

Ottawa Light Rail Commission

Brandon Richards
on Tuesday, April 26, 2022



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OTTAWA LIGHT RAIL COMMISSION
CITY OF OTTAWA - BRANDON RICHARDS
APRIL 26, 2022

--- Held via Zoom Videoconferencing, with all
participants attending remotely, on the 26th day
of April, 2022, 1:00 p.m. to 4:00 p.m.

1 COMMISSION COUNSEL:

2 Christine Mainville, Co-Lead Counsel Member

3 Emily Young, Litigation Counsel Member

4

5 PARTICIPANT:

6 Brandon Richards: City of Ottawa

7

8

9 ALSO PRESENT:

10 Helen Martineau, Stenographer/Transcriptionist,

11 Benjamin Bilgen, Virtual Technician

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1 -- Upon commencing at 1:00 p.m.

2 BRANDON RICHARDS: AFFIRMED.

3 CHRISTINE MAINVILLE: The purpose of
4 today's interview, is to obtain your evidence
5 under oath, or solemn declaration, for use of
6 the Commission's public hearings. This will be
7 a collaborative interview such that my
8 co-counsel, Ms. Young, may intervene to ask
9 certain questions. If time permits, your
10 counsel may ask follow-up questions, although I
11 note you have chosen not to have counsel.

12 The interview is being transcribed and
13 the Commission intends to enter this transcript
14 into evidence at the Commission's public
15 hearings, either at the hearings or by way of a
16 procedural order before the hearings commence.
17 The transcript will be posted to the
18 Commission's public website, along with any
19 corrections made to it, after it's entered into
20 evidence. The transcript, along with any
21 corrections later made to it will be shared with
22 the Commission's participants and their counsel,
23 on a confidential basis, before being entered
24 into evidence. And you'll be given the
25 opportunity to review your transcript and

1 correct any typos or other errors before the
2 transcript is shared with the participants or
3 entered into evidence. Any nontypographical
4 corrections made will be appended to the
5 transcript.

6 And, finally, pursuant to section
7 33(6) of the Public Inquiry's Act 2009, a
8 witness at an inquiry shall be deemed to have
9 objected to answer any question asked of him
10 upon the ground that his answer may tend to
11 incriminate the witness or may tend to establish
12 his or her liability to civil proceedings at the
13 instance of the Crown, or of any person. And no
14 answer given by a witness at an inquiry shall be
15 used or be receivable in evidence against him in
16 any trial or other proceedings against him,
17 thereafter taking place, other than a
18 prosecution for perjury in giving such evidence.

19 And as required by section 33(7) of
20 the Act, you are advised that you have the right
21 to object to answer any question under section 5
22 of the Canada Evidence Act.

23 All right. So if that works we'll
24 commence.

25 You had two different roles, as I

1 understand, in Stage 1 of Ottawa's LRT?

2 BRANDON RICHARDS: Yeah. I worked for
3 the contractor OLRTC, I was working for a
4 company called Dragados so I was on the
5 contractor side during Stage 1.

6 CHRISTINE MAINVILLE: I'm sorry, can
7 you repeat that? I disconnected for a moment.

8 BRANDON RICHARDS: I worked for the
9 OLRTC contract, part of the joint venture of
10 RTG, under a company called Dragados, and I was
11 responsible for the installation of the
12 communications based train control system.

13 CHRISTINE MAINVILLE: And do you
14 recognize what is on the screen as your resume?

15 BRANDON RICHARDS: Yes.

16 CHRISTINE MAINVILLE: We'll file that
17 as the first exhibit to your interview.

18 EXHIBIT NO. 1: Curriculum vitae of
19 Brandon Richards.

20 CHRISTINE MAINVILLE: So if we go down
21 to the third page, the last page, we see that
22 you held that role of Senior CBTC Coordinator
23 from July 2016 to June 2017?

24 BRANDON RICHARDS: Correct.

25 CHRISTINE MAINVILLE: And that CBTC

1 system is Thales' system, correct?

2 BRANDON RICHARDS: Correct.

3 CHRISTINE MAINVILLE: Can you tell us
4 a bit about that role and -- well, let's start
5 there.

6 BRANDON RICHARDS: Sure. In the
7 capacity of that role I primarily was the
8 conduit between Thales providing the design
9 that's their system, so working with their teams
10 and working with the subcontractors, and
11 internally with our own engineering joint
12 venture, which was called "EJV", to make sure
13 that it would integrate with the other systems,
14 that the other systems would integrate with
15 CBTC, that it was installed properly as per
16 Thales' design.

17 So I was the person in between all the
18 different stakeholders managing its installation
19 and ultimately up to commission.

20 CHRISTINE MAINVILLE: Okay. We'll
21 come back to the details of that.

22 Can I just take you down where you say
23 you led -- Brandon led the -- further down at
24 the bottom:

25 "Brandon led the initiative to

1 document installation pertinent to the
2 signaling system."

3 What do you mean by the "document
4 installation"?

5 BRANDON RICHARDS: So Thales has a
6 system called "PICO", it's an acronym that
7 stands for post-installation checkout. And when
8 I was in the role there was challenges with OLRT
9 being able to bring those documents together,
10 because you did need input from many different
11 stakeholders and it was a new type of
12 documentation for installation of systems. So I
13 was able to bring the parties together and get
14 these documents filed.

15 And then if you're talking -- honestly
16 I don't remember off the top of my head but
17 there was several hundred. For example, a
18 switch machine would require several different
19 PICOs, so it was an extensive amount of
20 documentation to validate that it was installed
21 in accordance with Thales' specifications.

22 CHRISTINE MAINVILLE: And when you
23 talk about other parties would that primarily be
24 Alstom?

25 BRANDON RICHARDS: Alstom was a small

1 part of it but more so the subcontractors, like
2 ZEC, I think SEME [ph] was one, Alltrade. So if
3 they were performing the electrical works, let's
4 say, they would have to do testing to make sure
5 that the cabling had proper continuity, the
6 megger tests were done, so it was just really a
7 validation that the hardware of the wayside
8 equipment was installed properly.

9 CHRISTINE MAINVILLE: And then you
10 also write that you brought the
11 communication-based train control system back
12 into schedule?

13 BRANDON RICHARDS: Yes.

14 CHRISTINE MAINVILLE: So I take it
15 there was some delay on that front when you
16 arrived?

17 BRANDON RICHARDS: Yeah. When I
18 arrived there were challenges with the
19 transponder tags and getting them into the yard
20 at first. So there was some need for
21 coordination between Thales and EJV and our
22 subcontractors. And there was contentious --
23 not contentious but debate over something called
24 a PIDO [ph], I forget what the acronym stands
25 for, but it's essentially where the two lines of

1 diverging track intersect, so knowing from that
2 fixed location where a transponder tag was to be
3 installed.

4 After that milestone was sorted out
5 then we were able to start moving that forward
6 and then ultimately move the entire program back
7 into a schedule.

8 CHRISTINE MAINVILLE: And going back
9 up a little bit, you wrote that on this
10 large-scale project you were not only exposed to
11 the complexities and technicalities on the
12 project but also the political intricacies?

13 BRANDON RICHARDS: Uhm-hmm.

14 CHRISTINE MAINVILLE: And I wonder
15 what you meant by that?

16 BRANDON RICHARDS: With the different
17 stakeholders. What I meant by that is that
18 everybody has an agenda from the side they're
19 working from. So with the OLRT side you want to
20 deliver a product, you want to deliver the LRT
21 system. And then from the City side, you know,
22 being exposed to the political forces that want
23 the system online, not that anybody's doing
24 anything awry but just sort of understanding the
25 multiple different stakeholders and how they're

1 driven to move these projects forward.

2 And that just doesn't include the
3 City, it includes the public. Because there was
4 a lot of scrutiny around the delays when the
5 sinkhole happened. And just seeing all the
6 different perspectives is really what I was
7 trying to articulate there.

8 CHRISTINE MAINVILLE: And to what
9 extent did you have interaction with the City
10 when you were at -- with OLRTC?

11 BRANDON RICHARDS: I would provide
12 tours on occasion, it wasn't very frequent. I
13 would say it was probably -- I can think of two
14 times off of the year that I was there that I
15 did it where we took John Manconi and some of
16 the consultants that they had. I don't remember
17 where they worked for, if it was ACOM, but we
18 took them for tours to show them the progress of
19 the communications-based train control. We took
20 them to Blair station and showed them the room
21 and the equipment being installed, and that was
22 sort of the interactions that I had.

23 And there was -- there was another
24 woman from the City who would get updates. And
25 when the CBTC system -- I would provide inputs

1 to the team for her updates. I think her name
2 was -- I honestly can't remember her name.

3 CHRISTINE MAINVILLE: Okay. If we go
4 up to -- well, first of all, then you went to
5 ESI Rail as Director of Operations for a few
6 years?

7 BRANDON RICHARDS: Yup.

8 CHRISTINE MAINVILLE: And ultimately
9 you then were hired with the City of Ottawa as
10 Chief Safety Officer?

11 BRANDON RICHARDS: Correct.

12 CHRISTINE MAINVILLE: In May 2020.

13 BRANDON RICHARDS: Yeah. May 5th I
14 think the day was.

15 CHRISTINE MAINVILLE: So at that point
16 in time the LRT is in operation, right?

17 BRANDON RICHARDS: Yeah, for I guess
18 since September of the following year.

19 CHRISTINE MAINVILLE: The previous
20 year, yeah.

21 BRANDON RICHARDS: Yeah.

22 CHRISTINE MAINVILLE: And was anyone
23 in that position prior to you?

24 BRANDON RICHARDS: There was a
25 gentleman named Jim Hopkins. I never met him,

1 he was gone before I came. I think he left in
2 March of 2020, if I'm not mistaken. But he was
3 in the role for, I want to say, five or six
4 years before I was in it. He did retire, I
5 believe.

6 CHRISTINE MAINVILLE: And that was
7 work you were doing for OC Transpo more
8 specifically, correct?

9 BRANDON RICHARDS: Correct. I was
10 working for OC Transpo in the City of Ottawa.

11 CHRISTINE MAINVILLE: And if we go to
12 the second page where you detail that work a
13 little bit.

14 BRANDON RICHARDS: Yes.

15 CHRISTINE MAINVILLE: How would you
16 describe the primary function of that role?

17 BRANDON RICHARDS: The primary
18 function -- it's a fairly complex role to
19 describe but I suppose -- I mean, you serve the
20 organization from a safety perspective, first
21 and foremost. So obviously when situations
22 arise and decisions need to be made for safety,
23 whether that's pulling the line out of service
24 or reacting in an appropriate way, that I think
25 would be the primary function of the role, is

1 being the accountable individual that makes sure
2 that the system is ultimately safe.

3 But to break it down, when I came into
4 the role I was given a mandate from John to
5 reshape it and make sure that the safety culture
6 embedded in OC Transpo.

7 And when I came in I made some
8 changes, so what's highlighted there in the
9 bullets, the three bullets, when I came I only
10 had the transit training and the safety team.
11 And because of the unique regulatory structure
12 of OC Transpo and the City of Ottawa with its
13 transit system, and because of how it tied into
14 the contract, I wanted to bring that into my
15 area because it gave more authority to the
16 safety of the organization.

17 So I had done a restructuring probably
18 within being there for about six months and then
19 built the branch to have these three units.

20 CHRISTINE MAINVILLE: And so the
21 transit training and development, do I take it
22 that that's not only relating to the LRT but OC
23 Transpo's transit generally?

24 BRANDON RICHARDS: That's correct.
25 It's the bus drivers, it's mechanics, pretty

1 much everything in OC Transpo, other than
2 legislated training, which is done by the City
3 of Ottawa itself.

4 CHRISTINE MAINVILLE: Legislated
5 training?

6 BRANDON RICHARDS: Yeah. Like
7 workplace health and safety -- sorry,
8 workplace -- violence in the workplace, we had
9 some of it but I think it was primarily done
10 more in the corporate side of the City. Sorry,
11 not legislated, probably federally-mandated
12 training.

13 But when with it came to operational
14 training specifically, like driving the bus or
15 teaching mechanics how to work on it, it was in
16 my area.

17 CHRISTINE MAINVILLE: And then the
18 safety standards, investigating and reporting,
19 here you talk about being responsible for
20 pro-active safety assessments and post-incident
21 investigations for transit-related issues?

22 BRANDON RICHARDS: Yeah. So that's
23 doing -- we had programs where we would do
24 monthly audits and we would take times of the
25 year. So, for example, when back to school is

1 happening we start doing some monitoring audits
2 on speed in school zones, and then monitoring
3 bus operations to make sure that there's no
4 rolling stops within the compound at St-Laurent
5 or other facilities. So doing pro-active audits
6 to see the trends and who needs to be putting a
7 focus on safety.

8 On the LRT side there's auditing for
9 -- in the safety management system it was called
10 "Targets and Initiatives". So, you know, doing
11 audits there to make sure that people are
12 familiar and compliant with rules. Just sort of
13 pro-active audits to give an idea of what could
14 have a benefit to put focus and resources on to
15 make sure that it's safer before it becomes a
16 reactive incident.

17 And then post-incident investigations
18 is pretty much what it sounds like. When there
19 is something that occurs, for example,
20 reportable to the TSB, that the team would have
21 the details and understand what happened, the
22 concerns the risks, mitigations, how to apply
23 them and provide reports.

24 CHRISTINE MAINVILLE: And who are you
25 providing reports to?

1 BRANDON RICHARDS: Well, it depends on
2 what the situation is. So if it was a TSB
3 reportable it would be to the TSB. If it was an
4 environmental spill or something it would be the
5 TSSA. There's different bodies that you would
6 provide those to depending on the situation.

7 CHRISTINE MAINVILLE: Were they ever
8 internal or meant -- like, would you conduct an
9 investigation and then report internally?

10 BRANDON RICHARDS: Absolutely. If it
11 didn't have to do with any sort of reporting
12 body and there was an incident that occurred it
13 would be brought in, reported and collected as
14 data to understand. And this is how we
15 determined our targets and initiatives and the
16 safety management system.

17 CHRISTINE MAINVILLE: And who was that
18 reported to?

19 BRANDON RICHARDS: The safety
20 management system is ultimately -- it's a
21 document that you -- OC Transpo has to have in
22 accordance with regulation. And you do -- OC
23 Transpo does have to report -- it was after the
24 first year of operations and then every three
25 years after that.

1 So the process that we had -- because
2 I went through one cycle of it while I was
3 there. We hired on external auditor to audit
4 our safety management system, and then provided
5 it to Transport Canada with the recommendations
6 and current status of the recommendations and
7 then the annual report, to Transport Canada.

8 CHRISTINE MAINVILLE: So -- and I
9 think you cut out when you said you -- was there
10 a name to this document?

11 BRANDON RICHARDS: Safety Management
12 System, SMS. Want me to talk louder or was I
13 cutting out?

14 CHRISTINE MAINVILLE: There was one
15 glitch.

16 BRANDON RICHARDS: Okay.

17 CHRISTINE MAINVILLE: So the safety
18 management system, that gets reported to
19 Transport Canada?

20 BRANDON RICHARDS: It does through the
21 delegated agreement between Transport Canada and
22 the City of Ottawa. And that's essentially an
23 agreement where Transport Canada has delegated
24 its regulatory authority to the City to regulate
25 itself but obviously retains the right to take

1 back their authority should they feel they need
2 to.

3 CHRISTINE MAINVILLE: And so there is
4 that transportation Canada reporting but also --
5 does anybody internal to the City receive it?
6 Receive your reports, whether they are forwarded
7 to others inside the city?

8 BRANDON RICHARDS: Yes. Under the
9 delegated agreement the "Minister of
10 Transportation" is the City Manager, is the
11 accountable executive for the LRT.

12 So it would be to provide him with
13 annual reports of the SMS, the safety policy. I
14 can't think of any others off the top of my
15 head, but it would be essentially that it would
16 be reported to the City Manager.

17 For example, every year the safety
18 policy is drafted up and has to be provided to
19 the City Manager and the City Manager has to
20 sign off as the accountable executive for the
21 safety policy each year.

22 CHRISTINE MAINVILLE: We'll come back
23 to that, but to finish off your resume here, the
24 last point you have is regulatory and
25 compliance, quality control and assurance?

1 BRANDON RICHARDS: Uhm-hmm. That's a
2 team that I was building. So I started this
3 reorg about six months into being there, saw
4 there was a bit of a gap and a need for more
5 quality control. The regulatory side needed
6 more attention and resources and, you know,
7 after going through the cycle and creating this
8 org structure obviously then you have to go
9 through a budget cycle. So I really didn't
10 start to get building this team until probably
11 early 2022.

12 Last I was there we had, I want to
13 say, five people there. We had a specialist for
14 quality control and assurance and she was doing
15 auditing on the training programs. And then the
16 regulatory side -- because we have quite a
17 unique regulatory structure at OC Transpo we
18 needed more dedicated resources to make sure
19 that we were compliant with regulation between
20 the bus side, the Trillium line, which is
21 federally-regulated by Transport Canada, and the
22 Confederation line, which is delegated to the
23 City. So it's a little bit of a mixed bag of
24 all these different regulatory structures. So I
25 built this team and I intended to continue to

1 grow this team and embed more of a quality
2 control element into the branch.

3 CHRISTINE MAINVILLE: And was that --
4 in terms of quality control was that primarily
5 by way of audits or other type of activity?

6 BRANDON RICHARDS: Yeah, it was
7 audits. That part was actually birthed from an
8 audit from the Auditor General, which was before
9 I came to OC Transpo.

10 There was a training audit for the new
11 bus operator training where essentially, before
12 I was there, they reduced the amount of time to
13 train ENBOTS. And then the accusation, I
14 believe, was that the reduction of training
15 caused incidents on the bus side of operations.

16 So that position was birthed to really
17 get in and understand, from an auditing
18 perspective, what was going wrong, what was
19 going right, what needed to improve. So we
20 hired her in early 2021 and she spent almost the
21 entire year focused on that primarily, to begin
22 with.

23 I don't know if I answered your
24 question. I think I rambled on a bit there.

25 CHRISTINE MAINVILLE: Well, why don't

1 we -- I think we can take down your resume. And
2 then maybe we'll just delve into some of this a
3 bit more.

4 Perhaps one thing that might assist is
5 to know how your position and work relates to
6 other safety-type officers, such as the
7 regulatory monitor and compliance officer?

8 BRANDON RICHARDS: How it related to
9 that person?

10 CHRISTINE MAINVILLE: So in terms of
11 division of responsibilities or how does your
12 role differ from that?

13 BRANDON RICHARDS: Are you talking
14 about Sam Berrada or are you talking about the
15 regulatory monitoring officer that we put in the
16 quality control branch?

17 CHRISTINE MAINVILLE: I want to hear
18 about both but I was talking about Sam Berrada.

19 BRANDON RICHARDS: Sam Berrada is
20 independent of OC Transpo and he provides
21 oversight to ensure that OC Transpo is compliant
22 with the regulations set by the delegated
23 agreement. And he does his monitoring
24 throughout the year. So he would actually audit
25 my teams and the subcontractors and then provide

1 status reports to Council and to the City
2 Manager directly.

3 CHRISTINE MAINVILLE: But as far as I
4 understood, you also have some involvement in
5 ensuring compliance with the regulations that --

6 BRANDON RICHARDS: Absolutely, yeah.
7 Essentially like -- Sam would be monitoring my
8 teams for a lot of the regulatory monitoring he
9 was doing.

10 But, for example, Sam would do
11 monitoring on, let's say one of the elements of
12 regulation is the maintenance and rehabilitation
13 plan, that's an activity that rail operations
14 would primarily be responsible for. So my team
15 would work with rail operations to ensure that
16 what they're doing is compliant with regulation
17 in the system for the monitoring that Sam was
18 going to do.

19 CHRISTINE MAINVILLE: And then you
20 mentioned another officer.

21 BRANDON RICHARDS: Yeah. There was a
22 position that I hired with that branch, I can't
23 remember the exact title, it's very close to
24 John's -- sorry, his name is John. It's very
25 close to Sam's title. It's the regulatory -- it

1 might be the regulatory compliance officer.

2 But essentially it was an individual
3 who would be responsible to provide support to
4 the TSB and TSB reportables when they occurred.
5 And someone who would do more auditing when it
6 comes to the regulatory side of things for,
7 like, let's say that maintenance and
8 rehabilitation plan, they would hold the rail
9 operations team to account to make sure they
10 were compliant with regulation. And he was also
11 responsible to make sure that the subcontractors
12 were responsible as well, to make sure that they
13 were compliant, which ultimately means OC
14 Transpo's compliant with regulations. So really
15 what he was doing with the subcontractor was, by
16 extension, making sure that they were doing what
17 they were supposed to do so that OC Transpo was
18 in compliance with its regulation.

19 CHRISTINE MAINVILLE: And you're more
20 concerned with just the latter?

21 BRANDON RICHARDS: The latter being?

22 CHRISTINE MAINVILLE: The latter
23 being --

24 BRANDON RICHARDS: Yeah. Yeah, more
25 concerned that OC Transpo is compliant, yeah.

1 CHRISTINE MAINVILLE: But is it fair
2 to say that when you're looking at whether OC
3 Transpo is compliant -- does it go beyond, you
4 know, whether the various requirements and
5 regulations are met and abided by to look at,
6 you know, is the system in fact safe?

7 BRANDON RICHARDS: I'm not sure I
8 follow.

9 CHRISTINE MAINVILLE: So let's --
10 perhaps let's break it down. What requirements
11 are you looking to for -- in terms of assessing
12 compliance, and what regulations?

13 BRANDON RICHARDS: So I don't have the
14 regulations with me and I don't know them off by
15 heart, but in the delegated agreement they do
16 lay out the regulations, which is essentially
17 different documents that you have to have in
18 place, and programs you have to have in place.
19 I'll list a few off the top of my head, like the
20 maintenance and rehabilitation plan, which is a
21 very large and encompassing document which makes
22 sure that the LRTs are maintained properly,
23 the stations are maintained properly, the
24 infrastructure is. And there is schedules for
25 minimum requirements for maintenance. So that,

1 by extension, is ensuring a high level of safety
2 with those activities being done.

3 Now, actually proving they are being
4 done is another piece. If I understand what
5 you're saying, my team is responsible to make
6 sure that those activities are done and, if not,
7 escalate. So if they're not showing track
8 inspections are done properly that needs to be
9 escalated and then actions appropriately through
10 the contract channels, or handled at another
11 level of management. So that's sort of the role
12 that they would play. If that's answering your
13 question.

14 So there's the maintenance and
15 rehabilitation plan, there's the safety
16 management system, the security management
17 system, there's quite a few, I can't remember
18 them all off the top of my head.

19 CHRISTINE MAINVILLE: Fair enough.
20 But are these -- am I right that these are
21 regulations devised by the City pursuant the
22 delegation agreement?

23 BRANDON RICHARDS: Yeah. I think it
24 was regulations agreed upon between the City and
25 Transport Canada through that delegated

1 agreement. I don't know who made them. I'm not
2 sure who made them, if it was Transport Canada
3 or the City, or it was just a joint effort. It
4 was quite a while ago. I believe they were made
5 over ten years ago.

6 CHRISTINE MAINVILLE: With a view to
7 the LRT, is that correct?

8 BRANDON RICHARDS: Yes, specific to
9 the Confederation line.

10 CHRISTINE MAINVILLE: And they are --
11 so is it fair to say though -- is it your
12 understanding that they're not the federal
13 relations that apply?

14 BRANDON RICHARDS: No, they follow
15 parts of it. Like, so let's say having an SMS,
16 that's part of federal regulation, federal
17 railroads must have a safety management system
18 program. So it does mirror some of that, and I
19 think this is why there's a delegated agreement
20 with Transport Canada.

21 The LRTs are a bit unique, they
22 don't operate the same as a federal railroad so
23 it does have its own nuances. And what I mean
24 by that is that we talk about the maintenance
25 and rehabilitation plan, LRTs are maintained

1 very differently than freight and Class 1
2 railroads in Canada. So I think they have a
3 definitive line for certain activities and
4 that's why the regulations change a little bit.

5 CHRISTINE MAINVILLE: So your teams
6 are looking to those regulations in terms of
7 ensuring compliance and that people are
8 performing?

9 BRANDON RICHARDS: Yes.

10 CHRISTINE MAINVILLE: Are there other
11 instruments that you're looking to that set out
12 rules and regulations or the requirements, from
13 a safety perspective, that you're measuring
14 against?

15 BRANDON RICHARDS: The targets and
16 initiatives in the safety management system,
17 that's one of the larger focuses, because it's
18 looking at specific instances brought forward by
19 rail operations and my team for monitoring and
20 analyzing trends. And then, as you said, then
21 it's taking those trends and then reacting
22 appropriately to enhance the safety of the
23 system, and that embodies continuous
24 improvement, which is what SMS fosters.

25 CHRISTINE MAINVILLE: And I think that

1 was also going to my earlier question. You
2 talked about, first of all, assessing whether
3 the various things that need to be done,
4 pursuant to the regulations are in fact done,
5 but I guess the second piece of it is --

6 BRANDON RICHARDS: Oh I see.

7 CHRISTINE MAINVILLE: -- looking to
8 see whether those are sufficient and whether
9 there is --

10 BRANDON RICHARDS: Yes. There is more
11 than just regulation to that point.

12 CHRISTINE MAINVILLE: So your team, or
13 several teams, will look at that as well, the
14 sufficiency --

15 BRANDON RICHARDS: Yeah. Work with
16 rail operations and customer service, and just
17 trying to think of examples off the top, which
18 may not even be encompassed in the SMS. But
19 tracking, information like attempted suicides,
20 you know, that's not part of regulation but we
21 want to be aware of it. And then we engage
22 Ottawa Public Health to get strategies on how to
23 be prepared for not just staff in that situation
24 but how do we try and avoid those situations and
25 work together in those ways.

1 CHRISTINE MAINVILLE: And so the
2 safety management system, is it created by OC
3 Transpo?

4 BRANDON RICHARDS: It was created by
5 OC Transpo, yeah. The person we talked about at
6 the beginning, who was in the role before me,
7 created the safety management system for the
8 City. And, as I said, we update it every year
9 and make changes and continuously improve it.

10 CHRISTINE MAINVILLE: So could you
11 give me a sense of what that looks like? What
12 kind of -- are there requirements set out there?

13 BRANDON RICHARDS: For SMS? How it
14 works?

15 CHRISTINE MAINVILLE: Yes.

16 BRANDON RICHARDS: If you were to go
17 on Transport Canada's railway safety management
18 system there's a pretty extensive guideline
19 online. So that's the foundation for how all
20 SMS work. So there are twelve steps in the
21 safety management system, it's naming the
22 accountable individual, having a process for
23 risk management, having a process -- there's a
24 lot of different levels to it. So they are
25 fairly structured, it's not really something

1 that deviates too much from one company to
2 another.

3 CHRISTINE MAINVILLE: And then what
4 about targets and initiatives, can you explain
5 that to me a bit more?

6 BRANDON RICHARDS: Yeah. So, for
7 example, we work collaboratively with the other
8 groups. I don't have them all off the top of my
9 head, but there's quite a few targets and
10 initiatives set. So we might look at, with the
11 rail operations team, how many hours of -- we
12 call it "RM mode", so driving manually the train
13 happened this month? And then you try to
14 associate that to incidents that may have
15 occurred as a result of that. Was there a
16 sufficient amount of training done on the line?
17 If there was, does that contribute to us having
18 less incidents this month? And we reviewed
19 those on a monthly basis at a meeting that I
20 chaired, called the "Confederation line safety
21 meeting", and we look at the different trends.
22 There was absenteeism, we would look at rule
23 violations as a very big one in the rail
24 industry because operating rules are very
25 important to the safety of the system. So

1 seeing rule violations, seeing trends really is
2 a good indicator as to how you can prevent
3 things from happening.

4 CHRISTINE MAINVILLE: And to what
5 extent would you look beyond OC Transpo's
6 functioning, to the extent that, as you've
7 explained, others may be performing certain
8 roles? Taking maintenance, for example, and
9 that may impact the extent to which OC Transpo
10 is compliant. So what level of authority would
11 you have over non-OC Transpo members and
12 entities and how would you work with those?

13 BRANDON RICHARDS: Are you speaking
14 about RTM specifically?

15 CHRISTINE MAINVILLE: Yes, RTM, Alstom
16 maintenance.

17 BRANDON RICHARDS: So in the capacity
18 of my position, under John I have the authority
19 to shut the line down if I felt it was necessary
20 for safety reasons. So that was the extent of
21 my authority, which obviously can't be taken
22 lightly and has to be weighed, but safety does
23 have to be first.

24 I shut the line down twice since I was
25 there, but I would generally work with, you

1 know, subject matter experts and -- during
2 different situations, as they arose, to make
3 sure that I was making the best informed
4 decision to resume service safely if possible.

5 CHRISTINE MAINVILLE: And were those
6 related to the derailments, those shutdowns?

7 BRANDON RICHARDS: Yeah. Both of them
8 were related to the two derailments, the August
9 and September. The August one I think it was
10 shut down for about a week. I can't remember
11 the dates but -- and obviously September it was
12 a little bit longer.

13 CHRISTINE MAINVILLE: And we'll get to
14 the details of those. But do you have sole
15 authority for that or would the City Manager or
16 anyone else, or Mr. Manconi have authority?

17 BRANDON RICHARDS: The General Manager
18 could as well obviously, and the City manager
19 could.

20 I mean, the culture there, if there
21 was a concern from somebody else, like the
22 Director of Rail Operations, obviously it would
23 be no question, it would be shut down. Not that
24 it was my sole, it's just that I had that
25 authority.

1 CHRISTINE MAINVILLE: And in those two
2 instances it was your call, would you say, on
3 the two derailments?

4 BRANDON RICHARDS: I would say it was
5 myself and John. I think we both were in
6 agreement very, very quickly that we had to shut
7 down and find out what was happening before we
8 proceed.

9 CHRISTINE MAINVILLE: And when you say
10 "John" that's John Manconi?

11 BRANDON RICHARDS: Yeah.

12 CHRISTINE MAINVILLE: And in terms of
13 getting the green light to start back up again,
14 was that also your joint call?

15 BRANDON RICHARDS: Yes. Yeah, it was.
16 Do you want to go into the details of that?

17 CHRISTINE MAINVILLE: Let me just ask
18 you one thing before, when you say the "Director
19 of Rail Operations", who is that?

20 BRANDON RICHARDS: Troy Charter.

21 CHRISTINE MAINVILLE: So earlier when
22 you were talking about rail operations you're
23 referencing his department?

24 BRANDON RICHARDS: Yes.

25 CHRISTINE MAINVILLE: Okay. So let's

1 jump into the -- some of the issues that were
2 encountered. And so let's start with the
3 derailments. If you want to start from the
4 beginning as opposed to the end on those
5 incidents and what your involvement was that
6 would be good.

7 BRANDON RICHARDS: I'll try and be as
8 detailed as possible. It was a while ago now,
9 but in August, it was in the evening, but I got
10 the call. Weren't really sure, there was
11 something going on with the train, it was
12 stopped and then -- and then ultimately it was
13 derailed at Tunney's. And I actually went to
14 the site, I went out and we had to wait to get
15 access to the track and train.

16 And at that point we really didn't
17 know too much, it just seemed like there was a
18 wheel off. The train didn't really have any
19 symptoms of having anything catastrophic, it
20 didn't even really look like it was derailed
21 when we were there. And then at that point we
22 just shut down service for the night, everything
23 went back to the MSF. I think this was around
24 eleven o'clock.

25 And then as we were able to see the

1 vehicle we noticed there was significant damage
2 to the one wheel and it was the burn off, the
3 actual burn off. And then we knew that this is
4 more widespread and serious. And that's when we
5 grounded the fleet and said, There's no service
6 resuming after this. So as soon as we saw that
7 that was in play it was just a matter of
8 grounding the fleet immediately.

9 And the reason for that is because
10 Alstom could not definitively describe what the
11 root cause was to be able to go into service
12 safely with an adequate mitigation. So because
13 they couldn't come up with an answer it was an
14 easy call to say, because you don't know we
15 can't put the trains into service.

16 And they started doing their analysis
17 and they determined it was the axle bearing.
18 They determined it was the -- they determined it
19 was a torque nut inside the axle bearing housing
20 that was coming loose and then ultimately
21 causing it to degrade and burn off. And then
22 they had a similar incident on a similar
23 vehicle, I think it was the same vehicle in
24 France at SNCF.

25 And they determined that by doing the

1 7,500 kilometre inspection on the bearing could
2 prove that the bearing's integrity was
3 sufficient to be able to allow it to run for
4 7,500 kilometres.

5 And I'm not a bearing expert so I need
6 to rely on subject matter experts when it comes
7 to this. So we reached out to different
8 consultants and we had STV I think at the time
9 do an assessment of the mitigations, and
10 obviously Alstom's engineers as well. They
11 provide, I think they call them "safety memos"
12 just highlighting -- the risk is brought down
13 through the mitigation to an acceptable level to
14 resume operations.

15 So they did the paperwork, they gave a
16 safety memo and a safety note saying that the
17 fleet was safe to resume service following these
18 mitigations are done. And that's how we were
19 able to resume service for the August
20 derailment.

21 CHRISTINE MAINVILLE: What do you mean
22 by the hundred kilometer inspection, I think?

23 BRANDON RICHARDS: Yeah. So it's a
24 7,500 kilometre inspection was the mitigation
25 that Alstom came up with. Essentially they put

1 the trains up on a jack so that there's no
2 pressure on the bearings, and they would pry the
3 bearings with a certain amount of force and
4 measure if it moves at all. And if it moves it
5 tells them that the bearing has a degraded state
6 and then it has risk of deteriorating and
7 burning off.

8 But if it doesn't have that move then
9 it's safe to resume service, and that was, as I
10 said, based off of their own engineering
11 assessment and their past experience with SNCF.

12 CHRISTINE MAINVILLE: And is there a
13 plan to do those regularly, to repeat these?

14 BRANDON RICHARDS: Every 7,500
15 kilometres they've had to do them while I was
16 there, yeah.

17 CHRISTINE MAINVILLE: And in terms of
18 a similar occurrence happening in France, would
19 that have predated the --

20 BRANDON RICHARDS: Yes.

21 CHRISTINE MAINVILLE: -- LRT?

22 BRANDON RICHARDS: Yes, it did.

23 CHRISTINE MAINVILLE: So what -- to
24 what extent, if at all, did Alstom mitigate that
25 risk in respect of the Ottawa LRT?

1 BRANDON RICHARDS: I did not see any
2 before the incidents occurred. The TSB
3 obviously was involved when that happened. And
4 when we went looking through Alstom's
5 consolidated safety file, they call it, for the
6 trains and we saw -- we didn't see anything
7 specific to that between us and the TSB. So I
8 can't really speak too much more than that. We
9 didn't see anything specifically for this issue.

10 CHRISTINE MAINVILLE: And the TSB
11 references that in their safety advisory record?

12 BRANDON RICHARDS: Yes.

13 CHRISTINE MAINVILLE: Saying it
14 identified a locked axle as a hazard?

15 BRANDON RICHARDS: Yes.

16 CHRISTINE MAINVILLE: But that is
17 slightly different is it?

18 BRANDON RICHARDS: It is, yeah. A
19 locked axle would be a little bit different than
20 a bearing, so that's why I say there's nothing
21 really explaining this specific incident in the
22 consolidated safety file.

23 CHRISTINE MAINVILLE: In terms of the
24 locked axle being identified as a hazard in
25 Alstom's consolidated safety file, what's

1 indicated there, as I understand it, is that it
2 would be mitigated through regular maintenance.
3 Is that something that could, from your
4 perspective, also have mitigated what occurred
5 here with the bearings?

6 BRANDON RICHARDS: I couldn't say
7 that. I've not seen any assessment on if the
8 maintenance that was recommended for that locked
9 axle in that file would have done anything to
10 mitigate the bearings, I wouldn't be able to
11 say.

12 CHRISTINE MAINVILLE: Do you know
13 anything about whether a heat detection system
14 for the roller bearings was possible on the LRT?

15 BRANDON RICHARDS: I had a lot of
16 discussions about that after the incident, some
17 before because I'm used to it in the freight
18 world. I don't know that it was possible, I
19 like to think that it was, but I never got a
20 definitive answer from Alstom or RTG as to how
21 it would work.

22 I was told by Mario Guerra, with RTM,
23 because he works on multiple projects in his
24 role with SNC Lavalin, that Montreal REM project
25 was putting a wayside heat bearing detection

1 system in, but I never got any details as to if
2 it was something that could work with our line
3 or not. That's something that I never got an
4 answer for. It was just something that I was
5 told was being continuously looked at.

6 CHRISTINE MAINVILLE: And what would
7 be the extent of your role or involvement in
8 that regard in terms of what could be required
9 of Alstom or RTM as it relates to this? Like,
10 how much say would you have in that? Or do you
11 have to wait for them to come up with a plan?

12 BRANDON RICHARDS: At the end of the
13 day, like I said, my authority was that if I
14 felt it was unsafe for operations I could
15 prevent operations or stop the line from
16 running.

17 As for encouraging or forcing the
18 contractor to put something in place like this,
19 if it wasn't -- so there's always -- the heat
20 bearing detection system, if plausible, would
21 provide another element of safety, but that
22 doesn't mean that without having it the line is
23 unsafe to operate. So knowing that I wouldn't
24 really have much authority to force them to do
25 it, even though it's a good idea and I would

1 like it. It all comes down to cost and who's
2 paying for it.

3 CHRISTINE MAINVILLE: And there may be
4 various solutions to any given issue?

5 BRANDON RICHARDS: Sure. Yeah. Yeah.

6 CHRISTINE MAINVILLE: And so is it
7 fair to say that it's not your role to dictate
8 any particular solution?

9 BRANDON RICHARDS: That's correct.
10 And that's how it was posed to the contractor.
11 It was, you know, we know that heat bearing
12 detection is a technology that's used frequently
13 in the rail industry, if there are better
14 solutions we're all for it.

15 CHRISTINE MAINVILLE: So at least by
16 the time you left this was an unresolved issue,
17 or did it appear to be -- did the inspections
18 appear to be a permanent solution?

19 BRANDON RICHARDS: It was unresolved.
20 As far as I was aware the inspections were a
21 temporary solution. Alstom was -- they had
22 committed to having the root cause for the
23 bearings failure by December, which they didn't.
24 And by the time that I left in January they
25 didn't have any solution for it whatsoever. So

1 I'm not sure where that stands nor am I sure
2 where the bearing detection analysis stands.

3 CHRISTINE MAINVILLE: And would you
4 have left the investigation of that incident to
5 TSB entirely, or was there -- were there
6 investigative steps taken by your teams in
7 respect of that?

8 BRANDON RICHARDS: Yeah. Every
9 situation TSB was involved in, concurrent
10 investigation with the TSB. You can't hold the
11 TSB up or disrupt their investigation, but we
12 obviously needed to move forward with the safety
13 of the system and obviously resuming safe
14 operations.

15 So, like, for example with the cracked
16 wheel incident, we did parallel investigations
17 and worked collaboratively with them also
18 providing updates to them as required.

19 CHRISTINE MAINVILLE: Do you get
20 anything back from the TSB, other than what's
21 made public more generally?

22 BRANDON RICHARDS: No, not really.
23 The TSB, if they feel there's a safety concern
24 they will communicate with the organization,
25 that's their practice.

1 We had a lot of meetings and
2 collaborations where we would get everyone
3 together. Alstom -- because Alstom does their
4 own independent investigations as well because
5 it's their vehicles, so we would have Alstom,
6 the City, RTM, the consultants we would have to
7 support us through those situations, and the
8 TSB, and just sort of get everybody in the same
9 room to lay out all the information and provide
10 as much as we could. Obviously the TSB is not
11 coming and providing information, they're taking
12 whatever information they can to do their
13 investigation.

14 CHRISTINE MAINVILLE: And did you get
15 a sense, through your own investigation, or as a
16 result of their -- the discussions with these
17 various parties, did you get a sense of whether
18 there was a need for increased maintenance, or
19 whether the maintenance had been sufficient or
20 not, at least as it relates to the vehicles and
21 the -- and these roller bearings or axles?

22 BRANDON RICHARDS: If I can answer the
23 question right, I think, if I understand what
24 you're saying -- are you saying, based on the
25 investigations that occurred did we discover and

1 feel that more maintenance was required?

2 CHRISTINE MAINVILLE: Yes.

3 BRANDON RICHARDS: Yes, I would say
4 so. The 7,500 kilometre inspection is evidence
5 of that in itself.

6 And then when the second derailment
7 happened, I know we haven't spoken about that
8 yet, but we went through something we called the
9 "safety critical items check". Alstom created
10 that process, which I can elaborate on after.
11 And when they did that check they found
12 components, which I never got details of fully,
13 just validation that the trains were safe to go
14 to service, but they did find components that
15 needed to be adjusted, tightened, stuff like
16 that. So I think -- I was told that it was a
17 worthwhile exercise and that they would
18 incorporate it into their maintenance program
19 going forward.

20 CHRISTINE MAINVILLE: Do you know why
21 that hadn't been provided for earlier?

22 BRANDON RICHARDS: I don't know why it
23 wasn't in the maintenance regiment before. Is
24 that what you're asking?

25 CHRISTINE MAINVILLE: Yes.

1 BRANDON RICHARDS: I don't know why it
2 wasn't in the original maintenance. Because, I
3 mean, I suppose what -- the maintenance regiment
4 that you're talking about was the one that was
5 drafted with the procurement of the LRT, right?
6 So I don't know why it wasn't captured in that.

7 CHRISTINE MAINVILLE: So maybe you can
8 just explain your understanding of that. Do you
9 mean these would be things that had been
10 provided for in the Project Agreement?

11 BRANDON RICHARDS: Yes. Like the
12 maintenance and rehabilitation plan is
13 developed -- my understanding of it, and I could
14 be wrong, but my understanding of it is that
15 it's developed through the Project Agreement.
16 Obviously different projects are different so I
17 can liken it to projects that I currently work
18 on. But you do a hazard analysis, you do hazard
19 assessments and you determine what maintenance
20 activities mitigate risks? What maintenance
21 activities are required, not required? So I
22 would assume that Ottawa was no different, and
23 that as a part of the PA deliverables the
24 maintenance and rehabilitation plan was created
25 from that, that's just my assumption though.

1 CHRISTINE MAINVILLE: So in terms of
2 your other experience then in this regard, would
3 the plans not need to be updated, in particular,
4 you know, after construction and once -- and
5 during testing and whatnot? Or is that usually
6 fairly easily planned at the outset?

7 BRANDON RICHARDS: I think -- I don't
8 know if I have enough experience to -- like, I'm
9 not a -- I'm not an engineer to that level where
10 I know that inside and out. I don't think
11 they're updated regularly, unless there's a
12 reason to, which in this case there obviously
13 was.

14 I couldn't say what normal practice is
15 for that, because the projects that I have
16 experience with and I'm working on, they're
17 either younger than the Confederation line or
18 not built yet.

19 CHRISTINE MAINVILLE: So let's go back
20 to the second derailment, could you tell us
21 about your involvement in that one?

22 BRANDON RICHARDS: Sure. So the
23 second derailment I got a call that there was a
24 derailment on the main line. I didn't have much
25 detail and I went to site. I had to go there

1 and see what was happening and see how I could
2 support.

3 When the train was on the ground we
4 stopped service even before I could get to site.
5 I spoke to John. I remember talking to him
6 and -- John Manconi, and saying, We don't have
7 enough information. We have to just shut the
8 line down until we get more information.

9 So immediately we stopped trains,
10 passengers got off, they started bus service.

11 And then I called the TSB. Rob
12 Johnson is the -- I think he's labelled as the
13 Senior Investigator for most things, but he's
14 the Regional Manager I think. And I informed
15 him as to what was happening and he came out as
16 well right away and met me on site.

17 When I got there it was blocked off as
18 a crime scene. The police, for some reason, had
19 suspicion that somebody tampered with the LRV
20 and that they had caused it to derail so they
21 were doing an investigation. So I wasn't able
22 to get on to see anything for -- it was a while.
23 It was at least an hour or two before I could
24 get on the track.

25 When Rob came they allowed the TSB to

1 go in and then, by extension, I was able to go
2 with him and see what was happening. When I got
3 there you could clearly see the LRV was off the
4 track. It was probably the worst that we've
5 seen yet. And you could see that there was
6 damage along the guideway and that the train had
7 travelled some distance before it had stopped.

8 And then we looked at the video
9 footage and saw that the train derailed at
10 Tremblay Station and then dragged. And I don't
11 know if I'm going into too much detail or not?

12 CHRISTINE MAINVILLE: No, keep going.

13 BRANDON RICHARDS: After we started
14 getting the pieces together we needed to
15 determine what caused the derailment. There was
16 speculation around sanding brackets, there was
17 all sorts of speculation, as there are when
18 these incidents occur.

19 And then I can't remember how many
20 days it was afterwards, but we were obviously
21 working to try and figure out what was
22 happening. But Alstom had come forward and,
23 through their records, had determined that a
24 technician was working on the gearbox assembly,
25 which is on the outside of the wheel. And this

1 is linked back to the August derailment because
2 the gearbox assembly was taken off because they
3 were doing a maintenance activity related to the
4 replacement of the axle bearing from the first
5 derailment. And by doing that they had to
6 remove the gear box to replace the bearing, so
7 they did that. And then the -- in their record
8 keeping they had a technician that had went off
9 their shift and they were doing this maintenance
10 activity. And then the new technician came in,
11 they didn't log the paperwork properly and the
12 new technician did not tighten the gear box on
13 properly.

14 And then the train, through its
15 operation, I guess, must have vibrated the bolts
16 loose and the gear box fell off of the train.
17 It looks like it made contact with Tremblay
18 Station and then derailed the train. And then
19 the train -- they're quite powerful. So the
20 operator was in the front train, because they're
21 electric they have a very high torque. So the
22 operator didn't really feel too much while they
23 were driving, didn't feel anything at all
24 actually, I spoke to him myself.

25 And I think the train was ultimately

1 stopped because it took out a switch machine
2 that's a part of the CBTC system. And because
3 it took the switch machine out the system
4 responded by stopping the train.

5 So obviously knowing that, the process
6 for coming back into a safe resumption of
7 service is much more extensive than just the
8 technical component that fails.

9 Now, I knew that to ensure that
10 service could go back in safely we had to have
11 confidence in the quality of the work that
12 Alstom and RTM were doing, RTM in its oversight
13 of its contractors and Alstom on delivering in
14 its work.

15 So we worked within -- by "we" I mean
16 the City, Alstom, RTM, consultants to -- and the
17 TSB too because we had to provide them
18 information. But just so it's clear, the TSB
19 doesn't have a role in resuming safe service,
20 they don't have any role in that. I believe if
21 they have a serious concern they would speak up.
22 But I don't think that's very common or has
23 happened, from my knowledge.

24 So we had to determine a safe return
25 to service plan. What does that look like? And

1 we followed the APTA standard for doing
2 investigations to come back in line with safety
3 of the service. So obviously knowing that
4 quality was an issue we had to look at
5 workmanship from Alstom. We had to look at the
6 actual technical components themselves. We had
7 to come up with a testing regiment,
8 infrastructure repairs.

9 And so we built this document called
10 the "Return to Service" plan, or RTM built it
11 because it's their responsibility to put
12 something like this together. And the return to
13 service plan is essentially a composition of all
14 the different activities that were required to
15 safely bring service back online. And its
16 activities were the summation of a hazard
17 analysis and risk assessment to determine that
18 those activities allowed the service to resume
19 safely, and that we were in a level of risk that
20 is acceptable to resume service.

21 To sort of get at how we did that, I'd
22 have to -- you'd have to see the plan. I'm sure
23 maybe you already have it and have taken a look
24 at it. But to determine workmanship Alstom
25 decided they needed to physically check any work

1 they had done at Ottawa on their vehicles. And
2 they came up with a very extensive list of all
3 the different fasteners and pieces of equipment
4 that they had to go through and physically check
5 on every train. It took several days per train,
6 if I remember right, and verify that they're all
7 in good standing to go back into service. And
8 that's where I was saying before that they did
9 find some things that were unrelated to this
10 that they though, Gee, this has got to get
11 incorporated moving forward.

12 Now, this was not the first time I had
13 raised concerns about Alstom's quality of
14 workmanship. I had sent at least one official
15 legal letter to RTM about the need for more
16 oversight and for Alstom to increase its quality
17 control. I can't remember exactly what the
18 workmanship issue was but I think it was related
19 to the cracked wheel incident, and I don't
20 believe I got a response from Alstom on it.

21 So the summation of activities from
22 the return to service plan was how we were able
23 to resume service. I think it was over two
24 months that we were out of service from the
25 September derailment.

1 CHRISTINE MAINVILLE: So in terms of
2 that letter that was sent raising concerns
3 earlier on, I take it, given what you've said
4 before, short of shutting down the service, the
5 line, because you feel it's unsafe, or a
6 particular -- I guess, taking a particular
7 vehicle out of service, you have no ability to
8 require an answer from -- whether it's Alstom or
9 RTM?

10 BRANDON RICHARDS: When it's Alstom
11 the contractual position is that they have a
12 contract with RTM and they don't have to answer
13 to the City. It was something that they would
14 pick and choose to position themselves that way.
15 I know on occasion they would directly
16 communicate with the City, even though they're
17 not supposed to, and it caused friction between
18 RTM and Alstom.

19 But, yeah, you're correct. I had a
20 couple of tools. One tool was to shut it down,
21 pull a vehicle out of service, and the other was
22 to send contractual letters. Which at the end
23 of the day -- I wasn't too involved with the
24 contract side of things. I do understand it was
25 kilometre-based for service delivery, so that

1 hit the contractor financially when they didn't
2 deliver service.

3 But as far as penalizing them for a
4 situation like that, a quality of -- a concern
5 for quality of workmanship I don't think it
6 really had much of an impact with the contract.

7 CHRISTINE MAINVILLE: And you said you
8 weren't sure what had prompted that letter, it
9 could have been the cracked wheels. But can you
10 speak to whether you -- were it not for the
11 cracked wheel issue did you generally have
12 concerns about the manufacturing of the
13 vehicles, or otherwise, as you put it, the
14 quality control with respect to Alstom's
15 manufacturing?

16 BRANDON RICHARDS: I didn't have
17 concerns until September. Before, when it was
18 the cracked wheels, I mean, the incident, if I
19 remember it right, it had to do with -- I think
20 it had to do with torque strips I think it was
21 on the wheels. If -- I can't recall what it was
22 exactly. But essentially you have to put a
23 torque mark on the wheel to make sure it was
24 torqued properly and I don't think they had
25 them.

1 So it was, you know, it is concerning.
2 It's something I felt I needed to voice to RTM
3 and Alstom, that you have to be 100 percent on
4 your game here because there's always -- you
5 need to be on top of this. And -- but at that
6 point I didn't have any glaring, immediate
7 concerns that there was significant quality of
8 workmanship issues that would cause me to be
9 concerned about the safety of the system.

10 CHRISTINE MAINVILLE: And when you say
11 September those concerns arose, that was
12 September 2020?

13 BRANDON RICHARDS: 2021, when the
14 derailment happened. So when there was a
15 derailment due to the quality issue with Alstom,
16 that's when there was -- obviously I had
17 concerns then and that's why we were out of
18 service for as long as we were.

19 CHRISTINE MAINVILLE: And short of
20 safety concerns would you otherwise have
21 performance or reliability concerns? Or would
22 you connect those to safety ultimately?

23 BRANDON RICHARDS: I don't know if
24 it's quite black and white to say that the
25 performance and reliability was directly linked

1 to safety. There's a lot of performance and
2 reliability issues that maybe the vehicle didn't
3 meet specification for the PA, maybe it was a
4 heater that wasn't working properly for an
5 operator. So there was quite a volume of things
6 that would have affected reliability and service
7 delivery that were not related to safety.

8 And when they did it was a matter
9 of -- I mean, for example, LRV, I think it was
10 16 -- there was a couple of specific LRVs that
11 I had grounded and would not allow back into
12 service until Alstom had showed sufficient
13 evidence that they were safe to resume service.
14 If there was a safety concern that's how I would
15 deal with it. I would ground the LRV until it
16 was proved to be safe.

17 CHRISTINE MAINVILLE: And otherwise
18 reliability concerns that you don't believe
19 engaged safety those would not really be your
20 concern?

21 BRANDON RICHARDS: Not really. I
22 mean, I'm just trying to think of the details
23 how to articulate what would and what wouldn't.
24 I mean, there are some, obviously, I've had
25 reports of a cracked windshield on a train and

1 it can't be used for service because there's a
2 cracked windshield. So that's one where it
3 would be my team's call to move forward or not.

4 But like I said, if there was a
5 situation where the cabin heater wasn't working
6 for the operator in the winter time, or the air
7 conditioner wasn't working, it's not something
8 that we would be too much involved with really

9 CHRISTINE MAINVILLE: And do you
10 recall if -- and I think that started -- or it
11 was largely before your arrival at the City, but
12 the door issues?

13 BRANDON RICHARDS: That was before my
14 time at the City. I know that they were doing
15 some improvements to them when I was there. And
16 I didn't really experience any door issues while
17 I was there.

18 CHRISTINE MAINVILLE: Would those
19 potentially have been considered safety related?

20 BRANDON RICHARDS: Oh, absolutely, for
21 sure.

22 CHRISTINE MAINVILLE: Just going back
23 to the second derailment, we talked about how
24 there was a quality control issue. Would
25 you --did you assess there to be any issues as

1 it related to operations, if only in terms of
2 the possibility of having mitigated the damage
3 done? So was there anything the operator
4 perhaps should have noticed or could have done
5 that required some -- that was addressed
6 following the derailment?

7 BRANDON RICHARDS: I looked into that.
8 My team looked into it and we had -- we had two
9 instances where a train was dragged after it was
10 derailed and it was the rear -- I don't know if
11 you're aware but in the Ottawa system they put
12 two LRVs together and they couple them
13 together. And in both of these situations the
14 rear LRV, the one that being dragged, derailed.
15 And we had one in the yard that happened. And
16 it was dragged for a bit of a distance, a couple
17 of hundred feet. And you -- I could see the
18 footage. I remember watching the footage there.

19 And that was an Alstom hostler, they
20 call them. So they use hostlers to move the
21 trains from the yard. And when it derailed in
22 the yard he didn't feel anything at all, dragged
23 it. You can see the train was bouncing and it
24 was obviously under some pretty significant
25 strain.

1 And I found it so hard to believe.
2 How could you not feel this? What could you
3 have done differently to stop the train sooner?
4 And what it came down to is that there are
5 processes that could be better followed through
6 to prevent that from occurring in the yard. But
7 on the main line where this OC Transpo operator
8 was driving the train, I truly don't think he
9 felt anything at all. And I'm not sure that
10 there was anything that he could have done
11 differently to prevent the extent of the damage
12 or dragging the train.

13 CHRISTINE MAINVILLE: And so, is it
14 fair to say that nothing was changed on the
15 operations side, or even -- were any changes
16 made on the City side following that derailment,
17 in terms of requirements or checks and other
18 measures?

19 BRANDON RICHARDS: I mean, with the
20 return to service plan -- what we did as part of
21 our service plan, return to service plan, from
22 the City side, I engaged the training unit to do
23 refresher training with the operators to make
24 them familiar with symptoms that could arise
25 that situation from happening again.

1 An example is when we went into doing
2 the testing to let the trains go back into
3 service, making people familiar that if you
4 smell something that's burning, observe the
5 trains when they go by, these are the things
6 that you can look out for. It's not something
7 necessarily that's going to mitigate in actual
8 operation, because you've got the public around,
9 there's not necessarily going to be people all
10 over the place. But making staff generally
11 aware that there are things you can look out for
12 is one thing that OC Transpo had done.

13 And like I said, we also did refresher
14 training, took the time to brush people up on
15 their operating rules, because they were out of
16 running the line for two months. So it was a
17 matter of making sure that people were still up
18 to their understanding and training.

19 CHRISTINE MAINVILLE: I have a Safety
20 Occurrence Investigation Report from OC Transpo
21 relating to the derailment. Is that something
22 you would draft or do you need to see it?

23 BRANDON RICHARDS: Yes, could I see
24 it. I think it's something I would have done.

25 CHRISTINE MAINVILLE: We don't have a

1 document number for this document yet. We'll
2 show it to you.

3 BRANDON RICHARDS: Oh CleverCAD, yeah.

4 CHRISTINE MAINVILLE: Well, yeah, the
5 CAD incident reports here, but if you go down
6 this is a statement from the driver, correct?

7 BRANDON RICHARDS: Yes.

8 CHRISTINE MAINVILLE: Would you have
9 seen that?

10 BRANDON RICHARDS: Sorry.

11 CHRISTINE MAINVILLE: Did you take
12 that statement?

13 BRANDON RICHARDS: I believe rail
14 operations took it jointly with one of my people
15 from the safety team.

16 CHRISTINE MAINVILLE: Have you read
17 it? Do you recognize this?

18 BRANDON RICHARDS: Yeah, I do
19 recognize it. I don't remember every word but I
20 recognize it. I believe he writes about how he
21 doesn't feel anything.

22 CHRISTINE MAINVILLE: Right. And if
23 we go down here to the "Safety Occurrence
24 Investigation Report".

25 BRANDON RICHARDS: Yes. This would

1 have been something that I think my team would
2 have put together. I don't know, I don't think
3 I've seen this one.

4 CHRISTINE MAINVILLE: Is this a type
5 of report that you work with in terms of
6 structure? These are from your team?

7 BRANDON RICHARDS: Yeah. I think when
8 I saw them they would have been formatted
9 differently. I think this is when they put it
10 in the system, but it's reading a bit familiar.

11 CHRISTINE MAINVILLE: And if you drop
12 down a little bit to the second page of this
13 report, you'll see a reference to the -- right
14 there at the bottom:

15 "[...] the OC Transpo Chief
16 Safety Officer issued a Safety Order
17 [...]"

18 And that would be you?

19 BRANDON RICHARDS: Yeah, and I created
20 that safety order process. We put it into play
21 I think in September, it was very new. But I
22 wanted to have some sort of documented process
23 where it was sanctioned by the General Manager.
24 So John Manconi agreed that this was something
25 good to have, and it was essentially a

1 documented form which when a situation were to
2 occur like this, and there's different levels
3 associated with the safety order, of severity.

4 I would issue them to -- I could issue
5 them to -- here I did with the Director of Rail
6 Operations, but I could issue it to the
7 contractors. It's pretty much free for whoever
8 affects the operation of OC Transpo in an unsafe
9 way.

10 CHRISTINE MAINVILLE: And the safety
11 order requires them to take steps?

12 BRANDON RICHARDS: Yeah. So in the
13 safety order, I don't have one with me, but when
14 we -- when I built it with my team it would
15 highlight action required by the individual to
16 remove the safety order.

17 I believe in this situation it was
18 essentially talking about a safe return to
19 service plan and a risk assessment to determine
20 the safety of the resumption of service.

21 CHRISTINE MAINVILLE: And as you've
22 indicated, if you were to provide this to a
23 contractor it's not technically enforceable, but
24 it would hopefully carry some weight?

25 BRANDON RICHARDS: Yeah. Well, where

1 I was going with that too was, obviously to shut
2 the line down I wanted to have documentation
3 that it was done properly with specific times
4 and actions and individuals. I wanted to have
5 that all recorded.

6 But the other piece of it too was when
7 I had incidents with RTM or Alstom where I had
8 concerns, I would issue these and build a pile,
9 so to speak. And eventually you wouldn't -- it
10 would amount to something that needed to be
11 addressed.

12 Because I found, coming into the role,
13 there was a lot of issues and situations that,
14 you know, stand-alone weren't very big, but
15 nothing was really being captured to the point
16 where it could be built into a substantial case.
17 Does that make sense?

18 CHRISTINE MAINVILLE: Yeah. Let's
19 bring this down and file it as the second
20 exhibit.

21 EXHIBIT NO. 2: Safety Occurrence
22 Investigation Report from OC Transpo.

23 CHRISTINE MAINVILLE: What types of a
24 safety orders did you -- or issues did safety
25 orders cover that you say you sent to RTM and/or

1 Alstom over time? What were the main issues?

2 BRANDON RICHARDS: I think because it
3 was fairly new I had only issued two while I was
4 there, and this was one of them. And the other
5 one was not as severe. It was a safety order
6 from RTM. We had an incident where ceiling
7 panels in underground stations were falling, and
8 obviously there's a safety concern that it can
9 strike somebody and hurt them, so we issued a
10 safety order to RTM. And the safety order was
11 essentially telling them that they had to come
12 up with a mitigation to prevent this from
13 happening again.

14 What they did was they put together a
15 response to the safety order and they actioned
16 fastening all of the ceiling panels up and
17 securing them, and then doing manual checks
18 until they could come up with a long-term design
19 fix. But it was not a quick, easy process. It
20 took like quiet a bit of painstaking meetings
21 with them to actually get them to do it.

22 CHRISTINE MAINVILLE: So just to
23 clarify your earlier answer, the idea is you
24 might issue these for several smaller incidents
25 that could become something bigger, but you

1 didn't in fact do that during your time there,
2 you only issued two of them overall?

3 BRANDON RICHARDS: Yeah, I only had
4 the chance to do two. Yeah, that was any vision
5 of it, I was trying to --

6 CHRISTINE MAINVILLE: Right. And
7 what, if anything, were you told when you came
8 on to the job about any issues with the trains,
9 the vehicles or the systems? Did you have any
10 sense of past issues or reliability issues and
11 things that had been countered up to then?

12 BRANDON RICHARDS: I mean, coming into
13 the job I knew there was reliability issues. I
14 didn't feel that there was safety issues, per
15 se, but that the reliability issue needed to be
16 addressed.

17 I think no more than anyone else that
18 was familiar with Ottawa's line. It was sort
19 of, you know, it didn't have the greatest
20 reputation coming into it. More so because of
21 the door issues and the unreliability of it.
22 But I don't think it was anything -- nothing
23 stood out to me coming into the job that I
24 didn't already know.

25 CHRISTINE MAINVILLE: And you weren't

1 told anything about the testing and
2 commissioning and how the trains came into
3 service, and anything that may lead to -- may
4 lead one to conclude that there needs to be
5 enhanced focus on maintenance or operations, or
6 anything like that?

7 BRANDON RICHARDS: Coming into the
8 job, I mean, obviously I knew the speculation
9 from the public and what was reported. And they
10 didn't actually do trial running, they didn't --
11 I don't know the details of that. I don't know
12 what was actually done in the trial running or
13 what was accepted.

14 I obviously heard many different
15 people's perspectives and opinions on what
16 needed to be increased, what wasn't done. I
17 mean, it's a wide variety of opinion, right? As
18 to what is safe and what isn't safe.

19 So my focus primarily was, you know,
20 making reality safe and dealing with everything
21 that I could in a practical way.

22 CHRISTINE MAINVILLE: But you weren't
23 told in any formal way, or by any of the City
24 officials that you were dealing with, such as
25 John Manconi, this is something perhaps to keep

1 an eye on, or there may be issues here, or there
2 have been some concerns there. Nothing like
3 that?

4 BRANDON RICHARDS: No, no. No
5 specifics like that, no.

6 CHRISTINE MAINVILLE: I just want to
7 touch on a few other things. You mentioned the
8 derailments, a derailment in the MSF yard?

9 BRANDON RICHARDS: Yeah.

10 CHRISTINE MAINVILLE: There was more
11 than one, correct?

12 BRANDON RICHARDS: Yeah, there was
13 more than one. I don't know how many off the
14 top of my head, but I can think of three off the
15 top of my head.

16 CHRISTINE MAINVILLE: And how were
17 those addressed?

18 BRANDON RICHARDS: So as much as it's
19 not good it's not uncommon to have that
20 happening in a yard, but that doesn't mean that
21 because it happened you don't need to try and
22 improve and make things better.

23 That sort of goes back to a lot of the
24 derailments that we had in the yard, or
25 situations and rule violations that we had in

1 the yard were simply rule violations.

2 For example, one of the ones that I
3 can think of, let me back up a little bit. The
4 yard is supposed to be automatic, it's supposed
5 to function without the need for humans to go
6 and throw switches, if you're familiar with what
7 switches are, or what not. And because they're
8 operating it in a manual mode it causes human
9 factor to play more of a role in the rail
10 operation of the yard.

11 So the one situation that I can think
12 of is, they threw the switch under the train,
13 and essentially the train was going down one
14 track, the switch was thrown and the other half
15 of the train went down the other track and it
16 derailed the train. So obviously when that
17 happens you need to do a revision of the
18 processes and rules and what the contractor's
19 doing. How are you training your people? And
20 go through that exercise.

21 I think we made some good improvements
22 there. And that was jointly with the TSB as
23 well because they did get involved with those
24 sometimes. And I think it helped the contractor
25 to not just hear it from the City but from the

1 TSB as well, that this is something you really
2 need to put focus into and improve upon.

3 In the yard -- and then some of the
4 other derailments that happened in the yard they
5 weren't -- the two that I can think of, there
6 was the same LRV that derailed twice, I think it
7 was LRV 21, it climbed off of the rail.

8 And I know we were looking at the
9 infrastructure as being the root cause of the
10 issue. Alstom had ruled out that it wasn't the
11 LRV, but I don't know that there was ever a
12 conclusive finding as to why it derailed there.
13 But it's a very steep curve so it's not
14 unfathomable that it would happen, it just needs
15 to be -- we need to try and prevent it from
16 happening.

17 CHRISTINE MAINVILLE: And from your
18 observations, and understanding of the
19 situation, was there anything that you would
20 have expected to be in place that could have
21 helped prevent these occurrences and that wasn't
22 in place?

23 BRANDON RICHARDS: I mean, if we're
24 not just talking about derailments, I would have
25 thought that RTM would have had more

1 knowledgeable staff in place to follow rules. I
2 know there was a significant issue with using
3 radios to do a communication yard, it's
4 something that's done in the rail industry quite
5 often.

6 Using a cell phone is not an
7 acceptable method of communication. It's gotta
8 be frequent and accessible for someone to talk.
9 If you're moving a train you need to communicate
10 with the person driving. That's something that
11 I would have thought would have been more
12 embedded into the culture of the organization.

13 CHRISTINE MAINVILLE: And could I ask
14 you about the track buckling? Do you recall
15 that in the summer of 2020?

16 BRANDON RICHARDS: Yeah, yeah, the sun
17 kinks.

18 CHRISTINE MAINVILLE: Was there a
19 mitigation plan for that and do you recall if it
20 was implemented?

21 BRANDON RICHARDS: So that happened
22 pretty early when I got there. I think that was
23 in 2020. Is that what you're referencing?

24 CHRISTINE MAINVILLE: Yes.

25 BRANDON RICHARDS: I know that from --

1 all I know is that in the construction they set
2 the rail neutral temperature. Are you familiar
3 with this term?

4 CHRISTINE MAINVILLE: For the tracks?

5 BRANDON RICHARDS: Yeah.

6 CHRISTINE MAINVILLE: Somewhat.

7 BRANDON RICHARDS: So essentially
8 steel obviously expands in the summer time
9 because it's heat and in the winter time it
10 contracts.

11 So rail neutral temperature is
12 essentially a temperature that you have the
13 steel pulled to, let's say, so that it will
14 react appropriately in that swing of
15 temperatures.

16 Where it was set for construction, my
17 understanding was that it was a bit high and
18 that when it got hot outside the rail had a
19 tendency to buckle and kink because it expanded
20 too much from its neutral temperature, and it
21 caused that as an outcome.

22 My understanding is that the
23 mitigation was that RTG was supposed to be doing
24 a full blown engineering assessment of what the
25 rail neutral temperature should be.

1 And then I think it was in the spring
2 of 2022, that was the last plan I heard, again
3 this was many months ago, that they were going
4 to go and completely reset the rail neutral
5 temperature so that we wouldn't have that
6 buckling occurring.

7 Coupled with doing that, though, they
8 would have to provide the City with a risk
9 assessment to ensure that they've done their due
10 diligence before doing that. Because if you
11 alter the infrastructure in one way right now
12 you're being affected by heat. If you go too
13 much you could then be affected by the cold. So
14 you have to prove through a risk assessment that
15 you've done that due diligence.

16 As for the short-term mitigations when
17 that occurs, the short-term mitigation was they
18 subcontracted out to rail contractors who would
19 cut the rail and it's call "destressing". And
20 you essentially move some of the rail out to
21 take some of that stress out of the rail so it
22 doesn't buckle any more.

23 CHRISTINE MAINVILLE: So is that
24 completed?

25 BRANDON RICHARDS: The destressing?

1 CHRISTINE MAINVILLE: All the
2 mitigation ordered.

3 BRANDON RICHARDS: The destressing and
4 whatnot was done within a few weeks of those
5 things happening, if I remember right. The
6 resetting of the rail neutral temperature to
7 actually fix the issue, I have no idea where
8 that stands now.

9 CHRISTINE MAINVILLE: I think we'll go
10 off record for a minute.

11 -- RECESSED AT 2:32 P.M. --

12 -- RESUMED AT 2:47 P.M. --

13 CHRISTINE MAINVILLE: Mr. Richards, we
14 were talking about some of the issues that the
15 LRT encountered. Do you -- I take it you
16 weren't there, I think, when there were many
17 switch failures?

18 BRANDON RICHARDS: No, that was before
19 I got there. I think that was in 2019 in the
20 winter, wasn't it?

21 CHRISTINE MAINVILLE: Right. Were you
22 there, or were you made aware of any of the
23 solutions that were applied to that, or risk
24 mitigation measures?

25 BRANDON RICHARDS: I think they

1 upgraded the switches to gas heaters, if I'm not
2 mistaken.

3 CHRISTINE MAINVILLE: From your
4 perspective was that issue resolved by --
5 ultimately when you were there?

6 BRANDON RICHARDS: I mean, while I was
7 there we had very few switch failures, so I
8 think it was.

9 CHRISTINE MAINVILLE: And another
10 issue that arose were flat wheels?

11 BRANDON RICHARDS: Yes. Again, that
12 was also before I was there. I know Alstom was
13 working on the wheel truing machine, and I
14 believe they also did some stuff with the brake
15 rate on the train, but that was all before I was
16 there. And we didn't really have flat wheel
17 issues, other than normal, while I was there.

18 CHRISTINE MAINVILLE: Didn't that
19 arise in the summer of 2020?

20 BRANDON RICHARDS: The flat wheels?
21 We had the cracked wheels in June of 2020,
22 that's when they occurred; that's different.

23 CHRISTINE MAINVILLE: Do you have an
24 understanding of the root cause of the flat
25 wheel issue?

1 BRANDON RICHARDS: I don't know -- I
2 know what causes flat wheels. And I think that
3 what they did, like I said, with the brake rate
4 helped.

5 I don't know exactly what the root
6 cause was, if it was the lack of doing the wheel
7 truing and maintenance on them, and in
8 conjunction with that the brake rate needing to
9 be adjusted. But I can't say that's the cause
10 because I don't know.

11 CHRISTINE MAINVILLE: Could I ask you
12 if you know typically would there be, at least
13 in a location like Ottawa that has a similar
14 climate, with hot summers and winters, would
15 there be a need for different speeds or journey
16 requirements based on inclement weather?

17 BRANDON RICHARDS: Only in the
18 infrastructure is affected by such weather. The
19 system should be designed to safely operate at
20 its intended operating speeds regardless of, you
21 know, cold or hot. I mean, I suppose if you're
22 talking about extremes such as tornadoes or
23 high, high winds, then you'd have to adjust
24 accordingly to your operating procedures. But
25 if we're talking about just going from minus 30

1 in the winter to plus 30 in the summer, the
2 system really should be able to operate in those
3 conditions, if designed properly. And that goes
4 back to the rail neutral temperature.

5 CHRISTINE MAINVILLE: What about just
6 if the rails get more slippery, or there's more
7 slide that occurs because of either cold or
8 other --

9 BRANDON RICHARDS: So the vehicles
10 have different brakes on them. If the train's
11 not able to slow down -- CBTC obviously tracks
12 the speed of the train, its position relative to
13 other trains, where it's docking, and a variety
14 of factors. And if it's not slowing down fast
15 enough it would respond and EB, let's say. So
16 it would drop its -- I can't remember the name
17 of the brake but essentially it's like an
18 electromagnetic brake that would come down and
19 clamp on to the rail and stop the train in a
20 much more aggressive manner, if need be. So
21 that's just one of the mitigations for it.

22 So, I mean, like I said, if the
23 weather is changing the infrastructure in such a
24 way that it is creating an unsafe environment,
25 then you may reduce your operating speed to do

1 that, but not normally.

2 CHRISTINE MAINVILLE: And so "EB" does
3 not stand for emergency brake.

4 BRANDON RICHARDS: Yes, it does,
5 emergency brake.

6 CHRISTINE MAINVILLE: And was it your
7 understanding that this may have contributed to
8 the flat wheels, or do you not know?

9 BRANDON RICHARDS: So EB, emergency
10 braking, can happen for a wide variety of
11 factors. It's the system responding to events
12 that are occurring outside of its parameters and
13 making sure that it's going to its safest state.

14 So EBs could happen in so many
15 different capacities. So, like, there's
16 guideway intrusion detection systems, that's one
17 of the systems we have. If that gets tripped
18 and a train is within a certain envelope of that
19 system the train will EB. The train has no
20 choice, it has to EB because potentially there
21 could be someone on the track, so just as an
22 example. I don't know if that answers your
23 question.

24 But it's not just environment that
25 would cause a train to EB, there's many other

1 factors. So I think that it could be that when
2 the system was brought on line if there's a lot
3 of issues that are tripping the EB, let's say,
4 and causing the train to emergency brake it
5 could contribute to more flat wheels than a
6 normal operation would.

7 CHRISTINE MAINVILLE: And in this
8 particular case of the OLRT, did the journey
9 time between stations, did that create any --
10 was that a cause of concern to you, whether from
11 a safety perspective or potentially creating
12 issues such as emergency braking?

13 BRANDON RICHARDS: Between the
14 stations did you say?

15 CHRISTINE MAINVILLE: Yes.

16 BRANDON RICHARDS: Can you repeat the
17 first part?

18 CHRISTINE MAINVILLE: Whether the
19 journey time caused you concern.

20 BRANDON RICHARDS: Like, how long it
21 took the train to go through the whole loop?

22 CHRISTINE MAINVILLE: Just in terms --
23 yes, but in terms of how the CBTC had to be --
24 had to respond accordingly, and in terms of
25 acceleration rates and braking?

1 BRANDON RICHARDS: I wasn't concerned,
2 from a safety perspective because the system was
3 responding by reverting to the safest state in
4 the situation that it's in, and that's something
5 that I'm very familiar with in my work, not just
6 with LRTs but working with freight railroads
7 when you have at great crossing or any of these
8 systems.

9 I take comfort and I'm comfortable in
10 the environment where they are reverting to
11 their safe state. And obviously you want to
12 know why they're reverting to their safe state.
13 And that's when you sort of do the tweaking and
14 change the brake rates, or the acceleration
15 rates. And you go to different -- you have to
16 tailor it to that.

17 But no, not concerned. The CBTC
18 system, as far as I was concerned, worked very
19 well, always performed in the way that it was
20 supposed to, from what I could tell, and stopped
21 the train at every turn when it needed to.

22 CHRISTINE MAINVILLE: Maybe we'll jump
23 for a little while to your work on that system
24 with OLRTC.

25 When you came into that role what was

1 the state of play on that? Both -- well, let's
2 start with the work to be done on the CBTC
3 system specifically?

4 BRANDON RICHARDS: So you want to know
5 when I came into that project where the CBTC was
6 at?

7 CHRISTINE MAINVILLE: Yes.

8 BRANDON RICHARDS: When I came into
9 the project, like I said, the CBTC was in it's
10 installation phase. Final design was released
11 for construction.

12 We were installing the transponder
13 tags, building the signal control rooms at the
14 different stations with the zone controllers,
15 the CBTC rooms. So we were building the MSF
16 CBTC room, we were doing Blair, Tremblay and we
17 were starting on U of Ottawa.

18 They were also doing all of the
19 wayside installation too, so the signaling
20 systems, the switches, the switch heaters,
21 running the cables. It was a lot of the actual
22 construction work at that point in time. And
23 then as we installed it it was doing that
24 documentation we spoke about earlier.

25 CHRISTINE MAINVILLE: And were you

1 coming in in the systems' integrator role?

2 BRANDON RICHARDS: Kind of. I worked
3 on the systems' team at OLRT. So I didn't carry
4 the title of "Systems' Intergrator", that was
5 someone else who was focused on doing the
6 integration of systems, I don't know who. But I
7 was just responsible for CBTC.

8 CHRISTINE MAINVILLE: So do you recall
9 someone by the name of Jacques Bergeron?

10 BRANDON RICHARDS: Yeah, he was the
11 engineer of record I think for the project.

12 CHRISTINE MAINVILLE: And did you work
13 with him?

14 BRANDON RICHARDS: I ran into him a
15 few times. We didn't work too much together. I
16 worked with Henri Lamothe a few times on the
17 issues with the communication systems for CBTC,
18 so more with him than Jacques.

19 CHRISTINE MAINVILLE: Did you have any
20 understanding of any challenges that had been
21 encountered in respects of systems' integration
22 generally, but also as it related particularly
23 to the vehicles? The trains?

24 BRANDON RICHARDS: The -- not really
25 with the trains. I wasn't too involved with the

1 trains at that point. I was more focused on
2 CBTC.

3 I know there was some -- I don't know
4 even if you can say it was difficulties, but mor
5 just normal growing pains of integrating the
6 Thales' system into Alstom trains. I think
7 there was some growing pains there, but I don't
8 think it was uncommon for a project to
9 experience that.

10 The only -- not really any like
11 blaring (sic) problems. It was all just fairly
12 standard, you know, having the different systems
13 integrate.

14 I mean, Thales did -- the one thing
15 is, Thales did their design for the system,
16 CBTC, and the engineering joint venture of RTG
17 didn't have anything to do with the design, as
18 far as I was aware, it was Thales. But, I mean,
19 it's not surprising because it's sort of a
20 proprietary system for them.

21 So I think that there was a little bit
22 of confusion at times, if I remember correctly,
23 where I would work directly with Thales to get
24 the engineering drawings to install their
25 system, and the project would have EJV, which is

1 the engineering joint venture, do the comm
2 systems, the duct banks. So that was part of my
3 role was sort of integrating those two different
4 areas that weren't necessarily aligned, but I
5 don't know that they were designed to be.

6 CHRISTINE MAINVILLE: And so that
7 mostly would have related to integrating the
8 guideway with the CBTC -- or with the on-board
9 train control system that --

10 BRANDON RICHARDS: Yeah, like the
11 relationship between Thales and Alstom?

12 CHRISTINE MAINVILLE: Well, actually,
13 I was referring to the relationship between
14 Thales and EJV's work on the guideway, as
15 opposed to the train work.

16 BRANDON RICHARDS: Yeah. Like an
17 example would be, like I mentioned before, GID
18 is a system that's called "Guideway Intrusion
19 Detection", so if it trips it's detecting that
20 somebody has gone within the envelope of the
21 guideway and there's a risk that the train could
22 make contact with somebody. So the integration
23 there is that EJV would then fee Thales that as
24 an input so that CBTC would know. So, yeah,
25 they did interact and integrate together.

1 CHRISTINE MAINVILLE: Were concerns
2 expressed to you from Thales about challenges
3 that they had encountered in respect of
4 integrating their CBTC system?

5 BRANDON RICHARDS: No, nothing -- no.
6 It was -- I mean, in a project there's always
7 these hiccups here and there about somebody
8 forgot to install this piece of conduit, and
9 this is missing, and we have to figure -- like
10 it was more just the normal day-to-day grind of
11 different things that you had to work through.
12 But nothing blaring about how they disclaimed
13 there was problems or unsafe conditions, or
14 nothing like that.

15 CHRISTINE MAINVILLE: Would you have
16 had any awareness of issues relating to the
17 integration of the ICDs as between Thales and
18 Alstom, or were you removed from that?

19 BRANDON RICHARDS: Yeah, I wouldn't
20 have been involved in that.

21 And ICDs do you mean -- what's the
22 acronym?

23 CHRISTINE MAINVILLE: I think it's the
24 interface control documents?

25 BRANDON RICHARDS: No, I wouldn't have

1 been involved with that. That probably would
2 have been specifically Alstom and Thales
3 together.

4 CHRISTINE MAINVILLE: So you didn't
5 deal much with Alstom?

6 BRANDON RICHARDS: Not then, not then,
7 no. Very little then.

8 CHRISTINE MAINVILLE: Okay. Did you
9 have any sense of OLRTC's general understanding
10 of the CBTC system? Of course you were part of
11 that, but beyond you was there, to your sense,
12 sufficient expertise or experience in that
13 regard?

14 BRANDON RICHARDS: I think people like
15 Jacques Bergeron knew it well. There was a
16 gentleman there that left when I was there, his
17 name was Andrew King, he knew it well. There
18 was competency in people that understood the
19 signaling system. I mean, not everybody knew
20 but not everybody needs to know.

21 CHRISTINE MAINVILLE: Did you come
22 across any instances of the contracts, the
23 various subcontracts not being aligned in
24 respect of issues relating to the CBTC?

25 BRANDON RICHARDS: With the

1 subcontracts? No, no. When you say
2 "subcontracts" are you referring to --

3 CHRISTINE MAINVILLE: EJV, Alstom and
4 Thales, as opposed to the --

5 BRANDON RICHARDS: Like I said, I
6 don't think I saw anything that was a blaring
7 issue. I wasn't really privy to that
8 relationship. Like I said, I got most of my
9 information from Thales and EJV, and my role was
10 to sort of marry them together. So as far as
11 how they all worked together integrated I didn't
12 really have a lot of exposure to that.

13 CHRISTINE MAINVILLE: And you
14 mentioned some challenges relating to the PICO
15 document and being a new type of document, can
16 you explain that.

17 BRANDON RICHARDS: New to the
18 companies that were working with it, like RTM
19 and the subcontractors that I was dealing with.
20 Not new to Thales, as far as I know. I think
21 it's a process they've had for a while.

22 The reason -- it was a fairly
23 significant challenge because of the volume and
24 detail that was involved with it. I think for
25 projects that the subcontractors I was dealing

1 with were used to it was quite extensive, and it
2 also had the railway element so they needed to
3 have education on that as well.

4 So, for example, installing, you know,
5 component X had to be recorded to a very minute
6 detail of specific chainage, "chainage" being an
7 actual designated physical location on the
8 track. And then, like I said, all the other
9 technical testing involved within this was a
10 prerequisite to be able to even begin doing the
11 commissioning.

12 So there was challenges with it
13 because, like I said, nobody had done them
14 before, and I hadn't either so I had to try and
15 figure out how to sort of bring all of this
16 together so it wouldn't delay the project and
17 getting into the testing and commissioning
18 phase.

19 CHRISTINE MAINVILLE: And were you
20 there when testing and commissioning started, as
21 it relates to the CBTC system?

22 BRANDON RICHARDS: No. CBTC -- we
23 didn't start commissioning the CBTC while I was
24 there. When I was there the big push was to get
25 the test track up and running, and that was more

1 for dynamic testing on the train. So I was
2 aware it was happening but wasn't involved in
3 it.

4 CHRISTINE MAINVILLE: Were you aware
5 that there had been some delays, including to
6 validation testing, which Thales would have been
7 a part of to some extent?

8 BRANDON RICHARDS: No, I didn't. I
9 wasn't aware of that.

10 CHRISTINE MAINVILLE: Are you able to
11 speak to Thales' system a bit and tell us what,
12 if anything, is unique about it in terms of the
13 CBTC.

14 BRANDON RICHARDS: Unique about it? I
15 mean, they are known to be pioneers in this
16 industry from Alcatel when they built the cell
17 track system.

18 So I like to think -- and from my
19 involvement I really -- it's not really relevant
20 but I enjoyed working with Thales. They are
21 very professional and intelligent people and I
22 really enjoyed learning from them.

23 I don't have experience with Alstom,
24 CBTC or with Bombardier so I don't know what's
25 different about Thales' system and theirs.

1 There's a lot of similarities to what I work
2 with now with Hitachi. I don't -- I can't say
3 that it's -- I couldn't really tell you what's
4 unique about it. I mean, it's probably more at
5 the software level.

6 CHRISTINE MAINVILLE: And is it -- for
7 instance, I understand it's a wireless system?

8 BRANDON RICHARDS: In what sense? The
9 way it communicates with the train?

10 CHRISTINE MAINVILLE: Yes.

11 BRANDON RICHARDS: I guess I can -- do
12 you want me to just tell you what I know of the
13 Thales CBTC system?

14 CHRISTINE MAINVILLE: Yes.

15 BRANDON RICHARDS: So the Thales CBTC
16 system on the Confederation line is composed of
17 five zones, there's five zone controllers. The
18 zone controllers have designated areas to which
19 they govern movements.

20 They feed back to the main ATS, the
21 automatic train supervision, which compiles all
22 the different zone controllers' inputs. That's
23 all through a fibre optic network.

24 There's two fibre optic networks. One
25 is a multi-modal fibre optic network, which is

1 how the wayside equipment communicates with the
2 train. So you have these radios that are
3 alongside the track that speak to the train, for
4 lack of a better term. They communicate its
5 position, thus the name "communication based
6 train control", so it can track one train's
7 movement relative to another train's movement;
8 will never allow them to get within a certain
9 envelope of each other; make sure there's proper
10 braking distances. And at a high level that's
11 how it works.

12 CHRISTINE MAINVILLE: And is that
13 latter part you've described, about that safe
14 distance between trains and control, is that
15 something that is in some ways unique to Thales?

16 BRANDON RICHARDS: No, no, and it's
17 tested too. You progressively go through
18 different tests to make sure that you're safe.
19 And you will actually test the system so that it
20 actually does prevent a train from entering
21 another train's envelope, that it stops
22 properly. So not unique to Thales, no.

23 CHRISTINE MAINVILLE: As I understand
24 it Thales' system is not a plug-and-play system?

25 BRANDON RICHARDS: Yeah.

1 CHRISTINE MAINVILLE: How does that
2 compare to other similar CBTC systems?

3 BRANDON RICHARDS: I think, and this
4 is just an assumption, I think they're all the
5 same from the perspective that they're not
6 plug-and-play with each other. I think it
7 really just comes down to the software.

8 Because it's -- from my understanding,
9 and based off of just conversations I've had,
10 I'm not sure if this is even true or not, but I
11 think it comes down to the code that's written
12 for the line specifically, because it is very
13 specific to that line.

14 I don't know why you couldn't buy an
15 Alstom product, or -- I guess not Bombardier any
16 more but another system for Stage 2 and not use
17 Thales, I don't know why, but never really had
18 to poke that.

19 CHRISTINE MAINVILLE: Do you recall
20 who was to install the on-board system on to the
21 trains?

22 BRANDON RICHARDS: For the CBTC?

23 CHRISTINE MAINVILLE: Yes.

24 BRANDON RICHARDS: I know Alstom had
25 -- they called it a VOBC, a vehicle on-board

1 computer; it was a box. I remember seeing them.
2 They were 3 foot by 4 foot, not too big. But I
3 believe they built the VOBC and then I think
4 Alstom was to install it on and do all the
5 connections, I think that was the arrangement.

6 CHRISTINE MAINVILLE: And would that
7 be typical, from your perspective, or would
8 Thales be better placed to do the installment?

9 BRANDON RICHARDS: No. I mean, just
10 from my experience, and I don't know if I can
11 say what's typical for these projects, but I
12 think Alstom would be better suited for doing
13 that because it's their vehicle. So they would
14 have all the infrastructure for the train, the
15 wiring -- they would know the train better than
16 Thales would. Thales would just be providing
17 this spec of VOBC for them to install, which I
18 assume would have been spoken to far before
19 build.

20 CHRISTINE MAINVILLE: And then do you
21 recall what was the plan for PICO testing as it
22 related to the internal components to the VOBC?

23 BRANDON RICHARDS: On the VOBC I
24 didn't have anything to do with the PICO testing
25 on that. OLRT and Thales did have conversations

1 about who was going to be responsible for what
2 PICO testing, and the VOBC was under Thales'
3 scope so they did that PICO testing.

4 CHRISTINE MAINVILLE: Do you recall a
5 company called "SEMP" coming in to assist with
6 some of the system's integration?

7 BRANDON RICHARDS: I wasn't there for
8 that, I know who SEMP is though.

9 CHRISTINE MAINVILLE: When you left
10 the project how was the integration coming along
11 of the CBTC system?

12 BRANDON RICHARDS: When I left the
13 project -- so when you say "systems'
14 integration" I'm not sure what you mean. Do you
15 mean like the actual full integration of the
16 different systems, or CBTC itself how it was
17 coming along?

18 CHRISTINE MAINVILLE: No, CBTC with
19 the other systems, so integrating that with the
20 other systems.

21 BRANDON RICHARDS: They weren't there
22 yet. CBTC was being installed but some of the
23 systems that needed to integrate with CBTC, like
24 SCADA, GID, EFTAS [ph], they weren't installed
25 yet. So it was -- the integration hadn't

1 started at that point.

2 CHRISTINE MAINVILLE: Now coming back
3 to your work with the City, do I understand that
4 you have a perspective on the performance of
5 Alstom maintenance?

6 BRANDON RICHARDS: Perspective on
7 Alstom maintenance? I mean, from what I've seen
8 and what I've been involved with it seemed like
9 things were being done in accordance with the
10 maintenance and rehab plan, but it seemed like
11 there was some disorganization sometimes with
12 how it was done.

13 And I guess the example I can give
14 is -- and it wasn't a safety concern it was more
15 of an operational concern. I remember there was
16 an inspection coming due -- I think it was the
17 250,000 kilometre inspection for the trains. I
18 mean, it's no similar (sic) than your own
19 vehicle, you have to get it X amount of
20 different things checked depending on the
21 mileage you run.

22 I remember it impacting operations
23 quite a bit, and it almost sort of came up as a
24 surprise that this needs to be done now, and it
25 was taking trains out for three days at a time,

1 or whatever it was.

2 So I found there to be, you know, at
3 times some maybe scheduling issues, or just a
4 lack of foresight for the planning.

5 I didn't have concerns that the
6 critical safety checking for it wasn't done,
7 because in rail operations there's a team that
8 checks that maintenance activity was done
9 properly, that it was logged properly, the
10 paperwork was done. And that all has to be
11 compiled before the train goes out into service
12 the next day, and signed off by those City
13 officials. So that was always in good order.
14 And then the trains would have been meeting the
15 PA specifications, especially for safety to go
16 into service. So that was why I didn't have
17 concerns about the safety element of the
18 maintenance being done, but I did see
19 operational and reliability struggles from the
20 maintenance side.

21 CHRISTINE MAINVILLE: Did you have a
22 sense of their level of resourcing and
23 experience? And did you have any concerns
24 there?

25 BRANDON RICHARDS: Experience? I

1 mean, they're a large global firm and when
2 issues did arise they did bring in very
3 competent, qualified people to help.

4 When -- as far as their actual staff
5 and experience I can't speak to what level it's
6 at because, again, the relationship was supposed
7 be that RTM managed them and we would deal with
8 RTM. RTM, I think, has one individual that is a
9 vehicle person so I think that there probably
10 could have been more there for the oversight of
11 Alstom.

12 But as far as staffing levels, in the
13 return to service plan we had asked for -- I
14 don't have the document but I think we'd asked
15 for Alstom's staffing plan, what resources they
16 were going to have in place in RTM to improve on
17 what was initially there, based on what had
18 happened.

19 I don't know the status of it, if they
20 actually carried through with it or not and they
21 hired those people.

22 CHRISTINE MAINVILLE: Did you have any
23 concerns with the initial return to service plan
24 following the second derailment?

25 BRANDON RICHARDS: When we got to the

1 point where we actually signed off on it, no, I
2 didn't have any concerns.

3 We did extensive work. I worked
4 directly with TRA, the independent safety
5 consultant who came in from the States to help
6 with the return to service. I worked very
7 closely with them for the entire time that we
8 were working on that.

9 I had -- we had some engineers from
10 their team that helped with the analysis of the
11 7,500 kilometre checks and the quality programs
12 and monitoring, and we did extensive work. So I
13 was comfortable that we had mitigated the risk
14 that caused that derailment. At that point I
15 felt we had done our due diligence to return to
16 service.

17 CHRISTINE MAINVILLE: Do you know
18 about the comprehensive safety investigation
19 report following the second derailment?

20 BRANDON RICHARDS: When was it issued
21 to the City?

22 CHRISTINE MAINVILLE: I don't have the
23 date here. You're not aware of anything that --

24 BRANDON RICHARDS: I saw so many
25 reports at that time I don't know if I can pick

1 this specific one out.

2 I know that Alstom did have -- is it
3 an Alstom report? Or an RTM report? Either
4 way, I know we had issues with getting timely
5 reports after incidents like derailments. So
6 it's entirely possible that it may have come
7 after I left.

8 CHRISTINE MAINVILLE: Just going back
9 to -- I asked you about Alstom maintenance, you
10 would have had more interaction, I take it, with
11 RTM. What is your assessment of their
12 performance.

13 BRANDON RICHARDS: I think especially
14 after September there was even acknowledgment
15 from RTM that they needed more staff to support
16 the oversight of Alstom.

17 In the incident of September RTM, in
18 the return to service plan, identified that not
19 only did they need to increase their level of
20 oversight with 24/7 management oversight of
21 Alstom, but they also were to hire an
22 independent firm to assess the level of
23 maintenance Alstom should be doing on the
24 vehicles, relative to the maintenance and
25 rehabilitation plan, break that down into how

1 many hours it would take to equate into
2 resources. And then from that they would
3 determine if they needed to further increase
4 their organization from what their proposal was
5 from the return to service plan. That was still
6 under way when I left.

7 But there was a consensus from the
8 City and RTM that they needed to increase their
9 resources to have oversight of the contractor.

10 CHRISTINE MAINVILLE: And you
11 mentioned someone, one person who was more
12 specialized or focused on the trains, who was
13 that?

14 BRANDON RICHARDS: His name is James
15 Messel -- no, sorry, that's a different person.
16 What's his name? Oh, if I remember I'll tell
17 you. I can't remember his name.

18 CHRISTINE MAINVILLE: No problem.
19 Would you have had the opportunity to
20 review their maintenance plans and other
21 procedures?

22 BRANDON RICHARDS: No. I mean, you
23 have to understand that it's thousands upon
24 thousands of pages with the amount of
25 maintenance activities they would have done.

1 When it came to the incident happening
2 and -- for example, when I said before I would
3 ground an LRV because of a reason that I had a
4 concern for safety. Then I would have to have
5 record of the maintenance activity they did and
6 then have the team cross reference if that
7 maintenance activity was appropriate and if it
8 was carried out properly. So in those
9 situations I would, but of the entire
10 maintenance and rehab plan, no, I wouldn't have
11 read the whole thing.

12 CHRISTINE MAINVILLE: And are you able
13 to speak to what, if any, pro-active maintenance
14 was being done by either RTM or Alstom
15 maintenance?

16 BRANDON RICHARDS: When you say
17 "proactive" do you mean outside of regular
18 maintenance that was specified?

19 CHRISTINE MAINVILLE: Yes, in terms of
20 foreseeing potential issues.

21 BRANDON RICHARDS: As far as I know I
22 don't know of anything above what regular
23 maintenance would have been stipulated was done,
24 other than mitigations that they would have
25 determined necessary based on incidents that

1 happened.

2 CHRISTINE MAINVILLE: In terms of the
3 City's oversight, is there anything that you
4 think the City could have done more in terms of
5 oversight to -- that could have helped prevent
6 some of the issues that were encountered in
7 terms of the breakdowns and derailments?

8 BRANDON RICHARDS: I guess I can
9 answer that by saying I think that more
10 oversight is good.

11 I had put together in 2021 a -- an OC
12 Transpo oversight plan, like an annual oversight
13 plan for things that would be monitored, and
14 more oversight engagement with RTM to make sure
15 that -- and this all tied back to regulation and
16 making sure that the maintenance was being done
17 properly, and all that. So I was taking steps
18 to increase that because I felt that it needed
19 to be increased.

20 CHRISTINE MAINVILLE: And is that
21 something you would have expected to be in
22 place, or at least that there would have been
23 more of it prior to your arrival?

24 BRANDON RICHARDS: I think that's a
25 tough thing to answer, because I know that the

1 contract was set up so that, you know, you do
2 have oversight, but I think there was a --
3 there's a reliance that the contractor is able
4 to do the oversight of its contractors and
5 deliver the service safely.

6 And the reality was different than
7 what was expected, and that's where I think it
8 was time to pivot and then put an oversight plan
9 in for OC Transpo, to respond to these incidents
10 and start to take action and have more oversight
11 to hopefully prevent future one.

12 CHRISTINE MAINVILLE: And to what
13 extent was it different than expected? That
14 wasn't, it seemed, sufficient oversight by the
15 contractor?

16 BRANDON RICHARDS: I mean, I'm just
17 speculating. I think -- I mean, the way that I
18 am understanding the contract being set up is
19 service delivery. You know, you deliver the
20 service safely and the payments are made. It
21 seemed to be more geared around that than --
22 yeah, I think it was more just based on having
23 people move than it was on -- I don't know how
24 to articulate it. But -- I think if -- I think
25 if the contractor had had more oversight in

1 place, as identified in the return to service
2 plan earlier on, it could have prevented some
3 things from happening.

4 I'm not sure if it would have
5 prevented the derailments because it was
6 something that occurred that wasn't identified
7 in Alstom's consolidated safety file. So I'm
8 not sure if that would have been detected by
9 more oversight, but I think it would have
10 benefited the project to have more support and
11 oversight from the contractor earlier on.

12 CHRISTINE MAINVILLE: The contractor
13 being --

14 BRANDON RICHARDS: RTM.

15 CHRISTINE MAINVILLE: And this tags
16 into the same thing, but how -- how would you
17 articulate how far the City's responsibility
18 goes in terms of ensuring a safe environment, as
19 opposed to the contractor's?

20 BRANDON RICHARDS: Well, I think that
21 the City is the one that's responsible for the
22 safe environment and operation, in totality.

23 I think -- at the end of the day
24 they're bound by regulation. The City is
25 responsible to deliver safe service and has a

1 responsibility to the public and its customers
2 to deliver a safe service. I think the
3 responsibility lies with the City.

4 The contractor obviously has a
5 responsibility to provide, you know, a safe
6 system as well, but the City is responsible.
7 And that's why the delegated agreement has the
8 City as the person who's to be compliant with
9 regulation.

10 CHRISTINE MAINVILLE: In terms of
11 tools that you had to do your job, is there
12 anything that you've seen elsewhere, or that you
13 think you could have in terms of additional
14 tools that you did not have?

15 BRANDON RICHARDS: I think that the
16 contract could have been structured to support
17 maybe more -- I guess it would have been
18 financial penalties on safety occurrence
19 incidents than it does. Like I said before
20 about the ceiling panels, for example. I
21 created the safety order and issued that, but as
22 far as actually being able to contractually do
23 anything about it there was really not too much.

24 So I think that that would have been a
25 beneficial tool to have, to have some sort of a

1 lever to pull to be able to enforce that,
2 without shutting to line down, which is a bit of
3 an extreme situation in that circumstance.

4 CHRISTINE MAINVILLE: Did you ever see
5 a term sheet that was signed in order to allow
6 the system to go into service, or to meet RSA,
7 revenue service availability, that deferred
8 certain retrofits until after the RSA date?

9 BRANDON RICHARDS: No, I wasn't even
10 aware that there was one.

11 CHRISTINE MAINVILLE: So you weren't
12 aware of retrofits outstanding, even while you
13 were there, to the train?

14 BRANDON RICHARDS: I knew of some
15 retrofits that were outstanding but I didn't
16 know that they were something that was accepted
17 for RSA.

18 CHRISTINE MAINVILLE: There was a, am
19 I right, a first triennial audit of the OLRT
20 safety management system?

21 BRANDON RICHARDS: Yes, the agreement
22 was that after the first year of operations and
23 then after that every three years.

24 CHRISTINE MAINVILLE: So there's been
25 one up to now?

1 BRANDON RICHARDS: Yeah. One up to
2 now, yeah.

3 CHRISTINE MAINVILLE: And what were
4 the findings in their -- if you're able to speak
5 to them generally?

6 BRANDON RICHARDS: The findings were
7 pretty good in favour of the City, from what I
8 remember on the SMS.

9 We did two audits. The agreement with
10 Transport Canada was to do the security
11 management system and the SMS. I wasn't
12 responsible for the security management system
13 but I did facilitate the audit because it is a
14 regulatory function for the deliverable.

15 So the security management system had
16 a number of recommendations, including updating
17 cyber security, just sort of doing an update of
18 the actual SEMS. I don't remember all the
19 details but it had more recommendations than the
20 SMS. The SMS there wasn't too many
21 recommendations for it. I want to say there was
22 three or four, but I can't remember what they
23 are.

24 CHRISTINE MAINVILLE: And you spoke
25 about Confederation safety line meetings?

1 BRANDON RICHARDS: Yes.

2 CHRISTINE MAINVILLE: What type of
3 issue were discussed in that context, and who
4 was in attendance?

5 BRANDON RICHARDS: I had Troy Charter
6 from Director of Rail Operations, and he had a
7 second person named Duane Duquette. I had
8 people from my team there, a couple of program
9 managers representing safety, the regulatory
10 side and sometimes training, if required, and
11 then I would have RTM attend. Alstom wouldn't
12 be there because they're the subcontractor of
13 RTM.

14 And we had a structured meeting that
15 was developing throughout the operation, but in
16 the end we were covering off upcoming regulatory
17 filings, audits that were occurring, rule
18 violations, safety incidents that occurred. RTM
19 would have theirs and Alstom's, and then we had
20 ours. And we would compare and analyze the data
21 and sort of have these working sessions where
22 it's looking at all the safety incidents that
23 happened throughout the month.

24 CHRISTINE MAINVILLE: Now, in terms of
25 OC Transpo, and operations more specifically,

1 you had a branch responsible for transit
2 training, what is in place for ongoing,
3 long-term training for OC Transpo specifically.
4 So the operators but also the employees in the
5 control room and --

6 BRANDON RICHARDS: Yeah.

7 CHRISTINE MAINVILLE: As it relates to
8 the LRT specifically, the Confederation line.

9 BRANDON RICHARDS: So specifically
10 long-term and not the qualification training?

11 CHRISTINE MAINVILLE: Well, we can do
12 that after but, yes, what's planned?

13 BRANDON RICHARDS: Generally it would
14 be -- you'd have to do operating rule refresher
15 training. Sometimes -- think it's every -- it's
16 either every year or every three years, I get
17 confused because I've worked for so many
18 different railways and some people do it every
19 year, some people do it every three years. I
20 think at OC Transpo I think it's every three
21 years.

22 So we would do operator refresher
23 training. There would be different modules for
24 if you're talking about the control room, the
25 controllers would do for refresher training.

1 That was something that was in development while
2 I was there. It still was in development when I
3 left because the controllers were traditionally
4 trained by a third-party consultant, and that
5 was something that I was working to bring
6 in-house. So that curriculum was being
7 developed with help from another SME. But the
8 plan was to do on-going refresher training and
9 monitoring and making sure they were up-to-date.

10 For the operators on the trains they
11 would do, like I said before, RM mode, which is
12 a restricted, manual operation of the train. So
13 they would actually do -- because normally they
14 don't drive the train, normally CBTC just runs.
15 So they would be forced to, I believe it was two
16 hours a month, drive the train manually so they
17 were familiar with it, how to drive the train
18 and make sure they weren't going over the speed
19 profiles and emergency breaking and stuff like
20 that. So making sure they were familiar with
21 that.

22 And because if it ever needed to do
23 some sort of an emergency procedure they would
24 need to drive the train manually. So making
25 sure they're up to training. So they would do

1 that. They would do the rules refresher
2 training.

3 In the railway you issue bulletins if
4 there's changes to any rules, or special things
5 that are occurring on the line. So they would
6 be trained on bulletins as they come out. I
7 think that's pretty much it.

8 CHRISTINE MAINVILLE: And who
9 trains -- who delivers the training?

10 BRANDON RICHARDS: For the operators
11 it is in-house fully; the controllers it's
12 coming in-house, I'm not sure if it's there yet.
13 We had hired an instructor before I left but not
14 for long, so I'm not sure if that's in place
15 yet, but for the operators it's in-house
16 training.

17 CHRISTINE MAINVILLE: And is there any
18 refresher training or update training for the
19 trainers?

20 BRANDON RICHARDS: Yes. That's --
21 so -- I don't know how -- because of the way
22 that train program is set up it's identified in
23 SOP what prerequisites somebody needs to become
24 a trainer on the Confederation line, and it
25 involves experience as a trainer, drive time on

1 the vehicle as an operator, so on and so forth.

2 And then for -- we do professional
3 development, that's something that I started
4 with the group when I got there. So every -- we
5 were doing it every quarter. We were doing
6 professional development and helping the
7 trainers to -- it was a wide variety of
8 different things that we were teaching them on
9 everything from auditing practices to
10 communicating with students. So we do a lot of
11 professional development. And then also the
12 refresher for the rules training, and whatnot,
13 as it becomes new and changes.

14 CHRISTINE MAINVILLE: And in terms of
15 training from either Thales or Alstom, is that
16 seen as -- you know, something that would be
17 advisable to have going forward? Because I
18 understand initially they had people training
19 the trainers when the system began. Is that
20 something you would expect to see happen again
21 along the way?

22 BRANDON RICHARDS: I think for the
23 control room that's something we had talked
24 about, is sending people to Toronto to get
25 training from Alstom, because it is -- the CBTC

1 system is theirs. We wanted to have them
2 involved. Yes, I think Thales would be good to
3 have for that.

4 Alstom plays a small role in providing
5 some training to operators when it comes to --
6 they have processes if there's issues that occur
7 on the train that are fairly easy for an
8 operator to fix. They might train them on a
9 procedure on how to reset a door, for example,
10 so they're involved a little bit. But other
11 than that I'm not sure what role they would play
12 in training, moving forward.

13 CHRISTINE MAINVILLE: And you said for
14 Thales it would be good to have. Do I take it
15 it's not been arranged for?

16 BRANDON RICHARDS: Not since I left,
17 unless something has changed since then. But I
18 think it would be good, yeah.

19 CHRISTINE MAINVILLE: And then did you
20 see, when you were there, any issues with
21 operations in terms of lack of experience or
22 preparedness, or anything that could have that
23 required some improvements?

24 BRANDON RICHARDS: Whatever growing
25 they had gone through it by the time I got

1 there, and they seemed to have a pretty good
2 knowledge base of individuals, especially in the
3 leadership side of things. I mean, Dwayne was a
4 veteran of rail operations. He was good at
5 understanding the intricacies of it.

6 I remember another individual named
7 Derrick Morin [ph], he was well versed in how
8 the Confederation line ran because he was
9 involved in it throughout the entire Stage 1
10 building process.

11 I felt like from their perspective I
12 think the competency was pretty good. I didn't
13 have any concerns with the actual operations
14 team delivering, were always pretty good.

15 CHRISTINE MAINVILLE: Were there any
16 challenges relating to incidents -- response to
17 incidents or events on the line in terms of how
18 those were to be addressed between OC Transpo
19 and RTM or Alstom?

20 BRANDON RICHARDS: I think the
21 dividing line between who was to responsible to
22 attend or respond to them was clear. If it was
23 a vehicle issue Alstom was to be there. If it
24 was a station issue RTM. I think that was
25 clear.

1 I think there's always improvements
2 that can be made and efficiencies that can be
3 sought on how it's done. For example, with
4 Alstom the way they deploy technicians, one of
5 the things they said they were going to start
6 doing more of was having them more centrally
7 located on the line so they would have quicker
8 response times. So I don't think that there's
9 anything that's out of the norm for the
10 industry, but improvements can always be made.

11 CHRISTINE MAINVILLE: Are you aware of
12 any complaints from Alstom, or RTM about
13 accessing -- not being able to access certain
14 information from OC Transpo when an event
15 occurs?

16 BRANDON RICHARDS: Never heard that,
17 no.

18 CHRISTINE MAINVILLE: Would it make
19 sense to you that they'd be able to, for
20 instance, interview the operator when something
21 occurs, or have access to some of the footage,
22 given their role in investigating some of these
23 events?

24 BRANDON RICHARDS: To my knowledge
25 they did. To my knowledge they did interview

1 the operator for in September, for example, and
2 the footage -- I don't know about the main line,
3 but I remember the yard reviewing it with them
4 so I think they do.

5 CHRISTINE MAINVILLE: Okay. Are you
6 able to speak to how the operation manuals and
7 operating procedures are updated, including when
8 Thales makes updates to its systems, for
9 instance?

10 BRANDON RICHARDS: When you say
11 "operating procedures" do you mean specific to
12 OC Transpo? You mentioned Thales.

13 CHRISTINE MAINVILLE: No, specific to
14 OC Transpo, but how they're updated to account
15 for any changes made to the trains or the
16 signaling system?

17 BRANDON RICHARDS: If we take the
18 example of Alstom, for example, if there's
19 something that -- a retrofit, for example, that
20 was done that needed to be communicated to
21 operations, operations would then incorporate,
22 based on whatever parameters they have provided
23 for that retrofit, to be included in their
24 operating procedures.

25 The process, I don't know it off by

1 heart, but I believe it's Alstom communicates to
2 RTM, RTM to the City, the City integrates and
3 implements whatever's required.

4 CHRISTINE MAINVILLE: I think you
5 might have touched on this a bit earlier, but
6 are you aware of a change that the City
7 ultimately made to the settings for the brakes
8 that may have had some connection to the flat
9 wheel issue and the emergency braking, or the
10 speed profiles?

11 BRANDON RICHARDS: Yeah. I believe
12 Alstom made those changes because I think they
13 were trying to -- and again this is all
14 speculation because I don't know. I wasn't
15 there when they did that. But I did hear that
16 they did change the brake rates. And why they
17 did that, my understanding is that by reducing
18 the brake rate, for example, the wheel will not
19 slide as much, it's almost like ABS breaking on
20 your car. And by not sliding as much it won't
21 cause flats as much. So by doing that it helped
22 to alleviate the issue of flat wheels, is my
23 understanding.

24 CHRISTINE MAINVILLE: Were you aware
25 of the discussion that took place around

1 there -- around that issue at the City level?

2 BRANDON RICHARDS: No. No. Again
3 because it was before I was there. I mean, I
4 had heard conversations about how it was done,
5 and I know in operations they do have different
6 types of braking that they use to change the way
7 that the vehicle enters and docks at a station,
8 for example, or the way it approaches. But
9 beyond that, no, I don't.

10 CHRISTINE MAINVILLE: Can you say why
11 did you leave your position at the City?

12 BRANDON RICHARDS: I left for an
13 opportunity to work with a global company for
14 more exposure in different areas, and career
15 growth.

16 CHRISTINE MAINVILLE: Do you have any
17 views on what may have contributed to the issues
18 that this LRT faced, the breakdowns and
19 derailments, you know, from a broader
20 perspective in terms of root causes, or things
21 that may have contributed. So standing back
22 from -- so not the specific mechanical failures
23 or quality control issues, but why this
24 particular project may have encountered the
25 issues that it did?

1 BRANDON RICHARDS: I've asked myself
2 that quite a bit. I can never really bring it
3 down to one thing or even many things. I don't
4 know if I even fully understand what's happened
5 there. I mean, the -- I think that what I've
6 concluded is that LRTs are a newer technology
7 in Canada maybe and the procurement processes,
8 the regulations, it's regulated very differently
9 than in the States, for example. The State has
10 oversight and there's federal mandates around
11 how LRTs function. It's different in Canada.

12 I wonder if it's just a new type of
13 system to Canada and we're just sort of getting
14 our feet on the ground on how to build them.
15 I'm not sure.

16 CHRISTINE MAINVILLE: You worked on
17 other rail systems, do you have a view as to
18 when you're dealing with a new system, you know,
19 how much running time there should be, burn-in
20 period, dry runs, practice runs before the
21 system is fully operational?

22 BRANDON RICHARDS: So do you mean the
23 testing, commissioning, trial running? How long
24 that should be before it runs?

25 CHRISTINE MAINVILLE: Yeah.

1 BRANDON RICHARDS: Well, I think, you
2 know, you define your criteria and you observe
3 the performance and then you can make your
4 assessments from there.

5 I don't know that there's a 90 days,
6 120 days number that can be thrown at it. I
7 know from other projects that I've seen or been
8 on that it's a fixed amount regardless of the
9 performance. If it's going really well we're
10 still going to do 90 days of trial running. So
11 I don't think it's a one-size-fits-all.

12 CHRISTINE MAINVILLE: And what would
13 you expect in terms of the reliability and
14 performance of the system prior to it going into
15 full service? Like, is the expectation that the
16 system will run smoothly by the time it goes
17 into operations?

18 BRANDON RICHARDS: I would think that
19 that's the expectation. I would have that
20 expectation as the client if I was buying an
21 LRT.

22 I think the reality is that testing is
23 accurate to real life as it is not real life.
24 So there are situations that arise when you
25 have, you know, 600 people piling into a train.

1 Some things, as much as you forecast them and
2 mitigate the risks it may not respond in the way
3 that you had thought it would.

4 So I think it's not unreasonable to
5 say that, I think it should have a high
6 reliability but I'm not going to be surprised if
7 I have a few hiccups.

8 CHRISTINE MAINVILLE: And is one
9 option to have -- let's say if there are some
10 potential issues foreseen, is one option to have
11 a soft start, or a progressive start to
12 operations?

13 BRANDON RICHARDS: Yeah, I suppose. I
14 don't think that there's any one-size-fits-all
15 There's nothing wrong with doing a soft start.
16 I can see the benefit for both, to just sort of
17 rip the Band Aid off and get it going, as long
18 as you have confidence in the safety of it. But
19 then I can also see the progressive build-up to
20 a full system as being good too.

21 I think that it would come down to is
22 whatever analysis and risk assessment you've
23 done to determine the best path forward.

24 BRANDON RICHARDS: Right. I think
25 that's generally defined too by the client,

1 right? The trial running period is generally
2 something that's stipulated in the contract
3 before award too.

4 CHRISTINE MAINVILLE: And the client
5 being the City, in this case?

6 BRANDON RICHARDS: In this situation,
7 yes. Sorry, I'm used to --

8 CHRISTINE MAINVILLE: And do you have
9 any views on the state of the system now, or at
10 least at the time of your departure, whether you
11 have confidence that things have improved, or do
12 you foresee -- did you see some potential
13 weaknesses still by the time you departed?

14 BRANDON RICHARDS: I saw improvements
15 I saw continuous improvements. I saw better
16 response and planning from the contractor in the
17 way that they dealt with the axle bearing
18 checks, that got a lot more efficient. And I
19 think that maybe came with being experienced in
20 doing it. It got better.

21 I feel as we went further the risk got
22 lower as people got more comfortable with the
23 way that we wanted to operate moving forward.

24 I did see improvements. The return to
25 service plan did highlight a lot of activities

1 that needed to happen after service opened back
2 up. Had I still been there I would have wanted
3 to continue tracking those to make sure they
4 didn't fall through the cracks, because they
5 were critical in making sure that the system
6 remained safe and in operation.

7 And things like the hot bearing
8 detection. Things like the root cause of the
9 bearing failures. Those needed to continue to
10 be pursued.

11 CHRISTINE MAINVILLE: And who took
12 over your position after you left --

13 BRANDON RICHARDS: They hired somebody
14 pretty recently, his name is Paul Treboutat

15 CHRISTINE MAINVILLE: And did we cover
16 the various individuals who effectively oversee
17 safety? We mentioned Sam Berrada, we mentioned
18 the other compliance officer, and the City
19 Manager, of course, ultimately is responsible.
20 Is there anybody that is part of that framework
21 who has a role in this oversight, safety
22 oversight by the City that we haven't mentioned?

23 BRANDON RICHARDS: You mean my direct
24 staff that I had or --

25 CHRISTINE MAINVILLE: No, just aside

1 from your own teams. Is there another piece of
2 this -- I guess there would be auditors brought
3 in occasionally for safety audits?

4 BRANDON RICHARDS: Yeah, if we're
5 talking specific to the LRT, I mean, there's
6 Transport Canada which we do our reporting to.
7 They don't have much involvement.

8 There's the TSB, which they have
9 involvement when we report to them.

10 Then we have our internal reporting
11 processes to the City Manager. And then we have
12 my team, Sam Berrada, and then our internal
13 audit staff. I can't think of anybody else,
14 other than my teams, at that point.

15 But I guess what I could add to that
16 is that everybody in the organization, the
17 expectation that I laid out when I was there
18 with it is that, for example, with Troy Charter
19 as the Director of Rail Operations, you have a
20 responsibility for safety.

21 The message that we had for everybody
22 was that safety, it's about you, me and it's
23 about us, it's about everybody working together.

24 CHRISTINE MAINVILLE: And before I ask
25 my colleague if she has any questions, what can

1 you say about the relationships between the
2 various entities who have a role in ensuring
3 safety? We've mentioned RTM, Alstom
4 maintenance, OC Transpo? How is the
5 relationship? And is that an issue that you saw
6 as, you know, being an obstacle perhaps to
7 ensuring a properly functioning system?

8 BRANDON RICHARDS: I can say that
9 there's tension because of the commercial
10 disputes, which I'm not involved with or wasn't
11 involved with. But I could see the tension. I
12 know there's friction between Alstom and RTM
13 because they have commercial disputes.

14 I think there's also a disputes with
15 Thales, I don't know. I'm just guessing based
16 on the delivery of the project.

17 I know within RTG there's disputes
18 with OLRT. So I know there's a lot of -- and I
19 don't know if that's uncommon for large scale
20 projects that when it's finally said and done
21 there's probably a few disagreements here and
22 there.

23 But I know it does slow down responses
24 and progress sometimes. I like to think that
25 safety was always prioritized from the City's

1 perspective and that the line was safe to
2 operate. But I can say that there's some
3 tension between different partners based on the
4 outcomes of the delivery of the project.

5 CHRISTINE MAINVILLE: And perhaps I'll
6 just ask you this since we have a few minutes.
7 Could the system have returned to service
8 earlier after the second derailment? I
9 understand I think they -- there was -- I don't
10 know if you want to call it delay, but some time
11 that was meant for the City and TRA to sign off
12 on the return to service.

13 From your perspective did the system
14 have to be shut down that long? Could it have
15 returned faster?

16 BRANDON RICHARDS: I personally
17 wouldn't have been comfortable moving faster. I
18 felt like we needed to get everything in order
19 before we could move forward, and that included
20 the analysis of the quality of workmanship, the
21 existing state of the vehicles based on that
22 concern, the bearings. There was a few key
23 issues that really needed to be solidified.

24 I don't think it could have gone
25 faster without the proper engineering analysis

1 having been done and the risk assessment being
2 conducted. I don't see how it would have gone
3 feaster. And because it's not maybe common for
4 something like this to happen in an LRT, I could
5 refer you to Washington. I don't know if you've
6 heard of that incident? But they had a similar
7 -- right around the same time actually as the
8 September derailment incident here. They had to
9 pull many, many cars out of service and they're
10 still out of service. So it's not unfathomable
11 that it took us a little over two months, it was
12 just the due diligence that was required.

13 CHRISTINE MAINVILLE: And just one
14 thing to clarify. We spoke about another
15 incident in France with roller bearings burning
16 off on Alstom trains.

17 BRANDON RICHARDS: Yes.

18 CHRISTINE MAINVILLE: Do you know how
19 long ago that was.

20 BRANDON RICHARDS: I did. I thought
21 it was ten years ago. I could be wrong. I
22 remember TRA doing a presentation on it for me
23 but I can't remember the year that it happened.

24 CHRISTINE MAINVILLE: I'll ask my
25 counsel if she has any clean-up questions? Is

1 there anything else that you think we should
2 know that we haven't discussed, based on our
3 mandate?

4 BRANDON RICHARDS: I don't think so.

5 MS. YOUNG: I just had a couple of
6 little things. One, I was wondering what kind
7 of role you would have played in determining
8 which issues on the line would be considered
9 safety issues? So I think we know that the City
10 would make inspections on the line, respond to
11 issues, and they would determine at that point,
12 or at some point thereafter, whether it was a
13 safety issue or whether it was some kind of
14 other issue. And so my question is, what was
15 your involvement in that and what would the
16 process have been like of determining which
17 issues were safety issues?

18 BRANDON RICHARDS: Okay. We have
19 standard operating procedures that my team would
20 follow, and one of them that I can think of is
21 the accident investigation reporting --
22 operating procedure where you identify
23 categorically what constitutes a safety issue.
24 So then the team would take that situation,
25 which ever it is, and identify if it's something

1 that needs to be escalated, dealt with, how it
2 needs to be dealt with?

3 So OC Transpo does have operating
4 procedures to be able to disseminate what is a
5 safety issue or is not a safety issue. And then
6 if there's doubt you escalate. Does that answer
7 your question?

8 MS. YOUNG: Yeah. I think that sounds
9 to me, and I don't know if you agree, Christine,
10 that's sort of separate from the usual
11 maintenance oversight the City was doing? But I
12 might not be understanding that properly.

13 BRANDON RICHARDS: It is separate.

14 MS. YOUNG: Yeah. And then I had
15 another question. You mentioned all the safety
16 requirements that were contained in the
17 delegation of authority from Transport Canada.
18 And I was wondering whether you knew whether
19 those were sort of directly translated into the
20 requirements in the Project Agreement or what
21 the relationship was between those two sets of
22 requirements?

23 BRANDON RICHARDS: So are you talking
24 specifically about the regulation from the
25 delegated agreement, the regulations?

1 MS. YOUNG: Yeah, essentially just the
2 safety requirements that were imposed by
3 Transport Canada's part of the delegation.

4 BRANDON RICHARDS: I don't know if
5 that was derived from the PA industry best
6 practice or not. I know there was a law firm
7 called BLG that supported the City in developing
8 that. They might be better to answer where that
9 was birthed from.

10 MS. YOUNG: I think that's all I have,
11 Christine.

12 CHRISTINE MAINVILLE: Thank you.

13 Thank you very much. Mr. Richards. I
14 think that's all we need, but we'll let you know
15 if we need follow-up question.

16 --- Completed at 3:59 p.m.

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REPORTER'S CERTIFICATE

I, HELEN MARTINEAU, CSR, Certified
Shorthand Reporter, certify;

That the foregoing proceedings were
taken before me at the time and date therein set
forth;

That the statements of the presenters
and all comments made at the time of the meeting
were recorded stenographically by me;

That the foregoing is a certified
transcript of my shorthand notes so taken.

Dated this 27th day of April, 2022.



PER: HELEN MARTINEAU
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