Ottawa Light Rail Commission

Michael Palmer
on Wednesday, May 4, 2022

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 6   OTTAWA LIGHT RAIL COMMISSION

 7   PARSONS/DELCAN - MICHAEL PALMER

 8   MAY 4, 2022

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14   --- Held via Zoom Videoconferencing, with all

15   participants attending remotely, on the 4th day of

16   May, 2022, 9:00 a.m. to 12:13 p.m.

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 1   COMMISSION COUNSEL:

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 3   Kate McGrann, Co-Lead Counsel Member

 4   Carly Peddle, Litigation Counsel Member

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 7   PARTICIPANTS:

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 9   Michael Palmer, Parsons/Delcan

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11   Allison Russell, Esq., Kelly Santini LLP

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16   ALSO PRESENT:

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18   Judith Caputo, Stenographer/Transcriptionist

19   Talia Gillani, Virtual Technician

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1   * * The following is a list of documents undertaken

2   to be produced or other items to be followed up * *

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5   INDEX OF UNDERTAKINGS

6

7   The documents to be produced are noted by U/T and

8   appear on the following pages:

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Ottawa Light Rail Commission
Michael Palmer on 5/4/2022   4

1   -- Upon commencing at 9:03 a.m.

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3   CARLY PEDDLE: Mr. Palmer, I'm a member

4   of the Commission Counsel Team for the Ottawa Light

5   Rail Transit Public Inquiry. I am joined by my

6   colleague, who is co-lead counsel of the

7   Commission, Ms. McGrann.

8   The purpose of today's interview is to

9   obtain your evidence under oath or solemn

10   declaration for use at the Commission's Public

11   Hearings. This will be a collaborative interview,

12   such that my co-counsel may intervene to ask

13   questions. If time permits, your counsel may also

14   ask follow-up questions at the end of the

15   interview.

16   This interview is being transcribed and

17   the Commission intends to enter this transcript

18   into evidence of the Commission's Public Hearings,

19   either at the hearing or by way of procedural order

20   before the hearings commence.

21   The transcript will be posted to the

22   Commission's public website, along with any

23   corrections made to it, after it is entered into

24   evidence.

25   The transcript, along with any

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1   corrections later made to it, will be shared with

2   the Commission's participants and their counsel on

3   a confidential basis before being entered into

4   evidence.

5   You will be given the opportunity to

6   review your transcript and correct any typos or

7   other errors before the transcript is shared with

8   the participants or entered into evidence. Any

9   non-typographical corrections made will be appended

10   to the transcript.

11   Pursuant to Section 33 (6) of the

12   Public Inquiries Act 2009: A witness at an inquiry

13   shall be deemed to have objected to answer any

14   question asked him or her on the ground that his or

15   her answer may tend to incriminate the witness, or

16   may tend to establish his or his liability to civil

17   proceedings at the instance of the Crown or of any

18   person, and no answer given by a witness at an

19   inquiry shall be used or be receivable in evidence

20   against him or her in any trial or other

21   proceedings against him or her thereafter taking

22   place, other than a prosecution for perjury, in

23   giving evidence.

24   As required by Section 33 (7) of that

25   act, you are hereby advised that you have the right

1   to object to answer any question under Section 5 of

2   the Canada Evidence Act.

3   Mr. Palmer, if you need to take a break

4   at any point during this interview, please just let

5   us know and we can pause the recording.

6   MICHAEL PALMER: Okay, thank you.

7   CARLY PEDDLE: We'll also plan to take

8   a break about halfway through, just so you're

9   aware.

10   ALLISON RUSSELL: Counsel, may I ask,

11   how long are you intending the interview to last

12   this morning?

13   CARLY PEDDLE: You know, it really

14   depends. It could go up until noon, but I don't

15   imagine it will take that long. It depends on what

16   Mr. Palmer has to tell us.

17   So Mr. Palmer, just to start off, would

18   you please give us a brief overview of your

19   professional experience as it relates to the work

20   you did on Stage 1 of Ottawa's Light Rail Transit

21   System.

22   MICHAEL PALMER: So previous experience?

23   CARLY PEDDLE: Yes.

24   MICHAEL PALMER: So I joined London

25   Transport in 1982, I worked as a conductor on the

1   trains. In 1985, I went into control centres, and

2   I was what in London they called a "line

3   controller". So I would run a line of service on

4   one of the eight underground lines.

5   In 1995-'96, I joined the Jubilee Line

6   extension, which was doubling the length of the

7   Jubilee Line, with an underground section and an

8   at-grade section. And I opened the new control

9   centre recruited the --

10   [Court Reporter intervenes for

11   clarification].

12   MICHAEL PALMER: So I recruited the

13   team, and I then commissioned the new half of the

14   line, and I was involved with the commissioning of

15   new trains and so on.

16   I left that job at the end of 2000, and

17   I ran a division of drivers for two and a half

18   years. And in around 2005, I joined a project

19   team, which had two objectives. To take 59 trains

20   and add a car into the middle of it, it was called

21   the "7-Car Project" on the Jubilee Line. And I did

22   the resignalling project for the Jubilee and the

23   Northern Lines which is called JNUP.

24   And there we were going from

25   conventional signalling on a Brownfield site to

1   Transmission Based Control Signalling, a moving

2   block from what was then Alcatel and is now Thales.

3   I worked on that until 2011. I then

4   took what London Underground call "voluntary

5   redundancy". So they paid me a lot of money to

6   leave. And I took nine weeks off and started with

7   Thales, the signalling company. And for two and a

8   half years, I worked for Thales as their lead

9   operator on rail projects in the UK.

10   And I worked on the project I just

11   left, and I worked on some main line rail projects

12   as well, and tram projects, including a very large

13   conversion of 867 single cabins to 12 regional

14   control centres, which Network Rail would run the

15   infrastructure in the UK were doing.

16   In 2014, I moved to Canada. And on the

17   14th of April, 2014, I joined the Toronto Transit

18   Commission as the Deputy Chief Operating Officer.

19   So Andy Byford, who was the CEO of the TTC at the

20   time, and is now the Commissioner of Transport for

21   London, via New York, where he was President of

22   NYCT. He brought me over to Canada to run the

23   subway.

24   So as the Deputy Chief Operating

25   Officer, I had the control centre, railcars and

1 shops. Overall rail infrastructure, which would

2 have included, track, signals, plants, electrical

3 communications, the railcars and shops, so the car

4 houses and the engineers who worked there, worked

5 under me. And I ran the subway, four lines in

6 Toronto from 2014 to 2016.

7   In the middle of that, we turned Line 4

8 Sheppard, one person, we took a guard off the back

9 of the train. In 2016, I became the Acting Chief

10 Operating Officer for the TTC, where I had 4,200

11 people work for me, including bus and streetcar

12 maintenance, and a few other peripheral activities.

13   I won that job substantively in 2017,

14 so I was Chief Operating Officer for two years, and

15 I left the TTC in April 2018.

16   In May 2018, I joined Parsons, as the

17 Director of O&M, operations and maintenance, and

18 CBTC, communication-based train control. I'm not

19 an engineer, I've been an operator and a maintainer

20 all my life. But my most recent relevant history

21 is having run the operations of the subway of the

22 TTC as the Chief Operating Officer.

23   CARLY PEDDLE: Were any of the projects

24 you worked on P3s?

25   MICHAEL PALMER: Yes, they were. In

1   the UK, in around 2000 -- actually, I wrote the

2   date down, for the things. But I think in about

3   2004-'05 the PPPs, there were two in the

4   underground where the then government, hived off

5   maintenance to a PPP contractor. And so by hived

6   it to three, I worked with a company called "Tube

7   Lines", who were responsible for the maintenance

8   and the capital works for the Jubilee, North and

9   Piccadilly Lines, so the resignalling project, and

10 the 7-Car project both came under Tube Lines.

11   In the end, Metronet, the other company

12 running two of the three, I think went bust in

13 2008, and Tube Lines was bought out by London

14 Underground in 2009. So they were slightly

15 different, because they weren't design-build, they

16 were merely maintenance.

17   And in most projects, the maintenance

18 was high risk, low revenue. The money was really

19 made in the upgrades, where if Tube Lines upgraded

20 the infrastructure, stations, tracks, signalling

21 system, trains and so on, they would be paid a sum

22 every month for the next 30 years. And that's low

23 risk, high return stuff. And that's really where

24 they're going to make their money. But the model

25 was flawed in the UK, and both the P3 organizations

1   went under.

2   CARLY PEDDLE: And why was the model

3   flawed in the UK?

4   MICHAEL PALMER: I think the burden of

5   risk was too high on the maintenance side. The

6   maintenance of a national rail network had been

7   privatized, and a number of maintenance companies

8   were doing the maintenance on network rail, and

9   after a series of collisions, derailments, crashes,

10   each of the maintenance companies went bankrupt as

11   they were sued for negligence. So you only needed

12   one big accident and you were effectively

13   insolvent.

14   In the case of Tube Lines and Metronet,

15   I think it was a government -- I'm not sure if

16   ideology is the right word. It was a government

17   wish to prioritize and make the maintenance more

18   efficient.

19   In both cases, the staff were

20   transferred over to the new companies on protected

21   earnings, and they tried to operate as private

22   sector organizations in a public sector world.

23   CARLY PEDDLE: Were any of those

24   projects entirely new systems that you were

25   launching, like the London Underground?

1   MICHAEL PALMER: Yes.

2   CARLY PEDDLE: Can you tell me about

3   that?

4   MICHAEL PALMER: Yeah, so the

5   resignalling project was to take a conventional

6   fixed block column light signalling. So you have

7   signals going red and green; and train stops, which

8   go up and down. And so if the train went past a

9   train stop, with the signal in "danger", the train

10   would put the brakes on.

11   And we moved to transmission-based

12   train control, Seltrac40, exactly the same system

13   as Ottawa, but it was a simple "IS", not the

14   regular version, which is "MS."

15   And it was an inductive loop, two loops

16   in the track, but the logic was the same, using

17   Seltrac40, where the train would report its

18   position every second, and every three seconds the

19   centralized computers would tell the train how far

20   and how fast it can go, which is normally to the

21   next station.

22   And so it's exactly the same

23   technology, just perhaps one, perhaps two

24   generations further back, than the Seltrac40

25   installed in Ottawa by Thales, my old company.

1   CARLY PEDDLE: And so it's just a

2   matter of the generation of the technology, it's

3   not that one is a more complex version?

4   MICHAEL PALMER: Yeah, indeed. The

5   premise is still the same, which is centralized

6   control of trains and movement with switches.

7   Then, the communication made was via

8   two conductor loops laid on the track, so it's like

9   two aerials with antennae on the train, picking up

10 its information and sending its information.

11   And then they were called "VCCs",

12 vehicle control centres. Now they're called "zone

13 controllers" but their premise is the same. If you

14 go in an area of the track for vital signalling,

15 train separation and interlocking. It's exactly

16 the same system. It's the means by which the train

17 reported itself and got its instructions.

18   The system is call Seltrac40

19 S-E-L-T-R-A-C. The "trac" is obvious. "Sel"

20 stands for "Standard Elektrik Lorenz", which is the

21 German company who invented SelTrac in the '70s, I

22 guess. And before it was -- the first place it

23 was opened, which is why it's relevant, was

24 actually in Toronto on Line 3, and Scarborough

25 Rapid Transit followed six months later by

1   Vancouver SkyTrain, were the first two lines in the

2   world to get SelTrac.

3   And so I was responsible in my four

4   years at the TTC, for the operation and maintenance

5   of a small line run by SelTrac.

6   CARLY PEDDLE: In terms of oversight

7   and accountability, did you see any differences

8   between the Ottawa Light Rail Transit Project Stage 1,

9   and the other projects you worked on?

10   MICHAEL PALMER: The most obvious

11   difference is that it was really a three-way

12   relationship in Ottawa. Because you have the City,

13   you have the construction project and

14   Infrastructure Ontario, and then you have the P3

15   contractor.

16   In London, you had London Underground

17   as the operator, and Tube Lines as the maintainer,

18   and the provider of capital renewals.

19   I think the other difference is that

20   London Underground is the oldest underground in the

21   world, obviously Metro, now carries 5 million

22   people a day. And in my 29 years at London

23   Underground, it was like being at the university of

24   how to run a subway. It was that experience,

25   skills and knowledge that I acquired in the

1 | 29 years, which allowed me to move to Canada. And

2 | Andy Byford, the Chief Executive of the TTC

3 | employed me. I applied for, and I was selected to

4 | come over to Toronto and try and improve the subway

5 | network here.

6 | I think the other thing about the P3s

7 | in the UK, is they're far less adversarial. In the

8 | sense that both sides knew each other, and there

9 | was a shared goal. So although they fell out with

10 | each other, and there were, you know, claims, it

11 | didn't descend into a difficult relationship. It

12 | was just people successfully -- you know, we

13 | introduced communication by train control with the

14 | inductive loop on two lines. One was late, and the

15 | second was under budget, early, on a new schedule.

16 | It was really baseline just once. So, generally, I

17 | think there was a collaborative atmosphere.

18 | I think the other experience, which is

19 | not the same, but similar, was resignalling Line 1

20 | in Toronto using CBTC from Alstom, and they have a

21 | system called Urbalis 400. I terminated a previous

22 | signalling contractor for poor performance, and we

23 | went with Alstom in March 2015, 30th of March we

24 | signed the contract.

25 | And in the three years before I left

1   the TTC, we delivered half of Brownfield CBTC. In

2   that three years, my directive -- the project and I

3   did not go out of contract once with Alstom. Where

4   we disagreed, we would negotiate; we would use our

5   reserves; they would use their's. There was always

6   a way forward, and we felt that getting out of

7   contract was the last resort.

8   When I left, we were on time, slipping

9   slightly, and we have 13 million in reserves for

10   contingency still.

11   CARLY PEDDLE: So what impact did the

12   fact that there was the three-way relationship have

13   on the project in your view?

14   MICHAEL PALMER: It depends on the

15   three-way relationship, I think, to be honest. So

16   Ottawa is a city for the construction, the

17   commissioning and the operation of LRT, hadn't done

18   it before. So the City of Ottawa was new to this

19   game, if you'd like.

20   I think the rail construction project,

21   which was run by the City, OC Transpo, was a team

22   put together. Steve Cripps was in charge then

23   before Michael Morgan took over, and Steve returned

24   to Toronto. And so it was a very widespread team

25   from the States and from Canada.

1   I couldn't tell you exactly who put the

2   Project Agreement together. But, you know, I was

3   travelling some weeks from Toronto, some people

4   were flying from the States on a weekly basis.

5   The P3 company in the UK, they were

6   consortia as well, in our case it was Bechtel and

7   AMEY. AMEY owned two-thirds and Bechtel owned

8   one-third.

9   And you had three different contractors

10 here with experience of Canadian P3s, but not

11 necessarily in rail. And they just had a very

12 different culture and attitude towards the P3.

13   I think they were incredibly risk

14 averse commercially. They signed a contract, they

15 were presumably -- and I wasn't part of selecting

16 the successful P3 -- a compliant, lowest cost bid.

17 And I think there's a saying which is applicable,

18 which is: If something sounds too good to be true,

19 it normally isn't true. And, you know, if you're

20 the cheapest bid, then the focus is clearly on

21 cost.

22   Sorry, just as a follow-on. I

23 apologize if any of you are project managers at

24 some point in the past. But there are three

25 pillars to a project, time, cost and quality. So

1   the perfect project is on time, on budget and the

2   quality is what is expected, which is generally

3   high and it's good.

4   In other words, any project you decide

5   which of those is most important to you of the

6   three. Now, in a rail project, to me, quality

7   always wins. Because if a rail project is late,

8   you're eventually forgiven. If a rail project is

9   expensive, once you've paid the money, you're

10   generally forgiven. But if the quality is not

11   there from the beginning, then you're living with

12   that for 27 years, and you're never forgiven.

13   But I think on this, certainly on

14   Confed -- and the nature of the P3 to the rail in

15   Ontario, if the time and the cost are really

16   important, and that transfer of risk, as well,

17   where you want the P3 to assume the risk for the

18   project in terms of reliability, technology that's

19   chosen and so on. I'm not sure that risk is always

20   fully transferred.

21   KATE McGRANN: Just a quick follow-up

22   question, which was: As you were describing the

23   Ottawa project, you mentioned that they were very

24   risk averse. Who were you referring to when you

25   said "they were very risk averse".

1   MICHAEL PALMER: I think Ottawa as a

2   city, and as a construction project, did not want

3   to fall afoul of the Project Agreement, correctly,

4   and they really tried to let the P3 make the

5   decisions and bear the risk and do what they were

6   paid to do.

7   And I think the P3, having put in the

8   lowest compliant price, were very, very aware of

9   budget and time. With the time scale because of

10   payments, and the budget because it was a fixed

11   price contract. And typically in these contracts,

12   the claims start coming in, and the contractor will

13   try and make money on the additional claims. And

14   those claims are often very valid and sometimes

15   they are frivolous. And you see that on Eglinton

16   Crosstown; you see that on Finch; you've seen it in

17   Ottawa as well. This kind of a claims culture I

18   think which is not prevalent in UK, in Europe.

19   CARLY PEDDLE: In Ottawa, where do you

20   think this claims culture arises from, other than --

21   if anything other than just the nature of the

22   contractual relationship?

23   ALLISON RUSSELL: Sorry. I don't mean

24   to interrupt. But in terms of that question, we

25   have to keep in mind that Mr. Palmer is only able

1   to really answer these questions from his

2   perspective, and his role on the project.

3   As long as it's understood that it's

4   from that perspective, and only if Mr. Palmer feels

5   that he can answer from that perspective.

6   CARLY PEDDLE: Yes, absolutely.

7   So in your experience on the project,

8   was there anything that you observed that you

9   believe gave rise to, or contributed to the more

10   adversarial relationship?

11   MICHAEL PALMER: As I said earlier, it

12   depends on the P3 consortia. So where you had

13   SNC-Lavalin, Dragados and EllisDon, those

14   organizations have a very integrated aggressiveness

15   in their stance, you know, quite aggressive. They

16   have to be, because they have to make their money

17   from it. But they bid for the work, and they knew

18   what they were bidding in for.

19   And I think when a project starts to

20   slip time-wise, or when it gets expensive, then you

21   have two ways to go: Collaborative or adversarial.

22   And I would say, as soon as you go down the

23   adversarial road, it's very hard to pull back from

24   that.

25   When we went with Alstom, as I think I

1   said in 2015, for the line model resignalling, in

2   the three years we had that contract, we didn't get

3   the contract out once. Because I see that as a

4   last resort, not a first resort.

5   And so you go into a commercial

6   environment, the work still continues, there's no

7   doubt about that. But I think the P3s wished to

8   give a compliance solution, and there's a whole

9   fight about whether Stage 1 was compliant. But

10   they also need to do it on time and on budget,

11   otherwise they're not going to make any money.

12   And more recently, the number of P3

13   bidders has dropped in Ontario. And I think that

14   IO and safe Metrolinx with Phil Verster would agree

15   with that. Models change slightly around sharing

16   risk for Metrolinx. But I think you know, fewer

17   people are bidding for these contracts now.

18   SNC-Lavalin's last rail construction P3

19   was Trillium, which is going on alongside Confed.

20   They're getting out of that game. And so I think

21   a number of people aren't willing to take that risk

22   on.

23   Parsons are bidding for P3 works in

24   Ontario line, and I think Metrolinx have now

25   accepted that some of the risk inherently lays

1   in-house. It is unreasonable to ask a P3

2   to contract to take on all the risk without

3   caveats. And so the model here, I think, has moved

4   to more shared risk approach, which I think is

5   suitable. Because you both gain and both share

6   pain.

7   CARLY PEDDLE: Mr. Palmer, you said you

8   started with the OLRT project in May 2018; is that

9   right?

10   MICHAEL PALMER: No, I joined Parsons

11   in May 2018. I was trying to look for the date,

12   actually, it was either August or September. Jon

13   Hulse, who I believe you spoke to yesterday,

14   brought me to Ottawa to meet Richard Holder, who

15   led the Systems Group under Steve Cripps as the

16   Project Director. And in that first week, I met

17   Steve, I met Richard Holder, and I briefly met John

18   Manconi.

19   And then I started working perhaps two

20   weeks in a month, either remotely from Toronto or

21   in Ottawa, and that went up and down, depending on

22   where they were in the project.

23   So I would say, it was either August or

24   September 2018 when I first came to Ottawa and met

25   some of the key people.

 1   CARLY PEDDLE: And I understand Parsons

 2   had been working on the project for some years

 3   since 2015?

 4   ALLISON RUSSELL: Sorry. Again, I

 5   don't mean to interrupt. But I think it's fair to

 6   put questions to Mr. Palmer with respect to what he

 7   knew at the time.

 8   So I'm okay with him answering when he

 9   started, but if Parsons started before he was with

10   the company, I'm not sure that's the right question

11   for Mr. Palmer.

12   CARLY PEDDLE: That's fine.

13   Mr. Palmer, did you take over your job

14   from someone else?

15   MICHAEL PALMER: No. I filled a gap

16   really that was missing. As I said to you, I'm not

17   an engineer, I'm an operator. And I spend my

18   entire life -- if you'll excuse the

19   colloquialism -- of beating up engineers and

20   consultants who don't do what they're meant to be

21   doing, or they tell me what I already know.

22   And there is a gap in Richard Holder's

23   team around O&M by people who have done this

24   previously. And so Mr. Hulse and Mr. McCurdy, who

25   I think you'll be speaking to this afternoon, both

1   have experience in Brownfield. And I have, I

2   guess, a proven track record in commissioning three

3   CBTC systems, two Brownfield in London, and one

4   Greenfield trope Brownfield in Toronto.

5   The Toronto experience was opening up

6   the TYSSE. The Toronto, York Spadina extension,

7   which was opened in 2017, December 2017. So there

8   were seven stations that were brand new, and the

9   rest on the line we converted. So I brought to

10   Ottawa the experience of CBTC commissioning,

11   Greenfield and Brownfield, rules and regulations

12   how to run control centres, and so on.

13   I think that plugged a gap in Mr.

14   Holder's team, in terms of working with the rest of

15   the team and with OC Transpo and the P3.

16   CARLY PEDDLE: And you said "O&M", is

17   that "operations and maintenance"?

18   MICHAEL PALMER: Yes, ma'am.

19   CARLY PEDDLE: So you mentioned some of

20   the responsibilities that you took over. Was there

21   anything else that you were involved in, in this

22   role on the OLRT-1 project?

23   MICHAEL PALMER: No. I was in Richard

24   Holder's team throughout. I did meet John Manconi

25   in the first week for a 15-minute chat, which

1   turned into 45 minutes. And I was going to join

2   his deep dives led by Tom Prendergast, and the next

3   morning he changed his mind, and I didn't get

4   involved with it.

5   So after that first day, I actually

6   never spoke to John Manconi again. So it was on

7   the construction side. I worked with people below

8   Mr. Manconi, so Joanna -- I can't think of the last

9   name -- who was in charge of operations. Troy

10   Charter, who is now in charge. Duane Duquette,

11   Joel Lemieux, so I worked a lot with the line team,

12   helping them understand what they were getting and

13   what the salient things were about the system, how

14   to operate it and so on. Including in a P3

15   environment.

16   CARLY PEDDLE: Why is it that you

17   understand you did not meet with Mr. Manconi?

18   MICHAEL PALMER: Well, I met with him

19   once, and he changed his mind, I can't tell you

20   why. I don't know.

21   Well, yeah, I'm not going to give you

22   my theory, but you would have to ask him why he

23   chose not to use me more.

24   But as it turned out, I was very happy

25   starting with Richard Holder's team. And there was

1 a hole to be filled, and I hopefully plugged that

2 to some degree.

3   CARLY PEDDLE: Did your

4 responsibilities change over time?

5   MICHAEL PALMER: I would say they moved

6 around. So I took on more things from Mr. Holder,

7 you know, some things which he didn't need to be

8 doing, like leading the SOP process from the City's

9 point of view. And I took on, I guess, things that

10 fell between the cracks, or hadn't really been

11 covered, or things that emerged.

12   So signage, updating the ConOps,

13 helping RTM write SOPs, which is part of the P3.

14 It's a very laborious process of drafting SOP and

15 commenting on it, and revisions and so on.

16   I picked up signage, which was

17 something kind of weird, really, which had fallen

18 between the cracks. So it was operation signage

19 along the line, which had been installed and had to

20 be viewed to see if it was correctly installed.

21   I got involved in the DITLOs, the

22 day-in-the-life-of. So SNC-Lavalin ran, I think

23 four days of DITLOs at their offices. And

24 OC Transpo provided with players amongst a small

25 number of stretch of line to ensure it was, it was

1   valid, it was an exercise. And that the operators,

2   OC Transpo, had the skills, knowledge and

3   experience on their side. And they did very well,

4   actually, for a company who has not really done

5   rail before Confederation Line.

6   I'm not sure I can really count

7   Trillium, the old Trillium Line, because it was

8   signaled by control centre by RailTerm in Québec.

9   And it was for trains going up and down

10   all day. I mean, they did a good job, but I think

11   I plugged the gap on rail experience,

12   operationally, for some of the people.

13   CARLY PEDDLE: And you just mentioned

14   "SOPs", that's "standard operating procedures"?

15   MICHAEL PALMER: Yeah. And it's

16   been -- it's probably on all of the P3s in Ontario.

17   And in fact, you know, when my team were taking on

18   contract work to write -- well, convert the SOPs in

19   Vancouver for the Broadway extension, whether

20   that's the right way to go, I think it's the

21   transfer of risk again, and getting the P3

22   providers to write these SOPs.

23   And so they would draft one, OC would

24   be allowed to comment on it, on the rail

25   construction project. We would list their

1   comments, send it back, and they would agree or

2   disagree, make the changes, send it back. And we

3   would either close out the comments, or keep them

4   open and they'd have a second go of trying to

5   resolve it. And there's this ping-pong between the

6   two sides, which was taking months and years to

7   complete.

8   CARLY PEDDLE: In your experience, is

9   that pretty typical for it to be this ping-pong

10   back and forth?

11   MICHAEL PALMER: No. Trying to write

12   SOPs by committee is just a hopeless task, because

13   everyone has a different view. And a lot of people

14   commenting were engineers commenting on operational

15   rules and procedures.

16   In my experience in London, it was done

17   by a much smaller team who had previous skills,

18   knowledge and experience. I think people did their

19   best, but you know, it became a distraction for

20   people who spent their entire time commenting on

21   the rules and procedures, where they probably have

22   better things to be doing. But it was part of the

23   contract.

24   And when I took over, there were

25   probably about 20 outstanding SOPs, and we managed

1 to get them all over the line. For different

2 reasons, but it was just taking way longer.

3   CARLY PEDDLE: Who was involved in this

4 process of developing SOPs?

5   MICHAEL PALMER: The Chief Safety

6 Officer at the time, Jim Hopkins, myself, the

7 control centre manager, Joel Lemieux from

8 OC Transpo, and occasionally some of his team.

9   From RTM, it was led by Murray Hill.

10 And he had a chap helping him, whose name escapes

11 me, who left RTM. And then we had other people

12 from rail construction project. So we had the

13 person in charge of the actual location of rolling

14 stock, the signalling. So depending on the SOPs,

15 we called people who were subject matter experts on

16 the SOP.

17   Bearing in mind, they were either

18 operations or maintenance procedures, you know,

19 they're not meant to be technical books on how to

20 fix something, or how to maintain something. It's

21 operational procedures, maintenance procedures on

22 the daily basis to keep the railway safe and

23 running.

24   CARLY PEDDLE: And you mentioned what

25 you called DITLOs, "day-in-the-life-of"; is that

1   right?

2   MICHAEL PALMER: Uhm-hmm.

3   CARLY PEDDLE: Can you explain just a

4   bit more of what that is?

5   MICHAEL PALMER: Normally, a DITLO

6   takes place reasonably early in the project, and

7   it's based on the concept of operations. And the

8   role players from OC and RTM, play out a number of

9   scenarios over a number of days, from normal

10   scenarios, degraded scenarios, abnormal scenarios,

11   and emergency scenarios, which is undertaken for

12   Stage 2 and for Trillium Stage 2.

13   You have the same players, generally,

14   because although you want people to get the

15   exposure and the experience, you can't keep

16   changing people around every day, because you start

17   from a low baseline.

18   A scenario is given to the players, and

19   you normally have a map on the table, or a train

20   model set, so you can move things around as the

21   scenario develops. And then some facilitators will

22   be testing your skills, knowledge and experience to

23   operate the railway safely.

24   And you start with easy scenarios, just

25   to get them comfortable with the role play, if

1   you'd like. And as the week goes, then you get

2   more complex scenarios. A lot of the scenario

3   planning can go more than one way.

4   So if the operations team or

5   maintenance team take you down a certain direction,

6   they might be allowed to do that.

7   I used to run these -- co-run them in

8   London with the Head of Emergency Planning for

9   Metropolitan Police College. So the Met Police in

10   London, we would do a sergeant's day on transport

11   incidents. And we'd have a big set, and we would

12   have the prospective sergeants saying what they

13   would do. It was all about -- in their case, it

14   was about familiarizing themselves with incident

15   management organization in the UK.

16   In Ottawa, it was slightly more

17   unusual, because it was run much later. And it was

18   run by a third party called "SEMP". S-E-M-P, which

19   is a UK safety assurance company, I believe. And

20   they ran these -- did those quite late in the day.

21   And I think it was more to gather evidence that

22   what they provided was suitable, rather than it

23   being a genuine tabletop exercise.

24   And the agenda was known beforehand

25   that they were using this to demonstrate that what

1   they were providing was safe, operable, met the PA,

2   and you could run an LRT service with it.

3   CARLY PEDDLE: And you said it's

4   normally done earlier in a project. When is DITLO

5   normally done?

6   MICHAEL PALMER: You would normally

7   base a DITLO on your ConOps. And the ConOps should

8   be done at the beginning of the project. That

9   first high level stage, you know, there are reasons

10   why you have ConOps. It's done at a point where

11   your vanguard team, your advanced team, have enough

12   knowledge to be able to work through procedures.

13   It isn't a test of their knowledge and

14   their memory. And they might have the SOPs in

15   front of them to be fair, too. But it allows them

16   to work through step by step an incident, and

17   health check that everything they need to operate

18   or maintain the LRT during that incident, is there.

19   In the case of Confederation Line, it

20   was done, from memory, it was done in the summer

21   of '19, so perhaps four, five, six months before

22   the line opened. And I think its primary purpose

23   was more to gather assurance evidence for the line

24   to open as opposed to what I would see as, you

25   know, the usual purpose of a DITLO.

1   So I would say around the halfway mark

2   would be a good time. Your focus grew down, you

3   know what you're getting, you know the track

4   geography, you have enough asset information on

5   which to be able to accurately operate a DITLO.

6   CARLY PEDDLE: What was it, other than

7   the timing, that made you -- that led to your

8   belief that it was primarily used as assurance

9   evidence, rather than actual testing of the system.

10   MICHAEL PALMER: Well, primarily,

11   because it was being run by a company that OLRT-C

12   and RTG brought in to retrospectively assure the

13   system from the safety perspective.

14   I believe they were lacking assurance

15   evidence from documentation and so on. So this was

16   a means of assuring themselves and the City that

17   what had been built, or was in the final stages of

18   being built and commissioned, was good enough to

19   do, to run the line safely, and obviously

20   efficiently.

21   CARLY PEDDLE: What if any impact do

22   you think not doing this process of DITLO earlier

23   in the project had?

24   MICHAEL PALMER: I don't think it had a

25   major impact on the project in the sense of slowing

1   it down. I think earlier it could have exposed

2   issues with assets, or a bit of a gap, a bit of a

3   jigsaw would have been identified earlier that was

4   missing.

5   You know, from the player's point of

6   view, they were drivers, instructors, control

7   centre managers, dispatchers, ERCs, electric rail

8   controllers, and EROs, for electric rail operators.

9   So they used rail operators who had been helping

10   with the testing, and so I don't think it

11   disadvantaged them.

12   Had there been anything missing as a

13   result of the DITLOs, then time is against them to

14   resolve it. You know, if you're finding out that

15   late that there's a gap in provision, then you

16   don't have many options.

17   CARLY PEDDLE: To your knowledge, were

18   there any gaps found in that process?

19   MICHAEL PALMER: I can't answer that,

20   because although we got through all of the

21   incidents, some faster than others, and some we

22   killed and some we didn't, not literally, but you

23   understand the meaning.

24   The results from that were taken by

25   SEMP and used as safety assurance for RTG and for

1   the P3. So I couldn't tell you which part of that

2   was used, and how useful they found it.

3   From the City's point of view, the rail

4   construction project's point of view, it was good

5   in that it tangibly demonstrated that the system

6   was being built and commissioned.

7   And even if it was in an office, moving

8   bodies around on a map. I think it gave people one

9   of their first feels of what it would look like as

10   a system.

11   CARLY PEDDLE: When did your work on

12   the project end?

13   MICHAEL PALMER: I think it reduced in

14   two or three stages. Once the -- once they went

15   into trial operations on the line, system proving,

16   trial running, we took a step back. I was in a

17   pool of people to observe during trial running, and

18   I was never used by the City.

19   Prior to that, we were busier and

20   busier. And I think once it went into that, our

21   work dropped because really the operator had to

22   stand up for themselves and demonstrate that they

23   could safely operate the system. And the same with

24   RTM.

25   So at line opening, I think I might

1   have been there once a month. And I think that was

2   fine, in the sense that the operators have to get

3   on with it. But I wasn't there to hold their hand

4   in the last month or so, I guess.

5   CARLY PEDDLE: So I take it no one took

6   over for you?

7   MICHAEL PALMER: I don't think they

8   necessarily needed to. One of the things I was

9   trying to do, was to help get people up to speed.

10   And so for the likes of Joel Lemieux and Duane

11   Duquette, so Joel is the TRCC manager, Duane was

12   his boss, I think, head of rail. You know, I would

13   send them bulletins from the UK on accidents. I

14   would just send them articles that would be good

15   for them to read, and pass around, and, you know,

16   just talk about things. I was always at the end of

17   a phone or an e-mail for people.

18   But, you know, I think OC, the people

19   on the ground, did a pretty decent job given how

20   late and how squeezed it was at the end. I think

21   there's some really stelar performance within OC,

22   middle management and lower management levels.

23   CARLY PEDDLE: So I'll get to the

24   squeezing of transportations or of operations in a

25   second.

1   But I first just want to ask, who did

2   you primarily interact with at the City? You've

3   mentioned Richard Holder, who else --

4   MICHAEL PALMER: So Richard Holder ran

5   the systems group. His deputy was Eric Dube.

6   CARLY PEDDLE: Sorry.

7   MICHAEL PALMER: D-U-B-E.

8   There is some other staff and

9   contractors within Mr. Holder's group. I can't

10   pronounce the full name, but Leyla. Her initials

11   are "LCP" which is just how I called her. Somebody

12   was doing tunnel ventilation, she was doing power,

13   somebody was doing rolling stock, somebody was

14   doing communications.

15   So Richard had a small team, but we

16   always reported to Richard and through Mr. Hulse

17   to Richard Holder.

18   And then really just a line to people

19   in OC Transpo. So the control centre manager, Joe

20   Lemieux and Duane Duquette. A little bit with

21   Joanne, whose last name I can't remember, sorry.

22   And her successor is Troy Charter.

23   So I would deal with Troy now and then,

24   and just generally not report to, but work with

25   RTM. So the people in the Belfast Yard, I would

1   talk to, just in the course of my work.

2   CARLY PEDDLE: Anyone specific from RTM

3   that you worked with?

4   MICHAEL PALMER: Mainly Murray Hill,

5   who now works on the Eglinton Crosstown here in

6   Toronto, and the late Tom Pate. I think you

7   probably know that Tom Pate died of a heart attack

8   about five or six weeks ago. He was then the

9   Operations Director for RTM.

10   RTG, the only person I really dealt

11 with was Matt Slade from EllisDon, and that was

12 just in a handful of meetings that we had with them

13 in my time there.

14   CARLY PEDDLE: When you joined Parsons

15 to work on the project, when was revenue service

16 availability expected to be achieved?

17   MICHAEL PALMER: I honestly can't

18 remember, because there was more than one date.

19 And so every quarter, the general manager, John

20 Manconi and Tom Prendergast, who I think then

21 worked for AECOM, would lead a deep dive.

22   And that's what I was invited to join,

23 and then he changed his mind, on a particular

24 aspect. So it could have been power, it could have

25 been rolling stock, it could have been the

1   signalling. And so every quarter in their deep

2   dive, they would review the commissioning date.

3   And the only thing else I know is that

4   it kept moving to the right. And then it did

5   finally open in the fall of 2019, I think probably

6   driven by the universities returning.

7   But there does come a point where you

8   have to put the stake in the ground, and stick to

9   that date. You can't just keep moving it to the

10   right, because it's convenient, and that costs

11   money and time for everybody. And so we were all

12   being kept on for Stage 1, and subsequently I'm

13   working on Stage 2 now for Mr. Holder as well.

14   But I couldn't tell you what the

15   previous dates were, or how many of them there

16   were. I'm aware of the fact there's more than one.

17   CARLY PEDDLE: When you arrived in

18   Ottawa in 2018, what can you tell me about the

19   status of the system and its general readiness?

20   MICHAEL PALMER: Well, it was nowhere

21   near ready, it was nowhere near constructed.

22   Clearly the sinkhole on Rideau Street

23   had an impact on the civil construction. Typically

24   in a project, the construction group had primacy to

25   all of the work sites until they're done.

1   And it's only then that the systems

2   team can move in and install their equipment and

3   test it and you have to integrate it.

4   So if you think about the -- there's a

5   three-way relationship between the train, the

6   signalling -- well, four-way -- track and the

7   power. And so that systems integration started

8   late. Because if you keep your end date fixed, and

9   your construction keeps; you're compressing the

10   systems' testing availability. And they weren't --

11   the systems teams weren't getting enough track

12   access to commission LRVs, to integrate the

13   signalling into the LRV, and tune it so the

14   signalling and vehicle were of one mind, you know,

15   working in harmony.

16   And although the systems on the

17   stations -- when I first went onto the stations to

18   visit, fairly early on I did a tour of all the

19   stations over about three days. Because you really

20   have to see each station and have it embedded in

21   your mind, if you're going to be on the project

22   team.

23   It's kind of interesting, really, with

24   COVID, that all the projects I'm working on

25   currently, I'm doing remotely. And you definitely

1   miss out on not being able to see things, and you

2   know, pictures are great, videos are great, but

3   being there.

4   And I think at that point, Rideau was

5   months away from being anywhere near finished.

6   Parliament and Lyon were better, the East End was

7   fine. So from Belfast Yard to Blair, that was

8   being used for commissioning of the LRVs, and the

9   integration of the signalling, we were testing the

10   signalling. I mean, I went to the West End once,

11   the guideway, the track, the right-of-way was

12   complete.

13   And so until you had track throughout,

14   and power throughout, you wouldn't get a vehicle

15   beyond probably Tremblay or Hurdman.

16   CARLY PEDDLE: At the time -- sorry, I

17   didn't mean to cut you off.

18   MICHAEL PALMER: I was just going to

19   say, the problem with the station -- if you take

20   the station as the best example, it's a little bit

21   like you're decorating your house. It looks almost

22   finished and ready, because, you know, there's not

23   much activity. But actually there's a tremendous

24   amount of activity in the equipment rooms. And the

25   whole documentation of the project, with the safety

1 assurance, the proof, the training manuals,

2 maintenance manuals, spares, all of that stuff

3 typically is at the end and gets compressed.

4   So long as the constructors have

5 primacy, the systems will always come second, it's

6 just how it is. It's unfortunate, really.

7   CARLY PEDDLE: When you arrived in

8 Ottawa to start your work on the project, what was

9 your view regarding if the City was where it should

10 be?

11   ALLISON RUSSELL: Sorry, Counsel. I

12 apologize for interrupting. But you went in and

13 out a little bit there. Do you mind repeating that

14 question from the beginning, please?

15   CARLY PEDDLE: Yes, absolutely. When

16 you arrived in Ottawa to start your work on the

17 project, what was your view regarding if the City

18 was where it should be, in terms of its readiness?

19   MICHAEL PALMER: That's hard to answer,

20 because I don't know where it should have been as

21 opposed to where it actually was.

22   The only thing that comes to mind is, I

23 guess surprise. It wasn't as advanced as it should

24 have been for the opening date that was being

25 published. The thing about the opening date it has

1   to be credible.

2   And to give you an example, with the

3   TYSSE in Toronto, Andy Byford can set a date and we

4   met that date. And it focused everybody's mind,

5   including the systems side.

6   I was leading operational readiness, I

7   was in charge of the operational readiness for the

8   commission of TYCC, which we were doing the

9   signalling for.

10   And some of the dates that were

11   announced, or public within the organization, it

12   was pretty clear that was never going to happen,

13   just from the sheer churn rate and progress being

14   made. And in particular with systems design,

15   having enough trains, having a mature signalling

16   system, having an overhead catenary system that was

17   reliable and so on, escalators and elevators. Just

18   all the systems, components, you know, were very

19   late and compressed.

20   And so even if it looked almost

21   complete, somebody driving along the highway

22   alongside University of Ottawa, you see trains

23   going up and down, but actually that was a cosmetic

24   picture of the actual completion percentage.

25   And I think those last -- that last

1   10 percent, it's a little bit like, again, if you

2   did, say, a house extension, that last 10 percent

3   is the hardest piece, because you're putting a

4   disproportionate amount of effort in to that last

5   10 percent. And some of it actually comes late,

6   and some of it is difficult, or it was running

7   late, or it wasn't ready.

8   And so just that end piece is really

9   hard to manage, particularly when it's compressed.

10   CARLY PEDDLE: When you joined, did the

11   City have the kind of oversight plan in place that

12   you would expect to see?

13   MICHAEL PALMER: I would like to answer

14   that two ways, if I may.

15   Yes. Certainly, at the John Manconi,

16   Steve Cripps, Michael Morgan level, I think they

17   would have had some visibility. At our level, we

18   had almost no visibility at all on the

19   documentation and assurance, and so on, there is a

20   complete firewall between RTG and the rail

21   construction project in terms of getting documents,

22   we just didn't get any.

23   And there are many examples of where we

24   should have documents, but for some -- I believe it

25   was because the commercial disputes had already

1   started, it was not the environment created to

2   share documentation.

3   And so that could be release notes to

4   signalling software, you know, all sorts of - -we

5   just didn't get. So in a way, we were operating

6   blind in trying to, you know, learn about the

7   system and commission it.

8   CARLY PEDDLE: Can you explain a bit

9   more about that? What other information or

10   examples can you give me of...

11   MICHAEL PALMER: So the best example I

12   can give you is on a Thursday, Mr. McCurdy brought

13   to my attention, he walked over to my desk and

14   said, "The TOCC are testing the signalling on new

15   software, and they don't have the release notes."

16   And so partly because I worked for

17   Thales, you know, Thales would release software

18   notes for every drop. And it would tell you all

19   the things that were fixed, all the things that

20   weren't fixed, any new things they found during

21   testing, any workarounds, and things not to do.

22   "Do not use this command. If you do, you will

23   crash the system", type of stuff.

24   And so the TOCC, and the ERCs, and

25   managers were helping with the testing. The

1   tracking is good, you know, it gives them early

2   access to the system. So we're not handing the

3   keys on day one, you know, and they have no

4   hands-on experience.

5   So OC was assisting with the testing,

6   but the electric rail control during the testing

7   had no release notes to say what changes had been

8   in that software drop. They've been doing it for

9   three days, for me, that is not good. Well, it's

10 very poor. Because you had these controllers

11 flying blind, effectively, not knowing what was

12 fixed and what wasn't.

13   And some of the responses were, "well,

14 it's Thursday. So they may have worked it out by

15 now." Or, "we're not stopping testing."

16   What we did do is, put pressure on RTG

17 to give us the notes and we got them the next day.

18 But to ask a number of people to test the

19 signalling system, where they don't know what's

20 been fixed and what hasn't...anyway, they are going

21 to find out, they had trouble because -- but I just --

22   The approach to releasing document in a

23 timely way for it to be a benefit to the City, I

24 think was poor. And my belief is it's because the

25 contractual relationship meant that OLRT-C, RTG

1   didn't wish to show their hand on a particular

2   asset at that time, by releasing valid software

3   notes or whatever that would help the operator and

4   RTM manage the railway.

5   CARLY PEDDLE: Were there any

6   instances, to your knowledge, of RTG or RTM not

7   releasing information that they were contractually

8   obligated to? Or not providing information they

9   were contractually obligated to?

10   MICHAEL PALMER: I cannot tell you

11   whether it was contractually obligated in their

12   Project Agreement, which is a very long document

13   and was written well before my arrival.

14   I would say for best practice, and you

15   would be releasing, say, signalling software notes

16   in advance. In Toronto and in London -- and I can

17   give you evidence, should you want it -- we would

18   get the notes perhaps a week in advance, we would

19   discuss with Thales, or Alstom, what the fixes

20   were. And we would issue a booklet to everyone in

21   the control centre, one for drivers, one for

22   station staff, one for control centre staff, with

23   every restriction or information statement

24   included. And it was colour-coded, so red, yellow,

25   green and blue.

1   So every control centre person had to

2   read that, have it at the desk and sign for it

3   before they started using that software. So they

4   understood what the limitations and restrictions

5   were. And they would go into that open-eyed and

6   not in the dark. And that's good practice, that's

7   just commonsense.

8   Whether it was in the PA, I can't tell

9   you. Whether it was explicit or it was implicit.

10   CARLY PEDDLE: When you joined, did the

11   City have the expertise needed to oversee the

12   construction and maintenance portion of the project?

13   MICHAEL PALMER: I can't answer to the

14   construction side, because I was part of Richard

15   Holder's team, which is the systems group.

16   I believe the individuals that were

17   there, I guess my coworkers who were either sole

18   traders, consultants or probably another

19   consultancy within Richard's group knew their

20   domain well, they were competent people. But the

21   systems integrator would have been RTG.

22   In a meeting with RTG, one of the few

23   we had, we talked about systems integration. And

24   you all know that Mr. Hulse is Systems Integration

25   Lead for Parsons. And it is important to make sure

 1 all the systems sit together as one system, and

 2 it's operable and maintainable.

 3   And I actually said to somebody in RTG,

 4 "Who's the systems integrator?" And they said,

 5 "That's a difficult question."

 6   I said, "No, it's not. It has to be

 7 you. You're buying the trains, you're buying the

 8 signals, you're buying all these products; you have

 9 to integrate them."

10   And the response was, "It's not in the

11 Project Agreement being the systems integrator."

12   And I think that may have been implicit

13 in the PA or expected. But because it wasn't

14 explicit, the same with standards, application of

15 the standards, it wasn't going to be done. And a

16 lot of these are false economies, because they're

17 now spending more money, and even later through a

18 lack of systems integration.

19   CARLY PEDDLE: When did this

20 conversation happen?

21   MICHAEL PALMER: Probably six to

22 nine months before opening. It may have been in

23 the same meeting, we were demonstrating the SCADA

24 system.

25   So "SCADA" is "Supervisory Control

1   Acquisition Data System" so it's hardware and

2   software which allows you to command things on

3   stations, ventilation, power, and they were

4   integrated into one.

5   And the company called "Willowglen"

6   provided the SCADA. And it was very good. You

7   know, it looked nice. And we had a show and tell

8   down in Belfast Yard, and I said to the gentleman

9   from Willowglen, "What standards do you use to

10   allocate alarms?"

11   And he said, "We didn't use standards.

12   We just used our own skills, knowledge and

13   experience."

14   And that's why I see we're getting

15   15,000 alarms daily. And normally with alarm

16   systems, you send it to the people that need to

17   know. You apportion to the right people, they

18   hadn't done any apportionment. So every terminal

19   on the system got every alarm, 15,000 a day before

20   opening.

21   And when I asked, "Why didn't you use

22   the alarm standard?" The response was, "It's not

23   in the PA."

24   And I think there were probably

25   standards and quality thresholds that the City

1   expected, and were implicit, perhaps, in the PA,

2   but I'm not familiar with it. But may not be

3   explicit.

4   And unless something was explicit in

5   the PA as a deliverable, it may not have got done.

6   And the irony is, that it's costing them more money

7   now to retrospectively go in and fix some of this

8   stuff.

9   CARLY PEDDLE: And that conversation

10   with the individual from Willowglen, who was that

11   individual?

12   MICHAEL PALMER: I couldn't tell you

13   his name, he was contractor. I never saw him

14   before that day, and I never saw him after it.

15   I think I might have met him a second

16   time when they made a new version. And the person

17   from RTG made a statement. And from their point of

18   view, that was probably a correct statement. I

19   think there's inherent series of implicit

20   expectations of things being done to standards, and

21   correctly, which may have been abused by the P3.

22   CARLY PEDDLE: And by the "P3", do you

23   mean the consortium?

24   MICHAEL PALMER: Yeah, RTG.

25   CARLY PEDDLE: Other than the systems

1   integration piece, and the other aspects that

2   you've just spoken of, are there any other steps

3   you thought the City should have taken that it did

4   not?

5   MICHAEL PALMER: I can't answer that,

6   because there were -- at a high level within

7   OC Transpo, and within the construction group,

8   there was a lot of conversation, I guess, which we

9   weren't privy to.

10   We were told what we were needed to be

11   told when the time was right. But I can't tell you

12   what discussion went on at the high level between

13   the rail construction project, OC Transpo and the P3.

14   Light rail is not regulated by Transpo

15   Canada, and so I'm used to a regulation environment

16   in the UK from Her Majesty's Railway Inspectorate.

17   When we, say, opened the Jubilee Line extension in

18   1999, where the regulator had sight of what you

19   were doing, and was able to force, or ensure

20   compliance for standards and best practice.

21   But I can't tell you what went on at

22   probably the top two levels of OC and the rail

23   construction project. And the discussions they had

24   with RTG, that's just above my pay grade. It would

25   have been my pay grade four years ago, but not in

 1   this project.

 2   CARLY PEDDLE: When you arrived in

 3   Ottawa, what was the first issue that you were

 4   asked to deal with?

 5   MICHAEL PALMER: Gosh, SOPs. There

 6   were 20 or so outstanding at different stages, some

 7   of the SOPs had done several rounds of comments,

 8   where they'd gone backwards and forwards, following

 9   this process of written comments. And the process

10   means only the person who raised the comment can

11   close the comment.

12   So if that person wasn't satisfied, I'd

13   leave it open. And I found that people who had had

14   two, three, four goes of raising comments, would

15   find something else to raise.

16   And so when I came in, we established

17   the status of each one, I produced a colour-coded

18   Excel chart, which is probably in the documents

19   that you were able to obtain from my laptop or

20   server. And we had a fortnightly meeting, from

21   memory, where we would track these, and I stopped

22   people being allowed to make more comments.

23   And a lot of it was procedural. There

24   was a standard, I think it was "Systems Minimum

25   Operating Standards", you know, which were required

1   to run the LRT safely, and it was the wrong title.

2   And so I wanted to change the title of the SOP to

3   make it more explicit and more obvious of what the

4   purpose of the SOP was. And I was told you can't

5   change the name, because the title was in the

6   Project Agreement.

7   And so to remove that stalemate that

8   had been there for months, I guess, I changed the

9   title and put in brackets underneath, "formerly",

10   its original title, so it could still be traceable

11   through the PA.

12   But I think there are a lot of SOPs

13   which had just ground to a halt. And they tend to

14   be the tricky ones, or involving systems they

15   hadn't been delivered because they were late. So I

16   think the whole SOP process was delayed because of

17   an absence of information.

18   RTM are writing these, and so Murray

19   Hill and Matt Bienvenue, was his name, who was his

20   assistant, wrote these SOPs. And they were sent to

21   copy signalling, rail construction, could all

22   comment on it. So there were hundreds of comments

23   on one SOP. And some of them would be repeated

24   from different people, and they were all to be

25   closed out.

1   And so my role was to check with

2   people, close them out. Almost determine whether a

3   comment was valid, and we should still push it. Or

4   whether somebody was being pedantic in an academic

5   way, when the railway had to be built. So that was

6   my first task.

7   Plus, being part of the team, attending

8   all the team meetings, and going into Belfast Yard

9   and looking at things like SCADA and signalling

10   when it was being tested. So getting out and

11   around was important as well.

12   CARLY PEDDLE: Can you tell me about

13   the frequency of your team meetings, and who they

14   were with, generally?

15   MICHAEL PALMER: So Richard held, I

16   think he held a weekly team meeting, which was --

17   which had a punchlist of items.

18   We had a monthly meeting with a quad

19   which we had to populate with -- gosh, it's long

20   ago now -- things going well, things of concern,

21   and so on.

22   And so at Richard's level, the team

23   meetings were frequent and good. But we were

24   operating on an absence of information from RTG.

25   And a lot of the stuff, we were talking

1   about, tunnel ventilation is a good example. The

2   trains, you know, where we just didn't have enough

3   information or evidence. In any project, the

4   spares and the owner manuals always come late and

5   last. It's always part of the contract to say, you

6   need to deliver a certain inventory of spares and

7   the owner manuals.

8   And those manuals form the basis of

9   training, and train the trainer. So training the

10   trainer is then late, which means that the railway

11   training is late, because you don't have this

12   information, it's not incentivized in the

13   contracts. And so the interesting bit, the sexy

14   bit, is to build the railway or commission it. The

15   boring thing is to write the documents that support

16   it. And every project I've worked on, that

17   documentation was always late.

18   And partly because it's real

19   information, you know, they have to include all of

20   the configuration of hardware and software in

21   release notes and maintenance manuals.

22   And, you know, that's the role of the

23   supplier to provide that stuff. It's not

24   incentivized financially, and it should be, really,

25   just to really hold their feet to the fire right to

1   the end.

2   CARLY PEDDLE: So you mentioned you

3   were missing information from RTG. What kind of

4   information was that?

5   MICHAEL PALMER: Owner manuals, O&M

6   manuals, trainer training notes, configuration.

7   For the role I was doing, I didn't need the

8   as-built drawings, particularly of any of the

9   technical stuff. It was the information you would

10 need to understand to then, in my own mind, merge

11 it into an operable system.

12   Mr. Hulse leads systems integration,

13 but increasingly, operational integration, making

14 sure that the train, the signalling, the catenary,

15 the track, the tunnel ventilation, the station,

16 communication system, the signage, all sit together

17 and they're operable and maintainable, as well as

18 wholly as a system.

19   So that information comes late. The

20 City may have had it, but it wasn't passed down to

21 our level. So I can't answer who had it in the

22 City and when.

23   CARLY PEDDLE: So you do not know why

24 you didn't have the information, but just that you

25 didn't have it?

1   MICHAEL PALMER: The two reasons I

2   believe we didn't have it was, firstly, the systems

3   were all late. And so when you start to get to

4   commission late, you're only going to get the

5   documentation when it's done. So that was all

6   squashed into that last period.

7   But I also think the contractual

8   involvement between the P3 and the City meant that

9   there were things that couldn't be or wouldn't be

10   released to the City.

11   I do have a sympathy with the P3,

12   because they've taken on the risk commercially, and

13   they're not going to syndicate that risk out

14   through sharing documentation that might hurt them.

15   I think the environment that everyone was in, that

16   would have been the main driver for this firewall

17   of information between them.

18   CARLY PEDDLE: Why is it that RTG

19   wouldn't want certain -- or couldn't or wouldn't

20   want certain information to be released to the

21   City?

22   ALLISON RUSSELL: Sorry. I was going

23   to say, I'm not sure that's something Mr. Palmer

24   can answer, because he's not with RTG. It's really

25   something that you'd have to put to RTG.

1   CARLY PEDDLE: Do you have any direct

2   knowledge of why RTG did not release information to

3   the City?

4   MICHAEL PALMER: No. It just wasn't

5   there. There was this complete absence of

6   documentation coming over. It's quite different on

7   Stage 2, which I can talk about, where these first

8   connectors with Kiewit, Vinci and Eurovia -- which

9   I can now pronounce properly -- we have joint

10 meetings.

11   On Stage 1, I do not recall a single

12 joint meeting of Thales as signalling supplier.

13 The meetings were held between Thales and RTG.

14 And, you know, we were at the end of the food

15 chain.

16   And I find Stage 2 much more collaborative

17 which I think is the culture of the three

18 organizations. And probably looking back at Stage

19 1, and we have joint meetings on everything,

20 including signalling.

21   And so the difference between the P3s

22 is chalk and cheese, to me. It's a black and white

23 difference in the collaboration. You can still

24 disagree, and you can still have claims, but it's

25 not a hostile environment is probably the best

 1   description.

 2   CARLY PEDDLE: In the event that design

 3   or an element of construction was modified, how was

 4   that accounted for in operating plans and

 5   procedures?

 6   MICHAEL PALMER: I'm not sure I

 7   understand your question and where you're going

 8   with it. Could you rephrase it, please?

 9   CARLY PEDDLE: So if operating

10   procedures or plans are developed, and an element

11   of the construction or design is changed, how is

12   that then translated into a new operating plan to

13   make sure that it covers this new element of the

14   design?

15   MICHAEL PALMER: There was an indirect

16   impact. The SOPs, if you've read any of them, are

17   not prescriptive technically. They don't say that

18   you push this toggle, and you turn this widget, and

19   this happens.

20   They're talking about the people and

21   the procedures and the processes that I have to

22   follow in a certain incident. And no two incidents

23   are the same.

24   So you have this toolbox of SOPs which

25   you apply to any incident, depending where it is in

1   time of day, and the players, and the failure, or

2   the type of incident.

3   And so in that sense, the SOPs were

4   generally high level than say a technical piece of

5   information. But it fundamentally changed how you

6   managed that incident. Say, tunnel ventilation,

7   then obviously that would then be written in, and

8   you would have to retrain all of the operators with

9   this delta, this difference in the baseline

10   training.

11   And that's really where configuration

12   control and documentation and functionality really

13   kicks in. So you have full traceability of any

14   changes and how you responded to them.

15   CARLY PEDDLE: Are you aware of a

16   operations restriction document?

17   MICHAEL PALMER: There was a -- it

18   depends on the title of the document you're talking

19   about. Sorry, because there were, you know, the

20   safety hazards transferred over. They were

21   suffering much from Thales on that particular

22   software. There was, on the desks, a document in

23   the TRCC listing the restrictions: Do this, don't

24   do this. If you get this, at this station, this

25   work is expected. I'm aware of the document, I

1   wasn't part of putting it together.

2   CARLY PEDDLE: If you can just briefly

3   outline any additional measures you took, or

4   actions you took to plan for operational readiness?

5   MICHAEL PALMER: I attended one or two

6   tabletop exercises at City Hall which were run by

7   the rail construction project and OC Transpo in the

8   lead up to trial running and system proving. Where

9   the City tabletopped trial running, and the trial

10   base of trial running. And I sat in an audience

11   section, just observing. And at the roundtable you

12   had mainly senior folk walking through the process

13   for the trial running.

14   So I experienced some of those. I did

15   signage sighting, which came late. And this is

16   operational signage drivers need to use, or a

17   supervisor, or a maintainer, to safely do their

18   job. It's not passenger facing signage, like way

19   out, emergency exit. Any directional signing, way

20   finding, commercial signage. This is signage on

21   the track that the driver may use in certain

22   failure conditions to help them locate themselves,

23   or pass a signal of danger, that sort of stuff.

24   It sounds low level, but it was late

25   and we had to go out. I had an instructor driver

 1   and we would go out on an LRV -- the first LRV,

 2   two-car LRV on the line, while the testing was done

 3   in one-car units, and we had to sign off every

 4   operational sign.

 5   So if a driver is seated between a 10th

 6   percentile or 90th percentile man, sitting

 7   correctly could look sideways or look forward and

 8   see the sign in their vision. If it wasn't

 9   correct, we would fail it, and they would have to

10   move it for the driver to see it. There's no point

11   in putting in a sign if you can't see it.

12   There was some discussion of tunnel

13   ventilation, and the purpose of tunnel ventilation.

14   Just a lot of the stations were maybe finished or

15   almost finished, which is partly just to have a

16   look at things, and also to have this mental image

17   in my mind of the station.

18   In my previous roles, I would do that.

19   On the Jubilee Line extension in London, the teams

20   who were going to work with control centre, I gave

21   them a day to walk the entire station at street

22   level, so they can see the outside of every station

23   and every intervention point. So when they send

24   the fire service there, they can visualize it

25   because they've been there to see it.

1   So I was doing a lot of that for

2   myself. And just generally helping the control

3   centre team, help with the commissioning, really,

4   and being out on the line. Or being available,

5   actually, for the people, if they didn't understand

6   something, or why it was done in that particular

7   way, I would try and help. Both proactively and

8   when asked.

9   CARLY PEDDLE: And you mentioned that

10   you were not -- your expertise wasn't used in trial

11   running, but you observed it; is that right?

12   MICHAEL PALMER: No, I didn't say that.

13   CARLY PEDDLE: Thank you.

14   MICHAEL PALMER: What I said was I was

15   part of the pool of observers to be used in trial

16   running to assess scripts, you know, tests that

17   they would pass or fail. But I was never used out

18   of that pool.

19   And so my actual involvement formally

20   in trial operations, just wasn't there. I followed

21   it from the offices, and remotely from Toronto each

22   day. But I wasn't part of that final team.

23   CARLY PEDDLE: Okay. Were you involved

24   in developing the operators' safety case?

25   MICHAEL PALMER: No.

1   CARLY PEDDLE: Okay.   Did you have any

2   involvement in the determination of substantial

3   completion?

4   MICHAEL PALMER: No.

5   CARLY PEDDLE: What about readiness for

6   revenue service?

7   MICHAEL PALMER: The one word answer is

8   no.

9   In the table tops at City Hall when we

10   went through, there were discussions that I took

11   part in around, say, the percentage required, you

12   know, 99 percent reliability is an interesting

13   term, because you can measure reliability many

14   ways.

15   For you to get 90 percent reliability

16   of an asset, or of a system capable to indicate it

17   through headway, journey time, punctuality, delays

18   under five minutes and so on, I didn't necessarily

19   have metrics for those.

20   And I didn't have the historical

21   evidence to get -- the 99 percent target of five

22   years in steady state reliability, you know, it

23   will take you a good year up to five years to

24   operate a service at that sort of level.

25   There's now way on earth you're going

1 to do it on a brand new LRT with brand new assets

2 that's late and not fully integrated to get

3 99 percent. Is futile; it's a nonsense target.

4 You would never achieve it.

5   CARLY PEDDLE: So in your view and your

6 experience, what would be a realistic target?

7   MICHAEL PALMER: That depends on the

8 asset or the key performance measure. Journey

9 time, making sure the train did get to one end of

10 the line to the other on the schedule provided.

11 Previously I measured mean distance between

12 failures on the rolling stock, five-minute delays.

13   And with the Rockets in Toronto, we

14 actually run up to, I think from memory,

15 1.86 million kilometres for the rocket fleet before

16 we had a five-minute failure in August of 2017,

17 just before I left.

18   I think with assets, generally hardware

19 over age starts to decrease in its reliability and

20 as software matures your system is going to get

21 better and better.

22   It depends if you're talking individual

23 asset, a performance indicator for the service

24 around punctuality, which we discussed, headways.

25 You know, the service Level 1 headway, I believe,

1   is 3 minutes 22 using 15 trains.

2   When the line opened, they had 13

3   trains and four were late. So the headway was

4   always a minute and adrift from what it should've

5   been on opening.

6   You might expect that, but you would

7   expect that gap to close over time, as people got

8   better at operating it and familiar, and learning

9   the tricks in what to do, and what not to do.

10   CARLY PEDDLE: Do you recall any

11   discussions of starting revenue service with less

12   than full service?

13   MICHAEL PALMER: The only discussions I

14   had, and it's a bit of a headline, really, was a

15   message from the GM, we were only going to open

16   with 15 trains in service.

17   The requirement was 34 trains within

18   the Project Agreement, I think if you look at. I

19   think it's in 15-2, Appendix C. 15 trains

20   operating of 3-22 headway, and I believe the

21   general manager correctly said, we're only going to

22   open with 15 in service. We're only going to open

23   with 15, fleet of 34, we're only going to open with

24   15. And then suddenly, we're going to open with

25   13.

1   On that, that was a good decision, but

2   it should have been made much earlier, you know,

3   it's going from 0 to 100 overnight.

4   If you want to do a three-minute-22

5   service with 15 trains, you're not going to do that

6   on the first day of service. That takes a lot of

7   practice, and a lot of experience and skills for

8   the teams, simply where that training and

9   experience come quite late in the process.

10   So to open less than 15 was a good

11   thing, you know; you're learning to walk before you

12   run. And so the late decision to go to 13 was a

13   good decision, but it was -- it should have been

14   sooner. Just to be realistic.

15   Going back to the systems testing, they

16   didn't have enough trains. The rolling stock and

17   the signalling suppliers and RTM were really the

18   last in the food chain for access.

19   So correctly, until the construction

20   was finished, they only had between Belfast Yard

21   and Blair to do all the testing and commissioning.

22   And each LRV is subtly different in terms of its

23   performance.

24   And each LRV has to be tuned with the

25   signalling system, so it works perfectly well in

1   track and train operation and it's stopping on the

2   mark every time. And that takes time.

3   And you know, the suppliers and RTM

4   were denied access. Understandably they wanted to

5   finish construction. They didn't necessarily move

6   it proportionately back, and so there's this

7   squeeze at the end.

8   It's typical on projects that the

9   operators and systems team get squeezed because

10 they're the last part of the project.

11   CARLY PEDDLE: In other projects,

12 you've worked for, or worked on, where an extension

13 of a line or a new line is opened, has there

14 generally been reduced service at the beginning of

15 revenue service availability?

16   MICHAEL PALMER: Sorry, I missed the

17 last part of that question. Would...?

18   CARLY PEDDLE: Would there generally be

19 a reduced service at the start of public service?

20   MICHAEL PALMER: It depends. In

21 Toronto on line 1, we had full fleet of trains. We

22 had 76 Toronto Rockets, and I needed 60, 61 for

23 service. So there wasn't a shortage of trains and

24 the extension in Toronto was not the first

25 signalling section; it was a second or third.

1   And so a lot of the assets I needed to

2   run a good service were already there, the trains

3   and the signalling further down the line. I think

4   when you're starting on a green filled LRT from

5   scratch and you're building up reliability in

6   real-time, it's a totally different environment

7   that you're working in.

8   If you look at any service, whether

9   it's a new aircraft or a factory, very few go in

10   100 percent on day one. Open one shift, two shift

11   you have to train people up, and so on and you

12   build up reliability in realtime as people get

13   familiar with the equipment.

14   And system proven trial running would

15   have been part of that, but I can't tell you what

16   happened on those days or what the figures were.

17   CARLY PEDDLE: What was your

18   understanding of how many vehicles OC Transpo

19   believed was required to --

20   [Court Reporter intervenes for

21   clarification].

22   CARLY PEDDLE: Ms. Russell, was that

23   your issue as well, that you couldn't hear me?

24   ALLISON RUSSELL: Yes, I apologize I

25   couldn't hear the question.

1   CARLY PEDDLE: Okay, I just wanted to

2   make sure, thank you.

3   What was your understanding of how many

4   vehicles OC Transpo believed was required to meet

5   morning demand at the beginning of public service?

6   MICHAEL PALMER: So the Project

7   Agreement in Appendix C within I think it's 15-2 is

8   explicit, 34 vehicles provided, and 30 needed for

9   service, which is 15 pairs. That was always a

10   target and I know Mr. Manconi kept saying, he

11   wanted seven --

12   [Court Reporter intervenes for

13   clarification].

14   MICHAEL PALMER: The Project Agreement

15   in Appendix C is explicit, that 34 LRVs, which is

16   15 pairs of 2, and 4 spare single LRVs were needed

17   for service Level 1, which is first level of

18   service when the LRT opened.

19   There was no lower level service. Over

20   13 was a hybrid of service Level 1.

21   And I believe the numbers were below

22   34, and it's a lot of work for each LRV to be

23   signed off, getting up the kilometer accumulation

24   if you move with a new car or anything to make sure

25   it's working, and then integrating the signalling

1   onto it, the train radio, the cab to platform CCTV.

2   So until those other elements, as soon as you start

3   bolting things on trains it becomes inherently more

4   unreliable. You have to get reliability back up

5   again.

6   In the end my understanding there was

7   just too few LRVs that were fully ready for

8   service. And they had a load of them sitting in

9   Belfast Yard and they weren't given access.

10   CARLY PEDDLE: I want to talk briefly

11   about certification of OC Transpo staff. What was

12   your involvement in training and certification of

13   OC Transpo staff?

14   MICHAEL PALMER: No involvement. If I

15   observe OC staff doing stuff on the tabletops and

16   the exercises, I would feed back to their managers,

17   or to bring in Joel Lemieux, on occasion, Troy

18   Charter, to say, this person is really good, you

19   know, they've got it.

20   I think it's like any job you do. Some

21   people naturally take to it and others struggle

22   with it. And working in control centres is a good

23   example; you can either do it or you can't.

24   If you go to a power station, if you go

25   to a production factory, if you go to a railway

1 control centre, if you go to air traffic control,

2 the environments are similar.

3   And the work is, you start a service

4 up, you operate it, you close it down, you maintain

5 it, you deal with problems. And I was involved in

6 people's certification. Certification is a

7 snapshot of the person's competence. Their skill,

8 knowledge and experience, they are safe.

9   When you pass the driving test it

10 doesn't mean you're a good driver; it means you've

11 passed a particular threshold. And I think that's

12 the same with this one where those in authority are

13 involved in assessing people's competence.

14   But equally, had I been worried, I

15 would have raised a red flag. And I didn't need to

16 do that, because I think the OC staff on the

17 ground, given the lack of experience, were really

18 good.

19   They listened, they wanted to do well,

20 they were safe, you know, and I can't speak highly

21 enough of the OC staff on the ground and the job

22 they did in difficult circumstances.

23   CARLY PEDDLE: Did you understand that

24 given the delay, the training schedule had to be

25 changed at all for OC Transpo staff?

 1   MICHAEL PALMER: I'm aware that the

 2   training was running late. I'll put it back to the

 3   same, availability of training trains, availability

 4   to go on to the line and to have a train and a

 5   system that was reliable enough to train on.

 6   Probably the most experience they got

 7   was fault-finding, you know, during that hands-on

 8   experience. Because the system may not have been

 9   mature enough really for me, for training to have

10   taken place.

11   It's like anything else in life. You

12   use ten percent of your knowledge 90 percent of the

13   time. And there's 90 percent of your knowledge

14   somewhere up there which you very rarely have to

15   recall, because it's that stuff you just don't use

16   all the time.

17   But I was involved in assessing

18   individuals' competence or threshold for drivers or

19   control centre staff. Definitely not RTM; that

20   wasn't their job.

21   But I would say I was generally

22   impressed with the competence and the attitude of

23   the control centre staff, the drivers, the

24   supervisors who were trying to make it work.

25   CARLY PEDDLE: Are you aware of a

1   shadow operator ever being considered to be brought

2   into the project to assist in operations?

3   MICHAEL PALMER: Yes. And I've been

4   head hunted two or three times to run a shadow

5   operation in Sydney, in Melbourne, both in

6   Australia, and in America.

7   Generally you try to run a shadow

8   organization of people who have experience of the

9   types of assets. And so Urbalis 400, which is

10 U-R-B-A-L-I-S 400, which we used on Line 1 in

11 Toronto, was going in on the Sydney Metro and I was

12 approached twice by the same headhunter because

13 they couldn't fill the job, running a shadow

14 operations and maintenance organization in the

15 testing and commissioning.

16   And just in design, you know, having a

17 say in the design. At London Underground, we had a

18 variation on that where I ran an operational team

19 and I was what was called user acceptance manager,

20 so I was the lead operator on the project in London

21 Underground, and then the operation design had to

22 go through me to sign off.

23   So you have a controlling mind

24 operation, controlling mind maintenance-wise, what

25 that indicates, what the speed would look like,

1   what alarm did you want to have for this particular

2   thing, alarm management using standards.

3   I'm familiar with it in the sense of

4   the shadow team within, in relation of OC Transpo

5   and in the P3 context, I didn't take the jobs,

6   because I'm still thrown out but, you know, a lot

7   of P3s elsewhere the world, we use a shadow level

8   organization, really, as the pseudo operator and I

9   think that's best practice. Still have to get the

10   right people.

11   CARLY PEDDLE: Do you have any

12   knowledge about why that was not done in this

13   project?

14   MICHAEL PALMER: No.

15   CARLY PEDDLE: Did you ever suggest it?

16   MICHAEL PALMER: I didn't explicitly

17   suggest a shadow operator. And I think it's

18   difficult to see, whether within OC Transpo within

19   the rail construction project, I think in reality I

20   ended up partially not wrong trying to help the

21   operator decide what they wanted.

22   And so when I were asked, which was

23   infrequently, if you take the SCADA signalling

24   design, I don't think the operators were asked

25   their opinion on anything until it was there.

1   So I didn't have a voice.

2   If I had a voice, I'm not sure they

3   would have had the skills, knowledge and experience

4   to give a good answer. And, so in a way, I would

5   argue that myself and a few others probably filled

6   that void unintentionally.

7   I'm 59. I've been very blessed. I've

8   been in the railway industry 40 years now, this

9   year. And you know, I've done the three

10 resignalling projects, and I've done two

11 extensions.

12   So I've been there and done it, and it

13 was about imparting that knowledge and experience

14 to others, but also just watching out everywhere

15 that things were being done okay.

16   I think okay to the P3 is the best you

17 could reasonably expect. You might get a few nice

18 bits of equipment where they splash money because

19 they have to, but you know, I think, you know, P3

20 was, did not give you brilliant engineering across

21 the spectrum. Because it's all money.

22   Can I just grab a coffee off the shelf,

23 please?

24   CARLY PEDDLE: Why don't we take a

25 ten-minute break. It's about halfway through

1   anyway. So we can just come back at 10:55.

2   MICHAEL PALMER: Allison, the other

3   Allison, could you give me a call on my cell,

4   please?

5   ALLISON RUSSELL: Yes. We're going to

6   go off the record for ten minutes?

7   CARLY PEDDLE: Yes.

8   -- RECESS TAKEN AT 10:46 --

9   -- UPON RESUMING AT 11:03 --

10   CARLY PEDDLE: I understand you were

11   also involved in overseeing the maintenance

12   readiness; is that correct?

13   MICHAEL PALMER: No, not directly. I

14   had it -- my involvement with Rideau Transit

15   maintenance as the maintainer under the P3, was to

16   work with them on the SOPs.

17   And some of the meetings were held in

18   Belfast Yard, when we were shown the SCADA

19   recruitment. I was at Belfast Yard, but I didn't

20   directly help RTM with how to maintain their fleet.

21   Which in fact was tendered out to Alstom anyway, so

22   it was subcontracted by RTM to Alstom as the train

23   builder and they were going to maintain it for the

24   period of the contract.

25   CARLY PEDDLE: So Parsons was not

1   involved in overseeing?

2   MICHAEL PALMER: You asked if I was

3   involved. So I can't answer whether Mr. Hulse, or

4   Mr. McCurdy, or Mr. Fodor were involved in that,

5   but knowing their backgrounds, I wouldn't believe

6   so.

7   CARLY PEDDLE: Okay, thank you very

8   much.

9   Were you involved in developing the

10 concept of maintenance?

11   MICHAEL PALMER: No. That would have

12 been for RTM to do. They're currently producing

13 the content of maintenance for Stage 2 of

14 Confederation Line.

15   The content of maintenance and the

16 concept of operation had to be written really by

17 people familiar with the maintenance or the

18 operation of the project, but that would have been

19 RTM.

20   CARLY PEDDLE: Did your work involve

21 the integrated management systems, or IMS systems?

22   MICHAEL PALMER: No.

23   CARLY PEDDLE: Did any of your work

24 involve availability to the maintenance storage

25 facility?

1   MICHAEL PALMER: Availability to the

2   storage maintenance?

3   CARLY PEDDLE: Yes.

4   MICHAEL PALMER: If you're talking

5   about maintenance storage facility, the MSF

6   Belfast?

7   CARLY PEDDLE: Yes, yes.

8   MICHAEL PALMER: Around its

9   availability?

10   CARLY PEDDLE: Yes.

11   MICHAEL PALMER: No. However, only in

12   the sense of the drivers' handover platform. So

13   the interface where the train would be handed over

14   to OC, the driver would then take it into service

15   I've been on that platform a number of times.

16   And just during the discussions about

17   the yard being fully automatic, which it's still

18   not fully automatic even now. And what's needed to

19   get it into that automatic state.

20   But it was conversations, it wasn't

21   meetings.

22   CARLY PEDDLE: That wasn't part of your

23   focus in your work?

24   MICHAEL PALMER: No. But I, you know,

25   I did get dragged into conversations around things

1   like that within the rail construction project, or

2   conversations with RTM about when it was going to

3   be commissioned, how it was going to be

4   commissioned. It kept moving to the right.

5   CARLY PEDDLE: Can you just tell me a

6   bit about those conversations?

7   MICHAEL PALMER: Well, no, just, you

8   know, how many trains I had available when the --

9   how the signalling testing was going. The concept

10   is for the yard to be fully automatic other than

11   the workshop areas. So when a train was ready for

12   service, the yard controller could click on the

13   train and bring it to the handover platform and the

14   train would drive itself automatically. And the

15   driver would open the door, get on and go into

16   service.

17   But my understanding is the Belfast

18   Yard is still not commissioned for its own

19   controller from Thales. And the train is still

20   being driven manually to the pick up point.

21   And then conversely when they come out

22   of service and the driver gets off they're driven

23   manually to their maintenance location or staging

24   location.

25   So the discussions were: How is it

 1   going? When is RTO? "Remote train operation".

 2   It's called "GOA4", which is "grade of automation",

 3   which is a UITP term for "fully automatic train

 4   service".

 5   We were following when that was going

 6   to be available. Because as a service ramps up

 7   through the service levels of Stage 2 and more

 8   trains going into service, really, that yard has

 9   got to be in automatic, in my view, to get the

10   trains pushed out onto the line ready for the

11   morning rush hour.

12   It was conversations, no formal

13   meetings. It was just on my radar as something of

14   interest.

15   CARLY PEDDLE: UITP-- what does that

16   stand for?

17   MICHAEL PALMER: It is a benchmarking

18   group I can Google it for you, just as quick for

19   somebody else, I don't know, my Counsel, whether

20   you've got the chance.

21   It is a benchmarking organization in

22   the world which works with different forms of

23   transit. And part of it is benchmarking and they

24   just issued a document on the different grades of

25   automation in rail.

1   They go from GOA0 to GOA4 being the

2   highest, GOA4 is fully automatic, no driver on the

3   train. It's just a separate vehicle.

4   CARLY PEDDLE: Leading up to revenue

5   service availability, what did you understand the

6   parties expected out of maintenance?

7   In other words, were the parties

8   expecting in this new system for there to be issues

9   to work through? Or were the parties expecting

10   maintenance to be fully responsive and able to

11   respond to any issues that arose?

12   MICHAEL PALMER: I can't answer what

13   the expectation was, but I would expect for the

14   maintainer to be fully trained, to have sufficient

15   spares, sufficient trains available, you know, to

16   manage service. And I can't tell you to what stage

17   that was achieved before revenue service other than

18   the fact they were short of trains.

19   And they had the trains on property;

20   they just hadn't been fully commissioned and

21   integrated with the signalling.

22   And of course the other thing is

23   because RTM had subcontracted maintenance back to

24   Alstom, which is common -- if you build the train

25   to maintain it as well -- I can't tell you what

1   state of readiness Alstom were at the time.

2   CARLY PEDDLE: You had no visibility

3   into Alstom?

4   MICHAEL PALMER: No, other than the

5   lack of trains on a diagram.

6   CARLY PEDDLE: Are you aware of any

7   effort on the City to test the system once it

8   entered revenue service to check for faults and

9   flaws?

10   MICHAEL PALMER: In the handover

11   process, there are three or four different terms

12   from the point of technical completion to revenue

13   service.

14   So some of them are called "trial

15   running"; you have "system proving", usually comes

16   first. System proving is really demonstrating it

17   does what it says on the tin.

18   And having proved that, you then go

19   into a period of trial operations or trial running.

20   Trial operations scenarios based on the line for

21   normal upgraded -- normal/abnormal degraded

22   emergency scenarios. So anything from somebody hit

23   by a train to a door not closing.

24   Then trial running is normally after

25   that, and it is a period of service without

1   passengers. In Toronto, I had a three-week period

2   called ghost running, which was effectively trial

3   running where we -- when the trains got to the end

4   of a line, we threw the passengers off and it went

5   on to the extension and back in a scheduled path

6   with the drivers.

7   So that helped with driver

8   familiarization, reliability of service. And after

9   three weeks of doing that we then opened the doors.

10   So when Prime Minister Trudeau opened

11   the line he was doing it on day 22, not day 1.

12   Because we'd had that practice of controllers being

13   familiar with the new schedule, service and new

14   stations and a longer line and faster trains.

15   CARLY PEDDLE: So after testing and

16   commissioning and after trial running, once the

17   system is opened to the public for service, are you

18   aware of the City wanting to make sure that faults

19   were being responded to, and therefore initiating

20   work orders in response to faults that they were

21   going out to discover?

22   MICHAEL PALMER: That entirely depends

23   on the scale of the fault. Through system proving,

24   trial running, trial operations, those would be

25   flagged anyway.

1   You would have trains with minor

2 defects on the line which would need fixing. I

3 believe those processes would have been tested

4 prior to revenue service sufficiently to be

5 satisfied that RTM were able to respond.

6   I think a lot of the early failures

7 were of such a magnitude and frequency where, you

8 know, well, the damage was done, you know. You

9 wouldn't expect that high level of failures and the

10 type of failures on a new line that had just been

11 signed off.

12   CARLY PEDDLE: In previous projects,

13 once the line entered service, in any of those

14 projects did you experience significant problems as

15 the OLRT-1 did here?

16   MICHAEL PALMER: No. And the reason

17 why -- I'm sorry, if I'm anticipating your next

18 question.

19   Is the period of trial running the

20 operators and maintainers are involved all the way

21 through the project, and so they are familiar with

22 things, you know, the system. And I think the

23 period of trial operators and trial running had a

24 set of criteria which we stuck to.

25   And we would extend it need be so at

1   the point we went into revenue service, there was a

2   high confidence that the system was ready.

3   We did have failures, but if you want

4   to excuse the expression they were kind of "shit

5   happens" failures rather than systemic failures of

6   the system through its immaturity or functionality

7   that wasn't there from day one.

8   And that's kind of the London

9   Underground mantra, and that's why I carried it to

10   Toronto when we did the extension to line 1. Even

11   now in London, they are test running the Elizabeth

12   Line and Andy Byford, as the commissioner, will not

13   open it until he's satisfied he's not going to make

14   the front page of the papers every day or every

15   week. That's a good yardstick. You have to be

16   confident that you can operate and maintain the

17   system before you operate it. I cannot answer that

18   about this case here.

19   CARLY PEDDLE: And so you mentioned in

20   previous projects there was criteria during testing

21   and commissioning that were stuck to; was that not

22   the case here?

23   MICHAEL PALMER: I can't answer that.

24   I can't answer what the process was and what the

25   daily results were for them to stick at day one.

1   The only thing I do know is they ran

2   day one, it failed; ran day one again, it failed.

3   They suspended trial operations. They restarted

4   trial operations or trial running and the figures

5   -- a figure was achieved and the line opened;

6   that's all I know.

7   CARLY PEDDLE: Okay. You've touched on

8   this throughout the interview, but can you describe

9   the relationship between the City and RTG from the

10 time you began working on the project, how it

11 changed over time up until your work completed?

12   ALLISON RUSSELL: Counsel, sorry. I'm

13 just going to interrupt there, because you're

14 asking Mr. Palmer to speak to the relationship

15 between two parties where he may have made

16 observations during certain interactions, but

17 wasn't always part of those communications or

18 interactions to. He wasn't part of RTG or part of

19 the City.

20   So maybe if you were to ask that

21 question a different way, but as it's been

22 presented, I'm not prepared to let Mr. Palmer go

23 ahead and answer that question.

24   CARLY PEDDLE: What was your perception

25 when you started working on the project of the

1 relationship between the City and RTG?

2   MICHAEL PALMER: So I can't answer

3 before the fall of 2018. I can only answer from

4 what I saw, and I saw very little headway because

5 there were no meetings with the P3 that I was at.

6 And where there were meetings at a high level, I

7 can't describe what that relationship was like.

8   I think the two things I would say is

9 firstly, I followed things in the media, like

10 everybody else. And all I saw was a series of

11 claims and counterclaims and both sides criticizing

12 the other side, and that was public to everybody.

13   In terms of the rest of it, really, not

14 much, because there was this firewall. So we never

15 met the supplier. We only ever met RTG except when

16 we were shown a piece of equipment. We weren't

17 privy to any correspondence between the City and

18 the P3 or any strategy. There were some strategies

19 where Richard would ask me what did I think the

20 City should do with this in terms of going into

21 service.

22   So there's a verbal discussion with

23 Richard Holder as my boss, good honest discussions,

24 but I couldn't tell you beyond him what happens on

25 either side other than what I've read in the media,

1   really.

2   CARLY PEDDLE: Okay, thank you.

3   Could please describe any activities

4   you were involved in at the end of your -- the term

5   of your project to close out your activities? What

6   did that involve?

7   MICHAEL PALMER: Once the line was

8   open, I was still travelling to Ottawa and remote

9   involvement from Toronto. And I worked from home

10 for four years since I've joined Parsons because I

11 spend a lot of my time travelling within the U.S.

12 and Canada.

13   There was discussion about how to close

14 out particular functionality on particular assets

15 and trying to get the trains -- the number of LRVs

16 increased, how to mature the signalling system and

17 so on.

18   But I wasn't really involved in

19 representing the construction project or the City

20 to the P3. And I think the environment was such

21 that, you know, the P3 had no money but weren't

22 being paid and you know it was -- they were

23 arguing, both sides were arguing about whose fault,

24 what needed to be done whether it was part of the

25 PA, or whether it was, you know, a new piece of

1 work, scope creep.

2   So all that was going on, so I can't

3 tell you how productive that was and it was way

4 above my pay grade on this job.

5   CARLY PEDDLE: You mentioned you are

6 involved in Stage 2 of the LRT?

7   MICHAEL PALMER: Yes.

8   CARLY PEDDLE: Any of the issues you

9 identified during your work on Stage 1, did that

10 result in any changes to the approach in Stage 2?

11   ALLISON RUSSELL: Sorry, Counsel.

12   I'm just getting my head around the

13 question, because I understood the purpose of today

14 was to ask specifically about OLRT-1.

15   CARLY PEDDLE: Let me rephrase.

16   ALLISON RUSSELL: Okay.

17   CARLY PEDDLE: That may assist.

18   ALLISON RUSSELL: Maybe that will help.

19   CARLY PEDDLE: What lessons learned

20 from -- have there been any lessons learned from

21 Stage 1 that have, to your knowledge, have been

22 applied to Stage 2?

23   MICHAEL PALMER: A number of "lessons

24 learned" sessions were held to document what was

25 learned from Stage 1 and what will be done

 1   differently in Stage 2.

 2   The Parsons contract is a five-year on

 3   call contract. Basically we get asked to get

 4   involved in pieces of work and that's still going

 5   on, but I think the amount of work has dropped off

 6   recently. That's typical in a project, where

 7   you're very busy in the beginning, there's a midway

 8   period where things go quiet, things are being

 9   constructed and designed and so on. Then you get

10   busy during the end.

11   During that short period, it's hard to

12   compare apples to apples because I think the P3 has

13   a different approach on Stage 2, which is

14   refreshing and more correct.

15   I believe Stage 2 is more collaborative

16   between the sides. Whether all the lessons have

17   been learned and applied, it's one thing to learn

18   lessons and another to actually do it next time

19   around correctly. I won't answer that actually and

20   I can't answer that because I don't have

21   visibility.

22   CARLY PEDDLE: I may have asked you

23   this -- I just want to make sure I have your

24   evidence on it. Prior to going into public

25   service, what was your view as to the readiness on

1   the operational side of the project?

2   MICHAEL PALMER: I believe the

3   operators were ready; so this is not the

4   maintainers now, it is now RTM. I can't comment on

5   the readiness of subcontractors.

6   I believe OC Transpo, on the ground, as

7   to say the drivers, the instructors, the control

8   centre staff, the mobile supervisors, were at the

9   threshold of, using my analogy earlier, passing

10   their driving test. They passed a threshold of

11   which they were competent and safe to operate the

12   system.

13   Whether the assets were in the same

14   condition, I think, is a different question. And

15   in the early days, when you're keen to operate and

16   apply your knowledge, skills and experience that

17   you've learned, it's difficult to do that if the

18   railway is not reliable.

19   It's a very steep learning curve in

20   fault-finding and how to deal with system problems,

21   but actually you just want it to go smoothly. I

22   think that probably wasn't the case early on from

23   the evidence I saw, from the media and from the

24   internal communications.

25   CARLY PEDDLE: And so you said "the

1   assets". You were not sure whether the assets were

2   in the same condition?

3   Can you just further elaborate on that?

4   MICHAEL PALMER: Most assets have a

5   bathtub curve, where their reliability dips and it

6   certainly improves with time as the system matures

7   and people understand how to operate it and

8   maintain it.

9   I think the degree of failures early

10   on, not just the two derailments, but when overhead

11   wires came down, signals failing, switches failing,

12   switch heaters failing, you have across the piece

13   the level of failures at start of service was in my

14   opinion, too high for service to be successful.

15   There were just too many unreliable pieces of

16   equipment.

17   CARLY PEDDLE: And so the pieces of

18   equipment you've mentioned, those failures occurred

19   after opening public service, correct?

20   MICHAEL PALMER: Before and after. And

21   you had to expect the magnitude of the failures and

22   the number of the failures to reduce as the systems

23   improved and matured.

24   And I think that Confederation Station

25   Line 1 has been plagued. Many failures tend to go

1   in groups. You have a period of great running and

2   you think you've cracked it and you're really on

3   this reliability improvement and you have a really

4   bad day or really bad week. I think they still had

5   those three years in, almost three years in, which

6   is surprising.

7   CARLY PEDDLE: I'm just going to turn

8   to my co-counsel, Ms. McGrann; do you have any

9   questions for Mr. Palmer?

10   KATE McGRANN: Just a couple.

11   You mentioned that you had some

12   discussions with Mr. Holder about strategy.

13   Could you tell us a little bit about

14   what those discussions were focused on?

15   MICHAEL PALMER: I think the best

16   example was alarm management, where we knew that

17   the SCADA system was giving out 15,000 alarms a

18   day, and every work station got all 15,000.

19   If I may just use an example to

20   demonstrate alarm management. If you're in an

21   aircraft, the two pilots have a master control

22   alarm panel. And all the alarms on the aircraft go

23   into that one panel, whether it's an engine on

24   fire, or a toilet is blocked or someone has burned

25   the toast in the galley. And the alarms have to be

1   intuitive. They have to be -- often accompanied

2   with tones, so a particular tone may mean a fire.

3   The nomenclature of the description of the alarm,

4   the level of the alarm, whether it's an information

5   statement or whether it's an alarm -- whether it's

6   an alarm you need to do something about, or you

7   just acknowledge it, but something is up.

8   And I think the alarms were immature,

9   early on, which you would expect. But 15,000 a day

10   is a lot of alarms. And the alarm stack would

11   scroll through really fast; it was easy to miss

12   alarms.

13   And so the City were aware that the

14   alarms were an issue, and a obstruction to opening,

15   if you'd like. Or, you know, something was

16   potentially going to not be good in service. And

17   so I was asked to produce a short-term, long-term

18   alarm strategy for OC on how to manage the system

19   of alarms, and that was probably in your bundle of

20   documents, I would suspect.

21   And I had a short-term strategy of

22   additional floor workers, additional information,

23   shelving, what they call shelving so you can make

24   some alarms dormant and forget about them. And

25   long-term, for OC to write a strategy based on

1   EEMUA191, which is an alarm standard generally

2   adopted by everyone, as best practice for alarms.

3   And so Mr. Hulse wrote that standard on

4   behalf of OC, and it was published by OC as their

5   alarm standard. So any vendor, either in the

6   extension or new piece of equipment, would have to

7   follow that standard on alarm management.

8   And so it was strategies about how to

9   make it work in the short term and how to solve it

10 in the long-term with that long-term aim in mind.

11 I think that's probably my best example of helping

12 the City manage it in the short-term, in service.

13 And it was manageable, just annoying more than

14 anything else, for the sheer number of alarms.

15   And then you know what their long-term

16 fix was to do it. You could argue it's the

17 responsibility of the P3 to mature the alarms

18 because they didn't do it in the first place. And

19 actually, ultimately, as an operator, I don't care

20 whose contractual responsibility it is. It just

21 needs to be fixed so that the operator, maintainer

22 is given a good piece of equipment they can safely

23 operate and maintain.

24   And that would be my aim. Putting the

25 contract aside briefly, but being cognizant of

1   other contractual obligation. It just needs to be

2   fixed, otherwise you're being unfair to the

3   operators and maintainers.

4   KATE McGRANN: Quick follow up question

5   so I can understand.

6   Your short-term solution and the

7   long-term approach that Mr. Hulse wrote, were they

8   required because the standard you referred to was

9   not implemented in the creation of the alarm

10   system?

11   MICHAEL PALMER: Yes, ma'am. So when

12   we were shown the SCADA system, I asked the

13   question: Which standards have you used? Because

14   the description for each alarm just appeared a bit

15   erratic or inconsistent. And they said we haven't

16   used standards. We've used our skills, knowledge

17   and experience, and this is Willowglen. And that's

18   a legitimate statement if you then apply the

19   standard at the same time.

20   And because RTG stated that it wasn't

21   in the Project Agreement to use the standard for

22   alarms, they didn't use it. And it's a nonsense

23   viewpoint, because eventually, you've got to make

24   sense of the alarm management. And so using the

25   standard early on is not just good practice but it

1 saves you time and money because you get it right

2 first time and you can forget about it because it's

3 good and it's reliable.

4   KATE McGRANN: Were there any

5 suggestions or advice that you provided to

6 Mr. Holder or the City more generally that you

7 didn't see followed?

8   MICHAEL PALMER: I saw lots followed

9 up, including the alarm management strategy. So

10 the standard was written, it was sent and I believe

11 OC, now retrospectively applied that or were trying

12 to get RTG to improve the SCADA.

13   A lot of it I can't answer you. You

14 know, Mr. Holder was very competent in his job,

15 very good and I had a good rapport with him and he

16 listened.

17   How it was dealt with after it left him

18 further up I can't answer that. All I can say is

19 that it appeared that things I was asked an opinion

20 on and I gave a strategy, like the alarm thing, was

21 generally adopted by him. But I can't answer about

22 OC or at the top of the project.

23   KATE McGRANN: Nothing that you thought

24 or suggested should be implemented that you saw was

25 not implemented in the system?

1   MICHAEL PALMER: It's quite hard to

2   answer, because my activity was Stage 1 dropped off

3   and Stage 2 kicked in. And so I am involved with

4   Stage 2 and I think, generally, most problems have

5   gone away because with the Stage 2 P3 is more

6   professional. I'm not sure that's the right word.

7   Or they have a higher standard around the client

8   standards.

9   And with your client standards, if you

10   do it early on in the project, it doesn't cost you

11   anything; it's just applying best practice. But to

12   not do it, then you have to do it retrospectively

13   because in hindsight it's a bad design, it's

14   expensive. So it's a false economy when you don't

15   apply the standards.

16   KATE McGRANN: I think you mentioned

17   all the testing and commissioning was done on

18   single car units? Did I get that right?

19   MICHAEL PALMER: Until just before the

20   end, the strategy described to me by EllisDon,

21   which I partially agree with, is that they were

22   struggling to marry up headers (ph) together

23   reliably. And so when they did it early on, it was

24   breaking down the testing, because the two LRVs

25   were not talking to each other very well.

1   When we did the signage sighting we

2   needed a two-car train. We actually went out the

3   first week a two-car train was running around end

4   to end because the signage was for two-car trains.

5   The strategy was to fix the trains

6   individually, before they married them up. I think

7   perhaps the problem, it was likely the problem was

8   two unreliable LRVs being married up together made

9   it even more unreliable as a two-car. So the

10   strategy was to provide it crack it with one car

11   units but running of two-car units on the line came

12   quite late in the project.

13   KATE McGRANN: Did the approach taken

14   that you just described raise any concerns in your

15   mind about the reliability of the system as it was

16   heading into revenue service?

17   MICHAEL PALMER: I believe the amount

18   of time that the married pairs were running around

19   was probably insufficient reliability-wise. Part

20   of the struggle was to get enough married pairs

21   available and reliable for service.

22   And it's a weird thing. You can pair

23   two LRVs up together. They work perfectly fine in

24   harmony, and you marry one of them up with another

25   train, there's something about a cross-coupler face

1 where the trains have to communicate both sides,

2 there's a signal computer on both.

3   But the systems integration, you know,

4 the track to train CCTV, so the driver can look at

5 the cameras in front of him to close the doors.

6 That all came very late, and I think that's because

7 the vehicles were commissioned late and so

8 integration was both late and squeezed.

9   At the end of it, most trains in their

10 own right are reliable. But as soon as you

11 introduce signalling onto them, CCTV, the train

12 radio, you're introducing a period of instability

13 which you need to go through to come out the other

14 side of this fully integrated, all singing, all

15 dancing two-car LRV.

16   KATE McGRANN: It sounds like you do

17 need to treat each individual LRV as its own unique

18 entity, which may have its own issues to be

19 identified and addressed, particularly once you

20 have, as you've described, added elements into it;

21 is that fair?

22   MICHAEL PALMER: Yeah, they appear to

23 be working through the reliability of each LRV.

24 And getting that right before they operate and

25 marry pairs I think is probably the right approach.

1   Most subway trains now are permanently formed. You

2   put six cars together; you never break them up.

3   And with these, they're designed to be coupled and

4   uncoupled on a regular basis as you do maintenance

5   and fault-finding.

6   But it does introduce in two trains

7   coupled together, the failure across a coupler face

8   between the two trains wherever they are

9   communicating, you know, is a difficult

10   relationship to get right technically.

11   KATE McGRANN: With respect to the

12   tabletop exercises that were run at City Hall, were

13   RTG and RTM and Alstom involved in those exercises?

14   MICHAEL PALMER: RTG and RTM were

15   around the table at a senior level.

16   KATE McGRANN: By "around the table",

17   does it mean they were actually participating at

18   the exercises?

19   MICHAEL PALMER: Yes, it was a

20   three-sided table with a facilitator, and so

21   directors of RTG, RTC were there, Mr. Manconi was

22   there. Mr. Charter was there, and senior folk from

23   the rail construction project were there.

24   I think the ones of the City were more

25   of a governance simulation about how the groups

1   would interact during trial running and operations

2   at a senior level as opposed to the bones down at

3   -- you know, the ground level. There's more

4   strategic is probably a good description.

5   KATE McGRANN: With respect to the

6   trial running period, I want to make sure I

7   understand the role that you were playing. I

8   understand you were observing; is that fair?

9   MICHAEL PALMER: I was in the pool of

10 people to observe, but I was never asked to

11 participate. There are documents around trial

12 running that showed the pool of people that could

13 be chosen from, and I was in some of those groups,

14 but never asked to physically observe.

15   KATE McGRANN: So were you on deck and

16 you could have been called to be part of an

17 observation team, but you were not called?

18   MICHAEL PALMER: Yeah, I could be at my

19 desk in Ottawa, or I could be at my desk at home,

20 or working on another project. I wasn't on this

21 100 percent of the time.

22   So my participation went up and down,

23 but towards the end, it became busier as issues

24 emerged. But once I got into trial operations, I

25 wasn't really -- well, I wasn't involved in the

1 actual activity.

2   KATE McGRANN: With respect to the lack

3 of the fully automated maintenance and service

4 facility, in your view, would that have

5 implications for the reliability of service once

6 the system was launched into the public?

7   MICHAEL PALMER: It would have had a

8 minor impact. 15 trains for service, so around

9 4:20, four trains were put out to what we call

10 "sweep the lines". So four trains come out from

11 the yard and two go towards Blair and two go

12 towards Tunney's Pasture.

13   Because of the signalling system not

14 being track-circuited, because the track and

15 guider, it would clear of people and all

16 obstructions before the first passenger trains at

17 5 o'clock.

18   Once they got to the end, another three

19 trains came onto the line to position for a

20 5:00 a.m. shotgun style. So down on 5 o'clock,

21 seven trains would open their doors and depart from

22 termini and mid line. And then another eight would

23 join between 5:00 a.m. and 6:30, right before the

24 morning peak, which was 15 trains in service

25 operating at 3-minute 22 headway.

1   And so the number of trains that had to

2   come in were such that that level was manageable.

3   It was slower, and RTM had to throw people at it to

4   manually drive the train to the nearest loading

5   location to the handover platform.

6   And once they left the handover

7   platform they had to go in a restricted mode

8   because the yard controller was not commissioned,

9   and I don't believe is commissioned now. So the

10   process took longer, but it was manageable because

11   of the number of trains involved.

12   KATE McGRANN: With respect to the

13   decision to run 13 trains during the peak period as

14   opposed to 15, I think you mentioned that decision

15   came late in the day; is that fair?

16   MICHAEL PALMER: My understanding is

17   that OC railroad construction project held out for

18   15 in service, 30 cars available as of 34. And at

19   some point, which I can't recall, that was lowered

20   to 13 in service, from 15.

21   I think the decision was correct to go

22   with less, because you were doing something and you

23   could build up your reliability and your service

24   from a lower base, trying to run 100 percent on day

25   one.

1   KATE McGRANN: Did you have a view as

2   to the appropriateness of the timing of that

3   decision?

4   MICHAEL PALMER: I'm not sure my view

5   would have been relevant at the time or wasn't

6   asked.

7   KATE McGRANN: Let me ask you this.

8   Based on your experience, could things have been

9   done differently in a way that was beneficial to

10 the system if that decision had been made earlier

11 than it was?

12   ALLISON RUSSELL: Excuse me, Counsel, I

13 feel a hypothetical question is being put to

14 Mr. Palmer.

15   KATE McGRANN: Let me rephrase it

16 differently.

17   When the decision was made to only run

18 13 trains, did you have any regrets about what you

19 could have done if you had known about that?

20   MICHAEL PALMER: I can't answer that,

21 not whether or not my Counsel tells me not to,

22 because I wasn't part of that decision-making

23 process.

24   If a line was to open with fewer trains

25 more reliably and allow staff to get used to that

1   level of service and the demand was not there for

2   15 trains, you could have done it differently.

3   But the reduction from 15 to 13 was

4   really quite close to the end, and it felt more

5   reactionary to a lack of LRVs than anything else.

6   Had these been available and reliable, then I don't

7   think the City would have reduced the numbers.

8   There are different ways of doing it to

9   that. I'll go back to my previous answer, running

10   at 100 percent from day one on any of the systems

11   is a stretch by anyone's ability.

12   KATE McGRANN: The Commission has been

13   asked to investigate the commercial and technical

14   circumstances that led to the breakdowns and

15   derailments on Stage 1.

16   Are there any areas or topics that from

17   your experience on the train you would suggest the

18   Commission look into in its work that we haven't

19   discussed today?

20   MICHAEL PALMER: Am I allowed to answer

21   that, Counsel?

22   ALLISON RUSSELL: So Counsel, what

23   you're looking for is if there's any areas that

24   Mr. Palmer thinks the Commission should be looking

25   to in addition to the areas that you've canvassed

 1   this morning?

 2   KATE McGRANN: That's correct.

 3   ALLISON RUSSELL: So you're looking for

 4   his opinion in that regard?

 5   KATE McGRANN: I'm looking for his

 6   reaction to that question based on the work that he

 7   did directly and the information that he became

 8   aware of through the course of that work.

 9   MICHAEL PALMER: I'm surprised they had

10   two derailments in close succession. I'm surprised

11   the same unit was involved both times.

12   I'm surprised of the amount of time it

13   took to identify a train is being derailed.

14   If you take the first derailment, a

15   wheel fell off at Cyrville, or they found it at

16   Cyrville. When the train is jacked at Tunney's

17   Pastures to re-rail it, they found a wheel missing.

18   I find it concerning that the train

19   traveled from one end of the line to the other with

20   the wheel off, and you can imagine the potential

21   implications to that.

22   With the second derailment, I'm

23   surprised it came off, such at the stage not long

24   after people have departed, and crossed the highway

25   and only derailed at a placing switch where the

1   derailed wheels just sent all the train and it

2   derailed.

3   So I'm surprised at that. Could

4   anything from the construction have prevented that?

5   I have no idea.

6   Any accident, if you look at safety

7   management and so on, there's a Swiss cheese model

8   which says, all the holes in your Swiss cheese have

9   to line up for an accident to happen.

10   If any of the components hadn't lined

11   up, then it would have been prevented by human

12   intervention or alarm management, or an alarm on

13   the train or track that was 100 percent. And so I

14   wasn't involved in either investigation, so I can't

15   say anything about those.

16   But I would say, if you were to ask the

17   industry, including me, I am surprised at those two

18   incidents. I wasn't involved in any of the

19   investigation or the return to service.

20   KATE McGRANN: The Commission has also

21   been asked to make recommendations to try to

22   prevent the kinds of issues seen on Stage 1 from

23   happening again in the future.

24   Do you have any specific

25   recommendations or areas for recommendation that

 1 you would suggest the Commission consider in that

 2 work?

 3   MICHAEL PALMER: Well, I have lots, but

 4 I don't know that they're relevant.

 5   I'm not sure if this is allowed, but

 6 it's a document that is not related to Ottawa at

 7 all. If I may speak out freely, Allison, my

 8 counsel, as to whether it's --

 9   ALLISON RUSSELL: Maybe what we can do,

10 Counsel, because this is a document that I haven't

11 spoken to Mr. Palmer about. I'm not sure what he's

12 about to take us to. I'm okay to go off the record

13 and see if this is something appropriate to raise

14 on the record. But I'm not comfortable raising it

15 on the record at this point in time.

16   KATE McGRANN: That's understandable.

17 If you want to take that away and come back to us

18 in an e-mail after the --

19   MICHAEL PALMER: It gives a description

20 of the presentation. It might give you the answer

21 you're after.

22   ALLISON RUSSELL: Let's wait,

23 Mr. Palmer, and see what we can -- we can take this

24 off line. I understand, Ms. McGrann, you're

25 suggesting Mr. Palmer and I discuss this after the

1   examination and get back to you on this point?

2   KATE McGRANN: It would be my strong

3   preference to complete the conversation today

4   because if we have follow up questions I would

5   prefer to not have to ask Mr. Palmer to come back.

6   I do believe that there are breakout

7   rooms that can be used for a discussion of this

8   nature and I wonder if our colleagues at Neesons

9   can assist?

10   MICHAEL PALMER: If I may, the title of

11 the presentation, that might help.

12   ALLISON RUSSELL: Why don't we just

13 wait until we're in the breakout room, Mr. Palmer.

14   We'll get those instructions from the

15 court reporter. Typically we get a popup box

16 inviting us to click to go into a breakout room.

17   -- OFF THE RECORD DISCUSSION --

18   -- RECESS TAKEN AT 11:56 --

19   -- UPON RESUMING AT 12:09 --

20   KATE McGRANN: Let's go back on the

21 record.

22   ALLISON RUSSELL: Counsel, what I'm

23 prepared to share with you is that off the record,

24 Mr. Palmer shared with me what I'll loosely called

25 a presentation he prepared outside of the context

1   of the OLRT Stage 1 project and before his

2   involvement with the OLRT project.

3   But where he had developed ten -- I'll

4   call them ten points for consideration when

5   involved with communication-based train control

6   projects similar to this type of project.

7   I'm not sure that I'm prepared to agree

8   to allow him to share the presentation with you

9   because he's not here as an expert witness. But

10   I'm prepared to allow him to share with you what

11   those ten points are, as long as you understand it

12   was something he prepared generally speaking and

13   not specific to the OLRT Stage 1.

14   KATE McGRANN: I understand. I take it

15   that the points you think would be relevant to this

16   project and to projects like it into the future?

17   MICHAEL PALMER: Yes, ma'am.

18   KATE McGRANN: And I wonder,

19   Ms. Russell, given the time constraints, whether

20   you'd be comfortable providing those points in

21   writing?

22   ALLISON RUSSELL: Yes, I think that

23   would be okay if we provided those ten points in

24   writing.

25   KATE McGRANN: If we have any follow up

1   questions we can schedule a very quick session but

2   in order to get Mr. Palmer on his way today, if

3   that's okay with everybody then that's what we'll

4   do.

5   MICHAEL PALMER: So, the reason I

6   thought of this when you asked a question, you

7   know, the presentation I've prepared which is for

8   Brownfield signalling [sic].

9   When you asked me the question, it just

10 seemed absolutely a perfect response and I could

11 have read out the ten.

12   But there's one slide which lists "Ten

13 Golden Rules For Brownfield CBTC". If you replace

14 "Brownfield CBTC" with "LRT extensions", I think

15 that answers your question.

16   So counting down from 10 to 1 of the

17 trichotomy of projects: Time, cost and quality.

18 Having an operational concept; good human factors;

19 operational engineering integration. Number six is

20 irrelevant. Secondary detection versus backup.

21   Number five, winning hearts and minds;

22 early users and maintainers; being intelligent

23 operator owner. Number three: Is practice,

24 practice, practice, practice, practice. Number two

25 is migration strategy, how you move from the old to

1   the new.

2   And number one is: It's all about the

3   people, and really winning those hearts and minds.

4   Nine of those ten are highly applicable to Stage 2,

5   which is why your question prompted me to think of

6   this.

7   KATE McGRANN: Can you unpack the

8   winning hearts and minds for us a little bit?

9   MICHAEL PALMER: Number five,

10   approaching an operator as a one-stop shop;

11   appointing maintainer a one-stop shop.

12   Write the ConOps syndicate -- validated

13   with endusers. Develop an early vanguard team for

14   testing and commissioning, training, development,

15   delivery.

16   Work alongside the contractor and

17   co-locate as one team.

18   Use the team again, and it should

19   compose of the best business reps, and not

20   "children". Putting children sent on special

21   projects -- where "special" is in inverted

22   commas -- you know, you want your best people

23   upfront to crack it. But people often loath to

24   release them, because they're their best people.

25   KATE McGRANN: Understood. That was

1 very helpful. Thank you for sharing that, and I

2 think both for timing reasons and because our

3 questions are done for the day, subject to any

4 follow-up questions your counsel had, we can call

5 it a day today.

6   ALLISON RUSSELL: I don't have any

7 follow-up questions this afternoon, so thank you.

8   -- OFF THE RECORD DISCUSSION --

9

10 -- Concluded at 12:13 p.m.

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1   REPORTER'S CERTIFICATE
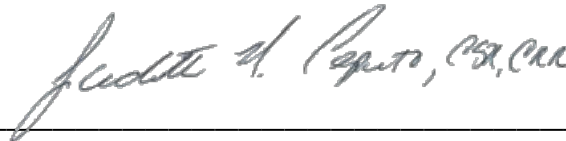
2

3   I, JUDITH M. CAPUTO, RPR, CSR, CRR,

4   Certified Shorthand Reporter, certify;

5   That the foregoing proceedings were

6   taken before me at the time and place therein set

7   forth; at which time the interviewee was put under

8   oath by me;

9   That the statements of the presenters

10   and all comments made at the time of the meeting

11   were recorded stenographically by me;

12   That the foregoing is a Certified

13   Transcript of my shorthand notes so taken.

14

15   Dated this 5th day of May, 2022.

16

17   _____

18   NEESONS, A VERITEXT COMPANY

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

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