Ottawa Light Rail Commission

Remo Bucci
on Tuesday, May 17, 2022

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OTTAWA LIGHT RAIL COMMISSION

DELOITTE - REMO BUCCI

May 17, 2022

--- Held via Zoom Videoconferencing, with all participants attending remotely, on the 17th day of May, 2022, 9:00 a.m. to 12:05 p.m.

COMMISSION COUNSEL:

Kate McGrann, Co-Lead Counsel Member
Liz McLellan, Commission Counsel Member

PARTICIPANTS:

Remo Bucci - Deloitte
Jamie Yoon, Esq. & Malina Simmalavong, Deloitte

ALSO PRESENT:

Carissa Stabbler, Stenographer/Transcriptionist
Chandani Joshi, Virtual Technician

I N D E X

WITNESS: REMO BUCCI

INDEX OF EXHIBITS

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

REMO BUCCI: AFFIRMED.

KATE MCGRANN: Good morning, Mr. Bucci. My name is Kate McGrann. I'm one of the co-lead counsel for the Ottawa Light Rail Transit public inquiry. I'm joined this morning by my colleague Liz McLellan, who's a member of the Commission Counsel team.

The purpose of today's interview is to obtain your evidence under oath or solemn declaration for use at the Commission's public hearings.

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

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

The transcript will be posted to the Commission's public website, along with any corrections made to it after it is entered into evidence. The transcript, along with any corrections later made to it, will be shared with the Commission's participants and their counsel on a confidential basis before being entered into evidence.

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

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

As required by Section 33(7) of that

act, you're hereby advised that you have the right to object to answer any question under Section 5 of the Canada Evidence Act.

We will take a break at around 10:30, but if at any point in this interview you need to take a break, just say so and we will pause.

To begin, would you just provide us with a brief description of your professional background as it relates to the work that you did on Stage 1 of Ottawa's light rail transit system?

REMO BUCCI: My academic credentials, I'm a civil engineer. I graduated in 1989. I've been at Deloitte since 2000 working in infrastructure advisory services providing similar services that we -- mostly what I work in is providing services to government and large infrastructure projects.

Prior to that and previous to Deloitte, I worked at the Ministry of Transportation for four years. I was part of the group at the Ministry of Transportation that worked on the privatization of the 407 in 1999, so that was my -- and we were also doing things like alternative service delivery design-build pilots, et cetera as the ministry was moving to, you know, do less in-house and more outside -- using outside advisors.

So while at Deloitte, my primary client base is transportation, building on that background, but I also -- my other service line of work is not relevant to this project is power and utility projects, but mostly transportation, highways.

And since 2008ish, which is when we started working on the UP Express, the Air-Rail Link for Infrastructure Ontario, it's probably been 70 percent transportation -- transit, and some years 2014, '15, '16 probably to '18 nothing but transit.

Clients include the City of Ottawa, Region of Waterloo on their Ion light rail, City of Mississauga on the Hurontario light rail system, Infrastructure Ontario for Finch light rail and Eglinton.

Metrolinx we're doing a number of projects, advising on a number of projects in the subway program and GO expansion, principally the encore expansion which just got closed recently.

City of Edmonton on the Valley Line light rail project, and I might be missing one or two. Those are the key ones.

KATE MCGRANN: When did you first become involved in the Ottawa LRT project?

REMO BUCCI: The City issued an RFP for advisory services, financial and transaction advisory services. I can't think of the exact time, but that was the scope of services they were looking for.

At the end of 2009, right around the time they had gone to council for approval of the road and the environmental assessment, we were successful. I don't remember if we did the interview in late 2009 or 2010. We started working on the project in the spring -- early winter of 2010.

And that mandate completed -- commenced with financial close which was January, February 2013. It -- then we had a bit of a hiatus, and the City brought us back just to do a lessons learned piece. 2014 I think it was. That took about a year to get done.

And then we were engaged again through an RFP process for advisory work on the Stage 2 or their Stage 1 or 2 program work. It broadened out and continued to provide service to the City with respect to that.

So other than, let's say, two years -- one or two years from 2013 onwards, it pretty much continuously engaged by the City on either Stage 1 or Stage 2.

KATE MCGRANN: Just with respect to timing, you said that you became involved in the early winter of 2010. Would that be, like, January, February 2010?

REMO BUCCI: Yeah, that's -- we did a lot of work in the spring of that year on the -- on the -- on the early-stage work of the procurement options analysis report. That was primarily what we were doing at that time and some of the early modelling as well.

KATE MCGRANN: In terms of the work that you specifically were doing, what was your -- we'll talk about your roles and responsibilities first with respect to the first tranche of work that you were discussing, working up until financial close of the project agreement for Stage 1.

REMO BUCCI: I was responsible for all the work that Deloitte was doing, so I was the lead, the project lead. You know, bear in mind that behind the scenes, you know, we have a governance structure that oversees projects, and we have quality assurance who review processes, et cetera.

But I made the proposal, the pitch to the City during the interview. I was put forward in our interview as the lead, and I was always the lead throughout the project in the sense of I was responsible for helping the City, you know, identify what scopes of services we needed to do to staffing it up on our side, to putting the deliverables together, to make sure the deliverables met their needs.

And I was present at all of the key meetings that -- you know, that Deloitte was requested to attend. I was -- I was the throat to choke. I don't know if that's a good saying, but that was me.

KATE MCGRANN: It is a saying that I have heard before.

REMO BUCCI: Right. No, you have to be careful using these old sayings. But, yeah, I was responsible for the project from that respect, from the delivery with the client.

KATE MCGRANN: Okay. And in terms of the City, who are you interacting with primarily at the City through this work?

REMO BUCCI: At that time would be -- so on a project administration management, you know, making sure we got task orders and our monthly reporting on what we're doing, et cetera, that would have been Dan Farrell.

And then with respect to key deliverables, particularly, let's say, if we were going to Executive Steering Committee, et cetera, that would have been John Jensen. So between John and Dan, they were our -- they were my primary contact points.

KATE MCGRANN: Okay. And in terms of who you would go to if Deloitte needed to seek instructions or directions on the work that it was doing or the next steps, who would you be interacting --

REMO BUCCI: Mostly Dan. Mostly Dan from that perspective. If it was strategic, it was John, but mostly Dan.

KATE MCGRANN: And who were you reporting to at the City, updates on work?

REMO BUCCI: Dan -- we sent our invoices to Dan, and he approved them, if you think of it that way, right. And then if we had a major deliverable, let's say, go to the City manager, John would take a look.

Dan would still manage it for us and say, I think we need this and this and this, and then we got to that, you know, penultimate draft 90 percent, if John had some concerns, he would call me directly, and we'd go from there.

KATE MCGRANN: Could you give me a sense of what the major deliverables were like during that first phase of the project?

REMO BUCCI: The first -- so let's set the stage of 2010. I think it's important to do that, right. So the City had, in the early 2000s, done a procurement. They called it the north-south, which is basically the Trillium Line now.

And it had been awarded -- it was somewhat controversial within the city. They cancelled it. I shouldn't say they cancelled it. That's not the right word. It was awarded to Siemens and PCL. There was a change in government and change in mayor, and the City bought that project out. They say, that's the wrong one. We should be going east to west. We shouldn't be going down to the airport.

So the City team had worked on that, had worked on that procurement, John, Dan, and others, and it was a design, build, operate, maintain, so this would have predate -- I don't know if it predated Infrastructure Ontario, but certainly the early days.

And then in 2010, the Canada Line had just come onboard in Vancouver. Very successful execution of that project. Design, build, finance, operate, maintain.

It was fairly analogous. I mean, it didn't go to the airport, but it was a fully-automated train control system with a tunnel and guideways.

So the City was interested in what the mode of delivery needed to be, number one, and if we think about that, it's like what's the mix, design, build, operate, maintain. What's the City's internal capability? How do you bring all the pieces of light rail together recognizing that it was going to be, like, a fully computer-based train control system, so it's going to be complex from that end.

You know, having -- you know, those are different suppliers, and the vehicle -- well, not always, but you've got train control system suppliers, you've got vehicle suppliers, you've got civil works you got to do, you've got a significant tunnel. So you have all this coordination of large -- of large complex pieces. How are you going to bring that together?

The other thing the City was really fixate on was making sure that the right design -- the design solution that was selected took the long-term into mind. Like, what's your preventative maintenance program? How are you going to deal with, you know, your prescheduled periodic large life cycle payments, refurbishment to make sure it lasts 30 years, and then how do you tie that together contractually?

So that was the first thing. And if you look at our procurement report, you'll see this wide range. I don't know, we did 10 or 12. I didn't count that up but, you know, there's -- and they just -- what they wanted -- what John wanted to do is say, Don't discount everything. Start -- let's put everything on the table, because they anticipated having just gone to council for -- here's the route, here's sort of the broad scope of the undertaking to come back and say, well, here's how we're going to deliver it, realizing they had just gone through this previous exercise on this other project.

So making sure that if anyone asked a question to say, well, why wouldn't ridership be part of what -- you know, why don't we have our ridership sharing regime here or what do we do about operations?

What's the right mode of -- what is operations by the way? Is that driving the train? Is that dispatching? Is that train control? And then also what about the financial construct, and this is where the funding comes in.

What would be the view of Canada and Ontario? We're going to, you know, provide -- well, not quite a third but at least 600 million each to the project costs.

And so two audiences in mind. If you think of -- we always ask, well, who is the audience of this report? The audience was going to be the public to demonstrate the thought process and the methodology that the City used to take this long list and come to a conclusion of delivery.

And secondly, in the event and the anticipation on our advice was when you get into due diligence with the funding partners -- and that was thought to be later, because in 2010, you've got an election coming in -- a municipal election in the fall.

So, you know, we always try and lay backwards and we say, okay, when are you going to get a major decision done? We'll talk about that maybe in a moment because that affected the schedule.

But generally our program was do the front-end work, heavy lifting on options, develop a multivariant analysis to be able to screen them out, document the thought process and the methodology used with the City team, make sure you have the right people at the table.

We did a number of workshops, and, you know, as advisors our job is to make sure that -- you know, we don't make decisions, right, but our job is to build a framework so that our client -- we believe our client, when they get to the end of that journey, has made an informed decision.

And then -- so there was a lot of that, I would call it, sort of consultation, framework, workshops and then building up the financial model in anticipation -- and the financial model for the delivery of the product.

So if you take design, build, operate, maintain, how does it get financed either publicly or privately and how does that affect, you know, the initial budget that had been published in 2009 and what are the challenges potentially that the City would encounter with respect to that regarding its internal funding program which notionally we refer to it as the affordability. It's not an affordability issue; it's how much budget -- what's the budget you've allocated.

And then looking ahead to say, okay, once we've got that all lined up, what's the plan to engage Ontario and Canada for a funding agreement. How does that tie up with the procurement, the commencement of the procurement? Do you need to have a fully executed funding agreement? Like, what does that look like?

What is -- what does the procurement look like? When do the bids come in? What's the commitment, and when do you pull everything together to close the project?

So that was sort of the early days, but the main -- the main deliverables, if you're thinking about the scope -- like, the product we delivered would have been the procurement, the drafts of the procurement options report.

It was not released until the following year mostly to build through that new council and mayor that had come in and the financial modelling that we had done, which then morphed into value-for-money assessments once we got engaged more fully with Canada and Ontario.

So there was a lot there. I should have slowed down. I notice you were writing. Do you want to go back through that?

KATE MCGRANN: I do have a couple of questions about that. In terms of where the City's priorities were and how the affected the multivariant analysis that you went through with them, what was your understanding of what the City's key priorities were? And then maybe we can talk after that about how they affected the selection of the model.

REMO BUCCI: Yeah, they were really concerned about what John called the rail -- I'll always trip over this. Rail-wheel interface meaning that the decisions you make on design and construction need to take into account how you're going to maintain the track and the ballast and how the train is going to run on that track and ballast and the train is going to be dispatched and communicated to get to the stations on time.

And any time that we were making -- and any time there was an option, let's say, that you're looking at, you were potentially breaking that.

Let's say -- this didn't happen, but I'll give you an example. Well, we'll have someone do the design-build and the operations and maintain, but the City is going to choose the train control system. And this is an anecdotal example. It didn't happen.

Probably what the City would have said, Well, hold on a sec. So this train control system is going to tell the trains where to go. Will that interfere with the rail-wheel interface. We would have said, yeah, of course it would have.

Okay, then why is that -- why should that sit on this side of the responsibility -- let's say that's the City's side versus on the notional, you know, projectco, or do you split the contracts up into a couple different combinations, right.

So this was, I would say, the primary

focus to make sure that -- because it's a complex undertaking with all of those, you know, and it's not -- it is moving parts that if you're associated with, recognizing that the bulk of the costs is still the civil works because you got to dig a lot of soil and tunnel and pour concrete, but what the customer is going to feel is that rail-wheel interface in terms of the quality of service that's delivered.

So that, I would say, was at the top, and then close to that was the City -- because the funding model had a fixed bucket of -- had a fixed envelope of funding, the known amounts coming in from Canada and Ontario, 600 million each, were set, but recognizing this is early days.

When you're going to council in 2009, environmental assessment report, you're probably talking about a design that's, at best, 5 percent. Someone may tell you 10.

But it's, like, really high level. You know, how much property do we need? What's the alignment? So your costs are set. You're not getting anymore, and every dollar over and above that, because of the issue that as you get into the reference concept design you're doing, 20, 30 percent comes up, or you're looking at a financial construct that's different or that hadn't been -- it's not taken into account that funding, because that funding doesn't -- the financing is all on the City's dime, right. That's not on -- the federal and provincial government only fund basically works in the ground.

So I think the other element would have been, well, what's the impact to the City's fiscal -- the budget envelope.

So -- and I should say as part of that stream, finance was then -- City finance was engaged over that period of time I was talking about earlier, whereas we were doing -- let's say the options report, we were dealing with John primarily and Dan.

We were building up the financial model for the project. At the same time, the City was building a broader program model, which they called a Transportation Affordability Master Plan Model for not just Stage 1. Stage 1, Stage 2, Stage 3 and their broader transit portfolio.

And PwC, PricewaterhouseCoopers, had been engaged to put that together, so they were working directly with finance. And our job was to provide, if you will, the stream of payments that are associated with the Stage 1 Confederation Line project.

Then the City finance and PwC would pull that into the affordability model, and that would -- that's basically how the City identified the budget envelope. So they'd look at the 600 plus 600 coming from Canada on the capital side, how the City -- you know, if there was any private financing, how did that affect the timing of the payments and the costs, the City's share of that capital amount through debentures.

And then you got ridership assumptions. You've got development charges. Then mostly importantly, the allocation that the City had made from the property tax base that had been allocated to the project.

You add that all up, and it's not just one number, because you got to do it by year, then that's how the project fit, and that's how, for example, the City treasurer would be able to go to council and say, yes, the project is affordable and here are the sources and uses of funds.

So I should have -- I just back up to say that, you know, the financial element was important from that end, and we were working with City finance, but the City finance had set up their own process to do that.

I wouldn't say they were independent because it was all integrated, but like I said, Pricewaterhouse was doing the broader program model, and our job was to provide the stream. So we worked quite closely with them as well.

KATE MCGRANN: In terms of just understanding how the budget or the affordability cap -- and you can let me know which term is appropriate.

REMO BUCCI: They're interchangeable, and I can provide maybe -- sorry, I cut you off there, but we can talk later about how the affordability cap was defined because there's different ways you can do it for sure.

KATE MCGRANN: I'm just -- my understanding is that at the environment assessment stage, there's an early budget set of, I want to say, $1.8 billion. Does that sound familiar to you?

REMO BUCCI: Correct.

KATE MCGRANN: And then after the reference concept design is done and there's some value engineering that's done in there I think, the budget is brought to just over to $2.1 billion. Does that sound right to you?

REMO BUCCI: Yeah, and -- and that's right. And, you know, there's also -- I think the 2.1 might not have had the City's program management costs of about 300 million, or was that imbedded in there because I think it's 2.1 plus about another 300 million being the property takings, the advisory costs, you know, like, legal, the owners engineer, Infrastructure Ontario, Deloittes, all the folks that they had to pay, BLG, et cetera, et cetera, the office costs, staffing costs related to that.

There was an another 300 million that was, you know, behind -- I'll call it behind the scenes, not as part of a contract. The contract -- yeah, I think you're right. I think it was 1.8 plus 300. I should -- I should have looked that up. My apologies. I think you're right.

KATE MCGRANN: And then I think there's a $100 million contingency that also --

REMO BUCCI: Correct. Correct. Correct. That's right.

KATE MCGRANN: So this may be an overly

simplistic question, but in terms of the -- the budget that's set for the project, the 2.1 billion plus the other costs versus the affordability model, is it -- did one come first?

So, you know, we start with 1.8. Is it that -- like, the preliminary engineering work gets to the 2.1 model, and then that's fed into the City's overall transportation model, and the answer comes back, yes, that's workable, or was it more of a back-and-forth kind of process?

REMO BUCCI: I think it's back and forth, and it needs to be iterative, if I'll use that term, because there are different components for sure.

You've got the hard, you know, design, build, operate, maintain elements, and even with operations in or out, it's still a cost the City has to bear, right.

So, you know, there's an example where we might have had a mode where it's finance -- design, build, finance, operate, maintain. Here's the stream of payments that the project company is going to be undertaking. All right. The affordability model needs to say, okay, so the drivers are over there. They're not over here.

Good. Adjustment, affordability.

Now if you give them an option, say, design, build, finance, maintain, and the City's got the operators, they need to make sure that on the OC Transpo side, they're covering those costs, right.

So that's -- that's your iterations. You need to make sure that -- because you don't want double counting, number one, nor do you want to miss something, which is just as important, right. You've got inflation indexations. Always a challenge on these projects, right.

And then the third element is notwithstanding the accuracy of the cost estimates, these are extremely difficult to put together, and it's not about the labour, the materials, the goods. That -- the cost consultants, the quantity surveyors do a pretty good job of it. It's the commercial construct.

What's the cost to engage someone in a design-build contract that they're taking certain risk, or now you add maintenance, and you have a different pay regime.

So that's, you know, the -- if you put that in a bucket of the contingencies, it's very much a moving target and as much of an art as it is a science. Frankly, all you can do is rely -- have projects -- you can go to existing projects that are on the market. That's all we could do. It's not a matter of guessing.

You can just say, well, here's a really -- here's an analogous project. We think, you know, the risk allocation, the commercial construct was X. We're going to apply that here, and we think it's analogous.

So there's that. The second -- and this is more unique to municipal projects I think, you know, having, you know, worked -- and by the way, we work for the Federal government too, like, projects like Gordie Howe Bridge, et cetera, and municipalities across Canada.

And they're all the same, right, in the sense of the challenges. You go to council, say, in 2009, we had the same experience in other projects, and you tell them, okay, this is an environmental assessment. We have a lot of work to do, but just so you know, it's like buying the house, I think I want to spend this, but I'm just going to start looking in neighbourhoods. We think it's $1.8 billion in today's dollars. I haven't taken inflation into account. I haven't -- I'm just telling you what the general scope of the project is, and you put those caveats down.

The moment that number gets out, it never gets taken away, right. That's the number. That's the project number, right. And frankly, I mean, we try to do this on every municipal project, never have any luck, right, because that's just the way it is.

If you go in with, well, you know what, we think there's this risk of delivery and this risk of delivery, and we need to take this into -- we want to be safe. It's not 1.8. It's 2.8 billion.

Well, you don't want to do that either because someone is going to say, well, isn't a little bit too early to look at those contingencies? So just tell me what your best estimate for the cost of the project is right now and come and report back.

Once you do your additional analysis, et cetera and tell us how's it changed and then what's the budget now to deliver it for me to give you the appropriation, right, and that would have been the report that went in the summer of 2010.

So that -- I just want to say that dynamic that I'm talking about there, that's not unique to the City of Ottawa. That's any municipality. That's different than the province and the federal government who would go through the same steps, but behind the scenes, you're dealing with the Treasury Board. You're not dealing with the fishbowl of municipal council, right.

And that -- the dynamic of how you can rationalize where are we at a point in time and how is the project changing to the market conditions, you have a little bit more -- the ability to, okay, I understand. All right. Let's build appropriate contingencies, et cetera so that we've got the right -- the right governance on the project and the right budget.

Now move forward and -- like, for example, that's the way Infrastructure Ontario works. They get authority and they move ahead and as long as we're in the budget, but all that heavy lifting is done without the challenge of having to do it in a public format.

I don't mean that critically. I'm just saying that's a challenge because the moment you put those numbers out, and they're complex and they change, and then, well, why did it change, you know, and then you have to explain, well, this is this, and you get into math, and it's hard.

KATE MCGRANN: Well, particularly with the fact that the early number doesn't include inflation --

REMO BUCCI: Correct. Correct, or financing, right, because that's just the undertaking, right. That's the point of that exercise.

KATE MCGRANN: And that is -- the provincial and federal funding is set based on the EA budget for --

REMO BUCCI: Correct. And we -- sorry. That was one of the things we pointed out in our lessons learned report. I'm not sure much of it was applied on Stage 2, but I won't go there. It's just the way it is.

You get engaged with the federal and provincial government on direct funding agreements. Like, it's different, for example, when you have programatic LRT funding like in the Greater Toronto Area. Like the projects like Finch or Hurontario or Eglinton, they are similar to Ottawa, but they are funded 100 percent by the province.

There's no direct agreements with Canada and Ontario. They're behind the scenes because they're programatic, so you don't have to sign a funding agreement like you do in Ottawa.

And the moment you do that and it gets crystallized and frankly, even the federal and provincial government will say, well, give us an indicative cost schedule. We just want to understand where the project is at, you know, by quarter.

We're always like, okay, the moment we give that, we're -- that's the setting. Like, two years from now, you'll be dealing with someone different from the policy perspective, and they'll say, well, why is this changed? Actually we brought this forward, and that's the number now. Sorry, you can't change it.

KATE MCGRANN: So that was my question on that just while we're talking about it is, you know, to the extent that you can explain it or your understanding of it, why is the other two levels of government funding set at the EA stage?

REMO BUCCI: I -- it's a policy issue. And recognize, Ontario doesn't do -- I'm sure Ontario had a funding agreement for that project.

Canada did more of it.

It -- that's -- this project predated P3 Canada and now Canadian infrastructure, but P3 Canada had a very different kind of funding regime, and they funded 25 percent of all of capital.

So I think -- I think the policy side is that -- like, we just deal with the reality. We come in, and we have -- we have a good understanding of where the federal government is at because of the services we provide there and our contacts in Ontario, and we come to the City of Ottawa and we say, you know what, we think this is the reality. This is what you're dealing with. We could try and change it, but it's not a decision of -- it's not a decision of the policy makers. It's probably above that.

So now, the question is in 2009-2010, you've got a mayor I don't think is running again, so who is your project champion? This is very important in any large infrastructure project.

And when we say "project champion," there's two levels. There's the person on the staff side and how senior are they to kind of, you know, get everybody organized and drag the project through, and then politically where, okay, I'm going to get on the phone and -- and Ottawa tried this in a couple of different ways.

For example, the issues it came up with, the Ontario funding and how costs were accounted for from an accounting perspective, et cetera and would say, okay, well, we have an issue here. Can you guys help us out?

And it's very, very difficult to get those types of arrangements changed because typically there's a policy, a regulation, or a legislation behind the scenes, and either at the federal, provincial level, somebody there that has to take it up and say, all right, now, we have to change this policy because it applies to this, you know, direct funding agreement as compared to programatic funding where you don't have a direct agreement. You have a lot more flexibility because the money flows from treasury to MTO, to Metrolinx or Infrastructure Ontario. You know, it's different from that. And I'm using Ontario there because it was in Ontario.

Federally it's not much different. Again, you know, I have experience for example on Gordie Howe Bridge. We can tell you -- I can tell you it's roughly the same way.

So that's the issue. So the moment you get into a direct funding agreement on -- and this would have been Ministry of Transportation on Ontario's side. They would've said, okay, now it has to fit within all the rules that describe these payments, including how we account for it.

And Canada was a little bit more advanced because they have more funding agreements, but they didn't take the -- none of them take P3s into account. This -- I shouldn't use the word P3. Anything that has private financing and bundling operations and/or maintenance with, let's call it, deferred payments that are on performance. Now you get into situations where neither of these funding agreements took that into account.

And I would just say, like, if you're the federal government -- like, Edmonton Valley Line, for example, was -- P3 Canada was the funding partner for the federal government. That was 25 percent of all design and build costs including financing.

If you look at the funding agreement with the City, it was 33 percent of just the eligible construction costs without financing. So you think, well, that's a better deal than Ottawa got. I would say, no, they got less than probably what Edmonton got because the denominator was bigger when you're taking 25 percent of all financing costs.

So it's just the nature, I think, where Canada was at that point in time, both Ontario and Canada, their knowledge of project delivery options, and the agreements were basically bagged as it always is on previous projects, and Ontario had none.

KATE MCGRANN: So were there analogous projects that you referenced outside of Ontario?

REMO BUCCI: Yeah, the key one would have been the Canada Line at that time, right, which was a design, build, finance, operate, maintain funded by -- and we had done a detailed -- I know we had provided it somewhere in the files we had given to you.

I mean, we had done a detailed set of -- as part of that early procurement options report, I wouldn't call it market soundings, but as part of our benchmarking, we had some very good calls, meetings with the -- with both on the private and public side up to delivery of that project to understand how it was put together from a funding perspective and a financing perspective.

So that was the first and the most analogous because Canada had funded that one, and we wanted to understand, okay, well, would Canada want to apply that funding to this project. That was -- that was the primary one, and it's Canadian.

As we got closer to procurement, the Denver Eagle project in Denver, which was another design, build, finance, operate, and maintain light rail project, again light rail so not heavy intercity rail like VIA Rail or things like that. These are the projects we were looking at.

Was also an analogous project, but that was more as we got closer and closer to the form of the delivery option, less about the financing.

To go to your question, the primary one would have been Canada Line, and Canada Line was different because it had monthly progress payments. The private dollars were last in to reduce the costs of the project.

The federal dollars were layered in with the provincial dollars and the local share upfront. That was a different model that was used that was allowed for Ottawa principally because of the AFP structure.

KATE MCGRANN: I was going to ask you. Would it have been an option with respect to the timing of the input of the different financing to follow that model in Ottawa?

REMO BUCCI: So where you capture that is payments during construction. And so now let's also set the stage of where Infrastructure Ontario is at.

So in 2010, there's no discussions yet with -- no hard discussions yet with the province. I think IO had been engaged. They had done an initial value-for-money assessment. I think the City maybe hired some consultants to do some kind of independent work.

So in 2010, Infrastructure Ontario was doing social projects primarily and Herb Gray expressway. So that would have been -- that's the highway through Windsor that goes to the Gordie Howe Bridge. It was called the Windsor-Essex Parkway at the time, right. I don't think 407 east Phase 1 would -- that was 2012, I think.

So not yet doing civil projects, and if you step back on the social side of things, the general payment structure was -- this is pre-2008 Infrastructure Ontario, we're not going to pay you anything until substantial completion because the concept of AFP is you pay at performance. You only pay when you delivered something to me, and I can -- I can diligence it, and I can measure it against a set of standards, output specifications we call them, and I'll give you that payment.

So up to 2008, that's 100 percent. Credit crisis comes. All the European banks were present in Canada at the time that funded those private -- provided that private financing are gone. You need to now change the market.

It goes more to institutional investors in Canada because our banks don't lend long-term, so life insurance companies, your commercial -- your sort of variance of pension funds that are -- become, you know, what we call the institutional investment stream.

And that also means you're not going to pay -- you're not going to have the project company finance 100 percent of the project or construction anymore, okay, because there's no capacity to do that given the number of projects that are done, and the costs are -- now the costs are becoming quite prohibitive versus the private financing.

So the concept of, well, we need to pay

more during construction comes into account, and the concept of, well, I don't want to pay on a monthly progress basis. I want milestones.

So let's pick an event in the schedule and, like, I'm going to use the analogy of a building because it's the best one. Like, you pour the foundation because you have to pour the foundation before you can put the first floor down. That's a milestone.

And then you put the rough work up and you pour to second floor foundation. That's another milestone because you can't do the first floor until the basement is done.

In a linear project, you can develop a project and say, well, I'm going to work on this segment. I'm going to do this piece of work first and set an event, whilst design-build, things may change.

You may run -- you may hit some surface conditions that you didn't know about or subcontractor is not available or you want to redeploy and work on another end, right.

Well, now you can't because you picked this event in your schedule that you're going to work towards, so we call it chase the milestone because you got to get that milestone to get the payment.

So the major -- let's say the first challenge that had to be -- and I'm going to jump ahead. Once Infrastructure Ontario got involved was do you do monthly progress payments like they had done on the Canada Line, or you do no payments up to substantial completion.

Well, we knew that wasn't possible anymore because affordability. The City was going to have to pay for all that, and there wasn't market capacity.

So now you have to have some form of construction period payments, and the compromise was to come up with 12 event-based milestones, or we came up with scheduled event-based milestones and let the project -- the three bid teams pick them.

But that was -- and if you look and you say, okay, well, that's -- Ottawa had milestones. Eglinton didn't have milestones. They were monthly-based. Waterloo, which is the next two that came on, didn't.

So there's an example of moving from event-based to progress-based, but Ottawa -- and, again, and it's not to be critical of everyone, you're just -- you're dealing with a program and where it is in a maturity cycle and having to deal with building up versus building out.

And the lesson there, and I think we cover it in our lessons learned report, was on linear projects your schedule is absolutely 100 percent going to change. You shouldn't assume that what you -- the schedule that was at a 20 or 30 percent design, it's the nature of design-build, so don't set a payment regime that forces. You want the other side to have the means and methods to adjust and redeploy their means and methods to do what's right for the schedule, not to hit a milestone that you thought was appropriate three years prior. And that affects financing too, right.

KATE MCGRANN: Couple of questions, and then I'm going to drag you back to where we were before.

REMO BUCCI: Okay. All right. Sure.

KATE MCGRANN: Am I right in understanding that the Canada Line is monthly progress payments?

REMO BUCCI: Yeah.

KATE MCGRANN: And then the projects that follow Ottawa are also monthly progress payments?

REMO BUCCI: In a different way. But, like, for example -- and you should probably talk to Infrastructure Ontario about this, but it's more -- they become subtle differences.

Like, for example, on -- I'll just call it some of the AFP LRT projects, that's specifically what they are. The -- because remember you've got a share now of private money coming in short-term because you've got a substantial completion payment that wipes away that short-term private financing and leaves a certain amount over the -- over the -- over the operating period.

But during construction, it kind of all looks the same. And you're going to wipe away a certain amount of that private financing by substantial completion payments. So you say, well, how much is that? And that's the payments I'm making during construction, the public and private amounts.

So the -- very simplistically it would be if that formula up to substantial completion, and I'm just using an example, is 50-50, then my 50 percent share from the public sector will trail the private sector once the lenders have verified that that payment can flow from their credit facility because they would have to have due diligence that the work was done in the ground. The moment that that decision is made, I'll fund my money. Okay.

That doesn't work when you have provincial and federal funding because they have a requirement for work-in-the-ground requirement to verify that the work has been done.

So there's an example where if you're doing programmatic, you have flexibility there, whereas with the government of Canada, they would have said, no, no, no, we're not going to fund you when the private lender or their payment certifier, technical advisor says it's okay. We're only going to do it if the City can verify that the work has been done.

Okay, so the -- so the payment regime is you kind of got it right, then the question of mechanics of what's the preconditions to payment become more complex because you've got a credit facility, construction credit facility, you got a lender's technical advisor that sits on top of that, and then you got an independent certifier that kind of sits on top of that.

And then if you've got funding agreements, then you want to make sure you're not introducing a process that will get into the way of that flow.

So that's the difference between Ottawa and, say, the GTA LRTs. Waterloo was different because the moment we -- I left Ottawa and went to Waterloo, I said we're not doing milestones. We're going to do -- we're going to find a way to get progress payments done here.

KATE MCGRANN: Just quickly, the -- on Ottawa, it sounds like you looked at -- or milestones payments were looked at, monthly progress payments were looked at. What was your understanding as to why the milestone approach was selected?

REMO BUCCI: This was -- I don't know if compromise is the right word. It was -- it was -- because if you -- at that point in time, Infrastructure Ontario had only done -- like, I think the way Windsor-Essex -- I can tell you 407 Phase 1, we worked on that project, as an example was -- and I'll draw it on the screen.

It's a project that goes like this. So it's a segment, a north-south segment and a segment that goes to the east. Do this, you finish that one, you get a payment. Finish that one, you get a payment. Finish that one, you get a payment.

KATE MCGRANN: Just for the sake of the transcript, you basically scripted out a capital T. When you say half of the top of the T, you get a payment. When you do the base of the T, you get a payment. When you do the other half, you --

REMO BUCCI: Right, correct, because you can chop it up that way into thirds, right. And you say, well, you do it whatever order you want, I don't care how you bid it, but when you go to deliver it, when you get those Ts done, I'll pay you on that segment.

Now, you do a light rail project, you go, well, how are you going to do that? There's no logic. You can say, well -- like, here's an example: The commencement of tunnelling as a milestone, okay, and this is a real example. What does the start of tunnel mean? That you've ordered the tunnel boring machine? That the tunnel boring machine has arrived? That you've done 5 metres?

That it's done three turns?

So this is now where it comes difficult, and this is not a criticism of anyone. It's really easy to say when a project meets substantial completion, right. It's safe to occupy. You've got good construction precedent on what that is.

The moment you start breaking down -- and if you look at the 407, like the T that you just described, that fits that definition, substantial completion. I can drive on the highway. It's safe, right. I'll make my payment.

But if anything less than that, now you have to start saying, okay, so commencement of tunnelling, what does that mean? We have to now describe it because, you know, when you get into the administration mode, the other side is going to try to say, well, we met it. See, we met it. That's our interpretation of a milestone.

So the milestones were middle ground between the City wanting to ensure that the financial construct and construction period payments -- because they had to pay for every single penny of incremental financing that goes with that, fit within its budget envelope.

So when you see all the machinations of options we had looked at -- you know, we use the nomenclature -- the small F was construction financing, the big F was -- not the right word but long-term financing was to look at those differences because going back to that affordability model, how did it affect the budget envelope that the City had, and Infrastructure Ontario saying we want -- we want to meet our payment on performance milestone but recognizing that we need to have a lot of them or more of them than we would normally have because the City is absorbing the incremental cost.

So a working group was put together. The concept was let's define a range of fixed events that we think that can work. In order to give flexibility to the bidders, we will give them -- here's 20 -- I forget the exact number. Here's 20 of the acceptable -- sorry if you hear dogs barking -- milestones, but you're going to have to put 12 and no more than 3 or 4 in a year.

Like, we set some rules in the RFP, and we modelled that out, and that got us to a point where financially we thought, okay, that can fit within the City's budget envelope, and it met where

Infrastructure Ontario was at the time, fixed event-based payments, right.

KATE MCGRANN: Okay. So let me just say this back to you to make sure I understood it properly. There's sort of two components to the milestone piece. First of all, the use of milestones at all as opposed to monthly progress payments, and I understand the driving factor there is Infrastructure Ontario's preferred approach to have payment upon a visible thing that has been built --

REMO BUCCI: Correct.

KATE MCGRANN: -- as opposed to a percentage towards the final project?

REMO BUCCI: Correct.

KATE MCGRANN: And then the other piece is the number of milestones, and that's driven by the City's finances and the realities of having to -- the cost of having to have outstanding --

REMO BUCCI: Correct, correct, that's exactly right. Now, to complicate things even more, the one thing about -- the other dimension with the federal and provincial money is when does the money come in? Now, they're paying a third, but that doesn't mean they have to pay a third of every single monthly payment or every payment that's made.

So the one compromise that the federal government and Ontario agreed to is accelerated payments, meaning they would pay their one-third, but they would pay it faster, right.

So I think it was 50 percent of the initial project cost up until you hit that one-third threshold. Basically what it enabled the City to do is put their money in last.

Okay, so this is the iterative part that you talked about. You know, at the beginning part of the journey, we didn't get there. We didn't get to all of this until frankly probably when we were structuring the RFP, like, later in the fall.

And I say "we," you know, the collective "we" in 2012, but these are the dynamics of here's the funding agreement. He's the delivery model. It's got to work within a contract. It's got to work within the affordability structure. It's got to be financeable. How does it impact all of the pieces?

And that's what made, you know, this project complex because you've got the two funding agreements. You've got the City's expectation on the size of the project and its budget allotment, and then you've got Ontario through Infrastructure Ontario who are just at the beginning of the journey of doing transit projects trying -- you know, working with the City to find something that can -- you know, that can work within -- and the AFP program has evolved since then obviously.

KATE MCGRANN: Any discussions with the groups working on the Canada Line about the progress payments versus --

REMO BUCCI: Yeah, we did. We did with -- sorry. We did. We did that -- yes, we did. We did -- we did interviews with multiple people on that.

This would have been as part of the initial procurement options report that we had done and prior at Infrastructure Ontario as part of the -- because part of that procurement options report is the benchmarking. Like, what are the relevant projects that you're using to take lessons learned from?

So, yes, we had -- we had that done. I don't think we had provided -- the -- if you look at the procurement options report and you go, well, they were a little light on there in the financial structure, weren't they? Like, they didn't really disclose a lot of numbers, and that was frankly on purpose because the procurement options report was going to be followed by the procurement itself.

So we wanted to be careful not to -- again, take in the lesson of, well, it's 1.8 billion. That was one point. Then you issue your procurement options report. If you put another -- and this is for communication purposes, not what you're sharing with the funding partners behind the scenes. It's to manage what's the project cost going to be.

Well, it will be at financial close. That's the main event. So let's just make sure as we're going down the journey of at least the public part of the report -- and this is not just unique to the City of Ottawa. Like, every municipal project we've done, we try and set that balance of here's the delivery, here's the budget, here's how it's going to work, but you also want to make sure you don't provide too much information that's going to hurt your procurement down the road because you have a competition that you -- and you want to provide comfort to the bidders that you've got a funded program.

So if you're -- I shouldn't -- you didn't ask the question, but if you look at the procurement options report, you'll see that it talks high level about cost, but the detailed financial stuff was being shared with the two funding partners, and the City primarily was doing that affordability assessment to say, Do we think we have a big enough budget envelope here?

KATE MCGRANN: Okay. And that approach is to sort of strike a balance between transparency and maintain the environment in which competition can drive the price to --

REMO BUCCI: Correct.

KATE MCGRANN: -- where it should go?

REMO BUCCI: Correct. And municipalities have annual budget cycles. So part of financing's job is to say, What's it going to cost this year, but let's make sure that we've -- and those ones down the road, the levers are going to change, so we just need to make sure we can control those levers.

Ultimately, if you're wrong and your municipality is -- the only one you can do is raise your property taxes, right, and that's the worst-case scenario beyond what you forecasted, right, beyond what you forecasted or allotted to the project.

KATE MCGRANN: Specifically with respect to the use of milestones, what was the advice coming from the precedent projects? So Canada Line. In Denver you spoke to --

REMO BUCCI: Denver Eagle we did. Canada Line was they thought it worked well because they had multiple milestones. And, Kate, like, I'm going to tell you they're monthly, but someone may call them event-based as well.

You can have -- you can have -- you can have some milestones, like, you know, you drill certain boreholes, and I'll pay you those. You can have a mix.

You can appreciate when you've got a project schedule that's, let's say, 100 pages, six levels deep, you can be really creative how you define events on a monthly or sub basis, but Ontario line was hundreds of payments. Ontario line.

KATE MCGRANN: Wasn't Canada Line monthly progress payments?

REMO BUCCI: Yeah, yes, it was, but

what I'm saying is it might have also been -- and I'm going by memory here, a combination of sub events within the month as well. So they were frequent payments that were, at the least, monthly. Maybe I'll describe it that way.

KATE MCGRANN: And so was it -- it sounds to me like Ottawa is departing from the model that Canada Line used.

REMO BUCCI: Correct, correct, correct.

KATE MCGRANN: Did you run -- did you speak to Canada Line about --

REMO BUCCI: Yes.

KATE MCGRANN: What was their view or what was --

REMO BUCCI: They thought it worked well because it gave them flexibility in particular to -- so what Canada Line did is said, I'm only going to pay you this amount per month, okay, but what you do during that month I'm going to allow you to change during the construction period to allow for the flexibility of your schedule.

So as long as you -- if I -- if you were going to -- if I was going to pay you for $100 of value and you thought you were going to put yellow pipe down for that and you had to do green pipe somewhere else, I'll pay your for $100 a green pipe. I'm okay with that because I'm getting value for it.

And you're doing it because you thought during the -- when you put your bid together, that you were going to put the yellow pipe over here, but now you have to put the green pipe over here. You can do that shift, but I'm only paying you $100.

KATE MCGRANN: So what discussions were there, if any, before the procurement model and milestone payment approach was set about what may flow from the lack of flexibility that comes from milestones payments as opposed to monthly progress payments?

REMO BUCCI: It's primarily that. The City's concern was from an administration perspective. The other complexity is when you set those milestone payments and they're -- effectively you think about it, it's the short-term construction financier, lender that's being paid, and they're institutional investors. If you want to change that milestone event, you got to go get lender consent.

KATE MCGRANN: So how is the risk of

that lack of flexibility accounted for? Like, what was done to account for the fact that your -- let me put it to you this way: What discussions did you have about the fact that flexibility is going to be limited as a result of this?

REMO BUCCI: The compromise was -- let's pick -- let's set a set of rules that give us maybe not monthly but enough during the year that you don't have an accumulation of financing, and at the same time, we're not going to tell the -- and we also -- sorry, again, collectively "we" said to the proponents, Here's the list of milestones we think are appropriate. If you think there's better ones, tell us and we'll consider them.

And then a set of rules was created, and they got to pick that -- you know, from that long list of milestones which ones were the most appropriate for their project and when they were going to occur. That was the mitigation note that was -- that was chosen.

Recognizing the constraints were -- it's going to be very difficult to change that milestone payment once it's set because it's event-based, and if you want to change it, you need to have lender consent.

Those were realities that we knew at the time, but, again, it was trying to come to this infrastructure -- I don't want to speak on behalf of Infrastructure Ontario, but my -- what my understanding from them is they didn't want to use the Canada Line model. That did not fit with AFP.

Couldn't go with the hard, like your T example, the 407 example. Everyone recognized that. So the milestone regime that was used for Ottawa and never used since was what the -- what we collectively thought at the time met the requirements of both -- all the parties including the federal, provincial funding authorities, the City of Ottawa, and Infrastructure Ontario because they signed off on it.

KATE MCGRANN: You mentioned the concept of chasing milestones earlier, and I take it that's the idea that instead of making decisions that would advance the project overall --

REMO BUCCI: Correct.

KATE MCGRANN: -- as fast as possible, you were making decisions to advance the project towards a milestone so you can achieve that payment; is that fair?

REMO BUCCI: Correct. I'll give you an

example, right, like --

KATE MCGRANN: Actually just let me ask the next question before you do that. Did you see that chasing-milestone behaviour on the Ottawa project?

REMO BUCCI: Well, there you go. I was going to give you that, so thanks for that. So the best example of that was -- I think in 2016, there was a fairly major tunnel collapse, right, and if you think about this, what -- so what RTG did is they had to react really rapidly to deal with that tunnel collapse because they were, like, literally this far away from completing the tunnel, right. Bad luck for them. And they had to complete the tunnel because there was a milestone payment that was due, right.

Now, and this is my opinion, you can make the argument that they would have been better off keeping their resources deployed on completing the track and the systems and the integration on the other parts of the line in stages that were underway at the time, okay, and deploying some resources to fix the sinkhole and continue on with that work, but the problem they had is they didn't have money coming in.

In order to have the money coming in, they had to finish the tunnel, and now they have this disruption they have to deal with, and I think it took them a month, right.

So that's an example of, well, I've got to chase the milestone because even though it's probably not the right thing to do -- and this is my opinion, just other people may disagree with me, but that's an example of one that is -- I think that's a good example of -- and that's an actual event that occurred.

So that's the danger that you have unless your milestone is completion, right, because if your milestone is completion, you're like I can still redeploy my resources, right.

Yeah, so that's probably the best example I would use. I would say that in a public forum as well if I was asked that question.

KATE MCGRANN: Were you involved at all in discussions about changes made to the milestones?

REMO BUCCI: Not during -- because by -- at financial close, we're done. We really weren't involved in the construction administration.

I would say that when we went to meet with the City's construction staff, project office staff and the lessons learned report -- if you want to go and look at the section in the lessons learned report that talks about milestones, that'll -- that's when we got an ear full from the -- from the -- from the -- from the -- I shouldn't use that term.

Let's put it this way: The issues of the administration and milestones were articulated, and we documented them in our report.

KATE MCGRANN: And the issues with the administration, were they the schedule-based issues that --

REMO BUCCI: Scheduled-based, lender's consent. Because even in a situation where it was described to us, we agree we should change that event because things have changed, right.

KATE MCGRANN: Yeah.

REMO BUCCI: Then it's, like, now we got to get lender's consent. Oh, my gosh. Okay. All right. Let's -- how do we -- how do we deal with this?

KATE MCGRANN: Bear with me for one second. You had mentioned some issues with provincial funding, or I thought that you did. Can you talk about that a little bit?

REMO BUCCI: Yeah, so some of this relates to how you account for the long-term financing. So initially, it -- the rough construct was 1.8 billion plus or minus the projectco was the three bidders.

Of that, there was going to be these milestone payments during construction. When construction was done, 400 million would remain that would then be amortized in equal payments over the 30-year operating period.

The issue was whether or not -- and the City was effectively funding that 400 million because remember the way that the money flowed in and flowed out.

So how you account for whether that money is eligible to the City's share -- and it's an accounting issue. It's not a cash flow issue. This became problematic, and the City actually engaged with the province to try to -- and I'm -- you know, I -- the nuances of that I don't remember. It's something more for City finance.

But as an example, that's an example where the payment regime sort of trips over, let's call it, accounting standards that affect how the City can account for the money and potentially affect its funding.

They got through it, but it was an issue. That was a very obvious one. And that wasn't clear -- that was blind to the procurement. That was behind the scenes between the City finance and the province specifically.

KATE MCGRANN: At what point in time in the project did this issue arise or these issues arise?

REMO BUCCI: That would have been during the RFP period, so once -- so let's -- okay, if we can just -- so go to council in the summer. They issue an RFQ. You start working on the RFP at that point in time, right.

Infrastructure Ontario is now engaged. They're set up within the City office, and you've got an integrated project team that's there. You have legal advisors on board. Deloittes is sitting in the financial working group working under a group led by Infrastructure Ontario, and we've got a set of, let's call them, issues and challenges that we need to resolve to structure and get the RFP out.

Construction period payments is one, affordability, how you deal with it in the RFP, et cetera. Behind the scenes, City finance is doing its affordability assessment and determining how that's going to work.

So that's all being done at the same time, and as we're charging collectively to getting anticipation RFQ -- you know, you'll have your shortlisted team set. Here's the date. You want to get them the RFP relatively quickly shortly thereafter because they're mobilized, so we need to make all these financial decisions out of the way so we can put contract documents out.

All of that work was happening to understand is there a constraint in the funding agreement that's a project agreement issue, or is it a funding agreement issue, and the one I just mentioned is a funding agreement issue. It wasn't a project agreement issue.

But it's driven by the payment regime that's -- but once you lock that down and the -- you -- you make that decision to say this is how we're going to pay projectco. Good. Out of the way. That's one degree of freedom done. Now I can see what the impact is on my funding agreement.

That doesn't impact my RFP, but as I'm engaging with Ontario to get those terms and conditions of that financing, funding agreement done because I need that when I get to financial close, I'm working through some of the issues on eligibility. What are the sign-offs we need to have to have the money flow.

Because obviously the City's concern is it is always paying projectco. The funding doesn't come direct from Canada or Ontario. It comes through the City.

If there's a lag time between when the City issues the remit to projectco and gets its funding from Canada or Ontario, it has to pay for that working capital, if you will, and they wanted to try and cut that down to make sure that wasn't months. It was -- I should say 60 to 90 days is the general idea. Any more than that, then that's another funding cost, financing cost you didn't anticipate.

So they were trying to make that alignment of money come -- City -- invoice from projectco to the City, City pays projectco, City issues invoices to Canada and Ontario, and that money is flowing fairly mechanically without any major issues. So that's happening behind the scenes. That's not an RFP issue.

KATE MCGRANN: Okay. It becomes a project agreement issue I would expect, though.

REMO BUCCI: Only -- only to the extent that -- I wouldn't characterize it that way. It's a you need to make the decision on how your project agreement is structured, then you work backwards and say, okay, now can I solve it within the funding agreement.

And the idea was, okay, yeah, it's an issue, but it's not going to be -- it's not going to kill the project. You have to just work with the policy makers to find a solution.

KATE MCGRANN: Okay. And at a very high level, the nature of the issue that needed to be resolved as between the City and the province is how -- what is it?

REMO BUCCI: Just say how they accounted for the private financing within a -- within a funding form, within a project -- within a funding agreement that assumed, I would call it, traditional level of funding, meaning there isn't any private financing.

My opinion was that the -- and both of

them actually, both Canada and Ontario's funding agreements didn't take private financing income. I'm not going to use the word P3. Private financing, any deferred payments into account.

Now, as an analogy, if you look at the way P3 Canada was set up later, they did. Their legislation, their regulations all took into account that it was going to be some form of payments like we're talking about.

So as an example -- and I worked on five P3 Canada projects. That was never an issue because they factored in the fact that there would be these type of payments during construction. It didn't affect the eligibility or the form of payment because it took the delivery model into account. So I think it's just a maturity where Canada was at at that time, Canada and Ontario.

KATE MCGRANN: Is one of the -- is an issue or the key issue really the cost of financing and how that gets worked into the various payments that are being made along the way?

REMO BUCCI: Yeah, yeah, it is because -- and, again, like, if you're -- if you look at Ottawa's scenario is go back to that 2009, you know, 600 million of 1.8. Well, 1.8 weren't the project costs, and that number wasn't changing.

KATE MCGRANN: Switching focus for a second, which I'm doing rather abruptly because I only have so much time with you today, the decision to exclude operations from this model -- so the two precedent projects that we have spoken about were both design, build, operate, finance, maintain. Ottawa is a design, build, finance, maintain.

So can you just describe to me what went into the consideration of excluding the operations for starters?

REMO BUCCI: So the first is the system is going to grow, and I have to say -- and I went through all the documents, disclosure this weekend, and somewhere in there you'll see this analysis that we've done on the -- I think it was schedule 38, the project expansion protocol, and anticipated three new stations to the west.

So at the time, one of the things we wanted to solve is to say, all right, this is -- it's a transit system. Transit systems by their nature -- most of the time. Canada Line was different because it was end-to-end.

Unless this endpoint and this endpoint are never going to change, you want to make sure it can grow. Now, any time you enter into a contractual arrangement, particularly something like an AFP that sets rules and it's designed this way to make sure that you're only go to pay for what you defined in the contract.

It really tries to limit changes because it's about project governance and managing scope, if you will. So you want to build flexibility in to say, well, I don't want to tie my hands here because I want the project to grow.

The thought was we have three new stations potentially because that was on the program in 2010, because by the way, there wasn't a lot of funding available for transit projects. We had gone about 20 years in Canada where there was, you know, infrastructure gap issues and things like that, but there weren't a lot of funding for infrastructure.

So at the time -- at the time of drafting of the project agreement, the thought was three stations, that's something you can do through a variation in the project agreement. Effectively the way AFP describes a scope change.

We could negotiate that out, but you know what, let's make that job simpler. If its operations -- if the City has operations, it makes the -- you know, it makes one less moving part we have to negotiate there.

And the other thing -- and this is just sort of a general observation I would make with the municipalities is they're very focused on who the employees are, if you will, that are dealing with the customers, the interface because rightfully, you know, councillors feel they're public accountable.

If there's an issue, it's a lot easier to call someone up, you know, a commissioner who is a direct employee of the City versus a contractor.

So operations, if you think about the LRT system in Ottawa, the customers really don't run into RTG because most of their people are the maintenance facility or they're doing maintenance on the line. The drivers are OC Transpo people. That's the City employee.

So I think it's about -- it's about accountability of the customer experience, and it was about flexibility for the next stage of projects, and then that accountability also was at the time the -- because you always have to look at these issues of labour.

And particularly you run into them on transit and wastewater projects where you now say, okay, if I'm now introducing a private operations or maintenance into the program, it's a greenfield new employees.

It's not about them being unionized or not. Like, that's not the issue. Like, the union -- private companies deal with unionized labour all the time. It's not their issue. It's whether or not they're City employees or whether or not they're City employees that have a right to bargain for that work, right.

And at the time, the City had a legal opinion done because its maintenance of light rail on the O-Line -- so this is the predecessor to the Trillium Line -- was contracted out.

The City didn't do light rail maintenance. It was already done by third parties, but the City was operating buses, and they were -- and the thought was you can train a bus driver to operate, particularly if it's computer-based train control. This is not -- it's more like you've got -- like, they call it, you know, like, a stop switch, an emergency switch.

So when you look at flexibility,

expansion, a potential constraint on labour if you include operations, then you do it maintenance.

And if you look, for example, Finch light rail and Eglinton light rail or DBFMs because they have to be integrated in the TTC network. And I wasn't part of that, but same logic would apply, right.

So I think you would always start out -- if you're looking at a pure output-based contract, the easy -- let's go to the equivalent of the construction period payments.

The easiest way to measure a train system is to say is it on time, punctuality at the station, and is it reliable. Did you give me the number of trips over -- like, that were in the schedule in the month. And I'll give you degrees of freedom on all of those, but I'm going to measure you on these things, and if you meet them, I'll pay you a certain amount. If not, there's deductions.

And you're always going to start there because that's the easiest way to measure it. When you -- when it's not operations and they don't have the time dimension because they're not driving anymore, then you have to have a different regime, and here it was the kilometre-based system.

But that was the logic. So it was -- it probably -- it gave the City the flex -- and by the way, it was a really good decision in foresight because 2011, 2012 comes around.

Ontario and Canada say, hey, we've got billions of dollars available now. The City of Ottawa says, well, Stage 2 isn't just going to be three stations. It's going to be to the east and the west, and we're going to go down to Trillium Line. Like, we're going to really expand, and we want Stage 3. Like, we just don't want...

So in hindsight, keeping the operations was a very smart move, even though at the time we thought it was only three stations, but it was also driven by, you know, the very practical issue, I don't think they need to hide behind it. It was -- you know, labour is always something you need to be cognizant of, right, because you've got these agreements that you need to be -- you need to be -- you need to be respectful of.

So I think it was a -- it was driven by those. And I can't tell you one was more impactful than the other. I think they were all part of that mix.

KATE MCGRANN: So having the City retain operations introduces an additional infacing [sic] as far as the running of the system goes because now the City operators are interfacing with RTG's maintainers at RTM; is that fair?

REMO BUCCI: Yeah, it's train control. It's automated train control. And to be clear, I'm going to say operations is -- let's -- I'll describe it this way: Driving the trains or sitting in the control booth, and number two, dispatching the network, the control centre, okay, recognizing that at the maintenance facility, Belfast station, and in the way the project described it -- project agreement described it, projectco is responsible for getting the train organized every morning, bringing it to -- if you think the bay where the drivers show up, and there's your train ready to go, it's clean, it's got to right number of trains on it, we've inspected it, tick, tick, tick, ready to go, and now you come out of the coffee room, I'm simplifying it, you walk onto the train, and you drive out. You're at your first station when you're supposed to be there, right. That interface is not a challenge, particularly for automated train control.

KATE MCGRANN: So my question was going to be what consideration, if any, was given to the need to manage that additional interface?

REMO BUCCI: Exactly the way it was -- the way I described it was the way the output specification describes their obligations. And what -- and I'm simplifying.

What the OC Transpo drivers do is they do their safety inspection, get on, go. If not, they say, hold on a sec, you guys missed this thing. This light is broken. Why is this light broken? I can't drive the train with that broken light. Oh, send it back. Then that's a -- that would be like a service -- that's a service KPI that wasn't met.

KATE MCGRANN: So the hand-over at the beginning of the day is -- that interface is accounted for by the fact that the obligation is put on RTM to deliver the train in working condition on time.

REMO BUCCI: Correct.

KATE MCGRANN: What about interfaces throughout the day, reactionary maintenance, issues that arise on the trains? How -- what consideration was given to accounting for, controlling, managing that interface in the project agreement?

REMO BUCCI: So let's talk about the first one, which is you're driving -- okay, it's automated train control, but let's just say now I'm the driver. I'm controlling it, right. I'm sitting on the train.

So the time dimension is now in control of the City. So you can't blame projectco if there -- you can't necessarily if the train is late because now you need to look at the attribution of that.

Was it a driver issue? Was it a -- I'll call it a system-wide, like, from the City dispatch centre, or was it a problem with the vehicle availability, the station availability, the track that caused that to occur.

So the lens and the payment mechanism and the output specification where you see that split is -- first of all, service availability was defined by kilometres.

And what was done there is the City then went through their technical advisors, did simulations to say based on the number of trains that we have on day one -- I'm sorry.

Based on our ridership forecast over time, okay, the amount of people we think are going to be at the platforms at a given point in time every day -- morning and peak are parallel, so it doesn't really matter which one you pick.

We think we need this many trains, okay, or capacity. You don't maybe worry about the number of trains because the projectco is picking the size of the trains.

We need to have a train that has this many seats. Think of it that way, right, because we have riders to pick up, and we want to make sure that these riders -- there's a certain standard.

Do you want every rider to be -- so none are left on the platform. So you make these decisions, right, in terms of capacity.

So you do that, and then you run some simulations and you say, well, then when's the next train need to come up because people are now walking down the platforms, and they're building up on -- based on that ridership forecast. That's your frequency.

So you have your frequency and your capacity of the trains. You program that in, right, and then you come up with standards that say, all right, in order for me to meet that frequency, punctuality, and number of trips, reliability, I need this many kilometres over the day, right, and the trains have to have this much capacity.

So if you give me trains of this size and they deliver this many kilometres over the day, effectively I'm going to get the punctuality and reliability that I'm going to have in my schedule, because you're bidding back kilometres. I'm going to develop clock-facing schedules for the -- for the customers to use, but it's going to work because I'm taking those kilometres into account.

Now you got to say, all right, so that does work as -- now, let's say a kilometre is missed. All right, so is it missed because the driver inadvertently hit the stop button because they were worried that there was an emergency event that was or wasn't the case?

Okay, so we need an excusing cause for that. All right. We need to strip that out. Driver issue, not your problem that the kilometre was missed.

Did the passenger stick their arm in

the door for some reason and cause the train to be delayed and emergency protocols. Oh, we need an event for that.

So you work through those sorts of things, and you create a set of rules called projectco excusing causes which are in Schedule 20 that say, all right, here are the events that if they're outside of your control that happened, we're going to leave you off the hook for those missed kilometres, but everything else is up to you because therefore, what that says is if the train isn't on time or didn't deliver my kilometres is because there was a problem with the vehicle, or there was an issue, an unforecasted maintenance event on the track that you didn't take into account, and because of those things, that train had to run slower, and therefore, I didn't get the kilometres, so therefore, you get a deduction based on those kilometres.

In order to differentiate between -- you know, a kilometre in the afternoon or the evening or on the weekend is not the same as a kilometre in the morning.

So remember, you're deciding on capacity on your peak periods, right, and, you know, the easiest way to look -- they're looking at YouTube at the events that occurred when the trains weren't available, you know.

So system events were then introduced to say, you know what, these peak periods are really important for us, so if we lose a certain amount of service in the peaks, you get -- this is the idea of a financial deduction, so like your driver's licence, right.

You get -- you know, you get a speeding ticket. It's a financial deduction, but the size of the speeding ticket, the amount of points you accumulate depends on how -- how -- like, were you 5 kilometres over the speed limit or 100 kilometres over the speed limit.

So what the system events did is said if I -- if the City lost service in the peak periods, 65 failure points apply. It's the right number, but that was all calibrated to say projectco, RTG, you got to deliver train service during the peaks. Off peak we got a lot more flexibility because if there's a nonavailability event, there's not going to be as many people standing around, and the City doesn't have to deploy buses to get them to work or to miss their appointment or to miss a class.

So that's how that all came together. That was put together by, let's call it, the commercial team, like, where I was working with Infrastructure Ontario and the payment mechanism, the technical advisors.

And then during the bid-open period, all of that was, you know, debated, adjusted through addendum, through the commercial in-confidence to get to the deal structure at the end of the day.

And that was the split of operations. There wasn't a clear precedent that we saw that worked for that type of regime because most of the projects in North America, and the ones I cite were all operations.

In the UK, they were more mature systems. They had already split their -- and they're interregional, so they already had an entity that was doing rail operations, vehicle maintenance, track maintenance, and they're contractual splits were done.

But an integrated system, when it's greenfield -- and you don't want to get into an attribution because the moment you make that split between, oh, it's a rail issue, go back to rail-wheel interface. John was concerned at the beginning.

The moment that kilometre is missed, not because of one of the causes of the City or the driver, now the way the City of Ottawa's regime works is whether it's a vehicle, a track, a station issue, it doesn't matter. Those are all degrees of control that are -- that projectco has.

And the project agreement had set it up that way, so you no longer have to get into -- other than those events the City had control over that are passenger caused, everything else from an attribution perspective you don't need to worry about because it's on their side of the -- of the responsibility ledger.

KATE MCGRANN: We'll take the morning break now and come back with some questions.

REMO BUCCI: What time do you want to come back?

KATE MCGRANN: It's 10:24. Let's take ten minutes. We'll come back at 10:35.

REMO BUCCI: Perfect.

-- RECESSED AT 10:24 A.M. --

-- RESUMED AT 10:35 A.M. --

KATE MCGRANN: Before the break, we were talking about the payment mechanism that applies throughout the maintenance period.

Were there any particular issues that the bidders pushed back on during the period that the City held as far as the application of the payment mechanism or what it looked like?

REMO BUCCI: No, nothing major. I mean, you -- the -- the payment mechanism interaction during the bid-open period is part of the project agreement, CCMs, because you got the design -- the design stream where the output specifications are being thought about, so for example, how those surface levels are being defined.

So that was on the technical stream, but the way the meetings are organized usually do technical on one day, legal and, like, where the payment mechanism fit in, so they're coordinated very well.

And then you get a cross-section of members on both sides that are involved with all of those things, so they're not done in a vacuum.

Deloittes was present -- or Deloitte representatives were present at the CCMs for the payment mechanism specifically even though we were providing input into the output specification behind the scenes, the service failures, quality failures, et cetera, all that stuff.

I would say that the payment mechanism itself was a relative nonevent from the perspective -- yes, there were comments and issues, but it was not a strategic issue. The strategic issue that we were dealing with was affordability more broadly.

So, for example, whereas when the RFP went out, I think the amount of private financing was 400 million as -- again, collectively we were working through the process, and, you know, I think principally because of tunnelling issues and some of the geotechnical risks there.

And it was communicated that the project budget that was -- that was effectively the affordability cap or the parameters that were the affordability cap which were the payments -- the total payments during construction and the amount of long-term financing were -- and operations and maintenance were not in that definition because the City was more focused on -- at that time on the capital side and the funding agreement components because it had more flexibility on the operations and maintenance end, that the proponents articulated here's what's driving our concern.

The payment was not one of those. Otherwise, we would have recal -- that's the -- that's an easy thing to do on other projects. We go and recalibrate it. We would say which KPIs are causing issues to you? Is the slope of the availability curve of ductions for kilometres lost, is that too steep? Is the failure points we're assigning to a particular event too large? Right.

Those are really easy changes to make. They were not a problem. They weren't a problem in the procurement, and frankly, they weren't a problem when the City had to renegotiate them as -- I know Stage 2 is a different issue, but the City negotiated maintenance services with RTG for Stage 2 in 2016-17, and the payment mechanism had to be recalibrated because the systems had to be expanded.

The issue of the ability to meet that performance regime was never a problem until it became a problem based on real experience.

So nothing -- to go to your question, it did not come up during the -- in my opinion and my recollection, it was not a strategic issue during the bid. It was more the affordability itself and whether or not -- and that's why the open period was extended to deal with -- you know, some value engineering was done. Like, could the City take -- you know, what does the City really need, right.

Like, you start looking at the stations, the number of escalators, elevators and things like that. There was some ideas that the proponents bring forward that were good, so the City took them on, but ultimately it was -- it was -- I think the biggest stress was on the -- was on the tunnel, the geotechnical risk.

KATE MCGRANN: Okay. Let me come to those with some questions in a second, but before we leave the payment mechanism, I think two other questions.

So my understanding is that there's two aspects to the payment mechanism: There's failure points that can be accumulated in the event of failures, and they are accumulated over time over months, however long they need to be, and there are eventual triggers associated with those; is that right?

REMO BUCCI: Yeah, and they get reset. So the 12 months is the maximum window, 3, 6, 12, months and different ones apply, and then the idea is -- and this is to get to the point of -- you don't want to have really bad performance or just to the point of its kind of acceptable on a daily basis, but it's repeated over a long period of time.

So accumulated poor performance, I got you, but at the same time, if you had some events, and fair enough, but you dealt with them, 12 months plus a day, we wipe them away and you get a clean slate. That's failure points.

KATE MCGRANN: Okay.

REMO BUCCI: That's the idea with failure points.

KATE MCGRANN: That's great. And then on the deductions, I understand there are deductions from the payments that are made on a monthly basis as a result of a failure to meet KPMs; is that right?

REMO BUCCI: Both from -- just -- we use the terms availability base, so is the stations available? Are the kilometres of service available? That's availability. And then there's service failures and quality filatures.

Quality filatures are typically more for things like you needed to give me a report. You didn't give me a report. It's on or off. There's no rectification for that.

Service failures are, oh, the seat was torn. You need to fix it, and if you don't fix it within a period of time, then you get a deduction, and if you don't fix it within a period of time, those deduction ratchet up.

KATE MCGRANN: Okay. And was there any sort of ceiling or cap built into the deductions to apply by month or otherwise?

REMO BUCCI: Well, this where you get into the basic prem [sic] of AFP. So the reason why you have $300 million of financing that's spread out over the operating period is to share the risk, and if you now use the term the financial pain of poor performance.

In a service-based contract, if you deliver -- if you don't deliver service, I might not be paying you for a certain amount of that month, right, but you're not feeling any financial pain, right.

So if you're capping the deductions,

then why would you have private financing at risk? The private financing at risk is there primarily for if there's a disaster scenario and the services -- it's my opinion, isn't delivering -- and I think it's what AFP is based on, but I don't want to speak for -- you know, AFP, P3, you know, call it what you want. I'm just using AFP because that's the form in Ontario here.

If you're going to have private financing at risk and it's costing you -- sorry, if you're going to have private financing that's costing you more, roughly 6 percent versus 4, 6 and a half if you waited the cost of the equity, and it's not at risk, then you don't need the financing, right. You have -- you can go and get private -- you can get public financing at 4 percent.

By the way, that financing still shows up on your balance sheet as debt. It's not a source of financing. It's an -- and it's not an input; it's an output.

The objective is to say, if there's a problem with the system, you've also invested in it, and financially you and me, public sector, we're shoulder to shoulder here in trying to be incentivized to make sure we collectively perform.

So if you decide to cap it, I would say, well, that's not AFP. Then you might as well move to a services-based contract, right, and then you don't need all of the structure of a special-purpose vehicle to drop down agreements and all the other belt and suspenders that come with the private financing. It's one or the other.

So I would say if you're going to cap it, then why do you have the -- it's not AFP anymore. That's the simplest way to answer that question.

KATE MCGRANN: Okay. And I have some questions because I want to make sure that first of all I understand what you're saying and then probably some follow-up.

So in terms of the idea that there should not be a cap on the monthly deductions, like, what in your view is the way that this was supposed to operate, be that the deductions can go up to the total monthly payment. If it goes beyond the total monthly payment, then those deductions roll into the next month?

REMO BUCCI: No, no, no, no, no, that's not the intent. The intent is you've got -- your financial deductions -- first of all, let's just be clear. They're not liquidated damages, right. They're incentive -- they're incentive regime.

And I don't -- I don't want to get into -- and I'll just state this. Like, there some positions that the City's taken because it's in potential litigation here, but -- and putting that aside, the objective is to say I -- you know, the -- like, the financial -- if you perform so poorly in a month, you shouldn't get paid because you didn't deliver kilometres, right, that -- in real simple form, right.

Like, if you didn't deliver those kilometres, then you shouldn't get paid that month because the service wasn't available and look at the disruption that it's caused the city. It's not a matter of rolling them over necessarily.

Again, I don't want to get into that because that's more about some litigation positions that's the City has taken.

But when you say cap, okay, it's like you wouldn't get to a point where if you look at the payment stack in the last, say, 20 percent of the monthly service payment, annual service payments and recovery of the financing, if you decide to cap it there, then I would say what's the point of having that financing.

KATE MCGRANN: Because the private lenders are getting paid no matter what --

REMO BUCCI: They're going to get paid, right.

KATE MCGRANN: So there's no --

REMO BUCCI: Go and get it at -- the City has the source of funding available to it. It will be at a lower cost. That 300 million shows up on their balance sheet as debt anyways because it's capital lease, not an operating lease.

So it's not a -- the financing isn't there to displace public financing, and it's not a requirement per se. It's because of the -- the payment mechanism says I want you to have -- I want to anchor performance. What's the best way to anchor performance? Payment on performance.

So if you don't -- if you have financial money invested either in the monthly payments during construction, the milestone payments, substantial completion payment and during the operating period, you got money at risk for poor performance, then you aren't incentivized as I am to make sure that you're delivering the right service because it's output-based. I'm giving you control basically on all the other things that are not operator-based.

So why would you cap it then? It's not AFP. And that's okay if you want to do that. If I was giving advice to you, you're my client, I would say that's your degree of freedom. Just recognize you get some benefits for that, but here's the risk you're taking for it. If that's what you want to have versus this type of -- this type of program where you're marking a pure output-based, and you want to -- and you want to -- you want to allow the other entity to have those degrees of freedom.

KATE MCGRANN: As far as incentivizing performance, what role do the third party lenders play in that incentive theory of an AFP?

REMO BUCCI: So I just want to disclose here, like, when the -- and I'll answer that question, but I'm just going to sort of skirt the line here just a little bit because when the City ended up having to swap the debt to deal with the Stage 2 expansion, I sat on the City's credit committee.

So I attended meetings with the short-term lenders up to -- when the substantial completion delay was occurring and then afterwards, so I just want to let you know that I did that, so I don't want to comment on that specifically.

KATE MCGRANN: Well, and likewise, I want to ask you how the dynamics of the relationship changed once the City steps into the shoes of the lender. So this is --

REMO BUCCI: Yeah, so I can -- I'll talk about it generally. So I just -- having got that out of the way, the general concept is all right, now, if you got payment -- I don't want to call it private financing because I feel that people misunderstand.

You don't want private financing. You're not saying I need all this private financing. It's the payment regime that is -- that -- because you want to have -- like, if we were going into partnership together, you'd want to make sure I have my money, and you have your money, and we're both incentivized to some extent.

And in the ideal world, you're kind of making 50-50, right, but you can't because it's going to cost you because affordability and the cost of that financing, so you try to find that balance.

And the amount that was selected here, 300 million, was really -- the thought process was to anchor the life cycle risk. That left enough over time in that midyear life of the 30 years. If you look at the life cycle payment regime, which it's pretty lumpy, right, you'll see a bunch of forecasts in year 10 to 15, and that's when the vehicles are being taken off-line, like your car, doing major replacements to them.

So that amount of private finance, the minimal amount is to anchor that life cycle risk transfer. Got that, so now -- and during the construction period, you've got short-term financing to deal with those milestone payments.

So what do the lenders bring? Well, they're going to have a technical advisor that's going to look at the definition of those milestones and that's going to say to those lenders at a due diligence, you know, we think this is achievable or we have some concerns here.

And those can be brought forward during the bid-open period at the time of the RFP as another set of independent eyes and analysis to say this can or can't work.

And similarly during the construction

period, whereas projectco, in this case RTG, had their own advisors or they were doing it using your own internal services reviewing the payment mechanism, the appropriateness of the calibration.

In order for the underwriters to be able to sell the bonds after the fact, they would've had to have their own advisors look at the calibration because in their disclosures, their -- the CIMs they put out, the confidential information memorandum to get the financing, they would have had to tell the institutional investors here's the deal structure, and we think it's appropriate. It's on market or it's not, right.

So to go back to your other question just if I may on the appropriateness of the payment mechanism, not just RTG or the other two bids teams that were looking at it, it was each of their underwriter teams because once you become preferred proponent, now you got to go out and sell those bounds, you got to make sure you do enough work during the open period to satisfy yourself that it is financeable.

And that is the -- that is one of the benefits that was thought or that's theorized about the private financing, independent of what the projectco brings.

So in our math, it's $300 million of private financing, 225 was debt, 75 was equity, down payment that was provided by RTG.

So that's the benefit of the private financing, and the idea is motivation because you've got real financial pain in the event of those monthly deductions or, more importantly, the failure points.

It's the default events that you're -- that you're primarily anchoring, and that's why you don't want any caps frankly. Otherwise, why would you have it again, right.

KATE MCGRANN: Mm-hm. Okay. And then when it comes to the debt swap that the City executes, what was your role in advising on options available, what to consider, and then ultimately what was chosen?

REMO BUCCI: So you're now -- you're now looking at a fairly substantive -- go back to the discussion we had before. It's not three stations. It's like you're doubling the system, right. That was not contemplated in the project agreement, right.

So now you've got a situation, and much

like Stage 1, you've got a certain amount of funding. Same dynamics. No change, right. Bigger numbers, same problems, and again recognizing that every penny of private financing comes out of the City's scope of those funds for which it has to deliver existing service stations, right.

So now with respect to the extension, because the way the project agreement was set up, the DBFM project agreement, the lenders rightfully have consent rights because they lent into a project. What is their profile? It's not their fault.

That's what -- those are the bonds they bought at the time of 2013. They didn't buy a project with an extension on it, right. Like, I didn't come. You came to me. All right. I bought the bonds. That's the project. Now you want to change that? You want my consent?

Now you got to get to a situation where you got to think about the complexity of that. Well, in order to have -- you don't want to have two maintainers. Why? You only have one maintenance facility. You want to only have one fleet of vehicles so you have a consistent set of spare parts. Your mechanics are trained. It doesn't matter who they are, RTG, City, doesn't matter, right. Like, TTC doesn't run mixed fleets for that exact reason, right.

So you want to have one maintainer. You're going to have one maintenance facility, so you need to negotiate a variation to extend the definition of where we started, kilometres, the KPIs, KPMs, station availability, all that has to be recalibrated on the same platform, right, to deal with the extension so you can do that, but you're basically doubling the monthly payment. You're doubling the maintenance payment.

And if you think of the lender's security, which is in the payment stream, you pay the maintenance supplier first, then equity last, they look at that equity underneath them as the buffer. Much like a house mortgage, it's your down payment, right. It's to make sure if there's a problem, they're only taking a certain amount of risk, the private lender.

So if you extend that, you're basically not doubling the payment on the top, then they're going to want to see the equity underneath there.

If you think about it, like, proportionally, it has to get bigger, right, in order to keep them in the same place. Otherwise, they'll want to be what's call ring-fenced.

So the other concept is, well, you know what, just ring-fence me. I'll take risk for Stage 1, but that's what I signed up for.

So that's one option you could have done, right, but now let's think about that from an integrated service. If you ring-fence the lenders and now there is a problem with a lost kilometre, you have to define what's the root cause? Is it on Stage 1 or Stage 2, right. Like, that -- administratively, that's unadministratable, right. It solves the problem. If the lenders would sign up for that, no problem. So deal with that.

Number two is to deal what we call the resiliency, that buffer of financing that sits underneath the lender and to bring them back to the same place financially in terms of the math of the amount of the principal and interest versus the other payments that are available to it.

Well, how can you deal with that? Easiest way is you put more equity into the project, but that's going to cost you 11 percent. That's fairly expensive.

You might be able to deal with things

like reserve accounts. You just say, okay, well, we'll set up a buffer that the City sets up on the side, synthetic or otherwise. The City can use its credit for that.

But the same thing. I'm going to -- you know, I'll be the buffer, so if there's a problem, don't worry, you'll get your principal and interest paid for. That could be done.

Canadian Infrastructure Bank didn't exist at the time, okay, but the Canadian Infrastructure Bank provides that type of financing that's subordinate between the senior lenders and the equity lenders if you get into project finance terms.

So there wasn't a source of funding available to fit in between there other than the City, so the choices basically are you ring-fence them, you put more equity in to restore the resiliencies or you set up a set of rules, let's say, for a reserve account that effectively is the City -- the City is putting its balance sheet on the line for that.

The problem to be solved is consent rights because as part of the negotiation with RTG, you want to give them maintenance services because the rail-wheel interface, the customer experience -- again, remember that? Like, you don't want to disrupt that.

Then you've got two, two and a half billion dollars of work to be done on the extensions. How much do you sole source to them? Recognizing that you've got two funding partners -- I shouldn't be using my hands -- two funding partners who are looking at it, and they want to see competitive procurement because that's their internal policies, right, to come back to where we started before.

So you need to make the case that you only sole sourced what you had to, and you went to public procurement for the things that you didn't need to go to the public procurement with.

So those were the negotiations that the City entered into RTG with, that I was part of the City's negotiation team, June 2016 and 2017.

At a minimum, the City's position was you need to expand the maintenance -- so the City's position was in order to preserve the customer experience, that rail-wheel interface, I want one fleet of vehicles, and I don't want to have a -- I don't want to have two maintainers, two maintenance facilities. I'll expand Belfast.

Well, that's RTG, so I'll give you money to make it bigger. I'll also give you money to buy new trains because I'm going to add new kilometres, right, same trains as we have now so we don't have a mixed fleet, and I'm going to pay you to help you integrate the system because you need to have some oversight into the procurement of the train and the track and the civil works because you're my maintainer. You're taking life cycle risk, right, so you need to make sure that even though you didn't build it, that it's to the same standard that was in the project agreement, the idea of no better, no worse.

So the City would pay RTG for procurement services and design support services as a consultant, right.

During the MOU, RTG says here's my maintenance payment that I need to expand the service. Here's the cost that we have for RTG for the new buses -- for the new trains, sorry, and here's the cost of expanding Belfast maintenance facility, roughly 500 million in capital, right.

So the City carves that out of the funding program. That goes to RTG. The rest, the civil, the stations, the track, the ballast, the catenary is a design, build, finance.

And here's -- the tricky part is the train control system, right, and there are negotiations that were very circular around all of these because RTG is a civil contract. You can imagine they want as much scope as possible, right.

The City is trying to balance that approach of customer experience, integrated maintenance services. I got to get funding from -- I anticipate when I go to my funding partners that -- you know, the easiest way to defend the funding is to have as much public procurement as possible.

The train control system are really tricky. It's a Thales train control system. It's proprietary. The notoriously -- it's challenging. It was challenging enough that RTG said we don't want to be dealing with the train control system. We'll deal with the vehicle supply.

And train control, if you talk to people -- well, train -- the interesting thing about train control is it's like a hundred million dollar problem in about a $3 billion project, but it's a material issue if the trains don't run, so the risk is like a multiple effect. That's the issue with the train.

So you had this hanging issue of the train control. So here you've got these moving parts of the risk profile, no better, no worse. They have to deal with RTG to determine the amount that you're willing to -- that you're willing to agree to them to sole source.

And then you have to turn around when that's all done and go get lender consent, right, and the lenders could say rightfully, you know what, well, we don't want to do that. And then what do you do? You go to litigation process, right.

So if you look at the timing, it was working backwards. The schedule was something like this: 2018 is the municipal election, right, so you don't want to be -- you want to go -- you know, the timelines ended up changing, but the original objective was to have closure of Stage 2 in June 2018.

If you move backward roughly 12 months and you sort of work backwards and say, well, I want to get an RFQ out in the spring of 2017 for the Stage 2 parts, well, if I want to have my RFQ out in 2017, I need to have and I need to communicate to the market what RTG's role is because they're also going to affect who can bid on the projects. They have a strategic advantage. Market soundings were done.

You know, other bidders were saying, well, if you're going to allow them to bid, we have no interest in bidding on the project because they have a competitive advantage.

So you have to sort -- so the MOU discussions started in 2016, and the general milestone on the schedule was a decision needed to be made with respect to RTG's role by the -- at the latest the winter of 2017. Otherwise, you're not going to have RFQ prepared, right.

So discussions with RTG started in the spring or summer of 2016, got to the tail end of 2017. The train control system, hanging issue. Who is taking that risk? The City ended up having to take it, but they -- RTG didn't want to deal with it.

The Belfast thing was solved. The vehicles supply thing from Alstom was solved, et cetera, but the amount of scope for RTG on the civil side, you know, they had provided -- I guess

I could say this.

They had provided indicative pricing to do, like, the whole thing. I mean, the City was open to it, so give us a price. Maybe draw the split at the ballast. Like, that was a concept.

You know, someone else comes and does the work that you lay the track and the systems on top, et cetera, but the City is dealing with a fixed budget envelope here again.

So, again, if the funding program was different, like, what you might have in the Toronto area LRTs, this wouldn't have been an issue because you would have been going to the provincial fiscal.

Here you do, and the City is looking at it thinking, well, if I now have to pay RTG this much more to do that, what's my choice? I have a fixed budget, and is it less stations? Is it less quality of service?

Like, you're going to go to council and say, well, we can't get what we thought we were going to get. We're not going to be able to go out as far to the east and the west because we've got this contract, and we have to solve this problem with RTG and the lenders, so you're going to get less service. That's not, frankly, a good solution and not something we would recommend -- I would recommend.

So when it all got broken down and you're running out of time, then you need to pick options that are not your preferred option, frankly. They're not. They're a choice you need to make, and often in these projects, you're taking a choice that in its -- on its face, someone may look and say, well, why would you ever have done that?

Well, what's the next best option? Ring-fencing the lenders? A reserve account? More equity to buffer? By the way, we're not even sure we can get that because we still don't have a deal with RTG, and we want to go out with an RFQ in 2017.

So the decision was, all right, you know what, if you do this swap thing, what it does is it keeps the deal in place. You're not taking the private finance, the $300 million -- the $225 million of bonds. Think about it that way.

There's bonds. There's an amortization payment schedule. You're not getting rid of it. You're just creatively going to those bondholders and say, I'll give you another set of bonds that's direct to me. You give me these ones, same terms and conditions. I'm just going to pay you over here like I would a municipal debenture.

It's a little bit more, 4 percent, maybe 3. I'm paying maybe 1 percent more, but it's worth it to me because I now have flexibility. The consent issue no longer exists for Stage 2, but most importantly, Stage 3 because City executive was very clear to say we need to solve this -- you need to solve this problem, not just for Stage 2, but we don't want to come back on Stage 3 either. We have the lesson learned from Stage 1. Let's make sure this problem is solved forever.

Now, I want to come back to the options you asked me. If you ring-fenced the lenders on Stage 1, frankly it's the same concept from a risk perspective as far as I'm concerned.

A reserve account, you can argue, well, that would have -- you know, maybe they're still on risk a bit. Okay, maybe, but I don't know about that. I could say -- I could argue that both ways.

And I think administratively, that would be really tough to administer. My advice to the City was I don't know if that really keeps them, quote/unquote, on risk. Adding more equity into the project, again, you're taking scope away.

And here's the most important thing, is this structure kept the debt in place so RTG was still on hook for repayment to the City, right, and we thought it was temporary.

Our thought process -- or the thought process of the advisory team, the integrated team with the City was by keeping and not -- like, you could do a make-whole. You could just wipe that debt away and pay the lenders off. The project agreement allows you to do that.

The thought was, well, why not get the project up and operational, then you could sell those bonds back in the market. You had the flexibility to do that because you kept the structure in place, the secondary market transaction. Happens all the time, right.

And in fact, when the CIB was formed, the City approached the CIB with a deal to refinance Stage 1 and Stage 2 by having the CIB come in. They were really interested, and the problem was the stacking rules. The federal government has rules to say, I will only fund up to 33 -- 40 percent I think is the number, and all sources of funds, my funding agreements, gas tax, all the things that add up can't be above this.

The problem was, for example, the CIB couldn't work. So it's not as if there were other -- now, CIB came later. I'm just saying an example of the City being open to try to find a different way to solve that problem.

But at the time of the winter of 2017, when you're trying to make a deal with RTG, because you want to get an RFQ out, frankly I -- you know, your public -- the problem that the City had is those dates are in the public realm.

So from a negotiation perspective, you're not in a great place, right. Like, they're going to say, okay, well, wait. Well, you can't wait. You know there's -- you got those fixed commitments that are made.

So that -- the swap choice was made primarily to solve the consent issues just to be clear. And, again, not to get into the litigation issues later on, I just want to point out that, yes, as advisors we pointed out the credit agreement has flexible -- much more flexible terms with respect to default than the project agreement has, but you have to dispatch default in the project agreement first and declare the default before the credit agreement applies.

And, you know, that's -- that's the issue that's in front of the courts in the summertime that the City is moving forward. Just without getting too much into it, the swap was not done. Yes, that was seen as a benefit potentially at the time that it was put in place.

The relationship with RTG was very good. That MOU would never have been signed. The City saw them as a good partner.

I can -- that's probably a better place for the City staff, but the point being, it was just a commercial deal that met the financial construct. It was never like, oh, we're going to have an opportunity to really put the hammer down during the construction period because the City was the creditor.

And by the way, I don't think the City has used a single provision in that credit agreement yet because the default -- through the project agreement has not yet been declared.

So just to point out, the problem at the time to be solved was the consent rights for the extension to meet the timing.

Yes, there were administrative benefits

that I did and legal advisors and others had pointed out that were obvious by reading the agreement. I think City staff knew that, so we didn't see that as a negative.

But we also said, okay, now you're paying direct. Doesn't affect your budget. You make the tradeoffs. Do you believe you're getting benefits from the long-term lender and the oversight? Well, the City had some experience there they saw during construction, right.

So I think what they saw was the flexibility that this -- not speaking for the City, I should be careful here, but my interpretation was the flexibility that they saw, they weren't losing any benefits of risk transfer. They were retaining it.

RTG was still their prime contractor. They're still on the hook for the repayment of the debt, and the problem that was solved was getting Stage 2 done at minimal financial impact to allow the scope of the project to be built as it was and to allow Stage 3. Now the -- Stage 3 doesn't have to deal with this issue anymore.

KATE MCGRANN: You mentioned the CIB. CIB, is that the Construction Infrastructure Bank?

REMO BUCCI: Canadian Infrastructure Bank, which didn't exist until 2018, so there were some -- there might have been in-confidence meetings, but the advisory team, as part of Stage 2 procurement, it put together a con -- because -- anyways, it was a problem that the CIB could have solved at the time.

There wasn't -- there wasn't a lender that could come in and be that buffer other than the City or projectco. I suppose you could have gone to the long-term lenders and got more money from them, and they might have -- you know, what is -- someone may ask the question, what's the cost of consent?

We did a bunch of analysis. We never got to the point of actually doing negotiations. Maybe somewhere between 50 and $100 million would -- is the best guess.

KATE MCGRANN: And then you also mentioned, I think, a May call. Is that the termination for convenience provisions in the project agreement that would --

REMO BUCCI: Correct.

KATE MCGRANN: -- allow you to just effectively buy out the lender?

REMO BUCCI: Yeah, you basically pay -- yeah, you pay them principal and interest outstanding based on a formula that looks at the difference between the value of that interest rate and the Canadian long-term rate as the only substitute. Like, you go and you get a Bank of Canada -- a Government of Canada bond plus 50 basis points. You always have to add a half percent interest.

KATE MCGRANN: Did you or anyone at Deloitte remain involved in advising the City in its role as lender throughout Stage 1 after the debt swap was accomplished?

REMO BUCCI: I was on the City's credit committee.

KATE MCGRANN: Okay. And did the City as lender then -- you've been talking about a consent issue, and the lenders have to consent. The City is in a position where its consent is required, where the lender's consent is required; is that right?

REMO BUCCI: It issued consent to do the -- to proceed with Stage 2, correct.

KATE MCGRANN: Okay. And were there any other requests for consent to anything with respect to Stage 1 coming from RTG to the City as lender?

REMO BUCCI: Not that I'm aware of. I mean, this is where we're -- it's a bit of a grey line here, right. Like, I don't know if that's a litigation issue or not to be honest with you.

KATE MCGRANN: Okay.

REMO BUCCI: So I should probably -- I should probably retract that. I don't -- it's probably not a question for me actually.

What I can say unreservedly is that the -- that's not a good word. What I can say with a high degree of confidence is the problem to be solved at the time of the swap was the consent issue on Stage 2. That was the primary reason.

And you asked the question of what are the options available. Those are the options we looked at. In order to give advice to our client, we would say, well, here's the trade-offs you're making, and they thought this was the best solution given all the options in front of them.

KATE MCGRANN: To your knowledge, what was RTG's reaction to the City choosing to go the debt swap route?

REMO BUCCI: They weren't happy about

it.

KATE MCGRANN: Tell me how you came to learn and what they were unhappy about.

REMO BUCCI: Well, the City -- so the City -- there's a lender's direct agreement. So you've got a project agreement, you have the City project -- okay, so you got a triangle, right, with the lenders off to the right side. You got RTG, and the you got the City at the top. Between the City and RTG is the project agreement.

A schedule of the project agreement is the lender's direct agreement, but the lender's direct agreement is a three-way agreement between the long-term -- between the lenders. In this case, the short-term lenders are gone. Long-term lenders in this case.

By the way, the short-term lenders and long-term lenders would have an inter-creditor agreement off to the side.

But you got the long-term lenders, so draw a triangle between the long-term lenders, RTG, and the City. That's the three-way agreement. Okay. The City is party to that agreement. They're effectively the City's lenders too because it shows up as debt on their balance sheet.

The payment stack is to RTG then to the lender, so we get that. So the City has the right if they have to, and they don't believe that consent -- they need to understand what consent is.

And frankly, RTG even was clear during the MOU negotiations that they didn't feel the consent was an issue that they could resolve on their own, and they needed the City's help.

So the City reached out to the long-term lenders to see what the potential solutions would be.

So I shouldn't say I don't know. I didn't talk to anybody at RTG directly about this to understand what their point of view was. The City, when it got to the point where we need to look at more, let's call it, what are the options on the table, reached out to say we would like to meet with you to discuss.

There were meetings that were held between RTG and the City and the lenders during the MOU process, but the City reached out to the lenders to say -- and I don't think this is a litigation issue because it happened during the MOU period -- to say let's talk about options for Stage 2.

And that's what RTG reacted to. I should be more specific. Okay. Other than that, I can't answer that question.

KATE MCGRANN: Okay. And just so it's clear on the record, the MOU process that we're talking about here is the negotiations of an MOU to allow for the Stage 2 and 3 to proceed?

REMO BUCCI: Correct. And just for clarity on that, what the MOU did is lock down the maintenance services pricing, the pricing for the vehicles, the Belfast expansion, the procurement and construction support services, and then set the framework to develop the variations in the project agreement, right, because those were done as part of the Stage 2 procurement, basically to lock them down so the prices were set so the City could then move ahead with the procurement for the east and west, get its funding from the federal government and the province, and also make sure that it's got affordable project that fits within its budget. You know, same issues as Stage 1 but now much more complex.

KATE MCGRANN: What was -- was IO involved in advising on the available options and the ultimate decision to do the debt swap?

REMO BUCCI: At the early -- at the early stage of the MOU process.

KATE MCGRANN: What led to them not being involved throughout the entire MOU process?

REMO BUCCI: I don't -- that's something the City should answer. I don't know. It was mutual, is my understanding.

KATE MCGRANN: When you say it was mutual, that the City and IO agreed that IO wouldn't step away from the project?

REMO BUCCI: You know what, I should -- you should refer to the City on that one or Infrastructure Ontario. I don't know for sure.

KATE MCGRANN: I haven't turned to my co-counsel yet because we've been so busy chatting, but, Ms. McLellan, do you have any follow-up questions on anything we've discussed so far before I move on?

LIZ MCLELLAN: I don't at this time. Thanks.

KATE MCGRANN: Jumping back in time for a second to the RFP, did anybody at any point in time raise any concerns about the fairness of the RFP process that was run?

REMO BUCCI: No.

KATE MCGRANN: No?

REMO BUCCI: I wouldn't say that -- I would say that the -- I would say the evaluation process was a relative nonevent, if you will, in the sense that it kind of went very smoothly.

I think the in-market period, you know, had -- you know, there were challenges there, but it's light rail. Like, you know, as we've seen now, you know, it was almost like a -- like a precursor of every light rail project -- urban light rail project you see going forward but not contentious.

It's more about -- this is the advantage of the process, right. Like, what AFP allows you to do is with these commercial in-confidence meetings, you can have discussions with the other party, you can talk about things, and then you take that information away and decide whether or not you want to change either the project agreement through an -- or the RFP through an addendum, but it -- this is the value of the process because it allows you to really talk about, you know, solutions that work.

And because they're in confidence, the other side can bring you some ideas that might be to their benefit, but to the benefit of the project, and then you could take them into account.

So you take a little bit from each of the three teams, and you end up coming with a project that's much better at the back end than the front end.

You expand the open period, and the reason why you want to do that is because you've got this bid-validly issue, which is the moment the financial submissions come in, the clock is ticking on when those prices expire, and they're 180 days.

And that means you got to finish the evaluation, you got to do your negotiations with your first nation -- your first -- your first negotiation proponent, you got to get approval from council on the preferred proponent negotiations, then you got to get commercial close, you got to get financial close, and all that's going to happen within a 180-day window.

So you broaden out that in-market period to make sure that you -- and you make the decision, we think we got it, no more issues, lock the project agreement down, RFP. There's about a month or so, no more changes for them to finalize their bid. You race through the evaluation process.

So from -- once you got to that point of those, let's call it, value engineering, affordability-type CCMs were addressed, from then on it was a relative nonevent.

KATE MCGRANN: Okay. And the challenges during the in-market period you described, I -- based on what you said, it sounds like they're due to the complexity of the project and things like that.

It's -- there's no concerns raised to your knowledge, for example, that somebody received information that the other bidders did not. No fairness concerns raised about --

REMO BUCCI: No.

KATE MCGRANN: -- how it was conducted?

REMO BUCCI: No, no. Tunnelling was -- the tunnelling and the affordability cap were the -- were the -- were the major issues.

KATE MCGRANN: Okay. In your view, was the in-market period long enough to address the challenges --

REMO BUCCI: Yeah.

KATE MCGRANN: -- that arose throughout?

REMO BUCCI: Yeah, because you just keep extending it. That's the value of it. And I think the City also -- the other variable the City has, it's a stipend, the design and bid fee it pays, which frankly is -- they get tremendous value for, right, because you're actually buying the other two designs when you do that.

So I think the City increased the stipend over that -- it doesn't recover all the -- the bids are substantial to bid against. You can appreciate, right, but it just at least respects the efforts that are being made.

And particularly, like, third party legal, like, out-of-pocket expenses, it helps defray some of those costs, so it -- you -- and I think what the proponents want to see is, like, don't just cycle through these. Don't waste my time, right.

Like, if I'm coming to these meetings and I'm giving you input, and you're coming back and you're making substant -- you're making changes and you're hearing me, good. Okay. If you're not, you're wasting my time. I'm just going to go somewhere else. I'm not in to bid on a stipend. I want to get a -- and if somebody wins, they'll tell you that's okay, right. Like, you know, we bid these projects. We lose them all the time. We just want certainty on the process and don't waste our time.

And I think that from that perspective, it was a very good process. And I never heard rumblings that people had issues with any of that part of it. It was -- it was more just about, you know, the challenges of the project.

KATE MCGRANN: I do want to understand the affordability and the geotech transfer challenges. Does speaking about one in advance of the other make -- like, which makes sense to talk about first?

REMO BUCCI: Let's talk about the affordability cap. It's probably an easier one to dispatch.

KATE MCGRANN: Yeah, sure. So just explain to me, what was the challenge?

REMO BUCCI: So the challenge -- so the affordability cap was basically how much is the capital of the project going to cost. Okay.

So the first lever was to say -- so typically you could say, well, like, would -- what Infrastructure Ontario would do is say, well, we're going to have 25 percent or 50 percent of it long-term finance because you don't actually know what the price is, right.

So -- but in this case, you know, as an example of what makes things different in a municipal project is the City had a fixed funding, so we didn't want -- sorry, the finance didn't want to have a variable on the amount of private financing once you decided how much fit that bucket of affordability, so it became a nominal number. No more than $400 million in private financing.

In our shadow bid, we did an assessment of what we thought the costs of that were based on the amount of debt and equity and the costs of it, and we got that pretty much right.

So that was built into the shadow bid and then replaced by the final bid, but I think we were really confident on that because we had good information, lots of market soundings.

Plus Infrastructure Ontario had also engaged Bank of Montreal as our capital markets advisor, so we were pretty confident about the math on the 400 million.

And then we talked about that being the right amount of number, the appropriate number to anchor the life cycle risk transfer, right. Can you still hear me? Hello?

KATE MCGRANN: I sure can, yeah.

REMO BUCCI: Okay. Sorry. So then that deals with the 400 million. Then it's a matter of saying now how much of the capital -- the construction period payments do you add up.

So the affordability cap was, in simple terms, no more than $400 million in long-term financing, became 300 million, and the amount of private financing during construction -- the amount of -- the total amount of construction period payments had to be less than X.

And on the operations and maintenance side or the maintenance side, if you will, there was no cap mostly because the City was -- had enough flexibility in its funding program, and we didn't see as much variability there frankly because there were no issues coming forward during the in-market period that raised a concern on the maintenance pricing.

KATE MCGRANN: Okay.

REMO BUCCI: It was all on the -- now, let's go to the -- let's go to the tunnelling because of the -- of the issues -- of the civil issues that arose on the project.

You know, the vehicle supply was more or less dispatched during the RFQ because the RFQ said -- and I don't want to -- I don't want to skirt over that, if I may, just -- just to backtrack for a bit because the RFQ said you don't have to pick a vehicle supplier as part of pre-qualification, only pre-qualify your ability to procure vehicles. It was following the CENELEC concept. Okay.

Allow the proponents to pick a vehicle. The City did some work to make sure that there was enough suppliers out there. You would see that the RFQ was initially for shortlisted. It went down to three to meet with what the City believed based on -- and some other markets who have done supply of vehicles.

You know, there were still challenges with local content and the weather conditions, but that was all known at the RFQ. Didn't become an RFP issue.

The major issue, then, was the definition of the affordability cap, the math of it, and then what was driving the cost was the tunnelling risk allocation.

So where we started at before was -- you know, if you go back to AFP at that time -- and other than Windsor-Essex Parkway which had a cut, didn't have a tunnel. It had this kind of section that went underground. So we're talking about boring, not digging and then putting a cap on top, right.

So when you're boring and you're -- and you're not certain and you're boring 2 kilometres of a tunnel and you're not certain of the conditions you're going to hit, whether it's clay or rock or combinations thereof, it affects the type of boring machine you need to pick because you're mining basically.

So those issues were -- so on a -- on a vertical project, when you're building up, social infrastructure, you've got a limited space. You can drill as many boreholes as you want, and you get to a point where you can't have that many changes between the boreholes, right.

So this idea of inferred or readily inferable is the standard. I give you all the boreholes that you want, that you asked for because you can ask for -- I did some -- you ask for more during the bid-open period. You have all the information.

Yes, there's some assurance, reliance that the geotechnical suppliers in terms of the -- in terms of any accuracy of the lab results of that borehole, but generally speaking, in between the boreholes is your problem.

And on the social side, that works really well because you've got limited space. Now you're talking about a multiple-kilometre system through an urban environment, right, on top of all of that.

So, you know, the issue of the geotechnical -- how to deal with the geotechnical risk allocation was critical, and it wasn't unprecedented. There is a Port of Miami Tunnel project that had been done prior to Confederation Line which had used a gating structure that was similar to what was done in Ottawa.

But to cut -- to make a short story long -- a long story short is that the solution, much like the milestones that was arrived to was to do a detailed geotechnical baseline report, the City did as much geotechnical surveys as they could. Additional surveys were done at the proponents' -- at the three bidders' requests.

And then in order to find the right balance of risk allocation, there was basically a gating approach again that wasn't -- it was tailored to this project but not unprecedented that basically said, look, for these unknown risks and referables, the geotechnical assessment that was done by the City, valued that I think at $90 million, so that was the risk that was up in the air.

The City said, If you're willing to take that risk -- the other way around, right. If you take that risk -- if you don't take that risk, I'll add 30 million -- $90 million to your price because it's my risk, right, just so you know what it is. That's disclosed in the RFP. And if you don't, I won't add it to your price.

And in between, there's another option where we could share -- there's kind of a deductible sort of concept to it, and so there was a way to financially put value on it and then allow the proponents to select the one that was most suitable to them, and that's how that problem was solved.

And I thought it got to a good solution at the time frankly, and the other thing that it brought was, you know, the additional insurance that comes along with P3s. As the City saw the tunnel collapse, it actually worked to the -- it actually worked out well in the end.

KATE MCGRANN: The Port of Miami precedent project, did it also -- was one of the gating options a complete transfer of the risk?

REMO BUCCI: I think so, yeah. There was -- there was three there. I thought somewhere we had -- we had presented a summary of that. I'm doing that by memory.

So a lot of times what you see with these P -- with these -- I'll call them P3, these P3 projects is it's not projects that haven't occurred elsewhere. So the first thing you do is you go, hey, did anybody else deal with this somewhere else, right.

Now, this was a tailored solution, but I just say conceptually the issue of coming up with bands of risk and putting it to the market to decide wasn't -- wasn't -- in my opinion, wasn't -- wasn't new, but the solution that the City came up with was specific to the project itself, including how shallow the tunnel needed to be, et cetera.

KATE MCGRANN: Yeah, I was going to ask

you. If you could just -- high level for me, what was tailored about it? Like, what was specific to the --

REMO BUCCI: The quantum. The quantum. The quantum, the 90 -- I think it was 90 -- I should -- the quantum of the 90th percentile of those unknown risks, right, and that was -- that was what the geotechnical engineers on the City's side came up with when -- you know, based on the number of boreholes they had drilled, the uncertainty between the ones that they couldn't drill, what they saw in the soil samples, that was very -- that was arm's-length technical assessment. It was quantified, right, as best as you could.

KATE MCGRANN: Okay. And it makes sense to me that that calculation would have to be specific to what's known about the tunnel.

Anything -- any other ways in which the approach taken here differed from the Port of Miami precedent that you looked to?

REMO BUCCI: Conceptually, the -- I would just -- I would say the analogy is the gating process, right, because -- because when you're advising your client, you're trying to get the best solution for them, right, either cost or risk, and the best way to do it is use competitive tension to your benefit, right, and if you don't know, let the market decide. That's always the best approach to take.

KATE MCGRANN: Okay. And then just trying to understand how analogous the Port of Miami project was, was the tunnel there of a similar nature in terms of size, challenges with being in an urban environment, things like that?

REMO BUCCI: That was in Miami. I don't remember nothing about it to be honest with you.

KATE MCGRANN: Okay. You mentioned a shadow bid. What's that?

REMO BUCCI: Oh, that's just our est. cost. That's a cost estimate on the City's side, construction, maintenance costs, and then what Deloitte did was we then put it in the construct of the payments in the project agreement.

We mimic those milestone payments. We mimic the payments during the maintenance period, and that becomes a payment schedule.

12 milestones, substantial completion, and every month -- or every year -- let's simplify it. Every year, and that's a shadow. We create

that. That gets fed into the City's affordability model and then we basically in the RFP described a schedule that mimicked exactly what we were modelling.

You think of the output schedule of those payments. The RFP had a schedule that was identical to that. So what the City would do then is -- when the final bid came in, you could take that schedule from their financial model, take the one away that Deloitte had done, and you plug that one in. It's configured in the same way, and you can run the real numbers to make sure it's still affordable.

KATE MCGRANN: In terms of the lessons learned report, Boxfish worked with Deloitte on that report; is that right?

REMO BUCCI: Yes. Yeah, we did that together.

KATE MCGRANN: Sorry, go ahead.

REMO BUCCI: Yeah, we did it together.

KATE MCGRANN: How did you divide the work as between you? Did Boxfish focus on --

REMO BUCCI: 50-50. It was -- honestly it was more of an investment. We just thought as a -- so we had to do a bunch of interview -- we identified -- the City identified people to talk to, and, you know, it was pretty straightforward. Just do a whole bunch of interviews, take the data in, take the notes, and then filter it up and write the document. So we just split it 50-50.

KATE MCGRANN: One of the recommendations coming out of lessons learned report was the use of an owner's engineer. Was that recommendation different than what the City did with Capital Transit Partners on Stage 1?

REMO BUCCI: No. I think what the -- what the report was getting to was maybe just a little bit more focused. So, like, what the owner engineers. What the engineers sometimes -- the engineers have to do is come up with a reference concept design to make sure you've got the land that's needed, confirm the output specifications, constructability, and the cost.

The question becomes how much work does that entail and how much degrees of freedom do you restrict when you then write the output specification? In other words, is the output specification a reflection of the reference concept design because that's what you're comfortable with, or is it truly open to allow flexible design and construction solutions to come forward?

That's a delicate balance. I -- as an engineer and a commercial advisor, I don't underestimate that problem. I'll just say that sometimes the output specification is just a reflection of the reference concept design.

And the point was try to be more -- like, use a reference concept design for what it is but make the output specifications more output-based and not just a pure reflection unless it has to be.

Like, for example, if you get to a certain stage in configuration and the degrees of freedom are zero, it has to be like this, fine, but in those other areas where you have degrees of freedom on where to put a switch, et cetera -- I'm trying to simplify things -- then you should leave that open because you're buying a train service plan, right.

You're buying kilometres. You're actually not buying steel concrete vehicles. You're actually being measured. The actual what you're buying -- like, the stick -- the analogy of the sticker price on your vehicle is service level, train service plans.

KATE MCGRANN: Were there any particular aspects of the project-specific output specifications from Stage 1 that in your view were too prescriptive, too specific, too close to the --

REMO BUCCI: No, I think -- I think the idea was more just, look, you can always improve on things. Go back and -- I mean, the general consensus was can you make it more flexible.

That was -- I wouldn't say that that was a major thing, but I -- that's -- I would say that on any project actually. I would tell any advisor going in. Like, be careful here. Like, don't get -- don't get caught into a particular -- if you're going to do a solution that looks at design construction, operations, and maintenance, be very careful that if you're going to use that process, then you need to buy in to the output-based approach. You can't kind of go half ways.

KATE MCGRANN: There's also mention of a need to develop a project definition report.

REMO BUCCI: Yeah.

KATE MCGRANN: Was that done on Stage 1?

REMO BUCCI: No. This is trying to get

back to the challenge of how you communicate to -- so council -- what is council concerned about, right. The local constituents -- most of the time it's the station, the plat -- like, the -- how the station fits into the local community.

And then you have this tension of during the open period, you're still going out consulting with the public, and you may need to make changes to your technical ask based on that feedback. That's another delicate balance.

If you can try to define that upfront as best as you can, then that could alleviate some of the issues you have to deal with when you go out to procurement.

KATE MCGRANN: Okay. And was there a project -- sorry, I just didn't catch it. Was there a project definition report done for Stage 1?

REMO BUCCI: I don't -- I think the closest thing was -- I think what we were trying to get is don't use the environmental assessment report for that. That's -- it kind of does it, but it's actually meant -- that's to define the undertaking. It's not principally to get at -- it kind of does because you still have to communicate with all the parties, but the thought was be a little bit more focused, bring the community in, the decision-makers.

That was my interpretation. If you could do that -- and maybe it can help you set expectations with, for example, the local councillors in their ward when they're dealing with those station requirements.

KATE MCGRANN: Coming back to the project agreement for a second, the trial running requirements, did you have any involvement in the drafting of those in the project agreement?

REMO BUCCI: No.

KATE MCGRANN: And to your knowledge, who was in charge or who was working on that aspect of it?

REMO BUCCI: It would have been Capital Transit -- it would be probably -- well, Keith MacKenzie or Charles, either would be the -- whether they did directly, I -- it would be a -- those would be the -- that's where I would start to ask them.

It's probably a -- it just wouldn't be one person. It would be multi. You got systems issues, you got station issues, vehicle issues. It's a combination thereof and between AECOM and

STV, and they were -- along with Morrison Hershfield and Jacobs Associates, not Jacobs Engineering, but the main sort of subject matter experts, if you will, were AECOM and STV people.

KATE MCGRANN: Okay. Were you involved in any discussions about whether a vetting-in or a burning-in period should be included in the project agreement?

REMO BUCCI: I don't -- I don't remember if that came up actually. John Traianopoulos might remember that from Infrastructure Ontario. I don't remember if that ever came up.

Again, Kate, that's something -- like, on the payment mechanism side, that's really easy to put in. Like, if that was a big strategic issue, I would have just said, hey, if that's getting in the way of a deal -- like, it's been done on other projects.

I don't -- I just don't -- like, if it's not in the top of my mind, then we didn't dwell on it. We didn't put an analysis together. We didn't give the City advice on that, not that I remember.

KATE MCGRANN: And was Deloitte at all

in advising the City -- did Deloitte provide the City with any advice on the approach it should take to oversight of the construction of the project, so the governance model, project management agreement, anything like that?

REMO BUCCI: Only -- and, again, this is just the declaration of litigation issue. Only once the City got to the point of realizing that the project was delayed, we got reengaged on Stage 1 to help inform the strategy to deal with, if you will, the construction claims, and then that morphed into the -- to maintenance issues.

So I'm going to -- that's all I want -- that's all I can say at this point in time on that. I'm just concerned about the litigation. But up until then -- so that would have been 2017ish. Between 2013 and 2017, nothing.

KATE MCGRANN: Okay. And heading into it, sort of at the time of financial close, were you having any discussions with them about this is the kind of governance model you would want. These are the project management plans, anything like that?

REMO BUCCI: No. No. We were basically done, you know, at financial close.

Other than the -- other than that lessons learned and then getting engaged on Stage 2, nothing on Stage 1 until, like, 2017ish.

KATE MCGRANN: Any involvement in assessing the substantial completion submissions from RTG either the first time or the second time?

REMO BUCCI: So during the commissioning period when a colleague -- so the City was -- during the trial running -- I think it was around August, July, August. I think commissioning was in September.

They just needed some additional support, because during the trial running, you're doing these mock daily meetings with RTG, RTM looking at the data that's coming in off of the systems and trying to mimic how it works within the project agreement.

And they needed help with that. They just needed additional support, not strategic. So one of my colleagues was involved literally for a month there, but it was mechanical. Like, for example, no advice on what to do with it.

And then we had a team -- during that period of time, the City was concerned -- and, again, this gets into the litigation side -- of the suitability of the systems that RTG/RTM was putting in place to monitor things like work orders and a compliance with the -- particularly the service standards.

Like, I talked about the rectification times and things like that. Like, practically there's an issue, you issue a work order, you close it, you measure it. Is there a deduction or not?

So we had an IT team come in and just during that period of time do an assessment of -- an independent assessment of the systems compared to what was asked for in the project agreement.

But nothing around -- and we had a very detailed report we issued there, but nothing around should the system be commissioned, was it meeting -- you know, that was a decision that was made by others primarily. I suspect the independent certifier but not Deloitte.

But those are the two -- that's the level of involvement that we had during the trial running period.

KATE MCGRANN: Okay. And when you say the mechanical support, just can you -- at a high level, what did that look like? What's involved in that work?

REMO BUCCI: So think about every day the City gets a report on kilometres delivered and if there were events because you're -- you're mimicking, oh, train had a problem. The drivers showed up that day -- let's go back to our analogy -- and the light was broken. Just silly example, right. Then you would -- that would be logged, and you would agree, okay, how that -- you know, how would that apply.

So this -- so at the same time I should say, we had a team -- I think you've interviewed some of them -- that was helping the City get operationally ready for implementation of the payment mechanism, the mechanics of it, how you do the math, how you interpret the administration of it, right, so we were helping them bring that team up to speed.

So one additional person -- because effectively they were short-staffed. There was just -- there was too much work to do, and they needed help. That's what I mean by mechanical.

It wasn't a matter of, hey, Deloittes, we need you to come in and tell us by the interpretation of this data whether or not we should be agreeing to -- to the extent that the

City agrees it's the independent certifier raising any issues with respect to trial running results. That was not our role.

KATE MCGRANN: Okay. So this is more like a running reports --

REMO BUCCI: Like, it's almost -- I would call it a staff augmentation, right. So the individuals there, I was just like, What are you doing? Okay, everything is good.

It's not coming back to me to make a recommendation or Deloittes to make a recommendation. That never happened, but we did do a report on the systems.

KATE MCGRANN: And the systems, would that be the integrated management infrastructure --

REMO BUCCI: That's part of it, yeah. There's a title to it. I forget the name of it, but it was September, October of 2018. It was, like, a seven or eighty [sic] page PowerPoint, and that was provided to RTG as well.

KATE MCGRANN: Okay. And did you say it was in the fall of 2018 that that --

REMO BUCCI: Yeah, the work was -- yeah, it was -- you know, it was based on the observations during the trial running period. Then they had to write it, get the City's input, and then by the time that was all done, I think it was October.

KATE MCGRANN: Trial running is done in 2019, so is it possible it's a 2019 report?

REMO BUCCI: Sorry. Yes.

KATE MCGRANN: No, don't be sorry. I just want to make sure that I'm following.

REMO BUCCI: Yeah, I get my years mixed up there. Sorry about that.

KATE MCGRANN: Any involvement in the negotiation of the term sheet --

REMO BUCCI: No.

KATE MCGRANN: -- that was negotiated at the end of August of 2019? No.

To the extent that you can answer this, the gated affordability cap approach that was taken here, do you think that -- is there still market appetite to respond to an approach like that today?

REMO BUCCI: You know what's interesting is that Canada Line had cut and cover and bored. It was on time, on budget. It was the only LRT at the time. I think right now with the amount of projects -- like, we have a huge capacity issue. It's a good thing. Lots of projects being done.

The reason I'm raising all this is because right now, if you're going out with an -- if I was going out -- if I was advising on a project like Stage 1 today, the recommendation on delivery model would be completely different because market conditions are different, and they're different primarily because of experiences on every LRT, Purple Line in Maryland, you know, where they had to replace the DB contractor.

I'll park Montreal for a moment because I don't know enough or understand about that structure, but Ontario all the way out to Alberta.

And whatever the cause is, people can tell you different things, supply chain, et cetera, exacerbated by COVID, but if you put out a deal that kind of did a turnkey, I'm going to, you know, hold you to the substantial completion date with this payment, and you're going to take all that coordination risk, you wouldn't have any bidders, right, so that's this shift towards more collaborative.

KATE MCGRANN: You had mentioned early in our conversation of the impact of the election schedule on the project, and then I'm wondering if there was anything else in terms of impact of the election schedule on the project other than what we've already discussed.

REMO BUCCI: Can I just recharacterize that a bit? Any time we lay out a schedule, we work backwards from what are the decisions that need to be made, the appropriations -- sorry if you hear barking again in the background -- that need to be made that you don't -- the project team doesn't have control over, right.

So those are typically defined as -- and I would say -- I'm just thinking quickly. Most municipalities we -- P3s we've done are the same way. You go out with the RFQ decision, you update at the time that you shortlist it, but the next major decision is here's the preferred -- a recommendation for a preferred proponent. If you agree on this, we're going to move to financial close.

You mark those two checkpoints in, and then you build your timelines of your bid-validity period, your bid-open period, and you build around it. And then you look at it, and you go, Is that council in a place where they can make that decision, right.

So I just want to be clear. I should have described that better to you. And typically municipal -- in municipal politics, when you approach -- and provincial would be the -- could be the same way.

Like, Infrastructure Ontario would get authority. They'd work around that because they would have approval prior to going into the -- to the writ period, but you just need to be cognizant of when you're blacking out or you're in that laned-up (ph) period, don't assume that you're going to get a decision made, so build your schedule around it.

It's not because of political issues. It's just the reality of whether or not -- with the cycle that you're in, can you get an -- is it practical to go and get a decision, and typically we don't look past June if it's a municipal election here on -- in any province.

KATE MCGRANN: And then during revenue service, after the launch of the system, if you could just describe to me what Deloittes' role with respect to Stage 1 has been.

REMO BUCCI: So this is, again, skirting into the litigation issue, so the interpretation -- so the support of -- let's just back up. So I'll call it generally.

We are not expert witnesses in any way. We can't be because we're an advisor to the City. We're not independent. But we've helped the City quantify the potential construction issues that are known to both parties and help them assess the financial and commercial risk of each to inform their approach with respect to mitigating those issues, dispute resolution or some commercial arrangement thereof. Okay.

And then during the operating period -- I'll separate the role that my other colleagues Sam and Bing Bing did, which was help -- like, I'll call it mechanically. You take the data. You write the quarterly performance reports. There's no interpretation of that.

My job, for example, similar to the construction was then to look at those reports and to help the City assess, particularly as January, February, and March 2020 came on, and the declaration -- or the City's declaration of default which -- and, again, I just want to be careful here because more of a litigation issue is, you know, what's the reality of that. I mean, if I can just describe it as simply -- I don't want to get too much more into it because it does affect the -- you know, the ongoing litigation that's there.

So I would say the more -- you apply a practical or a commercial lens to what those -- what the availability, service and quality performance data the City had available to it from RTM systems.

KATE MCGRANN: Okay. So other than the more mechanical work of producing the quarterly performance reports, the litigation support work that you were doing that you've described, any other involvement in the day-to-day --

REMO BUCCI: No, that's it.

KATE MCGRANN: -- operations of the system?

REMO BUCCI: But I have been in front of council in commercial in-confidence meeting giving -- as part of the legal advice, giving advice related to, you know, what that -- why that default may be appropriate, let's put it that way, based on the terms of the project agreement.

KATE MCGRANN: You mentioned in terms of what the market is willing to bear on projects like this now for a variety of factors. I think you described it as more of a -- well, I don't want to put words in your mouth.

I think you described it as more collaborative or more shared, but could you just, to the extent you can, characterize what the approach looks like for projects like this today?

REMO BUCCI: Okay. I try and stay away from acronyms because they mean different things, DBFM, et cetera, P3s. All right, so -- and let's use Stage 1.

You describe the construction period payment regime, milestone payments, the amount of long-term private financing. You put that over -- and the conditions of acceptance. You put that over. You define it in the project agreement.

Projectco bids that. They have coordination completion risk. Utilities were carved out. They were in a cash allowance. The specified utilities.

Okay. So other than that, you -- that date that they pick -- I forget. The revenue service date was July 2018. That's why I got 2018 in my head. That's -- that was RTG's date. That was their assessment of all the things that they had control over.

Their schedule, they could have made that as long, as short as they wanted to, right. They picked that date, and the substantial completion payment and all of the issues of missing that was on their shoulders.

Collaboration in my view -- and I'll get the governance of alliance, progressive design-build, all that, throw that out -- is to say you now have a target schedule and a target budget with an incentive mechanism to meet or not meet, okay, and therefore, you work together with the other party to solve those problems, right.

In an alliance, you don't have a subcontractor-contractor relationship. You're all together, right. In a progressive design-build, you might be doing some development work up front to confirm that target -- the price and target schedule, but eventually you lock it down into a subcontract.

But it's a -- it's an incentive regime to meet a schedule, not a -- I'm going to come down and hit you hard because -- with a substantial completion payment because it's all your problem.

That's my interpretation of the differences, and it's about dealing with, you know, the engineering procurement construction. It's -- everyone forgets about the procure -- the thousands of procurements you need to do, the contractor needs to do, and how they deal with those interface issues and how they coordinate all those activities to meet a schedule. That's done sort of differently in the sense of it's not fixed or turnkey anymore.

KATE MCGRANN: Okay. And the incentive regime is different -- it's high level. Are there benefits --

REMO BUCCI: It's negotiated. It's basically they put their overhead or profit margin at risk, some portion thereof. So, like, basically the idea is you'll get your base costs recovered. The amount of money you make depends on whether or not you hit our budget that we agreed to and the schedule we agreed to.

So therefore, you don't really get construction claims, do you, right, because you're making those decisions to collaborate. An alliance, it is -- basically it should be claim-free because there is no contract or subcontract relationship. You're effectively one -- in a -- in a -- in a progressive design-build, you still end up having a design-build agreement, but because you've gone through a development phase upfront and you're dealing with a target price and target schedule that both parties sign off on, the likelihood of there being issues are significantly mitigated.

KATE MCGRANN: Ms. McLellan, any follow-up questions based on what we've discussed or otherwise?

LIZ MCLELLAN: I don't have any, no. Thanks.

KATE MCGRANN: Okay. Couple final questions: The Commission has been tasked with looking at the commercial and technical circumstances that led to the breakdowns and derailments that took place on Stage 1.

Are there any topics or areas that we haven't discussed this morning that you think the Commission should be looking at as part of its work?

REMO BUCCI: Yeah, I think if you look at -- like, again, I'll trip into it a little bit, but I'll sort of stay high level.

If you look at the issues that occurred post-substantial completion or revenue service primarily in January going forward, they're all tied to the quality of the vehicle. They're manufacturing issues.

And I think if you look at Canada Line and you say, well, did Canada Line have those issues? No. Where did their vehicles come from? They were assembled in Korea on an established assembly line.

Because of local content requirements for this project, in order to meet them, they had to be assembled in the maintenance facility in Ottawa.

To the extent that -- you know, this is Alstom, right. This is not somebody who doesn't build trains, and I don't -- I'm not a technical person. I don't know for -- but I'm just -- the question that needs to be asked is is the assembly -- the requirement to have those vehicles assembled or local content requirement which necessitated the assembly in the maintenance facility, did it contribute to the manufacturing issues, as compared to Canada Line where they did because it was a known -- they picked a vehicle that was already in assembly.

They didn't get the first vehicle or

the first 15 -- the first 30 vehicles coming off that assembly line, and it certainly wasn't an assembly line that was temporarily built in their maintenance garage.

And I think the question needs to be asked, is that what contributed to the manufacturing issues? Because these vehicles were new, and the problems that occurred weren't a preventative maintenance issue. They weren't in that 10- to 12-year life cycle that we're talking about, the moving parts where you had to take things off and to replace them where you could then point, well, that's a maintenance problem.

Maybe they are maintenance, but to the extent that they're manufacturing issues and it was contributed to the fact that there were not -- it wasn't an assembly in Canada at the time, and this wasn't the only project where that was encountered. I mean, Waterloo came to the same issues in a different way with respect to the vehicles that they purchased.

So I think that's something that I would say is something that should be looked at.

KATE MCGRANN: Okay. And when you say look at January going forward, that's January of

2020 and the first January after revenue service?

REMO BUCCI: Correct. Yeah. And I would just characterize -- my opinion is the issues that occurred prior to then were the bumpy issues that you would have -- they weren't like I'm taking vehicles off-line anymore because I've got a problem, right. Like, that started in January.

KATE MCGRANN: Okay. So before that was kind of like the -- this is a whole new system. There's going to be --

REMO BUCCI: And in October, the buses got -- you know, this was -- this is a -- this is unique from LRT in North America because from day one, it was going to be crowded. They weren't growing into the ridership. It was -- so there weren't a lot of room for errors if there were some integration issues because you're going to -- you know, it's like -- it's not quite like the subways in Toronto, but you got crush loads in the morning, right.

KATE MCGRANN: Yeah. Any other areas or topics that you think we should be looking at as part of our investigation?

REMO BUCCI: I think the other one would be the extent to which -- within RTG, when the problems occurred, whether they were infrastructure or vehicle-based, between the parties, RTG, RTM, and Alstom on both sides, because Alstom was a subcontractor to the DB joint venture for the vehicle supply and on the maintenance on the RTM side to the extent to which -- within that sphere of contracts and subcontracts, were they -- were they spending time litigating with each other, or were they actually trying to solve the problems?

And was RTM, RTG dealing with Alstom? Like, were they paying them or not, right. Like, why did -- why was -- why was -- why were they not behaving to solve the problems? Why are the vehicles so late?

KATE MCGRANN: Okay. And when you say "why are the vehicles so late," do you mean, like, the delivery of the vehicles themselves or --

REMO BUCCI: Yes, because remember stage -- we talked about that term sheet. I mean, 13 times 226 vehicles, there's supposed to be 30 in December. What, they just got those additional vehicles, what, three months ago?

KATE MCGRANN: The Commissioner has been asked to make recommendations to try to prevent issues like this from happening going forward. Any specific recommendations or areas that you would suggest he consider in that work?

REMO BUCCI: I think that the other one to look at is the terms of the project agreement when you get to default or the declaration of default. What gets really challenging when you get into the -- I'm just looking at the time, Kate. I know we're one minute past, but is --

KATE MCGRANN: Go ahead.

REMO BUCCI: You declare default. You go into rectification plan, okay, and then you've got dispute resolution going forward.

There is no longer -- the project agreement doesn't say how long that rectification period is or how it gets resolved. It just -- it becomes too litigious.

So as a marker, the City declares default in March. You can agree with it or not. Courts will settle that out, right, but the decision of a default won't be made until June 2022. That's two years and a bit through the project agreement.

And it just seems to me if you've got bad service and you're like the City of Ottawa, the public, and you want to solve the problem, to go back to my other point, and your contractor is RTG, not RTM and not Alstom, you can't get down to, oh, is there a problem with the system or the vehicles, and I'm willing to solve that problem because I'm more interested in getting the system up and running and dealing -- because that's the way the public sector works, right.

I can't do that because my contract doesn't allow me to, and I have to work through the process, and here I am two years plus later, and I'm still not able to get to what caused it. Like, what really caused it, and what's the fix?

And I think that's where, you know, collectively as advisors and policy makers and you name them, we need to look at the project agreement and say, all right, when -- if we thought this default event was going to be this big sledgehammer that was going to motivate everybody, why didn't it work here, and why is it just endless litigation between the parties?

Because if that's the case, simplify the contracts, right, and then just as the City goes, okay, Alstom, what's the problem? Three new vehicles. There you go. Here's the cheque.

I'm just making a silly analogy, but you can't do that in this circumstance, right, because that's not your contractor.

KATE MCGRANN: Right, because the City can't get directly to Alstom because there's layers of subcontracts in between them, and the issue that you've identified that is worth a look is there's no time limits. There's no sort of --

REMO BUCCI: Read the supervening event regime in the project agreement frankly and, like, just try to map out what default looks like. It is -- it's circular. It's not clear.

And typically -- and look, I'll admit to be part of that, right. I mean, we're all part of the drafting of those documents. And not to pin the blame on anybody, like, when we thought about -- I'll just say as an advisor, like, default? Oh, my gosh, like, default, right. Okay, it's happened now, right. So go back and look at it and say, all right, can you provide a clarification?

So my point of this is if I'm back in the shoes of the public sector, someone like the City of Ottawa, doesn't matter who it is in the future, if you feel your hands are tied because your project agreement doesn't allow you to get to the source of the problem, then collectively the industry on the public sector policy side needs to solve that because, you know, like, this -- I think this -- my opinion, this problem could have been solved a long time ago if it wasn't for the complexity of the project agreement.

KATE MCGRANN: All right. Well, I think that is it for my questions for you today. Thank you very much for your time. We can go off the record.

-- Adjourned at 12:05 p.m.

REPORTER'S CERTIFICATE

I, CARISSA STABBLER, Registered Professional Reporter, certify;

That the foregoing proceedings were held remotely via Zoom videoconference at the time therein set forth, at which time the witness was put under oath by me;

That the testimony of the witness and all objections made at the time of the examination were recorded stenographically by me and were thereafter transcribed;

That the foregoing is a true and correct transcript of my shorthand notes so taken.

Dated this 18th day of May 2022.

CStabbler

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PER: CARISSA STABBLER, RPR
COURT REPORTER

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