Ottawa Light Rail Commission

Eugene Creamer
on Friday, May 13, 2022

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OTTAWA LIGHT RAIL COMMISSION

OLRT CONSTRUCTORS - EUGENE CREAMER

MAY 13, 2022

--- Held via Zoom Videoconferencing, with all participants attending remotely, on the 13th day of May, 2022, 9:00 a.m. to 11:50 a.m.

COMMISSION COUNSEL:

Christine Mainville, Co-Lead Counsel Member
Anthony Imbesi, Litigation Counsel Member

PARTICIPANTS:

Eugene Creamer, OLRT Constructors

Mannu Chowdhury,
Paliare, Roland, Rosenberg, Rothstein LLP

ALSO PRESENT:

Judith Caputo, Stenographer/Transcriptionist
Talia Gillani, Virtual Technician

INDEX OF EXHIBITS

NUMBER/DESCRIPTION PAGE NO.

* * The following is a list of documents undertaken to be produced or other items to be followed up * *

INDEX OF UNDERTAKINGS

The documents to be produced are noted by U/T and appear on the following pages: (None).

-- Upon commencing at 9:00 a.m.

EUGENE CREAMER: AFFIRMED.

CHRISTINE MAINVILLE: Mr. Creamer, the purpose of today's interview is to obtain your evidence under oath or solemn declaration for use at the Commission's Public Hearings.

This will be a collaborative interview such that my co-counsel, Mr. Imbesi, may intervene to ask certain questions. If time permits, your counsel may also ask follow-up questions at the end of the interview.

The interview is being transcribed and the Commission intends to enter the transcript into evidence at the Commission's Public Hearings, either at the hearings themselves or by way of procedural order before the hearings commence.

The transcript will be posted to the Commission's public website, along with any corrections made to it, after it is entered into evidence.

The transcript, along with any corrections, will be shared with the Commission's participants and their counsel on a confidential basis before being entered into evidence.

You will be given the opportunity to review your transcript and correct any typos or other errors before the transcript is shared with the participants or entered into evidence. Any non-typographical corrections made will be appended to the transcript.

Finally, pursuant to Section 33 (6) of the Public Inquiries Act 2009: A witness at an inquiry shall be deemed to have objected to answer any question asked of him upon the ground that his answer may tend to incriminate the witness, or may tend to establish his liability to civil proceedings at the instance of the Crown or of any person, and no answer given by a witness at an inquiry shall be used or be receivable in evidence against him in any trial or other proceedings against him thereafter taking place, other than a prosecution for perjury, in giving such evidence.

As required by Section 33 (7) of the Act, you are hereby advised that you have the right to object to answer any question under Section 5 of the Canada Evidence Act.

Okay?

EUGENE CREAMER: Yes.

CHRISTINE MAINVILLE: Great. So maybe

we can start with you explaining your involvement or role in Stage one of Ottawa's LRT.

EUGENE CREAMER: I was the project director for about a two-year period. I went to Ottawa to take over the project after the sinkhole in September of the year of the sinkhole.

As project director, everyone in the construction and design reported to me, and I reported to an executive committee, and I liaised with the client, the City of Ottawa.

CHRISTINE MAINVILLE: And so you began in 2016 on the project?

EUGENE CREAMER: If you don't mind, I'll look at my resumé.

CHRISTINE MAINVILLE: Sure. Which I don't think we've received. If you're able to provide it, it might assist us just to get your more complete background.

EUGENE CREAMER: It's been provided to my counsel. I'm surprised they haven't given a copy to you.

CHRISTINE MAINVILLE: I might have overlooked it, there's several.

EUGENE CREAMER: 2016. So it would have been September 2016 to 2018.

CHRISTINE MAINVILLE: Sorry, September 2016 to...?

EUGENE CREAMER: To somewhere in 2018, which would have been probably April-May 2018.

I'm not exactly sure of the month in 2018.

CHRISTINE MAINVILLE: Thank you.

Mr. Chowdhury, I don't think I have it, although it may just have gotten lost. If you're able to resend it, you may be able to post it before the end of the interview.

MANNU CHOWDHURY: We can certainly send it to you.

CHRISTINE MAINVILLE: Thank you.

And so who did you take over from when you arrived?

EUGENE CREAMER: David Whyte.

CHRISTINE MAINVILLE: Who were you working for at the time?

EUGENE CREAMER: SNC-Lavalin.

CHRISTINE MAINVILLE: And was Mr. Whyte with SNC?

EUGENE CREAMER: Yes, he was.

CHRISTINE MAINVILLE: And to be clear, you were project director for OLRT Construction,

correct?

EUGENE CREAMER: That's correct.

CHRISTINE MAINVILLE: Do you know why Mr. Whyte left the project?

EUGENE CREAMER: It was a corporate decision, I wasn't privy to the reasons that were made. I wasn't privy to the reasons that he was let go.

CHRISTINE MAINVILLE: Okay. And you were replaced by Mr. Holloway in 2018?

EUGENE CREAMER: That's correct.

CHRISTINE MAINVILLE: And why did you leave the project at that time?

EUGENE CREAMER: It was a partner decision, mostly led by EllisDon and Dragados.

CHRISTINE MAINVILLE: And we'll get your resumé, but could you tell us a bit about your experience and background?

EUGENE CREAMER: Yes. I'm a professional engineer, I have worked on nine, or ten LRT or heavy rail projects. I've got experience in all levels of transportation.

I also hold an Airline Transport Pilot's Licence. I've done redevelopment of two major airports, I've done highway work, I've done a

lot of marine work, I've done the redevelopment to marine terminals. I've got a gamut of experience in industrial, commercial, institutional works. And half of my career has been as an owner's representative, and half has been working directly on a contractor and/or in the design-build environment.

CHRISTINE MAINVILLE: And how would you describe the state of the project when you arrived and took over in 2016?

EUGENE CREAMER: There were a lot of challenges. The project had just had a sinkhole on Rideau Street in Ottawa. It was a major event, and there was a lot of work that had to go into getting it back on track.

On the civil side, the trains supplier was challenged with his schedule. There was a lot of work that had to be done on the design, as well as on the systems work and the integration for the trains and all of the systems.

CHRISTINE MAINVILLE: Right. So maybe let's start with that last piece. Were you surprised at the state of the designs and integration at that point in time?

EUGENE CREAMER: No. I had seen many

that were in similar situation at that stage in the development of the project.

CHRISTINE MAINVILLE: But there remained work to be done?

EUGENE CREAMER: Significant work to do. Through my network and people that I've worked with in the past, I was able to bring together certain people, particularly, for the systems integration and the systems role in general for both the construction and the design.

I brought in a fellow that I had worked with in Malaysia, Frank Fitzgerald, he was an electrician by trade, but he also did an engineering degree and a computer science degree. And so he knew the whole systems world from the ground up. And we had worked in Malaysia and Jamaica together.

CHRISTINE MAINVILLE: So was he brought in to look specifically at the integration of the rolling stock and signalling system; or the integration more broadly?

EUGENE CREAMER: More broadly, including the SCADA system and everything to do with Thales and also the integration with Alstom.

CHRISTINE MAINVILLE: Who is

responsible for the SCADA system?

EUGENE CREAMER: It's a company out of Edmonton, I'd have to think about it. But I don't have the name off the top of my head. I can research it and send it to the Inquiry if they need it.

CHRISTINE MAINVILLE: So they supplied it, I guess is what you're saying?

EUGENE CREAMER: Yeah, it's mostly programming.

CHRISTINE MAINVILLE: And then it just falls under OLRT-C's responsibility?

EUGENE CREAMER: Yes, it was part of our responsibility.

[Reporter intervened for clarification purposes]

CHRISTINE MAINVILLE: Okay. And systems integration, who had responsibility for that on the project?

EUGENE CREAMER: OLRT-C.

CHRISTINE MAINVILLE: And what was RTG EJV's role in that regard?

EUGENE CREAMER: They were the head of the project, in terms of the whole project, including the maintenance arm, RTM and OLRT-C and

the liaison with the City. So they were our conduit to the City.

CHRISTINE MAINVILLE: Sorry, you're referencing RTG probably?

EUGENE CREAMER: Yes, RTG.

CHRISTINE MAINVILLE: Right. But what about the engineering joint venture, EJV?

EUGENE CREAMER: Engineering joint venture fell under OLRT-C.

CHRISTINE MAINVILLE: Right. And what was their role, if any, on the systems integration side?

EUGENE CREAMER: They had an overseeing role with the technical director leading it.

CHRISTINE MAINVILLE: Who's technical director?

EUGENE CREAMER: Roger Schmidt.

CHRISTINE MAINVILLE: Who worked for OLRT-C?

EUGENE CREAMER: Yes.

Sorry, he was a private contractor, working for Dragados seconded to OLRT-C.

CHRISTINE MAINVILLE: So he had the role -- was it a systems integrator role?

EUGENE CREAMER: No, he had oversight

on the technical direction of the project. There were other people involved in the systems integration.

CHRISTINE MAINVILLE: And who were those?

EUGENE CREAMER: I don't have their names.

CHRISTINE MAINVILLE: Okay. Did you understand that there had been some challenges in filling that role earlier on in the project?

EUGENE CREAMER: Yes, I was aware of that. That's why I brought Frank in.

CHRISTINE MAINVILLE: Okay. What did you understand those challenges to relate to?

EUGENE CREAMER: People's misunderstanding of what the scope involved with the integration.

One of the key things that needed to happen was a systems functional planning document. Without that, you don't have a map to do the systems work.

CHRISTINE MAINVILLE: And so was that developed later on, or was there...

EUGENE CREAMER: Frank can do one of those in about three weeks.

CHRISTINE MAINVILLE: Okay, so he did?

EUGENE CREAMER: Yes, of course.

CHRISTINE MAINVILLE: Do you know why that hadn't been done previously? There was some misunderstanding of the need for it?

EUGENE CREAMER: Yeah, there was a misunderstanding of what that document, the strength of that document. And so without that document, you don't know which systems have to talk to which systems and how they interface.

CHRISTINE MAINVILLE: And the fact that it was done later in the day than perhaps might normally have been done, did that have implications in terms of perhaps not being able to entirely catch up or...

EUGENE CREAMER: No. Once Frank took over, the document was put together. In terms of the installation of the systems, it was all caught up in very short order for the integration.

CHRISTINE MAINVILLE: Do you think from that point on, or at least until you left, there was sufficient resourcing and attention brought to the systems integration component?

EUGENE CREAMER: There was. Rupert was -- when I was project director, Rupert was my direct report at SNC and he was one of our Ex-Co

members. And he had had a different experience in Australia with systems integration. And he brought in a different company to do a bunch of mapping for this systems work for verification.

CHRISTINE MAINVILLE: And just going back to the engineering joint ventures role. You said they had an oversight role on the technical director?

EUGENE CREAMER: Sorry, can you repeat the question?

CHRISTINE MAINVILLE: You mentioned them having an oversight role with the technical director leading...

EUGENE CREAMER: Yeah. The systems integration fell under the responsibilities of OLRT-C. And the oversight, and directly responsible was Roger Schmidt. And initially they had two or three people seconded, mostly from SNC, to oversee the systems integration on the design side.

CHRISTINE MAINVILLE: And so they were seconded to EJV or OLRT-C?

EUGENE CREAMER: I'm not sure whether -- I believe it was on the design side.

CHRISTINE MAINVILLE: I don't know if

you recall the names, but would that have been Keith Brown?

EUGENE CREAMER: Keith Brown was involved, but he wasn't the hands-on doing any work really. It was other people that we had there.

CHRISTINE MAINVILLE: And so in terms of the functional planning document, the systems planning document that Mr. Fitzgerald ultimately developed, would that have been a design responsibility, or would you have expected OLRT-C to do that?

EUGENE CREAMER: Well, OLRT-C had oversight on the design. So it ultimately would have come under OLRT-C's responsibility and, you know, under design-build, I'm not looking to put everybody in a single box. I want the right person to do the job.

So I didn't go particularly and say, "Frank, you need to do oversight on the design." It's, "I need a functional plan, and please get it done."

CHRISTINE MAINVILLE: In terms of the systems integration of the signalling system and the rolling stock more specifically, what was the state of that integration when you arrived? Or the

level of attention that had been paid to.

EUGENE CREAMER: There had been lots and lots of problems with Alstom's development. The reality is, the City of Ottawa bought a prototype vehicle, they did not buy a proven vehicle. And that was evidenced by the City themselves. Their consultant in the newspapers advised that it was a prototype vehicle.

And with a prototype vehicle, one of the key things that was not well developed was the train control software. And we waited and waited for long periods of time for Alstom to develop their software packages, and there were multiple revisions to their software. And the revisions took prolonged time to be developed and then uploaded on the trains.

And so there was always a lag with the integration between the train control system and Alstom's systems on the trains. And the two of them had to work together, but Alstom ultimately had to finish their work before they were certainly a predecessor to Thales doing their work.

CHRISTINE MAINVILLE: When you say the train control software, though, you don't mean the signalling system?

EUGENE CREAMER: No, no. Thales performed very well. Once they were given the trains, and their end of the CBTC worked very, very well. But there were always challenges with Alstom's software.

CHRISTINE MAINVILLE: And do you know what occasioned that?

EUGENE CREAMER: Sorry?

CHRISTINE MAINVILLE: Do you know what occasioned those challenges?

EUGENE CREAMER: Timing, to get the software. All of the programming was done in France, in Paris, and there were always large delays between the time the software was developed and by the time it could be uploaded.

Now in fairness to Alstom, there is a significant amount of testing that has to happen with the software. They have to run through multiple scenarios to make sure that they'll be able to sign the safety certificate.

But, also in France, everybody takes the month of August off, so you won't get any software out of France in the month of August. So when you're on tight deadlines, and people are not there, the work just doesn't get done.

CHRISTINE MAINVILLE: And did you understand that the validation testing took place later than originally planned?

EUGENE CREAMER: Yes, I did. But that was a lot to do with Alstom themselves. The test track was available, they just didn't get out there. And they used the sinkhole as a reason for not completing the testing, but that wasn't a valid reason. The test track was from University of Ottawa to Blair. They had plenty of track to do testing on.

In fact, we even moved the train through the tunnel in, I believe, March or April -- no, it was earlier than that. It might have been February. And we had it at Tunney's Pasture so that they can do testing on that side. Because there was a short piece of track that wasn't -- the track was complete, but the power rail wasn't. And that was completed in about three weeks after we moved the train through. But we didn't want to move trains back and forth through the tunnel, because we had lots of finishing work to do in the tunnels.

So we had trains at both ends, and they could have been doing all of their testing,

including Thales doing their testing after the train had been tested by Alstom; and that did not happen. They just parked the train there and it sat.

CHRISTINE MAINVILLE: What was the original plan for the test track; do you know?

EUGENE CREAMER: Well, initially, the first two trains were supposed to be tested off site. And that was before my time. And when I got there, I had found out that it hadn't been tested. It hadn't been tested off site.

So then we re-baselined the schedule with them doing the testing on the section of track to the east of the alignment, which was -- initially it was -- I don't remember exactly which station it was. But it was from Blair to one of the stations, and then eventually we opened it up to University of Ottawa.

CHRISTINE MAINVILLE: Am I right that that part of the track wasn't long enough to test at maximum speed?

EUGENE CREAMER: That's absolutely not correct. We ran the train at 97 kilometres an hour in that section, and there was no issue doing it.

And in fact, when we moved the train

over to the other side, near Tunney's Pasture, we ran the train on the first run when we were just locating it there, we ran it to 80 kilometres an hour.

CHRISTINE MAINVILLE: What were the implications of this testing -- sorry, Alstom's testing starting late, as you've described?

EUGENE CREAMER: It pushed everybody else's testing. Understanding that Alstom's testing was a predecessor to turning the trains over to Thales to do their integration and testing.

So until Alstom completed their work, we could not get Thales' work done. Which is why we gave an extension of time to Thales, because Alstom was late.

CHRISTINE MAINVILLE: And when did the integration testing start? The integration testing on the rolling stock and signalling system?

EUGENE CREAMER: I don't have that date in my head, I'm not sure. I'd have to go back through records, and I don't have access to them right now.

CHRISTINE MAINVILLE: Do you recall in November 2017, OLRT-C writing to Thales that it did not have adequately qualified or experienced

testing staff on site?

EUGENE CREAMER: Multiple letters went. We did, yes, I'm sure.

CHRISTINE MAINVILLE: Were there concerns about the testing, Thales' testing?

EUGENE CREAMER: Yes, there were. And Thales responded.

CHRISTINE MAINVILLE: What were the concerns?

EUGENE CREAMER: The concerns were staffing levels and how quickly they were responding.

CHRISTINE MAINVILLE: Okay.

EUGENE CREAMER: So just to clarify on that. The person that Thales had as a project manager, at that time, Frank was our lead for the train control system. And Frank, technically, could run circles around the project manager. And Frank's expectation was the project manager would be on a different level, technically, and that was part of the challenge that we had.

And we got through that, because the Thales manager was there to manage the resources, and not as a technical reference. And once we got past that, Thales performed very well.

CHRISTINE MAINVILLE: And if in November, late November 2017, Thales indicated that OLRT-C was failing to deliver the infrastructure on time, do you recall whether by that time they had not been able to start some of their testing?

EUGENE CREAMER: They couldn't do the end-to-end testing, that was correct. But we did have connectivity through the system, we just didn't have some of the work done in the tunnel.

CHRISTINE MAINVILLE: And am I right that that didn't happen prior to your departure, the end-to-end?

EUGENE CREAMER: No, we had end-to-end by the time I left.

CHRISTINE MAINVILLE: By later in 2018?

EUGENE CREAMER: That's correct.

CHRISTINE MAINVILLE: So were they running the trains -- was it as part of integration testing at that point?

EUGENE CREAMER: No. Because we had just moved the train through the tunnel, which was a challenge. We got it to the other end.

The Thales equipment was up and running at Tunney's Pasture, and that's where I said that Alstom could have been doing their testing at that

end, they just didn't -- they elected not to put people on there, or they didn't have the resources.

CHRISTINE MAINVILLE: Okay. So the trains were able to pass through the tunnel sometime in 2018, but they weren't able to do the full integration testing from one end to another?

EUGENE CREAMER: That is correct.

Later in 2018 they certainly could. And it wasn't that far off, it was maybe a month or two that they could have done full testing.

CHRISTINE MAINVILLE: And do you know ultimately how compressed the testing and commissioning was, in particular, the integration testing?

EUGENE CREAMER: I don't, I wasn't there.

CHRISTINE MAINVILLE: When you were there, what was the plan for trial running?

EUGENE CREAMER: We were going to start trial running as soon as we had a test-proven vehicle.

CHRISTINE MAINVILLE: So you mean as soon as the rest of the testing and commissioning was done?

EUGENE CREAMER: Yes.

CHRISTINE MAINVILLE: And then do you

recall what that was supposed to look like, the trial running?

EUGENE CREAMER: Yeah, it was -- we were supposed to simulate service and see how many failures we had.

But one of the things you need to understand is, the City was never ready to operate the system.

VIRTUAL TECHNICIAN: My apologies for interrupting.

It seems that our court reporter has dropped out.

-- OFF THE RECORD DISCUSSION --

-- REPORTER's NOTE: (Reporter confirms that her backup device was being utilized and there was no missing testimony).

CHRISTINE MAINVILLE: So let's start again about the City...

EUGENE CREAMER: The City was not ready to run the system. A good example of their efforts to stall, they used building inspectors from the City to measure every rise and tread on every stair throughout the system.

I would challenge the City to tell us what commercial building, institutional building,

residential, where the building inspectors actually performed that service.

They found seven treads and risers that were out of tolerance. But that's clearly what they did to avoid starting running the system. Because they clearly were not ready to run the system.

CHRISTINE MAINVILLE: And what's your basis for -- in terms of your observations about their readiness on the operations side?

EUGENE CREAMER: They had to provide drivers, and the drivers were all coming out of the unionized labour pool that they had that were bus drivers.

CHRISTINE MAINVILLE: Okay. And why wouldn't they have been ready by 2018?

EUGENE CREAMER: They just didn't -- they didn't seem to have the organization in place to be ready to run.

CHRISTINE MAINVILLE: Was the operator involved in the design and construction phase in any way? Were they brought in to...

EUGENE CREAMER: They were involved in certain ways. And they did use some of their labour force. In fact, some of the deficiencies

were done with using bus drivers to go around the various stations and add to the deficiency list.

CHRISTINE MAINVILLE: For the stations or...

EUGENE CREAMER: Yes, for the stations.

CHRISTINE MAINVILLE: In terms of the operational considerations informing the design, did OLRT-C have a Concept of Operations or anything to work off of about how they were going to operate?

EUGENE CREAMER: A lot of the operation documentations were put together by us on a, I believe it was a change order. And we had Louis Ranger doing this work.

Louis Ranger was, prior to coming to work on OLRT, he was the head of Transport Canada.

CHRISTINE MAINVILLE: So that's was not the original plan, because it required a change order?

EUGENE CREAMER: Yeah. It wasn't part of our original scope, but it was done on the change order.

CHRISTINE MAINVILLE: Do you know whether that's because they had not been able to do it themselves or...

EUGENE CREAMER: I don't know. That decision was, when I arrived there, Louis was already working for us.

CHRISTINE MAINVILLE: So do I take it then, that prior to Mr. Ranger doing some of that work, that the involvement of the operator maybe was not as significant as it may otherwise have been?

EUGENE CREAMER: Probably. Now understanding that a transportation system, train system, has to have an operating certificate. And they need to have the documentation for an operating certificate, and that's what Louis Ranger -- and he used to be the Deputy Minister of Transportation, Transport Canada.

CHRISTINE MAINVILLE: In other projects, have you worked with a Concept of Operations, or that type of information from the operator that helps inform the design and construction work?

EUGENE CREAMER: So understand, you'll see on my resumé, I've actually held a -- I'm a proper engineer. I've held a licence to drive trains as well, okay, when I worked at -- so I know what is required for an operating certificate, and

what goes into an operating handbook.

And when I did the Monorail Malaysia in Kuala Lumpur, I worked together with our team to put together the operating handbook for the monorail. So I'm fully familiar with what goes into an operating system, as well as, like I said earlier, I do hold an Airline Transport Pilot's Licence as well. I do know what happens with operations.

CHRISTINE MAINVILLE: But in terms of how a particular operator on a particular project intends to operate, and how that might inform how you design the system, how do those two things work together, and did they work in Ottawa?

EUGENE CREAMER: Well, you know, the operations manual falls out of the design. So, you know, we look at all of the parameters and we do the risk analysis, etcetera.

And then the operating handbook and guidelines comes out of the design. So, you know, a lot of that was dictated by where we are in the industry for putting together the overall operating systems for the train.

CHRISTINE MAINVILLE: So you wouldn't necessarily have seen any value in OC Transpo, as

the operator, having more involvement earlier on in the project in terms of design?

EUGENE CREAMER: Well, one of the biggest problems was, they had no experience.

CHRISTINE MAINVILLE: Right.

EUGENE CREAMER: So, they wouldn't have necessarily brought much to the table.

CHRISTINE MAINVILLE: Okay. But have you seen that done in other projects, where you have a more experienced operator?

EUGENE CREAMER: Well, I worked for CN for a number of years. So have I seen more experienced operators? Absolutely. The Class 1 railways in Canada operate at a different tier.

CHRISTINE MAINVILLE: If you're designing a system, would they be involved, if they're an experienced operator?

EUGENE CREAMER: Absolutely. When I worked at CN, operations was always involved. When I worked at BC Ferries -- very few people understand this, but BC Ferries developed the first fully automated ramp systems in the world for loading ferries, and I was in charge of the first one to be built. And that was with the advent of the PLC, programmable logic controllers, that

allowed us to do that. Prior to that, everything was analog. And that allowed us to do it digitally.

CHRISTINE MAINVILLE: And did you, in this case, have anything like a Concept of Operations to work off of during the construction?

EUGENE CREAMER: Well, Louis Ranger was developing some of that documentation as well. But SNC would have had a breadth of experience, because we worked on the original Expo Line, which was one of the first driverless systems. And I worked on the original Expo Line.

CHRISTINE MAINVILLE: Okay. But in terms of something that had been devised early on even during preliminary -- for the preliminary designs...

EUGENE CREAMER: They would have had some documentation on that.

CHRISTINE MAINVILLE: Okay.

Mr. Manconi, who was general manager of OC Transpo, but in terms of overseeing this project on the City side, would you say -- was he wearing a different hat, or was he there and able to provide input as operator?

EUGENE CREAMER: He was there providing

some information on how they intended to operate the system. But remember, Mr. Manconi's experience was primarily with the bus operations. They did have a small O-Train line that was a single line that was a small operation.

CHRISTINE MAINVILLE: So you saw a lack of experience on the operations side?

EUGENE CREAMER: Absolutely, yes.

CHRISTINE MAINVILLE: And did they not bring any consultants or advisors that were able to fill that gap?

EUGENE CREAMER: They brought in STV, a U.S. consultant out of New York City, which I worked with them a little bit with on the redevelopment of the Terminal 1 International Terminal at JFK Airport.

CHRISTINE MAINVILLE: And so did they fill that gap?

EUGENE CREAMER: They had some experience, but I also got to work directly with the AirTrain operators. So I did get some insight into how AirTrain operated, and STV was more their go-to for the civil side, not much on the operations or on the systems design side.

So just following through. The City

fundamentally -- the trains were the wrong selection for the climate in Ottawa. You've got a small wheel, the trains were -- they wanted something between a in-street tram type system to an LRT train, and with the whole undercarriage and the low floor inside an operating guideway. It was not the right selection.

They would have been far better off with a train like they have in Vancouver, or in the one that they have selected for Montréal.

CHRISTINE MAINVILLE: Which is what?

EUGENE CREAMER: It's a standard LRT with platform heights that are high enough that you're not trying to put everything on the roof, you've got lots of room on the undercarriage. And the simple fact of the matter is, with a small wheel and you're going 80 kilometres an hour, it's just not conducive.

It should be one or the other. Trying to jam everything into one package isn't necessarily the best solution. And that was a fundamental decision that they made.

And my understanding from people who were involved in the original process, both SNC and Bombardier advised the City of Ottawa against the

use of a low-floor vehicle and a small undercarriage.

CHRISTINE MAINVILLE: I'll come back to that.

What are the potential implications? Does it raise performance issues or reliability concerns?

EUGENE CREAMER: Performance, for sure. Because they also had a proprietary-type bogie design that allowed for an extra degree of freedom with the flex in the frame. So it makes it challenging.

CHRISTINE MAINVILLE: And the construction challenging, or the manufacturing?

EUGENE CREAMER: Yeah, yeah. And the other fundamental decision that was made prior to even going out to tender, was tie and ballast for the track bed. It should have been a slab-on-grade with fixed rails to the slab-on-grade.

The tie and ballast, in Ottawa you have the situation where you have the tunnel. The tunnel, the temperature of the rail in the tunnel is going to be 20 degrees, and some of the rail outside will be anywhere from 40 to 60 degrees, and you're going to get movement of the rail and the track bed with those temperatures.

And unlike heavy rail, where we -- on the main line we'll limit curves to 4 to 6 degrees, if we're trying to maintain other speeds on the track; on LRT, we put in much tighter radiuses on the turns and the alignment. And that means that when you get thermal expansion, it will push the rail, and if the curve is too tight, it will actually move the whole rail, the track bed.

CHRISTINE MAINVILLE: Do you know if that led to issues, ultimately?

EUGENE CREAMER: Yeah, it did end up with certain issues with it, because the track does move, and it has to be resurfaced.

Which, you know, in the overall is not insurmountable. But I know that SNC looked at it to see if they could justify slab-on-grade by the savings out of the maintenance budget, but they weren't able to justify it. But that certainly would have been good value engineering.

CHRISTINE MAINVILLE: Would that have some pressure on the maintenance, the ballast issue?

EUGENE CREAMER: It would put some issues on the maintenance. But one of the key things that happened early on, was Alstom was the

maintainer with the management company of RTM set up.

During the time when we were just starting up, we were expected, OLRT was expected to pay for Alstom's maintenance people. They did not do any maintenance other than when they were cajoled into greasing some of the switches.

But they had a golden opportunity to learn how to do the track work properly, they never did. They sent the people out for doing track work to write lists of deficiencies for OLRT to correct. But they never actually picked up any tools, and did any maintenance on the track, other than some lubricating of switches.

CHRISTINE MAINVILLE: You mean during the construction phase while you were still there?

EUGENE CREAMER: Yes, exactly.

CHRISTINE MAINVILLE: Did their contract not start later?

EUGENE CREAMER: No. I believe their contract started on time, and OLRT picked up the cost for Alstom's maintenance during the time period that we had not started operating the system.

CHRISTINE MAINVILLE: So wasn't

maintenance during the construction phase OLRT-C's responsibility?

EUGENE CREAMER: Yes.

CHRISTINE MAINVILLE: Okay.

EUGENE CREAMER: But we were paying somebody to sit in a room, instead of getting out and learning how to do it. And we were doing the maintenance with OLRT personnel, but we were also paying somebody to sit in a room and not do the work.

And so when they came to start operating the system, their trackmen didn't know what to do, because they hadn't taken the opportunity to learn. They could have come out and worked with our crews and learned something, they did not.

CHRISTINE MAINVILLE: Okay. I just want to go back to some of the vehicle requirements.

The 100 percent low floors --

EUGENE CREAMER: Yup.

CHRISTINE MAINVILLE: -- did you understand that to have been part of the original requirements in the RFP?

EUGENE CREAMER: I do understand that

it was, but only through discussions with Sharon Oakley.

CHRISTINE MAINVILLE: Because you said SNC and Bombardier advised Ottawa against it. Bombardier wasn't selected, so I take it that would have been earlier on that they would have advised against that?

EUGENE CREAMER: That's correct, yeah. And it wasn't necessarily the low floor. Or sorry, the flat floor. It was the low-floor vehicle, because the undercarriage was now compressed. So they suggested a much more robust undercarriage and frame. You would have got the flat floor much easier with the train like they have in Montréal or Vancouver.

CHRISTINE MAINVILLE: Do you know why they had that requirement?

EUGENE CREAMER: For the low floor?

CHRISTINE MAINVILLE: Yes.

EUGENE CREAMER: I don't know for sure the reason. But, typically, it would be so that you could use the trains on street level uses. So in-street running.

CHRISTINE MAINVILLE: And if they had plans for a future expansion that might involve

street running, would it make sense that they'd have that requirement?

EUGENE CREAMER: It depends. In Ottawa, no. It would not make sense, because of the snow. It's not a good application.

They don't have it in New York City, and New York City gets a lot less snow than Ottawa. They don't have it in Montréal, they don't -- they do have it in Toronto. But they do have a lot of in-street running systems in Toronto that we don't have elsewhere in Canada.

CHRISTINE MAINVILLE: So these ones in New York or Montréal -- well, I know Montréal because I'm from there. But they don't -- do they interface with the streets at all?

EUGENE CREAMER: No.

CHRISTINE MAINVILLE: No.

EUGENE CREAMER: No.

CHRISTINE MAINVILLE: But would it need to be -- because you said it didn't make sense for Ottawa, because of the snow. But do they need to be 100 percent low floor if they're going to interface with the street?

EUGENE CREAMER: No, not necessarily. They were looking at a system in Surrey, in BC, an

in-street running system. And also in Calgary they have portions of it running in-street, and all of the platforms are built up with that -- with either ramp access or some sort of stair access to the platform.

So Calgary does not -- and Calgary runs right through downtown with the train, but you have to mount up onto a platform to get off. And Calgary's system is one of the most used systems in North America.

CHRISTINE MAINVILLE: Do you have views on whether the requirements, in particular for the rolling stock, were overly prescriptive?

EUGENE CREAMER: They were, yes.

CHRISTINE MAINVILLE: Was there a requirement for, effectively, a track that's used for heavy rail as opposed to light rail?

EUGENE CREAMER: I'm not sure about that. I have a vague recollection of some discussion about it, but I was not there during the initial design. I would have had a much better knowledge of it if I had been there earlier.

CHRISTINE MAINVILLE: Do you recall the project specifications requiring, or pointing to the AREMA Standards?

EUGENE CREAMER: There certainly would have been reference to AREMA, at least for the specifications on the rail; and they're generally accepted standards.

But in terms of actually running heavy rail, using heavy rail rolling stock, that would not be possible with some of the curves that were on the track.

CHRISTINE MAINVILLE: Right. But do you understand that there was, irrespective of what the requirements were, some misalignment between the track and the vehicle type on this project?

EUGENE CREAMER: There's always a long discussion about wheel-rail interface. That was discussions that happened way before I got there.

When I got there, the rail was in from Tunney's Pasture, close to the University of Ottawa. And they were just starting track work at the west end of the alignment.

CHRISTINE MAINVILLE: So you wouldn't have been too close to that issue?

EUGENE CREAMER: No.

CHRISTINE MAINVILLE: Okay. What about the design and various requirements accounting for maintenance needs?

Do you think it's sufficiently -- you know, did it design a system that was easy to maintain, or did it sufficiently account for what ultimately would fall on maintenance and make it a bit more complex to maintain?

EUGENE CREAMER: No, there was general consideration for maintenance. You know, being the fact that it was design-build-own-operate, we did put considerations in for maintenance. We're in discussions with the entity that would be the maintainer. And we did listen and look at business cases that would save money ultimately on the maintenance.

CHRISTINE MAINVILLE: So RTM was involved during the construction phase?

EUGENE CREAMER: Yeah, yeah. There was always an arm available with some maintenance capacity managerially.

CHRISTINE MAINVILLE: Did the rolling stock requirements -- and you've explained some of the complexities about the low floor and the bogie, did that design create maintenance challenges?

EUGENE CREAMER: Can you repeat the question, please?

CHRISTINE MAINVILLE: The vehicle

requirements, including the low floors, and small wheels, and all these things, do they have implications for maintenance? Is it a more complicated vehicle?

EUGENE CREAMER: Yes, it is more complicated. And, obviously, the wheel axles and -- when you're running them at a higher speed than you would be an in-road running system, then you are challenged with additional maintenance.

CHRISTINE MAINVILLE: You were not there at the tail end of the project, but do you know whether these things were integrated into maintenance plans?

EUGENE CREAMER: I don't know.

CHRISTINE MAINVILLE: Okay.

Now, if we go back to the rolling stock being a prototype. And you said the City's consultants advised about that; who are you referencing?

EUGENE CREAMER: Boxfish. Now I don't remember the person's name, but it's available in the media.

CHRISTINE MAINVILLE: Brian Guest?

EUGENE CREAMER: Yes.

CHRISTINE MAINVILLE: So when do you

say he would have advised the City about this fact?

EUGENE CREAMER: I don't know.

CHRISTINE MAINVILLE: You were just referencing something you read in the media?

EUGENE CREAMER: That's correct.

CHRISTINE MAINVILLE: So do you have any sense of whether the City understood, through your own interactions, whether the City understood how proven or not this vehicle was?

EUGENE CREAMER: I had discussions with Alstom where they told me how important it was for them to get a number of kilometres on the vehicle so that they could prove out the vehicle. That was with Alstom. I don't know if I had a discussion with the City directly referencing the prototype.

CHRISTINE MAINVILLE: And so are you saying they wanted -- Alstom wanted a fairly significant burn-in period of sorts?

EUGENE CREAMER: Yes, yeah.

CHRISTINE MAINVILLE: Am I right that was not provided for in the Project Agreement?

EUGENE CREAMER: No, it was not.

CHRISTINE MAINVILLE: And so was there a plan while you were there to do a significant amount of burn-in?

EUGENE CREAMER: We were trying to get them as much track time as we could.

CHRISTINE MAINVILLE: You don't know ultimately if that was able to get done?

EUGENE CREAMER: Well, we did give them as much track time as we could. And, you know, we continued to try and operate and get them two -- and there were two vehicles they did a lot of testing on, and those two vehicles eventually had to go back in for rebuild, just because they were prototypes, and there were a number of modifications that had to be made to them to bring them up to the final standard of the vehicles as the design developed.

CHRISTINE MAINVILLE: You weren't there earlier on, but I wonder if you know whether there was any change to the vehicle that was put forward by Alstom initially?

EUGENE CREAMER: I know from discussions with various people that the original vehicle that we proposed in our submission was a CAF vehicle. And from people that told me that the City advised the consortium that if they didn't go with the Thales vehicle, and they went with the CAF vehicle, they wouldn't be considered.

CHRISTINE MAINVILLE: Do you know whether any exception was ever made to the service-proven requirement for Alstom?

EUGENE CREAMER: I don't believe that there was anything -- there was no exception made. Alstom relied on the fact that the Citadis vehicle was a proven vehicle in Europe. But there are two Citadis vehicles, and you'll have to check with Sharon which models they were. But we got the one that was not proven, not the one that there were multiple units operating in Europe.

And the other thing, too, is, a vehicle in Europe isn't transferrable to the North American market without doing certain things like a new fire testing, crash testing, etcetera. So there was a number of things that you would have to do, that would be considerably different than what they were calling a proven vehicle.

CHRISTINE MAINVILLE: And when you say "Sharon", you mean Sharon Oakley?

EUGENE CREAMER: That's correct.

CHRISTINE MAINVILLE: So to what extent, because you've called this a prototype, what's your understanding of how different this vehicle is from the Citadis Dualis that's in

Europe, or other Citadis vehicles?

EUGENE CREAMER: I'm not sure of all of the differences. But I'd have enough discussions with knowledgeable people to know that there's significant difference, and that the vehicle that we ultimately received in Ottawa was a prototype because of changes to fundamental components of the train.

CHRISTINE MAINVILLE: What's your view or your observations about the suitability of the MSF as the train assembly facility? In hindsight or...

EUGENE CREAMER: In hindsight, it was not a good selection. First of all, there wasn't a proven labour market.

Ottawa, the population of Ottawa doesn't support that level of manufacturing, because you do need people who are capable of doing the work, and it is repetitive work, so you need -- and then you have to find a different level of supervision in terms of four persons available to guide the labour force.

For example, in Vancouver, for Canada Line, the trains were bought from Rotem, Hyundai company, and those trains, even today, run

99.999 percent of the time. And the Bombardier system, five years ago, struggled to get 95 percent availability.

But the facilities that -- the trains were built in Korea. It's a facility directly for building trains and tanks. And they had their own test track, we put the Thales equipment on the test track over in Korea. When the trains came here, they ran flawlessly.

CHRISTINE MAINVILLE: Do you think -- sorry, keep going.

EUGENE CREAMER: During the Olympics, they ran 24 hours a day, seven days a week for three weeks, with no interruptions.

CHRISTINE MAINVILLE: And so you see a direct connection between the labour and the production facility and the ultimate availability -- well, performance and availability of the vehicles?

EUGENE CREAMER: Yeah. And, you know, the number of deficiencies that showed up in the train particularly in wiring, etcetera, was just lack of supervision and an unskilled labour force.

CHRISTINE MAINVILLE: The wiring issues, what did those -- which breakdowns or other kind of issues did those relate to?

EUGENE CREAMER: Well, when they did start checking the wiring and doing some quality, they found a lot of the plugs were not done properly, the pins were bent over, there were fundamental wiring deficiencies.

Which led to difficulties for Thales to do their testing, because they had to go back and fundamentally do wire checks.

CHRISTINE MAINVILLE: Right. There were challenges or issues encountered through the testing?

EUGENE CREAMER: Yes. And quite often, Thales was fixing Alstom's wiring deficiencies.

CHRISTINE MAINVILLE: Were there challenges between the Thales and Alstom interface?

EUGENE CREAMER: Well, they're competitors.

CHRISTINE MAINVILLE: Right.

EUGENE CREAMER: And so, you know, there was always the issue of what's proprietary and what's not. So there was always some animosity between the two.

CHRISTINE MAINVILLE: Would some form of contractual relationship, interface agreement, or MOU assist, if there was something between the

two on a project like this?

EUGENE CREAMER: It would help. I mean, you do need a set of guidelines and rules to have two competitors work together, yes.

CHRISTINE MAINVILLE: And there were none in this case, correct?

EUGENE CREAMER: I don't -- I have no recollection.

CHRISTINE MAINVILLE: What was the City's oversight of the construction like? How involved were they?

EUGENE CREAMER: They weren't that involved. They came in and came out. Their biggest issue was always schedule.

CHRISTINE MAINVILLE: Would you have expected them to have greater involvement or not?

EUGENE CREAMER: No, I would not have expected them to have greater involvement, because they lacked the technical knowledge to really opine on anything and provide any guidance.

CHRISTINE MAINVILLE: In an ideal world, would they have brought in that level of experience to be able to contribute better?

EUGENE CREAMER: They would have.

CHRISTINE MAINVILLE: Yes?

EUGENE CREAMER: Yes.

These are complex projects, and they require people who have a certain level of experience with complex projects. And the City didn't have people at that level.

CHRISTINE MAINVILLE: And how was the partnership with the City over the course of the project, or the relationship?

EUGENE CREAMER: It was challenging.

CHRISTINE MAINVILLE: Can you tell me about that?

EUGENE CREAMER: Well, there were -- one of the -- the easiest way to explain it is that a man needs three things to go to work, information, tools and material. So whether you're a carpenter, an engineer, it doesn't matter.

If you're an electrician, if you're missing one of those three things, you can't work efficiently or you can't work at all.

And one of the things that happens quite often with owners, they don't understand their responsibility in terms of providing information. And so without the information component, the project gets challenged. And that's how, in government organizations, you end up with

significant cost overruns, if people don't know how to make decisions in a timely manner.

CHRISTINE MAINVILLE: What were the types of information or decisions you needed from the City that you weren't getting?

EUGENE CREAMER: For example, the City's view on were there stanchions in the train. Which leaves a loophole for people like Alstom, companies like Alstom, to say that they don't have all of the design information.

That's a simple example. All the way to complex ones, where you want the camera image to -- the CCT image to come up in the cab of the train. So you have these cameras on the outside, and you want to get the image to the cab inside the train as part of the systems. So that's the sort of decisions and operating decisions that are somewhat arbitrary.

Another key example would be, the City required us to put a push button in to keep -- for driver alertness. Which one of the more inventive drivers made himself a little mechanical device to pop the button every 15 seconds, so he didn't have to manually do it.

But that's the sort of stuff that, you

know, making decisions like that, arbitrary decisions, well, we should do this; it doesn't necessarily help the driver's alertness.

CHRISTINE MAINVILLE: Was this raised during your time with the need for more, for decisions or information or...

EUGENE CREAMER: Yeah. It comes up through the whole length and breadth of the project.

So it's, you know, for example, we were all the way through the project. We were going through with people that the City had assigned to do a deficiency list. And because it's design-build, the inspector insisted that we fill in a small space underneath the upstand guardrail on the stairs and on the platforms.

And then when the building inspector came back in he said, "no, you didn't have to do that, that's not a code requirement." And, you know, we're supposed to build to code, and we had built to code, and then they wanted this enrichment, which was arbitrary, because the fellow who was looking at the deficiency said he wasn't going to sign it off unless we filled it in. It's arbitrary and subjective.

CHRISTINE MAINVILLE: What about the City's approach to the Project Agreement or partnership; what would you say was --

EUGENE CREAMER: I would say it was certainly challenged as a partnership. They were -- they leaned on the agreement with their view of what they thought their entitlement was under the agreement. So the relationship was tenuous.

CHRISTINE MAINVILLE: As compared to all your other projects, is that something you generally see, or that you don't expect to see as much?

EUGENE CREAMER: I have experience working internationally and working in Canada. If I had to rate agencies, the worst agency to work for is Alberta Infrastructure. The next one would be Manitoba. Ontario MTO and Ontario Infrastructure reasonably good. And BC, very good.

CHRISTINE MAINVILLE: So you mentioned IO and the Ministry of Transportation, but in terms of the City's approach itself, their approach to the relationship and the PA, how did that compare to others?

EUGENE CREAMER: Well, it was a bit

tenuous. Because one of the things that used to happen was, the lead for the City would meet with Alstom separate from us; and that's very, very difficult. Because Alstom are ultimately a very difficult subcontractor to work with. But when they were meeting directly with the City, it was very difficult.

I've had other experiences with Alstom. For example, in Vancouver, we were bidding the Surrey line, and we had to name a train supplier. In our discussions with Alstom, one of the requirements of the system was that we have a battery component, because there was a section in town where they did not want to have an overhead catenary system. So we had to have a battery on board of the train.

It took a half an hour discussion with Alstom for them to finally admit that they did not have any proprietary battery technology. They tried to insist that they had something that nobody else had. And it took us a half an hour. And the interesting thing was, that we had already signed an agreement in principle with a supplier in Vancouver for batteries.

The first ferry systems in the world

were in Europe. And the batteries that were used as the power supply system, are built in Richmond, British Columbia. We had signed a proprietary agreement with them to supply batteries for the trains.

But all of the other train suppliers said that they would just get the batteries off of the standard issue from the market. And it took us a half an hour to get Alstom to admit that they would just go to the market for the batteries.

CHRISTINE MAINVILLE: Was there any involvement of the political sphere during your time on the project? And if any, to what extent?

EUGENE CREAMER: I probably met with the Mayor two or three times, and his main focus was schedule. And was there much on the political side? Absolutely.

One of the requirements directly in the contract was that we had to have one of the stations finished to a state that would allow the City to put in a halogram of the train coming into the station. And we had to allow public access, and delay the finishing works in that station, at Lyon Station, so that the public could come through and see a halogram of a train coming into the

station.

So there was lots of political messaging around the whole project.

CHRISTINE MAINVILLE: What implications did that have for OLRT-C?

EUGENE CREAMER: All of these projects, it doesn't matter, I'm not going to point out OLRT-C. Right now I'm working on the Broadway Subway project in Vancouver. You know, the governments have become very astute to the public's response to these, to the projects.

So in Ottawa, there was just the responsibility of making sure that we put a good image in front of the public, which corporately all three partners wanted to do.

But in terms of answering your question directly, yeah, I think that there was a little bit of additional work that we had to do to keep the image of the overall project, and the City's image of the project intact.

CHRISTINE MAINVILLE: And you said there was quite a bit of focus on the schedule on the City's part. What kind of pressure, if any, did that create for OLRT-C?

EUGENE CREAMER: Well, I mean that's

probably one of the reasons I was brought to the project after the sinkhole, was to try and bring it back on track in terms of schedule.

So we tried to push as hard as we could to complete the tunnel, so that we could get connectivity from one end of the alignment to the other.

CHRISTINE MAINVILLE: Okay, we'll talk more about this -- go ahead, sorry.

EUGENE CREAMER: But the City were mostly interested in what was the status of the construction based on the schedule.

CHRISTINE MAINVILLE: We'll talk a bit more about the schedule, but we'll take a break, if we can go off record.

-- OFF THE RECORD DISCUSSION --

-- RECESS TAKEN AT 10:29 --

-- UPON RESUMING AT 10:45 --

CHRISTINE MAINVILLE: So, Mr. Creamer, we'll just deal with your resumé. Is this the one here on the screen that you've sent?

EUGENE CREAMER: That's correct.

CHRISTINE MAINVILLE: Okay. And so the contents of this are accurate, to the best of your ability?

EUGENE CREAMER: Yes.

CHRISTINE MAINVILLE: Okay. So we'll file this as Exhibit 1 to the interview.

EXHIBIT NO. 1: Curriculum Vitae of Eugene Creamer.

CHRISTINE MAINVILLE: So I just want to ask about the impact of the sinkhole. You weren't there in the immediate aftermath, but very shortly thereafter you came in?

And so what was known about the impact of the sinkhole in the ensuing aftermath?

EUGENE CREAMER: That there would be some challenges to recover the time that would be lost in the schedule. And there were technical issues with how we were going to resolve completing the last of the tunneling in that area.

CHRISTINE MAINVILLE: And are those challenges to the schedule, is that something that was immediately recognized, or only over time did that become...

EUGENE CREAMER: No, it was immediately recognized.

CHRISTINE MAINVILLE: And did the City understand this, or was something else conveyed to the City about the impact?

EUGENE CREAMER: We gave them a recovery schedule trying to maintain our original schedule.

CHRISTINE MAINVILLE: And how did OLRT-C plan to recover the time lost?

EUGENE CREAMER: Additional resources, and working 24 hours a day.

CHRISTINE MAINVILLE: And am I right that there was also some overlap between the manufacturing and testing, and compression of the testing and commissioning phase?

EUGENE CREAMER: Are you talking about for the trains?

CHRISTINE MAINVILLE: Well, even more broadly but --

EUGENE CREAMER: All of the systems?

CHRISTINE MAINVILLE: Yes.

EUGENE CREAMER: There would have been some compression, yes.

CHRISTINE MAINVILLE: And so I take it OLRT-C's stand to the City was, we're going to try to make it up?

EUGENE CREAMER: That's correct. And in terms of the question about the systems and everything, the amount of testing that had to be

systemwide was not as significant as one would think.

So long as we had connectivity all the way to Tunney's Pasture and from Blair, the sinkhole was not going to create that big of an issue for the system side.

And the amount of testing that had -- that the train had to do from end-to-end was only a few, maybe a month's worth of testing to go end-to-end with the trains.

CHRISTINE MAINVILLE: Was that view shared by Thales and Alstom?

EUGENE CREAMER: No, well, Alstom would not agree to that. They would come back and say that they needed to do testing end-to-end. But that was not really that accurate.

CHRISTINE MAINVILLE: What's your basis for disagreeing?

EUGENE CREAMER: Because the reason I'm disagreeing with Alstom is that the number of tests that had to happen end-to-end were a very small number that would not have prevented them from doing all of their testing program between Blair and University of Ottawa. You're only talking about another 5 or 6 stations.

CHRISTINE MAINVILLE: And what about Thales?

EUGENE CREAMER: Thales, same thing, and especially after we moved the train to Tunney's Pasture, which would have allowed testing all of Thales' equipment.

Because their equipment was up and ready for testing months before we completed all of the work at Rideau Station, which was right near where the sinkhole happened.

But we did get connectivity quite quickly for the systems works. With the train over there and connectivity, we could have easily done the testing at the other end if Thales had -- or Alstom had have elected to use the train that we provided at the west end of the alignment.

CHRISTINE MAINVILLE: But ultimately, is it fair to say Thales would have liked to have more time to do more end-to-end testing, or running?

EUGENE CREAMER: Thales? No, I don't think that they were -- I mean, obviously in any testing phase, there are issues that come up. But it's not always the case.

I referenced earlier the work that I

did at BC Ferries. We allowed a two-month period for testing and commissioning.

And after a week, we were just looking at each other and we started loading ferries. So you know, and that was a prototype, brand new technology, and the engineering was done such that the components that we used were of high quality and reliability, that after a week and a half we started loading ferries.

CHRISTINE MAINVILLE: You mean you were done because it went smoothly?

EUGENE CREAMER: All of the testing, all of the results were exactly what we expected. There were no takeaways and modifications required.

CHRISTINE MAINVILLE: Would you say the schedule at some point in time became perhaps unrealistic in terms of achieving the May 2018 RSA date?

EUGENE CREAMER: History has proven that.

CHRISTINE MAINVILLE: They were overly optimistic, or were they simply not achievable?

EUGENE CREAMER: I wouldn't say it was overly optimistic and I wouldn't say it was not achievable. We didn't get the level of cooperation

that we expected from Alstom.

CHRISTINE MAINVILLE: In terms of characterizing the schedule, is it fair to say it didn't provide for any float? If everything worked perfectly, perhaps you could get there?

EUGENE CREAMER: There was no float in the schedule. There were certain critical bands in a schedule, especially this one, where there were multiple predecessors that had to complete for different critical paths. But a schedule -- everybody uses the word "critical path". It's usually a critical band.

There's 3 or 4 paths that could cause failure at any point in time.

CHRISTINE MAINVILLE: Aside from Alstom with rolling stock delays, were there not other delays on the critical path that caused a problem, like the stations, or Rideau Station?

EUGENE CREAMER: The stations -- Rideau Station was one of the last ones to be finished. But the stations typically don't drive the schedule. There were some challenges with finishes in the station, but that can always be overcome.

There was a degree of complexity with the systems and the station that had some

challenges. But they were generally overcome as well.

The primary delays were on the train running and the trains having significant reliability issues.

CHRISTINE MAINVILLE: A lot of which were uncovered once the trains were running the line?

EUGENE CREAMER: Yeah, trial running, the trains, the reliability was challenging.

CHRISTINE MAINVILLE: And OLRT-C tried to claim for a relief event or delay event as a result of the sinkhole?

EUGENE CREAMER: That's correct.

CHRISTINE MAINVILLE: Were you involved in the discussions about what approach to take following the sinkhole in that regard?

EUGENE CREAMER: Yes. I would have been involved in them.

CHRISTINE MAINVILLE: Was there some discussion about -- well, why don't you tell me about how that went, and what drove the decision to approach it this way?

EUGENE CREAMER: Well, my main focus was to try and recover the delays caused by the

sinkhole. That said, we did open up discussions with the City about an extension for the event. Relationships were tenuous on it, but we did open the discussions and the City never offered an extension of time.

CHRISTINE MAINVILLE: What more, or what would you have expected the City to do in the face of an event like this?

EUGENE CREAMER: I would have reasonably expected them to offer an extension of time. Like I said earlier, 50 percent of my career, I was an owner's representative myself. I would have gone to the powers to be at the City and tried to convince them to give an extension of time. It would have been the right thing to do.

CHRISTINE MAINVILLE: For the good of the broader project?

EUGENE CREAMER: So the good of the project, yes.

CHRISTINE MAINVILLE: And in terms of OLRT-C having taken on the full geotech risk, do you have a view as to whether that should have been done, or whether the geotech risk was properly allocated on the constructor -- the contractor, I should say?

EUGENE CREAMER: It's always a difficult one. I was the owner's representative on the Millennium line in Vancouver and we already had a successful contractor on method and on schedule and price. And then they came in at the last minute and offered us that they would take the geotechnical risk.

Sitting on the owner's side, I had no choice but to recommend that they freely offered to take the risk off the table for us, so we did accept it. And the contractor had challenges with the geotechnical, and ultimately had some significant losses.

So now, being on the other side, I've arrived too late to actually have any real discussion about whether we should or should not have taken on the geotechnical risk.

CHRISTINE MAINVILLE: And there was, are you aware of a request made to the City relating to changes to the liquidated damages to be paid out given the delay?

EUGENE CREAMER: I was aware that we had discussions about that. The City wasn't offering any relief at that point in time.

CHRISTINE MAINVILLE: Do you recall

what was requested, whether it was a reduction to the liquidated damages to the City as opposed to the ones owed to RTG?

EUGENE CREAMER: I don't recall.

CHRISTINE MAINVILLE: Were you aware of the City underwriting RTG's debt, or there being some debt swap?

EUGENE CREAMER: Most of the relationships with RTG and the City, I didn't get involved with.

CHRISTINE MAINVILLE: Okay. In terms of the -- you're aware there was an insurance claim with respect to the sinkhole?

EUGENE CREAMER: Yes. And we -- and when we were asked to give a reserve for the sinkhole, the financial person at OLRT grossly underestimated the reserve that the insurance company should put in place, which caused all sorts of challenges to get the reserve.

When I got there, the first thing I looked at is, I said, the reserve should be well over a hundred million. And they told me, no, no 40 million should cover it; I said, no it won't.

And so unfortunately we had already asked for the $40 million reserve, which the

insurance company paid out very quickly. After that, we had to fight for any money we got.

CHRISTINE MAINVILLE: Okay. And the reserve being the amount that would be produced --

EUGENE CREAMER: When a major event like that happens, the first thing the insurance company asks you for is an estimate so they can put a reserve. So they go back to the insurers and tell them that we need to put a reserve in for this, this event has happened.

CHRISTINE MAINVILLE: And was there a reason that the parties -- and by that I mean on the project company side and the City -- didn't just have this be an insurance issue, and, you know, not have it otherwise impact the relationship, or the disputes in terms of who may be responsible?

EUGENE CREAMER: Well, there were some challenges there, and OLRT-C's position was that the City had some liability in it because part of the reason we had the sinkhole was there was a leaking fire hydrant in that area that lubricated the face of the rock and allowed the slip plane to develop.

CHRISTINE MAINVILLE: Okay, which meant

there was the possibility of claiming a latent defect or some other --

EUGENE CREAMER: Yes.

CHRISTINE MAINVILLE: And so given this insurance reserve issue you mentioned, and the City not providing a extension or reducing the liquidated damages, what was the extent of the financial impact on OLRT-C?

EUGENE CREAMER: Well, the total cost of the sinkhole was in the order of 120 to $150 million. And it put a lot of strain on the joint venture; it put a lot of strain on the partners.

Initially we had a significant reserve of cash, and then we only got the pay out of the 40 million and then we had to spend a lot of time and resources to claim anything above the 40 million.

So it was a challenge. In terms of the relationship with the City, there was a deterioration because the City didn't want to recognize and provide additional, either time or compensation.

CHRISTINE MAINVILLE: And so how did this impact the project from that point on, the financial strain, the strain on the relationship?

EUGENE CREAMER: Well, before I went there, I didn't have any grey hair. That's not quite correct; that can be stricken from the record.

It made it very difficult because we made the point that the City had some culpability in the events because of the fire hydrant issue, and they weren't happy about that. And so it started to affect some of the relationship.

CHRISTINE MAINVILLE: Is it fair to say over time there was some reluctance to keep the City fully apprised of the delays to the project?

EUGENE CREAMER: No, we were sharing schedules with them. But our schedules were showing completion on time. So, you know, we told -- we did advise them that there was a possibility of a delay.

But we were really expecting more cooperation, particularly from Alstom, than what we got in terms of doing testing and operating.

CHRISTINE MAINVILLE: But I take it the sinkhole, I mean, irrespective of Alstom, it had some impact overall on the schedule? And how does that relate to the rolling stock and how this sinkhole occasioned delay that couldn't be entirely

mitigated?

EUGENE CREAMER: The biggest problem with Alstom was getting them out and testing on the track that was available, and them trying to keep focusing on that they needed the entire alignment to test. And then, which they didn't need.

CHRISTINE MAINVILLE: The sinkhole impacted the availability of the entire alignment, and Alstom said they needed that for the testing, thus the ultimate delays?

EUGENE CREAMER: That was their position. It was never our position. Ours was that the testing could have gone on between University of Ottawa and Blair.

CHRISTINE MAINVILLE: Okay. I take it, quite aside from the City, there was -- given the financial strain on the OLRT-C -- there was a lot of pressure to get to RSA?

EUGENE CREAMER: Yes, there was, there was huge pressure.

CHRISTINE MAINVILLE: How does RTM fit into that in terms of them ultimately having to maintain the system, and I would think it being in their interest that the system is running very smoothly?

EUGENE CREAMER: Uhm-hmm.

CHRISTINE MAINVILLE: So did they have an insurance divergence to some extent on that desire to get to RSA as quickly as possible?

EUGENE CREAMER: I think there were some challenges managerially within RTM, that their preparation for handing over the system wasn't at a level that I would normally have expected.

Remembering that this was a city that primarily did not have an operating LRT system.

CHRISTINE MAINVILLE: So you think there were challenges in terms of the level of experience and qualified personnel to deal with this, the maintenance?

EUGENE CREAMER: There were challenges with maintenance; some of the personnel lacked the level of experience that I would have expected from an operator.

CHRISTINE MAINVILLE: You weren't there ultimately when they reached RSA, but was there a plan for --

EUGENE CREAMER: No, I was not there when they reached RSA.

CHRISTINE MAINVILLE: Right. Was there any plan, though, or do you know how the sort of

handover to RTM was going to happen in terms of transferring information about the system for maintenance planning purposes?

EUGENE CREAMER: That happened -- I mean, we did have plans, etcetera, that were going over to RTM during the time I was there. But most of the transfer happened after I left.

CHRISTINE MAINVILLE: And you don't know how smoothly that went or not?

EUGENE CREAMER: No, I do not. Although I can say that Rupert was very organized. So there would have been a good push to do a proper job of it.

CHRISTINE MAINVILLE: Were it not for the sinkhole and other challenges encountered, do you have a view as to whether the budget on this project was sufficient or tight in any way?

EUGENE CREAMER: It would have been tight, but there would have been -- we would have had some minor losses without the sinkhole. That would be my view.

CHRISTINE MAINVILLE: Okay. Were you there when changes were made to the milestone payments?

EUGENE CREAMER: I have no recollection

of that.

CHRISTINE MAINVILLE: Okay. Did you, during your time on the project, have access to the resources and support you felt you needed?

EUGENE CREAMER: There were challenges with the partners in terms of some of the resources that they brought to the project.

CHRISTINE MAINVILLE: For instance?

EUGENE CREAMER: Some of the level of experience that we were using to build the stations came out of the Ottawa market, primarily from one of the partners, and I would have expected a different level of experience.

The key station that had the most amount of work to do was Rideau Station, and I put a key superintendent that I worked with my whole career there.

So that became the actual finishing of the station, and the work in the station became less of a concern.

CHRISTINE MAINVILLE: Any other area that was a challenge as a result of resourcing issues?

EUGENE CREAMER: I told you earlier on in the inquiry that I had brought Frank Fitzgerald

to do the systems work. He was very strict with the administration of the interface with Alstom.

Alstom lobbied to have him removed from the job. Because he was making them very accountable for their actions.

CHRISTINE MAINVILLE: Did you view the designs on the project as, you know, sufficiently developed as the project progressed? Did you have concerns about their level of development over time?

EUGENE CREAMER: No, they were generally in line with what I would have expected. The original design manager, Roger Woodhead, Roger Woodhead and I had worked on a number of projects.

Roger had moved on from the time that I took over, but the design was not in poor condition.

CHRISTINE MAINVILLE: Okay. And are you aware of a U.K.-based company SEMP being brought in?

EUGENE CREAMER: Yes, I'm aware of SEMP.

CHRISTINE MAINVILLE: Were they brought in while you were still there?

EUGENE CREAMER: Yes.

CHRISTINE MAINVILLE: What were they brought in for?

EUGENE CREAMER: To do the validation and verification.

CHRISTINE MAINVILLE: And of the systems integration in particular, correct?

EUGENE CREAMER: That's correct.

At the end of the day, they did not have an engineering licence in the Province of Ontario. They were not able to sign up on the certification. We had to bring back Jacques Bergeron to sign off on it.

There was limited value in any of the work that they did.

CHRISTINE MAINVILLE: And why do you say that?

EUGENE CREAMER: Well, to sell services and then not be able to provide the actual signoff of the work that you've done, that's one. And they're not used to the system that we have in Canada, where a single engineer takes responsibility for his work.

CHRISTINE MAINVILLE: So what implications did that have, or what made that a problem?

EUGENE CREAMER: Well, they were using some European standards to measure against for the validation verification, which initially the work was being handled by SNC, and SNC had completed the same scope of work on a number of LRT projects in Canada and worldwide, including Malaysia.

Do you understand the process of the services they were offering?

CHRISTINE MAINVILLE: Well, they prepared the safety case, didn't they?

EUGENE CREAMER: The safety case belonged to OLRT to produce. But what they actually provided was they took the original requirements, they mapped them against -- they validated them against the design and then they verified that the operating system would do what the original requirements were. So it's validation, verification.

CHRISTINE MAINVILLE: Okay.

EUGENE CREAMER: Which, if you're asking an engineer of record to sign off on it, you're going to get the same thing under the Canadian system.

CHRISTINE MAINVILLE: Who made the decision to bring them in then?

EUGENE CREAMER: It was made at the executive level, and it was primarily Rupert Holloway, based on his experience in Australia, where, how he explained it to me was the owners weren't ready to take over the system, so they said that the validation and verification had not been done.

CHRISTINE MAINVILLE: The City raised concerns, you mean?

EUGENE CREAMER: No, not -- I'm not talking about the City of Ottawa. I'm talking about Rupert's -- the way he explained it to me, his experience in Australia. And that validation and verification weren't done and Australia were not ready -- or the client in Australia wasn't ready to run the system.

So they used the validation and verification, lack of documentation to delay opening the system.

CHRISTINE MAINVILLE: So what you're saying is that Rupert Holloway wanted to make sure that everything was lined up here so that didn't happen?

EUGENE CREAMER: Yeah, he based it on his experience in Australia, possibly not fully

understanding how the Canadian system worked in terms of the responsibilities of engineers.

CHRISTINE MAINVILLE: But were there not gaps that needed to be filled in terms of those requirements?

EUGENE CREAMER: I don't believe there were gaps in the system. I don't think that -- it was an administrative exercise that SEMP did.

CHRISTINE MAINVILLE: You don't think there was value in bringing them in, in terms of the integration of the system, the overall integration, including operations and maintenance.

EUGENE CREAMER: No, I don't believe so.

CHRISTINE MAINVILLE: Did you see their end work product, though, were you there?

EUGENE CREAMER: No. I saw the beginning of it and I saw it about 50 percent through and, yes.

CHRISTINE MAINVILLE: What was -- just changing gears, what was provided for initially, or at least during your time on the project, about when the system would go into service following RSA?

EUGENE CREAMER: That was really up to

the City. The City would decide what sort of operating period they would run the trains for.

CHRISTINE MAINVILLE: Did you have any sense of what their plan was?

EUGENE CREAMER: I was in discussions about how long they would run the system after RSA. But I didn't come out with a sense of how long they were going to run it for before they actually put it into service.

CHRISTINE MAINVILLE: Were there any discussions about a progressive start or a soft start of sorts?

EUGENE CREAMER: I think there were. There were discussions about, can we operate from this station to this station and have a soft start? Yes, there were.

CHRISTINE MAINVILLE: Raised by OLRT-C or...

EUGENE CREAMER: We would have put it forward, yes.

CHRISTINE MAINVILLE: Do you know what the City's response was?

EUGENE CREAMER: I don't have a complete recollection, but I don't think that they were on board to do it.

CHRISTINE MAINVILLE: And what was the reason behind the request by OLRT-C or raising that possibility?

EUGENE CREAMER: Well, if we had RSA on a portion of the system, then we would have been in a position to make the argument that we had achieved RSA on a portion of it.

CHRISTINE MAINVILLE: So even before May 2018, there was some proposal of sorts to perhaps put part of the system into operation?

EUGENE CREAMER: I believe there was, yes.

I don't know that we put a proposal in front of them; we certainly had discussions.

CHRISTINE MAINVILLE: And so presumably you believed that the rolling stock could be ready sufficiently ready at least for a portion of the system?

EUGENE CREAMER: We were certainly trying to get it ready for a portion of the system, but we would have still needed the operating certificate from Alstom, and the safety certificate.

And we're not sure -- I can't say with any certainty that Alstom would have been in a

position on a partially available alignment that they would have issued the safety certificate. Strategically, it could have affected their position to claim against OLRT.

CHRISTINE MAINVILLE: What planning was there for the safety case while you were there, in meeting the safety requirements?

EUGENE CREAMER: I can't answer that question with any certainty. Jacques Bergeron and Sharon Oakley would be better equipped to answer that question.

CHRISTINE MAINVILLE: And we just touched only briefly on trial running, but do you have any recollection of how the Project Agreement requirement of 12 days of trial running was being interpreted when you were there?

EUGENE CREAMER: We would have had discussions about it, but I have no recollection right now what the outcome of those discussions were.

We were certainly pushing very hard to get trial running going.

CHRISTINE MAINVILLE: And based on your experience elsewhere, how long would you have normally recommended or deemed advisable for a

trial running period on any system like this?

EUGENE CREAMER: 2 to 3 months.

CHRISTINE MAINVILLE: And so were you surprised that the PA provided for 12 days? Or is it your understanding of the 12 days was not the total period, but the period that it would be running smoothly or --

EUGENE CREAMER: Yeah, I would have expected 2 to 3 months as a reasonable period with some challenges and a few faults and a few issues with the system in describing some integration issues.

But you know, like I said, with more complex systems, especially with the amount of software that's involved, and there could be potential challenges with configuration management.

I mean, within other industries, like aviation, the triple 7, or the 737s that tripped over themselves recently, all of that was related to configuration management.

And it's the same thing with the train systems and getting a safety certificate. Thales and Alstom are quite vigilant about their software and making sure that it doesn't trip over itself.

CHRISTINE MAINVILLE: Were there

configuration issues here that you observed?

EUGENE CREAMER: There were some configuration issues with Alstom -- well, obtaining the software and once the software was installed, generally we did find some configuration issues and/or faults in the software, and it required reprogramming.

CHRISTINE MAINVILLE: Do you know whether there was an opportunity to fully resolve those?

EUGENE CREAMER: I think that there's still some challenges. There certainly were a number of challenges when I left.

CHRISTINE MAINVILLE: Why was -- well, do you know who devised the criteria and the requirements for trial running, the procedures?

EUGENE CREAMER: They were in the PA. It would have been the City or the consultants that they employed to develop the PA.

CHRISTINE MAINVILLE: Okay. Do you recall someone by the name of Russell Davies being brought into work on that as well?

EUGENE CREAMER: I do not.

CHRISTINE MAINVILLE: What was the expected RSA date when you left, if you recall?

EUGENE CREAMER: I do not recall.
CHRISTINE MAINVILLE: Okay.
EUGENE CREAMER: I think it was sometime in September, but I'm only guessing.
CHRISTINE MAINVILLE: Would you say that the parties originally, at the outset of the project, properly anticipated the degree of schedule and budget flexibility that would be required on this project?
EUGENE CREAMER: Sorry, can you repeat that question?
CHRISTINE MAINVILLE: Sure. Did the parties, having worked on the project now in hindsight, would you say the parties properly anticipated the degree of schedule and budget flexibility that would be required for this project?
EUGENE CREAMER: Are you asking the question about the OLRT and the City?
CHRISTINE MAINVILLE: Project company, yeah, actually the Project Co and the City.
EUGENE CREAMER: And RTG?
CHRISTINE MAINVILLE: Yes.
EUGENE CREAMER: Okay. I think RTG and OLRT had a good understanding of what was required.

The City, I didn't always see the level of experience that I would have expected on a project of this size from an owner.

CHRISTINE MAINVILLE: But the requirements under the contract, were they realistic, were they realistic performance requirements, looking back? And you know, versus the sinkhole and other things intervened, so you may say, had there not been a sinkhole or...

EUGENE CREAMER: Yeah. The requirements were somewhat prescriptive, so the best design-builds are when they give you the number of passengers they want to run on the system, the general routing of the system, and flexibility on what the finishes will be in the station.

What the flexibility on the complete running system for the train. That is a good example of a design-build. And that's where you get your most value.

A lot of the design-builds have morphed into prescriptive descriptions of what they want for either systems, trains, and/or finishes. So it leaves everyone with a challenge.

CHRISTINE MAINVILLE: Were you aware of

STV's work on the rolling stock requirements?

EUGENE CREAMER: I would have seen some documentation on it.

CHRISTINE MAINVILLE: Did you have a view, or do you recall?

EUGENE CREAMER: I don't have a view. I think that, you know, the statements that I made earlier about the selection of the train, I think a lot of it was with the City. And their functionality that they tried to build into the system.

So STV, they're a mature consultant. They do work for MTA, which is a New York system. They do work for the Port Authority in New York. They're a reasonable consultant who takes direction from their client.

CHRISTINE MAINVILLE: Should a new system like this, with what you say is not a service proven vehicle or at least a prototype vehicle, and other new interfaces, should the PA in such a case provide for clearer expectations or more stringent expectations on trial running, for instance, and a burn-in period? Should that be better provided for at the outset?

EUGENE CREAMER: It should have been,

but the City was taking the premise that it was a proven vehicle.

CHRISTINE MAINVILLE: Presumably RTG as well? Or I guess Alstom was retained by OLRT-C?

EUGENE CREAMER: Alstom was retained by OLRT-C, but our original proposal was with CAF.

CHRISTINE MAINVILLE: Were you aware of whether this was the first time that Thales and Alstom integrated Thales' signalling system on an LRT for Thales -- for Alstom?

EUGENE CREAMER: I don't know. I don't know for sure. But both players have worked internationally, and initially, Thales or Alstom developed their own train control system. But the original system, particularly for driverless trains, was developed by Thales.

CHRISTINE MAINVILLE: Do you have a view as to whether it would have been preferable to have a fewer number of entities interfacing and so, for instance, one of the options I suppose may have been to go with -- well, Alstom to also supply the signalling system, as opposed to having an additional interface on the project?

EUGENE CREAMER: No. Because I think that Thales performed well. Alstom was a difficult

supplier to administer.

CHRISTINE MAINVILLE: But were it not for those challenges, if you were starting at the outset, not aware of what was to come on that, would you normally try to reduce the number of interfaces on the project?

EUGENE CREAMER: It's --

CHRISTINE MAINVILLE: Or account for them differently?

EUGENE CREAMER: It's a good management strategy, but you need to evaluate what they're bringing to the table and who is the maturer -- who has the mature knowledge basis in what's being supplied?

So if you have a heavy civils contractor now taking on mechanical or electrical work, they may or may not have the personnel that can manage that scope.

So in this case, I think that Thales has a very mature product. I've never worked with the Alstom system, but I do know that Thales was a leader in train systems, train control systems.

CHRISTINE MAINVILLE: Do you have a view as to the advisability of the Canadian content requirement for the rolling stock in a case like

this?

EUGENE CREAMER: Yeah, that was difficult, because that's what led us to doing the assembly at the MSF. And that created some challenges.

CHRISTINE MAINVILLE: Did it have significant impact on Alstom's supply chain?

EUGENE CREAMER: I think it did. They did source the bogies locally, and there were some challenges with that. But that's the only major component that I'm aware of. But there would have been other components.

CHRISTINE MAINVILLE: You talked about the challenges with the maintenance. Do you think the maintenance incentives in the PA are deficient in some way?

What explains the fact that those incentives, the fact that you'll face deductions and penalties if you don't maintain the system properly, what explains that that didn't work it seems, to sufficiently incentivize the maintainers?

EUGENE CREAMER: I can't comment on that. I don't have a breadth of knowledge of how well the maintenance is going or not going. I do know that initially the managerial skill level

brought in was not of a level that I would have reasonably expected.

CHRISTINE MAINVILLE: Who was there for RTM during your time?

EUGENE CREAMER: Tom Pate, who is a reasonable person. They hired somebody who came out of Brandon, Manitoba; I don't remember the person's name. But he had worked for a small maintainer for the main line track, for the Class 1 railways, CN/ CP.

But he had a small -- it was a small maintainer that did sightings, and a little bit of main line work for the Class 1s.

He didn't have the breadth of expertise to actually maintain an LRT.

CHRISTINE MAINVILLE: Did you work at all with Claude Jacob?

EUGENE CREAMER: Sorry?

CHRISTINE MAINVILLE: Claude Jacob.

EUGENE CREAMER: I'm not sure.

CHRISTINE MAINVILLE: Were you involved in some of the challenges relating to the fare gates and the ash wood for the stations?

EUGENE CREAMER: The ash wood, yes. The fare gates we had to install them. That was --

they were owner supplied. But the ash wood, yes.

CHRISTINE MAINVILLE: And what was the challenge there?

EUGENE CREAMER: It was to incorporate some trees that were cut down locally and then to make sure the ash wood went into the ceilings. The problem with the ash wood in the ceilings was that it had to be fire rated, so it had to be treated fire rated. So there were some challenges in getting that done.

CHRISTINE MAINVILLE: And that caused delay? Would you say any significant delay?

EUGENE CREAMER: There would have been some delay in it, but being that it was an architectural finish like that, if there was a desirability to open the stations, it would not have been -- the building code would not have impeded opening and it could have been done after the opening.

CHRISTINE MAINVILLE: What about the delays to the design book? Would that have had a material impact on the completion of the rolling stock?

EUGENE CREAMER: I don't know. I cannot answer that question. I don't think that it

would have, but without actually having researched it, I can't answer one way or the other.

CHRISTINE MAINVILLE: Is there anything else that I haven't asked about that you think we should be made aware of?

EUGENE CREAMER: No, I think we've covered a gamut of subjects on the whole LRT.

No, I don't think there is.

CHRISTINE MAINVILLE: Anthony, do you have any follow up questions or additional areas?

ANTHONY IMBESI: No, I don't.

CHRISTINE MAINVILLE: Can I just ask you one last one? Do you have any view as to David Whyte's performance, having come in after him, if there were issues of concern when you arrived based on his work?

EUGENE CREAMER: I would rather not comment.

CHRISTINE MAINVILLE: You're under oath. And I think you have to.

What about just -- were there topics or areas where there could have been better --

EUGENE CREAMER: Sorry. At the beginning of the inquiry, didn't it say that I didn't have to incriminate myself?

CHRISTINE MAINVILLE: So, well, okay. So maybe let's go off record.

EUGENE CREAMER: If you can ask the question differently, I can answer.

CHRISTINE MAINVILLE: Okay. Why don't we go off record for a minute.

-- OFF THE RECORD DISCUSSION --

CHRISTINE MAINVILLE: We can go back on record.

Could you speak to any difference between the management styles that you had as opposed to your predecessor, Mr. Whyte?

EUGENE CREAMER: Mr. Whyte was very much a high level manager, and he didn't work at the same level of detail that I did in terms of understanding.

One of the skills that a good manager, project director brings to the table is his ability to listen. And going forward from there, making sure that you understand the technical level of, and what the potential outcomes of the decisions that you'll be required to make with the technical knowledge and your experience.

CHRISTINE MAINVILLE: And one of the aspects that -- because you mentioned when you came

in, you had to bring in Mr. Fitzgerald on a systems integration front. Was that one of the sort of gaps that you saw when you came in based on his --

EUGENE CREAMER: No, it was nothing -- I would not expect him to have that level of skill that Frank could bring to the table.

I also brought back in Dr. Oakley, Sharon Oakley, because the person who was administering the Alstom contract was not answering -- or was not responding to every letter that Alstom wrote.

And Sharon had the experience of managing the Rotem contract on the Canada Line, and that was one of the most successful triple B projects in Canada. And the trains and the running system were three months early.

CHRISTINE MAINVILLE: And just so the record is clear. We'll just make note, Dr. Oakley is your spouse, correct?

EUGENE CREAMER: We have a relationship, yes.

CHRISTINE MAINVILLE: And I wasn't suggesting that Mr. Whyte would have performed the role that Mr. Fitzgerald did, but would you have expected that work to start earlier in terms of

bringing in the right people for it?

EUGENE CREAMER: Yes.

CHRISTINE MAINVILLE: Any questions?

EUGENE CREAMER: Just one clarification on Frank Fitzgerald.

Frank actually covers the breadth of the design as well as the installation work and the construction work for systems. And he also is very astute and knowledgeable about the programming.

I don't have anything else.

CHRISTINE MAINVILLE: Okay. Mannu, do you have any questions that you want to ask?

EUGENE CREAMER: No, I'm --

CHRISTINE MAINVILLE: Your counsel, I'm sorry.

EUGENE CREAMER: Oh.

MANNU CHOWDHURY: No questions of Mr. Creamer for me.

CHRISTINE MAINVILLE: Why don't we go off record.

-- Concluded at 11:50 a.m.

REPORTER'S CERTIFICATE

I, JUDITH M. CAPUTO, RPR, CSR, CRR, Certified Shorthand Reporter, certify;

That the foregoing proceedings were taken before me at the time and place therein set forth; at which time the interviewee was put under oath by me;

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

That the foregoing is a Certified Transcript of my shorthand notes so taken.

Dated this 16th day of May, 2022.

Judith M. Caputo, CSR, CRR

NEESONS, A VERITEXT COMPANY

PER: JUDITH M. CAPUTO, RPR, CSR, CRR

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