be the date that that is recorded.

15 Q. I got it.

16 BY MR. PROUTY:

17 Q. So the next questions we have are more of a load rating --
18 load ratings and postings.

19 A. Okay.

20 Q. So for bridges owned or maintained by PennDOT, does PennDOT
21 make the determination to initiate a rerating on your own, or do
22 you solely rely on the recommendations of the inspector?

23 A. We -- the primary driver to do a load rating would be the
24 recommendation of the inspector. Now, during the review process,
25 if a load rating wasn't recommended and someone looks at that and

1 deems that it's necessary because something beyond what the
2 inspector would use to trigger it, whatever it might be, I'll just
3 say that just because the inspector didn't recommend it doesn't
4 mean that a load rating -- a rerating won't take place.

5 We don't solely go off of what the inspector recommended.
6 So, you know, I can have no recommendation, but still have a load
7 rating completed. But for the most part, the load ratings that
8 are completed are due to the inspectors recommending them.

9 Q. And then just to clarify that, if an inspector does recommend
10 a rerating, would there be cases where you wouldn't do one?

11 A. If there was a case where we did not go off of their
12 recommendation, there would have to be really good reason, like
13 the inspector completely misunderstood something, or saw what they
14 thought was a new wearing surface that was already accounted for
15 the last cycle, it was never documented, something like that.

16 But if it's off of sheer deterioration of the structure, then
17 I don't -- I would be hard pressed to find an example where
18 someone said no, we're not going to go through this. I mean, that
19 practice would be surprising. I'm not aware that we -- that is
20 not our typical practice. Now, there could be an example where
21 it's done, but it would have to be for pretty good reason.

22 BY MR. OCEL:

23 Q. If the overall condition dropped a point, does that
24 automatically trigger a rating, despite inspection
25 recommendations?

1 A. Currently, no. I would say that that would not. If we saw
2 something go from six to five or five to four, the load rating
3 would not automatically get rerun, just based solely off of
4 condition rating.

5 BY MR. O'SHEA:

6 Q. But a four to three might?

7 A. Four to three is much more likely to, especially based on --
8 the only time -- thing I would think, Dennis, there would be if it
9 just went to a four and a load rating was done, and then the next
10 year it went to a three and someone -- it was just difference of
11 opinion, and roughly the same amount of deterioration took place,
12 maybe a new one would not be done.

13 But four to a three almost always would, I mean, at least I
14 would have to think that the rerating would be recommended by the
15 inspector as well. So I think you're much more likely to see
16 that.

17 But five to a four, I would say you're not always likely to
18 see a new rating coincide with that if the box isn't checked to
19 run a new one.

20 Q. You know, thinking about condition states and, you know, four
21 usually requires some type of a review, engineering review. That
22 doesn't necessarily get a low grading. But if you have a
23 situation where you do get a lot of section loss that you can, you
24 know, that can be documented, would there be a certain amount that
25 might trigger a rereview, even though you already have a certain

1 amount of quantity already in condition state four?

2 A. So Dennis, are you saying if I had some -- if I already had a
3 quantity in four and I'm adding additional quantity this
4 inspection?

5 Q. Yes.

6 A. Am I understanding --

7 Q. Yes.

8 A. -- that correctly?

9 Q. Yes.

10 A. I -- there's not a threshold, I would say, that we go off of.
11 But if I already have quantity in a four and I am adding more that
12 most inspectors should be of the opinion that that should lead to
13 a rerating recommendation. That I'm -- I have something in four
14 condition state and it's clearly getting worse, I should check
15 that box to go along with that.

16 Now that being said, from a program standpoint, do we have
17 anything that makes that clear that would, you know, that an
18 inspector could look at and say, you know, well, based on policy
19 or best practices, I should be doing this? I don't think there
20 is.

21 It's an area -- not to go down a rabbit hole, but clearly
22 load ratings have been on our mind, even before this year, of an
23 area we need to improve. And this just reinforces it, I think.

24 But where -- it can be very difficult for an inspector to
25 know, you know, when to make that determination. So reviews with

1 FHWA, and along with just some things we've wanted to do for a
2 long time, have all led to clearly, we need to make some
3 clarifications here and have some tools in place for inspectors to
4 help make that decision.

5 So that if you do have, you know, a best practice is if you
6 had something in condition state four and it's increasing, you
7 know, to make sure that a load rating coincides with that. So
8 some basic thoughts there put on paper so that's another tool in
9 the toolbox for an inspector to say okay, when it comes to load
10 ratings, something to lean on.

11 One of the things we're -- we've really wanted to push, and
12 it's in development, started last year, and we're hoping to have a
13 final product here, is that -- a PA load rating best practice
14 manual.

15 We have -- there are other states that have that out there.
16 We've wanted that based on what I saw from QA reviews, that
17 there's a lot of differences of opinion when it comes to load
18 ratings.

19 I mean, any time you get -- those calls can have ten
20 engineers on them, and any time you get ten engineers on a call,
21 it's hard to all agree on -- there are so many facets to a load
22 rating: dead load, distribution factors, section loss.

23 How do you -- that, you know, to try to drive some
24 consistency there, the only way you can really do that is to have
25 something like a best practice manual to go off of, to say in this

1 situation, here's some examples or feedback. And if we don't have
2 that, you know, these types of questions, you know, yes, it would
3 be great if they saw additional condition state four quantity, to
4 check that box.

5 But until we have something like that manual in place that
6 covers a situation like that, you know, we're lacking from our end
7 as well, then.

8 Q. Rich, I should know this, but do you require element level
9 for all bridges, all NBI bridges? Or do you only require one in
10 NHS?

11 A. For state bridges, all of our bridges 8 feet and greater have
12 elements. For locals, it's the FHWA requirement of NHS.

13 Q. NHS?

14 A. Yes.

15 Q. Okay, okay. So there might be some locally owned bridges
16 that are NBI length, but they don't have element level unless
17 they're NHS.

18 A. Right.

19 Q. Okay.

20 A. Correct.

21 Q. So that one aspect of the idea of trying to use condition
22 state four to trigger a load rating probably wouldn't hold up
23 for --

24 A. It wouldn't apply all the time --

25 Q. Okay.

1 A. -- so we would have to have something else, exactly.

2 Q. Okay. Thank you.

3 BY MR. OCEL:

4 Q. But when the inspection report's between submit and accept,
5 does the element level data show the side by side to the PennDOT
6 reviewer?

7 A. No.

8 Q. So, like, if they saw a huge bump in CS4, they'd be like
9 whoa, hey.

10 A. No. At this time, it does not, Justin.

11 Q. Okay.

12 A. And that is a -- it's a great suggestion for moving forward,
13 but that is not one of our side by side fields.

14 Q. Thank you.

15 BY MR. PROUTY:

16 Q. What thresholds would need to be met for PennDOT to initiate
17 a regrading?

18 A. I'm sorry, Steven. What was the first part of that? What --

19 Q. What thresholds would need to be met?

20 A. So there's no real thresholds. Really, we want the
21 inspectors that as they see additional section loss, if there's
22 any type of new loading, you know, mainly dead loading, we don't
23 typically see any change in live load.

24 But in dead load, that's kind of rare, too. You know, you
25 have those, like we talked about, wearing surface, or there's a

1 new attachment to the bridge. But it's primarily section loss.
2 As they see section loss increase, that those recommendations are
3 made.

4 However, going back to that last conversation, you know, you
5 mentioned threshold. We don't currently have anything like that.

6 And there should be. There should be something that an
7 inspector could look at to say, you know, is any increase enough?
8 Probably not. You know, if I go from -- we're talking thousands
9 of a thickness, and you take it again, and you're -- okay, we're
10 not going to go be ridiculous.

11 But there should be some sort of best practice there that if
12 you're seeing change, something to rely on and lean on to say
13 okay, this is enough to recommend load rating. There is nothing
14 right now to point them in a direction.

15 And that's the other part of -- besides the best practice
16 manual, which focuses more on the load rating side of it, a
17 checklist for the inspector to utilize to say, you know, if any of
18 these are yes as I do my inspection, you should think about the
19 load rating check box. That's the other piece that we're
20 developing right now.

21 And again, some of those are straightforward, but trying to
22 put a deterioration piece in there of, you know, if you're seeing
23 -- the wording gets tricking because it depends on the type of
24 bridge where the deterioration may be. Because again, maybe not
25 all deterioration may need to be -- push it to a load rating, but

1 trying to capture that.

2 And then also, we've decided to run with a timeframe that --
3 some states do this, some don't. Some of our districts have been
4 doing this, but it hasn't been statewide policy to at least put,
5 say, ten years that if it's -- even if nothing has changed from a
6 deterioration piece of that bridge, if it's been ten years, run a
7 new one. You know, get a new, signed off load rating for that
8 bridge.

9 Because we've seen too many times where someone may argue in
10 a QA meeting that the load rating's still valid, that the bridge
11 is still in good shape, but the load rating was done in 1992.

12 And they may have an argument there, but from my perspective,
13 just have an updated load rating. Use the newest PennDOT version
14 of our -- newest version of our PennDOT programs to produce a new
15 load rating.

16 Maybe your numbers don't change. But to be relying on
17 something from 1994, even if you could try to argue that it's
18 still relevant to what's out there in the field, we've just
19 decided we want to go with a minimum -- or a maximum timeframe on
20 our load ratings, and ten years is what we're moving towards.

21 So I think that'll at least help that worst case scenario, if
22 there's -- a couple inspections go by and an inspector does not
23 check that box, or in conjunction with that, a reviewer doesn't
24 have the opinion to, you know, do a load rating.

25 The longest it could go -- you know, that's our safety net,

1 that at least, you know, you put that ten year marker in there and
2 force somebody to load a new load rating, and look at section
3 loss, and say you know what, there is enough here to maybe --
4 maybe you don't post it. Maybe nothing happens. But at least
5 force the eyes on it.

6 And that's what we're realizing is, you know, just to ensure
7 eyes are on that load rating, and if it needs to be refreshed, it
8 gets refreshed.

9 Q. I assume that you looked at the 2021 inspection report?

10 A. For --

11 Q. For Forbes Avenue.

12 A. Oh, yes.

13 Q. For -- I mean, would you find it surprising that with an
14 ever-evolving change of condition of many members that a rating
15 was not performed?

16 A. Yes. It is surprising to see, you know, comments, sketches,
17 a number of things in the report pointing to increased -- and
18 noting increased deterioration, and yet that never crossed over to
19 the load rating, is very surprising.

20 Especially once we get into a posted situation, I mean, if --
21 we almost always will see, once it hits posting and you continue
22 to deteriorate, and we have some on our -- some of our districts
23 who every inspection, they're going to, in house, do a new load
24 rating if it's a state bridge and they have, you know, someone who
25 can do it on their staff. They're just going to rerun it to see

1 if even the minor, smallest changes produce a lower posting.

2 To go several inspections and note the increased loss and
3 that not result in a new load rating is one of the head
4 scratchers, in my opinion, of this whole thing. That never --
5 nobody in that chain of, you know, whether it be our reviewers, or
6 the city, or even, you know, the inspectors didn't see that as
7 enough to populate new numbers and possibly lower the posting.

8 Q. Thank you. So for a PennDOT bridge, who would do a load
9 rating? Is that going to be PennDOT staff, or consultants, or
10 some type of mixture, depending on the case?

11 A. Some type of mixture. It's primarily -- I mean, most of our,
12 you know, our standard Pennsylvania bridge, you're talking, you
13 know, 50 feet long, 50 years old, something like that, a pretty
14 straightforward bridge to analyze.

15 One you get into loss, it can get a little more complicated.
16 But for the most part, those are done by PennDOT staff in the
17 bridge unit who are familiar with the load rating programs,
18 supervised by a PE, somebody who's there, who can check that work.
19 That is how a majority of our load ratings are done.

20 We do have, as, you know, the bridges get more complicated,
21 or just to simply help out and get them updated if we ever get in
22 a backlog, consultants certainly will do load ratings as well.
23 That's for PennDOT bridges.

24 For local bridges, we would not do any of the load ratings.
25 That would all -- any type of load rating update would be done by

1 the consultant who has the inspection contract.

2 Q. Now, what's the QC process for the load ratings done by them,
3 by the consultants, in that case?

4 A. By the consultants? We require them on our summary feed,
5 they're the doer and there needs to be a checker. And we have a
6 PE seal on that.

7 So from a load rating standpoint, outside of our QA program
8 that does a complete -- it's not just the inspection, they do a
9 load rating from the ground up as well. So there's a QA piece of
10 that in our program.

11 But from -- the QC process basically ends at when that PE
12 hands over their signed off load rating, that gets entered into
13 the system for that bridge.

14 And then it may only get looked at from the PennDOT side
15 during the QA program where we, again, our QA engineer will do a
16 completely third party analysis, and then compare those findings
17 to what the engineer had for that bridge. And we would do a side
18 by side there.

19 MR. OCEL: Steve, do you have a follow-up on the QA/QC part?

20 MR. PROUTY: No.

21 MR. O'SHEA: I've got a question, though. I might have
22 missed it.

23 BY MR. O'SHEA:

24 Q. What -- did you say that you have PennDOT people doing the
25 load ratings?

1 A. For state bridges, yes.

2 Q. Do they all have to be PEs to do that rating?

3 A. If they're not PEs, they -- we require every load rating to
4 be sealed by a PE. So either them -- sorry, I'm' getting another
5 Teams call. That always throws me off.

6 If it's not them, it's their immediate supervisor who's
7 reviewing them is the PE. But we don't want somebody from, you
8 know, a different design squad or something who just seals it
9 there. Somebody who is reviewing the load rating is the PE who
10 seals that.

11 Q. Okay. So it's not necessarily always their supervisor that's
12 sealing. It could be them if they're a PE?

13 A. I don't know if --

14 Q. So they're not the reviewer, in other words. You know, if
15 they're the one who signed it sealed it, is it getting a review?

16 A. If they're -- I don't know that any of our load raters in the
17 districts actually sign -- actually seal the coversheet. It's
18 usually the bridge engineer or the assistant bridge engineer who
19 does the sealing.

20 Our -- some of our load raters, though, depending on the
21 district to get the job, they may put in that you have to be a PE
22 as well.

23 But if you look at the coversheet, I don't know that we ever
24 have the actual load rater from the district be the one who
25 finally signs off. If they're going to, then they likely had

1 another civil engineer from the unit do the load rating, and then
2 they would sign off in place of the bridge engineer. That's
3 something that a bridge engineer could delegate to a load rater if
4 they're certified.

5 But the expectation wouldn't be to have RR as the doer, the
6 checker, and then seal it. We want that to go through several
7 folks in the bridge unit for -- to sign off.

8 Q. Okay. Thank for the clarification.

9 A. Yes.

10 BY MR. OCEL:

11 Q. Let me ask you a technical question on load ratings.

12 A. Oh, okay.

13 Q. What kind of debates have you run into about how to
14 accommodate or account for holes, like, through holes --

15 A. Oh, yes. There's --

16 Q. -- in areas of high tension or high shear.

17 A. So it's been discussed several times because the traditional
18 way that we model that is average thicknesses. You know, so you
19 come up with a new moment of inertia based on, you know, I have
20 zero section here and a thinner section here so, you know, you
21 average things out.

22 And you come up with an average thickness, or an average
23 moment of inertia, and use that number in the program when you're
24 doing, like, a straight line, girder type analysis, you kind of
25 fit that into that type of analysis.

1 That's the traditional way I would say it's been done and has
2 continued to be done here, where really, the way we want to go is
3 realizing that coming up with those numbers, you know, makes sense
4 just from an exercise standpoint of okay, if I have -- if I'm
5 missing section loss here, you know, you could probably look back
6 in the college textbook, and that's how you come up with a moment
7 of inertia when you have a hole there.

8 But realistically, how the forces flow through that beam when
9 I have a large hole, when I have nothing there compared to an
10 average thickness or a, you know, a reduced thickness there, is
11 not the same.

12 So load ratings at our QA meetings, this is the type of stuff
13 that gets debated a lot. Because some engineers who would still
14 do it will argue that that is still a valid way of doing it. And
15 others will argue that you're not getting a realistic flow of
16 forces through that beam anymore because you have the large hole,
17 and you have to do some sort of advanced analysis of it.

18 So the topic of load ratings gets debated very much. Like I
19 said, when you've got more than a couple engineers, they'll have
20 differing opinions on it. And that tends to be the case with load
21 ratings especially.

22 Q. Regarding the PennDOT publication, and I'll plead ignorance
23 again, it's either 100 or 238, are inspectors instructed to
24 provide average section loss? Or are they to report kind of a
25 contour map of section loss, and if there are holes?

1 A. Yes, we would want the inspector to report back any areas of
2 100 percent loss, and then thickness remaining. We don't ask for
3 one number to cover an entire area or anything like that. We want
4 it plotted out.

5 And there's often times where -- can remember we did it
6 before at the district, where someone's trying to do a load
7 rating, and they basically tell the inspector go back out, because
8 what you gave me is not enough. I need more data points to really
9 show what's out there.

10 So we're never asking the inspector for an average. But what
11 I can -- from a load rating standpoint, I can take those numbers
12 and come up with an average. And it's, you know, not getting them
13 to move that, and moving away from that, when I have holes or, you
14 know, areas that aren't functioning.

15 You know, if I have an imbedded I-beam, and the web's
16 completely gone there, at least for a large part of it, you know,
17 it's hard to argue 100 percent and zero percent makes 50 percent
18 is what's left. That's not really how it's behaving. And yet
19 that's the hurdle we have to get over with load ratings.

20 Q. Thank you.

21 BY MR. PROUTY:

22 Q. Who's responsible for posting bridges after a load rating's
23 been conducted?

24 A. So if it's a state bridge and the load rating comes back
25 requiring a posting, the district bridge unit would contact the

1 maintenance staff directly, giving them information on what's
2 required so we have -- the districts likely have a standard type
3 of procedure they follow, an email template going to the counties.
4 The county gets the sign fabricated and they install it
5 themselves.

6 On the local side or other owners, if the load rating
7 determines posting is needed, that contact is made directly with
8 the local owner. That can be done -- I've seen that done directly
9 by the inspector on behalf of, you know, the -- for the agreement,
10 you know, they'll reach out and they'll contact -- they'll make
11 the owner aware.

12 But then a lot of times what will happen is as soon as a
13 bridge is recommended for posting, we know about it. So we then
14 run frequent reports; monthly, I believe; for any bridge that's in
15 recommended posting status, to see what's the scoop, because it's
16 still in that status.

17 And that's when there's been numerous occasions where a
18 local, who is responsible to put the sign up because it's on their
19 road and everything, isn't acting on it. And the -- someone from
20 the district; either they're a municipal rep who interacts with
21 these municipalities for various reasons, or someone from the
22 district unit; reaches out and pokes the county or the
23 municipality and asks when the sign's going up.

24 And that can happen several times until it actually does go
25 up. You know, I think there are very few occasions. I do believe

1 it's happened, though, where PennDOT has posted the bridge and
2 charged the local owner for it.

3 But for various reasons, that's not always the preferred
4 method to take. But we certainly are aware of them, and we
5 continuously ask them what their plan is to get that bridge
6 posted.

7 Q. And you said you have a standard procedure for that, right?

8 A. For posting our bridges, yes. It's, you know, once you know
9 that it's required, certain documentation has to be filled out --
10 excuse me -- and submitted.

11 If it's on an NHS route, we need to know about it down here.
12 Or if it's a -- if it were an interstate, people above me would
13 then know about it. That rarely happens, though. Dennis probably
14 gets an email if an interstate's posted.

15 But the paperwork's submitted, notification goes to the
16 county, because they're the ones installing it, they need to know
17 where the sign should go, things like that. All of that's very
18 procedural and -- because it's -- unfortunately happens often that
19 we have to post bridges. So it's nothing new that the districts
20 and counties have to deal with.

21 Q. Can you add that to the pile of stuff you're giving us?

22 A. I'm sorry?

23 Q. Can you add the copy of that to the pile of other things that
24 you're giving us?

25 A. Oh, our posting documents? Sure.

1 Q. Thanks.

2 A. And what did I do with my pen?

3 BY MR. O'SHEA:

4 Q. So Rich, to get a bridge posted that's in a local agency,
5 that doesn't necessarily need to go through PennDOT or doesn't
6 need to go through any special process to make it legal?

7 A. No, I don't believe so, to make it legal, Dennis. We -- I'm
8 trying to think.

9 Q. I mean, if you had a PennDOT bridge and it needed to be
10 posted, does it get signed by the -- anybody in particular? The
11 chief engineer or whatever?

12 A. No, I -- when it's signed off, I'm' trying to think if the
13 district would sign off. Let me look here. We would still
14 complete a posting recommendation form.

15 Q. Yes.

16 A. But nothing would stop the local owner from installing it
17 without that. But for our records, we still complete that.

18 Q. Even for local agency bridges?

19 A. Yes.

20 Q. Okay.

21 A. But then there's not coordination with them to -- as far as
22 installing it. Or since it's not our maintenance crew's, that's
23 the piece that's different.

24 You know, we have direct interaction with our maintenance
25 crews when they install it. So really, once they know they --

1 once a local knows they have to put a posting sign up, they take
2 it from there.

3 Q. So is it hard to enforce the 30-day posting requirement?

4 A. It depends on where you're at in the state. Some of our
5 local owners are very good. They're on top of it. 30 days isn't
6 an issue.

7 Others, for some reason -- and I know it can't be the actual
8 installation of the signs or fabrications. You'll hear all sorts
9 of excuses. But there are some where 30 days because a stretch
10 because they just -- they don't act on it.

11 They eventually do. We make sure all of them eventually do.
12 But 30 days will be a struggle for some.

13 BY MR. PROUTY:

14 Q. When a bridge is originally posted or posting is modified,
15 who does PennDOT notify on that?

16 A. So if it's a PennDOT, if it's one of our bridges and a
17 posting needs to be modified, it goes through the same process as
18 if it's a new posting.

19 Same form. It just shows what the old posting is, and now
20 what the new one is. And then if it's on any of those specific
21 routes, the same individuals need to be notified.

22 So it doesn't matter if it's brand new or revised, it gets
23 documented and approved.

24 Q. So if it was -- so if it was on a state route, but it was in,
25 say, the -- within the City of Pittsburgh, would the city be

1 notified somehow that you're changing the posting on that?

2 A. Yes. All of the --

3 Q. I assume that's in the distribution list, but I --

4 A. Yes, exactly. That is all -- part of the forms, you know, we
5 notify the school districts, EMS, they all need to be notified.

6 So in that case, the city would be on that list to make aware for,
7 you know, any vehicles they may have that can't go on it anymore.

8 Q. All right. Who is responsible for the enforcement of
9 posting?

10 A. PSP, our state police, when it is on state routes. So as far
11 as enforcing as posting goes, that's, from the bridge world, I'll
12 just be frank.

13 You know, we know that it's not always getting done. It's a
14 difficult thing to do to enforce every bridge. But there are
15 means to do it, especially if you know it's a bridge with frequent
16 abusers.

17 But we know signs can be put out there and it doesn't always
18 mean anything. So from a state standpoint, our state police are
19 responsible to enforce. From a local standpoint, it would be any
20 local law enforcement to enforce that.

21 Q. And has PennDOT ever coordinated with either the PSP, or
22 local law enforcement, or whoever, to increase enforcement, say,
23 with problem bridges, or maybe educational campaigns that they'd
24 think --

25 A. Not that I know of, Steven. Not -- I would be surprised, on

1 the local side, if there was ever any use of PSP to enforce a, you
2 know, a chronically abused bridge.

3 On the state side, that's more likely to have happened that,
4 you know, there's certain bridges that people are seeing trucks
5 all the time, and they coordinate with PSP, and they'll go out
6 there and enforce and write the \$100 fine or whatever it is to
7 drive over these -- it's not very large.

8 But I couldn't say for sure, Steven, if there's ever been a
9 historic campaign or interaction there with local owners. I would
10 just be surprised if there was.

11 MR. PROUTY: Anything from anybody else?

12 MR. O'SHEA: No, I think we've given him enough questions.

13 MR. PROUTY: That's all I have, so --

14 CWO COLLINS: Okay. I'm going to go ahead and stop the
15 recording.

16 (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: PENNDOT BRIDGE INSPECTION PROCESS
IN PITTSBURGH, PENNSYLVANIA
ON AUGUST 4, 2022
Interview of Rich Runyen

ACCIDENT NO.: HWY22MH003

PLACE: Pittsburgh, Pennsylvania

DATE: August 4, 2022

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.



Andrew Hirsch

Transcriber